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THE RADIO-ELECTRONIC MASTER

GUIDE TO PRODUCT SECTIONS

As publishers of The Radio-Electronic MASTER, we take great pride in the fact that this publication has reflected the changes and growth of the electronic industry for more than 25 years.

The 32 Product Sections listed below broadly categorize related electronic products and services so that you can quickly compare similar items within the sections. However, to locate specific products within the catalog pages, always refer to the General Index. NOTE: Manufacturers' pages are arranged alphabetically within each section.

Sec. 1200 Pages 23 thru 73	Antennas & Accessories
Sec. 1300 Pages 74 thru 129	Audio: High Fidelity Tuners, Amplifiers, Sound Systems, Intercoms, Kits
Sec. 1320 Pages 130 thru 195	Audio: Speakers & Systems, Enclosures, Microphones, Headphones, Accessories
Sec. 1340 Pages 196 thru 225	Audio: Recording & Playback Equipment, Accessories
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  - Glass Insulated 1514, 1534, 1535, 1544, 1545, 1574, 1575
  - Guy 1599, 1604, 1605
  - Harnesses (See Cable Assemblies)
  - High Temperature 1514, 1544, 1545, 1548, 1549
  - High Voltage 1514, 1550, 1597
  - Hookup-Pushback, All Types 1491, 1492, 1514, 1536-1538, 1544-1549, 1579, 1588, 1595, 1602, 1603
  - Lead-In & Ground 1514, 1527, 1536, 1537, 1548, 1550, 1579 1600, 1603, 1604

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- Wire (continued)
  - Litz 1514, 1537
  - Magnet 1439, 1498, 1514, 1538, 1583, 1602
  - Nickel-Chrome 1593
  - Plastic Insulated (See Wire, Copper)
  - Retractile, Cord Sets 1499
  - Shielded 1490, 1498, 1499, 1533-1535, 1544, 1546, 1547, 1550, 1574, 1578, 1589, 1593, 1595, 1603, 1604
  - Teflon Insulated 1493, 1532, 1544, 1579, 1598
  - Test Lead 1498, 1499, 1524, 1550, 1597, 1584, 1602
  - Thermocouple 927
  - Transmission (See Transmission Line & Cable)
  - Cutters (See Cutters, Wire)
  - Markers (See Markers, Wire, Code, Tab)
  - Marking Equipment 1539
  - Shielding (See Shields, Wire)
  - Strippers (See Strippers, Wire)
  - Ties (See Ties, Wire, Cable)
  - Twisters (See Twisters, Wire)
- Wiring Ducts (See Ducts, Wiring)
- **Wissh** Cleaner 605, 974
- **WORKMAN ELECTRONIC PRODS., INC.**
  - Replacement Components 605
  - Test Accessories, Etc. 974
  - Resistors, Etc. 1211
- **WORNER ELECTRONIC DEVICES** 992, 993
- **Wrapid** Terminal Blocks 648
- Wrenches 793, 1290, 1305, 1309, 1310, 1312, 1322, 1329, 1343, 1355, 1362, 1363
- **WYCO METAL PRODUCTS** 310-322

X

- **X-ACTO PRECISION TOOLS, INC.** 1359
- **XCELITE INCORPORATED** 1360-1363
- **Xela** Tools 1337

Y

- **Yellow-Jacket** Capacitors 563

Z

- Zener Diodes (See Diodes, Zener)
- **Zero-Mist** Circuit Cooler 578
- Zipper Tubing (See Tubing, Zipper)

FROM A TO Z antenna specialists manufactures a complete line of...

communication antennas and accessories...
automotive engine testing instruments...
portable electric power generators...

antenna specialists

antennas, communication

Antenna Specialists offers the most complete line of two-way radio antennas and accessories for every band. Our engineering design experience, skilled craftsmanship, use of the finest materials obtainable, quality control and extensive manufacturing facilities provide the highest quality antennas at the lowest possible cost. There's an antenna for every type of system and every antenna is fully warranted.

Citizens band (27 Mc.)
Professional band (30 through 470 Mc.)
Amateur (2-6-10 meter)
Marine band—(27 Mc.) and (2000 through 2830 kc.)
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Major suppliers of special telescopic antennas. Our facilities are also equipped for special design system antennas. Write for full information.

antennas, accessories

Antenna Specialists manufactures a complete line of accessories for all two-way communication systems.

Lead adaptors
Base mountings
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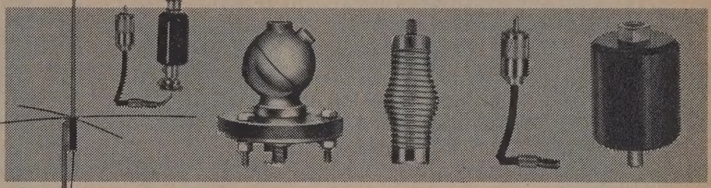
Antenna skirt assemblies
Couplers
Rubber plugs

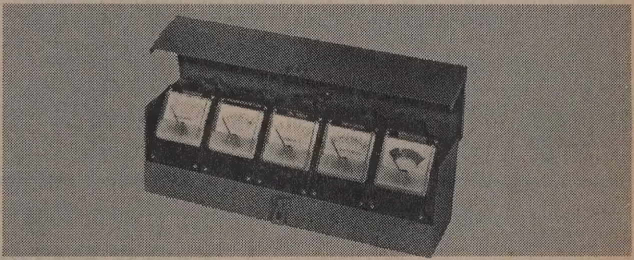


ANZAC® *division*

automotive, engine testing instruments

Inexpensive portable test laboratory instruments for complete engine tune-ups. Available as a complete kit with carrying case or individually.

- **Alternator-Diode and Resistance Ignition Wire Tester**
- **Tachometer Dwell Angle Point Resistance Tester**
- **Cam Dwell Tester**
- **Regulator-Generator Tester**
- **Coil Tester**



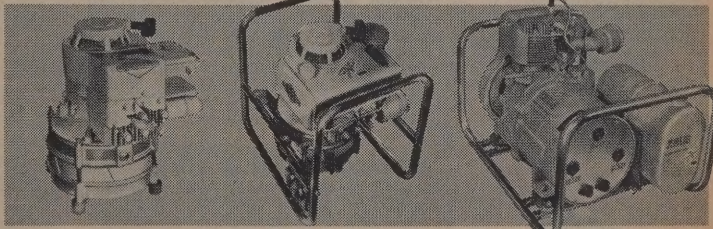
ANZAC is equipped to build testing instruments to meet specific requirements for special orders. Contact us for complete information on our factory facilities.

ZEUS® *generator division*

generators, portable electric power

Reliable, instant power with only one moving part—the exclusive Permanent Magnet Alternator.

- **Burn-out-proof, regardless of excessive overloading or sudden surges**
- **No brushes, windings, belts, slip rings, commutators or voltage regulator to cause power failure**
- **115/220 volts, 60 cycles, AC—export models available**
- **26%-33% lighter in weight**



Available in three models—1000, 1250 and 3000 watt, AC continuous duty rating.

the antenna specialists co.

"Stripes of Quality"

Cleveland 6, Ohio
Exp. Div.. New York 4, N. Y.

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BLONDER TONGUE

Newark, N. J.

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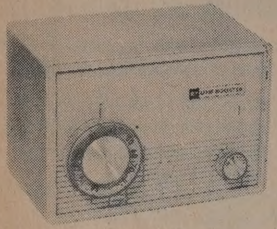
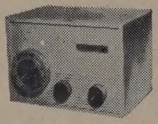
PRODUCTS TO IMPROVE HOME TV RECEPTION

UHF PRODUCTS



U-BOOST ALL-CHANNEL UHF BOOSTER MODEL UTB-1 — Triples the antenna signal voltage (10 db gain) on any UHF channel, 14 to 83. A turn of the dial pinpoints the desired channel, and brings it in sharp and clear. TV picture quality is excellent with the U-Boost, since it amplifies the signal before conversion, delivering the best possible signal-to-noise ratio. An extremely low noise figure and a tuned input contribute to excellent performance. Installation is easy. U-BOOST has an AC convenience receptacle for a UHF converter or an all-channel TV set. Further, 300 ohm twin lead can be connected without stripping or splicing thanks to patented Blonder-Tongue stripless 300 ohm terminals. The U-Boost's handsome modern styling matches the new Blonder-Tongue UHF converters. Net **$24.10**

ULTRAVERTER UHF CONVERTER Model BTU-2T



Deluxe two-tube converter with low-noise frame-grid IF amplifier. Tunes UHF channels 14 to 83. For all UHF receiving areas, especially fringe and translator applications. Has 5 to 8 db gain. Output on channel 5 or 6. Features stripless 300 ohm terminals, speed and fine tuning knobs, shielded three sections "ultra tuner," pilot light. Net **$28.95**

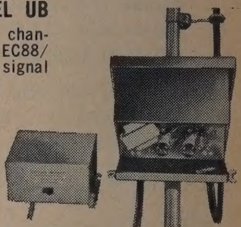
UHF CONVERTER Model 99S

Supplies UHF reception for VHF receivers in primary signal areas. Tunes complete UHF range from 470 to 890 mc. Converts to VHF channel 5 or 6. Features three section tuners; 300 ohm stripless VHF and UHF terminals, and drift-compensated circuitry. Net **$19.50**

AMPLIVERTER UHF CONVERTER, Model BT-70B

Similar to BTU-2 but designed especially for translator and MPATI area conversions. Low noise. Vernier tuning. Net **$32.30**

UHF MAST-MOUNTED BOOSTER, MODEL UB



Six standard models cover specific UHF channels from 14 to 83. Uses two low-noise EC88/6DL4 frame-grid tubes, which increase signal voltage by at least 14 db. Remote AC power supply sends at least 14 db. Remote AC power supply sends a safe 24 volts to the mast-mounted amplifier on the same down-lead that conducts the signal. Automatically shuts off when most TV receivers are turned off. 300 ohm stripless terminals. Net **$66.00**

UBP Similar to UB but 300 ohm input, 75 ohm output.
UBC Custom UB. Choice of frequency ranges and connectors.

UHF-VHF ANTENNA COUPLER MODEL A-107

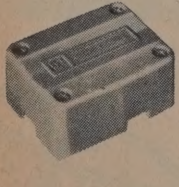
Combines UHF and VHF antennas, or provides separate VHF and UHF output from a single antennna. Isolation: 15 db. Net **$3.15**

UHF HYBRID COUPLER MODEL UDC-1

UHF 300 ohm hybrid coupler. Channels 70-83 only. Net **$3.60**

EXACT-MATCH COUPLERS

4-SET COUPLER, COLOR-4 — Super deluxe 4-set coupler, especially for Color TV. Offers maximum interset isolation (16 to 24 db), excellent impedance match and only a 6.5 db insertion loss. The Color-4 uses ferrite broadband transformers in balanced bridge design and it has a VSWR of less than 1.5. Result: Lower inherent insertion loss, less smear and ghosts, sharper pictures than any other 4-set coupler. Net **$6.85**



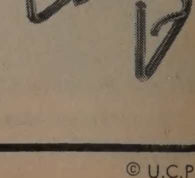
ALL-CHANNEL COUPLER SET-2 — One of the few couplers available today that can deliver full power signals to two UHF, or VHF and UHF receivers operating from the same antenna. Effective straightforward resistive circuit provides 12 db interset isolation with 6 db loss. While it's effective on VHF and FM, the low loss A-102 is a better choice for FM stereo. Net **$2.00**

2-SET COUPLER MODEL A-102 — Delivers more signal to each TV or FM set, with greater inter-set isolation than other couplers. Isolation: 10-20 db. Net **$2.00**

4-SET COUPLER MODEL A-104 — Directional coupler with flat response from 50-220 mc. Feeds 4 VHF receivers from one antenna, or mixes 4 antennas into one line. Isolation: 12-20 db. Net **$3.00**

HI-LO ANTENNA COUPLER MODEL A-105
Combines high and low band VHF antennas, or provides separate high and low output from a single antenna. Isolation: 21 db. **$3.10**

UHF-VHF ANTENNA COUPLER, A-107
The choice in UHF areas throughout the country. It combines VHF and UHF antennas, or provides separate VHF and UHF outputs from a common line or antenna. Less than 1.0 db loss. Net **$3.15**



NEW — MIRACLE MOUNT — snaps on any mast. Fits all B-T couplers. Net **$1.12**

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Newark, N. J.

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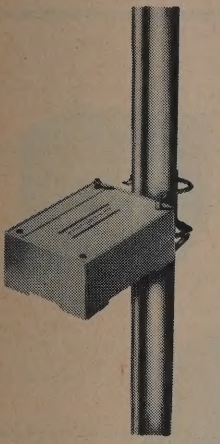
PRODUCTS TO IMPROVE HOME TV RECEPTION

MAST-MOUNTED SIGNAL BOOSTERS

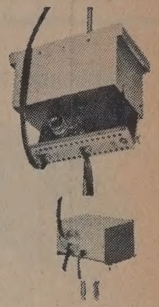


TRANSISTOR MAST-MOUNTED TV/FM BOOSTER ABLE-2 — Has all the power needed to bring in weak channels without overloading on strong channels. Delivers sharp, clear reception to as many as 3 TV or FM sets. It delivers interference free, full power to each set — no ghosts, no snow. Signal voltage from antenna is increased up to 8 times for one set; 5 times 2 sets; 3 times for 3 sets. On FM stereo, where signals are 30% weaker than on regular FM, the added power means full stereo enjoyment. Takes seconds to snap the ingenious 'Miracle Mount' on any antenna mast — no bolts, no straps, no hardware. Patented stripless 300 ohm terminals at amplifier and remote supply assure positive connection with just a turn of a screwdriver — no cutting or stripping twinlead. Net **$28.75**

ABLE-1 — Top Quality mast mounted 3-set TV/FM booster similar to ABLE-2 but with only one transistor. Recommended for weak signal areas only. Net **$25.95**

MODEL AB-4 — Same as ABLE-1 except with battery power supply that uses 4 low-cost flashlight batteries. Net **$21.25**

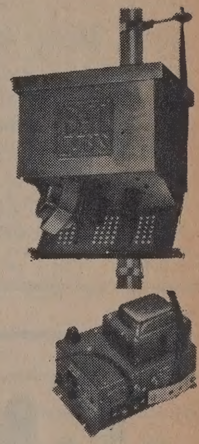
TUBED VHF TV BOOSTER, Model AB-2 (with RP-2 remote power supply) — All-channel VHF booster mounted at the antenna, is housed in weatherproof housing, and can be located 500 ft. from remote on-off control at TV set. Provides more than 9 db gain on all VHF channels. Signal down lead carries AC power up to the amplifier and also conducts the amlified signal to the set. Uses frame-grid 6JD8 tube for highest signal-to-noise ratio. Convenient swing down case simplifies maintenance. Employs 300 ohm, stripless terminals. Net **$34.95**



MODEL AB-3 MAST-MOUNTED TV/FM AMPLIFIER (with remote power supply)

MODEL AB-3 — Low-noise amplifier virtually eliminates snow. Can be used in a fringe area home installation, or as a pre-amplifier in a master TV system.

The remote power supply sends AC power up to the mast mounted amplifier on the same down-lead that carries the antenna signal down. It provides the correct power to the amplifier for any length of connecting cable up to one mile (when open twin-lead is used). Amplifier uses low noise frame-grid tubes. Provides 25 db minimum gain on all VHF-TV and FM stations. Choice of 300 ohm or 75 ohm output. Stripless terminals for 300 ohm twinlead; solderless "quick-disconnect" terminals for 75 ohm coax. No balun is needed because the input is matched to 300 ohm antennas. Net **$75.00**

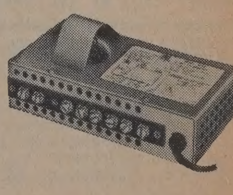


IN-THE-HOME SIGNAL BOOSTERS

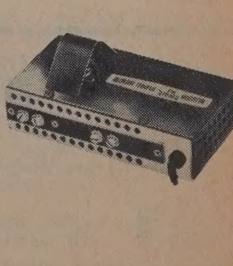
TRANSISTOR 4-SET TV/FM BOOSTER, MODEL IT-4 — The IT-4 "Quadrabooster," designed around a rugged, long-life transistor, is very inexpensive to operate and requires almost no maintenance. The transistor takes so little power that it need never be turned off. Specially designed for weak signal areas, the "Quadrabooster" provides crisp, brilliant pictures for as many as four TV or FM sets from a single antenna. Used for one set it increases signal strength 3 to 8 times. Used for two, three or four sets, it has amplifying power to spare and provides necessary isolation between sets. Net **$20.95**

2-SET TV/FM BOOSTER, MODEL B-42 Low-cost combination booster-distribution system provides clear, sharp reception for up to 2 TV or FM sets from one antenna. The B-42 more than doubles signal voltage for a single set, with excellent isolation. Its frame-grid tube amplifier is ideal where there are both strong and weak signals because it can handle strong signals without overloading.

4-SET TV/FM BOOSTER, MODEL B-24c Triples signal power to one set. Also acts as an amplified coupler to operate up to 4 TV or FM sets. Provides proper impedance match and isolation between sets and increases picture power when used with 2 or 3 sets. With 4 sets it insures that each TV or FM set receives more than 90% of the signal power picked up by the antenna. Net **$17.25**



FM STEREOBOOSTER, FMB — Covers the entire FM band, increases signal strength up to 8 times prior to the signal entering the tuner or radio. This assures the most powerful, distortion-free reception. Extremely low noise figure — absolutely essential in FM stereo where overall signal-to-noise ratio may be degraded by a factor of 20 db or more over regular FM reception. Signal handling capability — won't overload when there are strong local stations present. Low VSWR eliminates distortion resulting from phase and amplitude variation and standing waves caused by impedance mismatch. Compact, easy to install anywhere indoors — near the FM tuner or radio, on the base board. Net **$14.55**



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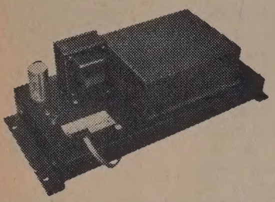
MASTER & COMMUNITY ANTENNA SYSTEM COMPONENTS

for motels, hotels, apartments, houses, schools, communities, etc.

BROADBAND AMPLIFIERS

POWERHOUSE, HIGH OUTPUT BROADBAND DISTRIBUTION AMPLIFIER



Covers VHF plus entire FM band. Automatic compensation for tube aging and power line variation. Tube life extender switch. Can be added directly to existing MATV system to increase output. 2 volts per channel output in 7 channel system. Generously derated components. Gain: 19 db min. lo-band; 17 db min. hi-band. Net **$224.00**

MODEL HAB

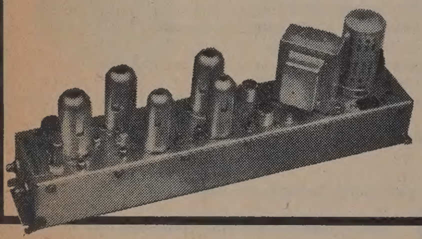
MODEL HAB — For use in master, community and home TV systems. 25 db min. gain. Both 300 ohms inputs and outputs. Separate hi and lo band gain controls. Uses frame grid tubes. Max. Output (across 75 ohms): 0.9 volts for less than 1% cross modulation (low band); 0.6 volts for less than 1% cross modulation (high band); 2.5 volts for less than 3% cross modulation (low band); 1.0 volts for less than 3% cross modulation (high band). Net **$49.65**

MODEL MLA-C 40 DB TV AMPLIFIER

MODEL MLA-C — Broadband VHF amplifier with all the features essential for easy installation and superior reception in large or small TV systems. More than 40 db amplification on all VHF channels. Separate high and low band tilt and gain controls.

MAX. OUTPUT (across 75 ohms) 2.0 volts per band for less than 1% cross-modulation 3.5 volts per band or less than 3% cross modulation. Net **$94.85**

MODEL MLA-FM — Similar to MLA-C but includes FM band Net **$107.50**



AUDIO MASTER TV SOUND ORIGINATOR

Originates TV signal for any specified VHF channel. Ideally integrated with MATV or CATV distribution system. Provides crystal-controlled unmodulated video carrier plus a sound carrier which can be modulated by tuner, microphone, recorder, etc. Audio carrier is 4.5 mc above video frequency (TV Standards). Output impedance 75 ohms. Net **$179.25**

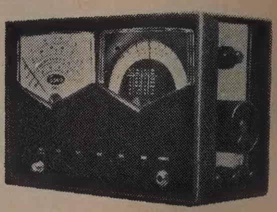
INSTRUMENTS

MODEL 4102 RF SWITCHER (DC TO 900 MC)

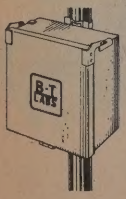
Permits two signal tracings to be simultaneously displayed on an oscilloscope, either superimposed or alternately at the rate of 30 cps. Also permits either tracing to be seen independently for making direct, immediate comparisons between input and output voltages of any circuit under test; for precisely measuring VSWR, amplifier gain or attenuation; and other applications involving equipment performance evaluation against given standards. Provision for 360° phase adjustment. Net **$215.00**

MODEL FSP-3B TRANSISTOR FIELD STRENGTH WATTMETER

Portable — weighs 10 lbs., Battery-Powered. Frequency: 52-220 mc in one range; Sensitivity: 5 microvolts minimum readable signal and 60 microvolts full scale; Bandwidth: 3 db points, percentage Modulation Ranges: 0 to 5% and 0 to 50%. Measurement Range: 0 microvolts to 3 volts in 18 ranges micro-microwatts to 10 watts in 10 ranges. Input impedance 75 ohm unbalanced and 300 ohm balanced. Net **$440.75**



HOUSINGS



WEATHERPROOF HOUSING

MODEL MRH-A—Weatherproof and radiation-proof enclosure for Master TV equipment. Has perforated mounting surface and adjustable support brackets. Front-opening sealed door and sturdy hasp. Irridite-finish, cadmium-plated steel. 18¼″x14″x6″. Net **$42.20**

MODEL MWH-2—Same as MRH-A but not radiation-proof. Net **$33.70**

AC LINE FILTER

MODEL MLF—60 db RF isolation between amplifier and power line. Two AC receptacles, one power cable input connector. Mounts in any housing. Net **$12.75**

Indoor Breezeway Housing

MODEL BH-1—Fully ventilated. Perforated mounting surface. Keyed slots for vertical or horizontal mounting. Provision for locking. 20″x27″x 10½″. Net **$36.60**

Unicase Outdoor Housing

Weather-proof housing for one UPK-1 power supply and associated equipment. 17½″x 10½″ x 6″. Net **$22.50**

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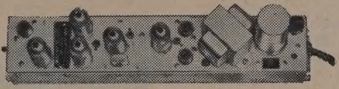
MASTER & COMMUNITY ANTENNA SYSTEM COMPONENTS

for motels, hotels, apartments, houses, schools, communities, etc.

CONVERTERS



—Featuring built-in power supplies and mixing circuits for compact, inexpensive head end systems. These units provide amplification as well as conversion.

UHF TO VHF

CRYSTAL CONTROLLED

MODEL MUC — Converts specified UHF channel to specified VHF channel. Gain: 15 to 30 db (depending on conversion). Oscillator Stability: total change less than 0.01% over ambient temperature range 0°F to 110°F. Connections: 300 ohm input and two 75 ohm mixing outputs. Net $239.00

MODEL CO-3—UHF to VHF Converter. Converts specified UHF channel to specified VHF channel. Has built-in UHF preamplifier, regulated power supply, stability 0-100 degrees 0.0025%; frequency accuracy 0.006%. Net $451.20

ECONOMY

MODEL UC-2—Ideal for small systems. While it is not crystal controlled, it is quite stable when installed indoors. The UC-2 has a built-in power supply and two 75 ohm mixing outputs for maximum flexibility. When one output is used, it provides a minimum of 6 to 10 db gain, depending on conversion (3 db less when both outputs are used or terminated). The input is matched to 300 ohms. Net $111.95

VHF to UHF

CRYSTAL CONTROLLED

MODEL CO-2—Lo to hi, hi to lo, lo to lo, or hi to hi channel conversions with few exceptions. Conversion chart available. Provides off-channel conversions such as: lowering Channel 2 by 1 megacycle to provide an extra guard between Channels 2 and 3. Net $290.60

MODEL MLC—converts a specified VHF low channel (2-6) to another specified VHF low channel (2-6). Gain: 20 to 40 db depending on conversion. Oscillator stability: Total change less than .01% over temperature range 0°F to 110°F. Connections: 75 ohm input and two 75 ohm mixing outputs. Net $251.00

MODEL MVC—converts a specified VHF high channel (7-13) to a specified VHF low channel (2-6). Oscillator stability: Total change less than 0.01% over temperature range of 0°F to 110°F. Connections: 75 ohm input and two 75 ohm mixing outputs. Net $251.00

ECONOMY

MODEL UV-1 UNIVERTER — LO-to-HI, HI-to-LO Channel Converter. Converts specified VHF channels to specified UHF channels. Uses Minipak or Unipak power supply. Net $95.90

Minipak—power supply for one Univerter. Net $23.45

Model UPK-2—UNIPAK—power supply for 3 Univerters. Net $47.80

ATTENUATORS

VARIABLE ATTENUATORS

MODEL SA-3—0 to 38 db. Laboratory accuracy. Steps of 6 db, 12 db, and 20 db. 75 ohm input and output. QD connectors. Net $9.45

MODEL SA-7—0 to 62 db in steps of 1 db. Laboratory accuracy. 75 ohm input and output. "UHF" SO-239 type connectors. Net $22.05

MAT—0 to 45 db in 3 db steps. 75 ohm input and output. UHF type connectors. Net $15.60

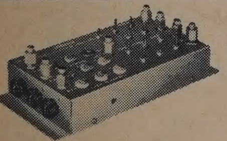
VAT—Steps of 3, 6, 9, 14, 20 and 23 db. 75 ohm input and output. Benconnectors. Net $17.95

FIXED ATTENUATORS

LAT—Fixed. Specify 3 db, 6 db, 10 db, 14 db or 20 db. 75 ohm input and output. Benconnectors. Net $6.35

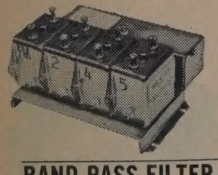
FA — Specify 3, 6, 10 or 20 dbs. Net $2.95

MIXERS, FILTERS & TRAPS



UNIMIX FILTER NETWORK—Can combine or separate 7 VHF TV channel signals without appreciable loss or interaction. The UNIMIX will accommodate 3 low band channels and four high band channels. Factory aligned to channels 2, 4, 6*, 7, 9, 11 and 13. It can be aligned in the field to handle any VHF channel.

*(FM may be substituted for channel 6 — order UNIMIX-FM which will pass all FM stations). Net $52.45



MX-SERIES FILTERED MIXER/SPLITTERS—MODELS MX-2 THRU 13—Bandpass filters pretuned to one of 13 TV channels. Used either separately or with MX mixing bases to form mixers or splitters. 75 ohms input and output. At least 6 db down 9 mc from center of channel. Net $6.70

MODEL MX-FM—Same type as MX-2-13, pretuned to pass entire FM band. At least 8 db down 12 mc from center of channel. Net $6.70

MODEL MX-LB—Lo band mixing base mounts MX series filters. Accommodates up to four lo band filters. Up to three hi band filters can be mixed; insertion loss increases with more than two hi band filters. Net $13.30

MODEL MX-HB—Hi band mixing base mounts up to four hi band filters only. Net $13.30

MODEL MX-M—Used to mix or split hi band and lo band signals. Can also be used without MX series filters. 20 db minimum isolation between branches. Net $5.95

OUTDOOR SINGLE-BROADBAND MIXER MODEL CM-2—Mixes or splits single channel with broadband. Specify channels. Net $7.95

BAND PASS FILTER—75 ohm band pass filter. Includes 2 traps. Traps attenuate undesired frequencies by 80 db. Trap frequencies should be specified when ordering. Net $137.45

75 OHM TRAPS MODEL Hi-Q-75—60 db attenuation of undesired frequency. Available for each sound and picture carrier. Net $33.90

MWT-2—Lo Band/FM trap can be tuned to attenuate any frequency from 54 thru 108 mc. Less than 0.25 db loss. Net $37.35

MWT-3—Hi Band trap can be tuned to attenuate any frequency from 134 thru 216 mc. Less than 0.25 db loss. Net $37.35

FM EQUALIZER—6 traps cover entire FM band. Net $96.80

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engineered and manufactured by

BLONDER TONGUE

Newark, N. J.

AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

MASTER & COMMUNITY ANTENNA SYSTEM COMPONENTS

SINGLE CHANNEL AMPLIFIERS

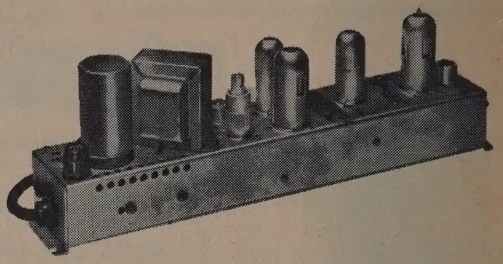
MODEL MCSc AGC CONTROLLED AMPLIFIER

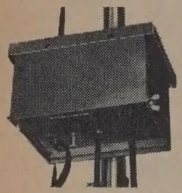
An MCSc is available for each VHF channel and the MCSc-FM covers the entire FM band. Each MCSc has a built-in, fuse-protected power supply. MCSc units also have built-in mixing networks so that the output of each MCSc in a system may be plugged into the next MCSc; at the final output all of the channels are being fed into one coaxial cable.

AGC action enables MCSc units to provide uniform outputs even though the strengths of the inputs vary. Two operating controls (Gain & AGC) increase the versatility of these amplifiers.

Gain: at least 46 db, ch. 2-6; 38 db, ch. 7-10; 35 db; 11-13. Max. output; 1.0 volts (for less than 1% cross-modulation); 2 volts (for less than 3% cross-modulation).

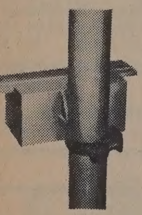
Net MCSc—**$90.75.** MCSc-FM—**$180.00**





MODEL CB MAST-MOUNTED PREAMPLIFIER

Completely weatherproof. Amplifies any specified VHF channel. Low noise. 21 db minimum gain on lo band; 18 db minimum on high band (when 1 output is used). Max. output 0.5 volts for less than 1% cross-modulation. 300 ohm input; two 75 ohm mixing outputs. **Net $38.85**



MODEL CMA MAST MOUNTED SINGLE-CHANNEL TRANSISTOR PREAMP

Low noise unit in rugged Cablemaster housing. Gain: Channels 2 to 6, 23 db min.; to 13 24 db min.; FM 19 db min. Low band units use one transistor. Hi-band unit uses 2 transistors.

Model 1514 Remote Power Supply for one CMA

Model 1515 Remote Power Supply for 3 CMA's

Model 1516 Remote Power Supply for 8 CMA's

MODEL PA HIGH-GAIN FAST AGC PREAMPLIFIER

Incorporates a low noise cascode input, together with a high gain AGC circuit. Can be used with inputs as low as 50 microvolts. and over. When the PA Amplifier is used alone to feed an apartment system, the output may be turned up to give as high as 1.0 volt output. **Net $203.40**

PA-LN — Very low noise PA with 7077 ceramic triodes. **Net $394.40**

MODEL HRA HIGH OUTPUT RADIO AMPLIFIER

Delivers a combined output voltage of up to 5.0 volts. Features: bandwidth: 500 kc to 1700 kc; min. gain 60 db; continuously variable gain control; built-in-power supply; stainless steel chassis. **Net $249.50**

MODEL CA LINE AMPLIFIER

Single channel VHF or FM. 60 db gain. AGC control. Max. output, 1 volt. **Net $173.30**

MODEL UA-1 UNISTRIP TV/FM AMPLIFIER

Efficient two-tube amplifier for specified channel. Has 35 db gain, 75 ohm single input, dual 75 ohm output. Built-in level control, full 6 megacycle bandwidth, maximum 1 volt output. Requires use with single-unit Minipak or triple-unit Unipak power supply. **Net $43.55**

NEW! HIGH OUTPUT AMPLIFIERS (2 models)

MODEL CAP-2—Used in high level distribution systems. Features 3 volts maximum output, mixing outputs, 65 db gain, built-in RF filter and AGC control. **Net $228.60**

MODEL HTA-2—Used in high level distribution systems. Features 10 volts maximum output, mixing outputs and built-in RF filter **Net $368.15**

BROADBAND AMPLIFIERS

MODEL DA8-B 8 OUTPUT DISTRIBUTION AMPLIFIER

MODEL DA8-B — Provides 8 amplified, isolated TV outlets from one input. Choice of 75 ohm or 300 ohm input and output. 10 db minimum gain. Gain control. **Net $64.55**

MODEL 1232 2-STAGE DISTRIBUTED AMPLIFIER

Two-stage wide band (10-216 mc) distributed amplifier designed for use in long line runs in CATV systems or large MATV installation. Also suited for general laboratory use where a wide band amplifier is required. Both stages of the unit can be operated separately as lower gain individual amplifiers. An AGC connector is provided for using the B-T Model 1222 solid state AGC unit or thermally activated gain control unit.

All filament and plate voltages are line-regulated. High gm frame grid tubes with high output capability are used throughout the unit. Degenerative stabilizing of each tube input impedance is employed to maintain good input match throughout all gain settings.

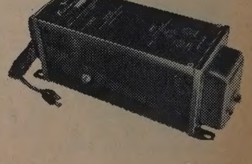
To facilitate testing during operation, the Model 1232 is equipped with monitor connectors at the input and output. Surface or rack mounting.

MODEL BT-3 ALL TRANSISTOR TV/FM AMPLIFIER

18 db average gain, lo-band; 19 db min. gain hi-band; 12 db average FM gain. Noise figure, 6 db average. 0.7 volt output. 75 ohm. Provision for split or combined hi-band and lo-band input. **Net $49.95**

MODEL PM-1 PACEMAKER TV/FM AMPLIFIER

35 db gain on all VHF channels; 30 db FM gain. Noise figure 6 db average. Max. output 2 volts per band. Well ventilated amplifier for indoor use, power drain of less than 50 watts. Can be used outdoors if weatherproof container provided. Will operate at peak efficiency for as many as 100 TV and/or FM sets at a time. **Net $76.60**



PACEMAKER-2 — Similar to PM-1 except hi- and to band gain controls. **Net $85.15**

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BLONDER TONGUE

Newark, N. J.

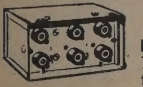
AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

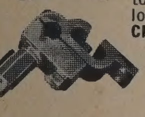
SPLITTERS, TAPOFFS, FEED-THRUS, BALUNS, CONNECTORS

INDOOR TAPOFFS (12 db and 17 db isolation)

MODEL	TYPE OF MOUNTING	* TYPE OF INPUT CONNECTORS	NO. OF OUT-PUTS	* TYPE OF OUTPUT CONNECTORS	ISOLA-TION	THRU LINE LOSS PER OUTPUT	NET PRICE
TS-771B	Surface	QD	(1)	QD	17 db	0.7 db	$2.70
TS-771A	Surface	QD	(1)	QD	12 db	0.7 db	3.55
TF-771B	Flush	Stripless bridge	(1)	QD	17 db	0.7 db	2.55
TF-771BS	Flush, stainless steel	Stripless bridge	(1)	QD	12 db	0.7 db	2.95
T01-75	Flush	Bridge	(1)	Auto Type	17 db	0.7 db	2.70
ISO-1	Flush	Bridge	(1)	Auto Type	17 db	0.7 db	2.40
TF-771AS	Flush, stainless steel	Stripless bridge	(1)	QD	12 db	0.7 db	3.75
TF-772B	Flush	Stripless bridge	(2)	QD	17 db	0.35 db	3.75
TF-772A	Flush	Stripless bridge	(2)	QD	12 db	0.7 db	3.75
T02-75	Surface	QD	(2)	Auto Type	17 db	0.35 db	4.80
TS-731B	Surface	QD	(1)	Stripless Screws	17 db	0.7 db	2.75
TF-731B	Flush	Bridge	(1)	Stripless Screws	17 db	0.7 db	2.00
TSP-731A	Surface	Stripless bridge	(1)	Stripless Plug	12 db	0.7 db	3.75
TFP-731A	Flush	Stripless bridge	(1)	Stripless Plug	12 db	0.7 db	3.75
T02-300	Surface	Bridge	(2)	Stripless Screws	17 db	0.35 db	4.80
T0-774A	Surface	QD	(4)	QD	17 db	0.6 db	8.65
T01-75S	Flush, stainless steel		(1)	Auto Type	17 db	0.7 db	3.15
TFP-731BL	Flush	Stripless bridge	(1)	Stripless Plug	17 db	0.4 db	3.90
TF-771BL	Flush	Stripless bridge	(1)	QD	17 db	4.0 db	3.45
TSP-731BL	Surface	QD	(1)	Stripless Plug	17 db	0.4 db	4.20
TS-771BL	Surface	QD	(1)	QD	17 db	0.4 db	3.55

OUTDOOR TAPOFFS





MIT-4—Four 75 ohm outputs from 75 ohm thru line. SO-239 connectors. 17 db isolation. 0.35 db thru loss, per output. Net **$18.60**

CMT-71 — Same as MIT-4 except in Cablemaster housing. Net **$26.25**

MT-11—Spliceless. One 75 ohm tapoff from RG-11/U Cable. Available with 12 db, 17 db or 23 db isolation loss. Net $4.50

MTO-11 — Spliceless. One 75 ohm tapoff from RG-11/U cable. Available with 12 db, 17 db or 23 db isolation loss. Net **$5.70**

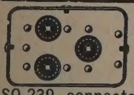
4T-75MP—Four 75 ohm outputs from 75 ohm thru line. 10, 15, 25, 30, 35, 40 db isolation. Net **$17.40**

FEED-THRU OUTLETS

TF-771 — Flush-mounted, feed-thru wall plate. Input and output both 75 ohms. Net **$1.95**

TF-331 — Flush-mounted, feed-thru wall plate. Input and output both 300 ohms. Net **$1.30**

TSP-331 — Surface-mounted box. 200 ohm input and 300 ohm stripless plug output. Net **$2.35**



MDC-2B — Outdoor 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. Weather protected. SO-239 connectors. Net **$9.55**

TS-772 — Indoor surface mounted 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. QD connectors. Net **$3.55**

MDC-4 — Outdoor 4-way Hybrid Splitter. Splits or combines four 75 ohm cables. Weather protected. SO-239 connectors. Net **$34.50**

TSB-774 — Indoor surface mounted 4-way splitter. Splits four 75 ohm cables. QD connectors. Net **$5.00**

2SP-75MP—Outoodr 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. Weatherproof. Net **$8.10**

3SP-75MP—Outdoor 3-way Hybrid Splitter. Splits or combines three 75 ohm cables. Weatherproof. Net **$12.10**

4SP-75MP—Outdoor 4-way transformer type splitter. Splits four 75 ohm cables. Weatherproof. Net **$12:60**

AN-275—Combines and splits VHF hi band and lo band. 75 ohm. Net **$14.95**

2SP-300M—Indoor or outdoor 2-way splitter. Splits two 300 ohm lines. Weatherproof. Net **$5.15**

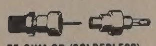
4SP-300—Indoor or outdoor 4-way splitter. Splits four 300 ohm lines. Weatherproof. Net **$5.95**

2ASP-75MP ASSYMETRICAL SPLITTER. — Available with 10 or 12 db isolation. **VSWR:** 1.1. Net **$9.65**

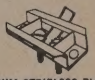
CMS-81 — Outdoor hybrid 2-way mixer-splitter (response 10 to 216 mc). Insertion loss less than 0.3 db. Isolation between branches at least 20 db (10 to 20 mc); at least 26 db (20 to 216 mc). VSWR less than 1.2. Weatherproof Cablemaster housing. Net **$20.25**

M - Backmatched P - passes 4.5 mc to 220 mc.

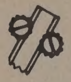
*TERMINAL CONNECTORS



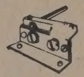
75 OHM QD (SOLDERLESS)



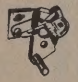
300 OHM STRIPLESS PLUG



300 OHM STRIPLESS SCREWS



75 OHM STRIPLESS BRIDGE

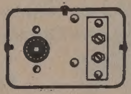


MODEL S-1 — Rotary coax Cutter and Stripper. Net **$2.50**

CABLE CONNECTORS

P-11S	"UHF" type solderless male plug for RG-11/U cable.	Net **$1.10**
P-59T	"UHF" type solderless male plug for RG-59/U cable.	Net **$1.10**
MC	"UHF" type cable connector. Connects two male plugs or one plug and an MPT-75 terminator.	Net **$1.65**
CL-1111	Couples two RG-11/U cables together	Net **$1.90**
CL-1159	Couples RG-11/U cable to RG-59/U Cable.	Net **$1.90**
CL-5959	Couples two RG-59/U cables together.	Net **$1.90**
AC-1000	Feed-thru bushing. Use with CL-5959, CL-1111, CL-1159.	Net **$2.40**
M-63	Male coupler mates with M-64.	Net **$2.45**
M-64	Female coupler mates with M-63, M-72, M-73, M-74.	Net **$1.70**
M-171	Male plug for RG-11/U cable. Mates with M-64.	Net **$2.15**
M-172	Male plug for RG-11/U double shield cable. Mates with M-64.	Net **$2.15**
M-73	Male plug for RG-59/U cable. Mates with M-64.	Net **$ .55**
M-174F	Male plug for BAL-11F cable. Mates with M-64.	Net **$2.20**
AD-1	Adapts Q.D. to UHF SO-239 connectors.	Net **$2.55**
AD-2	Adapts Benconector to UHF SO-239 connector.	Net **$3.85**
P-75S	Male solderless auto type plug.	Net **$ .42**
POU-59	Push-on UHF plug for RG-59/u.	Net **$2.25**
POB-59	Push-on Benconector plug for RG-59/u.	Net **$1.45**

MATCHING TRANSFORMERS

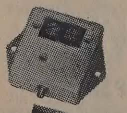


MB

Outdoor balun matches 75 ohms to 300 ohms or vice versa. Net **$6.15**

CABLEMATCH

Indoor. 75 ohm to 300 ohm. VHF and FM high impact plastic eliminates grounding problem with 'hot chassis' sets. Solderless AUTOPLUG for coax connection. Net **$1.90**

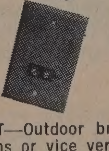


TS-731

Indoor, surface mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.65**

TF-731

Indoor, flush mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.85**



CMB-92U

Outdoor Balun covers entire UHF band. Provides maximum transfer of power with low insertion loss (0.25 db lo-band; 0.4 db hi-band). Weatherproof Cablemaster housing. Net **$16.65**

AMT—Outdoor broadband balun matches 75 ohms to 300 ohms or vice versa. Weatherproof; has 300 ohm solderless plug. Net **$6.35**

SMT—Indoor, set mounted. Matches 75 ohm to 300 ohms or vice versa. Net **$2.40**

ACMT—Single channel outdoor balun. UHF and VHF, specify channel. Matches 75 ohms to 300 ohms or vice versa. Weatherproof; has 300 ohms solderless plug. Net **$8.80**

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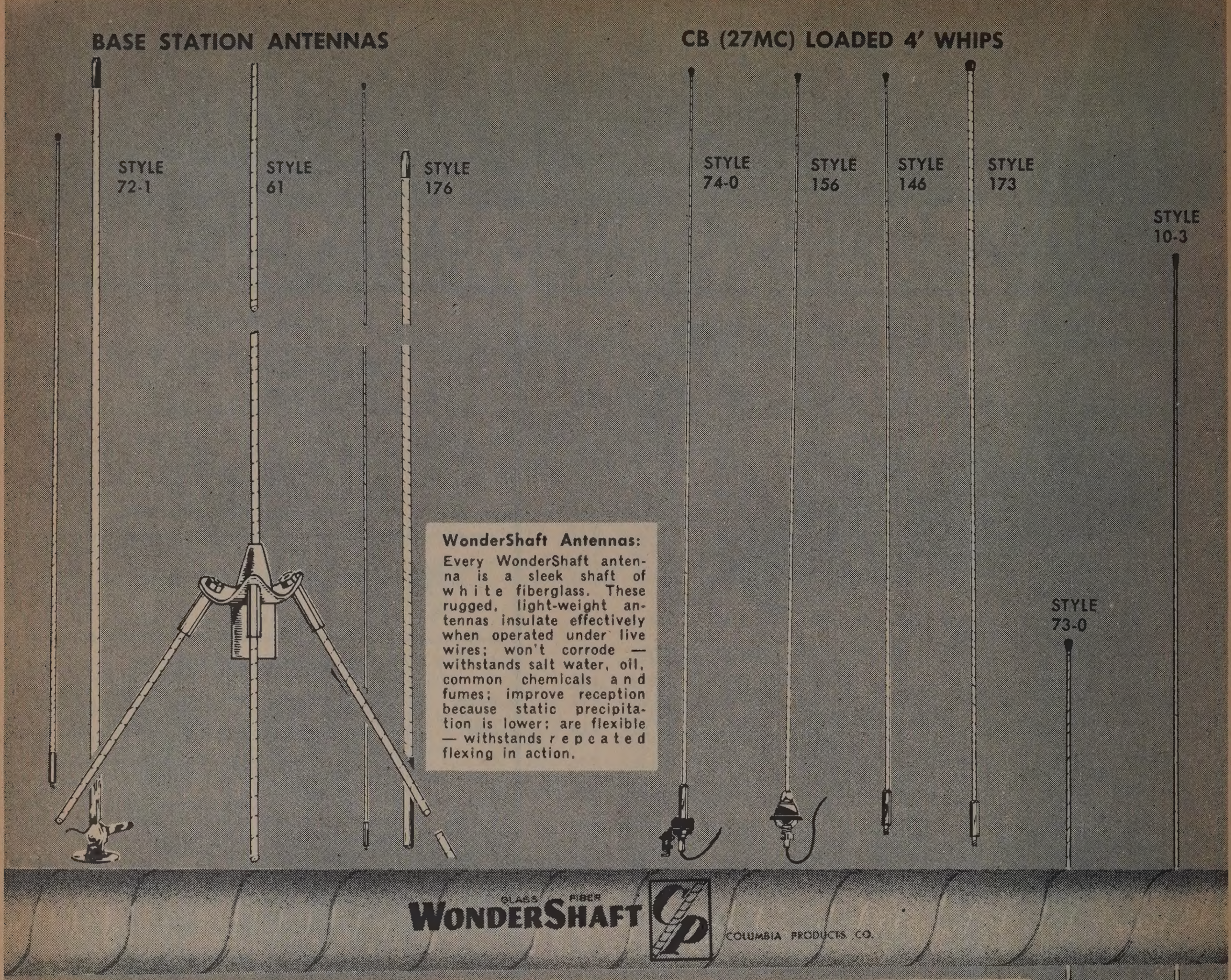
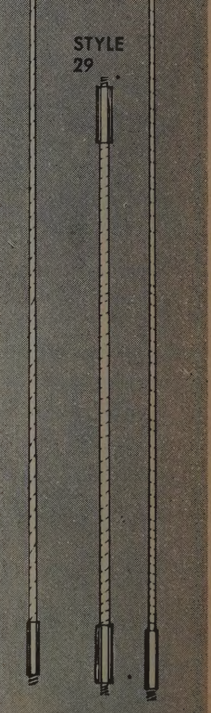
Net



WonderShaft Antennas: Every WonderShaft antenna is a sleek shaft of white fiberglass. These rugged, light-weight antennas insulate effectively when operated under live wires; won't corrode — withstands salt water, oil, common chemicals and fumes; improve reception because static precipitation is lower; are flexible — withstands repeated flexing in action.



BASE STATION ANTENNAS

Loaded Coaxial Sleeve for marine and base station use; loaded top whip, folded stub in base; 10′ 6″ overall. STYLE 72-0 — U-bolts, saddles to fit 1½″ tubing; use pair of STYLE 95 stand-off brackets for marine installation. STYLE 72-1 — Chrome plated fold down base; PL-259 UHF connector and feed through UHF fitting for bulkhead or deck thickness up to 1″

STYLE 72-0 — Base Station $47.97
STYLE 72-1 — Marine Version $67.50

Full Half Wave 2-section antenna with U-bolts for mounting on 1½″ diameter pipe; female UHF connector; 18′ 6″ overall.

STYLE 176 .... $34.62

Ground Plane antenna with high strength fiberglass radiating elements. Cadmium plated steel support bracket for mounting on 1¼″ pipe thread. SO-239 UHF connector. Cutting curve furnished; may be trimmed to accommodate any operating frequency between 27 mc and 88 mc.

STYLE 61 .... $35.28

CB (27MC) LOADED 4′ WHIPS

Rain Gutter Mounted antenna, detachable installation; cadmium plated steel mounting hardware; includes 9′ RG 58/U coaxial cable, shielded phono plug.

STYLE 74-0 .... $14.37

Cowl Mount looks and installs like ordinary car antenna. Add antenna coupler to convert for dual CB-AM use. Includes molded plastic ball, chrome plated cap and nut, gasket.

STYLE 156-1 — 54″ cable $11.85
STYLE 156-2 — 9′ cable $12.12
STYLE 156-3 — 20′ cable $12.78

Base Loaded whip terminated with ⅜″-24 thread ferrule. Fits either standard ball mount or adjustable cowl mount (Style 192).

STYLE 146 .... $8.95

Top Loaded whip with chrome plated brass ferrule, ⅜″-24 thread; fits either standard ball mount or adjustable cowl mount (Style 192).

STYLE 173 .... $5.75

MOBILE WHIP

Quarter Wave whip with high impact and flexural strength. Includes chrome plated brass ferrule with ⅜″-24 thread; fits standard springs and ball mounts.

STYLE 10-1 — 54″-60″ $6.95
STYLE 10-2 — 60″-104″ $7.50
STYLE 10-3 — 96″ 27MC CB $7.50

Base Extensions to accommodate loading coil or attach directly to whips.

STYLE 29-1 — 18″ $5.95
STYLE 29-2 — 27″ $6.29
STYLE 29-3 — 36″ $6.95

NORMAL MODE HELICAL ANTENNAS

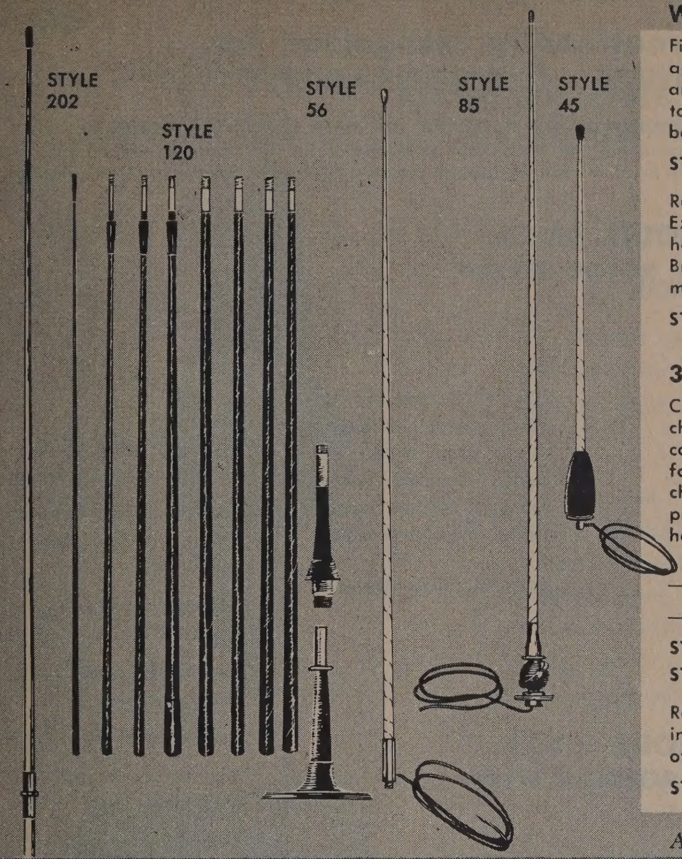
Distributed-load antennas eliminates additional loading coils; mounts in choice of positions.

Style	Range	Style	Range	Style	Range
73-0	27 MC (CB)	73-5	20 Meters	73-8	40 Meters
73-1	30-35 MC*	73-6	40 Meters	73-9	80 Meters
73-2	35-42 MC*	73-7	80 Meters	73-10	Ch. 5 4.58 MC
73-11	42-50 MC*				
73-3	10 Meters				
73-4	15 Meters				
*specify frequency					
4 ft. — $11.25		6 ft. — $15.90		8 ft. — $18.75	

All prices net.

COLUMBIA PRODUCTS COMPANY
COLUMBIA S. C. Subsidiary of Shakespeare Co.

WHIP ANTENNAS 3 DB HIGH GAIN MOBILE ANTENNAS



WHIP ANTENNAS

Fiberglass-encased antenna, fore-runner of AT-1011/U military antenna, 4 tapered sections form rugged 16′ mobile antenna. Unit includes 4 base extension section to convert to 32′ stationary antenna; choice of Stand-off or feed-through base.

STYLE 120 .... **$295.00**

Rugged heavy duty whip antenna of fiberglass construction. Excellent for base station and shipboard use. 35′ overall height. 2-sections; tip diameter of ¾″, base diameter of 3¼″. Bronze mounting flange is 7⅝″ diameter; four 21/32″ diameter holes, 90° apart on 6″ diameter circle.

STYLE 202 .... **$295.00**

3 DB HIGH GAIN MOBILE ANTENNAS

Cowl or bumper mounted antennas feature coaxial array with choke stub to isolate antenna from environment. 10′ RG 58/U cable. Choice of BNC or UHF plug; cutting curve furnished for trimming antenna to correct resonant length. Style 56 — chrome plated brass ferrule, 53-⅝″ overall. Style 85 — protective ball mount through which cable passes, aluminum hardware, 56¼″ overall.

144-154 MC	154-164 MC	164-174 MC
STYLE 56-1, 85-1	STYLE 56-2, 85-2	STYLE 56-3, 85-3

STYLE 56 .... **$18.75**
STYLE 85 .... **$25.50**

Roof top antenna extends only 19″ above surface. Unit includes mount and fittings; 12 ft. RG 58/U cable. Choice of BNC or UHF plug.

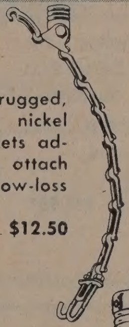
STYLE 45 — 440-470MC **$20.00**

All prices net.

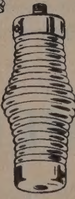
GLASS FIBER **WONDERSHAFT** COLUMBIA PRODUCTS CO.

ACCESSORIES

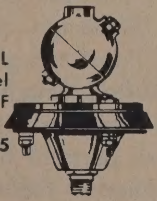
For Your WonderShaft Antennas



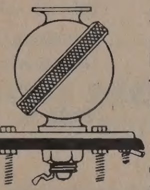
BUMPER MOUNT — rugged, no-holes assembly; nickel plated chains, brackets adjust to all bumpers; attach in minutes. Special low-loss molded insulator.
STYLE 97 .... **$12.50**



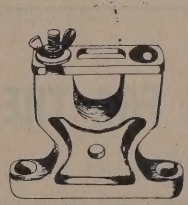
CHROME PLATED SPRING — heavily plated to improve appearance, protect against corrosion. Unit includes lock washer.
STYLE 191 .... **$8.95**



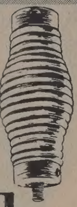
CHROME PLATED SWIVEL BASE — with stainless steel external hardware. UHF coaxial termination.
STYLE 190 .... **$15.95**



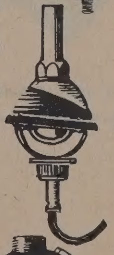
SATURN BALL MOUNT — universal swivel mount has locking ring, faces serrated for positive adjustments; low-loss molded fiberglass insulator plate mounts watertight on flat and curved surfaces.
STYLE 70-1 .... **$13.25**



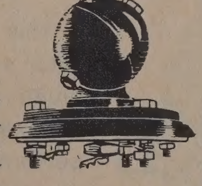
STAND-OFF BRACKET — insulated marine mount for STYLE 72-0. Insulated latches for quick, easy antenna elevation or release. Mount pair on bulkhead, approx. 9″ apart.
STYLE 95 .... **$5.85 ea.**



BARREL TYPE BASE SPRING — cadmium plated; faces ground flush, align perfectly.
STYLE 71-1 .... **$7.50**



ADJUSTABLE COWL MOUNT — mounts and looks like a conventional AM auto antenna. Molded plastic ball; chrome plated cap, nut; gasket. Choice of RG 58/U coaxial transmission cable lengths.
STYLE 192-1 — 4½′ **$6.35**
STYLE 192-2 — 9′ **$7.75**
STYLE 192-3 — 20′ **$10.95**



BALL MOUNT — universal swivel base mount; black painted finish.
STYLE 155 .... **$9.90**

COLUMBIA PRODUCTS COMPANY

subsidiary of the Shakespeare Company • Columbia, South Carolina

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CORNELL-DUBILIER ELECTRONICS

CDR Antenna Rotor Systems

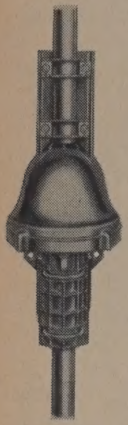
CDR ROTORS

internationally recognized for CONTROL • DEPENDABILITY

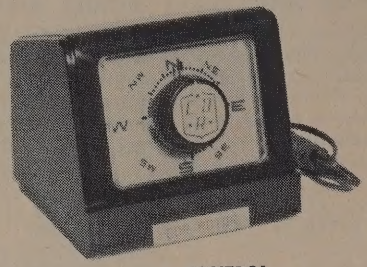
It's a proven fact — a good rotor system definitely improves the reception of even the best antennas!!

CDR Rotor Systems are the industry's standard for high quality, dependable and trouble-free performance for the accurate control of all antenna arrays. Whether it's for COLOR-TV, STEREO-FM, MULTIPLEX, Citizen's Band or Ham equipment, there's a CDR Rotor System to fill the requirement. You get improved performance at a proper price.

CDR MODEL AR-22
AUTOMATIC ROTOR SYSTEM



ROTATOR



CONTROL

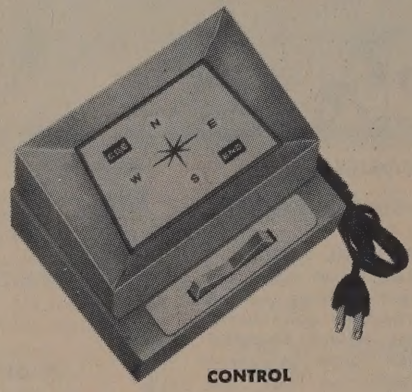
Powerful beyond any TV need—proven and tested as the giant of the industry. Complete with handsome Modern-Design cabinet. Uses 4-wire cable.

AR-22 List Price $49.95*

- Handles heavier loads with ease—as much as 150 pounds.
- Streamlined weatherproof design—durable sturdy construction.
- 12 heavy-duty bearings in two 6½" ball-bearing races.
- Heavily reinforced die-cast housing.
- Heavy-duty precision gears.
- Magnetically released mechanical brake.
- Reversible clamps handle masts of ⅞" to 2".
- Heavy-duty motor. Reverses instantly
- Mounts on mast, tower or platform.
- 3 heavy-duty, guy-wire lugs.
- Completely weather-sealed. Factory lubricated.

CDR MODEL TR-2A
MANUAL ROTOR SYSTEM

ROTATOR

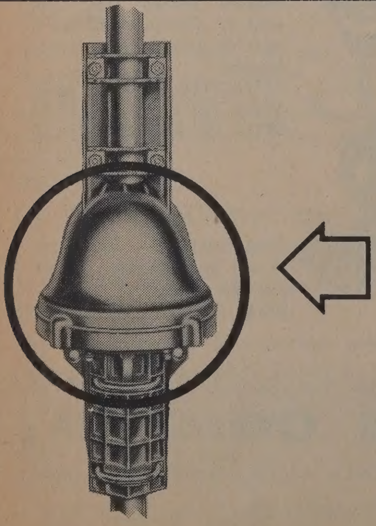


CONTROL

. . . the most POWERFUL and dependable manually controlled DeLuxe Heavy Duty ROTOR on the market . . . complete with COMPACT CONTROL cabinet with illuminated "compass pattern" dial. Uses 8-wire cable.

TR-2A List Price $37.95*

*Standard units listed are 110-Volt Rating, 220-Volt units are available at slightly higher prices.



LOOK FOR THE SHAPE OF QUALITY

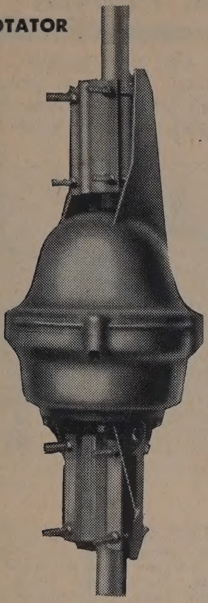
This Bell-Shaped housing is the true sign of quality in rotor systems. An exclusive CDE design, this weatherproof aluminum casting houses the finest top-grade components from switches to motors, insuring smooth accurate rotor performance in all types of weather. It established its reputation for ruggedness in all parts of the world. Yes — for reliable, **all-weather** reception — mount your antenna on the "BELL".

© U.C.P., Inc.

CDR MODEL "HAM-M"

ROTOR SYSTEM

ROTATOR



UNIVERSALLY APPROVED BY "HAMS"!!!

Life Tested beyond 12,000 hours at 1 minute on, one minute off, loaded with 40 Meter Beam Ant.; withstood hurricane winds, ice storms, heat and cold with no decrease in performance.

- **Easy to read. Precise calibration means no guesswork, no "approximations."**
- **Takes any size of pipe or mast up to 2-3/16" O.D. No adapters needed.**
- **Easy to mount on a tower; just remove the lower clamp.**
- **Weatherproof, high-pressure cast aluminum-alloy housing.**
- **Separate transformer for direction indicator.**
- **Double-stage switch permits instant direction reading without moving rotor.**
- **Heavy-duty power transformer. Designed for 8-wire cable.**

CONTROL

- A complete rotational system.
- Supports 1000 lbs. of dead weight.
- Super-accurate calibration.
- Double-stage switch permits instant direction reading without moving rotor.
- Positive brake locks rotor in position against any wind. Withstands 3500 inch-pounds of torque.
- Will support and operate heaviest beams commercially available.

User's Net $119.50*

CDR MODEL TR-44

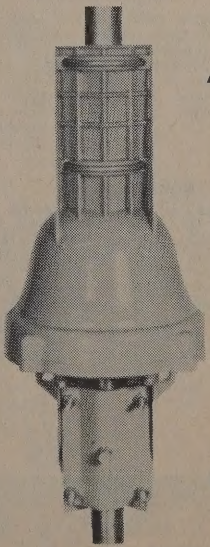
ROTOR SYSTEM

The TR-44 approaches the accuracy and ruggedness of the famous Cornell-Dubilier HAM-M but is designed specifically for intermediate loads.

Check these features:

- Dimensionally identical to TV rotor types AR-22 and TR-2A. The TR-44 even fits the same bolt holes!
- End of rotation electrical motor cut-off.
- Quiet operating, no electrical pulse noise.
- Increased rotational torque . . . up to twice as much as TV rotors!
- 48-ball bearing movement.
- Magnetically released mechanical brake system.
- Precise direction indication at all times, if desired.

If you are now getting marginal results using a TV rotor, the TR-44 is for you! It will give you the increased torque, braking and accuracy that is needed for large VHF arrays and small HF combination antennas.



Furnished with "HAM-M" Type Control

ROTATOR

$59.95* User's Net

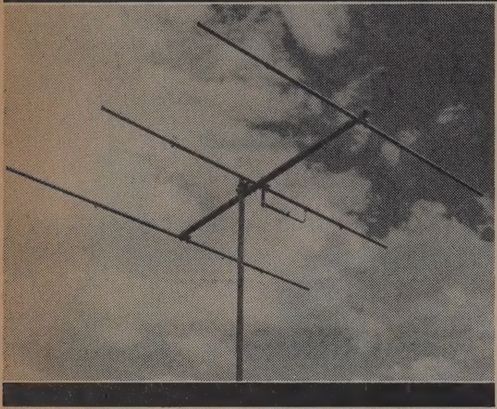
*Standard units listed are 110-volt. 220-volt units are available at slightly higher prices.

Cush Craft

COMMUNICATION ANTENNA PRODUCTS

AMATEUR ANTENNAS

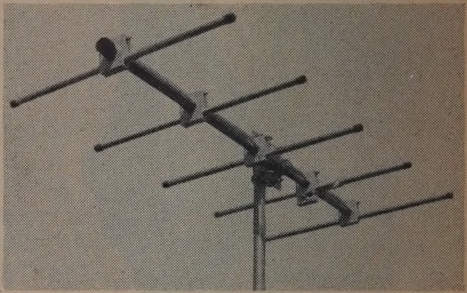
PROLINE COMMERCIAL ANTENNAS

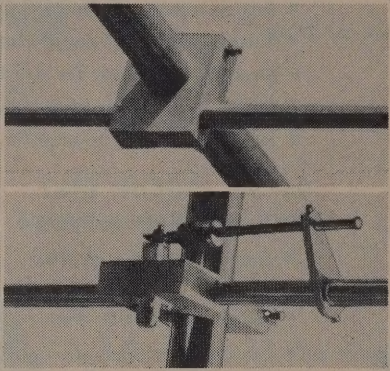


THE ACHIEVEMENT OF FIVE YEARS OF RESEARCH AND DEVELOPMENT. PROFESSIONAL LINE MEANS QUALITY THROUGH PRECISION MACHINED-ALL ALUMINUM CONSTRUCTION, PERFORMANCE THROUGH TESTED ELECTRICAL DESIGN AND VALUE THROUGH MODERATE PRICING. LEADING EQUIPMENT MANUFACTURERS SPECIFY PROLINE FOR MORE SOLID VALUE AND PERFORMANCE.

PERFORMANCE

	5 Element	10 Element
Forward Gain	9.5 db	12.5 db
F/B Ratio	23 db	27 db
Beamwidth at ½ Pwr. Pt.	48°	38°
Driven Element	"REDDI MATCH" for direct 52 or 72 ohm coaxial feed.	
VSWR	1 to 1 at frequency, less than 2 to 1 at band edges.	
Bandwidth	6 Mc.	6 Mc.





Elements and booms are .058 wall seamless, hard drawn aluminum tubing with end caps. Element to boom supports are one piece, machined from solid aluminum bar stock. The bracket center hole completely encircles the boom, with stainless steel fasteners ensuring a positive mechanical and electrical bond. There are no holes in either the booms or elements. Boom to mast support is aluminum plate with heavy u-bolts to take any mast up to 2" outside diameter. Internal fibre vibration dampers are sealed into all elements exceeding 4'-0" in length. "Reddi Match" is an improved design gamma matching system which provides direct 52 or 72 ohm coaxial feed with no external matching baluns or networks. Proline is available with all type connectors.

THE BIG WHEEL

Horizontally polarized, omnidirectional gain antenna features low-Q, large capture area, ease of matching and improved band width. 2 and 4 stack models available.

Model ABW-420—1 bay, ¾ meter	$8.95
Model ABW-220—1 bay, 1¼ meter	10.95
Model ABW-144—1 bay, 2 meter	12.95

VHF BEAMS

Rugged, lightweight, and real performers. Booms, 1" diameter aluminum tubing elements 3/16" diameter aluminum rod preassembled on booms. Transformer dipole or Reddi Match. Dual and Quad Arrays available.

Model A144-11—11 element, 2 meter, boom 12'	$12.75
Model A144- 7— 7 element, 2 meter, boom 8'	8.85
Model A220-11—11 element, 1¼ meter, boom 8.5'	9.95
Model A430-11—11 element, ¾ meter, boom 5'	7.75

6 METER BEAMS

Full size, wide spaced, booms 1¼" and 1½" diameter, elements ¾" diameter aluminum tubing. Reddi Match for direct 52 ohm feed 1:1 SWR.

Model A50-3— 5 element, 6 meter, boom 6'	$13.95
Model A50-5—5 element, 6 meter, boom 12'	19.50
Model A50-6—6 element, 6 meter, boom 20'	32.50
Model A50-10—10 element, 6 meter, boom 24'	49.50
Model A50-3P—Portable 3 element, 50" × 4" folded	10.95

VHF MOBILE HALOS

Aluminum construction; machined hardware; Reddi Match for 52 or 72 ohm direct feed. 2 meter. Dual halo two bands one 52 ohm feed line.

Model AM-2M—2 meter, with mast.	$8.70
Model AM-22—2 meter, stacked Complete	14.95
Model AM-6M—6 meter, with mast.	12.50
Model AM-26—6 and 2 dual halo, with mast	17.45

VHF COLINEAR ARRAYS

Lightweight mechanically balanced VHF Antenna systems. Extremely high power gain, major front lobe, low SWR, and broad band coverage; low angle of radiation and large capture area. 32 and 64 element arrays available.

Model CL-116—2 meter, 16 element colinear.	$16.00
Model CL-216—1¼ meter, 16 element colinear.	12.85
Model CL-416—¾ meter, 16 element colinear.	9.85
Model CL-MS—Universal matching stub matches 300 ohm 16 element antennas to 200, 52, or 72 ohm feed lines.	4.75

MONOBAND BEAMS

Full size, wide spaced, all aluminum beams. Factory pretuned and adjusted. Direct 52 ohm "Reddi Match" feed.

Model A28-3—3 element, 10 meter, boom 10'	$28.50
Model A28-4—4 element 10 meter, boom 18'	42.50
Model A21-3—3 element 15 meter, boom 12'	32.50
Model A14-2—2 element 20 meter, boom 10'	45.00
Model A14-3—3 element 20 meter, boom 20'	62.50

VERTICALS

Model ATGP-3-10-15-20 meter with ground 28.50 radial system.

10 thru 80 meter full size and economy model self supporting verticals—for complete details see current literature.

PROLINE AVERAGE NET PRICES*

PL-MATV Lo channels 5 element	$41.52	PL-CATV Lo channels 5 element	$85.00
PL-MATV Hi channels 5 element	24.60	PL-CATV Hi channels 5 element	64.00
PL-All channel 7 element	46.50	PL-Communication frequencies	31.00

*For complete price schedule see latest net price lists.

"BLITZ BUG"

COAXIAL LIGHTNING ARRESTER

- ★ INSERTS DIRECTLY IN ANY STANDARD CABLE
- ★ ELIMINATES STATIC BUILD UP
- ★ NO INSERTION LOSS
- ★ WILL NOT AFFECT PERFORMANCE
- ★ REDUCES STATIC NOISE

FOR
AMATEUR
CITIZEN BAND
COMMERCIAL

LAC-1 $3.95 LAC-2 $4.45 LAC-2N $5.95

THE ONLY FULL TIME LIGHTNING PROTECTION

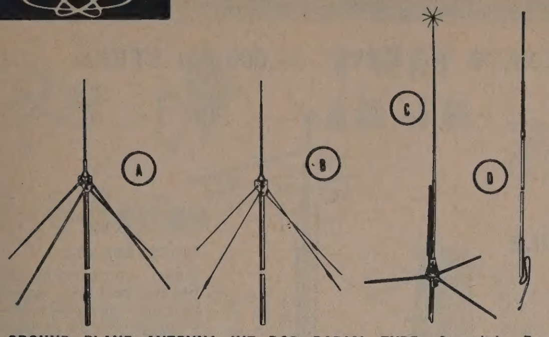
CUSH CRAFT ALSO MANUFACTURES CITIZEN'S BAND, BUSINESS BAND AND COMMUNICATION ANTENNAS. FOR COMPLETE INFORMATION ON ALL CUSH CRAFT PRODUCTS SEE YOUR DISTRIBUTOR OR WRITE DEPT. 28.

Cush Craft

TOP QUALITY ANTENNAS FOR OUTSTANDING PERFORMANCE

© UCP., Inc.

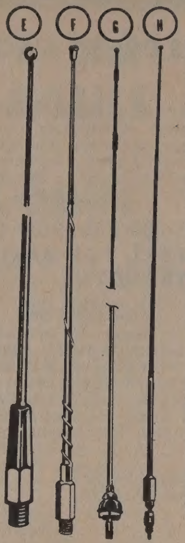
GC ELECTRONICS CITIZENS BAND ANTENNAS and ACCESSORIES



(A) GROUND PLANE ANTENNA KIT ROD RADIAL TYPE—Complete Base Station Antenna, pre-assembled and including mast, cable and all hardware. No guy wires. Radial elements are durable aluminum tubing. For use with chimney, wall or tripod mount.
Cat. No. 29-740 Net **$25.50**

(B) GROUND PLANE ANTENNA KIT RADIAL WIRE TYPE—Base station antenna kit—including mast, co-ax cable and all hardware. Most parts are pre-assembled average installation time is ½ hour. 4 guy wires act as "ground plane."
Cat. No. 29-730 Net **$23.85**

(C) COLINEAR GAIN GROUND PLANE ANTENNA—3.4 Db Gain: Doubles effective radiated power of your Citizens Band transceiver in all directions . . . achieves gain through concentration of power at lower angles to the horizon, both receiving or transmitting.
Cat. No. 29-748 Net **$29.97**



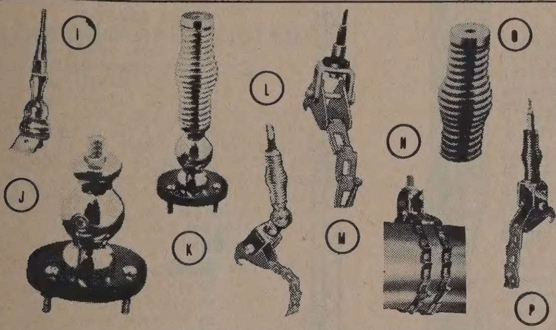
(E) 102″ STAINLESS STEEL TAPERED WHIP—High-impact, flexible whip made of selected alloy. Standard threated fitting used with body mount or bumper mount.
Cat. No. 29-700 Net **$6.90**

100″ STAINLESS STEEL TAPERED WHIP—Same as 102″ Whip #29-700, but designed for use with flexing spring type body mount or bumper mount.
Cat. No. 29-702 Net **$6.90**

(F) "TEL-COIL" WHIP (Pat. Pend)—48″ tapered fibre glass whip, "loaded" type. Step-taper wound helical conductor is superior to other "short" Whips which use base or center loading coils. Standard threaded fitting for any body or bumper mount, truck lid mount.
Cat. No. 29-710 Net **$7.20**

(G) TOP LOADED WHIP STAINLESS STEEL—Utilizes top loading to raise radiating portion of antenna to highest possible point. Raises radiation resistance to 52 ohms for perfect match to coax cable. Improved matching, increased effective height of radiating portion. Single hole, top-loading body mount and coaxial receptacle.
Cat. No. 29-704 Net **$8.90**

(H) CITIZENS WHIP—Chrome-plated whip designed for transceiver mounting. High efficiency base loading coil completely enclosed in polypropylene plastic. With PL-259 connector.
Cat. No. 29-708 Net **$5.97**



(I) TRUNK LID MOUNT—Unique mount requiring no outside holes on car. Designed specifically for "Telcoil" 29-710 antenna, but may be used with other short "whips." Cat. No. 29-716 Net **$3.30**

(J) BODY MOUNT—Heavy-duty, chrome plated body mount fastens to side, cowl, or fender. Ball swivel provides all angle adjustment, from vertical to horizontal. Cat. No. 29-718 Net **$4.80**

(K) BODY MOUNT—Same as Body Mount #29-718 except this model is supplied with flexing spring #29-276. Cat. No. 29-720 Net **$8.40**

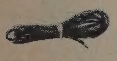
(L) BUMPER MOUNT—With swivel joint and spring for cars where bumpers do not protrude sufficiently for standard mount. Cat. No. 29-728 Net **$15.45**

(M) BUMPER MOUNT—Durable, chrome plated chain type bumper adjusts to most bumpers from sports car to truck. Cat. No. 29-722 Net **$7.95**

(N) BUMPER MOUNT—Double chain mount for greater stability.
Cat. No. 29-723 Net **$14.20**

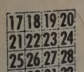
(O) FLEXING ANTENNA SPRING—Tapered, heavy-duty, chrome plated steel spring built-in flexible center conducter. Cat. No. 29-726 Net **$3.90**

(P) BUMPER MOUNT—Same as Bumper Mount #29-724 except this model includes flexing spring #29-726. Cat. No. 29-724 Net **$11.85**



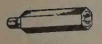
CABLE ASSEMBLIES — Made of RG 58/U cable, terminated on one end with PL 259 plug, other end stripped and terminated with lugs.

Cat. No.	Length	Net
29-760	6 ft.	**$2.91**
29-762	10 ft.	**3.21**
29-764	15 ft.	**3.57**

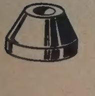


CALL LETTERS — Metal foil, pressure sensitive labels to mark mobile station with FCC call letters. Set of 78 numerals plus two "W"s Characters ¾″ high.

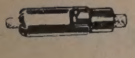
Cat. No.	Descrip.	Net Per Set
29-776	Gold Letters on White	**$1.20**
29-778	Silver Letters on Black	**1.20**



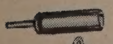
DIS-CON-NECT—Remove mobile whip antennas in two seconds—without tools. Incorporates bayonet lock device . . . made of stainless steel.
Cat. No. 29-772 Net **$2.97**



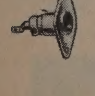
INSULATOR REPLACEMENT—Replacement insulator for Ground Plane Antennas No. 29-744 and 29-746. Also general purpose insulator.
Cat. No. 29-738 Net **$ .60**



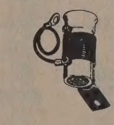
ANTENNA CONNECTOR—For connections on auto antennas and ground lines.
Cat. No. 1747 Net **$ .16**



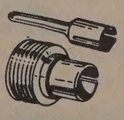
AUTO ANTENNA PLUG — Shielded positive connector plug, same as used on Motorola and other radios.
Cat. No. 1740 Net **$ .11**



ANTENNA CONNECTOR JACK — Shielded type jack fits No 1740 plug for auto antenna and phonograph connections.
Cat. No. 1741 Net **$ .15**

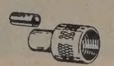


GENERATOR NOISE SUPRESSOR — Reduce generator noise when motor is accelerated. For Citizens and three Amateur bands. 3 minutes to install.
Complete with Mounting Bracket and Instructions.
Cat. No. 65-510 Net **$4.95**

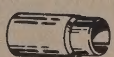


ADAPTERS—Adapts a PL 259 plug to a phono pin (RCA type) plug.
Cat. No. 29-784 Net **$ .45**

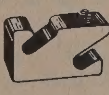
ADAPTER—Adapts a SO 239 Socket to a standard auto radio (Motorola type) socket.
Cat No. 29-786 Net **$ .45**



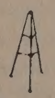
ADAPTER—Adapts a standard auto radio (Motorola type) plug to a phono pin (RCA type) plug.
Cat. No. 29-788 Net **$ .24**



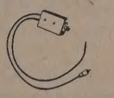
GUTTER CLAMP—Holds long whip antennas down when not in use. Fastens easily to drain rails on any car.
Cat. No. 29-770 Net **$ .99**



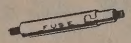
5 FT. TOWER—Self supporting. Made of electro galvanized tubing. Folds and unfolds like an umbrella.
Cat. No. 9143 Net **$9.54**



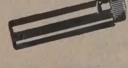
CITIZENS BAND COUPLER—Use any Citizens Band mobile antenna for both Citizens Band and AM broadcast. Complete with SO-239 coaxial chassis receptacle for attachment of Citizens Band antenna. 2-ft. lead and auto plug for connecting broadcast radio and two feet of lead with PL-259 coaxial plug for C-B transceiver.
Cat. No. 29-824 Net **$8.97**



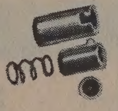
GC HAS A COMPLETE LINE OF C-B CONDENSER AND SUPPRESSORS Write for Catalog GC ELECTRONICS, ROCKFORD, ILL.



FUSE CONNECTOR (Regular Type) — Same as used on auto radios and other equipment. 2½″ long x ⅜″ diam. For ¼″ fuses.
Cat. No. 1749 Regular Fuse Connctor Net **$ .18**

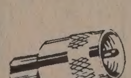


JUMBO FUSE HOLDER—Large size fuse holder, 2¼″ long x ½″ dia. 14 amps.
Cat. No. 1748 Jumbo Fuse Holder Net **$ .17**

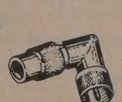


REPLACEMENT PARTS FOR ANTENNA AND FUSE CONNECTORS

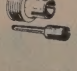
Cat. No.		Net
1791	Sleeve of Fuse Connector	**$.04**
1792	Sleeve of Antenna Connector	**.02**
1793	End piece for Antenna and Fuse Connector	**.03**
1796	Spring for Antenna and Fuse Connector	**.01**
1795	Bakelite Bushing	**.02**



PL-259 CONNECTOR — To mate with Adapters 29-780, 29-782, 29-784, 29-786. For use with RG-/U cables 8-9-10-11-12-13-58-63-65.
Cat. No. 29-790 PL-259 Connector Net **$1.05**



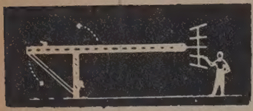
RIGHT ANGLE ADAPTER—For attaching Tel Coil Whip #29-710 or similar antenna to base station. Fits all transceivers using #PL 259 plug. Makes base station antenna where it is impractical to install a roof-top antenna or where base station has to be movable.
Cat. No. 29-780 Net **$3.45**



ADAPTER—Adapts a Pl 259 plug to a standard auto radio (Motorola type) plug.
Cat. No. 29-782 Net **$ .45**

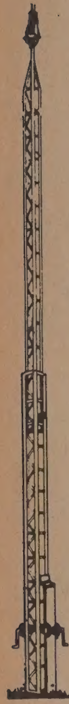
E-Z Way AMATEUR & TV TOWERS

CRANKS UP & DOWN TILTS OVER NO CONCRETE NO GUYS 55,000 PSI STEEL



Wonder Ground Post: E-Z Way Ground Post mounting revolutionizes the installation of "tilt-over" towers. Minimum yard space, not concrete, stays plumb. Stabilizing fins below grade, insure a solid setting under most ground conditions. Eliminates use of concrete.

HOT DIPPED GALVANIZED AFTER FABRICATION.



HD-40

MODEL HD-40

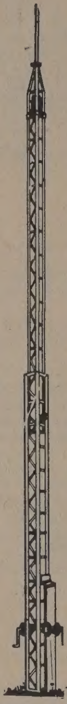
Maximum tower height, 38 ft.; minimum height 21 ft. Here is low cost E-Z Way quality. Supports light beams, ground planes, and quads in 60 mph winds when cranked up, 125 mph wind cranked down. No Guys! Rotor mounts above tower. Mounting stub and heavy-wall galv. steel mast 1.32 O.D. supplied. Two 20 ft. sections, top sect. #7, bottom sect. #9.

HD-40P	$ 99.50
HD-40G	134.50
GPK-D40 Ground post mounting kit w/hardware	$50.00
BAK-D Wall bracket mounting kit	$6.75

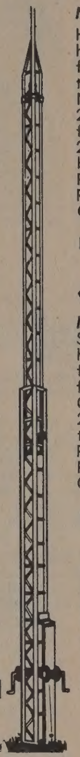
MODEL RBS-40

Standard duty tower. Maximum height 41 ft., minimum height 24 ft. Supports triband beams or equivalent at 41 ft. in 60 mph wind cranked up and 125 mph wind cranked down. No Guys! Accepts CDR—Ham M rotor inside rotor head. 1.5 O.D. x 7 ft. steel mast supplied. Two 21 ft. sections. Top sect. #9, bottom sect. #12, plus rotor head.

RBS-40P	$169.50
RBS-40G	209.50
GPK-S40 Ground post mounting kit w/hardware	$75.00
BAK-S40 Wall Bracket mounting kit	$10.50



RBS-40



RBS-50

55,000 PSI HIGH TENSILE STEEL FOR MAXIMUM STRENGTH!

MODEL RBX-40

Heavy Duty tower. Maximum height 41 ft., minimum height 25 ft. Supports 4 el. 20M full or 9 el. triband at 41 ft in 90 mph winds. No Guys! Stack 3 el. 15M & 3 el. 20M in winds up to 60 mph at 40 ft. Rotor mounts inside head. Two 21 ft. sections. Top sect. #12, bottom sect. #15 plus rotor head.

RBX-40P	$245.00
RBX-40G	315.00
GPK-X40 Ground Post mounting kit w/hardware	$105.00
BAK-X Wall Bracket mounting kit	$17.00

MODEL RBS-50

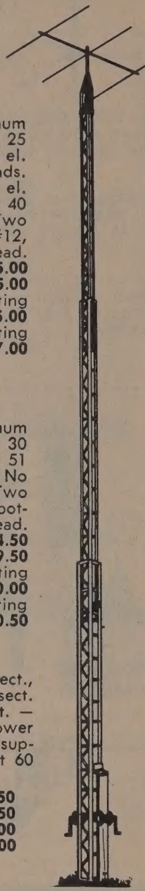
Standard duty tower. Maximum height 51 ft., minimum height 30 ft. Supports a 3 el. Triband at 51 ft. in winds up to 60 mph. No Guys! Rotor mounts inside. Two 26 ft. sections. Top sect. #9, bottom sect. #12 plus rotor head.

RBS-50P	$224.50
RBS-50G	279.50
GPK-S50 Ground Post mounting kit w/hardware	$90.00
BAK-S Wall Bracket mounting kit	$10.50

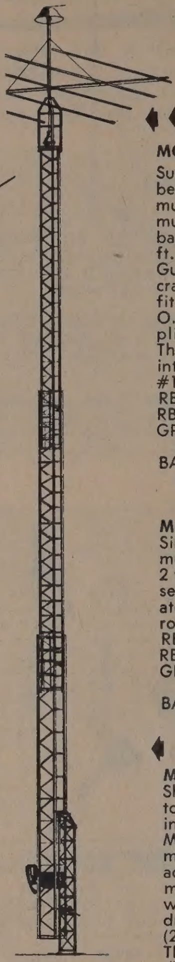
MODEL 6046

A 3 sect. tower using #7 top sect., #9 center sect., #12 bottom sect. Maximum tower height 55 ft. — antenna height 60 ft. Tower cranks down to 22 ft. Will support a 2 or 6 Meter beam at 60 ft. No Guys!

BA-6046P	**$199.50**
BA-6046G	**259.50**
GP-6046P	**264.00**
GP-6046G	**324.00**



RBX-60-3



TORBZ-66-3

MODEL RBX-60-3

Super construction puts your beam where you want it. Maximum tower height 58 ft., minimum height 25 ft. Supports triband beams or equivalent at 60 ft. in winds up to 60 mph. No Guys! 140 mph winds when cranked down. CDR-Ham-M rotors fit in special head mount. 1.90 O.D. x 7 ft. galv. steel mast supplied.

Three 21 ft. sections. Top sect. #9, intermediate #12, bottom sect. #15 plus rotor head.

RBX-60-3P	$335.00
RBX-60-3G	410.00
GPK-X60-3 Ground Post mounting kit w/hardware	$120.00
BAK-X Wall Bracket mounting kit	$17.00

MODEL RBX-70-3

Similar to above, with a maximum tower height of 71 ft. With 2 worm gear winches. Three 26 ft. sections. Top sect. #9, intermediate #12, bottom sect. #15 plus rotor head.

RBX-70-3P	$485.00
RBX-70-3G	595.00
GPK-X70-3 Ground Post mounting kit	$245.00
BAK-X Wall Bracket mounting kit	$17.00

MODEL TORBZ-66-3G

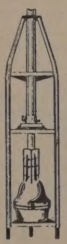
Sheer brute strength with plenty to spare. Stacked arrays at 66 ft. in 70 mph winds without guys! Maximum tower height 62 ft.; minimum height 25 ft. Rotor head accepts CDR-Ham-M rotor without modification. Comes complete with tilt-over post, 2 worm gear drive winches and all hardware. (2" O.D. mast tower additional.) Three sections. Top sect. 21 ft. #12, intermediate sect. 21 ft. #15, bottom sect. 25 ft. #20 plus rotor head. (Galvanized only.)

TORBZ-66-3G	$985.00

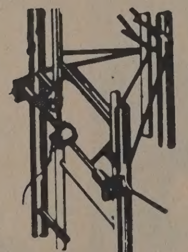
FINISHES

All towers are finished in a choice of dip paint Goodyear Pliolite S-5 or Hot Dipped Galvanized after fabrication. This method permits a permanent finish to coat inside tower members as well as outside. Galvanizing in accordance with American Society of Testing Materials, Designation A-123.

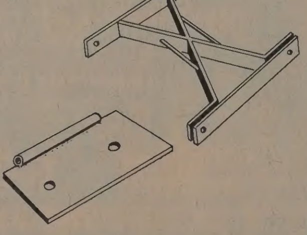
E-Z WAY ACCESSORIES



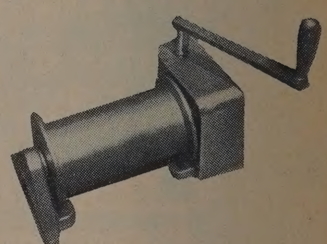
ROTOR HEAD



SAFETY REST



BUILDING ATTACH KIT



WORM GEAR WINCH

MOBILE TOWERS

2 • 3 & 4 section towers mounted on trailers for test probing, temporary remote transmission, and field offices. Antenna heights up to 95 ft. Five sizes of trailers; 3 for VHF or UHF and 2 heavy duty for M.W. Parabolic antennas.

E-Z WAY TOWERS, Inc. TAMPA 5, FLORIDA

© U.C.P., Inc.

E-Z Way

COMMERCIAL TOWERS

2 WAY **AM-FM** **RADAR** **MOBILE** **MICROWAVE** **BROADCAST**

G-Series

G-10 . . . Tower is sturdy, economical and may be safely erected up to 40 ft. unguyed or 210 ft. guyed. Comes in 10 ft. sections that weigh 31 lbs. for easy 2-man erection. High strength 55,000 PSI Steel — is used throughout. Completely electric arc welded and Hot Dipped Gal. after fabrication. X-Type bracing and climable ladder on 3 sides provide rugged resistance against twist & torque. Choice of 8 taper top sections and assorted base mounts and building brackets.

Dealer Net ________ $16.95 per section

THE G-40 TOWER IS PARTICULARLY SUITED FOR TWO WAY USE.

G-40 . . . Rugged construction. Particularly adapted for 2-Way. 10 ft. section weighs 51 lbs. Easily erected to 50 ft. unguyed or 300 ft. guyed. 55,000 PSI Steel, completely electric arc welded and Hot Dipped Gal. after fabrication. Diagonal bracing and climbable ladder on 3 sides. Choice of 8 top sections and assorted base and building mounts.

Dealer Net ________ $30.95 per section

C-Series

C-12 . . . Comes in 20 ft. sections and may be worked up to 40 ft. above guys, 25 ft. to 40 ft. guy spacing. Maximum height 190 ft. Fast easy erection with first 60-80 ft. which may be set as one unit. Continuous diagonal bracing resists twist and torque. Ladder on one side for easy access to top. Flange type connections have 3 bolts and can be welded for low resistance path from top to bottom of tower. 12" cross sections.

20 ft. section ______	**$48.50**	**painted**
	63.50	**galvanized**

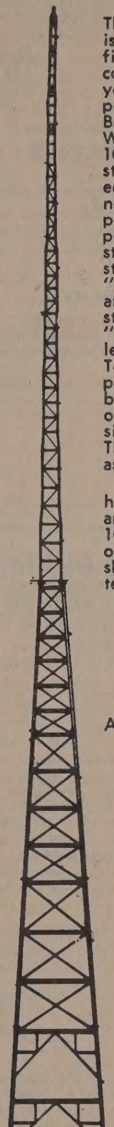
C-15 . . . Similar to above but more ruggedly constructed for greater heights. Sections, 20 ft. lengths and may be worked 50 ft. above guys, 30 ft. to 45 ft. guys spacing. Maximum height 250 ft.—40# tower. Flange can be welded for low resistance path from top to bottom of tower. May be used as vertical raditor. 15" cross sections.

20 ft. section ______	**$65.00**	**painted**
	85.00	**galvanized**

C-200 . . . Super construction. Designed for heights up to 400 ft. 20 ft. sections may be worked 60 ft. above guys. 40 ft. - 60 ft. guy spacing. Flange can be welded for low resistance path top to bottom of tower. Ideal vertical raditor. 20" cross sections.

Write for quote.

Stack Pole

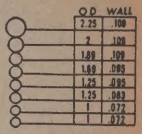


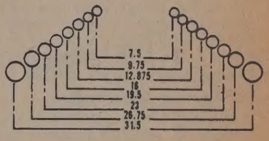
The new Stack Pole series tower is designed to cover a wide field of tower uses by using a combination of sections to fill your specific need. Self supporting up to 200 ft. Ideal for Broadcast, Microwave and Two Way. The eight top sections, 10 ft. each, are step type construction completely arc welded. These 10 ft. sections will nest together into a single 10 ft. package for shipping. Taper top portion is "knock down" construction in 20 ft. sections. All step sections and first three "knock down" taper sections are made of 55,000 PSI tubular steel. Larger taper sections, "KD" construction, of tubular legs and angle iron bracing. Tower can be assembled to support any size antenna and can be rated to withstand 30 lbs. or 40 lbs. of wind load. Specify size of antenna and wind load. The step sections are ideal items as stock items.

Towers are available in any height from 30 ft. to 200 ft., for any size antenna load up to 2 10 x 15 reflectors and either 30 or 40 lb. wind load. Prices shown below are for small antenna and 30 lb. wind load.

30' ________	**$ 81.35**
50' ________	**178.05**
80' ________	**421.45**
100' ________	**659.95**
120' ________	**935.45**
140' ________	**1285.95**
160' ________	**2060.45**

Above prices include foundation section.

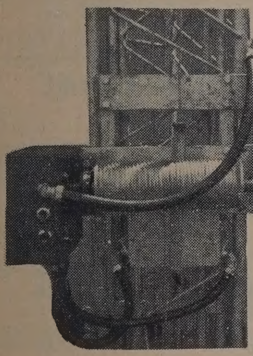




- Hot Dipped Galvanized after fabrication in accordance with the American Society of Testing Materials A-123.
- Electric Arc Welded in accordance with the requirements of the American welding society standard code.

Erection Service in South East U.S.A.

"MOTO-WINCH" BY E-Z WAY



Comes assembled, complete with instructions for mounting on tower.

- Control Switch & Terminal Box
- Spiral Groove Winch Drum
- Positive Crank Down
- Limiter Switches
- Combination Worm Gear Drive
- Weather Sealed ¼ H.P. Motor & Gear Box

Model MW-21
Includes all the above features

$309.50

Here is the ultimate in crank-up tower convenience. E-Z Way "Moto-Winch" is designed for years of trouble free operation. Weather sealed motor, fully enclosed doubled worm gear box, spiral groove winch drum and remote control switch. Four sizes available: 1/4 - 1/3 - 1/2 - 3/4 HP.

Easily adapts to models: RBS - 40, 50, 60; RBX - 40, 50, 60-3, 6046

MOTO-WINCH ACCESSORIES

- **Limiter Switch Kit:** Two limiter switches and control mechanism.
- **Coax Guides:** Roller type, will accept three 7/8" coax plus rotor cable.
- **Wind Actuated Safety Switch.** Automatically lowers tower when wind exceeds safe wind loads.
- **Coax Coil Rack:** Coax coils in rack at base of tower as it lowers—plays out as tower is raised.
- **Elevation Indicator:** Beautiful color photo of your tower with lights showing height of elevation of tower.
- **Remote Console:** Console switch with light panel indicating tower movement.

Write for complete details or see your nearest Amateur Radio dealer.

E-Z WAY TOWERS, Inc.

TAMPA 5, FLORIDA

© U.C.P., Inc.

hy-gain Communications Antennas for Amateur Bands

HF MULTI-BAND DOUBLETS

MULTI-BAND TRAP DOUBLETS feature Slim Line Solid State Traps. Heavy duty end and center insulators. Copper clad stranded steel wire elements. SWR less than 2:1 at resonance on every band. Install horizontally or as inverted V. 1KW P.E.P. or 500 watts AM.

Model	Frequency	Length	Shpg. Wt.	Ham Net
2BDT	40 & 80 Meters	110′6″	2 lbs.	$19.95
3BDT	10, 15 & 20 Meters	33′	3 lbs.	$17.50
4BDT	10, 15, 20 & 40 Meters	68′6″	4 lbs.	$24.50
5BDT	10, 15, 20, 40 & 80 Meters	111′6″	5 lbs.	$34.95
MATCHED TRAPS TO CONSTRUCT 40 & 80 METER TRAP DOUBLET				
2TD	40 & 80 Meters		1½ lbs.	$12.95

TRAPLESS FAN DOUBLET

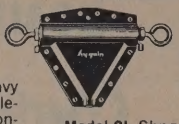
For full efficiency 40 & 80 Meter operation. SWR less than 2:1. Takes unlimited power. Mounts horizontally or as inverted V. 131′6″ overall. **Model 2BDP**, Shpg. Wt., 2 lbs. . . . . $19.95 Ham Net

HF SINGLE-BAND DOUBLETS

Coax fed single-band doublet antenna kits. Tuned for high efficiency with low SWR performance. Kit includes copper clad stranded steel antenna wire, high impact molded plastic end and center insulators and 50′ of RG58-U coaxial cable.

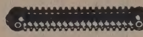
Model	Frequency	Shpg. Wt.	Ham Net
HD-1	10 or 15 Meters	1 lb.	$6.25
HD-2	20 Meters	1½ lbs.	$6.50
HD-3	40 Meters	2 lbs.	$7.50
HD-4	80 Meters	3 lbs.	$8.95

HEAVY DUTY CENTER AND END INSULATORS



Lightweight, strong, weatherproof—molded from high impact cycolac plastic.

Model CI, Shpg. Wt., 4 oz. . . . . **$3.95** Ham Net



High impact plastic, heavily serrated to increase leakage path to approx. 12″.

Model EI, Shpg. Wt., 3 oz. . . . . **$1.00** Ham Net

MINIATURE CENTER AND END INSULATORS

Miniature center insulator (shown). Supports 175 lbs. Supplied with clamp for RG58-U coax.

Model MCI, Shpg. Wt., 1 oz. . **35c** Ham Net

Miniature end insulator (not shown). Supports 175 lbs.

Model MEI, Shpg. Wt., 1 oz. . **20c** Ham Net

HF MULTI-BAND VERTICALS

HY-TOWER

World famous for high efficiency performance on 10 thru 80 meters. Automatic band selection is accomplished by means of a unique stub decoupling system. Fed directly with a single 52 ohm coax feedline. SWR less than 2:1 on all bands. Completely self-supporting. Tower height, 25 ft., total antenna height, 50 ft. Maximum power, 1KW AM, 2KW P.E.P.

Model 18HT, Shpt. Wt. 105 lbs. . . . . **$139.50** Ham Net

LOADING COIL for 160 Meter operation with Model 18-JR or Model 18HT.

Model LC-160, Shpg. Wt., 2 lbs. . . . . **$12.95** Ham Net

ALL-NEW HY-TOWER JUNIOR

Smaller, economy version of the famous Hy-Tower. Covers 10 thru 80 meters with an SWR of less than 2:1. All aluminum construction. Lower section 2″ O.D. heavy wall aluminum tubing. Very lightweight and easy to install. Overall height, 38 ft. Maximum power, 1KW AM, 2KW P.E.P.

Model 18JR, Shpg. Wt., 30 lbs. . . . . **$79.95** Ham Net

INCOMPARABLE 14AVS

World's most popular self-supporting vertical for 10 thru 40 meters. Only 20′ high. Easy to mount on roof or ground. Uses famous Hy-Gain Solid State Traps.

Model 14AVS, Shpg. Wt., 10 lbs. . . . **$29.95** Ham Net

ROOF MOUNTING KIT and radial system for 14AVS

Model 14 RMK, Shpg. Wt., 5 lbs. **$11.95** Ham Net

LOADING COIL for 14AVS 80 Meter operation.

Model LC-80, Shpg. Wt., ½ lb. . . . . **$7.95** Ham Net

10-20 METER VERTICAL

Self-supporting multi-band trap vertical for 10-20 Meters. Completely factory pretuned with SWR 2:1 or less. 13.5′ high.

Model 12AVS, Shpg. Wt., 9 lbs. . . . . **$21.95** Ham Net

ROOF MOUNTING KIT for 12 AVS.

Model 12RMK, Shpg. Wt., 7 lbs. . . . . **$9.50** Ham Net

ECONOMY ALL-BAND TRAPLESS VERTICAL

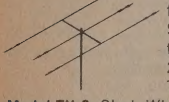
High performance, low cost vertical for 10 thru 80 Meters. Simple and easy to install on roof or ground. Only 18′ high. Can be tuned to any band by simple adjustment of the feedpoint on matching base inductor. Completely self-supporting—feed with 52 ohm coax.

Model 18V, Shpg. Wt., 10 lbs. . . . . **$16.95** Ham Net

HF MULTI-BAND BEAMS

THUNDERBIRD TRI-BANDERS 10, 15 & 20 METERS

3-Element Thunderbird



Standard three band beam for 10, 15 and 20 meters. Slim Line Traps. SWR less than 2:1. Longest element, 28 ft. Boom length, 14 ft. Takes maximum legal power.

Model TH-3, Shpt. Wt., 36 lbs. . . . . . **$99.75** Ham Net

New 3-Element Thunderbird Junior

New lightweight Junior Model of TH-3 Thunderbird. Easy to assemble and install. Rotates with heavy duty TV rotator. Excellent performance. Maximum power, 300 watts AM; 500 watts P.E.P.

Model TH-3JR, Shpg. Wt., 28 lbs. **$69.50** Ham Net

4-Element Thunderbird

World's finest three-band beam for 10, 15 and 20 Meters. Slim Line Traps deliver true full-size performance. Beta Match assures maximum gain and F/B ratio without compromise. Factory pretuned. SWR less than 2:1. Longest element, 34 ft. Boom length, 16′. Takes maximum legal power.

Model TH-4, Shpg. Wt., 42 lbs: . . . . . **$117.50** Ham Net

2-Element Thunderbird

Lighweight, high quality beam. Easy to install most anywhere. Rotates with TV rotator. Longest element, 26′. Boom length, 6′. Supplied with Beta Match.

Model TH-2, Shpg. Wt., 23 lbs. . . . . . **$69.95** Ham Net

HF DUOBANDER FOR 20 & 40 METERS

Three full-sized elements on 20M; 2 reduced-size elements on 40M. Linear stub decoupling makes 2 band operation possible without the use of inductance and capacity traps. Beta Match fed with single 52 ohm coax. 5KW P.E.P., 3KW AM. Forward gain over a tuned dipole 20M, 8.1db; 40M, 5.2db. F/B ratio 20M, 20 to 30db; 40M, 10 to 20db gain. Boom, 24′; longest element, 43′. Steel hardware iridite treated to MIL specs.

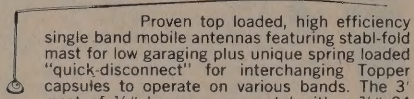
Model DB-24, Shpg. Wt., 64 lbs. . . **$169.50** Ham Net

HF MONOBAND BEAMS

Hy-Gain full-sized single-band beams are ruggedly constructed of high strength, lightweight aluminum tubing. All are Beta Matched for 52 ohm coax feedline. Hardware is iridite treated to meet MIL specs. Power rated at 1KW AM; 2KW P.E.P. 40 meter beam employs linear loading concept for high efficiency operation at ⅔ normal size.

Model	Meter	Gain	No. of Elements	Element Size	Boom Size	Weight	Ham Net
103B	10	8db	3	17′x ⅞″x½″	8′x2″	12 lbs.	$32.95
115B	15	8db	5	23′x ⅞″x½″	12′x2″	19 lbs.	$38.50
203B	20	8db	3	35′x1¼″x½″	16′x2″	35 lbs.	$65.95
402B	40	5.2db	2	43′x1¼″x½″	16′x2″	40 lbs.	$99.75

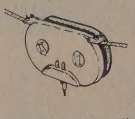
NEW HF "TOPPER" MOBILE ANTENNAS



Proven top loaded, high efficiency single band mobile antennas featuring stabl-fold mast for low garaging plus unique spring loaded "quick-disconnect" for interchanging Topper capsules to operate on various bands. The 3′ mast of ½″ heavy gauge metal with a ⅜″x24 stud at bottom fits any standard mount—includes stabl-fold fitting and accepts unique "quick-disconnect" attached to Topper capsules. Topper capsules are 6′ x⅜″ diameter fiberglas rod with encapsulated coil section and a "quick-disconnect" fused to the bottom. Telescoping stainless steel tuner rod at top of capsules permits quick, simple adjustment to resonant frequency.

Capsule Models	Frequency	Shpg. Wt.	Ham Net
TL-10	10 Meters	1 lb.	$ 7.95
TL-15	15 Meters	1 lb.	$ 7.95
TL-20	20 Meters	1 lb.	$ 7.95
TL-40	40 Meters	1½ lbs.	$ 9.95
TL-75	75 Meters	1½ lbs.	$11.95
3′ MAST SECTION for all Topper Capsules			
TM-36		2 lbs.	$ 7.95

HIGHLY PORTABLE REEL TAPE HF DOUBLET ANTENNA



Designed to operate for both receiving and transmitting within the frequency range of 3.5 to 30 mc. Installs anywhere. Stainless steel tapes extend to 132′ and are calibrated in meters. Frequency-to-length conversion chart integrated in housing. Fed with 52 ohm coax—outstanding performance.

Model TD-1, Shpg. Wt., 3½ lbs. . . . . . . **$89.95** Ham Net

BEAM BALUNS

Mount easily and quickly on the boom of any beam to improve transfer of RF energy and offer more uniform radiation pattern. Minimizes TVI by eliminating stray RF on feedline. Power up to 2½ kw P.E.P.

Model BN-12 for 10, 15 & 20 Meters, Shpg. Wt., 3 lbs. **$13.50** Ham Net

Model BN-24 for 20 & 40 Meters, Shpg. Wt., 3 lbs. **$13.50** Ham Net

DOUBLET BALUN

For single band or multi-band doublets. Cover 10 through 80 meters. Handles 1½ kw AM; 3 kw P.E.P. Serves as center insulator and coax cable termination. Perfect for mounting doublets as inverted V.

Model BN-48, Shpg. Wt., 3 lbs. . **$15.95** Ham Net

VHF GROUND PLANE ANTENNAS

Rugged, lightweight all aluminum construction for quick and easy installation. Beta Matched for 52 ohm coax. At DC ground potential for maximum lightning protection.

Model SGP-6, 6 Meters, Shpg. Wt., 7 lbs. . . . . **$13.95** Ham Net

Model SGP-2, 2 Meters, Shpg. Wt., 3 lbs. . . . . **$ 5.90** Ham Net

3.4db GAIN GROUND PLANE ANTENNAS FOR VHF

Heavy duty all aluminum construction with double-grip base mount. Fed with 52 ohm coax—SWR less than 1.5:1.

Model GPG-6, 6 Meters, Shpg. Wt., 9 lbs. . . . . **$24.95** Ham Net

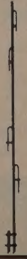
Model GPG-2, 2 Meters, Shpg. Wt., 4 lbs. . . . . **$19.95** Ham Net

NEW COMBINATION 2 & 6 METER GROUND PLANE

Combination 2 and 6 meter antenna fed with single 52 ohm coax. Heavy duty all aluminum cnstruction. SWR less than 1.5:1 on both bands.

Model GP-62, Shpg. Wt., 10 lbs. . . . . . . **$19.95** Ham Net

NEW VHF VERTICAL ANTENNAS



Unique twin stacked jaypole design develops 3.5db omni-directional gain. Vertically polarized. Solid aluminum rod dipoles. Heavy wall aluminum mast. Complete with mast, elements and phasing harness.

Model SJ2-2, Shpg. Wt., 14 lbs. . . . . **$29.95** Ham Net

Quad-stacked jaypole. Same high quality construction as SJ2-2 but with 4 jaypoles. Develops 6.3db omni-directional gain. Comes complete with mast, elements and phasing harness.

Model SJ2-4, Shpg. Wt., 17 lbs. . . . . **$54.95** Ham Net

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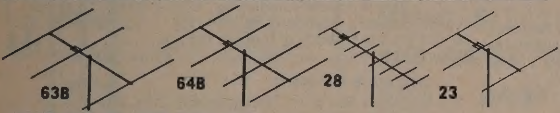
Communications Antennas for Amateur Bands

VHF MONOBAND BEAMS

All top quality construction throughout. 6 meter beams have 116" elements; 2 meter beams have 42" elements. All optimum spaced and at DC ground. Complete with Beta Match. May be fed with 52 ohm coax or 300 and 450 ohm twin lead. Maximum power, 1 KW.

Model	Meters	Gain	No. of Elements	Boom Length	Shpg. Wt.	Ham Net
63B	6	10db	3	8′	5 lbs.	$16.95
64B	6	11.7db	4	10′	8 lbs.	$21.50
66B	6	15db	6	24′	17 lbs.	$38.50
611B	6	17.8db	11	36′	42 lbs.	$89.95
23	2	10db	3	3′	2 lbs.	$ 6.95
28	2	16.5db	8	14′	5 lbs.	$16.50
215	2	17.2db	15	28′	16 lbs.	$33.50
111	1¼	14.2db	11	12′	5 lbs.	$13.95
313	¾	16.1db	13	8′	3 lbs.	$12.95



VHF DUOBAND BEAMS

6 and 2 Meter Beam. Four elements on 6M; 18 elements on 2M. Automatic band switching. 8db gain on 6 and 15db gain on 2 meters. F/B averages 15 to 20db. Fed with 52 ohm coax, SWR below 1.5:1 both bands. Rugged seamless aluminum tubing on heavy wall aluminum boom. Longest element, 10′. Boom length, 10′.
Model DB-62, Shpg. Wt., 6 lbs. .... **$32.95** Ham Net

New 6 and 2 Meter Log Periodic. A logrithmic periodic array of center fed dipoles designed for 6 and 2 meter operation. Fed with 52 ohm coax. Twin-stacked 18′ booms are heavy wall seamless aluminum construction. Develops 9db gain on 6M; 10db gain on 2M. 25db F/B ratio. SWR below 2:1 throughout both bands.
Model LP-62, Shpg. Wt., 28 lbs. .... **$69.95** Ham Net

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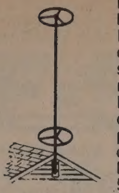
Communications Antennas for Citizens Band

VHF BASE STATION HALO ANTENNAS



New Full Sized 6 Meter Base Station Halo. Rugged 7/16" extruded aluminum construction—center mounted. Horizontally polarized, omni-directional radiation pattern. High mechanical stability. Factory pretuned to 52 ohm coax.
Model HB-6, Shpg. Wt., 9 lbs.
.... **$12.95** Ham Net

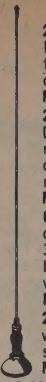
6 Meter Stacked Halos. 3.4db omni-directional gain. Two full sized 6 meter halos with necessary heavy wall aluminum masting and phasing harness. Fed with 52 ohm coax.
Model HB6-S2, Shpg. Wt., 24 lbs.
.... **$36.50** Ham Net

2 Meter Halo. 14" diameter heavy wall ½" aluminum tubing. Beta Matched for 52 ohm coax. Factory pretuned—adjustable over entire 2M band.
Model HH-2B, Shpg. Wt., 1½ lbs.
.... **$5.95** Ham Net

Duo-Stacked 2 Meter Halos. Two 2M halos stacked. Gives additional 3.4db gain. Includes two HH-2B Halos, coaxial phasing harness, mast and hardware.
Model HB-2S2, Shpg. Wt., 7 lbs.
.... **$24.95** Ham Net

Quad-Stacked 2 Meter Halos. Offers additional 6.3db omni-directional gain. Horizontally polarized. Includes four Halos, phasing harness, mast and hardware.
Model HB-2S4, Shpg. Wt., 15 lbs.
.... **$53.95** Ham Net

VHF MOBILE ANTENNAS



2 Meter ¼ Wave stainless steel whip. Only 20" high. Includes unique base mount which installs easily from exterior surface of vehicle—largest hole required for mounting, ¼ inch.
Model MW150, Shpg. Wt., 1 lb. . . . **$2.82** Ham Net

2 Meter ⅝ Wave 3.4db Gain Whip. Approx. 50" high. Develops 3.4db omni-directional gain. Designed for roof top mounting with same new base mount used on MW150. Includes spring and weather proof matching inductor.
Model MG150, Shpg. Wt., 1½ lbs. . **$15.60** Ham Net

6 Meter ¼ Wave tapered stainless steel whip. Includes adjustable single hole vehicular body mount. 30 degree adjustment for vertical alignment. May be mounted on fender, rear deck or cowl. Supplied with VHF coax receptacle.
Model MW6, Shpg. Wt., 1 lb. . . . . . **$10.95** Ham Net

2 Meter Decoupling Stub. Provides 2 Meter operation with MW6, 6 Meter whip. Complete with all necessary insulators and hardware.
Model 2MWK, Shpg. Wt., ½ lb. . . . **$2.00** Ham Net

6 Meter Mobile Halo. High mechanical stability. No external matching. Beta Match supplied. Factory pretuned to 52 ohm coax.
Model HH-6B, Shpg. Wt., 5 lbs. . . . . . . **$10.95** Ham Net

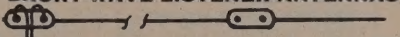
6 Meter Halo and Mount. True omni-directional, horizontally polarized pattern. Beta Matched for 52 ohm coax. Includes Halo, standard bumper mount and heavy wall aluminum mast.
Model HH-6BK, Shpg. Wt., 6½ lbs. . . . **$16.50** Ham Net

2 Meter Mobile Halo. 14" diameter heavy wall ½" aluminum tubing. Beta Match for 52 ohm coax. Factory pretuned. Up to 15db improvement over vertical whips. Fits 1" mast.
Model HH-2B, Shpg. Wt., 1½ lbs. . . . . . . **$5.95** Ham Net

Stacking Kit for stacking two 2 meter halos. Offers 3db additional gain.
Model HHS-2B, Shpg. Wt., ⅓ lb. . . . . . . **$4.95** Ham Net

Mobile Mounting Mast. Heavy duty 5 ft. mast for single or stacked halos.
Model HMB, Shpg. Wt., 3 lbs. . . . . **$4.95** Ham Net

SHORT WAVE LISTENER ANTENNAS

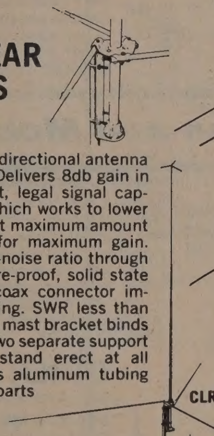


Outdoor: Designed for the most popular SW bands. Easy to assemble and install. Copper clad stranded steel antenna wire with molded end and center insulators and 72 ohm twin lead.
Model SW-4, Shpg. Wt., 2 lbs. . **$3.95** Ham Net

High Efficiency Outdoor: Top performance on important 11, 13, 16, 19, 24, 31 and 49 meter bands. Includes eight trap assemblies, end insulators and 100′ of lead-in cable. Overall length, 40 ft. **Model SWO**, Shpg. Wt., 2½ lbs. . . . . **$14.75** Ham Net

Indoor: Covers frequency from 5 thru 30 mc. Completely wired. Housed in unbreakable plastic with chrome plated antennas. Increases performance of any SW receiver. 6′ cable attaches to receiver.
Model SWI, Shpg. Wt., 2½ lbs. . . . . . **$14.75** Ham Net

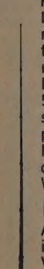
HY-GAIN COLINEAR GROUND PLANES



NEW HY-GAIN CLR II

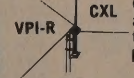
Here's the most efficient omni-directional antenna ever made for Citizens Band. Delivers 8db gain in all directions. Features largest, legal signal capture aperture in the industry which works to lower the angle of radiation and direct maximum amount of energy along the horizon for maximum gain. 6db gain in improved signal-to-noise ratio through built-in static arrestor. Moisture-proof, solid state matcher. Recessed 52 ohm coax connector imbedded in moisture-safe housing. SWR less than 1.2:1. Twelve-inch heavy gauge mast bracket binds antenna and mast securely at two separate support points—insures antenna will stand erect at all times. Taper swaged seamless aluminum tubing reduces wind load. All metal parts iridite treated to MIL specs. Molded high impact polystyron insulators totally impervious to weather are mounted under compression—never under strain. Installs quickly and easily—15 minutes from carton to contact. Radiator, 19′10"; radials, 9′.
Model CLR II, Shpg. Wt., 10 lbs. .... **$29.95** CB Net

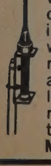
NEW END-FED ½ WAVE LENGTH ANTENNA



Ruggedly constructed of taper swaged seamless aluminum tubing with 12" heavy gauge mast bracket. Delivers 6db operating gain through exceptional improvement of signal-to-noise ratio. DC ground for lightning protection. Moisture-proof solid state matcher. Recessed 52 ohm coax connector imbedded in moisture-safe housing. Very low SWR. Intensified signal pattern through lowered angle of radiation. All hardware iridite treated to MIL specs. 17′3" overall height; 33" radials. **Model VPI-R**, Shpg. Wt., 10 lbs. .... **$24.50** CB Net

HY-GAIN'S VERTI-POLE

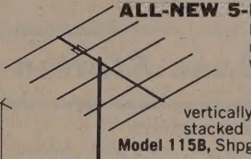




A high performance, vertically polarized omni-directional antenna, the Verti-Pole develops an operating gain of 6db by lowering the angle of radiation and reducing the noise level. It is voltage fed through a weatherproof matching inductor eliminating the need for lossey transformers. Matching stub places antenna at DC ground potential thus substantially lowering residual noise level and minimizing lightning hazards. Constructed of heavy wall aluminum tubing. All steel parts iridite treated to MIL specs.
MODEL VPI, Shpg. Wt., 9 lbs. ...... **$19.95** CB Net

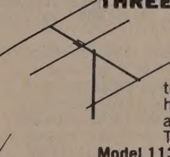
CB BEAMS, GROUND PLANES & CLOSE RANGE ANTENNAS

ALL-NEW 5-ELEMENT BEAM



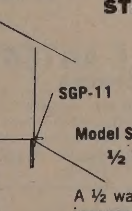
New, highly efficient 5-element CB beam. 2" O.D. heavy wall aluminum boom with five 16′ elements offers gain of 12db. May be mounted either vertically or horizontally. Can be stacked for additional 3db gain.
Model 115B, Shpg. Wt., 30 lbs. ... **$59.95** CB Net

THREE ELEMENT BEAM



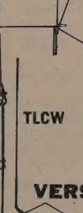
High (9db) gain beam antenna. Aluminum boom 2" O.D. by 8′ long. Elements 16½′. Perfect 50 ohm match; factory pretuned. May be vertically or horizontally mounted. Stack two for additional gain. Can be rotated with TV rotator.
Model 113B, Shpg. Wt., 14 lbs. ... **$31.50** CB Net

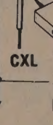
STANDARD ¼ WAVE LENGTH GROUND PLANE



Maximum efficiency, lowest cost. Radiator and radials aluminum tubing. Cycolac plastic base at DC ground. Fits masts up to 1⅝" O.D. Tuned and matched for 52 ohm coax.
Model SGP-11, Shpg. Wt., 5 lbs. **$12.95** CB Net

½ WAVE LENGTH COAXIAL ANTENNA





A ½ wave length sleeve antenna designed for inconspicuous roof-top or side mounting. Radiator heavy wall ⅝" and 7/16" aluminum tubing. 2" O.D. aluminum sleeve adjusts for decoupling action. Quickly and easily mounted.
Model CXL, Shpg. Wt., 7½ lbs. **$19.95** CB Net

VERSATILE 44" TELESCOPING WHIP

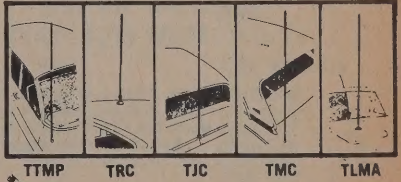
New chrome-plated whip designed for transceiver mounting. Features high efficiency top loading coil encased in polypropylene plastic. Complete with PL-259 connector for simple screw-in attachment to most CB transceivers. May be mounted top or back.
Model TLCW, Shpg. Wt., 1 lb. .... **$5.97** CB Net

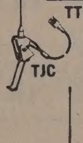
CB-AM COMBINATION

A highly efficient antenna for use on both CB and AM—replaces existing broadcast whip. Extended height is 50"—telescopes down to 28". Unique coupler originated by Hy-Gain assures outstanding performance on both CB and AM. Comes complete, ready to install with coupler, radio plug, PL-259 connector and all necessary coax required for installation. **Model TTMP**, Shpg. Wt., 1¼ lbs. .... **$14.95** CB Net

HY-GAIN MOBILE "TOPPERS" FOR CITIZENS BAND

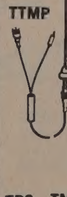
All "Toppers" feature exclusive Hy-Gain top loaded design with a thin-line loading coil permanently encapsulated in polyethylene plastic at the top of the antenna for optimal radiation efficiency. The slim, sleek "Toppers" offer several outstanding performance and mechanical advantages over what you get with bulky base loaded and center loaded antennas. Since 78% of the radiation is from the lower ⅛-wave length of the antenna, top loading provides the least amount of compromise involved in a shortened antenna. Another advantage is that top loading raises the base impedance of 50 ohms and provides an optimum transfer of energy between the antenna and the transmission line for maximum efficiency.





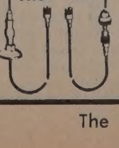
ROOFTOP MOUNT

Mounts on roof of vehicle where omni-directional radiation is uninhibited by surrounding metal. Only 29" in overall height including heavy stainless steel spring for low garaging. Unique base mount installs easily from exterior surface of vehicle—largest hole required for mounting is ¼". Comes complete with 16′ of coax and PL-259 connector. **Model TRC**, Shpg. Wt., 1¾ lbs. .... **$14.95** CB Net



TRUNK LIP MOUNT

50" top loaded whip that mounts high on the vehicle and installs without drilling holes in exterior surfaces. Made of high grade, high-flex 290M PS stainless steel with Topper capsule. Comes complete with mount, PL-259 connector and 16′ of coax cable—ready to install. **Model TJC**, Shpg. Wt., 2 lbs. .... **$13.95** CB Net



REAR FENDER MOUNT

50" top loaded whip of high grade, high-flex 290M PS stainless steel with Topper capsule. Chrome-plated, single-hole body mount that can be installed any place on the vehicle. Complete with 16′ of coax and PL-259 connector. Ready to install. **Model TMC**, Shpg. Wt., 2½ lbs. ...... **$12.95** CB Net

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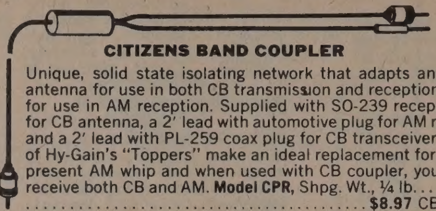
hy-gain Communications Antennas for Citizens Band

MARINE ANTENNA

A 52″ stainless steel whip that installs on any kind of boat...metal, wood or fiberglas. Top loaded design allows antenna to operate independent of ground while developing 1.5db gain. Mechanical features include "flick-of-the-wrist" quick disconnect fitting for antenna removal. Special mount distributes strain over a large area and prevents fatigue or damage to non-metallic boat deck. Rust and corrosion resistant materials throughout. Supplied complete with mount, 12′ coax and PL-259 connector. Ready to install.
Model TLMA, Shpg. Wt., 2¾ lbs.......**$19.95** CB Net

UNIVERSAL STATIC ARRESTOR

A DC grounding choke that greatly reduces noise caused by static. Provides an actual operating gain in receive function of 10 to 20db by reducing average noise level. Greatly reduces lightning hazard to both antenna and equipment. Permanently weatherproofed for maximum performance and durability. Quickly and easily installed on all non-DC ground antennas—base or mobile. **Model DCGK,** Shpg. Wt., 3 oz. . . . **$1.65** CB Net



CITIZENS BAND COUPLER

Unique, solid state isolating network that adapts any CB antenna for use in both CB transmission and reception and for use in AM reception. Supplied with SO-239 receptacle for CB antenna, a 2′ lead with automotive plug for AM radio, and a 2′ lead with PL-259 coax plug for CB transceiver. Any of Hy-Gain's "Toppers" make an ideal replacement for your present AM whip and when used with CB coupler, you can receive both CB and AM. **Model CPR,** Shpg. Wt., ¼ lb. . . . . **$8.97** CB Net

TOP LOADED WHIPS ONLY

Same as TRC without coax and PL-259 connector. **Model TLWR,** Shpg. Wt., 1 lb. . . . . . . **$11.97** CB Net

50″ top loaded whip with ⅜″ x 24 stud. **Model TLW,** Shpg. Wt., ¾ lb. . . . . **$6.96** CB Net

50″ top loaded whip telescopes to 28″ with ⅜″ x 24 stud. **Model TLWT,** Shpg. Wt., ¾ lb. **$7.20** CB Net

50″ top loaded whip with chrome-plated body mount and coax fitting. **Model TLW-M,** Shpg. Wt., 1 lb. . . . . **$8.95** CB Net

50″ top loaded whip telescopes to 28″ with chrome-plated body mount and coax fitting. **Model TLWT-M,** Shpg. Wt., 1 lb. . . . . **$8.95** CB Net

COAXIAL CABLE KITS AND ADAPTERS

Hy-Gain offers a complete line of 5′, 16′, 25′ and 50′ coaxial cable kits with PL-259 connectors both ends or PL-259 one end and solder lugs other. Also, a complete line of adapter plugs. Prices furnished on request.

CC-5PL

CC-25PL

hy-gain Automotive Whips and Accessories

STAINLESS STEEL WHIPS

Standard taper stainless steel whips with ⅜″x24 stud. 60, 72, and 96-inch whips for Amateur are of professional quality 17-7 PH stainless steel for extra durability. 102 and 108-inch whips for CB are commercial grade stainless steel.

Model	Length	Shpg. Wt.	User Net
W60S	60″	¾ lb.	$6.00
W72S	72″	¾ lb.	$6.30
W96S	96″	1¼ lbs.	$6.90
W102	102″	1¼ lbs.	$4.35
W108	108″	1¼ lbs.	$4.50

WHIP AND BASE ASSEMBLY

Includes full size ¼ wave length, 102″ stainless steel whip, cadmium-plated, double-tapered steel spring and cadmium-plated swivel base mount.
Model BSW, Shpg. Wt., 4 lbs.......**$8.97** User Net

WHIP AND BUMPER MOUNT

Full size 102″ ¼ wave length stainless steel whip with cadmium-plated steel bumper mount featuring stainless steel strap for secure mounting to bumper.
Model BPRW, Shpg. Wt., 3 lbs. **$10.92** User Net

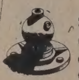
MOUNTING ACCESSORIES

STANDARD BUMPER MOUNT

Cadmium-plated steel bumper mount features stainless steel mounting strap for super-secure mounting without use of bulky chain. Fully adjustable for vertical alignment.
Model BPRS, Shpg. Wt. 1¼ lbs. **$5.97** User Net

DELUXE BUMPER MOUNT

Same as Standard Bumper Mount except all stainless steel construction.
Model BPR, Shpg. Wt., 1½ lbs....**$6.57** User Net



STANDARD BODY MOUNT

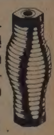
Cadmium-plated body mount featuring exclusive split-ball, molded cycolac base design with rubber body washer. Easily mounted from top-side or any single or double wall body panel.
Model BDYS, Shpg. Wt. ¾ lb................**$3.03** User Net

DELUXE BODY MOUNT

Same as Standard Body Mount except has heavily chrome-plated finish.
Model BDY, Shpg. Wt., 1 lb................**$4.77** User Net

HY-GAIN HY-LITE

Dramatic red on black "On-The-Air" indicator face mounted in grey high impact styron case. Mounts atop gear or on wall brackets. Internally illuminated. Bulb and 6′ cord included. Attaches to antenna changeover relay or transmitter control relay. 4x8″ oval.
Model HL, Shpg. Wt., 2 lbs................**$8.95** User Net



STANDARD SPRING

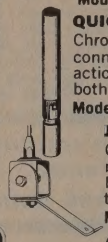
Cadmium-plated .209 O.D. spring steel, double-tapered with molded cycolac plastic end fitting that isolates electrical circuit from spring—greatly reducing "spring hash" in receiver. Accepts standard ⅜″x24 stud. Comes with ⅜″x24 stud to fit body or bumper mount.
Model SPGS, Shpg. Wt., 1½ lbs..........**$2.04** User Net

DELUXE SPRING

Same as Standard Spring except uses .281 O.D. spring steel and is heavily chrome plated.
Model SPG, Shpg. Wt., 2 lbs................**$4.77** User Net

MINIATURE SPRING

Rugged chrome-plated miniature spring. Accepts standard ⅜″x24 stud. Use with Model MG150 antenna.
Model SPM, Shpg. Wt., 6 oz.............**$1.98** User Net



QUICK-DISCONNECT

Chrome plated, spring loaded quick-disconnect connects and disconnects with "flip-of-the-wrist" action—no tools required. Accepts ⅜″x24 thread both ends.
Model OD, Shpg. Wt., 3 oz................**$2.85** User Net

JIFFY MOUNT

Completely adjustable cadmium plated body mount that installs quickly and easily in trunk lip, hood groove or on door edge. Requires only two 7/32″ holes. Accepts standard ⅜″x24 stud.
Model JM, Shpg. Wt., ½ lb.......**$3.15** User Net

GUTTER CLIP

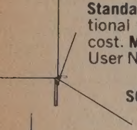
Chrome plated steel gutter clip attaches quickly and easily to most auto gutters to hold full length whips in position for easy garaging.
Model GC, Shpg. Wt., 3 oz..........**$1.17** User Net

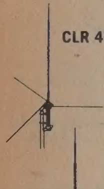
hy-gain 2-Way Business Radio Base Station and Mobile Antennas

25-50 MC

BASE STATION ANTENNAS

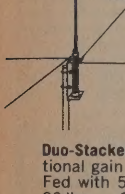
Standard ground plane. Unity gain. Omni-directional pattern. Excellent performance at low cost. **Model SGP30,** Shpg. Wt., 4 lbs. . . . **$14.95** User Net


SGP30


CLR 40

Gain ground plane. 3.4db gain through lowering angle of radiation. 6db gain through signal-to-noise ratio. **Model CLR 30** for 30 to 40 mc, Shpg. Wt., 10 lbs. . . . **$34.50** User Net. **Model CLR 40** for 40 to 50 mc, Shpg. Wt., 8 lbs. . . . **$34.50** User Net

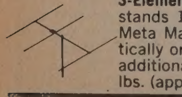
Heavy duty ground plane. Designed for 100 MPH wind and ½″ radial ice. Low noise grounded radiator for any frequency 25 to 50 mc. **Model GP25,** Shpg. Wt., 12 lbs. . . . **$35.00** User Net


GP25

SD2-25

Duo-Stacked Jaypole. Delivers 3.4db omni-directional gain in the low bands. SWR less than 1.5:1. Fed with 52 ohm coax. **Model SD2-25,** Shpg. Wt., 30 lbs. . . . **$150.00** User Net

Quad-Stacked Jaypole. Delivers 6db omni-directional gain. SWR less than 1.5:1. Fed with 52 ohm coax. Complete with phasing harness and mounting brackets. **Model SD4-25,** Shpg. Wt., 60 lbs. . . . **$300.00** User Net



3-Element Beam. Delivers 9db gain. Withstands 100 MPH wind and ½″ radial ice. Meta Matched for low SWR. Mounts vertically or horizontally. May be stacked for additional gain. **Model 325B,** Shpg. Wt., 40 lbs. (approx.) . . . **$75.00** User Net

MW-150

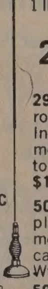
150-170 MC MOBILE ANTENNAS

Unity gain 16″ ¼ wave length mobile whip complete with molded styron roof top base assembly and solderless connector for RG-58/U coax. **Model MW-150,** Shpg. Wt., 5 oz. . . . **$2.82** User Net

Extended ⅝ wave length mobile whip develops 3.0db omni-directional gain. ⅛ wave length matching inductor hermetically sealed. Weatherproof roof top base installs quickly and easily from outside of vehicle through a single hole. Tapered stainless steel whip complete with base mount, matching inductor, miniature spring and solderless connector for RG-58/U coax. **Model MG-150,** Shpg. Wt., 1 lb. . . . **$15.60** User Net

25-50 MC MOBILE ANTENNAS

PACKAGED TOPPERS


TRC

29″ top loaded antenna for 30-50 mc. Installs on roof top of vehicle with unique Hy-Gain roof mount. Includes whip, heavy stainless steel spring, roof mount, 16′ cable kit with PL-259 connector. Ready to install. **Model TRC-30,** Shpg. Wt., 1½ lbs. . . . . . . **$16.95** User Net

50″ top loaded antenna for 25-30 mc. Has chrome-plated, single-hole body mount for dowl or fender mount. Ready to install with whip, chrome mount, 16′ cable kit with PL-250 connector. **Model TMC-25,** Shpg. Wt., 1¾ lbs. . . . **$19.95** User Net

50″ top loaded antenna for 30-50 mc. Same as Model TMC-25 above. **Model TMC-30,** Shpg. Wt., 1¾ lbs. . . . . **$19.95** User Net

450-470 MC MOBILE ANTENNAS

Unity gain ¼ wave length mobile whip complete with molded styron roof top base assembly and solderless connector for RG-58/U coax. **Model MW-450,** Shpg. Wt., 5 oz. . . . **$2.82** User Net

Extended ⅝ wave length mobile whip develops 3.0db omni-directional gain. ⅛ wave length matching inductor hermetically sealed. Weatherproof roof top base installs through single hole from outside of vehicle. Tapered stainless steel whip complete with base mount, matching inductor, miniature spring and solderless connector for RG-58/U coax. **Model MG-450,** Shpg. Wt., 1 lb. . . . **$15.60** User Net

450-470 MC BASE STATION ANTENNA

Stacked Jaypole develops 7.4db omni-directional gain. Unique phasing and matching harness maintains a perfect parallel phase relationship and is center fed to minimize beam tilting for better low angle radiation. Entire antenna at positive DC ground potential for maximum lightning protection. All metal surfaces iridite treated to MIL specs. Complete with mast, elements and phasing harness. Overall height, 12′. **Model SD-450,** Shpg. Wt., 20 lbs. . . . **$100.00** User Net

OTHER MOBILE WHIPS

(See Automotive Whips and Accessories above)

150-170 MC BASE STATION ANTENNAS

Stacked Jaypole develops 6.1db omni-directional gain on 148 to 159 mc band. Unique phasing and matching harness maintains a perfect parallel phase relationship and is center fed to minimize beam tilting for better low angle radiation. 15 mc band pass makes possible optimum performance for duplex, multi-frequency or mobile relay operation. Entire antenna at positive DC ground potential for maximum lightning protection. All metal surfaces iridite treated to MIL specs. Complete with mast, elements and phasing harness. Overall height, 21′. **Model SD-150A,** Shpg. Wt., 36 lbs. . . . **$125.70** User Net

Stacked Jaypole develops 6.1db omni-directional gain on 159 to 174 mc band. Same as Model SD-150A above. **Model SD-150B,** Shpg. Wt., 36 lbs. . . . **$125.70** User Net

⅝ wave length coaxial antenna that develops 3.4db omni-directional gain. Shunt fed through hermetically sealed matching stub. All parts of antenna at direct DC ground potential. Entire antenna iridite treated to MIL specs. Complete with 2′ extension of aluminum mounting mast including flexible termination cable and type N connector. Overall height, 109″. **Model EC-150A** for 148-161 mc., Shpg. Wt., 5 lbs. . . . **$29.70** User Net. **Model EC-150B** for 161-174 mc., Shpg. Wt., 5 lbs. . . . **$29.70** User Net.

Unity gain ¼ wave length ground plane employing drooping radials for impedance matching and low angle radiation. Built to commercial duty standards—rated 100 MPH at ½″ of radial ice. Iridite treated to MIL specs. **Model GP-150,** Shpg. Wt., 1 lb. . . . **$5.40** User Net

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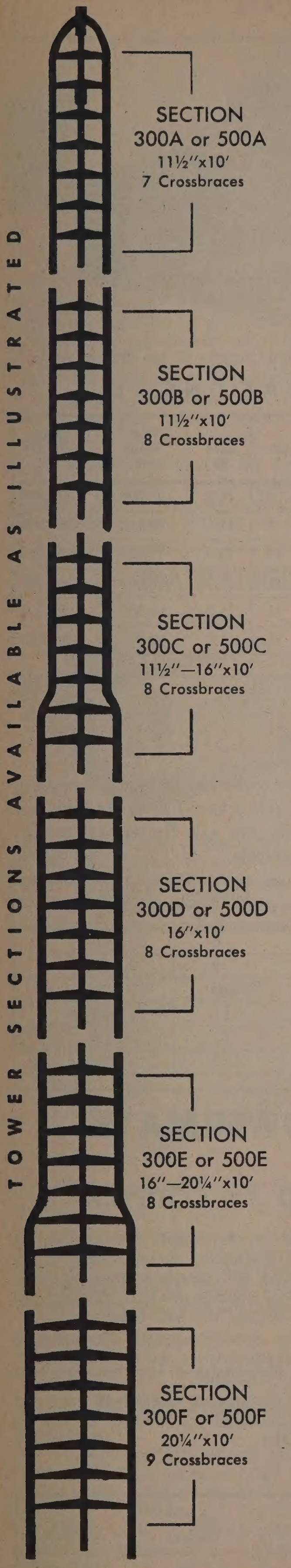

TOWER SECTIONS AVAILABLE AS ILLUSTRATED
SECTION
300A or 500A
11½"x10'
7 Crossbraces
SECTION
300B or 500B
11½"x10'
8 Crossbraces
SECTION
300C or 500C
11½"—16"x10'
8 Crossbraces
SECTION
300D or 500D
16"x10'
8 Crossbraces
SECTION
300E or 500E
16"—20¼"x10'
8 Crossbraces
SECTION
300F or 500F
20¼"x10'
9 Crossbraces

JONTZ MFG. CO.

MISHAWAKA, INDIANA

SELF-SUPPORTING

Super Kwick-Climb

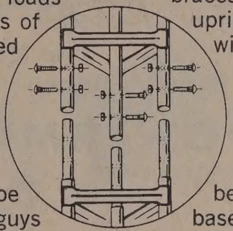
TOWERS

SELF-SUPPORTING UP TO 60 FEET HIGH
HOT DIP GALVANIZED HEAVY DUTY MODELS
ZINC ELECTROPLATED ECONOMY MODELS
NO LOST TOWER FOOTAGE
FAST, EASY SECTIONAL ERECTING

With these two Jontz Tower models you can fill any tower needs . . . from small suburban to heavy-duty commercial installations. Sectional construction and special drive-in bases make erection fast and simple. The Zinc Electroplated Economy Model No. 300 will easily withstand high wind loads normally encountered in most parts of the country. The Hot Dip Galvanized Heavy Duty Model No. 500 will withstand hurricane force winds having been tested at wind loads of 80 mph.

Both models are self-supporting up to 60 feet high. Model 300 can be extended to 200 ft. by use of guys every 20 feet and Model 500 up to 500 ft. by use of guys every 20 feet. There is no lost tower footage when mounting in either concrete or the special drive-in base. Since the tower is separate from the base, it may be moved to another location without impairing strength.

Both towers are fabricated in 10'0" sections and can be erected in one piece or by sections. Model 300 is made from ¼" x 18 ga. tubular uprights and is zinc electroplated and dipped in clear Butyrate lacquer. The Model 500 is made from 1¼" x 16 ga. tubular uprights and is hot dip galvanized. (Model 300 is also available galvanized.) New, extra-wide corrugated crossbraces give 75% more weld contact with uprights. Tower sections lock together with 2 self-locking ⅜" bolts in each leg. The splined bolts prevent thread damage and stop hole stretch when tower moves in the wind.



HOW TO ORDER: 1. Specify if to be mounted in concrete or drive-in base. 2. Order by specific sections, starting at the base. See illustration for section numbers. 3. If Model 300 is wanted with galvanized finish be sure to specify.

SHIPPING: For best freight rates, 40 ft. and over towers will be shipped in section combinations permitting 2 telescoped bundles, unless otherwise specified. (Example: a 60 ft. tower will consist of section A, C, D, E, and 2 F's.)

ZINC ELECTROPLATED ECONOMY MODEL NO. 300

Size	Ship Wt.
40'0"	130 lbs.
50'0"	172 lbs.
60'0"	215 lbs.
70'0"	245 lbs.
80'0"	292 lbs.

HOT DIP GALVANIZED HEAVY-DUTY MODEL NO. 500

Size	Ship Wt.
40'0"	160 lbs.
50'0"	211 lbs.
60'0"	262 lbs.
70'0"	302 lbs.
80'0"	357 lbs.

Add 15 lbs. per Tower for hardware.
Add approximately 3 lbs. per section for galvanized No. 300 Towers.

HEAVY DUTY DRIVE-IN BASE

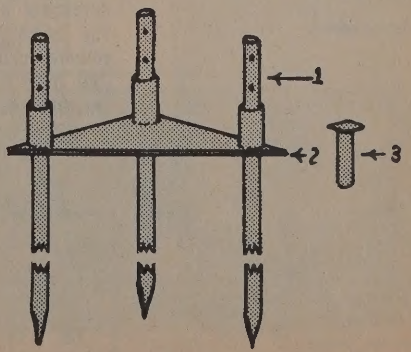
For Jontz self-supporting towers

Specifications:

1—Drive-in legs: 1¼" x 16 gauge x 36"

2—Base plate: 18" triangle x 11 gauge for 40' towers—22" triangle for towers 50' or higher—state tower height

3—Driving cap: 2" x 1¼" to drive individual legs.



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JERROLD® TV-FM RECEPTION AIDS FOR THE HOME

NEW! SUPER POWERMATE

Model SPM-102

A two-transistor TV preamplifier with up to 700,000 microvolts output! Its high gain-overload characteristics let you pick up fringe signals even though powerful local TV and FM stations are "in your back yard." Cross-modulation, and resulting herringbone distortion is beaten.

The gain-overload specifications of the Jerrold Transistorized Super-Powermate are the best yet for inexpensive, antenna-mounting preamplifiers—specs that cannot be met by the low-gain nuvistor type circuits.

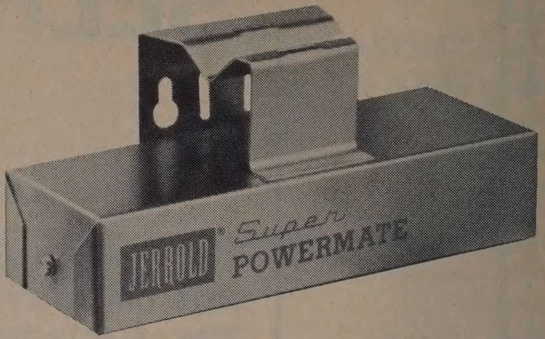
The Super-Powermate has the extremely flat frequency response so necessary for color reception—a deviation of 0.6 db over the entire low band, and only 0.2 db on the high band.

The noise figure of the Super-Powermate is excellent. Listed below are the average noise figures—variations due to individual transistors will not be more than ± 1½ db from these figures.

Channel 2—4.31 db
Channel 3—4.35 db
Channel 4—4.35 db
Channel 5—3.90 db
Channel 6—3.79 db
Channel 7—7.04 db
Channel 8—7.25 db
Channel 9—7.75 db
Channel 10—6.92 db
Channel 11—6.68 db
Channel 12—6.98 db
Channel 13—7.17 db

The Super-Powermate is mounted on the antenna boom for maximum transfer of antenna energy—before any downlead losses can occur. It performs well with any TV antenna and any receiver. The transistors, of course, mean no tube replacements. Power line operated, no battery nuisance or expense. Remote power supply has dual outputs.

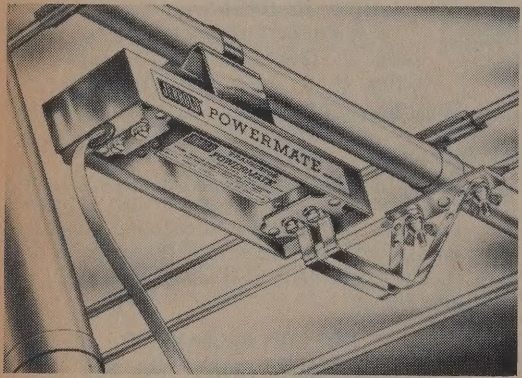
Net $29.95



SPECIFICATIONS

Ch.	Gain db	Max. Input uv	Max. Output uv	Ch.	Gain db	Max. Input uv	Max. Output uv
2	15.5	80,000	700,000	8	11.1	105,000	370,000
3	15.2	75,000	670,000	9	11.1	99,000	350,000
4	15.0	70,000	640,000	10	11.1	78,000	300,000
5	15.3	67,000	410.000	11	11.1	78,000	240,000
6	15.6	62,000	370,000	12	11.2	67,000	220,000
7	11.1	110,000	390,000	13	11.3	56,000	200,000

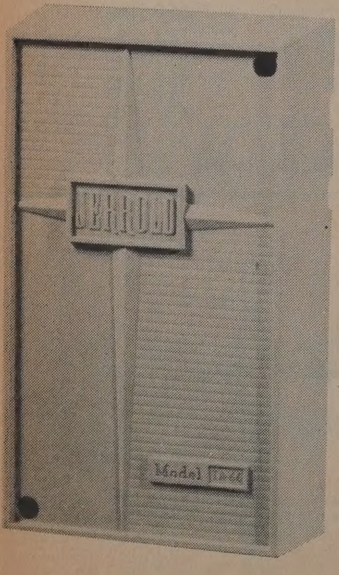
POWERMATE Model APM-101



A preamplifier famous in the industry for its exceptionally high gain and remarkable low-noise figure. Where overload is not a problem, this preamplifier is the ideal unit for providing both snow-free TV and noise-free FM. Has gain figures that are unparalleled. Uses remote power supply with dual outputs. Net $26.63

Channel	Avg. Gain
2	18.25 db
3	17.4 db
4	16.7 db
5	17.4 db
6	18.2 db
FM	18.2 to 12 db

Channel	Avg. Gain
7	13.8 db
8	13.2 db
9	12.6 db
10	12.0 db
11	12.6 db
12	13.2 db
13	13.9 db



NEW! INDOOR SUPER-POWERMATE

Model TA-66

2 TRANSISTOR FOUR-SET AMPLIFIED TV COUPLER

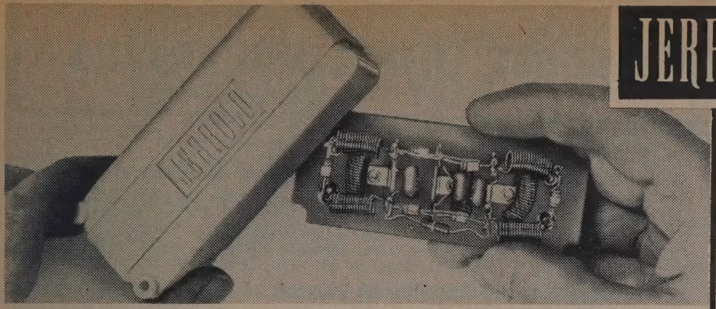
A four-set 2-transistor amplified TV coupler with high gain-overload to **all** outputs—an engineering breakthrough for solid state devices. Low power consumption—no heat dissipation to worry about—flat, low-silhoutte plastic case—fully-isolated ac power supply—no shock hazard. Will greatly improve reception of weak fringe-area stations without cross-modulation due to stronger local signals—no traps or stubs are necessary in most areas. Noise figure is 4.2 db over the low band, 8.3 db over the high band.

The TA-66 uses the same engineering principles which produced the Super-Powermate two-transistor antenna-mounted preamplifier, and has the same excellent performance characteristics. No other transistorized amplified coupler equals this one in input overload, gain and output capability.

The four-set terminals are so arranged that two or three sets may be connected instead of four, and increased gain is attained with each reduction in the number of sets connected—no linkages to add, no circuits to change. Features Jerrold's new strip or no-strip crown washers. Net $22.95

SPECIFICATIONS

	Max. Input	4-SET Gain— Each of 4	2-SET Gain— Each of 2	3-SET	
				Gain— 1st Set	Each of 2 Others
Ch. 2-6	100,000 mv	7.5 db	10.5 db	9.5 db	7.5 db
Ch. 7-13	60,000 mv	5.6 db	8.6 db	7.6 db	5.6 db



JERROLD®

ANTENNA SPLITTER

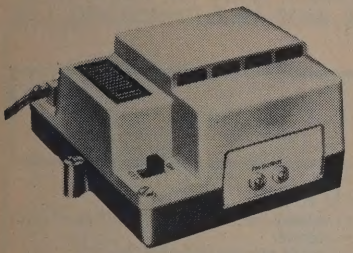
(Model TX-FM)

The Antenna Splitter is designed to draw FM signals from an existing all-band vhf television antenna and feed them to an FM receiver. It is not a coupler, but a compact triple-tuned band-pass filter which cleanly separates the FM and TV signals, and, with a negligible loss of 1 db, sends only the FM signal to an FM monaural or multi-plex tuner and virtually all the TV signal to the television set. This minute loss is especially important with FM multi-plex tuners because the relatively weak stereo signal can ill afford to be further weakened.

The tough plastic housing of the Antenna Splitter is only 4¼" x 1¾" x 1$\frac{3}{16}$", so that the unit can be unobtrusively mounted to the back of a TV set. It can also be mounted outdoors on the TV antenna mast or at any other convenient point between the antenna and the receiver. Net $3.95

FM RANGE EXTENDER

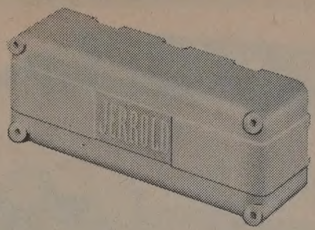
(Model FMX)



The Range Extender is a 20 db FM signal preamplifier containing its own built-in power supply. Especially useful for FM stereo reception since, with the average receiver, the effective range of a stereo broadcast signal is approximately half that of a monaural signal. Therefore, although the signal may be received, it may not be strong enough to activate the limiter stages in the receiver. The result is noisy reproduction. The FM Range Extender strengthens the signal voltage by 20 decibels (10 times) so that the limiters can trim off this noise. Net $18.95

NEW HIGH PASS FILTER

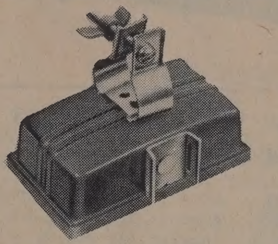
(Model TX-HP)



A high-pass filter to block any interfering signals such as amateur radio, taxicab transmitters, police transmitters or paging systems operating below 50 mc. Attenuation of signals is more than 25 db at 47 mcs, with only 0.5 db insertion loss. Net $3.57

FM/TV FILTER TRAP

(Models 1435-FM and 1435-*)

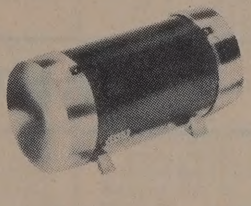


Models 1435-FM and 1435-* are wide-band, sharp cut-off traps that attenuate the FM band or individual TV channels a minimum of 20 db. They may be used with either amplified or non-amplified antennas and are mounted directly on the antenna crossarm to trap out the signal before it is amplified. Net $4.77

* Specify channel

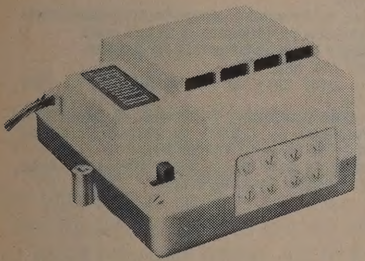
"TRAP-EASE" TUNABLE INTERFERENCE TRAPS

(Models HQ-91 and HQ-92)



"Trap-Ease" knocks out adjacent channel interference. This tunable "deep notch" antenna trap (greater than 50 db) permits TV viewers to remove "beat" or "herringbone" patterns caused by adjacent channel sound or video carriers. Permits clear reception of weak, distant stations normally blocked by a strong local channel.

Model HQ-91	**Low**	**"Trap-Ease"**—Covers Ch. 2-6.	Net $11.97
Model HQ-92	**High**	**"Trap-Ease"**—Covers Ch. 7-13.	Net $11.97



4-SET TV-FM AMPLIFIED COUPLER

(Model HSA-44A)

A precision-engineered amplifier with built-in coupler serving up to four TV and/or FM sets with a **minimum** of ½ db gain at each output—better than having four separate antennas, one for each set. Single-tube circuitry for economy—requires only 10 watts. Built for 24-hour continuous operation. Powered from 117 v, 60 cycle ac. Net $18.95

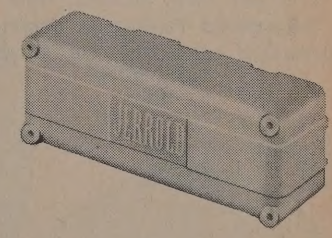
"LOW LOSS" MULTI-SET TV-FM COUPLERS

Jerrold multi-set couplers allow connection of 2, 3, or 4 television and/or FM receivers to a common antenna array. All models feature positive matching, extremely low forward loss and high isolation. Housed in rugged plastic case and equipped with "no-strip" serrated washers.

Model M-2 Two-Set Coupler (for Strong UHF and VHF Signal Areas)—Inductively compensated with emphasis on positive matching for reduction of ghosting and smear. Net $2.10

Model MF-2 Two-Set Coupler (for VHF Fringe Areas)—For use where forward losses must be held to a bare minimum. Has highly-efficient transformer design and positive matching. Net $2.70

Model MF-4 Four-Set Coupler (for All VHF Areas)—Has same basic circuit as Model MF-2, but designed for use in feeding 3 or 4 sets from one antenna. Net $3.45

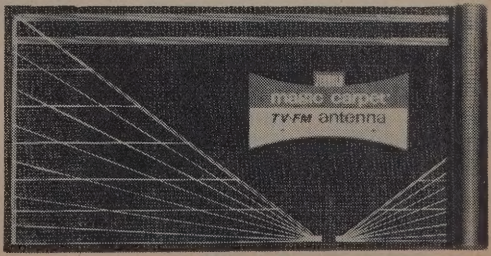


TV-FM MAGIC CARPET ANTENNA

(Model MK-1)

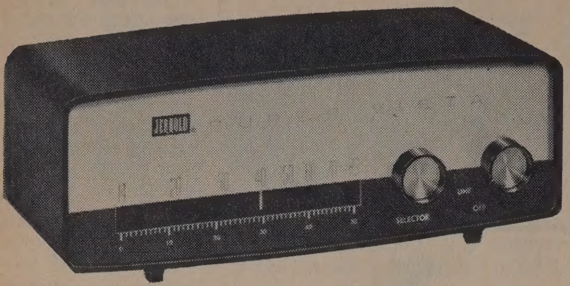
Truly a "Magic Carpet" carrying quality TV-FM signals to receivers in the home, the Model MK-1 is easily installed (lay it on any flat, horizontal surface in the attic, or under a rug, or staple it to a ceiling) and simple to orientate (shift its position for best reception). The Magic Carpet eliminates the unsightliness and maintenance costs of outdoor antennas and, when properly installed, provides reception comparable to a standard broadband conical antenna mounted in the same location.

Shipped complete with 6 plastic strap insulators and 25 feet of twin-lead. Dimensions—74" x 24". Net $5.97



* Trademark Patent Pending

JERROLD® NEW TOP-OF-THE-SET UHF CONVERTERS



- **Two Models for converting all uhf channels, 14 to 38**
- **Special model for MPATI and translator channels, 70 to 83**
- **All units feature nuvistor oscillator for fast warm-up and no-drift performance**

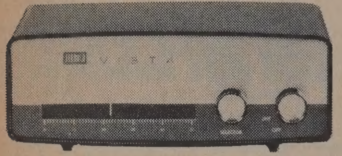
These decorator-styled uhf converters blend well with any room decor, feature 12-second warm-up time and no-drift circuitry. Turn the converter on in the morning, it warms up quickly—needs no re-adjustment. The channel the converter was tuned to the night before comes in sharp and clear. And selecting another uhf channel is as easy as tuning an AM radio because of the slide-rule dial.

Super-Vista UHF Converter for Channels 14 to 83 (Model SVC-560)

An exceptionally high-gain low-noise converter, the Super-Vista has been engineered to provide top-flight reception of all uhf channels in both strong and weak signal areas. The post amplifier, operating at channel 5 or 6, is a reliable high-frequency transistor selected for its low-noise figure. The oscillator is a nuvistor chosen for both reliability and long life, since tube failure in this circuit has been a major bugaboo with many other uhf converters. Exact 300-ohm output and input impedance match means full signal conversion. Frequency range is 470 to 890 mc, covering all channels from 14 to 83. Size: 11" x 6" x 4". Operates from 110-120 v, 60 cycle ac. Net 29.95

Vista UHF Converter for Channels 14 to 83

(Model VC-100)

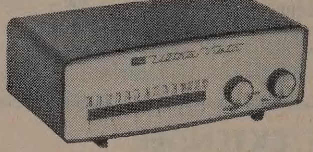


Economical, Vista uhf converter gives the strong-signal-area resident all uhf stations through channels 5 or 6 of a television set. Nuvistor oscillator with long life and high reliability eliminates the problem of tube failure in this circuit — the plague of many other uhf converters. Frequency range is 470 to 890 mc, covering channels 14 to 83. Net 20.95

Ultra-Vista UHF Converter for Channels 70 to 83

(Model UVC-7083)

(With Exclusive Built In UHF Preamplifier Stage)



Ultra-sensitive Ultra-Vista UHF Converter — specifically designed for MPATI and translator areas — not only amplifies the vhf signal but preamplifies the uhf signals to deliver unmatched reception. Frame-grid tube amplifies uhf antenna signals before they reach the mixer diode — a silicon crystal chosen for low noise figure and reliability. Nuvistor oscillator for continuing dependable service. Post amplifier is high-frequency transistor which operates at channel 7 or 8. Frequency range is 806 to 890 mc, covering channels 70 to 83. Net 34.95

JERROLD TACO VHF ANTENNAS

PARALOG

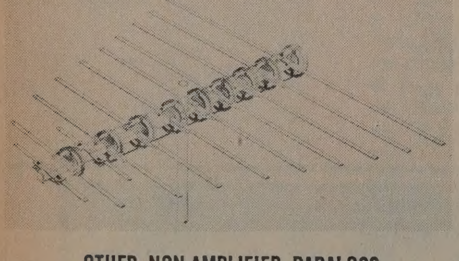
A REVOLUTIONARY NEW LINE OF ANTENNAS

A complete line of Paralog antennas is offered to fill every need in any area. Eleven models cover every reception requirement, from the minimum in strong-signal areas to the maximum in deepest fringe locations. There are seven non-amplified Paralogs to blanket all normal-reception areas, and four electronic Paralogs for the toughest signal problems—the "headache" locations. The Paralogs are true log-periodic antennas with added parasitic elements to improve gain characteristics while retaining the remarkable bandwidth and excellent impedance match of the log-periodic design principle.

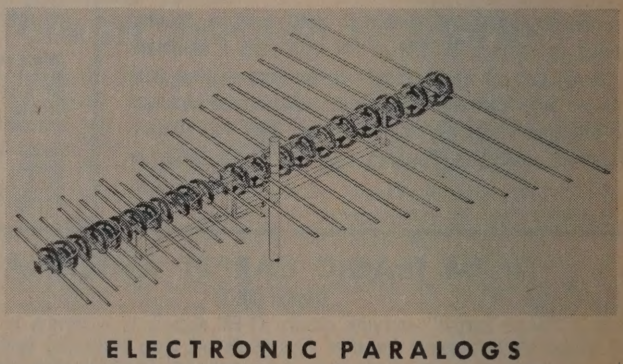
FEATURES

- **Flattest response for faithful reproduction of color on every channel**
- **Lowest VSWR to prevent line ghosting and smearing**
- **Best front-to-back ratio for elimination of unwanted signals and ghosts**
- **Highest gain, sharpest directivity for snow-free pictures**
- **Radically new impedance stabilizing phase correctors for top performance in adverse weather conditions**
- **Exclusive self-cleaning wedge-locking joints preserve like-new performance for many years**
- **Dual square boom construction for greater strength and long life**
- **Antenna array goes up in one piece — no time ing finish**
- **Double U-bolt assembly (4 U-bolts on top-of-the-line Paralogs) — U-bolts in external clamped bracket — no holes to weaken boom**
- **Antenna array goes up in one piece — no time wasted attaching dangling braces**

Model JTP-100 — 8 driven elements and 3 parasitic elements. Net $23.97



Model JTP-220 — 10 driven elements and 13 parasitic elements. Net 47.97



OTHER NON-AMPLIFIED PARALOGS

Model JTP-40—4 driven elements and 2 parasitic elements. Net $11.97

Model JTP-60—6 driven elements and 2 parasitic elements. Net $17.97

Model JTP-130—10 driven elements and 4 parasitic elements. Net $29.97

Model JTP-160—10 driven elements and 7 parasitic elements. Net $35.97

Model JTP-190—10 driven elements and 10 parasitic elements. Net $41.97

ELECTRONIC PARALOGS

Model JTP-130S—Amplified antenna with 10 driven elements and 4 parasitic elements. Net $56.97

Model JTP-160S—Amplified antenna with 10 driven elements and 7 parasitic elements. Net $62.97

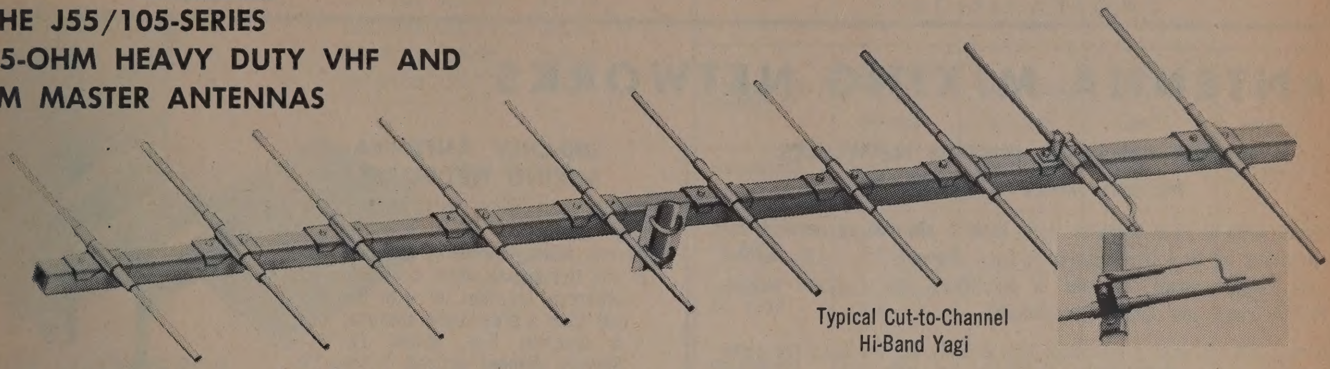
Model JTP-190S—Amplified antenna with 10 driven elements and 10 parasitic elements. Net $68.97

Model JTP-220S—Amplified antenna with 10 driven elements and 13 parasitic elements. Net $74.97

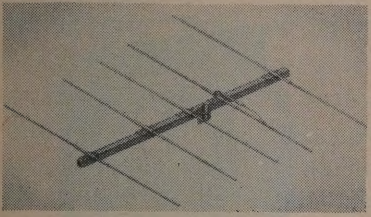
JERROLD
TACO

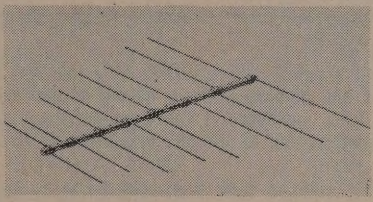
NEW RUGGEDIZED ANTENNAS FOR TV/FM DISTRIBUTION SYSTEMS

THE J55/105-SERIES 75-OHM HEAVY DUTY VHF AND FM MASTER ANTENNAS


Typical Cut-to-Channel Hi-Band Yagi

Available in Cut-to-Channel and Broad-Band models: 5-element lo-band, 10-element hi-band and broad-band. The J-Series cut-to-channel models feature a high gain with 10.5 db minimum on the high band and 8 db minimum on the low band, the broad-band models a minimum of 8½ db on the high band, 8 db on the low band. Model J55-FM has 6-7 db gain. All models are highly directive, with a front-to-back ratio of 20 db on the high band and 18 db on the low band. All cut-to-channel models have a built-on silver-plated 75-ohm coaxial cable connector with a sealed capacitor-tuned gamma match network for optimum signal transfer—giving top performance on color, black/white and fm. The broad-band models are of a **true log-periodic design** assuring extremely flat response and matched output over the entire band. The **extra heavy duty construction** from seamless chrome-aluminum tubing, end-sealed against entry of moisture, and having special anti-corrosion finish, assures a maintenance-free, weather-resistant installation. In addition, lo-band models have sand-loaded elements for vibration damping. A J-Series yagi will last as long as the system equipment fed by it.


Typical Cut-to-Channel Lo-Band Yagi


Typical J Series Log-Periodic Broadband Model

Ordering Information

Cut-to-Channel Models:

Ch. 2	J55-2—Net $37.50	Ch. 7	J105-7—Net $37.50
Ch. 3	J55-3—Net $37.50	Ch. 8	J105-8—Net $37.50
Ch. 4	J55-4—Net $37.50	Ch. 9	J105-9—Net $37.50
Ch. 5	J55-5—Net $37.50	Ch. 10	J105-10—Net $37.50
Ch. 6	J55-6—Net $37.50	Ch. 11	J105-11—Net $37.50
		Ch. 12	J105-12—Net $37.50
FM	J55-FM—Net $37.50	Ch. 13	J105-13—Net $37.50

Broad-Band Models:

Lo-Band	J55-Lo—Net $74.25	Hi-Band	J105-Hi—Net $74.25

Average Shipping Weight

Cut-to-Channel Models:	10 lbs.
Broad-Band Models:	14½ lbs.

Stacking kits for multiple arrays of cut-to-channel models are available:

For a 2-bay vertical array order Model JSS1 and specify channel. Net $17.97

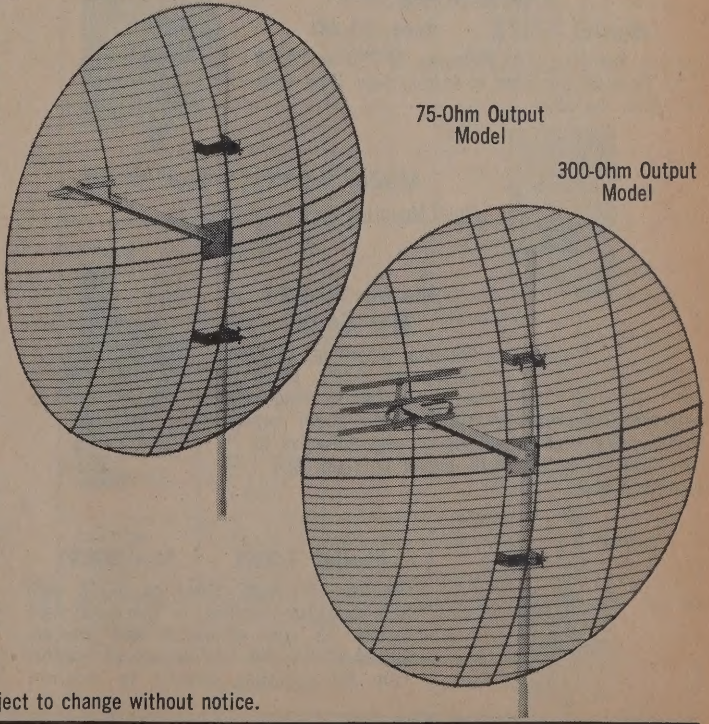
For a 2-bay horizontal array order Model JSS2 and specify channel. Net $17.97

For a 4-bay vertical array order Model JSS4 and specify channel. Net $53.91

For a quad-array order Model JSS3 and specify channel. Net $53.91

THE J3065 SERIES OF RUGGEDIZED UHF PARABOLIC ANTENNAS

Available in either 75-ohm or 300-ohm impedances, the J3065 series uhf antennas are high-gain, highly-directional, especially-rugged units designed for fringe and super-fringe reception of uhf stations up to channel 83, including MPATI channels 72 and 76. Gain is 14 db at 470 mc, rising to 17 db at 890 mc over a tuned reference dipole—up to three times the signal voltage from a regular corner reflector or a 4-element bow-tie array. Front-to-back ratio is 20 db or better. The 4 ft. diameter reflector is made of ⅛″ steel wires spaced only 1″ apart and welded to ¼″ thick cross-members and outer ring. The entire dish is coated with a heavy vinyl plastic layer applied over an anti-oxide primer. These antennas, designed to withstand 100 mile per hour winds, heavy icing and corrosive action of salt spray or polluted atmospheres, are a "must" for systems that are scheduled to receive uhf broadcasts under the most adverse conditions.



Ordering Information

75 ohms:	Channels 14-22	J-3065A-72	Net $76.89
	23-51	J-3065B-72	Net $76.89
	52-69	J-3065C-72	Net $76.89
	70-83	J-3065T-72	Net $76.89
300 ohms:	Channels 70-83	J-3065T-300	Net $53.97

Shipping weight is 25 lbs.

All data and prices subject to change without notice.

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JERROLD® TV-FM DISTRIBUTION SYSTEMS EQUIPMENT

For Motels, Apartment Houses, Dealer Showrooms, Homes

ANTENNA MIXING NETWORKS

75-OHM ANTENNA MIXING NETWORKS

Models AMN-HI, AMN-LO

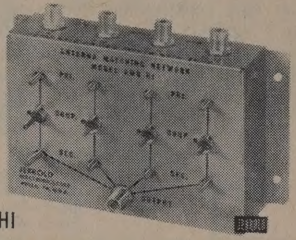
Model AMN-HI is a low-loss (less than 1 db) mixing network for combining up to 4 non-adjacent hi-band channels (ch. 7-13), derived from single-channel antennas or amplifiers into a single output. 75-ohm input and output impedances.

Model AMN-LO, with a maximum loss of only 0.5 db, does the same for up to 3 non-adjacent lo-band channels (ch. 2-6).

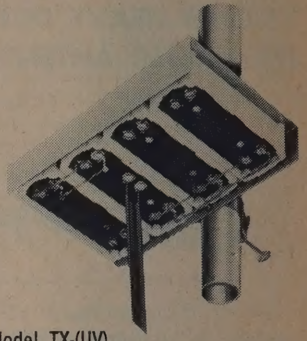
Both units are tunable, are designed for indoor mounting at the system headend and are shipped with the necessary mounting hardware and connectors. Dimensions are 6 5/16" x 4" x 1½", shipping weight is 1¼ lbs.

Net price AMN-HI $18.15

Net price AMN-LO $18.15


Model AMN-HI

300-OHM ANTENNA MIXING NETWORKS



(Model TX-(*) Units with Model GP-4 Gang Plate)

Antenna mixing networks are used to:
(1) mix the signals from cut-to-channel antennas together, or with the signal from a broad-band antenna, into a common line. Model TX-(*)—Specify channel desired, 2 thru 13
(2) mix or separate vhf and uhf signals. Model TX-(UV)
(3) mix or separate high and low vhf channels. Model TX-(HL)
(4) mix or separate vhf TV and FM signals. Model TX-(FM)

The Antenna Mixing Networks are compact band-pass filters which exhibit 300-ohm impedance at resonance and an extremely high impedance on each side of resonance. They allow reception of various channels without the expense of rotators and switches. Supplied with matched mixing jumpers and necessary hardware — can be installed indoors and outdoors. Gang plate available (Model GP-4) for mounting up to four units in neat, compact assembly — comes complete with strap and hardware.

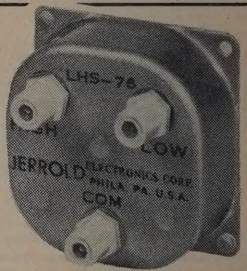
Net Price TX-(*)	$3.57
Net Price TX-(UV)	$3.57
Net Price TX-(HL)	$3.57
Net Price TX-(FM)	$3.95
Net Price GP-4	$1.67

MODEL LHS-76

This unit is specially designed to split or mix vhf hi-bands and lo-bands. Distinguished by a low loss (less than 0.6 db), model LHS-76 comprises complementary low-pass and high-pass filters having a joint cut-off (cross-over) frequency at approx. 140 mc. VSWR is less than 1.2:1, bandpass is 0-110 mc for the lo-band, 170-216 mc for the hi-band; rejection is greater than 30 db on either side of 140 mc; impedance is 75 ohms on all terminals.

Housed in a sturdy blister can 2 5/16" x 2 5/16" x 1 5/16", the unit is shipped with 3 Jerrold F-59A solderless coaxial cable connectors.

Net Price $14.50

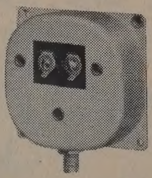


Model LHS-76

MATCHING TRANSFORMERS

VHF MODELS

Model T-372 Net $3.60



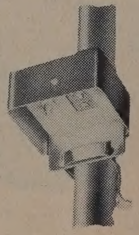
Surface mounting. Flat response 50-250 mc. VSWR 1.26. Isolates line from ac-dc receivers. C-52 male connector included.

JERROLD TELEVISION OUTLET

Model T-373 Net $3.60

Flush Mounting version of T-372.

Model TO-374 Net $6.00

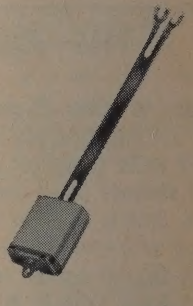


Antenna mounting. Outdoor version of T-372. Bypasses ac open line in long runs between De-Snower preamplifier and power supply. Matches 300 ohm broadband or yagi antennas to 75 ohm line. Complete with mounting strap and F-59 cable connector.

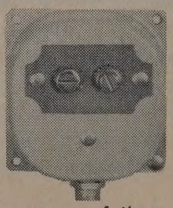
Model T-375 Net $2.91

Receiver mounting. Same as T-372 with B-59 crimp-on bushing in place of C-61 female 75 ohm connector and pre-connected 6" 300 ohm lead instead of terminal strip for mounting directly to receiver.

Model T-377 Net $1.95



An economical, receiver-mounting, matching transformer for matching a TV receiver to a 75 ohm line. Provides ac-dc isolation. Complete with fitting for attaching to coaxial cable and a solidly-connected length of twin-lead with terminals for attaching to the TV set terminals.



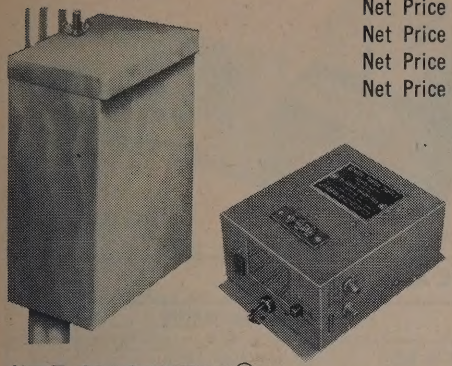
NEW UHF Models MTU-372 and MTUO-374

Model MTU-372 (indoor mounting) and Model MTUO-374 (outdoor mounting) are newly-designed wide-band 300/75 ohm impedance matching units which eliminate the need for field construction of baluns. The response of these transformers is flat over the entire uhf frequency range (470 to 890 mc). Maximum insertion losses are from 0.6 db at 470 mc to 1.2 db or less at 890 mc. Model MTUO-374 passes ac and the current rating is 1.0 amp. max. Both models employ F-61A connectors and new type crown washers, and are shipped with an F-59A connector. Dimensions: MTU-372—2¾" L, 2¼" W, 1⅛" H; MTUO-374—3" L, 2¾" W, 2½" H.

Model MTUO-374	Net $6.00
Model MTU-372	Net $3.60

JERROLD® VHF AND FM PREAMPLIFIERS

Net Price DSA-132 $71.70
Net Price DSA-202 $53.97
Net Price DSA-FM $59.70
Net Price DSA-* $59.70



Mast-Mounted "De-Snower" Model DSA-132 with Remote Power Supply

"DE-SNOWER"® PREAMPLIFIER (VHF)

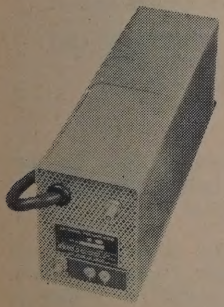
JERROLD "De-Snower" preamplifiers provide the high gain and low noise figure necessary to deliver "snow-free" TV pictures and "hiss-free" FM sound to your TV/FM receiver. These mast-mounted units bring your TV/FM tuner to the antenna to take full advantage of extremely weak signals by overcoming noise pick-up and antenna lead-in losses.

Each "De-Snower" is shipped with a remote power supply (to be placed at any easily-accessible location) which provides low-voltage ac power to the preamplifier and acts as a feed-thru for amplified signal from the preamplifier to the receiver. Only one cable is necessary to carry ac power up to and amplified signal down from the preamplifier to the power supply.

"De-Snower" preamplifiers will improve color TV reception and boost TV/FM signal strengths in all fringe areas. See SPECIFICATIONS chart to determine which model is best suited for your particular needs.

INDOOR SINGLE-CHANNEL PREAMPLIFIERS
Models 406A-* and 406A-FM

These preamplifiers have similar electrical specifications to those of DSA-* and DSA-FM except that they have a self-contained power supply. Designed for indoor mounting, the preamplifiers operate from any 60-cycle, 117-volt ac source.



Input Impedance: 300 or 75 ohms
Output Impedance: 75 ohms
Power Consumption: 15 watts
Dimensions: 3" x 4" x 10½" overall
Shipping Weight: 4¼ lbs.

Model 1683 outdoor housing is available.

Net Price 406A-* $41.97
Net Price 406A-FM $41.97

SPECIFICATIONS

PREAMPLIFIER MODELS	ALL BAND PLUS FM DSA-202	ALL BAND DSA-132	SINGLE CHANNEL DSA-*	FM ONLY DSA-FM
BANDWIDTH	54-108 mc. 174-216 mc	54-88 mc. 174-216 mc.	6 mc any TV ch.	88-108 mc
GAIN— TV BAND	20 db min.	25 db min.	28 db any TV ch.	NA
GAIN— FM BAND	20 db 88-98 mc. 8 db. min. at 108 mc.	NA	NA	25 db min.
FREQUENCY RESP.	2 db. max. peak to valley	1 db max. peak to valley	½ db max. peak to valley	1 db max. peak to valley
NOISE	4.5 db max. lo-ch. 6 db. max. hi-ch.	6.5 db max. lo-ch. 8.5 db max. hi-ch.	6 db max. lo-ch. 7.5 db max. hi-ch.	NA
MAXIMUM INPUT	17,000 microvolts pr. ch./3 lo chs. 11,000 microvolts pr. ch./4 hi channels	5,500 microvolts	40,000 microvolts	NA
MAXIMUM OUTPUT AT 300 OHMS	.17 v/pr. ch. at each of 3 ch. lo .11 v/pr. ch. at each of 4 ch. hi	0.2 v/pr. ch. at each of 7 ch.	1.2 v rms lo 1.0 v rms hi	0.5 rms
MAXIMUM OUTPUT AT 75 OHMS	.085 v/pr. ch. at each of 3 ch. lo. .055 v/pr. ch. at each of 4 ch. hi.	0.1 v/pr. ch. at each of 7 ch.	0.6 v rms lo 0.5 v rms hi	NA
INPUT IMPEDANCE	300 ohms	300 ohms and 75 ohms		
OUTPUT IMPEDANCE	75 or 300 ohms			
TUBE COMPLEMENT	(2) 6DJ8	(3) 6BQ-7A (1) 6CB6 (1) 6AK5	Lo-band (1) 6BQ7-A (1) 6CB6 Hi-band (1) 6BQ7-A (1) 6AK5	(1) 6BQ7-A (1) 6CB6
FINISH	Iridite			
DIMENSIONS	4" x 8½" x 6¾"	5" x 10¼" x 7¼"	2½" x 5" x 10¼"	2½" x 5" x 10¼"
POWER SUPPLY	407-P	405-P		
INPUT	117 v 60 cycle ac			
OUTPUT VOLTAGE	22-27 volts	24-32 volts		
POWER CONSUMPTION	25 watts	50 watts	30 watts	30 watts
DIMENSIONS	3¼" x 4½" x 6⅛"	2⅞" x 6¾" x 5⅛"		
SHIPPING WEIGHT	6½ lbs.	12¾ lbs.	8¼ lbs.	8¼ lbs.
ACCESSORIES FURN. (All Models)	(3) F-59 Cable fittings, mounting screws for power supply, mast clamp and strap			

NA = Not Applicable * Specify channel

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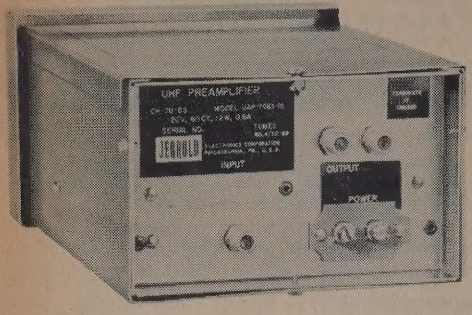
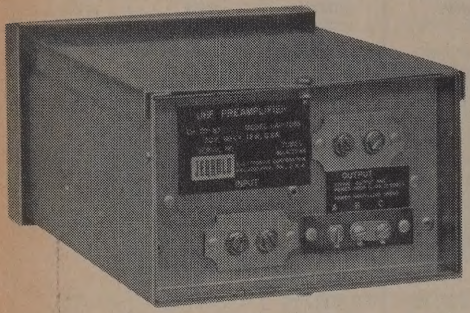
JERROLD®

SILVER-CIRCUIT PREAMPLIFIERS FOR "SNOW-FREE" UHF

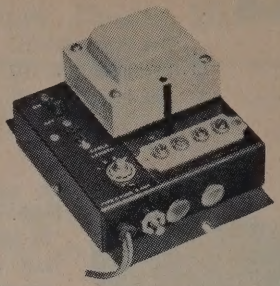


MODEL UAP-7083-75. Dual 75 ohm output feeds two mast-mounted converters, eliminating need for second antenna.



MODEL UAP-7083. For translator and MPATI Areas. See SPECIFICATIONS for other 300 ohm models.

SPECIAL 75-OHM
MPATI AND
TRANSLATOR MODEL
FIVE 300-OHM
MODELS COVER
ENTIRE UHF BAND



MODEL 409-P
Remote Power Supply
Supplied with all
UAP Models.

SPECIFICATIONS

	75-OHM MODEL	300-OHM MODEL
FREQUENCY RANGE	806-890 mc (CH.70 to 83) Model UAP-7083-75	Model UAP-1429 470-566 mc (CH. 14-29) Model UAP-2540 536-632 mc (CH. 25-40) Model UAP-4155 632-722 mc (CH. 41-55) Model UAP-5669 722-806 mc (CH. 56-69) Model UAP-7083 806-890 mc (CH. 70-83)
GAIN	At least 10 db at each of two 75 ohm outputs	At least 11 db for UAP-2540. At least 13 db for UAP-4155, UAP-5669, and UAP-1429. At least 15 db for UAP-7083.
FLATNESS	2 db P/V	2 db P/V
MIN. INPUT FOR 30 db S/N RATIO	160 microvolts across 75 ohms	350 microvolts across 300 ohms
MAX. OUTPUT	45,000 microvolts per channel for 2 channels at 0.5% intermodulation.	140,000 microvolts per channel for 2 channels at 0.5% intermodulation.
INPUT IMPEDANCE	75 ohms	300 ohms
OUTPUT IMPEDANCE	75 ohms (Dual Outputs)	300 ohms
TUBE COMPLEMENT	(2) 6DL4/EC-88	(2) 6DL4/EC-88
DIMENSIONS	5⅜" L, 6¾" W, 8½" H	5⅜" L, 6¾" W, 8½" H
ACCESSORIES FURNISHED	(3) F-59 cable fittings. Mast clamp and strap.	Mast clamp and strap.
SHIPPING WEIGHT	8½ lbs. (incl. power supply)	8½ lbs. (incl. power supply)
POWER REQUIREMENTS INPUT CONSUMPTION	 20 VAC, 60 C.P.S. 12 watts at 0.6A	
POWER SUPPLY MODEL 409-P		
INPUT VOLTAGE	117 V, 60 cycles	
OUTPUT VOLTAGE	22-27 volts	
POWER CONSUMPTION	25 watts	
DIMENSIONS	3¼" x 4½" x 6⅛"	

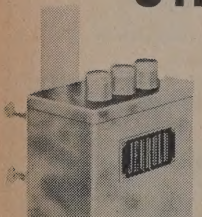
EXCLUSIVE FEATURES

- **Ultra-Sensitive Input**
- **Highest Gain**
- **Signal Saving Silver Transmission Elements**
- **Highly Selective Double Tuned Input**
- **"Stabilife" Circuit for Long Tube Life**
- **Stainless Steel Terminal Screws and Crown Washers**
- **Fully Shielded Against Interference Pick-up**
- **Voltage Compensating Switch**
- **Double-Filtered Power Supply**
- **Twist-Lock Fuse**
- **Rugged, Rustproof Iridited Housing**
- **New-Type Crown Washer Terminals Accommodate Stripped or Unstripped Twin-Lead**

Net Price 300-Ohm UAP Models $66.50

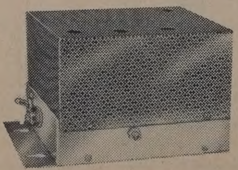
Net Price 75-Ohm UAP Models $105.00

UHF CONVERTER



UHF CONVERTER MODEL U2V

The mixer head installed right at the uhf antenna where S/N ratio is optimum. The uhf oscillator is mounted at the amplifier location (or at the TV receiver for individual home installation) and sends local oscillator signals up to the mixer. VHF output is 75 ohms. The U2V will convert any uhf channel to any vhf channel. Order by specifying uhf channel to be converted to a specific vhf channel.



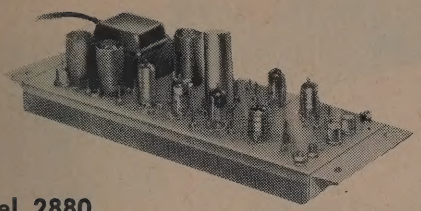
MIXER HEAD — UHF Input: double cavity tuned, 10 mc bandwidth, 75 ohms. VHF Output: 75 ohms. Mixer Crystal: K3A. Dimensions: 4¼" x 4 9/16" x 2 9/16". Weight: 1 lb. 13 oz. Mounting: Mast mounted, brackets and straps supplied.

OSCILLATOR — Tube Complement: (1) 6AF4, (1) OB2. Oscillator Output: 1.5 v rms minimum. Power Requirements: 117 v ac, 50-60 cps, 25 watts. Dimensions: 4½" x 5½" x 7". Weight: 3½ lbs. Mounting: May be mounted horizontally on a shelf or vertically on a wall. Shipping Weight: 7 lbs. (Head & Oscillator).
Net Price Model U2V $82.17

JERROLD®

BROAD-BAND AMPLIFIERS

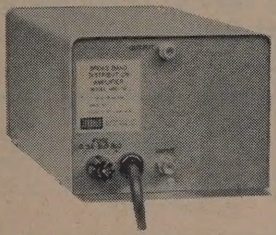
Fifteen years of leadership and pioneering stand behind the modern circuitry, long-life capabilities, and super heavy-duty construction of these units.



Model 2880 FOR THE LARGE SYSTEM

- 1 full volt output per channel (highest in the industry for broadband amplifiers)
- Min. gain 41 db lo-band, 44 db hi-band
- Provision for built-in cable equilization built-in
- Receptacle for automatic overload control
- Dual manual gain control —14 db range

Net Price Model 2880 $215.00

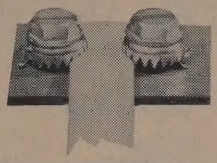


NEW Model ABD-1A FOR THE SMALL SYSTEM

- New high output capability —0.3 volts
- New frame-grid tubes
- New heavy duty construction
- Accommodates new 8-way splitter

Net Price Model ABD-1A $65.67

NEW! UNIVERSAL Crown Washer Screw Terminal*



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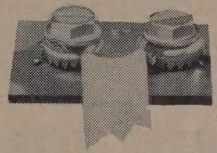
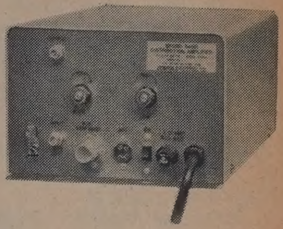


STRIPPED

Featured in new Jerrold Model ACL-200

*Patent Pending



NEW Model 2300-A FOR THE MEDIUM SYSTEM

- New hi-output —0.3 volts
- Excellent overload capability
- Provision for lo-band equalization built-in
- New frame-grid tubes
- Receptacle for automatic overload control
- New heavy duty construction
- Dual manual gain control —14 db range

Net Price Model 2300-A $107.70

NEW *"Challenger"* Model ACL-200 FOR THE COMPACT SYSTEM

Ideal for Dealer Showrooms and Deluxe Home Installations

- Excellent noise figure
- High gain and high overload capability
- 75 or 300 ohm output (selected by switch)

Net Price Model ACL-200 $38.97

SPECIFICATIONS

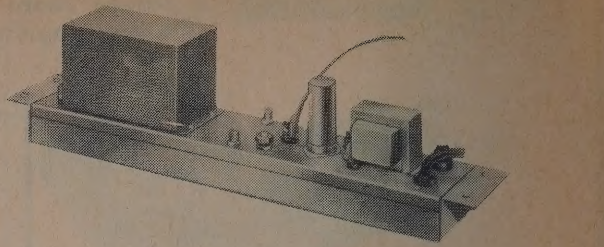
	Model 2880	Model 2300-A	Model ABDI-A	Model ACL-200
Frequency Range	54 to 108 mc and 174 to 216 mc			
Minimum Gain **Lo-Band:** **Hi-Band:** **FM-Band:**	41 db 44 db 92 MC: 41 db 108 MC: 20 db approx.	39 db 40 db 98 MC: 39 db 108 MC: 23 db approx.	22 db 20 db 98 MC: 22 db 108 MC: 10 db	20 db 19 db 98 MC: 20 db 108 MC: 2 db
Impedance **Input:** **Output:**	75 ohms 75 ohms	75 ohms 75 ohms	75 ohms 75 ohms	300 ohms 75 or 300 ohms
Output Capability Per Channel for 7 Channels at ½% Cross-Modulation*	1.0 v (60 dbj**)	0.3 v (50 dbj)	0.3 v (50 dbj)	at 75 ohms: 0.15 v (44 dbj)—Lo-band 0.10 v (40 dbj)—Hi-band at 300 ohms: 0.30 v—Lo-band 0.20 v—Hi-band
Flatness of Response	±0.75 db	±0.5 db	±1.25 db	±1.0 db
Tube Complement	(1) 6EH7 (1) 6ES8 frame grid types (1) 6DJ8 (2) 6EJ7 (2) 12BY7A (3) TJ880	(2) 6DJ8 frame grid types (2) 6EJ7 (2) 12BY7A (1) 6CB6	(2) 6DJ8 (frame grid type) (2) 12BY7A	(2) 6DJ8 (frame grid type)
Power Requirements	117 VAC, 60 C.P.S. 92 Watts	117 VAC, 60 C.P.S. 63 Watts	117 VAC, 60 C.P.S. 45 Watts	117 VAC, 60 C.P.S. 18 Watts
Dimensions	17" L, 7" W, 5¼" H.	14¼" L, 7½" W, 5¼" H.	12" L, 6" W, 4½" H.	9" L, 5¾" W, 3½" H.
Shipping Weight	18 lbs.	12½ lbs.	9 lbs.	5 lbs.

*Represents capability **PER CHANNEL** for 3-ch. lo-band and 4-ch. hi-band operation. The units are capable of much higher output operation for the same number of channels; however, ½% cross-modulation is well below any objectionable signs of overload and is the best rating to use in designing systems.

**0 dbj = 1000 microvolts across 75 ohms.

JERROLD® AUTOMATIC OVERLOAD CONTROL

Model OC-238 Set it and forget it!



This new control unit has been especially designed for use with Model 2880 or Model 2300-A. Equipped with separate controls for the high and the low band, Model OC-238 permits setting the amplifier output at the optimum operational level. Once set, highest picture quality is maintained throughout the entire system regardless of fluctuations in signal strength. Model OC-238 is energized from the amplifier to which it is connected. Power: 18 watts at 117 volts, energized by plugging it into a 110 v socket, just like a floor lamp.

SPECIFICATIONS

Gain Requirement of Associated Amplifier:	35 db Minimum
Controlled Frequencies:	54 to 98 mc and 174 to 216 mc
Frequency Response:	±1½ db stated range
Minimum Output Levels for Optimum Control per Band:	5 channels—40 dbj 3 channels—43 dbj 2 channels—46 dbj 1 channel —49 dbj
Maximum Output:	60 dbj

Input Impedance:	75 ohms at 1.2 max. VSWR
Output Impedance:	75 ohms at 1.2 max. VSWR
Insertion Loss:	0.5 db max.
Gain Control:	Separate high and low band composite level adjustments
Power:	18 watts at 117 volts, 60 cycles ac
Mounting:	19" relay rack or surface
Dimensions:	Panel 19" x 3½"
Shipping Weight:	6¾ lbs.

Net Price Model OC-238 $112.80

Model PIP

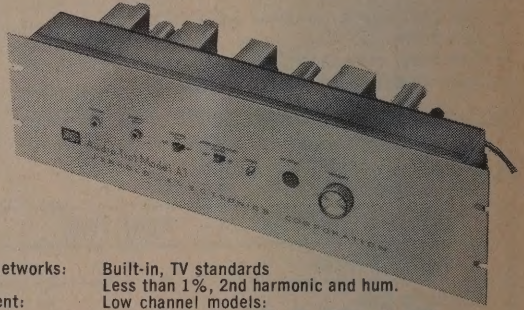
PLUG-IN ATTENUATOR PAD — For use with Model 2880 or 2300A low band equalization. These pads are available in attenuation values of 0, 3, 6, 9, 12, 15, 18, and 21 db.

Net Price $1.35

SOUND INSERTER FOR TV SYSTEMS

FOR ADDING AM/FM DISTRIBUTION TO YOUR SYSTEM!

AUDIO-TROL Model AT-*



Jerrold's latest audio modulation equipment Model AT-* utilizes the unused TV channels to transport music, voice, radio, etc. to every receiver in a TV distribution system. The audio source may be an FM tuner, an AM radio, records, tape or microphone. Any commercial TV receiver can be used to reproduce the audio program through the speaker. Simply installed at the head-end, there is no need for additional equipment or alterations in any room. Model AT-* presents a unique method to add audio to an existing or planned TV distribution system in Hotels, Hospitals, Schools and Apartment Houses.

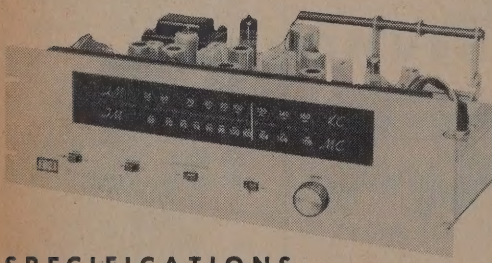
* Order by channel number

SPECIFICATIONS

RF Output:	Up to 55 dbj, each carrier, separately controlled, at 75 ohms, at each of two terminals.
Frequency Stability:	Video carrier crystal controlled, sound carrier AFC controlled referenced to crystal.
Spurious Signals:	Down 50 db.
Output VSWR:	1.2 Bridging.
Frequency:	Any TV channel, vhf.
Carriers:	One at video frequency, unmodulated, one at sound frequency, FM modulated, with 25 kc max. deviation.
Application:	Utilizes unused channels in TV distribution systems.
Signal for Maximum Deviation:	50 mv audio, high impedance.

Pre-emphasis Networks:	Built-in, TV standards
Distortion:	Less than 1%, 2nd harmonic and hum.
Tube Complement:	Low channel models: (1) 6BC8, (1) 6AS6, (3) 6CB6, (1) OB2, (1) 6AU6, (1) 6AB4, (1) 6AL5. High channel models: (1) 6BC8, (1) 6AS6, (2) 6CY5, (1) OB2, (1) 6CB6, (1) 6AU6, (1) 6AB4, (1) 6AL5.
Regulation:	Gas tube voltage regulation.
Power Requirements:	45 watts at 117 volts, 60 cycles ac.
Dimensions:	Panel 19" x 5¼", depth behind panel—5".
Mounting:	Standard 19" rack.
Shipping Weight:	12½ lbs.

Net Price Model AT-* $195.00



AM/FM TUNER Model AFT-300

Jerrold's new Model AFT-300 is a highly selective and sensitive, drift-free tuner for converting any AM or FM broadcast signal into an audio source for Jerrold's "AUDIO-TROL" Model AT-*. Model AT-* in turn will distribute these sound signals over any unused channel in a TV distribution system.

While absolutely independent in its function, Model AFT-300 is the perfect companion piece to Model AT-* and can be incorporated together with the Audio-Trol in a single cabinet, or can be rack-mounted separately.

SPECIFICATIONS

FM	
Sensitivity:	3.2 microvolts IHFM (usable sensitivity 0.95 microvolts for 20 db of quieting).
Image Rejection:	45 db.
Frequency Response:	± 1 db, 15-15,000 cps.
Distortion:	Unmeasurable at 30% modulation, less than 0.1% at 100% modulation.
Limiter:	Gated beam, constant output.
Antenna Impedance:	300 ohms.

AM	
Sensitivity:	80 microvolts per meter; terminal sensitivity 10 mv.
Selectivity:	10 kc bandwidth; 6 db down.
Image Rejection:	50 db.
IF Rejection:	55 db.
General	
Power Requirements:	50 w., 117 v. ac, 60 cps.
Dimensions:	19" W x 5¼" H x 11½" D (excluding knobs)
Shipping Weight:	25 lbs.

Net Price Model AFT-300 $139.73

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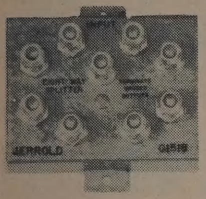
JERROLD®

SPLITTERS AND DIRECTIONAL COUPLERS

Jerrold line splitters feature hybrid circuitry for excellent 75 ohm impedance match and isolation between outputs. Terminate unused outputs 1514 with TR-75F and G-1518 with TR-75G.



NEW 8-WAY COAXIAL SPLITTER

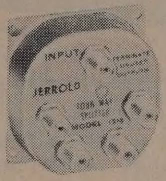
Model G-1518

Net Price $17.70

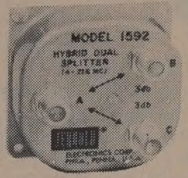
75 OHM LINE SPLITTERS

Model	Description	Bandwidth	Maximum Splitting Loss	Isolation Between Outputs	Shipped with Connectors	Shipping Weight
1562	2-way	54-216 mc	3.5 db	15-20 db	Not Required	6 oz.
1592	2-way	7-216 mc	3.5 db	15-20 db	F-59	6 oz.
1514	4-way	24-216 mc	6.5 db	12 db	F-59	7 oz.
G-1518	8-way	54-216 mc	10.0 db	7-17 db	G-59	1½ lbs.

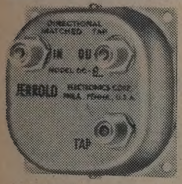
Two-Way Splitter
Model 1562
Net Price $4.95



Four-Way Splitter
Model 1514
Net Price $8.70



Hybrid Two-Way Splitter
Model 1592
Net Price $7.50



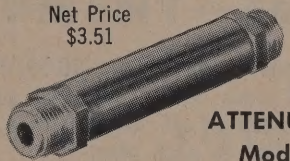
Model DC-8*

Net Price $7.70

Model DC-8 is a back-matched directional-coupler type tap unit with a band pass from 7 mc to 216 mc. The insertion loss is 1.5 db and tap loss is 8 db. Isolation between line and tap outputs is 30 db at channel 6. Excellent 75 ohm match on all three terminals. VSWR is 1.3. Shipped complete with 3 mating F-59A connectors. Shipping weight—6 oz.

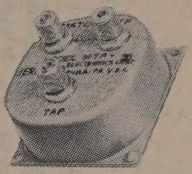
*Patent Pending

Net Price
$3.51



INLINE ATTENUATOR Model PDL

Fixed attenuator pad for 75 ohm circuits. Shipped with two F-59 connectors for in-line applications. For chassis mounting, order an F-71 connector. Specify 3, 6, 10, or 20 db.



Model MTP-20

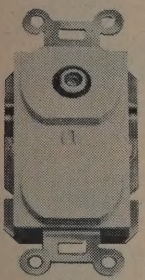
Net Price $6.50

Model MTP-20 is a resistive splitting device designed to match the trunk line in and out as well as the tap. The band width is 0-216 mc. The insertion loss is 2 db and tap loss is 20 db. Excellent 75 ohm match on all three terminals. VSWR is better than 1.2. Shipped complete with 3 mating F-59A connectors. Shipping weight—6 oz.

NEW . . . ULTRA TAP

FLUSH or SURFACE MOUNTING 300 or 75-OHM OUTPUT . . . all with ONE BASIC TAP-OFF UNIT

FEATURES
- EXTREME VERSATILITY
- BUILT TO PROFESSIONAL STANDARDS
- HIGH STYLING
- DETACHABLE ISOLATION UNIT
- COMPLETELY SOLDERLESS
- NEW RECEPTACLE FOR NEW "GAMMA" PLUG-INS



BASIC TAP-OFF UNIT FOR TV OR FM
Model UT-22 (W, R or Y)

Provides a choice of three isolation and feed-thru values and is used to tap TV or FM signals from RG-59 type feeder cables. Simple crimp-on bushings and new positive-gripping clutch provide fast solderless connections to the feeder. Model UT-22 can be flush or surface mounted. For flush-mounting the unit fits a standard 2" x 4" (or combination) wall box and new cover plates are available in a variety of types. A special housing is also available for surface mounting. Equipped with a "Gamma" receptacle, the unit accepts the new 75 or 300 ohm push-on plugs.

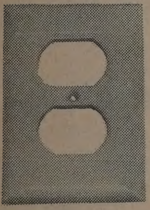
Net Price Model UT-22 $2.70

ISOLATION AND FEED-THRU CHART

A—Isolation B—Feed-Thru
Values in db

Ch.		MODELS UT-22 AND UT-33 COLOR CODE		
		White	Red	Yellow
2	A	35	27	22.5
	B	0.2	0.4	0.2
6	A	34	25	19
	B	0.2	0.4	0.3
7	A	31	21	13
	B	0.25	0.5	0.4
13	A	30	20	11.5
	B	0.25	0.5	1.0

FLUSH COVER PLATES



Model UT-PI
Single outlet ivory cover plate, sturdy molded plastic.

Model UT-PS
Single outlet cover plate, brushed stainless steel.

Net Price UT-PI $.21
Net Price UT-PS $.60

SURFACE HOUSING

Model UT-SH

Single outlet ivory surface mounting box, sturdy molded plastic.

(Not for use with UT-33)

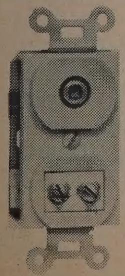
Net Price UT-SH $.30

SPECIAL WALL TERMINAL UNIT

(Without Isolation or Feed-Thru)

Model UT-12
A wall terminal unit providing connection to a TV or FM set from a remotely mounted isolation unit such as G-1404, 1401, or PT-1461. Similar to Model UT-22 in all other respects.

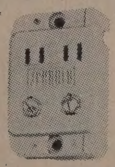
Net Price UT-12 $2.10



COMBINATION TAP-OFF UNIT FOR TV AND FM

Model UT-33
Available in the same isolation and feed-thru values as Model UT-22. It has additional isolation to separate TV and FM signals **for simultaneous connection of a TV receiver and an FM receiver.** The unit is flush mounted in the same manner as model UT-22. **For surface mounting a standard wire mold box is required.**

Net Price UT-33 $3.30



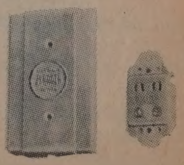
Model 1201

Terminal unit to match receiver to 75 ohm line. Isolates line from ac-dc receivers. Molded plastic economy model. Surface mounting.
Net Price $1.59

Model 1202

Same as model 1201 but mounts flush in 2" x 4" electric outlet box. Requires one Model 1202-P Cover Plate.

Net Price 1202 $1.59



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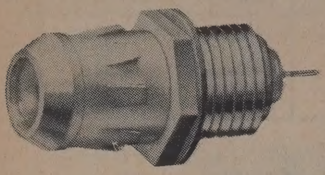
JERROLD® SOLDERLESS COAXIAL CONNECTORS, ADAPTERS AND FITTERS

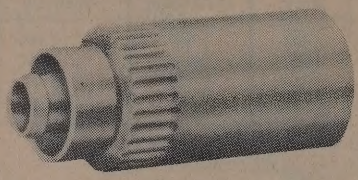
NEW G-SERIES UNITS

New chassis fittings mate with new connectors for simplest, fastest, most-reliable push-type connection or disconnection of RG-59/U coaxial cable, twin-lead (antenna wire) or 75-ohm terminators.



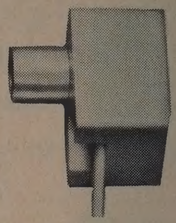
Model G-61 Net Price $.48

Chassis fitting incorporating the new, positive-grip clutch and a special spring which insures a good ground connection while permitting the quick-disconnect feature. Model G-61 has a threaded shank (identical with that of the popular F-61A) and requires a ⅜" mounting hole.



Model G-59 Net Price $.48

Male cable connector provides solderless connection to RG-59/U cable. Features built-on ferrule. Pushes on or pulls off new G-61 chassis fitting for firm, reliable connections or rapid disconnections.



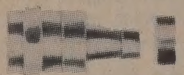
Model G-300 Net Price $.60

New 75-300 ohm adapter combines new G-59 type push-on fitting with new "no-strip" crown washer terminal to provide simple, quick connection or disconnection of 300 ohm twin-lead to G-61 chassis fitting.

F AND C-SERIES UNITS

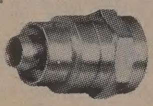
JERROLD solderless connectors can be permanently bonded to all types of RG-59/U, RG-6/U and RG-11/ cables with simple crimping tools. JERROLD connectors are carefully machined of brass and all exposed surfaces are heavily silver plated. All the new JERROLD "F" series connectors are accurately matched to 75 ohms with a VSWR less than 1.05 up to 200 mc. "F" connectors can be wrench tightened and all sizes will adapt to each other.

FOR RG-59/U AND RG-6/U



F-59 Male Cable Connector—For RG-59-type cables. Mates with F-61, F-81, A-61, F-101-59, F-201-59, AF-101-59, and AF-201-59. With separate ferrule. **Net .48**

NEW!



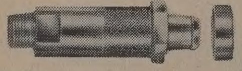
F-59A Male Cable Connector—Same as F-59 with attached ferrule. **Net .48**

F-56 Male Cable Connector—For RG-6-type cables. Mates with F-61, F-81, A-61, F-101-59, F-201-59, AF-101-59, and AF-201-59. **Net .62**

C-52 Male Connector mates with C-61. For RG-59/U type cables use Crimping Tool PL-601 or PL-602. **Net .48**

C-56 Male Connector—Same as C-52 but for RG-6/U type cables. **Net .62**

FOR RG-11/U

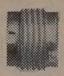


Model F-101-59 Adapter Assembly—Connects RG-11/U type cables to F-59, F-56 or TR-72F. Requires Crimping Tool PL-602. **Net $1.46**

Model F-201-59 Adapter Assembly—Same as F-101-59, but for RG-11 Poly Foam Cables. **Net $1.46**

Model AF-101 Adapta-Fit Male Connector—For RG-11/U type cables. Mates with F-81, F-61, F-101-59 and A-61. Requires Crimping Tool PL-602. **Net $1.26**

AF-201—Same as AF-101, but for RG-11 Poly Foam Cables. **Net $1.26**

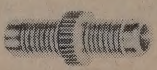


A-61 Adapter—Adapts older type C-61 female fittings to new F-59 or F-56 male connectors. **Net $1.25/25**

F-61 Female Chassis Fitting—Accepts F-59, F-56 and TR-72F. Mounts in ⅜" diameter chassis hole. **Net $.55**

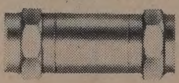
NEW! **F-61A Female Chassis Fitting**—Direct replacement for F-61. Incorporates new clutch collet. **Net $.55**

C-61 Female Chassis Fitting—Accepts C-52, C-56 or A-61. Mounts in 5⁄16" diameter chassis hole. **Net $.48**



C-81 Female Coupling—Accepts two C-52, C-56 or A-61. Mounts in ¼" diameter panel hole and feed-thru. **Net $.60**

F-81 Female Coupling—Accepts F-59 or F-56. Mounts in ⅜" diameter panel hole for use as feed-thru. **Net $.75**



F-71 Male Coupling Adapter—Mates with F-61, F-81, F-101-59 or A-61. **Net $.96**

PF-59 Push-On Connector—Adapts F-59 for push on-off connection, mating chassis fitting F-61A. **Net $1.70**

FERRULES

Ferrules—For use with Jerrold Solderless Connectors.

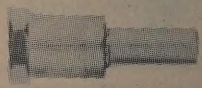
1026 Ferrule—For use with RG-6/U type cables. **Net $2.86/C**

1051 Ferrule—For use with RG-59/U type cables. **Net $1.43/C**

1095 Ferrule—For use with RG-11/U type cables. **Net $4.29/C**

TERMINATORS

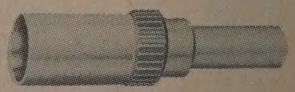
Model TR-72—Close-tolerance 72 ohm resistor for line or equipment termination. Mates with C-61 or C-81. **Net $.90**



Model TR-72F—Similar to TR-72. Mates with F-61, F-81, A-61 or F-101-59. **Net $.90**

Model TR-72B—Inexpensive 75 ohm terminator for use with B-59 type bushings. Terminates UT-22 or UT-33. **Net $.90**

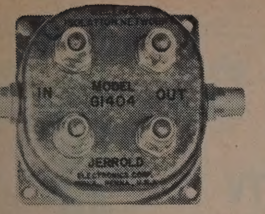
NEW Model TR-75G



75-ohm terminating resistor for G-61 or G-62 chassis fittings. **Net $.90**

© U.C.P., Inc.

ISOLATION NETWORKS



NEW

Model G-1404

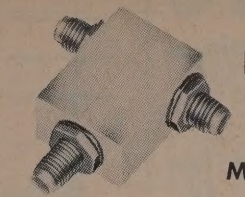
Jerrold's new Model G-1404 is a four-outlet tap-off. It comprises a network providing high isolation between the four outputs. Equipped with new "GAMMA" chassis fittings, the unit permits quick connect and disconnect of coaxial cables to the receivers. Line output and input terminals use F-59 connectors for permanent feed-thru continuity. Two F-59 and four G-59 cable connectors included. Shipping weight 8 oz.

ISOLATION BY CHANNEL

Isolation in db's (column A)
Feed-through loss in db's (column B).

2		6		7		13	
A	B	A	B	A	B	A	B
22	.25	18	.50	15	1.2	13	1.4

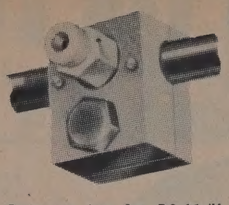
Net Price $9.90



IN-LINE TAP

Model 1401

Surface mounting, capacitive line tap for RG-59/U type feeders. Color coded attenuation values permit use with highest gain amplifiers. Specify R, Y or GR. Complete with mounting bracket and three C-52 cables connectors. (Use C-56 connectors for RG-6 type feeders.) Terminate the last tap on a feeder line with TR-72 terminator. Net Price $3.75



PRESSURE TAPS

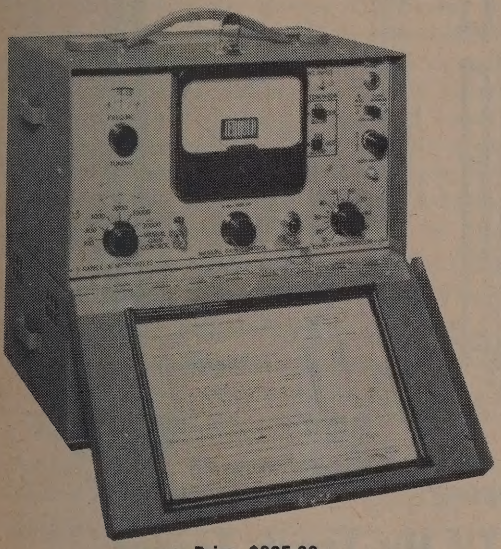
Models PT-1461, PT-1462

Pressure tap for RG-11/U (single shield) type feeders. Surface mounting. Removable color coded isolation units. (Specify R, Y or GR.) Unique design minimizes shunt capacity. (Requires use of CD-11 Cutting Punch.) Complete with F-59 cable connector. Terminate the last tap on a feeder line with TR-72F terminator. (Use F-101-59 cable adaptor.)

Model PT-1462—Same as PT-1461, but for use with double-shielded RG-11/U.

Net Price Model PT-1461 $3.75
Net Price Model PT-1462 $3.75

TEST EQUIPMENT—TOOLS—TRAPS



Price $395.00

Model 704B

FIELD STRENGTH METER

Reads Down to 5 Microvolts and Up to 3 Volts

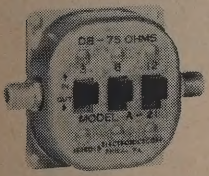
Recognized throughout the industry as outstandingly accurate and reliable, the Model 704B—Jerrold's Top-of-the-Line in field strength meters—is a calibrated, direct reading instrument for TV and FM measurements. It is a professional quality instrument for making measurements of RF signal strength within the frequency range of 54 to 220 mc. Its specially-designed tuner assures increased selectivity, 75 ohm impedance and uniform gain—as required for highest accuracy. Extremely versatile, its range of uses includes field intensity surveys, orienting antennas, measuring RF attenuation of coaxial cables and balancing TV distribution systems.

FEATURES

- Reads down to 5 microvolts and up to 3 volts, in 8 ranges.
- Bandwidth is 0.6 mc.
- Separates audio carriers from adjacent video carriers.
- Precise readings in db or microvolts ± 0.8 db over entire range.
- Reads percent of amplitude modulation of FM carriers, percent of AM distortion of FM amplifiers and percent of AM of RF generators.
- Lightweight, durable aluminum cabinet with carrying handle.
- Calibration card on hinged door panel for permanent reference.
- Phone output for listening to FM signals.
- Oscilloscope output for examining composite video.

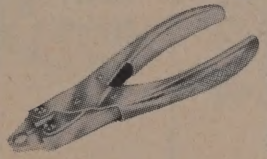
VARIABLE ATTENUATOR

Model A-21

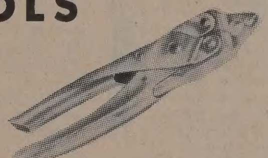


Switch type, Variable RF Attenuator providing precise attenuation over the frequency range of 0 to 250 megacycles. The unit is matched to 75 ohms with a VSWR of less than 1.05 and is capable of handling 500 milliwatts of power. Model A-21 attenuates from 0 to 21 db in 3 db steps. Two F-59 connectors are included. **Net Price $12.87**

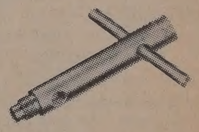
TOOLS



Crimping Tool PL-601—Crimps type 1051 ferrules. For F-59, F-56 and C-52 connectors and B-59 bushings. **Net Price $4.29**



Crimping Tool PL-602—Crimps all three ferrules—1051, 1026 and 1095. For F-59, C-52, F101-59, AF-101 and B-59 bushings. **Net Price $5.39**



Cable Cutting Tool CD-11—Cuts attenuator opening in coax cable for JERROLD pressure taps. **Net Price $2.16**

CT-2 — Replacement cutting tip for CD-11. **Net Price $1.10**

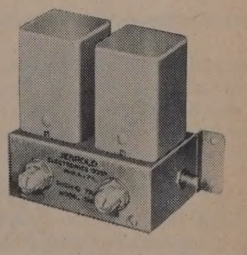
HIGH "Q" TRAPS

Models TLB, TFM, THB

Each trap consists of two tunable L-C circuits in a modified bridged-tee network. Tuning is by Teflon-dielectric trimmers with screwdriver adjustment. With both circuits tuned to an interfering signal, rejection is 40 db minimum with insertion loss only 1 db at 1 mc off the interfering frequency. Complete with two F-59 connectors for RG-59/U cable.

Model TLB	**$38.55**
Model TFM	**$38.55**
Model THB	**$38.55**

Model TLB	59.75—83.75 mc
Model TFM	88—108 mc
Model THB	179.75—211.25 mc



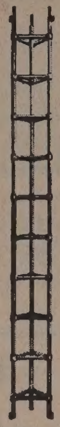
DISTRIBUTOR SALES DIVISION JERROLD ELECTRONICS PHILADELPHIA 32, PENNA.
A subsidiary of THE JERROLD CORPORATION

KTV Towers
and communications equipment

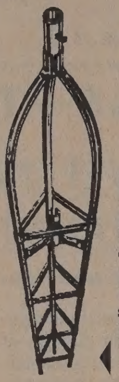
A TOWER OF STRENGTH

- *Safe in gales up to 80 mph without ugly, hazardous guy wires.*
- *Free-standing to 50 feet high.*
- *No rusting, ripping or weakening holes . . . safest by far!*
- *Big, husky, steel gird-around tubular ties for extra strength.*
- *Exclusive lateral load bearers take all strain off joints.*
- *Easy installation and dismantling on roof or ground.*
- *Free - drainage joints prevent trapped moisture and corrision.*

All communication towers are built of hot dipped tubing inside and out, then dipped and galvanized, baked in a bright aluminum after fabrication.



#820-K Straight Section. Used as bottom of free-standing 50 ft. tower and in other applications. Legs of 16 ga. cold rolled steel triangularly spaced on 10⅞″ centers. Gird-around cross ties spaced at 12″ intervals. Over-all length 10 ft. Complete with hardware 38 lbs. #818-K. same quality, but cross ties are spaced at 15″ intervals. Wt. 34 lbs. #816-K, Cross ties spaced 20″ apart. Wt. 30 lbs.



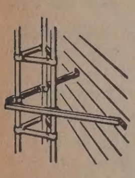
#710K Top Section. Equipped with 21″ spaced mast socket rings to take 1½″ to 2½″ dia. mast. Threaded external receptacle securely welded to each ring gives extra bearing for 2″ x ½″ set screw. Hi-tensile bolts, washers, hex nuts and set screws furnished. Over-all length 10 ft. Wt. 28 lbs.

packages available in 10, 20, 30, 40 and 50 ft. Towers

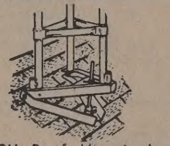
40 ft. Tower *Includes:* 1 #710-K; 1 #816-K; 2 #818-K tower sections and all connecting hardware. Shipping wt. 126 lbs. Order concrete base or roof mount separately.

50 ft. Tower *Includes:* 1 #710-K; 1 #816-K; 2 #818-K and 1 #820-K tower sections; all connecting hardware. Shipping wt. 164 lbs. Order concrete base or roof mount separately.

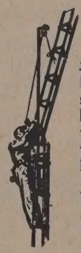
DEALER NET PRICES—10 FT.—$21.20, 20 FT.—$39.00, 30 FT.—$55.50, 40 FT.—$74.00, 50 FT.—$92.50



#864-H Wall or House Bracket. Adjustable to 20 inches.

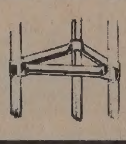


#863H Roof Mount. Assures a strong, accurately vertical installation of one or more tower sections. Adjusts up to 45° roof pitch. Takes full advantage of KTV's lateral load support. Wt. 8 lbs.



#852-J "Gin Pole". For easy tower assembly. Has 1¼″ heavy duty steel tubing with powerful strap-steel grab brackets. Fits all tower sections. With forged ring and iron pulley. Length 12 ft. Wt. 18 lbs.

Gird-Around Tubular Cross Ties



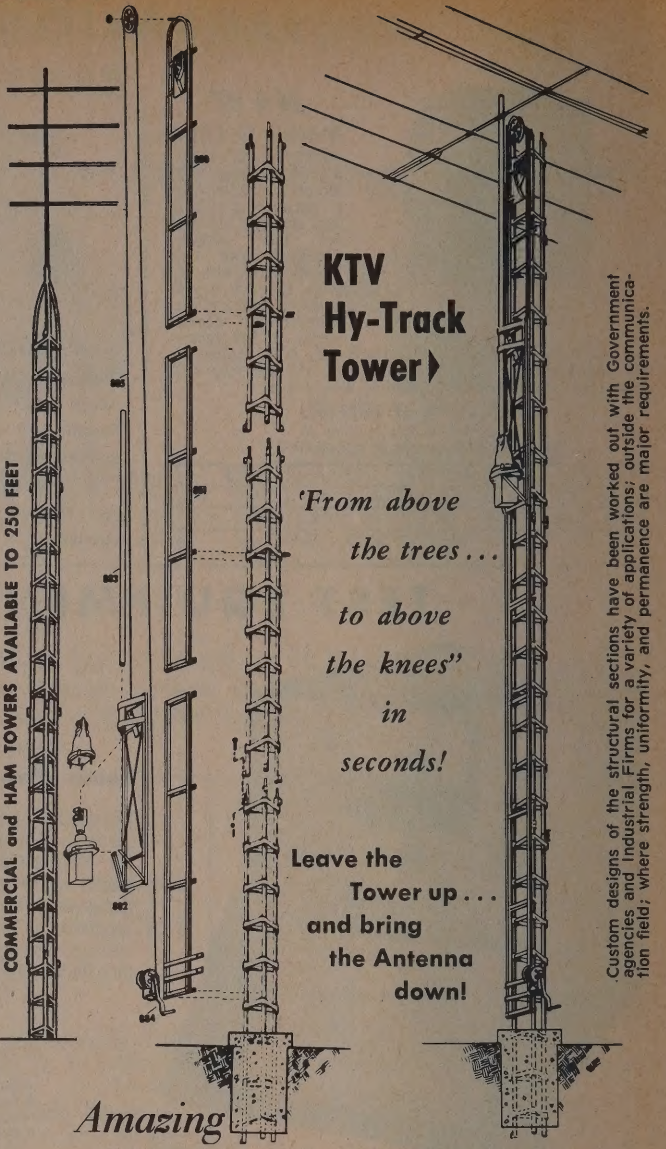
Bigger, safer, stronger. Actually **grip around** vertical tubing. Take all outward strain. The tower itself takes none.

#862H: Concrete base mount. The recommended installation.
#857-F: Mast 10 ft. x ¼″ O.D.
#859-F: Mast 15 ft. x 1¼″ O.D.
#865-H: Rotor post brackets—adjustable
#866-H: Tower mast bushing. 1¼″ I.D.1½″ O.D.
#867-H: Base plate for drive-in base.

900 Series —130 Ft.—16 Ga.—Single Lateral Load Bearers
1200 Series —175 Ft.—14 Ga.—Double Lateral Load Bearers
1200xx Series—200 Ft.—14 Ga.—Double Lateral Load Bearers
1600 Series —200 Ft.—14 Ga.—Double Lateral Load Bearers
1600xx Series—250 Ft.—14 Ga.—Double Lateral Load Bearers

1600 and 1600xx are towers with legs of 14 ga. cold roll steel triangularly spaced at 16 inches center to center; tubular gird around cross ties spaced at 12 inch intervals. New 18 and 24 inch triangular sizes are being tooled for Communication and Microwave applications.

Engineering available for special towers for radiation and special antennas.



KTV Hy-Track Tower

'From above the trees . . . to above the knees" in seconds!

Leave the Tower up . . . and bring the Antenna down!

Custom designs of the structural sections have been worked out with Government agencies and Industrial Firms for a variety of applications; outside the communication field; where strength, uniformity, and permanence are major requirements.

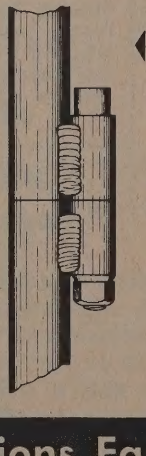
Amazing KTV Hy-Track Tower

"You Crank the Antenna Up the Tower"

PERFECT FOR

Research • Antenna Testing • Survey Work • VHF-UHF Commercial or Private Receiving — Retransmitting applications.

Write for details today.

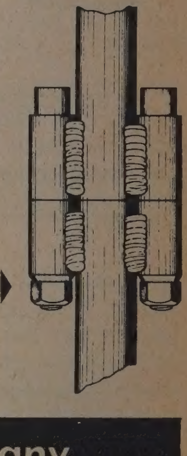


***Exclusive* SINGLE LATERAL LOAD BEARERS**

No dangerous rust. Arrow (X) shows open joint section. Assures free drainage and ventilation, less corrosion. • • • *No hazardous holes.* Arrow (Y) shows lateral load bearers lifetime welded to side of each section leg with twin 1⅛" fillets. Sections are bolted vertically. Bear 100% of the load. No load on joints. No horizontal bolts to tear through. Nothing safer Only KTV has it!

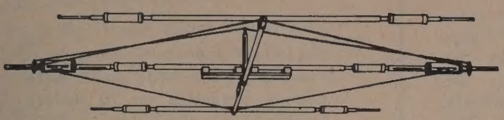
DOUBLE LOAD BEARERS

Exclusive!! Double Lateral Load Bearers welded to both sides of each section leg with twin 1⅛th inch filllets—Sections are bolted vertically to bear 100% of the load. No load on joints, nothing safer, nothing so easy to assemble —only KTV has it.



KTV Tower and Communications Equipment Company
Sullivan, Illinois

TA-40K



TA-3340

FOR 10 15 20 & 40 Meters

Only a few minutes are required to convert the Mosley TA-33 Trapmaster Beam for operation on 40 meters. When installed on the driven element, the TA-40K will exhibit a typical figure eight pattern obtained from a half wave antenna yet 10, 15 and 20 meter operation is virtually uneffected. TA-40K incorporates the famous construction and design features used in the Mosley Trapmaster Antennas which assure years of trouble-free performance. Because of the mechanical strength of some antennas as well as the differences in electrical design, the TA-40K is not recommended for use on any antenna other than Mosley Trapmaster. TA-40K contains radiator traps and all necessary hardware. Mosley TA-40K and Mosley TA-33 can be ordered as a complete antenna package. Mosley TA-3340. TA-40K operates as a ½ wave rotatanle dipole on 40 meter.

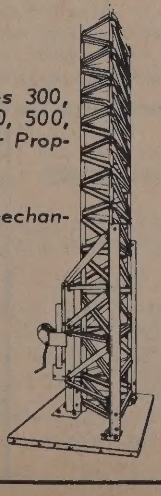
- **SWR 1.5/1 or better at resonant frequencies.**
- **Maximum element length 38 ft. 7 in.**
- **Turning radius 19 ft. 6 in.**
- **Assembled weight 10 lbs.**
- **Hardware, mast and line for guying is supplied.**
- **Shipping weight 13 lbs.**

Mosley TA-40K 40 meter adapter	Amateur Net $ 40.75
Mosley TA-3340	Amateur Net $ 147.35

MOSLEY TOWERMASTER

Mosley, *the top name in beam manufacture*, now has a complete line of quality built towers to fit every need, application and requirement.

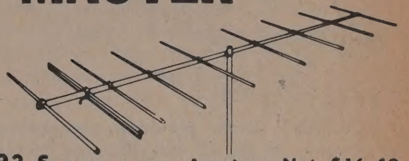
Features



- *Available in 10 and 20 foot sections with hot dipped galvanized, or epoxy resin finish.*
- *Geared crank-up winch and safety lock.*
- *Extra reinforcing spreader.*
- *Heavy steel winch frame.*
- *Predrilled rotor mounting plate with series 300, will accept CDR type rotor - Series 400, 500, 650, 700, 750 will accept either CDR or Prop-pitch types.*
- *2 inch I.D. mast sleeves.*
- *All tubular leg members of high strength mechanical steel tubing.*
- *Heavy duty steel hinged base plate.*
- *Welded section stops.*
- *Heavy duty safety clips.*
- *Metal ball bearing pulley sheaves.*
- *Galvanized aircraft type raising cables.*
- *Heavy duty steel channel bracing members.*
- *Low friction section guides.*
- *Vertical guy attachment loops.*

SCOTCH - MASTER

2 & 6 Meter Antennas



MOSLEY Model A-92-S .... **Amateur Net $16.40**
New Mosley SCOTCH-MASTER two meter beam is a nine element antenna. May be mounted vertically or horizontally, will handle maximum legal power, amplitude modulated or 2,000 watts P.E.P. SSB. Mounting bracket fits masts up to 1½'' OD. Antenna is matched for 300 ohm balanced line. Boom is of sturdy medium weight wall 1¼'' OD aluminum tubing to achieve maximum strength with minimum weight and wind loading characteristics. Stacked arrays feature 300 or 75 ohm balanced feed.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 14 Db. Front-to-back 20 Db. SWR, 1.5 to 1 or less at resonant frequencies. Maximum element length, 41 inches. Boom length, 12 feet. Turning radius, 6.5 feet. Assembled weight, 4 pounds. Maximum wind surface area, 1.25 square feet. Wind load, 25 pounds. Antenna is shipped in kit form.

MOSLEY Model A-76-S .... **Amateur Net $35.10**
The Mosley SCOTCH-MASTER six meter beam has seven elements. Provides maximum forward gain and excellent directivity. SCOTCH-MASTER will handle the full legal power, amplitude modulated. Mounting bracket fits up to 1½ inch OD mast. Antenna is ''Gamma'' matched for 52 ohm unbalanced line. Boom is of heavy guage 1¼''OD aluminum. Easily rotated with TV rotor and can be mounted vertically or horizontally.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 12 Db. Front-to-back, 20 Db. Boom length, 24 feet. Turning radius, 13 feet. Assembled weight, 12.5 pounds. Maximum wind surface area. 2.5 square feet. Wind load, 51 pounds. Antenna is shipped in kit form, complete with detailed instructions.

MOSLEY Model A-56-S .... **Amateur Net $ 28.16**
The New Mosley SCOTCH-MASTER six meter beam features five elements, maximum forward gain and excellent directivity. This gamma matched beam will handle the full legal power amplitude modulated. Can be mounted vertically or horizontally. Feed with 52 or 75 ohm line.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 10 Db. Front-to-back, 20 Db. or better. SWR, 1.5 to 1 or less at resonant frequencies. Maximum element length, 118 inches. Boom length, 12 feet. Turning radius, 7 feet 8¾ inches. Assembled weight, 6.5 pounds. Wind load, 32 pounds horizontally, 56 pounds vertically. Antenna is shipped in kit form, complete with detailed instructions.

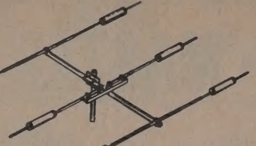
• • Mosley SCOTCH - MASTER Stacking Kits • •

MOSLEY Model A-92-S-SK1 .... **Amateur Net $3.15**
A kit for stacking two horizontally polarized A-92 SCOTCH-MASTER beams, one above the other. Comes complete with matching transformer, insulator, complete instructions and phasing line. Feed point impedance - 300 ohm balanced line. This stacked array will attain 3 Db additional gain over single horizontally mounted beam.

MOSLEY Model A-92-S-SK2H ..... **Amateur Net $44.35**
A kit for stacking four horizontally polarized A-92 SCOTCH-MASTER beams, two over two. Complete with support members, mounting plates, phasing line, insulators, hardware and instructions. Feed point impedance - 75 ohm balanced line. This stacked array will attain 6 Db additional gain over a single horizontally mounted beam.

MOSLEY Model A-92-S-SK2V ...... **Amateur Net $44.35**
A kit for stacking four A-92 SCOTCH-MASTER beams, two over two, in the vertical plane. Comes complete with support members, mounting plates, insulators, phasing line, hardware and instructions. Feed point impedance - 75 ohm balanced line. This stacked array will attain 6 Db additional gain over a single vertically mounted beam.

TRAP MASTER



3 BAND BEAMS

10 – 15 – 20 meters.

3 ELEMENT beam provides outstanding performance on 10, 15 and 20 meter bands. Up to 8 db., forward gain with 25 db., or better, front-to-back, 1.1/1 or less, SWR at resonant frequencies.

Model TA-33 . . . . . . Amateur Net, $104.75

2 ELEMENT version of the famed TRAP-MASTER Beam rated to a full KW. 5.5 db. forward gain with 20 db. front-to-back. 7' boom and 28' maximum element length.

Model TA-32 . . . . . . Amateur Net, $72.98

3 BAND DIPOLE is rated to 1 KW. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the Famous TA-33 "Trap-Master" Beam.

Model TA-31 . . . . . . Amateur Net, $27.14

Conversion kit to make the TA-31 a TA-32.
Model TA-31-32 . . . . Amateur Net, $44.52

Conversion Kit to make the TA-32 a TA-33.
Model TA-32-33 Amateur Net, $30.86

"JR" FOR 300 WATTS or LESS

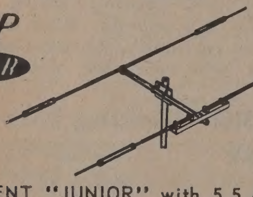
10 – 15 – 20 meter bands.

Trap-Master "Junior" Beams provide the same fine performance as the world famous Model TA-33. Traps are rated to 300 watts (AM).

3 ELEMENT "JUNIOR" Beams provide the forward gain and 25 db. front-to-back. SWR is usually less than 1.5/1 at resonant frequencies. Aluminum boom is 1¼" OD. x 12'. Maximum element length, 26' 8". Turning radius is 14' 9". Wind load, 86 pounds. Assembled weight, 20 pounds. Recommended feed-line, RG-8/U.

Model TA-33 Jr. . . . . Amateur Net, $72.98

TRAP MASTER



2 ELEMENT "JUNIOR" with 5.5 db. forward gain with approximately 20 db. front-to-back. Aluminum boom is 6' long and maximum element lentgh is 26' 8". Has turning radius of just 13' 9". Assembled weight, 14 pounds. Wind load, 62 pounds.

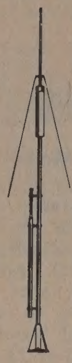
Model TA-32 Jr. . . . . Amateur Net, $51.98

3 BAND DIPOLE rated to 300 watts. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the famous TA-33 Jr. "Trap-Master" Beam.

Model TA-31 Jr. . . . . Amateur Net, $20.75

Conversion Kit to make the TA-31 Jr. a TA-32 Jr.
Model TA-31-32 Jr. . . Amateur Net, $30.35
Conversion Kit to make the TA-32 Jr. a TA-33Jr.
Model TA-32-33 Jr. . . Amateur Net, $26.37

"TRAP-MASTER" VERTICAL ANTENNAS



3 BAND VERTICAL for 10, 15 and 20 meter bands. Weatherproof traps need no adjusting and provide automatic band-switching. One quarter wave operation for low angle radiation. Requires 4 or more 16' radials. With guy rope and base. The V-3 is rated to a full KW (AM) the V-3 Jr. is rated to 300 watts (AM).

Model V-3 . . . Net, $24.10
Model V-3 Jr. . Net, $18.85

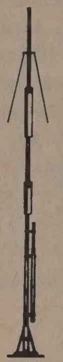
Six meter adapter kit for V-4-6 and V-3 antennas.

Model AK-6 Amateur Net, $3.19

10 thru 40 meters

Automatic bandswitching with this vertical. Electrical ¼ wavelength each band with low angle radiation makes this an excellent low cost DX antenna. Low SWR with exceptionally flat response over full bandwidth. Traps are weather and dirt proof for long, reliable service. Will handle full KW (AM). Sturdy aluminum construction. Requires 4 radial wires, 30' each. With guy rope and base.

Model V-4-6. . Amateur Net, $28.50

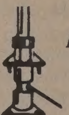


80 Meter BASE LOADING COIL. Base loading coil for operating V-4-6 Vertical on 75 and 80 meter bands. Space wound on heavy ceramic form. Handles full KW (AM). Mounts on base section of vertical. With coax connectors.

Model D-4BC Amateur Net, ... $16.45

Work 10, 15, 20, 40 and 80 with one antenna . . . one RG-8/U feed line. Designed and built to meet United States Air Force electrical and structural specifications. The V-5 is 100% rust proof and performs billiantly on each of the 5 bands. It is capable of handling power of 1 KW to the antenna! Weather proof trap assemblies are used throughout . . . no external loading coil needed. Maximum length of antenna is 43 ft., 8 in. Supplied complete with polyethylene guy rope, heavy duty base with internal coax fitting and all necessary hardware.

Model V-5 . . Amateur Net, 124.43



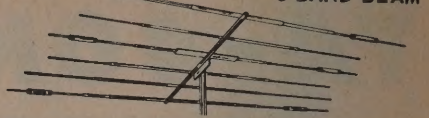
HEAVY DUTY BASE MOUNT

Supplied with the V-5 and V-4-8 Antennas.

For 40 and 80 meter bands. ¼ wavelength vertical on each band. Oversize trap assembly handles 1 KW (AM). Maximum overall length of antenna is 52' 3". Requires 12 radials each 64' in length. Complete with base mount (heavy duty), polyethylene guy rope and hardware

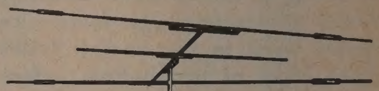
Modle V-4-8 . Amateur Net, $89.25

3 BAND BEAM



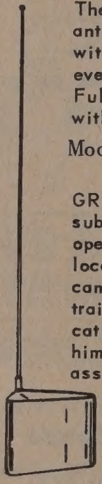
This wide spaced, six element contiguration employs 4 operating elements on 10 meters, 3 operating elements on 15 meters and 3 operating elements on 20 meters. Automatic bandswithing built for operation at maximum legal amateur power. Forward gain on 10 meters is 8 db., on 15 meters is 8.5 db. on 20 meters is 8 db. Front-to-back is 20 db. or better on all 3 bands. SWR is 1.5/1 or better at resonance. maximum element length is 29'. Boom is 24'. Turning radius js 19' 3". Assembled weight is 69 lbs. just one coaxial feed line needed. 52 ohm. RG-8/U is recommended.

Model TA-36 . . . Amateur Net, $132.10



3 ELEMENT BEAM for 20 and 40 meters. Forward gain on 20 meters, 8 db.; on 40 meters, 5.0 db.; front-to-back on 20 meters, 25 db.; on 40 meters, 20 db.; maximum element length, 54' 8"; turning radius, 29'; boom length, 20'. Antenna weight (with Tilting Head), 150 lbs. Just one coaxial feed-line is needed. 52 ohm, RG-8/U is recommended.

Model TA-20-40 . Amateur Net, $354.39



The Auto-Whip is a 5 band mobile antenna for 10, 15, 20 and 40 meters with a parallel network that achieves near unity SWR on 80 meters. Fully automatic, changes bands without switches

Model TM-5
Amateur Net, $77.12

GROUND SYSTEM KIT serves as a substitute for your automobil when operating from a fixed or portable location such as an apartment roof, campsite, fishing cottage, house trailer, boat or any of the many locations the active Ham may find himself and his equipment. Easily assembled and installed.

Model TM-5-AK
. . Amateur Net, $27.95

"TRAP-MOBILE"

for 10, 15 and 20 meters.

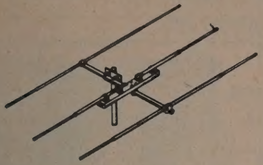
Automatic Bandswitching! 3 Band Mobile Antenna functions without switches. Overall length of 7' 8" provides electrical ¼ wavelength on each band assuring excellent performance with low SWR over full bandwidth. Stainless steel whip sections permit antenna to lay forward over car for garaging. Stainless steel base stud, 3/8"-24, fits standard mounts. Feed with RG-8/U coax, preferably 22½ feet in length.

Model MA-3 Amateur Net, $22.00

Whip-Klip – Universal clip for mobile whip antennas.

Model MWK . Amateur Net $1.03

"POWER-MASTER" BEAM ANTENNAS



"Power-Master" Antennas are full sized arrays, each designed for a single band, 10, 15, or 20 meter. All are 100% rust-proof, stainless steel hardware, high impact polystyrene insulators with aluminum elements and boom. "Power-Master" is fed with 52 ohm coax.

Forward gain - 8.9 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 18' 7", boom - 12' x 1¼" OD x .058, turning radius - 11' 1", wind load - 69 lbs.

Model A-310 . . . . Net, $41.36

Forward gain - 8.5 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 23' 4", boom - 12' x 1¼" OD x .058, turning radius - 13' 2", wind load - 87 lbs.

Model A-315 . . . . Net, $46.87

Forward gain - 8.0 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 35' 4", boom - 14' x 1½" OD x .125, turning radius - 18' 9", wind load - 200 lbs.

Model A-320 . . . . Net, $85.16

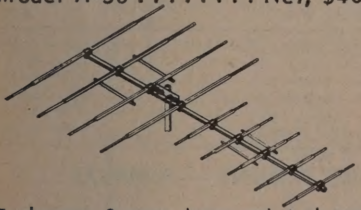
VHF "POWER-MASTER" ANTENNAS

14 element, 2 meter beam. Forward gain - 13 db., front-to-back - 20 db., SWR - 1.1, maximum element length 3' 5", boom - 1¼" x .058" x 12', turning radius - 6' 5", wind load 37 lbs., assembled weight - 11½ lbs. element sections are 5/8" OD and ½" OD establishing an extremely low ratio of length-to-diameter.

Model A-142 . . . . Net, $53.73

5 element, 6 meter beam. Forward gain - 11 db., front-to-back - 20 db., SWR - 1.1, maximum element length - 9' 8¾", boom - 1¼" x .058" x 12', turning radius - 8' 5", wind load - 38 lbs. assembled weight - 11½ lbs. "Power-Master" VHF Antennas combine superlative performance with the most rugged construction to be found in any VHF antenna for amateur use!

Model A-56 . . . . Net, $46.25



5 element, 2 meter beam and 4 element, 6 meter beam. Forward gain - (2M) 11.4 db., (6M) 9.6 db., front-to-back - (2M) 11.5 db., (6M) 16.3 db., SWR - (2 and 6M) 1.1, maximum element length - (2M) 3' 5", (6M) 8', boom - 1½" x .125" x 14', turning radius - 8' 9", wind load - 50 lbs., assembled weight - 20 lbs. 100% rust proof.

Model A-2N6 . . . . Net, $73.93

STACKING KITS

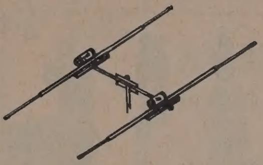
Stacking Kit for A-142, vertical or horizontal.

Model SK-2 . . . . Net, $26.19

Stacking Kit for A-56, vertical or horizontal.

Model SK-6 . . . . Net, $36.11

"SIGNAL-MASTER" ANTENNAS



This 2 element Signal-Master is the antenna for 40 meters. Rated to 1 KW. 100% rust proof. Forward gain – 5 db., Transmission line – 52 ohm coax (RG-8/U), Boom – 2" OD x .110" wall x 20', Maximum element length – 44' 3", Turning radius – 24' 4", Wind load (EIA Standard) – 200 lbs., Antenna weight – 58 lbs. F/B – 20 db.

Model S-402 . . . Net, $130.73

TRAP DIPOLES

Resonates at 40 and 80 meters. ½ wavelength on each band. Rated to 1 KW. Antenna length, 114' 11". Ideal where a bi-directional pattern is desired. Antenna weight, 7 lbs.

Model TD-2 . . . . Net, $39.42

Will operate on 10, 15 and 20 meters. Rated to 300 watts AM. Overall wire length of 24 feet. ½ electrical wavelength on each of three bands. Antenna weight, 1¾ lbs.

Model TD-3 Jr. . . . . . Net, $15.23

DIPOLE LOADING COILS

Coils are space-wound with plated No. 12 copper wire and are rated to 1 KW.

Type 40-D . . . . Net, $8.78

Type 75/80-D . . . . . . Net, $8.78

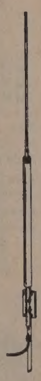
MAST PLATE ADAPTER KIT

Mast Plate Adapter for 2" OD Mast complete with Aluminum Angle and hardware.

Model AK-60 . . . . Net, $4.88

CITIZENS BAND ANTENNAS

DELUXE LINE



3 element beam for best point-to-point communication. 9.3 db. gain. Use the A-311 on each end to develope 80 watts ERP. Less mast, coax line and rotor.

Model A-311. . . . Net, $39.75

Coaxial ground plane vertical antenna. 100% rust and corrosion proof. Can be mounted on tower, pole or chimney mount. Excellent base station antenna.

Model CA-27 . . . . . . Net, 38.54

CITIZENS BAND ANTENNAS

DELUXE LINE

Ground Plane Vertical is ideal as base station antenna. 360 degree pattern and vertical polarization for effective communication with mobiles. High impact polystyrene base with internal coax fitting, less coax line.

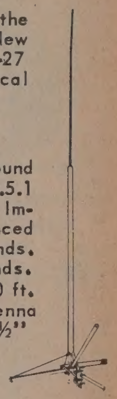
Model V-27-GP . . . . . Net, $36.70

STANDARD LINE

The V-11-UGP is ideal as basestation antenna. 360 degree pattern and vertical polarizaten ion for effective communication with mobiles. Rugged, 6061-T6 aluminum. 100% rust and corrosion proof.

Model V-11-UGP. . Net, $23.06

SCOTCH-MASTER UL-27



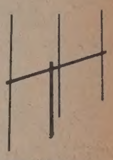
For Citizen Band operation, the Uni-Linear tops Mosley's New Scotch-Master Line. The UL-27 is an Omni-Directional Vertical Ground Plane Antenna.

SPECIFICATIONS AND PERFORMANCE DATA: Gain over standard ground plane up to 4 db. VSWR: 1.5.1 over entire band. Feed Point Impedance: 52 ohm coax Unbalanced line. Assembled Weight: 8 pounds. Wind Load (EIA STD): 50 pounds. Antenna Height: Less than 20 ft. Number of Radials: 3. Antenna mounting fits masts up to 1½"

UL-27 . . . . . . Net, $34.35

A-311-S

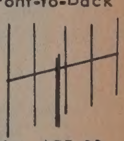
Mosley A-311-S, 3 element beam is designed for the economy minded CB'er who wants the utmost in dependable two-way communications.



SPECIFICATIONS AND PERFORMANCE DATA: Number of elements - 3. Antenna Weight - 12.5 lbs. Boom Length - 12 ft. Maximum Element Length - 18' 8¾". Front-to-Back - 20 db. Vertical Wind Load - 65 lbs. Horizontal Wind Load - 35 lbs. Forward Gain - 8 db. Type Matching - Gamma. Impedance Point - 52 ohms. Radiation - Uni-Directional.

A-311-S . . . . Net, $35.00

A-511-S



Number of Elements - 5. Antenna Weight - 16.5 lbs. Boom Length - 24 ft. Maximum Element Length - 18' 8¾". Front-to-Back 20 db. Vertical Wind Load - 112 lbs. Horizontal Wind Load 62 lbs. Forward Gain - 9.5 Type Matching - Gamma. Impedance Point - 52 ohms. Radiation - Uni-Directional.

A-511-S . . . . Net, $55.00

for SHORT WAVE LISTENERS

A seven band receiving dipole that offers real "DX-Ability" on 11, 13, 16, 19, 25, 31 and 49 meters. Made of No. 16 tinned copper wire with glazed porcelain insulators. Entire antenna weighs just 2 lbs. and is 40 feet in length. 75 ohm twin-lead transmission line supplied.

Model SWL-7 . . . . Net, $15.04

A receiving dipole for 10, 15, 20, 40 and 75/80 meters. Antenna is 69 feet in length. Has all the same mechanical construction as the Model SWL-7.

Model RD-5 . . . . Net, $16.54

© U.C.P., Inc.

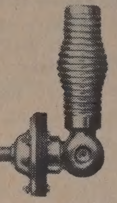
ANTENNAS MOUNTS

Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics
Los Angeles 16, California

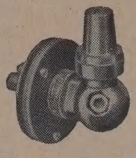
All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

MODEL 232


MODEL 232C (COAXIAL TYPE)

MODEL 232C

(Coaxial Type Base Mounts Optional)


MODEL 321C

232 SERIES

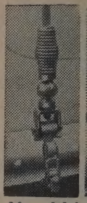
MODEL 140

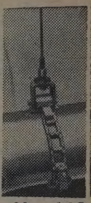
MODEL 142

SEPARATE SPRINGS FOR UNIVERSAL MOUNTS

100 SERIES

100W SERIES


No. 444 Universal $17.80


No. 445 Mount $7.95

No. 446 Mount $13.45

MOUNT SPECIFICATIONS

(All types are tapped for 3/8″ Stud Fitting on Antenna End. Shipping Weight Approx. 3 lbs.)

232	Base Mount–Double Tapered Spring–Swivel Base	$ 8.75
232C	Base Mount–Double Tapered Spring–Swivel Base Coax Conn.	8.75
232SS	Base Mount–Double Tapered Spring–Spec. Stainless	12.95
232SSC	Base Mount–Double Tapered Spring–Spec. Stainless—Coax. Conn.	12.95
232X	Base Mount–Heavy Duty–Double Tapered Spring—Swivel Base	9.85
232XC	Base Mount–Heavy Duty–Double Tapered Spring—Coax. Conn.	9.85
232XSSC	Base Mount–Heavy Duty–Double Tapered Spring— Spec. Stainless—Coax Conn.	14.95
232XSS	Base Mount–Heavy Duty–Double Tapered Spring—Spec. Stainless	14.95
232XX	Base Mount–Extra Heavy Duty Spring	10.85
232XXC	Base Mount–Extra Heavy Duty Spring–Double Tapered Spring—Coax Conn.	10.85
232XXSS	Base Mount–Extra Heavy Duty Spring–Double Tapered—Spec. Stainless	15.95
232XXSSC	Base Mount—Extra Heavy Duty Spring—Double Tapered—Spec. Stainless—Coax Conn.	15.95
321 or 321C	Base Mount–Where no spring desired–with spec. rigid type ball joint	7.95
140	Universal Mount—Double Tapered Spring	6.95
140X	Universal Mount–Heavy Duty–Double Tapered Spring	7.95
140SS	Universal Mount–Special Stainless	9.65
140XSS	Universal Mount–Special Heavy Duty Stainless	10.95
140XX	Universal Mount–Extra Heavy Duty–Double Tapered Spring	8.95
140XXSS	Univresal Mount–Extra Heavy Duty–Stainless Steel	11.95
142	Universal Mount–Less Spring, with Insulators for Direct Mounting by Series 100 Ant. or or 92 Ext. and 106 Antenna	3.95
446SS	Universal Mount–Special Stainless–Chain Mount	14.90
446XSS	Universal Mount–Heavy Duty–Special Stainless—Chain Mount	15.90
446XXSS	Universal Mount–Extra Heavy Duty–Special Stainless—Chain Mount	16.90
446	Universal Mount–Heavy Duty Spring–Chain Mount	13.45
446L	Universal Mount–Double Tapered Spring–Chain Mount	12.45
446XX	Universal Mount–Extra Heavy Duty Doubled Tapered Spring–Chain Mount	14.45
444	Universal Mount–Heavy Duty Spring–Swivel Base—Chain Mount	17.80
444L	Universal Mount–Double Tapered Spring–Swivel Base–Chain Mount	16.70
444XX	Universal Mount–Extra Heavy Duty Spring—Swivel Base—Chain Mount	18.80
444SS	Universal Mount—Special Stainless—Swivel Base—Double Tapered Spring—Chain Mount	20.90
444XSS	Universal Mount–Special Stainless—Heavy Duty—Swivel Base–Chain Mount	22.90
444XXSS	Universal Mount–Extra Heavy Duty—Special Stainless—Swivel Base–Chain Mount	23.90
445	Universal Mount–Threaded, 3/8″-24—Chain Mount	7.95

HEAVY DUTY UNIVERSAL SPRINGS

Heavy duty flexible mounting spring mounts on the base and holds the antenna. Special flexible "give" spring prevents sharp impacts and breakage. Maintains vertical antenna position under normal wind loads.

3/8-24 tapped hole for antenna mast. 3/8-24 stud for antenna base. 5″ h. Tightening wrenches supplied.

Model MMW-7 .... $4.50
Cad plated with black painted ends. Lockwasher included.

Model MMW-7HC $5.50
Heavy Cad plated for extra protection. Lockwasher included.

Model MMW-7SS $8.95
Deluxe—Stainless Steel spring high quality appearance. Lockwasher included.

BASE MOUNT

MMW-3 APS

New design incorporating the last word in modern design for strength and service. Easy one-man installation, no special tools needed. Mounts watertight on flat or curved surface. Mounting template provided. 3/8-24 thread mounting hole for whips and antennas.

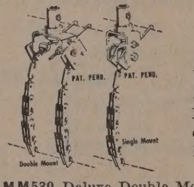
Model MMW-3AE High gloss ebony finish	$6.95
Model MMW-3AP High gloss polished finish	$7.95
Model MMW-3AES Ebony finish. St. St. hardware	$8.95
Model MMW-3APS Polish finish St. St. hardware	$9.25

WHIP ANTENNA SPECIFICATIONS

MODEL St. Steel	Overall Length	Base Specifications	Net Price
100-60S	60″	Threaded 3/8″ Stud to fit all Mounts	$4.95
100-72S	72″	Threaded 3/8″ Stud to fit all Mounts	4.95
100-78S	78″	Threaded 3/8″ Stud to fit all Mounts	5.00
100-86S	86″	Threaded 3/8″ Stud to fit all Mounts	5.15
100-90S	90″	Threaded 3/8″ Stud to fit all Mounts	5.20
100-96S	96″	Threaded 3/8″ Stud to fit all Mounts	5.25
100-103S	103″	Threaded 3/8″ Stud to fit all Mounts	6.95
106-60S		Pl. End 3/16″ Dia. (Fits Mod. 92 Ext.)	4.15
106-72S	72″	Pl. End 3/16″ Dia. (Fits Mod. 92 Ext.)	4.15
106-78S	78″	Pl. End 3/16″ Dia. (Fits Mod. 92 Ext.)	4.20
106-86S	86″	Pl. End 3/16″ Dia. (Fits Mod. 92 Ext.)	4.35
106-90S	90″	Pl. End 3/16″ Dia. (Fits Mod. 92 Ext.)	4.40
106-96S	96″	Pl. End 3/16″ Dia. (Fits Mod. 92 Ext.)	4.50
106-103S	103″	Pl. End 1/4″ Dia. (Fits Mod. 92 Ext.)	6.45

Comb. 106-96″ whip with #92 Ext. (18″) gives up to 112″ adj. .... **Net $8.00**

UNIVERSAL MOUNTINGS



Unique shaped links adjustable to fit any width surface. For use with spring and or whip. (3/8″-24 thread). Easily attaches in minutes.

MM530	Deluxe Double Mount Stain. Steel	**Net** $21.95
MM531	Deluxe Single Mount Stain. Steel	**Net** 11.95
MM520	Double Mount S-Cad. Plated	**Net** 7.95
MM519	Single Mount S-Cad. Plated	**Net** 4.95

SEPARATE SPRINGS FOR BUMPER MOUNTS

	Net
100 — Regular	$4.50
100-X — Heavy Duty	5.50
100SS — Stainless Steel	6.95
100XSS — Heavy Duty Stainless Steel	7.95
100WX — Heavy Duty w/Male stud	5.50
100XX — Extra Heavy Duty Spring	6.50
100WXX — Extra Heavy Duty Spring — Male Stud on one end	6.50
100XXSS — Extra Heavy Duty Spring — Stainless Steel	8.95

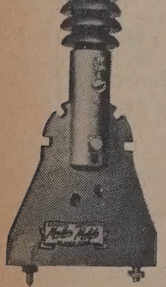
New Model No. 132-J Junior Body Mount — Same design as standard No. 232 Master Mount but smaller size. Built to approved Master spec. for quality, workmanship and finish.......... $4.17

Model No. 132-JC — Same as above with Coax Connector .... **Only $5.17**

New Model No. 140-J Junior Bumper Mount — Same design as our standard No. 140 Master Mount but smaller spring — yet of same high quality construction and finish .... **Net $4.17**

Coaxial Conversion Kit — No. 118 fits No. 232 and No. 118J fits No. 132J Models. .... **Net $1.00**

Retractable
CB Antenna
CG-275 GUTTER MOUNT



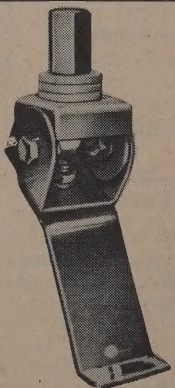
This new precision-built mobile antenna mount enables you to achieve maximum gain and coverage with a car roof level antenna — WITHOUT DRILLING HOLES IN YOUR CAR TOP!

$7.95

CITIZENS BAND NET

POSITIVE LOCK — positively locks antenna in position.
RETRACTABLE — won't dip even at high speed!
ADAPTABLE — attaches easily and quickly to your car's rain gutter. Any standard 3/8″ 24-thread whip mounts in just seconds.
RUGGED — steel and aluminum construction, ruggedly built to take a tremendous beating!

UNIVERSAL MOUNT


TM-1

For use with any antenna having 3/8″ 24-thread. Entire assembly of alloy steel, chrome plated.

$4.45

CITIZENS BAND NET

UNIVERSAL MOUNT — MMM-75

Master Mobile

For Trunk Lid, Cowl Mounting

Adjustable to fit any curved or flat surface. Special fiberglas installation. Equipped with coaxial connector.

$7.95

CITIZENS BAND NET

ORDER FROM YOUR JOBBER TODAY!

Master Mobile Mounts
LOS ANGELES, CALIFORNIA

© U.C.P., Inc.

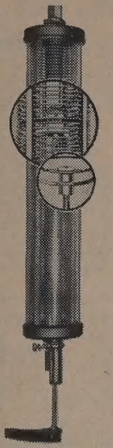
ANTENNAS MOUNTS

Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics
Los Angeles 16, California

All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

HY "Q" construction with wider spacing of turns for high frequency bands. Use as center or base loaded antenna with 60" whip.



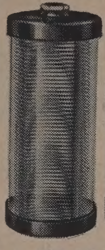
No. 750 MASTER DELUXE ALL-BANDER

Covers 10 thru 75 and all intermediate frequencies.

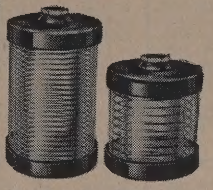
Silverplated single turn contact, positive spring. Eccentric cam contact, easy selection of turn.

Automatic lock prevents damage to coil.

Net
$14.95



Ultra-Hi "Q" COILS



FOR 80-40-20 & 15, METERS

After many years of experimentation, here is the coil with the highest "Q" ever obtained. Tested and found to have a "Q" of well over 515. Use with 36" base section, 60" whip.

• Ruggedized construction • Greater efficiency • Precision made • 2¾" Diameter

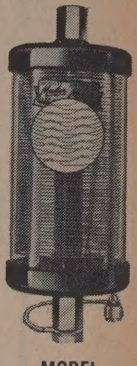
ANY BAND . . . AMATEUR NET EA.
$5.25

NEW
MULTI-BAND
TRANS. ANTENNA COILS

New Plug-In Coils! Just plug into desired pair of jacks and presto! . . . your coil is ready for operation on the desired band. No switches, no sliding contacts, no loose connections. Built and tested for maximum resonance.

- Rigidly tested and engineered — found to have a "Q" of 525
- Operates into a 25-ohm cable
- Positive contact — noisefree, trouble-free operation
- Weathersealed
- Ruggedized construction
- Factory pre-tuned — no adjustment is necessary
- Higher efficiency — lower loss

THE VICTORY
No. 999
10-15-20 METERS ONLY



MODEL SSB 156
75 & 40 METERS ONLY

YOUR CHOICE $14.95

DELUXE ULTRA-HI "Q" COILS

Extremely efficient for SSB operation and with power units.

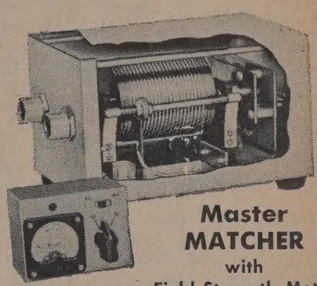
New design for higher "Q", top efficiency and lighter weight. No arcing with high power transmitters. For use with 3 ft. base section and 60" whip.

15 meter	$ 6.95	2374 Kc.	$15.95
20 meter	6.95	2738 Kc.	15.95
40 meter	8.95	2768 Kc.	15.95
75/80 meter	9.95	4507.5 Kc.	10.95
160 meter	14.95	4585 Kc.	10.95
2251 Kc.	15.95	4325 Kc.	10.95

ULTRA HY "Q" C.A.P. COILS

		Net
UH "Q" 2374 KC.	Additional HY "Q" C.A.P. Coils to be used with HY "Q" C.A.P. Antennas according to frequency desired. These coils are interchangeable. Other freq. coils priced upon request.	$ 8.95
UH "Q" 2738 KC.		8.95
UH "Q" 2768 KC.		8.95
UH "Q" 4507.5 KC.		7.95
UH "Q" 4585 KC.		7.95
UH "Q" 4325 KC.		7.95
UH "Q" 160 Meters	....	12.95
UH "Q" 2251 KC.	....	12.95

Deluxe UHQ coils are ideal for use with the Master Mobile K-73 500 watt SSB Linear Amplifier or any other high power SSB amplifier.



Master MATCHER with Field Strength Meter

Automatically tunes Band by remote control

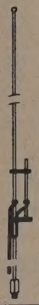
Motor-driven variable inductance controlled by a switch from the operating position. Makes possible tuning the antenna to the exact resonant frequency. QSY in any particular band without moving to adjust antenna loading coil. All guess work is eliminated, and the field strength meter, with automatic panel light indicator, shows when roller is at minimum inductance position. With the Master Matcher maximum efficiency is possible with minimum effort.

For 6 volts: Model 2495-6
For 12 volts: Model 2495-12
Amateur Net $24.95 Complete

2 METER "J"

Mobile/Fixed

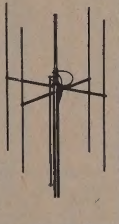
ANTENNA



Provides 2 db. gain over standard co-axial antennas. Vertically polarized. Perfect impedance match for 52 ohm line. Factory-cut balun supplied. Overall height is 86". Ideal antenna for 2-meter mobile or fixed station use.

Model AM-28
Amateur Net
$14.95

"CLOVERLEAF" ANTENNA



Provides 3 db. gain. VSWR less than 1.5:1. Omnidirectional pattern with gain equal to 2 el. beam. Complete balun to match 52 ohm coax. Factory pre-tuned. All aluminum.

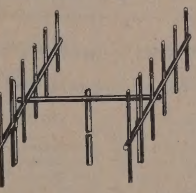
AM-23	420-450 mc.
AM-24	220-225 mc.
BR-I	..........150-174 mc.
AM-25	........144-148 mc.

Amateur Net $12.95

Model AM-26— 50-54 mc. $19.95

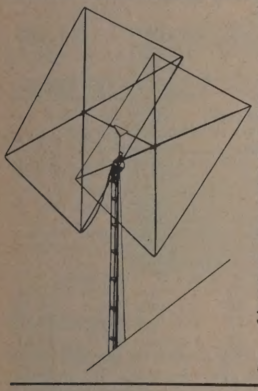
TWIN-SIX 2 METER BEAM

Sturdy, lightweight stacked beam. 12 db. forward gain. 25-30 db. front-to-back ratio. Easy to assemble for horizontal or vertical polarization. Complete with all hardware for stacking and assembly, balun, matching harness for 52 ohm coax, and 3-foot mast. Pre-tuned at factory. All heavy-duty aluminum.



Model AM-5 Amateur Net $16.95

Model AM-4 Six element beam 8.95



The GIANT CUBICAL QUAD

. . . a giant in CB performance!

INCREASES RANGE — The Q-11 was designed specifically for Citizens Band use, and is particularly effective in increasing communications range with the power limitations on this band.

HEAVY DUTY but LIGHT WEIGHT — Beam element clamps are constructed of heavy-duty cad-plated steel treated to resist corrosion while the elements are made of rigid aluminum and fiberglas tubing to give maximum service. Its light weight enables it to be used with most TV-type rotors.

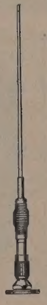
RUGGED — The Quad Antenna is a square loop beam which is light weight and still rugged enough to withstand high winds.

EASILY ASSEMBLED — It can be assembled on the ground and lifted into place, or assembled on the tower.

SPECIFICATIONS: Forward Gain, 8 db; Front to Back, Up to 40 db; Type of Feed, 52 ohm coax; Polarization, Horizontal or Vertical; Longest Element, 9'3"; Boom Length, 65½".

For class D, 27-mc operation

MODEL Q-11 $39.95 Net



Terminates in PL-259
CB-1

AIR-SENTRY "SHORTY"

Whip Only 18" overall length 23"

Top loaded fiberglas antenna with small shock spring — complete with spring, mount, & 12 ft. coax cable. Designed especially for CB use. Because it is shorter in length than conventional ¼ wave whip it is ideal for car installations.

CB-1 (for passenger cars) **$10.95**
For class D, 27-mc operation

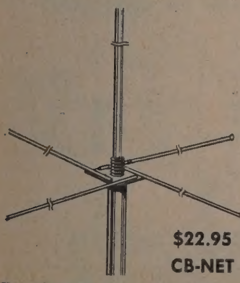
CB-3 — Spare antenna for CB-1 ....only **$5.25**

AM-10 — 6 meter shortened ¼ wave antenna complete with mount **$10.95**

AM-7 — 2 meter 1½ wave antenna complete with mount **$16.75**

AM-7

AM-10



$22.95
CB-NET
For class D, 27-mc operation

CB-5 BASE STATION GROUND PLANE

½ Wave — MORE gain than ¼ wave

NO BULKY TRANSFORMERS
FACTORY ADJUSTED

- VSWR (50 ohm cable) 1.3:1
- Bandwidth (under 2.1 VSWR) ±4%
- Max. Power Input 750 watts
- Intnl. feedline RG-8A/U
- Nominal Input imp. 50 ohms
- Termination SO. 239

Elements are heavy wall aluminum with tightly swedged telescoping sections.

AIR-SENTRY

Less than 47" long

Can be mounted on top, fenders or trunk lid. Simple peaking adjustment provided. Omnidirectional in horizontal plane; vertically polarized.

For class D, 27-mc operation in automotive, aircraft, marine applications.

52 ohms
60 watts
RG/58 or equivalent
1.5 mc minimum
1.1 to 1 at resonant frequency

MODEL CBS-311
$5.25
NET

© U.C.P., Inc.

Net

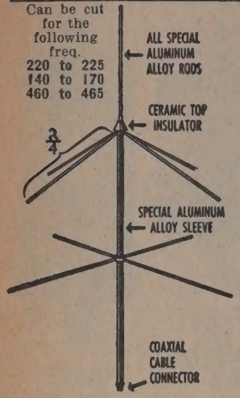
ANTENNAS MOUNTS

Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics
Los Angeles 16, California

All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

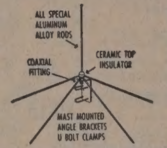
2 METER ANTENNAS — FIXED • MOBILE


Can be cut for the following freq.
220 to 225
140 to 170
460 to 465
ALL SPECIAL ALUMINUM ALLOY RODS
CERAMIC TOP INSULATOR
3/4
SPECIAL ALUMINUM ALLOY SLEEVE
COAXIAL CABLE CONNECTOR

GROUND PLANE ANTENNA

Model 300 — Master DeLuxe . . . NEW! . . . brings in that DX. Outperforms any type of vertical dipole. "Drooping" Type Ground Plane plus four straight radials to give a low angle of radiation for general coverage, an almost perfect circle radiation pattern. Ideal for CD and defense nets. Covers complete Amateur and with Broad and char. Matches 52 ohm coax cable through threaded coax fitting at end. Straight radials are adjustable (up or down) to eliminate standing waves on trans. lines. For medium or low-powered trans. Sturdily built of finest alloys to withstand corrosion, high winds and extreme icing. With 36″ length of ¾″ pipe for mounting purposes.

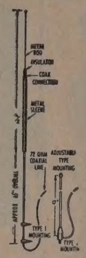
Model 300 Amateur's .... **Net $12.95**
MB-1 — Mounting Bracket .... **Net 1.00**


ALL SPECIAL ALUMINUM ALLOY RODS
CERAMIC TOP INSULATOR
COAXIAL FITTING
MAST MOUNTED ANGLE BRACKETS U BOLT CLAMPS

Model GP-4 — Four "Drooping" Radials for perfect match to 52 ohm coax cable. Complete amateur band coverage. Specify other frequencies. Attaches to Mast with U-Bolts. (U-Bolts and Mounting Brackets furnished). Also attachable to side of building. Sturdy, with special alloys, to withstand corrosion and extreme weather.

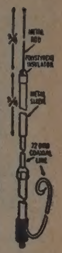
MODEL GP-4 Amateur's Net $5.95

TWO METER COAX ANTENNAS



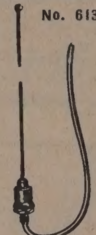
No. 214—MASTER DE-LUXE . . . ruggedly constructed, vertically polarized, frequency range 140 to 170 MC. Completely waterproofed. Highly polished chrome enhances appearance of any vehicle. Furnished with 10 ft. of 72 Ohm Coax Cable.
Type 1—On side with 2 brackets furnished. **$15.95**
Type 2 — Master Mount (No. 232X or 140X)— Mounts sold separately.
Complete $17.45
Adjustable mtg.—adjusts to 17″.

2 METER STANDARD MODEL



No. 114 COAX VHF ANTENNA — At a popular price! For OPEN TYPE VEHICLES using 140 MC to 165 MC. Mounts any convenient place with standard Master Mounts. Baked enamel finish. With 10 ft. Coax Cable and 18″ Adjustable Section.

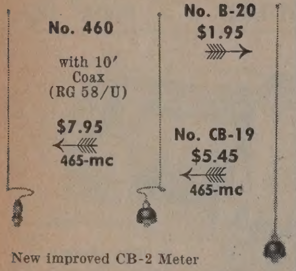
Net, Only $9.95



No. 613

No. 613 — NEW IMPROVED MASTER VHF ROOF TOP ANTENNA. This new high performance antenna features an improved type positive-lock coaxial connector. Designed for police, fire, taxi cabs and amateurs using 140 MC to 165 MC. Stainless steel wire with threaded fitting. Easily changed without disturbing mounting. Comes with 10 ft. coax cable .... **Net $4.95**

No. 113 — ROOF TOP ANTENNA without De Luxe Connections .... **Net 3.96**
No. 117 — Extra Antenna for No. 113 and No. 114 .... **Net .97**
No. 116 — Extra Antenna for No. 214 and No. 613 .... **Net 1.70**



No. 460
with 10′ Coax (RG 58/U)
$7.95
465-mc

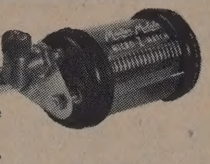
No. B-20
$1.95

No. CB-19
$5.45
465-mc

New improved CB-2 Meter antennas for high performance. Stainless steel and chrome plated brass. Self-tapping threads. Easy to install with one 7/16″ hole.

MICRO-Z-MATCH

MICROMETER IMPEDANCE MATCHING INDUCTANCE for MOBILE ANTENNAS

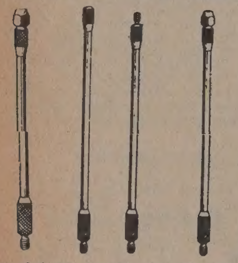


- Used on all bands with any type coaxial cable to match any mobile antenna.
- Roller coil construction with rear cap rotating the inductance within the case. 4 microhenries maximum inductance.
- Silver plated coil and roller contacts for low loss.
- Micrometer type calibration permits infinite adjustment and positive resetting.
- Adjustability — Easily adjustable for minimum standing wave ratio (1:1).

Without coax adapter kit Micro-Z-Match may be connected between antenna connector and ground connection.

No. 925
Complete with Coax Adp. Kit
Net
$9.95

Without coax adapter kit Micro-Z-Match may be connected between antenna connector and ground connection.



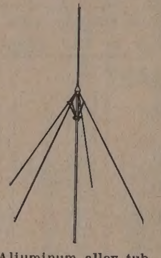
Model 92 Model 90 Model 88 Model 115

EXTENSIONS — with ⅜″-24 thread, fits all mounts and coils

88	36″	Lower Section for all Band Antennas	$4.05
88C		In Chrome Plate	4.55
90	26″	Extension for 100 Series Whips	3.55
92	18¼″	Extension for 106 Series Whips	3.50
94	36¼″	Extension for 106 Series Whips	4.06
115	36″	Extension for Models No. 114 and No. 215	4.25
12*	12″	Base Section for AB Antenna (baked enamel)	2.75
12C*	12″	Chrome Base Section for AB Antenna	3.25
18*	18″	Base Section for AB Antenna (baked enamel)	2.75
18C*	18″	Chrome Base Section for AB Antenna	3.25
24*	24″	Base Section for AB Antenna (baked enamel)	3.25
24C*	24″	Chrome Base Section for AB Antenna	3.65

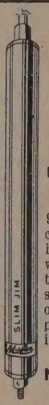
***NOTE: Base Sections for use with ALL-BANDER Antenna Coils.**

GROUND PLANE (Drooping Type) FOR 6 METERS No. MGP-6



Aliuminum alloy tubing, coax cable connector. For medium or low powered trans.
$14.95 NET

NEW SLIM-JIM

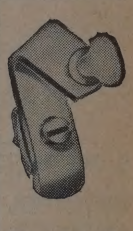


All-Band BASE LOADING Antenna Coil

For 10, 11, 15, 20, 40, 80 Meters.

96″ S.S. Whip included. Positive locking action whip provides accurate and tight contact wherever set. Just slide in or out to final loading point and lock whip into position.

No. B-1080
$17.95



No. 10-H

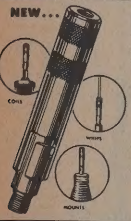
Tennahold Fits all cars

Amateur Net.......
$1.00

TENNACLIP

Designed to store mobile whip in convenient "storage" position. Instant release. Fits all cars.
No. 20-C

Amateur $1.00
Net



E-Z-OFF Antenna Connector

Noise-free. Connect or remove loading coils, whips, or mounts in a jiffy. No wrenches, pliers or screwdriver needed. High-grade stainless steel . . . will not corrode.

- Precision made
- Maximum efficiency
- Positive lock

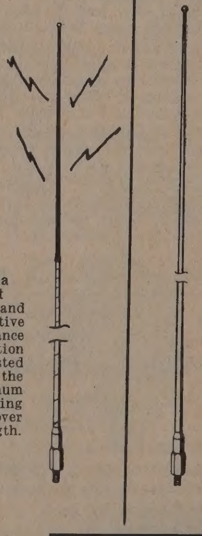
Model No. E-Z-295

Amateur Net $2.95

NEW MASTER FLEX-'R No. 711

Designed to relieve stress and strain and prevent damage that could be transmitted to the loading voil.

$1.95



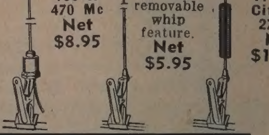
MASTER FIBRE-GLAS WHIPS

FLEXIBLE, INDESTRUCTIBLE UNIVERSAL ANTENNA

- **Completely Weatherproof** — permanent and rust resistant, corrosion proof.
- **Break-Proof** — specially designed flexibility prevents failure due to fatigue or breakage.
- **Safe**—permanent insulation featured in Master Whips make it absolutely safe, prevents burns.
- **Base Fitting**—⅜″ x 24 thread with male brass—chrome plated fittings.

FG-60	60″	Amateur Net	$4.95
FG-72	72″	Amateur Net	$4.95
FG-84	84″	Amateur Net	$5.15
FG-96	96″	Amateur Net	$5.25
FG-103	103″	Amateur Net	$6.95

CLAMP-ON ANTENNAS

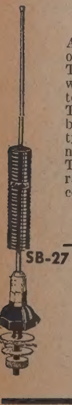


CG-360
108 to 470 Mc
Net
$8.95

CG-120
Same as CG-360 but without removable whip feature.
Net
$5.95

CG-110
11 Met. Cit. Bd. 27 Mc
Net
$10.30

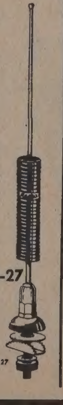
11 METER CITIZENS BAND ANTENNA



SB-27

A base-loaded stainless-steel whip antenna with an overall height of 40 inches.
The bottom of the whip has been wound into a coil which is potted in a pliable plastic to add rigidity to the coil.
The base of the whip is fitted with a ¼″ diameter brass slug, for use with a standard-broadcast 8-ball typé cowl mount; also roof-top or trunk-lid type mounting.
The antenna is cut to offer very low standing-wave ratio over most of the band when fed with a 52-ohm coax.

YOUR CHOICE EACH $12.95



8B-27

ANTENNA WITH PL-259 PLUG
Model No. PL-259..$6.95

MASTER MAGIC WAND TUNABLE

Combination Coil & Whip
New Magic-Wand Top-Loaded Antenna Mounts On Any Standard Base Mount

A newly designed single band coil and whip antenna in 1 compact and attractive unit. Top loaded to provide top performance and efficiency at the most useful radiation angle for communications. Built and tested in the Master Mobile Laboratories, the Master Magic-Wand provides a minimum wind resistance which minimizes detuning effects at high speeds. Antenna wound over tapered fiberglas whip for maximum strength.

Available in 5 ft. & 6 ft. Lengths

No. MM810—10 Meters—5 Ft. L.	$8.95
No. MM811—11 Meters—27 Mc.—5 Ft. L.	8.95
No. MM811-35—11 Meters—35″	8.95
No. MM811-45—11 Meters—45″	8.95
No. MM815—15 Meters—5 Ft. L.	8.95
No. MM820—20 Meters—5 Ft. L.	8.95
No. MM840—40 Meters—6 Ft. L.	9.95
No. MM880—80 Meters—6 Ft. L.	9.95

Master Mobile Mounts
LOS ANGELES, CALIFORNIA

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ANTENNAS MOUNTS

Master Mobile

Master Mobile Mounts
Division of Whitehall Electronics
Los Angeles 16, California

All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

SKYMASTER COAX ANTENNA

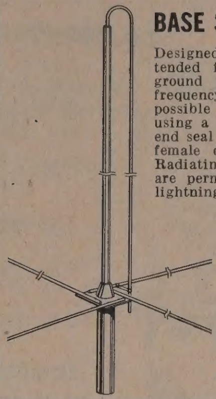
Skymaster gives you a lower "radiation angle" of your antenna for a better contact for vertically polarized stations in the citizens band. The Skymaster has a nominal impedance of 72 ohms, used with 72 ohm cable. Matches RG59/U coax cable for perfect match to most transmitters and improves receiving.

Both radiator and skirt are of heavy-gauge aluminum tubing, and a resilient machined polyethylene insulator is used for low weight and high strength. Silver-plated coax connector is used for easier connection and lowest SWR.

- **Easily installed on any existing mount**
- **Concentrated signal for best coverage**
- **Perfect match for transmitting and receiving.**
- **Highest quality components**
- **Tested and approved in Master Mobile's own laboratory**

SM-700- 2	**2 Meters**	**Net $10.95**
SM-700- 6	**6 Meters**	**Net $15.95**
SM-700-10	**10 Meters**	**Net $17.95**
SM-700-11	**11 Meters**	**Net $17.95**

BASE STATION MONOPOLE ANTENNA



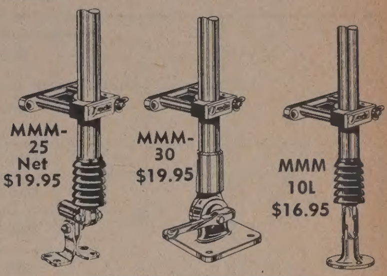
Designed around a folded radiating element, intended for service in installations requiring a ground plane configuration and a wider useful frequency range for a single antenna than is possible in the standard ground plane design using a coaxial stub tuner. Antenna is fed by an end seal type termination, through a Type SO 239 female connector mating with a PL 259 plug. Radiating elements and all ground plane elements are permanently grounded, therefore, damage by lightning is reduced to a minimum.

- **VSWR (using 50 ohm cable) $1.31**
- **Bandwidth (under 2.1 VSWR) .. ±4%**
- **Maximum power input .... 750 watts**
- **Internal feedline RG-8A/U**
- **Nominal input impedance ...... 50 ohms**
- **Termination .... SO. 239**

SR-600-2	**2 Meters**	**Net $14.95**
SR-600-6	**6 Meters**	**Net $16.95**
SR-600-10	**10 Meters**	**Net $24.50**
SR-600-11	**11 Meters**	**Net $24.50**

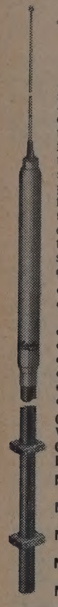
MARINE LAYDOWN MOUNTS

New deluxe series. Can be mounted on side of cabin or upright on deck. Mounts swivel, and are adjustable to any position. Chrome-plated brass with high impact waterproof-weatherproof phenolic insulator.



Additional Brackets Available

MASTER MARINE MARVEL MARINE ANTENNA



Designed, built and tested in Master Mobile's own floating laboratory, the new center-loaded Master Marine Antenna is the latest result of many years of experience in producing the finest in Antennas used throughout the world! The Marine Marvel, seasure and powerful, provides maximum power radiation on all marine frequencies from 2 to 3 megacycles. Here is the Antenna that was made for your boat! . . . engineered to withstand the most severe type of marine service, with long life assurance by being fabricated of the highest quality material available.

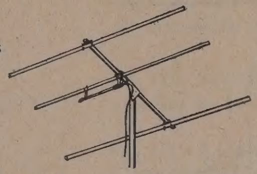
- **10½ Ft. Overall Length.**
- **Capacity 4 Ft. Stainless Steel Plastic-Coated Whip**
- **18" Center-Loaded Impregnated Coil.**
- **5 Ft. Anodized Base Section.**
- **Absolutely Waterproof - Weatherproof.**
- **No Electrolysis.**
- **Rugged Insulators.**
- **Adjustable Antenna Lead.**

COLORS AVAILABLE —
WHIP — Yellow, Blue or Black
COIL — Yellow, Blue or Black
BASE — Gold (Spec. Saltwater Anodized)

No. MMM-2710 Antenna & Solid Mounts — 5 Ft. Base	$29.95
No. MMM-2715 Antenna & Solid Mounts — 10 Ft. Base	$35.95
No. MMM-2700 Antenna — 5 Ft. Base (less Mounts)	$27.95
No. MMM-2705 Antenna — 10 Ft. Base (less Mounts)	$33.95
MMM-10 SOLID MOUNTS ..per set	$5.50

3-ELEMENT BEAM ANTENNA

Handles up to 1 Kw. Input



Sturdy and lightweight 3 element beam provides a power gain of approximately 2½ (8 DB) in the forward direction and reduces interference from the sides and rear by approximately 10 to 1 (Front to back ratio 20 DB).

A coaxial gamma match is pretuned at the factory to give an excellent VSWR of 1.1 to 1 at band center when fed with a 52 OHM coax.

SR-500-2, 2 Meters	$10.95
SR-500-6, 6 Meters	$12.95
SR-500-10, 10 Meters	$24.95
SR-500-11, 11 Meters	$24.95

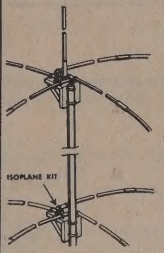
MASTER SUPER MARINE ANTENNA No. MMM-2750

MMM-2750

The Master Super-Deluxe Marine Antenna in 12 ft. anodized 1⅜" tubing. Coil section is 35" long. Impregnated coil covered with phenolic tubing. 8' fiiberglas whip. Here is the ultimate in Marine Antennas!

MMM-2750 Antenna & Solid Mounts..	$49.95
Without Mounts	$47.95

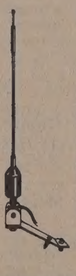
CITIZENS BAND GROUND PLANE



Most popular of all Citizens Band ground planes. Precision enginered and full tested. Provides the utmost in performance, efficient power . . . ideal for transmitting and receiving. All elements are of aircraft-type aluminum, heat treated for long life. Can be installed in a matter of minutes. Telescopic 2-section elements. Furnished with "U" clamps for mounting. Designed for 52 ohm match. Coax fitting accepts PL-259 plug.

MODEL CBGP5 Complete **$15.95**
MODEL CBG-5C Complete with 50' RG-58U coax $18.95
CBGP-5 Isoplane Kit — Isolating skirt. Aluminum radials mount below antenna to lower angle of radiation and minimize effect of surrounding structures. $10.95

ASTRONAUT ANTENNA for CITIZENS BAND

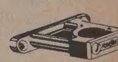


Can be resonated precisely to any frequency between approx. 20 and 30 mc. by means of the tip rod attached to top of antenna. Provides outstanding performance. Swivel connection permits installation either horizontally or vertically on curved or flat surfaces. Length approx. 60".

For class D, 27-mc operation

MODEL CBV-6 $15.95

MMM-1

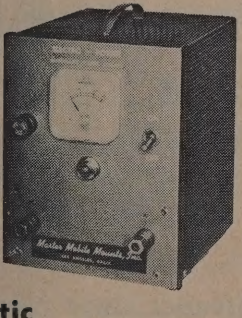


MMM-15

MARINE MOUNTING BRACKETS

MMM-1
for 1" mast $5.95
MMM-15
for 1½" mast ..$6.75

DEPENDABLE POWER UNITS



MODEL TC-15
$59.50

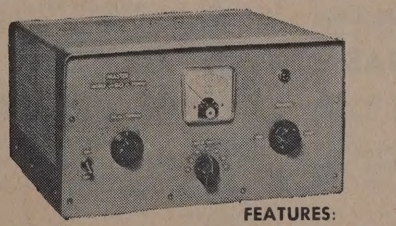
MODEL TC-30
$79.50

Automatic TAPER CHARGER

COMPACT. 8" High x 6¼" Wide x 7" deep.
AUTOMATIC CHARGING — the charging current is automatically reduced as the battery approaches full charge, and drops to a trickle charge when the battery reaches full charge. Overcharging is completely eliminated.
HIGH CURRENT RATINGS. Model TC-15 for 15 amps, Model TC-30 for 30 amps — both types designed for continuous-duty operation.
IDEAL FOR mobile radio systems, or on boats requiring a 12-V ignition source. Unit is not only an excellent heavy-duty charger, but may also be used as a bench supply for repair of car radios . . . for marine application, electroplating, powering model trains, and wherever else a high current, stable 12-volt source is needed.

Your 12-V battery fully charged every morning!

MOBILE "GO" POWER LINEAR AMPLIFIER



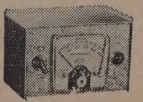
SSB operation

SMALL: 13½" wide x 6½" high and 12½" deep.
COMPACT: 15½ lbs.

MODEL K-73
$289.50
Net

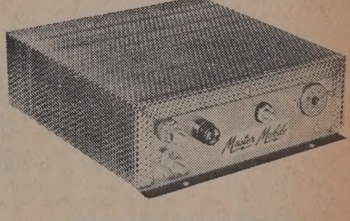
FEATURES:

- 2-811A zero bias triodes in grounded grid; 750 Watts PEP.
- 500 Watt self-contained TRANSISTORIZED DC Power Supply employing a bridge of solid state rectifiers for excellent regulation.
- Panel meter measures plate current or RF output.
- Ideal linear amplifier for any 50-100 Watt SSB exciter, such as KWM-2, SWAN, HALLICRAFTERS, SONAR, etc.
- Covers 10, 15, 20, 40 or 80 meter operation with a heavy duty band switch.
- Internal antenna relay allows barefoot operation when amplifier is not in use.
- Wire range PI-NET output.
- Does not require additional batteries in most automobiles.



REMOTE CONTROL — *includes:*
Five wire remote control cable for On-Off switch, Pilot Light, Plate MA or RF Output Meter and Push-to-Talk Antenna Changeover Relay.

MODEL RC-73 .... $17.95



POWER SUPPLY

. . . dc-dc transistorized converter dependably powers transceivers in the 100-watt output class.

SMALL SIZE. 2¾" High x 8" Wide x 9" Deep . . .

TWO OUTPUT MODELS. Model MPS-800 100-watt SSB exciters: 800V @ 275 ma; 300V @ 150ma, and a zener diode regulated —90VDC bias supply.

Model MPS-1250, 1250VDC @ 400ma, 300-VDC @ 150ma, and a zener diode regulated —90VDC bias supply.

MODEL MPS-800 ....$119.50

MODEL MPS-1250 ....$139.50

SEE DELUXE ULTRA HI Q COILS FOR RECOMMENDED POWER HANDLING CAPABILITIES

Master Mobile Mounts
LOS ANGELES, CALIFORNIA

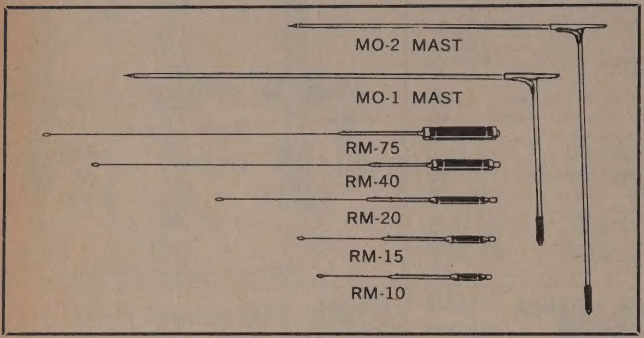
© U.C.P., Inc.

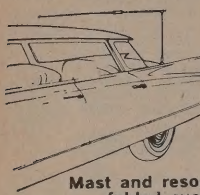
Net

NEW-TRONICS MOBILE COMMUNICATION ANTENNAS

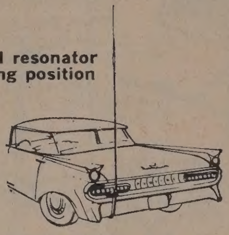
HUSTLER MOBILE ANTENNA

10-15-20-40-75 METERS





Mast and resonator folded over



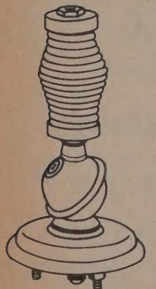
Mast and resonator in mobiling position

One mast and five resonators permit operating on any of five bands with exceptional results. Fold over aluminum mast is 54″ long. When opened to full length, the two sections of the mast are rigidly held in a vertical position. Each resonator has a special coil for maximum radiating efficiency. Tuning for center frequency is by the adjustable stainless steel rod of the resonator. Mast has ⅜-24 base stud to fit all standard mobile mounts. SWR is less than 2 to 1 for any center frequency setting within the band as follows: 10m., 100 to 120 kc; 15m., 100 to 120 kc; 20m., 80 to 100 kc; 40m., 40 to 50 kc; 75m., 25 to 30 kc (all approximation). Power rating: AM-DC input 75 watts; SSB-DC input 300 watts PEP. NO NEED FOR MATCHING DEVICES. USE ANY FEED LINE LENGTH OF 52 OHM CABLE.

Model	Description	Mount or Height	Net
MO-1	54″ mast folds at 15″ Fr. Base	Rear deck or fender	$7.95
MO-2	54″ mast folds at 27″ Fr. Base	Bumper	7.95
RM-10	10 meter resonator	80″ max.—75″ min.	5.95
RM-15	15 meter resonator	81″ max.—76″ min.	6.95
RM-20	20 meter resonator	83″ max.—78″ min.	7.95
RM-40	40 meter resonator	92″ max.—87″ min.	9.95
RM-75	75 meter resonator	97″ max.—91″ min.	11.95

ANY MAST OR RESONATOR MAY BE PURCHASED SEPARATELY

COMMERCIAL MOBILE ANTENNAS



No exposed mounting bolt heads. One man installation. Lighter weight. Reduced spring assembly length. Tough, molded mounting pad.

Engineered and built to meet the most critical standards, the improved design embodied in the ball, base and spring has no equal in appearance and performance.

ALL STAINLESS MODELS

Stainless 2″ ball, stainless spring. (17-7-PH) THE ONLY ALL STAINLESS ASSEMBLY ON THE MARKET.

NTS-1	Base, ball and spring assembly	$19.44
NTS-2	Base and ball assembly only	8.97
NTS-3	Spring only	10.47

CADMIUM PLATED MODELS

Same as stainless models except all elements are heavily cadmium plated.

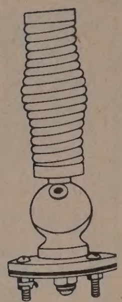
NTC-1	Base, ball and spring assembly	$11.34
NTC-2	Base and ball assembly only	6.87
NTC-3	Spring only	4.47

CHROMIUM PLATED MODELS

Same as stainless models except all elements are triple chrome plated.

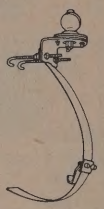
NT-1	Base, ball and spring assembly	$8.49
NT-2	Base and ball assembly only	5.01
NT-3	Spring only	3.51

PROFESSIONAL MOBILE ANTENNA



C-29-32	Assembly includes heavily chrome plated 1½″ die cast ZAMAK ball, ⅜-24 female thread. Adjustable to 180°. Stainless steel spring sturdily built to withstand sharp impacts. Gray Cycolac insulator and cadmium plated hardware	$5.07
C-30-32	Same as C-29-32 except has chrome plated spring	$4.11
C-32	Base ⅜-24 female thread	$2.01
C-29	Stainless steel spring only. Has ⅜-24 threaded stud	$3.06
C-30	Chrome plated, oil-tempered spring only	$2.10

BUMPER MOUNTS



Model BM-1 Flat alloy steel strap fits tightly against any shape large and small bumpers.

Will fit any car where clearance between top of bumper and car body is as low as ¼″.

Whip receptacle is a heavy chrome plated 1½″ die cast ZAMAK swivel ball with ⅜-24 thread. All metal parts are heavy cadmium plated $6.95

MODEL BM-2 Same as Model BM-1 except without swivel ball base $4.95

WHIPS

STAINLESS STEEL WITH REMOVABLE ADAPTOR

Made of 17-7PH taper ground stainless steel; the best available for this purpose. Adaptors are heavy cadmium plated. Two hex hollow head screws firmly seize whip. ⅜-24 male thread. Wrench included.

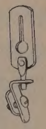
SW60R	60″ Stainless Whip	$3.27
SW96R	96″ Stainless Whip	$3.93
SW102R	102″ Stainless Whip	$4.23
SW108R	108″ Stainless Whip	$4.50

CADMIUM PLATED WITH FIXED ADAPTOR

Made of special alloy cadmium plated oil tempered steel. Taper ground. Heavy cadmium plated adaptor permanently attached to whip. ⅜-24 male thread.

TW60	60″ Cadmium Plated Whip	$2.85
TW96	96″ Cadmium Plated Whip	$3.45
TW102	102″ Cadmium Plated Whip	$3.75
TW108	108″ Cadmium Plated Whip	$3.90

GUTTER CLIP:



Model GC-1 Plastic holder swivels on cadmium plated clamp. Attaches firmly to gutter. Since whip is contained in plastic, it will not rattle $.90

LEADS

COAXIAL LEADS

RG-58/U with PL-259 on one end and live terminal and ground terminal on other end, split end.

L-14-60	5 ft.	$2.43
L-14-144	12 ft.	$3.12
L-14-240	20 ft.	$3.90

HIGH IMPEDANCE LEADS

With Pin Plug on one end and live terminal and ground terminal on other end, split end.

L-13-60	5 ft.	$1.23
L-13-144	12 Ft.	$1.56
L-13-240	20 ft.	$1.95

SPECIAL LEADS

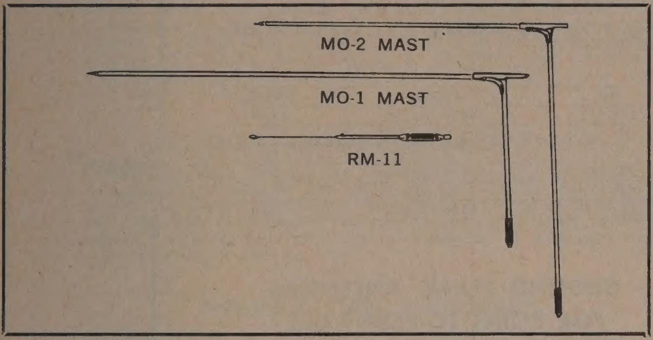
RG-58/U with PL-259 and specially designed end to fit CB-27 and NB-40.

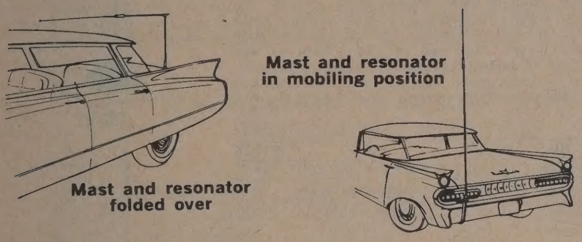
BL-14-60	5 ft.	$2.70
BL-14-144	12 ft.	$3.35
BL-14-240	20 ft.	$4.00

NEW-TRONICS CORPORATION Cleveland, Ohio

NEW-TRONICS MOBILE COMMUNICATION ANTENNAS

CITIZENS BAND ANTENNAS




Mast and resonator in mobiling position
Mast and resonator folded over

FOLD-OVER TYPE FOR FENDER OR BUMPER MOUNT:

Sturdy mast and an 11 meter tunable center loaded resonator provides exceptional results with every CB transceiver. Less signal fading when car is in motion. Total extended height is only 83 inches.

The 54-inch aluminum mast folds over to permit assembly to clear openings in garages, etc. When opened to full height, the two sections of the mast are held rigidly in a vertical position. Mast has ⅜-24 stud to fit standard mobile mounts. SWR less than 2 to 1.

Model CB-111 for Rear Deck or Fender: 54" aluminum mast with 11 meter resonator. Mast folds over 15" from base $13.90

Model CB-211 for Bumper Mount: 54" aluminum mast with 11 meter resonator. Mast folds over 27" from base $13.90

RM-11 11 meter resonator $5.95

FOR COWL OR FENDER MOUNT:

Model CB-27 23 channel coverage . . . tunable . . . low SWR. 4 section, heavy duty chrome plated brass tubing assembly. Opens to 60". Collapses to 27". Swivel base, mounts on any car surface. Fits any hole 15/16" or 1". Sealed loading coil solidly affixed to tubing. Stainless tuning rod with etched tuning scales. 5 feet of detachable RG-58/U coaxial cable with PL-259 connector........ $10.44

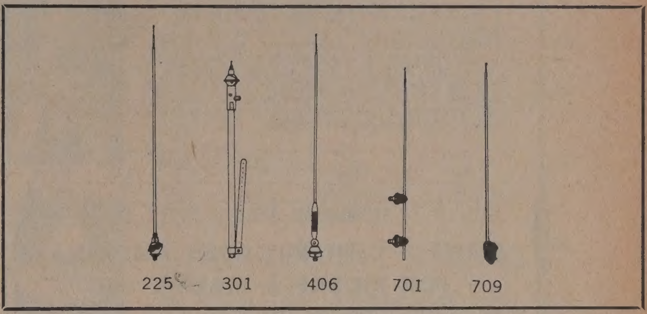
Assembly may be used for Amateur (28-30 MC.)

Model CB-2 This mast has same features as mast on Model CB-27 except has standard ⅜-24 male threaded stud. It may be used in combination with Model CB-1 or any other standard base $8.64

Model CB-1A Base has chrome plated split ball to meet severe angle requirements of fender beyond 30°. ⅜-24 female thread. Ball swivels up to 180° $1.80
(Series BL lead required)

Model AD-1 Adapter to convert Model CB-1A to accept PL-239 .... $1.10

AUTOMOBILE ANTENNAS



No. 225 Hi-ball black plastic base with chrome hood, 3-section mast, 48" detachable lead. Extends to 40"; collapses to 17" $3.95

No. 226 Same as No. 225 except with 2-section mast. Extends to 40"; collapses to 21" $3.95

No. 227 Same as No. 225 except with 54" detachable lead. Mast extends to 57¼"; collapses to 22¼" $4.50

No. 301 Disappearing type antenna with 54" permanent lead. 3-section antenna extends to 53¼" and collapses completely $6.95

No. 303 Same as No. 301 except with 36" lead. 3-section mast extends to 25" and collapses to 3¾" $5.95

No. 410 Flex-O-Matic Ball-Tronic Antenna. Adjustable to any angle up to 180°. 23⅝" stainless steel whip. 48" detachable lead $5.95

No. 406 Same as No. 410 except has 3-section mast which extends to 56¼" and collapses to 24". 54" detachable lead $7.95

No. 701 Side-cowl antenna with 2 plastic insulators and 36" detachable. 3-section mast extends to 57½" and collapses to 22½" $6.95

No. 709 Volkswagen side cowl antenna with single stanchion and molded insulator. 36" detachable lead. 3-section mast extends to 56½" and collapses to 20½". $5.95

ABOVE PRICES FOR BOX PACKAGING

AMATEUR ANTENNA

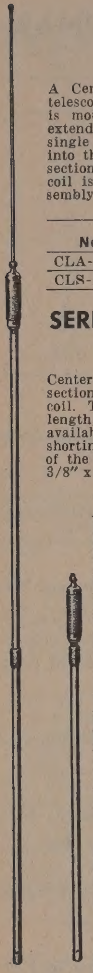
6 Meter and Noise Blanker Antenna (39-51 MC)

NB-40 Similar in appearance and construction as the CB-27, however, electrical characteristics of this tunable antenna and low SWR permit extensive coverage on the 6 meter band. Ideal for use with the Collins' Noise Blanker. Includes 5 feet of detachable RG-58/U cable with split end. 52 ohm match $10.44

NB-2 Mast has same features and appearance as mast on Model NB-40 except has ⅜-24 male thread stud. May be used with Model CB-1A or any other standard base to meet individual requirements $8.64

NEW-TRONICS CORPORATION Cleveland, Ohio

PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES



SERIES C

SERIES C CENTER-LOADED MARINE ANTENNAS

A Center-Loaded Collapsible type Antenna, consisting of two telescoping, adjustable base sections on which the loading coil is mounted, with a tapered top whip section, giving a total extended length of about 19 feet. This Antenna collapses to a single unit with the whip section telescoping through the coil into the lower section, making a collapsed length of 7 feet. The sections are of seamless aluminum, or stainless steel and the coil is wound on low-loss bakelite tubing and treated after assembly with weatherproof coating.

No.	Type	Base O.D.	Base I.D.	Wt. Lbs.	List Price
CLA-619	Aluminum	1.000″	.834″	5	$50.00
CLS-1119	Stainless	1.000″	.900″	7	110.00

SERIES B CENTER-LOADED ANTENNAS FOR MOBILE & MARINE USE

Center-Loaded Whip-Type Antennas consist of a standard base section or spring-type on which is mounted a special Premax coil. The top is a taper-ground stainless steel whip 6 ft. in length, giving a total overall height of 9 ft. Various coils are available or the standard 75-meter coil can be adapted by shorting out turns on the coil. Antennas can be used with any of the Standard Premax Mountings shown below, or will fit any 3/8″ x 24-thread mounting.

NO.	FREQ.	PRICE
BXS-14	14,000 kc. (20M.)	$15.00
BXS-23	2374 kc. (CAP)	15.00
BXS-31	3105 kc. (APT)	15.00
BXS-38	3800 kc. (75M)	15.00
BXS-43	4325 kc. (CAP)	15.00
BXS-46	4585 kc. (CAP)	15.00
BXM-25	2000 to 3000 kc. (Marine)	15.00
	(Same as BXS but with Spring)	
BSS-14	14,000 kc. (20M.)	25.00
BSS-23	2374 kc. (CAP)	25.00
BSS-31	3105 kc. (APT)	25.00
BSS-38	3800 kc. (75M.)	25.00
BSS-43	4325 kc. (CAP)	25.00
BSS-46	4585 kc. (CAP)	25.00
BSM-25	2000 to 3000 kc. (Marine)	25.00

SERIES B COILS

Premax also supplies the Series "B" coils in the standard frequencies above. Special frequencies available on request.

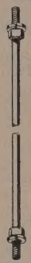
List Price..**$9.00 ea.**

MAST EXTENSIONS

Polished Stainless Mast Extensions—threaded 3/8″-24 on both ends and supplied with stainless nuts and lockwashers. Available in 12″, 18″, 24″, 30″ and 36″ lengths.

Prices range from $4.00 to $8.00 list each

Style B Coil



BX Mast Extension

Type BXS

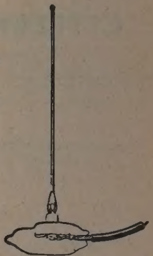
Type BSS

MOBILE VHF WHIPS

Style CD-11 Series—Permanent type. Porcelain insulator mounts thru ½″ hole in rooftop.

Style CD-21 Series—Emergency type. Attaches by heavy duty suction cup.

NO.	FREQ.	PRICE
CD-112	108 to 120 mc.	$4.00
CD-114	144 mc.	4.00
CD-115	152 to 162 mc.	4.00
CD-212	108 to 120 mc.	2.80
CD-214	144 mc.	2.80
CD-215	152 to 162 mc.	2.80



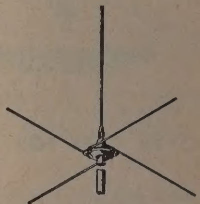
CD-11

CD-21

GROUND PLANE ANTENNAS FOR POINT-TO-POINT USE

For point-to-point installations, Premax has two VHF Antennas: The Style GP-3 which has elements of heavily-plated spring steel with skirt wires that can be bent down to any angle to match coax cable. Mounting is within a water-proof housing that fits standard 1/2″ pipe. Cable carries down thru pipe.

NO.	FREQ.	USE	PRICE
GP-312	120 mc.	For aircraft and CAP.	$8.00
GP-314	140 mc.	For 2 meter and CD.	8.00
GP-315	150 mc.	For police and taxi	8.00

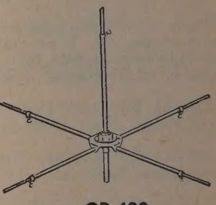


GP-3

PREMAX ADJUSTABLE GROUND PLANE ANTENNAS 20-60 mc

Another low-cost type Ground Plane Antenna is adjustable from 20 to 40 mc. or 40 to 60 mc. Standing wave ratio matching to 52-ohm line is 1.07 to 1.13 and to 72-ohm line is 1.27 to 1.23 depending on type of transformer cable. All-aluminum construction employing adjustable tubular elements.

GP-430	Adjustable 20-40 mc.	$50.00
GP-450	Adjustable 40-60 mc.	40.00



GP-400 Series

MOBILE MOUNTINGS FOR USE WITH WHIPS WITH 3/8″—24 MALE THREAD

Type CA

CA BUMPER MOUNTING

"Chain Style — clamps on any bumper with 1″ clearance; no drilling; theft-proof.

Price **$11.00**

Type SA-2

SA-2 SPRING ADAPTOR

Stainless steel Spring Adaptor—can be attached to types R-2, R-3, L-1, CA and NA-1 to provide greater flexibility. Height 4¼″, diameter 2⅜″.

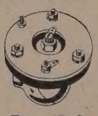
Price **$12.50**

Type R-2

R-2 UNIVERSAL COAX TYPE MOUNTING

Solid Polished Aluminum split-ball can be adjusted to any angle. Has shielded coax connection and stainless hardware.

Price **$15.00**



Type R-3

R-3 UNIVERSAL MOUNTING

Solid Polished Aluminum Swivel Ball. Heavy stainless steel backup plate with grounding screws. Stainless steel hardware.

Price **$15.00**

Type NA-1

TYPE NA-1

Bumper mounting with ceramic cone insulator and steel bracket.

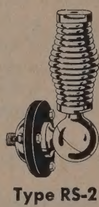
Price **$8.50**

Type L-1

TYPE L-1

Bumper mounting, 2 pairs ceramic cone insulators with steel bracket. 10″ adjustment.

Price **$14.00**



Type RS-2

TYPE RS-2 COMBINATION

Similar to R-2 except has spring as shown under SA-2.

Price **$25.00**

Type F

TYPE F

30° adjustable mounting for fender, cowl or gravel pan. Chrome-plated brass with phenolic insulation.

Price **$13.50**

Type V

TYPE V

Thru-deck mounting designed for Style BX and BS Center-Loaded Marine Antennas. White porcelain cones with a maximum opening for 1-1/2″ deck. Stud threaded 7/16″-24.

Price **$9.00**

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., NIAGARA FALLS, N. Y.

Trade Discount Applies to List Prices Only.

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PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES

VERTICAL TELESCOPING ANTENNAS
PREMAX STAINLESS STEEL ANTENNAS

Premax stainless steel antennas, fully telescoping and adjustable, have a locking device that holds the sections firmly at any desired point insuring a perfect electrical contact. Made of a high grade polished stainless steel tubing, hard-drawn to an extremely high tensile and yield strength, they are well suited for the most severe strains from high seas or winds.

PREMAX ALUMINUM ANTENNAS

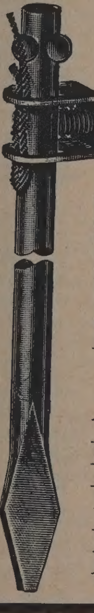
Premax aluminum antennas are lightweight, corrosion resistant and have adequate strength to meet practically all needs for marine, commercial and mobile installations that demand convenience in erecting and dependable performance. They are constructed of highly polished, specially tempered aluminum tubing engineered to withstand wind velocities up to 60 miles per hour.

PREMAX STEEL ANTENNAS

Inexpensive, popular, fully adjustable telescoping steel antennas for commercial, amateur, civil defense or other installations, made of high-tensile copper-nickel steel tubing, are heavily cadmium-plated. A positive locking device insures proper electrical contact between sections. *Not recommended for marine use on salt water.*

SPECIFICATIONS & DESCRIPTIONS OF TELESCOPING VERTICALS

NO.	DESCRIPTION	EXTD.	COLL.	BASE O.D.	BASE I.D.	WGT.	LIST PRICE
SS-1118	3-Sec. Stainless	18′4″	6′3″	.750″	.680″	6	$ 90.00
SS-1124	4-Sec. Stainless	24′3″	6′3″	1.000″	.900″	9	135.00
SS-1130	5-Sec. Stainless	30′0″	6′4″	1.250″	1.120″	13	185.00
SS-1135	6-Sec. Stainless	35′7″	6′4″	1.500″	1.370″	19	255.00
AL-312	2-Sec. Aluminum	12′4″	6′4″	.500″	.334″	1½	15.00
AL-518	3-Sec. Aluminum	18′5″	6′4″	.750″	.584″	3	25.00
AL-324	4-Sec. Aluminum	24′4″	6′4″	1.000″	.834″	5	35.00
AL-530	5-Sec. Aluminum	30′0″	6′5″	1.250″	1.084″	7	55.00
AL-535	6-Sec. Aluminum	35′8″	6′5″	1.500″	1.310″	12	75.00
112-M	2-Sec. Steel	11′8″	6′0″	.656″	.556″	4	12.00
318-M	3-Sec. Steel	17′3″	6′2″	.875″	.775″	7	18.00
224-M	4-Sec. Steel	22′9″	6′3″	1.063″	.963″	11	25.00
130-M	5-Sec. Steel	28′3″	6′4″	1.250″	1.150″	15	30.00
136-M	6-Sec. Steel	33′9″	6′5″	1.500″	1.400″	20	38.00



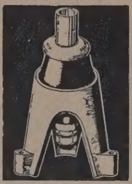
PROTECT YOUR EQUIPMENT WITH A PREMAX GROUND ROD!

Practical and efficient Ground Rods, costing so little that it doesn't pay to fuss with makeshifts! Of smooth, hard-drawn steel, chisel-pointed for easy driving and heavily copper-plated for rust prevention and to insure clean electrical contact. 4′ to 8′ lengths in ⅜″, ½″ and ⅝″ with screw clamp (illustrated) or in 6′ and 8′ lengths in pigtail wire, drilled hole or plain style, ½″ and ⅝″ only.

Size	Screw No.	Clamp List	Hole No.	Hole List	Pigtail No.	Pigtail List	Plain No.	Plain List
⅜″x4′	J-64	$ 80						
⅜″x6′	J-66	110						
⅜″x8′	J-68	165						
½″x6′	G-86	210	H-86	$200	P-86	$225	X-86	$180
½″x8′	G-88	250	H-88	240	P-88	265	X-88	220
⅝″x6′	G-106	300	H-106	290	P-106	315	X-106	265
⅝″x8′	G-108	380	H-108	370	P-108	395	X-108	345

(Prices are per 100 rods, bundled in 25s)

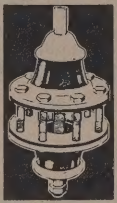
BASE MOUNTINGS FOR VERTICALS



TYPE 1 BASE INSULATOR

Heavy-duty type Base Mounting Insulator with compression rating up to 10,000 lbs. Has wet-process brown-glazed porcelain cones. Available in galvanized malleable iron, and chrome-plated brass, in rigid-post, hinged-post. Ht. to post base, 7 to 9 inches. Wt. 8 lbs.

List Price..............................$52.00 to $105.00



TYPE 6 BASE INSULATOR

For marine, mobile unit, roof-top or tower. Lead-thru construction permits connections below deck. Flanges 6″ in diameter with 6 bolts on a 5″ circle. For ½″ to 3″ deck. Available in galvanized malleable iron, and chrome-plated brass. Rigid post, and hinged post styles. Ht. from flange to post base, 3″ to 5″. Wt., 11½ lbs.

List Price ....$78.00 to $170.00

STANDOFF INSULATORS

TYPE 10-S

A heavy-duty Insulator with chrome-plated brass base and head caps—regular or hinged clamps. Insulator is brown-glazed porcelain in extra heavy style. Ht. to center of clamp, about 4½″. Wt., 3 lbs.

List Price..............................$60.00 to $72.00

TYPE 13-S

Heavy, rugged cast caps and base plates in aluminum, or chrome-plated brass. Heavy brown-glazed porcelain insulator, 3 inches in diameter. Ht. to center of clamp, 4¾″. Wt., 2½ lbs.

List Price .... $13.00 to $25.00

MOBILE WHIP ANTENNAS

HEAVY DUTY TAPERED STAINLESS—TYPE ES

Solid one-piece taper-ground whips, ¼″ at base tapering to 3/32″ at tip with top ball. High-tensile stainless steel fabricated by special formula, comparing favorably with the best spring steel, yet having excellent corrosion-resistant properties.

HEAVY DUTY TAPERED CHROME-SILICON—TYPE EC

Same as above only fabricated from chrome-silicon steel of exceptionally high-tensile strength and uniformity of temper, with high fatigue values developed by special heat treatment during fabrication.

STANDARD WEIGHT TAPERED STAINLESS WHIP WITH NON-REMOVABLE ADAPTOR—TYPE TS

Stainless steel whips of extremely high tensile strength with a permanent type stainless adaptor, with ⅜″ male thread.

STANDARD WEIGHT WHIP WITH REMOVABLE ADAPTOR—TYPE VS

Same whip as above except supplied with a removable adaptor locked in place by dual set screws.

NO.	LENGTH	PRICE
ES-760	60″	$6.00
ES-772	72″	6.00
ES-784	84″	7.00
ES-796	96″	7.00
EC-660	60″	5.50
EC-672	72″	5.50
EC-684	84″	6.50
EC-696	96″	6.50

AD-700 — Separate Stainless Adaptor with ⅜″ male thread for ES and EC series whips.

NO.	LENGTH	PRICE
TS-860	60″	$7.00
TS-872	72″	7.00
TS-884	84″	7.50
TS-896	96″	7.50
TS-8108	108″	8.00
VS-960	60″	8.00
VS-972	72″	8.00
VS-984	84″	8.50
VS-996	96″	8.50
VS-9108	108″	9.00

AD-900 Same as AD-700 except drilled for VS series whips.

ALL PRICES SHOWN ARE LIST PRICES SUBJECT TO USUAL COMMERCIAL DISCOUNTS.

PRICES EFFECTIVE AT TIME OF PRINTING AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., NIAGARA FALLS, N. Y.

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INDOOR ANTENNAS

FOR SUPERIOR SOUND AND PICTURE QUALITY

PARTS & ACCESSORIES

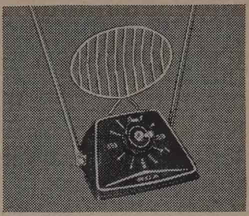
STOCK No. 10A1000
10A1001
10A1002

FINISH: MAHOGANY
WALNUT
IVORY

$9.95 OPTIONAL LIST PRICE

RCA STARLINER

- ARMS FOLD OUT OF SIGHT
- 12 POSITION ELECTRONIC SWITCH
- COLOR — B & W — UHF — VHF-FM
- TELESCOPING ARMS EXTEND 102"
- 14" x 4" x 3½" — WT. 2½ LBS.



STOCK No. 10A1010
10A1011
10A1012

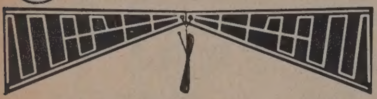
FINISH: MAHOGANY
WALNUT
IVORY

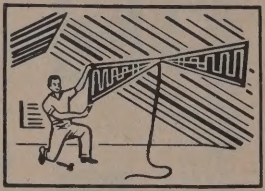
$7.35 OPTIONAL LIST PRICE

RCA SENTRY

- NEW RADAR COIL DESIGN
- SELECTOR SWITCH
- 4 SECTION ARMS
- 6 FT. LINE—SOLDERED LUGS
- WT. — 2½ LBS.

NEW RCA "BRITE SITE" TV AND FM ANTENNA



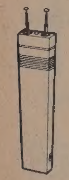


- Covers Entire VHF-TV and FM Bands
- Can Be Completely Concealed
- Printed Circuit for Simple Installation

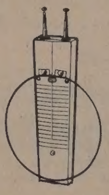
Economical TV-FM indoor antenna that produces excellent results when used in locations up to thirty miles from station. Actually a full-size conical antenna projected on a flat surface 52x12" in size. Extremely convenient where use of an outdoor antenna is impractical. Designed for use in attics, on garage or utility room ceilings, beneath rugs, on walls, under sofas, etc. Antenna elements are deposits of finely powdered pure silver in plastic binder, imprinted on a tough, flexible, fibrous sheet. Recommended for use at the highest practical level within the home (away from metallic plumbing and heating systems). Very simple to install—just set it in position that provides best reception—tack it and forget it. Since it is not exposed to the weather, it will last for years. Gain characteristics are similar to those of standard outdoor conical antennas. Supplied complete with 10 feet of 300-ohm twin line—ready to use. Shpg. wt., 1¾ lbs.

$3.95 OPTIONAL LIST PRICE

portable TV antennas



STOCK NO 103052-A



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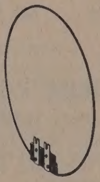

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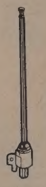

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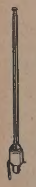
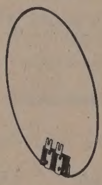


STOCK NO. 109920



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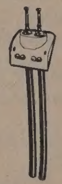

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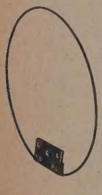
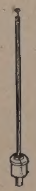
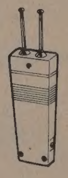


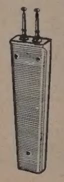
STOCK NO.104458



STOCK NO. 112691



STOCK NO. 102382



STOCK NO. 104457

Model Series	Stock No.	Model Series	Stock No.	Model Series	Stock No.
8PT-703	102382	94A-08MV	109920	192A-07MV	109920
140P01	104457	94A-10MU	109921	192A-07RS	109920
140P01U	104458	94A-10MV	109920	192A-09MU	107261
14P-903U	104458	94A-12RS	112691	192A-09MV	109139
14PD-802	104457	94A-13MU	109921	193A-48MU	109921
14PD-805	104457	94A-13MV	109139	193A-48MV	109920
14PD-805U	104458	94A-16MU	109921	193A-49MU	109920
14PT-802U	104458	94A-16MV	112691	193A-51MU	109921
14PT-901	104457	94A-17MU	109921	193A-51MV	109920
14PT-901U	104458	94A-17MV	112691	193A-52MU	109921
14PT-903	104457	94A-18MU	109921	193A-52MV	109920
14S-707	103052A	94A-18MV	112691	193A-52RS	109920
14S-707GU	103052A	94A-18RS	112691	193A-53MU	109921
14S-7707	103052A	K94A-19MV	109139	193A-53MV	109920
17D-818	104457	K94A-19MU	107261	193A-54MU	107261
17D-818U	104458	170P-042	107260	193A-54MV	109139
17PD-807E	104457	170P-042U	107261	193B-57MU	109921
17PD-809	104457	170T-122	107260	193B-57MV	112691
17PD-809E	104457	170T-124U	107261	193B-57RS	112691
17PT-807	104457	171A-02	109139	193K-040MU	109921
17PT-807E	104457	171A-024	107260	193K-040MV	109920
17PT-807U	104458	171A-024U	107261	21D-828U	104458
17PT-904	104457	172A-04MU	107261	21D-830	104457
17PT-904U	104458	172A-04MV	109139	21D-862U	104458
17PT-907	104457	173A-50MU	107261	21PD-811	104457
17S-709	103890	173A-50MV	109139	21PD-811U	104458
94A-06MU	109921	173A-54MV	109139	21PD-847U	104458
94A-06MV	109920	192A-06MU	109921	21PT-9095	104457
94A-08MU	109921	192A-06MV	109920	21T-824	104457
		192A-07MU	109921		

RADIO CORPORATION OF AMERICA

RCA PARTS AND ACCESSORIES **CAMDEN, N.J.**

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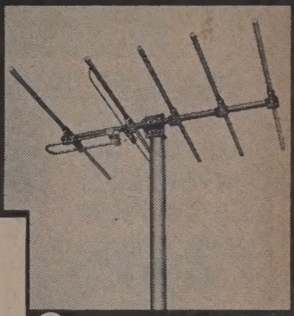
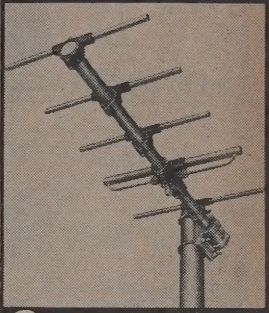
UHF • VHF — Complete Antenna Coverage —

Precision Industrial Antennas

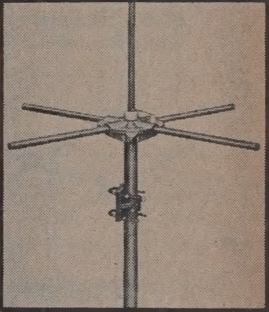
by SCALA



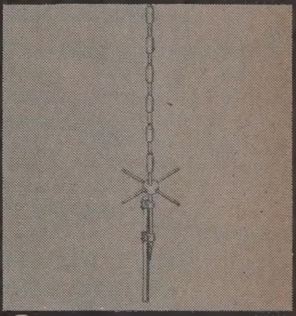
① MODEL CA5-150



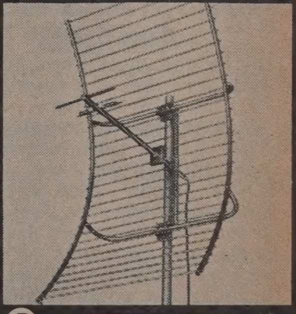
② MODEL CA5-450



③ MODEL GPC-150

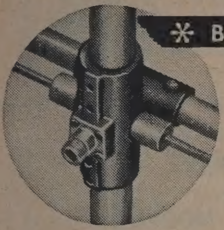


④ MODEL OG-6



⑤ MODEL PR-450

Why you get better performance with Scala Antennas—



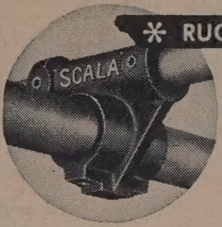
✱ BUILT-IN BALUN

(pat. pending)

Provides a balanced feed system assuring equal distribution of current to the driven element, greater electrical and mechanical stability. The balun allows the driven element to be supported by metal and eliminates the necessity of using the insulator as a mechanical support.

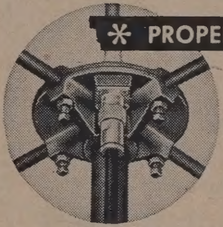
✱ BUILT-IN HEATER

Most of the antennas described below can be obtained with a 24 volt heating system for maximum weather protection and assured winter operation.



✱ RUGGED CONSTRUCTION

Elements are supported by machined castings providing a larger support area, damping vibrations and reducing the concentration of stress and metal fatigue. Mechanical splices are never used. All units are available in metals other than aluminum if desired.



✱ PROPER STRUCTURAL DESIGN

A machined casting, webbed for extra strength and structural support is used to hold parasitic elements in the ground plane antenna. Set screws and lock nuts provide simple assembly and easy installation.

✱ TESTING AND INSPECTION

Each antenna is tested twice for impedance match—once during manufacture and again prior to dis-assembling for shipment. New models are field-tested for one year before released for production.

**Shipped complete—all U-bolt mounting clamps and brackets are included. Unit is ready for installation.*

① YAGI—VHF

The Scala Model CA5-150 is a 52-ohm 5 element yagi. Nine db gain on the major lobe is assured by careful design and Scala's exclusive feed system which eliminates radiation from the feed line and provides equal distribution of current to the driven element. The VSWR is less than 1.3 to 1. For complete weatherproofing and year-around operation, the boom can be provided with a 24 v heater. The unit is annodized and dichromate sealed.

② YAGI—UHF

The Scala Model CA5-450 general communications antenna is a product of years of extensive research. Its construction is possible only because of developments in foam plastics and Teflon insulated cable. A Teflon insulated balun is located within a chamber filled with a special foam plastic for complete moisture and corrosion protection. High strength 7/16" solid aluminum rod is used for the parasitic elements. VSWR is less than 1.3 to·1. Gain is 10 db. Two units may be mounted in an array for an increase in gain up to 3 db and greater directivity. Shipped completely assembled, the unit is annodized and dichromate sealed.

③ GROUND-PLANE—40-170 MC

The Scala Model GPC-150 ground-plane antenna is ideal for non-directional, all weather communications. It is the first ground-plane antenna that can be obtained with 24 v heaters throughout—including the radial elements, providing a completely weatherproof and safe year-round operating antenna. Another version of this unit, comes equipped with a reflector and provides a cardioid radiation pattern with increased gain. In all cases the VSWR is less than 1.3 to 1. The unit is annodized and dichromate sealed.

④ OMNI-DIRECTIONAL GAIN ANTENNAS

Scala's Omni-Directional Gain Antennas—150 Mc and 450 Mc—use half-wave independently fed radiators. Model OD-4 (150 Mc) provides 4 db plus gain over dipole; Model OD-6 (450 Mc) 6 db plus gain over dipole. All elements at DC ground supported by metal. Extremely rugged anodized aluminum construction. Shipped ready for installation.

⑤ PARAFLECTOR®—350-1000 MC

The Scala Model PR-450 Paraflector® is a major contribution toward the improvement of antenna construction and performance in the 350 to 1000 mc range. Essentially, a parabolic section in one plane, the driver is positioned to approach a point source. Over the 350 to 1000 mc range, the Paraflector® is equal to a parabolic dish of the same aperture and has the advantage of lower cost, lighter weight, ease of assembly, installation and rugged construction.

EXACTING DESIGN—TESTED MATERIALS—PRECISION MANUFACTURE

In addition to the antennas described above, and other standard communications, telemetering and community systems, Scala maintains a complete engineering service to design and manufacture special antennas to your specific requirements.

Write for complete catalog on Scala antennas and engineering services.

SCALA RADIO COMPANY

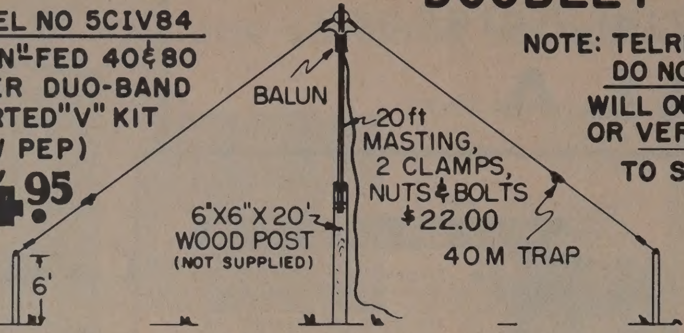
SAN FRANCISCO, CALIF.

TELREX "BALUN"-FED INVERTED "V" DOUBLET ANTENNA KITS

MODEL NO 5CIV84

"BALUN"-FED 40 & 80 METER DUO-BAND INVERTED "V" KIT (1 KW PEP)

$24.95


BALUN
20 ft MASTING, 2 CLAMPS, NUTS & BOLTS $22.00
6"X6"X20' WOOD POST (NOT SUPPLIED)
6'
40M TRAP

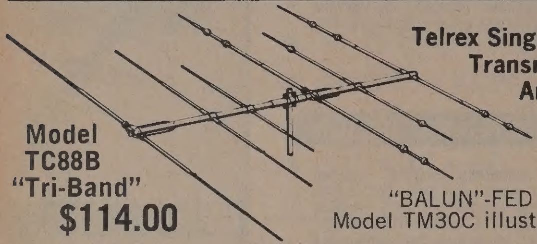
NOTE: TELREX INVERTED "V" DOUBLET KITS DO NOT REQUIRE RADIALS.

WILL OUTPERFORM ANY MULTI-BAND OR VERTICAL NOW ON THE MARKET.

TO SUIT EVERY POCKETBOOK
2 POWER RATINGS
1 KW PEP AND 3 KW PEP

TELREX MONO, DUO, TRI, QUAD AND 5 BAND INVERTED "V" KITS FROM $12.95 TO $108.00

MFG. UNDER TELREX PATENT 2,576,929



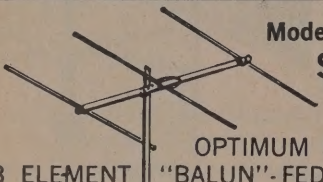
Telrex Single Transmission Line Arrays

Model TC88B "Tri-Band" $114.00

"BALUN"-FED Model TM30C illustrated.

TC-88- thirty pounds of educated aluminum—World Renowned for performance, excellence and value. Also—

Model 2M-3C $6.95



3 ELEMENT OPTIMUM SPACED "BALUN"-FED YAGI'S

Model 2M-3C	$6.95
Model 6M-309	$16.95
Model 10M-309	$31.50
Citizens-Band	$31.50

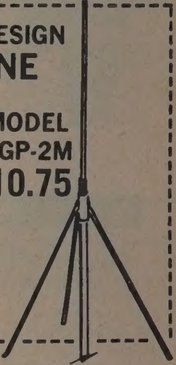
Model TC99C	$199.99
Model TM30C	$378.00
Model BFDP-3 (10-15-20 Meter Dipole)	$56.00
Model 4B1524-BFD (10-15-20-40 Meter Dipole)	$159.50

TELREX ADVANCED DESIGN GROUND—PLANE

THE VERY BEST GROUND-PLANES MONEY CAN BUY!

MODEL CGP-2M $10.75

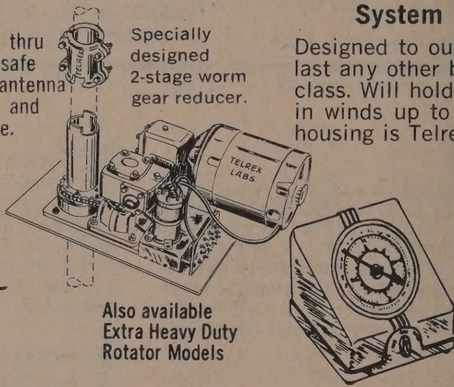
CGP-2M	$10.75
CGP-6M	$13.75
CGP-1011M	$29.95
CGP-15M	$37.95
CGP-20M	$65.00



Telrex Model TS238-RIS

ROTATOR/INDICATOR System $238.00

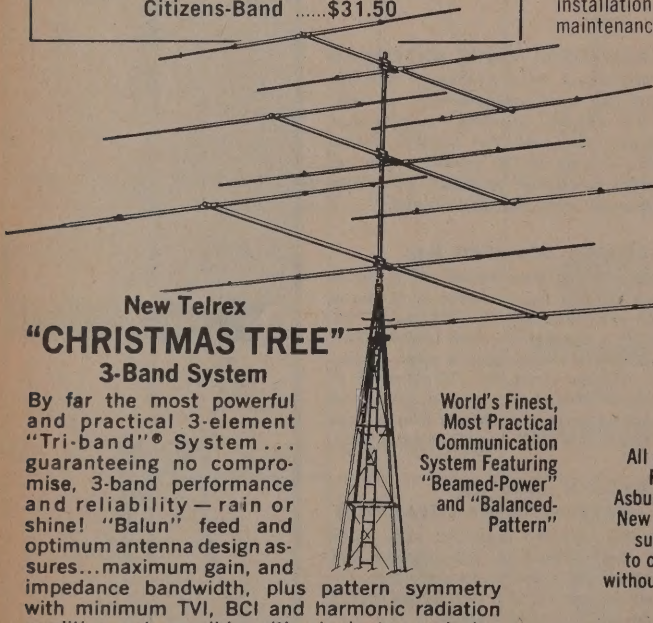
Designed to out-perform and out-last any other beam rotator in its class. Will hold and rotate beams in winds up to 110 mph. Control housing is Telrex quality thru-out. Aluminum housing. Tri-colored azimuth rose and reciprocal readings. Has selsyn indication and limit of rotation circuitry.



Mast feed thru rotator for safe and easier antenna installation and maintenance.

Specially designed 2-stage worm gear reducer.

Also available Extra Heavy Duty Rotator Models



New Telrex

"CHRISTMAS TREE" 3-Band System

By far the most powerful and practical 3-element "Tri-band"® System... guaranteeing no compromise, 3-band performance and reliability—rain or shine! "Balun" feed and optimum antenna design assures...maximum gain, and impedance bandwidth, plus pattern symmetry with minimum TVI, BCI and harmonic radiation qualities not possible with single transmission line "Tri-banders".

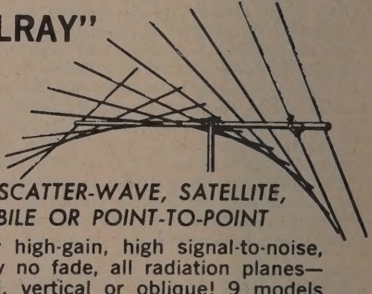
World's Finest, Most Practical Communication System Featuring "Beamed-Power" and "Balanced-Pattern"

All prices FOB Asbury Park, New Jersey, subject to change without notice.

"SPIRALRAY"

Model 2MSR-1114 illustrated

$19.50



FOR SCATTER-WAVE, SATELLITE, MOBILE OR POINT-TO-POINT

Extremely high-gain, high signal-to-noise, practically no fade, all radiation planes—horizontal, vertical or oblique! 9 models available on ¾, 1¼, 2 and 6 meters.

For TOP-MAN-ON-THE-FREQUENCY results...

Install a Telrex antenna... dollar for dollar better in every way! Antenna systems from $6.95 to $725.00.

ANTENNAS SINCE 1921

Communication and TV Antennas

telrex LABORATORIES

ASBURY PARK, NEW JERSEY, U.S.A.

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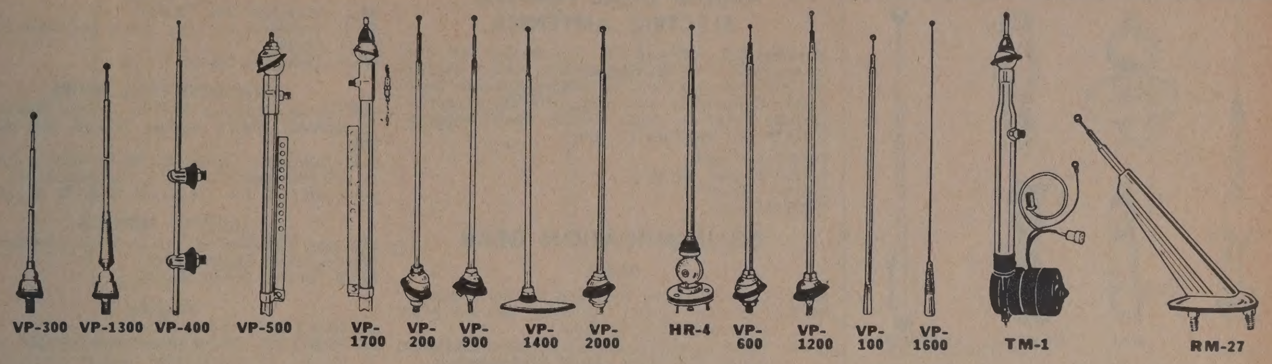
TENNA Auto Antennas and Mounts

THE TENNA MANUFACTURING COMPANY, INC., CLEVELAND, OHIO

World's largest maker of Auto Aerials



SWIVEL BALL TYPE TOP COWL ANTENNAS

"DELUXE" SATELLITE

Ball rotates full 360° in any direction. Mast may be locked at any angle. Mounts from outside. Extends 23" to 57", with 48" cable.
Model VP-300*..**Net 2.27**

"ECONOMY" SATELLITE

Same as VP-300, but with two sections. Extends 22" to 39", with 48" cable.
Model VP-2100*..**Net 2.03**

"FLEXO-MAST" SATELLITE

Swing-back spring resists impact for maximum flexibility Extends 23" to 57", with 48" cable.
Model VP-1300*..**Net 3.57**

SIDE COWL AND CONCEALED ANTENNAS

"DELUXE" SIDE COWL

Triple chrome plated with chrome cap-nuts and screw-on connectors. Extends 23" to 57", with 48" polyethylene cable.
Model VP-400* ....**Net 3.00**
Model RAD-4—Four section, extends 29" to 92".
Model RAD-5—Five section, extends 29" to 112".

ECONOMY SIDE COWL

Same as VP-400, but with gray cap-nuts.
Model VP-1000*..**Net 2.67**

"DELUXE" CONCEALED TYPE

Large seamless steel tube reduces capacity losses. Tilts 40° from vertical. Extends 0" to 50", with 48" radar-type cable.
Model VP-500*..**Net 3.32**
Model FD-3A—Deluxe 3-section, extends 8" to 68".
Model VP-1100* —Economy type, extends 4" to 35". ....**Net 2.36**

SAF-KEY ANTENNA

Mast completely disappears. Breakproof! Mast can only be raised with combination key; key ring included with antenna. Sweeps back 40°. Extends 0" to 50", with 48" cable.
Model VP-1700*..**Net 3.65**

3 SECTION TOP COWL ANTENNAS

"DELUXE" BALL AND ROCKER

Quick top mounting on cowl, rear deck or fenders. Diecast body; diecast rocker and chrome cover cap. Extends 23" to 57", with 48" radar-type cable.
Model VP-200*..**Net 2.51**
Model MH-3C—Diecast body; diecast rocker and and chrome plated diecast ball. Extends 26" to 71", with 54" cable.

"LEADER" WITH SPLIT WASHER BASE

Similar to VP-200, but with black Tenite and split washer base for simple top mounting. Extends 23" to 57". with 48" cable.
Model VP-900*..**Net 2.30**
Model VP-1800*—"Economy Shorty" extends 17" to 35", with 48" cable............................**Net 1.79**
Model VP-1900*—"Leader Shorty" extends 23" to 50", with 48" cable. ....**Net 1.86**

"TEAR DROP" MAGIC MOUNT

Top mounting with streamlined tear drop base. Extends 23" to 57", with 48" radar-type cable.
Model VP-1400*..**Net 2.31**

POPULAR BALL AND ROCKER

Triple chrome finish, sweeps back 40° and locks. Die cast rocker has positive grounding teeth. Extends 23" to 57", with 54" cable.
Model VP-2000*..**Net 2.27**
Model VP-800*—Economy type. Same as 2000, but has stamped rocker design and 48" cable...**Net 2.36**

2 SECTION TOP COWL ANTENNAS

"DELUXE" ALL CHROME

"Ball and rocker" base, sweeps back 40°. Die cast rocker has positive grounding teeth. Has chrome cover cap. Extends 22" to 39", with 48" cable.
Model VP-600*..**Net 1.86**

"LEADER" MAGIC MOUNT

Triple chrome plated, mounts easily by one person. Has split-washer base. Looks like 3 sections. Extends 22" to 39", with 48" cable.
Model VP-1200*..**Net 1.74**

"ECONOMY" BALL AND ROCKER

Triple chrome plated with stamped rocker and plastic ball. Extends 22" to 39" with 48" cable.
Model VP-1500*..**Net 1.79**

REPLACEMENT MASTS

"DELUXE" THREE SECTION

Installs instantly by slipping base over broken portion of old mast and tightening set screws. Weatherproof, anti-rattle construction with chrome finish. Extends 23" to 57"
Model VP-100*..**Net 1.44**
Model VP-700*—Economy 2-section type extends 22" to 39"..**Net 1.22**

FLEX-O-ROD MAST

Single section, chrome plated 26" rod bends to 90°. Polished, high tempered stainless steel spring.
Model VP-1600*..**Net .99**

SPECIALTY ANTENNAS

TENNAMATIC ELECTRIC ANTENNA

Universal design approved by all major auto manufacturers. Unconditionally guaranteed for one year. For 12-volt systems only. Mast extends 39"; collapses to less than 1". Patented motor design can't "burn out"; give positive 15 lb. thrust for free action in sub-zero weather. Comes with switch and bracket, 54" radar cable (copper shielded), 72" electric harness, cable clips, anchor brackets, metal screws and installation instructions.
Model TM-1—Front mount.............................**Net 17.98**
Model TM-2—Rear mount with 18' cable and 20' electric harness. Extra clips supplied. Rear mount adapter pad for crown rear fenders..
Model TM-3—Rear mount kit of 15' cable extension, 14' harness extension and rear mount adapter pad. Converts TM-1 to TM-3..**Net 2.55**

SNORKLE ANTENNA

Three-section rear fin antenna for dual or single mount. Die cast base; special mounting adapters. Triple chrome plated. Extends 3" to 27" With 18 ft. cable and 75 $\mu\mu$f capacitor.
Model RM-27—Single ....**Net 4.95**
Model RMD—Dummy ....**Net 3.55**
Model RMT—Dual (1 dummy) ....**Net 7.95**

"HOT-ROD" POLICE ANTENNA

Police type antenna for the "hot-rod" enthusiast. Four sturdy sections. Ninety-two inches when extended. Fifteen-foot coaxial lead. Uses MB-2 swivel mounting base.
Model HR-4..**Net 6.42**

RADAR TYPE LEAD CABLES

Radar type ultra high "Q" coaxial cables with polyethylene insulation and 100 per cent shielding. **Type L** has aircraft connector to areal and pin plug. Extension **Type LE** has male and female pin plug fittings.

Model	Length	Model	Length
LE-12	12"	**L-72**	72"
LE-18	18"	**LE-48**	48"
LE-24	24"	**LE-108**	108"
LE-36	36"	**LE-144**	144"
L-36	36"	**LE-180**	180"
L-48	48"	**LM-144***	144"
L-54	54"	**LM-180***	180"
L-60	60"	**MRC-54†**	54"

*Communication lead. † Universal replacement cable. Equipped with three different mounting nuts for all or any assemblies.

EXACT REPLACEMENT ANTENNAS

Complete Kit, Model ER-1

Kit contains handsome, gold finished, floor display stand with 3 each of 47 Exact Replacement models. Gives Distributor an exact replacement for every original equipment installation. Completely assembled, ready for quick and profitable installation. Skin packed on attractive display cards. Small display space required.

SMALLER STAND FOR DEALERS

Dealer gold finished, rotating counter display holds 12 antennas of dealer's choosing to suit local needs. Write for leaflet explaining full Exact Replacement Program. Multiplies sales at most attractive profits.

EXACT REPLACEMENT antennas

A SURE WAY TO INCREASE ANTENNA PROFITS!

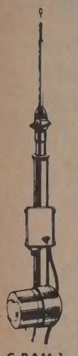
RACK MODEL ER-1

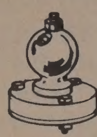
WHERE PROGRESS IS A HABIT AND SALES LEADERSHIP AN ESTABLISHED FACT

Tenna COMMUNICATION ANTENNAS

THE TENNA MANUFACTURING COMPANY, INC., CLEVELAND, OHIO

World's largest maker of Auto Aerials


C-BAM-1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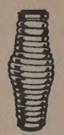
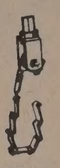
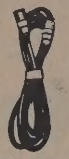
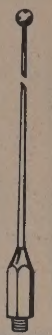

MB-1


BM-1


RG-58-U-1


MM-102

C-BAM DUAL PURPOSE ELECTRIC ANTENNA

Receives CB, AM and FM. Top loaded coil eliminates need for long, cumbersome whips. Extends to 55", collapses to 9½", complete coil disappears. Completely automatic. Sturdy, 4 section. Installs front or rear. C-BEE model same as C-BAM but receives CB only.

C-BAM-1—front
C-BAM-2—rear
C-BEE-1—front
C-BEE-2—rear

COMMUNICATION GEAR

BASES

MB-4—Chrome plated Ball and Phenolic Base
MB-5—Cadmium plated, resistant painted black Ball and Phenolic Base.
MB-6—Same as above, except contains Cadmium plated Ball with plated hardware.

SPRINGS

SP-1—Stainless steel Spring
SP-2—Cadmium plated, black resistant painted Spring
SP-3—Cadmium plated Spring

STAINLESS STEEL WHIPS

MM Series. Number denotes length. **MM-40, MM-55, MM-60, MM-72, MM-84, MM-96, MM-102, MM-108**

Add following letters to **MM** numbers for type of adapter desired. **A** for non-removable. **B** for removable. **C** for set-screw type. **D** no adapter.

BUMPER MOUNTS

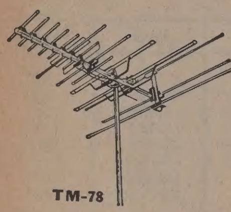
For any standard spring or whip assembly.

BM-1—Single Chain Mount
BM-2—Double Chain Mount

CABLES

RG-58-U-1 Split end to PL-259
RG-58-U-2 PL-259 on each end. specify length; 5', 12', 15', 22'

Tenna MIRACLE YAGI and CONICAL ANTENNAS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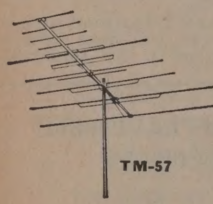
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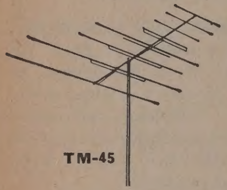
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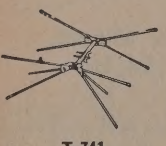
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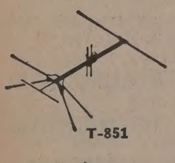
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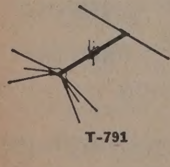
T-791

NEW MIRACLE REFLECTOR YAGIS

The finest, most powerful and best performing TV antennas on the market. Ideal for color reception. Covers all VHF channels, 2 through 13. The Miracle Reflector system consists of one reflector spaced 0.15 wavelength behind, and in the same plane as the rear driven element of the array; two reflectors are mounted above and below the driven element. 0.10 wavelength behind it. The two reflectors are spaced like the first two elements in a corner reflector, but are non-resonant and tuned for high directivity. In this way, the finest possible front-to-back ratio is achieved across the maximum number of channels. Antennas feature all-aluminum construction with 1" boom and ¾" dipoles with reinforced elements where required. Powerful "Sure-Grip" mast clamp and positive spring-loaded elements clamps. Reflector reinforced with aluminum dowels. Low wind resistance.

Tenna Model TM-711 Broadband Array—Ideal for low signal strength areas where co-channel interference occurs. Front-to-back ratio, 20:1; some channels 40:1. Aluminum finish. Shpg. Wt., 10 lbs.

Tenna Model TM-78A Broadband Yagi—Gold anodized finish, compound array with seven active low-band elements; eight active high-band elements. Front-to-back ratio 40:1. Shpg. wt., 8½ lbs.

Tenna Model TM-78—Same as above, but with aluminum finish.

Tenna Model TM-57A Broadband Yagi—Two driven elements (five total) on low band; seven active elements, high band. Gold anodized finish. Shpg. wt., 7 lbs.

Tenna Model TM-57—Same, but aluminum finish.

Tenna Model TM-45 Broadband Yagi—Economy design, ideal for stacking in difficult signal areas. Four active low-band elements; five high-band. Aluminum finish. Shpg. wt., 4½ lbs.

Tenna Model TM-24 Yagi—Replacement for any conical type in intermediate signal areas. Two elements, low band; four high band. Aluminum finish. Shpg. wt., 3 lbs.

Tenna Model TMR Reflector Unit—Reflector only for installation on any Miracle VHF antenna not already equipped; or, on many older type all-channel and cut-channel Yagis. Shpg. wt., 2 lbs.

LOW BAND YAGIS

Available with or without Miracle Reflector. Very high gain on channels 2 through 6. Quick rigged.

Without Reflector			With Reflector		
Tenna Model	Elements	Shpg. Lbs.	Tenna Model	Elements	Shpg. Lbs.
5E-26	5	3¾	TM-5E-26R	6	7
10E-26	10	6			

HIGH BAND YAGIS

Available with or without Miracle Reflector. Very high gain on channels 7 through 13. Durable, all aluminum construction.

6E-713	6	2	TM-6E-713R	6	3
10E-713	10	3	TM-10E-713R	10	3¾

CUT-CHANNEL YAGIS

With or without Miracle Reflector. Finest all-aluminum construction. Quick-rigged for easy installation. Factory assembly.

5-ELEMENT MODELS

	Without Reflector		With Reflector	
Channel	Model	Shpg.	Model	Shpg.
2	5E-2	4½	TM-5E-2R	5½
3	5E-3	4½	TM-5E-3R	5½
4	5E-4	3½	TM-5E-4R	5
5	5E-5	3½	TM-5E-5R	5
6	5E-6	3½	TM-5E-6R	5
7 thru 12	5E-7 thru -12*	1¾	TM-5E-7R thru -12*	2½

10-ELEMENT MODELS

22	10E-2	10	----------	----------
3	10E-3	9	----------	----------
4	10E-4	9	----------	----------
5	10E-5	9	----------	----------
6	10E-6		----------	----------
7 thru 12	10E-7 thru -12*	3	TM-10E-7R thru -12R"	3½

* Specify channel when ordering, using appropriate suffix.

UHF ANTENNAS

Tenna Model U-Z1—All-Aluminum construction, pre-assembled. Minimum wind resistance. Very high front-to-back ratio; increased gain. Covers channels 14 through 83. Shpg. wt., 3¼ lbs.

Tenna Model U-Z2—Horizontally stacked, highly directive. Pre-assembled all-aluminum construction. Low wind resistance. Covers channels 14 through 83. Shpg. Wt., 4 lbs.

CONICAL YAGI MIRACLE ANTENNAS

Deluxe antenna for areas where co-channel interference is a problem. Provide high gain, broad band width and high directivity for near fringe areas. Miracle Reflector System gives front to back ratio as high as 30 to 1. Usable on channels 2 through 13. All aluminum elements are completely preassembled.

Tenna Model CY-8R Yagi—Ten elements. Reflector system eliminates need for stacking. Shipping Weight, 6 lbs.

Tenna Model CY-8RA—Same, but gold anodized.

Tenna Model CY-7 Yagi—Seven elements. Includes "Presto" instant mount assembly and stacking bars. Shipping Weight 4½ lbs.

Tenna Model CY-7A—Same, but gold anodized.

Tenna Model CY-8 Yagi—Eight elements. With stacking bars. Shipping Weight, 5 lbs.

Tenna Model CY-8A—Same, but gold anodized.

CONICAL ARRAYS

Full size, all aluminum antennas cover all channels 2 through 13. Available with high-channel Director Bar for greatly improved reception on upper channels. Choice of four or six forward elements and two or four reflector elements. Stacked arrays consist of two bays with connecting bars for stacking. Completely preassembled with Instant Mount Assembly. Includes high impact molded polystyrene insulator.

SINGLE ARRAYS

Tenna Model	Forward Elements	Refl. Elements	HF Stubs	Director Bar	Shpg. Lbs.
T-751	4	4	----------	1	3
T-801	4	2	----------	----------	2½
T-811	4	4	----------	----------	2⅞
T-741	4	4	2	----------	3
T-851	4	2	----------	1	2⅞
T-791	4	2	2	----------	2⅝
T-771	6	2	----------	----------	2⅞
T-781	6	2	----------	1	3⅛

STACKED ARRAYS

T-752†	8	8	----------	2	6⅜
T-802†	8	4	----------	----------	5¼
T-812†	8	8	----------	----------	6
T-742†	8	8	4	----------	6⅛
T-852†	8	4	----------	2	5½
T-792†	8	4	4	----------	5¼
T-772†	12	4	----------	----------	5½
T-782†	12	4	----------	2	6

*Bulk-packed 6 per master carton; for individually boxed antennas, packed four per master carton, add suffix **A** to number (example: T-751**A**). †Bulk-packed three per master carton; for individually boxed units, packed four per master, add suffix **A**.

CONICAL ANTENNA KITS

Contain conical arrays, mount, masts, cable and all necessary hardware. "Do-It-Yourself" kits.

CHIMNEY MOUNT

Tenna Model	Array Type	Shpg. Lbs.	Tenna Model	Array Type	Shpg. Lbs.
DK-801	T801A	8½	DK-741	T741A	9
DK-802	T802A	13	DK-742	T742A	13¾
DK-811	T811A	8⅞	DK-751	T751A	9
DK-812	T812A	13¾	DK-752	T752A	14
DK-791	T791A	8⅝	DK-851	T851A	8⅞
DK-792	T792A	13¼	DK-852	T852A	13¼
DK-771	T771A	8⅞	DK-781	T781A	9⅛
DK-772	T772A	13¼	DK-782	T782A	13¾

SWIVEL MOUNT

DK-801-3	T801A	6½	DK-741-3	T741A	7
DK-802-4	T802A	11¼	DK-742-4	T742A	12
DK-811-3	T811A	6⅞	DK-751-3	T751A	7
DK-812-4	T812A	12	DK-752-4	T752A	12½
DK-791-3	T791A	6⅝	DK-851-3	T851A	6⅞
DK-792-4	T792A	11½	DK-852-4	T852A	11½
DK-771-3	T771A	6⅞	DK-781-3	T781A	7⅛
DK-772-4	T772A	11½	DK-782-4	T782A	12

WHERE PROGRESS IS A HABIT AND SALES LEADERSHIP AN ESTABLISHED FACT

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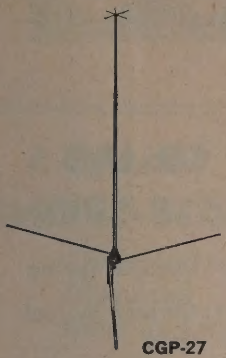
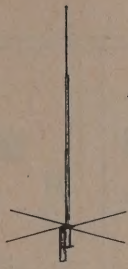
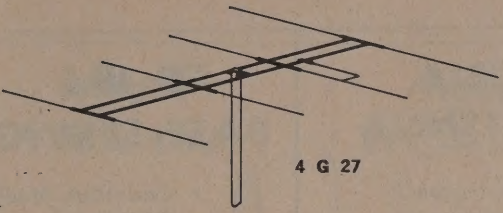
TENNA BASE STATION ANTENNAS



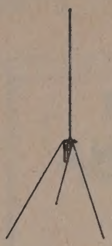
CGP-27



GE 27



4 G 27



DG-27

CSJ-27

SM-27

⅝ WAVE LENGTH 20-FOOT COLINEAR GROUND PLANE ANTENNAS

Omni-directional fixed base station antenna concentrates RF energy at lower radiation angle than any other design. ⅝ wave length gives 3.4 db gain over a ground plane, doubles effective radiated power, vastly increases useable CB range.

TWO MODELS AVAILABLE
CGP-27 GOLD ANODIZED
CGP-27 STANDARD SILVER

Closely-fitted assembly mostly pre-constructed to reduce installation time. Coaxial fitting at front of base; line goes to CB set on outside of suporting mast. Reactance cancelling coil provides very close match, lowers VSWR. BASE: cast aluminum. MAST HOLDER: reinforced phenolic. EXPOSED FITTINGS: epoxy-sealed against corrosion.

CHARACTERISTICS:

Impedance — 50 ohms
Termination — 80239
VSWR — 1 to 1.2
Lightning protection — gap
Polarization — vertical

SPECIFICATIONS:

Radiating element — tapered hi tensile ⅝ wave length with capacity hat
Support pipe — up to 1½" diameter
Height — 20 feet
Weight — 8 lbs.
VERTICAL RADIATION PATTERN

HALF WAVE END FEED ANTENNA

Provides a 3 db gain over standard ground plane. Antenna is 17'3" high, has weather-protected matching transformer mounted in base. Heavy construction throughout for many years of trouble-free service. Greatly improves effective power of base station transmitter and effective sensitivity of receiver. Direct ground furnished for lightning protection, reduction of static noise.

MODEL GE 27 . . .
CHARACTERISTICS:

Impedance — 50 ohms
Termination — accepts PL 259 connector
VSWR — 1.3 to 1
Lightning protection — direct ground
Polarization — vertical, pattern semi-directional

SPECIFICATIONS:

Radiator — ½ wave length tapered aluminum
Radials — four shortened stubs
Potted transformer
Height — 17'3"
Weight — 9 lbs.
VERTICAL RADIATION PATTERN

CITIZEN'S BAND YAGI

Sets new industry standards for performance and mechanical stability. Light, versatile, rugged, easy to install, this Yagi substantially increases CB range, reduces interference. Constructed of aircraft-type aluminum, gamma match dipole. Two separate ⅜" base pieces of tubing provided so element lengths are unaltered when changed from vertical to horizontal mounting. Truss construction on boom adds strength and rigidity. Fool-proof design eliminates assembly error: elements and sockets numbered for predetermined position. Light, balanced load on supporting masts. Can be turned with TV-type rotators.

MODEL 4 G 27 . . .
CHARACTERISTICS:

Impedance — 50 ohms
VSWR within 2:1
Lightning protection — direct ground
Polarization — vertical or horizontal
Termination — takes PL 259

SPECIFICATIONS:

Double heavy wall aluminum boom structure
Tapered 3-section elements
Separate clamps for vertical and horizontal mounting
Supporting pipe 1½" O.D. (not supplied)
Weight — 16 lbs.
Length — 13 feet
VERTICAL RADIATION PATTERN

¼ WAVE LENGTH RADIATOR ANTENNA

Featuring the only inductively shortened radials available. Nine feet long, with tubing rigidly held to prevent whipping. Can be mounted on smaller spaces.

MODEL DG-27 . . .
MODEL DG-27m — With standard full-length droopy ground plane radials. Has 3 long or 108" radials plus ¾" long radiator mounted in cast aluminum bracket. Priced right!

CHARACTERISTICS:

Impedance — 50 ohms
Termination — accept PL 259 connector
VSWR — 1.3 to 1
Lightning protection — gap
Polarization — vertical

SPECIFICATIONS:

Radiator — heavy duty ¾" alum. tubing
Radials — DG-27, shortened inductively loaded radials; DG-27m, full-length
Will mount on up to 1½" masting
Height — 9 feet
Weight — 5 lbs.
VERTICAL RADIATION PATTERN

COAXIAL SLEEVE ANTENNA

Neat, light, trim, mechanically superior, for mast or chimney mount. Antenna skirt or sleeve made from 1" aluminum tubing. Radiator tapered to 2nd section ⅜" O. D. Low angle of radiation gives better performance. No radials required.

MODEL CSJ-27 . . .
CHARACTERISTICS:

Impedance — 50 ohms
Termination — 50 ohm feedline
VSWR — less than 2 to 1
Lightning protection — gap
Polarization — vertical

SPECIFICATIONS:

Radiator — tapered two sections
Coaxial sleeve — 1" aluminum tubing
Height — 18 feet
Weight — 3 lbs.
VERTICAL RADIATION PATTERN

½ WAVE LENGTH END-FED ANTENNA

Provides 1 db. gain vertically polarized, omni-directional for CB use. Radiator rigidly constructed, tapers from 1⅛" to 1" O.D. to ¾" tubing. No radials required.

MODEL SM-27 . . .
CHARACTERISTICS:

Impedance — 50 ohms
Termination — takes PL 259 connectors
VSWR — 1.3 to 1
Lightning protection — gap
Polarization — vertical
Pattern — omni-directional

SPECIFICATIONS:

Radiator — tapered aluminum sections
Base — cast aluminum with two U-bolt assemblies
Height — 17 feet
Weight — 7 lbs.
VERTICAL RADIATION PATTERN

DELUXE CITIZENS BAND ANTENNA KITS OUTSTANDING TENNA VALUES!

Springs are End Bell design that will bend through a 90° arc without breaking. (Try this on any other antenna on the market!) Every mast is a full 102" stainless steel whip with adaptor.

MODEL P-100 — Complete kit includes 102" stainless steel whip. Rugged full-size spring with heavy-duty, double cadmium-plated steel coils; ⅜" phenolic insulator and all mounting hardware. Cadmium-plated for weather-resistance. Heavy-duty MB-6 2" diameter ball with double cadmium plate.

MODEL P-100-D — Same as above, except spring is polished stainless steel, ball is heavy-duty chrome-plated.

MODEL P-200-D — with complete bumper assembly. Fits all cars. No holes to drill. 102" stainless steel whip. Double chain bumper mount. Heavy-duty cadmium-plated steel spring.

ECONOMY KITS

MODEL P-10—102" stainless steel whip, heavy-duty cadmium-plated steel spring and 2" ball, base.

MODEL P-20 — Same as P-200-D, except bumper mount is single chain.

TENNA UNIVERSAL TOP LOADED MANUALS GIVE TOP-NOTCH SALES PERFORMANCE!

MODEL TL-1 "DELUXE" SATELLITE WITH ROTATING BALL — Rotates full 360°. Locks at any angle, fits anywhere on car. Triple chrome-plated 3-section mast. Extends 23" to 57". 48" detachable cable. Easily installed.

MODEL TL-2 "DELUXE" BALL & ROCKER BASE — Quick, easy top mounting, 40° sweepback. Extends 23" to 57". 48" radar-type polyethylene cable, 3-section mast.

MODEL TL-3 "DELUXE" CONCEALED-TYPE — Top-loaded coil completely disappears, 40° sweepback. Extends 0" to 50". Large seamless steel tube reduces capacity losses. 48" radar-type polyethylene cable.

MODEL TL-4 "SPECIAL" BALL & ROCKER MOUNTING — Triple chrome-plated base to tip. 40° sweepback. Locks at angle. Die-cast rocker has positive grounding teeth. Extends 23" to 57", has 54" cable.

MODEL TL-5 "FLEX-O-MAST" SATELLITE — Bounces back when hit! Spring gives maximum flexibility, prevents breaking. Triple chrome-plated mast. Easily installed, extends 23" to 57". 48" cable.

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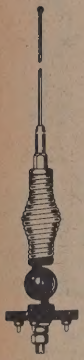
COMMUNICATION ANTENNAS by ward

for every mobile frequency and application

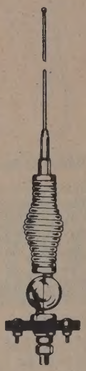
CBI B ANTENNA



This is a low priced Mobile Communications Antenna

- Black Painted Swivel Base
- Cadmium Steel Spring
- 102″ Cadmium Whip

CBIA ANTENNA

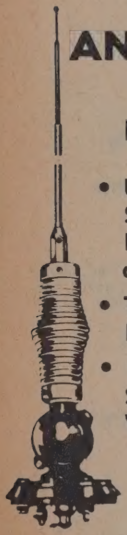


A Deluxe Mobile Communications Antenna

- Chrome Swivel Base
- Chrome Spring
- Stainless Steel 102″ Whip

May be adapted for citizen band

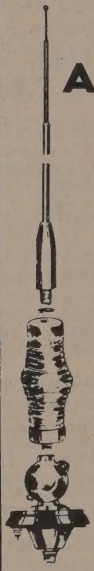
CBII ANTENNA



FEATURES

- Universal Swivel Base Heavily Plated and Painted
- Triple Cadmium Plated Spring
- 102″ Stainless Steel Tapered Whip

CBIII ANTENNA



FEATURES

- Chrome Plated Swivel Base With Stainless Steel Hardware
- Triple Chrome Plated, Barrel Type Spring Bends Through 100 Degrees
- 102″ Stainless Steel Tapered Whip

THE FOLLOWING CABLES ARE AVAILABLE

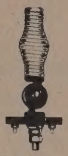
SPECIFY NO. 85-187 . . . 15′ Lead for Deluxe Hot Rod Antenna.

SPECIFY NO. 85-189 . . . 15′ Coaxial Lead for Citizen Band Antenna.

SPECIFY NO. 85-180 . . . 17′ Communication Lead for Citizen Band Antenna.

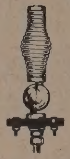
SPECIFY NO. 85-11 . . . 20′ Communication Lead for Citizen Band Antenna.

CB-IB S BASE-SPRING



- Cadmium Steel Spring
- Black Painted Swivel Base

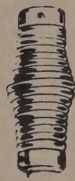
CB-IAB S BASE-SPRING



- Chrome Spring
- Chrome Swivel Base

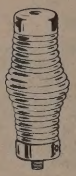
May be adapted for citizen band

CB-II S SPRING



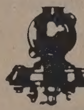
- Triple Cadmium Plated Spring

CB-III S SPRING



- Triple Chrome Plated Barrel Type Spring Bends Through 100 Degrees

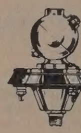
CB-II B BASE



- Universal Swivel Base

  Heavily Plated and Painted
- Deluxe

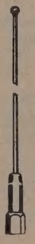
CB-III B BASE



- Chrome Plated Swivel Base* With Stainless Steel Hardware
- Deluxe

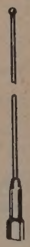
*Coaxial

CB-IW WHIP



- 102″ Cadmium Whip With Press Fit Cadmium Plated Adapter

CB-IAW WHIP



- 102″ Stainless Steel Whip With Press Fit Chrome Plated Adapter

ward PRODUCTS CORPORATION
AMSTERDAM, NEW YORK

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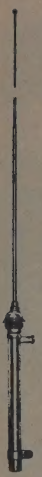
ward DISGUISE ANTENNAS

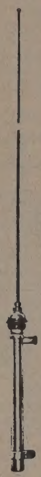
INTRODUCING TWO NEW DESIGNS NOW AVAILABLE IN 5 MODELS . . .



Model WCAB-71

Completely Disguised Mast and Base

Looks exactly like ordinary 3-section car radio aerial. Uses triple chrome plated brass tubing and stainless steel tip rod. Length is fixed at 55½" by permanent connections at the telescopic joints. Model includes mast and base only.

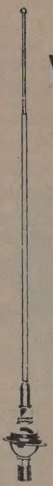


Model WCA-143

Partially Disguised

Same as WCAB-71 except mast is made of 55½" type 17-7 PH stainless steel tapered rod. Use where exceptionally high strength is a necessity. Model includes mast and base only.

Shipping Weight 2 lbs. 8 oz.

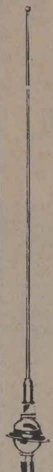


Model WCA-248

Completely Disguised Mast and Base

Looks exactly like ordinary 3-section car radio aerial. Uses triple chrome plated brass tubing and stainless steel tip rod. Length is fixed at 55½" by permanent connections at the telescopic joints. Model includes mast and base only.

Shipping Weight 1 lb.



Model WCA-249

Partially Disguised

Same as WCA-248, except mast made of 55½" type 17-7 PH stainless steel tapered rod. Use where exceptionally high strength is a necessity. Model includes mast and base only.

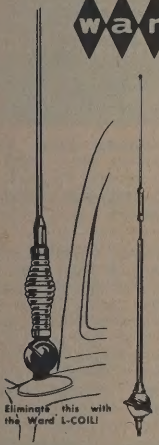
Shipping Weight 1 lb.

Model WCA-235

Same as WCAB-71 except with 70" mast. Shipping Weight 2 lbs. 8 oz.

ward NEW FOR '63

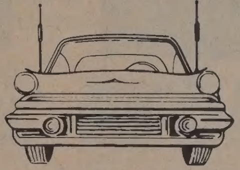
L-COIL CITIZEN BAND ANTENNA


Eliminate this with the Ward L-COIL!

WHY USE TWO ANTENNAS WHEN ONE WILL DO?

The new Ward L-COIL Citizen Band Antenna may be used for Standard Broadcast AND Citizen Band without the necessity of installing an extra antenna on your automobile. The only accessory the Citizen Band enthusiast will need is a switch box for instant changeover from standard broadcast to citizen band.

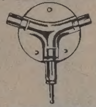
MODEL WCA-LC-1
27MC
54" Lead Cable Included



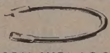
Ward recommends for rough terrain conditions the Dual L-COIL antenna kit. This will give you the ultimate in reception. The modulation is excellent and you will be surprised at the distance it brings in from base stations.

MODEL WCA-LC-2
Dual Ward L-COIL Antennas with 54" leads

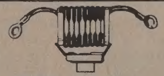
Note: WCA-LC-50 3 Way Connector must be used with Dual Antenna kit.



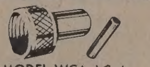
3 WAY CONNECTOR
MODEL WCA-LC-50
Special 52 OHM



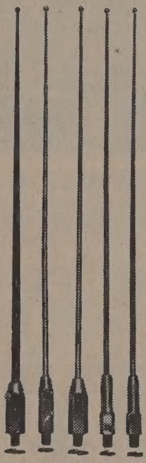
MODEL WCA-LC-3
54" Lead



MODEL WCA-LC-5
Suppressor
27 MG Generator Trap



MODEL WCA-LC-4
ADAPTER



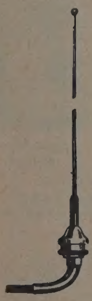
HEAVY DUTY MASTS

Finest stainless steel: heavy-duty performance. 84½" mast bends to bring tip and base 30" apart without distortion. All base studs ⅜-24 threads. All taper ground with ball tip. WCA-320 series — 60" long, choice of adapters: Chrome press fit, cadmium plated press fit; ⅝" hex steel, cadmium plated with set screws; ½" hex stainless steel with set screws.

WCA-321 series — 72", same choices.
WCA-322 series — 84", same choices.
WCA-323 series — 96", same choices.
WCA-324 series — Fiberglass in all 4 lengths.

ROOF TOP ANTENNAS

3 efficient models

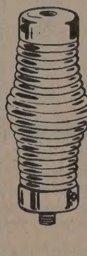


WCA-250
2 Meter whip
143-149 mc.

WCA-252
1¼ Meter whip
220-225 mc.

WCA-254
Plug in 2 Meter whip
143-149 mc

SPRINGS



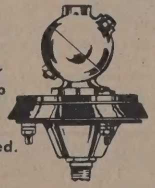
WCA-301
Stainless steel spring and mounts. Deluxe model for that high quality appearance and extremely high corrosion conditions. Lockwasher included.

WCA-3ACH
Heavily Chrome Plated for extra protection in areas where corrosion is a greater problem. Lockwasher included.

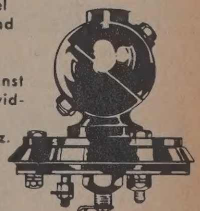
WCA-3A
Heavily Cadmium Plated with lockwasher included.

BASES

WCA-315
CHROME PLATED SWIVEL BASE
With external hardware of stainless steel. For smarter, dressed-up appearance and added protection Individually packed.
Wt. 1 lb., 8 oz.



WCA-310
Universal swivel base plated and painted parts provide double protection against corrosion. Individually packed.
Wt. 1 lb., 8 oz.



ADAPTERS

MODEL 89-358
⅝" Hex steel, cadmium plated with set screws. ⅜-24 thread for use on any standard WARD mast as listed. Lockwasher included.

MODEL 89-357
½" Hex stainless steel, with set screws. ⅜-24 thread for use on any standard WARD mast as listed. Lockwasher included.

ward PRODUCTS CORPORATION
AMSTERDAM, NEW YORK

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS – MOTELS – INSTITUTIONS

INSTITUTIONAL
FOR OVER 25 YEARS
ELECTRONICS
RELIABILITY

AMERICAN COMMUNICATIONS CORPORATION now offers all the materials (and supervision) to complete a wide variety of electronic Systems installations. AMERICAN'S Professional Engineers will lay out these installations on architectural plans gratis, where AMERICAN'S equipment is used. Systems include:

Status Controls — for hotel/motel rooms; hospitals; factory production, test, inspection, count-down, etc.

Closed-circuit TV — for hotel and motor-inn registration and check-out; hospitals; apartment buildings; schools; industrial inspection and remote monitoring.

Additional Systems:

- Signal Mail Rack
- Message-at-Desk
- Maid Call
- Master Radio/TV Antennas
- Centralized Radio
- Room TV • Stereo Sound
- Public Address
- Background Music
- Automatic Wake-up
- Selective Paging
- Motel-O-Phone
- Area Sound/Lighting
- Emergency Alert
- Automatic Fire Alarm
- Audio/Visual (silent) Call
- Doctor's Call Board

ACC's Newest — TV-SET THEFT ALARM

ROOM STATUS CONTROLS

ONE MODEL OPERATES WITHOUT CONNECTION TO GUEST ROOMS. TWO OTHERS REQUIRE ONLY ONE CONTROL WIRE PER ROOM.

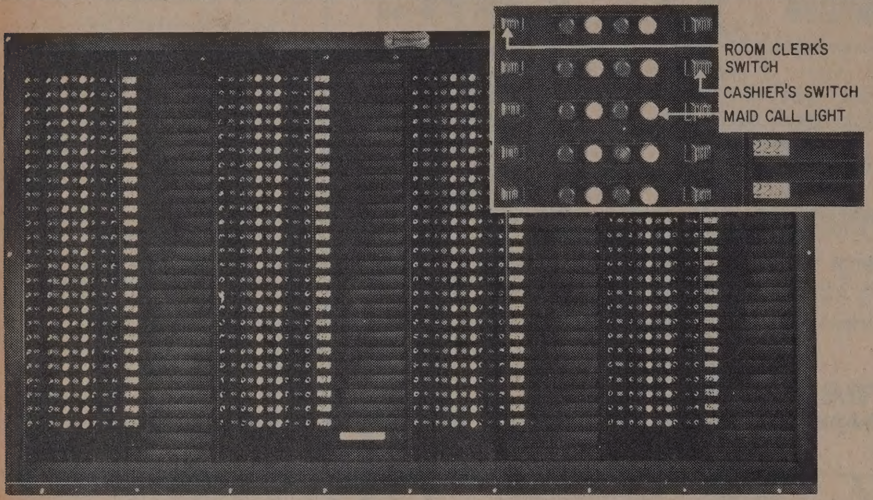

Fig. A. Leamertronic No. A-L2-2/100 Manual Status Control, 100 rooms. This Room Clerk/Cashier Combination Panel has two separate columns of switches, a Registration File, and Maid Call lights (see insert). Up to 1,000 or more, rooms can be accommodated, upon order. Steel panel is hinged.

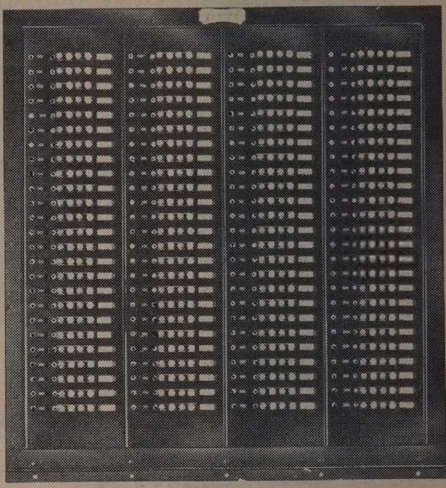

Fig. B. No. A-L2-2/100 — Housekeeper panel. Hinged at base of frame, like Combination panel (left). **No. A-L3** would have nearly same appearance; **No. A-L1**, with only 3 lights; would be slightly less wide. Panel may be Console, Surface, or Flush mounted.

AMERICAN COMMUNICATIONS CORPORATION builds **Status Controls** to suit a variety of uses. Originally designed to speed room rentals in hotels and motels, special models may serve other needs for instantaneous sequential control and monitoring in hospitals (for bed status, between Head Nurse, Cashier and Housekeeper); factories, laboratories (production, process control); missile centers (data checkout); etc. ***Literature available.***

Green light indicates to Front Office, Cashier and Housekeeper that a room is Available; **yellow, that** room is Occupied; **red**, that room is On Change. **White (No. A-L3** model), Maid signal.

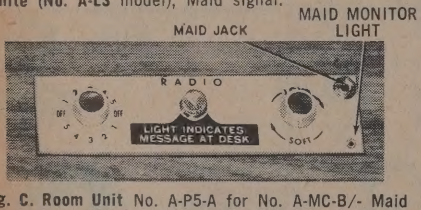

Fig. C. Room Unit No. A-P5-A for No. A-MC-B/- Maid Call System. "Blink Light" confirms Maid's signals.

Color switching (status control) is accomplished by the flick of a switch. Each office may have its own Control, with 3 (or 4) lights and a switch for each room, or Front Office and Cashier may share a Combination Board, or panel, Fig. A; only Front Office section has name Registration File. Monitor Boards (lamps only) can show management the rental status at all times; Housekeeper Board is Fig. B.

Where System wires into guest room a Room Unit (2-gang plate w/jack, and perhaps lamp) is supplied for each room; or, where the wiring of an existing facility is used, for economy, Room Unit may be made part of present plate, as Fig. C or the ultra-modern type, Fig. D, with TV remote control.

Manual Room Status Controls NO RELAYS USED!

A-L1-2 (2 board), **A L1-3** (3 board), 3 light. Is not connected to rooms by wire.

NEW 4-LIGHT and "BLINK LIGHT" MODELS feature MAID CONTROL:

A-L2-2 (2 board), **A-L2-3** (3 board), 4 light. Connected to guest rooms by wire. Room Unit has jack only; Front Office and Housekeeper Controls have a 4th light that shows "white" when Maid plugs into room jack (Maid can then be paged in this room, over room radio speaker, by Housekeeper or Front Office), if paging is provided for.

A-L3-2 (2 board), **A-L3-3** (3 board), 4 light. Wired to guest rooms. Room Unit has jack **and** light; Front Office and Housekeeper Controls have a 4th light. **Both** lights blink "white" when Maid plugs into room jack (Maid can then be paged, if paging has been provided for), and change to **steady** the instant Maid signals, **by plugging further into jack**, that room is ready. See Fig. B.

(†) **Manual — A-L1-2/-, $35.00; A-L1-3/-, $40.00.**
***A-L2-2/-, $44.90; *A-L2-3/-, $49.75.**
***A-L3-2/-, $51.80; *A-L3-3/-, $56.95.**

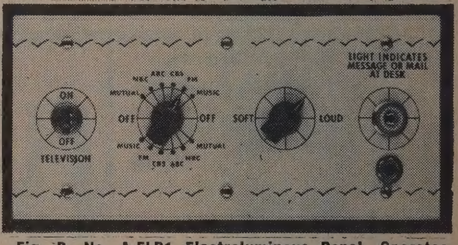

Fig. D. No. A-ELP1 Electroluminous Panel. Operates on A-C. Diffuses a night-light glow in room. Mounts on standard outlet box. **Manufactured to order.**

(†) Priced per room, up to 100 rooms; less cable, but with Room Units where used (*Models A-L2 and A-L3).

MAID CALL SYSTEMS

No. A-MC-A/- is **Visual type.** Maid plugs into room jack, which lights a lamp on a Light Panel in Housekeeper's office. Maid can then be paged if installation includes paging facility. Light goes out when Maid removes plug from jack. This System Includes Room Jacks, Maid Plugs, No. A-MC Light Panel (with lamps only), and Power Supply.

No. A-MC-B/- *Blink Light type. This newest design makes room recovery extremely rapid, through its amazing Maid Monitor and Housekeeper "Blink Lights."

Soon as Maid enters guest room she plugs into Maid Jack on Room Unit. Immediately, a tiny light under the jack slowly blinks on and off; at the same time, a second light blinks on Housekeeper's Light Panel, indicating "Maid in room." Housekeeper can now page Maid if paging is provided.

When Maid has readied room, she plugs all the way into room jack, then removes plug. Maid's light now goes out but Housekeeper's light changes to steady-on ←"room ready"; she can switch light off at her convenience (but circuit will accept Maid's next signal).

Installation includes Room Jacks, Maid Plugs, **No. A-MC1/-** Light Panel (with lamps and switches), Power Supply, Blinker Unit.

Room Clerk can use a **No. A-MC** Light Panel to monitor room status shown on Housekeeper panel.

SPECIFICATIONS

Maid Call Light Panels are built for Desk, Flush, or Surface mounting, in sizes to suit needs. Material: steel; standard finish: gray Hammertone enamel. Designation strips identify rooms. Lamps have long operating life, on 24 V. circuit.

Net Prices (Discounts on larger units.)

No. A-MC-A/- Maid Call System, w/No. A-MC Light Panel, Power Supply, and 1 Maid Plug per 10 rooms, but less Room Unit, **$5.00 per room.**

No. A-MC-B/- Maid Call System, w/No. A-MC1 Light Panel, Power Supply, Blinker Unit, and 1 Maid Plug per 10 rooms, but less Room Unit, **$8.50 per room.** Prices are for up to 100 rooms.

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*Protected by Pending Patents.

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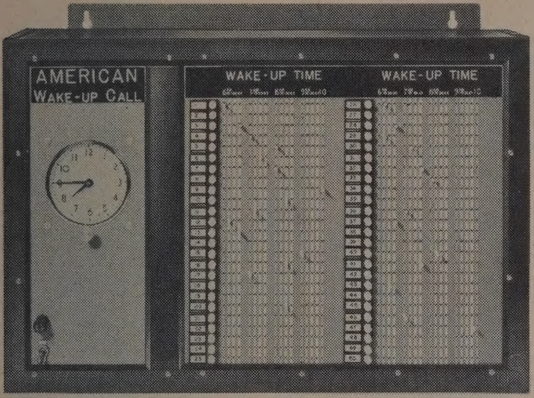
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

*AUTOMATIC
WAKE-UP CALL



AMERICAN'S new **No. A-WA-1/-** Wake-up Call is available in Console, Surface (illustrated), or Flush mount construction, and in colors to suit any interior decor. Automatically calls guest room at any desired time between 6 and 10 AM. Other time ranges available upon order.

AMERICAN'S No. A-WA-1/- Automatic Wake-up Call is a tremendous time-saver for occupancies of any size. Model A-WA-1/50 here illustrated is for a 50-room hotel or motel.

Master Control Panel has for each guest room a designation strip, lamp, and 17 Time Jacks — one for each quarter-hour from 6 to 10 AM. When Telephone Operator receives guest's wake-up call time, she inserts a plug into the respective Time Jack. Operation now is fully automatic: Wake-up Call "remembers" calling time and sends an insistent signal to the room, at the proper calling time.

This calling signal is both visible and audible: (a) at 2-second intervals a light blinks at both the office control panel, and in guest room; and, (b) in one model a recording advises guests to "shut me off" and in another a buzzer sounds loudly. When guest pushes a button (at blink light on Room Unit), signal light goes out in guest room and on office panel, and audio signal stops.

GENERAL SPECIFICATIONS

No. A-WA-1/- System includes Master Control Panel with Time Clock for 4-hour timing (up to 6 hours can be supplied); complete set of Time-set Plugs; either an **AMERICAN No. A-TD** continuous-play Tape Deck and pre-recorded Tape (not sold separately) or a Buzz Generator; 2-second Timer; and, guest-room Room Unit. Long-life, low-current signal lamps are used. Fuse Holder, Off-On Power Switch, are front-mounted. Satin-black steel case is approx. 31 x 21 (plus 2″ mtg. skirt at top) x 4″ deep (50-room unit, illustrated); wgt. approx. 100 lbs. Operates on 115 V., 60 cy. A-C.

Net Price $20.00 per room, less room units; materials only. **Room Unit** (light, switch, wired and assembled on lettered metal plate, to mount on 2-gang outlet box), **Net Price $8.75 ea.** Cable not included.

*This system protected by pending patents.

SIGNAL MAIL RACK & MESSAGE-AT-DESK

AMERICAN COMMUNICATIONS manufactures two signal systems, either of which may be used to expedite message and/or mail handling in hotels, motels, schools, factories, hospitals, and other institutions.

The **Mail (and Message) Rack Signal System** is comprised of numbered pockets, one for each room (or other unit), and a lamp and switch for each pocket, Fig. A. Each pocket is wired to a guest-room. When clerk files mail (or messages) in pocket, he switches on a corresponding lamp; simultaneously, a duplicate lamp in the remote room lights, and remains lit until guest acknowledges the signal, Fig. B.

A new **2-Way model, No. A-MR2,** with access from either side and lamps and switches on both, enables Mail Clerk to insert mail from one side and silently signal guest, and for Telephone Operator to insert messages from the opposite side (and also signal the guest).

The **Message-at-Desk Signal System** is identical with the Mail Rack System, except that there are no pockets — only lamps and switches mounted on a control panel. Message clerk — usually the telephone operator — signals to guest that there is a message (or mail) by moving a switch as above described.

The Racks and Panels are available in a variety of constructions to suit individual requirements as to location and number of rooms, and in standard or special finishes as decor dictates. The Mail Rack is available with shelf at top of each pocket for room key, Fig. C.

If guest room is not wired for radio, a separate wall plate, Fig. B, is provided for the signal lamp; otherwise, it can be included on the radio control panel (See Room Unit on facing page).

Long-life lamps in Signal Mail Racks and Message-at-Desk units are easily replaced from front. A metal stop strip across the back of each row of pockets, in the standard or **No. A-MR3 Mail/Message Rack,** permits insertions only from front. Model shown in Fig. A is for 100 rooms, but units can be built to suit 1,000 or more.

They may be made for Flush-wall (recessed), Surface-wall or Desk (table-top) mounting. An easily removable end cover plate permits access to wiring. Power Supply unit (included) is controlled by a switch. House signal wiring carries only low, safe voltage.

AMERICAN'S No. A-22X/- Multi-conductor Cable is used for connection to distribution point, and A-19/1 or A-19/2 wire for runs to Room Units.

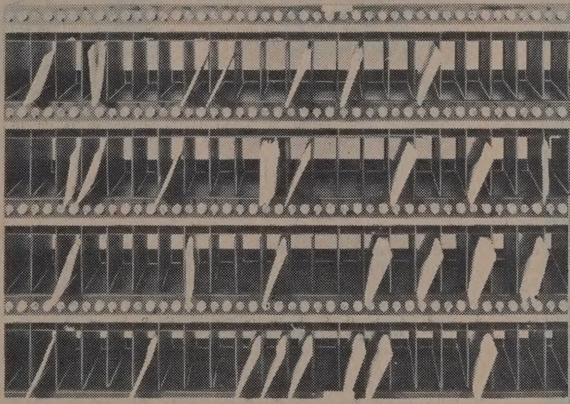


Fig. A. No. A-MR3/ 100 Mail/Message Rack, standard type, with stop strip and shelf at top of each pocket for room key. A designation strip below each row of lamps and switches identifies each room.

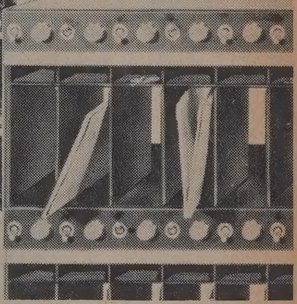


Fig. C. No. A-MR3 Mail/Message Rack has Key Shelf at top of pocket.

SPECIFICATIONS — Signal Mail/Message Racks

Standard finish, velvet black enamel. Material is steel. Standard pocket measurements: approx. 8″ deep x 7¾″ high (incl. 1⅛″ for Key Shelf, where used) x 2″ wide. Specify whether wiring termination board is to be placed at left or right end of Rack.

NET PRICES

A-MR2/- Signal Mail Rack System, 2-way type, ***17.50**
A-MR3/- Signal Mail Rack System, 1-way type, standard, ***$12.50.**
***Per pocket.**

Above **Net Prices** are less connecting wire and Room Unit, but including Power Supply, for up to 100 rooms. Discounts apply, on larger installations.

SPECIFICATIONS — Message-at-Desk

Standard finish, Flush or Surface mounting type, velvet black or gray enamel; Desk-top type, gray enamel. Other colors to suit decor are special. Material is steel.

NET PRICES

A-MD1/- Message-at-Desk System, Desk type; and, **A-MD2/ Message-at-Desk System,** Flush Panel type, **$7.50 per room** for up to 100 rooms. Above **Net Price** is less connecting wire and Room Unit, but including Power Supply.

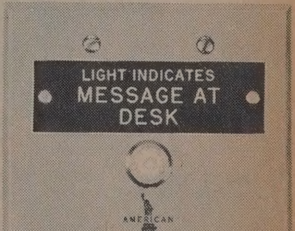


Fig. B. No. A-P20-3-A Signal Plate, in guest room, measures 4⅝″ sq.

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NEW YORK CITY 7, NEW YORK

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

MASTER RADIO OR TV ANTENNA SYSTEM (& CATV)

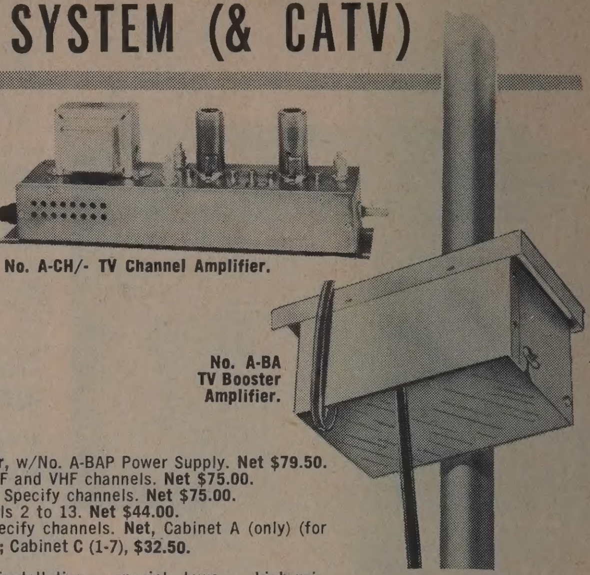
Installation requirements for an **AMERICAN COMMUNICATIONS Master Antenna System** whether for Radio or TV — or both — mainly depend upon field signal strength and local interference. A field-strength survey must be made to determine whether the received signals are sufficiently strong and reasonably "clean".

If TV signal strength in the area is low, a weatherproof **No. A-BA Broadband Booster Amplifier** (shown mounted on mast) located at the antenna may be used, for an additional 25 db gain on all VHF channels; power supply and Off-On control are a separate, remote unit, No. A-BAP (not shown), which may be up to 500 ft. distant. Input and Output, each 300 or 75 ohms. Terminals permit use as Broadband, High-band, or Low-band Amplifier.

The Radio signals are fed to the **Centralized Radio System**, and the TV signals are distributed to the various TV risers.

TV signals on UHF channels may be converted to unused non-adjacent VHF channels by means of a **No. A-U/V-C Converter** (not shown), its UHF Mixer head mounts at antenna, and delivers VHF signal to remote oscillator. Specify the UHF and VHF channels. Converters are also available to cover VHF High to VHF Low, **No. A-V/V-C.**

To deliver adequate signal strength at each TV outlet, it usually is necessary to use low noise, high gain, head-end amplifiers, one for each channel. A **No. A-CH/- TV Amplifier Strip** is shown here. A group of up to 7 such channel amplifiers can be assembled in one steel cabinet, **No. A-C/CH/-** (not shown here).



No. A-CH/- TV Channel Amplifier.

No. A-BA TV Booster Amplifier.

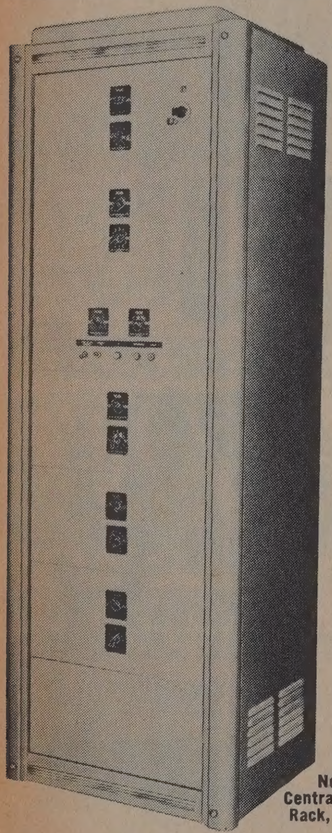
SPECIFICATIONS

No. A-CH/- TV Channel Amplifier. Bandwidth, 6 mc.; gain, 45 db. Low-noise cascode input. Output, 1 V. per ea. two outputs.

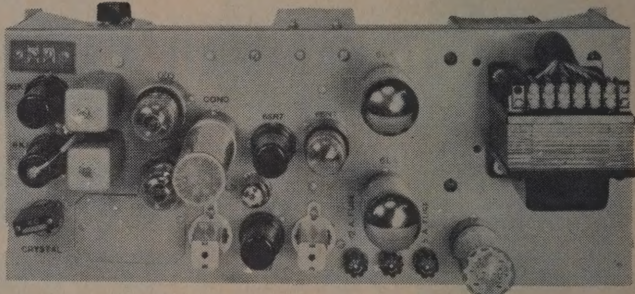
No. A-BA Weatherproof Broadband TV Booster Amplifier, w/No. A-BAP Power Supply. **Net $79.50.**
No. A-U/V-C Converter, w/UHF Mixer Head. Specify UHF and VHF channels. **Net $75.00.**
No. A-V/V-C Converter, w/Mixer Head, for VHF to VHF. Specify channels. **Net $75.00.**
No. A-CH/- Channel Amplifier. Specify which of channels 2 to 13. **Net $44.00.**
No. A-C/CH/- Channel Amplifiers in Metal Cabinet. Specify channels. **Net,** Cabinet A (only) (for 1-3 Amplifier Strips), **$8.50;** Cabinet B (1-5), **$14.80;** Cabinet C (1-7), **$32.50.**

For Community Antenna TV (CATV) installations, special towers, high-gain directional antenna arrays, and low-noise amplifiers can be supplied. **For Coaxial Fittings,** see **last two pages.**

CENTRALIZED RADIO SYSTEM



No. A-CR Centralized Radio Rack, complete



No. A-300C Radio Receiver, crystal controlled.

The **control center** of **AMERICAN COMMUNICATIONS'** "Channelized" Radio System is the **No. A-CR Rack Unit** shown here. Signals from the Antenna System are fed to the Rack-and-Panel assembly, and then to remote speakers (guest rooms, public areas, etc.) through a system of properly selected cable and matching components as specified by the Supervising Engineer.

No. A-CR Rack can be modified to suit requirements. The standard Rack, however, is comprised of 4 **AMERICAN** No. A-300C AM Crystal-controlled Radio Receivers, 1 No. A-300T AM Tunable Radio Receiver, a panel-controlled No. A-P/M Preamplifier/Mixer (for mixing a high-impedance microphone and phonograph), Monitor Speaker, power supplies and controls, and Timer. The Radio Receivers deliver a minimum of 40 watts audio power. (Additional amplification, if needed, is incorporated in a second Rack.)

If the tunable receiver is a No. A-300F (for FM reception), the house manager may tune it, like the A-300A AM Radio Receiver, to a continuous-music station for background music, available to guest when he switches to this channel — within the operating hours automatically controlled by the Timer.

The Monitor Speaker (optional), hinged to Rack, has same response as room speakers for true check of programs as received in guest rooms. Switching permits its use on background music, P.A., etc.

If Rack is to be used with **AMERICAN'S** Emergency Alert System, the standard model will include 8 hermetically-sealed relays — one each for the 5 radio receivers, one in preamplifier/mixer, one in the automatic timer circuit, and one in a booster amplifier circuit. These enable remote Emergency Alert equipment to assume control and deliver to all the loudspeakers a suitably high signal whenever needed, regardless of off-on status of Rack, room speaker channel-selector switch, or P.A. system.

Rack can include additional facilities, as for example switching into Muzak or other wire line, or use of tape or record player, for background music. For **Stereo FM reception,** using a multiplexed FM station as the source of both stereo channels, a Stereo Multiplex Adaptor is added to the existing FM receiver, and the two resulting audio channels are fed to stereo equipment.

Receivers are high-fidelity type, with push-pull output. The No. A-300C Radio Receiver is shown here; No. A-300T, and -F, have same physical dimensions and general appearance. Several features make these receivers exceptionally reliable and efficient: (A) the single electrolytic capacitor is plug-in type for servicing convenience; (B) circuits are triple-fused (one each for power line, filament supply, high-voltage supply); and, (C) voltage regulator tubes limit surge potentials to safe values. For trouble-free performance over long periods of continuous operation in commercial service, only close-tolerance, high-quality components are used, and operated within wide safety margins, in a ruggedized receiver design.

SPECIFICATIONS

Radio Receivers

Tuning range, 540-1,720 kc.; sets have 1 RF and 2 IF stages. Output transformer has taps that present balanced load impedances to the following lines: 8, 16, 32, 250 (70 V.), and 500 ohms. Rated audio output, 40 W. Each Receiver has a Selector Switch, knob-controlled from front of panel, for selection of (1) Radio; (2) Microphone or Phonograph; and (3) Muzak, or other wire line.

Tube complement, No. A-300T: 1, 6SA7; 2, 6SK7; 2, OD3/VR150; 1, 6SR7; 1, 6SN7GTB; 1, 6AL5; 1, 5R4; 2, 6L6GC. No. A-300C has same complement, except 6K8 replaces 6SA7.

AMERICAN will supply Crystals in FT-243 holder.

Rack

The **No. A-CR Centralized Radio Rack** is made of cold-rolled steel 1/16" thick; panels are aluminum, 3/32" thick. Standard finishes, Rack and Panels, slate gray or black ripple enamel. Rack amply ventilated by louvers on 3 sides. Easy-access rear door has slip-joint hinges. Rack measures approx. 68 x 22 x 18" deep. Fully fused; use on 20 A. mains service, 115 V., 60 cy. Supplied completely equipped as described.

No. A-CR, complete, incl. Time Clock. **Net Price $250.00 per channel. (Monitor Speaker, extra.)**

AMERICAN RELIABILITY

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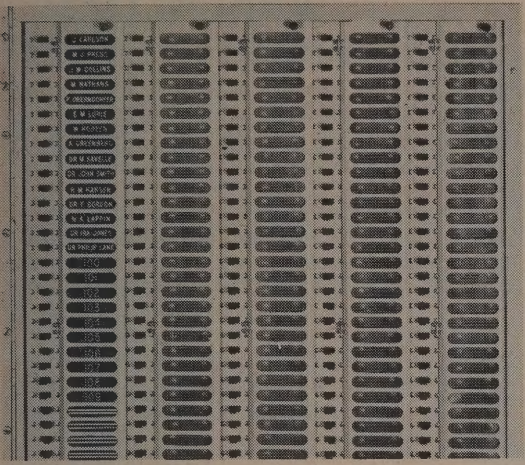
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

DOCTORS CALL BOARDS



No. A-DCB/- Doctors "IN" or Call Board. Also available w/Message Signal, Intercom, etc.

Shown here is AMERICAN'S Doctors Call Board, flush-mounting type. Sizes and mountings to order. May be used wherever rapid, convenient check-in and check-out are wanted.

A column of switches at left of a column of translucent designation strips permits doctors to indicate whether they are on duty. Upon arrival, each moves his respective switch to "On." This "IN" Board can be operated by a Receptionist, instead. As doctor may arrive at an Entrance door, and leave by an Exit door, a second or "OUT" Call Board must be provided at this Exit.

Call Boards less switches can be provided for Head Nurse and Superintendent's offices, to show the on-duty status of doctors.

Doctors Call Board is also available with Message-at-Desk facility — without requiring additional wall space! The lamps under a name strip slowly blink off and on until this message signal is acknowledged.

Another Call Board model provides Intercom facility. This allows physician to receive his message without delay; upon leaving, he can give special instructions to front desk (usually, remote from exit).

Still another model is double-sided, so illuminated name can be seen from Doctor's side of Call Board and Telephone Operator's side.

SPECIFICATIONS

No. A-DCB/- Doctors Call Board (illus.) is 3 ins. deep; other dimensions as required. Steel panel swings outward, as do the individual nameplate panels (for change of names or lamps).

No. A-DCB2/- Doctors Call Board includes Message Signal.

No. A-DCB3/- Doctors Call Board includes Intercom.

No. A-DCB4/- Doctors Call Board, double-sided, with names readable from both sides, but switches on only one side. **Net $8.50 per name.**

No. A-DCBX/- Doctors Call Board, less switches, for monitoring.

Net Price, A-DCB/100 Doctors Call Board, basic unit for 100 rooms, **$10.00 per room, per Board,** less connecting wire but w/Power Supply for 115 V., 60 cy. A.C.

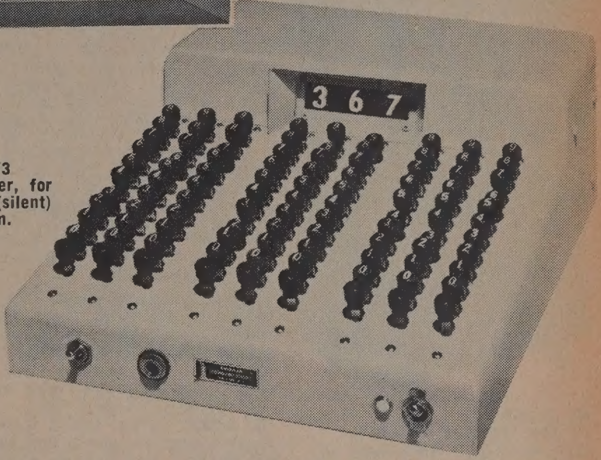
PILLOW SPEAKER CONTROLS

The **No. A-S/C-T Pillow Speaker and Remote Control** (illustrated) has dynamic earphone w/3.2 ohm voice coil. Unit connects to adaptor in TV set. Button controls set OFF-ON, and selects station; wheel adjusts volume. High-impact plastic case (ivory) w/suspension chain and bed-clip. Cord w/adaptor plug is 5 ft. long. Size: 4½ x 2½ x 1⅛ ins. deep. Use with GE Hospital-model TV set CBM620 VVY, or equal. **Net Price, $16.00.**

The **No. A-S/C/N-RT** (not illustrated) is a combination Radio and TV Pillow Speaker, Remote Control and Nurse Call. Operates in conjunction with stepper relay (not supplied). **Net Price, $29.32.**

AUDIO/VISUAL (SILENT) PAGING SYSTEM

No. A-A/VP-D Decoder, Audio/Visual (silent) Paging System. Has 4" numerals.



No. A-A/VP-E/3 3-bank Encoder, for Audio/Visual (silent) Paging System.

Designed for use with a Call Board, **AMERICAN'S** Audio/Visual Paging System presents an efficient means of personnel paging in hospitals, department stores, schools, hotels, factories, offices, etc.

In operation, a designated person (Telephone Operator, for instance, in a hospital) sets up on a desk-top Encoder, the call number assigned to a person (doctor or nurse) whose attention is wanted. This can be any number from 1 to 999 per bank of push-buttons. This number then instantly appears in the window of remote readout indicators or Decorders, wherever located. The called person can acknowledge the call in a variety of ways — house phone, Intercom, etc.

Encoder No. A-A/VP-E/3 shown here has two additional banks of buttons which permit two additional calls to be set up at the same time, and by automatic switching, each will be signaled, in sequence, 20 seconds after the preceding one. Or, by operating a switch, any one of the three sets of numbers can be held in view and shown steadily until acknowledged.

A jack on the front skirt, for microphone, permits audio paging, emergency instructions, etc. A pilot light indicates the "ON" condition. Encoders may be located in several offices, and Decorders at any number of remote points.

SPECIFICATIONS

Encoder No. A-A/VP-E/3, 3-bank, is a desk-top unit in metal housing. Dimen., approx. 11 x 5¾ x 14" deep. Operates on 115 V., 60 cy. A-C.

Decoder No. A-A/VP-D is a signal/speaker assembly in metal housing approx. 25 (incl. flanges) x 5¾ x 15½" deep. This unit is surface-ceiling mount type; other types of mounting can be supplied. Speaker is 5" PM type in an acoustic chamber designed for maximum intelligibility. Readout unit displays numerals 4" high that are readable at over 60 ft. Available without speaker.

Standard finishes: Encoder, buff enamel; Decoder, flat polar white enamel.

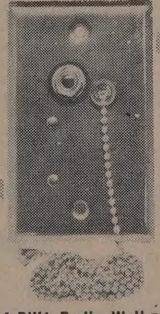
Net Prices:

Encoders: A-A/VP-E/1, **$450.00;** A-A/VP-E/2, **$550.00;** A-A/VP-E/3 (3 digits, as illus.), **$650.00.** Priced per # of digits, as below.

Decoders: A-A/VP-D/1, **$125.40;** A-A/VP-D2, **$234.40;** A-A/VP-D3 (3 lights, as illus.), **$354.40.** Priced per number of lights.

Auxiliary Equipment (for Paging) — A-PS Paging Set (Microphone and Amplifier, 1 each for paging — not illustrated), **Net $75.00/set.**

PATIENT'S RADIO WALL-PLATE



No. A-RW1 Radio Wall-plate.

Although designed for use by patients in hospitals, the No. A-RW1 Radio Wall-plate shown here, is a convenience wherever used. Operates by pull chain.

Has stepper switch and a jack. Switch has continuous rotation through "Off", 5 positions for selection of radio programs, and back to "Off", and so-on. Jack provides connection for pillow speaker.

SPECIFICATIONS

No. A-RW1 Radio Wall-plate. Switch is pull-chain actuated, continuous rotation, double-pole, 5 positions and "Off". Either single-circuit or circuit-opening jack available, for PL-55 plug; specify which desired. Plate steel, approx. 2¾" x 4½" high; overall depth, from front of plate, 2¼". Fits standard outlet box. Bead chain is steel, 3 ft. long; cut to desired length. **Net Price, $6.85.**

AMERICAN COMMUNICATIONS CORPORATION

NEW YORK CITY 7, NEW YORK

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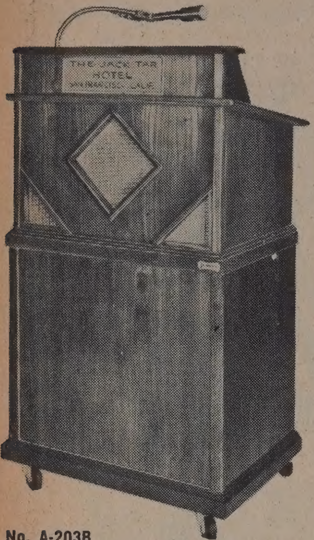
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

PORTABLE ELECTRONIC LECTERN



No. A-203B
Portable Electronic Lectern is used in "the world's most electronic hotel."

AMERICAN'S No. A-203 (A, B and C) Electronic Lectern is unified — nothing else to buy (includes microphone, amplifier, loudspeaker, reading light, and provides for optional equipment). It is efficient and portable. When combined with base (as No. A-203B) it is sometimes referred-to as an Electronic Podium.

High-quality cardioid microphone, w/Off-On switch, is adjustable in height and position; side mounted, for maximum desk room. Amplifier is high-quality, reliable, and high-fidelity type, w/separate Bass and Treble controls to suit any acoustic situation of speaker or audience. Loudspeaker is in acoustic chamber designed for maximum voice fidelity and minimum feedback. Lumaline fluorescent reading light is shaded, and noise-filtered.

Housing is in two parts, with top or Lectern section lifting off lower or Base section; Lectern section, sold separately, contains apparatus above-mentioned, and is suited to table-top use in hotels, clubs, banquet halls, industrials (sales meetings, etc.). Ample space under sloped reading desk for reference material; a ledge that will conveniently support a dust cover (not supplied) skirts junction of Lectern and its base. Base section, equipped with quiet, ball-bearing casters, is demountable, and folds for convenient storage.

Optional equipment: (1) jack with extra speaker for covering large audiences; (2) tape machine for background music or recording; (3) jack for patching into existing P.A. system; (4) jack, and neck microphone with long lead, for speaking away from Lectern (as for audience participation, etc.); (5) built-in or remote timer, and signal light. Engraved bakelite Nameplate is extra, **Net $10.00.**

SPECIFICATIONS

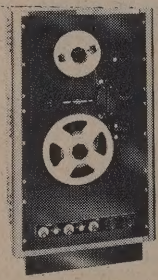
No. A-203A Lectern (only), equipped; **No. A-203B,** Lectern w/Base. Standard cabinet is solid wood, walnut-veneered, in rich furniture finish; other woods and finishes to order.

Overall dimen. (Lectern and Base), approx. 28" x 19" x 50" high. Cardioid-pattern microphone has gooseneck stand. Amplifier audio output, 10 watts. PM type speaker. Junction box for plug and A-C linecord; specify cord length required. Operates on 115 V, 60 cycles.

No. A-203C, is No. A-203B (Lectern and Base) w/jack for second, auxiliary speaker (supplied; specify type and housing).

Net Prices: A-203A, $295.00; A-203B, $395.00; A-203C, $425.00.

BACKGROUND MUSIC MAKER



Where recorded tape is to be used for highest fidelity background music, **AMERICAN** manufactures the **No. A-BM/- Background Music Maker** (illustrated). Unit is also available recessed in cabinet and closed-over by a front door.

Ideal for hotels, motor-inns, travel terminals, medical centers, bowling alleys, restaurants, shopping centers (one No. A-BM Background Music Maker can supply hi-fi sound to **all** the units in a Center), etc. Will play up to 16, 8 or 4 hours of original music; then automatically repeat. Can be supplied for stereo systems. Includes facilities for public address or paging.

Rack includes tape transport with 10½" reels, preamplifier, standard 30 W hi-fi audio amplifier (other power outputs to order), phono and 2 microphone inputs, and controls (separate Bass and Treble tone controls, Phono Gain control, and 2 Microphone Gain controls).

SPECIFICATIONS

No. A-BM/- Background Music Maker. Cabinet overall dimen. approx. 48 (high, incl. footing) x 22 x 20" deep. Rear (servicing) door has slip-joint hinges. Material is 1/16" steel. Fully louvered for maximum ventilation. Standard finishes: slate gray or black ripple enamel.

No. A-RT/- Recorded Tape, long-play Background Music (choice of mood-music library).

Catalog of extensive library of mood-music supplied to purchasers. Model A-BM/- is supplied for 4- , 8- or 16-hour play.

Net Prices: A-BM/16, $1,400.00; A-BM/4-8, $985.00. Tapes: A-RT/16, $178.00; A-RT/8, $90.00; A-RT/4, $39.60.

BUILDING ALERT SYSTEM

AMERICAN'S Emergency Alert System may be used with AMERICAN'S **Building Alert System** (particularly suited to apartment building complexes), in which a warble tone is fed to outdoor speakers to summon the patrolman on the beat, if any emergency arises.

PRE-SIGNAL FIRE ALARM SYSTEM

The Emergency Alert warble-tone signal is also part of AMERICAN'S **Pre-signal Fire Alarm System** designed to protect hospitals, schools, hotels, etc., against panic due to sounding of general evacuation bells by operation of heat detectors or manual break-glass stations. A Control Panel Assembly connects these detectors or manual stations to the warble-tone signal box, allowing an attendant in the occupancy to exercise judgment as to the urgency of the alert before sounding the general alarm.

APARTMENT "ANNUNCITEL"

AMERICAN'S new **No. A-AA/- "Anuncitel"** solves many problems of Apartment House owners and architects. It is a low-cost, combination multiple station 2-way telephone and transistorized annunciator, for intercommunication and signaling between apartments and lobby, service entrance, garage, etc.

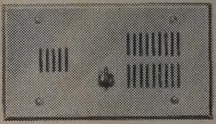
WITH ANNUNCITEL —

1) House manager can tell which apartment called his office in his absence.
2) Tenants can be signaled from service entrance when a package arrives.
3) Service attendant can handle all apartment calls that arrive simultaneously, without neglecting any call.
4) Arriving visitors can have immediate contact with tenants.
5) Tenants can reach doorman or superintendent immediately, in an emergency.
6) Attendant can contact garage or other in-building locations, or automatically leave signal to be called.

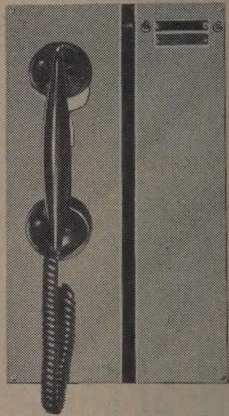
The Master Station or lobby unit has hanger-type telephone handset, and 25-name apartment designation strip. Apartment Station is a wall-mount panel that fits a 3-gang outlet box. Both available in stainless steel or color-anodized aluminum.

The annunciator, a transistorized design employing new solid-state techniques, can be built into either unit, or both, to show which station is calling and which is being called. The transistorized design virtually eliminates service problems.

Net Price, Master and 25 Apartment Stations, **$30.00 per apartment.**



APARTMENT STATION



MASTER STATION

● ●

CLOSED-CIRCUIT TELEVISION

CCTV may be combined with AMERICAN'S Status Control System, for instantaneous sequential control and monitoring of manufacturing processes from remote points.

Equipment is sold separately, or as a complete installation — either outright or rental. Prices depend upon installation requirements, and quotations will be supplied upon request.

FINANCING

AMERICAN COMMUNICATIONS CORPORATION can arrange financing of its Systems installation and/or equipment, including TV Receivers.

SPECIAL SERVICES FOR AMERICAN'S CUSTOMERS

Our Registered Professional Engineers will assist in planning installations anywhere. Also, technically-accurate drawings will be prepared for those who wish to accompany their quotations with drawings, but lack the facilities to prepare them.

AMERICAN COMMUNICATIONS CORPORATION

NEW YORK CITY 7, NEW YORK

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

ANNOUNCING—Newest* TV-set THEFT ALARM

AMERICAN'S new TV-set Theft Alarm actually has a number of uses:

1) In Hotels, Motels, to signal any attempt to steal a television set.
2) In Apartment Houses, to signal doorman if any attempt is made to illegally enter an apartment.
3) In Apartment Houses, to alert superintendent or doorman, in an emergency, without sounding a general alarm.
4) In Stores, Factories, to signal any attempt to steal valuable electric appliances, tools or equipment.

It is manufactured in two standard models; both operate to signal the instant any attempt is made to steal the TV-set (for example) to which it is connected, but only Model B is used in apartment houses.

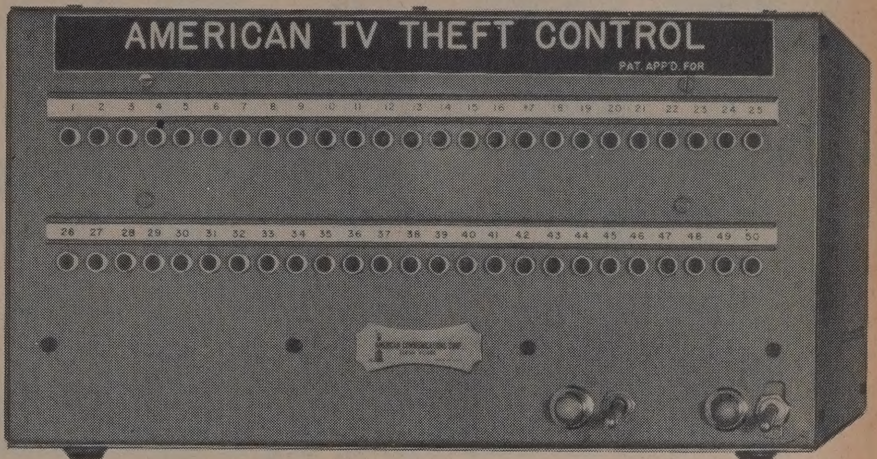
Model A (**No. A-TA/A-**) may signal (a) only at actual location of attempted theft; (b) at Front Office; or, (c) both. **Model B** (**No. A-TA/B/-**), shown right, signals only at front desk (lobby, superintendent's office, etc.). Model B meets most requirements, combines all alarm elements in one small unit, and therefore is the least expensive and most popular design.

Operation: Equipment (TV-set, appliance, etc.) connects to wall outlet by means of a Conversion Cord. Any attempt by unauthorized persons to remove connection from wall outlet, cut power cord, or (Model A only) remove master antenna connection, starts an alarm signal.

Model A is a self-contained wall unit which sounds an alarm—loud raucous buzz—in the guest room until staff personnel unlocks and resets it; or, it may sound a buzzer and flash a light at the Front Office. This flashing light can be an existing signal system, such as **AMERICAN'S** Message-at-Desk.

Model B combines all the alarm elements in a single desk-mount assembly — no signal in guest room alerts the thief. A Reset switch cancels alarm buzz and flashing light, but a room indicator lamp remains lit until staff personnel has visited room and restored the circuit to its normal alert condition.

REQUIRES ONLY ONE CONTROL WIRE PER GUEST ROOM



Apartment House owners now can offer their tenants maximum security at negligible cost. Tenant is protected against an unlawful entry going undetected; can signal for help in an emergency.

SPECIFICATIONS

No. A-TA/A/- One required per TV-set. Contains loud-sounding buzzer. Mounts on power outlet box in guest room. TV Conversion Cord plugs into its polarized receptacle; other end connects inside TV-set. Gray enameled steel box, 6¼" x 8⅜" x 2¾" deep, has key lock. Weight, approx. 5 lbs. **Net Price,** complete w/TV Conversion Cord, **$16.50** ea., in quantity.

Model A-TA/B/-. One Control Unit per installation and one Room Unit per room required. Control contains room lamp and designation strip, loud-sounding buzzer, bright alarm light, flasher, alarm reset and power on-off switches and bullseye. Operates on 115 V., 60 cy. A-C; room wiring, only 24 V. D-C. Room Kit includes Conversion Cord and Conversion Outlet. Gray crackle enameled steel box is 15" x 7¾" x 9" deep; wgt. approx. 30 lbs. **(No. A-TA/B/50). Net Price,** w/Room Kit, **$12.00/room,** depending upon number of rooms; minimum sale, 10 rooms. Cable not included.

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*Protected by Pending Patents.

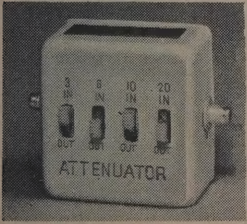
MOTEL-O-PHONE SYSTEM

You increase the basic Interior Telephone System from a maximum of 24 stations by adding 24-station units on top.

AMERICAN developed this interior telephone System specially for Motels, Motor Inns, and small Hotels. This **Multiple Telephone Switchboard** is described as "selective ringing, common talking." Unit illustrated is for 48 telephones; add units for each 24 telephones.

Net Prices: No. A-MTS Basic Unit, for 24 phones, w/115 V. A-C Power Supply, **$350.00;** No. A-MTS-1 Add-A-Board, for 24 phones, **$150.00;** A-FP French-style Desk Phones, **$25.00.**

DB ATTENUATORS



No. A-DB/39 Attenuator Pays for itself in the time it saves determining loss required for best TV picture, etc. Slide switches are used.

AMERICAN'S No. A-DB/39 and **No. A-DB/59 Attenuators** (the latter not illustrated) provide at low cost, quick and convenient means for determining losses in a number of essential tests in TV installations. These include measurement of amplifier gain, and of equipment losses.

SPECIFICATIONS:

Insertion loss of the **No. A-DB/39** is in fixed steps of 3 to 39 db, and, of the **No. A-DB/59,** 3 to 59 db, for TV frequencies, when used in 75-ohm circuits. Two **No. A-CH61** solderless TV connectors afford connection to 75-ohm coaxial connectors. Housing is steel, ecru enameled; overall, 2 x 2 x 1" deep **(No. A-DB/39).**

Net Prices: No. A-DB/39, **$7.75;** No. A-DB/59, **$19.90.**

MICROPHONE MIXERS

AMERICAN'S **A-6M Portable Microphone Mixer** has 200-ohm inputs for 6 microphones, individual gain controls (mixers) for each of the 6 microphones, master gain control, Cue Jack for headphone monitoring of broadcast-quality program material, pilot light, separate Bass and Treble electronic tone controls, and "Off-On" switches for Service and Standby power supplies.

The 6 mixers work from individual low-noise pre-amplifiers into the master gain control; gain is adequate for remote operation.

Output is +15 dbm; gain, 55 db; frequency range, 30-15,000 cy./sec. ±1. db. Output is universal (50-600 ohms impedance). Operates on 115-120 V., 60 cy. A-C.

No. A-10M Portable Microphone Mixer (not shown) for 10 microphones is similar in construction.

SPECIFICATIONS

Slope-front metal cabinet (A-6M) measures approx. 22" x 7" x 8" high. Gray crackle finish. Carrying handle. Fused power supplies. Terminations at rear of cabinet. Instrument furnished w/Hubbell or Cannon connectors.

Net prices, No. A-6M, **$495.00;** No. A-10M, **$825.00.**

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MASTER

No. A-6M
6-channel Portable Microphone Mixer

AMERICAN
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AMERICAN COMMUNICATIONS CORPORATION

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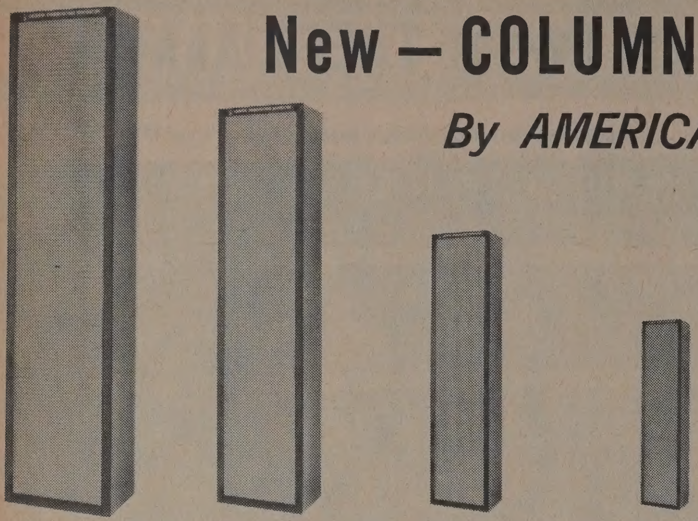
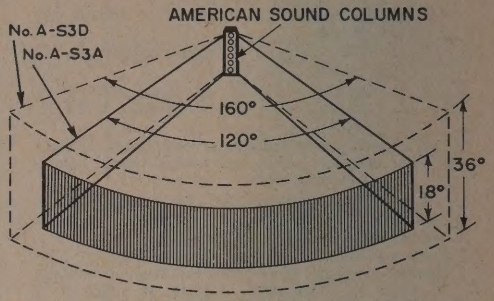
AUDIO / VISUAL / SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

New — COLUMN SPEAKERS
By AMERICAN!



No. A-S3A	No. A-S3B	No. A-S3C	No. A-S3D
8, 8-In. Hi-Fi 80 Watts 72x12x8″ 50 lbs. **Net $95.95**	6, 8-in. Hi-Fi 60 Watts 53x12x7″ 35 lbs. **Net $85.95**	6, 6-in. Wide-range 30 Watts 40x9x5½″ 20 lbs. **Net $64.95**	5, 4-in. Budget 20 Watts 27x7½x4″ 12 lbs. **Net $29.95**

(**No. A-S3E,** not illus.; 8, 6-in., Wide-range, 48 W., 52x10x6″, 25 lbs. **Net $74.95.**)



NEW "MULTICOUSTIC" COLUMN SPEAKERS

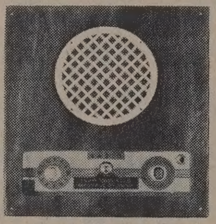
Newest addition to **AMERICAN'S** Sound Systems equipment is the series of **Column Speakers** shown above. Due to the narrow vertical and wide horizontal dispersion pattern of these in-line speaker arrays (see diagram), approx. 90% of the sound is beamed more effectively.

Result: (a) Less sound reflection and reverberation;
(b) Less microphone feedback (howl);
(c) Less need for acoustic treatment;
(d) More audience coverage;
(e) Improved intelligibility.

Nominal line match, 12-16 ohms, and 25 volts. Standard finish: walnut, on ¾-in. plywood, except **No. A-S3D** (five 4-in. speakers), ½-in. Interior specially designed in accordance with **AMERICAN'S** famous Acoustical Labyrinth.

PLASTIC GRILLE

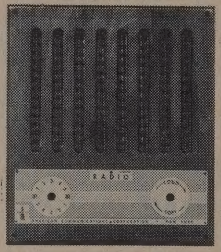
No. A-BW1/- Baffle has waffle-pattern white plastic grille on plywood panel in light mahogany finish. For 6″ or 8″ speaker. Escutcheon, controls and speaker not included. **Net $11.00.**



No. A-BW1/- Baffle

VERTICAL VENTS

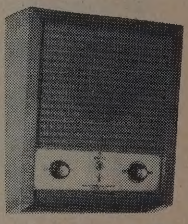
No. A-BW2/- Baffle is plywood, finished in light mahogany. This vertical-vent baffle is a popular number. For 6″ or 8″ speaker. Escutcheon shown only for illustration. **Net $11.88.**



No. A-BW2/- Baffle

SLANTING FRONT

No. A-BW3/- Baffle, surface mount, slanting front. Plywood, light mahogany. Customer choice of grille cloth. A general-purpose design, for 6″ or 8″ speaker. Priced less escutcheon, controls, speaker. **Net $14.55.**



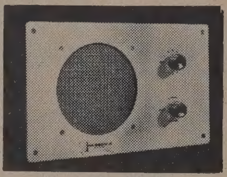
No. A-BW3/- Baffle

"DECORATOR" SPEAKER BAFFLE

No. A-B4 Baffle, in Decorator style, is brushed aluminum. Gold anodized available. For 6″ or 8″ speaker. Controls and speaker not included. **A-B4A/6-8, Net $11.23; A-B4G/6-8, $16.18.**

• • •

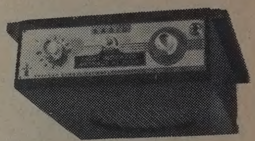
AMERICAN will install control panels in customer's furniture upon Contractor's order.



No. A-B4/- Baffle
Provides for controls.

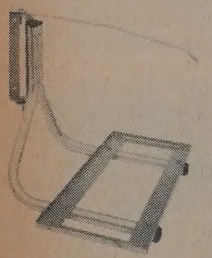
UNDERTABLE BAFFLE

No. A-BW4 Baffle mounts under table, has pressure-release vents on sides, projects sound downward. Plywood baffle is dull black. Cable opening at rear. Grille cloth is backed by wire mesh. Mounting holes in flanges. For 6″ or 8″ speaker. Priced less escutcheon, controls, speaker. **No. A-BW4/6, Net $11.06; No. A-BW4/8, $13.15.**



No. A-BW4/- Baffle
Mounts under table.

TV MOUNTS



No. A-TVB1. Bracket swivels for best TV viewing.

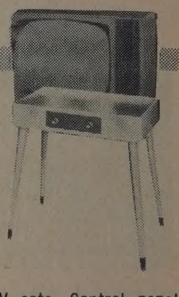
No. A-TVB Bracket. Swivel wall-mounted support for 19″ TV sets, particularly the Designer series, or equivalent, for hospitals, hotels, etc. Saves floor space. Set easily positioned for best viewing. **Net $6.78.**

No. A-TVS. Roll-away TV Stand is easily positioned under, for example, a hospital bed. Shelf holds set over bed. Hard rubber casters, bolted ⅞-in. diam. steel tubing. Shipped KD. Bar holds pillow speaker cord or, as shown, TV Remote Control Cord. **Net $25.49.**

No. A-TVS. Stand holds TV set over bed.

TV TABLES

No. A-TVT-B Table.
Speaker cabinet extra.



No. A-TVT-A Table.
Provides for controls.

No. A-TVT-A Table. Holds standard Hotel-type TV sets. Control panel can be installed on front skirt, as illustrated. Standard finish is white, or color to order. Wood legs. **Net $12.77.**

No. A-TVT-B Table. For TV sets. Control panel and speaker (No. A-BW4 Baffle Cabinet, equipped) will fit underneath. Black, or other color to suit. Metal legs. **Net $10.14.**

AMERICAN
RELIABILITY

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NEW YORK CITY 7, NEW YORK

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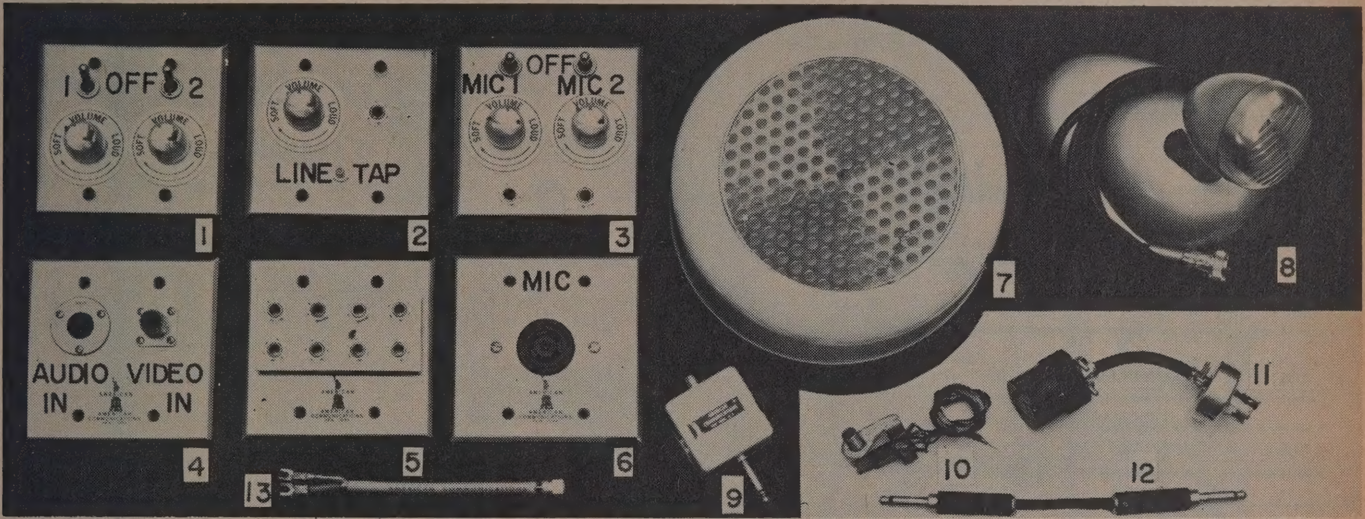
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

PUBLIC ADDRESS PARTS & ACCESSORIES



Following is description of the items shown above. Additional specifications will be supplied upon request.

(1) **No. A-SVC Speaker Volume Control.** Has 2 controls, w/dials, for 2 public areas, and switches to control background music. **Net $22.50.**

(2) **No. A-A/TVC Audio/TV Control.** Includes 3.3K ohm volume control w/dial, seize jack, and master antenna outlet. **Net $14.40.**

(3) **No. A-IC Integrating Control** on 2-gang plate, w/2 ea. center-off switches, Volume Controls and seize jacks. **Net $22.20.**

Items 1, 2 and 3, above, operate on 70-volt lines. Other impedances available.

(4) **No. A-A/V-JP Closed-circuit unit** — Audio/Video Jack Plate — on 2-gang plate, w/Cannon XLR-314 socket for Audio In, and socket for PL-239 for Video In. **Net $11.88.**

(5) **No. A-PP-F Flush Patch Plate,** on 2-gang plate, w/4 circuit jacks. **Net $2.97 per circuit** (4 circuits shown).

(6) **No. A-MOP Microphone Outlet Plate,** flush type, on 2-gang plate, w/Hubbell Polarized socket. **Net $4.00.**

(7) **No. A-PAS-I Indoor P.A. Speaker,** surface mount type, 8″ (only). Metal is enamel finished. Supplied less speaker. **Net $5.81.**

No. A-PAS-O Outdoor P.A. Speaker (not illus.), on swivel mount, w/weatherproof housing and A-T3 output transformer. **Net $23.71**

(8) **No. A-DS Microphone,** Desk Stand w/press-to-talk switch, Cord, Plug, **Net $17.23.**

Also available (not shown): **No. A-MF Floor-stand Microphone. Net $25.54;** and, **No. A-MB Banquet-stand Microphone. Net $11.88.**

(9) **No. A-A Adaptor** — PL-55 one end, Amphenol 75-PC1M connector opposite end, to adapt seize jack to Amphenol adaptor, **Net $2.24.**

(10) **No. A-SJ-1 Seize Jack** (circuit opening), wired assembly, **Net $2.70.**

*(11) **No. A-MEC Microphone Extension Cord,** SJ cord w/Hubbell 7554 plug one end, 7555 other end, **Net $6.72.**

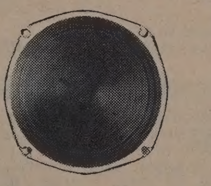
*(12) **No. A-MCPC Maid Call Patch Cord,** 2-conductor cord w/PL-55 ea. end, Net $1.51.

*(13) **No. A-TVH TV Hook-up Lead,** A-TV92-S Coax., w/lugs one end, A-C59 other end, **Net $2.50.**

* **Standard length 6 ft., other lengths — and constructions — to order.**

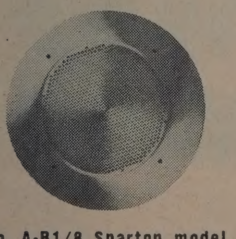
LOUDSPEAKERS

No. A-S1/- High-fidelity Speaker, with dual cones, 6″, **Net $4.27;** 8″, **$6.05.**

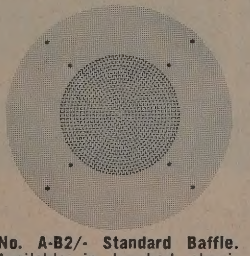


No. A-S2/- Wide-range Speaker, 6″, **Net $3.08;** 8″, **$4.86;** 6½″ diam., overall.

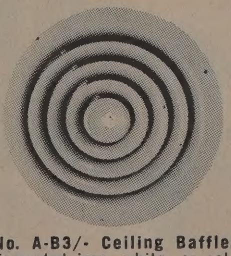
No. A-D Speaker Dust Bag; anti-fungus vermin proof. 6″, **Net $.97;** 8″, **$1.12;** 12″, **$1.19.**



No. A-B1/8 Sparton model Baffle, for 8″ speaker (only). Enameled iron, white (standard), or colors to order. **Net $2.48** (Plastic Ring, for mounting in ceiling, **Net $1.49).**



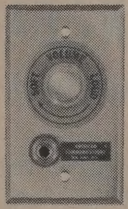
No. A-B2/- Standard Baffle. Available in brushed aluminum. For 6″ speaker, **Net $2.55** (Plaster Ring, **Net $1.19);** 8″, **Net $2.67** (P.R. **Net $1.49).**



No. A-B3/- Ceiling Baffle. Enameled iron: white, or colors to order. For 6″ speaker, **Net $4.15** (P.R., **Net $1.19);** 8″, **Net $5.35** (P.R., **Net $1.49);** 12″, **Net $7.43** (P.R., **Net $2.06).**

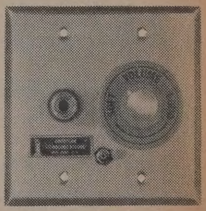
NEW P.A. CONTROL UNITS

These new Control Units by **AMERICAN** meet the everyday needs of the Public Address technician. Each includes a 4-watt, wire-wound volume control, either 3.3K ohms (for 70 volt line) or **AMERICAN'S** patented, continuous-rotation 12.5 ohm (voice coil) control. Seize jacks are circuit-opening type, for PL-55 plug. Standard plates are brushed stainless steel; also available in white enamel, and brushed or bright brass finish.



No. A-CU1/- Speaker Control w/Seize Jack — With 3.3K ohm **(A-CU1/1)** or 12.5 ohm **(A-CU1/2)** control, dial, knob; seize jack. Plugging into jack disconnects speaker from its feed line, connects speaker to plug circuit (paging assembly, etc.). Plate mounts on std. 1-gang outlet box. **Net $8.55.**

No. A-CU2/- Speaker Volume Control.—A surface-mount, general purpose unit. With 3.3K ohm **(A-CU2/1)** or 12.5 ohm **(A-CU2/2)** control, dial, knob. Metal case 1″ deep has ½″ flange on sides, black finish (std.); plate is single gang. Metal-bushed holes for wire entry through top or bottom. **Net $7.25.**



No. A-CU3/- Speaker Volume Control w/ Seize Jack, Master TV Antenna Connection.—Used in conference rooms, etc. With 3.3 K ohm **(A-CU3/1)** or 12.5 ohm **(A-CU3/2)** control, dial, knob; seize jack; A-1601-G TV-set line tap (75 ohms). Other tap-offs available. Plate mounts on 2-gang outlet box. **Net $10.95.**

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NEW YORK CITY 7, NEW YORK

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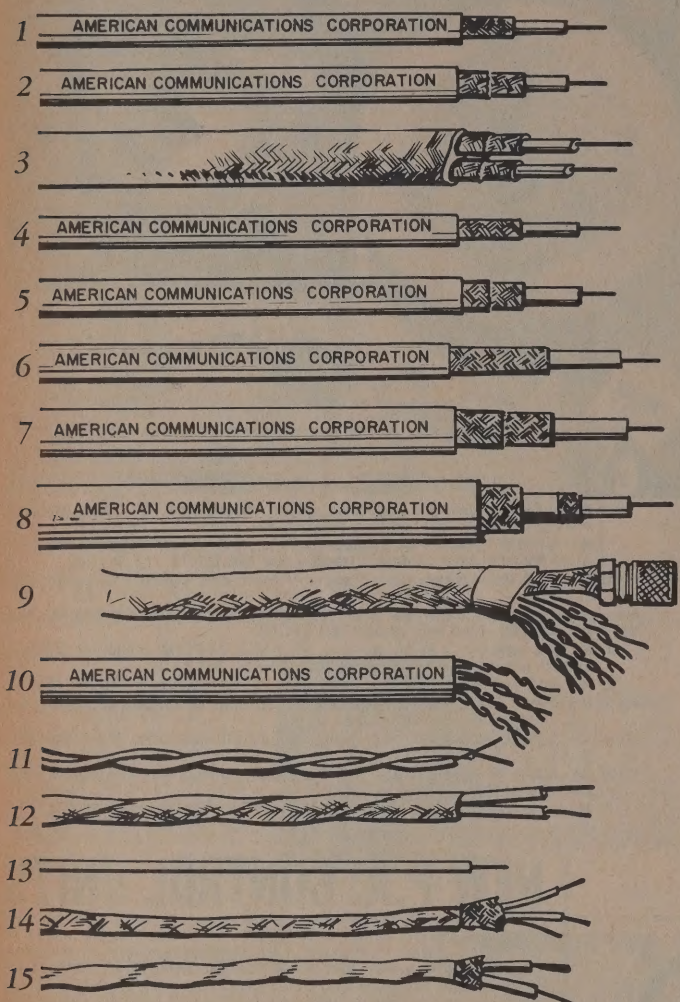
Net

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

CABLE & WIRE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Special Wire and Cable combinations can be fabricated on quantity orders. Types here listed meet all specifications for the respective types, and are those used in making **AMERICAN'S** Systems installations. Specification sheets supplied upon request.

TV COAXIAL CABLE

	Net Per Ft.
(1) A-TV91-S (RG-59/U w/1 shield)	$.04
(2) A-TV92-S (RG-59/U w/2 shields)	.06
(3) A-2TV92-S (twin A-TV92-S)	.20
(4) A-TV61-S (RG-6A/U w/1 shield)	.05
(5) A-TV62-S (RG-6A/U w/2 shields)	.07
(6) A-TV11-S (RG-11/U w/1 shield)	.09
(7) A-TV12-S (RG-11/U w/2 shields)	.10
(8) A-TV12-S-2J (A-TV12-S w/shields insulated from each other)	.20

TV & RADIO COMBINATION CABLE

(9) A-TV/R92-S/- (combo.: A-TV92-S w/4 to 7 twisted pr.) **Net/ft.: -4/11¢; -5/12¢; -6/13¢; -7/14¢**

*Request quotations for -91-S, -61-S, -62-S; or more pairs.

MULTI-CONDUCTOR RADIO CABLE

(10) A-22/2/- (4 to 9 twisted prs. No. 22, for Centralized Radio Systems). **Net/ft.: -/4 5¢ -/5 6¢; -/6 7¢; -/7 8¢; -/8 9¢; -/9 10¢.**

SPEAKER & SYSTEM WIRING

(11) A-19/2 (No. 19 twisted pr., black & white, no jacket)	$.02
(12) A-19/2/J (No. 19 twisted pr., black & white, white cotton jacket)	.03
(13) A-20/1 (No. 20, 1 conductor, red or black)	.01

MICROPHONE CABLE

(14) A-20/2-G-S (No. 20 2-conductor twisted pr. plus ground wire and shield, woven cotton jacket)	$.04
(15) A-20/2-S (No. 20 2-conductor twisted pr. w/shield & plastic sheath)	.04

MULTI-CONDUCTOR STATUS BOARD & MESSAGE CABLE

(16) A-22X/27 (No. 22 — also No. 24 or No. 26 — twisted pr. w/plastic jacket over 27 prs.)	†*
(17/20) (Ditto as No. 16, except 101, 201, 301 or 401 prs.)	†*

(†) Not illustrated

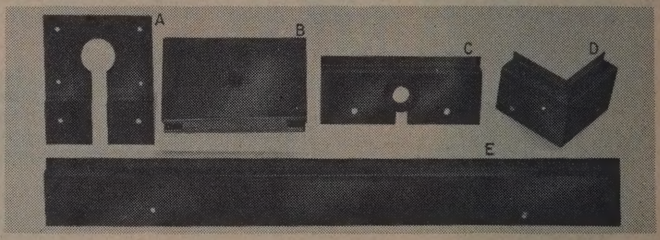
***Prices on request.**
Prices subject to change without notice.

CABLE & WIRE CONCEALMENTS

A simple, effective means of concealing television, radio and signal cable and wire, particularly in hotels, is by use of **AMERICAN COMMUNICATIONS CORPORATION'S** line of metal and wood Cable Mouldings pictured here. Finishes as required; wood mouldings, unfinished, are of hard, kiln-dried wood. Special mouldings to order. **QUANTITY DISCOUNTS.**

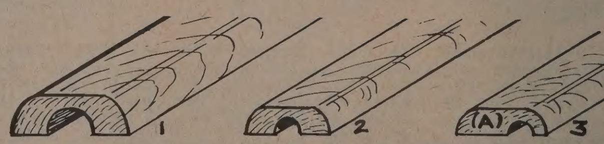
METAL

Fig. A. No. A-CM-MP Mounting Plate. Holds a variety of connecting, terminating and matching boxes. **Net: $1.12 each.**
Fig. B. No. A-CM-SB Splice Box. Access openings front, rear, and at two front corners for feedthrough. **Net: $1.65 each.**
Fig. C. No. A-CM-TP Termination Plate, w/rubber grommet for cable. **Net: $1.12 each.**
Fig. D. No. A-CM-CE Corner Elbow. Neatly carries concealed cable around corners. **Net: $1.78 each.**
Fig. E. No. A-CM-C. Concealment (moulding) in straight lengths. Standard length, 3 ft. **Net: $.40 per foot.**



WOOD

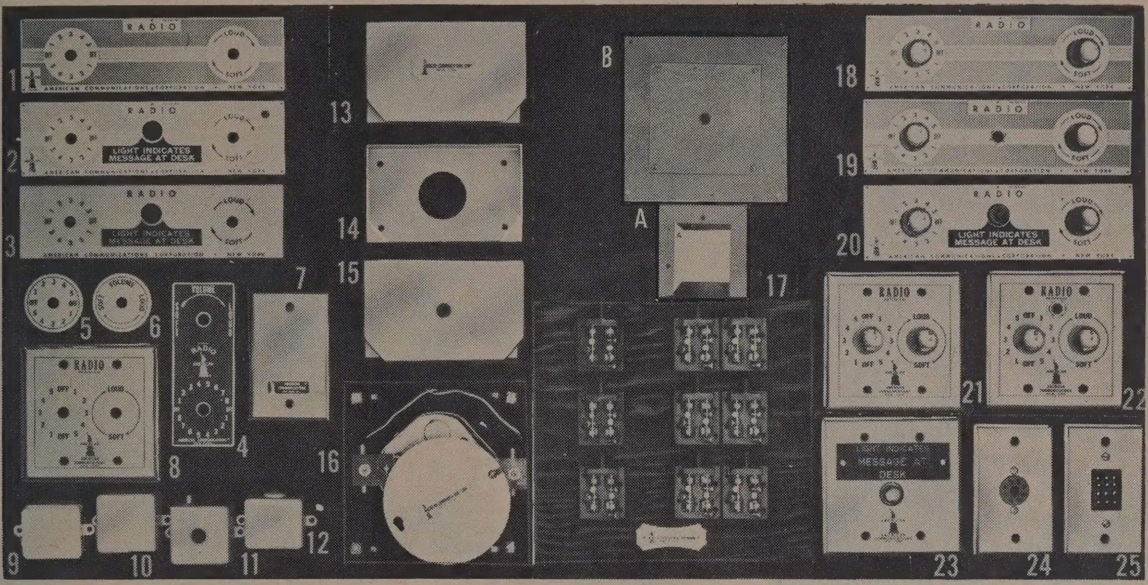
1. **No. A-CW1.** Wood moulding for concealing large cable. Center channel. **Net: $.20 per foot.**
2. **No. A-CW2.** Concealment for small cable. Center channel. **Net: $.17 ft.**
3. **No. A-CW3.** Conceals cable in offside channel, leaving area (A) for mounting brads alongside cable. **Net: $.19 per foot.**



AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

RADIO PARTS & ASSEMBLIES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OFF
LIGHT INDICATES MESSAGE AT DESK
VOLUME
AMERICAN COMMUNICATIONS CORPORATION NEW YORK

BLANK (UNASSEMBLED) ESCUTCHEON PLATES

Measurements: No. 1 - No. 3, 9 x 2½″; No. 4, 2⅛″ x 5⁹⁄₁₆″; No. 5, No. 6 (dials), 2″ diam. (hole in latter is ⅜″ diam.). No. 7, 2¾″ x 4½″. No. 8, 4⅝″ sq.

(1) No. A-P1 Radio Escutcheon. Patterned bronze, clear lacquered. Lettered: Off — 1 (through) 5 — Off, and Loud-Soft. **Net $2.15.**
No. A-P2 Radio/Maid Call Escutcheon (not shown). Same as No. A-P1, except w/hole, centered between controls, for jack. **Net $2.18.**
No. A-P3 Radio/Message Escutcheon (not shown). Same as No. A-P1, except w/added hole in center for lamp socket, and wording: Light Indicates Message-at-Desk. **Net $2.23.**

(2) No. A-P4 Radio/Message/Maid Call Escutcheon. Same as No. A-P3, except w/added hole at upper-right for jack. **Net $2.27.**
No. A-P5 Radio/Message/Maid Call/Status Escutcheon (not shown). Same as No. A-P4, except w/added hole, below hole for jack, for Status Maid Light.
Net $2.67.

(3) No. A-P3P Radio Escutcheon, plastic. Same as No. A-P3, except material is translucent plastic. For use with incandescent or luminescent light source. **Net $1.90.**

(4) No. A-P1V Radio Escutcheon, vertical. Brown enameled brass. Lettering same as No. A-P1, except radio numerals to 8. **Net $1.61.**

(5) No. A-D1/5 Selector Plate. Aluminum disc, black lettered Off — 1 (through) 5 — Off. **Net 66¢.**

(6) No. A-D2 Volume Plate. Aluminum disc, black lettered: Loud — Volume — Soft. **Net 59¢.**

(7) No. A-P10 Wall Plate, 1-gang, blank. Available in aluminum, stainless steel, plain steel and brass, in various finishes, to order. Standard finishes: brushed stainless steel, brushed aluminum. **Net 57¢.**
No. A-P20 Wall Plate, 2-gang, blank (not illus.). Materials and finishes as No. A-P10. **Net 63¢.**

(8) No. A-P20-1 Radio Wall Plate. Uses 2-gang plate No. A-P20. Same lettering as No. A-P1. **Net $2.15.**
No. A-P20-2 Radio/Maid Call Wall Plate (not shown). Same as No. A-P20-1, except w/added hole for Maid Call jack. **Net $2.30.**
No. A-P20-3 Message Wall Plate (not shown). Has hole for lamp socket, on 2-gang plate. **Net $2.10.**

COMPLETE SYSTEMS FINANCING by AMERICAN AT BANK RATES

BLANK HOUSINGS

Standard finish: ecru enamel; material: steel.

Measurements: (small housings) No. 9, No. 12, 2″ x 1¾″ x ¾″ deep; No. 10, No. 11, 2″ sq. x 1⅛″ deep; (large housings) No. 13 - No. 15, 5¼″ x 3⅜″ x 1³⁄₁₆″ deep. Mounting tabs on No. 9 - No. 12.

(9) No. A-BC1 Accessory Box, small, blank. **Net 36¢.**

(10) No. A-BC2 Accessory Box, large, blank. **Net 45¢.**

(11) No. A-BC3. Accessory Box, large, w/metal grommet and TV feedthrough No. A-FT 81. Used as TV Outlet and Cable Accessory Box. **Net $1.05.**

(12) No. A-BC4 Accessory Box, small, w/rubber grommet. **Net. 42¢.**

(13) No. A-BC10 Termination (Accessory) Box, large, surface mounted. Open at 2 corners for feedthrough; back plate has opening (optional) for cable, and back-to-back mounting. **Net $1.16.**

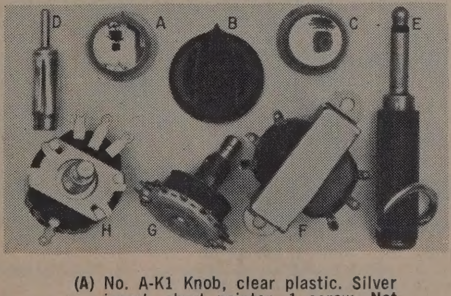
(14) Shows opening at back of No. A-BC10.

(15) No. A-BC11 Radio Outlet Box, surface mounted. Has metal grommet in top. **Net $1.29.**

APPARATUS

(16) No. A-SB-R Radio Splice Box, on wood or masonite board 6″ sq. x ¼″ thick. Suspension wire is shown. Includes outlet box (shown open), 4 insulated cable clamps, and 2 No. A-1601 line taps. **Net $6.88.**

(17) No. A-RS-A Riser Switchboard. Has 9 D.P.S.T. knife switches (one switch per riser pair) on wood (or masonite) mounting approx. 9½″ sq. x ½″ thick. **Net $.99 per switch** (illus., 9 switches), assembled & wired.



(A) No. A-K1 Knob, clear plastic. Silver insert, short pointer, 1 screw. **Net 17¢.**

(B) No. A-K3 Pointer Knob, black plastic. Has 1 screw. **Net 19¢.**

(C) No. A-K2 Knob, biege plastic. Gold insert, short pointer, 1 screw. **Net 17¢.**

(D) No. A-MP Plug, quick-disconnect type. **Net 13¢.**
No. A-MJ Jack (not shown), quick-disconnect type. **Net 14¢.**

(E) No. A-MSP Maid Call Plug, w/belt ring. **Net $1.60.**

(F) No. A-T1-R Transformer, 70 ohms to 3.2 ohms. **Net $2.03.**

(G) No. A-CS Radio Selector Switch. Ceramic wafer, dual wiper, 5 positions, center off, 360° continuous rotation. **Net $3.03.**

(H) No. A-VC Volume Control. A patented potentiometer with 360° continuous rotation. Standard resistance 12.5 ohms. **Net $2.87.**

PANEL ASSEMBLIES

(18) No. A-P1-A Radio Control Panel. This is No. A-P1 Escutcheon assembled with Radio Selector Switch and Volume Control. **Net $14.85.**

(19) No. A-P2-A Radio/Maid Call Panel. Same assembly as No. A-P1-A, except w/No. A-MJ Maid Call jack added, on No. A-P2 Escutcheon. **Net $15.30.**

(20) No. A-P3-A Radio/Message Panel. Switch, Control, and Message light, on No. A-P3 Escutcheon. **Net $15.60.**
No. A-P4-A Radio/Message/Maid Call Panel (not shown). Same items as on No. A-P3-A panel, plus Maid Call jack, all on No. A-P4 Escutcheon. **Net $18.41.**

(21) No. A-P20-1-A Radio Wall Plate assembly, w/Switch and Volume Control. On aluminum 2-gang plate. **Net $14.85.**

(22) No. A-P20-2-A Radio/Maid Call assembly. Same as No. A-P20-1-A, but w/Maid Call jack added. On aluminum 2-gang plate. **Net $15.30.**

(23) No. A-P20-3-A Message-at-Desk Wall Plate assembly, w/instructions and lamp. On aluminum 2-gang plate. **Net $2.92.**

(24) No. A-P10-TV-A TV Remote Plate assembly. On 1-gang plate, w/octal socket. **Net $1.05.**

(25) No. A-P10-C-A Connector Plate assembly. On aluminum 1-gang plate. Has Jones connector; specify number of connections. **Net $1.61.** (12-pin, illus.).

(A) No. A-CB-S Connection Box, surface mtg. Accessible from rear. Used for mounting control plates. Bushing on one side. Enameled steel. **Net $2.08.**

(B) No. A-CB-F Connection Box, flush mounting. Shown with bushed plate, for cable. Steel, Hammertone enameled. **Net $4.46.**

AMERICAN RELIABILITY

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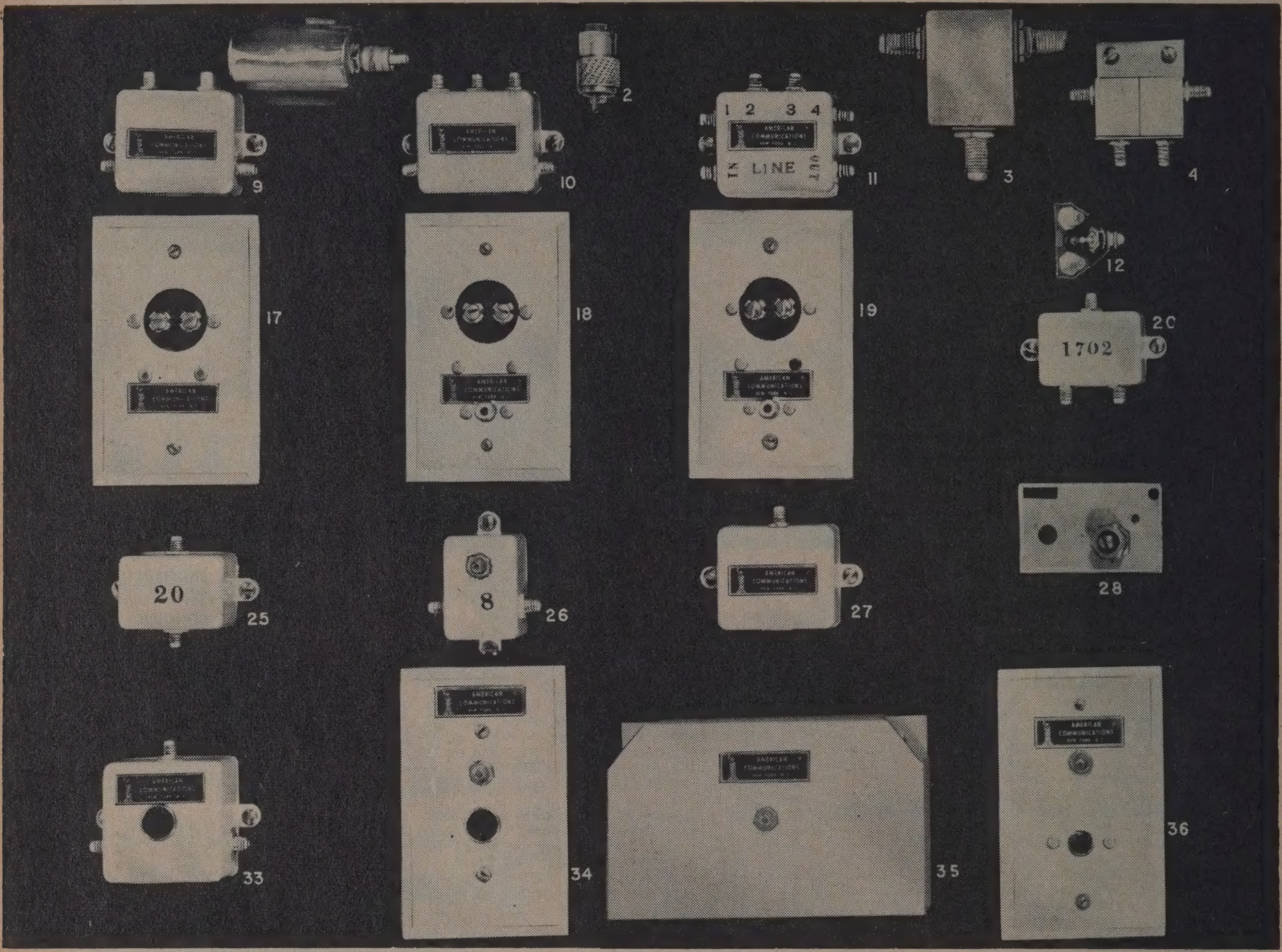
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

TELEVISION & RADIO PARTS



TV & Radio Parts are continued on facing page. Descriptions and Net Prices are given below. **Quantity discounts.**

First Row (†)

(1) No. A-MT Matching Transformer, 75 to 300 ohms. Solderless connector for RG-59/U; connector for RG-11/U available. Up to 6 db voltage step-up. **Net $2.87** for RG-59/U.
(2) No. A-PL259 Connector. **Net $2.26.**
(3) No. A-1601-1 Isolation Unit. A single-unit TV line tap. Attenuation color codes per Note 1. Outdoor housing; 75 ohms. **Net $2.20.**
(4) No. A-1602-1 Double-unit Line Tap, for 2 TV sets. (Note 2) **Net $3.70.**
(5) No. A-1603-1 Triple-unit Line Tap. **Net $5.20.**
(6) No. A-1604-1 Quad-unit Line Tap. **Net $6.70.**
(7) No. A-1601-2 Single-unit Tap, 75 ohms. (Notes 1, 3). Indoor housing. **Net $2.20.**
(8) No. A-1601-3 Single-unit Line Tap, 75 ohms, screw terminals. (Note 3) **Net $2.20.**

Second Row (†)

(9) No. A-1602-2 Double-unit Line Tap, same as No. 1601-2 except has 2 set taps, 75 ohms. (Note 3) **Net $3.70.**
(10) No. A-1603-2 Triple-unit Line Tap. Like No. 9 except has 3 set taps. **Net $5.20.**
(11) No. A-1604-2 Quad-unit Line Tap. Like No. 9, but w/4 set taps. **Net $6.70.**
(12) No. A-1601-G Single-unit Line Tap. Gem flush-mount, 75 ohms. (Note 1) **Net $2.20.**
(13) No. 1602-G Double-unit Line Tap. Like No. 12 except w/2 set taps. **Net $3.70.**
(14) No. A-1603-G Triple-unit Line Tap. Like No. 12 except w/3 set taps. **Net $5.20.**
(15) No. A-1604-G Quad-unit Line Tap. Like No. 12 except w/4 set taps. **Net $6.70.**
(16) No. A-1601-4 Single-unit Line Tap. TV outlet. (Note 4) **Net $2.32.**

Third Row (†)

(17) No. A-1601-5 TV Outlet, 300 ohms. (Note 4) **Net $2.70.**
(18) No. A-1601-6 TV Outlet, 75 ohms, screw terminals, FM outlet. (Note 4) **Net $4.05**
(19) No. A-1601-8, Same as No. 18, except TV outlet 300 ohms (Note 4) **Net $4.50**
(20) No. A-1702 Line Splitter, 2-way. Has 6 db forward attenuation. (Note 5) **Net $2.20.**
(21) No. A-1703 Line Splitter, 3-way. Has 10 db forward attenuation. (Note 5) **Net $3.30.**
(22) No. A-1601-7 Outlet, 75-ohm Tap, w/FM outlet. (Note 4) **Net $4.05.**
(23) No. A-1712 Line Splitter, hybrid 2-way. Has 3 db forward attenuation. (Note 3) **Net $4.75.**
No. A-1714 Line Splitter, hybrid 4-way (illus.) Has 6 db forward attenuation. (Note 3) **Net $5.75.**
(24) No. A-1600 Feedthrough Tap. No isolation. **Net $2.20.**

Fourth Row (†)

(25) No. A-DBLA DB Line Attenuator Pad, 3-5-10-20-30. (Note 5) **Net $2.17.**
(26) No. A-T/R-T Trunk/Riser Tap. Various db values of isolation. Creates Risers from Trunk Line. (Note 5) **Net $3.20. $2.20**
(27) No. A-CTVB Convenience TV Box, w/connector A-CH61. (Note 3) **Net 77¢.**
(28) No. A-VLC Volume Limiter Control. Mounted on plate w/access hole for TV cable. **Net $3.81.**
(29) No. A-CTVB/MJ Convenience TV Box, w/No. A-MJ jack. (Note 3) **Net 77¢.**
(30) No. A-WN Porcelain Wire Nut. **Net 2¢.**
(31) No. A-CC Cable Clamp, insulated. **Net 6¢.**
(32) No. A-RP Plastic Rawl Plugs. For mounting various radio and TV boxes. As illustrated, 5 per strip. **Net 5¢**, per strip of 5.

Fifth Row (†)

(33) No. A-1601/R-FT, 1601 & Radio Feedthrough — combination. Surface mount in Accessory Box No. A-BC2G. **Net $2.80**
(34) No. A-1601/R, 1601 & Radio Plate. Wall plate grommeted for cable. **Net $2.80.**
(35) No. A-TV/R-SB, TV/Radio Splice Box, surface mount, w/1601. In No. A-BC10 Termination Box. **Net $2.95.**
(36) No. A-TV/75 Tap, 75 ohms, w/No. A-MJ jack for FM. (Note 4) **Net $4.05.**

Additional Parts (not illustrated)

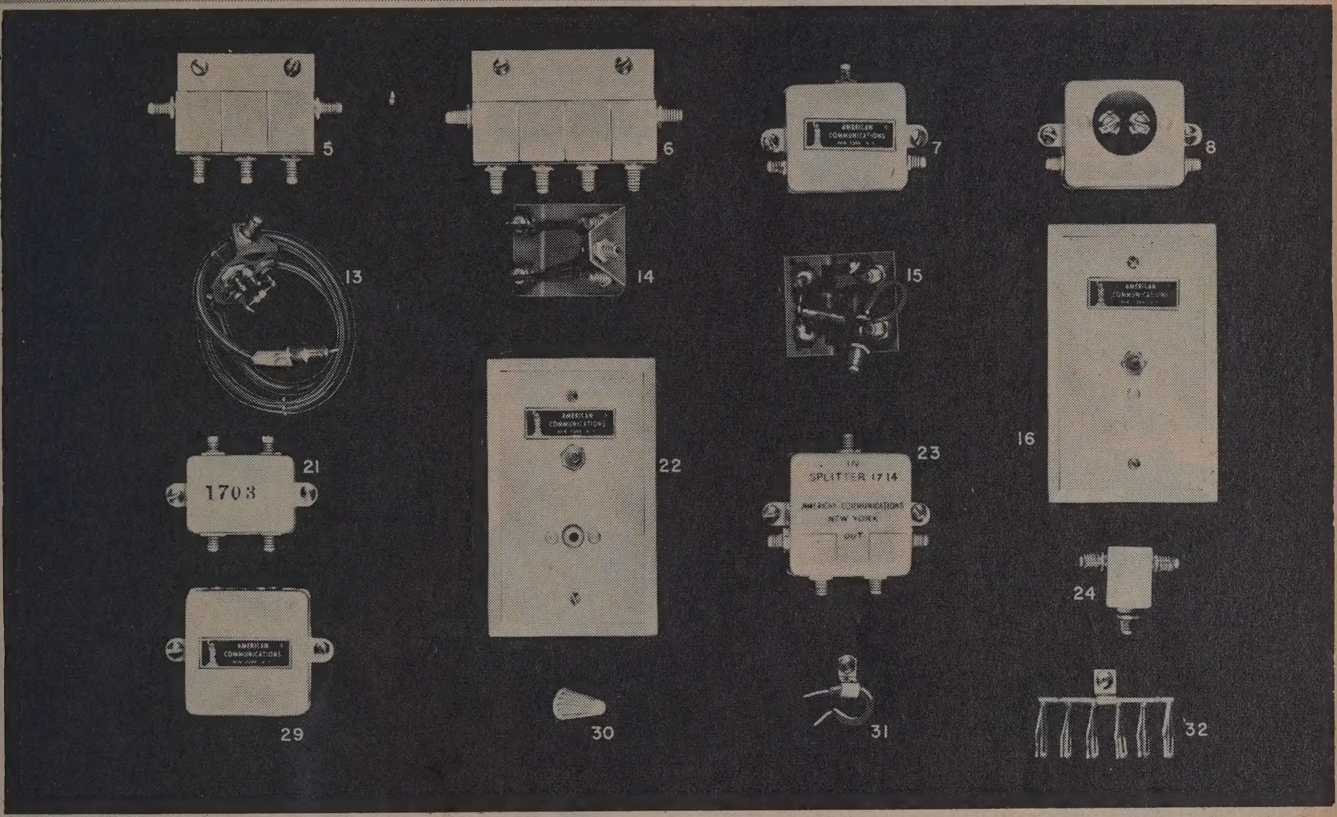
(37) No. A-P10-P Plate, punched. (Note 6) **Net 61¢.**
(38) No. A-R-BP Radio Plate, bushed. (Note 6) **Net 77¢.**
(39) No. A-TV/R-P TV or Radio Plate, blank. (Note 6) **Net 61¢.**
(40) No. A-CT-1 Crimping Tool, light duty. For A-F59 ferrules. **Net $4.50.**
No. A-CT-2 Crimping Tool, heavy duty. For A-F59 and A-F6 ferrules. **Net $7.75.**

(Note 1) Attenuation coded red, yellow, green, blue.
(Note 2) On mounting bracket.
(Note 3) Surface mount, in No. A-BC1 Accessory Box.
(Note 4) Flush mount, on single-gang wall plate No. A-P10. Available in various finishes.
(Note 5) Surface mount.
(Note 6) Single or double gang, flush mount.
(†) All necessary hardware packaged with each unit.

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

TELEVISION & RADIO PARTS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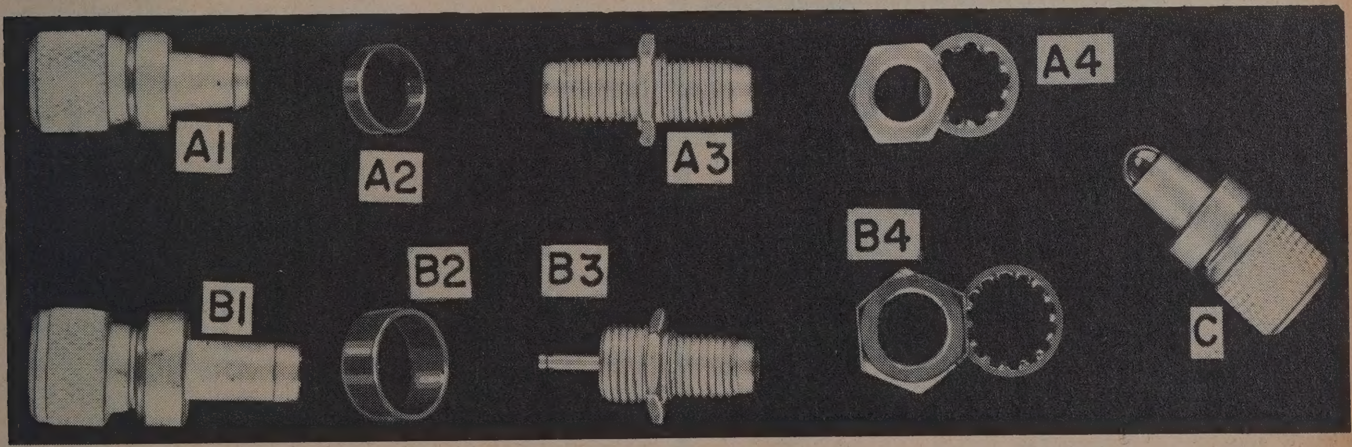
TV & Radio Parts, continued from facing page. Descriptions and Net Prices also on facing page. **Quantity discounts.**

TV COAXIAL CONNECTORS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A4
B1
B2
B3
B4
C

(A1) No. A-C59 Solderless TV Connector for RG-59/U coaxial cable. **Net 31¢,** w/A-F59.
(A2) No. A-F59 Ferrule. Crimping ring for A-C59. **Net $1.65/C.**
(A3) No. A-FT81 Feedthrough TV Connector or TV convenience connector. **Net 42¢,** w/¼″ A-NW-FT81.
(A4) No. A-NW-FT81 Nut & Washer, ¼″, for No. A-FT81. **Net 3¢.**

(B1) No. A-C6 Solderless TV Connector for RG-6/U coax. **Net 39¢.**
(B2) No. A-F6 Ferrule. Crimping ring for No. A-C6. **Net $2.50/C.**
(B3) No. A-CH61 Convenience Connector — chassis mount. **Net 35¢,** w/⁹⁄₁₆″ A-NW-CH61.
(B4) No. A-NW-CH61 Nut & Washer, ⁹⁄₁₆″, for No. A-CH61. **Net $.047.**
(C) No. A-TR72 Terminator, 72 ohms. **Net 53¢.**

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

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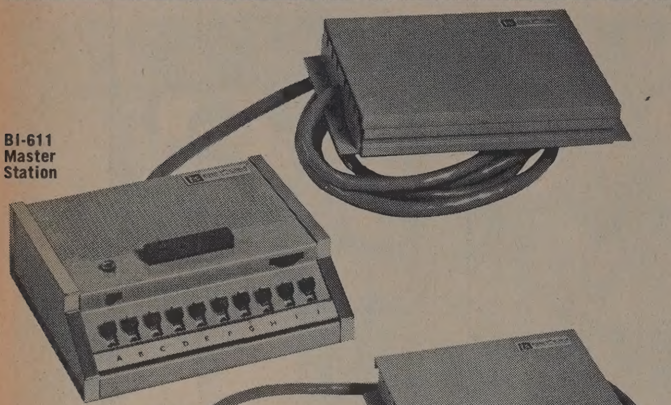
BETACOM INTERCOM SYSTEMS

BETA INSTRUMENTS CORP./DIVISION OF CADRE INDUSTRIES ENDICOTT, N. Y.

Betacom Solid State Intercom Systems are completely modern in concept, design, and appearance. Made of the finest American-made electronic and mechanical components, Betacom gives unexcelled performance . . . yet costs so little to own . . . actually pennies-a-month. Betacom is fully transistorized for low current consumption . . . absence of heat generation . . . long-lived, economical operation. Betacom's professional workmanship is guaranteed by a complete two year no-charge service policy.

BI-611 and BI-606 Multi-master, Multi-remote System

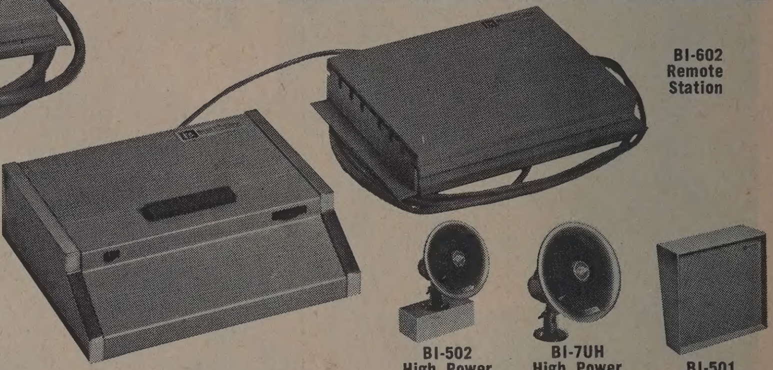
For a completely flexible system of remote and master stations, we suggest the Betacom BI-611 and BI-606 Master Stations combined with the BI-602S and BI-602 Remote Stations and the related accessories. These eleven station and six station masters operate from a central AC power supply and are wired through a central distribution box for convenient wiring. Power supply and systems are U.L. approved. Each Master has a privacy switch which is on for normal operation so you may be called but not monitored. This switch can be placed in the "hands off position" for answering without being near your Betacom. When in this position an annunciator light indicates when someone has selected your station. Volume controls on all stations control your incoming volume, a special automatic volume compression circuit sets the level regardless of the loudness of the calling message. BI-611 uses a standard 15 conductor cable. BI-606 uses a standard 8 conductor cable. BI-602S remote units may initiate calls to 5 different Masters selectively or can answer any Master. BI-602S uses standard 8 conductor cable. BI-602 can initiate a call to or answer any master to which it is connected. BI-602 uses standard 4 conductor cable. BI-500 30-Watt distribution amplifier, with BI-501 high power remote, BI-502 high power remote with speaker horn, and/or BI-7UH outside/high noise area speaker horn may replace any of the remote stations in the system.


BI-611 Master Station

BI-606 Master Station

BI-602S Remote Station

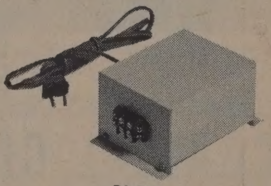
BI-500 Distribution Amplifier

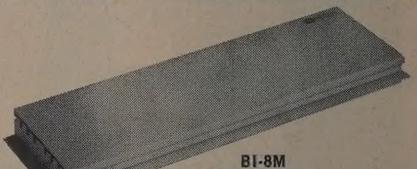

BI-602 Remote Station

BI-502 High Power Remote with Horn

BI-7UH High Power Paging Horn

BI-501 High Power Remote


BI-106 Power Supply


BI-8M Distribution Box

BETACOM FM Wireless Model BI-303

PRICE (per station) $74.95

Model BI-303

Shipping Weight . . . 4 pounds

A first of its kind! Three channel FM communications for your home, shop, office, or industrial communications system! No wires needed! Each unit plugs into the standard AC outlet and requires no other power or connections. Pure, noise-free, true-to-life voice reproduction through your intercommunications system with the Betacom FM Wireless Model B1-303. As many stations as you wish may be connected on any of the three channels, in any network or system you may desire to install.

Silicon rectifier power supply/squelch circuit-no line noise or interference/multi-station installation on selected frequencies/3 channel transceiving on 110 KC, 150 KC, or 190 KC/Hands-off operation optional/complete portability (just un-plug, transport, and re-plug to operate)/20 gauge metal case with baked enamel finish/U.L.-Electrical Approved/1⅞" x 5⅞" x 8¼". NO WIRE REQUIRED TO INSTALL AND OPERATE.

BI-611 Master Station — AC powered Master Station factory wired to junction box. 15 conductor cable, 15W100, 15W250 — Shipping Weight . . . 3½ pounds — List Price $64.95	**NET $38.95**
BI-606 Master Station — AC powered Master Station factory wired to junction box. 8 conductor cable, 8W100, 8W250 — Shipping Weight . . . 3 pounds — List Price $59.95	**NET $35.95**
BI-602S Remote Station — Remote with volume control, can call five different Masters, answer any Master in system, 8 conductor cable, 8W100, 8W250 — Shipping Weight . . . 3 pounds — List Price $49.95	**NET $29.95**
BI-602 Remote Station — Remote with volume control, call or answer any Master in the system. 4 conductor cable, 4W100, 4W250 —Shipping Weight . . . 3 pounds — List Price $44.95	**NET $26.95**
BI-500 Distribution Amplifier — Constant voltage 30-Watt distribution amplifier for back ground music or paging, use with Multi-speaker system, inside/outside use. — Shipping Weight . . . 10 pounds — List Price $99.50	**NET $59.95**
BI-501 High Power Remote Station — Used for calling and paging in large or high noise areas, high power remote station — Shipping Weight . . . 4 pounds — List Price $44.95	**NET $26.95**
BI-1502 High Power Remote with Horn — Used for calling and paging in large or high noise areas, High Power with Speaker Horn — Shipping Weight . . . 5 pounds — List Price $69.95	**NET $44.95**
BI-7UH High Power Paging Horn — For paging in outdoor or high noise areas, Speaker Horn — Shipping Weight . . . 3 pounds — List Price $37.45	**NET $22.45**
BI-106 Power Supply — One used for each 6 Masters in any system. Wired thru any convenient junction box — Shipping Weight . . . 3 pounds — List Price $29.95	**NET $17.95**
BI-8M Distribution Box — Used with systems up to eleven units, one wire connects each unit, lettered terminal strip — Shipping Weight . . . 9 oz. — List Price $15.85	**NET $ 9.50**

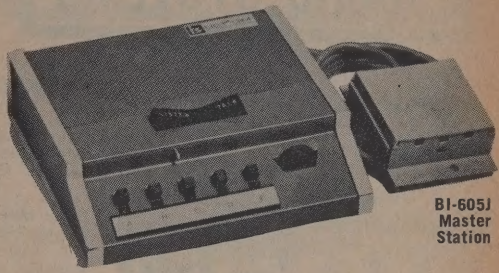
All prices and specifications subject to change without notice.

BETACOM INTERCOM SYSTEMS

BETA INSTRUMENTS CORP./DIVISION OF CADRE INDUSTRIES ENDICOTT, N. Y.

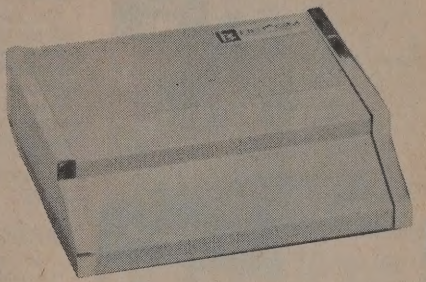
BI-605J System — Intermix System of Masters and Remotes

This versatile system provides communication between Masters and Remotes intermixed. Up to 6 Master Stations can communicate selectively with each other. Remotes can reply at a distance but do not originate calls. Masters can operate "hands-off" with lock tab. Each Master is factory wired to a junction box for easy wiring. A central distribution box is provided to minimize wire use and facilitate installation. All cross connections are made in this distribution box. Masters operate either on standard 9-volt transistor or AC house current (with BI-105 Power Pak). Up to three separate conversations can be carried on between masters simultaneously. High quality feedback circuit design provides low current consumption, eliminates heat and gives economical operation. Masters communicate with other masters by "high level" output to minimize noise pick up and allow uninterrupted private conversations.


BI-605J Master Station

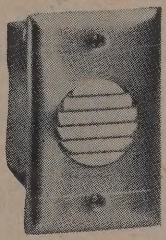
BI-605 System — One Master Station and Five Remotes

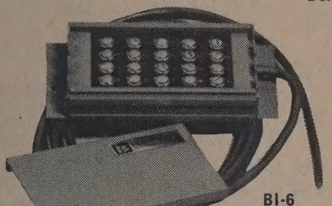
This system provides communications between one Master and up to 5 remotes. Master is powered by two standard 9-volt transistor radio batteries or BI-105 AC Power Pak. Remotes may initiate calls to Master at all times, even when Master is in "off" position. Remotes cannot communicate with each other. Up to 5 remotes may be called selectively by Master. Fully transistorized. Four wire leads, 4WF50, connect each remote to Master. Any standard 4 lead wire can be used in installation.

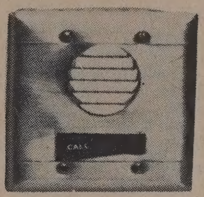

BI-601J Remote Station

BI-105 AC Power Pak

BI-6M Distribution Box


BI-61 Outdoor Remote Station


BI-6 Distribution Box


BI-62 Outdoor, flush-mounted Remote Station

BI-605 Master Station

BI-605J Master Station — Intermix 6 station Master, all transistor, battery operated or AC (w/Power Pak) with lock tab and privacy — Shipping Weight . . . 3 pounds — List Price $49.95 .... **NET $29.95**

BI-601J Remote Station — Answers calls from Masters, non-private, 2 lead wire required to Master — Shipping Weight . . . 2½ pounds — List Price $16.85 .... **NET $10.15**

BI-61 Outdoor Remote Station — Flush-mounted outdoor type remote station — Shipping Weight . . . 1 pound — List Price $12.95 .... **NET $7.80**

BI-6M Distribution Box — Distribution box used with BI-605J system — Shipping weight . . . 6 oz. — List Price $6.95 .... **NET $4.25**

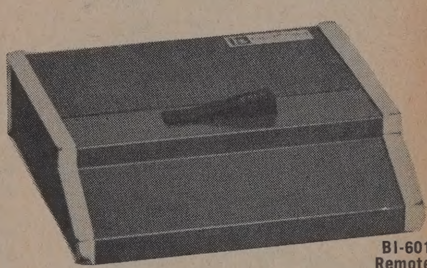
BI-605 Master Station — Six station Master, battery or AC power (w/power pak) all transistorized use with 5 remotes — Shipping Weight . . . 2½ pounds — List Price $38.50 .... **NET $23.15**

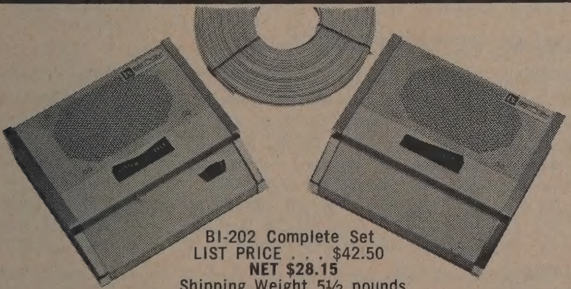
BI-601 Remote Station — Desk or wall mount, non-private, calls Master only. — Shipping Weight . . . 2 pounds — List Price $18.50........ **NET $11.08**

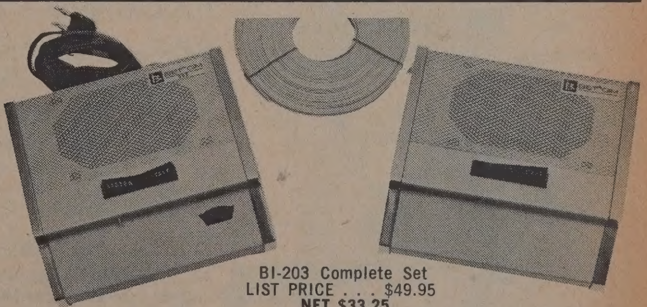
BI-62 Outdoor, Flush-Mounted Remote — For outdoor mounting, originates calls to Master — Shipping Weight . . . 1½ pounds — List Price $14.95 .... **NET $8.95**

BI-6 Distribution Box — Facilitates wiring one master to 5 remotes — Shipping Weight . . . 6 oz. — List Price $5.95 .... **NET $3.60**

BI-105 AC Power Pak — U. L. approved replacement for battery, plug into standard AC outlet (110V.) — Shipping Weight . . . 8 oz. — List Price $12.30 .... **NET $7.38**


BI-601 Remote Station


BI-202 Complete Set
LIST PRICE . . . $42.50
NET $28.15
Shipping Weight 5½ pounds


BI-203 Complete Set
LIST PRICE . . . $49.95
NET $33.25
Shipping Weight 6 pounds

BETACOM INTERCOM SETS BI-202 and BI-203 (Complete sets)

The Betacom system represented here is a high styled, compact two-way intercom unit operating with one Master and one remote unit. These sets come with a selection of four decorator colors, have sturdy metal cases and their professional workmanship is guaranteed by an exclusive 2-year no-charge service policy. 45 feet of three conductor, light, easy-to-handle wire is included in shipping weight and price of each separate set (two units). **BI-202** is battery operated (standard 9-volt transistor radio battery). **BI-203** operates on standard House outlet AC current.

Fully transistorized/Extra remotes may be added (parallel operation — no selectivity)/Single power source/ Volume control (at master)/"Hands-off" operation in TALK or LISTEN positions/Minimum installation.

Prices and specifications subject to change without notice.

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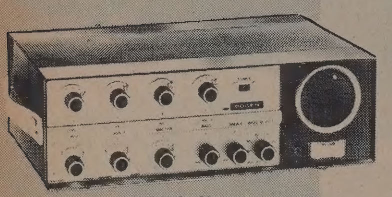
BOGEN
SOUND SYSTEMS

FLEX-PAK® PA AMPLIFIERS

MTX30 PROFESSIONAL/DELUXE ALL TRANSISTOR 30-WATT PA AMPLIFIER

The most versatile packaged amplifier ever produced -- at any price! From the 32 transistors to the new concept of turn-push-pull control knobs — this is the amplifier that sets new standards of reliability and flexibility for many years to come. Designed for continuous operation at full output . . . —30°C to +65°C (149°F).

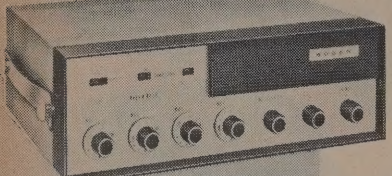

MTX30 Shown with MMS-1*

Power Output: 30 watts at less than 1% (delivers full power from 30-20,000 cps) **Peak Power:** 50 watts **Power Consumption:** 60 watts: (105-125 VAC, 50-60 cps or 12-15 VDC) **Frequency Response:** 10-25,000 cps ±1 db **Output Impedance:** 4, 8, 16 ohms; tape and booster jacks, 25 V. balanced (21 ohms), 70 V. balanced (163 ohms) **Gain:** Microphone, 125 db.; Magnetic, 120 db.; Auxiliary, 95 db. **Hum and Noise:** (below rated output) Microphone, —70 db.; Magnetic, —65 db.; Auxiliary, —85 db. **Sensitivity:** Microphone, 2 MV (high impedance); Magnetic, 3 MV; Auxiliary, 0.3 volts **Inputs:** (13): 4 mic. (convert to low impedance with T200, T500 or T50 transformer); 2 mic. (high impedance); 2 mag. phono or tape playback heads; 2 aux. (high impedance, high level); 1 600-ohm balanced telephone line; 2 bridging. **Note:** 4 mics. and any two of the other nine inputs may be simultaneously mixed and faded **Controls:** 4 individual mic. controls (each with speech filter or wide-range switch) • 1 high impedance mic./mag. phono/tape head/aux.-fader control with speech filter switch • 1 high impedance mic./mag. phono/tape head/aux.-600 ohm line fader control with speech filter switch • master volume • bass • treble • power switch • calibrated low frequency filter control (variable) determines low frequency cut-off of any of 6 inputs • (provision for remote control or precedence of all six inputs and master volume) **Tone Control Action:** treble: (10 kc) +12 db. to —14 db.; bass: (50 cps) +15 db. to —9 db. **Transistors:** 32 transistors; 2 silicon diodes **Overall Dimensions:** 16½" W, 12" D, 4¾" H **Shipping Weight:** 24 lbs. MTX30 . . . **List Price: $374.35** (Zone 2: $378.85)

*MMS-1: monitor meter and speaker — allows operator to check sound levels both by ear and by eye.

MX60 DELUXE 60-WATT PA AMPLIFIER

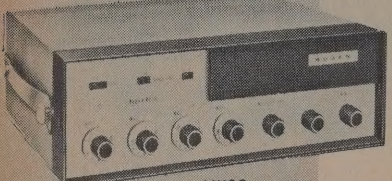
— with master gain control . . . built-in remote gain-control circuit . . . four mic. channels (one converts to phono) . . . exclusive variable level markers . . . plug-ins for lo-impedance transformers.


MX60

Power Output: 60 w. at less than 2% distortion. **Power Consumption:** 270 w. **Frequency Response:** ±2 db, 35 to 20,000 cps. **Gain:** Mic., 125 db; tuner, 85 db; mag. phono, 115 db. **Hum:** (below rated output) mic., —60 db. **Output Impedance:** 4, 8, 16 and 83 ohms; balanced 25-volt line, 70-volt line. **Inputs:** 4 mic. (one channel converts to phono or tuner). **Tubes:** total of 10 (3 — GZ34, 2 — G.E.7581A, 4 — 12AX7, 1 — 7247). **Tone Controls:** treble (10 kc) +10 db to —10 db; bass (50 c) +10 db to —10 db. **Dimen.:** 16¼" W, 13" D, 5⅜" H. **Ship. Wt.:** 37 lbs. **List Price: $295.00** (Zone 2: $300.25)

MX30 . . . DELUXE 30-WATT PA AMPLIFIER

— with master gain control . . . built-in remote gain-control circuit . . . four mic. channels (one converts to phono) . . . exclusive variable level markers . . . plug-ins for lo-impedance transformers.


MX30

Power Output: 30 w. at less than 2% distortion. **Power Consumption:** 150 w. **Frequency Response:** ±2 db, 35 to 20,000 cps. **Gain:** mic., 120 db; tuner, 80 db; Xtal phono, 80 db; mag. phono, 115 db. **Hum:** (below rated output) mic., —60 db. **Output Impedance:** 4, 8, 16 and 163 ohms; balanced 25-volt line, 70-volt line. **Inputs:** 4 mic. (one channel converts to phono or tuner). **Tubes:** total of 8 (1 — GZ34, 2 — 6L6GC, 4 — 12AX7, 1 — 7247). **Tone Controls:** treble (10 kc) +10 db to —10 db; bass (60 c) +10 db to —10 db. **Dimen.:** 16¼" W, 13" D, 5⅜" H. **Ship. Wt.:** 31 lbs. **List Price: $231.25** (Zone 2: $235.75)

VERSATILE BOGEN PREAMPLIFIERS

MXM . . . MIXER-PREAMPLIFIER

The self-powered MXM accommodates 5 microphones or 4 microphones and a tuner or phonograph (both crystal and magnetic cartridges). Features include: separate gain control for each channel; master gain control; individual speech filters for each channel, output level meter, sockets for plug-in low-impedance transformers; feedback-type distortion-free tone controls plus new Memory Markers which permit instant resetting of controls to previously determined levels. May be remote controlled with SR2 and SR4 remote controllers. **Output:** +18 db at less than 1% distortion. **Power Consumption:** 27 w. **Frequency Response:** ±2 db, 20 to 20,000 cps. **Hum:** (below rated output) mic., —60 db. **Output Impedance:** Hi-impedance, cathode follower driven, 600 ohms with T161 or T165B (broadcast quality) accessory plug-in transformers. **Input Sensitivity:** Hi-impedance, 4 mv.; Lo-impedance, 0.4 mv.; mag., 4 mv.; Xtal, 0.2 v.; aux., 0.5 v. **Tubes:** total of 9 (4 — EF86, 2 — 12AX7, 1 — 6CG7, 1 — 6BF6, 1 — 6X4). **Tone Controls:** treble (10 kc) +12 db to —12 db; bass (60 c) +12 db to —12 db. **Dimen.:** 16¼" W, 13" D, 5⅜" H. **Ship. Wt.:** 21 lbs. **List Price: $246.25** (Zone 2: $250.00)

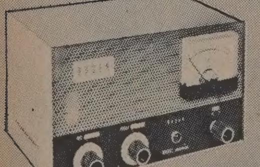
MXM

RP-2 . . . LOW-NOISE PROGRAM PREAMPLIFIER

For use at remote pickup points. Features are: separate input channels for 1 microphone and 1 phonograph; separate volume controls for each channel permit input mixing; output feeds either booster amplifier or a low impedance line separately or simultaneously; bass cut-off switch for speech clarity. Enclosure with VU meter (as illustrated) is available. **Power Consumption:** 20 w.; 117 v. AC; 60 cps. **Gain:** mic., 76 db; phono, 35 db. **Sensitivity:** mic., 3.5 mv.; phono, 0.4 v. **Bass Cut:** 20 db. **Output Impedance:** Hi-impedance, cathode follower driven, minimum recommended load resistance 10,000 ohms; Lo-impedance, 600 ohms (50 and 200 ohms). **Input Impedance:** Hi-impedance, ½ megohm convertible to Lo-impedance by use of plug-in transformers for 50, 150-250 or 600 ohms. **Pilot Light:** #47. **Tubes:** total of 4 (2 — 6SF5, 1 — 6J5, 1 — 6X5GT). **Dimen.:** 11" W, 7⅜" D (excluding knobs), 5¼" H. With cage, height is 6½". **Ship. Wt.:** 7 lbs.

RP-2 (cage CAGVU2 optional extra) **List Price: $95.00** (Zone 2: $96.35)

CAGVU2 cage with meter **List Price: $38.75** (Zone 2: $39.50)


RP2

The outstandingly versatile Flex-Pak accessories include: matching, removable phono-top, wall mounting kit, control-guard locking plate, plug-in lo-impedance transformers . . . and many more.

LEAR SIEGLER, INC. / LSi ® *BOGEN COMMUNICATIONS DIVISION*

Trade Discount Applies to List Prices Only

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BOGEN SOUND SYSTEMS

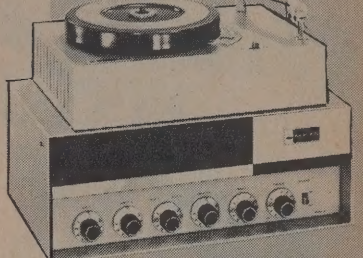
BOGEN "MU" PA AMPLIFIERS

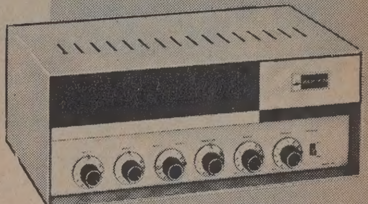
The handsomely styled new "MU" series amplifiers offer: up to 3 microphone inputs, a variety of auxiliary inputs, individual and master volume controls, separate bass and treble controls, Memory Markers for resetting controls to previously determined levels, constant voltage output taps and many more features as outlined below.

	MU70	MU50M*	MU30	MU15	MU10
POWER OUTPUT	70 w at less than 2% distortion	50 w at less than 10% continuous	30 w at less than 2% distortion	15 w at less than 2% distortion	10 w at less than 2% distortion
POWER CONSUMPTION	300 w	160 w (117) VAC 7.5A (12VDC)	150 w	80 w	70 w
FREQUENCY RESPONSE	±2 db 20 to 20,000 cps	±2 db 30 to 15,000 cps	±2 db 20 to 20,000 cps	±2 db 20 to 20,000 cps	±2 db 20 to 20,000 cps
GAIN	**Mic.** 120 db **Aux.** 95 db **Mag. Phono** 110 db	**Mic.** 125 db **Aux.** 95 db	**Mic.** 120 db **Aux.** 95 db **Mag. Phono** 110 db	**Mic.** 125 db **Aux.** 100 db	**Mic.** 125 db **Aux.** 100 db
HUM and NOISE (below rated output)	**Mic.** —65 db **Aux.** —85 db **Mag. Phono** —60 db	**Mic.** —65 db **Aux.** —80 db	**Mic.** —65 db **Aux.** —85 db **Mag. Phono** —60 db	**Mic.** —60 db **Aux.** —80 db	**Mic.** —60 db **Aux.** —80 db
OUTPUT IMPEDANCE	2, 4, 8 and 16 ohms 25-v balanced (9 ohm) 70-v (71 ohms)	4, 8 and 16 ohms 25-v balanced line 70-v line	4, 8 and 16 ohms (16 ohm balanced) 25-v balanced line 70-v line (163 ohms)	4, 8 and 16 ohms (16 ohm balanced) 25-v balanced (42 ohms) 70-v (326 ohms)	4, 8 and 16 ohms 25-v balanced (62 ohms) 70-v (500 ohms)
INPUTS	**3 mic.** (hi-impedance converts to low-impedance with T-155/6/7 transformers) **2 aux.** (hi-impedance hi-level) **2 Mag. Phono** or **tape** (switch converts mic. 2 and mic. 3)	**2 mic.** (hi-impedance or low-impedance; no plug-in transformer is required with low-impedance mic.) **2 aux.** (hi-impedance hi-level) **1 Mag. Phono** or **tape**	**3 mic.** (hi-impedance converts to low-impedance with T-155/6/7 transformers) **2 aux.** (hi-impedance hi-level) **2 Mag. Phono** or **tape** (switch converts mic. 2 and mic. 3)	**2 mic.** (hi-impedance converts to low-impedance with T-155/6/7 transformers) **2 aux.** (hi-impedance hi-level)	**1 mic.** (hi-impedance converts to low-impedance with T-155/6/7 transformers) **2 aux.** (hi-impedance hi-level)
TUBES and/or TRANSISTORS	**Total of 7 tubes** and Silicon Rectifier 2—6EU7 1—7247 4—7868	**Total of 12 transistors** 6—2N417 2—2N1557 1—2N669 3—MR322	**Total of 5 tubes** and Silicon Rectifier 2—6EU7 1—7247 2—7868	**Total of 6 tubes** 1—6EU7 1—12AX7 1—EZ81 1—6C4 2—7868	**Total of 4 tubes** 1—6EU7 2—ECL86 1—6V4
TONE CONTROLS	**Treble** (10 kc) +12 to —14 db **Bass** (50 c) +15 db to —9 db	**Treble** (10 kc) —17 db **Bass** (50 c) +10 db to —17 db	**Treble** (10 kc) +12 db to —14 db **Bass** (50 c) +15 db to —9 db	**Treble** (10 kc) +12 db to —14 db **Bass** (50 c) +15 db to —9 db	**Treble** (10 kc) —17 db **Bass** (50 c) —17 db
DIMENSIONS	15¾" W, 10" D, 6¾" H	15¾" W, 10" D, 6¾" H	15¾" W, 10" D, 6¾" H	15¾" W, 10" D, 6¾" H	15¾" W, 10" D, 6¾" H
SHIPPING WEIGHT	27 lbs.	15 lbs.	20 lbs.	16 lbs.	15 lbs.
LIST PRICE	$224.60 (Zone 2: $228.60)	$237.50 (Zone 2: $240.60)	$186.25 (Zone 2: $189.40)	$139.90 (Zone 2: $143.05)	$97.40 (Zone 2: $99.65)

*Operates on 12-VDC or 117-VAC. Will operate within a temperature range of —20°C to +65°C (—4°F to +149°F)

Accessories: matching phono-top, control-guard locking plate, rack panel mounting kits, carrying cases, remote volume controls . . . and more.


MU50M Shown with phono-top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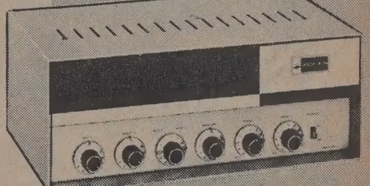
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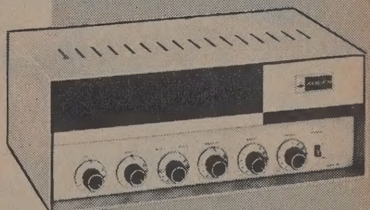
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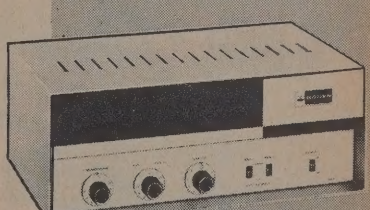
MU10

MOBILE AMPLIFIERS

BT35; 35-WATT COMPACT TRANSISTOR MOBILE PA AMPLIFIER

55-watts when used as electronic siren

Excellent for police, fire, CD and boats; radio receiver connects easily to aux. input. Splashproof-gasket seals chassis in cabinet. Temperature range —20°C to +65°C (149°F). Polarity protection. Accessory siren tone-fog horn generator. Adjustable fixed-lock bracket. Built-in RF/line filters.

Power Output: 35 watts @ less than 10% (continuous); 55 watts with siren generator **Peak Power: 55 watts Power Consumption:** Full power: 4 amps; Quiescent: 0.6 amps 12-15 VDC **Frequency Response:** 150-15,000 cps ±3 db. **Inputs:** 1 mic. (low impedance) • 1 aux. #1 (high level) tuner/tape/phono, 1 aux. #2 (high level) accessory (tone signal) **Gain:** microphone, 110 db.; auxiliary, 90 db. **Hum and Noise:** microphone, —90 db. (below rated output); aux., —95 db. (below rated output) **Sensitivity:** mic.: 1 MV; aux.: 0.4 volts **Output Impedance:** 4, 8, 16 ohms (output socket for accessory siren/fog horn generator) **Controls:** 1 mic. • 1 aux. volume • 1 selector switch/power (4 positions); power off, mic., radio, Aux. **Transistors:** 5 transistors — 1 silicon diode: 2 — 2N2431, 1 — 2N555, 2 — 2N1557, 1 —silicon diode **Dimensions:** 8" W, 6¼" D, 3" H **Shipping Weight:** 8 lbs. List Price: **$132.40** (Zone 2: **$133.35)**
SF-1 SIREN/FOG HORN GENERATOR. All-silicon transistor, easily attaches to dashboard or bottom of BT35. Furnished with 6 ft. cable and plug for attaching to BT35. Provision for remote/accessory foot switch for generator activation. Siren may be operated automatically or manually. List Price: **$91.20** (Zone 2: **$91.60)**

BT20; 20-WATT TRANSISTOR MOBILE PA AMPLIFIER

Power Output: 20 watts @ less than 10% (continuous) **Power Consumption:** Full power: 3.8 amps; Quiescent: 0.8 amps; 12-15 VDC **Frequency Response:** 250 — 12,000 cps ±3 db. **Inputs:** 1 mic. (low impedance) • 1 aux. (tuner, tape, phono) **Gain:** mic., 110 db.; aux., 90 db. **Hum and Noise:** mic. —90 db. (below rated output); aux. —95 db. (below rated output) **Sensitivity:** mic., 1 MV; aux., 0.4 volts **Output Impedance:** 4, 8, 16 ohms **Controls:** 1 mic.; 1 aux./power **Transistors:** (5): 2 — 2N2431, 1 — 2N555, 2 — 2N669 **Dimensions:** 4½" W, 4" D, 6½" H **Shipping Weight:** 5 lbs. List Price: **$99.90** (Zone 2: **$100.85)**

BT35

BT20

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

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BOGEN
SOUND SYSTEMS

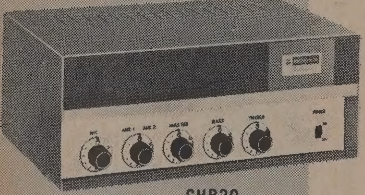
"CHB" SERIES PA AMPLIFIERS

CHB100

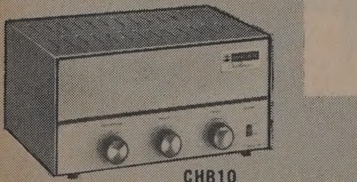
CHB1250 Shown with phono-top

CHB50

CHB35


CHB20

CHB14


CHB10

Models CHB100, CHB1250, CHB50 and CHB35 share these outstanding features: systems-tested circuitry for continuous, heavy-duty operation; protection against circuit damage caused by accidental shorting or disconnecting of loudspeaker lines; no "double duty" control devices; built-in remote control circuit permits volume adjustment from up to 2,000 feet away; Memory Level Markers.

	CHB100	CHB1250*	CHB50	CHB35	CHB20	CHB14	CHB10
POWER OUTPUT	100 w at 5% distortion	50 w at 10% continuous	50 w at 5% distortion	35 w at 5% distortion	20 w at 5% distortion	14 w at 5% distortion	10 w
FREQUENCY RESPONSE	±2 db. 20 to 20,000 cps	±2 db 30 to 15,000 cps	±2 db 20 to 20,000 cps	±2 db 20 to 20,000 cps	±2 db 20 to 20,000 cps	±2 db 20 to 20,000 cps	±2 db 40 to 12,000 cps
INPUTS	**2 mic.** (hi-impedance) **1 mag. phono** **2 aux.** (hi-impedance hi-level)	**2 mic.** (hi-or low impedance) or mag. phono/tape head **2 aux.** (hi-impedance hi-level)	**2 mic.** (hi-impedance) **1 mag. phono** **2 aux.** (hi-impedance hi-level)	**2 mic.** (hi-impedance) **1 mag. phono** **2 aux.** (hi-impedance hi-level)	**1 mic.** (hi-impedance) **2 aux.** (hi-impedance hi-level)	**1 mic.** (hi-impedance) **2 aux.** (hi-impedance hi-level)	**1 mic.** (hi-impedance) **1 Phono** (hi-impedance hi-level) Provision for 500/600 ohm telephone line input for wired background music.
HUM & NOISE (below rated output)	**Mic. —70 db** **Aux. —80 db**	**Mic. —65 db** **Aux. —80 db**	**Mic. —70 db** **Aux. —80 db**	**Mic. —65 db** **Aux. —80 db**	**Mic. —65 db** **Aux. —80 db**	**Mic. —55 db** **Aux. —80 db**	**Mic. —60 db** **Phono —75 db**
SENSITIVITY	**Mic.** 5 mv **Aux.** .3 volts **Mag. phono** 15mv	**Mic.** less than 1 mv (low impedance) 2.5 mv (hi-impedance) **Aux.** .5 volts	**Mic.** 5 mv **Aux.** .3 volts **Mag. phono** 15 mv	**Mic.** 4 mv **Aux.** .2 volts **Mag. phono** 12 mv	**Mic.** 3 mv **Aux.** .5 volts	**Mic.** 4 mv **Aux.** .4 volts	**Mic.** 6 mv **Phono**.2 volts
GAIN	**Mic. 125 db** **Aux. 100 db** **Mag. phono 115 db**	**Mic. 125 db** **Aux. 95 db**	**Mic. 120 db** **Aux. 95 db** **Mag. phono 110 db**	**Mic. 125 db** **Aux. 100 db** **Mag. phono 15 db**	**Mic. 125 db** **Aux. 100 db**	**Mic. 120 db** **Aux. 95 db**	**Mic. 110 db** **Phono 90 db**
OUTPUT IMPEDANCE	4, 8 and 16 ohms 25-v line balanced (6 ohms) 70-v line (50 ohms) 2 speaker sockets and screw terminals	4, 8 and 16 ohms, 25-v line balanced, 70-v line, 2 speaker sockets and and screw terminals	4, 8 and 16 ohms 25-v line (12 ohms) 70-v line (100 ohms) 2 speaker sockets and screw terminals	4, 8 and 16 ohms 25-v line (18 ohms) 70-v line (143 ohms) 2 speaker sockets and screw terminals	4, 8 and 16 ohms 25-v line balanced (31 ohms) 70-v line (250 ohms) 2 speaker sockets and screw terminals	4, 8 and 16 ohms 25-v line (45 ohms) 2 speaker sockets and screw terminals	4, 8 and 16 ohms 25-v line (62 ohms) 1 speaker socket and screw terminals
TONE CONTROL ACTION	**Treble** (10 kc) +12 db to —15 db **Bass** (50 cps) +14 db to —9 db	**Treble** (10 kc) —17 db **Bass** (50 cps) +10 db to —17 db	**Treble** (10 kc) +10 db to —15 db **Bass** (50 cps) +11 db to —10 db	**Treble** (10 kc) +10 db to —16 db **Bass** (50 cps) +14 db to —10 db	**Treble** (10 kc) +10 db to —16 db **Bass** (50 cps) +14 db to —10 db	**Treble** (10 kc) —15 db **Bass** (50 cps) —17 db	**Treble** (10 kc) —24 db
TUBES OR TRANSISTORS	**Total of 7 tubes and Silicon Rectifier** 1—6EU7 1—12AX7 4—7868 1—6C4	**Total of 9 Transistors and Silicon Rectifier** 6—2N417 2—2N1557 1—2N669 1—MR322	**Total of 5 tubes and Silicon Rectifier** 1—6EU7 1—12AX7 2—6L6GC 1—6C4	**Total of 6 tubes** 1—6EU7 2—7868 1—12AX7 1—6CA4 1—6C4	**Total of 4 tubes and Silicon Diode** 1—6EU7 2—6GW8 1—6CA4	**Total of 4 tubes** 1—6AU6 1—6V4 2—ECL86	**Total of 3 tubes** 1—12AX7 ECC83 1—7868 1—6V4 EZ80
POWER CONSUMPTION	300 w. 105-125 VAC 50-60 cycles	**No signal** 0.8A (12 VDC) **Max. signal** 7.5A (12 VDC)	150 w 105-125 VAC 50-60 cycles	125 w 105-125 VAC 50-60 cycles	90 w 105-125 VAC 50-60 cycles	70 w 105-125 VAC 50-60 cycles	50 w 105-125 VAC 50-60 cycles
DIMENSIONS	6¾"H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	6¾" H, 15¾" W, 10" D	5¾" H, 11¼" W, 8¼" D
SHIPPING WEIGHT	26 lbs.	12 lbs.	21 lbs.	18 lbs.	16 lbs.	15 lbs.	**Model CHB10:** 12 lbs. ****Model CHB10-LC:** 10 lbs.
LIST PRICE	$187.40 (Zone 2: $191.35)	$187.25 (Zone 2: $189.95)	$137.40 (Zone 2: $140.60)	$119.90 (Zone 2: $122.50)	$89.90 (Zone 2: $92.15)	$75.00 (Zone 2: $77.25)	**Model CHB10** $64.75 (Zone 2: $66.50) ****Model CHB10-LC** $60.00 (Zone 2: $61.50)

*Operates on 12 VDC. Operating temperatures —20°C to +65°C (—4°F to +149°F) **CHB10-LC (less cage)

Accessories: matching phono-top, control-guard locking plate, rack panel mounting kits, carrying cases, remote volume controls . . . and more.

LEAR SIEGLER, INC. / LSi® *BOGEN COMMUNICATIONS DIVISION*

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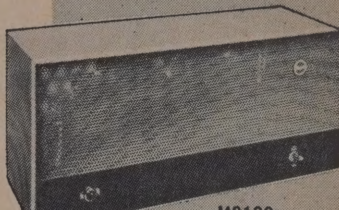
BOGEN SOUND SYSTEMS

"MO" SERIES BOOSTER AMPLIFIERS

Bogen's new "MO" series booster amplifiers embody the most advanced design and construction techniques. Ideal for use wherever undistorted high power is required. Exceptionally wide-range frequency response characteristics. Input signal of 2 volts or less will drive any of the boosters to rated output. Built-in provision for balanced low impedance line input and for paralleling several "MO" series power amplifiers to multiply power output. The MXM and RP-2 are ideal preamplifiers for these boosters.

	MO100	MO60	MO30
POWER OUTPUT	100 w at less than 5% distortion	60 w at less than 2% distortion	30 w at less than 2% distortion
POWER CONSUMPTION	275 w	260 w	150 w
FREQUENCY RESPONSE	±2 db 50 to 50,000 cps	±2 db 35 to 20,000 cps	±2 db 35 to 20,000 cps
INPUT	1—hi-impedance: .1 megohm. With low impedance transformer (T161): 500 ohms	1—hi-impedance: .1 megohm. With low impedance transformer (T161): 500 ohms	1—hi-impedance: .1 megohm. With low impedance transformer (T161): 500 ohms
SENSITIVITY	Hi-impedance: 2-v; low impedance (with T161 transformer): 0.5 volts	Hi-impedance: 2-v; low impedance (with T161 transformer): 0.5 volts	Hi-impedance: 2-v; low impedance (with T161 transformer): 0.5 volts
HUM (below rated output)	—80 db	—80 db	—80 db
OUTPUT IMPEDANCE	16, 6.25 and 49 ohms, balanced 25-v line, 70-volts, 115-volts	4, 8, 16 and 82 ohms, balanced 25-v line, 70-v line	4, 8, 16 ohms, balanced 25-v line (21 ohms) 70-v line (163 ohms)
TUBES	Total of 7 2—GZ34 | 1—EZ81 2—6550 | 1—6C4 1—12AX7	Total of 7 3—GZ34 | 2—7581A 1—12AX7 | 1—6C4	Total of 5 1—GZ34 | 2—6L6GC 1—12AX7 | 1—6C4
OVERALL DIMENSIONS	17¼" W, 9" D, 7¾" H	17¼" W, 6½" D, 7¾" H	17¼" W, 6½" D, 7¾" H
SHIPPING WEIGHT	35 lbs.	23 lbs.	21 lbs.
LIST PRICE	$215.75 (Zone 2: $221.00)	$172.50 (Zone 2: $176.25)	$124.90 (Zone 2: $128.05)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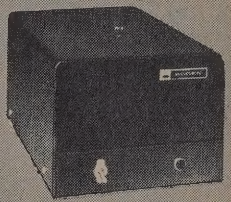
MT30

MT30; 30-WATT TRANSISTORIZED BOOSTER AMPLIFIER

— Provisions for remote volume or standby control

Power Output: 30 watts @ less than 1% distortion (delivers full power from 30-20,000 cps) **Power Consumption:** 60 watts (117 VAC or 12-15 VDC) **Frequency Response:** 10 — 25,000 cps ±1 db. **Input:** (1) high impedance convertible to low impedance with TL600, TL600B, TL10K line transformers **Sensitivity:** High impedance: 1 volt, .25 volt (with TL600 transformer) **Hum:** (below rated output): —85 db. **Output Impedance:** 4, 8, 16 ohms, 25-volt balanced (21 ohms), 70-volt balanced (163 ohms) **Transistors:** (6) transistors, 2 silicon diodes **Overall Dimensions:** 8" W, 13" D, 5" H **Shipping Weight:** 19 lbs. **MT30** . . . List: **$173.15** (Zone 2: **$176.35**)

"VP" SERIES
PORTABLE TRANSCRIPTION PLAYERS

VP40A

VP20 & VP40A The ultimate in ready-to-play, portable, complete sound systems and transcription players.

Phono Mechanism: high-fidelity Bogen Series "B" turntable, noted for quality performance and silent operation; automatic tone arm cueing; continuously variable turntable speed from 29 to 86 rpm, plus four click-stop speed positions of 16, 33-1/3, 45 and 78 rpm; rubber turntable mat, removable for cleaning; heavy steel turntable accommodates up to 16" records; separate phono motor power switch; tone arm comes complete with G.E. variable reluctance cartridge with dual sapphire-tipped styli; tone arm pressure adjustable; removable 45 rpm spindle adapter.

Amplifier: — **Power Output**: VP20 — 20 w. peak; VP40A — 40 w. peak. **Power Consumption**: VP20 — 90 w.; VP40A - 150 w. **Frequency Response:** ±1½ db, 50 to 15,000 cps. **Outputs**: VP20 — 2 speaker (8 ohms for 1 speaker, 2.5 ohms for 3); VP40A — 2 speaker (4 ohms for 2 speakers, 2 ohms for 4); tape recorder, monitor; aux. power receptacle (2.2 A.). **Inputs**: phono (internal connection), radio tuner (or tape recorder), 2 Hi-impedance microphones. **Tubes**: total of 5: VP20 (1 — 12AX7/ECC83, 1 — 7247, 2 — 6BQ5/EL84, 1 — EZ81); VP40A (1 — 12AX7/ECC83, 1 — 7247, 2 — 7355, 1 — GZ34). **Controls**: Master Power, Bass, Treble, Vol. Input 2, Vol. Mic. Input, Scratch Filter, Input 2 Selector (VP40A - Speech Filter).

VP20 in single portable case with heavy-duty 12" speaker and 25' cable mounted in removable cover. **Dimen.**: 16½" x 15¾" x 12¼" (less handle and projections). **Ship. Wt.**: 40 lbs. **List Price: $187.90** (Zone 2: $193.05)

VP40A player and electronics in portable case, 2 heavy-duty 12" speakers (with 2 25' cables) mounted in portable "break-apart" case. **Dimen.**: (ampl./phono case) 18¼" x 16½" x 8½" D; (speaker case) 16" x 15¾" x 11½" D. **Ship. Wt.**: 55 lbs. (for 2 cases). **List Price: $273.25** (Zone 2: $280.20)

Accessories: SCC-12 Speaker Case (2 speaker units in "break-apart" case with 25' cable for each speaker) 18 lbs. **List Price: $73.25** (Zone 2: $75.90); MON-2 Monitor Amplifier System (includes 10-watt high gain amplifier and 8" Alnico PM speaker in carrying case). **List Price: $87.65** (Zone 2: $90.90). Several types of microphones are also available.

VP20

VP10 — budget-priced portable. **Phono Mechanism:** silent-operating, sturdy B41 record player with automatic motor start will play all records up to 12" at 4 standard speeds (16, 33-1/3, 45 and 78 rpm).

Amplifier: wide-range 10-watt peak; speaker connector on front panel; power switch; bass & treble controls; volume controls for phono and microphone; input for mic. jack. **Tubes**: total of 4 (1 — 6AV6, 1 — EZ81, 1 — 12AX7, 1 — 7355). **Dimen.**: 15½" x 14" x 11½". **Ship. Wt.**: 26 lbs. VP10 in single carrying case with 1 heavy-duty 12" speaker and 25' cable mounted in removable cover. **List Price: $129.10** (Zone 2: $133.10). Lectern Accessory LEC-1 is available.

VP10

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

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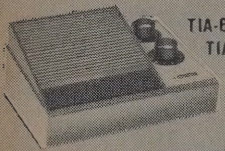
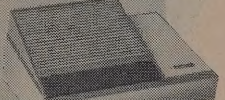
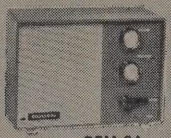
BOGEN
INTERCOMS


TIA-6
TIA-12


RIA-1

RIM-6

X220B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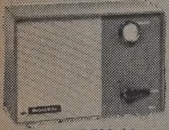
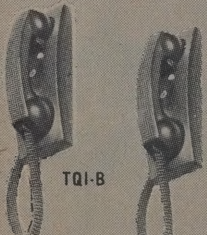

REM-1A

TSD-20

TQA-21

TQ-6


TQI-B

SERIES "T" INTERCOMS

Fully transistorized intercoms of unlimited flexibility, high intelligibility, simple installation and unique styling.

TIA-6 MASTER STATION (can call any other station). For systems up to 6 stations — all masters or one master plus remotes. Vol. control, talk-listen bar and 7-position selector (including "mute" and "all-call" positions). Operates from 117 v. AC; 7 w. power consumption, 8 ohm speaker impedance. **Dimen.:** 7¾" W, 7" D, 4" H. **Ship. Wt.:** 4 lbs. **List Price: $57.40** (Zone 2: $57.90)

TIA-12 MASTER STATION. For systems up to 12 stations. Similar to TIA-6 in design and operation but does not permit calling all stations simultaneously. **Dimen.** and **Ship. Wt.** same as TIA-6. **List Price: $63.75** (Zone 2: $64.25)

RIA-1 REMOTE STATION (can call only 1 pre-selected master and reply when called). Similar in appearance to TIA-6 with matching loudspeaker. **Dimen.:** same as TIA-6. **Ship. Wt.:** 3 lbs. **List Price: $17.40** (Zone 2: $17.55)

TIM-12 MASTER STATION. For intermix systems combining up to 12 masters and remotes in any combination. Same features as TIA-6 plus 12-position selector switch. Specifications, dimensions, and ship. wt.: same as TIA-6. **List Price: $78.40** (Zone 2: $78.90)

RIM-6 SELECTIVE REMOTE STATION (can call any of 6 pre-selected masters). Features, dimensions: same as TIM-12. **Ship. Wt.:** 3 lbs. **List Price: $39.00** (Zone 2: $39.50)

SERIES "X" INTERCOMS

Rugged utility intercoms, used in an 11 or 22 station system (all masters or mixed masters and remotes); featuring push-button convenience, high intelligibility, and simple installation, housed in handsome tan and gold steel cabinets. **Power Supply:** 117 v. AC, 35 w. **Output Impedance:** 50 ohms balanced. **Tubes:** 3 (1 — 12AX7, 1 — 6W6GT, 1 — 6X4). **Dimen.:** X120B & X220B — 10" W, 7½" D, 7" H.

X120B MASTER STATION can call up to 10 masters or remotes. 10 selector push-buttons, 6 ft. master cable ending in plug for solderless connections to junction box, complete with tubes. **Ship. Wt.:** 15 lbs. **List Price: $141.50** (Zone 2: $143.75)

X220B MASTER STATION can call up to 21 masters or remotes. 21 selector push-buttons, same features as X120B. **Ship. Wt.:** 16 lbs. **List Price: $173.90** (Zone 2: $176.30)

REM-1A REMOTE with call-initiating switch to 1 master — with vol. control and 6-ft. cable. **Ship. Wt.:** 3 lbs. **List Price: $31.00** (Zone 2: $31.40)

REM-3A REMOTE with selective call-initiating switch to 3 masters — with vol. control and 6-ft. cable. **Ship. Wt.:** 3 lbs. **List Price: $37.75** (Zone 2: $38.15)

HSX HANDSET for private conversations — attaches to X120B and X220B. **List Price: $66.60** (Zone 2: $67.00)

INTERNAL PHONE SYSTEMS

TSD BOGEN-PHONES — a unique and extremely flexible telephone system that provides private, multiple conversations without a costly central exchange. To call, lift phone, press selector button, then press ring button . . . buzzer sounds at called station . . . no switching, no dialing, no switchboard delay. System provides 100% trunkage; allowing many private, simultaneous conversations.

TSD-20 with 1 ring button and 19 selector station buttons. **Dimen.:** 9½" W, 3¼" D, 3¾" H. **Ship. Wt.:** 3½ lbs. **List Price: $53.25** (Zone 2: $53.60)

TSD-10 with 1 ring button and 9 station selector buttons. Same dimensions and ship. wt. as TSD-20. **List Price: $45.65** (Zone 2: $45.95)

TSD-1 single station remote with 1 ring button. **Dimen.:** 9½" W, 3¼" D, 3¼" H. **Ship. Wt.:** 3 lbs. **List Price: $33.25** (Zone 2: $33.55)

PRS-10 Power Supply (1 required for each telephone system). **List Price: $44.35** (Zone 2: $45.25)

TQ BOGEN-PHONES — low-cost telephone system. To call, lift phone, press station button . . . buzzer sounds at called station . . . bypassing the switchboard. Selective ringing with common talk line. Handset with base is 9½" x 3¼" x 3¼". weighs 5 lbs; comes supplied with 4' snarlproof cord and junction box.

TQ-1 (pair) for 2-station systems. **List Price: (pair) $51.45** (Zone 2: $52.05)

TQ1-B TWIN-PHONE — 2-station battery-operated phone system. Requires 4 standard Type D Flashlight cells. Supplied complete with 2 instruments, 50' of cable, battery case and connectors. **List Price: $45.80** (Zone 2: $46.40)

TQ-6 phone for up to 7-station system. **List Price: (each) $27.95** (Zone 2: $28.35)

TQ-12 phone up to 13-station system. **List Price: (each) $34.25** (Zone 2: $34.85)

PRS-1 Power Supply (1 required for each system) **List Price: $30.00** (Zone 2: $30.30)

TRA Phone-Page Adapter allows paging from Series TQ phones. **List Price: $42.20** (Zone 2: $42.50)

PRS-5 Multi-mix Power Adapter to combine TQ-12 or TQ-6 phones with trumpets and PA amplifier. **List Price: $147.37** (Zone 2: $148.25)

TQA ATTEND-A-PHONE System gives communication between a central location and each of a number of remote stations. May be used with TRA adapter for paging through amplifier and loudspeakers. Features: low-cost installation, easily expanded, simple to use, completely private.

TQA-21 Central Switchboard — master station with handset and 21 pushbuttons with signal lamps, signal bell and power supply which plugs into standard 110 v. AC outlet, 6' cables and plugs. **Dimen.:** 8½" W, 7½" D, 10¼" H. **Ship. Wt.:** 14½ lbs. **List Price: $270.25** (Zone 2: $271.10)

XQA-21 Expansion Board — used in connection with TQA-21 to provide switching facilities for additional 21 remote stations. No additional power equipment needed. **Dimen.:** 5¾" W, 5¾" D, 10¼" H. **Ship. Wt.:** 9 lbs. **List Price: $204.35** (Zone 2: $205.00)

TQX Remote Station Phone — composed of handset, coiled cord, base and junction box, which may be desk or wall mounted. **Dimen.:** 3¼" W, 3¼" D, 9½" H. **Ship. Wt.:** 4 lbs. **List Price: $31.85** (Zone 2: $31.95)

JB2 Junction Box (2 required for each TQA-21 and XQA-21). **List Price: $9.65** (Zone 2: $9.95)

LEAR SIEGLER, INC. / LSi *BOGEN COMMUNICATIONS DIVISION*

Trade Discount Applies To List Prices Only

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PRICES

All prices listed in The MASTER are subject to change without notice — they should not be considered final.

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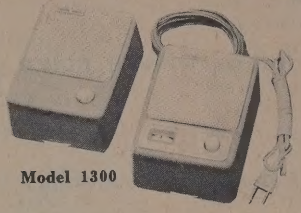
DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

FANON-MASCO INTERCOMS

The complete intercom line styled for the modern office and home at economy prices.

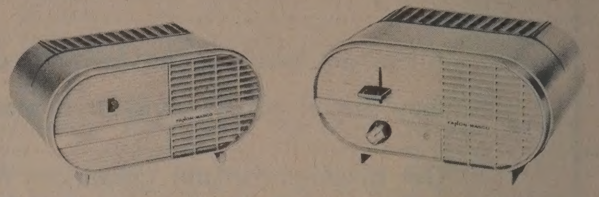
Excellent sensitivity and tonal quality. Each oval cabinet is 8¾'' x 4¾'' x 5¾'' deep of high impact styrene and are available in combination of beige, gold and black styling. All prices shown below are List add 5% west of the Rockies.


Model 1300

Model 1300—The most economical 2-station transistorized intercom system, complete with 50 ft. cable. Suitable for 117V. AC or optional battery use. Remote can call master even if turned "off." Ideal for the home or office. Volume control and press-to-talk switch. Weight 3½ lbs.
List $19.95

Model 1300DC—Similar to Model 1300 (above) but suitable for 9V battery use only. (Eveready 216 or equivalent). Battery not supplied.
List $17.95

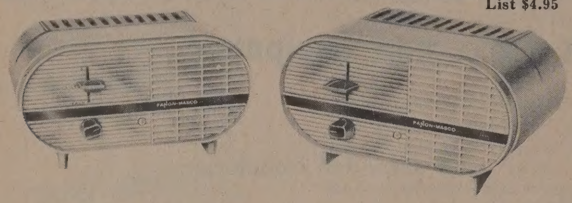
Model PS-13—A special power supply used with Model 1300DC to adapt if for AC operation. May also be used as a 9V battery recharger.
List $4.95



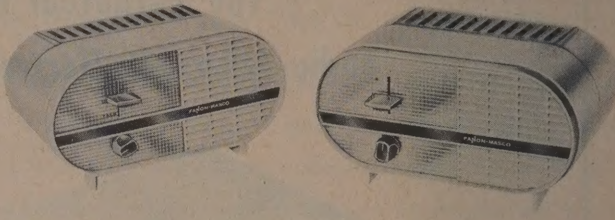
FX-2B TWIN—$39.95 Ultra-sensitive 2-station system with 50 ft. cable. Powerful amplifier picks up slightest noise. Three way Dictate-Talk-Listen switch. Remote has TALK-LISTEN switch to permit originating calls to master: Use it anywhere — home or business. Extra remote. FSB may be added: $13.25. Weight: 6 lbs.

TRANSISTORIZED

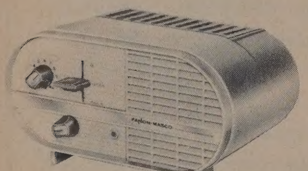
Fanon No. 1500B—Deluxe two station transistor intercom in decorator cabinets. 50' of cable. 8 lbs. Uses 4 penlite batteries. **List: $49.95**
Fanon No. 152B—Additional remote for deluxe 1500B system. **List: $13.25**

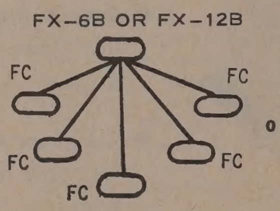


FW-50B DeLuxe WIRELESS—$83.25. A complete 2 station system ready to operate. No wires—no installation—just plug into any AC or DC outlet. Four tubes plus silicon rectifier amplifier. Three way Talk-Listen Dictate switch. Weight: 7 lbs. Model FW-51, additional single station for above, may be added, $42.50. 4 lbs.



FW-40 Transistorized WIRELESS — $89.95. DeLuxe 2-station wireless system plugs into any AC line. No wiring required. Instantaneous — no "warm up" necessary. 4 transistors. Three way talk-listen talk lock switch. Weight 7 lbs. Model FW-41 additional single station to expand system $46.25. Weight: 4 lbs.





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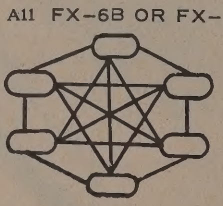
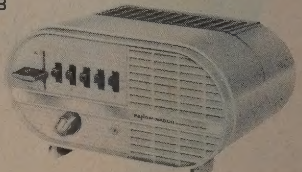
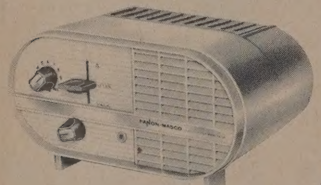
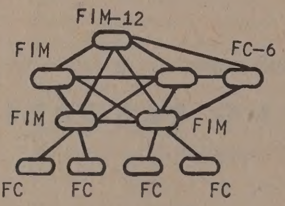


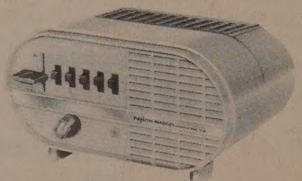


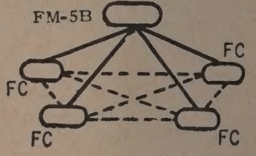
FX-12BMANAGER — $47.50. A dual purpose master for use with up to ten FC remotes, in a MASTER-TO-REMOTE system, or up to eleven masters in ALL MASTER system. Twelve position rotary selector switch with "All-Call" and "Standby". Dictate-Talk-Listen switch. Five private conversations may be held in an all master system. New: Masters can be non-private "hands free" operation. Weight: 4 lbs.

FX-6B EXECUTIVE—$39.95 A dual purpose master, for use with up to five FC remotes in a MASTER-TO-REMOTE system, or up to six masters in an ALL MASTER system. Five individual station selector switches. Dictate-Talk-Listen switch. In all master systems, 3 private conversations or conference of all stations may be held. Weight: 4 lbs.



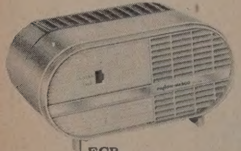


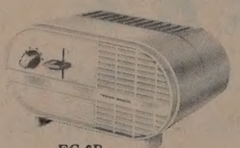




FIM-12B INTERMIX — $50.95. A deluxe twelve station intermix master which can be used in any combination of masters and/or remotes. Master has 3 position Talk-Listen-Dictate switch. Use in conjunction with two types of remotes: FC-6 which can selectively call any one of six masters, and FCB which can call only one master. Weight: 4 lbs.

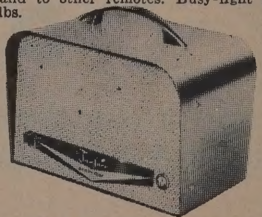
FM-5B MONITOR —$42.50. A master used with up to four FCB remotes in a MASTER-TO-REMOTE system. "Switch-board" feature provides direct remote-to-remote conversations. Master can monitor any or all remotes. Master can "set-up" remotes to monitor other remotes. Remotes can originate calls to master and to other remotes. Busy-light flashes during conversations. Weight: 4 lbs.


FCB


FC-6B

FCB, REMOTE — $13.95 Used in conjunction with FM-5B, FX-6B, FIM-12B.

FC-6B, REMOTE — $21.95 Six station selective remote used with FIM-12B



RB-1, BABY-COM—$24.95: A one-station, wire-less radio intercom. No installation, no wires required-merely plugs in to any AC or DC outlet and voice is heard through any radio (even car or battery radios). Ideally suited as a portable baby-sitter. Extremely sensitive, can be heard 300 ft. away. Blue & pink cabinets. Weight: 4 lbs.

REFER TO CATALOG NO. 1 FOR COMPLETE SPECIFICATIONS ON ABOVE

Trade Discount Applies To List Prices Only

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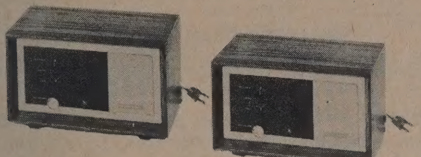
FANON-MASCO INDUSTRIAL INTERCOMS

Exciting New EXECUTIVE Series

Characterized by its distinctive walnut cabinetry, an exciting new line of intercoms fills the need for deluxe intercommunication equipment.

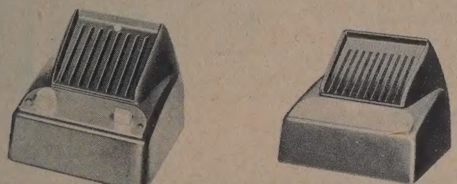
Moderately priced, the FANON-MASCO "Executive" series offers exceptional styling and skilled craftsmanship. Finished in rich, hand-rubbed oil walnut, each unit is 9½"x5"x4¾" deep. Black and gold appointments.

The "Executive" series is offered as a 2-station wired or 2-station wireless system to which additional units can be added. A 6 station selective master as well as a non-selective master are also available.



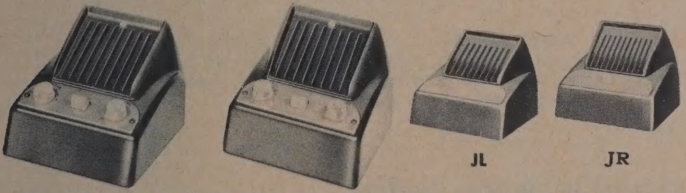
WIRELESS

X-604 Executive WIRELESS. $99.95 List—A complete two-station system ready to operate—just plug in any AC or DC outlet, turn on and talk. Four tubes and silicon rectifier amplifier. Special squelch circuit for noise-free operation. Three-way talk-listen-dictate switch. Additional stations **Model X-602** may be added to wireless system—**Each $54.95 list.**



DELUXE JMR—Highly sensitive two-station intercom system in heavy duty die-cast metal cabinets with **durable enamel** finish. Rugged pushbar talk-listen switch on both master and remote. Remote can answer "hands free", or be completely private. Volume control and pilot light on master. 7½" x 6¾" x 5½" high. Weight of 2 station system with 50′ of cable: 10 lbs. List price: $68.75.

MODEL JR—Additional remote station for above. Weight: 5 lbs. List price: $18.90.



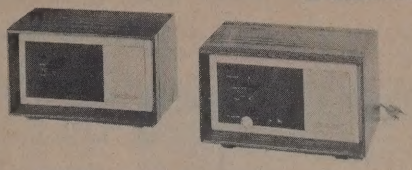
SIX AND ELEVEN STATION MASTERS—IJM-5 and IJM-10. These famous dual-purpose masters are designed for both master-to-remote and master-to-master operation. No modification is required as units have built-in switch for immediate conversion. Heavy duty die-cast cabinets in **durable enamel** finish. **IJM-5** can be used with up to 5 other masters or remotes. **IJM-10** for use with up to 10 other masters or remotes. **IJM-10** all-master system can carry on up to 5 separate conversations at the same time. Any master can be called even if its power is off. All have station selector switch, volume control and pushbar "talk-listen-lock" position. A paging horn can be added. Size each: 7½" x 6¾" x 5½".

IJM-5 six station master list price: **$55.00.**

IJM-10 eleven station master list price: **$63.75.**

REMOTES FOR USE WITH ABOVE IJM-5 and IJM-10
JL remote, less talk-listen switch. Weight: 3½ lbs. List price: **$17.75.**
JR remote, with talk-listen switch. Weight: 3½ lbs. List price: **$18.90.**

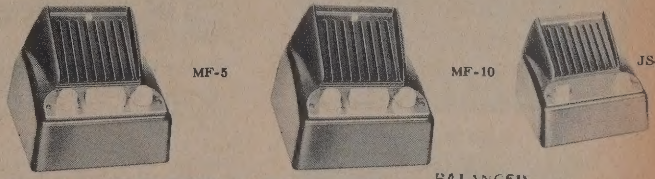
2-STATION WIRED



X-600 Executive WIRED. $59.59 List—Ultra-sensitive two station system includes X-601 master and XR-01 remote with 50 feet of cable. Master has talk-listen-dictate switch; Remote has talk-listen switch to originate calls to master and may be used as private or non-private remote. Additional **XR-01** units may be added to system. **Each $24.95 List**

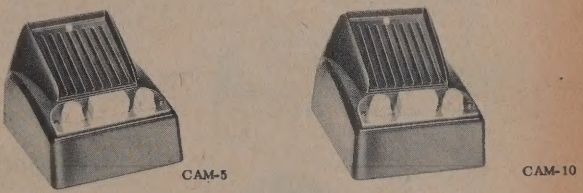
X-606 Executive 6-station MASTER. $49.95 List—Selective master for use with five other X-606 in all-master system or with five XR-01 remotes. All master system provides 3 simultaneous conversations.

X-601 Executive NON-SELECTIVE Master. $39.95 List. Can be used with up to five XR-01 remotes. Call originating at master is heard by all remotes simultaneously. Remotes can call master at will.



INTERMIXED SYSTEM MASTERS **BALANCED LINE**

Model **MF-5** six station master and **MF-10** eleven station master units for use in combination with other remotes or other masters. Heavy duty, "big job" masters of die-cast metal in **durable enamel** Each has station selector switch, volume control and push-bar "talk-listen" switch. In an eleven station all-master system up to five separate conversation lines are available. A master may be called even though it is turned off. Cabinet size: 7½" x 6¾" x 5½". Weight per unit: 7 lbs. MF-5 six station master list price: **$68.75.** MF-10 eleven station master list price: **$78.00.**



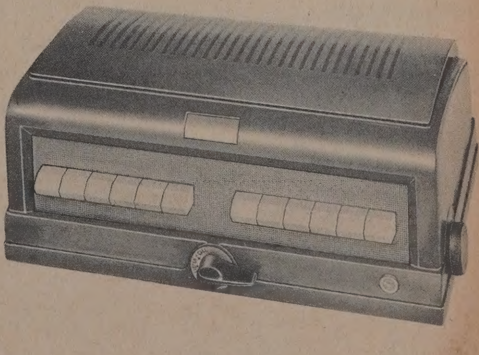
INTERMIXED SYSTEM MASTERS

AC POWER TRANSFORMER **BALANCED LINE**

MODEL CAM-5 six station master and **CAM-10** eleven station master similar to above but with higher audio power output and AC power transformer.
CAM-5 six station master weight: 7 lbs. List price: **$86.25.**
CAM-10 eleven station master weight: 7 lbs. List price: **$96.25.**

REMOTES
MODEL JL remote, less talk-listen switch. Weight: 3½ lbs. List price: **$17.75.**
MODEL JS remote, with talk-listen switch. Weight: 3½ lbs. List price: **$22.95.**
MODEL JS-6 six-station selective remote to call up to six masters in system. Talk-listen switch. Weight: 3½ lbs. List price: **$37.80.**

7 and 13 Station BALANCED LINE Masters



A completely flexible system designed for most comprehensive installations. The Model JMP-6B accommodates up to six master or remote stations and the Model JMP-12B can handle up to twelve additional masters or remotes. The masters can call any of the remotes in the system at the same time and can also page and receive replies from paging horns. Conferences can be arranged between masters and up to 6 separate conversation lines are available in a 13 station master-to-master system. Cabinet is heavy-duty die-cast metal with durable grey enamel finish. Size overall: 13" x 8½" x 5⅛" high.

JMP-6B Seven station master. Weight: 10½ lbs. List price: **$119.50.**

JMP-12B Thirteen station master. Weight: 10½ lbs. List price: **$129.50.**

AC POWER TRANSFORMER BALANCED INTERMIX SYSTEMS

MODEL AC-12B Thirteen station. Weight: 12½ lbs. List price: **$181.00.**

MODEL AC-24B Twenty-five station. Weight: 12½ lbs. List price: **$211.25.**

REFER TO CATALOG NO. 2 FOR COMPLETE SPECIFICATIONS ON INDUSTRIAL INTERCOMS

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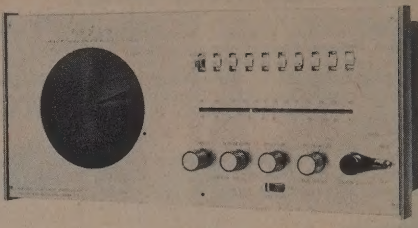
FANON-MASCO FLUSH-WALL INTERCOMS

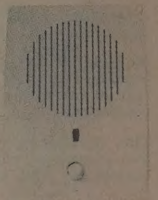
AM/FM, MUSIC AND INTERCOM SYSTEM FOR HOME

FANON MASCO 5509 Master provides up to nine remotes for AM or FM reception plus phono music or voice. Input accommodates record player or tape recorder Highly sensitive and selective AM and FM tuners and wide band noise free amplifier rated at 2 watts. AFC on tuner with AFC-OFF switch for tuning weak stations. Master and remote can call each other at any time. Remotes can call each other by switching at master. Master may monitor all remotes Each remote has volume control. Satin chrome or copper front panel: 15¼″ x 7″ x 1″. Rough-in dimensions: 13⅞″ x 5⅞″. Ship wt.: 12½ lbs. List price: **$174.95**

MODEL 56 INDOOR REMOTE—High styled indoor remote with talk-listen switch and volume control. Five inch speaker. Satin chrome or copper finish. 6″ x 8½″. Rough-in dimensions: 4⅞″ x 8″. Ship wt.: 2½ lbs. List price: **$16.25**.

MODEL BD OUTDOOR REMOTE—Weatherproof gasket sealed Weatherized speaker. Remote can originate call to master. Durable copper enamel finish. 4¾″ x 6¾″. Rough-in dimension: 3⅞″ x 5¼″. Ship wt.: 2 lbs.. List price: **$9.95**. BDR REMOTE same as above with pushbutton. List price: $7.95.



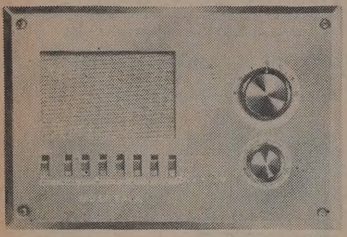


COMPLETE SYSTEM CONSISTS OF:

FANON MASCO 55EK . . . 1 master, 3 Model 56 indoor remotes, 1 Model BD outdoor remote, hardware. Ship wt.: 24 lbs. List: **$199.95**.

FANON MASCO 551K . . . complete installation kit of rough-in materials, plaster rings, 200 feet of cable for 55EK. Ship wt.: 8 lbs. List: **$24.95**.

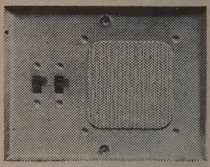
MUSI-TALK AM RADIO AND INTERCOM SYSTEM



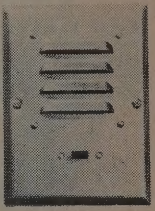
MC — MASTER CONTROL

FANON MASCO MC, MASTER CONTROL
A six tube, six-station master from which you may converse with any or all remotes. The master can "set-up" two or more remotes for **direct communication** with one another. "Monitor" feature enables master and remotes to eavesdrop any other locations. Powerful printed circuit radio can be "piped" to as many rooms as desired. Simultaneous radio and intercom operation is featured. Stylish satin copper panel is 11″ x 7¾″. List: **$87.50**. Rough-in dimensions: 5½″ x 10¼″ x 3½″.

FANON MASCO MCL, MASTER CONTROL
Has all the intercom features listed above, less the radio. A phono input jack enables you to plug in any external music source for complete muisc distribution. List: **$54.95**.



BC — REMOTE



BD — REMOTE

BC, INDOOR REMOTE—Four indoor remotes provide instant 2-way conversation among themselves and the master, as well as radio-music throughout the home. Remotes can originate calls to the master, or to other remotes. Remotes may also "monitor" any other locations. Talk-Listen switch and Privacy switch. Satin copper panel is 6¼″ x 4¾″. List. **$9.95**.

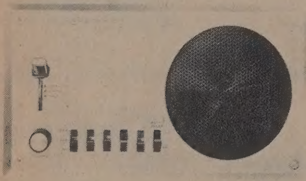
BD, DOOR REMOTE—Has weatherproof rubber gasket and "weatherized" speaker to withstand all types of weather. Door remote can originate calls to the master and any indoor remote. Enables you to answer the door from within the house and to "pipe" music to the porch or patio. Copper finish panel 6¾″ x 4¾″, List: $5.95. BDR outdoor remote w/pushbutton List: **$9.95**.

FANON MASCO EK **(Electronic Kit)** — Consists of 1 MC Master Control, (with radio), 3 BC Indoor Remotes, 1 BD Door Remote and hardware. List: **$104.95**

FANON MASCO EKL **(Electronic Kit)** — Consists of 1 MCL Master Control, (less radio), 3 BC Indoor Remotes, 1 BD Door Remote and hardware. List: **$74.95**

FANON MASCO IK **(Installation Kit)** — Consists of 1 master plaster box, 4 remote plaster boxes, 200 ft. of wire and hardware. This installation kit is used in conjunction with either the EK or EKL electronic kits. List: **$19.95**

TRANSISTORIZED SIX STATION INTERCOM SYSTEM



COMPLETE SYSTEM CONSISTS OF:

FANON MASCO 44EK . . . One master, 3 model BC indoor remotes, 1 model BD outdoor remote, hardware. Ship wt.: 13 lbs. List: **$71.20**

FANON MASCO 441K . . . . complete installation kit of rough-in materials, plaster rings, 200 feet of cable. Ship. wt.: 5 lbs. List: **$18.75**

FANON MASCO 4405 —Built-in and battery operated the master provides for up to five remotes. Complete two-way communication from master to all remotes or master can set up remote to remote. Long battery life when master is in "standby" since no battery drain occurs until signalled with "beep" tone from remote. "Battery saver" switch limits drain when in monitor or baby-sitting position. Music can be added to system, by plugging radio or phono into jack on BJ remote. Satin chrome or copper front panel: 10½″ x 5¾″. Rough-in dimensions: 9⅝″ x 4½″ x 3½″. Ship wt.: 5 lbs. List price: **$58.75**.

MODEL BC INDOOR REMOTE—Remotes may originate calls to master or monitor other remotes. Talk-listen switch and "privacy" switch. Satin chrome or copper finish panel: 6¼″ x 4¾″. Rough-in dimensions: 5¼″ x 3⅞″ x 2″. Ship wt.: 2 lbs. List: **$9.95**

MODEL BJ REMOTE same as above with phono jack to add music source. List: **$14.95**

MODEL BD OUTDOOR REMOTE—Weatherized speaker in gasket sealed cover. Remote can call master. Baked copper enamel finish. 4¾″ x 6¾″. Rough-in dimensions: 3⅞″ x 5½″. Ship wt.: 2 lbs. List: **$9.95**. **BDR** same w/pushbutton. List: **$12.50**

REFER TO CATALOG NO. 6 FOR COMPLETE SPECIFICATIONS ON FLUSH-WALL INTERCOMS

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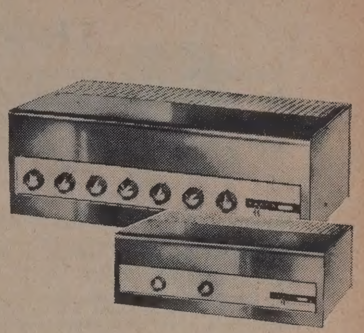
FANON-MASCO

AMPLIFIER SYSTEMS POWER-FLEX P. A.

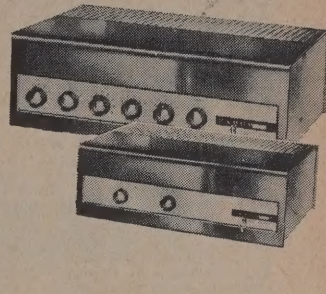
MODEL FMA-100 100 WATT AMPLIFIER



Power Output: 100 watts at less than 5% RMS distortion. **Peak Power Output:** 130 watts (music wave-form rating). **Frequency Response:** 50-15,000 cps, ± 3 db. **Inputs.** 3 high impedance microphone inputs (expandable to 5). One mike input is convertible to magnetic phono cartridge; 1 phono input and 1 radio input on fader control. Model LZT low impedance mike transformers (2) can be added or 1 low impedance balance line transformer for wired music can be used. **Input Sensitivity:** Microphone—4 millivolts, Phono-Radio—0.3 volts, Phono/magnetic—4 millivolts, Low impedance mike—0.3 millivolts. 600 ohm balanced line—0.1 volts. **Gain:** Microphone—130 db, Phono-Radio—90 db. **Regulation:** 25 volts and 70 volts, no load-full load —3 db at 1 KC. **Hum and Noise:** Fundamental —80 db below rated output. Phono —75 db below rated output. Microphone —65 db below rated output. **Input Impedance:** Microphone high impedance 0.5 meg. Phono-radio—1 meg. **Speaker Outputs:** 4, 8, 16 ohms; 25 volt line—6.2 ohms; 70 volt line—50 ohms. **Booster/Tape Recorder Output:** 1 volt—low impedance. **Controls:** 3 microphone volume; 1 phono-radio fader; 1 master; 1 bass, 1 treble; 1 power on/off switch. (chassis) 1 phono magnetic switch; 1 bias adj; 1 regulator voltage adj; 2 hum adj. **Tone Controls:** Bass — 17 db boost at 50 cps; 14 db cut at 50 cps. Treble—14 db at 15 KC and 15 db cut at 15 KC. **Power Consumption:** 280 watts at 117 volts AC (60 cycle). **Fuse:** 4 amp—3 AG slo-blo. **Tubes:** (2)12AX7A; (1)6AU6A; (1)12AZ7; (1)6L6-GC; (1)6CY7; (1)NE-51H; 1 full wave bridge silicon rectifier for power supply; 1 silicon rectifier for bias supply. **Dimensions:** 18″x6⅝″x10¾″ including knobs and feet. **List: $189.95**

MODEL FMB-100 100 WATT BOOSTER AMPLIFIER. Similar to above amplifier less microphone and tone controls. Single high impedance input (0.5 volt at full output). Volume and On/Off controls.

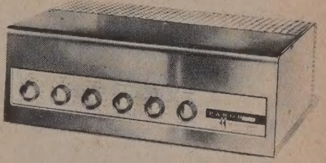
MODEL FMA-65 65 WATT AMPLIFIER



Power Output: 65 watts at less than 5% RMS distortion. **Peak Power Output:** 80 watts (music wave form rating). **Frequency Response:** 50-15 KC, ±3 db. **Inputs:** 2 high impedance microphone inputs (expandable to 4). One mike input is convertible to magnetic phono cartridge; 1 phono input and 1 radio input on fader control. 2 model LZT low impedance mike transformers can be added or 1 low impedance balanced line transformer for wired music can be used. **Input Sensitivity:** Microphone—5 millivolts, Phono-radio—0.3 volts, Phono/magnetic—5 millivolts, Low impedance mike—0.3 millivolts, 600 ohm balance line—0.1 volts. **Gain:** Microphone—126 db; Phono-Radio—86 db. **Regulation:** 25 volt and 70 volt line, no load-full-load —3 db at 1 KC. **Hum and Noise:** Fundamental —80 db at rated output; Phono—75 db below rated output; Microphone—65 db below rated output. **Input Impedance:** Microphone high impedance—0.5 meg.; Phono Radio—1 meg. **Speaker Outputs:** 4, 8, 16 ohms; 25 volt line—9.6 ohms; 70 volt line—75 ohms. **Booster/Tape Recorder Output:** 1 volt; low impedance. **Controls:** 2 microphone volume; 1 phono-radio fader; 1 master; 1 bass; 1 treble; 1 power on/off switch. (Chassis) 1 phono-mag switch; 1 bias adj; 1 regulator voltage adj; 1 hum adj. **Tone Controls: Bass**—17 db boost at 50 cps; 14 db cut at 50 cps. Treble—14 db boost at 15 KC; 15 db cut at 15 KC. **Power Consumption:** 210 watts at 117 volts AC (60 cycle). **Fuse:** 3 amp—3 AG slo-blo. **Tubes:** (2)12AX7A; (1)7199; (2)EL-34; (1) 6CY7; (1)NE-51H; 1 full wave bridge silicon rectifier for power supply; 1 silicon rectifier for bias supply. **Dimen.:** 18″x6⅝″x10¾″ incl. knobs and feet. **List: $159.95**

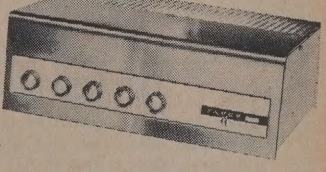
MODEL FMB-65 65 WATT BOOSTER AMPLIFIER. Similar to above amplifier, less microphone and tone controls. Single high impedance (0.5 volt at full output). Volume and On/Off controls.

MODEL FMA-35 35 WATT AMPLIFIER



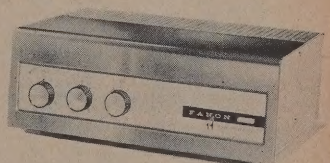
Power Output: 35 watts at less than 5% RMS distortion. **Peak Power Output:** 50 watts (music wave form rating). **Frequency Response:** 50-15,000 cps, ± 3 db. **Inputs:** 2 high impedance microphone inputs (expandable to 4) One mike input is convertible to magnetic phono cartridge; 1 phono input and 1 radio input on fader control. 2 model LZT low impedance mike transformers can be added or 1 low impedance balanced line transformer for wired music can be used. **Input Sensitivity:** Microphone—5 millivolts; Phono/Radio—0.3 volts; Phono/magnetic—5 millivolts Low impedance mike—0,3 millivolts; 600 ohm balanced line—0.1 volt. **Gain:** Microphone—123 db; Phono/Radio—83 db. **Regulation:** 25 volt and 75 volt line, no load-full load —3 db at 1 kc. **Hum and Noise:** Fundamental—80 db at rated output; Phono—70 db at rated output; Microphone —65 db. below rated output. **Input Impedance:** Microphone high impedance—0.5 meg; Phono/Radio—1 meg. **Speaker Outputs:** 4, 8. 16 ohms; 25 volt line — 18 ohms; 70 volt line — 140 ohms. **Booster/Tape Recorder Output:** 1 volt — low impedance. **Controls:** 2 microphone volume; 1 phono/radio fader; 1 master; 1 bass; 1 treble; 1 power on/off switch (chassis); 1 phono-mag\ switch; 1 bias adj; 1 hm adj. **Tone Controls:** Bass — 17 db at 50 cps; 14 db cut at 50 cps; Treble — 14 db boost at 15 KC; 15 db cut at 15 KC. **Power Consumption:** 115 watts at 117 volt AC (60 cycle). **Fuse:** 2 amp — 3AG slo blo. **Tubes:** (2)12AX7A: (1)6AV6; (2)6L6-GC; (1)5AR4/GZ34; 1 silicon rectifier for bias supply. **Dimen.:** 18″x6⅝″x10¾″. **List: $124.95**

MODEL FMA-20 20 WATT AMPLIFIER



Power Output (Rated): 20 watts at less than 5% distortion. **Peak Power Output** (Music Wave-Form Rating): 25 watts. **Frequency Response:** 20 to 20,000 cps. ±1 db. **Regulation:** 25 & 70v line; no load-full load, 3 db at 1 kc. **Inputs:** 1 microphone, 1 phono/radio (fader). **Gain:** 123 db microphone, 88 db phono. **Input Sensitivity:** Microphone 3 millivolts, phono 0.32 volts. **Hum and Noise:** Fundamental —78 db, microphone —57 db, phono —72 db. **Tone Control:** Treble cut: 2,500 cps at 3 db; 10,000 cps. at 12 db. **Output Impedance:** 4, 8, 16Ω. 70 volt line, **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of optional input transformer for 50Ω unbalanced or 200Ω balanced. **Controls:** (4) Two microphone volume, one phono-radio fader. One tone, one master, one bias adjustment. **Power Consumption:** 70 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 2—7189A, 1—6CA4/EZ81 and one selenium rectifier. **Shipping Weight:** 14 lbs. **Dimensions:** 13½″ W, 10¼″ D, 5¼″ H. **List: $92.50**

MODEL FMA-11 11 WATT AMPLIFIER



Power Output (Rated): 11 watts at less than 10% distortion. **Peak Power Output** (Music Wave-Form Rating): 14 watts. **Frequency Response:** 30 to 20,000 cps. ±2 db. **Regulation:** 25 & 70v line, no load-full load, 3 db at 1 kc. **Inputs:** 1 microphone, 1 phono/radio (fader). **Gain:** 120 db. microphone, 85 db phono. **Input Sensitivity:** Microphone 4 millivolts, phono 0.3 volts. **Hum and Noise:** Fundamental —75 db, microphone —56 db, phono —70 db. **Tone Control:** Treble cut: 2,500 cps at 3 db; 10,000 cps. at 13 db. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of input transformer for 50 ohms unbalanced or 150-250 ohms balanced. **Controls:** (3) One microphone volume, one phono-radio fader, one one with AC switch. **Power Consumption:** 60 watts at 117 volts, 60 cps. **Tubes:** 1—12AX7/ECC83, 1—6V4/TZ80, 1—6L6-GC. **Shipping Weight:** 13½ lbs. **Dimensions:** 10¾″x6¾″x6″.

NEW "ADD-ON" SYSTEM ACCESSORIES FOR POWER-FLEX SERIES

TWO CHANNEL MICROPHONE PRE-AMPLIFIER MP2

Model MP-2 permits the addition of two mike inputs to the amplifier as you need them. It may be used with high impedance mikes or low impedance mikes (when LZT transformer added). Unit mounts on top of 35, 65 or 100 watt amplifier and connects to special input plug on chassis of amplifier. Equipped with two separate volume controls, the MP-2 utilizes a 12AX7 twin triode for channel pre-amplification. Only 3″ x 4″ x 2″ the MP-2 is designed to be mounted on top of FANON-MASCO's new POWER-FLEX amplifiers. Weight: 2 lbs.

SPEAKER AREA SELECTOR CONTROL BOARD ASC-10

You can select any location or loudspeaker group to receive programming with the Model ASC-10.Up to **ten** different areas can be set to receive program from main amplifier source singularly or as a group. A special switch is provided to override the selective slide switches to provide a general "all-call" to all speaker areas. With the Selector-Control personnel can be paged in one area at a time without disturbing others. Unit mounts to top of any POWER-FLEX series amplifier and is 10″ x 4″ x 2″ high. Wt.: 2 lbs.

PRIORITY PAGING ELECTRONIC CONTROL PPC-1

A solid state electronic control device that automatically cuts out normal program source from amplifier to speakers in favor of one microphone for special announcements. The unit, Model PPC-1, is controlled by the mike on/off switch, remotely. There is no need to adjust levels or perform any switching at the amplifier. A high or low impedance mike with switch can be used. Plugs into 35, 65 or 100 watt amplifiers. PPC-1 is 2″ x 2″ x 3½″ high and weighs 8 ounces.

LOW IMPEDANCE MICROPHONE TRANSFORMER LZT

For use with 50 ohm unbalanced microphone or 200 ohm balanced mike input. Permits a low impedance microphone to be used at a long distance from the amplifier. Size: 2″ diam x 4″ high. Wt:1 lb.

BALANCED LINE WIRED MUSIC TRANSFORMER BMT

Adapts any FANON-MASCO 35, 65 or 100 watt amplifier for wired music reproduction. To be used with 500-600 ohm balanced line. 2″ dia. x 4″. Wt: 1 lb.

REFER TO CATALOG NO. 3 FOR COMPLETE SPECIFICATIONS ON PA AMPLIFIERS & SYSTEMS

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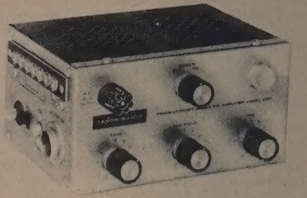
TRANSISTORIZED MOBILE AMPLIFIERS

Versatile, fully-transistorized mobile amplifiers ideally suited for continuous duty by Civil Defense, police, fire and other civic organizations where compact quality audio power is required. Their design and performance is unexcelled for every portable PA operation for carnivals, sporting events, yachting, buses and general mobile application.

MODEL 3527 27 WATT MOBILE AMPLIFIER

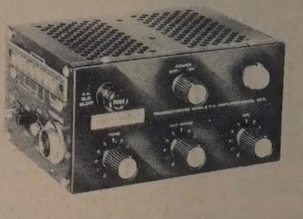


Exceptionally compact transistorized mobile amplifier for dash or glove compartment mounting where a high audio power is required. Operates on 12 volts DC with very low current drain in standby. Can be used with a 12 volt power supply from 110 volt AC. Complete with mounting fixtures. This unit is finished in black and satin chrome.

Power Output—27 watts at less than 10% distortion @ 1 kc. **Frequency Response:** 150 cycles to 10 kc. 3 db. **Inputs:** 1 microphone, 1 X-tal phono, 1 radio input (fed from radio receiver voice coil). **Gain:** 110 db—microphone; phono 70 db. **Input Sensitivity:** low impedance microphone (50-2,000 ohms) 0.5 millivolts for full output X-tal Microphone 3 millivolts full output. X-tal Phono 0.5 volts for full output. Radio 0.25 volts—for full output (from voice coil 3.2—16 ohms). **Hum and Noise:** 70 db.—below full output. **Tone Control:** Max. treble position—10 db, down at 4 kc. **Output Impedance:** 4, 8, 16 ohms. **Input Impedance**—Microphone 2,000 ohms, (aux), 50 K. ohms radio·3.2—16 ohms. **Controls:** (5): Microphone volume, radio or phono volume (mike-input may be mixed with radio or phono input), tone control, power on-off switch, radio-aux. selector slide switch (interaction between controls less than 1 db). **Power Consumption:** 3.5 amps @ 12.6 V for 27 watts output. **Transistors:** 2—2N408; 3—2N669. **Cable Connectors:** (not supplied) Microphone—Amphenol Plug #91-MC4M, phono—RCA type phono plug (Cinch-Jones #13A). Power plug and 7′ cable with battery clamps supplied. **Dimensions:** 6½″ W, 3⅛″ H, 4⅝″ D. **Shipping Wt:** 4 lbs. **List $104.95**

Power Supply — Model PS-27 with 117 volt AC primary and 12.6 volt output. **Ship. Wt.** 3¼ lbs. **List: $62.50**

MODEL 3512 12 WATT MOBILE AMPLIFIER

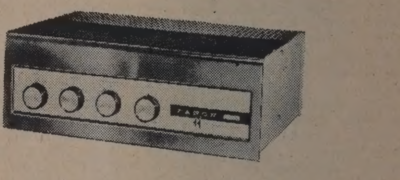


High power in a small package! Here's a fully transistorized mobile featuring high gain and a minimum of distortion. Can be used with 12 volt power supply from 110 volt AC.

Power Output (Rated): 12 watts at less than 10% distortion. **Frequency Response:** 150 cycles—10 kc, 3 db down. **Inputs:** One microphone, one X-tal phono, (aux.) radio input (to be fed from radio receiver voice coil). **Gain:** Microphone 105 db, phono 65 db. **Input Sensitivity:** Low impedance microphone (50-2000 ohms). 0.5 millivolts for full output. X-tal microphone 3 mv for full output. X-tal phono 0.5 volts for full output. **Hum and Noise:** 70 db below full output. **Tone Control:** Max. treble position: 10 db. down at 4 kc, 3 db down at 1.5 kc.**Output Impedance:** 4, 8 and 16 ohm. **Input Impedance:** Microphone 2000 ohms, Phono 50 K ohms, Radio 3.2—16 ohms. **Controls** (5): Microphone volume, aux. radio volume, tone control, power on-off switch, radio-aux. selector slide switch, (interaction between controls less than 1 db). **Power Consumption:** 24 watts at 12.6 volts (2A) for 12 w. output. **Transistors:** Two—2N408, one—2N669, two—3577. **Cable Connectors:** (not supplied) Microphone input: Amphenol #91-MC4M. **Phono:** RCA type phono plug (Cinch-Jones #13A). Power plug and 7 ft. cable with battery clamps supplied. **Shipping Wt:** 4 lbs. **Dimensions:** 6½″ W., 3⅛″ H., 4⅝″ D. **List: $87.50**

Power Supply — Model PS-27 with 117 volt AC primary and 12.6 volt output. **Ship. Wt.** 3¼ lbs. **List: $62.50**

MODEL FMM-35 35 WATT MOBILE AMPLIFIER WITH POWER SUPPLY

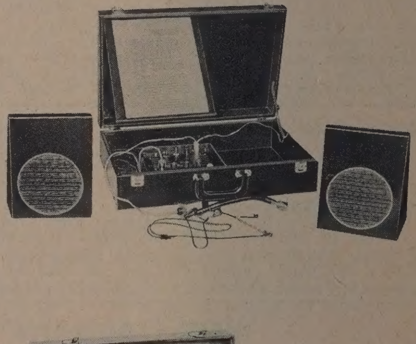


May be operated on 12 volts DC or 117 volts AC. A medium-high power transistorized amplifier designed to give maximum efficiency and dependable mobile service. Compactly styled with tamper-proof input and output connectors, the 3535 utilizes conservatively-rated transistors that operate at low temperature under continuous duty. **Power Output** (Rated): 35 watts at less than 10% distortion. **Frequency Response:** 150—10,000 cycle—3 db down. Inputs: (1) low imp. mic.; (1) 600 ohm balanced line (optional); (1) high impedance mic.; (1) phono. **Gain:** microphone: 105 db, phono, 85 db. **Input Sensitivity:** low impedance mic.—0.5 millivolts for full output; high impedance mic.—4 millivolts for full output; phono—0.5 volts for full output. **Hum and Noise:** Fundamental: 65 db below full output. **Microphone:** 55 db below full output. **Phono:** 62 db below full output. **Tone Control:** Treble cut 3 db at 2000 cps, 15 db at 1500 cycles. **Output Impedance** 4, 8, 16 ohms and 70 volt line. **Input Impedance:** low imp.—mic.—200 ohm; phone—0.5 meg.; high imp. mic.—0.5 meg. **Controls:** one microphone volume. One phono volume. One tone control with "power on-off" switch. **Transistors:** (7) 2 — 2N1544, 5 — 2N408. **Power Consumption:** 55 watts AC at 0.5 amps. 12.6 V D.C. at 4.3 amps. **Shipping Wt:** 16 lbs. **Dimensions:** 13½″ W., 10¾″ D., 5¼″ H. **List: $174.95**

ATTACHÉ CASE COMPLETE PORTABLE P.A. SYSTEMS

They can be set up in seconds and are complete with microphone, speakers, transistorized amplifier and lectern. Each is a perfect portable PA for sales meetings, speeches, church functions, square dances . . . anywhere you need "instant" sound.

MODEL FL-27 27 WATTS — DUAL SPEAKERS

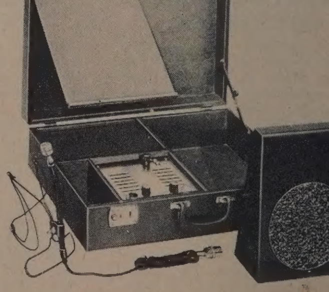


Distinctively styled attaché case finished in black non-scuffing vinyl. System contains powerful 27 watt amplifier, two separate 8″ speakers in their own enclosures (each with 25′ cable) and high impedance crystal microphone with chest harness. Two separate speakers provide greater coverage. System has phono input for use with phonograph, tape recorder or radio tuner for dances, entertainment, etc. **Power Output:** 27 W at 1 kc at less than 10% distortion. **Frequescy Response:** 100 cycle—10 kc, 3 db down. **Inputs:** (1) microphone, (1) auxiliary (phono, tape, pre-amp or radio tuner). **Gain:** microphone 100 db; phono 70 db. **Input Sensitivity:** X-tal microphone, 3 millivolts for full output. **Auxiliary:** 0.5 volts for full output. **Hum and Noise:** 70 db below full output. **Tone Control:** max. treble position 10 db down at 4 K.C., 3 db down at 1.5 K.C. **Speaker**—(2) 8″ — 8 ohm — 3.16 oz. magnet — each speaker supplied with 25′ of extension cord. Microphone crystal, high impedance — neckband type with small gooseneck for close talking. 20 ft. of cable. **Controls:** (4) (1 mic. volume; (1) aux. volume) (1) power "on-off-external" switch; (1) tone control. **Transistors:** (5), (2) 2N408; (3) 2N669. **Cable Connectors:** Microphone plug, Amphenol #91-MC4M (supplied) auxiliary—RCA type phono plug (Cinch-Jones #13A). **Average Current Drain:** 0.5 Amps at 12.6 V. **Batteries:** (2) 6.0 volt Eveready #731 or equivalent (not supplied). **Case:** Portable wood case with adjustable lectern stand. **Dimensions:** 20¼″ W., x 5⅜″ H. x 12¾″ D. **Shipping Wt.:** 19 lbs. **Color:** Black vinyl. **List: $187.50**

Accessories Model PS-2: 117 V AC power supply. To eliminate need for batteries. **List: $62.50**

Model RMC — remote volume control for microphone. **List: $17.50**

12 WATTS — SINGLE SPEAKER MODEL FL-12



Handsomely styled attaché case in rich ginger brown non-scuffing vinyl equipped with a single 8″ speaker in matching enclosure with 25′ of extension cord. System is complete with transistorized 12 watt amplifier, high impedance microphone, chest harness and lectern. Case will accommodate an additional 8″ speaker enclosure. **Power Output:** 12W at 1 K.C. at less than 10% distortion. **Input Sensitivity:** X-tal microphone 3 mv. for full output. **Hum and Noise:** 70 db below full ouput. **Tone Control:** Max. treble position: 10 db down at 4 K.C.; 3 db down at 1.5 K.C. **Speaker:** 8″ — 8 ohm — 3.16 oz. magnet. **Microphone:** crystal, high impedance — neckband type with small gooseneck for close talking. 20 ft. cable. **Transistors:** (5) (2) 2N408; (2) 3577 (RCA); (1) 2N669. **Cable Connectors:** microphone plug — Amphenol #91-MC4M (srpplied). **Power Supply:** 12.6 volt DC. **Current Drain:** 0.5 amps aver. **Batteries:** (2) 6.0 volt Eveready #731 or equivalent (not supplied). **Case:** Portable wooden case with adj. lectern stand. **Dimensions:** 20¼″ W., 5⅜″ H., 12¾″ D. **Shipping Wt.:** 15 lbs. **Color:** Ginger Brown Vinyl. **Note:** Equipment supplied without batteries. **List: $154.95**

Accessories Model PS-2: 117 V AC power supply to eliminate need for batteries. **List: $62.50**

Model RMC — Remote volume control for microphone. **List: $17.50**

MODEL FLS-8 — ADDITIONAL LOUDSPEAKER

Companion 8″ speaker and enclosure with 25′ of connecting cable for speaker unit in Model FL-12 system. 8¾″ x 11¾″ x 4″ in matching ginger brown vinyl. Nests with other speaker in case. **List: $17.50**

REFER TO CATALOG NO. 3 FOR COMPLETE SPECIFICATIONS ON PA AMPLIFIERS & SYSTEMS

Trade Discount Applies To List Prices Only

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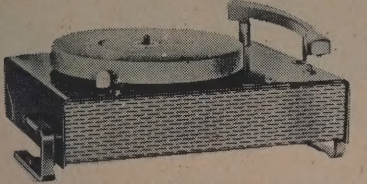
FANON-MASCO

PA ACCESSORIES AND ELECTRONIC SPECIALTIES



UNIVERSAL 4-SPEED PHONO MODEL 3600

Phonograph attachment designed for use on all FANON-MASCO amplifiers from 11 to 100 watts. Easily mounts to top of amplifier with two set screws. Heavy duty uniform speed motor with dynamically balanced turntable with constant-contact disc mat. Monaural ceramic dual sapphire cartridge is included. Four speed 16, 33, 45 and 78. Overall: 12" x 9¼" x 4½". Wt.: 10 lbs. $44.95 List.

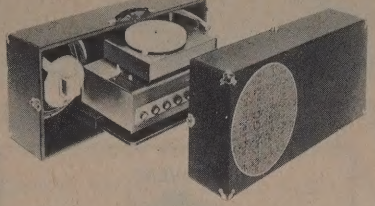
3612—Same as above for 12 Volt DC. For use with transistor mobile amplifiers. $57.50

3604—Automatic record changer with four speeds. For use on 117 V AC. Overall: 12½" x 12½" x 8". Wt.: 12 lbs. $62.50 List

FANON-MASCO

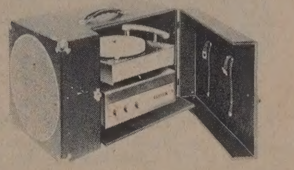
MODEL PHA-3
TRANSISTORIZED TELEPHONE AMPLIFIER with EXTENSION SPEAKER

Frees hands while telephoning and fills room with sound for conferences. 3 transistors. Uses one 9 v. battery included. 10" x 4½" x 3". Ship wt. 4 lbs. List. $19.95.



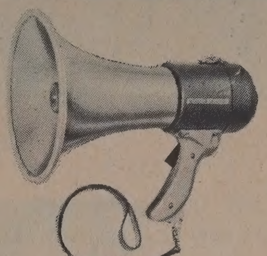
Model S2
PORTABLE PA SYSTEM CASE (Dual speakers)

Handsome split carrying case with two 12" speakers, each with 25' connecting cable. Accommodates FANON amplifier models 3320, 3335, 3345 plus the model 3600 turntable. Durable fashion fabric covering. Size: 31" x 15" x 15". $84.95.



Model S1
PORTABLE PA SYSTEM CASE (Single speaker)

Durable, compact carrying case with one 12" speaker and 25' connecting cable. Accommodates FANON model 3311 or 3320 amplifiers and 3600 turntable. Durable fabric. 23" x 15" x 15" $49.95.



FANON MEGAVOX MODEL MV-8
Transistorized Megaphone

Fully portable lightweight megaphone with 600 yard range. Indispensable for police, fire, CD, industry communication. Lightweight aluminum, baked enamel finish, waterproof microphone, carrying strap. No connecting cables or power supply required. Pistol grip trigger and volume control.

Power Output: 5 watts-10 watts peak. **Amplifier:** Five transistors including 2 RCA 3577 in push-pull class B. **Current:** Eight 1½V flashlight batteries "C" size with life of 10 hours continuous average. **Weight:** 4.6 lbs. **Size:** 9" x 14". $112.50.

MEGAVOX MODEL MV-1

Popular and compact, this megaphone has range of approx. 300 yds. Powered by 4 "D" size flashlight cells. Separate "low" and "high" volume switches. Over 6 hours continuous operation. **Weight:** 3¼ lbs. **Size:** 6½" x 12½". **$44.95**

1010 SERIES DIAL TELEPHONE SYSTEM

SELECTIVE TALKING
SELECTIVE RINGING

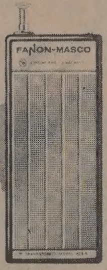
1010
1010W
101

Deluxe, precision-made telephones that permit as many separate simultaneous conversations as there are pairs of telephones in an all-master system. Conference calls possible. Up to 11 master phones or 1 master with 10 subs per installation. Masters and remotes may be intermixed. Supplied with junction cable and terminal box.

1010—Master dial telephone $74.95.
1010W—Wall mount master dial telephone $87.50
101—Sub station telephone $47.50.
101W—Wall mount substation telephone $52.50
PSA-88—115v. AC power supply for above phone. $29.95.
PR-10—Special paging relay activated by a predesignated position on master phones that closes circuit to P.A. paging system. List $37.40

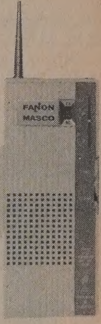
REFER TO CATALOG NO. 5 FOR COMPLETE SPECIFICATIONS ON TELEPHONES

CITIZENS BAND TRANSCEIVERS



Model FCB-99A — A pair of precision made, hand-held transceivers complete with carrying cases, earphones and batteries. 9 transistors. Metal case. 51" antenna. Crystal controlled transmitter and receiver. Up to 3 mile range. List $124.95. **Model FCB-9A**—Single transceiver with accessories. List $67.40.

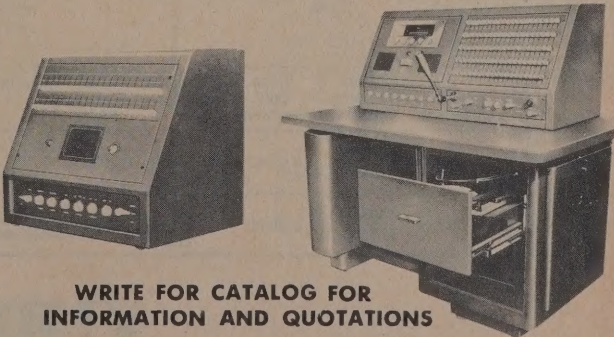
Model RCB-100 — A pair of transceivers complete with carrying cases, earphones and batteries. Built-in AM radio in each provides communication and entertainment. 10 transistors. Hi-impact case, 48" antenna. Crystal controlled transmitter and receiver. Up to 5 mile range. List $141.95. Model RCB-10—Single transceiver with radio, accessories included. List $84.95.



FCB-9A

RCB-10

CENTRAL CONTROL SOUND, INTERCOM AND PROGRAM DISTRIBUTION EQUIPMENT.



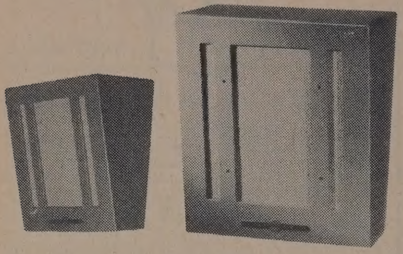
WRITE FOR CATALOG FOR INFORMATION AND QUOTATIONS

FANON ELECTRONIC INDUSTRIES, INC NEWARK NEW JERSEY
Warehouses in Los Angeles, San Francisco, Dallas, Seattle, Honolulu and Toronto

All prices shown are list. Add 5% West of the Rockies. For complete details on speakers, microphones, stands, drivers, baffles, etc., write to the factory.

SIGNET SOUND EQUIPMENT

SIGNET SPEAKER HOUSINGS



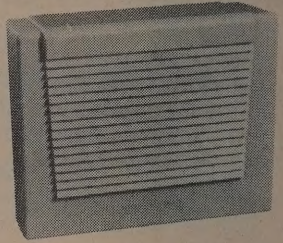
MODELS RH-34 and RH-54. Rugged tilt-type wall mounting cabinets in Desert Sand finish. RH-34 designed for 8″ speaker. RH-54 designed for 12″ speaker. RH-34 easily converts to two-way use by addition of RA-8 Back Panel.
LIST PRICE: RH-34 $12.36
RH-54 $20.08

DRIVERS

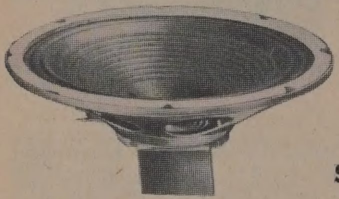
Model GDDC-30T. INPUT CAPACITY: 30 watts. FREQUENCY RANGE: 150-10,000 cps. VOICE COIL: 16 ohms. Built-in transformer.
LIST PRICE: $41.00

Model GDDC-40. INPUT CAPACITY: 40 watts. FREQUENCY RANGE: 140-11,000 cps. VOICE COIL: 16 ohms.
LIST PRICE: $40.00

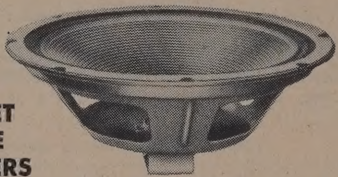
GDDC-30A. INPUT CAPACITY: 30 watts. FREQUENCY RANGE: 150-10,000 cps. VOICE COIL: 16 ohms.
LIST PRICE: $31.00



MODEL RH-28D. Modern plastic housing for 8″ cone speakers. Molded in solid Desert Sand color. Will withstand extreme abuse without breakage. Designed with sloping front and horizontal louvres. Bracket available for wall mounting. **LIST PRICE: $10.30**



SIGNET CONE SPEAKERS

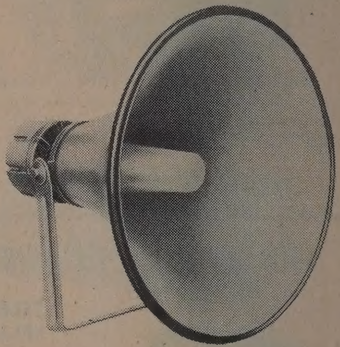


MODEL RC-27 8″ PERMANENT MAGNET SPEAKER

MODEL RC-58 12″ PERMANENT MAGNET SPEAKER

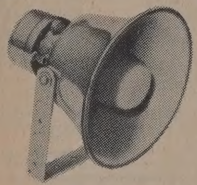
Both speakers employ high-efficiency Alnico V magnets, aluminum voice coil forms and one-piece ribbed molded diaphragm cones. Model RC-27: FREQUENCY RESPONSE: 55-13,000 cps; POWER RATING: 10 watts (program); CONE RESONANCE: 105 cps; FLUX DENSITY: 8,000 gauss; VOICE COIL IMPEDANCE: 8 ohms; SENSITIVITY: 88 db; SIZE: 8⅛″ dia., 3½″ deep; WEIGHT: 2 lbs. **LIST PRICE: $8.25**

Model RC-58: FREQUENCY RESPONSE: 55-13,000 cps; POWER RATING: 16 watts (program); CONE RESONANCE: 80 cps; FLUX DENSITY: 8,500 gauss; VOICE COIL IMPEDANCE: 8 ohms; SENSITIVITY: 85 db; SIZE: 12⅛″ dia., 4¾″ deep; WEIGHT: 2½ lbs. **LIST PRICE: $14.45**

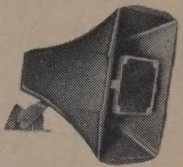


SIGNET RE-ENTRANT HORN

MODEL GDAR-150. 21″ diameter, 17″ deep (less driver).
LIST PRICE $34.00



COMPLETE RE-ENTRANT SPEAKERS

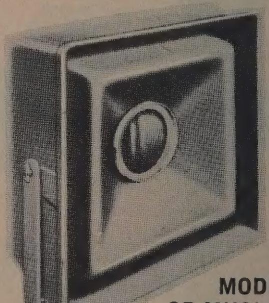


MODEL GD-844 RE-ENTRANT PROJECTOR. For general purpose use, indoor or outdoor. Rugged, with removable driver and excellent voice reproduction.
LIST PRICE: $36.50

Small re-entrant speakers ideal for paging & intercommunication under adverse weather and noise conditions.

MODEL GDPA-15 PAGING SPEAKER. Attractive styling and unusually rugged. Excellent intelligibility. Replaceable driver, unique swivel mount.
LIST PRICE: $34.00

Model	Size	EIA Pressure Rating	Power Handling Capacity	Voice Coil impedance	Frequency Response	Distribution Angle	Mounting	Weight	Finish
GD-844	9⅞″ diameter x 8³⁄₁₆″ deep	56 db	30 watts program	8 ohms	250-13,000 cps	90°	Universal "U" bracket	5⅝ lbs.	Mesa Tan
GDPA-15	9″ H x 6″ W x 9½″ D	58 db	15 watts program	8 ohms	350-13,000 cps	120°	Universal Swivel	4½ lbs.	Mesa Tan



MODEL GD-MUSICASTER

Rugged 8″ Radax speaker delivers crisp, clear voice and full, rich music over a 120° area.
LIST PRICE $100.00

GD

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SIGNET SOUND EQUIPMENT

SIGNET AMPLIFIERS

Audio perfection depends on careful selection of the right amplifier for the specific job. The wide selection, plus unsurpassed flexibility, quality, dependability and economy of Signet Amplifiers, assures the finest in audio.

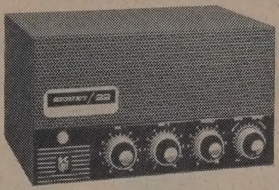
SIGNET/10

(illustrated with optional SAC-10 top cover) POWER OUTPUT: Rated 10 watts. RESPONSE: 30 to 20,000 cps ± 2 db. REGULATION: 3.0 db at 1 kc. INPUTS: 1 microphone, 1 phono-radio. GAIN: 115 db microphone, 77 db phono-radio. INPUT SENSITIVITY: Microphone 8 millivolts for rated output. Phono-radio 0.4 volts for rated output. HUM AND NOISE: Fundamental—75 db, microphone—50 db, phono-radio—75 db. TONE CONTROL: Continuously variable, provides 18 db attenuation at 10 kc. OUTPUT IMPEDANCES: 4, 8 ohms, 25 volt line. POWER CONSUMPTION: 60 watts at 120 volts, 60 cps. TUBES: 1-6AV6, 1-6AU6, 1-6L6GB, 1-5Y3GT. SHIPPING WEIGHT: 12 lbs. 8 oz. DIMENSIONS: 11¼″ W, 8″ D, 6″ H.

LIST PRICE: $63.50 (without top cover)

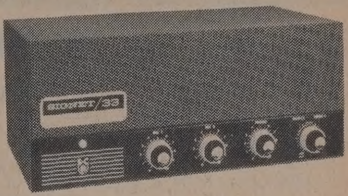
SAC-10 top cover for Signet/10

LIST PRICE: $6.70



SIGNET/22

POWER OUTPUT: Rated 22 watts. RESPONSE: 30 to 20,000 cps ± 2 db. REGULATION: 3.0 db at 1 kc. INPUTS: 2 microphone (2 meg. input impedance), 1 phono-radio (0.5 meg. input impedance). GAIN: 122.5 db microphone, 80 db phono-radio. INPUT SENSITIVITY: Microphone 7 millivolts for rated output. Phono-radio 0.35 volts for rated output. HUM AND NOISE: Fundamental—75 db, microphone—55 db, phono-radio—70 db. TONE CONTROL: Continuously variable, provides 15 db attenuation at 10 kc. OUTPUT IMPEDANCES: 4, 8, 16 ohms, 70 volt line. POWER CONSUMPTION: 75 watts at 120 volts, 60 cps. TUBES: 1-7025, 1-12AX7/ECC83, 2-6BQ5/EL84, 1-5Y3GT. SHIPPING WEIGHT: 13 lbs. 8 oz. DIMENSIONS: 11¼″ W, 8″ D, 6″ H. **LIST PRICE: $92.70**



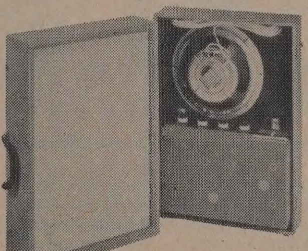
SIGNET/33

POWER OUTPUT: Rated 33 watts. RESPONSE: 30 to 20,000 cps ± 2 db. REGULATION: 2.5 db at 1 kc. INPUTS: 2 microphone (2 meg. input impedance); 1 phono-radio (0.5 meg. input impedance). GAIN: 122.5 db microphone, 80 db phono-radio. INPUT SENSITIVITY: Microphone 7 millivolts for rated output; Phono-radio 0.35 volts for rated output. HUM AND NOISE: Fundamental—75 db, microphone—55 db, phono-radio—70 db. TONE CONTROL: Separate continuously variable bass and treble controls. Bass control: 13 db boost at 50 cps; 15 db cut at 50 cps. Treble control: 13 db boost at 10 kc.; 18 db cut at 10 kc. OUTPUT IMPEDANCES: 4, 8, 16 ohms, 70 volt line. POWER CONSUMPTION: 120 watts at 120 volts, 60 cps. TUBES: 1-7025, 1-12AX7, 1-6U8, 2-6L6GB, 1-5U4GB. SHIPPING WEIGHT 24 lbs. DIMENSIONS: 16½″ W, 10″ D, 8″ H. **LIST PRICE: $113.30**

SIGNET/70

POWER OUTPUT: Rated 70 watts. RESPONSE: 20 to 20,000 cps ± 2 db. REGULATION: 3 db at 1 kc. INPUTS: 2 microphones (2 meg. input impedance). 1 phono-radio (0.5 meg. input impedance). GAIN: 127.6 db microphone, 85.9 db phono-radio. INPUT SENSITIVITY: Microphone 6 millivolts for rated output. Phono-radio 0.35 volts for rated output. HUM AND NOISE: Fundamental—75 db, microphone—55 db, phono-radio—70 db. TONE CONTROL: Separate continuously variable bass and treble controls. Bass Control: 15 db boost at 50 cps; 14 db cut at 50 cps. Treble Control: 13 db boost at 10 kc; 16 db cut at 10 kc. OUTPUT IMPEDANCES 4, 8, 16 ohms, 70 volt line. POWER CONSUMPTION: 180 watts at 120 volts, 60 cps. TUBES: 1-7025, 1-12AX7, 1-6U8, 2-6550, 1-5U4GB, 1-5Y3GT. SHIPPING WEIGHT: 31 lbs. DIMENSIONS: 16½″ W, 10″ D, 8″ H.

LIST PRICE: $175.10



MODEL SPC-12 PORTABLE CASE

Includes 2 high-quality 12″ speakers in split portable bafflles which double as a carrying case for amplifier. Mounts Signet "22" or "33". Includes 25 feet of cable for each speaker. 18″ W x 24½″ H x 11½″ D.

LIST PRICE: $86.50

Transistor Amplifier
VOLUME
SIGNET/88

SIGNET/88 TRANSISTOR MOBILE

POWER OUTPUT: 8 watts, less than 5% distortion. RESPONSE: 100 to 10,000 cps ± 3 db. INPUTS: 1 microphone, medium impedance (150-600 ohms); 1 phono, high impedance (500,000 ohms). GAIN: 97 db. NOISE LEVEL: 65 db below rated output. CONTROLS: On-off Switch, microphone-phono selector switch, gain control. OUTPUT IMPEDANCES: 4, 8, 16 ohms. POWER SUPPLY: 12 volts car battery or dry battery pack, current drain 0.15 amperes standby, 0.3 amperes speech, 0.5 amperes music. Power leads, 3 feet, identified for polarity; positive lead has in-line fuse. TRANSISTORS: 1-2N214, 2-2N226, 2-2N257. MOUNTING: "L" brackets furnished for fastening to bulkheads. WEIGHT: 3 lbs. DIMENSIONS: 6⅝″ W, 4⅛″ H, 3⅛″ D. **LIST PRICE: $115.35**

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SIGNET SOUND EQUIPMENT

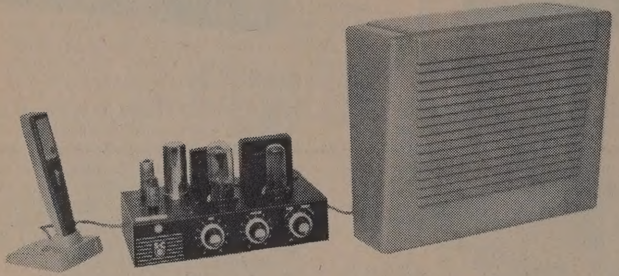
SIGNET SOUND

NEW, LOW-COST, COMPLETE . . . THE MOST FLEXIBLE

Signet Sound Equipment is designed and engineered to provide economical sound reinforcement for many simplified applications in business and industry. These systems are complete, ready-to-use packages that offer tremendous flexibility, easy installation, and excellent fidelity.

SIGNET COMPONENT ASSEMBLIES

A FEW OF THE MANY POSSIBLE SYSTEMS:



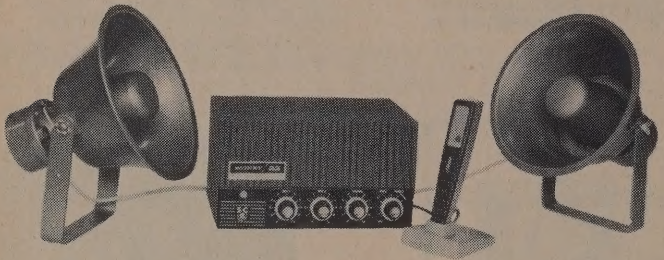
SIGNET/10 ASSEMBLY

Budget-priced package for many applications. A few examples: restaurants, stores, meeting rooms, taverns, offices, warehouses. Unbeatable in its price range.

TYPICAL INDOOR SYSTEM:

• Signet/10 Ten-Watt Amplifier	**LIST PRICE: $63.50** without top cover
• GD-727SR High Impedance Microphone	**LIST PRICE: $20.00**
• RH-28D Speaker Housing	**LIST PRICE: $10.30**
• RC-27* 8″ Speaker	**LIST PRICE: $ 8.25**

*Four speakers may be used without line-matching transformers; up to 20 speakers with line-matching transformers.



SIGNET/22 ASSEMBLY

A perfect matching of high-quality components for any number of applications. A few of many possibilities include: freight docks, amusement parks, parking lots, gymnasiums, garages, bus terminals, railroad stations.

TYPICAL OUTDOOR SYSTEM:

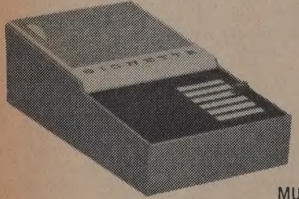
• Signet/22 Twenty-two Watt Amplifier	**LIST PRICE: $92.70**
• GD-727SR High Impedance Microphone	**LIST PRICE: $20.00**
• GD-844* Re-entrant Speakers with removable Driver Units	**LIST PRICE: $36.50**

*Four speakers may be used without line-matching transformers; up to 20 with line-matching transformers.

NEW SIGNETTE

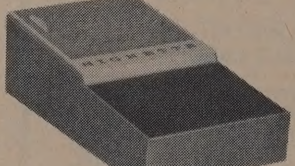
LOUDSPEAKING INTERCOM.

Transistorized economies in space and cost produce a compact and modestly priced intercom of surprising quality. Ideal in stores, professional offices, small business, restaurants and grills, garages and auto dealers. Both master and sub-station units may be used in a variety of combinations. Accessory horns may be applied for extended coverage. Transistor operation provides instant warm-up and low current consumption.



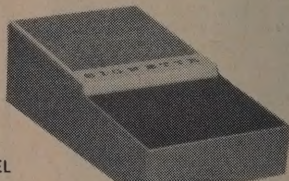
SIGNETTE MODEL
(SIC-7M)
MULTI-MASTER INTERCOM

Selects 6 stations, master-to-master, master-to-remote, or in mixed masters-and-remotes applications. Transistor amplifier, individual power supply, station selector, input volume control, talk-listen panel. **LIST PRICE: $49.95**



SIGNETTE MODEL
(SIC-1M)
SINGLE MASTER INTERCOM

Master to remote. Transistor amplifier, individual power supply, input volume control, talk-listen panel. Handsfree reply from remote station also provided. **LIST PRICE: $45.00**



SIGNETTE MODEL
(SIC-1R)
REMOTE INTERCOM

Remote station for use with SIC-7M or SIC-1M master stations. Built-in speaker-microphone. Talk-listen panel. Can operate as handsfree reply station. **LIST PRICE: $14.50**

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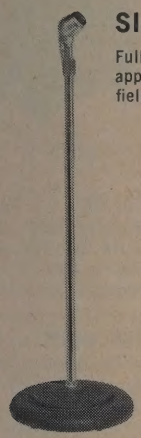
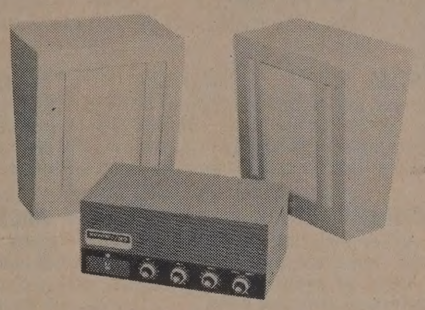
SIGNET SOUND EQUIPMENT



SIGNET/33 ASSEMBLY

Full fidelity performance, with superior audio reproduction. A few of many applications: industrial plants, hotels, motels, hospitals, auditoriums, field houses, churches.



Typical Indoor System:

• Signet/33 Thirty-three Watt Amplifier.	**LIST PRICE: $113.30**
• EV-641 Dynamic Microphone.	**LIST PRICE: $35.00**
• MS-12 Floor Stand.	**LIST PRICE: $13.90**
• RH-54 Speaker Housings.	**LIST PRICE: $20.08**
• RC-58* 12" Speakers.	**LIST PRICE: $14.45**

*Four speakers may be used without line-matching transformers; up to 60 speakers with line-matching transformers.

SIGNET/70 ASSEMBLY

Practically unlimited applications, with power to spare for all situations. A few examples: stadiums, playgrounds, race tracks, athletic fields, schools, auditoriums, factories, airports.

Typical Outdoor System:

• Signet/70 Seventy-Watt Amplifier.*	**LIST PRICE: $175.10**
• GD-641 Dynamic Microphone.	**LIST PRICE: $60.00**
• GDAR-150 Re-entrant Horn with GDDC-30A Driver Units.	**LIST PRICE: $34.00 (GDDC-30A)**

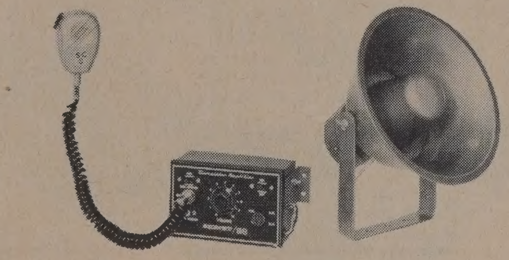
*Handles up to 25 horns with GDDC-30T Driver Units with built-in line-matching transformers.

SIGNET/88 MOBILE ASSEMBLY

Truly mobile-portable package which provides superb coverage over a wide area in countless applications. For example: police, civil defense, sports events, tour guides, field days, etc. Transistor operation provides instant warm-up and low current consumption.

System Features:

• Transistorized SAM-88 8-Watt Amplifier.	**LIST PRICE: $115.35**
• SMD-61 Dynamic Microphone.	**LIST PRICE: $34.00**
• GD-844* Re-entrant Speaker with removable driver unit.	**LIST PRICE: $36.50**

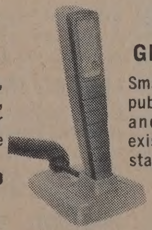


*Additional GD-844 Speakers may be used.

MICROPHONES

MODEL SMD-61 DYNAMIC

Close-talking, medium impedance, hand-held type. Designed for clear, natural voice reproduction. Ideal for mobile or portable use. Complete with coiled cord and connector.
LIST PRICE: $34.00



MODEL GD-729SR CERAMIC

Small and slim. Excellent for public address and paging, and where random noise exists. Complete with desk stand and a floor adapter.
LIST PRICE: $26.50

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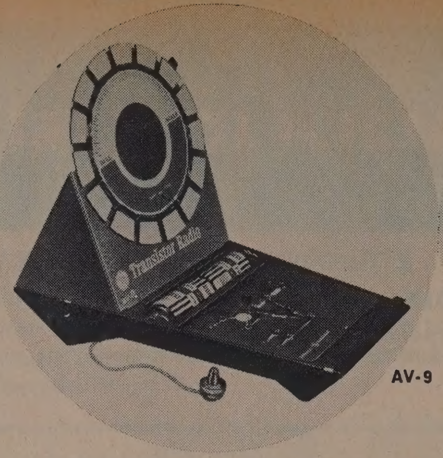
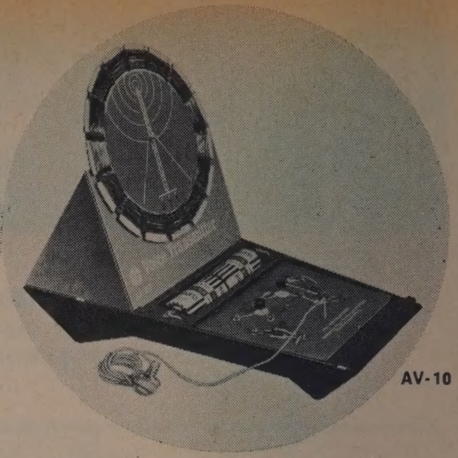
ADD-VENTURE KITS

GE ELECTRONICS


AV-9


AV-10

CODE BROADCASTER: AV-1 — Code can be transmitted over any AM home radio. One-transistor circuit with real electronic parts provides a signal that can be received on any AM radio up to 300 feet without connecting wires.

MAGNETICS IN ACTION: AV-2 — Over 10 experiments in magnetism. Includes compass, test probes, magnets, and parts tray.

WEATHER STATION: AV-3 — Includes a barometer, outdoor thermometer, rain-all gauge, and electronic rain detector. One-transistor electronic circuit connects to detector unit outdoors that activates a light when rain hits detector.

ELECTRICITY IN ACTION: AV-4 — Over 12 experiments of electricity in action. Includes lights, buzzer, test probes. Real electronic parts.

ALARM SYSTEM: AV-5 — Transistorized circuit operates alarm that is audible or visual from a buzzer or light. Detects opening doors or windows, lifted objects, steps. Warning flag drops when circuit is triggered.

MOTOR GENERATOR: AV-6 — Includes 5 motors, 7 power experiments. Revolving color wheels create array of colors that change as speed of motor is varied. Includes a motorized guessing game.

ASTROSCOPE: AV-7 — Puts satellite into orbit. Controlled with variable-speed motor.

LITE-WRITER: AV-8 — Writes or draws on a phosphorescent screen with a beam of light. Screen glows in dark. Includes marking pencil, acetate tracing sheet, parts tray, 6 constellation cards.

TRANSISTOR RADIO: AV-9 — Features a high-gain G-E transistor and includes a crystal diode. Sensitive dynamic earphones. All parts provided. Manual tuner to pull in strongest signals.

VOICE TRANSMITTER: AV-10 — Kit complete with sensitive dynamic microphone. Broadcasts a voice up to 30 feet. Uses two powerful G-E transistors. Antenna wire and ground wire included.

Kits do not include batteries. All necessary tools included in each kit, together with a comprehensive instruction manual. Components subject to change at manufacturer's discretion. All kits are 12 x 16 x 2 in. Packed 12 sets per carton. Approx. shipping weight: 17 lbs. Suggested retail price: $3.98 per kit.

EDUCATIONAL PROJECTS GE ELECTRONICS

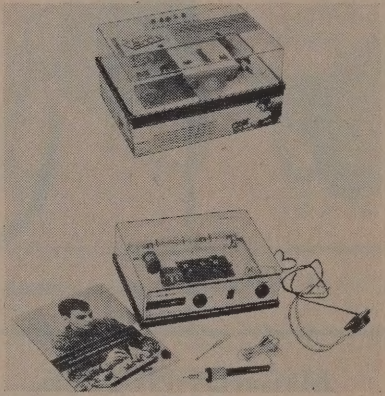
BASIC TRANSISTOR LAB: EL-10 — Teaches fundamentals of transistors and radio. Contains parts for basic experiments in transistor circuits, radio receivers and tuning systems. Retail price about $6.95.

ELECTRICITY LAB: EL-20 — Includes twenty-five experiments in electricity and magnetism, including magnetic fields, telegraphy, static electricity, and electron flow. Teaches basic principles in accordance with tested science teaching methods. Retail price about $14.95.

ADVANCED ELECTRONICS LAB: EL-30 — Teaches principles of electronics through construction of radio receivers, voice transmitters, electronic relay, proximity alarm. Over 50 experiments in electricity. Retail price about $39.95.

ELECTRONICS LAB: EL-40 — Includes 30 experiments ranging from basics of applied electricity to engineering of electronic devices. Teaches theories and practical application of the transistor, oscillators, receivers, transmitters. Retail price about $19.95.

EF-140


EF-150

PROJECT: TRANSISTOR RADIO: EF-110 — Construction of a self-contained radio receiver based on the transistor. Authoritative manual combines assembly instructions with a simple course in basic radio principles. Retail price about $9.95.

PROJECT: TRANSMITTER: EF-120 — Teaches the basic principles of radio transmission by illustrated experiments as well as by construction of this three-transistor radio transmitter. Retail price about $19.95.

PROJECT: INTERCOM: EF-130 — A three-transistor intercom which can operate over distance limited only by the length of connecting wires. Construction illustrates transistor amplifier principles. No soldering required. Retail price about $19.95.

PROJECT: ANALOG COMPUTER: EF-140 — Teaches electronics and mathematics through construction of analog computer and its use in solving problems; includes three sets of dial scales, accurate audio indicator with three-transistor amplifier circuit. Retail price about $29.95.

PROJECT: SHORTWAVE RADIO: EF-150 — Teaches the principles of modern superheterodyne radio. This five-transistor unit can receive foreign stations, amateur and police broadcasts. Has a frequency oscillator for code reception. Teaches soldering techniques with low-heat soldering iron and solder supplied. Retail price about $29.95.

READY SETS

PORTABLE TRANSISTOR RADIO: S-15 Authentic G-E Portable Transistor Radio can be built in one hour. Includes 5 transistors plus diode, prealigned IF amplifiers, ferrite antenna, 3½" G-E magnetic speaker. Powered by a No. 266/9-volt battery. Rugged Texon carrying case. Retail price about $21.95.

NEWCOMB

PORTABLE PHONOGRAPHS &
TRANSCRIPTION
PLAYER / P. A. SYSTEMS

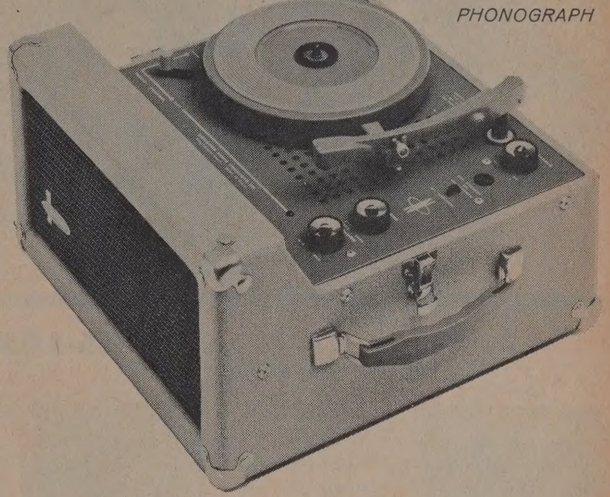
R SERIES

Efficient teaching tools of moderate cost and excellent quality, Newcomb R Series models are built with many extra features for convenience, performance, safety, and reliability. All are UL approved. All are transformer-powered for maximum safety and best performance. All parts are made in the U.S.A. Handy bid specifications are available from the factory to authorized personnel. Printed instruction booklet is supplied with each unit. Condensed instructions, sealed in plastic, permanently attached inside lid. SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

R-124V variable speed 4 speed — R-124 fixed speed 4 speed

MONOPHONIC

PHONOGRAPH



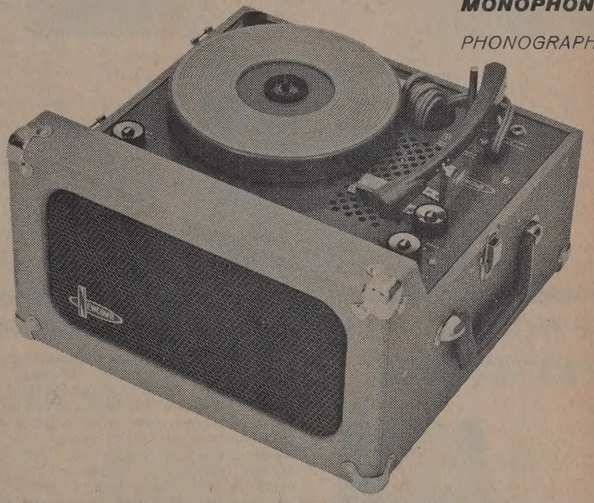
The Newcomb Model R-124V high fidelity, transformer-powered classroom phonograph is an extraordinary combination of ruggedness and high fidelity sound...an outstanding value. It has Newcomb's four-speed, variable-speed motor; big two-way, 9" oval, dual-cone high fidelity loudspeaker; "Bi-Coupled" 10 watt output system; jeweled pilot light; "Power Point" type plug-in ceramic high fidelity cartridge; rubber record mat and "Twist-up" 45 center spindle; jack for external speaker, headphones, or Newcomb Headphone Listening Center Accessory; idler release interlocked with separate motor switch; spring-suspension feet, Hideaway cord compartment, bass-treble dual-acting tone control, compensated volume control, Tempo Control that smoothly varies speed as much as 20%. Case is crack-proof, warp-proof, glue-blocked plywood covered with warm gray, washable, scratch-resistant fabrikoid; further protected with metal corners, come-apart hinges; kickproof, die-formed, perforated metal grill. Service access through bottom vent plate. Dimensions: 8¼" x 14¾" x 14¾"; weight 20 pounds. Power consumption: 55 watts, 117 volts, 60 cycles a.c. MODEL R-124V PROFESSIONAL NET $85.95 plus excise tax.

MODEL R-124 FIXED SPEED, except for the absence of Tempo Control, is identical to the R-124V. PROFESSIONAL NET $69.50 plus excise tax.

R12-C4 fixed speed 4 speed

MONOPHONIC

PHONOGRAPH



The Newcomb Model R12-C4 is a transformer-powered, 10 watt utility model that offers safety, dependability, and high performance at low cost. The good sound of the R12-C4 begins with the heat- and moisture-resistant ceramic "Power Point" type cartridge with turnover dual sapphire styli. The powerful 10 watts peak output system is amply stabilized with inverse feedback to give clean, highly intelligible sound at all volume levels. The compensated, wide-range tone and volume controls tailor the sound to its specific function. The output system is matched to a big, two-way 9" oval, dual-cone speaker. The tweeter cone greatly improves distribution and treble response. The R12-C4 is equipped with a rubber record mat and "twist-up" 45 center post, output jack for headphones or external speaker, drop pad to protect pickup, positive tone arm lock screw, pilot light, spring suspension feet, and a compartment in the deck in which to stow the power cord. Main power switch turns off everything including idler pressure. DIMENSIONS: 8¼" x 14⅛" x 14⅛"; weight 19 pounds. Power consumption: 55 watts, 117 volts, 60 cycles a.c. PROFESSIONAL NET: $62.50 plus excise tax.

R-164V variable speed 4 speed — R-164 fixed speed 4 speed

MONOPHONIC

PORTABLE
COMBINATION
TRANSCRIPTION
PLAYER
P.A. SYSTEM

The Newcomb Model R-164V is a versatile, medium-power, portable combination transcription player/public address system that will play any size record up to 17¼" masters. The R-164V has a big 12" round, dual cone high fidelity loudspeaker with 25 foot cord and "Bi-Coupled" 10 watt output system. Speaker enclosure forms lid of case. It has a jeweled pilot light and lighted operating panel, "Power Point" type plug-in ceramic high fidelity cartridge, rubber record mat and "Twist-up" 45 center spindle. Microphone input jack. Mixing controls. Bass tone control does not affect voice. Separate treble control. Output jack for speaker, headphones or Newcomb Headphone Listening Center Accessory. The R-164V has a long tone arm of cast metal, protective drop pad, Hideaway power cord, 4 speed settings, tempo control which smoothly varies speed as much as 20%, pickup stop post, pickup lock screw, separate motor power switch that automatically retracts idler. Hinged deck lifts for servicing. Dimensions: 11" x 15½" x 15½"; weight 25 pounds. Power consumption: 55 watts, 117 volts, 60 cycles a.c. PROFESSIONAL NET: $107.50 plus excise tax.

MODEL R-164 FIXED SPEED, except for the absence of Tempo Control is identical to the R-164V. PROFESSIONAL NET: $93.25 plus excise tax.

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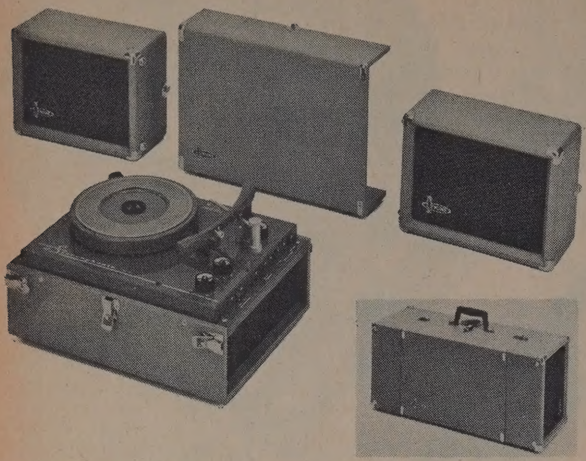
NEWCOMB

STEREO PHONOGRAPHS,
TRANSCRIPTION PLAYERS,
HEADPHONE LISTENING
CENTERS, TABLE RADIOS

R SERIES



RS-20 4 speed, fixed speed

The highly portable and compact Newcomb RS-20 has two full-range, nine-inch oval, dual-cone speakers which can be spaced to create a realistic illusion of dimensional sound. The RS-20 provides true stereo reproduction or high fidelity monophonic sound at the flip of a switch, plays any record size up to twelve-inch at any standard speed. Rubber-matted turntable has twist-up 45 spindle. Separate turntable on-off switch retracts idler. There are also a dual-acting bass-treble tone control and a volume control. Power cord tucks into Hideaway compartment. Ventilation is through grills in ends of player unit which remove for access to tubes and motor. Closed, the RS-20 measures 8½" x 11⅛" x 24¾", weighs 28 pounds. For use on 117 volts, 60 cycles a.c. PROFESSIONAL NET: $149.50 plus excise tax.

The RS-20 phonograph player unit is available with other loudspeaker combinations:

MODEL RS-20-2 is in 2 cases with 2 dual-cone 12" reproducers in a split case measuring 16¾" x 16¼" x 13⅛", 21 lbs. Player case alone is 10½" x 11⅛" x 15⅛", 21 lbs. **PROFESSIONAL NET: $184.00**

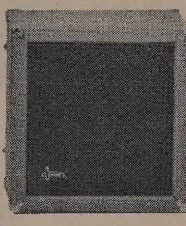
MODEL RS-20-C2 is in 3 cases with 2 C-100 two-way, fully enclosed, ducted port reproducers each 10¼" x 14¾" x 20", 10½ lbs. **PROFESSIONAL NET: $278.50.**

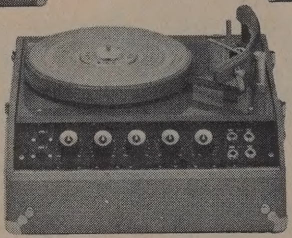
MODEL RS-20-KN2 is in 3 cases with 2 KN-200 hyper-efficient, two-way, ducted port, fully enclosed reproducers each 10¼" x 16⅞" x 23½". 35 lbs. **PROFESSIONAL NET: $385.00**

RS-1620V 4 speed, variable speed RS-1620 4 speed, fixed speed

STEREOPHONIC

PORTABLE
COMBINATION
TRANSCRIPTION
PLAYER
P.A. SYSTEM





20 WATTS PEAK

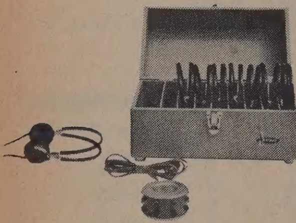
Shown with Acra-Set tone arm lifting accessory available at additional cost

Newcomb RS-1620V stereophonic/monophonic portable combination transcription player/public address systems are simple to operate, durable, economical. Stereo or mono at the flip of a switch. Bi-Coupled output system delivers 10 watts peak per channel, 20 watts peak combined. Compatible cartridge is a turnover ceramic, plug-in type with jeweled styli. Rubber-matted turntable plays records to 17¼" masters. Tempo control +5% to —15%. Two mike inputs and left and right input jacks for radio or tape. On lighted, slanted panel are separate mixers for each mike and phono, voice filters, separate bass and treble tone controls ganged for both channels, but bass does not affect voice. Player unit measures 8" x 15½" x 16½". For use on 117 volts, 60 cycles a.c.

	Variable Speed Model Number	Prof. Net	Fixed Speed Model Number	Prof. Net
With S-212 split case containing two 12" dual cone hi-fi drivers. Closed case: 16¾" x 16¼" x 13⅛". 21 lbs.	RS-1620V-2	**$215.00**	RS-1620-2	**$205.00**
With S-212HF split case containing two 2-way systems — 12" woofers, 3½" tweeters. Closed: 16¾" x 16¼" x 13⅛", 23 lbs.	RS-1620V-HF2	**$239.00**	RS-1620-HF2	**$229.00**
With 2 C-100 2-way reproducers ea. in sep. encl. Each measures 10¼" x 14¾" x 20", 19½ lbs.	RS-1624V-C2	**$309.50**	RS-1620-C2	**$299.50**

NEWCOMB HEADPHONE LISTENING CENTER KITS AND PARTS

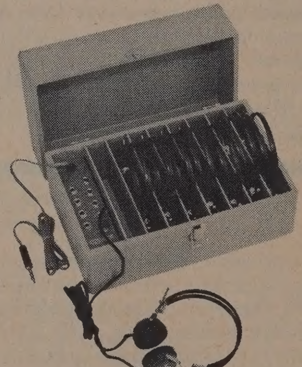
LC8A and LC8B



Designed for library use, language study, group-within-a-group listening, adapter plugs into output jack on all Newcomb radios, transcription players, phonographs. Up to 8 pair of headphones connect to adapter. Choice of phone connection: suffix "A" after model number indicates pin jacks, suffix "B" denotes standard phone jack. COMPLETE KIT includes adapter, 8 pairs of phones, plywood compartmented case covered with gray fabrikoid. **PROF. NET:** MODEL LC-8A—**$59.55;** MODEL LC-8B—**$67.30.**

ADAPTER ONLY, providing outlets for 8 pairs of headphones . . . **PROF. NET:** MODEL 8A—**$14.95;** MODEL 8B—**$17.50.**

HEADPHONE SET ONLY, sturdy, sensitive, double phones, with 6" cord provide excellent reproduction. Colored bright red and black to identify them as public property. **PROF. NET:** MODEL HDP (with pin jacks)—**$3.95;** MODEL HDPB (standard phone jack)—**$4.60.**



R-HDB8

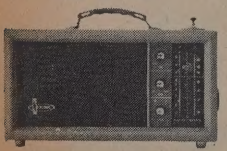
This kit has a jack strip built right into the compartmented plywood case. There are phone jacks for 8 sets of HDPB headphones, a standard phone jack on connecting cord, and an additional phone jack in the strip for connecting an additional R-HDB8 kit. **PROFESSIONAL NET: (complete kit) $59.55.**

R-HDB8-J

Same as above but with Jones plug on connecting cord and Jones socket for additional kits in jack strip. **PROFESSIONAL NET: $59.55.**

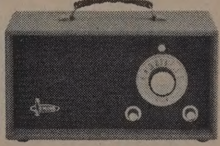
TABLE MODEL RADIOS

AFM-1500
AM & FM



Highly sensitive, rendered very stable by a.f.c. and temperature-compensated oscillators, the AFM-1500 provides high fidelity sound through its 15 watts peak push-pull amplifier and 20 watt, 9" oval, dual-cone loudspeaker. It has a telescoping FM antenna, "Hi-Q" ferrite rod AM antenna, tuning eye, reference scale, large tuning knob, compensated volume control, external antenna terminals, jack for external speaker or headphones, jack for external amplifier, p.a. or tape recorder. 16¾" x 9¾" x 8⅝", 20¼ lbs. 70 watts, 117 volts, 60 cycles a.c. **PROF. NET: $164.50**

AM-500 AM



Trim, rugged, easy to carry, the AM-500 is an economical, continuous-duty transformer-powered radio with a 5 watts peak, inverse-feedback amplifier and 8" oval, dual-cone loudspeaker whose special tweeter cone gives improved distribution and high frequency response. It has a built-in "Hi-Q" antenna and terminals for external antenna. Pilot light index illuminates direct-driven dial. Same jacks as AFM-1500. Neat power cord stowage on back of both 6½" x 8" x 15½", 10 lbs. 40 watts, 117 volts, 60 cycles a.c. **PROF. NET: $59.95**

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

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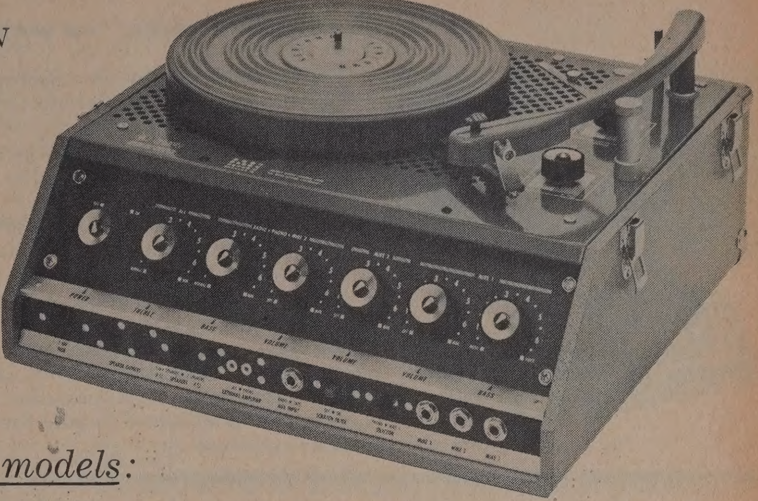
TR SERIES

HIGH POWER, PORTABLE, COMBINATION
TRANSCRIPTION PLAYER
PUBLIC ADDRESS SYSTEMS



...outstanding for their highest quality sound, intelligibility, portability, versatility, and simplicity of operation...

features common to all TR models:

FOUR SPEED, VARIABLE SPEED, play any size record up to 17¼″ masters.

AMERICAN-MADE MOTOR delivers full starting torque at any speed setting, no warm-up required, stable under all conditions, requires no more attention than conventional fixed-speed motors.

INDEPENDENT MOTOR SWITCH automatically retracts idler.

TEMPO CONTROL, separate from speed selector, varies speed +5% to −15%. No flutter-producing friction discs or cone drives.

SPEED-O-SCOPE neon strobe.

BIG TURNTABLE—10″, 2 lbs.

STA-KLEEN, deep-ribbed rubber mat, special groove for handling 45's.

LONG TONE ARM, one-piece, cast metal, raises upright for stylus inspection, mounted on resilient acoustical filter, has stylus pressure adjustment for 78's or LP's.

RUGGED STOP POST prevents putting arm in wrong position.

LOCK SCREW secures arm during transportation.

DROP PAD, rubber-covered, protects stylus and cartridge.

PHONO PICK-UPS: GE twist-needle with individually replaceable sapphire styli in "M" models. High fidelity ceramic in others.

STEREO CONVERSION: ceramic cartridge may be replaced with stereo cartridge. Then a patch cord is connected between stereo output jack to auxiliary input jack on second player for perfectly balanced, fully controllable stereo.

HIGH POWER AMPLIFIERS, low distortion, inverse feedback, some have ultra-linear circuits, all engineered for optimum performance with speakers used. Frequency response ±2 db 20—20,000 cycles.

TRANSFORMER-POWERED for safety and performance.

BROAD-BAND OUTPUT TRANSFORMERS humidity-protected with mylar or acetate. Impedance selector—4 or 8 ohms (16, 8, & 4 on TRS-1680).

FUSE POST accessible from front panel.

COMPLETE, FLEXIBLE CONTROLS: separate volume mixers for phono and mike; voice filter, scratch filter; phono bass control does not affect voice mike; bass controls electrically interlocked with phono volume to automatically protect against bass overload at high levels, greatly reducing operating experience required for perfect results.

OUTPUT JACKS: "ALL" used to feed entire program to external amplifier, amplified monitor, or tape recorder. "PHONO" delivers phono signal only; useful for caller or m.c. who wants to monitor music only without interference from own voice. "STEREO" on ceramic models.

INPUT JACKS: One for each mike; number depends on model. "AUXILIARY" for signal from radio, tape machine, or stereo channel.

ILLUMINATED, SLOPING OPERATING PANEL.

TWO JEWELED PILOT LIGHTS.

RUGGED CASE made of warp-proof, crack-proof ⅜″ plywood, glue-blocked, covered with scratch-resistant, washable, gray vinyl.

METAL CORNER PROTECTORS.

COME APART HINGES.

SPRING-FLOATED FEET.

HEAVY #18 GAUGE STEEL MOTOR BOARD, reinforced.

THROUGH VENTILATION for long parts life.

EASY ACCESS. Hinged motor board raises to reach tubes and motor. Perforated bottom plate unscrews to check wiring.

KICKPROOF GRILLES of die-formed metal and armored baskets protect speakers.

25′ SPEAKER CORDS with stowage provisions. Straps for wall hanging.

HIDEAWAY COMPARTMENT for 8′ power cord.

FULL-SIZE HANDLES on all cases and a hand-hold slot on player units for assistant carrier.

PERMANENT SERIAL NUMBER stamped in metal and riveted to motor board.

TRANSPARENT PLASTIC CARD HOLDER on each case.

PRINTED INSTRUCTION BOOK with each system.

CONDENSED INSTRUCTIONS sealed in plastic permanently attached inside lid.

BID SPECIFICATIONS AVAILABLE from factory to authorized personnel.

ALL PARTS MADE IN U.S.A.

TR-1625 SERIES 25 WATT CERAMIC PICKUP STEREO JACK

TR-1625 Series player-amplifier units are carefully matched to the reproducers for great efficiency and better coverage than has heretofore been possible with a system in this class. It is equipped with a plug-in, "power point" type, high fidelity ceramic cartridge with separate jeweled standard and microgroove styli. It has a separate treble tone control, bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch. There are output jacks for 2 speakers, "Phono," "All," stereo; input jacks for one mike and another for auxiliary equipment.

	PROF. NET
MODEL TR-1625 in a single split case with one 12″ dual-cone 30-watt speaker, 35 lbs.	139.50
MODEL TR-1625-2, two cases, includes one S-212, 50 lbs.	172.50
MODEL TR-1625-NE2, three cases, two N-12ET, 63 lbs.	237.00
MODEL TR-1625-CS2, three cases, two CS-48, 73 lbs.	247.00
MODEL TR-1625-SCS2, three cases, two SCS-412, 124 lbs.	387.00

TR-1625M SERIES 25 WATT MAGNETIC PICKUP

When monophonic music reproduction is to be a player's primary function, a Newcomb TR model equipped with a magnetic cartridge is your best choice. The TR-1625M is equipped with a GE variable reluctance, twist-needle cartridge with sapphire styli and necessary preamplifier built in. Motor is a 4-pole deluxe unit. Player has a separate treble tone control, bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch. There are output jacks for 2 speakers, "Phono," and "All"; input jacks for mike and auxiliary.

	PROF. NET
MODEL TR-1625M in a single split case with one 12″ dual-cone 30-watt speaker, 36 lbs.	154.50
MODEL TR-1625M-2, two cases, includes one S-212, 51 lbs.	187.50
MODEL TR-1625M-NE2, three cases, two N12ET, 64 lbs.	252.00
MODEL TR-1625M-RHF, two cases with one 2-way speaker system in base reflex enclosure, 18″ x 24″ x 12½″, 65 lbs.	211.50
MODEL TR-1625M-CS2, three cases, two CS48, 74 lbs.	262.00
MODEL TR-1625M-SCS2, three cases, two SCS-412, 125 lbs	402.00

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NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

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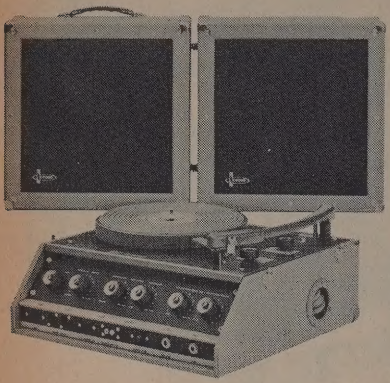
HIGH POWER PORTABLE
TRANSCRIPTION PLAYER
P. A. SYSTEMS

TR SERIES

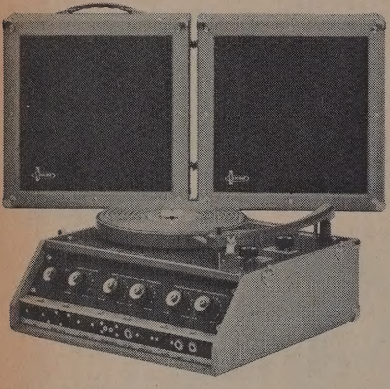
TR-1640 SERIES 40 WATT CERAMIC PICKUP STEREO JACK



TR-1640 models provide impressive audience coverage at moderate cost. Motor is a heavy-duty, four-pole unit. Player is equipped with a plug-in, "power point" type, high fidelity ceramic cartridge with separate jeweled standard and microgroove styli, ultra-linear amplifier. It has a treble tone control for all channels, bass tone for phono, phono volume mixer, mike volume mixer, bass tone for mike, impedance switch for speakers, scratch filter switch. There are output jacks for 2 speakers, "Phono," "All," stereo. Inputs for one mike auxiliary.

	PROF. NET
MODEL TR-1640 in a single split case with one 12″ 50-watt speaker, 36 lbs.	169.95
MODEL TR-1640-E2, two cases, includes one S-212, 51 lbs.	196.50
MODEL TR-1640-E4, three cases, one S-212, one S-212E, 72 lbs.	261.00
MODEL TR-1640-2, two cases, one S-212H, 51½ lbs.	209.50
MODEL TR-1640-4, three cases, one S-212H, one S-212E, 72½ lbs.	273.05
MODEL TR-1640-NE2, three cases two N12ET, 64 lbs.	261.00
MODEL TR-1640-NE4, five cases, four N12ET, 98 lbs.	390.00
MODEL TR-1640-NH2, three cases, two N12HT, 78 lbs.	331.00
MODEL TR-1640-NH4, five cases, four N12HT, 126 lbs.	530.00
MODEL TR-1640-CS2, three cases, two CS48, 74 lbs.	271.00
MODEL TR-1640-CS4, five cases, four CS48, 118 lbs.	410.00
MODEL TR-1640-SCS2, three cases, two SCS-412, 125 lbs.	411.00
MODEL TR-1640-SCS4, five cases, four SCS-412, 220 lbs.	690.00

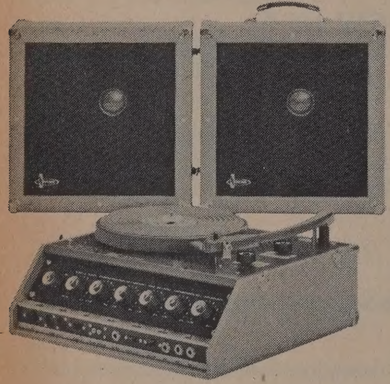
TR-1640M SERIES 40 WATT MAGNETIC PICKUP



A more powerful music room model which handles with ease four speakers, the TR-1640M player unit has an ultra-linear output system, two-way crossover-network loudspeaker systems, and the GE variable reluctance cartridge. The phono circuit is converted to a second mike channel by flipping a selector switch. It has a treble tone control for all channels, phono volume mixer, phono bass tone control, mike bass tone, mike volume mixer, impedance switch for speakers, scratch filter. There are output jacks for 2 speakers, "Phono," and "All"; input jacks for 2 mikes and auxiliary.

	PROF. NET
MODEL TR-1640M-HF in a single split case with 2-way speaker system including a 12″ 50-watt woofer, crossover and separate 3½″ tweeter, 36½ lbs.	205.00
MODEL TR-1640M-E2, two cases, includes one S-212, 52 lbs.	220.00
MODEL TR-1640M-E4, three cases, one S-212, one S-212E, 73 lbs.	284.50
MODEL TR-1640M-HF2, two cases, one S-212HF, 54 lbs.	244.00
MODEL TR-1640M-HF4, three cases, one S-212HF, one S-212E, 75½ lbs.	309.50
MODEL TR-1640M-KN, two cases, one KN-200, 66 lbs.	288.25
MODEL TR-1640M-KN2, three cases, two KN-200, 101 lbs.	421.00
MODEL TR-1640M-NE2, three cases, two N12ET, 65 lbs.	284.50
MODEL TR-1640M-NE4, five cases, four N12ET, 99 lbs.	413.50
MODEL TR-1640M-NH2, three cases, two N12HT, 79 lbs.	354.50
MODEL TR-1640M-NH4, five cases, four N12HT, 127 lbs.	553.50
MODEL TR-1640M-NN2, three cases, two N12NT, 86 lbs.	394.50
MODEL TR-1640M-NN4, five cases, four N12NT, 141 lbs.	633.50
MODEL TR-1640M-CS2, three cases, two CS48, 75 lbs.	294.50
MODEL TR-1640M-CS4, five cases, four CS48, 119 lbs.	433.50
MODEL TR-1640M-SCS2, three cases, two SCS-412, 126 lbs.	434.50
MODEL TR-1640M-SCS4, five cases, four SCS-412, 221 lbs.	713.50

TR-1656M SERIES 56 WATT MAGNETIC PICKUP



These fully integrated systems achieve phenomenal acoustic output. They include 56 watts peak output system, four-pole deluxe motor, GE variable reluctance cartridge. The phono channel converts to a *third* microphone channel by flipping a switch. First mike channel has separate bass attenuating control for voice clarity. Second mike is flat. Phono tone controls regulate third mike. There are a separate treble tone control for all channels, bass tone for phono, phono volume mixer, mike 2 mixer, mike 1 mixer, mike 1 bass tone, speaker impedance switch, scratch filter. Output jacks for 2 speakers, "Phono," and "All"; input jacks for 3 mikes and auxiliary.

	PROF. NET
MODEL TR-1656M-HF2, two cases, includes one S-212HF, 57 lbs.	288.50
MODEL TR-1656M-HF4, three cases, one S-212HF, one S-212HFE, 80 lbs.	377.00
MODEL TR-1656M-X2, two cases, one S-212X, 59 lbs.	311.00
MODEL TR-1656M-X4, three cases, one S-212X, one S-212XE, 84 lbs.	421.50
MODEL TR-1656M-NF2, two cases, one S-212NF, 63 lbs.	329.85
MODEL TR-1656M-NF4, three cases, one S-212NF, one S-212NFE, 92 lbs.	459.35
MODEL TR-1656M-KN2, three cases, two KN-200, 104 lbs.	465.85
MODEL TR-1656M-KN4, five cases, four KN200, 176 lbs.	731.35
MODEL TR-1656M-NE2, three cases, two N12ET, 68 lbs.	329.00
MODEL TR-1656M-NE4, five cases, four N12ET, 102 lbs.	458.00
MODEL TR-1656M-NH2, three cases, two N12HT, 82 lbs.	399.00
MODEL TR-1656M-NH4, five cases, four N12HT, 130 lbs.	598.00
MODEL TR-1656M-NN2, three cases, two N12NT, 89 lbs.	439.00
MODEL TR-1656M-NN4, five cases, four N12NT, 144 lbs.	678.00
MODEL TR-1656M-CS2, three cases, two CS48, 78 lbs.	339.00
MODEL TR-1656M-CS4, five cases, four CS48, 122 lbs.	478.00
MODEL TR-1656M-SCS2, three cases, two SCS-412, 129 lbs.	479.00
MODEL TR-1656M-SCS4, five cases, four SCS-412, 224 lbs.	758.00

DIMENSIONS OF NEWCOMB TR PLAYERS

Single speaker TR players form a single case with the speaker mounting used as the lid. They measure 16¾″ x 16¼″ x 13¼″. In multiple-speaker models (except TRS-1680) the phono-amplifier unit closed measures 16¾″ x 16¼″ x 8½″. Speaker dimensions are given on facing page. Accessory speakers may be added to one- or two-speaker models at any time.

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

NEWCOMB

NEWCOMB

PORTABLE
LOUDSPEAKERS

TR
SERIES

Newcomb makes many types of portable loudspeakers for use with Newcomb Portable Combination Transcription Player/Public Address Systems. They vary in portability, directivity, efficiency, and frequency response. For example, the column speaker is highly directive, but not nearly as easy to carry as the compact S-212 Series models. The KN-200 reproducer combines widest frequency range with highest efficiency and exceptional intelligibility. The N-12 Series speakers are highly efficient, directive, intelligible and portable. All are excellent instruments, built to withstand rough treatment. Construction and finish matches player units.

ON THIS PAGE ARE SHOWN THE VARIOUS LOUDSPEAKER MODELS USED WITH NEWCOMB TR SERIES SYSTEMS

NEWCOMB S-212 SERIES

These open-back designs are the most popular of all square dance system reproducers because they provide a unique combination of light weight, high output per watt input, and low cost. Their wide-range response makes them ideal for general use. Each model includes two independent reproducers in a split case. Speakers snap together back-to-back for carrying. Case size: 16¾″ x 16¼″ x 13⅛″. 25′ cords stow on hooks inside case.

- **MODEL S-212** includes two 12″ dual-cone wide range 30 watts peak reproducers of good conversion efficiency. Impedance per speaker is 8 ohms. Weight: 21 lbs. **PROFESSIONAL NET: $64.50**
- **MODEL S-212E** is same as S-212 but has series extension jacks. **PROFESSIONAL NET: $64.50**
- **MODEL S-212H** includes two 50 watts peak 12″ reproducers of wide-range and excellent conversion efficiency. Impedance per speaker is 8 ohms. Weight 21½ lbs. **PROFESSIONAL NET: $77.50**
- **MODEL S-212HE** is same as S-212H but has series extension jacks. **PROFESSIONAL NET: $77.50**
- **MODEL S-212HF** includes two 50 watt speak 12″ woofers and two 3½″ tweeters with crossover. Impedance per reproducer is 8 ohms. Weight 23 lbs. **PROFESSIONAL NET: $88.50**
- **MODEL S-212HFE** is same as S-212HF but has series extension jacks. **PROFESSIONAL NET: $88.50**
- **MODEL S-212X** includes two 60 watts peak super-power, aluminum-dome 12″ dual-cone loudspeakers of superior efficiency and very wide range. Impedance per speaker is 8 ohms. Weight: 25 lbs. **PROFESSIONAL NET: $110.65**
- **MODEL S-212XE** is same as S-212X but has series extension jacks. **PROFESSIONAL NET: $110.65**
- **MODEL S-212NF** includes two 60 watts peak super-power woofers and two 3½″ tweeters with crossover. These systems combine exceptional response range with super efficiency. Impedance per reproducer is 8 ohms. Weight: 29 lbs. **PROFESSIONAL NET: $129.50**
- **MODEL S-212NFE** is same as S-212NF but has series extension jacks. **PROFESSIONAL NET: $129.50**

MODELS WITH "E" SUFFIX are only for use with other speakers and are not intended for use alone.

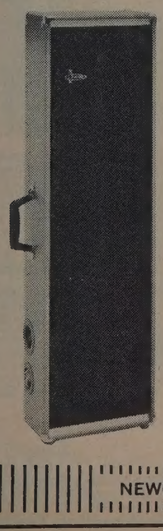
NEWCOMB KN-200 REPRODUCER

Designed to give you all the sound, all the quality, all the range, all the coverage inherent in your fine Newcomb sound system, the KN-200 is a fully-enclosed, ducted-port, two-way speaker system of advanced design. It is highly efficient, delivers the widest frequency response possible with a portable speaker...full music reproduction plus crisp high frequency intelligibility. The KN-200 includes a massive 12″ woofer, crossover, horn tweeter and treble control. It includes a parallel extension jack and impedance change switch for 8 or 16 ohms. 25 foot cord stows into "Hideaway" compartment. Size: 10¼″ x 16⅞″ x 23½″. Weight: 35 lbs. **PROFESSIONAL NET: $132.75**

NEWCOMB N-12 SERIES SPEAKERS

Most unusual for a portable speaker, Newcomb N-12 models are back-loaded, dual-labyrinth reproducers for those who want high directivity, firm bass, crisp and clean highs. They provide the advantages of a closed-back reproducer in problem halls and auditoriums. 25 foot cord stows in "Hideaway" compartment. Enclosure measures 7⅞″ x 18¼″ x 19½″. Offered in three models...

- **MODEL N12ET** is a 30 watts peak system using an efficient 12″ woofer and two 3½″ tweeters and crossover. Included is a series-type extension jack with shorting switch which permits using the N12ET as either a regular or extension speaker. Impedance is 8 ohms. Weight 17 pounds. **PROFESSIONAL NET: $64.50**
- **MODEL N12HT** is a 50 watts reproducer with a 12″ heavy duty woofer, a directional horn tweeter and full crossover network. This reproducer provides highest sound output per watt input. Included are a parallel extension jack and impedance changing switch. Impedance: 8 and 16 ohms. Weight: 24 pounds. **PROFESSIONAL NET: $99.50**
- **MODEL N12NT** is a 60 watts peak reproducer with an extra heavy duty 12″ woofer, a directional horn tweeter and full crossover network. This reproducer provides highest sound output per watt input. Included are a parallel extension jack and an impedance changing switch. Impedances: 8 and 16 ohms. Weight 27½ pounds. **PROFESSIONAL NET: $119.50**



NEWCOMB COLUMN SPEAKER, MODEL CS48

This is one of the most practical of all column speakers. It combines exceptional directivity with portability, has good efficiency and greater effective range than most columns. Power handling capacity is 60 watts peak. 25 foot cord and plug tuck into "Hideaway" cord compartment. It has an extension jack and switch for use with extension speakers. Size: 39⅞″ x 11¼″ x 6⅝″. Weight: 22 lbs. **PROFESSIONAL NET: $69.50**

NEWCOMB SUPER COLUMN, MODEL SCS-412

Here's the best column speaker you've ever heard. The Newcomb SCS-412 gives you super intelligibility, super efficiency, super power handling capacity. It contains four *twelve-inch* speakers specially developed for column use. Its peak power handling capacity of 120 watts makes for dependability and unusually low distortion when used with conventionally-powered systems. Each amplifier watt is converted into more sound than is available from any other column. The SCS-412 makes small amplifiers sound like big ones. It will project your voice clear as crystal, syllable-perfect over the noisiest big crowd. It takes a man-size system to produce these results. The SCS-412 stands 56″ high, is 15″ wide, 7½″ deep, weighs 42½ pounds. Impedance is 8 ohms. It has a 25 foot cord, "Hideaway" cord compartment, series type jack with shorting switch. **PROFESSIONAL NET: $139.50**

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NEWCOMB

STEREOPHONIC SYSTEMS
MICROPHONES, ACCESSORIES

TR SERIES

STEREOPHONIC
MONOPHONIC

Built with a great reserve of power for most uses — 40 watts peak per channel — the Newcomb TRS-1680 is perhaps the most complete and flexible portable sound system ever built. It reproduces stereo or mono with the turn of a knob. Stereo or mono tape or radio can be fed to the system. Live music and speech are reproduced either stereo- or monophonically.

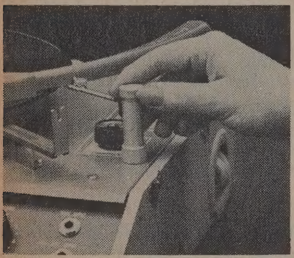
TRS-1680 SERIES 80 WATT

It has three mike channels. The central mike puts the speaker or square dance caller in the middle, midway between the reproducers. There are separate treble, bass, and volume controls for phono or other reproduced sound. Each mike channel has its own, individual tone and volume controls. Mike tone controls are rotated for treble adjustment, pushed or pulled for bass. There is a blend control to provide any degree of stereo you wish. There are "Left" and "Right" inputs for radio, tape, or auxiliary; a scratch filter; "All" or "Phono" monitor jacks; jacks for two or four speakers with an impedance-matching switch. Turntable-amplifier unit DIMENSIONS: 9¼" x 17⅞" x 18⅝"; 43 lbs. POWER CONSUMPTION: 180 watts, 117 volts, 60 cycles a.c. A wide choice of reproducers to meet specific assignments is offered...

	PROF. NET
MODEL TRS-1680-NF2, two cases, includes one S-212NF, 72 lbs.	**$429.00**
MODEL TRS-1680-NF4, three cases, two S212NF, 101 lbs.	**$558.50**
MODEL TRS-1680-KN2, three cases, two KN-200, 113 lbs.	**$565.00**
MODEL TRS-1680-KN4, five cases, four KN-200, 183 lbs.	**$830.50**
MODEL TRS-1680-NH2, three cases, two N12HT, 91 lbs.	**$498.50**
MODEL TRS-1680-NH4, five cases, four N12HT, 139 lbs.	**$697.50**
MODEL TRS-1680-NN2, three cases, two N12NT, 98 lbs.	**$538.50**
MODEL TRS-1680-NN4, five cases, four N12NT, 153 lbs.	**$777.50**
MODEL TRS-1680-CS2, three cases, two CS48, 87 lbs.	**$438.50**
MODEL TRS-1680-CS4, five cases, four CS48, 131 lbs.	**$577.50**
MODL TRS-1680-SCS2, three cases, two SCS-412, 138 lbs.	**$578.50**
MODEL TRS-1680-SCS4, five cases, four SCS-412, 233 lbs.	**$857.50**

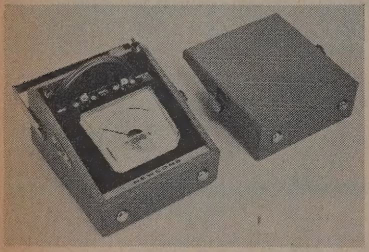
ACRA-SET TONE ARM LIFTER AND RECORD-CUEING DEVICE

MODEL A-1



Acra-Set is an accessory available at additional cost for repeating passages and protecting records. You simply twist the knob on top to gently lift or lower tone arm. Lifter has a 100-division scale and a traveling stop with a pointer. It is simply installed by drilling a 3/16" hole which is readily located with a template. Holes are predrilled at the factory on current transcription players. Specify your model number when ordering; correct template and C-1 cue sheets will be supplied. **PROF. NET: $12.50**

MODEL VU-1 PORTABLE VISUAL OUTPUT METER



Model VU-1 Output Meter permits you to see that your voice is being amplified to the proper level, helps you make the most of your fine Newcomb TR system. Meter is high quality instrument with jeweled d'Arsonval movement and a scale calibrated in both db and volume units from 0 to 100 over the working range of the system. Also indicates overloading. Simple internal adjustment matches meter to any TR player; instructions are permanently mounted in lid. One end of the supplied patch cord connects player to "All" monitor jack, other end to "Input" on meter. Supplementary "All" monitor jack on meter. **PROF. NET: $29.95**

AMPLIFIED MUSIC MONITORS

With a Newcomb Amplified Monitor you can hear reproduced music without interference or feedback squeal from caller's or speaker's voice. Connected to "Phono" channel of transcription player, monitor reproduces music only, not mike channels. Or, it may be connected to "All" jack to reproduce voice and music. It can also be used as a stereo channel with a TR-1625 or TR-1640.

MODEL M-12: 12" speaker; 10 watt amplifier; 17⅞" x 13⅜" x 7½"; 17¼ lbs. **PROF. NET: $79.50**

MODEL M-9: 9" oval, dual-cone speaker; 10 watt amplifier; 13¼" x 10⅛" x 7"; 10 lbs. **PROF. NET: $69.50**

PROTECTIVE CANVAS COVERS

Made of tightly woven, fleece-lined, rubberized mackintosh covert, with stout zipper closure and flap that tucks under handle. Transparent slot for identification.

No. CA-102 for use with TR-1625, TR-1625M, TR-1640, TR-1640M amplifier sections only. **PROF. NET: $5.95**

No. CA-103 for use with S-212 type split case speaker assemblies and all TR series systems with single speaker in case lid. **PROF. NET: $5.95**

No. CA-104 for use with TRS-1680 amplifier section only. **PROF. NET: $5.95**

No. CA-110 for use with KN-200 or K-400 reproducers. **PROF. NET: $6.63**

No. CA-111 for use with C-100 or J-200 reproducers. **PROF. NET: $5.95**

No. CA-119 for use with M-12 monitor. **PROF. NET: $5.95**

No. CA-132 for use with M-9 monitor. **PROF. NET: $5.95**

No. CA-136 for use with all N-12 series reproducers. **PROF. NET: $5.95**

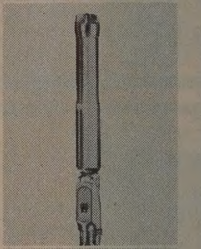
No. CA-137 for use with CS48 column speaker. **PROF. NET: $9.30**

No. SCS-412 for use with SCS-412 column speaker. **PROF. NET: $12.63**

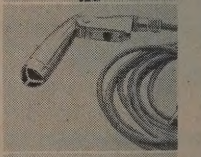
MICROPHONES

Model N-30 Crystal Microphone with lavaliere cord, stand adapter, switch, and shielded plug.
PRO. NET 13.95

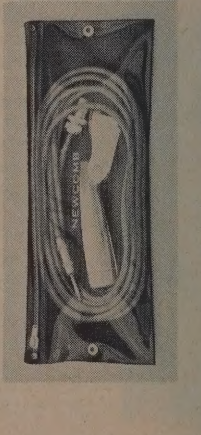
Model N-30D Desk Mounting for N-30 only.
PRO. NET 1.85



Model N-36 Dynamic Professional Quality Microphone is the perfectionist's choice with any TR system, especially intended for use with TR-1640M, TR-1656M and TRS-1680 series models. Supplied with shielded cord and plug and on-off switch.
PRO. NET 50.00



Model N-23 Dynamic Microphone of very high quality with switch and shielded plug, recommended for general purpose use with all TR series systems.
PRO. NET 39.50



Model MS-23 Accessory Bag of heavy plastic, zippered, for microphones, etc., can be attached inside lid of speaker case.
PRO. NET 2.10

Model PP-61 Stereo Conversion Pickup Cartridge, plug-in type, for any TR series player equipped with stereo output jack and plug-in ceramic cartridge.
PRO. NET 4.65

Model WC-64 Connecting Cable, four feet long with plugs for connecting two TR ceramic models together for stereo.
PRO. NET 4.65

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NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

NEWCOMB

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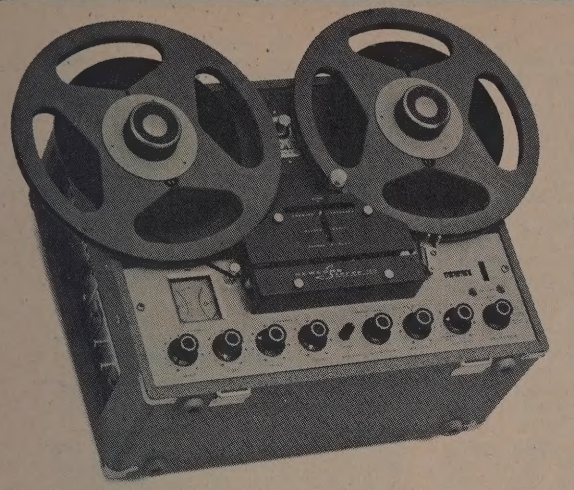
NEWCOMB

STEREO TAPE RECORDERS,
TWO-CHANNEL AMPLIFER,
SYSTEMS

TAPE RECORDERS



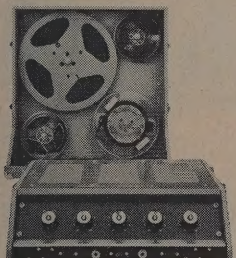
NEW TX-10 SERIES

CYBERNETICALLY ENGINEERED FOR INTUITIVE OPERATION ▪ SOUND ON SOUND RECORDING ▪ THREE HEADS ▪ HYSTERESIS MOTOR ▪ MONITOR BEFORE OR AFTER RECORDING ▪ ANY SIZE REELS—3″ TO 10½″ ▪ MIXING CONTROLS ▪ POINTER-TO-POINTER METERS ▪ DIFFERENTIAL BRAKING

Essentially a machine for the perfectionist, the Newcomb TX-10 incorporates virtually all of the features professional users have said they would like to see in a portable recorder. The TX-10 is thoroughly dependable, a high precision instrument, with a transport mechanism that is probably the most foolproof, the gentlest on tape of any machine in the world. Tape movement is controlled with a telescoping joy stick. Operation is intuitive. The natural thing to do is the right thing to do. You can record sound on sound ad infinitum. For example, you first record on track one. Twist the selector and you record on track two while the signal from track one is being transferred to track two. Twist the switch again and you are adding new material to track one while the previously combined signal from track two is being re-recorded on track one. There is no limit to the number of times this can be done. Tape loads in a straight line. No pressure pads on heads. All tape guides are stainless steel. Shuts off automatically at reel's end. Head covers remove for easy cleaning and editing. A pause-edit position of the joystick permits inching tape to exact location desired. The TX-10 is a two-speed machine—7½ ips and 3¾ ips—selected by push button with automatic speed-frequency correction. (15/7½ ips machines available on special order.) A relatively powerful, cool-running hysteresis synchronous motor and dynamically-balanced flywheel drive keep flutter and wow below .2% at 7½, .25% at 3¾, or .1% at 15 ips. The TX-10 has three heads—record, playback, and erase. 100KC bias and erase oscillators with indicators. Response is ±2 db 30-18,000 cps at 7½ ips, or ±3 db 30-13,000 cps at 3¾ ips. The TX-10 may be operated either vertically or horizontally. The dual volume indicating meters are illuminated, arranged pointer-to-pointer, show playback as well as recording levels. Too prevent accidental erasure, you must push a separate interlock button to record. The four-digit counter permits close measurements even with a 10½″ reel fully loaded with thin-base tape. There are separate "mike" and "line" input mixing controls for each channel, a balance control, a ganged volume control, a pilot light. A roomy opening on the left-hand side of the case provides for all inputs and power cord stowage. There are sockets for Cannon XLR-3-12C male connectors, easily accessible sockets for Newcomb plug-in input transformers to permit use of low impedance microphones. Outputs are on the right side of the case.

Dimensions: 12⅞″x16¾″x9½″. Weight: 36½ lbs. Power requirements: 95 watts, 117 volts, 60 cycles a.c.

PROFESSIONAL USERS NET: $750.00.



MODEL SA-80B

2 CHANNEL POWER AMPLIFIER WITH TONE, VOLUME, AND BALANCE CONTROLS

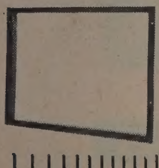
The Newcomb SA-80 is a two channel, stereo/monaural, portable, power amplifier designed especially for use with either the Newcomb SM-310-4 or Newcomb SM-310 Tape Recorder. The amplifier puts out 40 watts peak per channel, a total of 80 watts peak. The controls are conveniently grouped on a slanted operating panel that is brightly illuminated by two pilot lights. Controls are ganged. They consist of a bass boost and attenuation control, treble boost and attenuation, volume control, and a balance control. There is an input jack for each channel, a stereo-monaural selector switch, output impedance selectors, and two speaker sockets for each channel. The removable cover carries tape reels of all sizes up to and including 10½″. A plastic zippered bag for miscellaneous cords is included. Frequency response—20-20,000 cycles ±1 db. Distortion per channel at 20 watts r.m.s.—less than 1%. Hum below —65 db. Output impedances per channel—16, 8, 4 ohms. 8½″x16¾″x16⅜″; 32 pounds. **PROFESSIONAL USERS NET: $199.50.**

PORTABLE AMPLIFIER-REPRODUCER SYSTEMS

MODEL SA-80-J2 consists of one SA-80 and two Model J-200 Reproducers. Latter are two-way speaker systems with tweeter level controls, enclosed in compact cases, use latest techniques to provide excellent, full-rånge coverage in music rooms and small auditoriums. Each measures 14¾″x20″x10¼″. Three-case system weighs 71 pounds. **PROFESSIONAL NET: $368.40.**

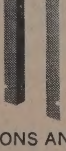
MODEL SA-80-K2 consists of one SA-80 and two Model K-400 Reproducers. Latter are three-way loudspeaker systems developed for those who seek the very best possible reproduction that can be provided by translating advanced engineering concepts into portable form. Each measures 16⅞″x23½″x10¼″. Three-case system weighs 102 pounds. **PROFESSIONAL NET: $468.40.**

MOUNTING HARDWARE FOR THE TX-10



MODEL **SR-85** is a custom frame for mounting the TX-10 in home high fidelity installations.
PROFESSIONAL NET: $10.

MODEL SR-86 is a frame for rack mounting the TX-10 in Newcomb Model 35-19 or 70-19 cabinet racks. (cannot be used with door.)
PROFESSIONAL NET: $15.95.



MODEL SR-97 is a pair of rack brackets for mounting the TX-10 in standard 19″ racks. (Cannot be used in Newcomb Models 35-19 and 70-19 cabinets.)
PROFESSIONAL NET: $3.95.

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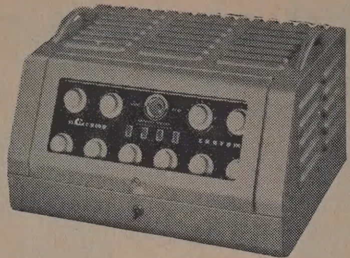
NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

NEWCOMB

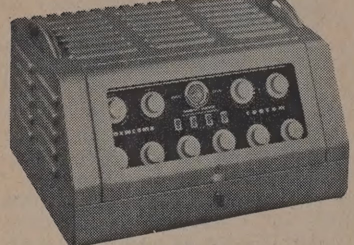
NEWCOMB

CUSTOM SERIES
P. A. AMPLIFIERS

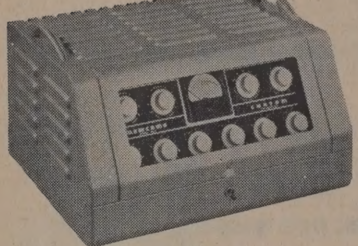
K
SERIES



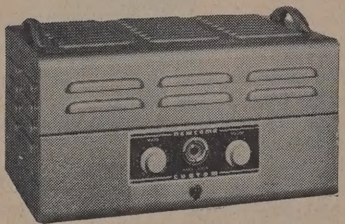
KX-25



KX-50



KX-6A



K-50B

Without equal at any price. The best examples why the name Newcomb is so revered by Engineers and Owners alike. Will improve any system. A must when using the new 2-way wide range speakers. Check these important features and specifications.

- 20-20,000 cycles ± 1 db
- Less than 3% distortion
- 90% of rating at less than 1%
- Full power any output tap
- Audio bandwidth selectors
- Hum and noise level — 80 db.
- Remote control provision — all inputs
- U/L Approved
- Continuous duty — longer life parts
- Key locked control cover
- Sensitive volume and overload indicators
- Wired for plug-in input transformers

Full audio power, 50 to 5000 cycles (region of all major power requirements) within ± ¼ db. less than 5% distortion. Separate tone controls for Bass and Treble Boost or Attenuation of advanced design for better curve shape, greater range. Feedback controlled, 2 stage mike pre-amplifiers. Hum balancing control, all models but booster. Linear mixer frequency response. All but Pre-Amplifier have output impedance of 4, 8, 16, 250, 500 ohms, PLUS a 70 volt "constant voltage" tap, with convenient, simple, impedance selector. Multistage inverse feedback. Large, heavy duty power and output transformers thoroughly impregnated against moisture. Rear connections avoid unsightly wires, simplify rack installation. A. C. convenience outlet in rear, all models except booster. CABINETS: Heavy gauge welded steel beautifully styled. FINISH: Silver Grey Hammertone Baked Enamel. PANELS: Etched metal, illuminated. KNOBS: Round, large, skirted type, for easy operation. Additional specifications given under specific model numbers.

KX-25: 25 watts power output design center, rating, 30 watts max. at less than 3% distortion any output tap. PEAK POWER: 40 watts design center, 48 watts max. INPUTS (6): 5 mike (2 meg.), gain 123 db; 1 phono either Magnetic input gain 99 db based on 27000 ohm input, bass equalization +10 db or Crystal input ½ meg. gain 90 db. REMOTE CONTROL: Use RC-6 remote control unit. BASS TONE CONTROL: Range — 16 to +25 db. TREBLE TONE CONTROL: Range —30 to +20 db. HUM: —80 db controls off, —75 db crystal phono. —65 db mike and magnetic pickup inputs (Referred to rated output). CONTROLS (15): 5 mike, 1 phono, 1 bass, 1 treble, 4 bandwidth, 1 master, 1 volume indicator (all under keylocked control cover) A.C. power switch. TUBES (15): 6-6SC7, 2-6J5, 1-6J7, 1-6SQ7, 1-6SN7, 2-6L6G, 1-6AF6G, 1-5U4G. POWER CONSUMPTION: 135 watts, 117 volts 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 9⅜" x 17¾" x 14¾" WEIGHT: 38½ lbs. LIST: (with tubes) **$456.92**. Use Cannon XL3-11 type microphone connectors.

KX-50: 50 watts power output design center rating, 60 watts max. at less than 3% distortion any output tap. PEAK POWER: 80 watts design center, 90 watts, max. BOOSTER COUPLING JACK for connecting K50B Boosters for 100 watts or more. All other characteristics identical with KX-25 except gains, which are all 3 db higher than KX-25. TUBES (18): 6-6SC7, 2-6J5, 1-6SQ7, 1-6J7, 1-6SN7, 4-6L6G, 1-6AF6G, 2-5U4G. POWER CONSUMPTION: 235 watts, 117 volts 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 9⅜" x 17¾" x 14¾", WEIGHT: 46 lbs. **LIST**: (with tubes) **$532.03**. Use Cannon XL3-11 type microphone connectors.

KX-6A: A 6 channel mixer pre-amplifier designed to feed broadcast lines or boosters for finest quality. OUTPUT: +31 VU, less than 3% distortion, +30 VU at less than 1%. Has built in power supply and genuine VU meter with meter range extension switch. INPUTS: for 5 mikes (2 meg.) gain 97 db and 1 phono either crystal (½ meg.) gain 64 db or magnetic (27,000 ohms) gain 73 db. Use RC-6 Unit for remote control. Includes Master Volume Control and same fine Dual Tone Controls and Audio Bandwidth Selectors as in KX-25 and KX-50. BASS TONE CONTROL: Range —16 to +25 db. TREBLE TONE CONTROL: Range —30 to +20 db. HUM: —80 db controls off, —80 db crystal —75 db mike and magnetic. CONTROLS (12): 5 mike, 1 phono, 1 bass, 1 treble, 1 master, 1 four position bandwidth (all under key locked cover), 1 A.C. power switch, 1 VU meter range switch (in rear). TUBES (12): 6-6SC7, 4-6J5, 1-6J7, 1-6X5. POWER CONSUMPTION 35 WATTS, 117 volts 60 cycles A.C. MAX. Input 129 volts. DIMENSIONS: 9⅜" x 17¾" x 14¾". WEIGHT: 30 lbs. LIST: (with tubes) **$400.29**. Use Cannon XL3-11 type microphone connectors.

K50B: Booster Amplifier. Performance, power and output impedance same as KX-50 with but one input of ½ meg. impedance, gain 71 db. Provision for plug-in bridging or low impedance transformer. Built for continuous duty with long life parts, separate plate, and filament power transformers, individually fused, permits dependable plate power switching. Includes volume and overload indicators as in KX-50. Ample multistage feedback to minimize effects of speaker load variations. Etched metal panel. TUBES (10): 1-6SJ7, 1-6SN7, 1-6SQ7, 5-6L6G, 1-6AF6G, 2-5U4G, POWER CONSUMPTION: 230 watts 117 volts 60 cycles. 129 volts max. DIMENSIONS: 9⅜" x 17¾" x 12¼". WEIGHT: 41 lbs. LIST: (with tubes) **$225.00**. PLUG KIT: **$2.50**.

NEWCOMB | PORTABLE SYSTEMS • CUSTOM SERIES (K)

KX-2512X: Portable system with KX-25 amplifier and two heavy duty, extremely efficient speakers, each with 50′ cable. System is carried in two cases: Model KA for the amplifier, size 19" x 11¾" x 16⅞"; Model K-212X for two speakers, size 18½" x 12½" x 22½". Speakers face inside for maximum protection when split case is closed. Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$645.57**.

KA: Amplifier case fits all model K amplifiers. LIST: **$35.00**.

KX-25R12X: Portable system identical to KX-2512X but with each speaker mounted in an individual portable reflex baffle. Model KR-112X, for utmost tone quality. Speaker cases size, 18½" x 12½" x 24½". Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$716.82**.

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NEWCOMB

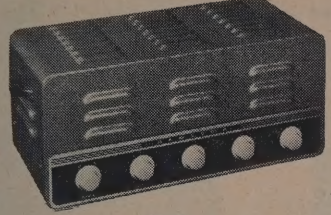
DELUXE SERIES
P. A. AMPLIFIERS

H
SERIES

For Performance, Dependability and Value check these features and specifications:

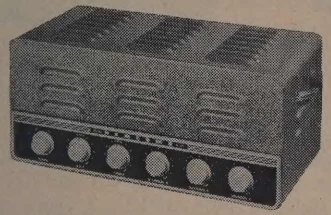
- 20-20,000 cycles ± 2 db
- Full Power any output top
- Less than 5% distortion
- 90% of rated power at less than 2%
- Remote Control provision — all mikes
- U/L Approved
- Continuous duty—longer life parts
- Wired for plug-in input transformers

Full Audio Power, 50 to 5000 cycles (region of all major power requirements) within ± ½ db. less than 5% distortion. Individual boost and attenuate type bass and treble tone control in new distortion free circuit. Linear mixer frequency response. All models but pre-amplifier have output impedances of 4, 8, 16, 250, and 500 ohms PLUS a 70 volt "constant voltage" tap, with easily-operated impedance selector. Multi-stage inverse feedback. Large heavy duty power and output transformers thoroughly impregnated against moisture. Rear connections avoid unsightly wires, simplify rack installations. A. C. convenience outlet in rear, all models except boosters. CABINETS: Heavy gauge welded steel beautifully styled in modern functional simplicity that endures. FINISH: Silver Grey Hammertone Baked Enamel. PANEL: Etched metal, illuminated. KNOBS: Large, round, skirted type, for ease of operation. Additional specifications under specific model numbers.



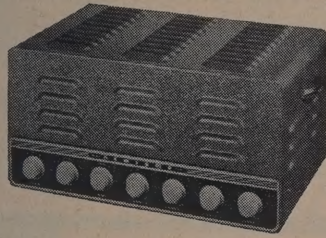
H-15

H-15: 17 watts power output design center rating, 20 watts max. at less than 5% distortion, **any output tap**. PEAK POWER: 26 watts design center, 31 watts max. INPUTS (3): 2 mike (2 meg.), gain 120 db; 1 phonograph (½ meg.), gain 80 db. BASE TONE CONTROL: Range —16 to +14 db. TREBLE TONE CONTROL: —34 to +13 db. HUM: —72 db phono input, —62 db mike inputs (referred to rated output). CONTROLS (5): 1 mike-phono, 1 mike, 1 bass, 1 treble, 1 A.C. power switch. REMOTE CONTROL: Use RC-2 remote control unit. TUBES (7): 2-6SF5, 1-6SJ7, 1-6SN7, 2-6L6G, 1-5Z4. POWER CONSUMPTION: 85 watts, 117 volts 60 cycles. A.C. Max. input 129 volts. DIMENSIONS: 8¼" x 19" x 10⅛". WEIGHT: 20 lbs. LIST: (with tubes) **$183.59**. Use Cannon XL3-11 type microphone connectors.



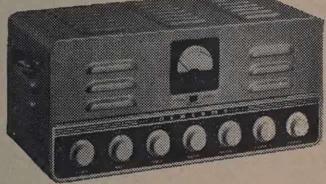
H-25

H-25: 25 watts power output design rating, 30 watts max. at less than 5% distortion, **any output tap**. PEAK POWER: 40 watts design center, 48 watts maximum. INPUTS (4): 3 mike (2 meg.), gain 124 db; 1 phonograph (½ meg.), gain 80 db. BASS TONE CONTROL: —18 to +15 db. TREBLE TONE CONTROL: Range —27 to +10 db. HUM: —72 db phono input, —62 db mike inputs (referred to rated output). CONTROLS (6): 2 mike, 1-mike-phono, 1 bass, 1 treble, 1 A.C. power switch. REMOTE CONTROL: Use RC-3 remote control unit. TUBES (8): 3-6SF5, 1-6SJ7, 1-6SN7, 2-6L6G, 1-5U6G. POWER CONSUMPTION: 125 watts, 117 volts, 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 8½" x 19" x 10⅛". WEIGHT: 24 lbs. **LIST**: (with tubes) **$215.03**. Use Cannon XL3-11 type microphone.



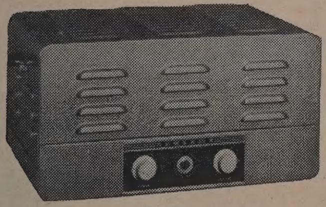
H-50

H-50: 50 watts power output design center rating, 60 watts max. at less than 5% distortion, **any output tap**. PEAK POWER: 80 watts design center, 90 watts max. INPUTS (5): 4 mike (2 meg.), gain 124 db. 1 phono (½ meg.), gain 81 db. BOOSTER COUPLING JACK for connecting H-25B or H-50B Boosters for 75 to 100 watts or more. BASS TONE CONTROL: Range —21 to +16 db. TREBLE-TONE CONTROL: Range —27 to +10 db. HUM: —72 db phono input, —62 db mike inputs (referred to rated output). CONTROLS (7): 3 mike, 1 mike-phono, 1 bass, 1 treble, 1 A.C. power switch. REMOTE CONTROL: Use RC-4 remote control. TUBES (12): 4-6SF5, 1-6SJ7, 1-6SN7, 4-6L6G, 2-5U4G. POWER CONSUMPTION: 225 watts, 117 volts, 60 cycles A.C. Max Input 129 volts. DIMENSIONS: 9¼" x 19" x 12½". WEIGHT: 37 lbs. **LIST**: (with tubes) **$285.60**. Use Cannon XL3-11 type



H-4VU

H-4VU: Mixer Pre-Amp. with built-in power supply. Extremely low hum. Suitable for feeding telephone lines or booster amplifiers such as the H-25B or H-50B. Output +22 db at less than 5% distortion. +21 db at less than 2%. INPUTS for three mikes (2 meg.), gain 90 db, 1 phono (½ meg.), gain 51 db. HUM: Better than, —80 db from phono input or —75 db, mike inputs. Use RC-3 Unit for remote control. Includes master control and genuine VU meter with meter range extension switch. BASS TONE CONTROL: Range —16 to +14 db. TREBLE TONE CONTROL: Range —27 to +13 db. TUBES (7): 3-6SF5, 1-6SJ7, 1-6SN7, 1-6J5, 1-6X5, POWER CONSUMPTION: 30 watts, 117 volts, 60 cycles A.C. Max Input 129 volts. DIMENSIONS: 8½" x 19" x 10⅛". WEIGHT: 17½ lbs. **LIST**: (with tubes) **$228.44**. Without UV meter **$182.94**. Use Cannon XL3-11 type microphone connectors.

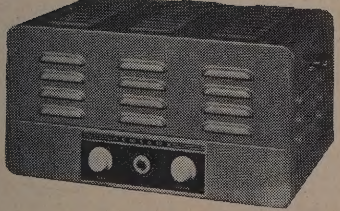


H-25B

H-25B: Booster Amplifier — Performance Power and Output Impedances same as H-25 with but one input of ½ meg. impedance, gain 68 db. Provision for plug-in bridging or low impedance transformer. Etched metal panel with pilot light, A.C. power switch and volume control. Ideal for use with H-4 Pre-amplifier. Built for long life. TUBES (5): 1-6SJ7, 1-6J5, 2-6L6G, 1-5U4G POWER CONSUMPTION: 120 watts, 117 volts. 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 8⅛" x 19" x 10⅛". WEIGHT: 22 lbs. LIST: (with tubes) **$149.50**. PLUG KIT: **$1.69**.

H-50B: Booster Amplifier — Performance, Power and Output Impedances are same as H-50 with but one input of ½ meg. impedance, gain 71 db. Provision for plug-in bridging or low impedance transformer. Etched metal panel with pilot light, A.C. switch and volume control. Built for long life. Ideal for use with H-4 Pre-Amp. TUBES (8): 1-6SJ7, 1-6J5, 4-6L6G, 2-5U4G. POWER CONSUMPTION: 220 watts, 117 volts, 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 9¼" x 19" x 12½". WEIGHT: 33½ lbs. LIST: (with tubes) **$189.50**. PLUG KIT: **$1.69**.

NEWCOMB DELUXE PORTABLE SYSTEMS



H-50B

H-1512R: Portable system with H-15 amp. and two 12" speakers, each with 25' cable, in split case Model EH-212R, size 11⅛" x 20½" x 21", covered in washable fabricoid. Kickproof metal grills protect speakers. Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$283.09**.

H-2512R: Portable system with H-25 amp. and two 12" speakers, each with 25' cable in split case, Model EH-212R. Size, 20½" x 11⅛" x 21". Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$314.53**.

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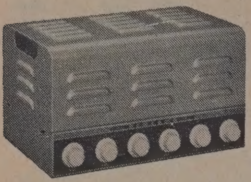
SPECIAL SERIES
P. A. AMPLIFIERS

E
SERIES

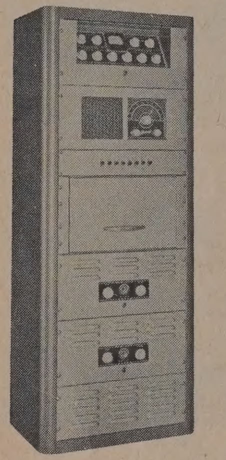
The same fine workmanship and materials as the incomparable KX- and H-Series. Designed to lead the low-price field. For performance, dependability and economy the E-Series is today's best combination of high quality and low cost. All models U/L Approved.



E-504: A 4 channel 50 watt amplifier featuring; high gain, inputs for 3 mikes and 1 phono, separate bass and treble tone controls, phono bass boost, multi-stage inverse feedback, push pull parallel output system for lowest distortion at all power levels. POWER OUTPUT: 50 watts at less than 5% distortion. FREQUENCY RESPONSE: ± 2 db, 40 to 15,000 cycles. THREE MIKE INPUTS: 2 meg., gain 126 db. Wired for plug-in input transformers. PHONO INPUT: ½ meg., gain 86 db. OUTPUT IMPEDANCES: 4, 8, 16, 98 (70 Volt Tap) and 250 ohms. TUBES: (11) 3-6SF5, 1-6SJ7, 1-6SN7, 4-6L6G, 2-5V4G. FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal, illuminated. CONTROLS: 3 mike, 1 phono, 1 bass, 1 treble and power switch. POWER CONSUMPTION: 180 watts, 117 volts, 60 cycles A.C. SIZE 11¼″ x 14¾″ x 8½″. WEIGHT: 30 lbs. LIST: (with tubes and cover) **$239.50. PLUG KIT: $3.90.**

All prices and specifications subject to change without notice.

RACK AND PANEL ASSEMBLIES



Any Newcomb H or K Series amplifier, and Models E-504 and E-254 may be obtained panel mounted on special order in 19″ x 8¾″ panels.

MODEL 595-19 CABINET is a complete welded assembly finished in dark gray hammertone, provides 56″ of panel space. Fully ventilated rear door. Provision for nine ½″ conduits. 59½″ x 23″ W x 16″ D. Weight: 92 lbs. LIST: $189.50.

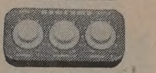
MODEL 385-19 CABINET provides 35″ of panel space. 38½″ x 23″ W x 16″ D. Weight: 72 lbs. LIST: $149.50.

Other panels available for these cabinets include phono changer drawer, blank, louvered, intercom, switch key. Full details will be sent upon request.

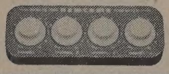
REMOTE CONTROLS FOR H & K AMPLIFIERS

For mixing and fading all H Series mike inputs. With K Series amplifiers all mikes and phono may be controlled. Up to 2000 feet of cable may be used. No inductive pickup.

RC-2 for H-15 amp. Requires ordinary 3 wire cable, 2¾″ x 6″ x 2⅛″. WEIGHT: 1 lb. LIST: (less cable) $10.50.

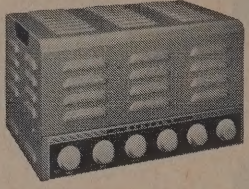


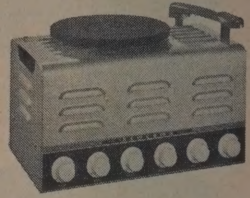
RC-3 for H-25 or H-4 amps. Requires ordinary 4 wire cable. 2¾″ x 6″ x 2⅛″. WEIGHT: 1 lb. LIST: (less cable) $15.50.



RC-4 for H-50 amp. Requires ordinary 5 wire cable. 2¾″ x 7⅝″ x 2⅛″ WT.: 1¼ lbs. LIST: (less cable) $19.50.

RC-6 for KX-25, KX-50, KX-6 amps. Requires ordinary 7 wire cable. 2¾″ x 11¼″ x 2⅛″. WEIGHT: 2 lbs. LIST: (less cable) $27.50.

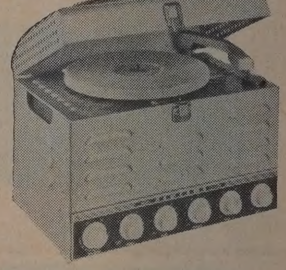


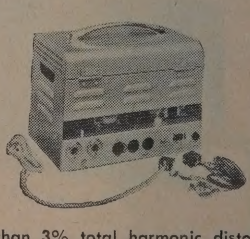


E-254P3: A highly versatile, yet economical 4 channel, 25 watt amplifier with 3 speed phono. FEATURES: High gain, inputs for 3 mikes and 1 phono, separate bass and treble tone controls, phono bass boost, multi-stage inverse feedback circuit. Pickup is high-grade turnover crystal. POWER OUTPUT: 25 watts at less than 5% distortion. FREQUENCY RESPONSE: ± 2 db, 40 to 15,000 cycles. 3 MIKE INPUTS: 2 meg., gain 123 db. Wired for plug-in input transformers. PHONO INPUT: ½ meg., gain 83 db. OUTPUT IMPEDANCES: 4, 8, 16, 196 (70 Volt Tap) and 500 ohms. TUBES: (8) 3-6SF5, 1-6SJ7, 1-6SN7, 2-6L6G, 1-5V4G, FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal illuminated. CONTROLS: 3 mike, 1 phono, 1 bass, 1 treble and power switch. POWER CONSUMPTION: 105 watts at 117 volts, 60 cycles A.C. SIZE: 8⅜″ x 14⅛″ x 8″. WEIGHT: 18¼ lbs. LIST: (with tubes) **$211.50. PLUG KIT: $3.90.**

E-254: A 25 watt amplifier without 3 speed phono. Otherwise identical to model E-254P3. LIST: (with tubes and cover) **$169.50. PLUG KIT: $3.90.**

MOBILE AMPLIFIERS 12-VOLT





Newly developed E-253M Series Newcomb Amplifier designed for use anywhere. Ultra modern 25 watt unit available in several styles with and without turntable (see below). May be used on either 12-volt storage battery or 117 volt 60 cycle AC power source with equal effectiveness. Consumes as much as 20% less battery current, weighs up to 30% less. Separate bass and treble tone controls; two microphone channels each with the new standard broadcast type connectors and convertible to low impedance with Newcomb humless plug-in input transformers; high gain separate phono channel for ceramic pickups; extra input for tape; standby switch to reduce idle battery consumption more than 70%; new freedom from vibrator hash; heat resistant ceramic pickup and turret type motor in 3-speed phono top; completely U/L Approved.

POWER OUTPUT: 25 watts at less than 3% total harmonic distortion, peak power 40 watts. FREQUENCY RESPONSE: 30 — 20,000 cycles ± 2 db. HUM LEVEL: 70 db below 25 watts. INPUTS: Two mike (2 meg.) gain 122 db; one phono (2 meg.) gain 90 db; and one tape (2 meg.) gain 90 db. Mike inputs convertible to low impedance using Newcomb plug-in transformers. CONTROLS: One stand-by switch, one power switch and treble tone control, one bass tone, one phono, two microphone, one phono motor control (on phono top models), and one hum balance control. OUTPUT IMPEDANCE: 4, 8, 16, and 500 ohms and a 70 volt tap to impedance selector and two output sockets. POWER CONSUMPTION: On 117 volts 60 cycles AC, 100 watts. On 12 volts DC, 8.85 amps (with phono top, 10.3 amps.). Stand-by current less than 3 amps. SIZE: 14⅛x9½x8″ high (with cover (height 10¼″). TUBES: 1-12AX7, 1-12AU6, 2-6L6G, 2-6X5GT, 1-12AV7, E-253M — plain top model, list price **$214.50.** (Weight, 24 lbs.). E-253M3 — 3-speed phono-top model, list price **$248.10.** (Weight, 28¼ lbs.). PC — Protective turntable cover with "king-sized" handle for use on Model E-253M3 only, list price **$15.00.** (Weight, 2¾ lbs.). Above prices include both battery and AC power cables.

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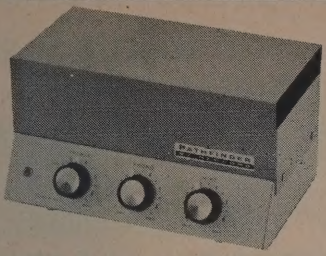
NEWCOMB PATHFINDER PUBLIC ADDRESS EQUIPMENT

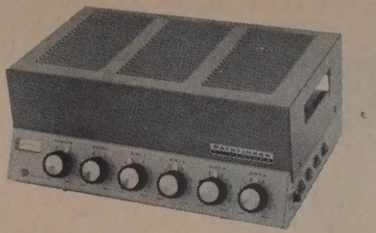


MODEL E-10B

10 watt amplifier
Low priced, deluxe, full push-pull output

The Newcomb E-10B offers a surprising number of deluxe features for so compact and economical an amplifier. It has the slanted operating panel and control markers which distinguish all Pathfinder models. The E-10B has separate mixers for microphone and ceramic phono pickup (or radio or tape). Mike input is a standard 3-contact phone jack suitable for high or low impedance mike. The E-10B is wired for plug-in transformers for instant conversion for use with low impedance mike. Output impedances to socket are 4, 8, 16 ohms, plus a 70 volt (500 ohms) line tap. Output jack for recorder or booster amplifier. Unit has a wide-range treble tone control, 25,000 hour pilot light. UL approved.

SPECIFICATIONS: Power Output: 10 watts RMS, 20 watts peak at less than 5% distortion. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 118 db at 2 meg. .0055 volts delivers full power. **Phono Gain:** 79 db at 1 meg.; 33 volts delivers full power. **Output To Tape Jack:** Delivers 4.4 volts max. or 1 volt at ½ watt output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ± 3 db, 70 through 13,000 cycles at 5% distortion. **Size:** 10¼″ x 6½″ x 5¾″ high. **Weight:** 9 lbs. **Power Consumption:** 60 watts, 117 volts, 60 cycles. **Tubes:** 1-12AX7, 1-6AU6, 2-6V6, 1-6X4.
LIST: (with tubes) $75.00.



MODEL E-5P

5-channel mixer preamplifier

The Newcomb E-5P is a high performance, low-priced, multipurpose mixer-preamplifier with 4 microphone channels (one convertible to magnetic phono), one high level channel with two inputs (chosen by selector switch) – one for ceramic phono pickup, the other for tape or radio. Master gain control. Each mike input jack is standard 3-contact phone jack. Each mike channel is wired for plug-in transformers for instant conversion to low impedance microphone usage. The E-5P has a VU meter with concealed sensitivity adjustment, outputs for tape, booster, and a.c., 25,000-hour pilot lamp. Operating panel is slanted for easy viewing and operating sitting or standing. Performance is excellent with individual mike input tubes for minimum crosstalk and d.c. on all filaments. UL approved.

SPECIFICATIONS: Cathode Follower Outputs: 6 volts at less than 2% into high impedance load. **Volume Indicating Meter:** Adjustable from 2 to 6 volts. **Frequency Response:** ±2 db 30 through 20,000 cycles. **Mike Inputs:** 2 meg.; .0025 volts for 2 volts out. **Ceramic Phono or Radio or Tape Input:** 1 meg. .32 volts for 2 volts output. **Magnetic Phono Input:** .011 volts for 2 volts output. **Hum:** Fundamental, 80 db below 6 volts output. **Size:** 14⅛″x8$\frac{5}{16}$″x5″ high. **Weight:** 11¾ lbs. **Power Consumption:** 31 watts 117 volts 60 cycles A.C. **Tubes:** 4-12AV6, 1-12AU6, 5-OC5, 1 power silicon rectifier.
LIST: (with tubes) $139.50.

HIGH QUALITY, LOW PRICE PUBLIC ADDRESS AMPLIFIERS WITH MANY DELUXE FEATURES

MODEL P-4

PHONO TOP

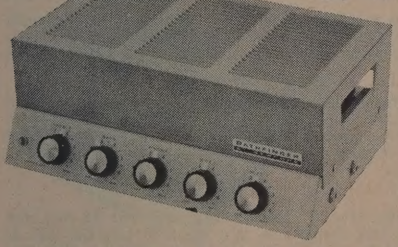
The Newcomb P-4 is a 4-speed record player that is designed to fit on top of the E-20, E-40 or E-75 Pathfinder amplifier. It includes an automatic idler release on the power switch to prevent flat spots, a plug-in turnover-type dual-sapphire-styli ceramic cartridge, pickup hold-down screw and drop pad. Dimensions: 8$\frac{5}{16}$″ x 14″ x 5″ high over all. Weight: 6 lbs. **LIST: $39.95.**

BASS
3
2
MIN
MAX

All Newcomb Pathfinder power amplifiers and the E-5P preamplifier have slanted operating panels for convenient control in either a sitting or standing position. This feature is important, too, with rack mounted installations where units may be mounted near the floor as well as at eye level. All control knobs have white, rotable reference markers for quick return to a pre-determined setting. All have a 25,000 hour pilot light. All are UL approved. Newcomb public address amplifiers Models E-20, E-40, and E-75 all have the following features: Each has two microphone channels with mixer controls and one high level channel with mixer for ceramic phono pickup, radio or tape. Mike channels are wired for Newcomb plug-in transformers for instant conversion to use with low impedance microphones. High level control is compensated; as volume is reduced, bass is proportionately sustained. Mike not affected by this control. There are separate bass and treble master tone controls. Output taps on terminal strip and two sockets are for 25 volt balanced or unbalanced line plus 70 ohms unbalanced, and 16, 8, and 4 ohms. There is an output jack for recorder or booster and an a.c. output receptacle. Pathfinder equipment has a distinctive two-tone finish in soft tints of olive-gray and spruce.

MODEL E-20

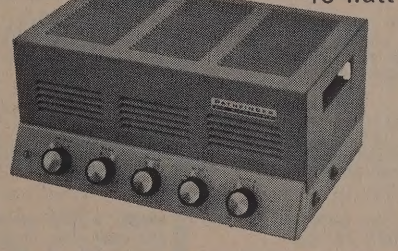
20 watt



SPECIFICATIONS: Power Output: 20 watts RMS, 40 watts peak at less than 5% distortion. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 122 db at 2 meg.; .005 volts delivers full power. **Phono Gain:** 83 db at 1 meg. .315 volts delivers full power. **Output To Tape Jack:** Delivers 6 volts max. or 1 volt at ½ watt output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ±3 db 50 through 20,000 cycles at 5% distortion. **Size:** 14⅛″ x 9½″ x 5¾″ high. **Weight:** 14¼ lbs. **Power Consumption:** 80 watts, 117 volts, 60 cycles A.C. **Tubes:** 1-12AX7, 1-6BR8, 2-EL-84, 1-5Y3.
LIST: (with tubes) $99.50.

MODEL E-40

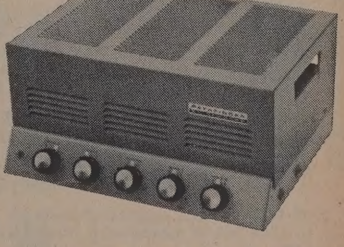
40 watt



SPECIFICATIONS: Power Output: 40 watts RMS, 80 watts peak at less than 5% distortion. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 125 db at 2 meg.; .005 volts delivers full power. **Output To Tape Jack:** Delivers 6 volts max. or 1 volt at 1 watt output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ±2 db 40 through 20,000 cycles at 5% distortion. **Size:** 14⅛″ x 9½″ x 6¾″ high. **Weight:** 19¼ lbs. **Power Consumption:** 160 watts, 117 volts, 60 cycles A.C. **Tubes:** 1-12AX7, 1-6BR8, 4-EL84, 1-5U4.
LIST: (with tubes) $129.50

MODEL E-75

75 watt



SPECIFICATIONS: Power Output: 75 watts RMS, 150 watts peak at less than 5% distortion from a fixed bias, screen regulated, output system. **Frequency Response:** ±2 db 30 through 15,000 cycles. **Mike Gain:** 128 db at 2 meg.; .005 volts delivers full power. **Phono Gain:** 88 db at 1 meg.; 3 volts delivers full power. **Output To Tape Jack:** Delivers 6 volts max. or 1 volt at 1.87 watts output. **Hum:** Fundamental, 70 db below rated output. **Power Response:** ±2 db 50 through 20,000 cycles at 5% distortion. **Size:** 7″ x 13½″ x 14⅛″. **Weight:** 26 lbs. **Power Consumption:** 185 watts, 117 volts 60 cycles. **Tubes:** 2-12AX7, 1-6C4, 2-7027A, 1-6V6GT, 3 power silicon rectifiers.
LIST: (with tubes) $189.50.

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NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

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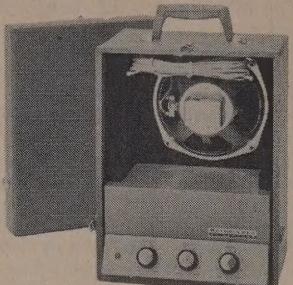
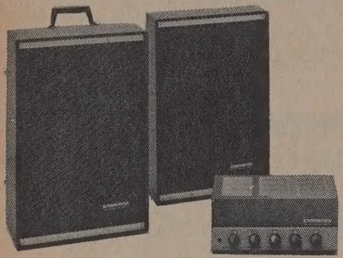
NEWCOMB PATHFINDER PUBLIC ADDRESS SYSTEMS

MODEL E-1008S

10 watt
PORTABLE
system



The Newcomb E-1008S System consists of one E-10B amplifier and one P-108 speaker assembly. The P-108 contains an efficient 8″ loudspeaker protected by a kickproof, perforated metal grille, microphone carrying straps (but no mike), and space for carrying the E-10B amplifier. Size: 11¼″ x 14¾″ x 9″ deep. System weight: 17½ lbs.
LIST: $115.00.



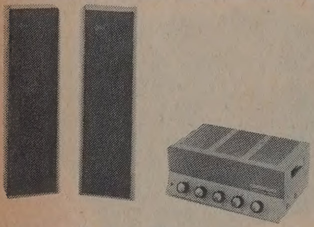
MODEL E-20-212R

20 watt
PORTABLE
system

This 20 watt system consists of one Newcomb E-20 amplifier and one S-212R dual speaker assembly which also acts as a carrying case for the amplifier. The S-212R includes two efficient 12″ dual-cone loudspeakers, each with a 25 foot cord and plug. Speaker baffles snap together back to back. Inside are mike carrying straps but no microphone. Speakers are protected by kickproof perforated metal grilles. System closed measures 13½″ x 15¼″ x 23″, weighs 37 lbs.
LIST: $199.50.

MODEL E-40-212H 40 watt PORTABLE system. Included in the E-40-212H are one Newcomb E-40 amplifier and one S-212H dual speaker case assembly which also acts as a carrying case for the amplifier. There are two 12″ heavy duty loudspeakers each with a 25 foot cord and plug, kick-proof perforated metal grilles and mike carrying straps but no microphone. Size: 13½″ x 15¼″ x 23″, weight 44 lbs.
LIST: $242.00.

COLUMN SPEAKER PERMANENT SYSTEMS



MODEL E-20-2C8F 20 watt consists of one E-20 amplifier, two Model C-8 column speakers, and 100 feet of speaker cord. No microphone. Weight: 54¾ lbs.
LIST: $336.20.

MODEL E-40-2C8F 40 watt consists of one E-40 amplifier, two Model C-8 column speakers, and 100 feet of speaker cord. No microphone. Weight: 60 lbs.
LIST: $366.20.

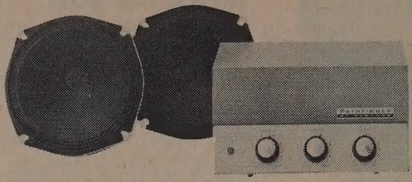
MODEL E-75-4C8F 75 watt consists of one E-75 amplifier, four Model C-8 column speakers, and 200 feet of speaker cord. No microphone. Weight: 107 lbs.
LIST: $662.90.

MODEL E-20-2C12F 20 watt consists of one E-20 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 93¼ lbs.
LIST: $569.50.

MODEL E-40-2C12F 40 watt consists of one E-40 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 98½ lbs.
LIST: $599.50.

MODEL E-75-2C12F consists of one E-75 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 105 lbs.
LIST: $659.50.

MODEL E-75-4C12F 75 watt consists of one E-75 amplifier, four model C-12 super column speakers and 200 feet of speaker cord. No microphone. Weight: 184 lbs.
LIST: $1129.50.



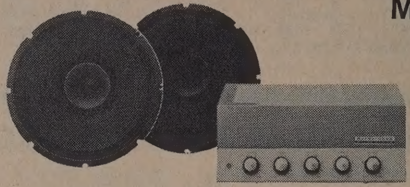
MODEL E-10-28F

10 watt
PERMANENT
system

This system includes one Newcomb Model E-10B amplifier, two eight-inch extended range loudspeakers, and 100 feet of speaker cord. No microphone included. System weight: 12 lbs.
LIST: $99.00.

MODEL E-20-48F

This is a 20 watt sound system for permanent installation consisting of one Newcomb Model E-20 amplifier, four 8″ extended range loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 20¼ lbs.
LIST: $147.50.



MODEL E-20-212F

20 watt
PERMANENT
system

This twenty watt system includes one Newcomb E-20 amplifier, two 12″ dual-cone loudspeakers, and 100 feet of speaker cord. No microphone included. System weight: 20¾ lbs.
LIST: $143.50.

MODEL E-40-212FH 40 watt PERMANENT system includes one Newcomb E-40 amplifier, two heavy duty 12″ loudspeakers, and 100 feet of speaker cord. No microphone. System weight: 28 lbs.
LIST: $184.50.

MODEL E-40-412F 40 watt PERMANENT system includes one Newcomb E-40 amplifier, four dual-cone loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 32½ lbs.
LIST: $217.50

MODEL E-75-412FH 75 watt PERMANENT system includes one Newcomb E-75 amplifier, four heavy duty 12″ loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 43 lbs.
LIST: $299.50

SPEAKER ASSEMBLIES

MODEL P-108 is an 8″ speaker in a portable case fitted for carrying the Newcomb E-10B amplifier. It has a kickproof, perforated metal grille, 25 foot cord with octal plug and microphone straps. Dimensions: 11¼″ x 14¾″ x 9″ deep. Weight: 9 lbs.
LIST: $40.00.

MODEL P-212R consists of two efficient 12″ dual-cone speakers, each with 25 foot cord and octal plug. in a split portable case designed to carry the E-20 amplifier with or without the P-4 phone top. Case is covered with gray vinyl, has kickproof, perforated metal grilles, and microphone-carrying straps. Dimensions: 13½″ x 15¼″ x 23″. Weight: 22½ lbs.
LIST: $100.00.

MODEL P-212H consists of two heavy duty 12″ loudspeakers, each with 25 foot cord and octal plug, in a split portable case designed to carry the E-40 amplifier with or without the P-4 phono top. Case is covered with gray vinyl, has kickproof, perforated metal grilles, and microphone-carrying straps. Dimensions: 13½″ x 15¼″ x 23″. Weight: 24½ lbs.
LIST: $112.50.

MODEL C-8 COLUMN SPEAKER combines exceptional vertical directivity with broad horizontal coverage. Enclosure tapered front to back for ganging. Contains four efficient 8″ speakers. Dimensions: 6½″D x 11⅜″W 40″ H. Weight: 20¼ lbs.
LIST: $115.85.

MODEL C-12 SUPER COLUMN SPEAKER with four 12″ speakers provides super intelligibility, super efficiency, super power handling capacity — 120 watts peak. Dimensions: 7½″ D x 15¼″ W x 56″ H. Weight: 39½ lbs.
LIST: $232.50.

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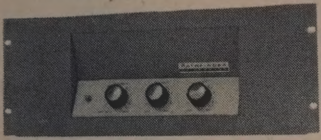
NEWCOMB PATHFINDER PUBLIC ADDRESS EQUIPMENT

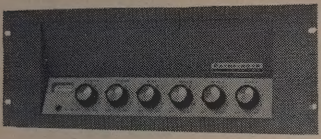
RACK AND PANEL EQUIPMENT

AMPLIFIER PANELS — MODEL E-10-700PG



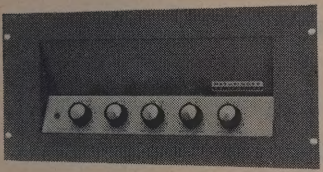
Panel only for rack mounting a standard Newcomb E-10B amplifier. Dimensions: 19″ x 7″. Weight: 3 lbs.
LIST: $17.50.

MODEL E-52040-700PG



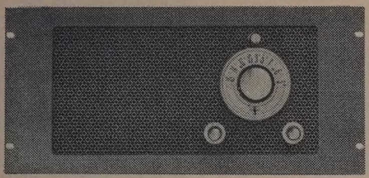
Panel only for either the Newcomb E-5P preamplifier, the E-20 or E-40 amplifier. Dimensions: 19″ x 7″. Weight: 3½ lbs.
LIST: $18.50.

MODEL E75-875PG



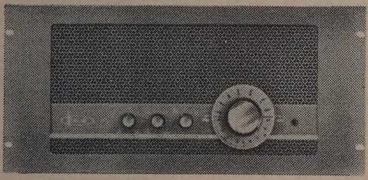
Panel only for rack mounting a standard Newcomb E-75 amplifier. Dimensions: 19″ x 8¾″. Weight: 4 lbs.
LIST :$19.50.

PANEL MOUNTED RADIOS — MODEL AM-500-875 AM RADIO



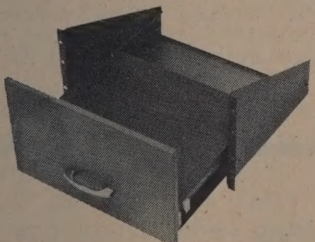
This is a complete, transformer-powered AM radio in which the output amplifier and 8″ oval speaker act as a monitor. The output to external amplifiers is taken off ahead of the volume control so adjustment of monitor volume has no affect on output to sound system or tape recorder. The AM-500-875 is a dependable, rugged, continuous duty receiver with a large, direct-driven tuning dial with conelrad markings, lighted index. 40 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 8¾″ x 7½″ deep. Weight: 12¼ lbs.
LIST: $109.00.

MODEL AFM-750-875 AM·FM RADIO



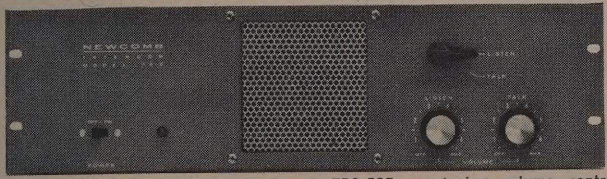
A complete, transformer-powered AM-FM radio in which the output amplifier and 8″ oval speaker act as a monitor, the AFM-750-875 has AFC (and defeat switch) and temperature-compensated oscillators for exceptionally stable performance. Output to external amplifier is taken off ahead of the volume control so adjustment of monitor volume has no affect on output to sound system or recorder. 54 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 8¾″ x 7½″ deep. Weight 14½ lbs.
LIST: $249.00.

MODEL 1050CG
PHONO CHANGER DRAWER

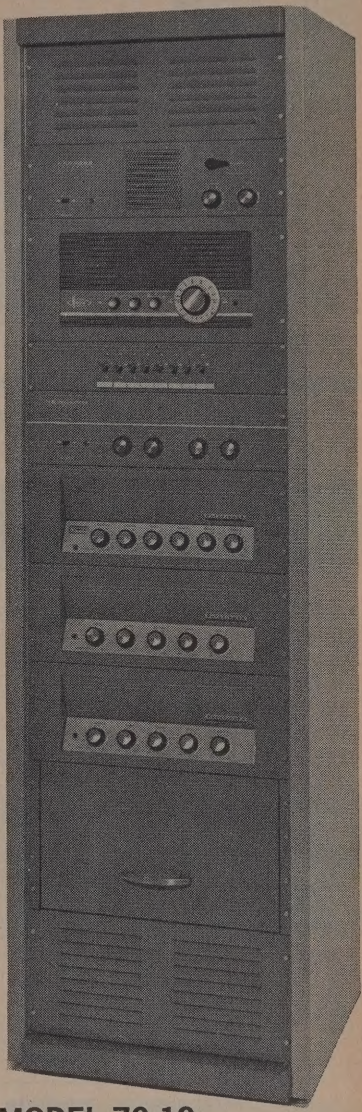


The front panel dimensions of the 1050CG phonograph changer drawer is 19″ x 10½″. It has a 16½″ x 15″ removable motor board. Depth from the top of the motor is 3¾″. Clearance above top of motor board is 6⅛″. Weight 19¼ lbs. Finest double-extension, roller bearing glides provide a stable level platform for player.
LIST: $65.00.

MODEL TB2-525
PANEL-MOUNTED INTERCOM



A complete intercom amplifier and speaker, the TB2-525 is designed for industrial installations wherein paging speakers are used for intercommunication. Input and output impedances: 500 ohms. Separate incoming and outgoing volume controls. Talk-listen switch. Pilot light. Tubes: (3) 1-6SL7, 1-6v6, 1-6X5. 40 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 5¼″ x 6⅛″ deep. Weight: 9¼ lbs. **LIST: $183.50.**



MODEL 70-19
CABINET RACK

Contemporarily styled, solidly built, beautifully finished in an olive-gray tint compatible with Newcomb Pathfinder equipment, the 70-19 has a ventilated back, provides 70″ of panel space. Panels are standard 19″ width. Last three digits of model number indicate panel depth. e.g. "875" stands for 8¾″ panel depth. Dimensions: 21⅞″x 74″x 18½″ deep. Weight 84 lbs. **LIST: $262.00.**

MODEL 70D Door with lock for front of 70-19 cabinet. Weight: 23 lbs.
LIST: $50.00.

MODEL 35-19 CABINET RACK A short cabinet rack with ventilated back ,35″ of panel space. Dimensions: 21⅞″ x 39″ x 18½″ deep. Weight: 52 lbs.
LIST: $187.50.

MODEL 35D Door with lock for front of 35-19 cabinet. Weight: 12 lbs.
LIST: $29.50.

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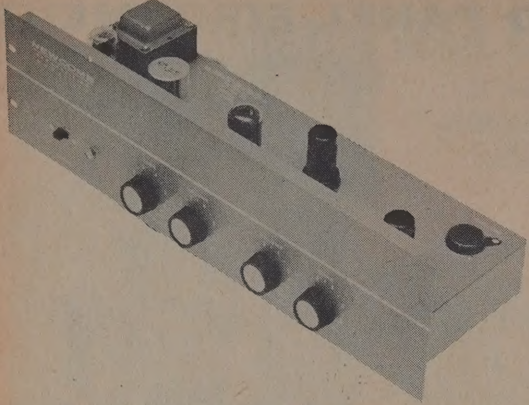
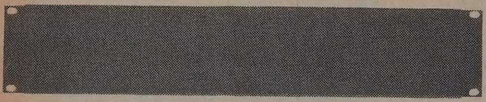


MODEL E2-525 INDUSTRIAL PREAMPLIFIER

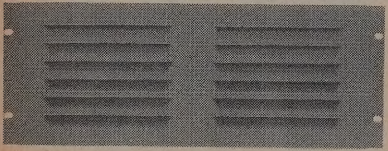
Designed for industrial sound systems, the Newcomb E2-525 has 125 to 600 ohm balanced line output. Maximum output at 600 ohms = 10 volts line output. Inputs: one mike at 2 meg impedance, convertible to low impedance by means of Newcomb plug-in transformer (socket provided) · one high level crystal phono; one radio or tape. At 600 ohm line output: mike output of .0015 volts delivers 1 volt; phono input of .15 volts delivers 1 volt out. Frequency response: ±2 db 30 to 15,000 cycles. Electronic remote switching turns mike on and music off when paging. Remote switching line may be unshielded 3-conductor cable up to several thousand feet long. No relays required. There are separate tone controls for mike and phono. Mike input socket is a standard 3-contact phone jack usable with low or high impedance microphones. Tubes: 1-6SF5, 1-6SN7, 1-6J5, 1-6X5, 25 watts, 117 volts, 60 cycles a.c. Dimensions: 19″ x 5¼″ x 6⅛″ deep. Weight: 9 lbs. **LIST: $129.50.**

PANELS FOR CABINET RACK



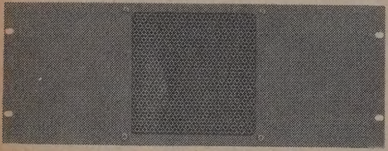
BLANK PANELS

Model Number	Dimensions	Weight lbs.	List
175G	1¾″ x 19″	1¾	$3.00
350G	3½″ x 19″	1¾	$3.50
525G	5¼″ x 19″	2½	$4.00
700G	7″ x 19″	3	$4.50
875G	8¾″ x 19″	3½	$5.00
1050G	10½″ x 19″	4¼	$5.50



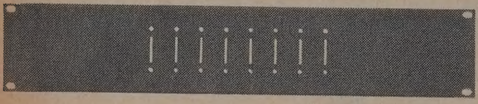
LOUVERED PANELS

Model Number	Dimensions	Weight lbs.	List
L-525G	5¼″ x 19″	2½	$5.00
L-700G	7″ x 19″	3	$5.75
L-875G	8¾″ x 19″	3½	$6.50
L-1050G	10½″ 19″	4¼	$7.25



MONITOR PANEL

MODEL 700MPG measures 7″ x 19″, has perforated metal grille, requires 6″ speaker, weight 3 lbs. (See also radio panels.)
LIST: $10.00.

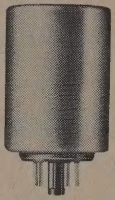


LEVER KEY PANELS

All lever key panels have 1″ slots 1″ apart wtih 1⅝″ mounting holes. Each panel measures 3½″ x 19″. Weight of each panel is 1¾ lbs.

Model No.	No. of slots	LIST
LK-350-6G	6	$5.00
LK-350-8G	8	$5.50
LK-350-10G	10	$6.00
LK-350-12G	12	$6.50
LK-350-14G	14	$7.00
LK-350-16G	16	$7.50

Name strip Model No.	LIST
SR-6	$2.50
SR-8	$2.60
SR-10	$2.70
SR-12	$2.80
SR-14	$2.90
SR-16	$3.00



HUM-FREE PLUG-IN MICROPHONE INPUT TRANSFORMERS

MODEL TR-91

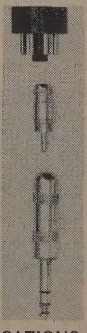
Input transformers are designed for all Newcomb amplifiers wired to accept them. They provide 30/50 ohms or 200/250 ohms input impedance depending on wiring of transformer socket. Normal Newcomb amplifier wiring connects the TR-91 for 30/50 ohms. Frequency response: 20 to 20,000 cycles. Weight 1¼ lbs.
LIST: $25.00.

MODEL TR-92

Input impedance 5,000 ohms to grid for bridging a 500-600 ohm line. When plugged into sockets on K50B, H50B, H25B it converts for use as bridging amp. Weight: 1¼ lbs.
LIST: $25.00.

MODEL TR-100

Input transformers are identical to TR-91 models. They provide 125/150 ohms or 500/600 ohms impedance depending upon wiring of socket with 125/150 ohms normal. Frequency response: 20 to 20,000 cycles. Weight: 1¼ lbs.
LIST: $25.00.



CONNECTORS

MODEL PW-156 is an octal speaker plug for all Pathfinder models. **LIST: $.45.**

MODEL PW-51 is a phono tape or radio input plug for all Pathfinder models. **LIST: $.10.**

MODEL PW-144 is a three contact, shielded mike plug for all Pathfinder models. **LIST: $1.75.**

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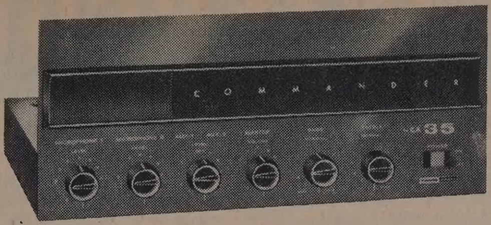
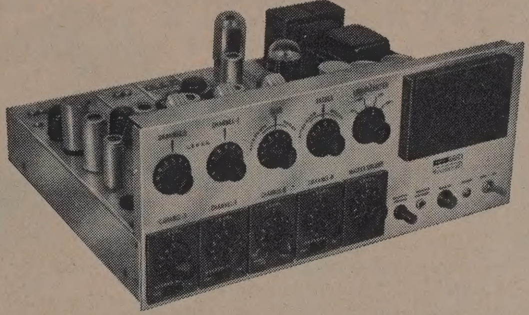
For your next P. A. job, for every P. A. job,



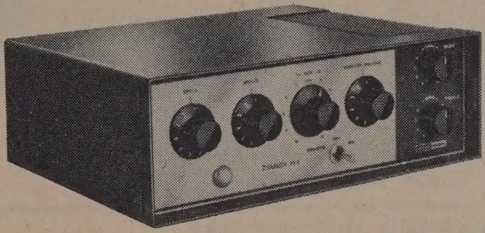
Commander Series—Quality at Economy Prices

Harman-Kardon gives you versatility,



Galaxy Series—Custom Sound

top value and exclusive features



Troubador Series—All Transistor

in each of these complete lines!

Commander Series: New! A totally new line of five amplifiers ranging from 10 to 100 watts... each with CERTIFIED POWER RATING, Hi and Lo impedance mics, capability for PRECEDENCE operation. Commander offers MORE major features: add mic channels, an area speaker selector or plug-in mag phono/tape head pre-amp. Big, new catalog provides revealing information you'll be glad to have.

Get the full story!

Galaxy Series: A new concept in p.a.—modularized 40, 75, 150 watt amplifiers, boosters and 8 channel mixer, offering the quality of custom sound with installation ease of package equipment. Preamp modules — give you precise facilities for any need, allows for expansion at any time at minimal cost; equipment never obsoletes.

Get the full story!

Troubador Series: Extra services and application flexibility unduplicated by any other transistorized equipment. A 15 watt mobile transistorized amplifier and a 30 watt portable transistorized DC or AC/DC amplifier. These amplifiers will find uses in police, fire, marine, construction, rental and other applications.

Get the full story!

Built *by* Sound Men *for* Sound-Men

For full details, write: Commercial Sound Div. **harman kardon** Plainview, L. I., New York.

HK-75R

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INTERCOMS

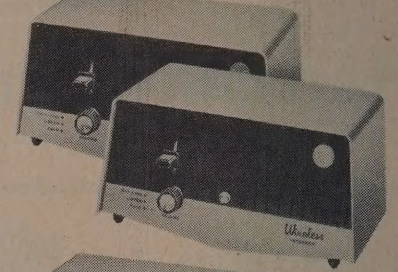
RCA offers a complete line of quality intercoms designed for office, home, farm or factory use at an economical price. Manufactured at RCA's traditionally high standards of engineering and design, the intercoms shown here are suitable for almost any possible application from simple wireless 2-way talk listen systems to flexible multi-unit systems with a variety of talk-listen-monitor options. The unsurpassed styling of these fine intercoms will harmonize beautifully with any decor. Installation, in all cases, is simple and inexpensive. Complete instructions are furnished with all units.

WIRELESS INTERCOM SYSTEM

Type 17641

The RCA Wireless Intercom makes use of the existing power lines for the transmission of voice. Just plug the units into any standard home electrical outlet and the installation is complete. Ideal for use anywhere . . . home, office, farm or factory, the RCA Wireless will operate between rooms, office floors and even between adjacent buildings if on the same power line.

2 station system	**$99.50***
Add'l. station (17646)	**$49.75***

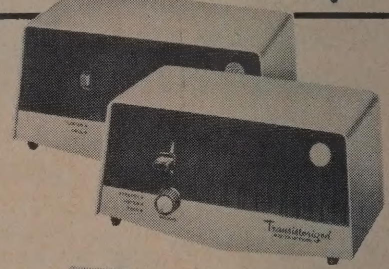


TRANSISTORIZED INTERCOM SYSTEM

Type 17642

The ultimate in low-cost installation. Battery operated (inexpensive penlight cells) it can be installed anywhere independent of ac current. Ideal outdoor system for farms, camps, storage yards, warehouses. Comes complete with master, remote and 50 feet of cable. As many as four additional remotes may be added to system.

1 master and 1 remote	**$52.95***
Add'l. remote (17648)	**$15.50***

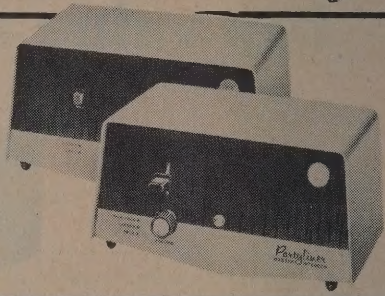


PARTYLINER INTERCOM SYSTEM

Type 17640

Ultra-sensitive "Partyliner" system comes complete with master, remote and 50 feet of cable. Powerful amplifier picks up the slightest noise. Remote can answer calls from a distance without operating switch making the "Partyliner" ideal for use as an electronic baby sitter. As many as four additional remotes can be added to system. Range of master to any remote is about 500 feet.

1 master and 1 remote	**$39.00***
Add'l. remote (17647)	**$15.50***

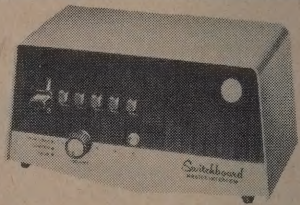


SWITCHBOARD MASTER INTERCOM

Type 17643

Used with as many as four remotes, the switchboard feature provides direct remote-to-remote conversations. Master can monitor any or all remotes or can set-up remotes to monitor other units. Remotes can originate calls to master and other remotes. Busy light flashes during conversation.

Master only	**$49.95***

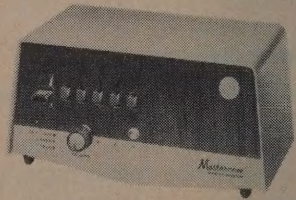


MASTERCOM MASTER INTERCOM

Type 17644

A dual-purpose master, the "Mastercom" can be used with as many as five remotes in a master-to-remote system or with as many as five additional masters in an all-master hook-up. In all-master systems, three private conversations can be held simultaneously or a conference may be held using all six stations.

Master only	**$49.95***

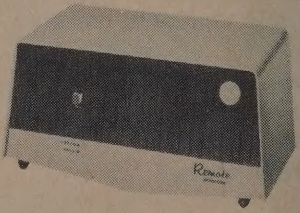


REMOTE STATION

Type 17645

The RCA Intercom Standard Remote Station can be used with either the RCA Mastercom or Switchboard unit. It can be installed for private or non-private operation. When private, its Call switch must be used to converse, but there's no interception by Master. When non-private, the Remote may reply to the master from a distance without using its switch, but its Call switch must be used to originate calls to its master. The RCA Remote Station can also be installed so that the call switch is inoperative and thereby unable to originate calls.

$15.50*



*Optional List Price

Trade Discount Applies To List Prices Only

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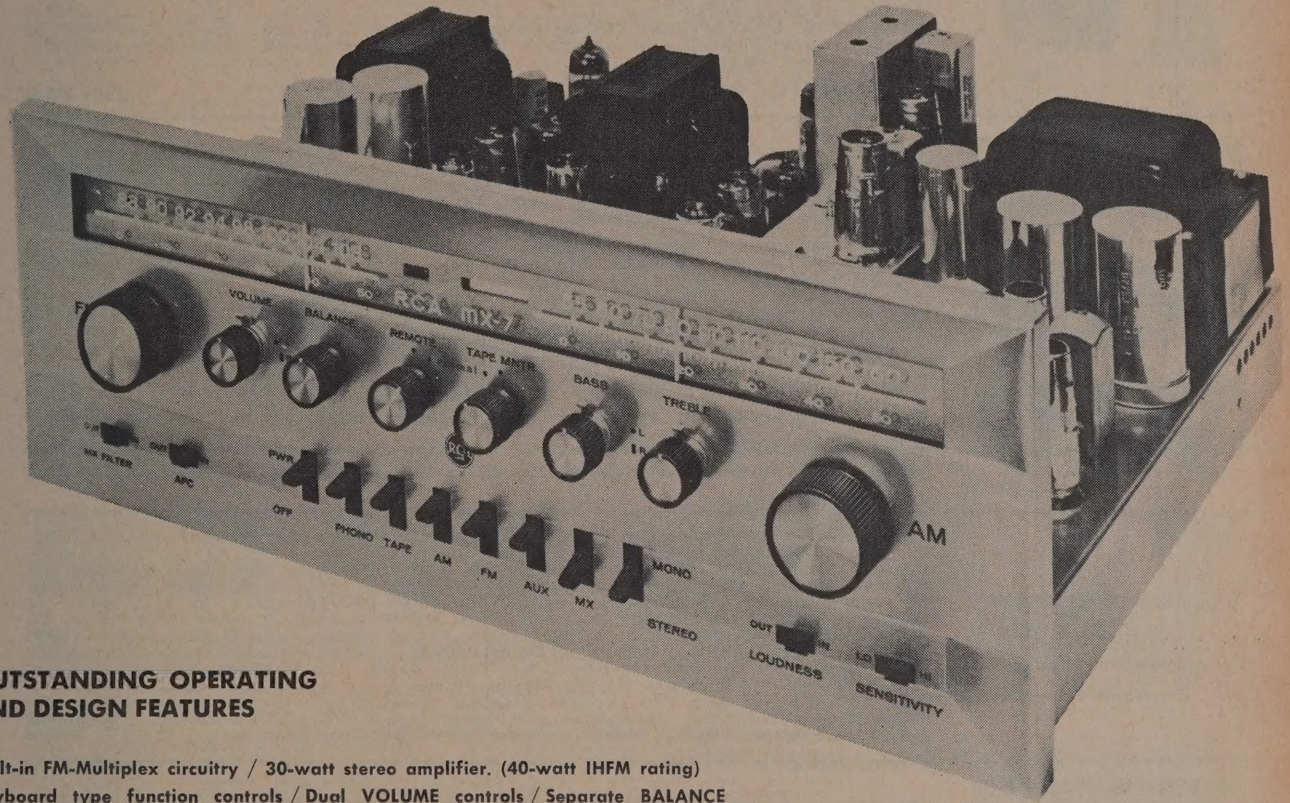
RCA MX-7

COMPLETE HIGH FIDELITY MUSIC CONTROL CENTER

The RCA MX-7 is a complete stereo high-fidelity music control center. It includes a high-performance FM-Multiplex stereo tuner, a high quality AM tuner, 30-watt stereo amplifier (40-watt IHFM rating) and input receptacles for connection of a tape recorder, phono turntable/changer, microphones, or TV set. Stereo outputs are provided for tape recording of all program material. Only the addition of speakers is needed to enjoy the rich, brilliant sounds from both AM and FM including full stereo FM multiplex reception.



OUTSTANDING OPERATING AND DESIGN FEATURES

Built-in FM-Multiplex circuitry / 30-watt stereo amplifier. (40-watt IHFM rating) Keyboard type function controls / Dual VOLUME controls / Separate BALANCE Control / Visual Tuning Indicator / Multiplex Signal Indicator / Nuvistor FM Tuner / Remote Control (optional) Unique RCA Surge Limiter / Tape Monitor / Local-Distant Sensitivity Switch / Automatic Frequency Control Switch / Dual Program Operation / Superb styling / Compact, lightweight — entire MX-7 unit measures only 6⅛" high, 17⅜" wide, 12½ deep; weighs just 35 pounds.

MX-7	**$349.50***
Remote Control	**$ 26.75***
Walnut Cabinet	**$ 26.75***

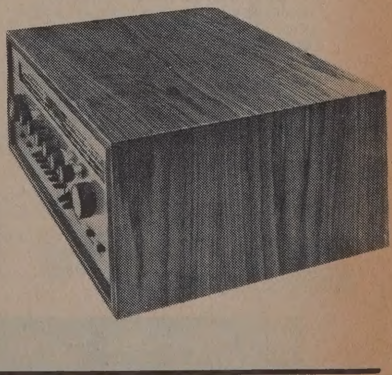
*** Optional List Price**

REMOTE CONTROL UNIT

In anticipation of your listening comfort, additional circuitry has been built into the MX-7 to permit connection of this small remote control unit. No longer is it necessary to walk back-and-forth between the receiver and the listening area when making volume and balance adjustments. Relax in your armchair and make these adjustments by remote control.

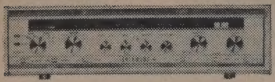
WALNUT CABINET

This beautiful walnut cabinet is available for those who wish to turn their MX-7 into a fine piece of furniture. The cabinet is custom crafted using the finest grained, oiled walnut veneer . . . a welcome addition to any living room.



TUNERS • AMPLIFIERS • SPEAKERS

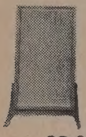
MOST HONORED OF THEM ALL

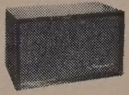

S-8000 III

S-7700

40 + 40 FM/MX STEREO RECEIVER. Combines in one unit the famed performance of Sherwood's FM tuner and multiplex circuitry, two phono preamplifiers and stereo control amplifiers. Features professional-quality zero-centered tuning meter, Stereo Indicator Light, balanced fly wheel tuning, friction-locked stereo bass and treble controls, ganged loudness control, phono level control, stereo balance control, stereo function and input selector switch. Slide switches control scratch and rumble filters, FM Inter-Channel Hush, phase reverse, and tape monitor. Inputs for tape playback, tape monitor, phono, and two auxiliaries. Outputs for recording and 4, 8, 16 ohm speakers.

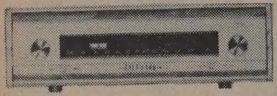
General Specifications—Power Output: Stereo 40 + 40 watts (80 watts mono) at 1½% IM distortion. Frequency Response: 20-20,000 cps ± ½ db. @ rated output. Hum and noise: phono input 63 db. below 40 watts. DC filament supply. Phono sensitivity 1.4 mv. Typical sensitivity: FM; 0.95 μv. for 20 db. quieting, 1.8 μv. for −30 db. noise and distortion IHF. Capture ratio: 2.4 db. Selectivity: FM 200 kc. @ −3 db. FM Detector: 1.0 mc peak-to-peak. Tubes: 20 plus 3 silicon rectifiers, 9 diodes. Power consumption 115-125V, 60 cps fused, 225w.
Size: 16¼″ x 4″ x 14″ deep.
S-8000 III (less case) Fair Trade Net **$319.50**
S-7700, similar to above, but with AM reception added, (less case) Fair Trade Net **$369.50**

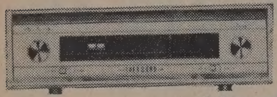

SR-2

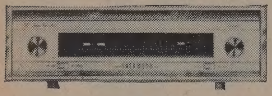

SR-3

"RAVINIA" 3-WAY SPEAKER SYSTEM. Response: 48 cps to 17,500 cps ± 2½ db. Power: handles 60-watts program. High compliance 12″ woofer, 8″ mid range and 3″ ring radiator tweeter. Crossovers at 600 and 3,500 cps.
Size: 26¼″ x 15″ x 13¼″ deep.
SR-3, hand-rubbed Walnut finish **$139.50**

"BERKSHIRE" 3-WAY SPEAKER SYSTEM. Response: 53 cps to 17,500 cps ± 2½ db. Power: handles 50-watts program material. High compliance 10″ woofer. Mid range and tweeter same as Ravinia. Same crossover network.
Size: 24″ x 13″ x 9½″ deep.
SR-2, hand-rubbed Walnut finish **$99.50**


S-3000 V, S-3000 III


S-2000 IV


S-2100 II

Sherwood is best known for its outstanding FM tuners, the first ever to achieve 0.95 μv sensitivity. All four models **S-3000 V FM/MX STEREO, S-3000 III FM, S-2000 III FM/AM,** and **S-2100 II FM/MX STEREO/AM** feature: **FM Interchannel Hush** which automatically eliminates noisy "hash" between FM channels; velvety-smooth **Flywheel Tuning;** either a **Tuning Eye** or professional **Zero-Centered Tuning Meter; 20% Longer Dial Scales.**

General Specifications—Typical Sensitivity: FM, 0.95 μv for 20 db. quieting, 1.8 μv for 30 db. quieting; IHF. Capture ratio: 2.4 db. Sensitivity: 1.8 μv for −30 db. noise and distortion below 100% FM, AM-2μv @ 60% mod. for 0.5V output, 6 db. S/N; Typical Selectivity: FM—200 kc @ −6 db.; AM—(wide) 15 kc @ −6 db., (narrow) 5 kc @ −6 db.: FM Detector: 1.0 mc peak-to-peak; Frequency Response: FM 20-20,000 cps ± ½ db., AM—(wide) 20-7,500 cps @ −6 db.; Distortion: FM—less than ⅓% IM @ 100% mod. Hum and Noise Level: FM −60 db. below 100% mod., AM −55 db. below 100% mod.; Audio Output: 2.0 volts output @ 100% FM; Tube Complement: 11 to 14 plus rectifier. Power Consumpetion: 80 watts, 115-125V, 50-60 cps; Dimensions: 14″ x 4″ x 10½″ deep.

S-3000 V, with Tuning Meter and Stereo Indicator Light; Fair Trade Price (less case) **$165.00**

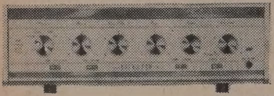
S-2100 II, with Tuning Meter and Stereo Indicator Light; Fair Trade Price (less case) **$209.50**

S-3000 III, Fair Trade Price (less case) **$110.50**

S-2000 IV, Fair Trade Price (less case) **$168.00**

S-5000 II, S-5500 III

The Sherwood "Top-Rated **S-5000 II—STEREO DUAL AMPLIFIER**—offers the maximum flexibility in stereo and monophonic operation.
General Specifications—Bass and treble controls have friction type dual knobs to adjust one channel separately from the other or together. Power output: Stereo, 40 + 40 watts music power (80 watts mono IHF music power). Frequency Response: 20-20,000 cps ± db. at 36 watts. IM Distortion: 1½% at rated output. Hum and Noise: phono input, 60 db. below rated output. DC filament supply. Sensitivity: Radio, 0.25 volt; phono, 1½ mv. Inputs: phono (RIAA); tapehead (NAB) and 6 high-level. 2 cathode follower recording outputs. Controls include: 12 db/octave scratch and rumble filters and presence rise switch. Tubes: 4-7868, 6-12AX7/ECC83, 4 silicon rectifiers. Power consumption: 110 watts, 115-125V, 60 cps, fused.
Size: 14″ x 4″ x 12½″ deep.
S-5000 II, Fair Trade Price, (less case) **$199.50**
S-5500 III, Same as S-5000 II without presence rise feature, (less case) **$164.50**


S-1000 III

The famous Sherwood "Music Center" monophonic amplifier offers music power output of 40 watts. This amplifier design is recognized for providing the many features and flexibility appreciated by the high-fidelity expert, yet offering the utmost in simplicity of operation.

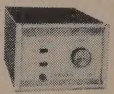
General Specifications, S-1000 III — same as one channel of S-5000 II. Six tubes, Size: 14″ x 4″ x 10½″ deep.
S-1000 III, Fair Trade Price (less case) **$114.50**

STEREO INDICATOR LIGHT SL-1. Gives instant identification when FM/Stereo is tuned. Special sensing circuitry prevents false indications (frequent with some other identification devices) due to noise impulses. Operates with any type FM tuner. Size: 2½″ x 2¼″ x 7½″ deep.
SL-1 .... **$29.50**

SPEAKERS used in Sherwood speaker systems are available separately. Complete specs. on request. R12 Woofer, **$37.50; R10** Woofer, **$24.90;** R8 Mid Range, **$14.95;** R3 Tweeter, **$14.95.**

CASES for amplifiers and tuners (Walnut tone leatherette), $7.50; for receivers $9.50.

RACK PANEL MOUNTING for tuners. Fit standard relay racks. Panel size 5¼″ x 19″, Price: **$7.50.**



Model **S3MX** and **A3MX Stereo FM/MX** adapters converts FM tuners to receive FM stereocasts: has 19 kc. filter, 67 kc. filter, 38 kc. sub-carrier eliminated for tape recording. Four tubes plus rectifier. Size: 4″ x 5¾″ x 10½″ — 8 lbs.
S3MX-S (self-powered) without case.. **$69.50**
A3MX same as S3MX but plug in type without power supply for use in **S-3000 III tuner** **$49.50**
Units supplied with brown or black Flex-tone case at $5.00 additional. West of Rockies, add $1.00 to all prices.

CROSSOVER NETWORKS. The Sherwood line of crossover networks features performance precise enough for the finest 2, 3 or 4-way high fidelity speaker system at a cost within the reach of the budget-wary experimenter. All networks feature 12 db/octave attenuation, 16 ohms impedance.

Model	Crossover Frequency	Speaker Application	Dimensions	Net Price
SX6	600 cps	2-way	4x7½x3	**$16.90**
SX8	800 cps	2-way	4x7½x3	**15.50**
SX55	500,5000 cps	3-way	4½x10x4½	**18.50**
SX36	3500 cps	2-way	4x5x3	**6.50**
SRX63	600,3500 cps	3-way	6x6x3	**15.50**

ONE YEAR WARRANTY — Every Sherwood product is covered by a full one-year warranty against defects in material and workmanship. Tubes carry standard EIA 90-day warranty.

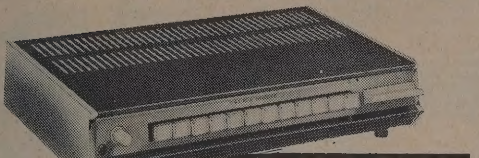
Sherwood Electronic Laboratories, Inc. Chicago, Illinois

NEW TALK-A-PHONE WIRELESS AND HOME INTERCOM SYSTEMS

TWO NEW WIRELESS SYSTEMS

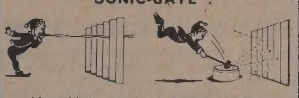
Two NEW, high-quality wireless intercoms, featuring the exclusive TALK-A-PHONE "SONIC GATE" circuit. Provides dependable communication where permanent, wired systems are not practical. Ideal for use in offices, factories, stores, homes, apartments, nurseries, farms, etc. Distinctively styled cabinets combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray with brushed chrome side panels. Each station has a translucent indicator which illuminates when "On." All stations must be connected to outlets on the **same electric company service transformer.** Built-in Ground Adapter provides greater sensitivity where electrical wiring is routed over long paths. U.L. Approved.

NEW TALK-A-PHONE 12-STATION SELECTIVE WIRELESS* SYSTEM

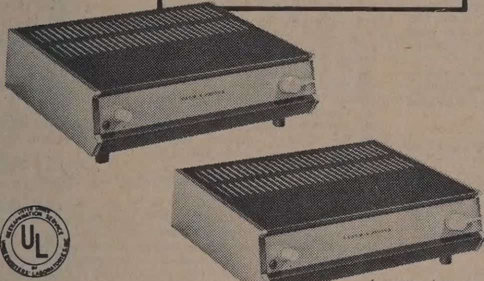


- No Installation
- No Wiring
- No Cables
- Just Plug-in and Talk

Featuring the TALK-A-PHONE "SONIC-GATE".


Your Voice Goes Through . . .
Noise and Hum are Screened Out . . .

The Sonic Gate circuit effectively suppresses line noises and hum by 30 db while system is in actual operation, as well as when in Stand-By position.



*Carrier Current

• 6 Separate 2-Way Conversations Simultaneously
• Selective Paging with Reply • Push-Button Channel Selector
• Start a System with any number of Masters and Staffs

Provides selective communication. Each Master is equipped with a 6 or 12-channel selector; can converse with any other station selectively; can receive calls on any channel Master elects to use. As many as 6 separate conversations may be held simultaneously, with 12 Masters. Masters can talk with any station in system; can also set up conferences.

Wireless Staff Stations are for use where calls need not be originated, but where reply must be made. They are available for operation on any single channel desired—to match that of Master. They also can be used to receive Paging Calls from any Selective Wireless Master in the system . . . use as many Wireless Staffs as needed (all Staffs must operate on same channel for this purpose). Two or more Wireless Staffs on the same channel will function as a 2-Station System (without Master); they can originate calls and reply to each other.

Start a system with any number of Masters and Staffs. Where up to 12 stations are used, each on a separate channel, Master can converse selectively with any channel. If more than 12 stations are used, channels must be *shared*; stations on same channel will receive all calls to that channel. To change location, merely pick up unit and move . . . no rewiring or new installation is necessary. All stations are equipped with the original TALK-A-PHONE UNI-TRANS feature, which permits continuous one-way transmission for periods when you wish to dictate or "listen-in."

T-LCM-8912. 12-Station Selective Wireless Master. Complete, with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size 14"wx8¾"dx3⅛h. Shipping weight, 12½ lbs.
List Price Per Station $154.00........Net **89.80**

T-LCM-8906. 6-Station Selective Wireless Master.
As above except for 6-Station Capacity. Shpg. Wt. 10 lbs.
List Price Per Station $136.00........Net **79.50**

Wireless Staff Stations. Receive and reply on a single channel only.

T-LCS-901 Channel 1
T-LCS-902 Channel 2
T-LCS-903 Channel 3
T-LCS-904 Channel 4
T-LCS-905 Channel 5
T-LCS-906 Channel 6

Complete with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size, 10½"wx8¾"dx3⅛"h. Shipping weight, 7 lbs.
List Price Per Station $77.00........Net **45.00**

NEW TALK-A-PHONE 2-STATION WIRELESS* SYSTEM

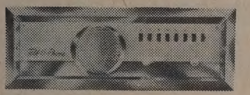
A complete system of 2 stations, ready to use. Simply place each unit where desired, plug each into nearest electrical outlet, and talk! Add more stations anytime. All stations will receive any messages transmitted from any point. Move units anywhere, plug into electrical outlet and use—no re-wiring or new installation necessary. The original TALK-A-PHONE UNI-TRANS is built in—provides continouous one-way transmission; ideal for dictation, or listening-in on baby. 110-120 V. AC-DC. Size, 10½"wx8¾"dx3⅛"h.

T-LC-33. Complete with tubes and instructions. Weight 16 lbs. List Price Per System $138.00 . . . Net **79.90**

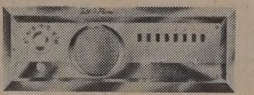
T-LC-17. Additional Single Station. Weight 8 lbs. List Price Each $69.00........Net **39.95**

CRADLEPHONE—Optional for all units above. Add H to model No. when ordering.
List Price per Station add $59.95........Net add **$35.00**

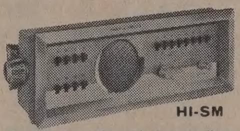
NEW TALK-A-PHONE All-Transistor HOME INTERCOM-RADIO SYSTEMS



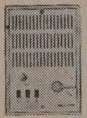
HI-9 or HI-8



HI-9R or HI-29R

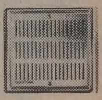


Housing Assembly with HI-17 or HI-16



HI-4

HI-1



T-LR-2R

This new TALK-A-PHONE Intercom System saves the housewife and home-owner miles of tiresome steps, hours of time . . . Makes home life easier, more comfortable and more enjoyable . . .

LISTEN-IN ON BABY, CHILDREN OR SICK ROOM . . . from any room in the house, day or night • ANSWER OUTSIDE DOORS FROM ANY ROOM . . . in any part of the house—without opening doors to strangers • TALK FROM ROOM TO ROOM . . . back and forth, upstairs or downstairs, any time, day or night • YOUR FAVORITE RADIO PROGRAMS . . . follow you throughout the house with the flick of a switch.

TALK-A-PHONE All-Transistor Home Intercom units are beautifully finished in gold, polished and satin silver tones. All Masters and Staff Stations are designed for flush mounting; or with optional Housing Assembly, these stations can be mounted on walls, cabinets, or set on tables, shelves, etc. Plaster Ring included for 8 and 16-Station units require 14$\frac{1}{16}$"w, 4⅜"h, 3½"d wall opening. Front panel size: 15¼"w, 5¼"h. HI-4 requires 4⅛"w, 6½"h, 2"d wall opening. Front Panel size: 4$\frac{13}{16}$"w x 7$\frac{3}{16}$"h. Sub-Stations are designed for flush mounting only, do not need Plaster Ring. Requires 2" square wall opening, 2" deep. Front Panel size: 3⅝"w, 5⅝"h. Stations do not plug into electrical outlet. Operates from Battery or HI-PS Power Supply Unit. Total capacity: up to 16 stations including Central Master. With full instructions.

CENTRAL MASTER STATIONS. Only one used per system. Contains the All-Transistor Amplifier (and radio when built-in). Place in any room. Master can call and converse with any other station (or stations) in system; can listen-in to any Station that user makes "non-private". If system has Model HI-9R Central Master (built-in radio), the Master and any Staff can listen to standard AM radio broadcasts. "Additional" Masters can be used in rooms where it is desired to listen to AM radio programs different from those tuned in at Central Master.

HI-9 Central Master Station. Without radio, less battery.
List Price, Each, $99.50........Net Each **58.00**

HI-9R Central Master Station. With built-in radio. Less battery.
List Price. Each, $154.00........Net Each **89.50**

HI-17 Central Master Station. Same as HI-9 except has total 16 station capacity. Without built-in radio.
List Price Each $146.00........Net Each **85.50**

HI-29R Additional Master Station. With built-in radio. Less battery.
List Price, Each, $154.00........Net Each **89.50**

STAFF STATIONS. 4, 8 and 16-Station Capacity Staff Stations can be combined within the same system and used with choice of one 8-station capacity or one 16-station capacity Central Master Station. (When HI-9R is used, any HI-4, HI-8 and HI-16 staff, can listen to radio of HI-9R).

HI-4 Staff Station. Provides same facilities as HI-8 but has 4-Station capacity. For flush mounting in wall. With accessory T-SM-L, can be surface mounted.
List Price Each $29.95........Net Each **17.50**

HI-8 Staff Station. Use as needed to call and converse with one or more Staff, Master or Sub-Stations. Can be switched to "private" or "non-private" operation as desired. When "non-private", as in baby or sick room use, another Staff or Master can listen in. Staff can listen to standard AM radio programs of HI-9R Central Master.
List Price Each $54.00........Net Each **31.50**

HI-16 Staff Station. Same as HI-8 except has total 16 station capacity.
List Price Each $99.95........Net Each **58.50**

HI-SM HOUSING ASSEMBLY. For enclosing any 8 or 16-Station Capacity Master or Staff, to permit mounting on walls or cabinets, or placing on tables, shelves, etc.
List Price Each $19.00........Net Each **11.00**

HI-1 OUTDOOR SUB-STATION. For front and rear entrance applications. Complete with push-button for connection to regular house chime, bell or buzzer. Has illuminated nameplate. When caller rings bells, any Master or Staff may reply and converse with caller. Caller operates no controls.
List Price Each $27.50........Net Each **15.95**

T-LR-2R ALTERNATE OUTDOOR SUB-STATION. For flush mounting. Requires wall opening 4⅛" square, 2" deep. Stainless steel front panel measures 4$\frac{13}{16}$" square Complete with plaster ring. Without push button or illuminated nameplate.
List Price Each $21.00........Net Each **11.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall.
List Price Each $6.80........Net each **4.00**

Model TSM-L Optional accessory for Surface mounting HI-4 Staff on wall.
List Price Each $7.80........Net Each **4.60**

HI-JB8 JUNCTION BOX for connecting Masters and Staffs up to a total of 8 stations. See #2 of "How to Determine Cable Needs."
List Price Each $7.00........Net Each **4.00**

HI-JB16 JUNCTION BOX Same as above except for up to 16 stations.
List Price Each $9.95........Net Each **5.95**

BATTERY. Use any 9-volt dry battery, such as ignition or telephone battery; or six standard #6 dry cells in series—available from local sources. *Note: When battery is used, power supply is not required.*

HI-PS POWER SUPPLY UNIT. One required per system (only when battery is not used). Plugs into any 110-120 volt, 60 cycle AC electrical outlet in basement, attic, etc.
List Price Each $27.50........Net Each **15.95**

HOW TO DETERMINE CABLE NEEDS

Masters and Staff Stations. Use #6226 cable in one of 2 ways: (1) Measure from 1st unit to 2nd unit only; from 2nd unit to 3rd unit only, etc., until last unit is reached—then total. Cable between last and 1st unit not needed. (2) Place a Common Junction Box (Model HI-JB) in attic, basement, closet, etc. Measure from each Master and Staff to Junction Box and total. Double length #6226 required for 16-Station units. Connect HI-4 to nearest 8 or 16-Station unit or to HI-JB with #6214 cable.

Outdoor Sub-Stations: Connect to nearest Master or Staff only with #6202 cable.

Battery or Power Supply Unit: Connect with #6202 cable to Master Stations only.

CABLE. For indoor or outdoor use.

Type No.	No. Pairs	Approx. O.D.	LIST, Per Ft.	NET, Per Ft.
6226	13	⅝"	.47c	28c
6214	7	$\frac{7}{16}$"	.24c	14c
6202	1	$\frac{3}{16}$"	.06¢	3½¢

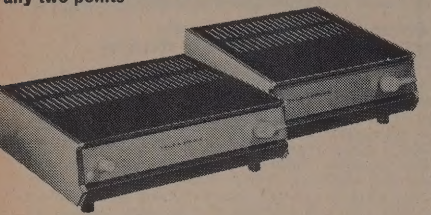
All Prices Slightly Higher West of Rockies All Prices and Specifications Subject to Change Without Notice.
Manufactured under exclusive TALK-A-PHONE Patents

TALK-A-PHONE CO.
CHICAGO 25, ILLINOIS

NEW TALK-A-PHONE Deluxe Intercom Systems

Quality intercommunication systems designed for the Office, Business, Plant, House, Farm, Professional Man, or any other private or commercial application. A flick-of-a-finger gives you instant and direct two-way conversation between any two points—anywhere. Masters have translucent indicator which illuminates when system is "on." In cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray and brushed chrome. Resists industrial liquids and atmospheres. Size: Masters, 10½"w x 8¾"d x 3⅛"h.; Subs, 7½"w x 8¾"d x 2⅞"h. U.L. Approved.

2-way voice communication between any two points



TALK-A-PHONE 2-STATION SYSTEM

T-LC-2 A complete, high-quality intercommunication system. Includes a Master Station, a Sub-Station and 50 feet of interconnecting cable. Additional cable available for distances up to 2000 feet. Easy to install and operate. Master and Sub-Station can originate calls to each other and carry on a 2-way conversation. Sub-Stations can be used "privately" or "non-privately". When "private", Master cannot listen-in on Sub-Station; yet Sub can answer and originate calls. When "non-private", persons at Sub-Station can answer calls at a distance without operating controls, as well as originate calls. Master is equipped with a translucent indicator, illuminated by permanent-type bulb, to show when system is "on". Rugged, high-gain amplifier is built to withstand continuous use and to require a minimum of maintenance. Adjustable Volume. Only Master plugs into electrical outlet, 110-120 volts, AC or DC. Master in deluxe cabinet finish, Sub-Station cabinet is of same style and color, but is in grained, baked enamel finish. U.L Approved.

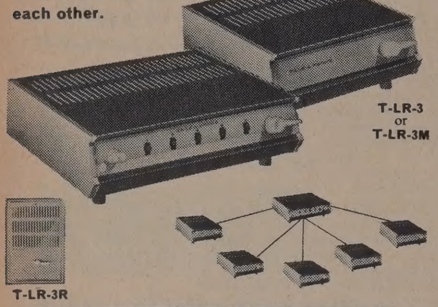
Model T-LC-2 2-Station System complete with tubes, easy-to-follow instructions, and 50 feet of cable. Wt. 13 lbs.
List Price complete $62.00 .... Net complete **36.00**

No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use where additional lengths are required between the Master and Sub-Station.
List Price per foot 6¾c .... Net per foot **.04**

No. 5303 (3 conductor) cable for indoor use.
List Price per foot 5c .... Net per foot **.03**

Optional Wall Mounting Brackets for Model T-LC-2 Sub-Station are available. See description below.

A system of one Master Station which can communicate with from one to ten Sub-Stations. Subs can call Master, but not each other.



TALK-A-PHONE MASTER SELECTIVE SYSTEMS

T-LM A new system consisting of one Master Station and from one to ten Sub-Stations. Master Station can talk and listen to any one Sub-Station, several Sub-Stations or with all Subs simultaneously. Sub-Stations do not communicate with each other. Only the Master Station plugs into an electrical outlet. You may start with only one Master and one or two Sub-Stations and then add later when necessary. Installation of system has optional feature whereby Sub-Stations can be connected "privately," or "non-privately" and still originate calls to the Master under either application. Once a conversation has been initiated with a "non-private" system, persons at Sub-Stations need operate no controls and can reply from a distance. When the system is connected "privately," Master unit cannot "listen in" on Sub-Stations. However, they can reply when called, and also originate calls to the Master. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-5406 and T-AC-5411 Master Stations operate as above with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for paging. Operates on 110-120 volts, AC only.

Use only one Master in each System.

Optional Wall Mounting Brackets for Models T-LR-3 and T-LR-3M are available. See description below.

Model T-LM-5 Master selective Station for 5 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $59.95 .... Net each **34.95**

Model T-LM-10 Master Selective Station for 10 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $75.00 .... Net each **44.00**

Model T-AC-5406 Master Station. 5 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $75.00 .... Net each **44.00**

Model T-AC-5411 Master Station. 10 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $89.95 .... Net each **52.50**

Model T-LR-3 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $27.50 .... Net each **15.95**

Model T-LR-3M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $21.00 .... Net each **11.95**

Model T-LR-3R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" W. x 6½" H. Stainless steel front panel measures 4¹³⁄₁₆" W. x 7³⁄₁₆" H. Complete with plaster ring.
List Price each $21.00 .... Net each **11.95**

Model T-SM-L Optional accessory for surface mounting T-LR-3R on wall.
List Price each $7.80 .... Net each **4.60**

Model T-HP-3 Hi-Power Staff Station for wall mounting. Charcoal Gray metal case. Wt. 8 lbs.
List Price each $28.00 .... Net each **16.50**

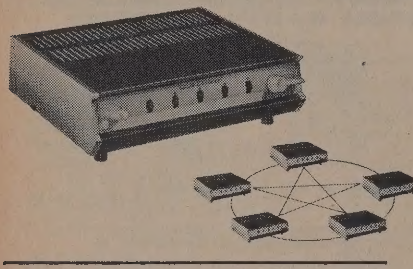
Model T-C-20 Nine-inch weatherproof re-entrant horn. Charcoal Gray color. Wt. 5 lbs.
List Price each $44.95 .... Net each **26.50**

T-S-100 Wall Switch for origination of call through T-C-20 or T-HP-3.
List Price each $6.00 .... Net each **3.50**

No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use to connect Sub-Station to Master.
List Price per foot 6¾c .... Net per foot **.04**

No. 5303 (3 conductor) cable for indoor use.
List Price per foot 5c .... Net per foot **.03**

A system of up to ten Master Stations. Each station can call and communicate with any other.



TALK-A-PHONE SUPER SELECTIVE SYSTEMS

T-LS A new system of all Master Stations. Any Station can call any other Station in system. Several completely private 2-way conversations are possible at same time. A versatile, low cost intercom system offering extreme flexibility, meeting many requirements in industry, offices, homes, etc. Any Station can call and carry on a conversation with any other Station or Stations in the system with absolute "privacy." Have a visitor in your office and your mind is at ease that no one can eavesdrop on your conversation. Stations can be located even 1000 feet apart. Variable volume, adjustable at each unit, controls incoming voice. You can start with two or three masters, and then add later as required. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-505 and T-AC-510 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-505 and T-AC-510 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-LS-5 Super Selective Station for five Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $59.95 .... Net each **34.95**

Model T-LS-10 Super Selective Station for ten Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $75.00 .... Net each **44.00**

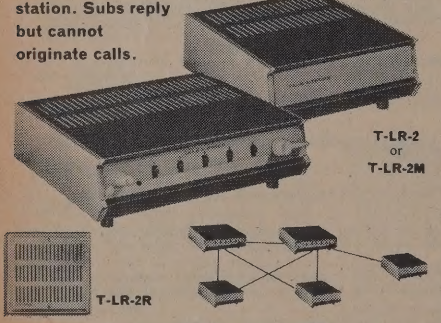
Model T-AC-505 Super-Selective Station for 5 Masters. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price $75.00 .... Net each **44.00**

Model T-AC-510 Same as T-AC-505 except for 10 Masters.
List Price each $89.95 .... Net each **52.50**

No. 5506 (6-conductor) Cable for connecting T-LS-5 or T-AC-505 Masters.
List Price per foot 13c .... Net per foot **.07½**

No. 9911 (11-conductor) Cable for connecting T-LS-10 or T-AC-510 Masters.
List Price per foot 24c .... Net per foot **.14**

A system combining one or more Master Stations with one or More Sub-Stations up to a combined total of ten. Masters call any station. Subs reply but cannot originate calls.



TALK-A-PHONE COMBINATION SYSTEMS

T-CL For the more flexible type of communication system requiring the operation of more than one Master Station, along with Sub-Stations which need not originate calls. Personnel can answer incoming calls even though they are 25 to 40 feet from their unit. Master Stations may talk to each other and to all Sub-Stations in the system selectively; or you can have one or more Sub-Stations which are exclusive to only one Master Station (as illustrated in the diagram at left). Master Stations have the option of making themselves "private" or "non-private" at will. You can begin with two stations (at least one must be a Master) and add other units as required. Model T-CL-5 Master Station has a total inter-connecting capacity of five stations, including Masters and Sub-Stations; while Model T-CL-10 Master Station has a total capacity of ten stations. Sub-Stations are not plugged into electric current. U.L. Approved. 110-120 volts. AC-DC.

Optional Wall Mounting Brackets for Models T-LR-2 and T-LR-2M are available. See description below.

T-AC The T-AC-605 and T-AC-610 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-605 and T-AC-610 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-CL-5 Combination Master for five station use, complete with tubes and easy-to-follow instructions, Wt. 8 lbs. List Price each $72.00 .... Net each **42.00**

Model T-CL-10 Combination Master for ten station use, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each $87.00 .... Net each **51.00**

T-AC-605 Combination Master for 5-Station use. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price each $87.00 .... Net each **51.00**

T-AC-610 Same as T-AC-605 except for 10-Station use.
List Price each $102.00 .... Net each **59.95**

Model T-LR-2 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $27.50 .... Net each **15.95**

Model T-LR-2M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $21.00 .... Net each **11.95**

Model T-LR-2R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" square. Stainless steel front panel measures 4¹³⁄₁₆" square. Complete with plaster ring.
List Price each $21.00 .... Net each **11.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall. List price each $6.80 .... Net each **4.00**

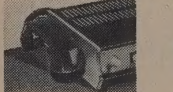
Model T-HP-3 Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price each $28.00 .... Net each **16.50**

Model T-C-20 Nine-inch weather proof re-entrant horn. Charcoal gray color. List Price each $44.95 .... Net each **26.50**

No. 6210 (5 pair) Cable for interconnecting T-CL-5 or T-AC-605 Masters.
List Price per foot 24c .... Net per foot **.14**

No. 6226 (13 pair) Cable for interconnecting T-CL-10 or T-AC-610 Masters.
List Price per foot 47c .... Net per foot **.28**

No. 6902 (2-conductor) Cable for connecting Sub-Station to T-CL-5, T-CL-10, T-AC-605 or T-AC-610.
List Price per foot 3½c .... Net per foot **.02**

A.


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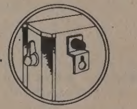


A. CRADLEPHONE—Optional for any unit above (except T-CL-5, T-CL-10, T-AC-605, T-AC-610, T-C-20, T-HP-3, T-LR-3R and T-LR-2R.) Add "H" to Model No. when ordering.
List Price Per Station, add $59.95 .... Net, add **35.00**

B. WALL MOUNTING BRACKETS—Optional accessory for use with TALK-A-PHONE Models T-LR-3, T-LR-3M, T-LR-2, T-LR-2M, T-C-41, T-C-41M, T-C-42, T-C-42M, and T-LC-2 Sub Station to enable mounting on wall, side of desk, etc. One pair required per station. Permits mounting with front panel upward, downward or sideward.

Model T-W1 Mounting Brackets, per pair. List Price $1.25. Net **.75**

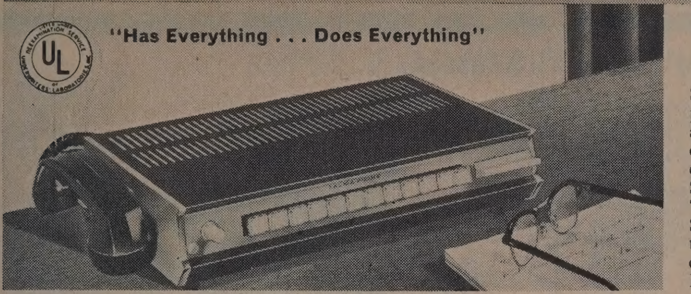
HOW TO DETERMINE CABLE REQUIREMENTS

For **Master Selective Systems** measure from each Sub-Station to the Master and order total. For **Super Selective Systems**—measure from first Master to second Master only, from second Master to third Master only, etc., and total. Cable between first and last Master not necessary. For **Combination Systems**—Master cable; measure from first Master to second Master only, from second Master to third Master only, etc., and total; Sub-Station cable; measure from each Sub-Station to nearest Master only.

TALK-A-PHONE CO., CHICAGO 25, ILLINOIS

All Prices Slightly Higher West of Rockies—All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

THE ALL-NEW, ALL-TRANSISTOR TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" INTERCOMMUNICATION SYSTEMS



One Model Meets Every Requirement

Setting a new standard in quality, design and performance, the new TALK-A-PHONE "CHIEF" and "CHIEF REDI-POWER" meets every intercom need of office, factory, institution, or any other commercial or private application. "CHIEF" Master Stations of 6, 12, 20, 30, 40 or 50 station capacity can be intermixed with "CHIEF REDI-POWER" Masters of different capacities, together with Staff Stations and Horns within the same system in any desired combination. Masters can talk with any other Master or Staff . . . page . . . and can utilize other optional equipment shown as well. Staffs can answer any Master and can originate calls to one Master, or to two Masters selectively.

ONLY THE TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" GIVE YOU ALL THESE FEATURES

- **DISTINCTIVELY STYLED**—Less than 3-inches high. In cabinets that combine the look and feel of fine-grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome.
- **"PRIVATE" OR "NON-PRIVATE" MASTERS AND STAFFS**—Exclusive Dynasonic Design enables stations to perform "privately" (so no one can listen-in), or "non-privately" (for reply without use of controls). The same station can be "private" to one or more Masters and "non-private" to others, and retain full communication facilities.
- **INCOMING CALL CHIME**—A standard feature of Masters. Indicates that your station is being called. Caller talks, you reply.
- **MONITORING SIGNAL**—A standard feature of Masters and Staffs. Visually indicates to a "non-private" station that it is being monitored.
- **BUSY SIGNAL**—A standard feature of Masters and Staffs. Visually indicates when station you call is "busy." All units have facility to override "busy signal" for important calls.
- **DYNASONIC SELECTOR**—An exclusive TALK-A-PHONE feature that permits intermixing of stations and variation of performance. Add to system at anytime without discarding original equipment.
- **MULTI-MAGIC STATION SELECTOR**—A patented, exclusive TALK-A-PHONE feature that enables selection of up to 30 stations with only 12 push buttons . . . 40 and 50 stations with 14 push buttons . . . in the same attractive cabinet style and size.
- **UNI-TRANS DICTATION CONTROL**—No need to operate or hold down controls when one-way transmission is desired or when Cradle Phone is used.
- **EXTERNAL RELAY CONTROL**—A standard built-in feature of Masters. Enables Master to activate external relays for operating siren, gong, light, etc. For use in extremely high noise level areas to signal personnel, who can then communicate with caller from Master in quieter location or in sound booth.
- **RECIPROCAL POWER SUPPLY**—Each Master operates on 110-120 volts, AC only, and should be plugged-in. Where no electrical outlet is available, up to 30% of the Masters in the system can operate without being plugged-in.
- **NOISE-FREE VOICE RANGE POWER**—The rugged, all-transistor high-gain amplifier provides unsurpassed clarity and naturalness of tone. The exclusive, patented TALK-A-PHONE circuit enables performance without noise, hum or distortion when used with TALK-A-PHONE cable.
- **HI-POWER STAFF STATIONS AND HORNS**—For use with any TALK-A-PHONE Master where exceptionally high volume at Staff locations is needed. Ideal for paging speakers. T-HP-3 provides more than twice the volume of universal Staff; T-C-20 provides about 4 times greater volume . . . more with REDI-POWER Masters.
- **WALL SWITCH**—Combine with TALK-A-PHONE Horn or Hi-Power Staff to add origination-of-call feature.
- **"LD" LONG DISTANCE**—(optional accessory on "CHIEF" Masters). For use over cable lines of 2,000 ft., 5,000 ft., 10,000 ft. or more without loss of volume. Functions only between Masters with LD . . . not between an LD Master and Staff. Built-in at factory at additional cost.
- **CRADLE PHONE**—(optional accessory on Masters or Staffs). Has live microphone. Provides listening privacy and greater speaking convenience. Diminishes background noises in noisy areas. Eliminates use of controls in conversation between Masters. Cuts off incoming voice from loudspeaker when in use.
- **RIGHT-OF-WAY RELAY**—(optional accessory). Use with "CHIEF REDI-POWER" Masters to page any group of stations with a single button. Paged stations can also be used for intercommunication. RW-10 capacity, 10 stations. For greater capacity use more RW-10's. Connects to one Master, other Masters also utilize facilities.
- **POWER PAGING BOOSTER**—(Optional accessory). Use with "CHIEF" Masters to page a group of speakers with a single button. 30 watts output. Requires its own paging speakers (as T-C-20, T-HP-3). Provides paging facility only . . . paged stations cannot reply or originate calls through paging speakers. Connects to one Master, other Masters can also utilize facilities.

All "CHIEF" and "CHIEF REDI-POWER" Master Stations come complete with junction box and built-in power supply attached by 6′ flexible cable. Master size: 14″w, 3⅛″h, 8¾″d. For 110-120 volts, AC only. U.L. Approved.

T-C-4906 Master 6 station capacity. Wt. 13 lbs.
List Price Per Station $136.00 . . . . Net **79.50**

T-C-4912 Master 12 station capacity. Wt. 14 lbs.
List Price Per Station $154.00 . . . . Net **89.80**

T-C-4920 Master 20 station capacity. Wt. 17 lbs.
List Price Per Station $184.00 . . . . Net **107.40**

T-C-4930 Master 30 station capacity. Wt. 20 lbs.
List Price Per Station $214.00 . . . . Net **125.00**

T-C-4940 Master 40 station capacity. Wt. 23 lbs.
List Price Per Station $244.00 . . . . Net **142.60**

T-C-4950 Master 50 station capacity. Wt. 26 lbs.
List Price Per Station $274.00 . . . . Net **160.20**

How to Determine Cable Requirements. To inter-connect Master Stations, measure from first Master to second Master only, from second to third Master only, etc., until the last unit in the system is reached, and total. For T-C-4920 and T-C-RP-5920, use two lengths of 6226 Cable; and for T-C-4930 use three lengths of 6226 Cable, etc. To connect T-C-41, T-C-20, T-C-42 or T-HP-3 Staff Stations, measure from Staff Station to the one Master to which Staff Station originates calls. To connect the T-C-42 Staff Station measure a separate length of cable from Staff Station to each Master Station to which Staff originates calls (for each T-C-41 or T-C-42, follow same procedure).

TALK-A-PHONE ALL-TRANSISTOR "CHIEF REDI-POWER" MASTERS

These units have all the operational features of the "CHIEF," plus the additional feature of built-in extra power (up to 20 watts) for use when and as needed. Provides additional volume for calling many stations at once, or noisy locations singly. Needs no separate power booster, which would eliminate return speech. Return speech is received at normal room volume. REDI-POWER Masters have a self-compensating amount of volume, whether you call 2, 10 or 20 stations simultaneously. Each station receives its pre-determined volume with no division of output as you call more stations at once. Use REDI-POWER Masters with "CHIEF" Masters and Staffs in same system. Add RW-10 and REDI-POWER Masters can page any group of stations with a single selector button. Paged stations can also be used for intercommunication. Operates on 110-120 volts, AC only. U.L. Approved.

T-C-RP-5912 Redi-Power Master 12 station capacity. Wt. 18 lbs.
List Price Per Station $235.00 . . . . Net **138.00**

T-C-RP-5920 Redi-Power Master 20 station capacity. Wt. 21 lbs.
List Price Per Station $265.00 . . . . Net **155.00**

T-C-42, T-C-42M

T-C-41, T-C-41M

T-C-41R

TALK-A-PHONE "CHIEF" UNIVERSAL STAFF STATIONS For use with any "CHIEF" or "CHIEF REDI-POWER" Master. Like Masters, Staff Stations can be connected "privately" or "non-privately", and can originate calls. When "non-private", calls can be answered at a distance from Staff without using controls. Persons at "non-private" Staffs may reply to all Masters in the system (whether directly connected to them or not) and can originate calls to one Master or two Masters, depending upon Staff's capacity. Connected "privately" no one can listen-in to Staff, but any Master can call. "Private" Staffs can originate calls and reply to one or two Masters. Each Staff has "busy signal" and "monitoring signal" features. Staffs do not connect to an electrical outlet . . . are distinctively styled in modern cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome. Size: 7½″w x 8¾″d x 2⅞″h.

T-C-41. Staff Station for origination-of-call to one Master. Wt. 8 lbs.
List Price, Each $36.50 . . . . Net **21.50**

T-C-41M. Same operation as T-C-41 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $29.95 . . . . Net **17.50**

T-C-42. Staff Station for origination-of-call to two Masters. Wt. 8 lbs.
List Price, Each $45.00 . . . . Net **26.50**

T-C-42M. Same operation as T-C-42 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $38.50 . . . . Net **22.50**

T-C-41R Flush mounted Staff Station for use with any of above Masters. Requires wall opening 4⅛″ W. x 6½″ H. Stainless steel front panel measures 4 13/16″ W. x 7 3/16″ H. Complete with plaster ring. List Price Each $29.95 . . . . Net each **17.50**

T-SM-L Optional accessory for surface mounting T-C-41R on wall.
List price each $7.80 . . . . Net each **4.60**

T-HP-3. Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price, Each $28.00 . . . . Net **16.50**

T-C-20. Nine-inch weatherproof re-entrant horn. List Price, Each $44.95 . . Net **26.50**

Optional Wall Mounting Brackets for Models T-C-41, T-C-41M, T-C-42 and T-C-42M are available. See description on preceding page.

Optional Equipment

Cradle Phone Available on all Models. Add "H" to Model No. when ordering.
List Price, Each—add $59.95 . . . . Net add **35.00**

LD—Long Distance Feature Available on "Chief," Master Stations. Add "LD" to Model No. when ordering. List Price, Each—add $20.00 . . . . Net add **11.75**

T-S-101 Wall Switch For origination of call to one Master through T-C-20, or T-HP-3 in Chief systems. List Price, Each $11.95 . . . . Net **6.95**

T-S-102 Wall Switch For origination of call to two Masters through T-C-20, or T-HP-3 in Chief systems. List Price, Each $19.95 . . . . Net **11.70**

T-RW-10 Right-of-Way Relay. List Price, Each $63.00 . . . . Net **37.00**

T-HP-30 Power Booster. List Price, Each $138.00 . . . . Net **81.00**

Cable (For Indoor and Outdoor Use)

6206 Cable for connecting T-C-41, T-C-42, T-HP-3, T-C-20 with origination of call.
List Price per Ft. 14c . . . . Net per Ft. **8½c**

6214 Cable for inter-connecting T-C-4906 Masters. List Price per Ft. 24c. Net per Ft. **14c**

6226 Cable for inter-connecting T-C-4912, T-C-4920, T-C-4930, T-C-4940, T-C-4950, T-C-RP-5912 and T-C-RP-5920 Masters. List Price per Ft. 47c . . . . . . Net per Ft. **28c**

6902 Cable for connecting T-HP-3, T-C-20 without origination of call.
List Price per Ft. 3½c . . . . Net per Ft. **2c**

All Prices Slightly Higher West of Rockies-All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

New **"Built-in Business Intercom"** for offices, stores, medical centers, etc. can be supplied on request. Write today for details.

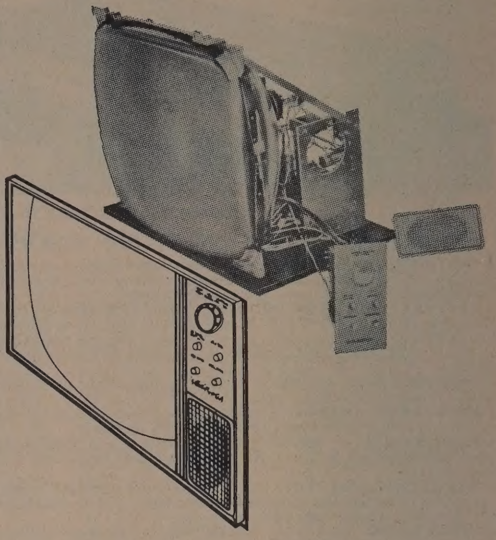
TALK-A-PHONE CO.
CHICAGO 25, ILLINOIS

TECH-MASTER CUSTOM-QUALITY TELEVISION

TECH-MASTER Custom-Crafted Constellation T. V. Chassis

A magnificient tribute to fine television design and engineering. Extremely versatile! Perfect for custom installations in newly designed cabinetry or for replacing worn out sets in existing consoles. Especially desirable for use in family heirloom or antique cabinets.

The Tech-Master Custom-Crafted Constellation T.V. Chassis is truly a star performer. This A.C. transformer powered model is not commercially mass-produced, but hand crafted with the same care as our highest priced receivers. Super sensitive for fringe or troublesome areas, the custom crafted receiver operates efficiently with any standard indoor antenna in normal signal area. 15 tubes, 2 silicons, 3 diodes, power-packed circuit delivers bright, sharp, rock steady picture and clean, undistorted static-free sound. Rarely will you find a comparable, quality receiver such as this.

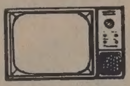


FEATURES:

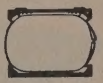
- Advanced and latest super-sensitive turret tuner with PRE-SET fine tuning (set it once and forget it.)
- Deflection 110-114 degrees.
- Operates new low-voltage electrostatic focus kinescopes 17″ to 27″.
- High Voltage 18-20 KV.
- Full power transformer for SAFE chassis operation. No Shock Hazard.
- Power THERMISTOR for line surge elimination.
- Silicon full wave power rectifiers.
- Sensitivity 8 UV for 20 Vpp.
- Audio output 4.7 watts.
- 3 stage video I.F. stagger-tuned bifilars.
- Bandwidth 3.25 MC. at 3 DB.
- Video detector transformer with diode and tweet filter built in (minimum radiation.)
- DC coupled video Amplifier stage.
- Adjacent channel video and sound traps.
- Keyed A.G.C. continuously adjustable for local to fringe area.
- Automatic noise cancellation circuit continuously adjustable for area characteristics.
- Bright spot eliminator circuit.

TUBES· 6GK5, 6CG8, 2-6BZ6, 6CB6, 12BY7, 6U8, 6DT6, 6BQ5, 6BU8, 6DE7, 6CG7, 6DQ6, 6AX4, IK3, 2 Silicon rectifiers, 3 Diodes

Accessory Units for Model No. 6115



MK23B-23″ mask (bonded tube)....**$10.00**
MK23-23″ mask (unbonded tube)..**$10.00**

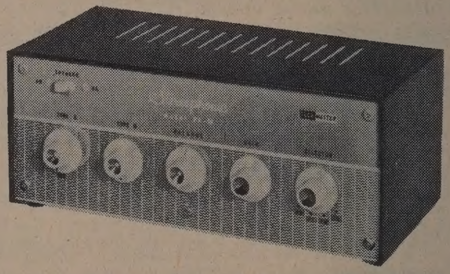


BR23-23″ bonded tube mounting brackets **$10.00**

Model No. 6115 (Shown above) Chassis, speaker, and knobs, less picture tube with mtg. hardware...................................**Price $199.00**

PA 39 — A Most Versatile 14 Watt Stereo Amplifier and Preamplifier.

Ideal for 90% of All Hi-Fi Stereo Layouts



This highly adaptable system is as elegant to the eye as the ear . . . beautiful blue and white front panel with blue-gray case (also in gold and suntan panel with walnut case.) Two channels of faithful audio faultlessly designed, skillfully produced. TECH-MASTER'S diversified background and experience make the low price possible. Servicemen recommend it for its ease of installation. The simple sandwich type panel-mount eliminates unnecessary fuss and cost.

FEATURES:

Completely hand wired, dual channel, crystal or ceramic phono and tuner inputs; ganged gain control; balance control, two separate tone controls; monaural-stereo switch; speaker reversing switch; transformer power supply for complete line insolation.

TUBES: 2-EL 84, 12AX7, EZ80 **DIM:** 10⅝″ W x 5⅜″ D x 4 5/16″ H

PA 39 Blue & White..**NET PRICE $49.50**

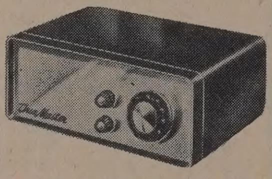
PA 39G Two Tone Gold...**NET PRICE $49.50**

PA 39 + For Magnetic Cartridge — Uses Hum Free 2 Transistor Preamplifier....................**NET PRICE $69.50**

P3 39G + For Magnetic Cartridge — Uses Hum Free 2 Transistors Preamaplifer.........................**NET PRICE $69.50**

MODEL 23A — TECH-MASTER'S DUO MASTER TV PLUG-IN TUNER.

A Super Sensitive Black & White or Color TV Remote Control System.



An ideal self-contained remote-control system for all TV sets. Just plug a single, thin coaxial lead into your TV receiver and you can select your station, fine-tune both picture and sound, and adjust picture intensity . . . right from your armchair, from up to 50 feet from the set. There is a separate loudspeaker in the handsomely styled DUO-MASTER cabinet . . . or you can use the speaker in your TV set or hi-fi system . . . or any extension speaker . . . or plug headphones right into the DUO-MASTER for private listening.

FEATURES: 3 IF stages; 2 audio stages; jacks with low impedance connections for external amplifier or tape recorder take-off; a complete television sound receiver. Positive or negative going video signal output.

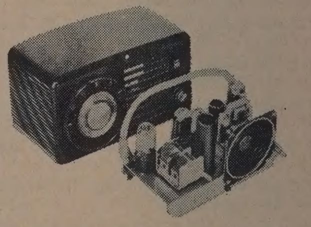
TUBES: 9 plus rectifier; separate audio detector; improved color response thru isolation circuit design.

SIZE: 12½″ x 8″ x 6″; **WGT.:** 15 lbs. Net Price..............................**$79.50**

Also **Model 23B.** Industrial model as used on commercial basis by broadcasters. Price on request.

DELUXE AC-DC SUPERHET RADIO KIT

MODEL 3B5-K — Complete with modern, handsome Bakelite cabinet (10″ x 5½″ x 5½″), station selector and control knobs. Tunes AM broadcasts from 550-1720 KC. Super-sensitive, high gain circuit for best reception. Built-in loop antenna. Automatic volume control circuit eliminates blasting or fading.



TUBES: 12SA7, 12SK7, 12SQ7, 50L6 and 25Z5 rectifier. Schematic and pictorial diagram with clear assembly instructions supplied for simple assembly.

POWER: 115-125 V, 50/60 cy. or D.C. Wgt.: 6 lbs.

NET PRICE (less wire and solder)...**$19.95**

TECH-MASTER corporation—Brooklyn, New York

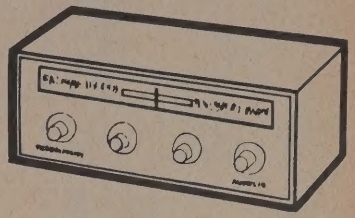
TECH-MASTER QUALITY KITS AND COMPONENTS

SUPER QUALITY COMPACT TUNER AND AMPLIFIERS

The ultimate in sensitivity and superb performance. Specifications equivalent to that of the very finest equipment available. Engineered to be electronically trouble-free. Maximum quality in minimum space. Meets every critical standard. Incorporates every modern technical feature.

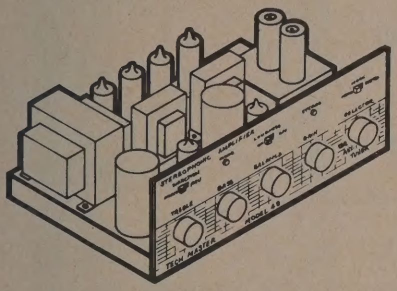
MODEL 43 FM TUNER WITH MULTIPLEX
Sensitivity: .9 Microvol's for 20 DB Quieting
1.6 Microvol's for 30 DB Quieting
I.F. Band Width: 280 KC at −3 DB
Foster-Seeley Discriminator Band Width: 900 KC Peak to peak
Frequency Response: 10-55,000 CPS ±1 DB
117 Volts 60 CPS 40 Watts

2 I.F. Stages and 2 Limiters • Variable Interchannel Noise Muting • AFC, AFC Defeat • Electron-Ray Tuning Indicator • Balanced Fly Wheel Tuning • Voltage Regulator for AFC Control • Multiplex Switch • 7 Tubes, Silicon Rectifier, AFC Diode
Size: 11⅝" W x 4⅜" H x 7" D
Weight: 6 lbs. without case

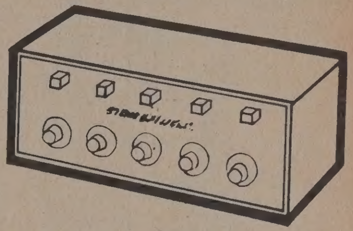


Model 43X — Same as above but without Multiplex Adapater
FM Multiplexer Model 430 Included in Model 43 Tuner
Time Division System • 2 Tubes • 6 Diodes • 34 DB Separation • Unity Gain • Power Input: 8 Watts

MODEL #43..**$129.50** **MODEL #43X**..**$ 99.50**



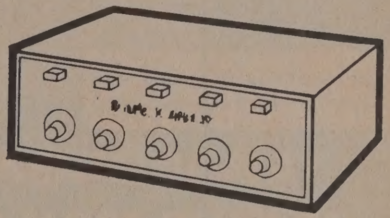
MODEL 49 STEREO AMPLIFIER
Power Output: 32 Watts Stereo
Frequency Response: 30 to 15,000 Cycles ±1 DB
Harmonic Distortion: Less than 1%
Hum Level: 65 DB Below Rated Output at Low Level Input
117 Volts 60 CPS 110 Watts
Size: 12⅛" w x 4½" H x 7½" D
Weight: 9 lbs. without case.



Ganged Bass Controls • Ganged Treble Controls • Balance Control • Volume Control • Inputs: Magnetic, Ceramic, Tuner and Auxiliary • Loudness Switch • Channel Reverse Switch • Stereo-Monaural Switch • Tubes 4-7189, 2-ECC83, E-ECC83 Preamp • **MODEL #49**............**$89.50**

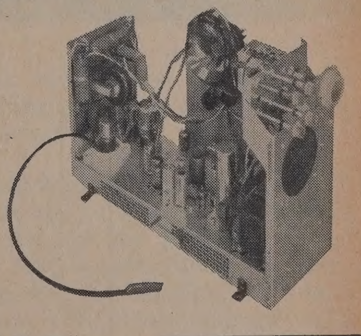
MODEL 46 STEREO AMPLIFIER
Power output: 50 Watts Stereo
Frequency Response: 15-80,000 CPS ±½DB
Negative Feedback: 20 DB
Harmonic Distortion: .5% at full output
Hum Level: 80 DB Below Rated Output

117V 60 CPS 130 Watts
Size: 15¼" W x 5½" H x 9⅛" D



DC Filaments in Low Level Stages • Individual Bass Controls: 15 DB Boost, 12 DB Cut at 40 CPS • Individual Treble Controls: 14 DB Boost, 16 DB Cut at 10,000 CPS • Inputs: Tape Head, Magnetic, Ceramic, Tuner, Auxiliary • Balance Control • Volume Control • Loudness Switch • Stereo-Monaural Switch • Channel Reverse Switch • Rumble Filter Switch •
Tubes: 3-7025; 1-12AU7; 1-6CG7; 4-7189; 1-GZ34 •
MODEL #46..**$129.50**

VIDEOLA TV Craft Kit By Tech-Master



The most up-to-date TV kit, with the latest improvements in tubes and circuitry. Ideal for student work or home project. This kit not only provides excellent training in television, but builds into a first-class, top quality modern receiver that anyone would be proud to own. Coils are preadjusted and tuned at the factory. Quality components, carefully selected and packed by personnel experienced in the TV-kit field insure satisfaction. Step-by-step instructions with pictorial and schematic diagrams are easy to follow —leave nothing to the imagination. Sockets, terminal strips and connectors riveted on chassis.

FEATURES:

• Advanced and improved, super-selective, 12-channel tuner • Full power transformer for **safe** cold chassis operation • Operates new low-voltage electrostatic-focus kinescope (17" to 27" — including 19" and 23" sizes) — 110° to 114° deflection • 18 to 20 KV anode voltage • High-efficiency circuit-sensitivity of 9uv at 20V peak-to-peak • High power audio output • Three-stage stagger-tuned IF using high-gain bi-filar coils • Keyed Automatic gain control • Adjustable noise cancellation circuit • Bright spot eliminator circuit — removes bright spot when set is turned off • Ceramic core horizontal output transformer with beam power amplifier • 6" x 17" x 1¾" chassis size — Weight 21 lbs.

MODEL 1561..**PRICE $99.95**

TUBE COMPLEMENT:
6CY5 RF Amplifier; 6AT8 RF Oscillator and converter; 2-6BZ6 1st, 2nd IF Amplifier; 6CB6 3rd IF Amplifier; 12BY7 Video Amplifier; 6U8 4.5 mc Amplifier, Sync Splitter; 6DT6 Sound detector; 6BQ5 Audio Output; 6BU8 Noise cancellation, sync separator, keyed AGC; 6DE7 Vertical oscillator, vertical output; 6CG7 Horizontal oscillator; 6DQ6 Horizontal output; 6AX4 Damper; 1K3 H.V. rectifier; 2 Silicon rectifiers for low voltage supply; 2 Diodes horizontal phase detector; 1 Diode Video detector.

QUANTITY PURCHASES — TV kits and wired chassis available for schools, export (in all voltages) and other special applications. Quotations and specifications supplied on request.

TECH-MASTER corporation—Brooklyn, New York

It's so easy to order from this catalog . . .

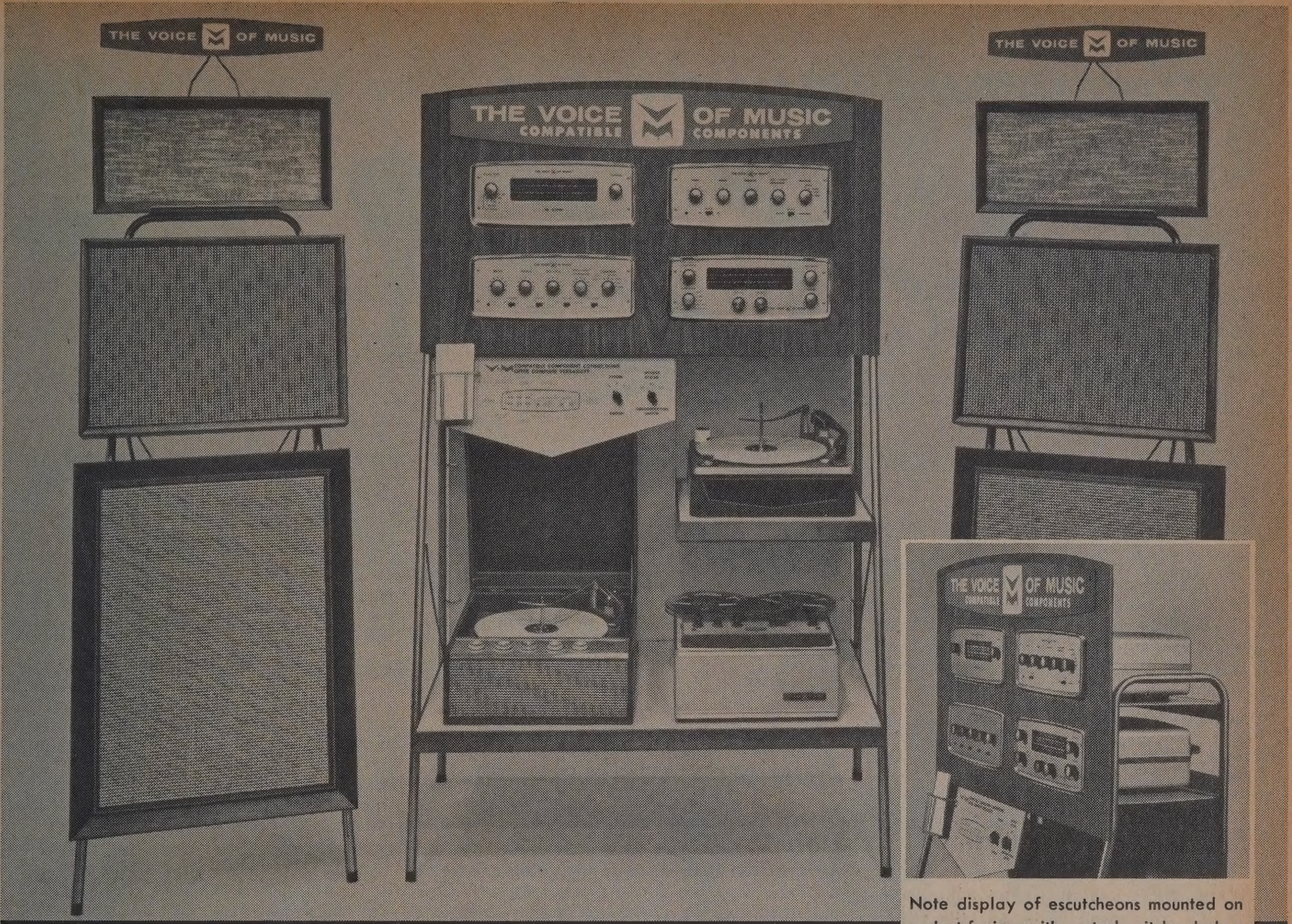
When ordering products shown in this book or writing for additional information, please be sure to specify:

1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

The
RADIO-ELECTRONIC
MASTER


THE VOICE OF MUSIC
THE VOICE OF MUSIC
THE VOICE COMPATIBLE OF MUSIC COMPONENTS
THE VOICE COMPATIBLE OF MUSIC COMPONENTS

Note display of escutcheons mounted on walnut facing, with control switches below

V·M COMPATIBLE COMPONENTS DISPLAY DEMONSTRATION CENTER OFFERS MORE WAYS TO Make MORE Sales . . . BIGGER Sales

While almost everybody else **promises** more profits with their line, V·M *delivers the special tools you need* to build better profits.

FOR EXAMPLE: this new display-demonstrator contains 15 separate V·M high-fidelity compatible components, has a big, bright header to gain attention, yet fits conveniently in minimum store space. Complete connections provided so you can demonstrate three complete VOICE OF MUSIC component hookups, and play each component series through any of three separate dual speaker systems.

All you or your salesman does is turn a switch to select component combinations. The sound does the selling! Prospects *hear* the difference in systems, realize at once why a few extra dollars more in an amplifier or speaker or radio tuner is money well spent! By assisting selling people to trade up, their personal effectiveness is increased.

The new V·M display-demonstrator is available when you order components to stock it. Included in this component selection are the following items: Model 1428 amplifier; 1465-2 radio tuner; 1448 amplifier; 1467 tuner-amplifier combination; 1470 tape recorder deck; 1475 base; 1573 record changer; 1438 base; 1466 changer-amplifier combination; 2 Model "32" speakers; 2 Model "42" speakers; 2 Model "62" speakers.

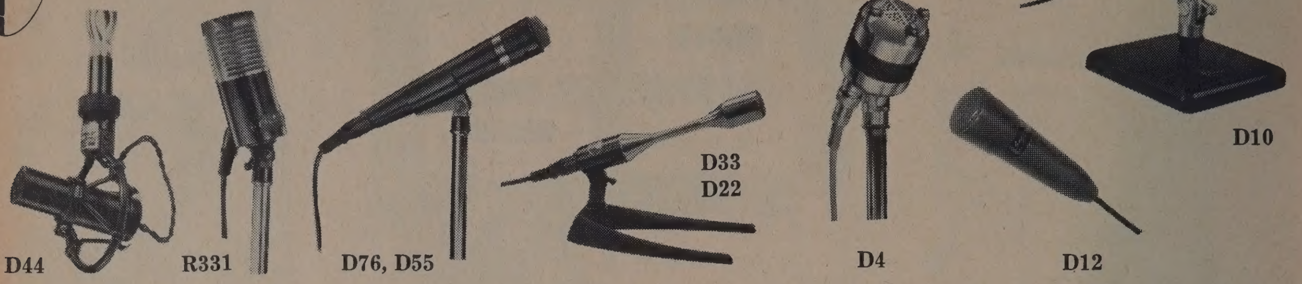
ORDER TODAY!
Your V·M distributor can provide full details.

THE VOICE OF MUSIC®

V·M CORPORATION • BENTON HARBOR, MICHIGAN • RECORD CHANGERS, PHONOGRAPHS, TAPE RECORDERS AND HIGH FIDELITY COMPONENTS

© U.C.P., Inc.

American MICROPHONE COMPANY



BROADCAST and PROFESSIONAL MICROPHONES

Dynamic Omnidirectional

MODEL D44 — Professional microphone, for studio use on boom or floor stand. Excellent for outdoor public address with WS2A wind screen (optional at extra cost). Thermo-form Mylar diaphragm, aluminum case, rugged external shock mounting.

Frequency Response	30—14,000 cps
Output	—55 db
Impedance	Low, 50 ohms
Connector	Cannon XL-3-50
Dimensions	Overall height, 6¾", 3⅝" long
Weight	7 oz.
Net Price	$141.00

Ribbon Bidirectional

MODEL R331—High quality velocity microphone, for stand or boom use. Maximum pickup at front and back; will attenuate random sounds originating from more than 45° either side of microphone axis. "Slide-lock" permits easy removal from stand.

Frequency Response	50—12,000 cps
Output	—60 db
Impedance	Variable, high—low (150 ohms)
Cable	25' 2-conductor, shielded cable, XL-3-11 connector
Dimensions	6⅛" high, 2" diameter
Weight	18 oz.
Net Price	$84.00

Dynamic Unidirectional

MODEL D76—Professional unit with flat, wide range response. Eliminates feedback, reduces background noise. Cardioid pattern increases allowable working distance from microphone. Satin-black anodized finish on lightweight aluminum case eliminates "hot-spots" on telecasts. Can be hand-held without affecting polar pattern. Thermo-form Mylar diaphragm.

Frequency Response	40—15,000 cps
Output	—55 db
Impedance	150 ohms (matches all standard low impedances)
Cable	25' 2-conductor, shielded cable, Cannon XL-3-11 connector
Dimensions	7½" long, 1⅜" diameter
Weight	11 oz.
Net Price	$117.00

(Available in gold finish at no increase in price. Specify Model D76G)

Dynamic Omnidirectional

MODEL D33 — A versatile microphone for radio and television broadcast, recording and finest quality public address. "Slide-lock" permits easy removal from floor or desk stand for hand-held use. Rugged construction utilizes lightweight anodized gold and black aluminum case. (Antihalation satin black finish available at same price: Specify Model D33A.)

Frequency Response	40—15,000 cps
Output	—55 db
Impedance	Low, 50 or 250 ohms, selected on internal terminal
Cable	18', 2-conductor, shielded cable, Cannon XL-3-11 connector
Dimensions	8¼" high, 1⅛" diameter
Weight	8 oz.
Net Price	$78.00

HIGH QUALITY PUBLIC ADDRESS, ADVANCED AMATEUR RECORDING

Dynamic Unidirectional

MODEL D55 — Professional quality features of the D76 successfully designed into a cardioid public address microphone with flat response to eliminate many difficult feedback problems. Ideal for voice and music. Thermo-form Mylar diaphragm, aluminum case.

Frequency Response	50—12,000 cps
Output	—55 db
Impedance	Variable, high—low (150 ohms)
Cable	18', 2-conductor, shielded cable, Cannon XL-3-11 connector
Dimensions	7½" high, 1⅜" diameter
Weight	11 oz.

Net Prices:

Model D55—Satin Black Finish	$51.00
Model D55S—As above with On-Off switch	53.70
Model D55G—Satin Gold Finish	51.00
Model D55GS—As above with On-Off switch	53.70

Dynamic Omnidirectional

MODEL D22 — Public address version of Model D33. Flat response reduces feedback, increases usable level. Thermo-form Mylar diaphragm, lightweight anodized gold aluminum case.

Frequency Response	50—12,000 cps
Output	—55 db
Impedance	Variable, high—low (50 ohms) selected on internal terminal
Cable	18', 2-conductor, shielded cable, Cannon XL-3-11 connector
Dimensions	8¼" high, 1⅛" diameter
Weight	8 oz.
Net Price	$59.70

P. A., AMATEUR RECORDING, LANGUAGE LAB AND GENERAL PURPOSE MICROPHONES

Dynamic Omnidirectional

MODEL D4 — Recommended for public address and communications applications where microphone must withstand rough treatment and retain excellent performance characteristics. This extremely rugged microphone has satin chrome die-cast case, protected grille, Thermo-form Mylar diaphragm.

Frequency Response	60—12,000 cps
Output	—52 db
Impedance	D4L, low impedance (50 ohms) D4H, high impedance
Cable	High Impedance: 12½', 1-conductor, shielded, MC1M connector Low Impedance: 12½', 2-conductor, shielded, MC2F connector
Dimensions	4" high, 2" diameter
Weight	12 oz.

Net Price:

Model D4L—Low Impedance	$16.80
Model D4LS — With On-Off Switch	18.60
Model D4LE—With adapter for language laboratory use	17.31
Model D4H—High Impedance	18.60
Model D4HS—With On-Off Switch	21.30
Model D4HE—With adapter for language laboratory use	19.11

Dynamic Omnidirectional

MODEL D12 — Excellent lavalier microphone; also suitable for hand-held or desk stand use. Die-cast aluminum case, satin black finish, Thermo-form Mylar diaphragm. Complete with tie clip and lavalier cord assembly.

Frequency Response	60—12,000 cps
Output	—55 db
Impedance	D12L, low impedance (50 ohms) D12H, high impedance
Cable	D12L—18' 2-conductor, shielded D12H—18' 1-conductor, shielded
Dimensions	3¾" long, 1⅛" diameter
Weight	4 oz.

Net Price:

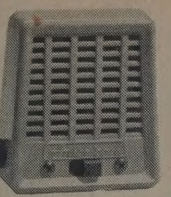
Model D12L—Low Impedance	$35.70
Model D12LE—With adapter for language laboratory use	36.21
Model D12H—High Impedance	35.70
Model D12HE—With adapter for language laboratory use	36.21

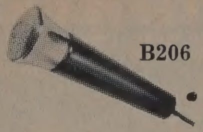
Dynamic Omnidirectional

MODEL D10 — Modern styling and fine performance in a modestly-priced microphone. Satin chrome finish, On-Off switch. Thermo-form Mylar diaphragm and selectable impedance are standard features.

Frequency Response	60—12,000 cps
Output	—54 db
Impedance	Variable, High and Low (50 ohms), selected at cable connector
Cable	8', 2-conductor, shielded
Dimensions	3¼" wide, 3$\frac{1}{16}$" long, 3½" high
Net Price	$17.70

American MICROPHONE COMPANY


B215S


B206

B208

D11

INDUSTRIAL SOUND AND CITIZENS BAND

MODEL B206 Ceramic Omnidirectional — Exceptional low cost microphone with the versatility of far more expensive units. Attractive polished chrome and black finish. Furnished with clip-on stand and neck cord assembly.

Frequency Response: 80–9,000 cps. **Output:** –55 db. **Cable:** 6′, 1-conductor, shielded cable. **Net Price:** Model B206, **$4.77;** Model B206S (as above with On-Off switch) **$5.97;** Model B206E, with adapter for language laboratory use, **$5.28.**

MODEL D11 Dynamic Omnidirectional — A rugged mobile or fixed-station microphone with convenient thumb switch for press-to-talk or slide-lock action. Balanced hand-held design allows convenient continuous use. Thermo-form Mylar diaphragm, die-cast zinc case. Quick detach stand adapter and hanger bracket for wall mounting included.

Frequency Response: 80–10,000 cps. **Output:** –55 db. **Impedance:** D11H, high impedance; D11L, low impedance (150 ohms). **Cable:** 15′, 3-conductor, shielded cable. **Dimensions:** 2″ wide by 2⅝″ diameter by 5″ high. **Net Price:** Model D11H (high impedance) **$21.60;** Model D11L (low impedance) **$21.60.**

MODEL B215S Ceramic Omnidirectional — Handsome desk or hand-held microphone in light tan, 4 oz. case of rugged molded plastic. Outstanding performance for inexpensive public address, home recording, citizens band,, etc. With On-Off slide switch.

Frequency Response: 80–9,000 cps. **Output:** –55 db. **Impedance:** High. **Cable:** 5′, 1-conductor, shielded. **Net Price: $5.70.**

MODEL B208 Ceramic Omnidirectional — Long-life ceramic microphone provides maximum intelligibility. Die-cast case, gray hammertone finish. Can be used free-standing or handheld.

Frequency Response: 80–9,000 cps. **Output:** –55 db. **Impedance:** High. **Cable:** Model B208, 5′, 1-conductor, shielded cable; Model B208S, 5′ extended, 11″ retracted, 2-conductor coiled cord, 1-conductor shielded. **Net Price:** Model B208, **$6.36;** Model B208S, with DPST switch, microphone normally shorted, relay normally open, **$8.37.**

MOBILE COMMUNICATIONS MODELS

MODEL H602 Dynamic Omnidirectional — High quality, lightweight hand-set, hiss-free transmission. Negligible distortion. Thermo-form Mylar diaphragm. Available with SPST or DPST switches, any standard wiring configuration, on special order.

Frequency Response: 100–5,000 cps. **Receiver Output:** 107 db above **.000204** dynes/cm^2 for 1 milliwatt input at 1,000 cps, 6 cc coupler. **Transmitter Output:** –67 db re 1 volt/28 dyne/cm^2 into a 50 ohm load. **Impedance:** 50 ohms. **Net Price:** Model H602–5 ft. 2-conductor, shielded cable–no switch–**$25.80;** Model H602S–5 ft. 2-conductor, shielded cable–with SPST (normally open) switch–**$28.50.**

MODEL B213S Ceramic Omnidirectional—The ideal microphone for all mobile, amateur radio, and citizens band applications. High impact, 6 oz. Implex case for durability and superb appearance. Provides full control, easy action, and rising range response for more reliable communications and maximum intelligibility. Includes 5′ extended coiled cord, mounting bracket and screws.

Frequency Response: 80–9,000 cps. **Output:** –55 db. **Impedance:** High. **Switch:** DPST switch, microphone normally shorted, relay normally open. **Net Price: $10.05.**

MODEL C504 Carbon Omnidirectional — Extra rugged for mobile use on motorcycles, auto, or aircraft. Completely moisture-proofed carbon elements will withstand vibration and shock. Positive action detent switch for microphone and relay control.

Frequency Response: 100–5,000 cps. **Output:** –55 db. **Impedance:** 100 ohms nominal. **Cable:** 3-conductor, coiled cord (11″ retracted, 5′ extended). **Mounting:** Hanger clip and screws included. **Dimensions:** 1 5/16″ high, 2⅛″ diameter. **Weight:** 9 oz. **Net Price:** Model C504, **$19.80;** Model C504P, (as above with PJ-068 plug) **$22.80.**

MICROPHONES FOR SPECIAL APPLICATIONS

Dynamic Miniature Microphone

MODEL D801 — An extremely compact microphone designed for custom installation or for concealed use. Can also be used as low-powered (100 milliwatts) speaker for call systems, pillow speaker, apartment house speaker, etc.

Frequency Response	250—6,000 cps
Output	—58 db
Impedance	Low (50 ohms)
Leads	6″ long
Dimensions	1 5/32″ dia., 63/64″ deep
Net Price	$8.55

Crystal Vibration Pick-Up

MODEL VP1 — A sensitive probe type pick-up used to listen to mechanical vibrations in pipe lines, engines, running motors, etc. High sensitivity, rugged construction. Satin black finish on cast aluminum. 8 ft. 1-conductor shielded cable—6 17/32″ pointed probe—case size: 37/64″ square, 1 5/16″ deep.

Net Price	$23.97

H602

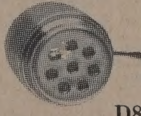
B213S

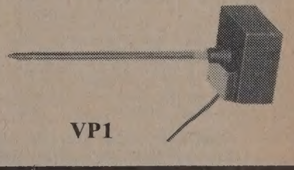
C501
D501

C504

MODEL 501 — Choice of dynamic or carbon elements in virtually indestructible 10 oz. die-cast aluminum case with neutral gray finish. Positive cantilever switch action provides dependable long-life operation. Dependable performance on all communication applications. With coiled cord, mounting bracket and screws.

DYNAMIC SERIES–Frequency Response: 100–5,000 cps. **Output:** –55 db. **Impedance:** D501H, high impedance; D501L, low impedance (50 ohms). **Cable:** High impedance, 5′ extended, 11″ retracted, 3-conductor, coiled cord, 1 conductor, shielded; Low impedance: 5′ extended, 11″ retracted, 4-conductor, coiled cord, 2-conductor, shielded. **Switch:** DPST, microphone normally shorted, relay normally open. **Net Price:** Model D501H, high impedance, **$20.40;** Model D501L, low impedance, **$17.10.**
CARBON SERIES–Frequency Response: 100–3,000 cps. **Output:** –55 db. **Impedance:** 100 ohms nominal. **Cable:** 5′ extended, 11″ retracted, 4-conductor coiled cord. **Switch:** DPST, microphone normally open, relay normally open. **Net Price:** Model C501, **$16.20;** Model C501P (as above with PJ-068 plug) **$19.80.**


D801


VP1

MICROPHONE ACCESSORIES

American Microphone offers a full line of accessories: desk and floor stands, cables, cords, adapters, goosenecks, etc. Ask for complete Product Directory.

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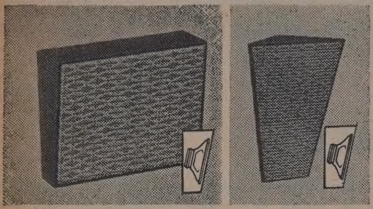
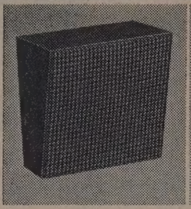
Argos PRODUCTS COMPANY

Craftsmanship in Cabinets

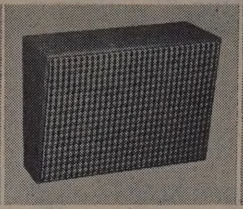
BAFFLE • SOUND COLUMNS • TUBE CADDIES HI-FI SPEAKER SYSTEMS • KITS . . .



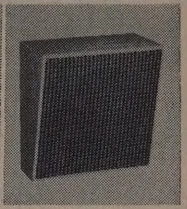
THINLINE



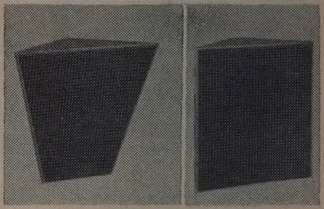
REGULAR



PRESTIGE



DELUXE



CORNER

THINLINE WALL BAFFLES

New, thinner, wider, better looking. Heavy duty ceramic magnet speakers give space-saving thinness. Available with L Pad and/or Transformer, installed and wired. 8-ohm screw terminals. Argos Speedy Mounting clip for fast installation. Heavy wood-grained pyroxylin covering—blond or walnut.

Baffles with 8″ Jensen Spkr. 6 oz. mag., 15 watts. 12 x 9½ x 4¼ in.

WB-208S—Baffle, spkr. Wt. 4½ lbs. ...... **List $16.90**
WB-208SL—Baffle, spkr. L pad. 4½ lbs. **$21.00**
WB-208ST—Baffle, spkr. trans. 4¾ lbs. **$21.00**
WB-208SLT—Baffle, spkr. L pad, and 70.7v transformer. Ship. wt. 4¾ lbs. .... **List $25.15**

Baffles with 12″ Jensen Speaker, 10-oz. magnet, 18 watts. 16 x 13¾ x 6¼ in.

WB-212S—Baffle, spkr. Wt. 8 lbs. ....**List $24.60**
WB-212SL—Baffle, spkr. L. pad. 8 lbs.............**$28.75**
WB-212ST—Baffle, spkr. trans. 8 lbs. **$28.75**
WB-212SLT—Baffle, spkr. L pad, and 70.7v transformer. Ship. wt. 8¼ lbs. ....**List $32.90**
WB-208—8″ Baffle only. Wt. 2 lbs. ....**List $7.15**
WB-212—12″ Baffle only. Wt. 4 lbs. ....**List $9.75**

New EFFICIENCY Baffle. Same Thinline cabinet with lightweight speaker for lower sound levels or where cost is important. 8″ Jensen Spkr. 1-oz. mag., 6 w.
WB-108AS—Ship. wt. 3½ lbs. ....**List $11.90**

Thinline Corner Baffle

New space-saving thinness, with 8″ Jensen Profile Speaker, installed and wired. 6-oz. ceramic magnet, 15 watts, 8 ohms. Size 12½ x 18 x 6¾ in.
SCB-208S—Ship. wt. 5½ lbs. ....**List $22.75**

REGULAR, PRESTIGE, & DELUXE BAFFLES

Regular Wall Baffles—WB-4/5C, etc. Standard of Industry for quality. Wood-grained pyroxylin, blond or walnut. Argos Speedy Mounting Clip.

Prestige Wall Baffles—PB-8A, etc. Wider shape for better appearance, more volume. Same pyroxylin covering and Mounting Clip as WBs.

DeLuxe Wall Baffles—DWB-8A, etc. Beautiful natural hardwood, American Walnut or Whited Birch finish. Satin-smooth appearance. Mounting Clip.

Model	Spkr. Size	Width, Height Depth, In.	Cubic In.	Ship. Wt. Lbs.	List Each
WB-4/5C	4/5	6¼x 6⅛x 4	100	2 *	4.95
WB-6C	6	7⅞x 8½x 5	210	3 *	6.00
WB-6/9C	6x9	9¾x10½x 6½	400	5 *	7.15
WB-8C	8	9¾x10½x 6½	400	5 *	7.15
WB-10C	10	11⅞x12⅜x 7¾	800	6½*	8.50
WB-12C	12	13⅝x14 x 9⅛	1180	8½*	9.75
PB-8A	8	14 x10⅜x 7	690	4¾	9.75
PB-12A	12	18¼x13¾x 9	1580	6½	13.75
DWB-8A	8	9⅜x10½x 6½	400	5½*	10.00
DWB-12A	12	13¼x14¼x 9	1180	9 *	14.00

* Shipping wt. of 2 in carton

NEW CORNER BAFFLES

New Design Hangs as Easily as a Wall Baffle . . .
"Clip-In" Front Comes Off in 9 Seconds . . .
Exterior Screw Terminals

The best looking, easiest-to-install corner baffles we've ever seen. No more unsightly screws through the grille! Two automatic clips at top and one screw through bottom hold front panel tightly in place. New slots on back of baffle permit hanging on two Argos Speedy Mounting clips . . . as easily as a wall baffle. Screw terminals (with lead wires inside for speaker) Bass reflex, acoustic padding. Wood-grained pyroxylin, walnut or blond, same price.

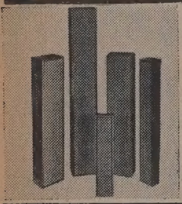
Slanting Corner Baffles. Aim sound down for best performance.

SCB-8D—For 8″ spkr. Vol. 680 cu. in Size 17¾ x 15 x 9 in. deep. Ship. wt. 6 lbs. ....**List $13.90**
SCB-12D—For 12″ spkr. Vol. 1240 cu. in. Size 20¾ x 20 x 10½ in. deep. Ship. wt. 8 lbs.....**List $18.75**

Regular Corner Baffles
Long a favorite of Sound contractors

CB-8D—For 8″ spkr. Vol. 525 cu. in. Size 12¼ x 14 x 6½ in. deep. Ship. wt. 4½ lbs. **List $12.50**
CB-12D—For 12″ spkr. Vol. 1520 cu. in. Size 17¾ x 20 x 9 in. deep. Ship. wt. 8½ lbs. ....**List $18.00**

SOUND COLUMNS



Argos SOUND DIRECTOR Sound Columns

Working elements field-proven in use 6-years before release by Argos. Provide completely intelligible P.A. system coverage of large audiences in churches, school and public auditoriums, hotel meeting rooms and restaurants. Available in 6-speaker columns and 10-speaker columns with 8-speaker option. Simple to install. Neat in appearance. Complete detailed instructions.

SD-1060 (6-speakers), 30″ x 7″ x 3″................**List $66.50**
SD-1100 (10-speakers), 49″ x 7″ x 6″............. **List $108.00**

Other models, including music and portable P.A. system.

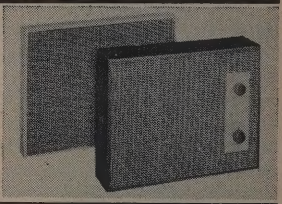
MULTI-BAFFLES

Argos MULTI-BAFFLES for walls, Ceilings

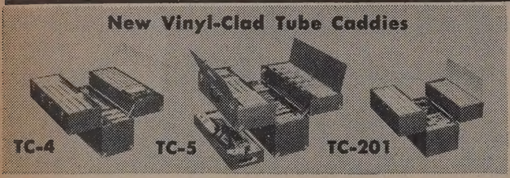
Solve all your intercom problems with these 14″ x 10″ baffles. Surface mount models 3½″ deep; recessed models 1½″. Mount on ceiling with screws, walls with clips. Blonde or walnut pyroxylin finish, plastic cane grille.

MBX, surface mount series, baffle, List $ 9.75
MBX8S, with 8″ Jensen speaker................ 19.85
MBX8SL, with speaker, L-pad 24.00
MBX8SLT, speaker, L-pad, trans............ 28.10

Recessed mount MBR series, slightly less.



CADDIES/TUBE/P.A.



TC-5 $21.95 SUPER TUBE CADDY. Our largest Tube Caddy . . . a real man-size case with space for everything. Has over 3300 cu. in. volume, roughly ⅛ larger than TC-4. Designed for the man who believes in car:rying a full load to save extra trips. Holds countless tubes and tools, soldering gun, meter, accessories. Tool tray clearance 2¾ in. Handsome, new brown vinyl covering. Size 24″ W x 16½″ H x 8½″ D. Ship. wt. 19 lbs.
TC-4 $15.95 CARRY-ALL TUBE CADDY—most popular Tube Caddy ever made. Gives quick availability to all sections. Holds up to 262 tubes . . . less with tools and meter. Durable, new brown vinyl covering. Size 21″ W x 15″ H x 8″ D. Ship wt. 12 lbs.
TC-100 $12.75 THE PACEMAKER TUBE CADDY (Not illust.). Same size as TC-4, but built for the thrifty buyer. Popular breakaway design gives quick access to all sections. Holds up to 262 tubes . . . less with tools and meter. Durable, new, brown vinyl covering. Size 21″ W x 15″ H x 8″ D. Ship. wt. 11½ lbs.
TC-201 $9.95 THE PACEMAKER JUNIOR. Smaller, easy-to-carry size for quick trips or as a matched companion to other Argos Tube Caddies. Holds up to 143 tubes . . . less with tools and meter. Durable, new, brown vinyl covering. Size 15¾″ W x 12½″ H x 8″ D. Ship. wt. 9 lbs.

***Registered TM of Argos Products Co.**
Prices slightly higher west of Rockies

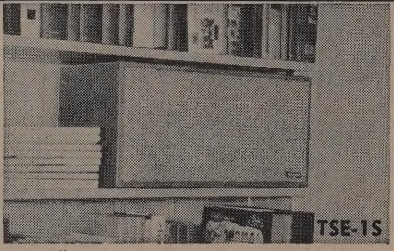
SOUND CADDY® WITH TWO SPEAKERS

Has 2' 12-in., heavy-duty, 18-watt PA speakers (6.8 oz. mag). Accomodates most amplifiers with turntable up to 30 w. Size: 17¾″ w. x 13⅛″ d. x 22″ h. Shipping Wt. 29 lbs.

SC-2CS — Net $36.00

SC-2C — Same less speakers. Ship. wt. 20 lbs. Net $21.55

HIGH FIDELITY SPEAKER SYSTEMS

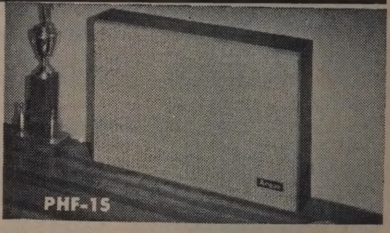


The 8″ Catalina Hi-Fi Speaker

For bookshelf or floor . . . one of the most efficient, economical small speaker systems ever built. 8″ Jensen woofer and 3½″ tweeter in crossover network, 8-ohm terminals. Overall response 50-17,000 cycles. Legs for floor use. Wood-grained pyroxylin, Walnut or Blonde. Size 24 x 11 10½ in. deep. Sup. wt. 19 lbs.
TSE-1S—With 2 speakers..........Audiofile **Net $24.95**
TSE-1—Cabinet only. Wt. 17 lbs............**Net $16.95**
DeLuxe Catalina (Not shown). Similar to above but built of ¾ inch hand-rubbed, oiled Walnut. Ship. wt. 23 lbs.
TSE-2AS—With 2 speakers........Audiofile **Net $39.95**
TSE-2A—Cabinet only .Wt. 20 lbs. ....**Net $26.95**

The 12″ Eldorado Hi-Fi Speaker

Exceptionally fine hi-fi response in a bookshelf or table enclosure. 12″ Jensen tweeter and **two** 3½″ Jensen tweeters in crossover network, 8-ohm terminals. Overall response 40-17,000 cycles. Wood-grained pyroxylin, Walnut or Blond. Size 25″ x 14″ x 10″ deep. Ship. Wt. 25 lbs.
TSE-3AS—With 3 speakers......Audiofile **Net $39.95**
TSEI-3A—Cabinet only. Wt. 19 lbs. . **Net $22.95**
DeLuxe Eldorado (not shown). Same as above but built of ¾″ handrubbed, oiled Walnut.
TSE-4S—3 Jensen speakers.
Ship. wt. 28 lbs. ....Audiofile **Net $59.95**
TSE-4—Enclosure only.
Ship wt. 22 lbs.........................Audiofile **Net $37.50**



NEW PETITE HI-FI ENCLOSURE with two custom-designed Jensen speakers

Small wonder the brilliant new "Petite" outperforms basic reproducers many times larger and more expensive. Remarkable range—50-17,000 cycles—from unbelievably rich, resonant bass to clean, high trebles. Two-way system—high-compliance woofer (custom designed by Jensen for Argos) and tweeter with matching network. Genuine selected American Walnut veneer, oiled and hand-rubbed to an elegant satin finish. Recessed volume control. Screw terminals (polarized for stereo) and wall hangers on back. 8-ohm input.
PHF-1S—Enclosure with 2 Jensen speakers. Size: 18″ x 12″ x 3¼″ thin. Ship. wt. 10 lbs.
Audiofile **Net $24.95**

NEW HI-FI SPACE SAVER BAFFLE
Only 3¾″ THIN — 2 SPEAKERS

Also for Schools, Auditoriums, Restaurants, Stores, Club Lounges. The ideal extension speaker for music. Actually has sound of hi-fi . . . almost as good as bookshelf enclosure, far superior to regular PA wall baffle. 8″ Jensen Profile woofer and 3½″ tweeter wired in crossover network to 8-ohm screw terminals. 6-oz. ceramic magnet. Beautiful natural hardwood, American Walnut or Whited Birch finish.

Size 18 x 12 x 3¾ in. thin.
HFWB-8S—Ship. wt. 6½ lbs. ....**List $17.95**

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Only ASTATIPHONE by ASTATIC has all these features

Modern Custom Design
Attractive, Colorful
Easy to Use
Sanitary, Tinker-Proof, Comfortable
Microphone Attachment Made Easy

SPECIFICATIONS

MODEL 2501 CERAMIC HEADPHONES — MONAURAL

FREQUENCY RANGE:	30-10,000 cps
SENSITIVITY:	100 db SPL for 6.5 volts input
CONVERSION EFFICIENCY:	100 db/mw @ 1000 cps (each phone)
IMPEDANCE:	20,000 ohms @ 1000 cps
ELEMENT CAPACITY:	3800 plus or minus 600 mmfd (each phone)
CABLE:	6 feet (2 pair coaxial vinyl jacket) with molded on phone plug
WEIGHT:	8.5 ounces
NET PRICE:	$25.75
HARMONIC DISTORTION:	less than 0.5% at 110 db SPL at 1 kc (20.4 volts input)

MODEL 2503

As above, but with Model 2502 ceramic boom microphone installed. Net Price $37.75

MODEL 2601 CRYSTAL HEADPHONES — MONAURAL

FREQUENCY RANGE:	30-8500 cps
SENSITIVITY:	100 db SPL for 4.5 volts input
CONVERSION EFFICIENCY:	110 db/mw @ 1000 cps (each phone)
IMPEDANCE:	100,000 ohms @ 1000 cps
ELEMENT CAPACITY:	750 plus or minus 150 mmfd (each phone)
CABLE:	6 feet (2 pair coaxial vinyl jacket) with molded on phone plug
WEIGHT:	8.5 ounces
NET PRICE:	$22.75
HARMONIC DISTORTION:	less than 0.35% at 110 db SPL at 1 kc (14.2 volts input)

MODEL 2603

As above, but with Model 2502 ceramic boom microphone installed. Net Price $35.25

MODEL 2502 CERAMIC BOOM MICROPHONE for MODELS 2501 AND 2601 HEADPHONES

FREQUENCY RANGE:	30-8500 cps
OUTPUT:	58 db below 1 volt/dyne/cm^2
IMPEDANCE:	200,000 ohms @ 1000 cps
ELEMENT CAPACITY:	750 plus or minus 150 mmfd
RECOMMENDED LOAD:	1 megohm minimum
CABLE:	6 feet long, 3 pair flat coaxial, 2 pair for headphones plus one pair for microphone
WEIGHT:	2 ounces less cable
NET PRICE:	$14.00

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

MODEL 2501 — Shall be of the ceramic element, high impedance type and shall withstand a temperature range of —40 to 150°F. It shall have an impedance of 20,000 ohms at 1000 cps. The frequency range shall be from 30 to 10,000 cps as measured on an artificial ear with a 6 cc coupler. The response tolerance shall be plus or minus 4 db from 30 to 10,000 cps. The sensitivity shall be 100 db SPL (sound pressure level) for 6.5 volts input.

MODEL 2601 — Shall be of the Rochelle salt crystal element, high impedance type and shall withstand temperature range of —40 to 110°F. It shall have an impedance of 100,000 ohms at 1000 cps. The frequency range shall be from 30 to 8500 cps as measured on an artificial ear with 6 cc coupler. The response tolerance shall be plus or minus 4 db from 30 to 8500 cps. The sensitivity shall be 100 db SPL (sound pressure level) for 4.5 volts input.

The headphone shall be of light weight design, not to exceed 8.5 oz. total weight including cable. The ear cup contour, in conjunction with the tension normally provided by the headband shall afford an effective seal to the user's head without the aid of resilient cushions. Provisions shall be made in the design of the headphone for use of accessory resilient cushions for increased discrimination against room noise, or ear cup shields for conditions where sanitation is of extreme importance.

The headphone headband shall hold the phones firmly on the user's head. The headband shall provide means for vertical adjustment of the phones. The phones shall be held in their positions on the headband by means of friction spring locks. The headband shall be of such configuration as to accommodate the hair stylings of feminine users. The headband shall be equipped with a resilient non-porous pad whose configuration is such as to afford maximum contact with the user's head for comfort. The pad shall contain a dry bactericide whose effective life shall be at least two years.

The headphone design shall be symmetrical with no distinction made between the left or right phone.

The headphone cable shall be of the parallel pair, concentric shielded type construction and be equipped with a molded standard two connection type phone plug. A flexible plastic strain relief shall be provided where the cable leaves the plug. The cable shall withstand a five (5) pound pull test without separating from the plug. The cable shall leave the headphones from one side only and be easily replaced without the use of tools or soldering.

All external materials of the headphone including the associated pad and cable jacketing shall be of a nature as to be non-deteriorating when subjected to skin excretions and cosmetics.

The construction shall be of a design which reduces the possibility of user tampering making the unit inoperable.

The boom microphone shall be light in weight and contain a high impedance ceramic element. The microphone shall be attached to the headphone case by the use of two special mounting screws which require a special tool for removal. The mounting device shall have provisions for adjusting in three planes. The microphone shall have styling which is compatible with the ASTATIPHONE headset. The boom microphone shall weigh approximately two ounces. The microphone shall be furnished with complete headphone and microphone cable when purchased as a separate item.

ASTATIC

ASTATIC CORPORATION • Conneaut, Ohio
In Canada: Canadian Astatic Limited, Toronto, Ontario
Export Sales: Roburn Agencies, Inc., N. Y. 13, N. Y., U. S. A.

[F] **Model GD-104**—Complete with Astatic G Stand. List Price—**$51.20.** Shipping weight 3¾ lbs. Model GD-104C—Complete with Astatic G Stand. List Price—**$51.20.** Shipping weight 3¾ lbs.

[G] **Model 10C, 10D:** The tailored response, the more sensitive talk power make these microphones outstanding for SSB and AM transmitter use. They also serve perfectly for industrial paging, semi-directional. Pressure cast body. Model 10C—ceramic element is immune to temperature and humidity. Finish: Bright chrome. Output —52 db. Frequency Range 300-3000 cps. Models G10C and G10D same as above except complete with G Stand.

List Prices	Shipping weight
10C—**$29.70**	1 lb. 4 oz.
10D—**$39.70**	1 lb. 10 oz.
G10C—**$49.90**	2 lb. 12 oz.
G10D—**$59.90**	3 lb. 2 oz.

[H] **GS SERIES GOOSENECK FOR LANGUAGE LAB AND P.A. COMMUNICATIONS. Satin chrome flexible gooseneck 13 inches long on permanent mounting. 7 foot single conductor shielded cable. Shipping weight 1¾ lbs.**

332GS Crystal—See specification for 332, Fig. D. List price **$24.50.**

333GS Ceramic—See specification for 333 Fig. D. List price **$24.50.**

335H-GS Dynamic Hi-impedance—See specification for 335H, Fig. D. List price **$33.00.**

335L-GS Dynamic Lo-impedance—See specification for 335L, Fig. D. List price **$30.00.**

MOBILE AND COMMUNICATIONS MICROPHONES

[I] **Model 10M5A:** "The Communicator"—Approved, accepted rugged, yet lightweight carbon microphone. High sensitivity. Built-in RF filter. Ideal for police, fire department, taxi and other protable or mobile communications. Heavy-duty thumb switch. Pressure-cast housing. Finish: Opalescent Grey. 5 feet of self-recoiling cable, includes anti-rattle hang-up bracket. Power level 2 db above 6 mw. List price—**$29.50.** Shipping weight—1 lb., 3 oz.

TAPE RECORDING MICROPHONES

[J] A fine performing, value priced high output wide range microphone. **Model 150**—(Crystal) Grey plastic body, aluminum anodized grille. Output level —44 db. (1 volt/dyne/cm^2). Output impedance high (1-5 megohms). Frequency response range 30-10,000 cps. 5-ft. extra flexible single-conductor shielded cable. List price—**$6.50.**

[J] **Model 151**—(Ceramic) Plastic grey body, black metal grille. Output level —48 db (1 volt/dyne/cm^2). Output impedance high (1-5 megohms). Frequency response range 30-8,000 cps. 5-ft. extra flexible single-conductor shield cable. DIMENSIONS: $2\frac{3}{16}$ square x 1¼" deep. NEW WEIGHT: 3 ounces. List Price **$6.50**

NOTE: PROFESSIONAL RECORDISTS WILL BE INTERESTED IN ASTATIC MODELS SUCH AS THE 330 SERIES, 77 AND 788

ALL-PURPOSE CRYSTAL MICROPHONES

[K] **Model 200:** "Velvet Voice" — A versatile, low priced, hand-held, desk floor stand. Crystal high impedance microphone. Pressure-cast gold finish housing, chrome grille. Complete with 8 feet of cable. Model 200—wide range, output —50 db, Frequency Range 30-10,000 cps. Model 200-S—wide range with switch. Model 241-S rising characteristics, from 1500 to 5500 cps.

MODEL 200—List Price—$19.50. Shipping weight 2 lbs.
MODEL 200S and 241-S—List Price—$21.50. Shipping weight 2 lbs.

[L] **Model T-3:** "The Pioneer"—Industry approved. High output —52 db, Frequency Range 30-10,000 cps. Tilting head provides for semi or nondirectional pickup. Pressure-cast housing. Finish bright chrome body and grille. 10 feet of single-conductor cable. Model GT-3 includes Astatic G Stand, with 6 feet two conductor shielded cable.

MODEL T-3—List Price—**$29.30.** Shipping weight 2 lbs.

MODEL GT-3—List Price—**$49.50.** Shipping weight 3 lbs.

[M] **Model JT-30** (Crystal), **JT-30C** (Ceramic): **"The Spokesman"**—High quality, low cost, specially designed for PA recording and communications. Pressure-cast body and base. Finish: Opalescent Grey, Chrome Grille.

[M] **Model JT-30** (Crystal), 8 feet of cable. Output —49 db, Frequency Range 30-10,000. **Model JT-30C** (Ceramic), 5 feet of cable. Output —54 db, Frequency Range 30-10,000 cps.

[M] **Model JT-30**—List Price **$18.40.** Shipping weight 1 lb.

[M] **Model JT-30C**—List Price **$18.90.** Shipping weight 2½ lbs.

[M] **Model JT-30F** (Same as JT-30 except head only. Without handle and base.) List Price **$15.90.** Shipping weight 1 1/5 lbs.

[M] **Model JT-30CF** (Same as JT-30C except head only. Without handle and base.) List Price **$16.40.** Shipping weight 1 1/5 lbs.

[N] **Model L-1**—"The Lecturer"—Small, efficient, high quality invisible crystal microphone. Spring attachment clip for coat lapel or other garment. Precision-built, wide-range performance. Wire mesh front and rear grilles. Black melamine finish. 15-ft. small-diameter, single-conductor shielded cable. High impedance. Output —62 db. Range 30-10,000 cps. Shipping weight 1 lb. List Price **$27.35.**

ALL DIRECTIONAL DYNAMICS

[O] Model DN-50, DN-HZ "The Commentator". Highly reliable preferred Astatic dynamic microphones for communication and general purpose use. Rugged construction, tilting head, pressure-cast body. Opalescent grey finish with bright chrome grille. Model DN-50—Low impedance. Output —51 db. Frequency Range 50-10,000, 10 feet of 2-conductor shielded cable. Model DN-HZ—High impedance. Output —52 db. Frequency Range 50-10,000 cps. 10 feet of single conductor shielded cable.

[O] **Model DN-50**—List Price **$33.50.** Shipping weight 2 lbs.

[O] **Model DN-HZ**—List Price **$39.70.** Shipping weight 2½ lbs.

[O] **Model GDN-50**—Low impedance with Astatic G Stand. List Price **$52.70.** Shipping weight 3 lbs.

[O] **Model GDN-HZ**—High impedance with Astatic G Stand. List Price **$59.90.** Shipping weight 3 lbs. 8 oz.

[O] **Model UGDN-50**—Low impedance with Astatic UG Stand (balanced line). List Price **$56.00.** Shipping weight 3 lbs. 8 oz.

[P] **SWITCH CONNECTORS** with standard receptacles to receive the interchangeable connector used on many Astatic microphones. Also have connection for standard concentric cable connector. Model SC-11 used with Astatic microphones T-3, DN-HZ, 10-C, 10-D, and D-104. SC-12 for use with Astatic microphone DN-50. List Prices: SC-11 (Bright chrome, less cable), **$9.00;** SC-12 (Bright chrome, less cable), **$11.25.**

COMPLETE LINE REPLACEMENT MICROPHONE CARTRIDGES AND STANDS

ASTATIC
QUALITY
MICROPHONES

[I]

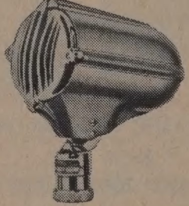
[J]

[K]

[L]

[M]

[N]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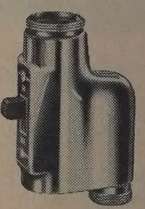

[P]

ASTATIC PHONO NEEDLES

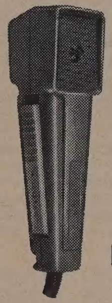
Needle for needle, Astatic always has the highest quality with the most complete stocks of any maker anywhere. No matter who the original equipment maker of the phonograph, Astatic has just the needle made for that particular cartridge on hand, ready for immediate delivery.

ASTATIC

QUALITY MICROPHONES

A

B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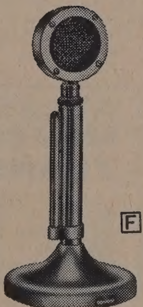
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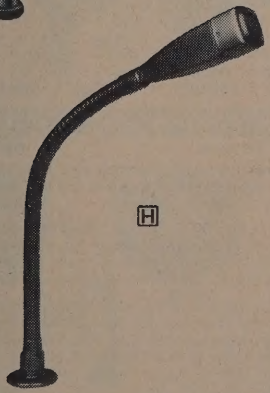

H

ASTATIC PHONO CARTRIDGES
For over 25 years Astatic has maintained its number one position as the world's leader in supplying the most complete line of phonograph pickup cartridges for both original equipment manufacturers and distributors.

PROFESSIONAL, HIGH RELIABILITY DYNAMIC MICROPHONES FOR SOUND STAGE—TAPE RECORDING—TV AND BROADCAST

Modern design, outstanding performance. Omnidirectional, widest range, pop and blast proof Mylar diaphragm. Pressure cast body. Complete with lavalier assembly, swivel adaptor and 20 feet of 2-conductor shielded cable.

A **Model 988:** Extended range (40-20,000) professional microphone for TV broadcast, group pickup. High output —57 db. Frequency response 40-20,000 cps, multi-impedance selection 50-150-250 ohms. Finish—satin black body with satin gold trim. List price—**$150.00.** Shipping weight—3 lbs.

A **Model 888:** Diversified applications; sound stage, tape recording, TV and broadcast. High output —55 db. Frequency response 50-15,000 cps, multi-impedance selection. Finish—black body with chrome trim. List price—**$110.00.** Shipping weight—1½ lbs.

A **Model 788:** Ideal for tape recording, orchestras and PA. Dual impedance 150 ohms and high. High output —55 db. Frequency response 60-13,000 cps. Built-in on-off switch. Finish—satin black body, satin gold trim. List price — **$79.50.** Shipping weight—12 oz.

CARDIOID DYNAMIC MICROPHONES FOR PUBLIC ADDRESS AND INDUSTRIAL APPLICATIONS, RECORDING, TV AND BROADCAST

THE MOST POSITIVE ANTI-FEEDBACK MICROPHONE EVER BUILT. A high fidelity unidirectional dynamic cardioid microphone. New, advanced design. Front to back pickup, differential of 18 db. Cartridge is suspended in rubber-like material, no need for external shock mount. Built-in impedance selector switch. Low impedance 30 to 50 ohms, Medium 150 to 250 ohms, High 40,000 ohms. Output —52 db. Frequency response 30-15,000 cps all models. Satin chrome or gold finish.

B **Model 77**—Complete with off-on switch, with provision for locking in on position. List (in chrome) **$82.50**—(in gold) **$92.50.** Shipping weight—2 lbs., 14 oz.

B **Model 77L**—Head only for mounting on Astatic G Stand. List (in chrome) **$72.50**—(in gold) **$82.50.** Shipping weight—1 lb., 14 oz.

B **Model G77**—Includes Astatic G Stand. List—**$97.45.** Shipping weight—3 lbs., 10 oz.

INDUSTRIAL "RUGGEDIZED" DYNAMIC MULTI-IMPEDANCE MICROPHONE

C **Model 551:** A specially designed, extremely heavy duty dynamic multi-impedance microphone with blastproof feature, high intelligibility and low background noise pickup. Internally sealed against dust, grit and moisture. Low impedance (Rmr) = 150 ohms; High Impedance (Rmr) = 40,000 ohms. Leaf type internal switch with bar actuator external switch for convenient, either-thumb handling. Cable extends to 8′ — recoils to 15″. Housing of high impact "Delrin®". List Price—**$69.50.** Shipping weight 2 lbs.

MINIATURIZED PROFESSIONAL QUALITY MICROPHONES FOR PUBLIC ADDRESS, COMMUNICATIONS, RECORDING, STUDIO AND INDUSTRIAL APPLICATIONS

D **DYNAMIC MODELS 335H AND 335L: Unusual response uniformity from 60-12,000 cps, both models. High Impedance (335H) and Low Impedance (335L) 30-50 ohms. Output 335H —56 db; 335L —57 db. Die-cast housing in TV grey finish with chrome cap and grille. 335H SCS, 335L 8 ft. 2 conductor shielded cable. Complete with lavalier and stand adaptor with ⅝″-27 thread. Shipping weight 1¼ lbs. List prices (335L)—$23.50 (335H)—$26.50.**

D **CERAMIC MODEL 333:** Exceptional response uniformity from 30-10,000 cps, High Impedance Output —58 db. Die-cast housing in black finish with black grille and chrome cap. 8 foot single conductor cable. Complete with lavalier and stand adaptor with ⅝″-27 thread. Shipping weight 1¼ lbs. List Price **$17.90.**

D **CRYSTAL MODEL 332:** Exceptionally uniform response from 30-15,000 cps. High impedance. Output —54 db. Die-cast housing in satin chrome with chrome cap and black grille. 8 foot single-conductor cable. Complete with lavalier and stand adaptor with ⅝″-27 thread. Shipping weight 1¼ lbs. List price **$17.90.**

D **CERAMIC MODEL 331:** A voice range unit for communications applications, paging and 27 megacycles citizens' band use. With built-in momentary-on, spring-return switch. Die-cast black housing and grille with chrome cap. Complete with hang-up bracket. Output —56 db. Frequency range 300-5,000 cps. High impedance. Cable provides for audio and relay connections. Shipping weight—1 lb. List Price **$17.90.**

CERAMIC AND DYNAMIC MOBILE MICROPHONES OF HIGH IMPEDANCE AND UNUSUALLY WIDE RANGE OF APPLICATIONS INCLUDING CITIZENS' BAND AND COMMUNICATIONS.

E **Model 511:** Tailored response with limited range characteristics, with wide temperature range ceramic element from —40° F. to + 300° F. Output: —50 db below 1 volt/dyne/cm². Press-to-talk leaf type switch in body center for either thumb operation. 3-conductor cable shielded coiled cable extends to 5½′ from recoil of 11″. Housing of high impact plastic in 2-tone grey and spun aluminum grille. Back handle ridges provide sure hand fit. Uniquely designed mounting bracket permits vertical or horizontal mounting. Shipping weight—1¼ lbs. List Price—**$19.95.**

E **Model 513H: Virtually identical to Model 511 except for Dynamic Element; wide temperature range from —40° F. to +150° F. Shipping weight—1½ lbs. List Price—$34.50.**

FOR SSB-AMATEUR-AM-PAGING AND INDUSTRIAL USE

F **Model D-104, D-104C:** "The Premier"—An established first among radio amateurs. Balanced performance for maximum intelligibility throughout the voice range. Machine brass parts. Bright chrome finish. 5′ single-conductor cable. Note: Frequency range 30-7500 cps, D-104 Crystal —46 db, D-104 Ceramic —51 db. List Price—**$31.00.** Shipping weight 1¾ lbs.

THE ASTATIC CORP.

CONNEAUT, OHIO, U.S.A. • In Canada: Canadian Astatic Ltd., Toronto, Ontario
Export Sales: Roburn Agencies, Inc., New York 13, N. Y., U.S.A.
MANUFACTURERS OF PHONOGRAPH CARTRIDGES • NEEDLES • PICKUPS • MICROPHONES
RECORDING TAPE • ELECTRONIC DEVICES

ATLAS SOUND

ATLAS PAGING AND TALK BACK SPEAKERS

All speakers approved by Federal Civil Defense Administration.

The HU and CJ models listed below are all equipped with the well-known "Versalock" mounting bracket. This rigid, rugged and dependable bracket is completely adjustable on both a horizontal and vertical plane, affording "pin-point" directivity and simple secure mounting. The HU and TP horns are constructed of aluminum, while the CJ horns are molded of indestructible Fiberglas. Rugged diecastings and tough steel parts add strength wherever necessary. All models are 100% weatherproof under all climatic conditions.

HU-12N Small in size and low in cost. Excellent for low power paging and talk-back systems where limited coverage is required.

HU-15N The famous ATLAS SOUND "work horse," HU-15N is the most popular all-purpose, trouble-free speaker of its type and size.

HU-24N Similar to HU-15N. The larger horn improves low frequency response and increases over-all efficiency. For paging and talk-back systems that are also required to reproduce music.

CJ-14N A wide angle speaker with a rectangular horn opening which gives broad sound dispersion in the horizontal plane while maintaining good vertical coverage.

EC-10 The lowest priced American-made speaker designed specially for low power systems requiring limited coverage. Made possible by a breakthrough in design, materials and performance, EC-10 gives improved results and high efficiency for intercom and other applications formerly using cone speakers.

Horn sections are molded of a new, tough, all-weather, acrylic plastic and the handsome beige-brown color combination blends with any decor. The tough steel bracket is adjustable and makes mounting simple and secure. Model EC-10 is unmatched where size, weight, appearance and high efficiency combined with low cost are factors.

CJ-30N Similar to CJ-14N, except the power handling capacity is increased and the larger, wide angle horn improves low frequency response.

TP-15N One high efficiency driver unit does the work of two for low cost bi-directional coverage in long corridors and outdoors. The universal bracket mounts the dual horns at a 10° angle down or out from wall surface or pole.

MODEL	POWER*	IMPEDANCE (specify†)	FREQUENCY cps	SOUND LEVEL#	DISPERSION	DIMENSIONS	SHIPPING WEIGHT	NET PRICE
EC-10	6 Watts	8 or 45 ohms	400-13,000	112 db	125°	6¼″ Bell dia. 6⅜″ deep	2 lbs.	8Ω $14.25 45Ω $15.15
HU-12N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	120°	7½″ Bell dia. 7¼″ deep	3½ lbs.	8Ω $16.80 45Ω $17.70
HU-15N	25 Watts	8 or 45 ohms	250-13,000	123 db	100°	9¾″ Bell dia. 8¾″ deep	6 lbs.	8Ω $20.70 45Ω $21.60
HU-24N	25 Watts	8 or 45 ohms	200-13,000	124 db	95°	11¼″ Bell dia. 12″ deep	6 lbs.	8Ω $23.10 45Ω $24.00
CJ-14N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	120° x 60°	5½″ high 9½″ wide 8″ deep	3½ lbs.	8Ω $18.60 45Ω $19.50
CJ-30N	25 Watts	8 or 45 ohms	250-13,000	121 db	120° x 60°	6″ high 14″ wide 11¼″ deep	7 lbs.	8Ω $26.10 45Ω $27.00
TP-15N	25 Watts	8 or 45 ohms	250-13,000	120 db Each horn	100° Each horn	9¾″ Bell dia. 16½″ long	7½ lbs.	8Ω $32.10 45Ω $33.00
TP-24N	25 Watts	8 or 45 ohms	200-13,000	121 db Each horn	95° Each horn	11¼″ Bell dia. 23″ long	8 lbs.	8Ω $35.70 45Ω $36.60
DU-12N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	110°	7″ Bell dia. 14″ long	4 lbs.	8Ω $21.60 45Ω $22.50
DC-5	6 Watts	8 ohms	120-7,000	105 db	—	7″ Bell dia. 14″ long	3 lbs.	8Ω $14.25

* Input range limited to frequencies above horn cut off. # Measured at 4 ft. on axis rated power.

† Unless specified 8 ohms will be supplied. If 45 ohms required add 45 ohms after Model No. (Example: HU-15N-45).

TP-24N Same as TP-15N but equipped with oversized horns for improved low frequency response. Excellent for bi-directional paging locations required to reproduce music.

The DéCor speakers described below are designed to simulate a lamp, handsomely styled for contemporary interiors. All horn parts, fully adjustable bracket and base-canopy, are finished in brushed satin aluminum. Base-canopy conceals wiring and matching transformer, if required. All mounting hardware included. May be used outdoors in sheltered locations.

DU-12N Equipped with a driver type reproducer unit for high efficiency, directivity and intelligibility.

DC-5 Equipped with a high efficiency weather-resistant 5″ diameter cone speaker for pleasing reproduction of low level voice and music. Ideal for locations where appearance is a critical factor, such as churches, conference halls, restaurants and similar quiet surroundings.

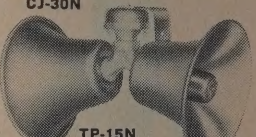
NEW

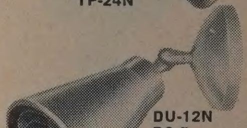
EC-10

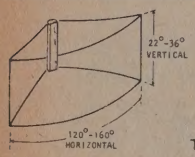
HU-12N

HU-15N
HU-24N

CJ-14N
CJ-30N


TP-15N
TP-24N


DU-12N
DC-5



Average Dispersion Pattern

ATLAS Columair SOUND COLUMN

(with exclusive EASY-MOUNT Universal Bracket)

The "Columair" consists of an in-line array of six frequency adjusted cone speakers. The in-line configuration produces a sound pattern having a broad horizontal and narrow vertical distribution. Provides uniform sound intensity even at varying distances from the sound column. EASY-MOUNT swivel bracket permits optimum adjustment of critical beam pattern. Transformer cover plate located at top of enclosure. Constructed of heavy gauge steel finished in light beige two tone spatter. Plastic grill cloth in contrasting shade covers front plywood panel. Interior lined with "Tufflex" acoustic padding. Fine appearance blends with most décors.

C-46

C-66

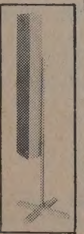
SPECIFICATIONS

Model	C-46	C-66
Speaker Array	Six, Four-Inch	Six, Six-Inch
Frequency Range	200-10,000 cps	125-10,000 cps
*Power Capacity	20 Watts	40 Watts
**Vert. Distribution Angle	26-36 Degrees	22-32 Degrees
**Hor. Distribution Angle	120-160 Degrees	120-160 Degrees
Impedance (Total)	16 Ohms	16 ohms
Dimensions	28″ x 5¼″ x 5″	42″ x 7¾″ x 6″
Net Weight	8¼ Lbs.	18½ Lbs.
Net Price	$37.50	$57.00

*Constant Program Material Input.

**Distribution varies with frequency and environment.

ATLAS SUPPORT STAND

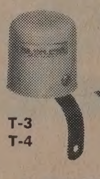


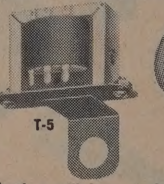
Model **SS-4** support stand for portable and permanent application. Requires use of MK-1 attachment kit to mount Column to stand—designed for quick and easy removal of Column from stand. Upright polished chrome, heavy cast iron base in beige shrivel finish. Adjusts to more than six feet in height, weight 20 lbs.

Model SS-4 Loudspeaker Support Stand .... **Net Price $12.60**

Model MK-1 Columair Attachment Kit .... **Net Price $ 1.20**

ATLAS LINE MATCHING TRANSFORMERS


T-3
T-4


T-5

T-15

T-11

• convenient • efficient • low loss • weather proof

T-3 includes weatherproof housing and bracket for EC-10. Primary from 45 to 2,000 ohms in six steps. 25 volt line power taps from 5 to .31 watts .... **Net Price $3.75**

T-4 includes weatherproof housing and bracket for EC-10. Primary from 1000 to 16,000 ohms in five steps. 70 volt line power taps from 5 to .31 watts .... **Net price $3.75**

T-5 for DU-12 and DC-5 DéCor speakers equipped with bracket to mount under wall canopy for a neat installation. Primary marked in impedance and power steps from 7.5 to .31 watts in six steps. Secondary 8 ohms. .... **Net Price $3.00**

T-11 for HU, CJ, TP and WT-6 speakers. Completely weather proof, includes bracket for simple attachment to the speaker, varnish impregnated and all soldering lugs clearly marked. Primary from 45 to 8,000 ohms in nine impedances. Also marked for 70v. and 25v. Power ratings from 15 to .65 watts. Secondary 4, 8, 16 ohms. .... **Net Price $5.55**

T-10 for "Columair" C-46 and all general use. Same specs as T-11 above, less weatherproof housing. **Net Price $3.90**

T-15 for CJ-44 Cobra-Jector and all high power driver units. Includes weather proof housing and universal mounting bracket. Primary from 100 to 2,000 ohms in seven steps. Also marked for 70v. line from 50 to 2.5 watts. Secondary 4, 8, 16 ohms. .... **Net Price $9.90**

T-16 for "Columair" C-66 and for general application. Specs same as T-15 above, less weatherproof housing. **Net Price $5.10**

ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION, Brooklyn 18, N. Y. Canada: Atlas Radio Corp. Ltd., Toronto

© U.C.P., Inc.

ATLAS SOUND

ATLAS COBRA-JECTOR

MODEL CJ-44 ALL PURPOSE WIDE ANGLE PROJECTOR—COMPLETE WITH SUPER POWER DRIVER—POLYESTER FIBRE GLASS CONSTRUCTION

All weather speaker with "Acousti-Matched" built in driver unit. The projector and reproducer is a single package, matched design resulting in maximum conversion efficiency. (Power input in watts versus sound pressure output.) The CJ-44 controlled response has been carefully restricted within frequency limits most useful in PA and high level music reproduction. As a result, speaker output energy is not wasted in the reproduction of frequencies that do not contribute to efficient performance. **Net Price $47.70**

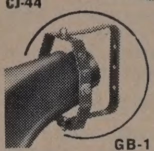
Input Power (cont.)	40 watts
Power Equalized Response*	60 watts
Input Impedance	16 ohms
Response	115-12,000 cps
Dispersion	120° x 60°
Dimensions—Bell	23″ x 13″
Overall length	19″
Weight	16 lbs. net 19 lbs. shipping

*Input range limited to frequencies above horn cut off.

CJ-44

All speakers approved by Federal Civil Defense Administration.

DR-54
DR-42
DR-32


GB-1

MOUNTING BRACKET FOR CJ-44 AND ALL DR PROJECTORS

MODEL GB-1 For all Atlas projectors using "U" type bracket mounting. It permits the speaker to be quickly adjusted in both a horizontal and vertical plane and securely locked in position. Average adjustment limits 160° on the horizontal and 65° on vertical direction. Bonderized steel, baked enamel finish, all hardware supplied. Shipping weight 3 lbs. ...... **Net Price $3.30**

ATLAS DR PROJECTORS

NON-RESONANT—STURDY—WEATHERPROOF

Atlas DR projectors are the result of many years of acoustic research. This costly engineering and elaborate tooling has resulted in projectors that are without acoustical or mechanical equal. All acoustical sound paths are clean and uniform without steps or pockets to disturb the normal function of the horn. These critical design features eliminate conditions of turbulence, frequency cancellation and resultant signal distortion. All models are equipped with a heavy duty "U" bracket. This bracket is securely fastened to a main body casting which will not fail when subjected to extreme conditions of stress, strain and vibration.

SPECIFICATIONS	DR-54	DR-42	DR-32
Air Column	4½ ft.	3½ ft.	2½ ft.
Low Frequency	115 cps	140 cps	190 cps
Bell Diameter	26 inches	21 inches	16½ inches
Length (less driver)	19 inches	16 inches	12½ inches
Shipping Weight	23 lbs.	14 lbs.	10 lbs.
Net Price	$29.40	$21.60	$18.00

HLE-1-30
HLE-2-30

HLE-1-32
HLE-2-32

ATLAS EXPLOSION-PROOF HIGH EFFICIENCY SPEAKERS

APPROVED BY UNDERWRITERS LABORATORIES FOR USE IN HAZARDOUS LOCATIONS WHERE EXPLOSIVE ATMOSPHERES EXIST

Highly efficient due to exclusive design of explosion barrier. **Class 1** speakers for use in atmospheres containing ethyl ether, cyclopropane, gasoline, naphtha, benzine, butane, acetone, lacquer, natural gas, etc. **Class 2** can be used in Class 1 conditions as well as in atmospheres containing dust of magnesium, coal, coke, flour, starch, grain, etc.

HLE-30 type speaker preferred where space limitations exist; excellent for paging and talk back applications. **HLE-32** type more efficient due to larger horn size—where maximum coverage is required.

SPECIFICATIONS	HLE (1 or 2) 30	HLE (1 or 2) 32
Power Input	60 watts	60 watts
Voice Coil Impedance	16 ohms*	16 ohms*
Freq. Response	250 to 12,000 cps	190 to 12,000 cps
Overall Length	17½ inches	21½ inches
Bell Opening	14 in. x 6 in.	16½ inch diameter
Cable Entrance	½″ conduit	½″ conduit
Shipping Weight	22 lbs.	25 lbs.
Net Price	HLE-1-30 $73.50 HLE-2-30 $85.50	HLE-1-32 $82.20 HLE-2-32 $94.20

*Available with 45 ohm V.C. add $1.50 to net price. T-16 line trans. mounting facilities available within explosion-proof housing. For details see description of T-16.

ATLAS "SPECIAL DUTY" SPEAKERS

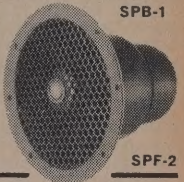
These "special duty" weatherproof speakers are ruggedized for tough-spot service, compact in size for limited mounting area installations. Protective screen over bell openings adds structural strength and prevents entry of foreign material into bell opening. Constructed of heavy gauge aluminum and die castings finished in high temperature baked grey enamel.

Model **SPB-1** equipped with "Versalock" bracket for all directional adjustment. Bell dia. 7¼ in., overall length 6⅛ in. Weight 5½ lbs. .... **Net Price $27.00**

Model **SPF-2** for flange mounting in panels, bulkheads, etc. Outside dia. 7¼ in., overall length 6⅛ in. Weight 5 lbs. .... **Net Price $26.40**

See model **HU-15N** for detailed electrical and acoustical specifications.

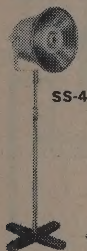
SPB-1


SPF-2

ATLAS SUPPORT STANDS

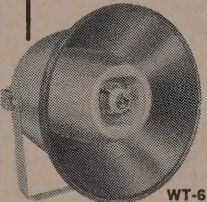
Model **SS-4** for permanent and portable use, for all types of speakers of medium weight and size. Easy-Off top fitting supplied for convenient attachment of speaker. Cast iron base offers adequate stability for average use. Upright polished chrome steel tubing adjustable to over 6 ft. Beige shrivel base. Weight 20 lbs. **Net Price $12.60**

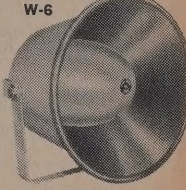
Model **SS-2**. Heavy duty, all purpose support. Maximum stability due to wide surface spread. All parts plated steel and paint finish. Equipped with Easy-Off top adaptor to facilitate removal of speaker. Height extension 5 to 10 ft. Weight 29 lbs. .... **Net Price $25.50**


SS-4

SS-2

ATLAS "COAX-PROJECTOR" ALL WEATHER HI-FI SPEAKER


WT-6


W-6

Model **WT-6**—Two-way system—two individual drivers, two individual horns, with built in electronic crossover. A cone type driver with six inch throat for the "lows"; a compression type driver for the "highs". Both drivers are loaded with separate horns to minimize acoustic phase distortion and inter-modulation effects. **Net Price $36.00**

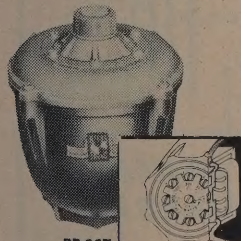
WT-6 SPECIFICATIONS	
Power	15 Watts (cont.)
Frequency	100-15,000 cps
Impedance	8 ohms
Dispersion	120° average
Sound Level*	118 db
Crossover	1,000 cps prox.
Bell Opening	15 inches
Overall Depth	12 inches
Shipping Weight	16 lbs.

*Measured at 4 ft., 800 to 1300 cps sweep at rated power.

Model **W-6**, identical in size and appearance to WT-6 but does not include high frequency "tweeter". High end response limited to 8,000 cps, but entirely adequate where good musical reproduction is desired and where the ultimate in high frequency response is not a requirement. **Net Price $27.00**

General: Both models are constructed of aluminum finished in a new modern shade of beige, all weather, baked enamel. Leading edge of bell protected and damped with a plastic beading. Rugged steel "U" type bracket is fully adjustable for all applications. All metal parts chemically treated prior to finishing.

ATLAS DRIVER UNITS • SUPER POWER—SUPER EFFICIENT


PD-60T
PD-60

PD-4V

PD-5VH

PD-5VT

Will offer years of satisfactory performance under full power application. The ultimate in frequency response, conversion efficiency and trouble free performance. Specify the new **PD-60T** for the "tough-spots". All models, except the **PD-4V** are equipped with self-aligning diaphragms easily replaceable in the field; all driver units double sealed against all climatic conditions.

SPECIFICATIONS	PD-60T	PD-5VT	PD-5VH	PD-4V
Power (continuous)*	60 watts	40 watts	40 watts	30 watts
Power (equalized response)†	100 watts	60 watts	60 watts	50 watts
Voice Coil Impedance	16 ohms	16 ohms	16 ohms	16 ohms
Sound Intensity#	136 db	131 db	131 db	128 db
Frequency Response cps	70-12,000	80-12,000	80-12,000	85-7,000
Transformer Imp. ohms	16, 85, 125, 250, 500, 1000, 2000	16, 125, 250, 500, 1000, 2000		
Trans. Power Taps, Watts 70 Volt Line	60, 40, 20, 10, 5, 2.5	40, 20, 10, 5, 2.5		
Shipping Weight	8 lbs.	7 lbs.	5 lbs.	4 lbs.
Net Price	$37.20	$30.60	$22.50	$17.70

PD-60 Same as PD-60T Less Transformer $30.60

* Integrated speech and music full range. † Input range limited to frequencies above horn cut off.
# Measured 4 ft. on axis, 6 ft. air column with integrated full power input.

ATLAS "TWO-WAY" BAFFLES

Model **TW-9.** Bi-directional baffle for wall or ceiling surfaces. Excellent for corridors. Universal mounting plate attaches canopy to electrical outlet box or to any flat surface. All steel, beige enamel finish, plastic grill cloth. Dia. 9 in. depth 5 in., for all standard 8 in. cone speakers. Weight 4 lbs. **Net Price $8.40**

Model **TW-8.** Economy model similar to above with quick-mount universal bracket. Finished in neutral grey enamel for 8 in. cone speakers. Weight 3½ lbs. .... **Net Price $6.60**

TW-9

TW-8

ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION, Brooklyn 18, N. Y. Canada: Atlas Radio Corp. Ltd., Toronto

ATLAS SOUND

ATLAS MICROPHONE DESK STANDS AND ACCESSORIES

NO SLIPPING—NO RATTLE—NO NOISE—NO SCRATCHING—NO WEAR

The "Full Grip" clutch is standard on all models—it offers an extended length clutch body, permitting a secure, full hand grip. The clutch mechanism of all "Velvet Action" stands is inner-lined with a wear-proof bakelite locking collet which grips without jamming, slipping or sudden dropping. All chrome plated surfaces are carefully polished prior to plating to assure a uniform "Super-Chrome" wear resistant, lifetime finish. All threads on tube assemblies are individually inspected to assure a perfect fit when assembled to the base castings. All bases are functionally designed to offer maximum stability for a given base weight. The maximum base mass is located at the outer periphery of the casting where the concentrated weight is most effective. All bases include self leveling, shock absorbing base pads, plus three additional "anti-tip" points located between the base pads. All models terminate with a 5/8"-27 thread at the microphone end.

MS-10C Economy model suitable for most applications where a low cost stand is required. Offers adequate base stability for average weight microphone.

MS-12C Similar to above but increased base weight offers an added advantage. Flat design of base is modern in appearance and is finished in a dark gun metal shrivel finish. Equipped with base pads to absorb shock.

MS-11C Full chrome design. Entire stand base and upright tube assembly completely finished in "Super-Chrome." Excellent for use where fine appearance is a requirement. An excellent choice for use with full chrome plated microphones. Equipped with base pads.

MS-4 Three section telescoping microphone stand permitting a wide variation of adjustment. Can be adjusted from 26 inches to 61 inches in height. Excellent for use in schools, etc. where it is necessary to adjust the stand over a wide range of height adjustment. Minimum collapsed length offers convenience in transportation.

MS-20 DeLuxe model. Maximum stability suitable for use with heavy, expensive microphones. Large oversize tube assembly, 7/8" diameter telescoping tube, 1 1/8" diameter base tube, base diameter 12 inches. Oversize clutch assembly assures secure locking adjustment. Top adaptor included for 5/8"-27 microphones.

MS-25 Professional Microphone Stand. The ultimate in microphone stands. Features the "Safety Air Lock Cushion." This sensational feature prevents any accidental or sudden slippage of the telescoping section. If the clutch mechanism is accidently released the stand cannot suddenly crash down—thus prevents damage to the microphone from severe mechanical shock. The telescoping section is at all times "cushioned on air" and the controlled escapement of air will only permit a slow smooth and quiet collapse of the stand. Base finished in a combination of chrome and shrivel. Heavy duty tube assembly, 1 1/8" and 7/8" combination—5/8"-27 top adaptor.

MS-11S - MS-12S Automatic "Sleeve Action" models. A fully automatic means of adjusting the height of the stand. A slight downward pressure on the "Sleeve Action" control permits the telescoping section to be lowered—cannot change its position without a deliberate pressure on the actuating sleeve control. Two models full chrome base or shrivel finish.

CS-1 Fully collapsible, portable stand quick and simple to set up. Collapsible to a minimum overall length of 23 inches.

CS-52 A unique three-legged floor stand which combines handsome design with maximum stability. The cast iron base, with base pads on each leg, is finished in dark gun-metal shrivel. Standard full chrome upright tube assembly. Two piece base disassembles easily for compact handling.
Packed: One complete stand packed in a single carton, suitable for reshipment.

CS-42 Similar to CS-52 in design, except that base is readily collapsible for portable use or convenient storage.
Packed: One complete stand packed in a single carton, suitable for reshipment.

Model	Weight	Base Finish	Tube Finish	Height Adj.	Base Dia.	Net Price
MS-10C	10 lbs.	Grey Shrivel	Full Chrome	35" to 64"	10 inches	$ 6.00
MS-12C	12 lbs.	Grey Shrivel	Full Chrome	35" to 65"	10 inches	$ 6.45
MS-11C	13 lbs.	Full Chrome	Full Chrome	35" to 65"	10 inches	$ 8.25
MS-4	11 lbs.	Grey Shrivel	Full Chrome	26" to 61"	10 inches	$ 9.45
MS-20	15 lbs.	Grey Shrivel	Full Chrome	37" to 66"	12 inches	$10.20
MS-25	22 lbs.	Chrome & Grey	Full Chrome	37" to 66"	17 inches	$16.80
MS-11S	13 lbs.	Full Chrome	Full Chrome	35" to 65"	10 inches	$15.00
MS-12S	12 lbs.	Grey Shrivel	Full Chrome	35" to 65"	10 inches	$13.50
CS-1	5 lbs.	Chrome & Cad	Full Chrome	23" to 62"	collapsible	$11.40
CS-52	9 lbs.	Grey Shrivel	Full Chrome	34" to 62"	15 inches	$ 7.05
CS-42	9 lbs.	Grey Shrivel	Full Chrome	34" to 62"	16 inches	$ 7.80

CS Type Demountable Microphone Floor Stands—with full grip—"Velvet Action," fully collapsible—quick and simple "Come Apart" base design. This new and revolutionary design in microphone stands is ideal for fixed as well as portable applications. Excellent for use when it is desired to contain the stand within the amplifier or speaker carrying case. The stability of the assembled stand is equal to many types employing heavy cast iron base construction. The base legs are easily removed to permit minimum size, lightweight transportation. The spring lock leg-holding mechanism of this ingenious design offers a quick and simple "Come Apart" feature. No tools or screw fastenings are required to hold the base assembly together. No small parts to become lost. The self-leveling legs are chrome plated, tipped with skid-proof rubber shock absorbent bumpers —eliminates vibrational conductivity . . . protects polished floor surfaces against damage.

Model	Finish	Height Adj.	Shipping Weight	Net Price
CS-32	Full Chrome	36" to 64"	5 lbs.	$ 7.50
CS-33	Full Chrome	26" to 64"	4 lbs.	$ 8.70

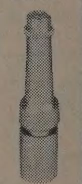
Each stand is individually packed complete in a single carton.
Model CS33 can be collapsed to a total length of only 22½".

VM-1 SHOCK MOUNT The VM-1 shock mount will eliminate or greatly reduce microphone pick up of external mechanical shock and stand vibrations.

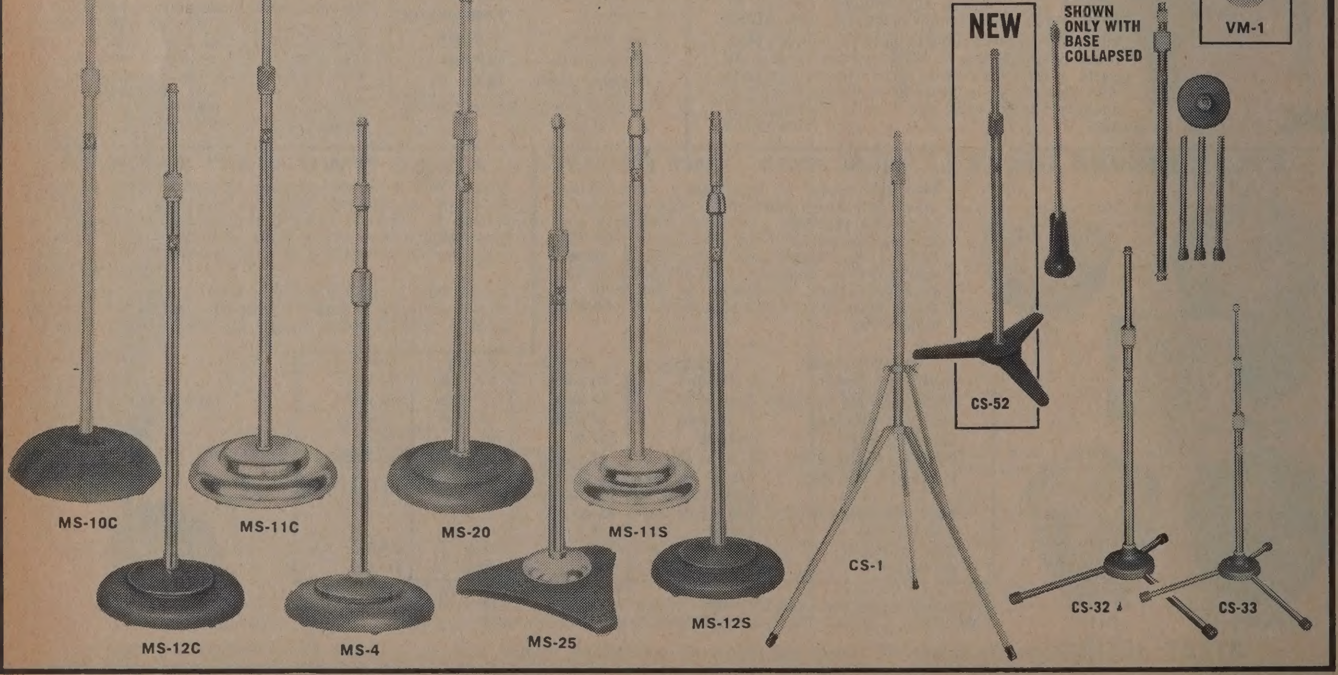
The shock mount is equipped with male and female 5/8"-27 threads permitting convenient insertion between the microphone and the microphone stand.

The VM-1 is constructed of die castings and brass turnings finished in bright polished chrome — overall length 4¾", diameter 1" .... **Net price $ 4.50**

NEW



VM-1



ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION, Brooklyn 18, N. Y. Canada: Atlas Radio Corp. Ltd., Toronto

ATLAS SOUND

ATLAS MICROPHONE DESK STANDS AND ACCESSORIES

DS-4 Highly polished molded phenolic base is light beige in color with chrome upright tube. The smooth base will not scratch or mar table tops. Upright tube can be easily removed from base. Base diameter 5", height of tube 4", thread size ⅝"-27. Shipping Weight ½ lb. **Net Price $1.50**

DS-5 Non-Adjustable Desk Stand. Base cast iron, finished in gun metal shrivel. Stable base is equipped with pads to prevent damage to desk or table tops. Base diameter 6", tube height 4" chrome finish. Shipping Weight 2 lbs. **Net Price $1.95**

DS-7 Same as above but equipped with upright adjustable from 8 to 13 inches. Equipped with standard "Velvet Action" clutch adjustment. Thread ⅝"-27. Shipping Weight 3 lbs. **Net Price $3.30**

DS-10 "Stream Liner" Desk Stand. Features "Rear Cable Exit". Mike cable is concealed under center section of chrome trim and directed out at rear of base; results in added stability and improved appearance. Constructed of precision die castings, finish gun metal grey, bright chrome trim. Rubber bumpers prevent damage. ⅝"-27 thread. Shipping Weight 1½ lbs. **Net Price $3.30**

TS-8 Adjustable Banquet Stand. Low silhouette base is a trim, modern design. Upright adjustable from 14½" to 26". Both base and upright finished in full super-chrome **Net Price $6.15**

DS-9 Professional Desk Stand. Handsome appearance of modern, low silhouette base and tapered upright, both finished in satin chrome, complements the finest microphones. Stable 8" diameter base protects against accidental microphone damage. 4" upright tube. Five felt base pads **Net Price $5.10**

DS-14 Desk stand is functionally and aesthetically suited to slim, elongated microphones. Gun-metal shrivel finished base with protective felt pads and 3" polished chrome upright tube with ⅝"-27 thread **Net Price $2.70**

SB-1 Dispatcher and Switchboard Mike Support. For use over telephone switchboards, dispatcher's desk, dais, banquet table, etc. 12 inch long, flexible, chrome plated "goose neck" arm is mounted on a spring loaded swivel, can be swung aside when not in use. A feed thru hole is located at the mike end of the "goose neck" so that the mike cable can be concealed within the flexible arm. Base casting is rear loaded so that the base will not tip forward. Finish grey shrivel. Shipping Weight 13 lbs. **Net Price $9.45**

SW-1 Gyromatic Swivel permits microphone to be adjusted to any angle, up, down, around. Locks in any position. Die cast finished in chrome. **Net Price $2.85**

SO-1 "Snap On"—A two-section "Snap On" spring sleeve attachment permits the microphone to be attached or removed instantaneously. One section is attached to the microphone and one section permanently fastened to the stand. For use where the microphone must be occasionally removed from the stand as often occurs in sports announcing, floor show use, etc. All parts are of brass, finished in "super-chrome". **Net Price $1.65**

FS-1 Microphone Foot Switch—for use with mikes having single ended inputs. Shielded, grounded, noise free. Primarily for foot operation; used as a hand operated switch on top of a table or switchboard. Long life shielded microswitch of a "press to open" circuit type. When switch is depressed the short is removed from the mike circuit and the mike becomes operative. Can be easily rewired internally for "press to close" circuit application. Measures 2½" x 3". **Net Price $7.80**

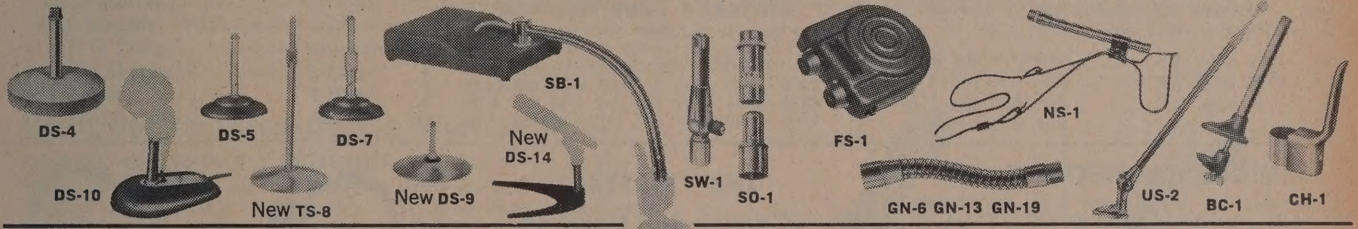
NS-1 "The Chesty" Neck Supported Mike Holder. Permits a quick and simple "three way" adjustment. Mike is always in a suitably "close talking" position reducing acoustic feedback problems. Wide comfortable chest support prevents rolling due to sudden movement. Cool and lightweight, weighing only 6 oz. **Net Price $3.30**

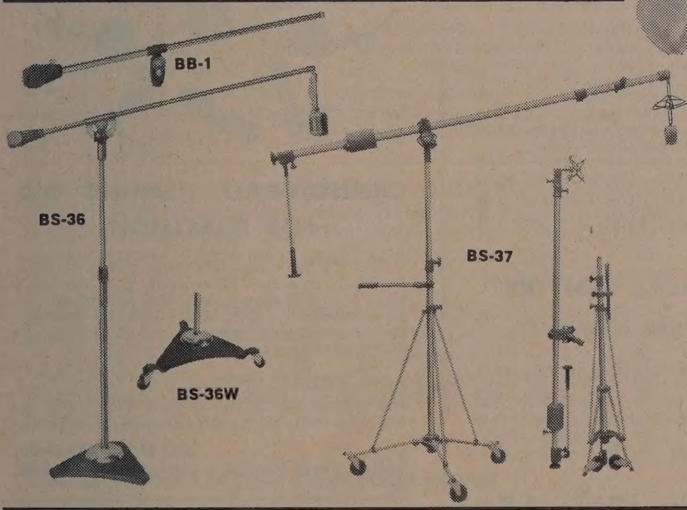
GN "Goose Necks" can be attached to any microphone stand or fixture; ends have ⅝"-27 male and female threads—all finished in bright chrome, model numeral indicates overall length of "goose neck" in inches. **Net Price GN-6 $1.20, GN-13 $1.65, GN-19 $2.40**

US-2 The Atlas US-2 Multi-Purpose microphone support. Excellent for use with language laboratories, dispatcher desks, telephone switchboards, pulpits, etc. The boom arm vertical adjustment and the rotation motion is spring loaded and will "float" the mike in the desired position without requiring a locking adjustment. The microphone cable may be concealed within the boom arm and will feed thru the swivel assembly and base flange. A small opening is provided at the microphone end of the boom for cable entry. Finished in "super-chrome". Specifications—Boom arm length 12¾"; vertical adjustment of boom 180°; rotation 360°; base length 2⅝". **Net Price $5.70**

BC-1 Bracket Clamp. A multitude of useful applications. Can be used with a boom arm, goose neck, etc. Chrome tube 6" long. Clamp can be removed and top flange screwed or bolted in position. ⅝"-27 thread. **Net Price $2.10**

CH-1 Cable Hanger. Fits all tubes ⅞" to 1¼" diameter. The mike cable can be quickly coiled and looped over the cable hanger when moving, storing or transporting the mike and stand. Finished in polished chromium. **Net Price $1.65**





ATLAS BOOM STANDS

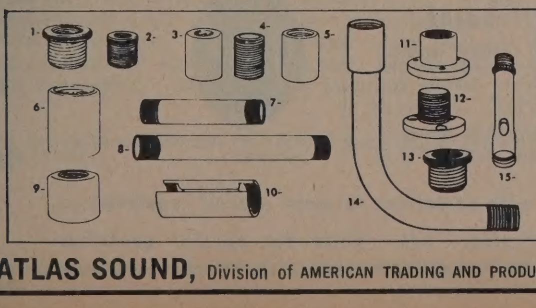
BB-1 "Baby Boom" Attachment. Versatile device that can be attached to any type of floor stand. All swivel parts are precision die castings resulting in smooth operation and secure positioning. Length of boom 31"—Chrome plated ⅝"-27 thread. Shipping weight 3½ lbs. **Net Price $4.80**

BS-36 Professional Boom Stand with "Safety Air Lock Cushion" offers all the advantages of "Floating Action" plus a secure and dependable locking adjustment. The Air Lock built into the vertical section prevents any accidental or sudden slippage of the upright section. A gyromatic swivel joint is provided at the microphone end. The base casting is equipped with shock absorbent chrome plated, "domes of silence". Specifications: Boom length 62" (extension may be added). Vertical extension from 48" to 72". All tubular sections super-chrome plated. Base finished in polished chrome and gun metal. Shipping weight 36 lbs. **Net Price $39.90**

BS-36W Mobile Model. Identical to the BS-36 except that the base is supplied with ball bearing swivel casters, permitting the entire stand to be wheeled to various positions in the studio. Shipping weight 40 lbs. **Net Price $45.90**

BS-37 Porto Boom. For most exacting TV studio, sound motion picture application, etc., ideal for portable service. Fully collapsible down to dimensions permitting its transportation in all automobiles. Air check prevents any accidental collapse of the upright. Detailed description sheet available. Specifications: Upright retracted 5¼ ft., extended 9 ft. Boom retracted 7 ft., extended 18 ft. All tubular sections aluminum processed in "Alumilite". Counter weight cast iron with bronze locking mechanism. Base casters 4" swivel type. Base spread 42" on radius. Shipping weight 73 lbs. **Net Price $390.00**

ATLAS MICROPHONE ADAPTORS AND FITTINGS



Model	Description	Net Price
AD- 1	⅝"-27 female to ½" pipe thread male (RCA Adaptor)	$ .54
AD- 2	⅛" pipe female to ⅝"-27 male	.39
AD- 3	⅛" pipe female to ⅝"-27 female	.39
AD- 4	¾" long, ⅝"-27 male running thread	.21
AD- 5	⅝"-27 female to ⅝"-27 female, coupling	.39
AD- 6	⅞"-27 female to ⅞"-27 female, coupling	.72
AD- 7	3" long tube ⅝"-27 male each end	.42
AD- 8	6" long tube ⅝"-27 male each end	.48
AD- 9	⅞"-27 female to ⅝"-27 female	.45
AD-10	⅝"-24 female to ⅝"-27 female (W. E. Adaptor)	.78
AD-11	Flange, ⅝"-27 female. Base Diameter 1¾"	.45
AD-12	Flange, ⅝"-27 male. Base holes on 1¼" mounting centers	.45
AD-13	⅞"-27 male to ⅝"27 female	.51
AD-14	Right angle bent tube: ⅝"-27 male and female each end	.90
AD-15	Cable "Feed-Thru" adaptor: ⅝"-27 male and female each end	.90

Note: Thread sizes specified as ⅛" pipe is I.P.S. (Electrical fitting) Measures Approx. ⅜" dia. All adaptors chrome plated.

ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION, Brooklyn 18, N. Y. Canada: Atlas Radio Corp. Ltd., Toronto

HEADPHONES By C. F. CANNON CO.

THE "CHIEF"

Cannon-Ball Bakelite Headset

A high quality headset of durable molded black plastic. Attractive in appearance, it is a sensitive and practical phone for every headset use. Inside terminals. Diameter of diaphragm is 2 1/16". Double coils, two in each receiver. Alnico permanent magnets. Supplied with vinyl plastic covered headband with permanent adjustment and no removable parts. Cotton covered cord, 4½ ft. long.

CC-2—2000 ohms D.C.	**List $4.15**	**Net $2.49**
CC-3—3000 ohms D.C.	**List 4.40**	**Net 2.64**
CC-5—5000 ohms D.C.	**List 5.75**	**Net 3.45**
CC-11—11 ohms D.C.	**List 4.15**	**Net 2.49**

BRANDES "SUPERIOR"

Matched Tone Headset

A rugged headset, millions of which are in use all over the world. Large size diaphragms of 2⅛" diameter assure efficient performance. Outside terminals, with polished aluminum cases and bakelite caps. Double coils, two in each receiver. Chrome steel magnets. Steel headband with permanent adjusment. 4½ ft. cotton covered cord.

BS-2—2000 ohms D.C.	**List $4.30**	**Net $2.58**

BRANDES "ADMIRAL"

Matched Tone Headset

The Brandes "Admiral" is of the same general construction as the Brandes Superior, but has terminals on the inside.

BA-2—2000 ohms D.C.	**List $4.30**	**Net $2.58**
BA-3—3000 ohms D.C.	**List 4.80**	**Net 2.88**
BA-5—5000 ohms D.C.	**List 6.00**	**Net 3.60**

CANNON-BALL ALNICO MAGNETIC No. 25

A New Headset of Unusual Quality, Efficiency and Durability, powered by Alnico V magnets.

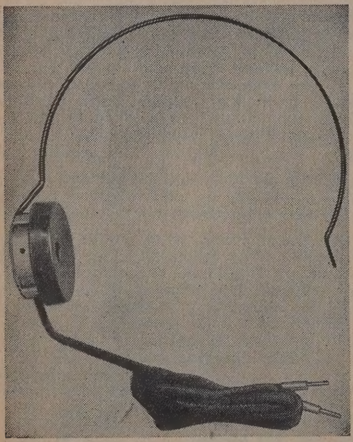
The headband is covered by attractive black extruded vinylite and provides utmost wearing comfort. Limits turn of phone to prevent twisting of cord. Cap and case of molded plastic. Large size diaphragm 2⅛". Equipped with sanitary moisture-resistant plastic cord with riveted crotch piece.

AM-25-2	**List $6.50**	**Net $3.90**
AM-25-3	**List 7.00**	**Net 4.20**
AM-25-5	**List 8.50**	**Net 5.10**

ALNICO MAGNETIC No. 15

A new, small size, extra sensitive double headset, light in weight. Diameter of diaphragm 1⅞". Molded cap and case. Steel adjustable headband. 4½ ft. cord.

AM-15-2	**List $3.65**	**Net $2.19**
AM-15-3	**List 3.90**	**Net 2.34**



CANNON-BALL "ALNICO"

Single Headphone

Equal in clarity and volume to most double headsets, efficient and attractive. Permits listening while being addressed by others. Concealed terminals. Diaphragm 1⅞". Bakelite case and caps. Alnico magnet, double coils. 4½ ft. cord. Spring steel headband permanently attached.

AM-15-1—1000 ohms D.C.	**List $2.00**	**Net $1.20**

THE "MASTER"

Cannon-Ball Headset

Used extensively in hospitals and other institutions as well as for general purposes, and is especially recommended for institutions. Inside terminals Aluminum cases with black bakelite caps. Spring steel adjustable headband with no removable parts. Diaphragm 2 1/16" diameter. Double coils. Chrome steel magnets. 4½ ft. cotton-covered cord.

MC-2—2000 ohms D.C.	**List $4.30**	**Net $2.58**
MC-3—3000 ohms D.C.	**List 4.65**	**Net 2.79**
MC-5—5000 ohms D.C.	**List 5.75**	**Net 3.45**

CANNON-BALL "EMPIRE"

Lightweight Headset

A low-priced light-weight headset with large magnet and double coils. Reproduces with clarity and good volume. Diameter of diaphragm is 1⅞". Polished aluminum cases with bakelite caps. Steel adjustable headband. 4½ ft. cord. Inside terminal connections.

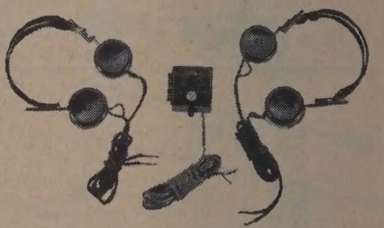
EC-2—2000 ohms D.C.	**List $3.80**	**Net $2.28**
EC-3—3000 ohms D.C.	**List 4.05**	**Net 2.43**

THE "DIXIE"

Cannon-Ball Headset

The "Dixie" is of the same general construction as the "Master" headset except that the terminals are on the outside. Bakelite case Alnico magnets.

CD-2—2000 ohms D.C.	**List $3.90**	**Net $2.34**
CD-3—3000 ohms D.C.	**List 4.15**	**Net 2.49**



CANNON-BALL HEARING AID FOR TELEVISION

Provides private listening without disturbing others. Excellent for persons hard of hearing. Can be attached to any television set and permits listening to phones alone, speaker alone, or both together.

FOR TELEVISION

Kit complete with 15 foot cord, phone volume control and two sets of phones

	List $16.50	**Net $9.90**
With one headset	**List 12.50**	**Net 7.50**

MOLDED RUBBER CUSHIONS

Fit standard size headsets. Molded-in air chamber provides maximum wearing comfort.

per pair	**List $1.00**	**Net $ .60**

Phones can be supplied with any resistance required or with variations to meet special requirements.

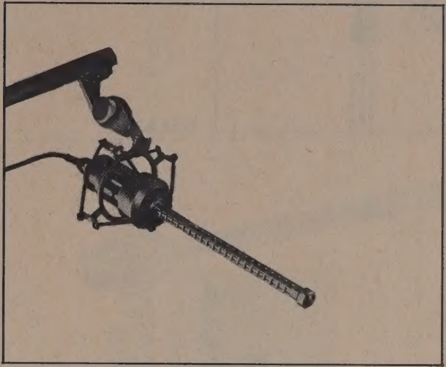
Sanitary plastic covered cords available for institutional use. Write for special quotation.

Electro-Voice®

BC-TV-RECORDING MICROPHONES-DYNAMICS

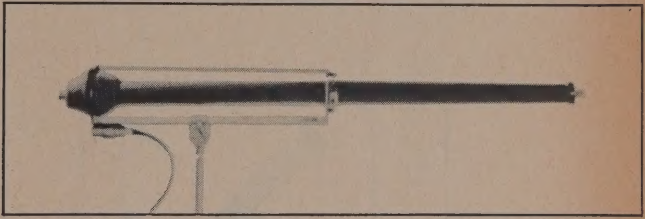
Cardiline Unidirectional Microphones

MODEL 642—A highly directional dynamic microphone combining the best characteristics of cardioid and distributed front-opening designs. Essentially cardioid unidirectional up to 500 cps; highly directional over balance of range. Working distance is 2 to 3 (or more) times that of conventional types. Excellent for boom use with Model 356 shock mount. Minimum mechanical shock transfer and wind noise interference. Response: Flat from 30 to 10,000 cps or choice of 5 or 10 db low frequency reduction steps by screwdriver adjustment. Acoustalloy® diaphragm. Impedance: 50, 150 and 250 ohms, externally adjustable. Output level: —48 db. Cast aluminum case with non-reflecting gray finish. Supplied with Cannon UA-3-14 connector, 20′ 3-conductor shielded broadcast cable and UA-3-11 Cannon connector. Length, 17⅞″; max. diameter, 3³⁄₁₆″. Must be used with Model 356 or 327. Net weight, 3 lbs., 4 oz.
Net Each. . **$234.00**



642

MODEL 643—Similar to Model 642 above but designed for more specialized and extended long-range pickup. Provides cardioid pickup pattern to 100 cps and is highly directional over balance of range. Includes integral 2-position bass tilt-down switch and 100 cps cutoff filter. Impedance: 50, 150 or 250 ohms changed by internal connector pin. Lightweight cast and extruded aluminum case with integral shock mount and removable wind filter. Output level: —47 db; Response: 30 to 10,000 cps. Length, 7′ 2″; max. diam. 4″. Cannon UA-3-14 and UA-3-11 connectors; supplied with 20′ cable and storage case. Fits ⅝″-27 or ½″ pipe threads. Net Each. . **$936.00**

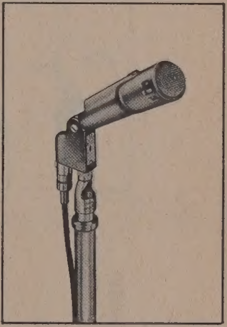


643

Cardioid Unidirectional Microphones

MODEL 666 SUPER CARDIOID—Variable-D® principle for high discrimination against sounds from back. Permits close talking without bass accentuation. Working distance increased by 1.7:1 over pressure microphones. Single moving element is exclusive, rugged Acoustalloy® diaphragm. Response: 30 to 16,000 cps. Output: —58 db. Internal connector pin impedance change. Wired for 150 ohms; taps at 50 and 250 ohms. Non-reflecting gray finished aluminum case. Built-in Cannon UA-3 connector. Clamp-on stand mount with ⅝″-27 thread and ½″ pipe thread adapter, 20′ cable. Length, 7¾″; diameter, 1¾″. Net weight, 11 oz. Net Each. . **$153.00**

666



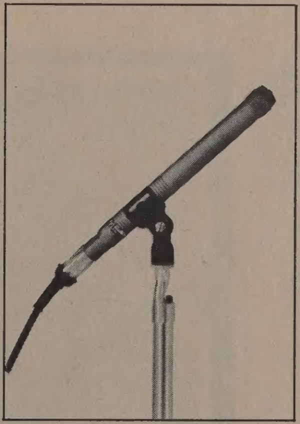
665

MODEL 666R RISING RESPONSE CARDIOID—Like Model 666, but with response which rises 4½ db from 100 to 2,000 cps, reducing pickup of low frequency reverberations, room "rumble" and prop noise. Particularly suited to boom use. Output: —57 db.
Net Each. . **$153.00**

MODEL 665 CARDIOID—Similar in design and function to the Model 666, but for less exacting applications. Uniform response 50 to 14,000 cps. Recessed switch provides 50 or 250 ohms. Pressure-cast zinc case. Non-reflecting gray finish. Diameter, 1⅞″; length, 7³⁄₁₆″; 18′ cable. Fits ⅝″-27 threaded stand. Net weight, 1 lb. 10 oz. Net Each. . . **$90.00**

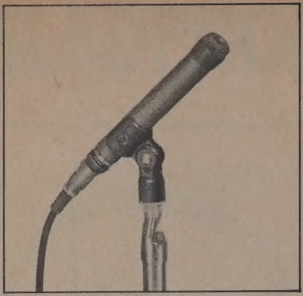
Omnidirectional Microphones

MODEL 655C SLIM-TRIM TV DYNAMIC—Frequency response, 40 to 20,000 cps. Output level, —58 db. Excellent level affords high signal-to-thermal noise ratio. Can be used on stand, in hand or on boom. Easily concealed in studio props. Acoustalloy® diaphragm. Pop-proof grille. Impedance: 50, 150 and 250 ohms. Impedance easily changed. Non-reflecting gray finish. Cannon UA-3 connector. Clamp-on stand mount included with ⅝″-27 thread and ½″ pipe thread adapter. Length, 10½″ w/o connector; diameter, 1″; 20′ cable. Net weight, 7 oz.
Net Each. . **$120.00**

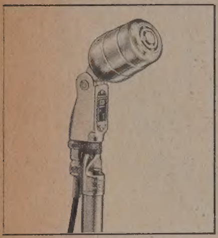


655C

All above microphones except 642 & 643 are eligible for FCDA purchases.


654A

MODEL 654A SLIM-TRIM BROADCAST DYNAMIC—Frequency Response, 50 to 16,000 cps. Output level: —58 db. Can be used stand-mounted, hand-held or as lavalier. Matches all low impedance inputs. Built-in Cannon XLR-3 connector. Acoustalloy® diaphragm. 18′ cable. Length, 6$\frac{15}{16}$″ diameter, 1⅛″. Non-reflecting gray finish. Net weight, 16 oz. Supplied with Model 300 clamp and lavalier neck cord.
Net Each. . .**$60.00**

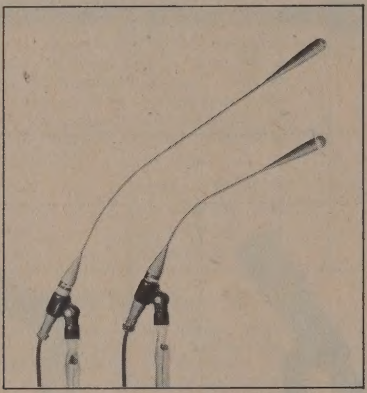

635

MODEL 635 BROADCAST DYNAMIC — Compact, rugged, versatile. Omnidirectional. Response: 40 to 13,000 cps. Acoustalloy® diaphragm. Output level: —55 db. 50-250 ohms impedence selector. Head tilts through 90° arc. Cannon XL-3 connector. ⅝″-27 thread; size 2″ x 6¼″. Satin chrome finish, 18′ cable. Net weight, 1 lb. Net Each. . .**$49.20**

649B

MODEL 649B MINIATURE LAVALIER—Smallest dynamic lavalier—weighs only 31 grams without cable; length, 2¼″; diameter, ¾″. Ideal for programming where unobtrusive or concealed microphone placement is desirable. Frequency response: 60 to 12,000 cps. Output: —61db. Acoustalloy® diaphragm. Omnidirectional. Matches all low impedance inputs. 30′ shielded cable. Aluminum case finished in non-reflecting gray. Complete with neck cord assembly and belt clip.
Net Each. . .**$63.00**

"Thin-Trim" Dynamic Microphones


652
652A

MODEL 652—Almost invisible dynamic microphone. Microphone is mounted on the end of the semirigid tube bringing the moving coil element closer to the user for full range, pop free response. Breath and wind filter is an integral part of the microphone. Two clear plastic baffles provided to give either 8 db or 5 db boost in the brilliance range of 5,000 cps for added articulation. The microphone without the baffles gives a smooth response from 80 to 8,000 cps. Acoustalloy® diaphragm. The Model 652 is mounted in a $\frac{3}{16}$″ steel tube and finished in non-reflecting gray. Output level, —60 db. Matches all low impedances. Furnished with 3-conductor shielded 20′ cable. Model 300 stand coupler. Length of microphone, 25″. Weight 11 oz. Net Each. . .**$72.00**

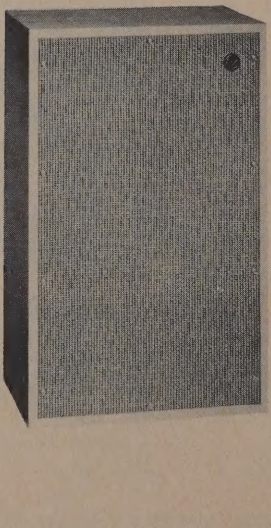
MODEL 652A—Same as Model 652 except 15″ long.
Net Each. . .**$72.00**

Sentry Series Studio Monitor Speaker Systems

SENTRY I WALL OR CEILING MODEL — The first loudspeaker system designed specifically for monitor use in recording and broadcast studios. Permits precise monitoring and equalization uncolored by monitor speaker. Extremely wide, flat response allows use as studio reference standard. Precision driver components include 12″ Radax loudspeaker, Diffraction horn high frequency driver and special crossover. Provides smooth frequency response from 30 to 20,000 cps. Internal matching transformer accommodates 16, 150, and 600-ohm amplifier impedances. Quality hardwood cabinet, smooth sanded and sealed, ready for finishing in your choice of colors if desired. Neutral cane grille cloth. Dimensions: 21¾″ h x 37″ w x 17″ d.
Net Each. .**$149.00**

SENTRY II FLOOR MODEL — Same specifications as those shown for Sentry I. Finished on all four sides to permit vertical or horizontal mounting. Includes protective metal trunk-type corners which may be attached for portable applications. Dimensions: 32″ x 20″ x 13″ deep. Net Wt. 68 lbs. Net Each. .**$159.00**

SENTRY II



SENTRY I

Electro-Voice®

Electro-Voice®

GENERAL PURPOSE MICROPHONES

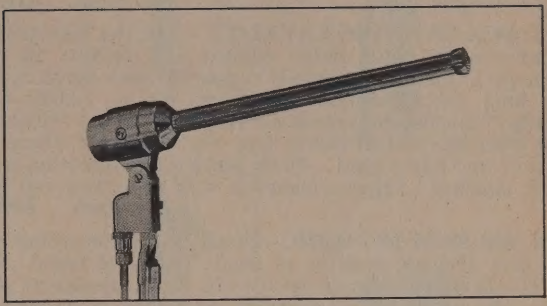
Unidirectional Line Microphone

MODEL 644 SOUND SPOT® — Another Electro-Voice revolutionary development, the Sound Spot Model 644 is a combination cardioid and distributed front opening instrument, making it the most directional P.A. microphone ever. The Model 644 has the farthest front pickup, or better than 2.5 times the working distance of pressure types. Work close or far away without change of frequency response.

Cancellation from the rear and sides exceeds 20 db above 700 cps giving practically complete rejection of unwanted sound. Cardioid below 700 cps. This feature gives extremely high rejection of random noise. Reverberation and feedback are vastly lower than with any other P.A. microphone, allowing much greater leeway in loudspeaker placement.

The effective front acceptance angle is 45° each side of center, providing best isolation of individual performers. The Model 644 is 9 db better on the reduction of wind noise and has far less response to shock than most other microphones.

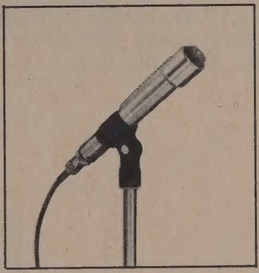
Frequency response is smooth from 40 to 10,000 cps. Acoustalloy® diaphram. High output: —53 db. Dual high and low impedance selected by changing one tap on MC4M cable connector. The case is high-pressure die-cast zinc with ¾″ aluminum tube; satin chrome finish. Rear diameter 2$\frac{5}{16}$″, length 16″. Cable is 18′. Weight, 2 lbs. 9 oz. Net Each...**$66.00**



644

Cardioid Unidirectional Dynamic Microphones

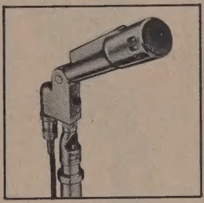
NEW MODEL 676 CARDIOID DYNAMIC — Radically new design brings truly professional quality to public address, recording, communications, and other general purpose microphone applications. Exclusive Continuously-Variable-D® principle assures uniform, symmetrical cardioid pattern at all frequencies. Frequency response 40 to 15000 cps. Highest discrimination against feedback and unwanted sound. Exclusive three position switch offers controlled low-frequency attenuation to overcome rumble and feedback when microphone is used at a distance. Slim design permits full view of person speaking. May be used hand held or with stand mounting clamp supplied. Rugged high pressure die-cast construction. Acoustalloy® diaphragm. 150 ohms or high-Z; impedance changed by moving one wire in cable connector. Output level —58 db. Satin chrome finish. 18′ cable. Size 7⅜″ by 1¼″ diameter. Shipping weight 3 lbs. Net Each...**$60.00**



676

MODEL 676G—Gold finish. Net Each...**$66.00**

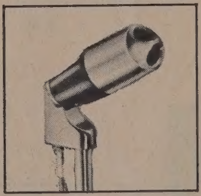
MODEL 664 CARDIOID DYNAMIC — Similar to Model 666 in function, but designed for quality tape recording, communications, and public address applications. Cardioid pattern at all frequencies. Permits close talking without "booming" or bass accentuation. Provides better discrimination against unwanted sound. Blast filter minimizes wind effect. Acoustalloy® diaphragm shielded from dust and magnetic particles. Response 40-15,000 cps. Output —58 db, On-Off switch. 150-ohm and high impedance. Impedance changed by moving one wire in MC4 cable connector. Pressure-cast case. Chrome finish. 18′ cable. Size 7$\frac{3}{16}$″ long, less stand coupler, 1⅞″ diameter. Net weight, 1 lb. 10 oz. Net Each...**$51.00**



664

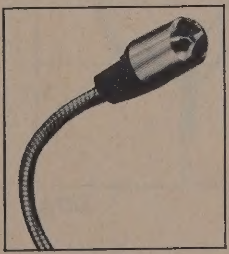
MODEL 664G—Gold finish. Net Each...**$54.00**

MODEL 641—Modern two-tone design dynamic microphone. High output level, wide-range response. For public address, home recording, communications, electronic teaching aids, paging systems. Integral On-Off switch, wide frequency response. 70 to 10,000 cps. Output —57 db. 6 foot cable. Case is chrome plated die-cast zinc and gray high impact plastic. Standard ⅝″-27 stand connector. Available in Hi-Z or balanced 150 ohms. Specify when ordering. Shipping weight: 1 lb. Net Each...**$21.00**



641

MODEL 634—Identical to Model 641 (above) except furnished without stand mounting stud. Fits any stand, boom or gooseneck with complete cable concealment. Ideal for desk mounting on electronic teaching aids, amateur and commercial communications and switchboard mounting for paging systems. Built-in On-Off switch. 6 foot cable and standard ⅝″ -27 threads in rear of case. Hi-Z or balanced 150 ohms. Specify when ordering. Net Each...**$18.90**



634

MODEL 636 "SLIMAIR" DYNAMIC—Exceptionally fine for PA, recording and general use. Response 60-13,000 cps. Output —58 db. Pop-proof head. Wide pickup range. On-Off switch. Satin chrome finish. Tiltable head. Built-in MC-4 connector. ⅝"-27 thread. Hi-Z or Lo-Z by changing one wire in connector. 18′ cable. 10¼" long including stud, 1⅛" max. diameter. Net Each . . . **$43.50**

MODEL 636G—Gold finish. Net Each . . . **$46.50**

MODEL 630 HIGH FIDELITY, HIGH-OUTPUT DYNAMIC—Famous for quality at low cost. Response 60-11,000 cps; output level–55 db. Unaffected by heat or humidity. Acoustalloy® diaphragm. Tiltable head. Built-in MC-3 connector. On-Off switch. Satin chrome finish. Available in Hi-Z or 150 (matches 50-250) ohms. Lo-Z balanced to ground. Size: 2" x 6¼". 18′ cable. Net weight, 1 lb. Net Each . . . **$31.50**

MODEL 647A DYNAMIC LAVALIER—Smallest high quality microphone in the entire public address field delivers big microphone performance. Extremely rugged dynamic construction assures long life. Frequency response, 60 to 12,000 cps. Acoustalloy® diaphragm. Impedance Hi-Z or balanced 150 ohms, selected from free end of cable. Size 3¾" long, ¾" diameter, net weight 2 oz. Output level —60 db, finish is non-reflecting gray. 18′ cable attached. Shipped complete with neck cord and belt clip. Net Each . . . **$49.50**

MODEL 623 SLIM DYNAMIC—Ideal for PA, recording and general use. Use on stand or in hand. Omnidirectional. Response 60-12,000 cps; output level —56 db. Acoustalloy® diaphragm. Hi- or Lo-Z by changing one wire in connector. Pressure cast; satin chrome finish. Tiltable head. On-Off switch. Built-in MC-4 connector. ⅝"-27 thread. 7½" x 1 5/16". 18′ cable. Net Weight, 15 oz. Net Each . . . **$34.20**

MODEL 611 "MERCURY" DYNAMIC—Traditional styling, fine performance for general sound pickup. Response 50-9000 cps; output level—55 db. Omnidirectional. Acoustalloy® diaphragm. Tiltable head. On-Off Switch. Built-in MC-3 connector. ⅝"-27 thread. Satin chrome finish. Available in Hi-Z or 150 (matches 50-250) ohms. Lo-Z balanced to ground. 2⅜" x 3⅛" x 6¼" inc. stud. 18′ cable. Net Weight 1¼ lbs. Net Each . **$27.00**

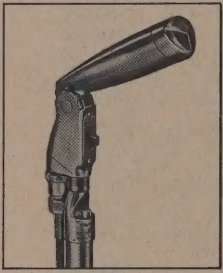
MODEL 624 DYNAMIC LAVALIER — Most economical dynamic lavalier on the market. For chest or hand use. Supplied with neck cord, support clip and 18′ cable. Non-reflecting gray finish. Wire mesh head acoustically treated for wind and moisture protection. Output —56 db, response 100-7,000 cps. Acoustalloy® diaphragm. Available in Hi-Z or 150 ohm, not balanced to ground. 3 5/32" x 1 7/32". Cable has integral strain relief. Net Weight, 14 oz. Net Each . . . **$25.50**

MODEL 615 "CENTURY" DYNAMIC—Incomparable for paging, home recording, amateur, or any low-cost applications. Can be used in hand, on table, on stand, or overhead. Omnidirectional. Acoustalloy® diaphragm. Withstands extreme temperature, humidity, corrosion and shock. Response: 80-8,000 cps. Output: —55 db. Available in Lo-Z (matches 50-250 ohms) or Hi-Z. Lo-Z not balanced to ground. 5′ cable. Pressure cast case, Metalustre gray. Rugged, lightweight. Size 3" x 2 3/16" x 1". With ⅝"-27 thread stand adapter. AC-DC insulated. Net Each . . . **$15.30**

Crystal and Ceramic Microphones

MODEL 951 CARDIOID CRYSTAL—Uses same Variable-D® principle as E-V's BC-TV cardioids to obtain uniform directivity at all frequencies, high discrimination against unwanted sound. The 951 is an excellent wide-range, all-purpose PA microphone for a great variety of acoustic conditions, and especially useful where background noise and reverberation are a problem. Response 50-11,000 cps. Output —60 db. Hi-Z. On-Off switch. Pressure-cast case. Metalustre gray finish. 18′ cable. MC-1 connector. 5⅜" l. (excluding stud), 1¾" dia. overall. Net wt., less cable, 1¼ lbs. Net Each . . . **$32.70**

All above microphones are eligible for FCDA purchases.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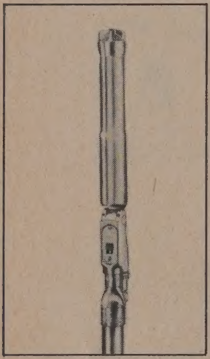
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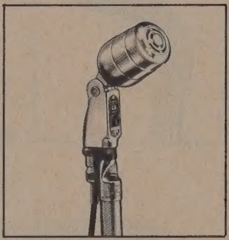
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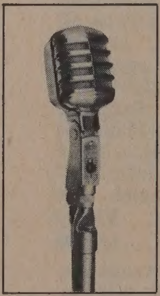
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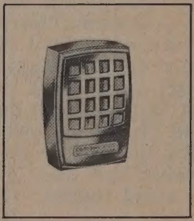
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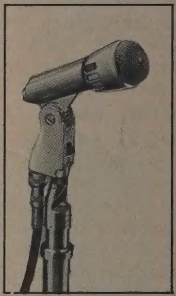
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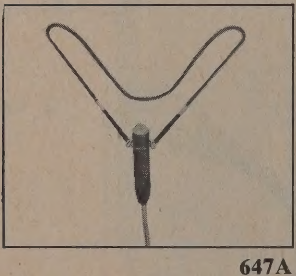

647A

Electro-Voice® GENERAL PURPOSE MICROPHONES

MODEL 911 CRYSTAL—Same smart design and fine performance as Model 611. Response 50-10,000 cps. Output—50 db. Metal Seal Crystal. MC-1 connector. Hi-Z. 18′ cable. Net weight 1½ lbs. Net Each . . . **$19.50**

MODEL 926 SLIM CRYSTAL—Level and response ideal for general purpose use. Response 60-8000 cps; output level —60 db. Hi-Z. Pressure cast case, satin chrome finish. Tiltable head. ⅝″-27 thread. 6¾″ x 1 5/16″. 18′ cable with integral strain relief. Net Weight 11 oz. Net Each . . . **$17.70**

MODEL 920 "SPHEREX" CRYSTAL—Omnidirectional pickup. Response 60-10,000 cps; output level —50 db. Strong wire-mesh head acoustically treated for wind and moisture protection. High capacity, moisture sealed crystal. Hi-Z. Satin chrome. ⅝″-27 thread. Diam. 2¼″, 18′ cable. Net Weight 8 oz. Net Each . . . **$16.50**

MODEL 924 LAVALIER CRYSTAL—Unique crystal lavalier for chest or hand use. Supplied with neck cord, support clip and 18′ cable. Non-reflecting gray finish. Wire mesh head acoustically treated for wind and moisture protection. Output—60 db. Response 60-8000 cps. Hi-Z. 3 5/32″ x 1 7/32″. Cable has integral strain relief. Net Weight 8 oz. Net Each . . . **$12.00**

MODEL 714—A new high output, ceramic hand-held communications microphone for paging, ham radio, and Citizens Band use. Molded, tough, gray Cycolac★ case, usually found only in most expensive mobile microphones, assures long life and protection from accidental shock damage. Response tailored for maximum intelligibility. High level, high impedance output —55 db over range of 60 to 7,000 cps. DPDT switch shorts microphone in "off" position and closes relay circuit in "on" position. 2½″ x 7 7/16″ x 3⅝″; 3-conductor coiled cord 10″ retracted. Net weight is 8 oz. including cable. Shipped complete with hang-up bracket. Net Each **$9.90**

MODEL 717—Similar to Model 714 above except close talking cardioid pickup pattern for rejection of unwanted background noise and feed-back. Specially designed ceramic element with apertures on either side of diaphragm provides effective attenuation of sonuds arriving from the rear and sides. Output level —55 db. Frequency response 100 to 7000 cps. Net Each . **$11.70**

MODEL 729 CERAMIC CARDIOID—The Model 729 is the lowest priced cardioid ever built. Random noise, reverberation and feedback reduced by a factor of 67%. Front pickup range nearly double that of pressure microphones. For public address, call and paging systems, home recorders, especially stereo, and general communications. Discrimination against sound from the rear makes the 729 execellent for amateur radio VOX operations. Tailored for single sideband. Output: —60 db. Response: 60 to 8,000 cps. High impedance only. Metalustre gray front with medium gray back. Attractive desk stand and floor stand adapter supplied. Net weight, less cable and stand, 9 oz. Net Each . . . **$14.70**

MODEL 729SR—With relay control switch. Net Each . . **$15.90**

MODEL 727 SLIM CERAMIC—A new approach to the design of ceramic microphones for PA, recording and general use; similar in appearance to Model 729. Withstands extremes of temperature and humidity. Response 60-8000 cps. Output —55 db. High impedance only. 5′ cable. Metalustre gray front with medium gray back. Size: 7¾″ x 1⅜″ x 1½″. Supplied with attractive desk stand and floor stand coupler. Net Weight less cable, stand, 9 oz. Net Each . . . **$10.80**

MODEL 727SR—With relay control switch. Net Each . . **$12.00**

MODEL 715 "CENTURY" CERAMIC—Use in any position—in hand, on table, on stand or overhead. Ceramic element. 60-7000 cps; output —55 db. Hi-Z. 5′ cable. Omnidirectional. Metalustre gray finish. Rugged, lightweight. 3″ x 2 3/16″ x 1″. With ⅝″-27 adapter. AC-DC insulated. 6 oz. Net Each . . **$7.80**

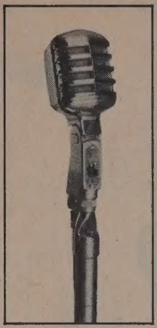
MODEL 715S—With switch. Net Each **$9.00**

MODEL 715SR—With relay control switch. Net Each . . **$10.50**

MODEL 718 CERAMIC—An improved replacement for home recording microphones. 5′ cable includes a molded-on phono plug, with adapter, to match all late model home recorders. Improved high-level (—55 db) ceramic element resists damage from temperature, humidity extremes. Response: 60 to 6000 cps. 3 9/16″ x 1¾″ x 1 13/16″. Net Weight 8 oz. Net Each . . . **$7.20**

★Borg-Warner Trademark

All above microphones except crystals are eligible for FCDA purchases.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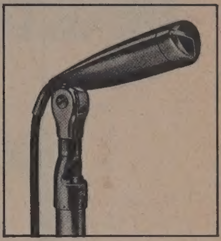
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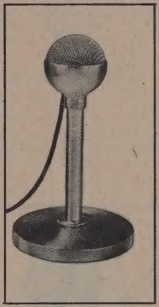
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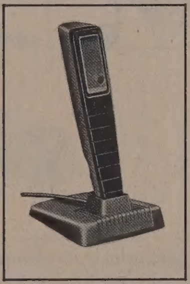
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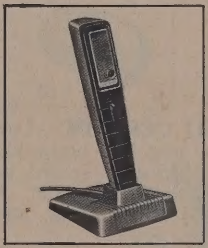
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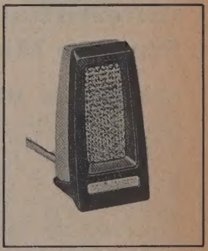
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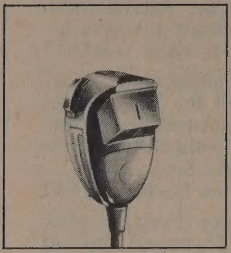
Electro-Voice®

GENERAL PURPOSE MICROPHONES



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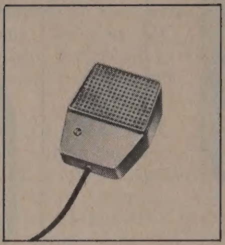

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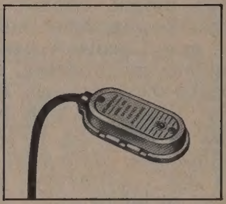

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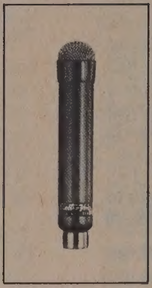

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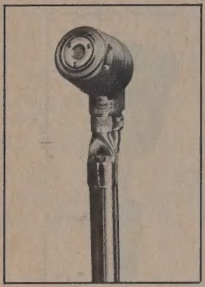


606

600E

MODEL 712 CERAMIC—Low cost ceramic microphone. Fits need of low cost PA, home recording, paging and general use. Handheld. Moisture sealed ceramic. Response 70-7000 cps. High output —55 db. Hi-Z. Attractive gray Styron case. Size 3″ x 2¼″ x 1⅜″. 5′ cable. Net Weight 4 oz. Net Each. . **$4.50**

Electro-Voice®

Differential And Special Purpose Microphones

MODEL 606 DIFFERENTIAL DYNAMIC—Close talking, noise cancelling. Accepts sounds of close origin (¼″) and rejects sounds of distant origin. Response: 100 to 5,000 cps. Output at ¼″: —55 db. Acoustalloy® diaphragm. ⅝″-27 thread. Built-in MC-1 connector. Satin Chrome. 2″ x 3¼″ x 2½″ including stud. Lo-Z (matches 50-250 ohms) or Hi-Z. Low impedance not balanced to ground. 18′ cable. Net Each . **$31.50**

MODEL 600E DYNAMIC MOBILE MIKE—Reliability factors have been improved over all previous designs. High-impact Cycolac* case and rugged dynamic construction assure protection against shock damage. Easy-action switch provides years of use—shorts microphone in "off" position to eliminate electrical noise pickup and closes relay circuit when depressed. High output level —55 db. Response 100 to 7,000 cps specifically matched to high intelligibility requirements. Size 2½″ x 1½″ x 4″ long; color, communications gray. Shielded coiled cord, 1′ retracted, 6′ extended. Weight 10 oz. Complete with hang-up bracket. 150 ohms or Hi-Z. Net Each. . . **$23.40**

*Borg-Warner Trademark

MODEL 210E CARBON—Similar to Model 600E but single-button carbon. Output —50 db. Press-to-talk switch. 6′ coiled cord. Net Each. . . **$21.00**

MODEL 602E—Similar to model 600E but noise-cancelling dynamic microphone for use in areas of heavy background noise. It accepts sounds of close origin (¼″) and rejects sounds of a distant origin. Output level: —55 db, 100-7,000 cps. Press-to-talk switch. Shielded coiled cord, 1′ retracted, 6′ extended. Available in Hi-Z or balanced line 150 ohm. Weight, less cable, 8 oz. Net Each. . . **$34.50**

MODEL 205STCKK Differential Carbon — Close-talking, noise-cancelling, single button carbon. For aircraft and emergency communications. FAA approved — Certificate No. 1040. Blastproof, waterproof and shock resistant. Output at ¼″: —50 db. Black phenolic case. Press-to-talk switch. Mounting bracket, 6′ coiled cord. Size: 2¼″ x 2¼″ x 4″. Net weight, less cable, 8 oz. Net Each. . . **$30.00**

MODEL 205STCKKP — Same as above with PJ-068 plug. Net Each. . . **$32.85**

MODEL 648 INTERCOM MICROPHONE—Extremely versatile paging, intercom, or PA mike. Response: 50-10,000 cps. Output —58 db. Choice of Lo-Z (matches 50-250 ohms) or high impedance. Omnidirectional. Acoustalloy® diaphragm. Non-reflecting gray. Less Cable. Size: 6^1/16″ x 1″ (including ⅝″-27 thread adapter). Net Weight (with adapter), 8½ oz. Net Each. . . **$33.60**

MODEL 805 CONTACT—For guitar, banjo, other stringed instruments. Hi-Z. Sealed crystal. Chrome finish. 15′ cable. Net Each. . . **$12.00**

All above microphones except crystals are elgibile for FCDA purchases.

Electro-Voice®

MICROPHONE ACCESSORIES

MODEL 327 WINDSCREEN—Designed for use with Model 642 microphone. Fabricated of Acoustifoam*, eliminates "blast" caused by fast panning of boom, or when used outdoors. Consists of 324 shock mount and 326 windscreen. Net weight, 1 lb., 8 oz. Net Each...**$60.00**

MODEL 335A WINDSCREEN—Acoustifoam* windscreen fits 630, 641, 634, 635 microphones. Net weight, ½ oz. Net Each....**$7.50**

MODEL 355 WINDSCREEN—Designed to reduce or eliminate wind noise, this windscreen is constructed of Electro-Voice Acoustifoam*, a material which will not alter frequency response or polar characteristics of microphone. Also protects against mechanical shock damage and pickup of dust and magnetic particles. For use with models 655C, 654A, 676, 636, 623, 647 and 926. Size, 9″ x 3¼″. Net weight, ½ oz. Color: gray. Net Each....**$6.60**

MODEL 524A WINDSCREEN—Designed specifically for use with Model 666 microphone. Minimizes wind effect on boom operation or when used outdoors. Made of Acoustifoam.* Weight, ½ oz. Net Each....**$7.20**

MODEL 300 DETACHABLE MICROPHONE CLAMP—Light weight adapter fits any 1″ cylindrical microphone providing positive mounting to either ½″ pipe thread or ⅝″-27 stand. Net Each....**$6.00**

MODEL 356 SUSPENSION SHOCK MOUNT—For use with Model 642 on boom or floor stand. Excellent isolation. Net Each...**$30.00**

MODEL 366 SUSPENSION SHOCK MOUNT—Extremely light. Designed for use with 666 microphone. Installs without tools. Pigtail cable connection wth UA-3 connectors provides cable loop isolating boom shock noises. For any microphone with 1″ diameter. Net Each...**$24.00**

MODEL 448 SWIVEL BOOM MOUNT—Designed specifically for use with Model 648 microphone. Holds mike 11⅞″ off mounting surface. 62° elbow bend. MC-2M connector. Satin chrome finish. Extends 4″ below mounting surface, 2½″ diam. mounting base. Net Weight, 1 lb. 5 oz. Net Each...**$14.40**

MODEL 502A MATCHING TRANSFORMER—Designed for use in series with mike line. Transformer windings have low distributed capacity and are amply shielded against inductive hum by a shield inside pressure-cast case. Designed for 50, 150, 250 and 500 ohms—to Hi-Z. Broadcast fidelity—response 40-20,000 cps ± 1 db. 2⅞″ x 1 15/16″ diameter. Net Each...**$10.50**

MODEL 513 FILTER—Designed for use with low impedance microphones, has switch to match 50, 150 or 250 ohms. When used in line between microphone and preamp., it rejects unwanted noise below 100 cps. 2¼″ diameter, 5⅝″ long. Net weight 1 lb. 10 oz. Net Each...**$42.00**

Microphone Stands

MODEL 415 RECLINING DESK STAND—Mounts 615, 715, 715S at 15° tilt. Metalustre gray. Size 2⅝″ x 2¾″ x 1″. Net Weight, 4 oz. Net Each....**$1.05**

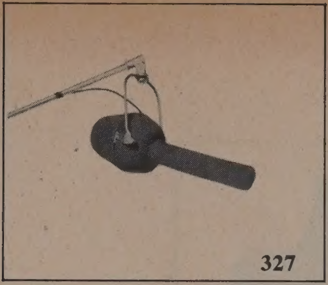
MODEL 418 DESK STAND—Use with microphones using small-type stud such as Models 611, 623, 630, 641, 635, 636, 911, and 951. Die cast base. Gray finish. Net Each....**$6.00**

MODEL 418-S—With switch. Net Each....**$9.00**

MODEL 419 DESK STAND—Similar to Model 418 but for use with microphones using large-type stud such as Models 644, 664, and 665. Net Each....**$6.00**

MODEL 419S—With switch. Net Each....**$9.00**

*Electro-Voice Trademark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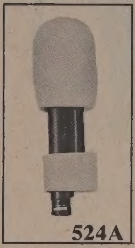
335A

355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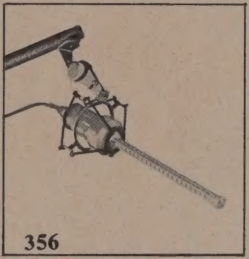
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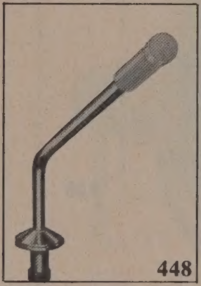
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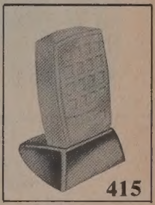
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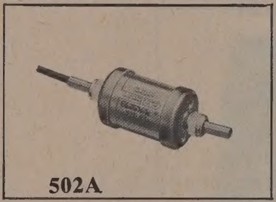
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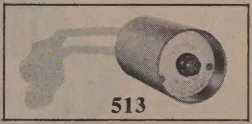
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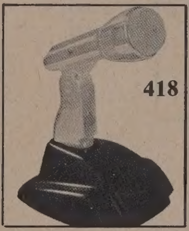
423A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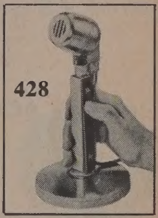
420


428

MODEL 420 DESK STAND—Heavy cast iron stand finished in TV gray. Specifically designed for use with E-V 666, 655C, 654A, 652, 652A, 676 or other microphones with 1″ diameter. Clamp attachment for mounting 1″ cylindrical mikes, without tools. Base holds mike in position when subjected to ordinary strain. Net Weight, 3 lbs. Net Each...**$12.00**

MODEL 423A DESK STAND—Sturdy smartly styled, round die-cast base, 5⅛″ diameter. Rests firmly on rubber base buttons. Rich satin chrome. ⅝″-27 thread. Choice of 3″ or 5″ matching stem riser. Net Weight, 1 lb. Net Each....**$3.00**

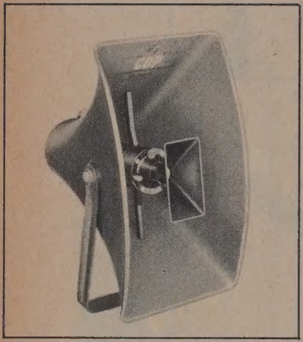
MODEL 428 TOUCH-TO-TALK STAND—Fits standard ⅝″-27 thread. Lever-type DPDT switch for relay operation or microphone On-Off—closes or opens instantly or locks in "talk" position. Satin chrome; gray plastic switch lever with locking button. 7″ x 5⅛″ base diameter. Net Weight, 1¾ lbs. Net Each...**$10.50**

Above accessories are eligible for FCDA purchases.

Electro-Voice®

PUBLIC ADDRESS HORNS AND DRIVERS

Compound Diffraction Projector



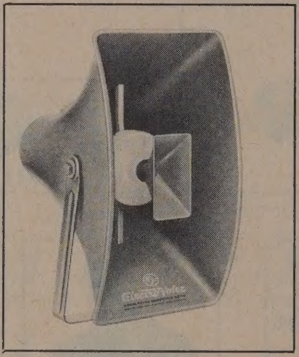
848

MODEL 848—Combines FC100 Compound Diffraction Horn plus DC30 Compound Driver for finest wide-angle sound, lowest distortion, highest quality of any projector. Specifications: Frequency response, 150-10,000 cps; impedance, 16 ohms; dispersion, 90° x 120°; power handling capacity, 30 watts; sound pressure level, 117 db; dimensions, 10½" x 20½" x 20". Net Weight, 13½ lbs.; Shpg. Wt. 17 lbs. Complete. Net Each...**$49.50**

Projector Horns

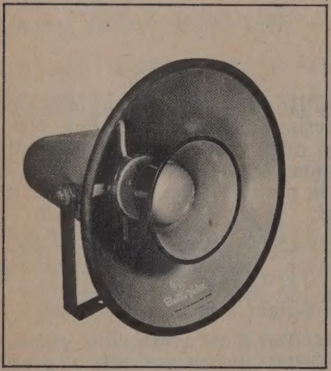
Completely new designs assure finest performance with Electro-Voice projector horns. Two basic types from which to choose . . . compound and reentrant.

EXCLUSIVE COMPOUND HORNS permit widest range at lowest distortion, plus complete directional control of both highs and lows. Best wide-angle coverage with exclusive diffraction horns means better sound through entire coverage area. Concentrating compound horn provides highest efficiency at lowest distortion. Natural voice and music reproduction result in higher intelligibility without annoying peaks.



FC100

MODEL FC100—Similar to the famous CDP®, the FC100 provides two diffraction horns for uniform wide-angle coverage. Frequency response is not compromised since both horns are ideally designed to handle a specific portion of the range. Compound horn reduces distortion far below any other projector design. Flexible coverage control provided by individual adjustment of each horn. Large horn is fiberglass with Mesa Tan finish molded in. Use any E-V convertible driver. Specifications: Low-frequency horn — cut-off, 100 cps; taper, 100 cps; air column length, 58"; sound distribution, 90° x 120°. High frequency sound distribution, 90° x 120°; crossover, 1,000 cps. Mouth size 10½" x 20½", depth (less driver), 20". Net Wt. (less driver), 10¾ lbs. Shpg. Wt., 12¼ lbs. Net Each...**$30.00**



AC100

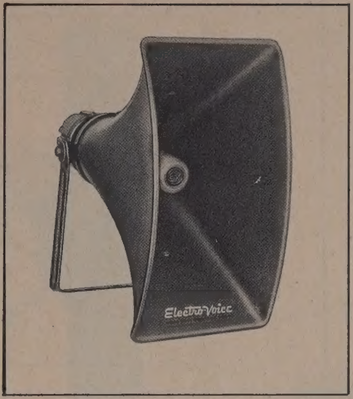
MODEL AC100—Concentrating version of CDP®. Has all of the quality advantages of FC100, except utilizes round horns for most concentrated coverage with greatest efficiency. Retains compound design for lowest distortion—widest range. Use any E-V convertible driver. Specifications: Low-frequency horn—cut-off, 100 cps; taper, 100 cps; air column length, 58"; sound distribution, 80°. High-frequency sound distribution, 30°; crossover, 1,000 cps. Diameter, 21"; depth (less driver), 21"; Net Wt. (less driver), 11 lbs. 6 oz. Shpg. Wt., 13½ lbs. Net Each..**$33.00**

NEW REENTRANT HORNS provide wider range than ever before at lowest cost. Unique E-V ring reflector design provides better balanced highs than possible with conventional exponential designs, by reducing high frequency losses often encountered in reentrant horns. Smoother response plus added useful range increases intelligibility and adds to more natural sound. Rugged aluminum die-cast mounting plate plus precision die-cast reentrant tubes assure long-lasting performance. Heavy spun aluminum round bell or fiberglass rectangular horn provides either concentrated coverage or medium angle coverage. Electro-Voice Reentrant Horns accept any standard driver with 1⅜"-18 threads.

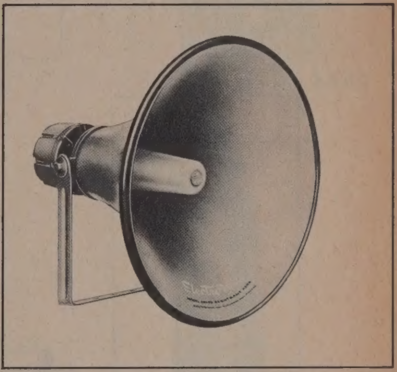
E-V Public Address loudspeakers are eligible for FCDA purchases.

MODEL FR150—Reentrant Horn. Medium-angle low-cost rectangular horn provides good coverage at low cost. Virtually indestructible fiberglass horn has Mesa Tan color molded in. Adjustable mounting angle allows best coverage. Can be stacked for multiple speaker applications. Ideal for car-top installation or wherever low silhouette is needed, and where bass response cannot be sacrificed. Accepts Electro-Voice convertible drivers or any standard driver with 1⅜″-18 thread. Specifications: Low-frequency cut-off, 150 cps; taper, 150 cps; air column length, 45″; sound distribution, 70° x 100°; mouth size, 10½″ x 20½″; depth (less driver), 21″; Net Wt. (less driver), 9½ lbs. Shpg. Wt., 12 lbs. Net Each. . . **$23.40**

MODEL AR150—Reentrant Horn. Round concentrating horn for maximum penetration at lowest cost. E-V ring reflector plus precision new exponential design contributes to widest range yet achieved from this horn type. Smoother curve results in high intelligibility, and remarkably natural voice and music quality. Rubber edge-damping ring eliminates resonances. High-efficiency design allows more useful volume from driver over entire range. Accepts Electro-Voice Convertible drivers or any standard driver with 1⅜″-18 thread. Specifications: Low-frequency horn—cut-off, 150 cps; taper, 150 cps; air column length, 41″; sound distribution, 85°; diameter, 21″; depth (less driver), 17″. Net Weight (less driver), 6½ lbs. Shipping Weight, 8 lbs. Net Each . . **$23.40**



FR150

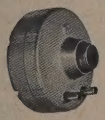

AR150

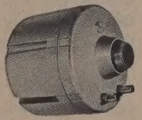
Electro-Voice®

Versatile Convertible Drivers

Now, for the first time, here are drivers that can be used interchangeably in compound or reentrant horns. Used on either type of horn, the new Electro-Voice Convertible Drivers feature highest efficiency available. Increased power handling plus extra increased efficiency make the 40- and 50-watt drivers uniquely useful where high power at minimum cost is essential. The high efficiency of all E-V Convertible Drivers is achieved without resorting to "peaked" response which may increase loudness, but does reduce intelligibility. The smooth response of these drivers insures most natural reproduction of voice and music for more satisfying quality with vastly reduced feedback problems and greatly increased tonal range. Double flux ceramic magnets provide long-lasting high efficiency in entirely new low-loss magnetic circuits. Edgewise-wound ribbon voice coils give 18% more efficiency.

The drivers are rugged and weatherproof; conversion to either reentrant or compound use can be made instantly in the field. Voice coils are also field replaceable, thus reducing repair costs to a minimum. E-V Convertible Drivers are available with 16 or 45-ohm voice coils or with built-in 70.7-volt line constant voltage transformers. This entirely new design concept gives better performance at minimum cost, making E-V Drivers your best buy.


DC30A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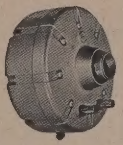
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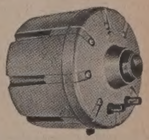
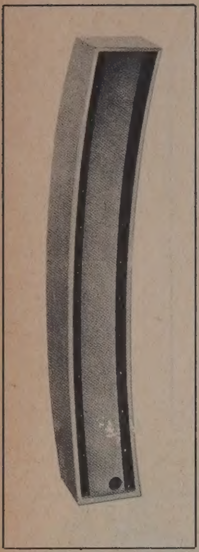
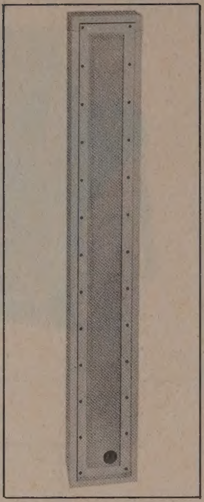

DC50

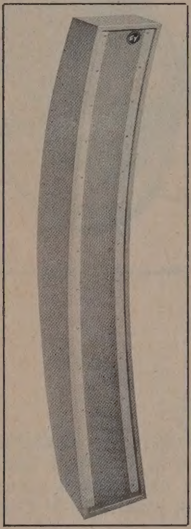
	DC30A	DC30T	DC40	DC40T	DC50	DC50T
Frequency Response††	150–10,000	150–10,000	140–11,000	140–11,000	140–11,000	140–11,000
Program Power Capacity	30	30	40	40	50	50
Sound Pressure FC100 Compound Horn	117 db	117 db	120 db	120 db	124 db	124 db
Level† AR150 Reentrant Horn	126 db	126 db	129 db	129 db	133 db	133 db
Voice Coil Impedance	16	16	16	16	16	16
Transformer Impedances, Ohms	....	167, 333, 1000, 2000	....	125, 250, 500, 1000	....	100, 143, 200, 500
Transformer Power Taps, Watts	....	30, 15, 5, 2.5	....	40, 20, 10, 5	....	50, 35, 25, 10
Dimensions (overall)	5½″ dia. 3″ l.	5½″ dia. 5½ l.	6¼″ dia. 4¼″ l.	6¼″ dia. 6″ l.	6¼″ dia. 4¼″ l.	6¼″ dia. 6″ l.
Net Each	**$19.80**	**$25.80**	**$25.00**	**$32.70**	**$32.70**	**$39.30**

†Measured at 4′ on-axis with full rated power from 750–1250 cps.

††Measured on-axis with FC100 horn.


LR4A


LR4SA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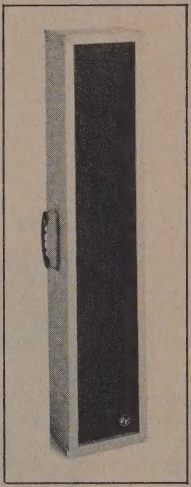
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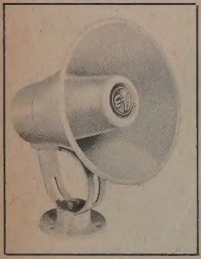
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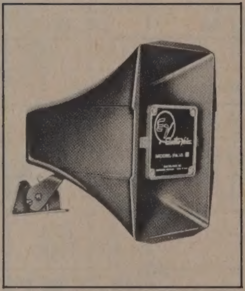

PA15

Line Radiator Loudspeakers

Three new, wide-angle speaker designs permit wide horizontal dispersion while almost eliminating sound output above or below speaker. Superb for voice-reinforcement systems. Unusually wide frequency range coverage.

MODEL LR4A—Curved design overcomes unwanted high-frequency dispersion at ends, eliminating echo and feedback. Contains nine 3″ x 5″ and three 3½″ cone speakers, 160° horizontal dispersion; 60° vertical dispersion. Frequency response: 200–15,000 cps. Power handling capacity: 25 watts program, 50 watts peak. Nominal impedance: 8 ohms. Size 49″ h. x 7″ w. x 13″ d. Mesa tan finished wooden enclosure. Shipping weight: 30 lbs. Net Each. . .**$75.00**

MODEL LR4SA—Electrical filter removes end speakers from circuit as frequencies increase, eliminating high-frequency lobes at ends. Specifications like LR4A, except that dispersion is 160°, horizontal; 30°, vertical. Weatherproof enclosure with mesa tan finish. Size 52″ h. x 7 9/16″ w. x 4⅝″ d. Shipping weight: 32 lbs. Net Each. . .**$84.00**

MODEL LR7—The largest of the revolutionary Electro-Voice Line Radiators*. Both low- and high-frequency response extended. Utilizes nine 5″ x 7″ loudspeakers and two T35 vhf drivers for frequency range of 100 to 20,000 cps. Full half-section crossover at 3500 cps. Horizontal coverage 160°, vertical coverage 45°. Power handling capacity 50 watts, impedance 8 ohms. Non-resonant, curved wood enclosure finished in Mesa Tan. Universal mounting brackets supplied. Dimensions: 60″ high x 11″ wide x 14″ deep. Shipping weight 57 lbs. Net Each. .**$165.00**

*Electro-Voice Trademark

MODEL PC7—Compact, light-weight columnar loudspeaker specifically designed for portable applications. Features wide frequency range combined with wide horizontal and restricted vertical distribution pattern. Utilizes 6 heavy duty 5″ x 7″ cone speakers in rugged wood cabinet. Tastefully finished in durable gold leatherette with contrasting black grille. Equipped with convenient carrying handle. Frequency response 100 to 10,000 cps. Horizontal coverage 160°, vertical coverage 40°. Power handling capacity 60 watts peak; impedance 16 ohms. Connecting jack accommodates standard ¼″ phone plug. Dimensions: 42″ h. x 8½″ w. x 5¾″ d. Shpg. Wt. 21 lbs. Net Each. . .**$58.20**

Electro-Voice®

Paging Speakers

MODEL PA7 REENTRANT PROJECTOR — Attractively styled horn is constructed completely of Cycolac*—virtually indestructible. Non resonant horn won't dent, finish can't wear off. Electro-Voice diaphragm design eliminates loading problems, provides cleanliness of reproduction never before achieved in small projectors. Handles 7½ watts over a range of 400 to 13,000 cps. Wide 120° dispersion angle provides excellent coverage. Mounting bracket allows horn to be positioned at any angle. 6¾″ diameter by 6″ deep. Weight 3¼″ lbs. Net Each. . .**$16.20**

PA7-45—Same as above but with 45-ohm voice coil. Net Each. . .**$17.10**

MODEL PA15—A compact speaker of rugged, die-cast construction finished in mesa tan. Smooth, rising response provides high intelligibility and efficiency. Field-replaceable driver. Universal swivel mount. Frequency response: 350—13,000 cps. Power handlng capacity: 15 watts program. Nominal impedance: 8 ohms. Dispersion: 120°. Size: 9″ h. x 6″ w. x 9½″ d. Weight, 4¼ lbs. net. Net Each. . .**$20.40**

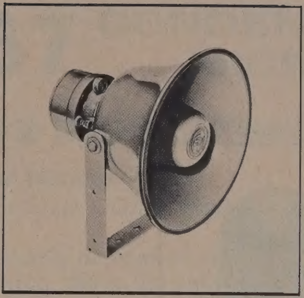
MODEL PA15T—Same, but with integral matching transformer for 70.7-volt lines. Transformer taps: 1.5, 2.5, 5, 10, 15 watts; 3300, 2000, 1000, 500, 350 ohms. Weight, 4½ lbs. Net Each. . .**$24.00**

MODEL PA15-45—Same, but with 45-ohm impedance. Net Each. . .**$21.30**

*Borg-Warner Trademark

E-V public address speakers are eligible for FCDA purchases.

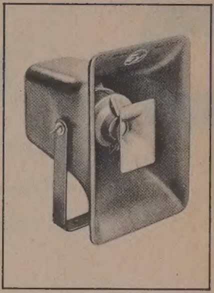
MODEL 844—For medium-angle sound distribution. Features smoothest response in its class with better lows to provide natural paging without feedback. Handles 30 watts—to reduce costs. Rugged diecast horn, plus field-replaceable voice coil keeps service costs at a minimum. Frequency response, 250–13,000 cps; power handling capacity, 30 watts; nominal impedance, 8 ohms; dispersion, 90°; EIA sensitivity rating, 51 db; sound pressure level, 120 db; dimensions, 9⅞″ diameter x 8 3/16″ deep; Net Weight, 5 lbs. 10 oz.; Shipping Weight, 8½ lbs. Net Each . . . **$23.40**



844

MODEL 844-45—Same as standard 844, but with 45-ohm voice coil for simple installation in intercom systems. Net Each . **$24.30**

MODEL 847—Utilizing the famous CDP® Principle—this wide-angle speaker provides higher articulation without annoying "peaked" response over a uniform 120° x 90° area. Low distortion results from use of TWO diffraction horns. 25-watt power handling capacity. Fiberglass horn has mesa tan color molded in. Frequency response, 250–10,000 cps; power handling capacity, 25 watts; sound pressure level, 114 db; dispersion, 90° x 120°; impedance, 16 ohms; dimensions, 11¾″ x 7¾″ x 10 7/32″; Net Weight, 8 lbs.; Shipping Weight, 10 lbs. Net Each . . **$30.60**



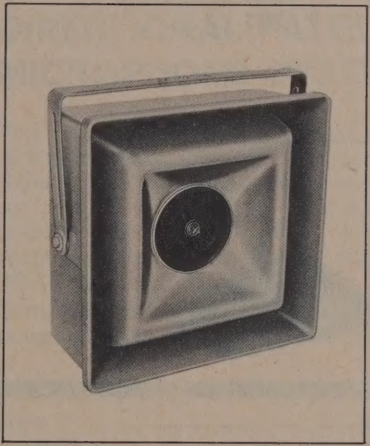
847

Electro-Voice®

E-V Musicaster Hi-Fi Outdoor Weatherproof Speaker Systems

MUSICASTER—Provides high fidelity performance in a compact, portable system. Sturdy aluminum diecast housing protects weatherproof cone speaker and extends bass response through back-loaded folded horn. Dual Radax cone radiates smooth useful highs through 120° angle. Provision for mtg. 70.7-volt line transformer inside. Specifications: Frequency response, 60–13,000 cps; nominal impedance, 8 ohms; dispersion, 120°, power handling capacity, 30 watts program; sound pressure level, 110 db; dimensions, 21½″ x 21½″ x 8½″; Net Weight, 31 lbs.; Shipping Weight, 34 lbs. Net Each . . . **$60.00**

MUSICASTER



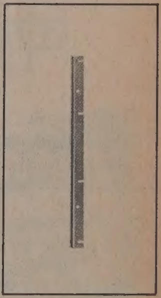
MUSICASTER II—Same fine performance as the Musicaster except has added brilliance and wider coverage from Very-High-Frequency Range Extender. Smooth response to 18,000 cps. Complete with crossover. Net Weight, 33 lbs. Shipping Weight, 36 lbs. Net Each . . . **$81.00**

MODEL MB-1—Surface mounting bracket allows mounting of any Musicaster flat against wall for neat unobtrusive installation. Replaces standard "U" bracket. Shipping Weight, 1 lb. Net Each **$3.60**

Underwater Loudspeakers

MODEL DU30—Pool Speaker. For use in swimming pools to provide voice and music audible underwater. May be mounted at any depth down to 4 feet. Specifications: Impedance, 16 ohms. Power handling capacity, 30 watts. Frequency response, 40 to 10,000 cps. Size, 5¾″ diameter x 2⅜″ deep. Weight (with cable), 8 lbs. 4 oz. Twelve-foot Underwriters approved cable. Resistant to chlorine, bromine, salt water, oil, grease, gasoline. Net Each . . . **$58.50**

DU30



MB-1

Note: Sound Pressure Level is measured as 4′ on-axis with full rated power from 750 to 1250 cps.

E-V public address speakers are eligible for FCDA purchases.

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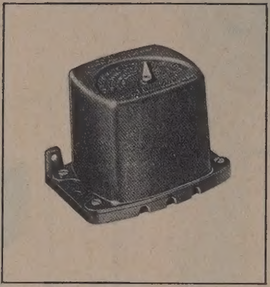
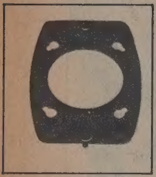
Electro-Voice®

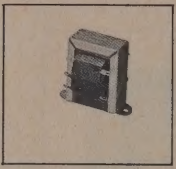
PA TRANSFORMERS AND ACCESSORIES



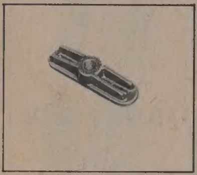
TH



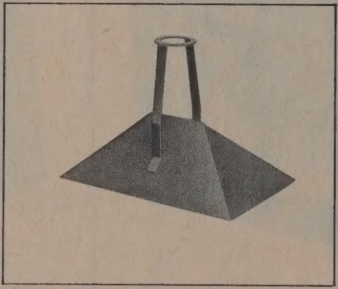
598



TR5



AP-1



RA-1

Transformers

MODEL TH — Transformer Housing provides neat weatherproof mounting of any E-V transformer. Mount vertically or horizontally on any flat surface or on horn bracket. Exclusive wattage indicator tells power setting at a glance. No soldering required with E-V transformers. Size: 4″ h., 5″ w., 3½″ d. Net Weight, 1 lb. 11 oz. Shipping Weight, 2½ lbs. Net Each . . **$5.10**

MODEL 598—Mounting Bracket. Facilitates easy mounting of transformer housing to standard wall box. Net Each **$1.50**

MODEL TR5 — 5-watt 70.7-volt line transformer. Primary impedance taps 1000, 2000, 4000, 8000 ohms; 5, 2.5, 1.25 and .675-watt line power taps. 4, 8 and 16 ohms secondary impedances. Accepts solderless terminals in TH housing. Frequency response ± 2 db, 35–20,000 cps. Insertion loss 0.8 db. Overall dimensions 2″ x 1 11/16″ x 1⅜″. Mounting hole centers, 1¾″. Shipping Weight, 1 lb. Net Each **$3.00**

MODEL TR15—Same as TR5 except 15-watt capacity with primary impedances of 333, 500, 1000, 2000 ohms and 15, 10, 5, 2.5-watt line power taps. Overall dimensions 1¾″ h., 2⅞″ w., 2 5/16″ d. Shpg. Wt. 1½ lbs. Net Each **$3.60**

MODEL TR30—Same as TR5 except 30-watt capacity with primary impedances of 167, 250, 500, 1000 ohms and 30, 20, 10 and 5-watt line power taps. Overall dimensions 1¾″ h., 2⅞″ w., 2 5/16″ d. Mounting hole centers, 2⅜″. Shpg. Wt., 1½ lbs. Net Each **$4.20**

MODEL TR50—Same as TR5 except 50-watt capacity with primary impedances of 100, 125, 200, 333 ohms and 50, 40, 25 and 15-watt line power taps. Overall dimensions 2¼″ h., 2 5/16″ w., 2¼″ d. Mounting hole centers, 2⅜″. Shpg. Wt., 2 lbs. Net Each **$5.40**

MODEL TR7-2—7½ watt 25-volt line transformer and weatherproof housing designed specifically for use with the Model PA7. Mounts quickly and easily inside PA7 bracket. Primary impedance taps 83, 156, 312, 624, and 1248 ohms; 7½, 4, 2, 1, and ½ watt line power taps. 8 ohms secondary impedance. Shipping Wt. 1½ lbs. Net Each **$3.60**

MODEL TR7-7—Same as TR7-2 above except designed for 70.7 volt line applications. Primary impedance taps 660, 1250, 2500, 5000 and 10,000 ohms; 7½, 4, 2, 1 and ½ watt line power taps. 8 ohms secondary impedance. Shipping weight 1½ lbs. Net Each **$3.60**

Accessories

MODEL AP-1—Pipe stand adapter for mounting any E-V speaker "U" bracket to standard ½″ pipe. Shipping Weight, 1 lb. Net Each **$3.00**

MODEL AD-1—Driver adapter allows use of E-V Convertible Driver on horns with 1 1/16″-16 thread (W.E.—RCA) for improved performance. Shipping Weight, 1 lb. Net Each **$1.80**

MODEL AD-2—Horn adapter allows use of E-V reentrant horns with drivers having 1 1/16″-16 thread (W.E.—RCA) for improved performance. Shipping Weight, 1 lb. Net Each . . **$1.80**

MODEL RA-1—Radial Adapter instantly converts FC100 horn or 848 projector to "radial" applications. Superior to typical "360°" projectors. Diffraction horns give better spread and adapter reflects sound off-axis, to eliminate hot spot. No tools required. Extends 2½″ in front of FC100 horn with DC30A. Shipping Weight, 1 lb. Net Each **$3.60**

MODEL 879—Joining Kit for two or more 848, FR150 or FC100 horns in multiple array. One kit required for each junction of two horns. Shipping Weight, 1 lb. Net Each . . . **$1.65**

Above accessories are eligible FCDA purchases.

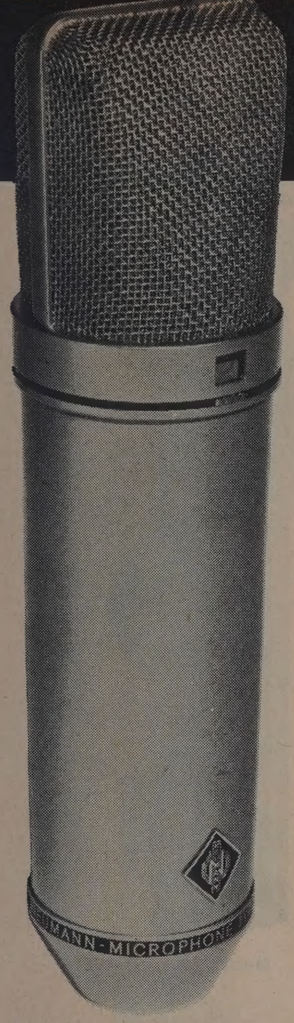
Diaphragm Replacement Kits allow easy field maintenance or conversion of E-V Drivers.

DRIVER	8 Ohm	16 Ohm	45 Ohm
828 or DC30 (Used on Model 848)	. . . .	82016	82015
DS30 (Used on Model 844)	8410	. . . .	8421
DC30A	. . . .	82087	8617
DC40	. . . .	82088	8618
DC50	. . . .	82089	8619
Net Each	**$7.20**	**$7.20**	**$9.00**

Replacement kits not available for DC30T, DC40T or DC50T.

Electro-Voice®

NEUMANN MICROPHONES



NEW! U-67 CONDENSER STUDIO MICROPHONE

CULMINATION OF OVER 30 YEARS OF ELECTRONIC LEADERSHIP!

Contains the following advanced features:

1. Electronically switched directional characteristics: Cardioid, Omni-directional, Figure-8.
2. Frequency response with virtually no peak at the high end.
3. Separate "Voice-Music" switch raises the roll-off starting point from 40 cps to 100 cps.
4. Sensitivity switch on microphone prevents overload of amplifier from close placement to sound source.
5. "Calibrating input" permits direct testing of microphone preamplifier with oscillator.
6. Uses regular EF-86 tube, readily replaceable.

Complete system includes: Microphone, Power supply, Interconnect cable and stand mount.

NEUMANN M-49b CONTINUOUSLY ELECTRONICALLY VARIABLE DIRECTIONAL PATTERN MICROPHONE SYSTEM

This microphone permits remote control of the directional characteristic. A smooth, continuous fader-control selects any of the basic directional patterns (non-directional, bi-directional, and cardioid) and any intermediate pattern. Wide frequency response with extremely low distortion—0.6% 40-15 kc up to 110 db absolute.

Complete microphone system consists of microphone, power supply and MZ-49 Swivel mounting harness.

NEUMANN KM-54a/KM-53a

The KM-54a is a super cardioid miniature microphone that has been designed with tv and film in mind. This ⅞" diameter by 5" long, 3½ ounce marvel, when mounted in the Z-38 full elastic suspension, can be aimed at the sound and provide more than 25db rejection of extraneous sounds in the studio.

Complete microphone system consists of microphone, power supply, inter-connect cable, output connector.

NEUMANN KM-56 MINIATURE CONDENSER MICROPHONE SYSTEM

The KM-56 satisfies a great demand for a microphone of modern, miniature styling of unexcelled reliability and performance. It is a true self-contained condenser microphone incorporating electronic switching of the directional characteristic (U.S. Pat. No. 2,678,967) to all three patterns: omni-directional, bi-directional, and cardioid. It uses a pure nickel double diaphragm capsule offering high resistance to temperature and humidity effects.

Complete microphone system consists of microphone, power supply, inter-connect cable, output connector.

EMT 140 SERIES REVERBERATION UNITS

EMT

Demanded by discriminating Radio, TV and Recording Studios everywhere for the most natural sounding artificial reverberation.

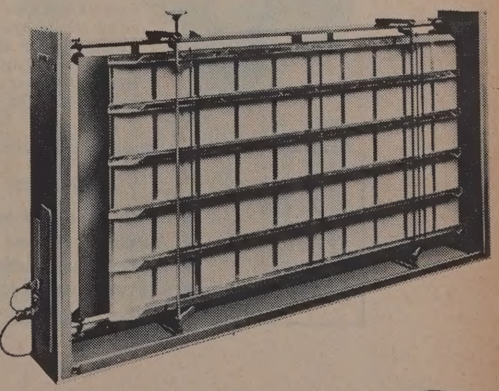
Decay period variable from 0.5 to 5.50 seconds, hand wheel adjusted or by optional remote control. Suspended steel plate creates high spectrum density decay.

Complete with amplifiers, moving coil driver and two contact pickup microphones (prepared for Stereo conversion).

EMT 140 st. stereo unit slightly higher. A natural for Stereo recording, "Stereoizing" Mono Recordings and FM Stereocasters.

Space requirements: 1'x 4'–6"x 8'

Information concerning all other EMT products available on request.



COMPLETE TECHNICAL SPECIFICATIONS WILL BE PROMPTLY FURNISHED UPON PROFESSIONAL REQUEST.

GOTHAM AUDIO CORPORATION
NEW YORK 36, N. Y.

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Jensen Professional Series Speakers

NEW CALSTAR* COLUMN SPEAKERS

CALSTAR Controlled-Angle Lobe-Suppressed Twin-Array Reproducers are the result of an exhaustive study of directional sound radiation by Jensen engineers. In a CALSTAR column, an array of small woofers, covering the lower frequency range, is combined with a shorter array of tweeters covering the high frequency range (where the polar sharpening would otherwise become severe). Next, the signal distribution to each element is "tailored" so that the effective array length decreases as the frequency increases. The final result is a column design in which the vertical coverage angle is unusually constant for all frequencies and therefore exceptionally uniform sound quality and high speech intelligibility are achieved throughout the audience area. The exact signal distribution at each frequency provided by the pattern shaping networks has also been chosen to suppress unwanted side lobes.

MODEL 55

10-Element Twin-Array 60°, 30-Watt, 8-ohm Column Speaker.

List **$133.00.** Net Each. **$79.80**

MODEL 1010

20-Element Twin-Array 30°, 60-Watt, 8-ohm Column Speaker.

List **$233.00.** Net Ea. **$139.80**

MODEL 55

MODEL 1010

TECHNICAL SPECIFICATIONS

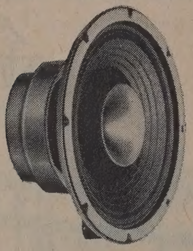
MODEL 55		MODEL 1010
8 ohms	Input Impedance	8 ohms
30 watts	Power Rating[1]	60 watts
100–10,000 cps	Frequency Range	100–10,000 cps
60° total (±30°)	Vertical Coverage	30° total (±15°)
120° total (±60°)	Horizontal Coverage	120° total (±60°)
20 db	Lobe Suppression[2]	20 db
2000 cps	Crossover Frequency	2000 cps
30" H, 11½" W, 3¾" D	Dimensions	56⅞" H, 11½" W, 3¾" D

Sensitivity Table[3]

25′	50′	100′	Input Power, watts	25′	50′	100′
90.0	84.0	78.0	5	94.5	88.5	82.5
92.0	86.0	80.0	7.5	96.5	90.5	84.5
93.0	87.0	81.0	10	97.5	91.5	85.5
95.0	89.0	83.0	15	99.5	93.5	87.5
96.0	90.0	84.0	20	100.5	94.5	88.5
98.0	92.0	86.0	30	102.5	96.5	90.5
—	—	—	60	105.5	99.5	93.5

1. Maximum speech and music level as indicated by VU meter. (Peak power is substantially higher.)
2. Maximum level outside main lobe relative to main lobe intensity.
3. Axial free field sound pressure level at listed distance (db above .000204 dynes/sq. cm.) in 800-1250 cps warble frequency band.

*T.M.



H-970 COAXIAL

with Compression-Driver Horn-Tweeter.

Here at long last is a genuine coaxial loudspeaker in 8-inch size with compression-driver horn-tweeter. Tweeter horn passes through the woofer core terminating in a circular horn inside and concentric with the woofer diaphragm. This design thus yields a circular (symmetrical) radiation pattern at all frequencies ideal for higher-power high-ceiling distributed sound. Excellent speech intelligibility with high quality reproduction for industrial areas, heavy-duty portable, and central speaker system use.

List Price **$45.00.** Net Each.................... **$27.00**

TECHNICAL SPECIFICATIONS

Input Impedance	8 ohms
Power Rating	20 watts
Response Range	30–15,000 cps
Angular Coverage	115°
Resonant Frequency	60 cps
Crossover Frequency	2000 cps
Woofer Magnet[1]	16.0 oz.
Sensitivity[2]	87.0 db
Dimensions	8⅛" OD x 4¾" D.

1. SYNTOX-6* (Ceramic)
2. Axial sound pressure level at a distance of 10 ft. for an 800–1250 cps warble band signal input of 1.0 watt.

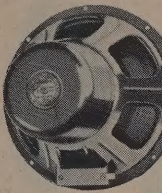
JENSEN HIGH FIDELITY LOUDSPEAKERS

- ★ COMPACT SYSTEMS
- ★ "SHELF" SYSTEMS
- ★ UNITARY SPEAKERS
- ★ SYSTEM COMPONENTS

For full information on the most complete line of advanced performance high fidelity loudspeakers write for new Catalog 165-J.

jensen Concert & Viking Speakers

P314-T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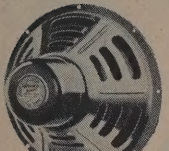
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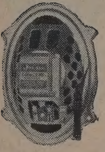
P69-V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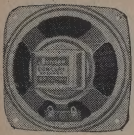
P275-Y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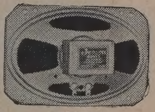

P46-W

JENSEN CONCERT SERIES SPEAKERS

CONCERT SERIES PM SPEAKERS

Nom. Size, Inches	Jensen No.	Mag. Wt., Oz.	Voice Coil			Dimensions, Inches			Net Each
			Imp., Ohms	Power Watts	Dia., In.	H. & W.	Depth	Baffle Opening	
2¾	**P275-Y**	0.65	16	0.15	9/16	2¾	1.1	2⅜	**$ 2.85**
3	**P3-W**	1.00	3.2	3.5	9/16	3	1⅞	2⅝	**2.85**
3½	**P35-W**	1.00	3.2	4.0	9/16	3½	2⅛	3⅛	**2.61**
4	**P4-W**	1.00	3.2	4.5	9/16	4 3/16	2¼	3½	**2.61**
4	**P4-WV**	1.00	45	4.5	9/16	4 3/16	2¼	3½	**2.70**
4	**P4-V**	1.47	3.2	5.0	9/16	4 3/16	2¼	3½	**2.82**
4 x 6	**P46-W**	1.00	3.2	4.5	9/16	4¼ x 6⅛	2 5/16	3 11/16 x 5 11/16	**3.09**
4 x 6	**P46-V**	1.47	3.2	5.0	9/16	4¼ x 6⅛	2 5/16	3 11/16 x 5 11/16	**3.30**
5	**P5-W**	1.00	3.2	5.0	9/16	4¾	2 5/16	4	**2.67**
5	**P5-WV**	1.00	45	5.0	9/16	4¾	2 5/16	4	**2.79**
5	**P5-V**	1.47	3.2	5.5	9/16	4¾	2 5/16	4	**2.91**
5	**P5-T**	3.16	3.2	6.0	¾	4¾	2 11/16	4	**4.32**
5¼	**P525-W**	1.00	3.2	5.5	9/16	5¼	2 9/16	4½	**2.85**
5¼	**P525-V**	1.47	3.2	6.0	9/16	5¼	2 9/16	4½	**3.03**
5 x 7	**P57-W**	1.00	3.2	5.5	9/16	5 x 7¼	2 15/16	4¼ x 6½	**3.24**
5 x 7	**P57-V**	1.47	3.2	6.0	9/16	5 x 7¼	2 15/16	4¼ x 6½	**3.48**
6	**P6-W**	1.00	3.2	6.0	9/16	6⅛	2¾	5¼	**2.94**
6	**P6-V**	1.47	3.2	6.5	9/16	6⅛	2¾	5¼	**3.27**
6	**P6-T**	3.16	3.2	7.5	¾	6⅛	3 3/16	5¼	**4.68**
6 x 9	**P69-W**	1.00	3.2	7.0	9/16	6⅜ x 9⅛	3⅜	5¼ x 8⅛	**3.84**
6 x 9	**P69-V**	1.47	3.2	7.5	9/16	6⅜ x 9⅛	3⅜	5¼ x 8⅛	**4.35**
7	**P7-V**	1.47	3.2	7.0	¾	7	3⅛	6⅜	**4.20**
8	**P8-U**	1.73†	3.2	9.0	1	7 11/16	3	6¾	**4.32**
8	**P8-UV**	1.73†	45	8.5	1	7 11/16	3	6¾	**4.50**
8	**P8-T**	2.5‡	3.2	10.0	1	7 11/16	3¼	6¾	**5.04**
8	**C8-S**	6.0*	8	11.0	1	7 11/16	3	6¾	**6.21**
8	**C8-R**	10.0*	8	12.0	1	7 11/16	3 1/16	6¾	**7.50**
10	**P10-T**	2.5‡	3.2	11.0	1	10⅛	4 1/16	8¾	**6.45**
10	**C10-S**	6.0*	8	12.0	1	10⅛	5¼	8¾	**8.10**
12	**P12-T**	2.5‡	3.2	12.0	1	12⅛	6 1/16	10½	**6.90**
12	**C12-S**	6.0*	8	13.0	1	12⅛	6 1/16	10½	**8.85**
12	**C12-R**	10.0*	8	14.0	1	12⅛	6 1/16	10½	**9.60**
12	**P12-P**	14.6	8	18.0	1½	12⅛	6 7/16	10½	**20.16**
12	**C12-N**	27.0*	8	20.0	1½	12 1/16	6 1/16	10½	**31.50**
14 x 3	**P314-T**	3.16	3.2	7.5	¾	3½ x 14 3/16	3⅛	2¾ x 13 3/16	**9.57**
15	**P15-RJ§**	6.8	8	17.0	1½	15⅛	6½	13¼	**19.20**
15	**P15-P**	14.6	8	20.0	1½	15⅛	8	13¼	**27.15**
15	**C15-N**	27.0*	8	25.0	1½	15⅛	7¼	13¼	**36.90**

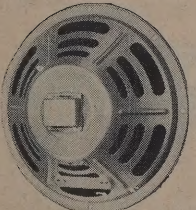
*SYNTOX-6® ceramic magnets. All others DP Alnico 5. All 10″, 12″ and 15″ speakers equipped with magnet covers. ‡Performance equivalent to EIA 3.16 oz. †Performance equivalent to EIA 2.15 oz. §Has extra long travel for heavy duty applications.

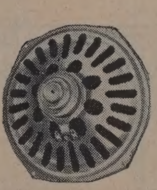
CONCERT SERIES SPECIAL OVAL GROUP FOR AUTO USE

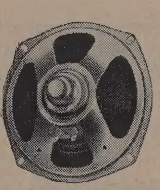
Nom. Size, Inches	Jensen No.	Mag. Wt.,* Oz.	Voice Coil			Dimensions, Inches			Net Each
			Imp., Ohms	Power Watts	Dia., In.	H. & W.	Depth	Baffle Opening	
5 x 7	**P57-U**	1.73†	3.2	8.0	1	5 x 7¼	2½	4¼ x 6½	**$4.05**
5 x 7	**P57-TX§**	2.5‡	3.2	9.0	1	5 x 7¼	2¾	4¼ x 6½	**5.01**
6 x 9	**P69-U**	1.73†	3.2	9.0	1	6⅜ x 9⅛	3⅛	5¼ x 8⅛	**4.74**
6 x 9	**P69-TX§**	2.5‡	3.2	10.0	1	6⅜ x 9⅛	3 5/16	5¼ x 8⅛	**5.40**

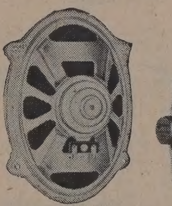
§High Fidelity Model. *All Magnets DP Alnico 5. †Performance Equivalent to EIA 2.15 oz. ‡Performance Equivalent to EIA 3.16 oz.

JENSEN VIKING SERIES REPLACEMENT SPEAKERS


12J10


7J9


8J9


57J9

525K7

4X6K7

35K7

Nom. Size In.	Jensen Number	Mag. Wt. Oz.	Pwr., Watts	V.C. Dia. In.	Dimensions in Inches		List Price	Net Each
					W & H	Depth		
3	**3K7**	.68	3.5	9/16	3	1½	$ 3.80	**$2.09**
3½	**35K7**	.68	4.0	9/16	3½	1¾	3.80	**2.09**
4	**4K5**	.55	4.0	9/16	4 3/16	1¾	2.90	**1.60**
4	**4K7**	.68	4.5	9/16	4 3/16	1⅞	3.55	**1.95**
5	**5K5**	.55	5.0	9/16	4 11/16	1⅞	3.25	**1.79**
5	**5K7**	.68	5.5	9/16	4 11/16	1⅞	3.85	**2.12**
5¼	**525K7**	.68	5.5	9/16	6 1/16	2 3/16	4.35	**2.39**
6	**6K7**	.68	6.0	9/16	6 1/16	2⅜	4.35	**2.39**
7	**7W3**	1.00	7.0	9/16	7	3	6.55	**3.60**
7	**7J9**	1.47	7.5	¾	7	2¾	6.65	**3.66**
8	**8W3**	1.00	8.0	9/16	7 11/16	3¼	5.85	**3.22**
8	**8J9**	1.47	8.5	¾	7 11/16	2 15/16	6.90	**3.80**
10	**10J10**	1.73	10.0	1	10⅛	4	9.00	**4.95**
12	**12J10**	1.73	11.0	1	12⅛	4¾	10.50	**5.78**

OVAL GROUP

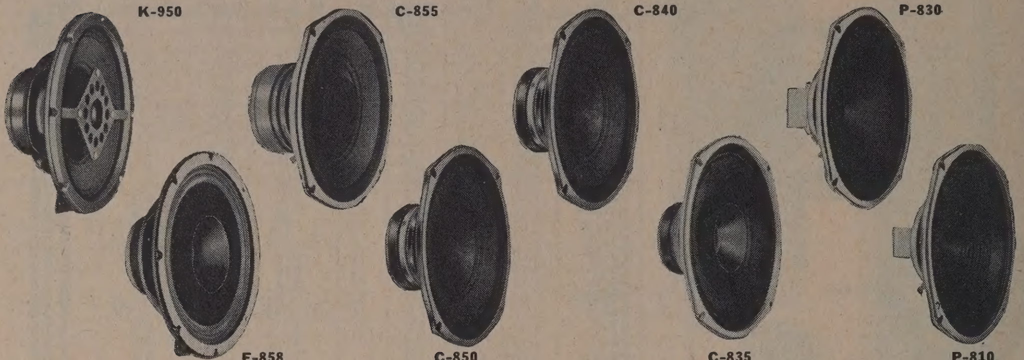
Nom. Size In.	Jensen Number	Mag. Wt. Oz.	Pwr., Watts	V.C. Dia. In.	Dimensions in Inches		List Price	Net Each
					W & H	Depth		
3x5	**3X5K5**	.55	4.0	9/16	3 1/16x5 1/16	1¾	$4.10	**$2.26**
4x6	**4X6K7**	.68	4.5	9/16	4⅛x6⅛	1⅞	4.80	**2.64**
4x8	**4X8W9*†**	1.00	6.0	9/16	4x8	2⅝	6.00	**3.30**
4x10	**4X10W9*†**	1.00	6.0	9/16	4 5/16x10 1/16	3	6.50	**3.58**
5x7	**5X7W3***	1.00	6.0	9/16	5x7¼	2 15/16	5.35	**2.94**
5x7	**5X7W9*†**	1.00	6.0	9/16	5x7¼	2 15/16	5.35	**2.94**
5x7	**57J9**	1.47	6.5	¾	5x7¼	2½	5.40	**2.97**
6x9	**6X9W3***	1.00	7.5	9/16	6⅜x9⅛	3⅜	5.95	**3.27**
6x9	**6X9W9*†**	1.00	7.5	9/16	6⅜x9⅛	3⅜	5.95	**3.27**
6x9	**69J9**	1.47	8.0	¾	6⅜x9⅛	2 15/16	6.40	**3.52**

3.2 ohm voice coils except (†) 8–10 ohms. All magnets are Alnico 5.
*Combination pin-tip jack and soldering terminals.

Jensen Professional Series Speakers

8" SPEAKERS FOR DISTRIBUTED SOUND

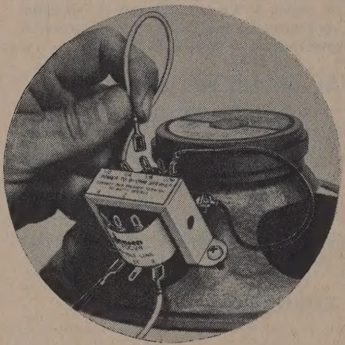
VALUE ENGINEERED FOR LOWEST INSTALLED COST



This new line of Jensen 8-inch Professional Series loudspeakers is specially designed to meet the exacting rigorous demands of commercial sound service. The 8-inch size is ideal for the majority of all distributed sound systems giving more than adequate low frequency range with a minimum of enclosure and mounting complications.

A **complete line** of speakers **value engineered** for lowest **installed cost** with such features as the handy 10-pack, preattached transformers, exclusive solderless connectors, weather and corrosion resistant designs . . . and many more. A wide selection of models to meet every need—from the lowest cost highly competitive application to the most sophisticated, highest quality system.

Four conventional type speakers with varying sensitivity and power rating (magnetic energy) with the typical 90° coverage angle. Two models have dual cone radiating system with 95° coverage angle and unusual high frequency range. Another basic model is an 8" coaxial with 110° coverage angle and unusual frequency range and smoothness for the finest quality and intelligibility. This 110° coverage angle provides approximately **twice** the coverage area, so **fewer** are required for a given installation. Still another model is the unique Jensen FLEXAIR* with dual-cone radiator; super-low resonance for those small acoustic enclosures and back boxes; big-speaker lows the remarkable h-f range to match.



PREATTACHED TRANSFORMERS

The eight basic models mentioned above are all available with preattached 25-volt or 70.7-volt "constant voltage" transformers, Models 25CV4 or 70CV4. Factory attachment insures lower cost to the end user.

AVAILABLE IN HANDY 10-PACK

All of these speakers are available at added savings and convenience bulk-packed ten per carton (with or without transformers). These handy 10-pack cartons have individual sleeves for each speaker thus giving speaker protection of odd lots until actual installation.

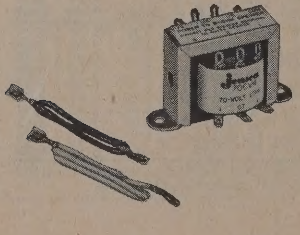
KWIKON* INSTANT CONNECTORS

Simply twist bare ends of two 12" input leads supplied for each speaker to incoming signal cable leads, insulate with wire-nut or tape. Slide sleeve clips onto input terminal lugs of speaker or preattached transformer as speaker assembly is raised into place. KWIKON* instant connectors also provide simple fast power tap readjustment on transformer.

*T.M.

Model	Type	Power Rating[2]	Sensitivity[3]	Magnet[4] Wt., Oz.	Freq. Range, CPS	Nom. V.C. Dia.	Max. Depth	W/O Transformer List	W/O Transformer Net Ea. Boxed	W/O Transformer Net Each In 10-Pack	Transformer Preattached List	Transformer Preattached Net Ea. Single	Transformer Preattached Net Each In 10-Pack
K-950	Coaxial[1]	16	85.5 db	10.0	30–14,000	1"	3¼"	$24.50	**$14.70**	**$13.23**	$29.25	**$17.55**	**$15.80**
F-858	FLEXAIR	12.0	85.5 db	10.0	30–18,000	1"	3"	20.50	**12.30**	**11.07**	25.25	**15.15**	**13.63**
C-855	Dual Cone	12	85.0 db	10.0	30–18,000	1"	3¹⁄₁₆"	13.50	**8.10**	**7.29**	18.25	**10.95**	**9.86**
C-850	Conventional	12	85.5 db	10.0	30–13,000	1"	3"	12.95	**7.77**	**6.99**	17.70	**10.62**	**9.56**
C-840	Conventional	11	84.5 db	6.0	30–13,000	1"	2¹⁵⁄₁₆"	10.95	**6.57**	**5.91**	15.70	**9.42**	**8.48**
C-835	Dual-Cone	10.0	84.0 db	4.8	35–18,000	1"	2¹³⁄₁₆"	10.00	**6.00**	**5.40**	14.75	**8.85**	**7.97**
P-830	Conventional	10	84.0 db	2.5	40–13,000	1"	3¼"	7.25	**4.35**	**3.91**	12.00	**7.20**	**6.48**
P-810	Conventional	9	82.0 db	1.47	60–13,000	¾"	3¼"	5.80	**3.48**	**3.13**	10.55	**6.33**	**5.70**

[1] V.C. and magnet information pertain to L-F unit only. [2] Maximum speech and music level as indicated on standard VU meter (peak power is substantially higher). [3] Axial free field sound pressure level at a distance of 10 ft. for an input of 1.0 watt 800–1,250 cps warble frequency band (re .000204 dynes/cm²). [4] All magnets are Jensen Syntox-6® ceramic except P-810 and P-830 with DP-Alnico-5.



"CONSTANT VOLTAGE" TRANSFORMERS

Specially designed for use with the popular "constant voltage" distribution systems. Primary (input) windings are center-tapped for balanced-to-ground input circuits or for special circuit needs. Tapped secondary windings provide adjustment of power to the 8-ohm speaker in 3 db steps from ⅛ watt to 4 watts. Nominal core size ⅝" x ⅝". Two ³⁄₁₆" dia. mounting holes on 2⅜" centers. Available separately or preattached to these special 8-inch speakers.

Model	Line	Packing	List	Net	Net Ea. 50-Pack
25CV4	25-volt	Single	**$4.75**	**$2.85**	**$2.57**
25CV4B	25-volt	50-Pack	**4.75**	**2.85**	
70CV4	70-volt	Single	**4.75**	**2.85**	**2.57**
70CV4B	70-volt	50-Pack	**4.75**	**2.85**	

Jensen Professional Series Speakers

JENSEN HYPEX* PROJECTOR HORNS

These projector horns are acoustically coordinated in design for best performance with Hypex* Driver Units D-30, D-40 and DD-100A, any one of which may be used on any the of horns. The horn expansion formula is the hyperbolic exponential (U. S. Patent 2,338,262) providing low frequency reproduction superior to that obtained with conventional horns of the same mouth size. Horns (with the exception of RT-20) are spun aluminum with weather-resistant baked tan enamel finish. Horns are threaded 1⅜″-18 and may be used with any driver units with this thread. Sturdy steel mounting "U" brackets allow horn to point in any desired direction; horn locks in desired position by means of new positive action trunnion clutches.

(See separate description and specifications on RT-20 Rectangular Horn).

H-150
H-200
H-240
R-242

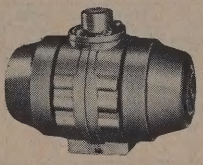
Specifications	H-150 (15″)	H-200 (20″)	H-240 (24″)	R-242 (20″ Radial)
Mouth diameter, over all	15¾″	20¾″	25¼″	20½″
Length, over all (less driver)	12″	15½″	20⅜″	14⅜″
Air column length	31″	41″	59″	40″
Low frequency cutoff	200 cycles	150 cycles	120 cycles	140 cycles
Rated coverage angle	95°	85°	75°	360°
Net weight (less driver)	6 lbs.	8½ lbs.	12¾ lbs.	10½ lbs.
Shipping weight	7¾ lbs.	12¾ lbs.	19¾ lbs.	14½ lbs.
List Price	**$29.00**	**$34.50**	**$46.75**	**$47.00**
Net Each	**17.40**	**20.70**	**28.05**	**28.20**

*T.M. Reg. Jensen Mfg. Co.

D-30

D-40

DD-100A



HYPEX* LIFETIME DRIVER UNITS

Jensen Hypex Lifetime Driver Units have many features which contribute to increased performance and reliability. As a result **Lifetime Guarantee** is extended against failure under normal conditions of use!

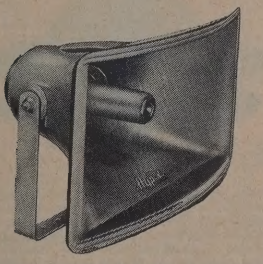
All driver units are threaded 1⅜″-18 and may be used with all Hypex Projector Horns. They also make ideal replacements for other driver units, improving efficiency and power rating.

Specially shaped reinforced plastic diaphragms. Voice Coils are varnish wound and baked, resulting in a rigid assembly that is indestructible in normal use. Models D-40 and DD-100A have precision self-centering moving system assemblies. External leads connect to heavy binder screw terminals; strain reliefs on all units.

Model	Power Rating†	Impedance	Frequency Range	Length	Diameter	Weight, lbs. Net	Weight, lbs. Shpg.	List Price	Net Each
D-30	30 w.	16 ohms	75-7,000 cps	4 1/16″	4½″	3¼	3½	**$27.50**	**$16.50**
D-40	40 w.	16 ohms	75-10,000 cps	4½″	4½″	4	4¼	**36.00**	**21.60**
DD-100A	100 w.	12.5/50* ohms	75-10,000 cps	6 3/16″	4¾″x7¾″	7½	8	**96.50**	**57.90**

†Integrated speech and music program material. For sine wave or siren signal input, reduce ratings one-half. Ratings apply only for frequencies above horn cutoff. *Series connection (50 ohms) for direct connection to 70.7-volt line.

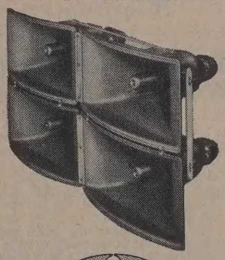
MODEL RT-20 RECTANGULAR HORN



These versatile horns may be used in a variety of ways to provide projector systems of almost any desired directional characteristics and total power rating. They may be used singly just as round horns are used and in such cases, the rectangular shape is frequently an advantage in appearance, minimizing obstruction to vision, and facilitating mounting.

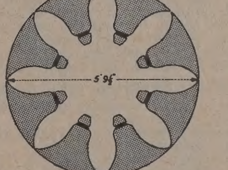
RT-20 Horns are designed so that they may be stacked in plane or circular arrays. Eight units, each with a geometric sector angle of 45 degrees, form a complete circle with a diameter of 5′ 9½″, giving 360° horizontal coverage. Fewer units are used where less than 360° coverage is required as indicated below:

Number of Units	Horizontal Coverage Angle
1	80°
2	125°
3	170°
4	215°
5	260°
6	305°
8	360°



Horns may be "double decked," which will concentrate the sound in a narrower angle in the vertical plane. A stack two units high will give a vertical coverage angle of approximately 30 degrees; at the same time, there is a gain in sound pressure on the axis of 2.5 db, due to the restricted angle of radiation.

The horn is molded of high impact strength glass fibre reinforced polyester. Natural molded finish in Modern Tan color.



SPECIFICATIONS—RT-20

Mouth Size: 26″ wide by 13½″ high.

Horn Length, overall, less driver: 16⅞″.

Air Column length: 41″.

Low Frequency cutoff: 140 cycles.

Rated Coverage angle: 80° horizontal. (See data for arrays).

Net Weight, less driver unit: 10¾ lbs.

Shipping Weight: 15 lbs.

RT-20—Horn only. List Price............**$46.50**

Net Each..........................**$27.90**

ACCESSORIES

MA-1 PIPE ADAPTER

A sturdy malleable iron casting which bolts to the "U" bracket of Hypex* Projector Horns and provides ¾″ pipe thread for pipe mast mounting. Baked tan enamel finish.
Net weight: ¾ lb.
Shipping Weight: 1 lb.
MA-1—List Price **$2.30.**
Net Each................**$1.38**

MA-3 STACKING HARDWARE

Complete set of hardware for joining two RT-20 horns side by side.
Net weight: 2¼ lbs.
Shipping Weight: 2¾ lbs.
MA-3—List Price **$5.30.**
Net Each................**$3.18**

MA-4 STACKING HARDWARE

Complete set of hardware for joining two RT-20 horns double decked.
Net weight: 1½ lbs.
Shipping Weight: 2 lbs.
MA-4—List Price **$4.60.**
Net Each................**$2.76**

*T. M. Reg. Jensen Mfg. Co.

BV-1 BLAST VALVE

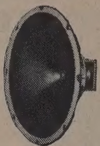
The BV-1 Blast Valve is an accessory device for protecting the driver unit from high pressures due to explosive forces. Valve is the same as used in Jensen military blastproof loudspeakers. Under the positive blast pressure phase, the valve moves inward to seal off the driver unit from the horn throat. On the negative phase the valve moves outward, again effecting a seal. With the valve in neutral position, attenuation of sound is negligible. Screws between horn and driver unit. Overall diameter 3″. Fits all Jensen driver units and horns.
Net weight, ½ lb. Shipping Weight, ¾ lb.
BV-1—List Price **$15.00.** Net Each **$9.00**

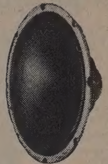
Jensen Professional Series Speakers

P5-TC

P6-TC

P8-PC


P10-SC


C12-SC

C12-RC

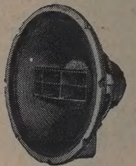
C12-NC

EXTENDED RANGE HIGH FIDELITY LOUDSPEAKERS

Here is a complete line of unitary loudspeakers to complement the special group of 8-inch speakers designed especially for distributed sound. Same ruggedized construction with special weather and corrosion resistant techniques and materials. Suitable for all protected outdoor locations.

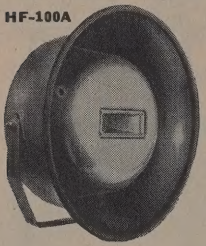
H-225C COAXIAL 2-WAY HIGH FIDELITY SPEAKER

H-225C is a coaxial 2-way assembly for high efficiency, controlled directivity applications typical of "live" auditoriums-control feedback with controlled angle of coverage! Extended range single-element designs from 5-inch to 12-inch size in choice of magnetic structure.


H-225C

Nominal Size	Model No.	Power Rating Watts	Magnet Wt., Oz.	Relative Loudness Efficiency	Imped., Ohms	V. C. Dia. Inches	Baffle Cutout Dia., In.	Overall Dia. Inches	Depth Inches	Ship. Wt., Lbs.	List Price	Net Each
12″	**H-225C**	28	27*	+6 db	16	1½*	10½	12¹⁄₁₆	7⁵⁄₁₆	13	$81.50	**$48.90**
12″	**C12-NC**	20	27†	+5½ db	8	1½	10½	12¹⁄₁₆	5³⁄₁₆	8¼	51.00	**30.60**
12″	**C12-RC**	14	6.8†	+3 db	8	1	10½	12⅛	4½	6¼	16.00	**9.60**
12″	**C12-SC**	13	4.64†	+2 db	8	1	10½	12⅛	4⁷⁄₁₆	6	14.75	**8.85**
10″	**P10-SC**	12	4.64	+2 db	8	1	8¾	10⅛	4⅝	4	13.75	**8.25**
8″	**P8-PC**	15	14.6	+3½ db	8	1½	6¾	8⅛	4	5½	31.80	**19.08**
6″	**P6-TC**	7½	3.16	0 db	4	¾	5¼	6¹¹⁄₁₆	3³⁄₁₆	2	8.50	**5.10**
5″	**P5-TC**	6	3.16	0 db	4	¾	4	5	2¹¹⁄₁₆	2	8.15	**4.89**

*Woofer only. †Syntox-6® ceramic magnet. All others DP Alnico 5.


HF-100A

VH-91A

VR-11

JENSEN COMPLETE HYPEX* PROJECTORS

HF-100A WEATHERPROOF TWO-WAY HIGH FIDELITY PROJECTOR

Here is a real high fidelity projector for use indoors or out, under all weather conditions. Consists of a heavy duty 8″ "woofer" feeding a folded horn plus a horn-loaded compression driver "tweeter". Low frequency unit feeds horn by a combination of direct radiation and phase-inversion bass reflex ports for superior efficiency in the low frequency region. The high frequency horn has a 90° fold and is mounted so that the driver unit is at the top, thus providing self-draining and making it impossible for rain, sleet or snow to reach the driver unit.

Horn outer section is spun aluminum with baked enamel finish. Central enclosure is glass fibre reinforced polyester in matching natural molded Modern Tan finish. Sturdy "U" mounting bracket is fully adjustable and positive locking.

SPECIFICATIONS: HF-100A PROJECTOR

Type: Coaxial assembly of separate low and high frequency units.
Frequency Range: 60 to 15,000 cycles.
Power Rating: 25 watts.
Impedance: 16 ohms.
Rated Coverage Angle: 120°.
Overall Diameter: 24⅜″.
Overall Depth: 11⅜″.
Net Weight: 23 lbs.
Shipping Weight: 30 lbs.
HF-100A—List Price **$129.50.** Net Each **$77.70**

*T. M. Reg. Jensen Mfg. Co.

Jensen VH-91A and VR-11 Hypex* projectors are the most compact in the line and their use is indicated where speech reproduction is the only important consideration and where size or cost are controlling factors. Designed for maximum efficiency in the upper frequency range, these units provide excellent penetration of noise. Small in size, they can also be located near areas of extreme noise. Magnetic structures are highly efficient, using Alnico 5 magnets in ample soft iron structures. Corrosion-resisting finishes and materials such as plastic cloth base diaphragms insure long life under outdoor and industrial atmospheric conditions. For further protection driver units are completely enclosed inside the rigid outer shell.

MODEL VH-91A HYPEX* PROJECTOR

Equipped with new universal mounting bracket for adjustment in any direction and secure locking with a single wing nut. Extremely rigid vibration-proof clamping allows three hole flange mounting on flat surface, single hole mounting with ¼″ lag or machine screw through center, or mounting on top of standard ½″ pipe.

MODEL VR-11 HYPEX* RADIAL PROJECTOR

For application requiring 360° coverage in horizontal plane, such as low ceiling industrial areas. Equipped with sturdy eye-bolt for clamping or suspension from above.

SPECIFICATIONS

Model	Power Rating Watts	Impedance Ohms	L-F Range	Mouth Dia. Over All	Over All Lgth.	Air Column Path Lgth.	Rated Coverage Angle	Net Wt. Lbs.	Shpg. Wt. Lbs.	List Price	Net Each
VH-91A	15	8 or 45	300	8⅞″	7⅝″	16″	100°	3¼	4¼	$35.80	$21.48
VR-11	15	8	280	11″	10⅜″	18″	360°	4	5	49.00	29.40

These level controls are of the two-section L-pad type with practically constant input impedance for any knob position. Designed for use in voice coil or line circuits of similar nominal impedance. Provide continuously adjustable level without disturbance of other circuit levels or total impedance. Rugged construction with special alloy windings and solder lug terminals. Single-hole panel mounting. Complete with lock nut, small Bakelite pointer knob and flat metal escutcheon plate.

LEVEL CONTROLS

Model No.	Impedance Ohms	Power, Watts	Shipping Wt. Lbs.	List Price	Net Each
ST-760	4	15	1	$4.85	**$2.91**
ST-276	8	15	1	3.25	**1.95**
ST-837	16	35	1	5.75	**3.45**

Jensen Professional Series Speakers

AP-10

JENSEN SPEECH-MASTER LOUDSPEAKERS

JENSEN Speech-Master loudspeakers are specialized units designed for applications where highly intelligible speech reproduction is a prime requisite. Good basic design and sturdiness of construction as well as pleasing appearance and functional styling are outstanding features of these units. All loudspeakers in this group use high efficiency direct radiator driver units of the permanent magnet type.

RK-61

MODEL AP-10 SPEECH-MASTER

Attractively styled desk type unit. Heavy cast base with felt pad. Specially designed for superior intelligibility in the presence of static and acoustic background noise. Excellent "talk-back" characteristics. Driver Unit, a sturdy 5″ speaker, fully enclosed with protective front screen. Mounting facility for ½″ x ½″ transformer (inside cover) locking tilt adjustment. Power rating, 5 watts maximum speech signal. 36″ rubber cable. 6¾″ H.; 5⅛″ D.; 5″ W. Gray Hammer finish. Shipping Weight 5¼ lbs.

ST-590. 3-4 ohms. List Price **$22.00.** Net. . **$13.20**

ST-591. 45-50 ohms. List Price **$23.00.** Net. **13.80**

MODEL RK-61 "CORRIDOR" SPEECH-MASTER

Designed for two-direction sound in corridor or office. Heavy steel case perforated on both sides for high quality speech coverage in both directions protected heavy duty 6″ loudspeaker driver unit. Sturdy mounting bracket welded to case provides flexibility in installation. Standard ¾″ conduit (not supplied) can be used. 24″ heavy SJ cable for connections. Transformers up to ⅝″ x ⅝″ mount on speaker frame inside case. Excellent "talk-back" characteristics. Quality on music is also acceptable for many areas. Power rating 8 watts. Case diameter 8″; thickness 3¼″; overall distance from wall 9¼″. Modern Tan finish.

ST-850. 3-4 ohms. List Price **$15.00.** Net. . . . **$9.00**

P5-VC

MODEL P5-VC SPEAKER

This loudspeaker is offered for installation in radio communications, intercom and paging equipment. May be panel mounted, wall mounted or installed in a small case as required with excellent results. Provides the performance of the AP-10 Speech-Master in your equipment. Power rating, 5 watts. Depth, 2 7/16″; OD, 5″; baffle opening 4″; Shipping Weight 1 lb.

ST-916. 3-4 ohms. List Price **$5.30.** Net. **$3.18**

JENSEN PROFESSIONAL SERIES TRANSFORMERS

CONSTANT VOLTAGE TRANSFORMERS

These transformers are designed especially for the distribution systems commonly referred to as 70-volt constant voltage systems. They are designed to draw a predetermined amount of power from a 70-volt line as indicated in the tables. All are mountable in W-1 Weatherproof Transformer Case.

Models ZC-100, ZC-200, ZC-300, and ZC-400 are equipped with terminal board with pin jack adjustment for the desired input power. Heavy duty screw terminals are provided for speaker and line connection. Completely impregnated and dip processed for operation in outdoor and industrial atmospheres.

Model ZC-3514 is similar except color coded pigtail leads replace the terminal board. Non-weatherproof, recommended for indoor and less severe locations.

Models 25CV4 and 70CV4 are especially designed for direct attachment on distributed sound direct radiator loudspeakers. Primary center-tapped for balanced and special input circuits. All terminals are lugs for unique Jensen KWIKON* instant connectors. Speaker-to-transformer leads provided.

ADJUSTABLE IMPEDANCE TRANSFORMERS

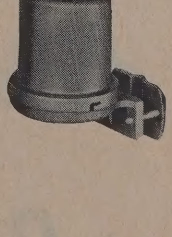
The Type ZY adjustable impedance transformers have long been popular for use on 500-ohm line systems. Equipped with sturdy terminal board with pin jack adjustment of impedance. Type ZL transformers are similar except for solder lug terminals for impedance adjustment and pig-tail secondary leads. Vacuum wax impregnated for general purpose applications. Can be installed in Model W-1 Weatherproof Transformer Case.

TYPE "Z" TRANSFORMERS

Model Z-3422 is a high fidelity autotransformer for interconnecting 4, 8 or 16 ohm circuits. Model Z-3345 is particularly designed to properly match 8 ohm loudspeakers and projectors to 45-50 ohm intercommunication systems. Vacuum wax impregnated and mountable in Model W-1 Weatherproof Transformer Case.

Model No.	Nom. Core Size	Input Power, Watts	Input Impedance, Ohms	Sec. Imped., Ohms	Mtg. Centers	Shipping Wt., Lbs.	List Price	Net Each	Net Each in 50-Pack
25CV4	⅝″ x ⅝″	4/2/1/½/¼/⅛	125/245/465/665/860/1K	8	2⅜″	9 oz.	$ 4.75	**$2.85**	**$2.57**
70CV4	⅝″ x ⅝″	4/2/1/½/¼/⅛	1060/2130/4K/6.5K/8K/10K	8	2⅜″	9 oz.	4.75	**2.85**	**2.57**
ZC-100	1″ x 1″	30/15/7½	167/333/667	16/8/4	3⅛″	2 lbs. 5 oz.	11.50	**6.90**	....
ZC-200	1″ x 1″	25/10/5	200/500/1000	16/8/4	3⅛″	2 lbs. 5 oz.	13.00	**7.80**	....
ZC-300	⅞″ x ⅞″	20/10/5	250/500/1000	16/8/4	3⅛″	1 lb. 6 oz.	9.65	**5.79**	....
ZC-400	⅝″ x ⅝″	5/2½/1¼	1000/2000/4000	16/8/4	2⅜″	9 oz.	7.00	**4.20**	....
ZC-3514	1″ x 1¼″	16/8/4/2	313/625/1250/2500	16/8	2″ x 2⅛″	3 lbs.	13.00	**7.80**	....
ZL-2021	½″ x ½″	3½	500/1000/1500/2000	4	2″	5 oz.	3.75	**2.25**	....
ZL-2022	⅝″ x ⅝″	6½		8	2⅜″	6 oz.	4.65	**2.79**	....
ZY-2002	¾″ x ¾″	10	500/1000/1500/2000	8	2 13/16″	6 oz.	8.25	**4.95**	....
ZY-2003	⅞″ x ⅞″	16		8	3⅛″	1 lb. 6 oz.	9.92	**5.95**	....
ZY-2005	1″ x 1″	25		8	3⅛″	2 lbs. 5 oz.	11.85	**7.11**	....
ZY-4002	⅝″ x ⅝″	6½		4	2⅜″	6 oz.	6.15	**3.69**	....
ZY-4004	¾″ x ¾″	10		4	2 13/16″	1 lb.	8.25	**4.95**	....
ZY-4005	⅝″ x ⅝″	6½		8	2⅜″	6 oz.	6.15	**3.69**	....
Z-3345	⅝″ x ⅝″	6½	45–50	8	2⅜″	6 oz.	3.25	**1.95**	....
Z-3422	1″ x 1″	25	4/8/16	....	3⅛″	2 lbs. 3 oz.	11.59	**6.95**	....

MODEL W-1 WEATHERPROOF TRANSFORMER CASE



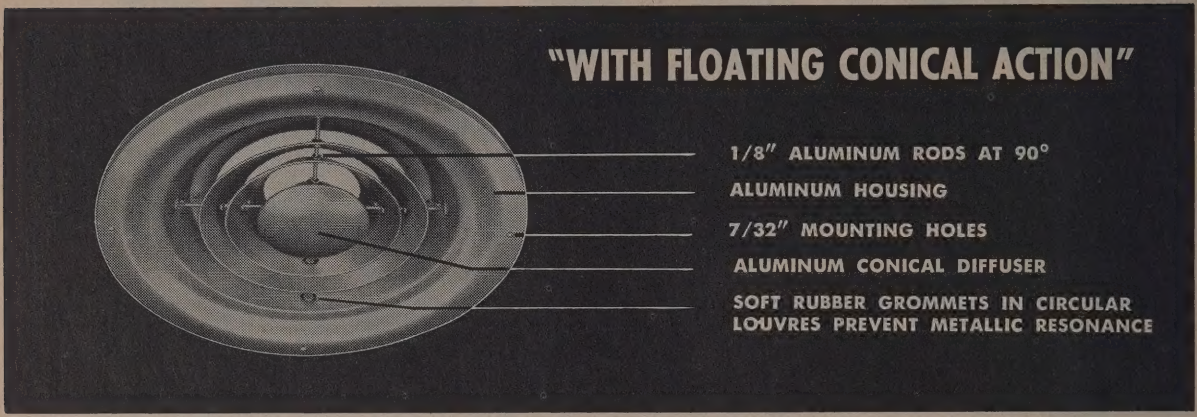
Thoroughly weatherproof for permanent outdoor installations for maximum protection to transformers. Designed for upright mounting on Jensen HYPEX* horns, on pipe, or screw mounting to side wall or other flat surface. Accommodates transformers of core sizes ⅝″ x ⅝″ to 1″ x 1″ with maximum transformer height of 4″. Cast aluminum base and spun aluminum cover with bayonet locking. Net Weight 1 lb., shipping weight 1¼ lbs.

W-1. List Price **$10.50.** Net Each. **$6.30**

*T.M. Reg. Jensen Mfg. Co.

LOWELL STL SERIES

New Low Ceiling Type Baffles


"WITH FLOATING CONICAL ACTION"
1/8" ALUMINUM RODS AT 90°
ALUMINUM HOUSING
7/32" MOUNTING HOLES
ALUMINUM CONICAL DIFFUSER
SOFT RUBBER GROMMETS IN CIRCULAR LOUVRES PREVENT METALLIC RESONANCE

Patented in U.S.A. and Canada

Model No.	Speaker Size	Will Mount to
STL-6	6"	CP8, XCP8, PR8
STL-7	7"	STP8, XSTP8, XSTPR8
STL-8	8"	STP8, XSTP8, XSTPR8
STL-10	10"	STP1012, XSTP1012, XSTPR12
STL-12	12"	STP1012, XSTP1012, XSTPR12

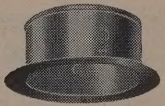
These new, unusual additions to the Lowell line of speaker baffles are top quality heavy 18 gauge spun aluminum in a buffed satin finish. Designing assures controlled 360° dispersion of undistorted sound. Echo and feedback are at the minimum. Louvres and conical diffuser "float" on very small soft rubber grommets. Baffles are coated with clear lacquer which also serves as prime coat for on-the-job painting. Wide choice of colored lacquer finishes available on request.

Shipped complete with hardware and instructions for mounting to Lowell Protective Speaker Enclosures illustrated.

From architecture to acoustics, Lowell STL series meets every requirement — in ultra-modern design . . . for even, undistorted low-level sound distribution throughout 360°. Recommended baffle placement is usually 25′ from center to axis. Where straight line placement is impossible, triangulating the baffles in the ceiling is highly effective.

STP SERIES

XSTP SERIES



XSTPR SERIES

HEARD EVERYWHERE
Lowell MANUFACTURING COMPANY

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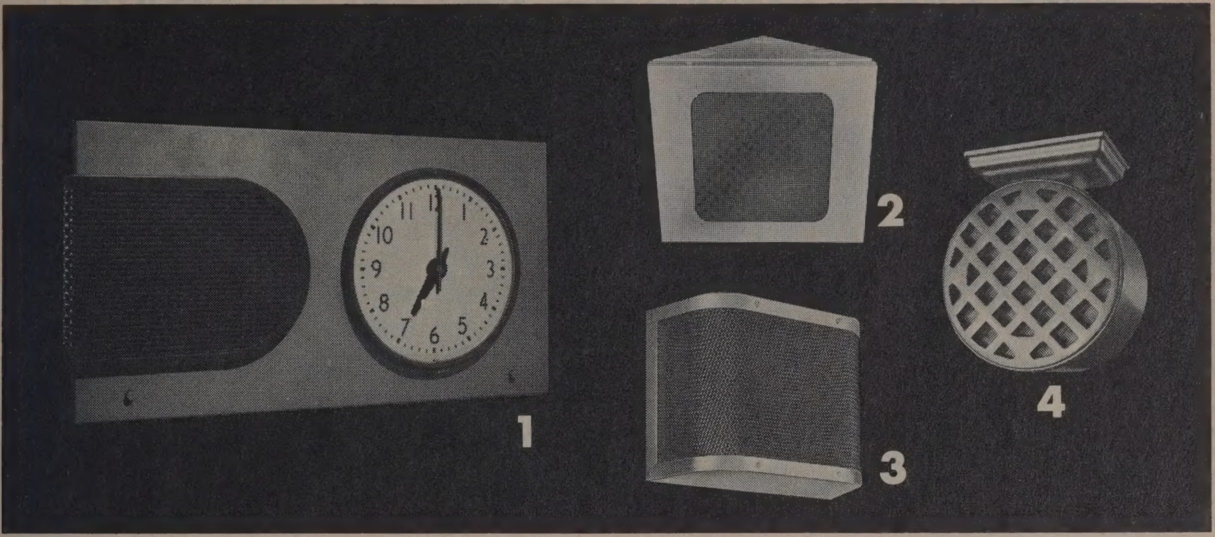
LOWELL SPECIAL APPLICATIONS



1. LOWELL SC SERIES

Designed as a single unit clock and speaker system, the LOWELL Model SC-100 simplifies installation and maintenance. Fire alarm and civil defense warning equipment may also be incorporated in this unit.

Both the clock and speaker are mounted to the front panel. The front panel is hinged at the top, providing quick access to the interior of the unit without disassembling.

LOWELL model SC-100 will mount a variety of standard classroom clocks smaller than 12 inch sizes. Please order 12 inch size special.

Shipped complete with all mounting hardware. Colors are contrasting light and dark grey.

2. MODEL LI-8, a new steel corner speaker baffle, especially suited for use in schools, restaurants, offices or wherever an attractive corner installation is desired. Grille, corner adaptor, mounting bracket and hardware packed unassembled. Desert Sand finish.

3. THE 'DRAMATONE' BASS REFLEX WALL BAFFLE

Especially designed for installations where a modern trend is desired. Beautiful plastic grille cloth mounted directly in back to conceal the loudspeaker. Baffle operates with a bass reflex principle. Interior completely lined with jute to prevent metallic resonance.

4. HEAVY-DUTY PENAL INSTITUTIONAL BAFFLE

Bi-directional type mounts to any standard single or double electrical outlet box. Tamper-proof machine screws, which fasten the baffle together, cannot be removed without a special screwdriver. Rugged construction withstands severe punishment. Both speaker face plates are covered from behind with perforated metal to prevent sharp objects from piercing the speaker cone.

The entire baffle is prime coated and finished in silver grey hammertone.

Order screwdriver with 6-32 and 8-32 tip.

SPECIFICATIONS

Model SC-100 front panel is 25¾" x 13" x 1", made of 18 gauge steel painted light gray. The speaker grille is made of 22 gauge steel painted dark gray. The protective enclosure is 24" x 12" x 3", made of 18 gauge steel painted with zinc chromate to prevent rust and undercoated to prevent resonance. It contains twelve ½", ¾", 1" and 1½" conduit knockouts.

MODEL LI-8

Any standard 8" speaker mounts to grille by means of four lugs welded to rear of grille. Dimensions overall: 13¼" wide, 11½" high.

'DRAMATONE' BASS REFLEX WALL BAFFLE

DIMENSIONS: 13¾" x 5⅝" depth x 9¾" height.

MODELS: DD6-A
DD7-A
DD8-A

PENAL INSTITUTIONAL BAFFLE

MODELS	SPEAKER SIZE
BRLK-5	5"
BRLK-6	6"
BRLK-7	7"
BRLK-8	8"

Model RLK series is very similar to Model BRLK with the exception that these models do not have a cradle base. Mount to ceiling or wall or standard electrical outlet boxes.

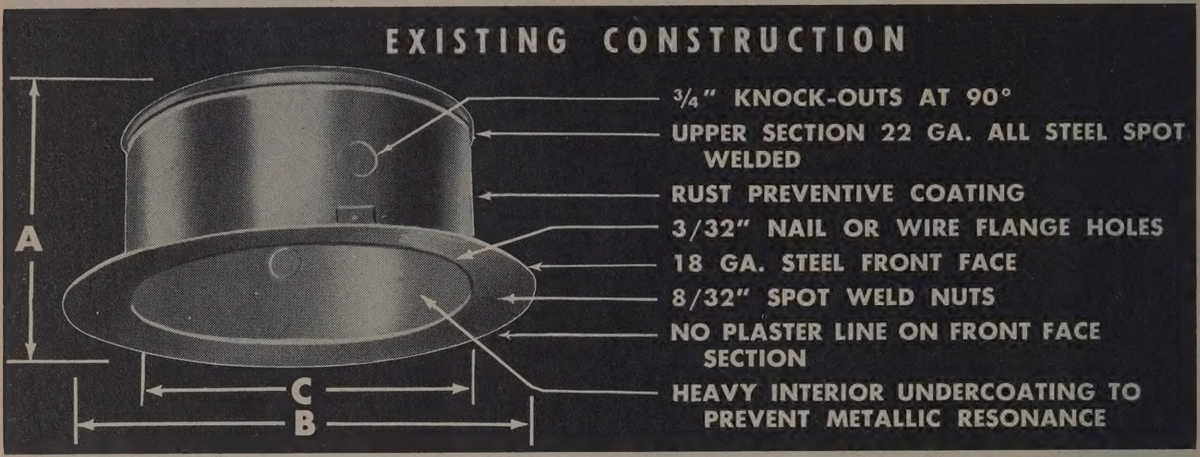
MODELS	SPEAKER SIZE
RLK-5	5"
RLK-6	6"
RLK-7	7"
RLK-8	8"

NOTE: Order only by model numbers.

HEARD EVERYWHERE
Lowell ®
MANUFACTURING COMPANY

LOWELL XCP SERIES

Back Cover Protective Speaker Enclosure


EXISTING CONSTRUCTION
¾" KNOCK-OUTS AT 90°
UPPER SECTION 22 GA. ALL STEEL SPOT WELDED
RUST PREVENTIVE COATING
3/32" NAIL OR WIRE FLANGE HOLES
18 GA. STEEL FRONT FACE
8/32" SPOT WELD NUTS
NO PLASTER LINE ON FRONT FACE SECTION
HEAVY INTERIOR UNDERCOATING TO PREVENT METALLIC RESONANCE
A
C
B

Model	A	B	C	Speaker Size Accommodation
XCP6	4"	10¼"	7⅜"	6"
XCP8	2½"	11¾"	8½"	8"
XCP8	4¼"	11¾"	8½"	8"
XCP8	7"	11¾"	8½"	8"
XCP8	10"	11¾"	8½"	8"
XCP1012	7"	16"	12⅜"	10" & 12"
XCP15	10¾"	21¼"	14⅝"	15"
XSTP8	7"	13¾"	12½"	8"
XSTP1012	10"	17½"	14½"	10" & 12"

USES: Designed for quick labor-saving wall or ceiling installation of sound systems in EXISTING CONSTRUCTION, ready for plastering.

DESCRIPTION: All-steel, spot-welded construction of heavy 22 ga. metal complete with plaster ring attached. ½" and ¾" knockouts at 90°. Rust preventive coating on exterior. Very heavy undercoating on interior to prevent metallic resonance. Sufficient speaker back pressure relief assures high speaker efficiency. Excellent for high fidelity installations. Complete mounting hardware and mounting instructions furnished to meet problems of various types of installations.

Note: Special overall depths (where space in walls and ceilings allow) and additional "loading" may be ordered at slightly higher price.

IMPORTANT: When mounting back enclosures in wall or ceiling for slip fit, cut hole to following size in diameter as per model ordered and nail to lath:

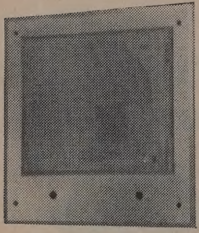
Model XCP6—7¼" dia.
Model XCP8—8⅝" dia.
Model XCP1012—12⅝" dia.
Model XCP15—14¾" dia.
Model XSTP8—12⅝" dia.
Model XSTP1012—14⅝" dia.

FOR SUSPENDED CEILINGS:
Mount XCP Series back enclosures to Model SS24 or 48 Steel Support Channels for positive strength.

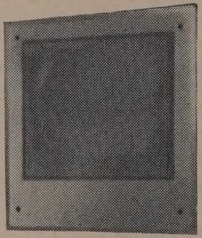
FEATURES: Protects speaker cone from fire, falling mortar and dust. Prevents rodents from damaging speaker cone. Easily serviced without damage to wall or ceiling. Installation time reduced.

Speaker Baffles That Will Mount to XCP Series Protective Speaker Enclosures:

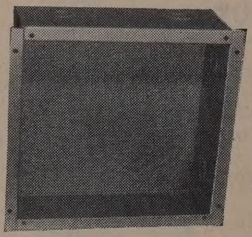
Enclosure Model No.	Speaker Baffle Model No.
XCP6	AL6-A, RS5-A, RS6-A,
XCP8	AL7-A, AL8-A, RS7-A, RS8-A, CE, JG8, M-8 PS8, STL6
XSTP1012	AL10-A, AL12-A, RS10-A, RS812-M, AL812-M, RS12-A, JG12
XCP15	AL15, RS15-A
XSTP8	STL8
XCP1012	STL10 STL12



MODEL MTH-8



MODEL MT-8



MODEL P104X

NEW HOTEL/MOTEL SPEAKER GRILLES

Designed for wall mounting, these distinctive grills are ideal for motel and hotel installations. Constructed of 18 gauge steel, they will accommodate 8" speakers. They will mount easily to Lowell enclosure P104X.

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Lowell MANUFACTURING COMPANY

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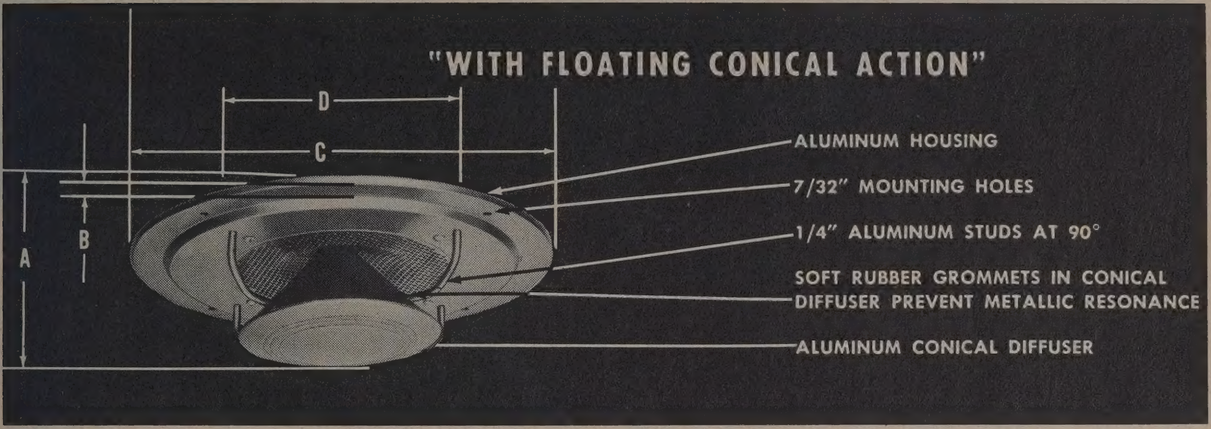
LOWELL AL SERIES

Flush Mounting Low Ceiling Baffles


"WITH FLOATING CONICAL ACTION"
D
C
A
B
ALUMINUM HOUSING
7/32" MOUNTING HOLES
1/4" ALUMINUM STUDS AT 90°
SOFT RUBBER GROMMETS IN CONICAL DIFFUSER PREVENT METALLIC RESONANCE
ALUMINUM CONICAL DIFFUSER

Patented in U.S.A. and Canada

Speaker Baffle Model	Size Speaker Accommodated	Mount to Speaker Enclosure Models	Dimensions A	B	C	D	Baffle Flange	No. of Flange Mtg. Holes	Dia. of Required Hole in Ceiling	Weight (lbs.) Net	Shpg.	No. per Shipping Carton
AL6-A	6"	CP6, XCP6, PR6 PS	2½"	½"	10¾"	5¼"	1"	4	7"	½	¾	12
AL7-A	7"	CP8, XCP8, PR8 PS	2½"	½"	12⅝"	5¼"	1"	4	8½"	¾	1	15
AL8-A	8"	CP8, XCP8, PR8 PS	2½"	½"	12⅝"	6⅜"	1"	4	8½"	¾	1	15
AL10-A	10"	CP1012, XCP1012 PR10	3"	½"	16⅞"	8½"	1"	4	13"	1	1½	6
AL12-A	12"	PR12, CP1012, XCP1012	3"	½"	16⅞"	10⅜"	1"	4	13"	1	1½	6
AL15-A	15"	PR15, XCP15 CP15	5"	2"	21¾"	13"	1¾"	8	15½"	3	3½	1
AL812-M	8"	PR12, CP1012 XCP1012	2½"	½"	16⅞"	6¼"	2"	4	8½"	¾	1	6

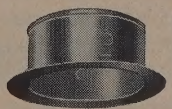
Top quality, heavy gauge satin finished spun aluminum. Assures controlled 360° diffusion of undistorted "ear-level" sound with minimum of echo and feedback. Conical diffuser "floats" on soft rubber grommets forming a press fit to aluminum support studs which thread to speaker housing ring. Clear lacquer coating also serves as prime coat for on-the-job painting. Wide choice of colored lacquer finishes available on request. Shipped complete with hardware for mounting to Lowell Protective Speaker Enclosures illustrated.

360° Coverage Low "Ear-Level" Sound

Even undistorted sound. Recommended baffle placement 25' from center of axis. Where straight line placement is impossible, triangulating baffle in ceiling is highly effective.

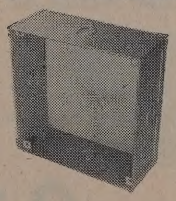
CP SERIES

XCP SERIES



PR SERIES

P875X ENCLOSURE



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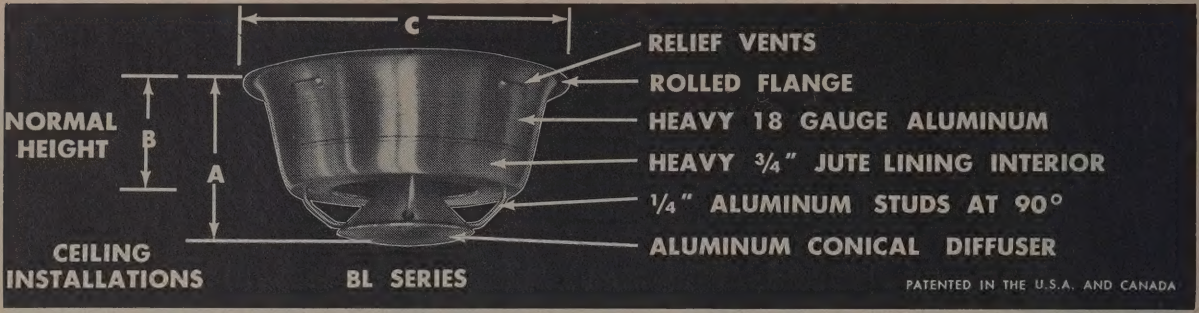
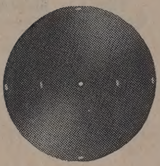
SURFACE MOUNTING CEILING BAFFLES

"WITH FLOATING CONICAL ACTION"



Model No.	Speaker Size	A	B	C	Will Mount To
BL6-A	6"	7¼"	4¼"	12⁹⁄₁₆"	PL6
BL7-A	7"	8⅛"	5"	14¾"	PL7
BL8-A	8"	8⅛"	5"	14¾"	PL8
BL10-A	10"	9¼"	6¾"	18⅝"	PL10
BL12-A	12"	9¼"	6¾"	18⅝"	PL12



PL Series Steel Discs for mounting BL Series to concrete ceilings. Heavy 18 gauge steel. All holes punched for standard electrical outlet boxes.

GENERAL INFORMATION: Designed for surface mounting constructed of heavy gauge aluminum. Accurately engineered for normal ceiling sound reinforcement. Perfect speaker cone loading holds feed-back to minimum. Exclusive "Floating Conical Action" assures controlled 360° sound coverage. High frequency diffuser supported to housing by four ¼" aluminum studs and threaded on one end mounted to housing. Press fit to diffuser through soft rubber grommets prevents metallic resonance. Recommended placement of baffles under normal ceiling heights is 25' off center of axis in straight line placement. All models finished in brushed satin and coated with colorless lacquer. Acts as excellent base coat or primer for on-the-job painting. All models available in colored lacquers at slightly higher price. Complete information on request.

TYPE RS recessed wall type directional speaker baffles

TYPE RS RECESSED WALL TYPE DIRECTIONAL SPEAKER BAFFLES:

Excellent speaker trim for modern installations. Especially recommended for Dress Shops, Department Stores, Night Clubs. Provides concealment of speaker. Easily installed.

DESCRIPTION: Made of aluminum with ½" mounting flange. Standard finish — satin-aluminum. Improved one-piece construction. Four screws are supplied to mount speaker. Mounts to LOWELL TYPE CP or XCP enclosures where speakers must be protected. The RS7-a, RS8-a, RS10-a and RS12-a are now one-piece construction.

Model No.	Speaker Size	Dimensions	Wall Hole Size
RS4-A	4"	7½" dia. x 7'16" depth	5" dia.
RS5-A	5"	10¾" dia. x 7/16" depth	7" dia.
RS6-A	6"	10¾" dia. x 7/16" depth	7" dia.
*RS7-A	7"	12⅝" dia. x 7/16" depth	8½" dia.
RS812-M	8"	16⅞" dia. x 1/2" depth	8½" dia.
RS8-A	8"	12⅝" dia. x 1/2" depth	8½" dia.
RS8-A (1½" deep)	8"	12⅝" dia. x 1½" depth	8½" dia.
RS10-A	10"	16⅞" dia. x 1/2" depth	12½" dia.
RS12-A	12"	16⅞" dia. x 1/2" depth	12½" dia.
RS15-A	15"	21¾" dia. x 3" depth	17" dia.

* For RCA 7" Accordian Speaker. Information on colored lacquer furnished on request for both models.

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Lowell MANUFACTURING COMPANY

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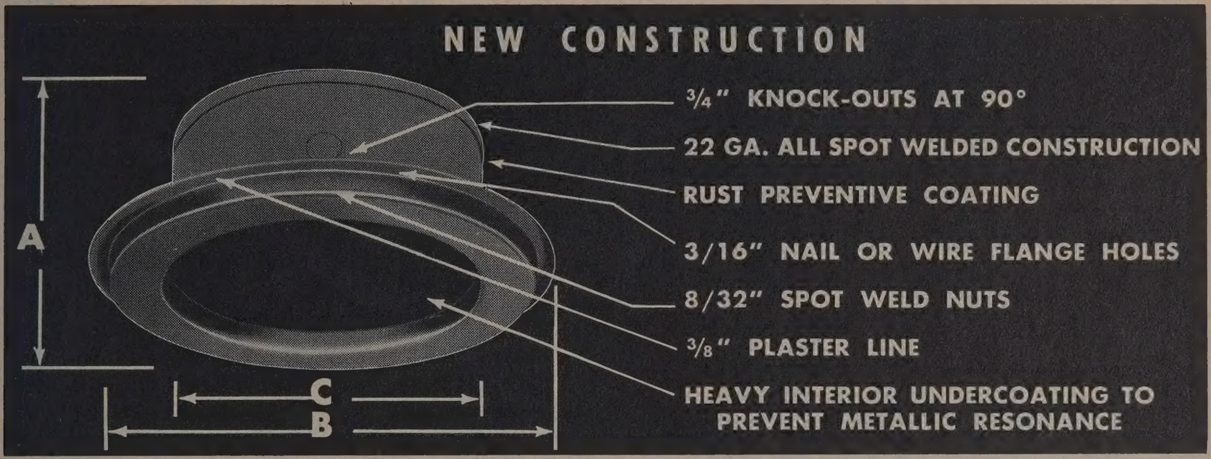
LOWELL CP SERIES

Back Cover Protective Speaker Enclosure


NEW CONSTRUCTION
¾" KNOCK-OUTS AT 90°
22 GA. ALL SPOT WELDED CONSTRUCTION
RUST PREVENTIVE COATING
3/16" NAIL OR WIRE FLANGE HOLES
8/32" SPOT WELD NUTS
⅜" PLASTER LINE
HEAVY INTERIOR UNDERCOATING TO PREVENT METALLIC RESONANCE
A
C
B

Model	A	B	C	Speaker Size Accommodation
CP6	4"	11¼"	7"	6"
CP8	2½"	13⅛"	8½"	8"
CP8	4½"	13⅛"	8½"	8"
CP8	7"	13⅛"	8½"	8"
CP8	10"	13⅛"	8½"	8"
CP8	12"	13⅛"	8½"	8"
CP1012	7"	17⅛"	12½"	10" & 12"
CP15	11"	21½"	14⅝"	15"
STP8	7"	14⅞"	12⅜"	8"
STP1012	10"	18⅞"	14¾"	10" x 12"

USES: Designed for quick, labor-saving wall or ceiling installation of sound systems in NEW CONSTRUCTIONS, ready for plastering.

DESCRIPTION: All-steel, spot-welded construction of heavy 22 ga. metal complete with plaster ring attached. ¾" and ½" knock-outs at 90°. Rust preventive coating on exterior. Very heavy undercoating on interior to prevent metallic resonance. Sufficient speaker back pressure relief assures high speaker efficiency. Excellent for high fidelity installations. Complete with mounting hardware and mounting instructions to meet problems of various types of installation.

Note: Special overall depths (where space in walls and ceilings allow) and additional "loadings" may be ordered at slightly higher price. Available with removable cylinder and stationary front plaster ring in adjustable face models—DCP series.

IMPORTANT: When mounting back enclosures in wall or ceiling for slip fit, cut hole to following size in diameter as per model ordered and nail to lath.

Model CP6—7" dia.
Model CP8—8½" dia.
Model CP1012—12½" dia.
Model CP15—14¾" dia.
Model STP8—12½" dia.
Model STP1012—14½" dia.

FOR SUSPENDED CEILINGS:

Mount CP Series back enclosures to Model SS 24 or 48 Steel Support Channels for positive strength.

FEATURES: Protects speaker cone from fire, falling mortar and dust. Prevents rodents from damaging speaker cone. Easily serviced without damage to wall or ceiling. Reduces installation time.

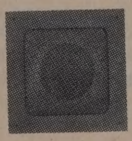
Speaker Baffles That Will Mount to CP Series Protective Speaker Enclosures:

Enclosure Model No.	Speaker Baffle Model No.
CP6	AL6-A, RS5-A, RS6-A
CP8	AL7-A, AL8-A, RS7-A, RS8-A, JG8, M-8, PS8, STL6
CP1012	AL10-A, AL12-A, RS10-A, RS12-A, JG12, RS812-M, AM812-M
CP15	AL15, RS15-A
CTP8	STL8
STP1012	STL10, STL12

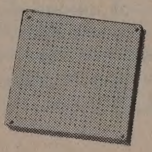
AL SERIES

RS SERIES

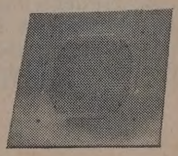
JG SERIES



M SERIES



YM8-A CEILING BAFFLE
(for Acoustic Tile Ceilings)



HEARD EVERYWHERE
Lowell MANUFACTURING COMPANY

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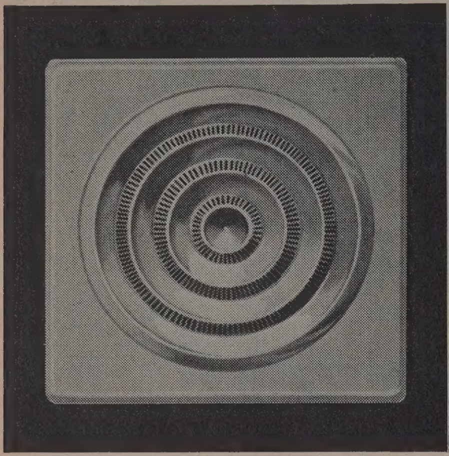
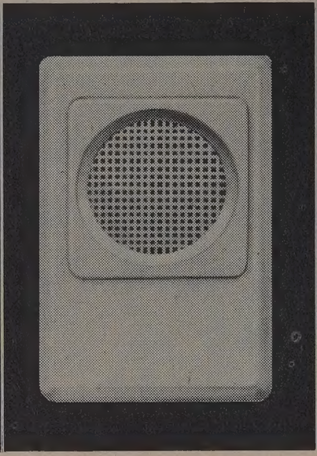
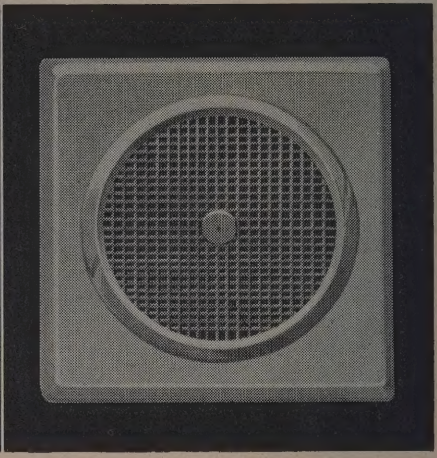
LOWELL 'COLORAMIC' PLASTIC BAFFLES

NEW IN-CEILING AND IN-WALL INTER-COM BAFFLES


MODEL ADS80-P


MODEL L35-P


MODEL CR80-P

Acclaimed for New Sound Fashion . . . New Sound Fidelity!

Here is the complete merger of beauty and unique design! Lowell "Coloramic" Baffles are new, lightweight, precision-designed, acoustically-perfect, sound projecting baffles deftly molded of amazingly effective HT-88 High-Impact Styrene*

FOR EFFECTIVE USE *EVERYWHERE!*
HOSPITALS • SCHOOLS • PUBLIC BUILDINGS
HOMES • SHIPS • PLANES

'Coloramic' Baffles by Lowell offer complete ease of installation . . . respond to any good Latex spray or paint treatment . . . fit flush in ceilings or walls. Their practical, pleasant room-filling qualities make them the ultimate for low-level, ear-level sound. Inter-Com applications are equally as distinct!

'COLORAMIC' IN-WALL INTER-COM BAFFLE — MODEL L35-P

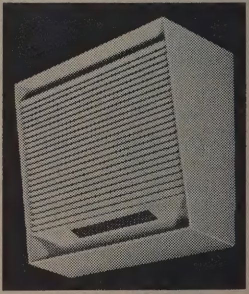
Highest grade Styrene will not chip or warp. Sound installers never worry about holes lining up . . . mounting holes are always true! Color runs completely through the material and may be painted with any good Latex paint. Available in rich looking neutral colors of White or Beige. Accommodates a 3½" speaker.

'COLORAMIC' IN-CEILING LOW-LEVEL SOUND BAFFLE — MODEL ADS80-P

Ruggedly constructed of High-Impact Styrene material for strength and durability. By means of unique slots located in the circular deflectors in the grille, complete 360° sound dispersion is attained. Thus the best possible sound reproduction is accomplished! This dramatic model gives long, long years of dependable service! White or Beige.

'COLORAMIC' IN-CEILING LOW-LEVEL SOUND BAFFLE — MODEL CR80-P

New and different! The 60% greater opening in the grille affords the best possible sound reproduction. May be sprayed or painted with any good Latex paint. Its beautiful sound qualities equal the beauty of its outward appearance. White or Beige.



'COLORAMIC' ON-WALL BASS REFLEX BAFFLE— MODEL EHF 80-P
Unique speaker-mounting facilities accommodate a 6", 7" or 8" speaker. Special bracket included permits mounting baffle directly to single or two-gang electrical outlets. Made of HT-88 High Impact Styrene.

*Research & Development by Monsanto Chemical Co., Inc.

SPECIFICATIONS

MODEL ADS80-P—
Ceiling Baffle
DIMENSIONS: 10" x 10"
WEIGHT: 5½ oz.
COLOR: White or Beige
Mounts to P875X Speaker Box.
MODEL L35-P—
Inter-Com Baffle
DIMENSIONS: 7" x 4½"
WEIGHT: 1¾ oz.
COLOR: White or Beige
Mounts to durable speaker box. Model P22X.
MODEL CR80-P—
Ceiling Baffle
DIMENSIONS: 10" x 10"
WEIGHT: 5½ oz.
COLOR: White or Beige
Mounts to P875X Speaker Box.
MODEL EHF80-P—
Wall Baffle
DIMENSIONS: 13" w. x 11½" h. x 6¼" d.
COLOR: Beige

HEARD EVERYWHERE
Lowell MANUFACTURING COMPANY

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MURDOCK HEADPHONES

MODEL #88 VERSATILE — NEW LANGUAGE LABORATORY HEADSET and MICROPHONE

Headband: Lightweight, flexible stainless steel bands are covered with long wearing vinyl plastic. Brass guides permit easy adjustment on both vertical and horizontal planes for adaptability and comfort.

Receivers: Flat response magnetic receivers type M67 Microphone side features multiple terminal construction.

Microphone: Adjustable, button type carbon unit. Cord: 3 conductor tinsel cord with protective wear resistant vinyl jacket 5′ long with standard 3 conductor phone plug.

Also available: Model #98 Microphone has ceramic unit with built-in pre-amplifier.

LIST $42.00

NEW FONETIC HEADSET

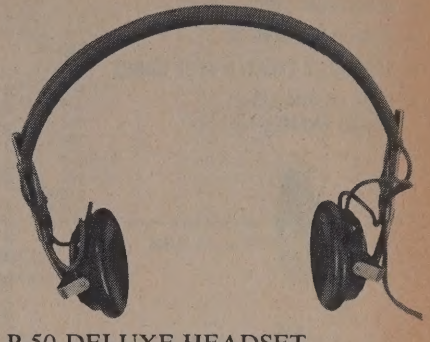
The new Fonetic is ideal for language laboratory use. Long life, adaptability and ease of use PLUS unique receiver styling feature this Murdock exclusive. Note how receiver design permits use of a cord difficult to damage, yet easy to repair. Also, headset can be supplied in series or in parallel without adding or splicing wires. Connections are made inside the multiple terminal receiver.

Headband: Double strand sturdy HB7 type. Adjustable, long wearing for maximum use.

Cord: 5′ length, plastic covered tinsel cords with standard molded-on phone plug.

Cushions: Type MC-162-A in black is standard.

LIST $18.00



P-50 DELUXE HEADSET

A language laboratory headset with ruggedness and durability PLUS fidelity designed to give long dependable service.

Headband: All metal parts are of lightweight stainless steel, covered in black or grey vinyl plastic for comfort and ease in cleaning. Newly designed guide and plate for ease of adjustment.

Receiver: Lightweight, rugged magnetic units — Type C-57. Ideal for all types of voice communication. Frequency response is flat throughout entire voice range. FAA approved.

Cord: 5′ lightweight plastic covered tinsel cord with durable molded plug. Phones are connected within the headband making a single cord to the telephone jack.

LIST $18.00

MODEL #121 HEADSET

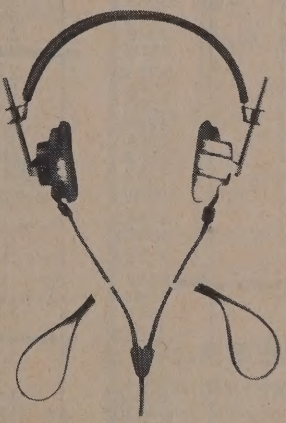
Headband: Double stainless steel bands with protective vinyl cover. Special clamping device secures cord to guides. Adjustable.

Receiver: "Solid-Built" type with new magnetic structure. Complete unit molded of best quality Bakelite. Standard impedance 300 ohms. Receivers connected in series, giving headset impedance of 600 ohms.

Cord: Molded cord and plug assembly, with single cord from headset to standard jack.

Cushions: Comfortable rubber cushions Type MC-162-A, standard.

Colors: Headset #121 available black or gray for cushions, cord, plug and protective covering. **LIST $16.00**



MODEL #122 HEADSET

Headband: Double stainless steel bands ¼″ wide covered with long wearing plastic. Steel rod and yoke assembly.

Receiver: Type 131, completely molded, clamped diaphragm type. Ideal for code communication. Standard impedance 10,000 ohms per headset.

Cord: 6′ Y type plastic covered tinsel cord with molded plug and strain reliefs attached.

LIST $15.00

OPERATORS HEADSET

Headband: Lightweight double steel flexible wire. Adjustable rod and yoke assembly may be locked in desired position.

Receiver: Compact flat response magnetic type.

Microphone: Multi-position stainless steel boom with carbon microphone unit.

Cord and Plug: Standard cord is 3 conductor vinyl coated tinsel with 3 conductor right angle plug. Also available with 4 conductor cotton covered cord and WE 289B plug.

LIST $34.00

P-33 Approved for use in all civil aircraft of United States Registry T.S.O.C.-57

Headband: HB7 with wide yokes.

Receivers: Flat response, moisture and tamper proof. Concave cap to fit the ear.

Cord: Normally supplied with a 5′ mercerized moisture and fungus proof cotton covered cord. Tinsel plug: type PJ055B.

LIST $21.00

P-23 **Headphone** — C.A.A.T.C. 1200

Headband — HB-7 Adjustable, plastic covered

Receivers — R-14

Cord — Plastic covered, 5′ tinsel, with plug. **LIST $16.00**

THE MURDOCK CORPORATION

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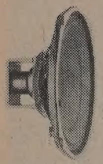
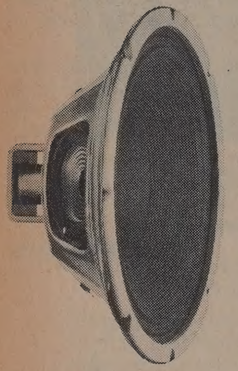
OAKTRON REPLACEMENT SPEAKERS

- ALUMINUM VOICE COILS
- ALNICO 5 MAGNETS
- SPECIALLY TREATED BLUE CONES
- BLUE LUMINESCENT BAKED ENAMEL FINISH

4″ SQUARE CUP HOUSING



5″ PIN CUSHION



12″ ROUND

4″ x 10″ OVAL CUP HOUSING

6″ x 9″ OVAL CUP HOUSING

4″ WEATHERPROOF

NOTE — Transformer Mounting Boss on all 4″, 5″ Round, 8″ and 12″ Speakers.

EIA WARRANTY APPLIES TO ALL OAKTRON SPEAKERS.

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power in Watts	Suggested Dealer Prices
2¼″ Round	23A8	.53 cup	9/16	8	1	$2.88
2¾″ Round	28A8	.53 cup	9/16	8	2	2.62
3″ Square	3A3	.53 cup	9/16	3.2	2	2.16
3″ Square	3C3	1.00	9/16	3.2	3	2.45
3½″ Square	35A3	.53 cup	9/16	3.2	2	2.16
3½″ Square	35C3	1.00	9/16	3.2	3	2.45
4″ Square	4A3	.53 cup	9/16	3.2	2	1.98
4″ Square	4B3	.68	9/16	3.2	2	2.31
4″ Square	4C3	1.00	9/16	3.2	3	2.43
4″ Square	4D3	1.47	9/16	3.2	3	2.79
5″ Pin Cushion	5A3	.53 cup	9/16	3.2	2	2.11
5″ Pin Cushion	5B3	.68	9/16	3.2	2	2.34
5″ Pin Cushion	5C3	1.00	9/16	3.2	3	2.52
5″ Pin Cushion	5D3	1.47	9/16	3.2	3	2.88
5″ Round	R5A3	.53 cup	9/16	3.2	2	2.11
5″ Round	R5B3	.68	9/16	3.2	2	2.34
5″ Round	R5D3	1.47	9/16	3.2	3	2.88
5¼″ Pin Cushion	53B3	.68	9/16	3.2	2	2.46
5¼″ Pin Cushion	53C3	1.00	9/16	3.2	3	2.64
6″ Pin Cushion	6B3	.68	9/16	3.2	3	2.70
6″ Pin Cushion	6C3C	1.00 cup	3/4	3.2	5	2.82
6″ Pin Cushion	6D3	1.47	9/16	3.2	5	3.21
6″ Pin Cushion	6E3C	2.18 cup	1	3.2	7	3.63
6″ Pin Cushion	6E8C	2.18 cup	1	8	7	3.63
8″ Pin Cushion	8C3C	1.00 cup	3/4	3.2	4	3.75
8″ Pin Cushion	8D3	1.47	9/16	3.2	5	4.15
8″ Pin Cushion	8E3C	2.18 cup	1	3.2	6	4.74
8″ Pin Cushion	8F3	3.16	3/4	3.2	8	5.28
8″ Pin Cushion	8H3	6.80	1	3.2	12	7.50
8″ Pin Cushion	8E8	2.15	3/4	8	6	4.74
8″ Pin Cushion	8E8C	2.18 cup	1	8	7	4.74
8″ Round Flat	8E8CF	2.18 cup	1	8	7	4.74
8″ Pin Cushion	8F8	3.16	3/4	8	8	5.28
8″ Pin Cushion	8G8	4.64	1	8	10	6.90
8″ Pin Cushion	8H8	6.80	1	8	12	7.50
8″ Round	8HA8	6.80	1	8	12	7.90
8″ Round	8K8	10.10	1-1/4	8	20	10.96
10″ Round	10D3	1.47	3/4	3.2	5	5.79
10″ Round	10F3	3.16	3/4	3.2	8	6.69
10″ Round	10H3	6.80	1	3.2	12	9.42
10″ Round	10F8	3.16	3/4	8	8	6.69
10″ Round	10H8	6.80	1	8	12	9.42
12″ Round	12E3C	2.18 cup	1	3.2	7	7.02
12″ Round	12F3	3.16	3/4	3.2	8	7.62
12″ Round	12H3	6.80	1	3.2	12	10.31
12″ Round	12E8C	2.18 cup	1	8	7	7.02
12″ Round	12F8	3.16	3/4	8	8	7.62
12″ Round	12H8	6.80	1	8	12	10.31
12″ Round	12K8	10.10	1-1/4	8	20	13.62
15″ Round	15H8	6.80	1	8	14	14.58
3″ x 5″	135A3	.53 cup	9/16	3.2	2	2.34
3″ x 5″	135C3	1.00	9/16	3.2	3	2.64
2½″ x 10″	210D3	1.47	9/16	3.2	5	4.91
4″ x 6″	46A3	.53 cup	9/16	3.2	2	2.46
4″ x 6″	46B3	.68	9/16	3.2	3	2.67
4″ x 6″	46C3	1.00	9/16	3.2	4	2.85
4″ x 8″	48E3C	2.18 cup	1	3.2	5	4.37
4″ x 10″	410E3C	2.18 cup	1	3.2	6	4.61
5″ x 7″	57A3	.53 cup	9/16	3.2	2	2.70
5″ x 7″	57C3C	1.00 cup	3/4	3.2	5	3.30
5″ x 7″ Flat	57C3CF	1.00 cup	3/4	3.2	5	3.30
5″ x 7″	57D3	1.47	9/16	3.2	5	3.66
5″ x 7″	57E3C	2.18 cup	1	3.2	7	4.05
5″ x 7″	57F3X	3.16	1	3.2	8	5.18
6″ x 9″	69A3	.53 cup	9/16	3.2	2	3.15
6″ x 9″	69C3C	1.00 cup	3/4	3.2	5	3.69
6″ x 9″	69D3	1.47	9/16	3.2	5	4.09
6″ x 9″	69E3C	2.18 cup	1	3.2	7	4.61
6″ x 9″ Flat	69E3CF	2.18 cup	1	3.2	7	4.61
6″ x 9″	69H3	6.80	1	3.2	10	7.68

MULTI-IMPEDANCE SPEAKERS 10-20-40 OHM

Oaktron's new "three in one" multi-impedance series

- Specially developed heavy voice coil winding for maximum power handling.
- Dual solderless terminal strip arrangement for simplified hook up.
- Complete wiring diagram accompanies each speaker.

4″ x 10″	410EMC	2.18 cup	1	10-20-40	6	$5.20
5″ x 7″	57EMC	2.18 cup	1	10-20-40	7	4.68
6″ x 9″ Flat	69EMCF	2.18 cup	1	10-20-40	7	5.20

WEATHERPROOF SPEAKERS

Specially Impregnated Cones, Gaskets and Dust Caps — Soldered Construction

3½″ Square	35D8M	1.47	9/16	8	3	$3.18
4″ Square	4D8M	1.47	9/16	8	3	3.18
5″ Round	R5D8M	1.47	9/16	8	3	3.21
8″ Pin Cushion	8F8M	3.16	3/4	8	8	5.52
6″ x 9″ Flat	69E3CFM	2.18 cup	1	3.2	6	4.85

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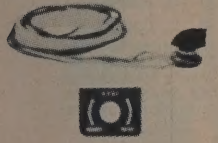
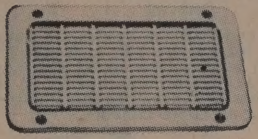
REAR SEAT SPEAKER KITS
and Accessories

Featuring Oaktron's cup type housing speakers for greater low end response and power handling characteristics.





6" x 9" CUP

TWIN CONE

Model	Speaker	Grille	Control	Magnet Size	Sugg. Dealer Price
RK57	5 x 7	Gray	3 Pos. Switch	1.0 oz. cup	$4.75
RK57C	5 x 7	Chrome	3 Pos. Switch	1.0 oz. cup	5.06
RK57F	5 x 7	Gray	Fader	1.0 oz. cup	5.06
RK57CF	5 x 7	Chrome	Fader	1.0 oz. cup	5.37
AK69	6 x 9	Gray	3 Pos. Switch	.53 oz. cup	4.76
AK69C	6 x 9	Chrome	3 Pos. Switch	.53 oz. cup	5.06
AK69F	6 x 9	Gray	Fader	.53 oz. cup	5.06
AK69CF	6 x 9	Chrome	Fader	.53 oz. cup	5.37
RK69	6 x 9	Gray	3 Pos. Switch	1.0 oz. cup	5.40
RK69C	6 x 9	Chrome	3 Pos. Switch	1.0 oz. cup	5.60
RK69F	6 x 9	Gray	Fader	1.0 oz. cup	5.60
RK69CF	6 x 9	Chrome	Fader	1.0 oz. cup	5.90
WK69	6 x 9 Twin Cone	Gray	3 Pos. Switch	2.18 oz. cup	6.12
WK69C	6 x 9	Chrome	3 Pos. Switch	2.18 oz. cup	6.39
WK69F	6 x 9	Gray	Fader	2.18 oz. cup	6.39
WK69CF	6 x 9	Chrome	Fader	2.18 oz. cup	6.65

ACCESSORIES

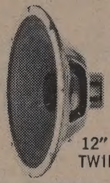
	Sugg. DLR Price
Fader Control with Presoldered wire and hardware	$1.53
Switch Control with Presoldered wire and hardware	1.26
Chrome Grill with hardware	1.35
Grey Grill with hardware	1.08

NOTE—Kits can be supplied with other Oaktron speakers. Please request quotation from factory.

TWIN CONE SPEAKERS

Matched dual cones for true high fidelity sound reproduction.

6" x 9" TWIN CONE



12" ROUND TWIN CONE

Size and Shape	Part Number	Magnet Weight Ounces	VOICE COIL		Power in Watts	Sugg. Dealer Price
			Dia. Inches	Impedance (Ohms)		
8" Pin Cushion	8E8WC	2.18 cup	1	8	6	$5.13
8" Pin Cushion	8F8W	3.16	3/4	8	8	5.66
8" Pin Cushion	8H8W	6.80	1	8	12	7.80
12" Round	12F8WX	3.16	1	8	10	8.69
12" Round	12H8W	6.80	1	8	12	10.89
5" x 7"	57E8W	2.15	9/16	8	6	4.44
6" x 9"	69E8WC	2.18 cup	1	8	6	4.95
6" x 9"	69H8W	6.80	1	8	10	8.27

INTERCOM SPEAKERS

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL		Power In Watts	Sugg. Dealer Price
			Dia. Inches	Impedance (Ohms)		
3½" Square	35A45	.53 cup	9/16	45	2	$2.40
4" Square	4A45	.53 cup	9/16	45	2	2.40
4" Square	4D45	1.47	9/16	45	3	3.03
5" Pin Cushion	5D45	1.47	9/16	45	3	3.09
8" Pin Cushion	8F45	3.16	3/4	45	8	5.52

TWEETER SPEAKERS

These speakers are true compression type, using totally enclosed baskets and molded curvilinear cones for maximum high frequency radiation, 8 ohm aluminum voice coils and Alnico 5 magnets—Blue luminescent enamel finish.

Size and Shape	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
3" Square	3C8T	8 Ohms	1.00 oz.	9/16"	4	3000-16,000	$2.61
3½" Square	35D8T		1.47 oz.	9/16"	5	3000-16,000	3.00
4" Square	4D8T		1.47 oz.	9/16"	5	3000-15,000	3.00
5" Round	5D8T		1.47 oz.	9/16"	5	2000-15,000	3.09
4" x 6"	46D8T		1.48 oz.	9/16"	6	2000-17,000	3.24

SYSTEMS

Matched Trio for Multi-Speaker Application

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
12 6x9 4x6 Harness with Crossover	ST-124	8 Ohms	12" Woofer 6.80 oz. 6"x9" Mid Range 3.16 oz. 4"x6" Tweeter 1.47 oz.	1" 3/4" 9/16"	12	35-15,000	$16.50

HIGH FIDELITY SPEAKERS

ALL OAKTRON HI-FIDELITY SPEAKERS ARE ENCLOSED IN A PLASTIC COVERING AND INDIVIDUALLY BOXED TO INSURE MAXIMUM PROTECTION.

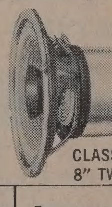
COAXIAL SPEAKERS

12" COAXIAL

Oaktron's coaxial type speakers are superbly engineered to produce a flat response over a wide range of frequencies. These speakers are finished in a glossy royal blue luminescent enamel and feature a unique cross over network, solid basket compression type tweeters, specially treated aluminum voice coils and Alnico 5 magnets. These features combined with Oaktron's superior workmanship offer the finest in coaxial speakers.

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
8	CA-8	8 Ohms	8" Woofer 3.16 oz. 3" Tweeter .53 oz.	3/4" 9/16"	8	60-14,000	$7.70
8	CA8-HD	8 Ohms	8" Woofer 6.80 oz. 3" Tweeter .53 oz.	1" 9/16"	12	50-14,000	9.10
12	CA-12	8 Ohms	12" Woofer 6.80 oz. 3" Tweeter 1.00 oz.	1" 9/16"	12	35-14,000	11.70
15	CA-15	8 Ohms	15" Woofer 6.80 oz. 5" Tweeter 1.00 oz.	1" 9/16"	14	30-13,000	15.60
6x9	CA-69	8 Ohms	6"x9" Woofer 2.15 oz. 3" Tweeter .53 oz.	3/4" 9/16"	6	70-14,000	6.54
6x9	CA-69-3	3.2 Ohms	6"x9" Woofer 2.15 oz. 3" Tweeter .53 oz.	3/4" 9/16"	6	70-14,000	6.54
6x9	CA-69-HD	8 Ohms	6"x9" Woofer 6.80 oz. 3" Tweeter .53 oz.	1" 9/16"	10	60-14,000	9.10

CLASSIC SERIES



CLASSIC SERIES
8" TWIN CONE

Oaktron's new twin cone series featuring:

- Perfectly matched dual cones
- 10 ounce Alnico 5 magnets
- 1¼ inch aluminum voice coils

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
8	FE8KW Free Edge	Ohms	10.10 oz.	1¼	20	30-14,000	$11.80
12	12K8W	Ohms	10.10 oz.	1¼	20	25-13,000	13.90

FREE EDGE CONE SUSPENSION

8" FREE EDGE TWIN CONE

SAME GENERAL APPEARANCE AS COAXIAL SPEAKERS

Excellent woofer characteristics combined with a perfectly matched twin cone to complete a truly exceptional full range high fidelity speaker.

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
6x9	FE69WC Twin Cone	8 Ohms	2.18 oz.	1"	8	40-15,000	$6.85
8	FE-8	8 Ohms	6.80 oz.	1"	12	35- 6,500	7.95
8	FE-8W Twin Cone	8 Ohms	6.80 oz.	1"	12	40-16,000	8.70

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PUBLIC ADDRESS SPEAKERS

MODEL 8HA8
8″ ROUND
ALNISPHERE

MODEL
8H8
8″ PIN
CUSHION

Oaktron's public address speakers feature:

- Specially treated aluminum voice coils— will not warp under varying humidity conditions.
- Alnico 5 magnets.
- Transformer mounting emboss or bracket on speaker basket.

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power In Watts	Sugg. Dealer Price
6″ Pin Cushion	6E8C	2.18 cup	1	8	7	$ 3.63
8″ Pin Cushion	8E8	2.15	3/4	8	6	4.74
8″ Pin Cushion	8E8C	2.18 cup	1	8	7	4.74
8″ Round—Flat	8E8CF	2.18 cup	1	8	7	4.74
8″ Pin Cushion	8F8	3.16	3/4	8	8	5.28
8″ Pin Cushion	8G8	4.64	1	8	10	6.90
8″ Pin Cushion	8H8	6.80	1	8	12	7.50
8″ Round	8HA8	6.80	1	8	12	7.90
8″ Round	8K8	10.10	1-1/4	8	20	10.96
10″ Round	10F8	3.16	3/4	8	8	6.69
10″ Round	10H8	6.80	1	8	12	9.42
12″ Round	12E8C	2.18 cup	1	8	7	7.02
12″ Round	12F8	3.16	3/4	8	8	7.62
12″ Round	12H8	6.80	1	8	12	10.31
12″ Round	12K8	10.10	1-1/4	8	20	13.62

ECONOMY WALL BAFFLES

Oaktron's ECONOMY Baffles combine unique design with the optimum in sound quality. Constructed of tempered presdwood these baffles possess extreme strength under all conditions of humidity and dryness. Attractively finished in neutral birch white they can be easily painted to match any decor. Speaker and baffle mounting hardware included.

Speaker Size	Model	Finish	Material	DIMENSIONS A	B	C	D	Sugg. Dealer Price
8″	WB8-BW	Birch White	Tempered Presdwood	6¼″	10⅜″	9½″	3½″	$3.25

DELUXE WALL BAFFLES

4″&5″	WB4-5-B	Blonde	Cabinet Hardwood	4½″	6¼″	6½″	2½″	$3.25
4″&5″	WB4-5-W	Walnut	Cabinet Hardwood	4½″	6¼″	6½″	2½″	3.25
6″	WB6-B	Blonde	Cabinet Hardwood	4⅝″	8″	9⅜″	2⅝″	4.10
6″	WB6-W	Walnut	Cabinet Hardwood	4⅝″	8″	9⅜″	2⅝″	4.10
8″	WB8-B	Blonde	Cabinet Hardwood	6¼″	10⅜″	9½″	3½″	4.45
8″	WB8-W	Walnut	Cabinet Hardwood	6¼″	10⅜″	9½″	3½″	4.45
12″	WB12-B	Blonde	Cabinet Hardwood	9⅛″	14⅛″	13¾″	5⅜″	5.80
12″	WB12-W	Walnut	Cabinet Hardwood	9⅛″	14⅛″	13¾″	5⅜″	5.80

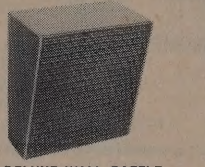
CUSTOM WALL BAFFLES

8″	CWB8-B	Blonde	Cabinet Hardwood	6″	9⅜″	12″	4¼″	$5.35
8″	CWB8-W	Walnut	Cabinet Hardwood	6″	9⅜″	12″	4¼″	5.35
12″	CWB12-W	Blonde	Cabinet Hardwood	9″	14″	16″	5¼″	7.40
12″	CWB12-W	Walnut	Cabinet Hardwood	9″	14″	16″	5¼″	7.40

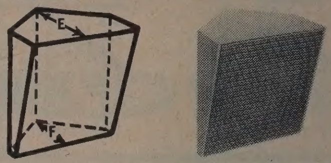
DELUXE "KORNER" BAFFLES

Speaker Size	Model	Furniture Finish	Material	DIMENSIONS A	B	C	D	E	F	Sugg. Dealer Price
8″	KB8-B	Blonde	Cabinet Hardwood	4″	10⅜″	9½″	1″	8¼″	5⅛″	$7.40
8″	KB8-W	Walnut	Cabinet Hardwood	4″	10⅜″	9½″	1″	8¼″	5⅛″	7.40
12″	KB12-B	Blonde	Cabinet Hardwood	5⅜″	14″	13½″	1¾″	11¾″	8⅛″	10.15
12″	KB12-W	Walnut	Cabinet Hardwood	5⅜″	14″	13½″	1¾″	11¾″	8⅛″	10.15

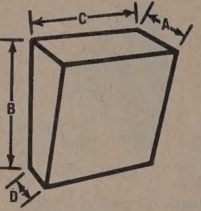
Oaktron's DELUXE and CUSTOM Baffles are smartly designed to compliment any decor. Rugged one half inch cabinet hardwood construction assures longer service even under the most severe conditions. Beautifully finished in a natural blonde or walnut these baffles represent the ultimate in appearance and sound reproduction. Speaker and baffle mounting hardware included.

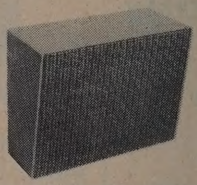


DELUXE WALL BAFFLE



DELUXE "KORNER" BAFFLE



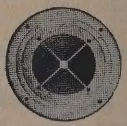


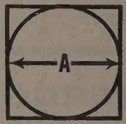
CUSTOM
WALL BAFFLE

REDUCER RINGS

Model	Speaker Size	Material	Sugg. Dealer Price
R12/8	Reduces 12″ to 8″	Tempered Presdwood	$1.25
R12/10	Reduces 12″ to 10″	Tempered Presdwood	1.25

CEILING BAFFLES



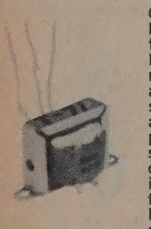


Oaktron's Ceiling Baffles possess qualities and design achieved only after years of engineering in this field. The extremely high efficiency and wide sound dispersion of these units result in superior acoustical sound reproduction. One piece construction eliminates vibration and rattle. Mount directly to the ceiling or to the convenient plaster ring. Available in satin or pebble aluminum and white baked enamel steel. Speaker mounting hardware included.

Speaker Size	Model	Finish	Shape	Material	Dimension A	Sugg. Dealer Price
8″	CR8-S	Satin	Round	Aluminum	12¾″	$3.30
8″	CR8-W	White	Round	Steel	12¾″	3.10
8″	CS8-S	Satin	Square	Aluminum	12⅛″	3.30
8″	CS8-W	White	Square	Steel	12⅛″	3.10
8″	CR8-P	Pebble	Round	Aluminum	12¾″	3.20
8″	CS8-P	Pebble	Square	Aluminum	12⅛″	3.20
12″	CR12-S	Satin	Round	Aluminum	16⅝″	5.60
12″	CR12-W	White	Round	Steel	16⅝″	4.50
			PLASTER RING			
8″	PR8	Grey	—	Steel	—	$1.90

LINE TRANSFORMERS

CONSTANT VOLTAGE: UNIVERSAL IMPEDANCE—MATCHING TYPES—Individually Boxed



CONSTANT VOLTAGE LINE TRANSFORMERS for matching speakers to 70.7V or 25V constant voltage line. This method greatly simplifies matching several speakers to an amplifier, especially when the speakers must produce different amounts of power. The most complicated matching problem can be solved by adding the power required by all speakers and comparing to the rated power of the amplifier. These transformers are of the highest quality of response and efficient use of power.

Part Number	Primary Impedance/Power	Secondary Impedance (Ohms)	Nominal Watts	Core Size	DIMENSIONS Height	Width	Depth	Mtg. Ctrs.	Shpg. Wt., Lbs.	Sugg. Dealer Price
				70.7 CONSTANT VOLTAGE LINE						
T-71	2/1/.5	8/4	....	⅜x⅜	1¼	1½	1¼	1¾	½	$1.92
T-72	5/2.5/1.25 .62/.31	8/4	....	½x⅝	1⅜	1¾	1⅜	2	¾	2.46
				25 VOLT CONSTANT VOLTAGE LINE						
T-25	2/1/.5	8/4	....	⅜x⅜	1¼	1½	1¼	1¾	½	1.92
T-26	5/2.5/1.25 .62/.31	8/4		½x⅝	1⅜	1¾	1⅜	2	¾	2.46
				UNIVERSAL IMPEDANCE						
T-501	500/1000 1500/2000	8/4	4	½x½	1⁵⁄₁₆	1¹¹⁄₁₆	1¼	2	½	1.92
T-502	500/1000 1500/2000	8/4	8	⅝x⅝	1⅝	1¹⁵⁄₁₆	1⅜	2⅜	¾	2.46

Transformers Can Be Mounted at Factory

TRANSFORMER MOUNTING BRACKET

Number	Transformer Size	Punching	Dealer Price
#1	⅜″ x ⅜″	2 holes	$ .14
#2	⅜″ x ⅜″ and ½″ x ½″	3 holes	.19
#3	½″ x ½″ and ⅝″ x ⅝″	3 holes	.24

Not for use with Cup Housings or where Transformer Mounting Boss included

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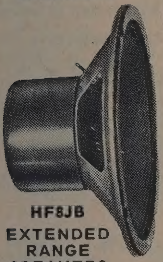
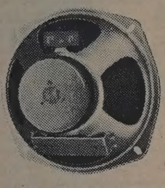
HM12K5 HIDDEN MAGNET SPEAKERS



HF8JB EXTENDED RANGE SPEAKERS



8J4S7 PUBLIC ADDRESS CERAMIC SPEAKERS

12J4S7

STANDARD REPLACEMENT SPEAKERS

Size	Model No.	Mag. Wt.	V.C. Size	V.C. Imp.	Watts
2″ Square	2AMS	.68 oz.	9/16″	3.2 ohm	1-2
2½″ x 10″ Rect.	2510CMS	1.47	9/16″	3.2	2-4
2¾″ Round	27ATS	.68	9/16″	12	.25
3″ Square	3CMS	1.47	9/16″	3.2	2-3
4″ Square	4AMS	.68	9/16″	3.2	2-3
5″ Round	5ECS	2.15	9/16″	3.2	2-4
5¼″ Pin. Cush.	52BMS	1.00	9/16″	3.2	2-4
5¼″ Square	55CMS	1.47	9/16″	3.2	2-4
6″ Pin Cush.	6BMS	1.00	9/16″	3.2	3-5
7″ Pin Cush.	7CVS	1.47	¾″	3.2	4-6
8″ Round	8FOS	3.16	¾″	3.2	4-6
10″ Round	10HBS	4.64	1″	3.2	8-10
12″ Round	12EVS	2.15	¾″	3.2	4-6
15″ Round	15JBS	6.80	1″	3.2	15
Hidden Magnets	-				
8″	HM80H4	6 oz.	1″	8	10
12″	HM12K5	12 oz.	1¼″	8	15

ELLIPTICAL SPEAKERS

We have a complete range including 2″ x 6″, 3″ x 5″, 4″ x 6″, 4″ x 8″, 2″ x 10″, 5″ x 7″, 6″ x 9″—in various magnet weights and voice coil sizes—or, can custom design an elliptical speaker for special needs.

COMPRESSION HORN TWEETER

Size	Model No.	Mag. Wt.	V.C. Size	V.C. Imp.	Watts
2″ x 6″ Rect.	CH26E16	2.15 oz.	1″	16	20
3″ x 9″ Rect.	CH39E16	2.15 oz.	1″	16	20

VOICE COIL IMPEDANCES

Oxford's various size and type speakers are available with the following voice coil impedances: 3.2, 8, 12, 16 and 45 ohms.

MAGNET WEIGHT SELECTION

.45 oz. to 20 oz. Alnico V.
2 oz. to 20 oz. Index V (Ceramic)

TRANSFORMERS

A complete line of audio output transformers is available from stock. Special transformers can be designed to your special requirements.

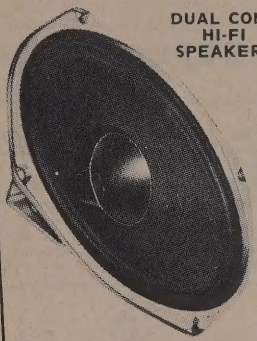
when you think of speakers.. think of

OXFORD

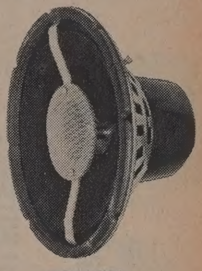
the world's most complete line of Standard Speakers for all applications

Write for literature illustrating and listing our complete line—also available catalog, dimensional data booklet, performance specifications and engineering brochure.

We invite inquiries on your special units currently in use; send us a sample of your present unit or specifications.

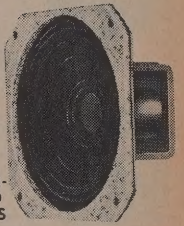


DUAL CONE HI-FI SPEAKERS



COAXIAL SPEAKERS

HORN TWEETER



WEATHER-PROOFED SPEAKERS

EXTENDED RANGE SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts	Frequency Range C.P.S.
8″ Round	HF8JB	6.8	1″	8	10	50-12,000
10″ Round	HF10JB	6.8	1″	8	10	50-10,000
12″ Round	HF12JB	6.8	1″	8	10	50-10,000
12″ Round	HF12LN	14	1½″	8	.25	40- 9,000
15″ Round	HF15LN	14	1½″	8	25	30- 7,000

FULL RANGE SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	Ohms	Watts
3″ Round	T3C208*	1.47	9/16″	8	3-5
5″ Round	T5C208*	1.47	9/16″	8	3-5
8″ Round	F8J408	6.80	1″	8	15
12″ Round	F12J408	6.80	1″	8	15
12″ Round	F12L608	14.70	1½″	8	25

*Tweeters

INTERCOM SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
3″ Square	3BM-S45	1.00	9/16″	45	2-3
4″ Square	4BM-S45	1.00	9/16″	45	2-3
5″ Round	5BM-S45	1.00	9/16″	45	2-4
8″ Round	8EV-S45	2.15	¾″	45	4-6

WEATHERPROOF SPEAKERS

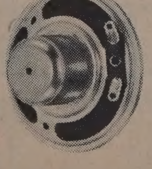
Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
3″ Square	3CMWS	1.47	9/16″	3.2	2-3
4″ Square	4AM-65	.68	9/16″	3.2	2-3
4″ Square	4CM-27	1.47	9/16″	3.2	2-3
5″ Round	5BA-3	.68	9/16″	3.2	2-4
5″ Round	5CM-51	1.47	9/16″	3.2	2-4
6″ Pin Cushion	6CMWS	1.47	9/16″	3.2	3-5

PUBLIC ADDRESS SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
8″ Round	8JBS-7	6.80	1″	6-8	6-8
10″ Round	10JBS-7	6.80	1″	6-8	8-10
12″ Round	12JBS-7	6.80	1″	6-8	8-10

CERAMIC SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
6″ P.C.	6F3S7	4 oz.	¾″	8	6-8
8″ P.C.	8F3S7	4 oz.	¾″	8	6-8
8″ P.C.	8J4S7	10 oz.	1″	8	8-12
12″ Rd.	12J4S7	10 oz.	1″	8	8-12



2″ MINIATURE TRANSISTOR, SPEAKER

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
2″ Rd.	2P42-S12	½ Oz.	½″	12	.15

OXFORD Components,
Division of OXFORD ELECTRIC CORPORATION

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QUAM *Quality Line* SPEAKERS

These speakers are engineered and manufactured solely for replacement, public address, high fidelity and outdoor applications. EIA standard dimensions. Fully dust-proofed. Baked gold enamel finish. EIA service guarantee. Only Quam speakers have the U shaped coil pot construction which provides an unbroken flux path of sufficient cross section to carry the full energy of the magnetic field.

ANY QUAM SPEAKER CAN BE SUPPLIED WITH VOICE COIL IMPEDANCES OTHER THAN THOSE LISTED FOR AN ADDITIONAL $1.00 LIST

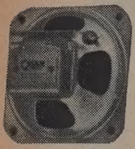

Fig. A

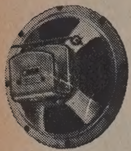

Fig. B

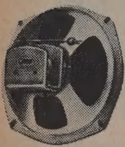

Fig. C

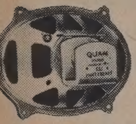

Fig. D

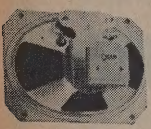

Fig. E

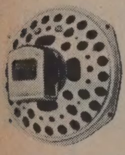

Fig. F

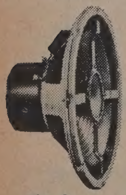

Fig. G

REPLACEMENT SPEAKERS **Voice coil impedance 3.2 ohms ± 10%**

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP WT., LBS.	DEALER NET
22A06Z8**	2¼″	J	.45 oz. Alnico V	.25	1	1/4	$ 2.85
22A06Z100**	2¼″	J	.45 oz. Alnico V	.25	1	1/4	3.15
25A05	2½″	I	.55 oz. Alnico V	1.5	1-1/8	1/4	1.89
25A07	2½″	A	.65 oz. Alnico V	1.5	1-1/4	1/4	2.40
27A06Z12**	2¾″	J	.55 oz. Alnico V	.25	1	1/4	2.82
30A05	3″	I	.55 oz. Alnico V	2	1-3/8	1/2	1.89
3A05*	3½″	I	.55 oz. Alnico V	2	1-13/32	1/4	1.89
3A07*	3½″	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.40
35A05*	3″x5″	L	.55 oz. Alnico V	2	1-21/32	1/2	2.52
4A05*	4″	I	.55 oz. Alnico V	2.5	1-1/2	1/4	1.77
4A07*	4″	A	.65 oz. Alnico V	3	1-23/32	1/2	2.58
4A07R*★	4″	B	.65 oz. Alnico V	3	1-23/32	1/2	2.58
4A1	4″	A	1.0 oz. Alnico V	3	2-3/16	3/4	2.76
4A1R★	4″	B	1.0 oz. Alnico V	3	2-3/16	3/4	2.76
4A15	4″	A	1.47 oz. Alnico V	3	2-3/16	3/4	3.03
46A07*	4″x6″	E	.65 oz. Alnico V	3.5	1-15/16	3/4	2.85
46A1	4″x6″	E	1.0 oz. Alnico V	3.5	2-1/4	1	3.06
46A15	4″x6″	E	1.47 oz. Alnico V	3.5	2-1/4	1	3.30
48A2*	4″x8″	K	1.4 oz. Alnico V	4.5	2-3/16	1	4.77
410A2*	4″ x 10″	M	1.4 oz. Alnico V	6	2-11/16	1¼	5.37
5A05*	5″	I	.55 oz. Alnico V	3	1-11/16	1/2	2.10
5A07*	5″	C	.65 oz. Alnico V	3.5	1-7/8	3/4	2.70
5A07R*★	5″	B	.65 oz. Alnico V	3.5	1-7/8	3/4	2.70
5A1	5″	C	1.0 oz. Alnico V	3.5	2-5/16	1	2.91
5A1R★	5″	B	1.0 oz. Alnico V	3.5	2-5/16	1	2.91
5A15	5″	C	1.47 oz. Alnico V	3.5	2-5/16	1	3.15
5A15R★	5″	B	1.47 oz. Alnico V	3.5	2-5/16	1	3.15
52A1	5¼″	C	1.0 oz. Alnico V	4	2-25/64	1	2.97
52A1SQ¶	5¼″	A	1.0 oz. Alnico V	4	2-25/64	1	2.97
52A21	5¼″	C	2.15 oz. Alnico V	4	2-21/32	1-1/4	3.63
52A21SQ¶	5¼″	A	2.15 oz. Alnico V	4	2-21/32	1-1/4	3.63
52C10#	5¼″	N	10.0 oz. Ceramic	10	2-1/4	2-1/8	5.97
57A1	5″x7″	D	1.0 oz. Alnico V	5	2-11/16	1	3.30
57A15	5″x7″	D	1.47 oz. Alnico V	5	2-11/16	1	3.66
57A21	5″x7″	D	2.15 oz. Alnico V	5	2-61/64	1-1/4	4.05
6A1	6½″	C	1.0 oz. Alnico V	5	2-5/8	1	3.18
6A1R★	6½″	B	1.0 oz. Alnico V	5	2-5/8	1	3.18
6A15	6½″	C	1.47 oz. Alnico V	5	2-5/8	1	3.45
6A15R★	6½″	B	1.47 oz. Alnico V	5	2-5/8	1	3.45
6A21	6½″	C	2.15 oz. Alnico V	5	2-7/8	1-1/4	3.87
6A31	6½″	C	3.16 oz. Alnico V	6	3-11/64	1-3/4	4.56
69A1*	6″x9″	D	1.2 oz. Alnico V	6	2-3/4	1-1/4	3.60
69A1S*	6″x9″	D	1.2 oz. Alnico V	6	2-1/8	1	5.10
69A2*	6″x9″	D	1.4 oz. Alnico V	8	2-15/16	1-1/2	4.50
69A2Z20CT†	6″x9″	D	1.4 oz. Alnico V	8	2-15/16	1-1/2	5.04
69A3	6″x9″	D	3.2 oz. Alnico V	10	3-5/16	2	5.52
7A21*	7″	F	1.4 oz. Alnico V	6	2-31/32	1	4.35
7A31	7″	F	3.2 oz. Alnico V	9	3-1/32	2	5.25
8A1	8″	C	1 oz. Alnico V	6	3-1/2	1	3.57
8A21	8″	C	2.15 oz. Alnico V	7	3-13/32	1-1/2	4.65
8A31	8″	C	3.16 oz. Alnico V	9	3-21/32	2	5.40
10A31	10″	B	3.16 oz. Alnico V	9	4-1/2	2-3/4	6.90
10A4A	10″	B	4.64 oz. Alnico V	10	4-1/2	3-3/4	7.77
10A6A	10″	B	6.8 oz. Alnico V	12	4-5/8	3-1/2	8.70
12A31	12″	B	3.16 oz. Alnico V	10	4-19/32	3-3/4	7.17
12A4A	12″	B	4.64 oz. Alnico V	12	5-1/8	3-3/4	8.55
12A6A	12″	B	6.8 oz. Alnico V	14	5-1/4	4-1/2	9.57

* Very shallow unit. ★ Round basket. ¶ Square basket. **Impedance of 22A06Z8 is 8 ohms, 22A06Z100 is 100 ohms, 27A06Z12 is 12 ohms.
# Ceramic magnet. • Dual cone. † 20 ohms, center tapped

QUAM *Quality Line* SPEAKERS

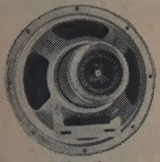

Fig. H

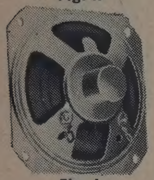

Fig. I

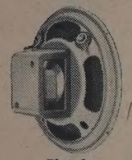

Fig. J

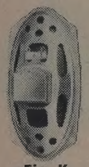

Fig. K

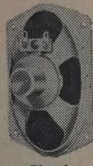

Fig. L

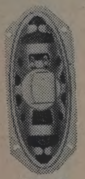

Fig. M

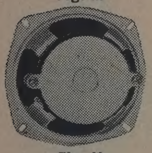

Fig. N

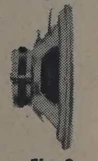

Fig. O

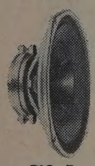

FIG. P

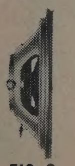

FIG. Q

ELECTRO DYNAMIC SPEAKERS

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP. WT., LBS.	DEALER NET
4E45	4"	A	450 Ohms	3	2	1	3.75
4E62	4"	A	55-65 Ohms	3	2-5/16	1	3.75
5E45	5"	C	450 Ohms	3.5	2-1/8	1	3.90
6E90	6½"	C	85-95 Ohms	5	2-23/32	1-1/2	4.50

OUTDOOR SPEAKERS

Voice coil impedance 3.2 ohms ±10%

These long-life speakers have the improved Humi-Gard Cone which utilizes a Mylar plastic film to provide maximum resistance to moisture and dirt and sand abrasion, yet does not interfere with response characteristics. Air gap surfaces cadmium plated and enameled. Quantity quotations on request.

All Quam speakers are available weather-proofed for an additional 70c list. When ordering weather-proofed speakers use part numbers appearing in this catalog and add suffix "OT" to part number. (Humi-Gard Cone available only on 3½", 4" 5", and 6½" speakers.)

3A07 OT*	3½"	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.40
4A1 OT	4"	A	1.0 oz. Alnico V	3	2-3/16	3/4	2.79
5A15 OT	5"	C	1.47 oz. Alnico V	3.5	2-5/16	1	3.21
6A15 OT	6½"	C	1.47 oz. Alnico V	5	2-5/8	1	3.60

PUBLIC ADDRESS SPEAKERS

Voice coil impedance 8 ohms ± 10%

8A1PA	8"	C	1 oz. Alnico V	8	3-1/2	1-1/4	$3.57
★8A21PA	8"	C	2.15 oz. Alnico V	10	3-9/16	2	4.92
★8A31PA	8"	C	3.16 oz. Alnico V	10	3-9/16	2	5.70
8A4PA	8"	B	4.64 oz. Alnico V	12	3-3/4	2-3/4	6.60
8A6PA	8"	B	6.8 oz. Alnico V	12	3-7/8	3-1/4	7.80
8C6PA	8"	O	6.0 oz. Ceramic	12	3	2-1/2	6.00
8C10PA	8"	O	10.0 oz. Ceramic	12	3-1/8	3	7.17
10A31PA	10"	B	3.16 oz. Alnico V	12	4-13/32	2-3/4	6.90
10A4PA	10"	B	4.64 oz. Alnico V	14	4-1/2	3-1/4	7.77
10A6PA	10"	B	6.8 oz. Alnico V	14	4-5/8	3-1/2	8.70
10A10PA	10"	B	10 oz. Alnico V	20	4-21/64	3-3/4	10.80
12A31PA	12"	B	3.16 oz. Alnico V	12	5	3-1/4	7.17
12A4PA	12"	B	4.64 oz. Alnico V	15	5-1/8	3-3/4	8.55
12A6PA	12"	B	6.8 oz. Alnico V	15	5-1/4	4	9.57
12A10PA	12"	B	10 oz. Alnico V	25	4-15/16	4	11.97
12C10PA	12"	O	10.0 oz. Ceramic	15	4-3/8	4	9.57

BACKGROUND MUSIC SPEAKERS

Voice coil impedance 8 ohms

MODEL NUMBER	SIZE	FIGURE	FREQUENCY RESPONSE (CPS)	MAGNET WEIGHT	POWER HANDLING WATTS	DEPTH	SHPG. WEIGHT POUNDS	DEALER NET
8C6PAX#•	8"	P	50-20000	6.0 oz.	12	3"	2	6.57
8C10PAX#	8"	P	50-20000	10.0 oz.	15	3-1/8"	2-1/2	7.77
8C6PAS#	8"	Q	50-6000	6.0 oz.	10	2-1/8"	2-1/4	6.00
12C6PAS#•	12"	Q	40-12000	6.0 oz.	15	3-1/2"	2-3/4	8.97
12C10PAX#•	12"	P	50-15000	10.0 oz.	15	4-3/8"	4	10.17

INTERCOM SPEAKERS

Voice coil impedance 45 ohms ±10%

3A07Z45*	3½"	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.55
4A07Z45*	4"	A	.65 oz. Alnico V	3.0	1-23/32	1/2	2.73
4A1Z45	4"	A	1.0 oz. Alnico V	3.0	2-3/16	3/4	2.91
5A07Z45*	5"	C	.65 oz. Alnico V	3.5	1-7/8	3/4	2.85
5A1Z45	5"	C	1.0 oz. Alnico V	3.5	2-5/16	1	3.06

HIGH FIDELITY SPEAKERS

MODEL No.	SIZE	FIGURE	SPEAKER TYPE	FREQUENCY RESPONSE CPS	Pwr Hndlg Watts	V.C. Impedance	Shippg Wt. Lbs.	DEALER NET
15A10CO	15"	G	Coaxial, 2000cps. Xover	25-15,000	20	8	8	31.50
12A6CO	12"	G	Coaxial, 2000cps. Xover	50-15,000	14	8	6-1/2	20.70
8A4CO	8"	G	Coaxial, 2000cps. Xover	50-15,000	10	8	2-3/4	13.77
12A10X	12"	H	Extended range dual cone	50-15,000	15	8	4-3/4	15.60
10A10X	10"	H	Extended range dual cone	50-15,000	12	8	4-1/8	14.40
8A10X	8"	H	Extended range	50-12,000	10	8	3-1/4	12.00
69C6X	6"x9"	D	Extended Range dual cone	50-15,000	12	8	2-1/2	8.37
6A21X	6½"	C	Extended Range dual cone	75-15,000	5	8	1-1/2	5.37
15A10L	15"	H	Low frequency woofer	30-5,000	10	8	7	21.00
12A10L	12"	H	Low frequency woofer	40-5,000	10	8	4-3/4	15.60
5A15T	5"	A	High frequency tweeter	2,000-15,000	10	14	1	3.40
3A15T	3½"	B	High frequency tweeter	2,000-15,000	10	14	3/4	3.45
CO2-50			Crossover Unit for use with 5A15T&3A15T				1/2	1.20

REAR SEAT AUTO SPEAKER KITS

These kits contain everything required for the installation of the speaker. They include a dash-mounting fader control, cable, flocked screen grill, baffle plate, all necessary hardware and complete installation instructions.

---

†Chrome plated grill.

▲Sponge rubber baffle plate gasket

MODEL NUMBER	SIZE	FIELD OR MAGNET WEIGHT	POWER HANDLING WATTS	VOICE-COIL IMPEDANCE (OHMS)	SHPG. WEIGHT POUNDS	DEALER NET
AS-1	6-1/2"	1.47 oz.	5	3.2	2	5.97
AS-1Z10	6-1/2"	1.47 oz.	5	10	2	5.97
AS-2▲	6" x 9"	2.15 oz.	9	3.2	3-1/2	8.37
AS-2Z10▲	6" x 9"	2.15 oz.	9	10	3-1/2	8.37
AS-2C†▲	6" x 9"	2.15 oz.	9	3.2	3-1/2	9.09
AS-3	5" x 7"	1.47 oz.	5	3.2	2-1/4	7.17
AS-4	6" x 9"	1.2 oz.	6	3.2	1-3/4	4.50
AS-4Z10	6" x 9"	1.2 oz.	6	10	1-3/4	4.50

AUTOMOTIVE SPEAKERS

MODEL NUMBER	SIZE	FIGURE	MAGNET WEIGHT	POWER HANDLING WATTS	DEPTH	VOICE-COIL IMPEDANCE OHMS	SHIPPING WEIGHT POUNDS	DEALER NET
410A2Z10	4" x 10"	M	1.4 oz.	6	2-11/16"	8-12	1¼	5.67
410A2Z20CT*	4" x 10"	M	1.4 oz.	6	2-11/16"	18-22	1¼	5.97
410A2Z40CT*	4" x 10"	M	1.4 oz.	6	2-11/16"	35-45	1¼	5.97
46A1Z10	4" x 6"	E	1.0 oz.	3.5	2-1/4	8-12	1	3.27
48A2Z20CT*	4" x 8"	K	1.4 oz.	4.5	2-3/16"	18-22	1	5.37
57A1Z10	5" x 7"	D	1.0 oz.	5	2-11/16"	8-12	1	3.57
57A1Z20CT*	5" x 7"	D	1.0 oz.	5	2-11/16"	18-22	1	3.90
57A1Z40	5" x 7"	D	1.0 oz.	5	2-11/16"	35-45	1	3.57
6A21Z10	6-1/2"	C	2.15 oz.	5	2-7/8"	8-12	1¼	4.17
69A2Z10	6" x 9"	D	1.4 oz.	8	2-15/16"	8-12	1½	4.77
69A2Z20CT*	6" x 9"	D	1.4 oz.	8	2-15/16"	18-22	1½	5.04
69A2Z40CT*	6" x 9"	D	1.4 oz.	8	2-15/16"	35-45	1½	5.04

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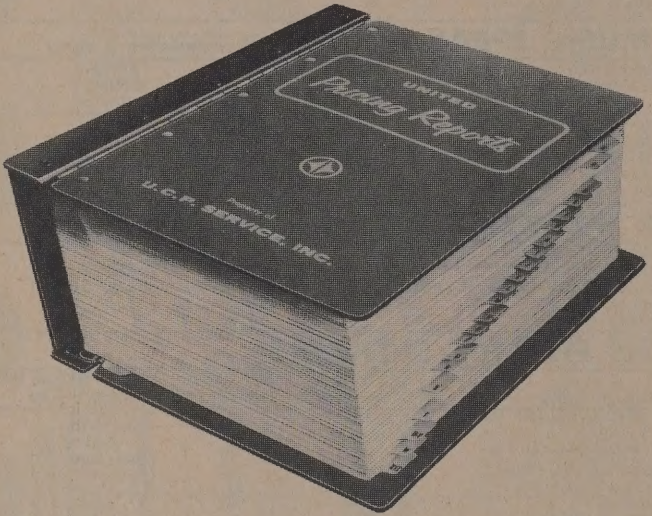

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POLYDIRECTIONAL RIBBON MICROPHONE—77DX

The standard quality microphone of the broadcast industry, the RCA Type 77-DX, is available in two models; one with a low-gloss finish for TV, the other a satin chrome and gray enamel finish for AM and FM. The 77-DX offers a choice of unidirectional, bidirectional, or nondirectional pickup patterns which are easily changed by a selector switch. Three frequency response variations on the basic pickup patterns may also be obtained, thus a total of nine different directional characteristics may be utilized. The 50 to 15,000 cycle frequency response of the 77-DX makes it suitable for every high fidelity broadcasting and recording application. The low-hum pickup level (−128 dbm) makes the 77-DX useful in high-hum areas. Output impedance is factory connected for 250 ohms; however, it may be easily reconnected for a 30 to 150 ohm output impedance. The effective output levels are −50 dbm in the bi-directional pattern, −53 dbm and −56 dbm in the uni- and non-directional patterns (EIA ratings, −144 db, −147 db and −150 db respectively.

This microphone mounts on a standard ½-inch pipe thread which can be adapted to ⅝-inch-27 thread. The 77-DX is supplied with a protective cloth zippered bag, and 30 feet of three conductor shielded cable, less plug. Overall dimensions are 11½ inches long, 3¾ inches wide and 2¼ inches deep.

77-DX Satin Chrome Finish (MA-2311) **$206.00***

77-DX Low Luster Gray Finish (MA-2312) **$197.00***

BI-DIRECTIONAL RIBBON MICROPHONE—BK-11A

All the advantages of the famous 44-BX microphone have been combined with the latest developments in ribbon microphone design to produce the new BK-11A general purpose microphone. In the studio or at indoor remotes, whether a simple interview program or full orchestra pickup, the bidirectional characteristics and excellent frequency response (30 to 15,000 cycles) make the BK-11A an extremely useful production tool. The BK-11A has an effective output level of −56 dbm @ 1000 cycles (EIA rating, −147 db). The output can be connected for 30, 150, and 250 ohm operation. A three position switch permits selection of desired frequency ranges for voice and music.

The BK-11A has been designed for use with the inexpensive MA-2306 desk stand, and it can also be used with any standard ½-inch pipe thread desk or floor stand. Thirty feet of three conductor cable is supplied without a connector.

BK-11A (MA-2316) **$131.25***

UNIAXIAL RIBBON MICROPHONE—BK-5B

The BK-5B is a high-quality ribbon instrument designed especially for use in high noise areas, as well as being suitable for general studio purposes. The BK-5B makes an excellent control room microphone when mounted on an adjustable microphone arm. Maximum sensitivity of the BK-5B is in the major mechanical axis, and this produces an extremely directional cardiod pattern. Frequency response from 50 to 15,000 cycles permits using the BK-5B for all types of high fidelity voice and music pickups. The effective output level is −56 dbm (EIA ratings, −150 db). The output is connected for 250 ohms, but may easily be changed to 30 or 150 ohms. The low-luster umber gray finish makes it ideal for TV.

It is supplied wih thirty feet of three conductor cable, less connector. A wind-screen is available for outdoor use. The BK-5B is supported by a fork mounting which has a ⅛-inch straight pipe thread.

BK-5B (MA-2314) **$146.50***

DIRECT PRESSURE LAVALIER MICROPHONE—BK-6B

The BK-6B is a lightweight microphone with excellent speech balance, ideal for remotes, interviews, and other applications where an inconspicuous microphone is needed. The 2.3 ounce unit is 2$\frac{9}{16}$ by 1$\frac{5}{16}$-inches, and its effective output level is −67 dbm (EIA ratings, −158 db). Wide range frequency response (80-12,000 cps) permits using the microphone for all speech applications. The 250 ohm output impedance may be changed to 30 or 150 ohms by a simple change of cable connections. Hum pickup is very low (−112 dbm).

The small size and lanyard mounting make the BK-6B extremely versatile. Thirty feet of three conductor cable is supplied, less connector.

BK-6B with lanyard and fastener (MA-2315)....**$86.00***

BI-DIRECTIONAL RIBBON MICROPHONE SK-46B

The SK-46B is designed for high quality indoor use. It has excellent frequency response and bidirectional pickup characteristics. Output impedance is 200 ohms, but it may be reconnected to produce a 15,000 ohm output. Effective output level is −58 dbm at 250 ohms (EIA rating, −150 db) or −60 dbm at 15,000 ohms. Dependable performance as well as attractive styling make the SK-46B an ideal choice for applications requiring an economical high quality microphone. The SK-46B has a ⅝-inch—27 mounting thread and is supplied with 25 feet of two conductor cable (less connector).

SK-46B (MA-2319) **$49.00***

NON-DIRECTIONAL PRESSURE MICROPHONE—BK-1A

Ideal for outdoor use or wherever constant handling is required the BK-1A offers smooth response for both voice and music. The BK-1A is also an excellent unit for sports, panel shows, interviews, and remotes. The pressure actuated microphone provides uniform response from 60 to 10,000 cycles. The swivel mounting of the BK-1A can be used to control directional characteristics. The vertical position is nondirectional the horizontal position is semidirectional. The output impedance is 250 ohms, but 30 and 150 ohm connections are included. Effective output level of the BK-1A is −52 dbm (EIA ratings, −148 db) while hum pickup is below −102 dbm.

The BK-1A may be mounted on any type stand having ½-inch pipe thread and is perfect for use with the MA-2306 desk stand. Thirty feet of three conductor cable is supplied, less connector.

BK-1A (MA-2313) **$73.50***

NON-DIRECTIONAL PRESSURE MICROPHONE—SK-45B

Ideal for talk-back, cue, and public address use, the rugged lightweight SK-45B microphone offers good voice reproduction. This dynamic microphone is essentially nondirectional with a −56 db output level (EIA rating, −147 db) when connected for a 150 to 200 ohm balanced output, and −58 db when specially connected for a 15,000 ohm output. Response from 70 to 12,000 cycles makes it excellent for announce work. Mounting with any ⅝-inch—27 fixture thread permits the use of low cost stands. Finish is low gloss gray, and the SK-45B is supplied with 25 feet of cable less connector.

SK-45B (MA-2318) **$45.00***

NON-DIRECTIONAL PRESSURE MICROPHONE—SK-39A

Cue and talk-back applications are perfect for this inexpensive dynamic microphone. The SK-39A is rugged and relatively insensitive to mechanical shock and wind. Its plastic diaphragm makes it impervious to moisture and rain. Output level is −55dbm (EIA rating, −150 db). The SK-39A may be used with amplifiers having a 250 ohm input. The umber gray unit may be mounted on any ⅝ inch—27 fixiutre thread. The 15-ounce microphone is supplied with 25 feet of two conductor cable (less connector).

SK-39A (MA-2317) **$23.40***

STANDS AND ACCESSORIES

Windscreen—**MA-2325**—For use with BK-5B microphone **$16.50**

Boom Mount—**MA-2324**—Special shock mounting which isolates BK-5B microphone from vibration **$36.50***

Holder—**MA-2307**—⅝″—27 female thread. For use with BK-6B microphone. ....**$ 3.35***

Adaptor—**MA-2308**—⅝″—27 female fitting—½″ male pipe thread. Use to adapt a ⅝″—27 microphone to a ½″ pipe thread stand. ....**$ .50***

Adaptor—**MA-2309**—½″ female pipe thread, ⅝″—27 male fitting. Use to adapt a ½″ microphone to a ⅝″—27 stand. ....**$ .90***

Desk Stand—**MA-2306**—½″ pipe fit—male 4⅜″ dia., 1⅜″ h. Dull gray finish. For use with BK-1A and BK-11A microphones. ....**$ 7.75***

Desk Stand—**MA-2305**—½″ pipe fit—male 4½″ wide, 6⅝″ long, ¾″ high or 1¾″ (incl. Stem). Crinkle and chrome finish, 4 lbs. For use with 77-DX and BK-5B Microphones, (MA-2311, 2312, 2314) **$16.75***

Desk Stand—**MA-2301**—⅝″—27 male thread, 7″ to 11″ chrome tube, 8″ dia. Crinkle base. About 2½ lbs. **$ 5.20***

Banquet Stand—**MA-2302**—⅝″—27 male thread, 13″ to 25″ chrome tube, 8″ dia. Crinkle base. About 6 lbs. **$ 5.85***

Floor Stand—**MA-2303**—⅝″—27 male thread, ⅞″ dia. 35″ to 65″ chrome tube. 12″ dia. Crinkle base. **$ 9.00***

Floor Stand (Deluxe)—**MA-2304**—⅝″—27 male thread, 1⅛″ dia. 37″ to 66″ chrome tube. Triangular 17″ dia. Crinkle base **$16.50***

**User Price (Optional)*

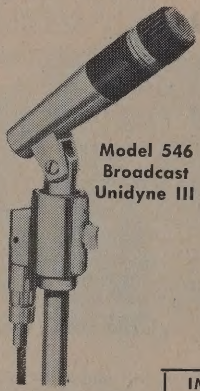
SHURE

FAMOUS UNIDYNE MICROPHONES

Model "545"
Unidyne III

Model 545S
Unidyne III

Model 544
Gooseneck
Unidyne III



Model 546
Broadcast
Unidyne III

UNIDYNE III SERIES

THE ONLY CARDIOID MICROPHONES WITH PICKUP SYMMETRICAL ABOUT AXIS AT ALL FREQUENCIES . . . IN ALL PLANES

The world's finest moderately priced dynamic cardioid microphone for public-address system use. The Unidyne III approaches the theoretical ideal of the cardioid pickup pattern. This means completely uniform pickup about the axis at all frequencies — in all planes. Remarkably faithful reproduction of the human voice makes the Unidyne III a superior choice for public-address applications. Low frequency characteristics of the Unidyne III eliminate boominess, and make it a favorite for pickup of drums and bass instruments. Striking black and satin chrome finish in compact modern design makes the Unidyne III a stylish addition to any platform. Model 545 is suitable for handheld and/or stand use with Model A25 Swivel Adapter included. Model 545S is mounted on lifetime swivel and includes on-off switch. Model 544 is furnished with cable attached and is designed for gooseneck mountings. 544-G6 includes 6" gooseneck; 544-G12 includes 12" gooseneck; 544-G18 includes 18" gooseneck. Available in matched pairs for stereo recording at no additional cost. (Matched to plus or minus 1 db in level and 1½ db in frequency response.)

TYPE: Dynamic. FREQUENCY RESPONSE: 50-15,000 cps. POLAR PATTERN: Cardioid (Uniform with frequency, symmetrical about axis). MAGNETIC CIRCUIT: uses Alnico V magnet. CASE: Die cast zinc and "Armo-Dur". FINISH: Satin chrome and black. CABLE CONNECTOR: Equivalent to Amphenol MC4M plug. CABLE: 18 ft., 3 conductor shielded. STAND THREAD: ⅝" — 27 thread. DIMENSIONS: Length — 5⁷⁄₁₆", Diam. — 1¹⁵⁄₆₄". NET WEIGHT: 6/10 lb., Shipping Weight 2⅞ lbs. FURNISHED ACCESORIES: A25 type swivel adapter. OPTIONAL ACCESSORIES: A86A cable type transformer, S33B desk stands.

IMPEDANCE TABLE	OUTPUT LEVEL
L-50-250 ohms	—57 db (0 db = 1 milliwatt per 10 microbars) .141 millivolts/microbar
H-High	—55 db (0 db = 1 volt per microbar); 1.760 millivolts/microbar

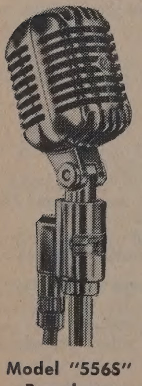
MODEL	LIST PRICE
545	$ 85.00
545S	$ 89.95
544	$ 80.00
544-G6	$ 83.00
544-G12	$ 83.75
544-G18	$ 85.00

BROADCAST UNIDYNE III

MODEL 546. Ultra compact, unidirectional, distinctive design, weights only 1 lb.! Recommended for critical broadcast and theater-stage sound system operation and highest quality public address and recording applications. Truly uniform cardioid pick-up pattern, symmetrical about axis. Special live-rubber vibration-isolating shock mount. Improved self-adjusting lifetime swivel permits tilting of head 180°. Cannon XL-3-11 connector. 20 ft. 2-conductor shielded broadcast type cable. Head only 1¹⁵⁄₆₄" diam., 5⁷⁄₁₆" long. 50-15,000 cps frequency response.

IMPEDANCE TABLE	OUTPUT LEVEL	MODEL	LIST PRICE
L — 50 Ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .079 millivolts/microbar	546	$135.00
H — 150 Ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .176 millivolts/microbar		

Model "55S"
Unidyne



Model "556S"
Broadcast

UNIDYNE II SERIES

The Unidynes are the largest selling microphones throughout the world — used consistently by famed celebrities for those important events where the faithfulness of sound reproduction is critical. A sturdy construction provides immunity of the moving-coil system to abnormal atmospheric conditions and severe mechanical shock. Model 55S is highly recommended for fine quality public address, theater-stage sound systems, recording and remote broadcasting, and low-gain tape recording. It is also the field-proved standard for fixed station use in the police, fire, transportation, forestry and commercial services. Smooth frequency response from 50 to 15,000 cps. Furnished with an 18-foot cable and plug assembly. Model 55SW is same as Model 55S except it has On-Off switch.

Model 556S is specially constructed and tested to meet the requirements of the broadcast and television studio, and is held within close tolerances in frequency response and directivity. It is a moving-coil type microphone with a frequency range of 40 to 15,000 cps, production uniformity guaranteed to plus or minus 2½ db. As a further precaution against mechanical vibration pickup, the 556S is provided with an additional isolation unit, of live rubber construction in combination with the stand connector and a built-in high quality cable connector. Furnished with a 20-foot, high quality, shielded, 2-conductor cable with Cannon plug attached. Both the 55S and the 556S feature the world-renowned patented "Uniphase" network system. All units include multi-impedance switch for selection of High, Medium or Low Impedance.

IMPEDANCE TABLE	OUTPUT LEVEL
L-35-50 ohms	—54 db (0 db = 1 milliwatt per 10 microbars); .063 millivolts/microbar
M-150-250 ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .125 millivolts/microbar
H-High	—57 db (0 db = 1 volt per microbar); 1.410 millivolts/microbar

MODEL	LIST PRICE
556S	$135.00
55S	$ 83.00
55SW	$ 85.00

See Section 1340 for additional Shure Products.

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SHURE

NEW ¾" DIAM. PROBE MICROPHONES

¾" DIAMETER...40% SMALLER DIAM....60% SMALLER AREA

...than popular omnidirectional dynamic microphones

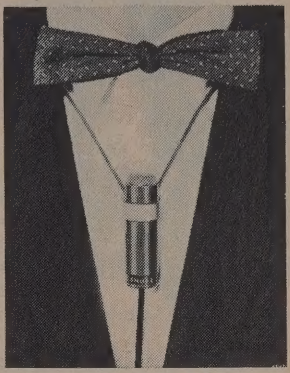
MODEL 570 LAVALIER MICROPHONE (¾" DIAMETER)

Miniature size Professional Quality dynamic microphone designed for lavalier use in television, for lectures, etc. Features special "shaped" response for superior lavalier performance. Reduces pickup of clothing and cable noise. Can be used on stand with Model A57S Swivel Adapter. Designed for inconspicuous use with "Flex-Grip" lavalier assembly — the most versatile available. "Flex-Grip" design holds microphone firmly, yet permits easy and quick removal. Lavalier clip opens right or left or can be removed. Lightweight, flexible 30 ft. microphone cable attached. Non-reflecting gray metal case with stainless steel grille.

SPECIFICATIONS — ELEMENT TYPE: Dynamic. FREQUENCY RESPONSE: 50-12,000 cps, shaped for optimum lavalier performance, with rising response to 6,000 cps. DIAPHRAGM: Shure Duracoustic. POLAR PATTERN: Omnidirectional. MAGNETIC CIRCUIT: Uses Alnico V Magnet. CASE FINISH: Non-reflecting gray. CABLE: 30′ two-conductor shielded. DIMENSIONS: ¾" diameter, 2½" overall length. NET WEIGHT: 2 ounces (less cable). FURNISHED ACCESSORIES: Model A57L "Flex-Grip" lavalier cord, and belt clip for cable. OPTIONAL ACCESSORIES: Model A57S Swivel Adapter, Model A86A Transformer.

IMPEDANCE TABLE	OUTPUT LEVEL
150 Ohms — to match all low impedance inputs; 50 to 250 Ohms.	— 50 db (0 db = 1 Milliwatt per 10 microbars); .095 millivolts/microbar

MODEL	LIST PRICE
570	$95.00



570 LAVALIER

FINEST PERFORMING DYNAMIC LAVALIER MICROPHONE — REGARDLESS OF PRICE!

MODEL 578 NEW OMNIDYNE ULTRA SLIM (¾" DIAMETER) PROBE

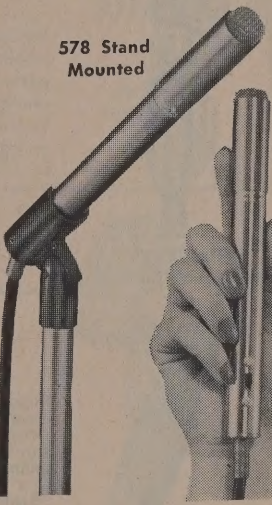
An outstanding new public address microphone combining striking modern ultra-slim (¾" diameter) design with exceptional performance, proved in severe field testing. Inconspicuous because of slender shape. Smooth, natural response from 50 to 17,000 cps. Built-in wire mesh "pop" filter reduces breath noises. Extremely rugged construction makes the Omnidyne an excellent choice for quality P.A. use indoors and outdoors. Satin chrome steel case provides magnetic shielding as well as good looks. Model 578 has exceptional "feel" and "balance" making it ideal for hand-held use. Dual impedance. Complete with "On-Off" switch and special slip-in swivel stand adapter. Locking switch plate is included to lock switch in "On" position. Available in Matched Pairs for Stereo Recording (Matched to plus or minus 1 db in level and 1½ db in frequency response).

SPECIFICATIONS — TYPE: Dynamic. FREQUENCY RESPONSE: 50-17,000 cps. DIAPHRAGM: Shure Duracoustic. POLAR PATTERN: Omnidirectional. MAGNETIC CIRCUIT: Uses Alnico V Magnet. CASE FINISH: Satin chrome. SWIVEL ADAPTER: Furnished with swivel adapter having ⅝"-27 thread. CABLE: 18′ — three-conductor shielded. SWITCH: Supplied with "On-Off" switch and optional cover plate. DIMENSIONS: ¾" diameter. 7⅜" overall length. NET WEIGHT: 7 ounces (less cable). OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick-Disconnect Isolation Unit.

IMPEDANCE TABLE	OUTPUT LEVEL
200 Ohms	—60 db (0 db = 1 Milliwatt per 10 microbars); .100 millivolts/microbar
High	—59 db (0 db = 1 Milliwatt per microbar); 1.11 millivolts/microbar

MODEL	LIST PRICE
578	$82.50

578 Stand Mounted



578 Hand Held

MODEL 576 STUDIO QUALITY ¾" OMNIDIRECTIONAL DYNAMIC MICROPHONE

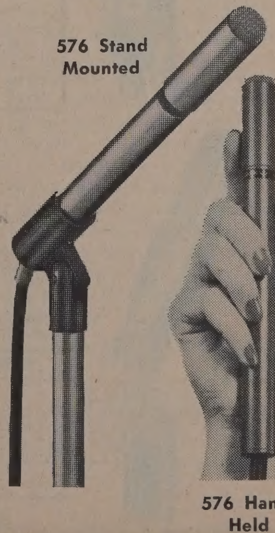
A new, superb, dynamic probe microphone designed for television and radio broadcasting and super-critical public address applications. Proved superior for ruggedness and performance under typical broadcasting conditions in advance field tests. Strikingly modern in ultra-slim ¾-inch diameter that provides maximum view of performers for on-camera use. Features smooth, natural, wide-range response for authentic pickup of voice or music. Dual impedance, 50 and 150 ohms: change simply by moving pin jacks inside case. Comes complete with Model A57S slip-in swivel adapter that permits tilting the microphone 90° from vertical to horizontal. The 576 is an ideal hand-held microphone because of its unique "feel" and "balance" in the hand. Rugged steel case provides effective magnetic shielding as well as good looks. Finished in non-reflecting gray with stainless steel grille. Available in matched pairs for stereo, broadcasting and recording. (Matched to plus or minus 1 db in level and 1½ db in frequency response.)

SPECIFICATIONS — ELEMENT TYPE: Dynamic. FREQUENCY RESPONSE: 40-20,000 cps. POLAR PATTERN: Omnidirectional. DIAPHRAGM: Shure Duracoustic. CASE FINISH: Non-reflecting gray. SWIVEL ADAPTER: Furnished with Model A57S Swivel Adapter having ⅝" - 27 thread. CABLE: 25′ three-conductor shielded broadcast cable. DIMENSIONS: ¾" diameter, 5⅜" overall length. NET WEIGHT: 7 ounces (less cable). OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick Disconnect Isolation Unit.

IMPEDANCE TABLE	OUTPUT LEVEL
50 Ohms	—60 db (0 db = 1 Milliwatt per 10 microbars); .050 millivolts/microbar
150 Ohms	—60 db (0 db = 1 Milliwatt per 10 microbars); .095 millivolts/microbar

MODEL	LIST PRICE
576	$175.00

576 Stand Mounted



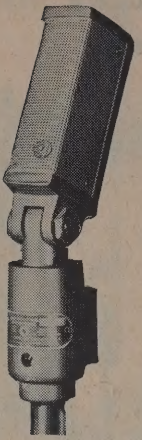
576 Hand Held

SHURE

RIBBON MICROPHONES

The characteristically wide-range response of the ribbon element has made it the most widely used type of microphone for broadcasting and professional recording. Shure engineers have designed remarkable ruggedness* into Shure ribbon microphones, making them an excellent choice for any indoor application where highest quality response is required.

*Shure ribbon microphones actually have been used "to pound nails" and subjected to severe drop tests — without affecting the performance characteristics.



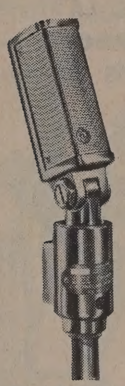
Model "333"
Studio Uni-Ron

STUDIO UNI-DIRECTIONAL RIBBON MICROPHONE

This small, ultra-cardioid "333" is highly recommended for motion-picture studios, TV studios, radio stations, professional recording, and all other uses where quality requirements are of the highest. The "333" is ultra-cardioid, uni-directional — greatly reduces the pickup of random noise energy to solve feedback problems. Following are the features that make the "333" Studio so outstanding in performance, so dependable in operation: (1) patented, world-famous "Uniphase" system; (2) a true ultra-cardioid pickup pattern; (3) ribbon transducer provides extended smooth response, production uniformity guaranteed to plus or minus 2½ db, 30-15,000 cps; (4) multi-impedance switch; (5) voice-music switch; (6) anti-"Pff" filter screen; (7) Shure self-adjusting "lifetime" swivel; (8) high output; (9) sturdy, one-piece metal case; (10) vibration-isolation unit mounted in live rubber; (11) Cannon XL connector. Head dimensions: Width, 1⅛"; height, 3⁹⁄₁₆"; depth, 1¾".

IMPEDANCE TABLE	OUTPUT LEVEL
L — 50 Ohms	−60 db (0 db = 1 Milliwatt per 10 microbars); .049 millivolts/microbar
M — 150 Ohms	−59 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/microbar
H — 250 Ohms	−59 db (0 db = 1 Milliwatt per 10 microbar); .111 millivolts/microbar

MODEL	LIST PRICE
"333"	$250.00



Model "330"
"Professional Uni-Ron"

P.A. UNI-DIRECTIONAL RIBBON MICROPHONE

Designed to meet the exacting requirements of professional tape recording and highest quality indoor public-address systems where highest quality is essential, yet cost is a factor. Supercardioid pickup pattern. 30 to 15,000 cps. The Professional "Uni-Ron" is equipped with multi-impedance (50, 150 and 250 ohms) switch, life-time swivel, vibration-isolation shock mount, Cannon XL-3-11 cable connector, 20 ft. 2-conductor shielded broadcast-type cable. Satin-chrome finish with natural anodized aluminum grille.

IMPEDANCE TABLE	OUTPUT LEVEL
L — 50 Ohms	−59 db (0 db = 1 Milliwatt per 10 microbars); .049 millivolts/microbar
M — 150 Ohms	−57 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/ microbar
H — 250 Ohms	−58 db (0 db = 1 Milliwatt per 10 microbars); .111 millivolts/microbar

MODEL	LIST PRICE
"330"	$120.00

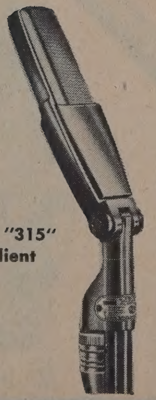
Model "300"
Studio
Gradient

STUDIO BI-DIRECTIONAL GRADIENT MICROPHONE

Rugged, high fidelity, multi-impedance microphone is widely used for television, radio broadcasting, professional recording and high-fidelity uses. The "300" reduces reverberation and the pickup of random noise by 66%. Combines the best features of conventional velocity microphones with advance acoustic design — including an anti-"PFF" filter screen. Its bi-directional polar pattern is effective over a broad frequency range. Provides sound pickup at the front and rear of the microphone, but greatly reduces pickup at the sides. Can be placed at a much greater distance from the performer than is possible with omni-directional microphones! Non-reflecting "Baked Bronze" finish. Readily accessible Voice-Music switch, vibration-isolation unit mounted in live rubber, and a multi-impedance switch, providing low, medium and high impedance. Extended response, production uniformity guaranteed to plus or minus 2½ db, 40-15,000 cps. Furnished with a 20-foot two-conductor, rubber-covered, shielded cable with Cannon XL-3-11 connector attached.

IMPEDANCE TABLE	OUTPUT LEVEL
L — 30- 50 Ohms	−60 db (0 db = 1 Milliwatt per 10 microbars); .044 millivolts/microbar
M — 150-250 Ohms	−59 db (0 db = 1 Milliwatt per 10 microbars); .100 millivolts/microbar
H — High	−57 db (0 db = 1 volt per microbar); 1.410 millivolts/microbar

MODEL	LIST PRICE
"300"	$150.00



Model "315"
Gradient

P.A. BI-DIRECTIONAL GRADIENT MICROPHONE

Features frequency response of 50 to 12,000 cps — will reproduce voice and music in a clear, natural tonal quality in auditoriums, night clubs, schools and churches. Provides unusual freedom of motion on the platform. Bi-directional "Fig. 8" pickup pattern extends over a broad frequency range — permits the sound system to be operated at a level almost 6 db higher than is possible with non-directional (omni-directional) microphones! Greatly reduces reverberation and the pickup of random noises to control feedback. It is "PFF"-proof — filters out the "PFF"-type noises often heard over conventional microphones. Dimensions: 6" x 1⁷⁄₁₆" wide x 1³⁄₃₂" deep. Furnished with 18-foot, high quality, two conductor, shielded cable with the equivalent of the Amphenol 91-MC3M plug. Model "315S" is same as model "315" but has On-Off switch.

IMPEDANCE TABLE	OUTPUT LEVEL
L — 35- 50 Ohms	−59.5 db (0 db = 1 Milliwatt per 10 microbars); .044 millivolts/microbar
M — 150-250 Ohms	−60 db (0 db = 1 Milliwatt per 10 microbars); .100 millivolts/microbar
H — High	−57 db (0 db = 1 volt per microbar); 1.410 millivolts/microbar

MODEL	LIST PRICE
"315"	$89.50
"315S"	$91.50

See Section 1340 for additional Shure Products. Trade Discount Applies to List Prices Only

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SHURE P. A. SYSTEM MICROPHONES

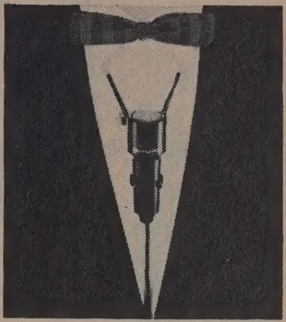
MODEL 560 DYNAMIC LAVALIER

Model 560 Dual Impedance, Dynamic Microphone with "tailored" response specifically designed for lavalier use. A truly excellent general purpose lavalier microphone at a very practical price. Compact and lightweight. Modern black satin all-metal case with stainless steel grille meets virtually every lavalier application, with quick change from High to Low impedance by simply moving pin jacks. New design clip-grip lavalier assembly holds microphone securely to wearer. Lightweight 18 foot attached cable permits maximum freedom of movement.

SPECIFICATIONS — FREQUENCY RESPONSE: Specially adapted to give optimum performance for lavalier use. DIAPHRAGM: Shure Duracoustic. CABLE: Non-detachable 18 ft., two-conductor shielded. CASE: Non-reflecting, black satin finished all-metal case with stainless steel grille. DIMENSIONS: 3 29/32" long by 1⅓" diameter. NET WEIGHT: 5 ounces; packaged weight: 13 ounces.

IMPEDANCE TABLE	OUTPUT LEVEL
150-250 Ohms	—55.5 db (0 db = 1 Milliwatt per 10 microbars); .149 millivolt/microbar
High	—56.5 db (0 db = 1 volt per microbar); 1.33 millivolt/microbar

MODEL	LIST PRICE
560	$42.50


560 Lavalier

MODEL 561 DYNAMIC GOOSENECK

Compact, high quality, tamper-proof dynamic microphone with attached cable and standard ⅝"-27 thread for direct mounting on flexible gooseneck or fixed pipe to conceal and protect cable. Extremely rugged, dynamic cartridge (Model R50) easily replaced in field. Excellent voice response for language lab systems, paging applications, base-station communications and talk-back and cuing from professional control-room installations. Low impedance permits unusually long cable lengths to be used without affecting response or level.
Patent Pending

SPECIFICATIONS — FREQUENCY RESPONSE: 40 to 10,000 cps. Rising characteristic to 4500 cps. DIAPHRAGM: Shure Duracoustic. CABLE: Non-detachable 4 ft., two-conductor shielded. STAND THREAD: ⅝"-27. CASE: Black and chrome satin finished all-metal case with stainless steel grille. DIMENSIONS: 2 41/64" long by 1 23/64" diameter. NET WEIGHT: 5 ounces; packaged weight: 9 ounces.

IMPEDANCE TABLE	OUTPUT LEVEL
Matches 50 to 250 Ohms	—56.0 db (0 db = 1 Milliwatt per 10 microbars); 1.41 millivolts/microbar

MODEL	LIST PRICE
561	$32.50

NEW!

561 Dynamic Gooseneck

SONODYNE II

MODEL 540S. A compact, modernistic microphone with high output dynamic element at moderate cost. The "Sonodyne II" features **adjustable frequency response** which allows the user to tailor the microphone to the application — One of the most versatile microphones on the market! High output Dynamic element Omni-Directional pick-up pattern. Frequency response: 60 to 10,000 cps with provisions for alternate response for voice intelligibility in paging and communications systems. Reliable on-off switch. Model 540 also available wthout switch. Improved positive action lifetime swivel permits tilting head 150°. 15 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M connector.

IMPEDANCE TABLE	OUTPUT LEVEL
L—50-250 Ohm	—56.5 db (0 db = 1 Milliwatt per microbar); .141 millivolts/microbar
H—High	—55 db (0 db = 1 volt per microbar); 1.76 millivolts/microbar

LIST PRICE	
Model 540S (with switch)	$49.95
Model 540 (without switch)	$47.95

SONODYNE

MODEL 51. The "Sonodyne" is ideal for all general purposes, including public address, wire and tape recording, and similar applications. Ideal high-quality, moderately- priced replacement for the conventional microphone supplied with tape recorders. The wide range frequency response is 60 to 10,000 cps. This rugged microphone is one of the pressure type, with conventional semi-directional characteristics, and it may be used for close-talking without undue low frequency emphasis. Multi-impedance — for low, medium and high impedance. Has built-in receptacle and a 15-foot, two-conductor shielded cable with microphone plug attached. Satin chrome finish. Model 51S is same as Model 51 except it has on-off switch.

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 Ohms	—52.0 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/microbar
M—150-250 Ohms	—52.5 db (0 db = 1 Milliwatt per 10 microbars); .238 millivolts/microbar
H—High	—49.5 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar

MODEL	LIST PRICE
51	$49.50
51S	$51.50

MONOPLEX

The only Super-Cardioid Crystal Microphone made — far superior to conventional Crystal Microphones! Excellent for high-quality public address, communications, recording, and similar applications. The 737A operates under adverse conditions of background noise and reverberation — where a conventional microphone would be practically useless! Excellent solution for feedback problems! Moisture-proof "Metal Seal" crystal for long operating life. Case pivots at rear, can be pointed toward desired sound or upwards for horizontal plane pickup. Has 15 ft. shielded cable. Rich satin chrome finish. High impedance.

MODEL	OUTPUT	LIST PRICE
737A	—53 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar	$46.00

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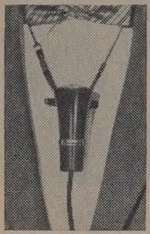
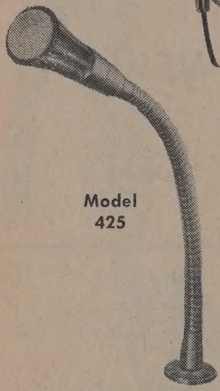
SHURE PUBLIC ADDRESS MICROPHONES

THE COMMANDO SERIES

Model 415


Model 420

Model 430


Model 425

The Commando Series represents a significant achievement in providing quality performance at nominal cost — incorporating Shure's rugged, patented Controlled Magnetic cartridge in a dramatic-looking versatile series of microphones. Suitable for indoor or outdoor use, these microphones feature high output, smooth response, extreme ruggedness and ability to withstand severe moisture and temperature conditions. Model 420 is specially designed for lavalier use and it, as well as the Model 430, features adjustment for high or low impedance by simple pin-jack changing method. Model 430 includes an "On-Off" switch as well as detachable cable. Both Models 415 and 430 are furnished with Shure Model A25 Swivel Stand Adapter for Stand-mounted use. Model 425 is specially designed for gooseneck mounting but can also be utilized as stand-mounted units with A25B Swivel Adapter.

SPECIFICATIONS FOR "COMMANDO" MODELS 415, 420, 425 and 430

USER NET PRICE: Model 415 - $27.50; Model 420 - $30.00; Model 425 - $30.00; Model 430 - $38.50

TYPE: Controlled Magnetic

FREQUENCY RESPONSE: 60 to 10,000 cps

IMPEDANCE: Model 415 — High. Model 420-425-430 — Equipped with readily changeable pin-jacks (no soldering required) furnishing a choice of two impedances: H—High and L—150 to 250

OUTPUT LEVEL: High — 52 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar. Low —52 db (0 db = 1 milliwatt per 10 microbars); .225 millivolts/microbar

POLAR PATTERN: Omnidirectional

CASE: Model 415 — Impact-resistant polystyrene and die-case zinc. Model 420 — Impact-resistant polystyrene. Model 425 — Impact-resistant polystyrene and brass. Model 430 — Impact-resistant polystyrene and die-cast zinc.

FINISH: Model 415 — Non-reflecting gray and satin chrome. Model 420 — Non-reflecting gray. Model 425-430 — Non-reflecting gray and satin chrome.

CABLE: Model 415 — 7 ft. non-detachable single-conductor shielded. Model 420 — 20 ft. non-detachable two-conductor shielded. Model 425 — 7 ft. non-detachable two-conductor shielded. Model 430 — 15 ft. two-conductor shielded with Amphenol MC2M connector for attaching to microphone.

SWITCH: Models 415-420-425 — None. Model 430 — Press-to-talk switch — normally closed.

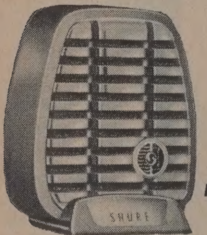
DIMENSIONS: Model 415 — Length 6 13/16''. Diameter of head 1¾''. Diameter of handle 13/16''. Model 420 — Length 3 11/16''. Diameter 1¾''. Model 425 — Length 3 11/16''. Diameter 1¾''. Model 430 — Length 6 37/64''. Diameter of head 1¾''. Diameter of handle 13/16''.

NET WEIGHT: Model 415 — ½ lb. Models 420-425 — ¼ lb. Model 430 — ⅜ lb. (Less cable)

PACKAGED WEIGHT: Model 415 — 1⅜ lbs. Models 420-425 — ¾ lb. Model 430 — 2⅛ lbs.

FURNISHED ACCESSORIES: Model 415 — Model A25B Swivel Adapter. Models 420 — Lavalier Cord and clip assembly. Readily detachable for use of microphone as a hand-held type. Model 430 — Switch locking plate for keeping switch in "On" position, Model A25B Swivel Adapter.

OPTIONAL ACCESSORIES: Model 415 — Model S38B or S33B Desk Stand. A34L Lavalier Assembly. Models 420-425 — Model A86A Cable Type Transformer. Model 430 — Model A86A Cable Type Transformer and Model S38B or S33B Desk Stand. A34L Lavalier Assembly.



THE "REX"

Models 710A and 710S

A natural for "Hams" and low-cost public address system. A rugged unit designed for high speech intelligibility. Broad "tip-proof" table top base, with floor stand adapter. Die cast case. Frequency response 60 to 9,000 cps. 5 ft. shielded cable. Burgundy-red metallic finish. Only 2⅔" wide, 3¼" high, 1⅛" thick. High impedance.

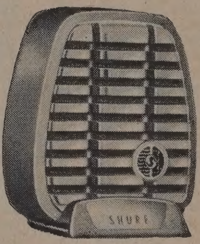
MODEL	OUTPUT	LIST PRICE
710A	—50 db (0 db = 1 volt per microbar); 3.150 millivolts/ microbar	$12.00
710S (with switch)	—50 db (0 db = 1 volt per microbar); 3.150 millivolts/ microbar	$14.00

Model 707A

MODEL 707A

Ideal for low-cost P.A. systems, amateur phone transmitters and similar applications. Good quality at low cost. Has typical semi-directional pickup. 7 ft. shielded cable High impedance. Pearl Gray case, satin chrome finish on front grille. Diam. 2⅜". (Use with Shure Model S34B or S36A Desk Stands.)

MODEL	OUTPUT	LIST PRICE
707A	—50 db (0 db = 1 volt per microbar); 3.150 millivolts/ microbar	$19.50


Model 510C

THE "HERCULES"

The "Hercules" is a hand-held unit, ideal for general purpose use in tropical countries and in all coastal areas where heat and humidity are a problem. The "510" provides the ruggedness, clear reproduction and high output for public address, communications and recording where high speech intelligibility is vital. It is recommended for Announcing; Mobile Public Address Systems; Communications; Home Recording, and High Quality Intercommunication. The "Hercules" can be used either Indoors or Outdoors, fits snugly in the hand, sits firmly on a desk. High impedance. Frequency response 100 to 7000 cps. Furnished with 7 ft. shielded cable. Green metallic finish. Die cast case. Furnished with stand adapter. Dimensions: 2⅔" wide, 3¼" high, 1½" thick. Model 510 Series designed to be used with S34B or S36A Desk Stands.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
510C	—52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	HIGH	$17.00
510S (with switch)	—52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	HIGH	$19.00

Trade Discount Applies to List Prices Only

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SHURE

LOW COST MICROPHONES

UNIPLEX UNIDIRECTIONAL CERAMIC MICROPHONE

Even a budget sound system can have a true unidirectional microphone with the Uniplex, incorporating the same "Uniphase" system found in higher priced Shure Unidirectional microphones. Its wide useful pickup angle at the front and effective elimination of pickup at the rear provides the ideal solution to feedback problems in low cost public address systems. Good voice reproduction for home recording and paging applications. Reliable, rugged ceramic cartridge performs at temperatures from —40° to 170°F. Available in four models, all with metal, die-cast case. Lightweight and versatile, it can be used as a hand-held or stand-mounted unit in Models 245S (with switch) and 245 (without switch). Model 245G is supplied with cable attached for gooseneck mounting.

SPECIFICATIONS—TYPE: Ceramic. FREQUENCY RESPONSE: 50 to 7,000 cps. OUTPUT LEVEL: —59 db (0 db = 1 volt per microbar); 1.100 millivolts/microbar. IMPEDANCE: High. Recommended load impedance: 1 to 5 megohms. POLAR PATTERN: Cardioid (unidirectional). CASE: Die-cast zinc. CABLE AND CONNECTORS: Models 245 and 245S provided with 15′ (4.6 m) single-conductor shielded cable with a plug (equivalent of Amphenol MC1F) for attaching cable to microphone. Models 245G and 245GS: 7′ (2.1 m) single-conductor shielded cables attached to microphone. SWITCHES: Models 245S and 245GS have built-in "On-Off" switch. STAND THREAD: Models 245 and 245S provided with Model A25B swivel adapter with ⅝″-27 thread for use with S38B Desk Stand, or any convenient desk or floor stand. Models 245G and 245GS are especially designed for use with flexible goosenecks having a ⅝″-27 thread or for customized installation where a concealed cable is desired. DIMENSIONS (Microphone only): 4²³⁄₃₂″ (119.9 mm) high, 1⅛″ (28.6 mm) diameter. NET WEIGHT: (microphone only): ⅜ lb., packaged weight ¾ lb. OPTIONAL ACCESSORIES: Model S38B Microphone Stand.

245 with S38B stand

MODEL	TYPE	LIST PRICE
245	With A25B swivel-stand adapter, removable cable	$35.00
245S	Same as 245 with on-off switch	$37.00
245G	Gooseneck version with fixed cable, no adapter	$30.00
245GS	Same as 245G with on-off switch	$32.00

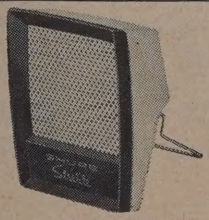
LOW COST, WIDE-RANGE "VERSADYNE" AND "VERSAPLEX" MICROPHONES

Smooth response makes these units a "best-buy" for general public address, home recording and call-system use where both performance and economy are important. High-performance dynamic cartridge is unaffected by temperature and humidity variations. Choice of high or low impedance dynamic or high impedance ceramic models each complete with switch plus stand adapter and lavalier cord. Small size and light weight, this unit is equally adaptable to hand-held, stand-mounted or lavalier use. Model 575S and 275S feature high impedance and high output, for applications where only a moderate length of cable is required. The low impedance, Model 575SB is designed for use in installations where long cable lengths are required, or for use with transistor amplifiers requiring a medium or low impedance microphone.

SPECIFICATIONS

	MODEL 575S "VERSADYNE"	MODEL 575SB "VERSADYNE"	MODEL 275S "VERSAPLEX"
LIST PRICE	$24.00	$21.00	$15.00
TYPE	DYNAMIC		CERAMIC
FREQUENCY RESPONSE	40 to 15,000 cps		40 to 12,000 cps
OUTPUT LEVEL	—59 db (0 db = 1 volt per microbar); 1.110 millivolts/microbar	—62 db (0 db = 1 Milliwatt per 10 microbars); .071 millivolts/microbar	—59.5 db (0 db = 1 volt per microbar); 1.050 millivolts/microbar
POLAR PATTERN	OMNIDIRECTIONAL		
IMPEDANCE	High: 100,000 Ohms or Higher	150-250 Ohms	High: 1 to 5 Megohms Recommended
FINISH	Black high-impact plastic body with satin anodized cap and stainless steel grille		
DIMENSIONS	4¾″ long x 1¼″ diam.		

Models 275S - 575S

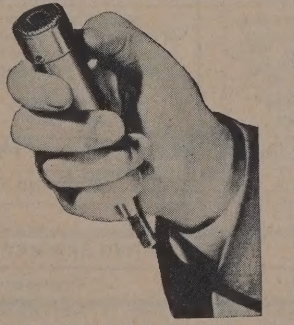

Model 215 and 715

"STARLITE"

Beautifully designed economy microphone. Excellent for voice reproduction. Extremely low price and good quality make them a "natural" for home recording, intercom systems and inexpensive P.A. systems. Can be held in the hand, or used on a desk with built-in stand. Semi-directional, high impedance; impact resistant polystyrene cases.

Model 215, a **ceramic unit**, has a response from 50-8000 cps; Model 715, a **crystal unit**, has a response range from 50-10,000 cps. Both supplied with 5 ft. fabric covered single conductor shielded cable.

MODEL	OUTPUT	LIST PRICE
215 Ceramic	—56.5 db (0 db = 1 volt per microbar); 1.480 millivolts/ microbar	$8.00
715 Crystal	—50 db (0 db = 1 volt per microbar); 3.150 millivolts/microbar	$8.00



MODEL 777 "SLIM-X"

The "777" Slim-X Microphones are rugged little microphones weighing only 6 ounces. They use a "Metal Seal" crystal for long operating life under adverse conditions of heat and humidity. Designed for good-quality voice reproduction, their versatility and "hand-ability" make them ideal for use by lecturers, announcers, instructors, and Hams; for audience participation shows; carnivals; and for use with home recorders. When mounted on either cradle or swivel the "777" can be removed in a flash. This makes it an ideal "walk-around" hand-held microphone. All models are furnished with a lavalier cord.

SPECIFICATIONS—TYPE: Crystal — moisture-proof "Metal Seal". FREQUENCY RESPONSE: Smooth from 60 to 10,000 cps. OUTPUT LEVEL: —62 db (0 db = 1 volt per microbar); .790 millivolts/microbar. POLAR PATTERN: Omnidirectional. CASE: Die-cast zinc with satin chrome finish. CABLE CONNECTOR: Equipped with Amphenol MC1F Plug. CABLE: Detachable 7 ft. single-conductor shielded. STAND THREAD: Standard ⅝″-27 thread. DIMENSIONS (Microphone only): 4½″ high, 1″ diameter. NET WEIGHT (Microphone only): ⅜ lb.; packaged weight ¾ lb. OPTIONAL ACCESSORIES: Model S38B Desk Stand, A25B Type Swivel Adapter.

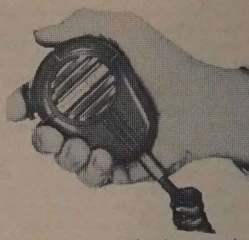
MODEL	TYPE	LIST PRICE
777	Includes A22L Lavalier cord and molded stand adapter	$25.00
777S	Same as 777 with on-off switch	$27.00
777A	Same as 777 with S38 Desk Stand	$33.00
777SA	Same as 777S with Desk Stand	$35.00

SHURE COMMUNICATIONS MICROPHONES

THE "404" WITH HIGH IMPACT "ARMO-DUR" CASE

MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE LENGTH TYPE DESCRIPTION	SWITCH MIC. CIRC.	RELAY CIRC.	LIST PRICE
404B	−50 db (0 db = 1 milliwatt per 10 microbars); .293 millivolts/microbar	150-250 Ohms	5½ ft. Coiled cord, Copper, 4 conductor (2 shielded)	CLOSED*	OPEN	$33.00
404C	−50.5 db (0 db = 1 volt per microbar); 2.930 millivolts/microbar	High	5½ ft. Coiled cord, Copper, 3 conductor (1 shielded)	CLOSED*	OPEN	$33.00
405T***	−1 db loaded with 500 ohms (0 db = 1 milliwatt per 100 microbars)	100-500 Ohms	5 ft. extended 4 conductor stranded coiled cord	——	OPEN	$48.50

*Provision for simple change to normally open.
***Transistorized for direct replacement of carbon microphones.



The Shure Controlled Magnetic "404" is recommended for those applications where a rugged hand-held microphone is needed. It is ideal for outdoor public address (sports arenas, athletic fields, carnivals, etc.) and for mobile communications. The "404" is designed for high speech intelligibility. Easy to use, fits snugly in the palm of the hand. Leaf-type switches control the mic. circuit and an external relay or switching circuit. Omni-directional. Freq. response 200 to 8000 cps. Only $3\frac{11}{16}$" high, 2⅝" wide, $1\frac{49}{64}$" deep. Includes mounting bracket.

a new breakthrough in microphone design . . .

SHURE MODEL 488 NOISE-CANCELLING MICROPHONE!

Outperforms and obsoletes all other . . . confirmed by extensive laboratory and field comparison tests!

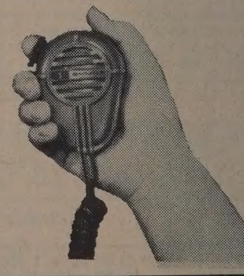
Provides highly intelligible speech communication in mobile and fixed-station use where high volume background noise is found, such as airplanes, helicopters, motorcycles, trucks, fire engines, power boats, sporting events, drop forges, press-rooms, engine-rooms, factories. The 488 incorporates the patented Shure Controlled Reluctance cartridge into a distance discriminate microphone that effectively cancels background noise to permit transmission under conditions that would be impossible with any other microphone. Correct placement of microphone for close-talk use is assured by convenient rubber lip-guard. Rugged, impact-resistant "Armo-Dur" case is lightweight, easier to handle in extremes of temperature. Four versions of the 488 are available: 488A — high impedance; 488B — low impedance; and 488C and 488T — transistorized for direct replacement of carbon microphones (488T FAA Certified for Aircraft applications). All models equipped with coiled-cord and long-life heavy-duty push-to-talk switches. Field-testing these blade-type switches confirms their operating life rating to be in excess of one million cycles.

SPECIFICATIONS

MODEL	488A High Impedance	488B Low Impedance	488C Transistorized	488T Transistorized Aircraft
Lot Price	$57.50	$57.50	$62.50	$72.50
Noise Discrimination	Far Superior to Standard Communication Microphones			
Frequency Response	(SPECIALLY TAILORED FOR BEST INTELLIGIBILITY) 200 to 4000 Cycles Per Second			
Type	Controlled Reluctance			
Output Level (0 db = 1 volt per 100 microbar field)	.125 volts (−18 db)	.014 volts (−37 db)	0.45 volts (−7 db) using 6 volts and 500 ohm load	0.56 volts (−3 db) using 12 volts and 500 ohm load
Impedance	High: Recommended Load 100,000 ohms or more	150-250 ohms	Recommended Load 500 ohms	Recommended AC Load 100 to 800 ohms
Cable	Three-Conductor (One-conductor shielded) cadmium copper coiled cord (5½′ extended)	Four-Conductor (Two-conductor shielded) cadmium copper coiled cord (5½′ extended)	Four-Conductor cadmium copper coiled cord (5½′ extended)	Three-Conductor Tinsel coiled cord (5½′ extended) with PJ 068 — plug attached
Switch Mic. Circuit Relay Circuit	Normally closed* Normally open	Normally open** Normally open	Normally open Normally open	Normally open Normally open
Case	GRAY HIGH IMPACT "ARMO-DUR" WITH PERFORATED STEEL GRILLE AND RUBBER LIP-GUARD			
Dimensions	$3\frac{11}{16}$" high x 2⅝" wide x 2½" deep			
Weight	¾ lb.			
Accessories	MOUNTING BRACKET FOR PERMANENT PLACEMENT			

* Provision for simple change to normally open   ** Provision for simple change to normally closed

MODEL 100 SERIES CARBON MICROPHONES



Now featuring "Armo-Dur" high impact, corrosion-proof units. Used around the world for police, taxi, bus, track and commercial applications — more than all other makes combined! Adopted as standard microphones for professional two-way radio communications equipment. The "100 Series" microphones are provided with a bracket for permanent placement in portable or mobile equipment. They fit naturally and comfortably in the palm of the hand. They are light, compact and rugged units — with a reputation for long-life performance under "rough and tumble" operating conditions.

SPECIFICATIONS — TYPE: Carbon. FREQUENCY RESPONSE: 300 to 4,000 cps. (Tailored voice response). OUTPUT LEVEL: 5 db below 1 volt for 100 microbar speech signal. IMPEDANCE: Recommended load — 50 to 100 ohms. POLAR PATTERN: Omnidirectional. CASE: High-Impact "Armo-Dur". FINISH: Gray. CABLE: Cadmium copper coiled cord with trimmed and tinned leads. SWITCH: Model 104A — DPST normally open switch to control microphone and relay. Model 104B — SPST normally open relay switch (no microphone switch). DIMENSIONS: $3\frac{11}{16}$" high, 2⅝" wide, $1\frac{49}{64}$" deep. NET WEIGHT: ⅝ lb. PACKAGED WEIGHT: 1 lb.

MODEL	LIST PRICE
104A	$30.00
104B	$30.00

Trade Discount Applies To List Prices Only

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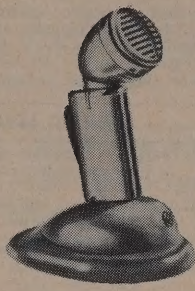
SHURE COMMUNICATIONS MICROPHONES

MODEL 444 ADJUSTABLE HEIGHT "HAM"MICROPHONE

At last! A microphone specifically designed to meet the needs of the discriminating amateur radio enthusiast! Shure has built into an entirely new, modern microphone the unmatched performance characteristics of the famed Model 440SL. Special features include press-to-talk switch with optional locking feature, providing ideal switching functions for both press-to-talk and VOX operation, adjustable stand that raises or lowers microphone for most comfortable talking position.

SPECIFICATIONS — ELEMENT TYPE: Controlled Magnetic. FREQUENCY RESPONSE: 300 to 3,000 cps. OUTPUT: —52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar. IMPEDANCE: High. CASE: Gray "Armo-Dur". CABLE: 7 ft. two-conductor shielded. SWITCH: Push-to-talk switch button with optional locking feature to operate relay control and microphone muting circuits. Separate switch enables user to disable relay control circuit for VOX operation. DIMENSIONS: 4" wide, 5¹¹⁄₁₆" deep, 10⁵⁄₁₆" high (adjustable). NET WEIGHT: 1½ pounds.

MODEL	LIST PRICE
444	$42.50



MODEL 440 SL

Response characteristic tailored to meet the demands of radio communications; ideally suited for single-sideband. Rising response characteristic with sharp cutoff below 300 and above 300 cps eliminates the need for audio filters. Rugged, time-proven controlled magnetic element, with high output equalling that of a crystal unit. Ideal for use with all types of amateur transmitters. Frequency response: 300 to 3000 cps. High impedance, output level —52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar 7 ft. 2-conductor shielded cable with equivalent to Amphenol MC3M plug, switch and desk stand.

MODEL	LIST PRICE
440SL	$47.50

MODEL 440

Basic microphone same as above but with 7 ft. single conductor shielded cable. Less switch, stand, connector. Use with S34B or S36A stand.

MODEL	LIST PRICE
440	$25.00

A87K MODIFICATION KIT

Modifies 440 SL to obtain maximum flexibility between either VOX or push-to-talk operation. List: **$3.25.**

LOW COST PALM MICROPHONE FOR CB, AMATEUR, MOBILE

Loaded with features — yet priced unusually low. "Shaped" voice response is patterned after professional mobile and SSB amateur response curves . . . assures maximum intelligibility. Professional design and construction. Long-life slide-switch, guaranteed full year. Virtually indestructible "Armo-Dur" wonder plastic case; Shock-, shatter-, corrosion-, rust-, and weather-proof. Coiled-cord won't kink. "Lifetime" hang-up bracket. Choice of ceramic (model 201) or controlled magnetic (model 401A and 401B) elements. (401B recommended for parallel balanced line operation where long cable lengths are required.)

SPECIFICATIONS

	Model 201	Model 401A	Model 401B
LIST PRICE	$18.00	$22.00	$22.00
TYPE	CERAMIC	CONTROLLED MAGNETIC	
FREQUENCY RESPONSE	200 to 4000 cps free from undesirable peaks.		
OUTPUT LEVEL	—55.5 db (0 db = 1 volt per microbar); 1.680 millivolts/ microbar	—49 db (0 db = 1 volt per microbar); 3.500 millivolts/ microbar	—48 db (0 db = 1 milliwatt per 10 microbars); .390 millivolts/ microbar
IMPEDANCE	High — Recommended load impedance; 1 to 5 megohms	High — Recommended load impedance; 100,000 ohms or more	Low — Recommended load impedance; 150-250 ohms
POLAR PATTERN	OMNI-DIRECTIONAL		
DIMENSIONS	4" High x 2¾" Wide x 1⅝" Deep		

"VERSAPLEX" CB IMPROVEMENT MICROPHONE

Model 275SK

Citizen's Band broadcasters will find this new ceramic unit ideal for replacing original equipment crystal or ceramic type microphone. Comes complete with wall or panel bracket for handy hanging, and coiled-cord. "Momentary" push-to-talk switch activates relay circuit. Smooth response from ceramic cartridge that is resistant to extremes of temperature and humidity. Lightweight impact-resistant "Armo-Dur" case with black finish and anodized satin-finish cap.

SPECIFICATIONS — FREQUENCY RESPONSE: 40 to 10,000 cps free from undesirable peaks. OUTPUT LEVEL: —59.5 db (0 db = 1 volt per microbar); IMPEDANCE: High — recommended load ½ to 5 megohms. CABLE: Coiled Cord extends to 5 feet. 3 Conductors, one shielded. FINISH: Black high impact plastic body with satin anodized cap and grille. DIMENSION: 4¾" long x 1⅔" diam.

MODEL	LIST PRICE
275SK	$16.50

SHURE DISPATCHING . . GENERAL PURPOSE MICROPHONES

MODEL 450 "DISPATCHER" MICROPHONE

New modern design fits every decor for paging use. Integrated case design, made of gray "Armo-Dur", features telescoping height adjustment for maximum convenience. Rugged Controlled Magnetic element with impedance switch for low or high impedance. Push-to-talk switch bar with optional features provide every desired switching option.

SPECIFICATIONS — ELEMENT TYPE: Controlled Magnetic. FREQUENCY RESPONSE: 100 to 9000 cps. CASE: Two-tone Gray "Armo-Dur". CABLE: 7 ft., four-conductor (two-conductor shielded). SWITCH: Push-to-talk switch button with optional locking feature to operate independent microphone and relay circuits. Relay portion of switch is normally open. Microphone portion of switch is normally open or normally closed as required. DIMENSIONS: 4" wide, 5 11/16" deep, 10 5/16" high (adjustable). NET WEIGHT: 1½ lbs.

MODEL	IMPEDANCE	OUTPUT LEVEL	LIST PRICE
450	50-250	−54 db (0 db = 1 Milliwatt per 10 microbars); 2.380 millivolts/microbar	$49.50
	High	−52.5 db (0 db = 1 volt per microbar); .281 millivolts/microbar	

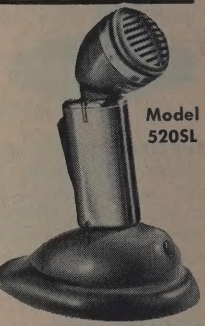
THE "GREEN BULLET"

Designed to provide quality music and speech reproduction at moderate cost. Rugged! Practically immune to the effects of high temperatures and humidity. Features: high output, good response, high impedance without the need of a transformer. Modern metallic green finish with plated grille. Frequency response is 100 to 7000 cps. Furnished with 7 ft. single-conductor shielded cable. High impedance. Use with Shure Model S34B or S36A Desk Stands.

Model 520

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520	−52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	High	$22.50
520B	−51 db (0 db = 1 milliwatt per 10 microbars); .281 millivolts/microbar	150-250 Ohms	$22.50

MODEL 520SL "DISPATCHER"



Model 520SL

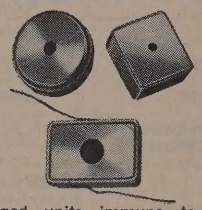
Model 520SL recommended for mobile and fixed station use, also for public address, recording call systems, radio telephone and amateur use.

Model 520SL equipped with grip-to-talk switch DPST — normally closed-normally open, and 7 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M plug.

Model 520SLB has grip-to-talk switch DPST — normally closed-normally open, and 7 ft 4-conductor (2 conductors shielded) cable, equivalent to Amphenol MC4M plug.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520SL	−52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	High	$45.00
520SLB	−51.0 db (0 db = 1 millivolt per 10 microbars); .281 millivolts/microbar	150-250 Ohms	$49.25

SMALL CONTROLLED MAGNETIC MICROPHONES

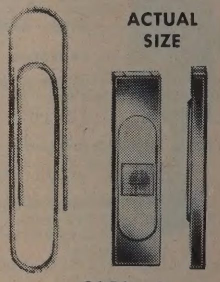


The MC Series of small microphones are specially designed for use in vacuum-tube devices, such as small, compact hearing aids, amplifiers, transmitters, dictating equipment — wherever size and weight are important factors. They also are highly recommended for use in small transistor-type devices. The MC Series are metal cased for hum protection. They are rugged units immune to mechanical shock and to varying conditions of heat and humidity. The MC Series of microphones have also proven to be extremely useful in concealed microphone applications.

MC11-J	(Circular)	LIST PRICE: **$12.50**
MC20A-J	(Rectangular)	LIST PRICE: **$14.00**
MC30-J	(Square)	LIST PRICE: **$20.00**

SPECIFICATIONS FOR MODELS MC11-J, MC20A-J, and MC30-J — TYPE: Controlled Magnetic. FREQUENCY RESPONSE: MC11-J — 400 to 4,000 cps, MC20A-J — 400 to 4,500 cps, MC30-J — 400 to 3,500 cps. OUTPUT LEVEL: MC11-J — −73 db (0 db = 1 volt per microbar), MC20A-J — −73 db (0 db = 1 volt per microbar), MC-30-J — −76 db (0 db = 1 volt per microbar). IMPEDANCE: MC11-J — 1,000 ohms, MC20A-J — 2,000 ohms, MC30-J — 1,850 ohms. CASE: Brass. FINISH: Cadmium plated. TERMINALS: MC11-J — Eyelet solder type, MC20A-J — 1½" flexible lead type, MC30-J — Eyelet solder terminals. DIMENSIONS: MC11-J (circular) 1 1/64" diameter, 25/64" thick, MC20A-J (rectangular) 10/16" wide, 15/16" long, 5/16" thick, MC30-J (square) .5" wide, .5" long, .265" thick. NET WEIGHT: MC11-J — 12½ grams, MC20A-J — 9.6 grams, MC30-J — 3.7 grams.

MODEL CA5A ULTRA-MINIATURE CERAMIC MICROPHONE



ACTUAL SIZE

CA5A

The CA5A is a rugged ultra-miniature ceramic microphone. The frequency response is equivalent to standard microphones of much greater size. The CA5A is ideal for hearing aids, small headpiece microphones, pocket walkie-talkies, dictating machines, musical instruments, intelligence and security work and other applications requiring a miniature microphone with high stability.

The generating element is Lead-Zirconate-Titanate enabling use over wide temperature ranges. The ceramic structure is inherently more stable than electro-magnetic units of similar size. The low end response is easily controlled by external load.

SPECIFICATIONS — LIST PRICE: $20.00. TYPE: Ceramic element.

FREQUENCY RANGE: 50 to 4500 cps. IMPEDANCE: Equivalent to 400 pfd. OUTPUT LEVEL: −73 db (0 db = 1 volt per microbar).

TEMPERATURE RANGE: −20° to 200° Fahrenheit. HUMIDITY RANGE: Unaffected by humidity. SIZE 1.000" x .250" x .100" (2.54 cm x .635 cm x .254 cm). WEIGHT: ¾ gram.

MICROPHONE STANDS

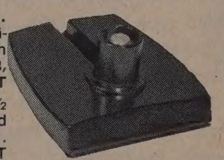
S34B TAKE-APART STAND

MODEL S34B. Handy low-cost gray stand for desk or hand use. One twist of wood handle locks it securely in base for use as a table stand, or releases handle for use in hand. Metal base. Suitable for use with Models 510, 520, 707A and 710. **NET WEIGHT:** ⅝ lb. Packaged weight, ⅞ lb. LIST PRICE **$4.50**

S38 ROUND STAND

This stand is a heavy die-cast base. Metal screw machine stud connects microphone adapter to stand base. **NET WEIGHT:** ⅝ lb., Packaged weight, 1 lb. **MODEL S38.** (Bronze) for use with 245, 777 Series microphones. **MODEL S38B.** (Black) for use with Models 275S, 275SK, 415, 430, 575S, 575SB. LIST PRICE **$4.50.**

S33 MODERN DESK STAND



MODEL S33. Baked bronze finish. For use with Models 300, 333, 525, and 535. **NET WEIGHT:** 2½ lbs., Packaged weight, 3 lbs. USER NET PRICE **$9.00.**

MODEL S33B. Same as S 33 — in black finish. For use with Models 330, 530, 544, 545, 546, 556S, 576, 578, 415, and 430. LIST PRICE: **$15.00.**

S36A "TEARDROP" DESK STAND MODEL S36A. Streamlined gray desk mount fits all Shure connector-type microphones including 51, 51S, 55S, 55SW, 315, 315S, 540S, 545S, and 737A. Accommodates A25 type Swivel Adapter. **NET WEIGHT:** 1 lb., packaged weight, 1⅜ lbs. LIST PRICE: **$6.50.**

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SHURE

MICROPHONE ACCESSORIES

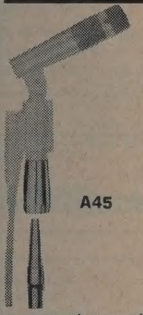
MODEL 539A VIBRATION-ISOLATION STAND

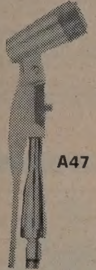
Ideal for use on table, desk, in the footlight area of a stage, for remote broadcasting (particularly for sporting events, conference tables, panels, and for all applications where vibration is a problem. The S39A provides maximum isolation from extreme mechanical vibration by its capacity to absorb mechanical shock as a sponge absorbs water. The Model S39A Stand is designed for all Shure microphones and Swivel Adapter assemblies. An extension adapter is furnished to increase the height of certain microphones for cable connector clearance. Made of durable black crackle finish plastic with heavy duty foam rubber isolation.

NET WEIGHT: 2⅛ lbs., Packaged Weight, 2⅝ lbs.

LIST PRICE: **$25.00.**

QUICK DISCONNECT MICROPHONE ISOLATION UNITS


A45


A47

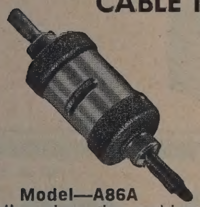
Designed for use with microphones normally mounted on desk or floor stands but which must be periodically removed from stand for hand-held or carry-around use. In addition, because of a molded rubber insert, the adaptors effectively isolate the microphones from mechanical vibration, shocks and noises carried to the microphone through the desk or floor stand. Quick disconnect operation is instant, easy, and silent. Made of aluminum and anodized for beauty and long wear despite frequent handling.

Model A45 is designed for microphones incorporating an isolation assembly such as the Shure Models 556, 330 and 546.

Model A47 is designed for microphones with connectors such as Shure Models 55S, 51, 545S, 540S, 737A or nearly all microphones with a standard ⅝″-27 thread.

	A45	A47
LIST PRICE	$12.00	$12.00
DIMENSIONS	3½″ high x 1⁵⁄₁₆″ diam. assembled	5½″ high x 1⁵⁄₁₆″ diam. assembled
WEIGHT ADDED TO HAND HELD MICROPHONE	2.3 oz.	3.6 oz.
NET WEIGHT	3.3 oz.	4.6 oz.

CABLE TYPE TRANSFORMER


Model—A86A

Model A86A is a high-quality, cable-type transformer which makes it convenient to run a long microphone line from a low impedance microphone (35-50 ohm and 150-250 ohm) to a high impedance amplifier. It is housed in a compact, sturdy and magnetically-shielded case. Connection terminals are easily accessible, and compression fittings crimp the microphone and amplifier inputs. This type of system usually solves the problem of excessive high frequency loss and objectionable hum pickup when long lengths of microphone cable are necessary. For use with Shure Models 51, 51S, 55S, 55SW, 556S, 575S, 300, 315, 315S, 330, 333, 525, 530, 535, 540S, 545, 545S and 546 Dynamic and Ribbon Microphones. Model A86A may also be used in specialized applications requiring high impedance to low impedance circuit connections. Attractive two-tone gray furnished with 2-foot cable. Frequency response: 20 to 20,000 c.p.s., plus or minus 1 db.
List Price: **$17.50**

COILED CORD SETS

Tinsel Coiled Cord with trimmed and tinned leads and Amphenol MC4M connector attached (3 conductor shielded) for use with General Electric EM10A and 505K microphones.
Model: C10C List Price **$12.00**

Tinsel Coiled Cord with Amphenol MC4M plug for use with General Electric EM10A-2 and Shure 405K and 405 KB Microphones.
Model: C11C List Price **$12:00**

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404C, 488A microphones.
Model: C12C List Price **$9.75**

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404B, 488B microphones.
Model: C14C List Price **$10.00**

Standard Copper Coiled Cord with trimmed and tinned leads. Used in "CB" and "100" Series Microphones.
Model: C15C List Price **$6.25**

Tinsel Coiled Cord with Amphenol MC4M Connector for use with General Electric equipment.
Model: C16C List Price **$9.50**

Tinsel Coiled Cord with spade lugs for use in Motorola equipment.
Model: C17C List Price **$7.75**

Standard Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment.
Model: C18C List Price **$9.50**

Tinsel Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment.
Model: C19C List Price **$9.50**

Tinsel Coiled Cord For use with Shure 201, 401A.
Model: C20C List Price **$7.00**

Tinsel Coiled Cord For use with Shure 401B.
Model: C21C List Price **$7.75**

Tinsel Coiled Cord with PJ-068 connector for use with Shure 488T.
Model: C22C List Price **$15.00**

Tinsel Coiled Cord For use with Shure 275 SK.
Model: C23C List Price **$16.50**

MICROPHONE REPLACEMENT CARTRIDGES

CARBON REPLACEMENT CARTRIDGE—MODEL R10

Rugged microphone cartridge replacement for "CB", "100", and "120" Series Carbon Microphones. Includes mounting hardware, installation instructions. **Model R10** **List Price $8.50**

Model 99A149 replacement cartridge for microphone models: CB20, CB21, CB50 and 115. **Model 99A149** **List Price $8.50**

CRYSTAL CARTRIDGE — MODEL R7

Available as a replacement for the cartridges in the Shure Crystal Microphones of the 707A and 708A Series, and other microphones of similar design. High output — 48 db below 1 volt per microbar. Supplied with rubber mounting rings and installation instructions.
Model R7 **List Price $8.25**

DYNAMIC — MODEL R50

Replacement cartridge for Shure Dynamic Microphones, Models: 540 (Series II), 540S (Series II), 560, 561, 575S and 575SB.
Model R50 **List Price $15.00**

SLIM-X MICROPHONE CARTRIDGE

The Model 99A186 replacement cartridge assembly for the 777 Series Slim-X Microphones. Crystal element metal-sealed for long life under adverse conditions of heat and humidity. Requires only one solder connection. **Model 99A186** **List Price $10.00**

CONTROLLED MAGNETIC CARTRIDGE — MODEL R5

Direct replacement for cartridges used in the following Shure microphone models: 510C, 510MD, 510S, 520, 520SL, 505C, 505K, 404C, 405C and 405K. Also ideal for replacement of crystal cartridges in Shure cases of the Model 707A and 708A Series, where heat and humidity are a problem. Supplied with rubber mounting ring.
Model R5 **List Price $11.00**

LOW IMPEDANCE CARTRIDGE — MODEL R5B

Model R5B is the replacement cartridge for cartridges used in microphone models 505B, 505T, 404B, 405B, 405T, 510SLB, 520SLB, and 520B. Model R5B is physically identical to Model R5; but low impedance (150 to 250 ohms). Can be used in any R5 applications which require a low impedance cartridge.
Model R5B **List Price $11.00**

MODEL R4M FOR SHURE "COMMANDOS"

The Model R4M controlled magnetic cartridge assembly is the direct replacement cartridge for use in the models 430, 425, 420 and 415 Shure "Commando" microphones. **Model R4M** **List Price $15.00**

MODEL R5T CONVERSION KIT

Includes a controlled magnetic cartridge and transistor amplifier to convert carbon microphones into improved controlled magnetic transistorized microphones. Conversion takes only minutes with a screwdriver, long-nose pliers, soldering iron.

SPECIFICATIONS: Controlled magnetic with transistor amplifier. 200 to 4,000 cps, semi-directional. Output Level: 1 db loaded with 500 ohms (0 db — 1 milliwatt per 100 microbars). **List Price: $25.00.**

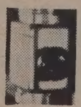
NOTE: For complete Shure Microphone Cartridge replacement information, write for AL188, Microphone Cartridge Replacement Guide.

"GRIP-TO-TALK SLIDE-TO-LOCK" SWITCH

Heavy-Duty Switch withstands the most severe field requirements of paging and dispatching systems. Ideal for Police, Taxi-Cab, Railroad, Airport, Bus, Truck, and all emergency communications work. Can be used with Shure connector-type crystal, dynamic and carbon microphones of any impedance. Fits handily on Shure S36A Desk Stand. Rich satin chrome finish.
Model: A88A **List Price: $12.50**

Model A88A

ON-OFF PRESS-TO-TALK SWITCHES



Model A83B. Rotary-type "On-Off" switch. Quickly attached to any cable-connector type Shure microphone.
Model: A83B **List Price: $11.00**

Model A84B. Momentary Press-to-Talk "On-Off" switch.
Model: A84B **List Price: $11.00**

Model A85C. Momentary Press-to-Talk Relay-Type Switch.
Model: A85C **List Price: $11.50**

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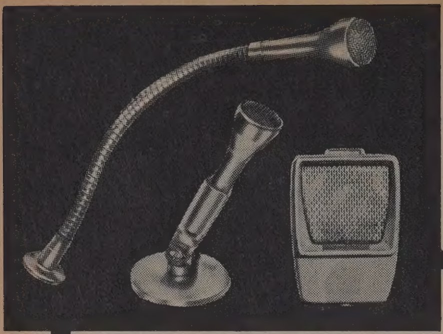

SONOTONE
CERAMIKE MICROPHONES

rugged, reliable mikes for mobile and fixed communications, A-V and tape recordings

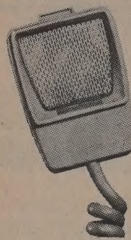
Fig. A

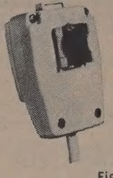
Fig. B

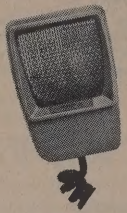
Fig. C

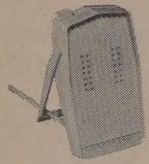
Fig. D

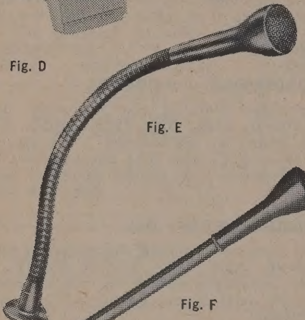
Fig. E

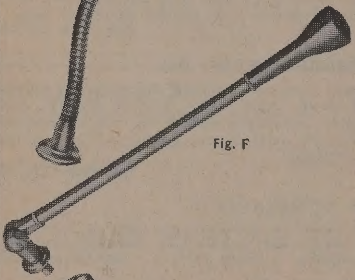
Fig. F

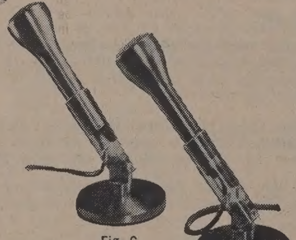
Fig. G

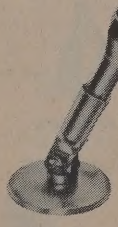
Fig. H

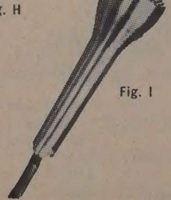
Fig. I

SONOTONE CERAMIKE 'CM-30.' Perfect for mobile units. Intelligibility unsurpassed. Sensitivity curve favors voice frequency range. Ruggedly built to take the punishment of mobile use. Lightweight, shatter-proof plastic case. Convenient "push-to-talk" button and dashboard mounting bracket. Spring-spiraled 4-conductor shielded cable, net **$8.40.**

SONOTONE CERAMIKE 'CM-30M.' With new magnetic dashboard mount — no holes to drill, no brackets to attach, net **$9.90.**

Response:	60 to 7,000 cps
Sensitivity:	−49 db ±2 db
Case:	Shatterproof plastic
Transducer:	Ceramic element

SONOTONE CERAMIKE 'CM-31.' Rugged mobile communications microphone. This budget-priced model in shatterproof plastic case features excellent intelligibility. Mike has two-conductor coil cable — no switch, net **$8.10.**

SONOTONE CERAMIKE 'CM-31M.' Available with new magnetic dashboard mount — no holes to drill, no brackets to attach, net **$9.60.**

Response:	90 to 6,000 cps
Sensitivity:	−49 db ±2 db
Case:	Shatterproof plastic
Transducer:	Ceramic element

SONOTONE CERAMIKE 'CM-32.' Ideal, low cost mike for tape recording. Lightweight, shatterproof case. Equipped with standard plug and phone jack. CM-32, net **$7.50.**

Response:	80 to 9,000 cps
Sensitivity:	−49 db ±2 db
Case:	Shatterproof plastic
Transducer:	Ceramic element

SONOTONE CERAMIKES 'CM-40' & 'CM-41' — Low price ceramic mikes in high impact plastic case. Unique swing type stand sits upright for table use. Model CM-41 has push-to-talk switch. Fig. D CM-40, net **$5.94**; CM-41, net **$7.54.**

Both CM-40 & 41

Response:	40 to 8,000 cps
Sensitivity:	−50 db
Transducer:	Ceramic element

SONOTONE CERAMIKE 'CM-17A.' Omnidirectional high impedance model provides natural sound reproduction and long-term, trouble-free service in audio-visual labs, language labs, PA systems. 13″ flexible gooseneck keeps hands free for writing and taking messages. Excellent for all speech needs. 6′ shielded cable, net **$14.70.**

Response:	50 to over 11,000 cps
Sensitivity:	−56 db ±2 db
Transducer:	Ceramic element
Damping Grid:	Lanced, louvered metal grid

Models utilizing the CM-17A element available in a variety of mountings as follows:

SONOTONE CERAMIKE 'CM-17B' — 13″ boom mike. Fixed boom mounted with 350° swivel. 7′ mike cable, net **$17.10.**

SONOTONE CERAMIKE 'CM-17C' — 6″ flexmike. Flexible gooseneck with fixed base mount. 7′ mike cable, net **$13.50.**

SONOTONE CERAMIKE 'CM-17D' — 6″ boom mike. Solid boom with fixed base mount. 7′ mike cable, net **$13.50.**

SONOTONE CERAMIKE 'CM-17E' — 3″ boom mike. Solid boom with fixed base mount. 7′ mike cable, net **$12.30.**

SONOTONE CERAMIKE 'CM-17F' — solid boom with 350° mount and flange. Top mounting base plate similar to Fig. F. Net **$17.10.**

SONOTONE CERAMIKE 'CM-18A' — 13″ flexmike. Low impedance omnidirectional microphone with push-to-talk button to keep audio control at the user's fingertips. Ideal for transistorized system, net **$20.70.**

SONOTONE CERAMIKE 'CM-18' — 13″ flexmike with same electrical characteristics as the CM-18A except that it has no push-to-talk switch, net **$19.50.**

Response:	200 to 8,000 cps
Sensitivity:	−63 db ±2 db
Transducer:	Ceramic element
Damping grid:	Lanced, louvered metal grid

SONOTONE CERAMIKE 'CM-T10A' (Matched Twin) — Ideal for taping the new FM stereo broadcast "off-the-air" and other stereo taping applications. Every CM-T10A set is electronically matched at the factory to a tolerance of ±2 db to eliminate the risk of distortion. 7′ shielded cable and phone plug. Per pair, net **$21.30.**

Response:	50 to over 11,000 cps
Sensitivity:	−56 db ±2 db
Transducer:	Ceramic element
Damping grid:	Lanced, louvered metal grid

SONOTONE CERAMIKE 'CM-T11A' (Matched Twin) — For use where greater sensitivity is desired. Per pair, net **$21.30.**

Same specifications as the CM-T10A except:

Response:	80 to 9,000 cps ±2 db
Sensitivity:	−53 db

MATCHING TABLE STAND CMS-10 available with ⅝ No. 27 thread for floor stand mounting, net **$3.00.**

SONOTONE CERAMIKE 'CM-10A' — Natural, clean reproduction over the full audible range. Ideal for tape recording, also excellent for home movie, PA systems and conference pickups. 7′ shielded cable with phone plug, net **$10.50.**

Response:	50 to over 11,000 cps
Sensitivity:	−56 db ±2 db
Transducer:	Ceramic element
Damping grid:	Lanced, louvered metal grid

SONOTONE CERAMIKE 'CM-11A' — Where greater sensitivity is desired, the CM-11A is the ideal solution, net **$10.50.**

Has same specifications as the CM-10A except for:

Response:	80 to 9,000 cps
Sensitivity:	−53 db ±2 db

SONOTONE CERAMIKES 'CMC-10A' & 'CMC-11A' — Combination package consisting of CM-10A mike and CMS-10 table stand; CM-11A mike and CMS-10 table stand. Net **$13.50.** See Fig. H

SONOTONE CERAMIKE 'CM-12A' — For PA systems in long lead installations. Low impedance with push-to-talk buttons, net **$17.70.**

Response:	200 to 8,000 cps
Sensitivity:	−63.5 db ±2 db
Transducer:	Ceramic element
Damping grid:	Lanced, louvered metal grid

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SONOTONE

SONO/COM® HEADSET MICROPHONE

for educational, audio and high fidelity applications

Model SHM-1000 — Headset/mike combination with high Z boom mike, Net $40.75.

SHM-1100 Headset/mike combination low Z magnetic microphone. Net $46.75.

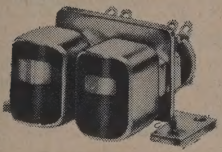
SH-2000 Headset only. Net $26.75.

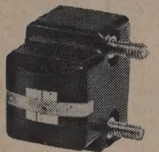
SB-3000 Ceramic boom mike. High Z. Net $14.50.

SB-3100 Magnetic boom mike. Low Z. Net $20.50.

Extremely rugged headset and boom mikes featuring high INTELLIGIBILITY. Frequency response of headsets flat from 50 to 10,000 cps. Boom mike available in ceramic high Z or magnetic low Z versions. Microphones feature noise cancelling to limit pickup of unwanted background noise.

Sensitivity: (Ceramic mike) —53 db, ±2 db; frequency response: 80 to 9,000 cps.
(Magnetic mike) —58 db (open circuit), ±2 db; frequency response: 90 to 10,000 cps. Headsets available in choice of 4 decorator colors: Spruce green, coral, suntan and black.





SONOTONE MONO & STEREO TAPE HEADS

SPECIFICATIONS (record and play heads)

Model No.	Type	Tape Speed I.P.S.	Imped. @ 1 kc ohms	Audio Curr. MA	Rec. Level db below tape Sat.	Bias Curr. @ 65 kc MA	Output @ 1 kc mv	Frequency Response @ 10 kc	Net
RH-4A	¼-Track Stereo	7½ 3¾	3000 3000	0.025 0.02	−12 −12	0.5 0.2	3.0 3.0	−5 −10	$17.10
RH-2A	½-Track Mono	7½ 3¾	6000 6000	0.025 0.02	−12 −12	0.6 0.6	3.0 3.0	−10 −15	6.00
RH-2B	½-Track Mono	7½ 3¾	1000 1000	0.04 0.04	−12 −12	0.7 0.7	1.0 1.0	−10 −15	6.00
RH-2C	½-Track Mono	7½ 3¾	2200 2200	0.03 0.03	−12 −12	0.6 0.6	1.0 1.0	−10 −15	6.00

SPECIFICATIONS (erase heads)

Model No.	Type	Tape Speed I.P.S.	Imped. at Erase Freq. Ohms	Erase Freq. kc	Erase Curr. MA	Erasure db 250 cycles Sat.	Net
EH-4A	4-Track Stereo (¼-Track)	7½ & 3¾	2400	65	12.5	55	$8.10
EH-2A	½-Track Mono	7½ & 3¾	1750	65	30	55	5.40

The 'RH-2' and 'EH-2' series with mounting brackets (complete assemblies)

Model	Description	Replaces	Net
REH-1B	Mono-RH-2A and EH-2A on Bracket	Shure 815H	$13.80
REH-1C	Mono-RH-2B and EH-2A on Bracket	Shure 815	13.80
RH-2A7	Mono-RH-2A only on Bracket	Shure 816	7.20
RH-2B7	Mono-RH-2B only on Bracket	Shure 817	7.20

SONOTONE
RECHARGEABLE
FLASHLIGHT BATTERY

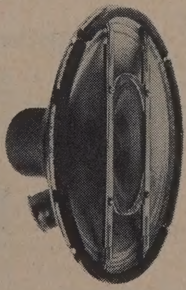
SONOTONE

RECHARGEABLE FLASHLIGHT BATTERY CARTRIDGES

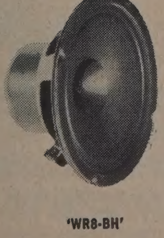
Long life for use with flashlights. Based on Sonotone's patented sintered-plate, nickel-cadmium battery cells now in use in U.S. space missiles and jet planes. Complete recharging unit incorporated in cartridge with the sealed cells. Fits any standard flashlight or other devices using two "D" cells end-to-end. Can be recharged by unscrewing cap and plugging the cartridge into any 110-120 AC outlet. Model FC-2, net $3.96. Model FC-3, industrial net $8.50.

SONOTONE LOUDSPEAKERS

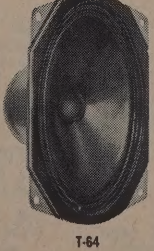
W-12



CA-12A



'WR8-BH'



T-64

SONOTONE 'CA-12A' 12" COAXIAL LOUDSPEAKER, net $23.75

SPECIFICATIONS:
Frequency range: .... 35 to 20,000 cps
Resonant frequency: .... 50 cps
Crossover frequency: .... 2,000 cps
Power Input: .... 40 watts continuous, 80 watts peak
Impedance: .... 16 ohms

SONOTONE 'W-12' 12" WOOFER FOR STEREO AND MULTI-SPEAKER MONO SYSTEMS, net $14.25

SPECIFICATIONS:
Frequency range: .... 35 to 7,000 cps
Resonant frequency: .... 50 cps
Power Input: .... 40 watts continuous, 80 watts peak
Impedance: .... 16 ohms

SONOTONE 'WR8-BH' 8" WIDE RANGE SPEAKER FOR STEREO CONVERSION, net $10.13

SPECIFICATIONS:
Frequency range: .... 45 to 20,000 cps
Resonant frequency: .... 70 cps
Power input: .... 20 watts continuous average program, 40 watts peak
Impedance: .... 8 ohms

SONOTONE 'T-64' ELLIPTICAL CONE TWEETER, net $9.00

SPECIFICATIONS:
Frequency response: .... 2,000 to 20,000 cps
Power input: .... 20 watts continuous, 40 watts peak
Impedance: .... 16 ohms with suitable network

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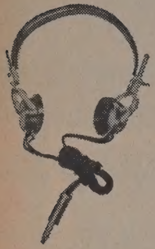
TRIMM

HEADSETS AND ACCESSORIES

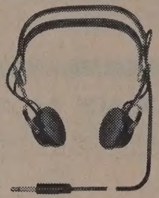


*Extended Frequency Range

"L" TYPE WITH *EFR

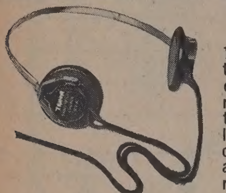
TRIMM'S most popular headset with *"extended frequency range". For use in communications, language labs and wherever high-quality performance is required. No. 50 series has a black neoprene covered handband and 5 ft. black nylon braided cord with plug, as shown at left. No. 56 series has an adjustable vinyl covered double headband with integral "over-the-head" neoprene cord and plug, as shown below. Impedances as listed.

	List
No. 50-06 —600 ohm	$23.00
No. 50-08 —8 ohm	23.00
No. 50-2M —2M ohm	23.00
No. 50-5M —5M ohm	23.00
No. 50-12M—12M ohm	24.00
No. 56-06 —600 ohm	27.65
No. 56-08 —8 ohm	27.65
No. 56-2M —2M ohm	27.65
No. 56-5M —5M ohm	27.65
No. 56-12M—12M ohm	28.65



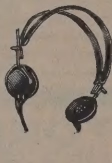
SEE FACING PAGE FOR STEREO TYPES

FEATHERWEIGHT



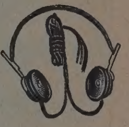
The original light-weight headset. Used by amateurs, commercial operators, etc. Bakelite shell and cap; 5 ft. braided waterproof cord; concealed terminals. No. 100 series and No. 106 type have adjustable nickel plated steel headband as illustrated at left. No. 104 series and No. 107 type have fabric covered double wire headband with spring clip for adjustment as pictured below. Leather, vinyl, and rubber covered headbands available.

STANDARD TYPES	List
No. 100-03—3.2 ohm	$11.00
No. 100-06—600 ohm	11.00
No. 100-2K—2K ohm D.C.	11.00
No. 100-4K—4K ohm D.C.	11.00
No. 100-9-03—3.2 ohm w/plug	11.80
No. 100-9-2K—2K ohm D.C. w/plug	11.80
No. 100-9-4K—4K ohm D.C. w/plug	11.80
No. 104-03—3.2 ohm	11.00
No. 104-06—600 ohm	11.00
No. 104-2K—2K ohm D.C.	11.00
No. 104-4K—4K ohm D.C.	11.00
No. 104-9-03—3.2 ohm w/plug	11.80
No. 104-9-2K—2K ohm D.C. w/plug	11.80
No. 104-9-4K—4K ohm D.C. w/plug	11.80
SPECIAL AMATEUR TYPES	
No. 106 —24M ohm	11.00
No. 106-9 —24M ohm w/plug	11.80
No. 107 —24M ohm	11.00
No. 107-9 —24M ohm w/plug	11.80



SEE FACING PAGE FOR STEREO TYPES

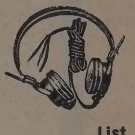
ACME



A superior low-cost, light-weight headset, used on crystal sets, educational electronic kits, Geiger counters, etc. Cap and shell of molded bakelite. Double headsets have 4½ ft. long braided cord; single earphones supplied with 4½ ft. long vinyl cord. Concealed terminals.

DOUBLE HEADSETS		List
No. 24-03—3.2 ohm	Vinyl covered headband	$3.90
No. 24-9-03—3.2 ohm w/plug	Vinyl covered headband	4.75
No. 24-15—1500 ohm	Vinyl covered headband	3.95
No. 24-2K—2K ohm D.C.	Vinyl covered headband	4.05
No. 24-4K—4K ohm D.C.	Vinyl covered headband	4.35
No. 24-9-2K—2K ohm D.C. w/plug	Vinyl covered headband	4.90
No. 25-03—3.2 ohm	Metal headband	3.45
No. 25-2K—2K ohm D.C.	Metal headband	3.60
No. 25-4K—4K ohm D.C.	Metal headband	3.90
SINGLE EARPHONES		
No. 27-03—3.2 ohm	Metal headband	2.05
No. 27-9-03—3.2 ohm w/plug	Metal headband	2.90
No. 27-1K—1K ohm D.C.	Metal headband	2.20
No. 27-2K—2K ohm D.C.	Metal headband	2.35

DEPENDABLE



When a high grade headset is desired, but price must be considered, choose the Dependable. Used by institutions, on general radio applications, etc. Bi-polar construction, bakelite cap and shell. Forged magnet. Tinsel conductor braided cord, 5 ft. long, concealed terminals. Vinyl covered wire headband, adjustable.

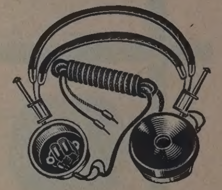
DOUBLE HEADSETS	List
No. 70-03 —3.2 ohm	$5.10
No. 70-06 —600 ohm	5.20
No. 70-15 —1500 ohm	5.30
No. 70-9-03—3.2 ohm w/plug	5.90
No. 70-9-2K—2K ohm D.C. w/plug	6.20
No. 70-9-4K—4K ohm D.C. w/plug	6.80
No. 70-2K —2K ohm D.C.	5.40
No. 70-3K —3K ohm D.C.	5.70
No. 70-4K —4K ohm D.C.	6.00
SINGLE EARPHONE w/HEADBAND	
No. 72-03 —3.2 ohm	3.50
No. 72-1K —1K ohm D.C.	3.60
No. 72-2K —2K ohm D.C.	3.75

SEE FACING PAGE FOR STEREO TYPES

REX

The lowest cost TRIMM bi-polar headset. Bakelite shell and cap. Double headsets have 4½ ft. braided cord; single earphones have 4½ ft. vinyl covered cord. Concealed terminals. Adjustable headband.

DOUBLE HEADSETS	List
No. 30-03—3.2 ohm	$4.50
No. 30-9-03—3.2 ohm w/plug	5.35
No. 30-2K—2K ohm D.C.	4.70
No. 30-3K—3K ohm D.C.	5.00
No. 30-9-2K—2K ohm D.C. w/plug	5.55
SINGLE HEADSETS	
No. 32-03—3.2 ohm	2.50
No. 32-1K—1K ohm D.C.	2.60



COMMERCIAL

Originally developed for marine and aircraft service. Recommended for commercial radio, amateur radio, etc. A lightweight, comfortable headset. High-impact bakelite cap and shell. Cord is 5 ft. waterproof mercerized cotton with pin tips except on No. 155, 156 and 157 which have TRIMM No. 501 plug attached. No. 151 has adjustable metal headband with over-the-head cord; No. 152 has black fabric covered headband with over-the-head cord; No. 155 has vinyl covered headband; No. 156, 157, 158 and 159 have neoprene covered headbands.

No. 151-03—3.2 ohm	$12.10
No. 151-06—600 ohm	12.10
No. 151-2K—2K ohm D.C.	12.10
No. 152-03—3.2 ohm	12.10
No. 152-06—600 ohm	12.10
No. 152-2K—2K ohm D.C.	12.10
No. 155-03—3.2 ohm w/plug	13.00
No. 155-06—600 ohm w/plug	13.00
No. 155-2K—2K ohm D.C. w/plug	13.00
No. 156 —600 ohm w/plug	15.00
No. 157 —17M ohm w/plug	15.00
No. 158 —600 ohm	13.50
No. 159 —17M ohm	13.50

EAR CUSHIONS

Provide the user with maximum comfort when wearing headsets and excludes outside disturbing noises.

	List
No. 654 —Sponge rubber; fits TRIMM Featherweight, Commercial, Acme, Rex, and "L" types	$1.60
No. 655 —Solid rubber, military type MC-162A. Fits TRIMM "L", "S", Permoflux headsets and military type ANB-H-1 units	3.00
No. 656 —Sponge rubber face, solid rubber back, military type MX-41/AR. Fits same types as No. 655	4.20
No. 658 —Chamois donut face, solid rubber back, military type NAF 4849-1. Fits same types as No. 655	13.35
No. 658-2—Similar to No. 658. Fits Brush type "A" headset	16.95
No. 660 —Sponge rubber. Fits TRIMM Dependable, Army-Navy, Brush type "A" and Brush type "BA" headsets	2.50

In code number listing, the impedance at 1000 c.p.s. is indicated unless shown as D.C. resistance.

ARMY-NAVY

Built for severe use. Design has been accepted standard in years past. Bakelite cap, metal shell. Rubber covered headband. Waterproof cord. Available in two impedances.

	List
No. 28(W)—Double, 600 ohm impedance	$20.00
No. 29(K)—Double, 20M ohm impedance	20.00

See Facing Page for TRIMM Group Hearing Aid Components and other Headsets and Accessories.

See Section 2100 for listing of TRIMM Plugs, Jacks, Patch Cords, and Jack Panels.

Prices and specifications subject to change without notice.

—TRIMM—

HEADSETS AND ACCESSORIES

GROUP HEARING AID COMPONENTS

Single Earphones

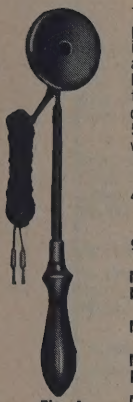


Fig. A

The most widely used single earphones for group hearing aid systems in churches, theatres, mortuaries, etc. are of the TRIMM Featherweight type. Lorgnette handle and single headband types available. Normally used as indicated below. Phone plug such as No. 512 is requred when phones are used with outlet boxes described below.

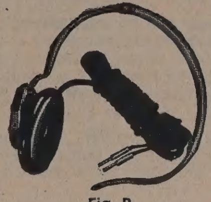


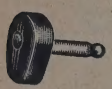
Fig. B

300 ohm Imped. Low imped. lin (up to 50 ohms)
4500 ohm Imped. (1K D.C. ohms) Medium-high imped. line (200-500 ohms)
9000 ohm Imped. (2K D.C. ohms) Large installation on high imped. line.

	List
No. 110-3; 110-1K; 110-2K—Fig. B	$7.60
No. 113-3; 113-1K; 113-2K—Fig. B w/4 ft. cord and 512 plug	8.50
No. 114-3; 114-1K; 114-2K—Fig. B w/6 ft. cord and 512 plug	8.50
No. 120-3; 120-1K; 120-2K—Fig. A	10.00
No. 124-3; 124-1K; 124-2K—Fig. A w/512 plug	10.90

Note: -3=300 ohm imped.; -1K=1K ohm D.C.; -2K=2K ohm D.C.

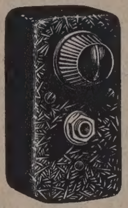
FLAT PLUGS



TRIMM No. 512 provides a compact, non-protruding design widely used in group hearing aid installations. Bakelite body practically non-breakable. Fits standard jacks. Cord pin tips held by set screws.

	List
No. 512 —Black	$0.90
No. 512-1—Red	0.90
No. 512-2—Black with hook for hanging headset	1.35

VOLUME CONTROL — OUTLET BOXES



Control boxes No. 460 and 461 are recommended for the majority of group hearing aid systems, etc. Combine, in a single unit, volume control, phone jack, and terminal strip for incoming line. Box measures 3¾" x 2⅛" x 1¼". All edges and corners rounded. Units available in brown or gray hammertone enamel finish as listed below. Also available in glossy ivory enamel to improve visibility in theatres. Two standard ohmages: 1000 ohms for low impedance lines; 10,000 ohms for high impedance lines. 25,000 and 50,000 ohms used on large installations; also 100,000 and 500,000 ohms used with crystal type phones; these values available at sligh ly higher cost but not listed below:

VOLUME CONTROL—OUTLET BOXES	List
No. 460-1K —Brown Hammertone	$5.50
No. 460-10K—Brown Hammertone	5.50
No. 461-1K —Glossy Ivory	5.50
No. 461-10K—Glossy Ivory	5.50
No. 462-10K—Gray Hammertone	5.50
DUAL JACK OUTLET BOXES (No Control)	
No. 477—Brown Hammertone	3.85
No. 478—Glossy Ivory	3.85
SINGLE JACK OUTLET BOXES (No Control)	
No. 484—Brown Hammertone	3.30
No. 485—Glossy Ivory	3.30

"S" HEADSET

Originally designed for Air Corps service and other military applications. For commercial, high fidelity, and language laboratories, use the new "L" headset (see preceding page). Shell and cap of molded plastic. Alnico V magnet. Supplied with No. 656 cushion (except 35-5 and 35-6; military types HS-33/A) but other types available. Leather covered headband with mounting for unit providing restricted rotation. Over-the-head cord arrangement with No. 501 plug attached to end of cord.

	List
No. 35-06 —600 ohm impedance	$32.00
No. 35-08 —8 ohm impedance	32.00
No. 35-4M—4M ohm impedance	32.00

STEREO HEADSETS AND CONTROL BOXES

Headsets

A variety of TRIMM stereo headsets are available, depending on quality and response desired. The stereo headsets listed below are the most commonly produced; all are supplied with plug. The "L" type has frequency range up to 10,000 C.P.S.

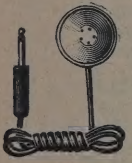
DEPENDABLE	List
No. 70-14-03 —3.2 ohm impedance	$7.00
No. 70-14-2K—2K ohm D.C.	7.90
"L"	
No. 50-14-08 —8 ohm impedance	27.00
No. 50-14-16 —16 ohm impedance	27.00
No. 50-14-6M—6M ohm impedance	28.00
No. 56-14-08 —8 ohm impedance	31.65
No. 56-14-16 —16 ohm impedance	31.65
No. 56-14-6M—6M ohm impedance	32.65
No. 57-14-08 —8 ohm impedance	29.00
No. 57-14-16 —16 ohm impedance	29.00
No. 57-14-6M—6M ohm impedance	30.00
FEATHERWEIGHT	
No. 104-14-03—3.2 ohm impedance	13.60
No. 104-14-1K—1K ohm D.C.	13.60
No. 104-14-2K—2K ohm D.C.	13.60

Control Boxes

TRIMM stereo control boxes are similar to other types illustrated on this page, except supplied with two volume controls and one stereo connected jack. Boxes can be supplied with rubber jacketed cord upon request.

	List
No. 464-1C—100 ohm (Brown Hammertone)	$9.40
No. 465-1C—100 ohm (Glossy Ivory)	9.40
No. 466-1C—100 ohm (Gray Hammertone)	9.40

PILLOW-PHONE



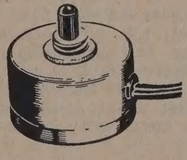
Designed for use as a miniature speaker for under-pillow use at home, in hospitals, etc. Very thin, disc-shaped, 2" dia. x 27/64" thick.

Sealed unit is entirely moisture-proof and tamper-proof. Face of stainless steel, back of molded high-impact brown bakelite. Flexible, brown plastic covered cord, 6 ft. long, is anchored to unit under terminal cover that can not be readily removed by user. Normally furnished with TRIMM No. 514 plug. May be cleaned in disinfecting solutions.

	List
No. 85-03 —3.2 ohm impedance	$11.50
No. 85-3 —300 ohm impedance	11.50
No. 85-2M—2M ohm impedance	11.50

CONTACT FACTORY FOR ADDITIONAL INFORMATION ON HEADSETS, ACCESSORIES AND REPLACEMENT PARTS.

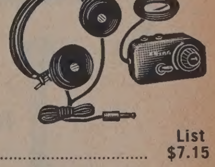
"STOP-IT" COMMERCIAL TRIMMER



Permits user to turn off audio signal of TV or radio set without getting up from chair, giving listener freedom to choke off unwanted commercials. Other uses that suggest themselves are to suppress loudspeaker when phone rings, etc.

No. 639—"STOP-IT" (Illustrated at left) consists of housing containing switch to which is attached 20 ft. cord ready to install in accordance with instructions with each unit $3.40

HEADSET KITS FOR TV AND RADIO



Kits described provide simple means of attaching headset or extension speaker to TV or radio sets. Consists of one of several types of headsets, including plug, and a small control-outlet box with attached 15 ft. cord. Box has remote on-off switch for loudspeaker and volume control for headset. Two jacks provided for multiple listening.

CONTROL BOX, only	List
No. 631	$7.15
KITS, including control box and headset or earphone, with plug.	
No. 632 —With No. 24-9-03 double Acme Headset	11.90
No. 632-1—With No. 27-9-03 single Acme Earphone	10.05
No. 633 —With No. 70-9-03 double Dependable Headset	13.05
No. 634 —With No. 104-9-03 double Featherweight Headset	18.95
No. 635 —With No. 115-03 single Featherweight earphone (Recommended for hard of hearing)	15.60
No. 637 —With No. 85-03 Pillow-Phone	18.65

SEE GENERAL CATALOG FOR ADDED INFORMATION ON "STOP-IT" AND HEADSET ATTACHMENT KITS

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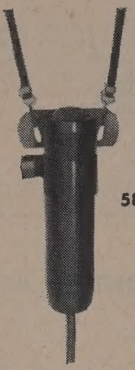
MICROPHONES BY TURNER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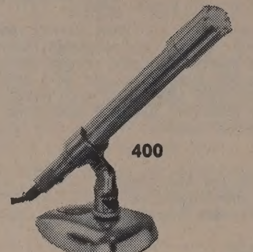
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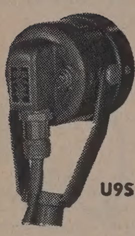
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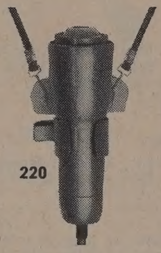
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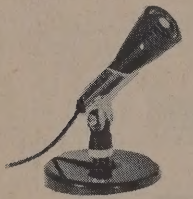
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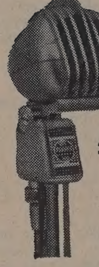
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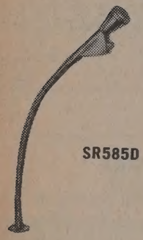
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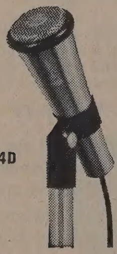
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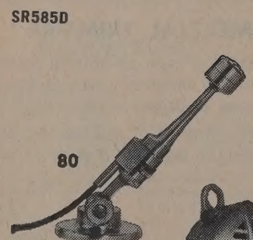
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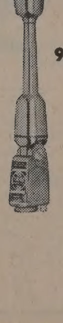
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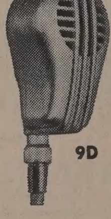
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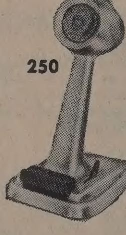

250

BROADCAST MICROPHONES

TURNER 400 SERIES MICROPHONES. High quality broadcast type microphones featuring adjustable impedance and response. Wide response pressure operated moving coil dynamic, essentially non-directional. Recommended for motion picture studio, TV, broadcast and high fidelity recording applications. Positive grip cam lock allows instant insertion or removal of microphone without disconnecting.

MODEL 401—Screwdriver, impedance and response adjustment. Response from 40 cps to 20,000 cps. Output level: —60 db. at high impedance. Cable is three conductor shielded plastic jacketed 20 ft. long. Slate blue, non-reflecting finish. Net price **$75.00**

MODEL 402—Same as Model 401, except with line shorting switch. Net price **$78.00**

MODEL 403—150 ohms or high impedance with impedance selection at end of cable. Response from 50 cps to 13,000 cps. Output level: —60 db. at high impedance. Bright chrome epoxy finish. Net price **$48.00**

MODEL 404—Same as Model 403, except with line shorting switch. Net price **$51.00**

MODEL 58—A dynamic lavalier microphone that's a natural for any application requiring freedom and mobility—panel shows, interview, sportscasting, etc. Only 4″ long. Weight, 3½ oz. Choice of either high or 150 ohms impedance selected at the free end of the cable. Response from 60 to 13,000 cps at high impedance. Output level: —60 db. Net price **$34.20**

MODEL 58A—Same as Model 58, but is combination 50 or 200 ohm selected at free end of cable. Net price **$34.20**

MODEL 220—A high-quality dynamic lavalier microphone designed for am., fm., and TV broadcast use. Combination output impedance of 50 or 200 ohms selected at the terminal end of the cable. Response from 60 to 20,000 cps. Output level: —90 db. at 50 ohm. Cable is 25 ft. attached rubber covered, three conductor shielded. Net price **$75.00**

PUBLIC ADDRESS AND GENERAL PURPOSE MICROPHONES

MODEL 33X—Excellent for paging, communications, announcing, P.A. use, ham radio. Satin chrome finish, 90 degree swivel coupler, supplied with 20 ft. cable. A crystal type microphone with response from 60 to 9,000 cps. Output level: —52 db. High impedance. Net price **$16.50**

MODEL 33D—Dynamic type. Same as Model 33X except with response from 100 to 9,000 cps. Output level: —54 db. Combination impedance—50, 200 or high. Net price **$21.00**

MODEL U9S—A rugged, dependable multi-impedance dynamic for use in "tough" P.A., mobile, announcing and recording jobs. Adjustable saddle, gun-metal lustre finish, three pin polarized locking connector and 20 ft. balanced line cable. Response from 80 to 9,000 cps. Output level: —52 db. at high impedance. Multi-impedance—switch for 50, 200, 500, or high. Net price **$31.80**

MODEL 204D—A dynamic microphone designed to give top performance under hard use conditions. Response from 60 to 13,000 cps. Output level: —53 db. High impedance. Comes with lavalier, desk stand, and stand adapter. Net price **$24.30**

MODEL 304C—Provides four-in-one versatility to perform as a P.A. or intercom microphone. Accessories: desk stand, lavalier clip and string, and stand adapter. Response from 60—10,000 cps; output level, —60 db. Net price.......... **$9.90**

MODEL 80—A crystal microphone ideal for home recording, paging or amateur use. Small and graceful with satin chrome finish. 7 ft. cable supplied. Response from 80 to 7,000 cps. Output level: —54 db. High impedance. Net price **$9.57**

Matching C-4 stand Net Price.......... **$3.90**

MODEL 95D—A dynamic P.A. microphone for use in churches, schools, nightclubs, and high quality recording applications. Available with on-off switch. Complete with 20 ft. cable. Response from 100 to 10,000 cps. Output level: —58 db. Choice of 50, 200 or high ohms. Net price **$22.50**

MODEL 9D—A dynamic microphone designed for P.A., amateur, and mobile use. Comes with slide on-off switch. Response from 150 to 7.000 cps. Output level: —52 db. Specify impedance; 200 ohm or high. Net price.......... **$19.50**

Model P-9D (with push-to-talk switch) Net price.......... **$19.50**

MODEL 250—A dynamic microphone ideal for dispatch, paging, P.A., control tower and amateur use. Wired to operate both relay and mike circuits at a touch. Features on-off push-to-talk and lock switch. Also features Turner's "lift-switch". Response from 60 to 10,000 cps. Output level: —52 db. Complete with single unit satin chrome case and 20 ft. three conductor (one shielded) cable. Net price **$29.70**

MODEL 251—Same as Model 250 except 150 ohms. Net price **$29.70**

MODEL 256—A crystal version of the 250. Response from 60 to 8,000 cps. Output level: —48 db. Net price **$21.00**

MODEL SR-585D—Fixed mounted dynamic microphone with push-to-talk switch. Designed for fixed mounted applications, this microphone is ideal for grocery call stations, switchboards, paging, dispatches, etc. The switch is line-shorting and is designed to actuate a relay. The switch is a six-terminal slide switch which allows the user to wire anything from DPDT to SPST. The microphone is in a die cast satin chrome housing on a 16″ flexarm with a 3 hole mounting flange attached. Impedance is 150 ohms. The cable extends 4′ from the base of the mounting flange and is 4 conductor (two shielded). Response from 70 to 12,000 cps. Output level: —58 db. Overall length: 22″. Shipping weight: 3 lbs. Net price **$26.10**

MICROPHONES BY TURNER

NEW...Model 500 Cardioid Dynamic

... Smooth, uniform response from 40 to 15,000 cps.
... Minimal popping and breath noise at close range.
... New Dynaflex diaphragm for maximum uniformity.
... Excellent sensitivity (—55 db. 150 ohm —79 db.)
... Rugged, yet graceful slender design.

An outstanding new cardioid microphone with unexcelled uniformity. From original conception to drawing board to testing laboratory, the guiding principle in the development of the Model 500 Cardioid has been uniformity. The result is a low-cost cardioid microphone with a smooth, uniform response curve. All model 500's are truly interchangeable in any system, with no testing necessary for possible variations in frequency response of front-to-back ratio.

SPECIFICATIONS

TYPE: Cardioid dynamic

RESPONSE: 40-15,000 cps.

OUTPUT: High —55 db. (below 1.0 v/microbar) 150 ohms —79 db.

IMPEDANCE: High or 150 ohms

POLAR PATTERN: Cardioid (Symmetrical about axis)

MAGNETIC CIRCUIT: Alnico 5 magnet with Armco magnetic iron

CASE: Die cast zinc alloy

CABLE CONNECTOR: Cannon 4 pin XLR-4-11C

CABLE: Detachable 20 ft., three conductor (shielded) black rubber jacketed.

DIMENSIONS: Length 6$^{13}/_{16}$" — diameter 1$^{17}/_{32}$"

WEIGHT: 12 oz. (less cable)

SHIPPING WEIGHT: 3 lbs.

STANDARD ACCESSORIES: Model C-7 desk stand . . . List price . . . **$9.50**

MODEL 500 .... **Net Price $50.40**

MODEL S-500 (with on-off switch)
Net Price $52.50

CITIZENS BAND MICROPHONES

MODEL 350C—A ceramic mobile microphone with on-off switch, ideal for citizens band, amateur use, mobile rigs and paging. Wired for relay operation. Rugged plastic case. Complete with hanger button and standard dash bracket for easy mounting. Equipped with 11" retracted, 5 ft. extended, rubber jacketed, coiled cord. Response from 80 to 7,000 cps. Output level: —54 db. Net price......**$7.50**

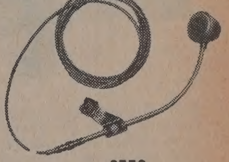
MODEL 350R—A carbon version of the 350C. Response: 200 to 4,500 cps. Output level: —38 db. Net price **$11.40**

MODEL 254C—A ceramic base station microphone with on-off push-to-talk and lock switch. Durable grey hammertone finish. Response from 80 to 7,000 cps. Output level: —54 db. Cable is 7 ft., three conductor (one shielded) wired for relay operation. Net price **$14.10**

MODEL 355C—A new style microphone ideal for citizens band, amateur use, mobile rigs and paging. Wired for relay operation. New hand-ease switch for grip-to-talk action. Complete with hanger button and standard dash bracket for easy mounting. Equipped with 11" retracted, 5 ft. extended, rubber jacketed, coiled cord. Response from 80 to 7,000 cps. Output level: —50 db. Net price **$7.50**

350C

254C



355C

260

LANGUAGE LAB MICROPHONES

MODEL 585—An attractive chrome microphone on a 16" goose neck with a three hole mounting flange. All threaded joints are "pinned" to discourage tampering. Available with crystal, ceramic or dynamic (high or 150 ohms) interior.

MODEL 58500 (Crystal)—High impedance. Response from 50 to 10,000 cps. Output level: —56 db. Net price **$13.20**

MODEL 58501 (Ceramic)—High impedance. Response from 50 to 10,000 cps. Output level: —62 db. Net price **$13.20**

MODEL 58502 (Dynamic)—High impedance. Response: 50-12,000 cps. Output level: —58 db. Net price **$21.30**

MODEL 58503 (Dynamic)—150 ohm. Response: 50-12,000 cps. Output level: —81 db. Net price **$21.30**

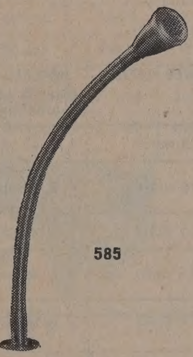
MODEL 588—Comes on a 13" steel shaft with friction swivel base. Exclusive shock mount base reduces extraneous noise caused by auxiliary equipment. Fold down height is 1¾". Secures with one bolt. Same specifications as Model 585.

MODEL 58800 (Crystal)—Net price	**$16.80**
MODEL 58801 (Ceramic)—Net price	**$16.80**
MODEL 58802 (Dynamic High)—Net price	**$24.00**
MODEL 58803 (Dynamic 150 ohm)—Net price	**$24.00**

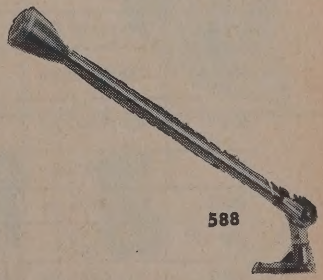
MODEL 260—Features crystal head phones, and a selection of crystal, ceramic or high or low impedance dynamic microphone. Microphone is available with or without headset. Same specifications as comparable 585 Models.

MODEL 26000 (Crystal) Microphone—Net price	**$13.00**
MODEL 26001 (Ceramic) Microphone—Net price	**$13.00**
MODEL 26002 (Dynamic low) Microphone—Net price	**$23.00**
MODEL 26012 (Dynamic high) Microphone—Net price	**$23.00**

Please write for full specifications and prices on Turner Language Lab Microphones.



585



588

NEW TURNER MODEL T/C 266

Headphone/microphone combination. Hi impedance crystal phones coupled with hi (25,000) ohms, 500 ohms or 10 ohms dynamic microphone. Removable donut ear cushions. Headphone response 50-10,000 cps. Microphone response is 100-10,000 cps. Lightweight, durable and rugged.

MODEL T/C 266 .... Net Price **$26.34**

T/C266

CUSTOM AUDIO DEVICES

Turner has complete facilities for designing and manufacturing custom audio devices of all kinds. Special application microphone interiors, soft speakers for dictating machines, anything you need. Write for full information on this service.

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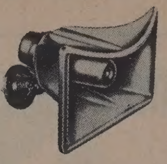
UNIVERSITY™
LOUDSPEAKERS
DIVISION OF LTV LING TEMCO VOUGHT INC

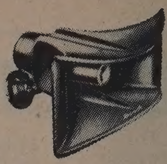
paging / talk-back

MIL-A New version of the MIL, with higher power capacity (7.5 watts continuous duty) and improved lower frequency. High conversion efficiency for perfect operation in low power systems. OLB*.



CMIL-A Similar to CIB-A, but for use in lower power operations where excessive sound would be wasted. Offers high efficiency, maximum intelligibility. OLB*.

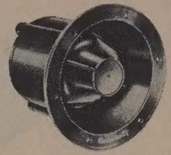
IB-A New version of world's most widely used medium power speaker. 25 watts continuous duty power capacity. Lower frequency response improved to 250 cps. High efficiency, special rising frequency characteristic. OLB*.



CIB-A Exclusive University wide-angle horn for uniform sound pattern with optimum vertical dispersion. Ideal for wide area coverage where ambient noise level not excessive. Design minimizes feedback problems. OLB*.

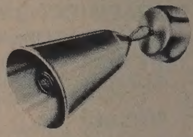
*Exclusive patented swivel mounting OMNI-LOK BRACKET; also fastens to ½" pipe without additional fixture.

IBR-A Small radial speaker with built-in driver. Economical solution where total number of speakers must be kept to a minimum but where wide coverage is required.

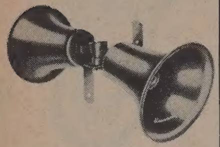


MIS Compact reflex speaker designed for flange or flush mounting in cabinets, walls, etc. Ideal replacement for less efficient cone speakers. Tropicalized and weatherproof. High-impact plastic housing.

CR Big power in a small package. Built-in driver with heavy duty 2" voice coil. High intelligibility in noisy areas. Frequency response ideal for music reproduction.



LIL-8 In appearance, a handsome, functional lamp—in performance, a truly superior paging speaker. Compact, yet offers high power handling capacity, wide frequency range and high conversion efficiency for improved results with low power systems.

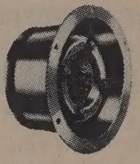


2WP Bi-directional paging projector covers two opposite areas effectively, efficiently with one driver. (Takes any University driver except ID-60T.) Supplied less driver.

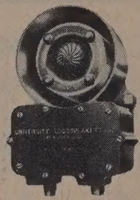
multi-duty

ES-50 Versatile, high power speaker, especially developed for electronic siren applications. Rated full 50 watts for typical siren signal above 400 cps. As general-purpose speaker, full power rating applies over entire 250-10,000 cps range of integrated program material.

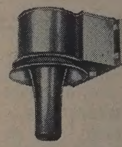
MM-2 Power capacity and frequency response ideal for clear, noise-cutting reception. Screws permit removal from front to expose diaphragm for cleaning. Serrated swivel mounting bracket.



MM-2F Flush mounting version of MM-2. Performance and specications identical to MM-2. These speakers are the ruggedest in the P.A. field. Completely weather-proof. Performance unaffected even after being completely drenched (as on boats).



MM-2TC Complete speaker, using cast aluminum bell and weatherproof housing with space for a line matching transformer and/or volume control which can be mounted right into position. For bulkhead, wall or ceiling mounting, the MM-2TC-T comes with multi-impedance transformer and pad attenuator built in.



MSR All die-cast reflexed air column speaker with radial deflector for 360° horizontal dispersion. Hermetically sealed driver easily removed. Provisions for line matching transformer and volume control. Wall/ceiling bulkhead mounting. MSR-T comes with multi-impedance transformer and pad attenuator built in.

specifications

MODEL	FREQUENCY RESPONSE	POWER RATING	IMPEDANCE (specify when ordering)	DISPERSION	*SOUND PRESSURE LEVEL	†SENSITIVITY AS MICROPHONE	DIMENSIONS	SHIPPING WEIGHT
IB-A	250-13,000 cps	25 watts	4, 8, 45 ohms	90°	123 db	—26 DBM	10¼" dia. 9" deep	4 lbs.
CIB-A	250-13,000 cps	25 watts	4, 8, 45 ohms	120° x 60°	123 db	—22 DBM	7⅜" hi. 14" wide 12" deep	5½ lbs.
MIL-A	350-13,000 cps	7.5 watts	4, 8, 45 ohms	120°	115 db	—23 DBM	7 13/16" dia. 6⅞" deep	3¼ lbs.
CMIL-A	350-13,000 cps	7.5 watts	4, 8, 45 ohms	120° x 60°	115 db	—20 DBM	6¼" hi. 9½" wide 8½" deep	4 lbs.
MIS	500-13,000 cps	5 watts	4, 8, 45 ohms	150°	111 db	—22 DBM	5½" o.d. 4 7/16" deep 6 holes on 4⅞" mtg. dia.	2½ lbs.
CR	250 -8000 cps	20 watts	16 ohms	90°	119 db	—22 DBM	11½" dia. 11½" deep	8¾ lbs.
IBR-A	300-10,000 cps	25 watts	4, 8, 45 ohms	360°	108 db	—32 DBM	13" dia. 10¼" deep	5¼ lbs.
2WP	350 cps horn cut-off	Depends upon driver used	Depends upon driver used	120° each horn	Depends upon driver used	Depends upon driver used	8½" dia. each bell 20½" long	4 lbs.
MM-2	350-10,000 cps	25 watts	16 ohms	150°	117 db		6" o.d. 5" deep	5¼ lbs.
ES-50	250-10,000 cps	50 watts**	16 ohms	120°	123 db		6 13/16" o.d. 6⅞" deep	5½ lbs.
MM-2F	350-10,000 cps	25 watts	16 ohms	150°	117 db		7¼" o.d. 3"¾ deep	5¼ lbs.
MM-2TC	350-10,000 cps	25 watts	16 ohms	120°	117 db		10" high 6 7/16" w. 4 7/16" deep	**MM-2TC—8½ lbs.** **MM-2TC-T—9¾ lbs.**
MSR	250-10,000 cps	25 watts	16 ohms	360°	114 db		10¾" hi. 7¾" w. 8¼" deep	**MSR—10¼ lbs.** **MSR-T—11¼ lbs.**
LIL-8	300-10,000 cps	15 watts	8 ohms	110°	119 db	—27 DBM	15½" long 6⅞" dia.	4½ lbs.

*Sound pressure readings taken at 4 ft. with "Full Range" power input. Reduce by 6 db each time distance is doubled. Reduce by 3 db each time power input is halved; increase by 3 db when power input is doubled.

**See ES-50 description above.

†DBM re 10 dynes/cm^2.

Note: MIS and all MM speakers are patented.

HIGH 'A' . . . HIGH AUDIBILITY . . . exclusive with **UNIVERSITY LOUDSPEAKERS**

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UNIVERSITY: PUBLIC ADDRESS AND HIGH-FIDELITY

drivers

MODEL ID-20 (20 watts) For speech and music systems requiring moderate sound power output, and where performance with economy is a primary consideration. Designed to deliver maximum output, the ID-20 utilizes its efficiency to the best advantage, producing a substantial "punch" with clear, penetrating sound.

MODEL ID-30 (30 watts) Redesigned version of the world famous MA-25—ideal for installations requiring single medium power units or multiple driver/horn arrangements. The ID-30, with its unusually wide upper midrange response (up to 7500 cycles), produces musical balance and noise penetration far in excess of higher-cost competitive models. Completely weatherproof with tropicalized 2" voice coil and breakdown-proof linen base diaphragm. A top value!

MODEL ID-40 (40 watts) Latest, maximized version of the famous, earlier Model SA-HF, often referred to as the "workhorse" of the sound industry, and widely used by high fidelity manufacturers and audio hobbyists as well. Extended high frequency response and excellent efficiency assure an essentially uniform response characteristic for pleasing, natural reproduction of speech and music, while delivering that extra "punch" needed to cut through heavy noise. Tropicalized and weatherproofed, the ID-40 can be relied upon to give continuous top-flight performance under adverse weather conditions.

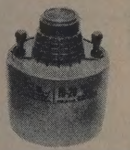
MODEL ID-40T (40 watts) Offers the same power capacity, efficiency and frequency response as the ID-40, and incorporates a built-in line-matching transformer. The transformer terminal plate is inside the rugged, die cast aluminum housing; entrance is made through an exclusive watertight dural gland nut, assuring positive weatherproofing after connections have been made. Terminals are labeled in impedances and in wattage consumed on "constant voltage" lines. Transformer impedances: 45/122/250/500/1000/2000 ohms. 70 V. line power taps: 40/20/10/5/2.5 watts.

MODEL ID-60 (60 watts) The premium compression driver in the world famous University line. Ideally suited to applications requiring the greatest power handling capacity, maximum efficiency, widest range frequency response, and rugged construction that will withstand a lifetime of hard use. Extra large, super-power all-Alnico V exclusive "W" magnet eliminates full 50% of reluctance losses normally present in other designs. Minimum gap width gives lowest leakage, and maximum gap flux density, resulting in peak electromechanical efficiency. Use of rugged outercase assures utmost durability even when abused or in hazardous environment. Watertight voice coil terminals are located at the base of the housing, for added convenience and greater dependability. Without question, the ID-60 is the finest wide range, high power Public Address driver unit ever offered.

MODEL ID 60T (60 watts) Similar to the ID-60, but with high-impact plastic outercase, the ID-60T includes a husky built-in line matching transformer, with its terminals immediately available at the base of the driver housing. Ideal for rental work requiring repeated set-up and dismantling of equipment, and for semi-permanent systems where changes in the number or location of speakers are likely to affect line impedance requirements. Transformer impedances: 16/80/165/250/500/1000/2000 ohms. 70 volt line power taps: 60/30/20/10/5/2.5 watts.

specifications

DRIVER MODEL	FREQUENCY RESPONSE	POWER RATING	VOICE COIL IMPEDANCE	DIMENSIONS (Overall)	SHIP. WT.
ID-20	120-6500 cps	20 watts	16 ohms	3½" dia. 3¾" d.	2½ lbs.
ID-30	85-7500 cps	30 watts	16 ohms	4⅛" dia. 3¾" d.	3 lbs.
ID-40	80-12,000 cps	40 watts	16 ohms	4½" dia. 4⅞" d.	4¼ lbs.
ID-40T	80-12,000 cps	40 watts	16 ohms	5" dia. 6¼" d.	5¼ lbs.
ID-60	70-12,000 cps	60 watts	16 ohms	4¹¹⁄₁₆" dia. 5" d.	4¼ lbs.
ID-60T	70-12,000 cps	60 watts	16 ohms	6¾" dia. 6¾" d.	6½ lbs.

ID-20


ID-30

ID-40

ID-40T

ID-60

ID-60T

trumpets

DIRECTIONAL MODELS GH, LH, PH, SMH For maximum penetration of distance and noise. Reflex construction assures maximum conversion efficiency, full weather protection. Baked finish.

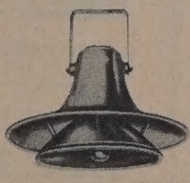
RADIAL MODELS RLH, RPH, RSH For uniform 360° overhead sound distribution from a single projector. Fewer speakers needed to cover high-ceiling factories, hangars, church interiors, etc. Baked finish.

WIDE ANGLE COBREFLEX† Outstanding feature is pair of folded exponential horns having twin air columns in a single assembly. "Dual Exponential Flare" design results in very smooth radiation pattern and high efficiency. Rugged construction. Use singly or in clusters. Baked finish.

WIDE ANGLE MODEL CLH† Longest air column length and wide-angle bell designed for maximum low frequency response. Omni-directional mounting bracket permits speaker to be rotated horizontally and vertically for optimum projection . . . tune out reverberation, dead spots. Perfect for multi-speaker cluster arrays. Can be "stacked" in any configuration. Fiberglas bell.

MODEL L30-1 CLH Horn Stacking Kit for clamping bell rims together in any desired configuration. Each kit clamps two horns. Shpg. wt., 6 oz.

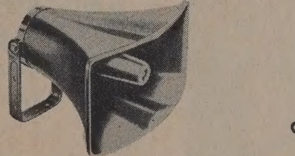
PH, SMH
GH, LH,



RLH, RPH, RSH

specifications

HORN MODEL	LOW FREQUENCY CUT-OFF	SOUND DISTRIBUTION	AIR COLUMN LENGTH	HORN LENGTH	BELL DIA.	SHIP. WT.
GH	85 cps	65°	6½ ft.	28"	31"	22 lbs.
LH	120 cps	75°	4½ ft.	19"	25¾"	16½ lbs.
PH	150 cps	85°	3½ ft.	15¾"	20⅜"	11¾ lbs.
SMH	200 cps	95°	2½ ft.	12"	16¼"	8 lbs.
RLH	120 cps	360°	5 ft.	18½"	28⅛"	25 lbs.
RPH	140 cps	360°	4 ft.	13¾"	25⅛"	19 lbs.
RSH	180 cps	360°	3 ft.	11"	19"	13 lbs.
COBREFLEX†	200 cps	120° x 60°	2½ ft.	10¼"	18½" x 9¼"	10¼ lbs.
CLH†	120 cps	120° x 60°	4½ ft.	20"	21½" x 11½"	13¼ lbs.

CLH


COBREFLEX ®

SPECIFICATION NOTE: Low frequency limit based on capability of driver unit. If horn cut-off is higher than rated low frequency limit of driver, horn will be determining factor.

†*Patented.*

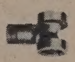
accessories

CTR

PB-1

5433

5434

2YC


RTA

WEA

SPA

ST

SB

MODEL CTR TRANSFORMER/JUNCTION HOUSING Die cast aluminum. Weatherproof. Houses models 5433, 5434, or other transformers up to 2⅜" x 2⅞" x 2⅞". Adjustable slotted adapter mounts transformers with centers 1½" to 2⅞". Junction box for speaker lines. Bar strap for mounting to "U" brackets. Screws to wall. Also holds University paging speakers. Shpg. wt., 1½ lbs.

MODEL PB-1 TRANSFORMER HOUSING Weatherproof. For MIL-A, CMIL-A, IB-A and CIB-A paging speakers. Use Model 5434 transformer, or other type with 2" mounting center and 1-15/16" h. x 1⅝" w. maximum dimensions. Shpg. wt., ½ lb.

MODEL 5433 TRANSFORMER 30 watt capacity. Use with ID-20, ID-30 or to feed a number of smaller paging speakers. Primary impedance: 45/165/200/250/500/1000/2000 ohms. Secondary impedance: 4/8/16 ohms. 70 v. lihe power taps: 30/25/20/10/5/2.5 watts. Dimensions: 1-15/16" x 2-5/16" x 1¾". Mtg. hole centers: 2⅜". Shpg. wt. 1 lb.

MODEL 5434 TRANSFORMER 15 watt capacity. Primary impedance: 45/325/500/1000/2000/4000/8000 ohms. Secondary impedance: 4/8/16 ohms. 70 v. line power taps: 15/10/5/2.5/1.25/.65 watts. Dimensions: 1⅝" x 1-15/16" x 1⅝". Mtg. hole centers: 2". Fits CTR and PB-1. Shpg. wt., ½ lb.

2YC CONNECTOR Allows use of two driver units on a single radial, directional, or wide-angle trumpet. Shpg. wt., 1 lb.

RTA ADAPTER Fits University trumpets to Western Electric and RCA drivers having 1-7/16-16 threads. Shpg. wt., ½ lb.

WEA ADAPTER Fits University drivers to Western Electric and RCA trumpets having 1-7/16-16 threads. Shpg. wt., ½ lb.

SPA ADAPTER Replaces standard triangular base used on all University CR and MM-2 paging speakers for mounting to ½" IPS threaded pipe. Shpg. wt., ½ lb.

MODEL ST Transformer/Junction Box Adapter. Fits MM-2, ES-50. Weatherproofed. For bulkhead, wall, ceiling mounting. Houses transformers up to 2¼" x 2¼" x 2¾", with 2" and 2⅜" mounting centers. Use as terminal or junction box. Shpg. wt., 1 lb.

MODEL SB Bulkhead Mounting Adapter. Fits MM-2, ES-50. 3 mounting holes 120° apart on 5-13/16" mounting circle diameter. For flush-fit mounting onto bulkhead, wall, ceiling. Shpg. wt., 1 lb.

HIGH 'A' . . . HIGH AUDIBILITY . . . exclusive with **UNIVERSITY LOUDSPEAKERS**

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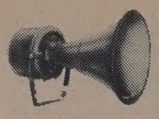
UNIVERSITY™ LOUDSPEAKERS
DIVISION OF LTV LING-TEMCO-VOUGHT INC

SPECIAL PURPOSE LOUDSPEAKERS

superpower

4A4

B-6P


B12P

weatherproof

MLC

CLC

WLC

explosion-proof

7101, 7102

underwater

MM-2FUW

MM-2UW

powrpage

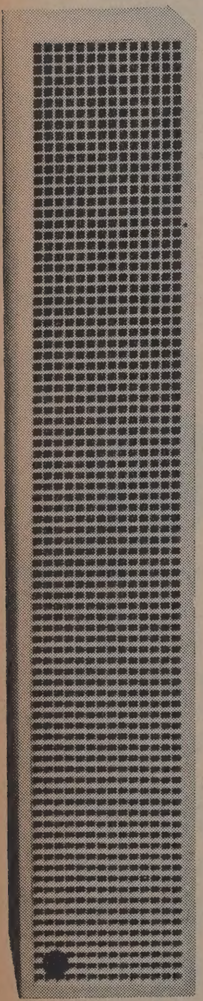
PP-1T

specifications

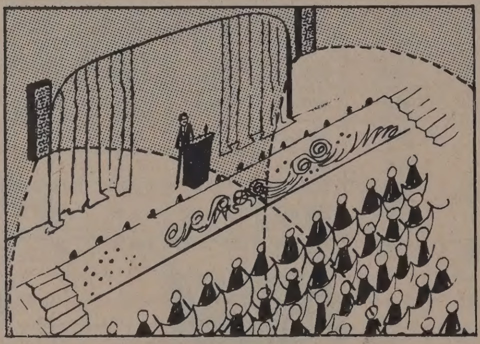
MODEL		FREQUENCY RESPONSE	POWER RATING	DISPERSION	IMPEDANCE	DIMENSIONS		SHIPPING WEIGHT
						DIAMETER (overall)	DEPTH (overall)	
MLC		150-15,000 cps	15 watts	120°	8 ohms	12¾″ x 9⅛″	10⅝″	10 lbs.
CLC		55-14,000 cps	30 watts	120°	8 ohms	22¾″	12¹¹⁄₁₆″	23 lbs.
WLC		50-15,000 cps	30 watts	90°	8 ohms	33½″	20″	68 lbs.
7101 and 7102†		200-10,000 cps	30 watts	95°	16 ohms	15¾″	19″	23¾ lbs.
4A4 Used With 4 Drivers of Types	ID-30	120- 7,500 cps	120 watts	80°	4, 16, 64	30¾″	28⅞″	46 lbs. less drivers
	ID-40	120-12,000 cps	160 watts		4, 16, 64			
	ID-40T	120-12,000 cps	160 watts		wide variation			
	ID-60	120-12,000 cps	240 watts		4, 16, 64			
B-6P Used With 6 Drivers of Types	ID-30	200- 7,500 cps	180 watts	100°	2.7, 10.7, 24, 96 ohms	12½″	21⅜″	55 lbs. less drivers
	ID-40	200-12,000 cps	240 watts					
	ID-60	200-12,000 cps	360 watts					
B-12P Used With 12 Drivers of Types	ID-30	100- 7,500 cps	360 watts	80°	1.3, 5.3, 12, 21.3, 48, 192 ohms	31½″	47″	60 lbs. less drivers
	ID-40	100-12,000 cps	480 watts					
	ID-60	100-12,000 cps	720 watts					

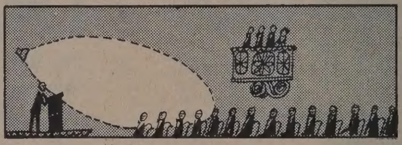
**POWRPAGES, as well as all other University P.A. Loudspeakers, are approved for Civil Defense matching funds.

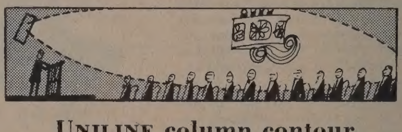
†Transformer impedances, 7101 and 7102: 45/165/200/250/500/1000/2000 ohms. 70 V. line power taps, 7101 and 7102: 30/25/20/10/5/2.5 watts.


UCS-6

NEW UNIVERSITY UNILINE *ACOUSTICALLY TAPERED* SOUND COLUMNS REDUCE ACOUSTIC FEEDBACK AND REVERBERATION TO INSIGNIFICANT LEVELS . . .


Wide horizontal dispersion—the UNILINE, delivering sound in depth over a large area.


Conventional speaker contour.

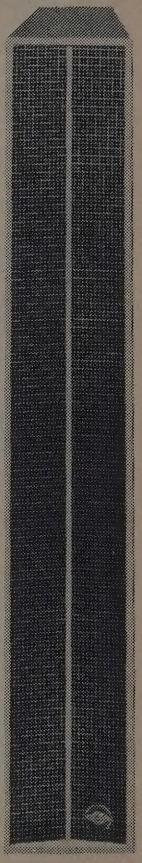

UNILINE column contour.

Constant loudness contours shown for a UNILINE column versus a conventional speaker, illustrating the situation that exists at representative midrange frequencies, where most of the 'punch' of the sound is concentrated. With UNILINE, loudness is the same for a listener located anywhere in the auditorium.

specifications

	UCS-6 Full Range Music and Speech	CSO-6* Full Range Music and Speech	CS-4 Full Range Music and Speech	CS-3 Music and Speech
speakers	6 extended range 8″	6 extended range 8″	4 extended range 8″	8 special multi-design
frequency range	55-17,000 cps	55-17,000 cps	70-17,000 cps	150-10,000 cps
power capacity	150 watts IPM**	150 watts IPM**	80 watts IPM**	25 watts IPM**
impedance	16 ohms	16 ohms	8 ohms	16 ohms
vertical angle	16°	16°	22°	22°
horizontal angle	120°	120°	120°	120°
dimensions	59¼″ x 10⅞″ x 9¹⁄₁₆″	59¼″ x 10⅞″ x 9¹⁄₁₆	40⅜″ x 11″ x 9¹⁄₁₆″	48″ x 7½″ x 8¾″
shipping wt, lbs.	61	61	46	33

*Completely weatherproof.
**Integrated program material.


CS-3

'HIGH A' . . . HIGH AUDIBILITY . . . exclusive with **UNIVERSITY LOUDSPEAKERS**

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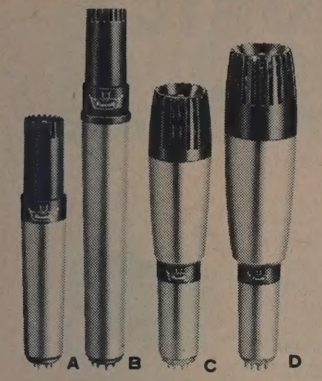
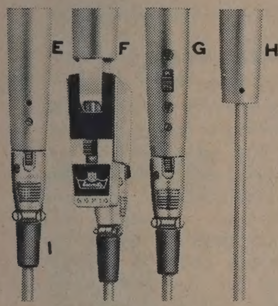
UNIVERSITY MODULAR MICROPHONES

UNIVERSITY™
LOUDSPEAKERS
DIVISION OF LTV LING-TEMCO-VOUGHT INC





A MODEL 401

Frequency response: 30-20,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms, —55 db/1 mv/10 dynes/cm²; —148 db EIA sensitivity rating; 20,000 ohms, into high impedance input, 16 mv/10 dynes/cm².

B MODEL 402S

Frequency response: 30-20,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms, —55 db/1 mv/10 dynes/cm²; —148 db EIA sensitivity rating; 20,000 ohms, into high impedance input, 16 mv/10 dynes/cm².

C MODEL 501

Frequency response: 30-16,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms, —54 db/1 mv/10 dynes/cm²; —147 db EIA sensitivity rating; 20,000 ohms, into high impedance input, 17 mv/10 dynes/cm².

D MODEL 502S

Frequency response: 30-16,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms, —54 db/1 mv/10 dynes/cm²; —147 db EIA sensitivity rating; 20,000 ohms, into high impedance input, 17 mv/10 dynes/cm².

WORLD'S ONLY MICROPHONES WITH MODULAR FLEXIBILITY

University's professional microphones bring new dimensions in quality and utility for hypercritical applications requiring the ultimate in full-range pickup. The omni-directional models open new frontiers in over-all uniformity of response and in extension of the bass range. The cardioid models span the complete frequency range, free of peaks and with consistently high front-to-back discrimination. The lavalier models have low frequency characteristics tailored for the most natural response under their special conditions of use.

TV AND BROADCAST LAVALIERS

MODEL 403L

Frequency response: 60-20,000 cps
Impedance: 30/50; 150/250 ohms
Output level: —55 db/1 mv/10 dynes/cm²; —148 db EIA sensitivity rating; 16 mv/10 dynes/cm².

MODEL 404L

Frequency response: 50-20,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50 and 150/250 ohms, —55 db/1 mv/10 dynes/cm²; —148 db EIA sensitivity rating; 20,000 ohms into high impedance input, 16 mv/10 dynes/cm².

FOR HOME TAPE RECORDING, AMATEUR & CB, & PUBLIC ADDRESS

MODELS 70 & 71*

Frequency response: 50-14,000 cps
Impedance: 30/50; 20,000 ohms
Output level: 30/50 ohms, —50 db/1 mv/10 dynes/cm²; —143 db EIA sensitivity rating; 20,000 ohms into high impedance input, 28 mv/10 dynes/cm².
*Model 71 includes on-off slide switch.

MODELS 61 & 61HF

Frequency response: Model 61, 95-9,500 cps; Model 61HF, 70-14,000 cps
Impedance: 25,000 ohms
Output level: (Open circuit): —55 db/1.0 volt/dyne/cm²; 18 mv/10 dynes/cm²

RUGGED, VERSATILE MICROPHONE DESK STAND FOR PROFESSIONALS & HOBBYISTS

MODEL SA10 Slide-on Stand Adaptor

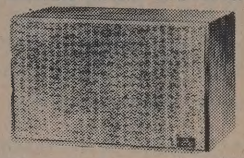
Heavy cast iron stand, crackle black finish. Balanced to prevent tipping. Quick-action knurled lock washer. Accomodates microphones with standard ⅝-27 thread, also University SA10 and SSP10 adaptors.

The completely interchangeable modular adapters

E MODEL PA10	**F MODEL SSP10**	**G MODEL SP10**	**H MODEL CC10**	**I MODEL CA10**
Cannon Plug Adaptor, less switch	Stand adaptor with switch and Cannon Plug receptacle	Cannon Plug Adaptor with switch	Cable Adaptor with 18-foot cable	Cannon Plug with 18-foot cable

MODEL	WOOFER	MID-RANGE	TWEETER	NETWORK	SIZE: HxWxD	SHIPPING WEIGHT
CLASSIC MARK II	15" high compliance	8" high compliance	Sphericon	3-way	28½x35x17½	98 lbs.
SYL-O-ETTE	8" high compliance	6½" mid-range with subsidiary high frequency radiator		6 db/octave	29x23x4	20 lbs.
MINI-FLEX	6½" OPTIMUM Q	3" mid-range	3½" direct radiator	6 db/octave	15x9⁷⁄₁₆x5³⁄₁₆	12 lbs.
SENIOR II	12" high compliance	3½" direct radiator	Sphericon	6 db/octave	25x15⅝x12½	44 lbs.
COMPANION II	10" high compliance	Special 3" mid-range	3½" direct radiator	6 db/octave	24x13¼x11½	30 lbs.

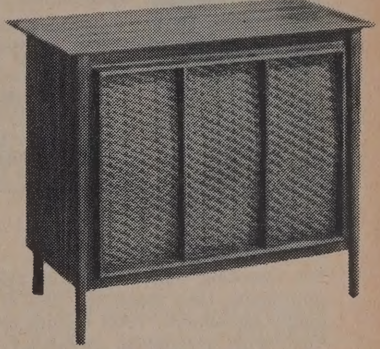
SYSTEMS
CONDENSED LISTING



MINI-FLEX 6½" 3-speaker SYSTEM, (not shown) 40 cps bass response with an enclosure of only four-tenths of a cubic foot. Superb mid-range and highs up to 20,000 cps.

SENIOR II 12" 3-SPEAKER SYSTEM. Full-range performance from 35 cps to beyond audibility. Features sensational Sphericon Super Tweeter.

COMPANION II 10" 3-SPEAKER SYSTEM, (not shown) Amazing performance from newly engineered 10" high compliance woofer which produces bass down to below 40 cps.

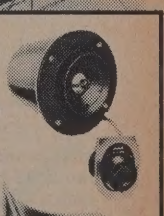


CLASSIC MARK II 15" 3-WAY HIGH COMPLIANCE SYSTEM The ultimate in sight and sound. Featuring a heavy duty 15" woofer, an 8" mid-range and the renowned Sphericon Super Tweeter, all engineered to speaker excellence producing 20 to 40,000 cps. The Classic, a name inspired by the timelessness of its design and the fidelity of its sound.

SYL-O-ETTE

An Ultra-Thin designed to look like a magnificent framed painting! Available with imported hand-embroidered petit point floral grilles, silk-screened Neo-Classic art, or Decorator Cane grilles. Response: 40-17,000 cps. May be used on floor or wall.

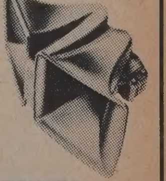
WOOFERS



TWEETERS

WRITE FOR COMPLETE HIGH FIDELITY CATALOG

. . . containing information on University's systems, high compliance and high efficiency woofers, mid-range speakers, horn-loaded tweeters, compression drivers and accessory networks. Desk X-3, University Loudspeakers, Oklahoma City, Oklahoma.



MIDRANGES

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audiotex®

HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

TAPE ACCESSORIES

TAPE RECORDER ACCESSORY KIT

Complete set of essentials for proper care and operation of tape recorders. Contains "EZE-Splice" tape splicer, roll of splicing tape, package of tape labels, box of tape end clips, package of tape starting leaders, reel of Kleen-Tape and Vial of Phono and Recorder Oil.

CAT. NO. 30-148..................List: $9.95

TELEPHONE PICK-UP

Records both sides of a telephone conversation — suction cup attaches to any phone. Plugs into tape recorder.

CAT. NO. 30-150 (plug not included)...............List: $5.95

CAT. NO. 30-152 (with standard phone plug)....List: $6.95

AUDIOTESTER TAPE

For checking performance of stereo and mono tape machines and associated equipment. Tests include head alignment, resonance, frequency response, NAB equalization, intermodulation, flutter, metronome balance, and distortion. 7.5 ips tape comes with detailed instruction.

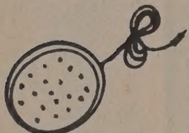
STEREO AND MONOPHONIC AUDIOTESTER

CAT. NO. 30-206 (Standard tolerance) ....List: $6.50

CAT. NO. 30-208 (Precise tolerance) ....List: $8.25

CAT. NO. 30-210 (4 track test tape)............................List: $6.50

PILLOW SPEAKER



Personal Instrument for Private Listening. For use with transistor radios or across voice coil leads of any speaker. Electromagnetic element for maximum sensitivity and widest possible tone range. For private listening, without disturbing others. Comes with cord and miniature phone plug to fit transistor radios.

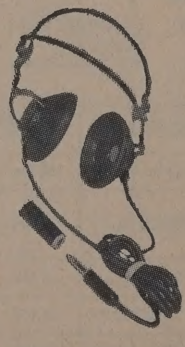
CAT. NO. 30-160........................List: $4.95

MISCELLANEOUS HI FI ACCESSORIES

PROFESSIONAL HEADPHONES

High quality instruments for stereo and monophonic play. Frequency range 50-15,000 cps. Moving coil elements contain dual 16 ohm voice coils and lightweight plastic diaphragms. Supplied with connecting cable and plugs. Impedance: 16/16 ohms (stereo) or 8 ohms (mono).

CAT. NO. 30-158...............List $49.00



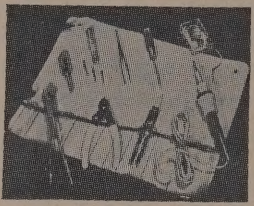
MINIATURE EARPHONE

For private listening to radios, TV, and hi-fi. Electro-dynamic type with frequency range 50-4000 cps. Lightweight metal clip holds phone to either ear.

CAT. NO. 30-154 (15 ohm)......List: $2.95

CAT. NO. 30-156 (2000 ohm)..List: $2.95

ENGINEER'S HI-FI SERVICE TOOL KIT



CAT. NO. 30-244

List: $16.50

Special tools for the audiophile or professional for repair, installation and adjustment of hi-fi and music equipment. Heavy duty plastic pouch contains miniature-tip soldering iron; precision tweezer; neolite circuit tester; phono & recorder oil; set of jeweler's screwdrivers; Phillips screwdriver; miniature screw holding screwdriver ("Minihold"); wire stripper and cutter, and a package of solder.

PHONO AND RECORDER OIL

Specially compounded non-gumming oil in handy plastic drop-by-drop applicator. Contains rust inhibitor.

CAT. NO. 30-250 .... List: $.65

FM INDOOR ANTENNA

Folded Dipole for local or strong signal locations. Comes ready to install with 6′ lead wire and spade lugs.

CAT. NO. 30-270 .... List: $2.10

VIBRATION PADS

Resilient pads made of foam plastic and sponge rubber. Laminations reduce rumble, minimize feedback, and protect cabinets. Four available sizes to fit wide variety of units.

CAT. NO.	SIZE	LIST
30-162	6″x12″	$0.90
30-164	9″x12″	1.25
30-166	12″x12″	1.60
30-168	13″x16″	2.25

HI FI DECALS

Jumbo assortment of attractive labels. Includes identification tabs for controls, cabinets, chassis parts and remote control devices.

CAT. NO. 30-314 .... List: $1.85

Trade Discount Applies To List Prices Only

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audiotex®

HI-FI ACCESSORIES

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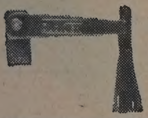
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

PHONO ACCESSORIES



RECORD BRUSH

Camel hair brush clips on tone arm; sweeps grooves while record is playing. Adjustable swivel permits use with any record player.

CAT NO. 30-000..............................List: $.75

ATOMIC STAT-ELIM

Anti-static dust eliminator drains static charge by ionizing air surface of record. Contains mildly radio-active element; lightweight holder attaches to tone arm.

CAT NO. 30-002..............................List: $3.95

STYLUS BRUSH

Automatically cleans stylus each time tone arm is moved from rest position. Self-adhesive bottom attaches to turntable; adjustable to any height.

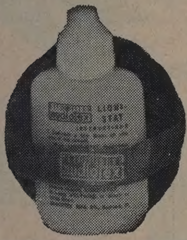
CAT. NO. 30-004..............................List: $1.40

Record Spray STATI-KLEER

Cleans, Destaticizes and Lubricates in One Easy Operation

New Audiotex Stati-Kleer, with Miracle Silicone. The finest record cleaning spray available. Just spray on and wipe off. Cleans and lubricates all plastic records. One application eliminates harmful dirt and dust in record grooves for hours and hours.

CAT. NO. 30-007..............................List: $1.65



RECOR-DE-STAT

Squeeze bottle of anti-static detergent with velvet pad applicator. Long velvet fibers reach bottom of record grooves. Anti-static detergent cleans records; leaves dust-repelling film.

CAT NO. 30-010..............................List: $2.00

DUST BUG

Four-in-One Record Cleaner & Static Eliminator

Applies cleaning fluid, brushes dirt from grooves, picks up loosened dirt, eliminates static charge automatically while record is playing. Anti-static cleaning fluid included.

CAT. NO. 30-014 (changer model)..............................List: $7.90
CAT. NO. 30-012 (player model)..............................List: $9.60
CAT. NO. 30-016 (fluid refill)..............................List: $2.00
CAT. NO. 30-018 (plush pad replacement)..............................List $1.40

45-RPM RECORD ADAPTOR

Plastic adaptor slips over standard spindle to play any 45 RPM disc.

CAT. NO. 30-034..............................List: $.25

DISK-O-KLEEN

Silicone treated record cleaning cloth eliminates static charge. Specially woven velvet material has extra length nap to reach bottom of grooves.

CAT. NO. 30-022..............................List: $1.38

KLEEN-O-RECORD

Triple action cloth, Anti-Static Record Cleaning Cloth, silicone impregnated, which cleans, lubricates and de-staticizes records. Long lasting.

CAT. NO 30-024..............................List: $.75

RECORD SAVERS

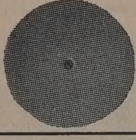
Heavy-duty polyethelene envelopes protect records when not in use.

CAT NO.	SIZE	LIST
30-062	For 12″ records. Pkg. of 5..............................	$.55

45-RPM RECORD INSERTS

Plastic snap-in inserts adapt large hole 7″ records for play on 3 speed changers. Spring-like construction holds insert firmly in place.

CAT NO. 30-030 (Pkg. of 6)..............................List: $.30



TURNTABLE RECORD CUSHIONS

Thick plastic sponge cushions eliminate record slip, reduce magnetic pull, prolong record life.

CAT. NO. 30-040 (10″)..............................List: $1.25
CAT. NO. 30-042 (12″)..............................List: $1.40

TURNTABLE RUBBER MAT KIT

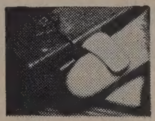
Heavy rubber mat fits any 12″ turntable. Has tapered ridges 7″, 10″, and 12″ in diameter. Supports any size record by its blank outside rim, keeping grooves from touching. Strobe disc and 45 RPM adaptor included.

CAT. NO. 30-044..............................List: $4.25

PHONO COVERS

Heavy duty embossed vinyl covers for turntables and changers.

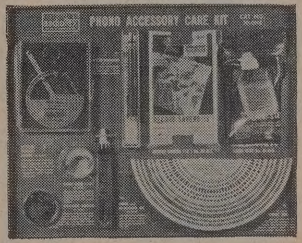
CAT. NO.	SIZE & USE	LIST PRICE
30-048	13¼″ x 12½″ x 8″ For Webcor, V-M, Garrard RC-121, Mirracord, etc.	$2.50
30-050	17″ x 15″ x 8½″ For Garrard RC-88, RC-98, 4HF; Glaser-Steers, Thorens Changer, Pickering..........	3.05
30-052	17½″ x 16½″ x 8½″ For many phono & transcription players such as: Gray, Rek-O-Kut Metzner	3.75
30-054	2½″ x 16″ x 8½″ For many phono & transcription players such as: Gray, Rek-O-Kut, Metzner............	4.03



TONE ARM LIFT

Provides precise control of tone arm. Made of spring metal, plastic coated; attaches to tone arm.

CAT. NO. 30-066..............................List: $.50



PHONO ACCESSORY KIT

Complete phono and record care kit contains record brush, recor-de-stat, 12″ record savers, tone arm lift, stylus microscope, stylus weight gauge, strobe disc, and phono and recorder oil.

CAT. NO. 30-098 List: $9.95

AUDIOTESTER

AUDIOTESTER TEST RECORD

12″ plastic LP has stereo tests on Side 1; mono on Side 2. Side 1: metronome balance, pickup alignment, channel separation, frequency response, RIAA equalization, turntable rumble. Side 2: stylus wear, frequency response, RIAA equalization, IM distortion, turntable rumble, tone arm resonance.

CAT. NO. 30-200 .... List: $4.98

STYLUS MICROSCOPE

Optical instrument for checking stylus wear. Has adjustable focus and magnifying power of 50. Complete with pen-type pocket clip.

CAT NO. 30-218 .... List: $2.50

PHONO LEVEL

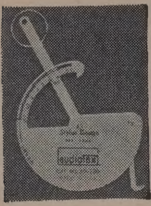
Bubble-type gauge for precise measurement of phonograph level. Accurate to better than 1°.

CAT NO. 30-224 .... List: $2.50

audiotex HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

PHONO ACCESSORIES (Continued)

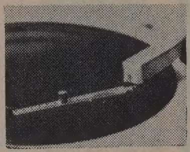


STYLUS WEIGHT GAUGE

Measures force needed to lift tone arm from record. Calibrated in bands with an expanded scale at low force. Accurately gauges correct stylus pressure.

CAT. NO. 30-220 .... **List: $2.80**

DECI-GRAM STYLUS PRESSURE GAUGE



Precisely calibrated, 1 to 10 gram pressure gauge measures stylus pressure within ½ gram. The sturdy DECI-GRAM is built to close tolerances to give you years of accurate service. Use it often . . . your records will last longer, sound better.

CAT. NO. 30-222.............................**List: $1.65**

PHONO LEVEL KIT

Includes bubble-type phono level and four adjustable feet for balancing of any phonograph or turntable.

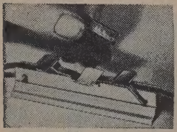
CAT NO. 30-226 ...... **List: $3.25**

STROBE DISC

New design shows not only correct speed but also ± 2% and ± 4% deviations.

CAT. NO. 30-228 (Cardboard) .... **List: $ .55**
CAT. NO. 30-230 (Plastic).. **List: $1.65**

TAPE ACCESSORIES



TAPE SPLICER — EZE SPLICE MODEL

For fixing broken tape and editing. Provides easy-to-repair mitre cut.

CAT. NO. 30-100 .... **List: $2.75**

TAPE SPLICER—PROFESSIONAL MODEL

Easy to use, precise cutter/splicer with pair of curved cutting blades. Leaves tape edges free of adhesive. For use with any ¼" tape.

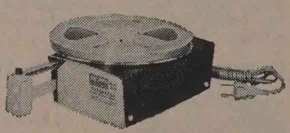
CAT. NO. 30-104...................**List: $9.95**

SPLICING TAPE

For use with any tape splicer. Special cold setting, non-flowing adhesive on Mylar* base. 100" spool, ½" width. Enough for 200 splices. *TM of Dupont

CAT. NO. 30-110 .... **List: $.50**

TAPERASER



Removes all traces of signal and noise from audio tapes and 16 or 35 mm magnetic sound film. Powerful erase action (to —52 db) lowers residual noise level below that of some virgin tape. Erases tape on reels up to 10½" in diam. Complete operation takes only 30 seconds.

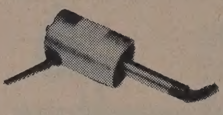
CAT. NO. 30-114 .... **List: $33.00**

LANGUAGE LAB ACCESSORY AND SERVICE KIT

Have all your professional Audiotex service aids and accessories in one compact container. Includes tape and record labels, splicing tape, tape threading leader, Hi-Fi service tool kit, tape strobe, head cleaner, head lubricant, kleen-tape, head demagnetizer, and a professional model tape splicer.

CAT. NO. 30-099...**List: $54.95**

HEAD-DEMAG TAPE HEAD DEMAGNETIZER



Safely removes all trace of magnetism from recording heads. Curved, flat tip is plastic-covered — can't scratch or damage. Reaches most heads with cover left on; on-off switch eliminates unplugging when device is not in use.

CAT. NO. 30-112.........................**List: $12.08**

TAPE END CLIPS

Stops straying tape ends. Reusable plastic clip, works with any reel.

CAT. NO. 30-116 (Pkg. of 18)........**List: $.60**

REEL-NEAT TAPE CLIPS

Works on full or partially full reels. Keep tape neatly wound for convenience in storage. Snap-on clips, fit any reel, full or partially empty. Made of non-magnetic stainless steel. Fits snugly on wheel—does not interfere with placing reel back into storage carton. Package of 5.

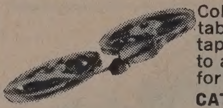
CAT. NO. 30-130 .... **List: $1.25/Pkg.**

TAPE AND RECORD LABELS

36 pressure-sensitive ½" x 2" labels provide handy index to the music library. Space for title, date, and number.

CAT. NO. 30-118 .... **List: $.55**

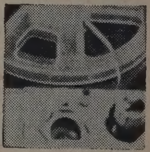
TAPE CUEING LABELS



Color coded, pressure-sensitive numbered tabs for marking selections anywhere on a tape. Package contains five sheets, six tabs to a sheet, and includes identification labels for the reel or box.

CAT. NO. 30-120 .... **List: $1.65**

TAPE THREADING LEADER



For easy threading of tape on reel. 24" Mylar leaders with pressure sensitive adhesive. A small foam rubber ball at one end drops into hub of take-up reel. On fast rewind, the ball releases without damaging tape.

CAT. NO. 30-122 (Pkg. of 10)............**List: $1.40**

TAPE HEAD CLEANER AND LUBRICANT

For cleaning and lubricating tape heads. Remove harmful dirt and grease. Lubricant contains silicone. Stops tape squeel, reduces friction. Tapes last longer, give better fidelity.

CAT. NO. 30-124-1
2 oz. Cleaner ....**List: $1.00**

CAT. NO. 30-124-2
2 oz. Lubricant ....**List: $1.00**

KLEEN-TAPE

30' of specially impregnated cloth tape on 3" reel for cleaning tape heads. "Plays" through any standard tape recorder in less than 2 minutes.

CAT. NO. 30-126...**List: $3.50**

Pat. No. 3008852

Garrard

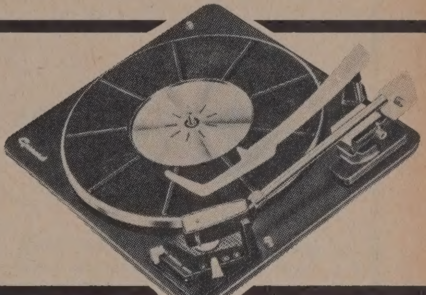
WORLD'S FINEST RECORD-PLAYING EQUIPMENT

TYPE A AUTOMATIC TURNTABLE

A magnificent record player, designed to satisfy the most critical demands of the knowledgeable music lover—fulfills the requirements of the finest music system. Dynamically-balanced counterweight-adjusted transcription tone arm with plug-in shell. Built-in calibrated stylus force gauge. Double shielded 4-pole motor. Heavily weighted balanced cast turntable is full-sized and non-magnetic. Interchangeable spindles. GARRARD's exclusive pusher platform record changer mechanism, for automatic play when desired. New and exclusive Amplock plug and twin audio sockets facilitate instant connect and disconnect of all cables.

MODEL AT6 AUTOMATIC TURNTABLE

A new automatic turntable modestly priced but distinguished by features and performance unequalled except by Garrard's own TYPE A. Dynamically-balanced, counterweighted tubular tone arm, with bayonet fitted plug-in shell. 4 speeds, center spindle intermix with separate manual and automatic controls. Built-in stylus force scale. Double shielded 4-pole motor. Oversized heavy-duty turntable. Rapid connect/disconnect Amplock plug and twin audio sockets. Compact size fits all player compartments.

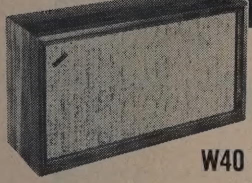


AUTOSLIM/P AUTOMATIC RECORD CHANGER

A new standard of styling and performance in a budget-priced record changer. Exceptionally compact. Auto/manual operation—intermixes in any sequence. Die cast aluminum tone arm has plug-in shell—bayonet fitting, a feature expected only in more expensive units. Dynamically balanced 4-pole "Induction Surge" motor—Unified Control Panel has separate manual and automatic play positions. Amplock plug and twin audio sockets for quick connect and disconnect of all cables.

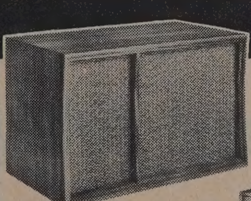
Wharfedale

ACHROMATIC SPEAKER SYSTEMS



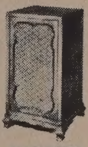
W40

The first ultra-compact full range two-speaker system in exclusive sand-filled enclosure. Achromatic principle. Remarkable wide range with excellent bass response. In Oiled or Polished Walnut and Mahogany true wood veneer; also in sanded Birch hardwood utility model without curved molding.



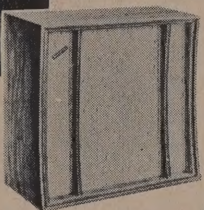
W60

A full range, two-speaker system in exclusive sand-filled enclosure. The original Achromatic unit which has established a new standard for complete speaker systems regardless of size or price. Speakers are matched and tuned to a craftsman's cabinet—¾" genuine hardwood. In Oiled or Polished Walnut and Mahogany true wood veneer; also in sanded Birch hardwood utility model without curved molding or divider.



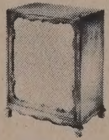
W60PR

Provincial Model in Genuine Fruitwood



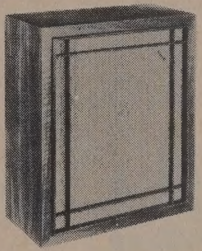
W70

A full range, three-speaker system in exclusive sand filled enclosure. This magnificent Achromatic Speaker System is, in truth, a fine musical instrument. Its reproduction can be compared only to a live performance. Speakers are matched and tuned to a craftsman's cabinet — ¾" genuine hardwood. In Oiled or Polished Walnut and Mahogany true wood veneers; also in sanded Birch hardwood utility model without curved molding or dividers.



W70PR

Provincial Model in Genuine Fruitwood



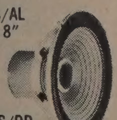
W90

DUAL THREE-WAY SPEAKER SYSTEM

Six speaker system in excusive Achromatic sand-filled enclosure. Each woofer is mounted in an individual chamber and isolated from mid and treble range speakers — eliminating distortion-producing mechanical coupling. A full control panel mounted on the rear of the W90 system permits balancing and adjusting each range of speakers to suit individual listening requirements. Available in Oiled or Polished Walnut and Mahogany true wood veneers, and in sanded Birch utility model.

COMPONENT LOUDSPEAKERS

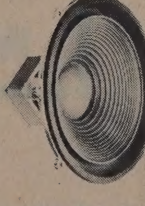
SUPER 8 FS/AL
Full Range 8"



SUPER 10 RS/DD
Full Range 10"

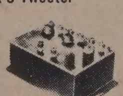
SUPER 12 RS/DD
Full Range 12"

W12/RS Woofer

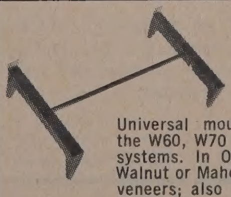


W15/RS Woofer

SUPER 3 Tweeter



3-WAY
CROSSOVER NETWORK



Model B67

UNIVERSAL MOUNTING BASE

Universal mounting base for the W60, W70 or W90 speaker systems. In Oiled or Polished Walnut or Mahogany true wood veneers; also in sanded Birch hardwood.

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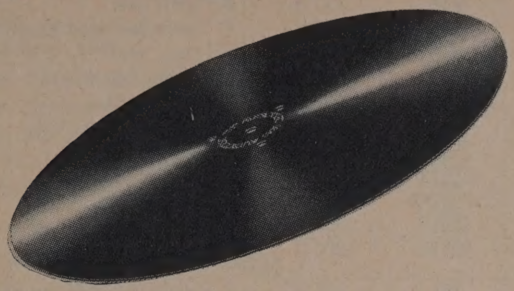

For truly fine recording and reproduction

For more than 25 years, Audiodiscs have consistently maintained their position of eminent leadership in every field of instantaneous disc recording.

A superior lacquer coating, applied to the mirror-smooth aluminum base by a patented process, gives these outstanding advantages: maximum uniformity of coating, permanent resistance to humidity, longer stylus life, freedom from audible background scratch, long playback life, brilliant frequency response, and freedom from deterioration with age.

DESCRIPTION		Size Inches	Distributor Net	Carton Contains
RED LABEL AUDIODISCS Standard throughout the recording profession, these discs exceed the most exacting requirements for top quality and dependability. The finest discs obtainable. Aluminum base, double-sided. Embossed labels.		7*	$ .73	25
		8	.57	25
		10	.81	25
		12	1.33	25
		16	2.40	25
SINGLE FACE RED LABEL For professional use where only one side is to be recorded. Both sides coated; the recordable side identified with embossed label. Exactly the same fine qualities as Standard Red Label, but bringing real economy to single-face applications.		12	1.05	25
		16	1.93	25
YELLOW LABEL AUDIODISCS The popular choice for all general purpose recording which requires high, uniform quality. Aluminum base, double-sided. Designed primarily for applications where the super quality Red Label AUDIODISCS are not required. Paper labels.		7*	.62	25
		8	.48	25
		10	.65	25
		12	1.05	25
		16	1.93	25
REFERENCE LABEL AUDIODISCS Provide maximum economy for test cuts, filing and reference recordings, auditions and equipment adjustments, which do not demand complete surface perfection. Aluminum base. Paper labels.		10	.55	25
		12	.81	25
		16	1.45	25
BLUE LABEL AUDIODISCS These discs offer the very best in recording quality at a low price for schools, homes, amateur and demonstration work. Made of the same materials as professional type AUDIODISCS — but on a thinner aluminum base. Paper labels.		6½	.29	50
		8	.40	50
		10	.57	50
MASTER AUDIODISCS Where copies of recordings (pressings) are to be made by the electroplating process, these discs are the outstanding choice. Their excellence and consistent quality are well known to all record processors. Fine results with either silvering or gold sputtering. Aluminum base. Center pin and one drive pin hole. Also available with center hole only.	Double Sided	10	1.31	25
		12	1.67	25
		13¼	2.31	25
		16	3.11	25
		17¼	3.63	25
	Single Face	10	1.05	25
		12	1.31	25
		13¼	1.68	25
		14	1.73 1.80■	25
		16	2.45	25
		17¼	2.66	25

***Standard 45 rpm disc with 1½" diameter center hole. Also available with conventional center hole. To specify, indicate "Small Center Hole" on orders.**

■West of the Rockies. All Prices Subject to Change Without Notice.

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microscopically matched
recording and playback
styli

The complete line of Audiopoints covers the full range of recording and playback needs — for professional as well as general use. Audiopoints are made by skilled Craftsmen, and conveniently packaged in cards, boxes or envelopes.

RECORDING AUDIOPOINTS

audiopoints
RECORDING

SAPPHIRE No. 14 — long recognized as the finest recording stylus made. Short or long dural shank, 87° included angle.
Distributor Net $3.71

SAPPHIRE No. 20 — especially designed for professional microgroove recording. Short or long dural shank. **Distributor Net $3.71**

SAPPHIRE No. 202 — a high-quality professional stylus. Short or long brass shank.
Distributor Net $2.97

STELLITE No. 34 — a favorite with many professional and non-professional users. Short or long shank. 87° included angle.
Distributor Net $1.13

PLAYBACK AUDIOPOINTS

audiopoints
PLAYBACK

SAPPHIRE No. 113 — meets the requirements of the most critical professional recordists. Straight dural shank.
Distributor Net $2.03

SAPPHIRE No. 123 — for professional use with microgroove recordings.
Distributor Net $0.90

"RED CIRCLE" SAPPHIRE No. 103 — for professional use with instantaneous recordings or vinyl transcriptions. Straight dural shank. **Distributor Net $0.90**

"RED CIRCLE" SAPPHIRE No. 303 — same as No. 103, except with bent dural shank. Ideal for phonograph records.
Distributor Net $0.90

THE COMPLETE LINE OF PROFESSIONAL QUALITY audiotape

TRADE MARK

Descripion	Type No.	Length	Reel†	Distributor Net
 STANDARD RECORDING on plastic base Meets the most exacting requirements of the professional, educational and home recordist at minimum cost. Known the world over for its matchless performance and consistent uniform quality. **Series 51, in the red box.**	151	150 ft.	3″ Plastic Reel	$0.32
	151MB	150 ft.	3″ Plastic Reel in Mailing Box	0.32
	351	300 ft.	4″ Plastic Reel	0.61
	651	600 ft.	5″ Plastic "C-Slot" Reel	1.08
	851	850 ft.	5¾″ Plastic Reel	1.33
	1251	1200 ft.	7″ Plastic "C-Slot" Reel	1.68
	2551H	2500 ft.	NARTB Hub	3.53
	2551R	2500 ft.	10½″ Aluminum Reel	4.86
	‡2551FS	2500 ft.	10½″ Fiberglass Reel	4.86
	5051H	5000 ft.	NARTB Hub	6.48
	5051R	5000 ft.	14″ Aluminum Reel	9.61
audiotape **LONGER RECORDING on 1 mil Mylar*** **50% more recording time** per reel. The strong, super-durable polyester film base assures trouble-free operation even under severe conditions of heat and humidity. **Series 61, in the orange box.**	261	225 ft.	3″ Plastic in Self-Mailer Pkg.	0.45
	961	900 ft.	5″ Plastic "C-Slot" Reel	1.62
	1261	1200 ft.	5¾″ Plastic Reel	1.86
	1861	1800 ft.	7″ Plastic "C-Slot" Reel	2.79
	3661H	3600 ft.	NARTB Hub	5.13
	3661R	3600 ft.	10½″ Aluminum Reel	6.46
	‡3661FS	3600 ft.	10½″ Fiberglass Reel	6.46
	7261H	7200 ft.	NARTB Hub	10.80
	7261R	7200 ft.	14″ Aluminum Reel	13.50
audiotape **LONGER RECORDING on 1 mil plastic** 50% more recording and playback time on low-cost 1-mil cellulose acetate base, affording maximum economy for applications where high strength is not required. **Series 41, in the blue box.**	941	900 ft.	5″ Plastic "C-Slot" Reel	1.58
	1241	1200 ft.	5¾″ Plastic Reel	1.70
	1841	1800 ft.	7″ Plastic "C-Slot" Reel	2.48
	3641H	3600 ft	NARTB Hub	4.43
	3641R	3600 ft.	10½″ Aluminum Reel	5.76
	‡3641FS	3600 ft.	10½″ Fiberglass Reel	5.76
	7241H	7200 ft.	NARTB Hub	8.28
	7241R	7200 ft.	14″ Aluminum Reel	11.41
audiotape **DOUBLE RECORDING on ½ mil Mylar*** **Twice as much** recording time per reel as standard plastic-base tape. Suitable for extended-play applications where tape tension is not excessive. **Series 31, in the tan box.**	331	300 ft.	3″ Plastic Reel	0.66
	1231	1200 ft.	5″ Plastic "C-Slot" Reel	1.68
	1831	1800 ft.	5¾″ Plastic Reel	2.40
	2431	2400 ft.	7″ Plastic "C-Slot" Reel	3.12
audiotape **DOUBLE RECORDING on "Tempered" Mylar*** **Twice as much** recording time per reel as standard plastic-base tape, and is twice as strong as other double-length tapes. Will not stretch or break on any tape recorder — will not dry out or embrittle with age. **Series 31T, in the maroon box.**	331T	300 ft.	3″ Plastic in Self-Mailer Pkg.	0.77
	631T	600 ft.	3¼″ Plastic in Self-Mailer Pkg.	1.42
	1231T	1200 ft.	5″ Plastic "C-Slot" Reel	2.62
	1831T	1800 ft.	5¾″ Plastic Reel	3.24
	2431T	2400 ft.	7″ Plastic "C-Slot" Reel	4.56
	4831T-R	4800 ft.	10½″ Aluminum Reel	10.56
	‡4831T-FS	4800 ft.	10½″ Fiberglass Reel	10.56
audiotape **STANDARD RECORDING on 1½ mil Mylar*** A premium-quality professional tape that provides the utmost in mechanical strength and immunity to temperature and humidity. Will not dry out or embrittle with age. **Series 71, in the green box.**	671	600 ft.	5″ Plastic "C-Slot" Reel	1.27
	1271	1200 ft.	7″ Plastic "C-Slot" Reel	2.04
	2571H	2500 ft.	NARTB Hub	3.98
	2571R	2500 ft.	10½″ Aluminum Reel	5.38
	‡2571FS	2500 ft.	10½″ Fiberglass Reel	5.38
	5071H	5000 ft.	NARTB Hub	7.99
	5071R	5000 ft.	14″ Aluminum Reel	11.76
audiotape **MASTER RECORDING on Plastic Base** The finest, professional-quality recording tape. Base material 1½-mil acetate. Maximum fidelity, uniformity, frequency response and freedom from noise and distortion. **. . . Plus low print-through. Series 51M, in red and gold box.**	651-M	600 ft.	5″ Plastic "C-Slot" Reel	1.24
	1251-M	1200 ft.	7″ Plastic "C-Slot" Reel	1.94
	2551H-M	2500 ft.	NARTB Hub	4.16
	2551R-M	2500 ft.	10½″ Aluminum Reel	5.49
	‡2551FS-M	2500 ft.	10½″ Fiberglass Reel	5.49
	5051H-M	5000 ft.	NARTB Hub	7.63
	5051R-M	5000 ft.	14″ Aluminum Reel	10.76
audiotape **MASTER RECORDING on 1½-mil Mylar*** Super-durable tape that meets highest standards of performance. Withstands extreme temperature and is virtually immune to humidity. . . . **Plus low print-through. Series 71M, in the green and gold box.**	671-M	600 ft.	5″ Plastic "C-Slot" Reel	1.54
	1271-M	1200 ft.	7″ Plastic "C-Slot" Reel	2.45
	2571H-M	2500 ft.	NARTB Hub	4.80
	2571R-M	2500 ft.	10½″ Aluminum Reel	6.48
	‡2571FS-M	2500 ft.	10½″ Fiberglass Reel	6.48

†COLORED PLASTIC REELS. Audiotape on 5″ and 7″ reels can be supplied on colored reels at no increase in price. To designate color (Red, Yellow, Green or Blue) add "RR" and "YR", and "GR" or "BR" to Type No. E.g. — Type 1251YR covers 1200 feet of plastic-base tape on Yellow Reel.

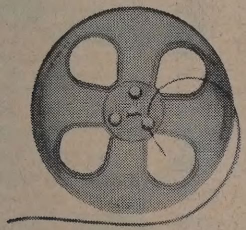
‡"FS" in Type No. indicates Fiberglass reel with solid hub and 5⁄16″ center hole.

*"Mylar" is the registered DuPont trade mark for its polyester film.

OTHER AUDIOTAPE ITEMS

Item	Type No.	Length	Base Material	Reel	Distributor Net
AUDIOTAPE: With Colored Leader Reversal Strips Prepared especially for use on automatic stop-reversal machines. Four-inch conductive strips on forty inches of colored leader tape are at both ends of reel, (green at start, red at hub). Available with three types of Audiotape (51, 61 and 31 Series) in three reel sizes.	651L	600′	1½-mil acetate	5″ C-Slot	$1.22
	851L	800′	1½-mil acetate	5¾″ Plastic	1.46
	1251L	1200′	1½-mil acetate	7″ C-Slot	1.82
	961L	900′	1-mil Mylar*	5″ C-Slot	1.76
	1261L	1200′	1-mil Mylar*	5¾″ Plastic	2.00
	1861L	1800′	1-mil Mylar*	7″ C-Slot	2.93
	1231L	1200′	½-mil Mylar*	5″ C-Slot	1.82
	1831L	1800′	½-mil Mylar*	5¾″ Plastic	2.54
	2431L	2400′	½-mil Mylar*	7″ C-Slot	3.26
AUDIOTAPE IN THE SNAP-LOAD CARTRIDGE (on 1-mil Mylar*) Strong super-durable polyester film based Audiotape in a cartridge that has two hubs enclosed in dust-resistant plastic magazine for easy handling and loading.	C560	560 ft. in twin-hub snap-load cartridge			2.16

Item		Type No.	Description	Distributor Net
EMPTY AUDIOTAPE REELS IN INDIVIDUAL BOXES All Audiotape reels, the complete range of sizes and types, are available, individually packaged in standard Audio boxes. Five and seven-inch reels feature the popular C-slot design for fast, easy threading. In addition to the standard clear plastic, C-Slot reels are available in four attractive jeweltone colors, at no extra cost.	Standard Reels	3PB	3″ Plastic Reel in Box	$0.11
		3PMB	3″ Plastic Reel in Mailing Box	0.11
		4PB	4″ Plastic Reel in Box	0.20
		5PB	5″ Plastic C-Slot Reel in Box	0.27
		5.75PB	5¾″ Plastic Reel in Box	0.34
		7PB	7″ Plastic C-Slot Reel in Box	0.34
		10RB	10½″ Aluminum Reel in Box	1.80
		10FS	10½″ Fiberglass Reel in Box	1.80
		10H	NARTB Metal Hub	0.32
		10S	Pr. 10½″ Alum. Flanges (NAB) w. screws	1.53
		14RB	14″ Aluminum Reel in Box	3.33
	Colored Plastic Reels	5PBR 5PBY 5PBG 5PBB	Red Yellow Green Blue 5″ Plastic C-Slot Reel in Box	0.27
		7PBR 7PBY 7PBG 7PBB	Red Yellow Green Blue 7″ Plastic C-Slot Reel in Box	0.34



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* "Mylar" is the registered DuPont trade mark for its polyester film.

Audiotape Accessories

Items	Type No.	Distributor Net
EMPTY AUDIOTAPE BOXES Standard, durably-constructed, Audiotape boxes are available in all the popular sizes for filing and storing tapes.	3B	$0.07
	3MB	0.07
	4B	0.09
	5B	0.09
	7B	0.09
	10B	0.34
	14B	0.45
AUDIOTAPE CORRUGATED MAILING BOXES Strong, re-usable containers	5M	0.07
	7M	0.09
	10M	0.14
AUDIO SELF-TIMING LEADER TAPE A strong, durable leader tape of white Mylar* material with spaced markings to permit accurate timing of leader intervals.	3L	0.25
AUDIO SPLICING TAPE Unusually durable pressure-sensitive tape that provides a solid, noise-free splice. White thermosetting adhesive holds firmly and instantly, will not ooze to cause sticky splices. On superior-strength Mylar.*	ST-50-66	0.85
	ST-75-66	1.20

Items	Type No.	Distributor Net
AUDIO HEAD CLEANER Especially formulated for use on magnetic recording heads. Contains silicone solvent for sharper sound.	2HC	$0.45
AUDIO ADHESIVE REEL LABELS Provide positive identification of your tapes, right on the reel. Simply press to apply, pull to remove.	30AL	0.09
AUDIO HEAD DEMAGNETIZER Removes all permanent magnetism from recording and reproducing heads in a matter of seconds.	400	4.50
AUDIO HEAD ALIGNING TAPE Pre-recorded at 2,000, 10,000 and 15,000 cps (15″/sec) with precisely correct head alignment. Individually boxed, with instructions. Base material, 1½-mil Mylar.	200	4.50
"HOW TO MAKE GOOD TAPE RECORDINGS" — NEW STEREO EDITION Complete handbook of tape recording. Over 160 pages of interesting information of practical value to every recordist. Liberally illustrated.	15P	0.83

Type EP AUDIOTAPE, extra precision magnetic recording tape for telemetering, electronic computers and other specialized applications, is also available. Ask for bulletin on EP AUDIOTAPE.

AUDIOFILM on 35mm, 17½mm and 16mm base, is also available. Ask for information.

BURGESS MAGNETIC RECORDING TAPE

by the makers of BURGESS BATTERIES

40 years of successful developments in acoustics, coatings and coating processes, and solid state physics have enabled Burgess engineers to produce a superlative magnetic tape characterized by these quality features . . .

BURGESS
plastic all purpose
MAGNETIC RECORDING TAPE
SUPERIOR BURGESS QUALITY for MAXIMUM OUTPUT and PLEASURE

- SUPERB FREQUENCY RESPONSES
- LOW NOISE LEVEL • HIGH SENSITIVITY
- UNIFORM, TROUBLE-FREE PERFORMANCES ASSURED BY BURGESS QUALITY CONTROL

BURGESS NUMBER	TAPE LENGTH	REEL SIZE	LIST PRICE	DESCRIPTION
111-1.5	150′	3″	$ .70	**SERIES NO. 111** **1.5 mil ¼″** **ALL-PURPOSE ACETATE** 1.5 mil cellulose acetate for all general recording needs. Recognized throughout the recording industry as perfect for flawless recordings at minimum cost. The popular standard series tape.
111-2.5	250′	3¼″	1.25	
111-3	300′	4″	1.35	
**111-6	600′	5″	2.25	
111-8.5	850′	5¾″	2.85	
**111-12	1200′	7″	3.50	
111-24R	2400′	10½″ M	10.90	
111-24H	2400′	10½″	8.50	
111-24RPS	2400′	10½″	10.90	
111-25HPB	2500′	10½″	7.35	
111-48R	4800′	14″	22.10	
111-48H	4800′	14″	17.00	
111-50HPB	5000′	14″	14.85	
½-111-24R	2400′	10½″	19.40	SERIES NO. 111 1.5 mil ½″
½-111-24H	2400′	10½″	16.96	
190-2.25	225′	3″	.90	**SERIES NO. 190** **1.0 mil ¼″** **EXTRA-PLAY ACETATE** 1.0 mil cellulose acetate for maximum economy. Superb reproduction with full frequency response and 50% more recording time.
190-9	900′	5″	3.50	
190-12	1200′	5¾″	4.25	
190-15	1500′	7″	4.50	
190-18	1800′	7″	5.50	
190-36R	3600′	10½″ M	12.85	
190-36H	3600′	10½″	10.00	
190-37.5HPB	3750′	10½″	9.95	
190-72R	7200′	14″	26.00	
190-72H	7200′	14″	20.00	
190-75HPB	7500′	14″	19.95	
½-190-36R	3600′	10½″	25.74	SERIES NO. 190 1.0 mil ½″
**102-6	600′	5″	2.65	**SERIES NO. 102** **1.5 mil ¼″** **ALL-PURPOSE MYLAR*** 1.5 mil mylar* for super toughness, flawless performance under all conditions. Immune to heat or humidity, will not dry out or become brittle.
102-8.5	850′	5¾″	4.25	
**102-12	1200′	7″	4.25	
102-24R	2400′	10½″ M	11.20	
102-24H	2400′	10½″	8.80	
102-24RPS	2400′	10½″	11.20	
102-25HPB	2500′	10½″	8.30	
102-48R	4800′	14″	24.50	
102-48H	4800′	14″	18.50	
102-50HPB	5000′	14″	16.65	
½-102-24R	2400′	10½″	22.42	SERIES NO. 102 1.5 mil ½″

Letter "R" designates tape on NAB Reel with 3″ center hole, letter "H" designates tape on metal hub.

BURGESS NUMBER	TAPE LENGTH	REEL SIZE	LIST PRICE	DESCRIPTION
150-2.25	225′	3″	$ 1.00	**SERIES NO. 150** **1.0 mil ¼″** **EXTRA-PLAY POLYESTER MYLAR*** 1.0 mil polyester mylar* for trouble-free operation in all weather. Performs brilliantly, unaffected by heat or humidity. 50% more recording time per reel.
150-3.75	375′	3¼″	1.75	
150-9	900′	5″	3.60	
150-12	1200′	5¾″	4.65	
150-15	1500′	7″	5.15	
150-18	1800′	7″	6.20	
150-36R	3600′	10½″ M	14.40	
150-36H	3600′	10½″	12.00	
150-36RPS	3600′	10½″	14.40	
150-37.5HPB	3750′	10½″	12.00	
150-72R	7200′	14″	30.00	
150-72H	7200′	14″	24.00	
150-75HPB	7500′	14″	24.00	
½-150-36R	3600′	10½″	28.80	SERIES NO. 150 1.0 mil ½″
200-3	300′	3″	1.60	**SERIES NO. 200 & 290** **.5 mil ¼″** **DOUBLE LENGTH TENSILIZED POLYESTER MYLAR*** .5 mil double length tensilized polyester mylar* gives double the recording time of conventional tape. Twice the strength of conventional thin tape. Ideal for use under adverse conditions. Won't stretch or become brittle.
200-6	600′	4″	3.05	
200-12	1200′	5″	5.45	
200-17	1700′	5¾″	7.05	
200-24	2400′	7″	9.50	
200-48R	4800′	10½″	22.00	
200-48H	4800′	10½″	19.50	
200-48RPS	4800′	10½″	22.00	
290-6	600′	3¼″	2.50	
290-36	3600′	7″	11.95	
131-12	1200′	7″	4.40	**SERIES NO. 131** **1.5 mil ¼″** **LOW PRINT THROUGH PROFESSIONAL QUALITY ACETATE** 1.5 mil cellulose acetate. Provides absolute minimum layer-to-layer signal transfer.
131-24R	2400′	10½″	12.40	
131-24H	2400′	10½″	10.00	
131-48R	4800′	14″	26.00	
131-48H	4800′	14″	20.00	
½-131-24R	2400′	10½″	25.00	SERIES NO. 131 1.5 mil ½″
138-12	1200′	7″	5.10	**SERIES NO. 138** **1.5 mil ¼″** **LOW PRINT THROUGH PROFESSIONAL QUALITY ALL-PURPOSE MYLAR*** 1.5 mil mylar* insures good strength and storage characteristics. Provides absolute minimum layer-to-layer signal transfer.
138-24R	2400′	10½″	13.50	
138-24H	2400′	10½″	11.10	
138-48R	4800′	14″	34.00	
138-48H	4800′	14″	28.00	
½-138-24R	2400′	10½″	28.80	SERIES NO. 138 1.5 mil ½″
175-6	600′	5″	2.40	**SERIES NO. 175** **1.5 mil ¼″** **ALL-PURPOSE POLYVINYL CHLORIDE** More tear resistant than acetate. For heavy duty recording applications.
175-12	1200′	7″	3.75	

"HPB" designates tape on plastic hub, bulk packed. "RPS" designates plastic reel with 5/16″ EIA center hole.

ACCESSORIES

BURGESS NUMBER	SIZE	LIST PRICE	DESCRIPTION
LT-15 White	150′L ¼″W (White tape)	$1.10	Mylar* Leader Tape
LT-15 Red	150′L ¼″W (Red tape)	1.10	
LT-15 Blue	150′L ¼″W (Blue tape)	1.10	
LT-15 Green	150′L ¼″W (Green tape)	1.10	
LT-15 Yellow	150′L ¼″W (Yellow tape)	1.10	
LT-15M	150′L ¼″W	1.10	Metalized Mylar* Leader Tape
ST-5	150″L ½″W	.39	Splicing Tape
RB-3	Clear Plastic 3″ Reel	.25	Empty Reel, Boxed
RB-3¼	Clear Plastic 3¼″ Reel	.45	Empty Reel, Boxed
RB-4	Clear Plastic 4″ Reel	.55	Empty Reel, Boxed
**RB-5	Clear Plastic 5″ Reel	.65	Empty Reel, Boxed
RB-5¾	Clear Plastic 5¾″ Reel	.75	Empty Reel, Boxed
**RB-7	Clear Plastic 7″ Reel	.75	Empty Reel, Boxed
RB-10.5RPS	Clear Plastic 10½″ Reel with EIA hub	4.50	Empty Reel, Boxed
RB-14M	Metal 14″ Reel	8.70	Empty Reel, Boxed

BURGESS NUMBER	SIZE	LIST PRICE	DESCRIPTION
B-3	For 3″ Reel	$ .15	Empty Box
B-3¼	For 3¼″ Reel	.15	Empty Box
B-4	For 4″ Reel	.20	Empty Box
B-5	For 5″ Reel	.20	Empty Box
B-5¾	For 5¾″ Reel	.20	Empty Box
B-7	For 7″ Reel	.20	Empty Box
B-10½	For 10½″ Reel	.75	Empty Box
B-14	For 14″ Reel	1.00	Empty Box
MB-4	For 4″ Reel & Box	.15	Corrugated Mailing Carton
MB-5	For 5″ Reel & Box	.15	Corrugated Mailing Carton
MB-7	For 7″Reel & Box	.20	Corrugated Mailing Carton

** Also available in colored reels Red, Blue, Green or Yellow.
* Trade Mark of DuPont.

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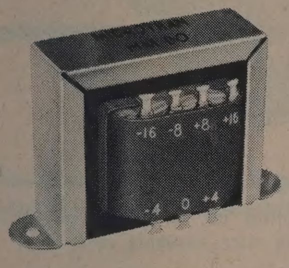
MICROTRAN

PRECISION HI-FI ACCESSORIES

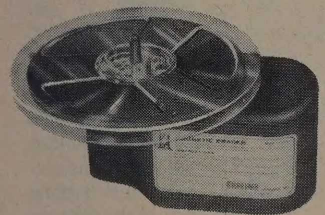
stereo 3rd channel — output matching transformers model HM-90



This precision transformer has been designed for the Audiophile who wishes to convert his Monaural System to Stereo or who wishes to modify or enlarge his Stereo system.

- Permits "hole-in-the-middle" fill in with 3rd Channel Speaker.
- Two HM-90 permits construction of Single cabinet, Single location, stereo system.
- Permits addition of any combination of Monaural or Stereo speakers, regardless of ratings.
- Permits these changes to be made and still maintain matched impedances, required polarities, and desired power levels.
- Power: 30 watts: Peak Power 100 watts.
- Frequency Response (Power): 40 to 20,000 cycles.
- Impedance Range: +16, +8, +4, 0, −4, −8, −16 ohms (Minus sign refers to reversed polarity.)
- Insertion Loss: Less than 1 db. in most hookups. When used on +4Ω and in −4Ω and in −4Ω out Taps, 3 db.
- Simple Connections: Easy to follow instructions show connections to be made to numbered solder lugs for each type of stereo system.
- Finish: Vacuum Varnish impregnation.
- Size: 3¾" x 2½" x 2$\frac{5}{16}$" hi; 3⅛" Mtg. ctrs.
- Weight: 2 lbs.
- Model HM-90—USER NET: $6.33

Magnetic Tape Eraser — Model HD-11M Epoxy Molded



A heavy duty bulk tape demagnetizer that develops a high intensity magnetic field. Erases recorded signals and noise from magnetic tape without rewinding. Saves unnecessary wear on heads and tape. Noise level reduced below level of standard erase heads. Restores tape up to ½" to like new condition or better.

- Spindle mounting of reel permits rapid thorough coverage without missed spots.
- Reel Size Range: 5" x 7" x 10½".
- Spindle removable for use with other reel sizes.
- Accessory: Adapter hub for use with N.A.B. 10½" reels.
  (Model HD-11-AD . . . User Net $2.30)
- Universal Use: May also be used for Demagnetizing record Playback-Erase Heads, watches and other metal objects.
- Rating: 117 Volts AC, 5 Amps.
- Finish: Case Epoxy — High impact.
- Size 7" L x 3½" W x 3¼" H.
- Weight: 9 lbs.
- Model HD-11M—USER NET: $18.95

A MUST FOR STEREO RECORDING
Most stereo recorders do not provide facilities for pre-erasing both tracks

Tape Head Demagnetizer — Model HD-40M *(For Tape Recording Heads)*

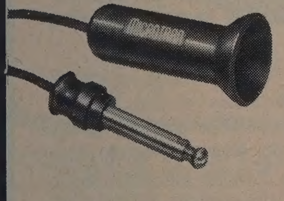
TAPE HEAD DEMAGNETIZER
MICROTRAN

Permanent magnetizing of recording heads during normal use of tape recorders is a common occurrence. Magnetized heads cause high noise level and harmonic distortion.

The HD-40M Head Demagnetizer, when properly used, removes any residual permanent magnetism from the heads. It consists of a heavy duty alternating current electromagnet with an extended pole piece designed for easy access to the recording heads of most tape recorders. When energized, contact of the demagnetizer pole piece with the pole tip of the recording head causes the head to be saturated by an alternating magnetic field. Gradual removal of the head from this saturating field neutralized any residual permanent (DC) magnetism in the recording head.

- Removes permanet magnetism
- Reduces noise level
- Reduces harmonic distortion
- Improves signal to noise ratio
- Insures high frequency response
- Reduces hum of tape head
- Special finish on pole piece prevents marring recording head surfaces
- Rating 117 volts AC, 1 AMP.
- FINISH: High impact molded epoxy
- SIZE: 4" Long x 1¼" Diameter
- WEIGHT: 7 ozs.
- Model HD-40M—USER NET: $6.15

telephone pick-up coil — model HP-61



For transcribing telephone conversations with recorder or making messages audible on amplifier. May also be used as probe for locating sources of hum.

- Equalized Level: Local and distant conversations recorded with more constant signal level than base mounted units.
- Suction Cup: Mounting on telephone receiver.
- Universal Model: One unit suitable for all types of telephones.
- Plug-in Use: Supplied with 68" shielded cable, terminated with standard phone plug for mike input of recorder or amplifier.
- Finish: Optical Black.
- Compact: Size only ⅝" diameter x 2" long.
- Weight: 1½ ounces.
- Model HP-61—USER NET: $4.77

hum-bucking telephone pick-up coil — model HP-70

For transcribing telephone conversations, this coil is designed for use with high impedance input tape recorders, amplifiers and dictating machines. This deluxe unit has been designed with symmetrical hum cancelling pick-up coils. Ruggedly constructed of high impact plastic.

- Eliminates high stray hum pick-up usually encountered with conventional pick-up coils.
- Color: Grey.
- Size: 2½" L x ⅞" W x ⅝" H.
- Model HP-70—USER NET: $6.95
- Mounting: Double Suction Cup
- Cable Length: 5 Feet.
- Termination: Tinned Leads
- Shipping Weight: 2 ozs.

As above with Molded Phone Plug Termination.

- Shipping Weight: 3 ozs.
- Model HP-71 USER NET: $7 50.

MICROTRAN company inc.
Valley Stream, New York

Also see EEM pages for additional items and list of franchised distributors.

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Norelco® 'CONTINENTAL' Tape Recorders

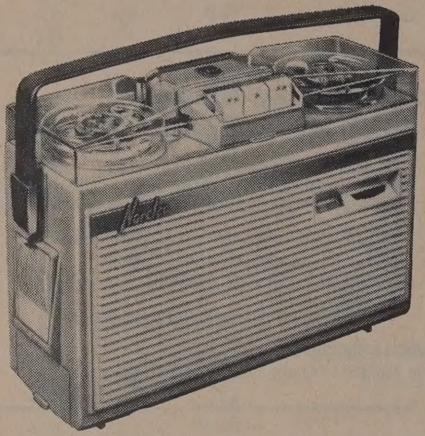
developed and guild-crafted by Philips of the Netherlands

Whether you are a music lover, a recordist or a high fidelity enthusiast, we are confident you will find one of the justly famous Norelco 'Continental' family of professional quality tape recorders ideally suited to your specific recording requirements.

The CONTINENTAL '100' MODEL EL 3585

100% Transistorized, Battery-Operated Portable Tape Recorder

Ultra-light—Ultra-Simple—Ultra-rugged



It's here—Exactly the portable you've been waiting for, for candid, on-the-shoulder, split-second recordings of any sound, any voice, anywhere, every time.

Nothing approaches this recent addition to the Norelco family of tape recorders when it comes to on-the-fly, extra-fidelity recordings of interviews, inventories, lectures, theatrical and musical performances, parties, nature walks, ball games and singing gondoliers. Enclosed in a handsome high-impact polystyrene case, and with its full complement of 6 low cost, (20 hr. recording life) "D" cell batteries, the Continental "100" weighs a mere 8 lbs. It readily handles 3" and 4" reels and hence, provides up to 2 hours of recording and playback time per reel.

OTHER FEATURES AND SPECIFICATIONS: Instantaneous operation, minimum battery drain, small size, superior circuitry—thanks to 100% transistorized construction; **Compatibility**—tapes are fully interchangeable with any constant-speed, 1⅞ ips, 2-track recorder; **Simple operation**—3 self-locking push-buttons handle all recording and play-back functions; **Self-contained—with dynamic microphone** and Norelco 4" speaker; **Combined indicator**—for modulation level and battery life; **Combined volume control**—for recording and playback; **Storage space**—for microphone and cables; **Input**—for mike/radio/phonograph; **Output**—for external amplifier; **Tape speed**—1⅞" ips, constant-speed, capstan-drive; **Frequency response**—100-6000 cps; **Signal-to-noise ratio**—better than —40 db; **Dimensions**—10½" x 3¾" x 7½".

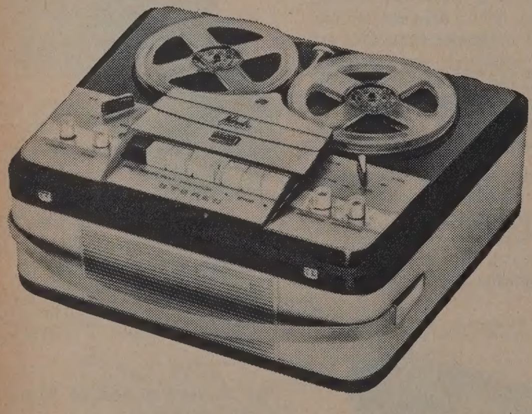
The CONTINENTAL '401' MODEL EL 3534

100% Transistorized, 4-Speed

4-Track Stereo/Mono Record and Playback

4-Speeds: 7½, 3¾, 1⅞ and new ¹⁵⁄₁₆ ips

◆ fully self-contained with dynamic stereo microphone, two speakers (one in the removable cover for perfect stereo separation), dual hi-fi preamps, and dual recording and playback amplifiers ◆ fully compatible with conventional pre-recorded magnetic tapes ◆ self-contained phono/P.A. system ◆ mixing facilities ◆ interlocking pause button ◆ can also play through external hi-fi amplifier ◆ multiplay facilities ◆ 4th speed of ¹⁵⁄₁₆ ips provides 32 hours of recording on a single 7" reel.



SPECIFICATIONS: Four Speeds—7½, 3¾, 1⅞ and ¹⁵⁄₁₆ ips; **Tracks**—stereo 2 (dual); monophonic 4; **Heads**—Stacked; **Frequency Response**—at 7½ ips, 50-18,000 cps; at 3¾ ips, 60-14,000 cps; at 1⅞ ips, 60-10,000 cps; at ¹⁵⁄₁₆ ips, 60-4500 cps; **Signal-to-Noise Ratio**—better than —48 db; **Wow and Flutter**—less than 0.14% at 7½ ips; **Modulation Indicator**—Meter; **Program Indicator**—Built-in, 4-digit adjustable; **Pause Button**—instantaneous with locking device; **Fast Forward and Reverse**—Less than 2 minutes for 1200 ft. of tape; **Automatic Stop**—At ends of tape (with metalized strips); **Audio Facilities**—Self-contained, including dual hi-fi preamps, recording and playback amplifiers, balance control and Norelco wide-range loudspeakers; **Inputs**—(1) for stereo microphone; (2) for stereo phono or tuners; (1) for foot pedal, provides facilities for connecting a footswitch control for pause function; **Outputs**—(2) for extension speakers, (1—two channel) for external amplifiers, (1) for stereo headphones; **Microphone**—Stereophonic (dual elements); **Controls**—Two-channel volume, tone and balance; **Switches**: (1) multiplay, (1) Speed Selector, (1) 4-position selector (channels 1 and 4, 2 and 3, stereo and P.A.; **Transistor Complement**—AC-107 (4), OC75 (6), OC74 (2), OC44 (2), 2N1314 (2), OC79 (1); **Line Voltage**—117 volts at 60 cycles; **Power Consumption**—65 watts; **DIMENSIONS**—18½" x 15" x 10"; **Weight**—38 pounds.

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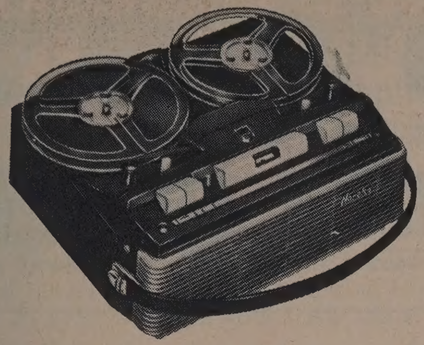
The CONTINENTAL '200' MODEL EL 3541



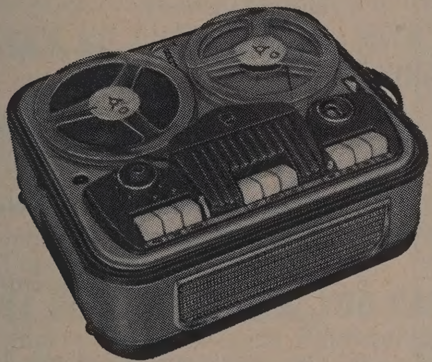
with Stereo-Head-Output for 4-Track Stereo Playback through External System

Completely self-contained 4-track Mono Record/Playback

The NORELCO Continental '200' is expressly designed to provide the discerning music listener with a top-quality recorder, with every built-in feature and function needed for professional-type home recording and playback, yet stripped of all costly auxiliary features, functions, accessories not necessary for his specific requirements.

SPECIFICATIONS AND FEATURES: Tape Speed—7½ ips; **Frequency Response**—50 to 14,000 cps; **Wow and Flutter**—less than ± 0.3%; Special Facilities—**Sound-on-Sound** for professional-type dubbing in; **Mixing; Pause Button; Fast Forward and Rewind**—less than 2 minutes for 1200 ft. of tape; **Audio Facilities**—self-contained recording/playback preamplifier, power amplifier and loudspeaker (also usable as portable P. A. system); **Input Sensitivity,** 3 Mv microphone, 150 Mv radio/phono; **Output**—to external power amplifier, for external speaker, for headphones and 5 Mv/1000 ohm stereo head; **Microphone**—high impedance, high quality; **Bias and Erase Frequency**—56 Kc; **Signal-to-Noise Ratio**—better than -40 db; **Weight**—18 lbs.; **Dimensions**—13¾″ x 11¾″ x 6¾″.

The CONTINENTAL '300' MODEL EL 3542



with Stereo-Head-Output for 4-Track Stereo Playback through External System

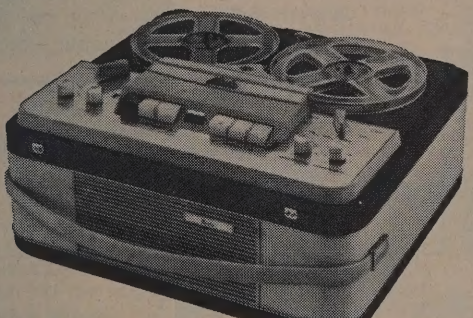
Completely self-contained 4-track Mono Record/Playback

◆ mixing facilities ◆ self-contained phono/P. A. amplifier and speaker system ◆ sound on sound trick button ◆ interlocking pause button ◆ headphone monitoring ◆ stereo head output for playback through your own stereo preamplifier ◆ footswitch available.

SPECIFICATIONS: Three Speeds—7½, 3¾, and 1⅞ ips; **Tracks**—stereo 2 (dual); Mono 4; **Heads**—Stacked; **Frequency Response**—at 7½ ips, 50 to 16,000 cps; at 3¾ ips, 60 to 13,000 cps; at 1⅞ ips, 60 to 6,500 cps; **Modulation Indicator**—Magic Eye (Type EM81); **Program Indicator**—Built-in, 4-digit adjustable; **Inputs**—(1) radio/phono; (1) microphone (with mixing facilities); **Outputs**—(2) stereo head; (1) for external speaker without controls (1) for headphone monitoring recording circuit; **Microphone**—High-impedance dynamic; **Line Voltage**—117 volts AC at 60 cycles; **Power Consumption**—80 watts; **Dimensions**—15¾″ x 13″ x 6¾″; **Weight**—30 pounds.

The CONTINENTAL '301' MODEL EL 3549

NEW!



with Dual Preamps for 4-Track Stereo Playback with Radio, Phono or TV Set

Completely self-contained 4-track Mono Record/Playback

100% transistorized to provide years of carefree, trouble-free performance with no tubes to replace and no warm-up time required ever! Four speeds includes the new super-slow 15/16 ips giving up to 32 hours recording and playback on a single 7″ reel of tape! Dual preamps permit stereo playback with radio, phono or TV set as well as with external hi-fi stereo system.

SPECIFICATIONS: Four Speeds—7½, 3¾, 1⅞ and super-slow 15/16 ips, providing up to 32 hours recording time on a single 7″ reel; **Four-Track Stereo Playback** with any external amplifier and speaker, through self-contained dual preamps. **Four-Track Mono Record and Playback. Frequency Response**—at 7½ ips, 60-16,000 cps; **Signal-to-Noise Ratio**—better than -40 db down; **Wow and Flutter**—at 7½ ips, 0.14%; **Transistor Complement**—OC58 or AC107 (3), OC75 (1), 2N2429 (2), OC44 (2), OC74 (1), OC26 (1), OC79 (1); **Voltage**—117 volts; **Frequency**—60 cps; **Power Dissipation**—55 watts; **Weight**—29 lbs.; **Fast Wind and Rewind**—less than 180 seconds for 1800 ft.—7″ reel; **Dimensions**—16½″ x 15½″ x 8¼″.

NORELCO 'CONTINENTAL' ACCESSORIES (available wherever Norelco 'Continental' tape recorders are sold.)

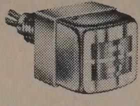
	Model No.	For Use With		Model No.	For Use With
FOOT CONTROL	operates "Pause" button on tape recorder EL3984/15 EL3984/10	 Continental '200', '301' and '401' Continental '300'	**A. C. ADAPTER**	operates recorder from 110V outlet, also recharges batteries BE85	 Continental '100'
DELUXE CARRYING CASE	deluxe model: cordovan leather, saddle stitched DL85	 Continental '100'	**STEREO MONITORING HEADSET**	for monitoring while recording EL1000	 Continental '400' and '401'
FITTED CARRYING CASE	sturdy fitted case, light tan CC85	 Continental '100'	**MONITORING HEADSET**	for monitoring and for individual listening EL3992/10	 Continental '200'
CARRYING COVER	lightweight, easy to slip over recorder, with pouch to hold two 7″ reels CC41	 Continental '200'	**DUAL MICROPHONE ADAPTER**	for use should two microphones be desired for stereo recording 2A1048	 Continental '400' and '401'

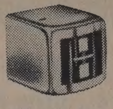
For complete technical data and detailed descriptions of Norelco 'Continental' Tape Recorders, write:
NORTH AMERICAN PHILIPS COMPANY, INC., High Fidelity Products Division, **New York 17, New York**

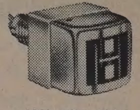
Nortronics®

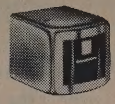
THE COMPLETE SOURCE FOR REPLACEMENT TAPE HEADS

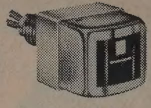
1000 THRU 1049
1100 THRU 1149


1050 THRU 1099
1150 THRU 1199


1800 THRU 1849
1900 THRU 1949


1850 THRU 1899
1950 THRU 1999


2600 THRU 2649
2700 THRU 2749

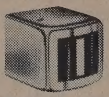

2650 THRU 2699
2750 THRU 2799

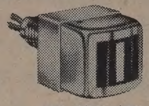
3000 THRU 3049

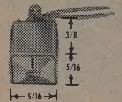
3050 THRU 3099

3100 THRU 3149
3200 THRU 3249

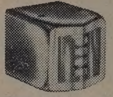
3150 THRU 3199
3250 THRU 3299


4000 THRU 4049
4100 THRU 4149


4050 THRU 4099
4150 THRU 4199



4950 THRU 4999


5600 THRU 5649

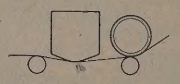
5650 THRU 5699

NORTRONICS MODEL NO. NO MOUNT	NORTRONICS MODEL NO. REAR MOUNT	HEAD DESCRIPTION	HEAD FUNCTION	APPLICATION (see notes)	1 KC INDUCTANCE (millihenrys)	1 KC IMPEDANCE (ohms)	MAXIMUM BIAS FREQUENCY (kilocycles)	DC RESISTANCE (ohms)	NET EACH
1000	1050	4-TRACK STEREO Metal face, laminated cores	Record/Play	1	750	4800	60	450	21.00
1001	1051		Record/Play	3	360	2500	80	270	21.00
1002	1052		Record/Play	6	100	630	100	140	21.00
1003	1053		Record Only	7	60	380	150	140	21.00
1004	1054		Play Only	2	1000	6300	—	650	21.00
1005	1055		Record Only	4	200	1500	100	270	21.00
1100	1150	4-TRACK STEREO Hyperbolic metal face, laminated cores	Record/Play	1	750	4800	60	450	22.50
1101	1151		Record/Play	3	360	2500	80	270	22.50
1102	1152		Record/Play	6	100	630	100	140	22.50
1103	1153		Record Only	7	60	380	150	140	22.50
1104	1154		Play Only	2	1000	6300	—	650	22.50
1105	1155		Record Only	4	200	1500	100	270	22.50
1106	1156		Record Only	8	9	60	300	30	22.50
1107	1157		Record/Play	5	200	1300	80	200	22.50
1800	1850	2-TRACK STEREO Laminated cores	Record/Play	1	700	4500	60	380	23.30
1801	1851		Record/Play	3	350	2200	80	230	23.30
1802	1852		Record/Play	6	100	630	100	120	23.30
1803	1853		Record Only	7	60	380	150	130	23.30
1900	1950	2-TRACK STEREO Hyperbolic face, laminated cores	Record/Play	1	700	4500	60	380	24.80
1901	1951		Record/Play	3	350	2200	80	230	24.80
1902	1952		Record/Play	6	100	630	100	120	24.80
1903	1953		Record Only	7	60	380	150	130	24.80
1904	1954		Record Only	8	9	60	450	10	24.80
2600	2650	2-TRACK MONO Laminated cores	Record/Play	1	700	4500	60	380	15.90
2601	2651		Record/Play	3	350	2200	80	230	15.90
2602	2652		Record/Play	6	100	630	100	120	15.90
2603	2653		Record Only	7	60	380	150	130	15.90
2700	2750	2-TRACK MONO Hyperbolic face, laminated cores	Record/Play	1	700	4500	60	380	16.40
2701	2751		Record/Play	3	350	2200	80	230	16.40
2702	2752		Record/Play	6	100	630	100	120	16.40
2703	2753		Record Only	7	60	380	150	130	16.40
2704	2754		Record Only	8	9	60	450	10	16.40
3000	3050	2-TRACK MONO Solid cores	Record/Play	1	1000	6300	60	610	8.40
3001	3051		Record/Play	3	350	2200	80	340	8.40
3002	3052		Record/Play	6	100	630	100	50	8.40
3100	3150	2-TRACK MONO Metal face, Solid core, TRACK CENTERED	Record/Play	1	1000	6300	60	625	8.40
3101	3151		Record/Play	3	400	2500	80	350	8.40
3102	3152		Record/Play	6	100	630	100	42	8.40
3200	3250	2-TRACK MONO Hyperbolic metal face, Solid core, TRACK CENTERED	Record/Play	1	1000	6300	60	625	9.90
3201	3251		Record/Play	3	400	2500	80	350	9.90
3202	3252		Record/Play	6	100	630	100	42	9.90
4000	4050	FULL-TRACK MONO Laminated cores	Record/Play	3	250	1500	60	200	33.20
4001	4051		Record Only	7	70	400	100	125	33.20
4002	4052		Record/Play	6	100	630	80	125	33.20
4100	4150	FULL-TRACK MONO Hyperbolic face, laminated cores	Record/Play	3	250	1500	60	200	34.70
4101	4151		Record Only	7	70	400	100	125	34.70
4102	4152		Record/Play	6	100	630	80	125	34.70
4103	4153		Record Only	8	9	60	400	6	34.70
——	4950	MINIATURE	Record/Play	6	40	250	150	125	23.80
5600	5650	4-CHANNEL Hyperbolic metal face, laminated cores	Record/Play	6	65	400	150	220	99.00
5601	5651		Record Only	7	50	320	150	220	99.00
5602	5652		Record/Play	6	90	600	100	220	99.00
5603	5653		Record/Play	3	370	2200	80	690	99.00

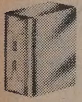
Note: Add $1.50 for Rear Mount except on 4950. Add $6.00 for Rear Mount on 5650 Series.

APPLICATION NOTES

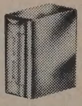
1. High-impedance general-purpose record/play or playback-only head for vacuum-tube circuits.
2. High-impedance playback-only head for vacuum-tube circuits.
3. Medium-impedance record/play head for vacuum-tube or transistor circuits.
4. Medium-impedance record-only head for vacuum-tube circuits.
5. Medium-low-impedance record/play for transistor circuits.
6. Low-impedance record/play for transistor circuits.
7. Low-impedance record-only for vacuum-tube or transistor circuits.
8. Special low-impedance record-only for vacuum-tube or transistor circuits in duplicators and professional recorders.

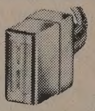


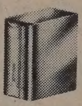
NEW HYPERBOLIC FACE available on all R/P heads. Gives improved tape to gap contact on recorders not requiring pressure pads.


1400 THRU 1449

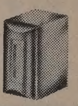
1450 THRU 1499


2200 THRU 2249


2250 THRU 2299


3600 THRU 3649

3650 THRU 3699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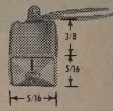
4450 THRU 4499



5350

MINIATURE #4950 and 5350 For magnetic drum and discs, film stripes and miniature recorders. 5/16" x 5/16" x 3/8" with all metal face.

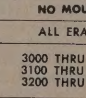
NORTRONICS MODEL NO. NO MOUNT	NORTRONICS MODEL NO. REAR MOUNT	HEAD DESCRIPTION	1 KC INDUCTANCE (millihenrys)	60 KC IMPEDANCE (ohms)	OPERATING ERASE CURRENT* (milliamps)	DC RESISTANCE (ohms)	60 KC OPERATING VOLTAGE (volts)	NET EACH
1400	1450	4-Track Stereo Erase Full Metal Face	80	30,000	3-5	270	90-150	12.00
1401	1451		10	2,800	10-15	40	28-42	
1402	1452		.13	40	80-140	2	3-6	
1403	1453		4	1,200	16-24	20	20-35	
2200	2250	2-Track Stereo Erase Full Metal Face	80	25,000	4.5-7.0	205	100-150	12.00
2201	2251		8	2,000	16-24	35	32-48	
2202	2252		.20	50	100-150	2	5-8	
2203	2253		4	800	30-45	17	20-30	
3600	3650	2-Track Mono Erase Full Metal Face	80	25,000	4.5-7.0	205	100-150	8.00
3601	3651		8	2,000	16-24	35	32-48	
3602	3652		.20	50	100-150	2	5-8	
3604	3654		4	800	30-45	17	20-30	
4400	4450	Full-Track Mono Erase Full Metal Face	40	12,000	10-15	88	100-150	14.00
4401	4451		3.6	1,000	32-48	25	32-48	
4402	4452		2.2	500	50-75	6.6	24-36	
—	5350	Miniature	5	1,200	28-42	38	32-48	21.60

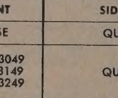
*For 60 db erasure of saturated tape. Voltages shown are RMS.

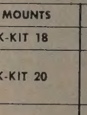
Note: Add $1.50 for Rear Mount except on 5350.

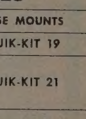
ADDITIONAL MOUNTING STYLES

NO MOUNT	SIDE MOUNTS	BASE MOUNTS
ALL ERASE	QUIK-KIT 18	QUIK-KIT 19
3000 THRU 3049 3100 THRU 3149 3200 THRU 3249	QUIK-KIT 20	QUIK-KIT 21
ALL OTHER RECORD/PLAY RECORD ONLY PLAY ONLY	QUIK-KIT 38	QUIK-KIT 66


NO MOUNT


SIDE MOUNT


BASE MOUNT


REAR MOUNT

All specifications subject to change without notice.

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THE MYSTERY OF TAPE HEAD REPLACEMENTS IS SOLVED!

Now — it's easy for you to satisfy customer requests for tape head replacements!

Here's all you do when you use Nortronics Tape Head Replacement program:

1. Check your customers' recorder brand and model number in Nortronics Tape Head Replacement Guide — over 440 various recorders listed!
2. The Guide tells you exactly what's needed — the correct head number, "Quik-Kit" mounting hardware, or head kit; all available from your basic stock!
3. Select items from stock and write up the order!

No confusion — No fuss — No lengthy explanations or wrong parts!

Complete, illustrated instructions make installation an easy job — whether your customers are servicemen or audiophiles who want to make the installation themselves!

SPECIFIES REPLACEMENTS

THE
Nortronics
TAPE HEAD
REPLACEMENT GUIDE

for 440 TAPE RECORDERS by Manufacturer and Model Number

Shouldn't You be getting the many head sales possible by having Nortronics exclusive Guide?

SEND FOR YOUR FREE COPY WHY NOT RIGHT NOW?

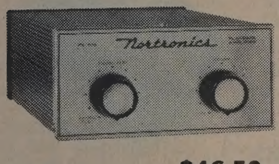
THERE'S NO GUESS WORK — WITH NORTRONICS TAPE HEAD REPLACEMENT PROGRAM EVERYTHING IS WORKED OUT FOR YOU!

- The only complete tape head replacement program.
- Prices maintained for full profit to distributors, while allowing a good profit for his dealers.
- Supported by a complete line of conversion kits and other tape recorder accessories.
- Easy to sell — recognized as the only dependable source for solving tape head replacement problems.
- Low stocking requirements, but gives greatest flexibility . . . replaces heads on 440 different models!

GET FULL DETAILS ON HOW YOU CAN PARTICIPATE IN THIS MONEY-MAKING PROGRAM

See your Local Nortronics Representative or, write: Thor Johnson, Distributor Sales Manager

TAPE RECORDING ACCESSORIES



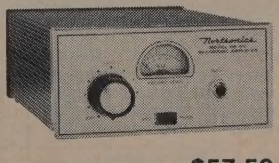
Net Each......... **$46.50**

PL-100 PLAYBACK AMPLIFIER

Compact, delivers 3 watts to 4, 8 or 16-ohms speaker. Inputs: high-imp. tape head, magnetic or ceramic phono cartridge, tuner. Equalization: variable, NAB/RIAA. Response: 30-15,000 cps, ± 2 db. Output: P-P triode and 1-V. cathode follower. For 115 V., 60 cycle AC. 2⅝ x 5 x 8⅜.

RA-100 RECORDING AMPLIFIER

Perfect for copying tapes! Use in pairs for recording stereo. Adjustable for use with most tape heads, supplies audio and 65 kc bias to any R/P head listed above, plus 115 V. to high-imp. erase head. VU meter, monitor output. Inputs: mike, tape head, phono, tuner. Equalization: NAB/RIAA. 2⅝ x 5 x 8⅜". For 115 V., 60 cycle AC.



Net Each......... **$57.50**

AT-100 AZIMUTH AND AMPLIFIER ALIGNMENT TAPE

Nortronics
ALIGNMENT TAPE

A 7.5 I.P.S. full-track master professional tape. It contains frequencies from 40 to 10,000 cycles for checking azimuth and equalization. Full instructions are on the tape. Net Each..... **$4.95**

TAPE RECORDER ACCESSORIES

Nortronics Number	Description	Net Each
L-5	L-bracket for side-mount heads	$ .50
L-6	As above but with narrow base	.70
CC-69	Plug-in connector jack, with leads, for all Record/Play and Record Only heads except Series 3000-3299 Record/Play	2.00
CC-70	As above, but for erase heads and Series 3000-3299 Record/Play heads	2.00
TG-7	Tape Guide Post. Vertically adjustable with tapped mounting hole in base. Aluminum with sapphire hard surface.	1.00
TG-8	Tape Guide Plate. For side-mount heads and L-5 or L-6 bracket, gives additional guiding	.50

NEW—REPLACEMENTS FOR SHURE BROS. TAPE HEADS

Nortronics RPE-23 replaces Shure Bros. 815, TR5, TR5B, TR5B-J, TR5D and TR5H. Net Each........................ **$15.60**

Nortronics RPE-24 replaces Shure Bros. 815H, TR5C, TR5K, TR5L, TR5Z-1 and TR5Z-2J. Net Each........................ **$15.60**

BIAS OSCILLATOR TRANSFORMERS

T60T2 For Transistor Oscillator—For transistor circuits. Features Ferrox-cube E-core for high Q, maximum efficiency and distortion-free waveform. Frequency range, 40-100 kc. Tapped secondary delivers 25-150 volts to heads. With instructions. Net Each........................ **$4.50**

T60E—For standard tube bias oscillator use. Supplies 65 kc bias for low or high-Z record or erase heads. Includes 12AU7 circuit diagram to furnish bias and erase power. Net Each........................ **$4.50**

T60F—New oscillator for 12AU7A tube circuits. Use with ALL Record, R/P and Erase heads listed. Frequency range: 70-100 kc., depending on impedance. Net Each........................ **$4.50**

STEREO CONVERSION KITS

FOR WEBCOR 2800, 2900 AND 2000 SERIES (EXCEPT 2020 SERIES)

W-6—Converts older monophonic and stereo recorders to 4-track stereo play, retaining all existing monophonic record and play functions. Convenient, head-shifting assembly, fully assembled.
Net Each........................ **$36.00**

FOR OTHER WEBCOR MODELS

W-2 — Converts all other Webcor machines, not covered by above Model W-6, to 4-track stereo. Net........................ **$27.00**

FOR WOLLENSAK-REVERE

WR-35—Record/playback head only converts 2-track stereo machines to 4-track playback and monophonic records. Net.. **$25.50**

WR-40—Complete assembly converts monophonic machines to monophonic record/4-track stereo playback. Net Each..... **$32.50**

WR-60—Positive shifter provides four-channel mono record/play, 2- and 4-track stereo erase/record (with second channel record pre-amp. Model RA-100). Complete assembly. Net Each.......... **$49.50**

FOR PENTRON

P-6—Consists of one record/playback head only plus L-5 bracket, capacitor, resistor and hardware and patch cord. Net Each. **$29.70**

P-7—4-track stereo erase conversion kit replaces monophonic erase on Pentron recorders. Net Each........................ **$15.00**

FOR VM

V-6—Record/playback head only for converting to 4-track playback. Net Each........................ **$25.50**

V-7—4-track stereo erase conversion kit to replace monophonic erase. Net Each........................ **$14.50**

FOR ROBERTS, METZNER AND OTHERS

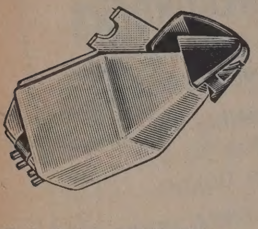
R-67—Converts, to 4-track stereo record and play, all Roberts, Metzner, Akal and Terracorder machines. Net Each.......... **$39.00**

Pickering Lifetime Cartridges—with Exclusive Floating Stylus

so light...it floats!

Pickering's exclusive "floating stylus" . . . so little mass that it actually floats on water . . . so light it "floats" over the surface of the record, actually protecting the record and stylus while it plays.

U38 SERIES STEREO CARTRIDGE



*U.S. Patent #2,917,590

Designed for automatic turntables—featuring the exclusive PICKERING Safe-V-GUARD "floating stylus". The U38 meets all the requirements for top performance in the new generation of automatic turntables with two new models**:

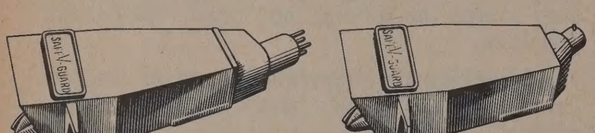
***U38/ATG For FEATHERWEIGHT OPERATION**—1 to 3 grams tracking force.

U38/AT For STANDARD OPERATION—4 grams nominal tracking force.

***U38/ATG** can also be used with high quality manual tone arms.

**See table below for complete technical specifications.

NEW: For GARRARD OWNERS—the U38/AT and U38/ATG premounted and wired in a plug-in shell of exclusive Pickering design—permits a change to better quality in seconds.



FEATHERWEIGHT OPERATION—for maximum record protection, 1 to 3 grams tracking (2 grams recommended)—where environmental conditions permit light tracking force.

GA/38ATG—For Garrard Type A G6/38ATG—For Garrard Model AT6 Includes U/38 Stereo Cartridge (premounted) with D3807ATG Golden SAFE-V-GUARD "Floating Stylus".

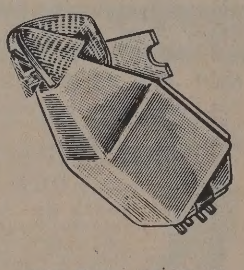
STANDARD OPERATION—for use where environmental conditions require a nominal tracking force of 4 grams or more.

GA/38AT—for Garrard Type A G6/38AT—for Garrard Model AT6 Includes U/38 Stereo Cartridge (premounted) with D3807AT SAFE-V-GUARD "Floating Stylus".

NOTE: Refer to table below for complete technical specifications of the U/38AT and U/38ATG.

380 SERIES STEREO CARTRIDGE

A high output magnetic pickup designed for use in record changers and manual tone arms. Mu-metal shielding permits use where hum problems demand a very high signal-to-noise ratio. Smooth response, exceptional channel separation (35db), extremely rugged construction and high sensitivity have given the 380 an unequalled reputation for general use**:



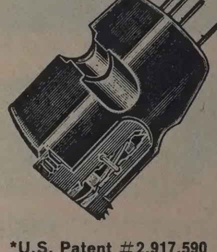
380A For MANUAL TONE ARMS*
380C For RECORD CHANGERS*

*U.S. Patent #2,917,590

Supplied with V-GUARD diamond stylus, mounting hardware and installation instructions.
**See table below for complete technical specifications.

MK II SERIES STEREO CARTRIDGE

A low cost high quality magnetic pickup for the budget minded audiophile. Built to the quality control standards that have made PICKERING world famous. Convenient T-GUARD stylus assembly permits simple replacement. Plays both Mono and Stereo records. Available in two models**:



MARK IIA For MANUAL TONE ARMS
MARK IIB For RECORD CHANGERS

*U.S. Patent #2,917,590

Supplied with T-GUARD diamond stylus, mounting hardware and installation instructions.
**See table below for complete technical specifications.

PICKERING V-GUARD and T-GUARD Stylus Assemblies: To insure the very same quality of performance you have come to know in your PICKERING Stereo Fluxvalve, replace the stylus assembly with a genuine PICKERING V-GUARD or T-GUARD which contains the original moving system and the finest quality diamond precisely shaped to a perfect contour and highly polished to reduce record and stylus wear.

Use the chart below for convenient selection of the correct stylus for the application you require.

TYPE	MODEL	RADIUS	COLOR	U38/AT	380	MkII*	350	370
V-GUARD	D3807ATG	.7 mil	gold	stereo				
V-GUARD	D3807AT	.7 mil	black	stereo				
V-GUARD	D3807A	.7 mil	yellow		stereo			
V-GUARD	D3807C	.7 mil	red		stereo			
V-GUARD	D3810A	1.0 mil	lt. gray	mono lp				
V-GUARD	D3810C	1.0 mil	white	mono lp				
V-GUARD	D3827	2.7 mil	dk. blue	78 rpm				
T-GUARD	D3707A	.7 mil	yellow			stereo		
T-GUARD	D3707C	.7 mil	red			stereo		
T-GUARD	D3710A	1.0 mil	lt. gray			mono lp		
T-GUARD	D3710C	1.0 mil	white			mono lp		
T-GUARD	D9007	.7 mil	black			stereo		
T-GUARD	D3727	2.7 mil	dk. blue			78 rpm		
T-GUARD	D3510	1.0 mil	red				mono lp	
T-GUARD	D3505	0.5 mil	dk. green				mono lp	
T-GUARD	D3527	2.7 mil	yellow				78 rpm	

*Styli listed in this column are suitable for replacement use with the Stereo 90 Fluxvalve.

NOTES: "AT" stylus is for use in automatic turntables, recommended tracking force is from 2 to 5 grams. "A" stylus is for use in manual tone arms. "C" stylus is for automatic record changers.

IMPORTANT TECHNICAL SPECIFICATIONS

	U38AT	U38ATG	380A	380C	MkIIA	MkIIC
Frequency Response	20 to 20000 cps	20 to 20000 cps	20 to 17000 cps	20 to 17000 cps	20 to 15000 cps	20 to 15000 cps
Nominal output (see note 1)	2 mv	2 mv	2.5 mv	3.5 mv	1.3 mv	1.3 mv
Channel Separation	35 db	35 db	35 db	35 db	20 to 25 db	20 to 25 db
Tracking Force (see note 2)	4 to 7 grams	1 to 3 grams	2 to 5 grams	4 to 7 grams	3 to 5 grams	4 to 7 grams
Weight of Unit	14 grams	14 grams	14 grams	14 grams	9 grams	9 grams

Note 1: Per cm of recorded level.

Note 2: Recommended by manufacturer for optimum performance.

*Only **PICKERING & CO., INC.** manufactures the genuine V-GUARD and T-GUARD stylus assemblies used in the Stereo Fluxvalve which is covered under the following patents: U.S. #2,917,590; Great Britain #783,372; Canada #605,673; Japan #261,203; and other patents are pending throughout the world.

FOR THOSE WHO CAN HEAR THE DIFFERENCE

Pickering

For more than a decade the world's most experienced manufacturer of high fidelity pickups—supplier to the recording industry. In terms of achieved performance, Pickering by far, is the most economical and most practical of all high fidelity pickups.

PICKERING & COMPANY, INC., Plainview, N. Y.

EXPORT: AD. AURIEMA, INC., 85 BROAD ST NEW YORK • CANADA: CHARLES W. POINTON LTD. 66 RACINE ROAD, REXDALE, ONTARIO

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STANTON STEREOTABLE®

...a complete system!

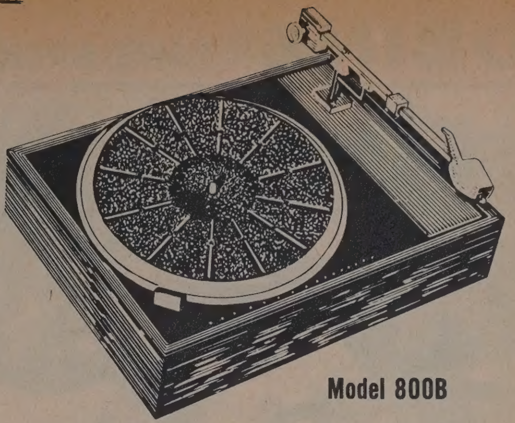
PERFECT for stereo—STANTON precision stereo components combined to function as one perfect system for the finest quality stereophonic or monophonic record reproduction.

Here are the components—each performing precisely . . . faithfully . . . reproducing only the music in a record—without adding a whisper of sound.

STANTON Gyropoise® Stereotable—the mechanical component of the system that provides precise motion, revolving on a "cushion-of-air" in magnetic suspension. There is no stiff mechanical linkages to cause annoying vertical or horizontal rumble. The exclusive STANTON isolated motor mount allows the base of the system to dissipate any trace of vibration. Unified design of the arm and platter suspension eliminates any possibility of mechanical feedback.

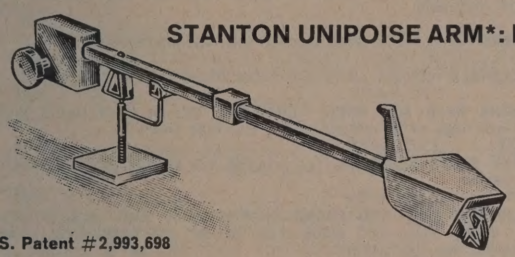
STANTON UNIPOISE® Arm—the mobile component of the system that carries the sensitive cartridge as its stylus traces the complex groove of a stereo record. It performs soundlessly, and its exclusive patented/single pivot bearing provides friction-free motion in all planes. Its ultra-lightweight construction gives the lowest possible mass for tracking all records at extremely light pressures—extending life of both stylus and record.

STANTON Professional Standard Stereo Fluxvalve Cartridge-designed for professional use in manual transcription arms, the STANTON 400A is an ideal pickup for this system. Hermetically sealed and fully encapsulated in precious mu-metal for a lifetime of trouble-free and hum-free performance. Equipped with the exclusive STANTON V-GUARD diamond stylus assembly which is easily replaceable without the use of tools.



STANTON Model 800B Stereotable: A complete record playing system pre-wired for connection to high quality stereo high fidelity components. Components of the 800B include: Model 800B STANTON Gyropoise Stereotable; Model 200 STANTON UNIPOISE Arm; Model 400A STANTON Stereo Fluxvalve Cartridge; STANTON walnut base assembly. Dimensions: 14½" wide by 14½" deep—overall height is under 6".
AUDIOPHILE NET PRICE.......................................$129.95

STANTON UNIPOISE ARM*: Model 200



*U.S. Patent #2,993,698

Completely new—the STANTON Model 200 "Universal" Arm sets the pace for a new trend toward ultra-light featherweight tracking. The ability of the 200 to track at a fraction of a single gram extends the life of the diamond stylus and record. Exclusive and patented STANTON UNIPOISE single pivot bearing for friction-free motion in all planes is the main feature of its simple and highly functional design. Construction is almost weightless compared to other manual tone arms. Thus, its lowest possible mass enables the Model 200 to precisely track all records—stereo or mono—with the the greatest dependability, at the remarkably low pressure of only ¼ gram!

Simple adjustments balance the 200 in all planes ■ Sensitive calibrated stylus force adjustment has a range of from 0 to 3 grams ■ Single hole installation requires no tools ■ No soldering needed, has prewired plug-in sockets ■ Built-in arm rest ■ Standard mounting centers for installing most mono and stereo cartridges ■ Overall Arm Length is 11⅜"; Pivot to Stylus Tip is 8-11/16"; Rear overhang is 2¼" from pivot to rear of arm; Arm pivot to spindle is 8⅛" ■ Weight of Moving System 4½ ounces (6 ounces with base and pivot assembly) ■ Mounts in minutes ■ Supplied with template and hardware ■ Shipping Weight is 2 pounds............$24.00

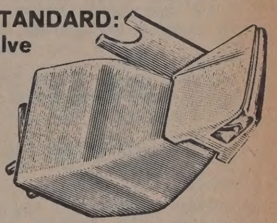
STANTON V-GUARD STYLUS ASSEMBLIES: To insure the very same quality of performance you have come to know in your STANTON Stereo Fluxvalve replace the stylus assembly with a genuine STANTON V-GUARD which contains the original moving system and the finest quality diamond precisely shaped to a perfect contour and highly polished to reduce record and stylus wear. The models listed below are for use in the STANTON 481 and 400 (Calibration Standard and Professional Series).

D4005AA	**.5 mil diamond**	**Clear V-GUARD**	**$19.50**
D4007A	**.7 mil diamond**	**Yellow V-GUARD**	**18.00**
D4007C	**.7 mil diamond**	**Red V-GUARD**	**12.00**
D4010A	**1 mil diamond**	**Lt. Gray V-GUARD**	**18.00**
D4010C	**1 mil diamond**	**White V-GUARD**	**12.00**
D4027	**2.7 mil diamond**	**Dk. Blue V-GUARD**	**12.00**

V-GUARD Styli are specially designed for the following purposes.

D4005AA—For use in ultra-lightweight tone arms capable of tracking within the range from ¼ to 3 grams.
D4007A and D4010A—for use in manual tone arms, recommended tracking force is from 2 to 5 grams.
D4007C and D4010C—for use in automatic record changers.
D4027—for 78 rpm records only.

STANTON CALIBRATION STANDARD: The Model 481 Stereo Fluxvalve



*U.S. Patent #2,917,590

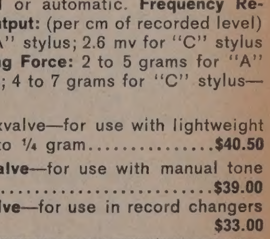
The 481 is more than a pickup—it is a precise measuring instrument developed for the recording industry as a laboratory standard to make highly accurate and reliable measurements for exacting calibration of recording channels. No wonder it is universally used for precision playback applications by leading record manufacturers for quality control and A&R evaluation. The 481 is the ultimate in stereo pickups available to the professional music critic and discriminating music lover. **Frequency Response:** 20 to 10,000 cps ± 1 db; 10 kc to 20 kc ± 2 db—**Nominal Output:** (per cm of recorded level) 0.8 mv for "A" stylus; 0.5 mv for "AA" stylus—**Channel Separation:** 35 db—**Tracking Force:** 2 to 5 grams for "A" stylus; ¼ to 3 grams for "AA" stylus—**Weight:** 11 grams.

Model 481AA STANTON Stereo Fluxvalve—for use with ultra-lightweight tone arms capable of tracking from ¼ to 3 grams. Supplied with D4005AA SAFE-V-GUARD diamond stylus assembly.......**$49.50**

Model 481A STANTON Stereo Fluxvalve—for use with manual tone arms only—will track from 2 to 5 grams.......................**$48.00**

Model 481E STANTON Stereo Fluxvalve Set—consists of the 481 with three styli : D4007A for stereo; D4010A for LP's; D4027 for 78's. Recommended for use in manual tone arms only..............**$60.00**

STANTON PROFESSIONAL STANDARD: The Model 400 Stereo Fluxvalve



*U.S. Patent #2,917,590

The STANTON 400 "Professional" is all new, combining high output and complete mu-metal shielding against hum for unsurpassed signal-to-noise ratio. Developed for the serious record enthusiast and music lover, the 400 was designed for manual transcription arms with a good measure of stability for superb automatic operation. Exclusive SAFE-V-GUARD stylus assembly assures the continued mint-fresh condition of records. Miniature design fits all pickups, manual or automatic. **Frequency Response:** 20 to 20,000 cps—**Nominal Output:** (per cm of recorded level) 1.4 mv for "A" stylus; 0.85 mv for "AA" stylus; 2.6 mv for "C" stylus—**Channel Separation:** 35 db—**Tracking Force:** 2 to 5 grams for "A" stylus; ¼ to 3 grams for "AA" stylus; 4 to 7 grams for "C" stylus—**Weight:** 11 grams.

Model 400 AA STANTON Stereo Fluxvalve—for use with lightweight tone arms capable of tracking down to ¼ gram...............**$40.50**

Model 400A STANTON Stereo Fluxvalve—for use with manual tone arms and automatic Turntables..............................**$39.00**

Model 400C STANTON Stereo Fluxvalve—for use in record changers **$33.00**

STANTON **STANTON MAGNETICS, INC.** **Plainview, N.Y.**

EXPORT: AD. AURIEMA, INC., 85 BROAD ST. NEW YORK • CANADA: CHARLES W. POINTON LTD. 66 RACINE ROAD, REXDALE, ONTARIO

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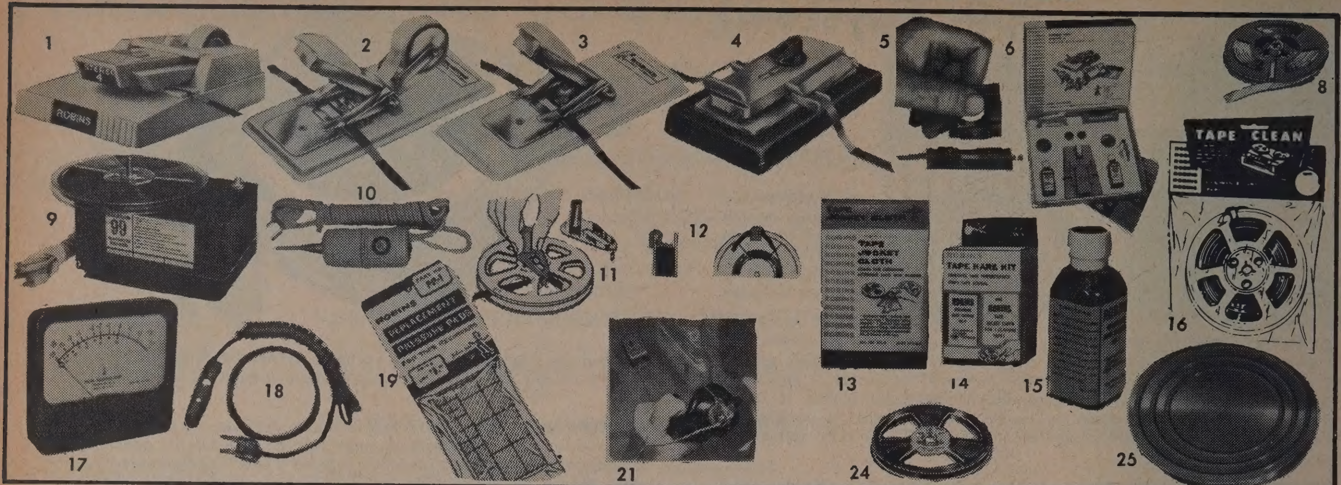
ROBINS® TAPE SPLICERS AND ACCESSORIES



GIBSON GIRL® "STEREO 4" TAPE SPLICERS for precision splicing of 4 track tapes without loss of program material on the outside tracks. They work equally well on single and 2 track tapes. All units have blade centering adjustment for lifetime accuracy, and replaceable cartridge.

1. **DELUXE STEREO 4 TAPE SPLICER features** "See-thru" windows indicating "CUT" and "TRIM" positions for easy operation. Tape guide and fingers secure tape during splicing. Easy threading integral tape dispenser with roll of ½" x 100" splicing tape. Safety lock protects blades when not in use.
   #TS-8D .... **List $12.75**
2. **STANDARD STEREO 4 TAPE SPLICER** with most features of TS-8D except for position index windows. Made of metal and plastic. Has integral tape dispenser with roll of ⅜" x 100" tape.
   #TS-4S .... **List 9.50**
3. **JUNIOR STEREO 4 TAPE SPLICER.** Same as TS-4S without tape dispenser and splicing tape.
   #TS-4J .... **List 7.25**

REPLACEMENT CUTTER KITS FOR ROBINS STEREO 4 SPLICERS. Each kit contains replacement cutter cartridge and 2 cutter pads. **#RK-2** for TS-4A series splicers. **#RK-3** for TS-4S and TS-4J. **#RK-8** for TS-8D **#RP-2** cutter pads for TS-4A series and TS-4S. **#RP-8** cutter pads for TS-8D .... **List ea. 1.40**

4. **GIBSON GIRL® INDUSTRIAL TAPE SPLICERS.** For computer, TV, industrial and special purpose tapes. Rugged construction, mounted on heavy cast base with precision features that have made them the accepted standard of professional users. Precise blade centering adjustment. Long life, replaceable blades.
   #TS-250 for ¼" tapes **List 85.00** **#TS-1000** for 1" tapes **List 85.00**
   #TS-500 for ½" tapes **List 85.00**
   #RB-1 Replacement blades for above. 12 to pkg. .... **List 3.35**

Custom built splicers for special tapes, punch tapes, edge punch cards, and applications available — send for quotation.

5. **GIBSON GIRL® "SEMI-PRO".** Compact, low cost splicer has tape alignment guide with adhesive back, hand held cutter, and blade cover. Plastic.
   #SP-4 .... **List 2.50**

GIBSON GIRL® "HOBBYIST" SPLICER. Adhesive backed plastic tape guide fastens to recorder and unique, curved, cutting blades. (Not illus.)
#H-4 .... **List 1.25**

6. **GIBSON GIRL® STEREO 4 ACCESSORY KITS** — Everything you need for better tape recording and editing. **DELUXE KIT** contains: Deluxe Stereo 4 tape splicer, splicing tape, tape threader, reel holders, head and guide lubricant, head cleaner, tape cleaning cloth, tape clips, reel labels and tape editing guide book.
   #TK-8DLX .... **List 16.75**

STANDARD KIT contains: Standard Stereo 4 tape splicer, splicing tape, tape threader, reel holders, head cleaner, tape cleaning cloth, tape clips, reel labels, tape editing book. (Not illus.)
#TK-4STD .... **List 13.50**

JUNIOR KIT contains same accessories as above with Junior Splicer. (Not illus.)
#TK-4JR .... **List 11.25**

GIBSON GIRL® TAPE KARE KIT contains: H-4 Hobbyist splicer, ½" splicing tape, tape cleaning cloth, tape clips, and tape editing guide book. (Not illus.)
#TK-4H .... **List 3.70**

ROBINS SPLICING TAPE. Special formula, Mylar, tackiness, thickness, strength and cold flow carefully controlled. (Not illus.)

#ST-234 ¼" x 100"	**List .40**	**#ST-500** ½" x 100"	**List .50**
#ST-375 ⅜" x 100"	**List .45**	**#ST-750** ¾" x 100"	**List .60**

8. **LEADER TAPE** — 1½ mil White Mylar. 100 ft. x ¼" wide on 2½" reel. Splice Leader Tape at beginning and end of tapes to stop loss of tape due to threading and use. Ideal for indexing between recorded sections of a reel.
   #LT-100 .... **List 1.00**
9. **MAGNETIC BULK ERASER** — Completely erases recorded and unwanted signals in seconds. Reduces background noise levels from 3 to 6 db below normal erase heal level. For reels up to 10½" dia. x ½" wide. 110 v., 60 cycle A.C.; U.L. Listed
   #ME-99 .... **List 43.50**

LOW COST BULK ERASER — Reduces background noise levels of tape from 2-4 db below normal erase head level. For reels up to 7" x ¼" wide. 110 v., 60 cycle A.C. Non U.L. (Not illus.)
#ME-77 .... **List 24.50**

10. **HEAD DEMAGNETIZER** — U.L. Listed. Removes signal damaging residual magnetism from tape head — for optimum signal to noise ratio. Easy to use. 110 volts, 60 cycle A.C.
   #HD-6 .... **List 10.00**

LOW COST HEAD DEMAGNETIZER — Non U.L. 110 v. 60 cycle A.C. (Not illus.)
#HD-3 .... **List 6.00**

11. **TAPE THREADER** — Eliminates awkward fumbling. Place tape against reel, slip threader on, turn crank — tape is treaded.
   #TT-1 .... **List 1.00**
12. **TAPE HOLDING CLIPS.** Keep tape from unwinding. Pkg. of 12.
   #TC-12 .... **List .40**
13. **TAPE "JOCKEY CLOTH"** cleans and lubricates tape with Silicone. Washable and reuseable.
   #JCT-2 .... **List 1.00**
14. **TAPE KARE KIT** contains head cleaner and tape jockey cloth.
   #TK-2 .... **List 2.00**
15. **HEAD CLEANER** removes grime and accumulated oxides from heads.
   #HC-2 .... 2 oz. bottle .... **List 1.00**
15. **RECORDING HEAD AND GUIDE LUBRICANT.** Silicon base liquid provides friction-free tape path, reducing head and tape wear.
   #RC-2-22 .... 2 oz. bottle .... **List 1.00**
15. **TAPE AND PHONO DRIVE OIL.** For rotating and moving parts. Inhibits rust and oxidation.
   #RC-2-23 .... 2 oz. bottle .... **List .75**
15. **NON-SLIP FOR TAPE AND PHONO DRIVES.** Helps stop slippage of idler wheels, pulley belts, and cords. Fast drying and penetrating, dries to tack-free yet non-slip surface.
   #RC-2-56 2 oz. bottle .... **List 1.00**
16. **TAPE CLEAN.** 5" reel of chemically treated cloth tape. Cleans and lubricates tape heads when played through recorder. Deposits layer of Silicone for friction-free performance.
   #HC-5 .... **List 2.75**
17. **"VU-METER"** — Size 4½". 0-100% mod.; —20 to 3 db. Dual impedance output. Sensitivity, 200 micro amps; shunts for 1.2 or 12 v. "zero" VU. Mounts in 2¾" dia. hole. Requires 1½" depth. Eliminates "guess work" of level control.
   #VU-100 .... **List 30.00**
18. **TAPE STROBE AND LIGHT KIT.** Check tape speed, accuracy, flutter and wow operating at 15, 7½ and 3¾ ips speeds. Kit has strobe tape and neon light. With instructions.
   #TK-5 .... **List 2.00**
19. **REPLACEMENT TAPE RECORDER PRESSURE PADS.** Complete assortment of pre-cut felt pads for most recorders. Worn pads cause wow, flutter, loss of highs and tape squeal. Pkg. of 50 felt pads.
   #PP-1 .... **List 1.00**

REEL HOLDERS. Reduces reel wobbling. A must for verticle decks. (Not illus.)
#RH-2 .... (Pair) .... **List .85**

21. **TELE-TAPE TELEPHONE PICK-UP COIL AND TRANSISTORIZED BEEPER.** Makes it easy to comply with most regulations. Transistorized battery operated generator injects 1 KC "Beep" into phone lines and recorder at 15 second intervals. Has ON-OFF switch and 6 ft. cable to phone and 6 ft. cable to recorder. Easy-On spring fastens pick-up to phone. Uses standard 22½ volt battery.
   #TRB-3 (battery not included) .... **List 28.00**

TELE-TAPE TELEPHONE PICK-UP COIL fastens to phone with Easy-On mechanical spring. Has 6 ft. shielded cable.
#TRP-1 .... **List 6.00**

CLEAN-TIPS. For cleaning tape heads and 1001 other uses. Finest surgical cotton (non-sterile) wound on 6" long sticks.
#Q-100 .... Package of 100 .... **List .75**

TAPE KARE HEAD CLEANER AND LUBE KIT. Contains 2 oz. bottles of head cleaner and head and guide lubricant.
#TK-6 .... **List 2.00**

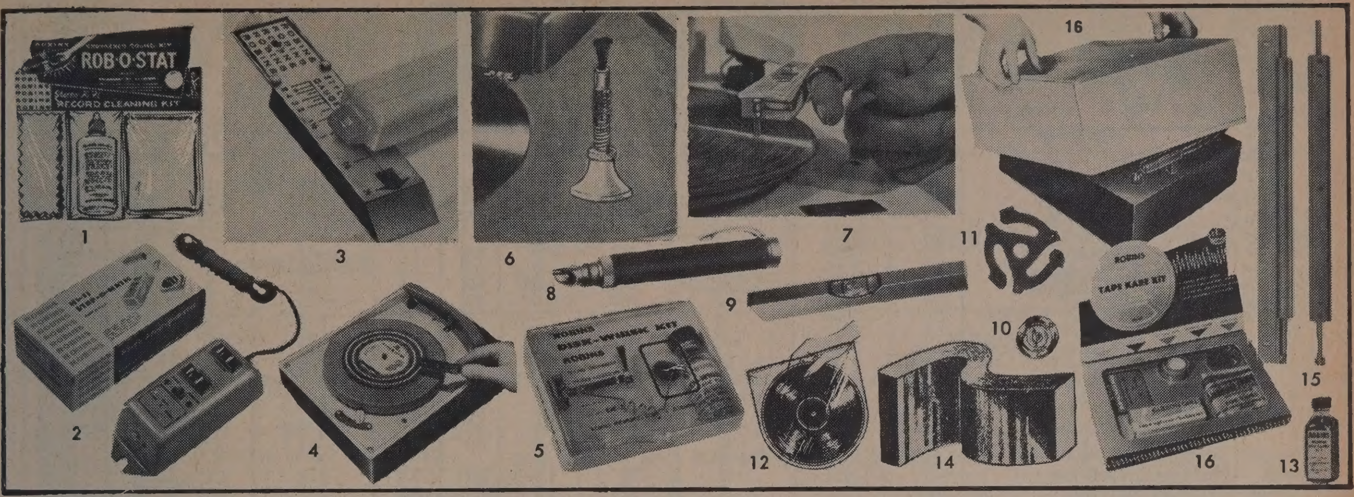
24. **REPLACEMENT REELS.** Virgin-Styrene. Write-On surface.
   #TR-70 .... 7" reel in white set-up box .... **List .75**
   #TR-50 .... 5" reel in white set-up box .... **List .60**
   #TR-30 .... 3" reel in mailing carton .... **List .25**
25. **TAPE STORAGE CANS.** Reduces tape "ageing". Ribs on cans nest for stacking
   #TC-7 for 7" reel .... **List .85** **#TC-5** for 5" reel .... **List .60**

REEL LABELS. Self stick adhesive. Write on or type titles, etc.
#SL-30 .... (Package of 30 labels) .... **List .45**

TAPE KARE CHEMICAL KIT — Contains 2 oz. bottles of head cleaner, head and guide lubricant, Non-Slip for tape and phono drives, and tape and phono drive oil. With 50 clean tips.
#TK-7 .... **List 3.75**

TAPE RECORDER MAINTENANCE KIT FOR LANGUAGE LABS, AUDIO VISUAL DEPTS. AND BROADCAST STUDIOS. A complete tape accessory kit for everyday maintenance and operating needs. Contains: ME-99 Bulk Eraser — completely erases entire reels of tape in seconds, U.L. listed; HD-6 Head Demagnetizer removes signal damaging residual magnetism from tape head, U.L. listed; TS-8D Deluxe Stereo 4 Tape Splicer; TC-12 Tape Holding Clips; SL-30 Reel Labels for efficient indexing; JCT-2 Tape Cleaning Cloth; 6 rolls of ST-500 ½" Splicing Tape; TT-1 Tape Threader; TK-5 Strobe and Light Kit; and TK-6 Head and Guide Cleaning and Lube Kit. (Not illus.)
#AVK-1 .... **List $78.00**

ROBINS® PHONO AND RECORD ACCESSORIES



1. **ROB-O-STAT RECORD CLEANING KIT.** Contains super-soft velvet and foam applicator mitt, 1½ oz. plastic bottle of Anti-Static cleaner and lubricant and polyfoam pad for cleaning velvet mitt.
   #ESK-6 .... List $2.00

2. **HI-FI STOP-O-MATIC.** Automatically turns off amplifier and changer when last record has played. Allows you to fall asleep to your favorite music without "burning-up" equipment. Has switch control permitting use of amplifier without changer.
   #HFS-1 .... For European Changers .... List 10.00
   #HFS-2 .... For U.S. made Changers .... List 10.00

3. **NEW IMPROVED STYLUS GAUGE** — A sturdy, accurately calibrated gauge measures stylus pressure from ½ gram to 8 grams.
   #SG-2 .... List 1.25

4. **STROBE AND LIGHT KIT.** Checks proper speed of turntable, changer or phono. Contains strobe disc and neon lamp. Place strobe disc on turntable, set changer to desired speed and hold lamp over disk. For 110 v. 60 cycle A.C.
   #ESK-5 .... List 1.70

5. **DISK-WHISK KIT** — Cleans records automatically. Clips on to tone arm. Loosens and removes dust and dirt from record grooves and deposits Anti-Static fluid containing Silicone to clean and lubricate records. Includes bottle of Anti-Static fluid with applicator.
   #ESK-7 .... List 4.00

RENEWAL KIT FOR ESK-7. Contains Anti-Static fluid and 2 mohair Cylinders. (Not illus.)
#ESK-8 .... List 2.00

6. **KLEENEEDLE BRUSH** — Automatic changer brush. Removes "dust-blob" each time arm passes over brush. Adjustable height. Pressure sensitive base pad for mounting.
   #NB-1 .... List 1.55

7. **COMBINATION TONE ARM LIFT AND RECORD BRUSH.** Clips on to tone arm providing convenient finger lift. Floating action nylon brush removes dust from record grooves.
   #RBL-1 .... List 1.00

CLIP-ON RECORD BRUSH. Clips on to tone arm and sweeps dust from records automatically. (Not illus.)
#RB-75 .... List .65

HOBBYIST RECORD KARE KIT. Contains stylus pressure gauge, and turntable level. (Not illus.)
#ESK-1A .... List 2.50

PROFESSIONAL KARE KIT. Contains stylus pressure gauge, stylus microscope, and turntable level. (Not illus.)
#ESK-2A .... List 3.25

16. **DELUXE SOUND ENGINEERED RECORD KARE KIT.** Contains stylus pressure gauge, stylus microscope, turntable level, record cleaning cloth, KleeNeedle brush, record brush, and tone arm lift.
   #ESK-3A .... List 5.75

SOUND ENGINEERED TURNTABLE LEVELING KIT contains four adjustable rubber feet to mount under turntable base, and circular 4-way spirit level. Level mounts on top deck of turntable. (Not illus.)
#ESK-4 .... List 3.90

POLYESTER PHONO CUSHIONS. Foam mat cushions record drop. Reduces slippage. (Not illus.)
#PC-12 11¾" dia. .... List 1.25 **#PC-10** 9¾" dia. .... List 1.00

RIM-REST PHONO CUSHION. Has graduated ridges for 7", 10" and 12" records. Records rest on rims only. Delicate sound grooves never touch rim rest. Fits all turntables. Made of hi-impact styrene. 12" dia. (Not illus.)
#PC-22 .... List 2.50

PHONO STROBE DISC — Tests phono or turntable for correct speed. Disc is placed on turntable under neon or fluorescent lingt. (Not illus.)
#SD-4 .... Tests 16, 33⅓, 45, and 75 RPM speeds .... List .50
#SD-1 .... Same as above, except tests 3 speeds .... List .35

8. **STYLUS MICROSCOPE** — Inspects stylus tip, to detect signs of wear, chips, etc. Precision ground lenses for clear magnification, knurled focusing adjustment, convenient slot secures needle; and pen type pocket clip. 3¾" long, ½" dia. Imported.
   #MX-1 .... List 2.75

HOBBYIST STYLUS MICROSCOPE — Direct reading with precision plastic lens. (Not illus.)
#MX-40 .... List 1.25

9. **TURNTABLE LEVEL** — Place on turntable for accurate leveling. Insures correct tracking; minimizes stylus and record groove wear.
   #TL-1 .... List 1.35

10. **ROUND TURNTABLE LEVEL** — A must for Stereo output balance.
   #TL-2R .... List 2.50

CLIP-ON TONE-ARM-LIFT. A convenient finger grip for manipulating tone arm. Minimizes scratching of records due to fumbling. (Not illus.)
#TA-1 .... List .35

11. **RECORD SPIDERS.** Low cost, hi-impact plastic '45 adaptors.
   #RA-45 .... Package of 5 .... List .25

CONICAL '45 SPINDLE ADAPTOR — Plastic, for easy loading of '45's. (Not illus.)
#SA-45 .... List .25

METAL 45 RPM RECORD ADAPTORS. Sturdy, nickel plated metal for easy snap-in insertion. Pkg. of 5. (Not illus.)
#RA-45M .... List .30

12. **ROUND-BOTTOM PROTECTIVE PLASTIC DIS-CLOSURES.** For 12" records. Prevents scratching, seals out dust and moisture. (Pkg. of 15).
   #E-15 .... List 1.00

SQUARE COVERS — For 12" records or standard 12" record jackets. (Pkg. of 15). (Not illus.)
#EJ-15 .... List 1.00

"JOCKEY-CLOTH" FOR RECORDS. Contains Silicone. Cleans and lubricates. Reduces record wear. Washable. (Not illus.)
#JC-1 .... List .75

13. **PHONO DRIVE OIL.** Highly refined lubricant formulated for moving and rotating parts. Inhibits rust and oxidation. 2 oz. bottle.
   #RC-2-33 .... List .75

13. **NON-SLIP FOR PHONO DRIVES.** Helps stop slippage of drive parts. Fast drying, stable and penetrating, dries to tack-free, non-slip surface. 2 oz. bottle.
   #RC-2-56 .... List 1.00

14. **FIBERGLASS ACOUSTIC INSULATION.** For lining speaker cabinets, record changers, tape decks, etc. 36" x 36" x 1" thick. Damps "boom" and distortion causing standing waves inside speaker enclosures.
   #AM-90 .... List 2.50

ISOLATION PAD FOR RECORD CHANGER BASE. Absorbs vibration, minimizes acoustic feedback, reduces excessive noise and rumble. Use for recorders and TV chassis, etc. (Not illus.)
#IP-16 .... List 2.00

15. **ALUMINUM COMPONENT SLIDES.** Easy to install drawer slides for record changers or other equipment. Load capacity — 30 lbs. Length — 13". Maximum extension — 14". Has precision ball bearing and special silencer spring to reduce vibration. Slides smoothly. With screws.
   #CS-1311 .... List 4.50

16. **CHANGER COVERS** — Soft plastic covers.
   #CC-1 .... 13" x 13½" x 8" .... List 1.95
   #CC-2 .... 12½" x 15" x 8" .... List 1.95
   #CC-5 .... 17" x 15" x 18¾" .... List 1.95

   TURNTABLE COVERS
   #CC-3 .... 22" x 16½" x 9" .... List 2.50
   #CC-4 .... 17¼" x 17½" x 9" .... List 2.50
   #CC-678 .... Rigid, collapsible, 12" x 15½" x 5" .... List 4.95

ROBINS BOOKS.
#TE-24 "TAPE EDITING AND SPLICING GUIDE BOOK" by N. M. Haynes. 24 pages. Illustrated .... List .40
#TE-48 "TELEVISION TAPE RECORDING" by George B. Goodall. 48 pages. Illustrated .... List 1.00

#TE-96 "WHAT YOU SHOULD KNOW ABOUT YOUR TAPE RECORDER" A complete guide book to care, use, and operation of tape recorders. 96 pages, illustrated. Trouble shooting guide and glossary of recording terms included .... List 1.00

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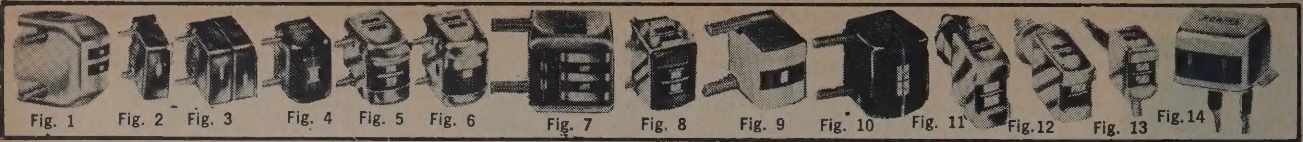
ROBINS® M/M EXACT REPLACEMENT AND STEREO CONVERSION TAPE HEADS

Write For Latest Replacement & Conversion Data Book #17H........ .35



SPECIFICATIONS — R/P HEADS

PART NO.	TYPE	TAPE SPEED (IPS)	IMPED. (1KC)	REC. LEVEL (BELOW SAT.) (DB)	AUDIO CURRENT (MA) A	BIAS CURRENT (M A)	BIAS. FREQ. (KC)	PLAY LEVEL (1KC) (MV)	PLAY LEVEL (10KC) BEL. 1KC LEVEL	INDUCT. (NOM.) (H)	FIG. NO.	LIST PRICE
2FM20-500	½ TRACK MONO R/P & ERASE*	7.5	1650	−12	—	—	—	2.15	−10	—	—	$20.00
3F20-101	½ TRACK STEREO R/P	7.5	2000	−12	.043	1.0	62	1.8	−13	.3	11	29.00
3F20-105	½ TRACK STEREO R/P	7.5	2000	−12	.043	1.0	62	1.8	−13	.3	13	29.00
3FM20-104	½ TRACK MONO R/P	7.5	2000	−12	.043	1.0	62	1.8	−13	.3	12	13.00
3FM20-108	½ TRACK MONO R/P	7.5	2000	−12	.043	1.0	62	1.8	−13	.3	12	13.00
3FM20-502	½ TRACK MONO R/P & ERASE*	7.5	2000	−12	—	—	—	2.7	−13	.3	—	35.00
3L20-101	½ TRACK MONO R/P	7.5	2460	−12	.03	1.25	50	1.64	−13	.35	6	10.00
5AV17	¼ TRACK STEREO R/P & ERASE*	3.75	3600	−12	.020	0.25	80	1.8	−12	.5	7	32.00
5QT17	¼ TRACK STEREO R/P	7.5	3340	−12	.020	.3	80	2.4	− 6.0	.5	1	16.00
5QT17-105	¼ TRACK STEREO R/P	IDENTICAL TO 5QT17 (ABOVE) EXCEPT MOUNTING LUGS ON 5QT17-105 ON OPPOSITE SIDE										16.00
5TRB	½ TRACK MONO R/P & ERASE*	7.5	1450	+	.05	1.5	50	+	+	+	14	17.00
7B17	½ TRACK STEREO R/P	7.5	5150	−12	.032	.7	80	3.5	−8	.75	5	15.00
7H17	½ TRACK MONO R/P	7.5	5150	−12	.042	.8	80	3.0	− 8.0	0.75	9	10.00
7L17	½ TRACK MONO R/P	7.5	5150	−12	.023	1.0	80	2.15	−11	.75	6	10.00
7L17-108	½ TRACK MONO R/P	SAME AS 7L17 EXCEPT MOUNTS FROM OPPOSITE SIDE										10.00
10B20LS	½ TRACK STEREO R/P	7.5	7034	−12	.02	1.0	80	2.5	−13	1.0	8	24.00
10L17-104	½ TRACK MONO R/P	7.5	7030	−12	.020	1.0	80	2.6	−12	1.0	6	10.00

NOTE: All series L (single track), B (two track and Q (four track are electrically and mechanically interchangeable for easy Stereo conversion.

9QTE3 Erase head is ¼ track replacement for 521 and 5SS1 heads.

* ERASE AND RECORD SPECS IN SEPARATE CHARTS

SPECIFICATIONS — ERASE HEADS

PART NO.	TYPE (ERASE)	TAPE SPEED (IPS)	IMPED. @ ERASE FREQ.	FREQ. ERASE (kc)	ERASE CUR-RENT (MA)	ERASURE (DB) (200) cy. sat.)	INDUCT. (NOM.) (mh)	FIG. NO.	LIST PRICE
2FM20-500	*	7.5	1,750	62	17	55	5.0		*
3FM20-502	*	7.5	1,750	62	17	55	5.0		*
5AV17	*	3.75	2,800	80	15	60	11.0	7	*
5S1	½ TRACK MONO	7.5	1,750	62	17	55	5.0	2	7.00
5SS1	½ TRACK STEREO	7.5	1,750	62	17	55	5.0	3	13.00
5S1-103	½ TRACK MONO	IDENTICAL TO 5S1 EXCEPT MOUNTS FROM OPPOSITE SIDE							7.00
5TRB	*	7.5	780	25*	27	50	—	14	*
9QE3	¼ TRACK STEREO	7.5	2,500	75	12.5	60	9.0	10	10.00
40EM12A	½ TRACK MONO	7.5	10,000	52	10	50	40.0	4	8.00
7EM12A	½ TRACK MONO	7.5	2,200	80	30	50	5.4	4	8.00

ROBINS M/M STEREO HEAD CONVERSION KITS

Converts 90% of all U.S. made two track Stereo recorders to 4 track with only a screwdrilver or pliers. For Mono units too, but additional amplifier is required. Kit contains: 4 track R/P head, head alignment tape, hardware and instructions.

#5K17 (5QT17 head) **List 18.00**
#5K17U (5QT17-105 head) **18.00**

A COMPLETE KIT containing assortment of 14 most popular Heads. Ideal for labs and service organizations. Includes FREE 9″ x 10″ x 6″ cabinet and replacement data. Total 23 heads.
#DD-6—6 **List 303.00**

ROBINS® AUDIO CONNECTORS, CONTROLS AND SWITCHES

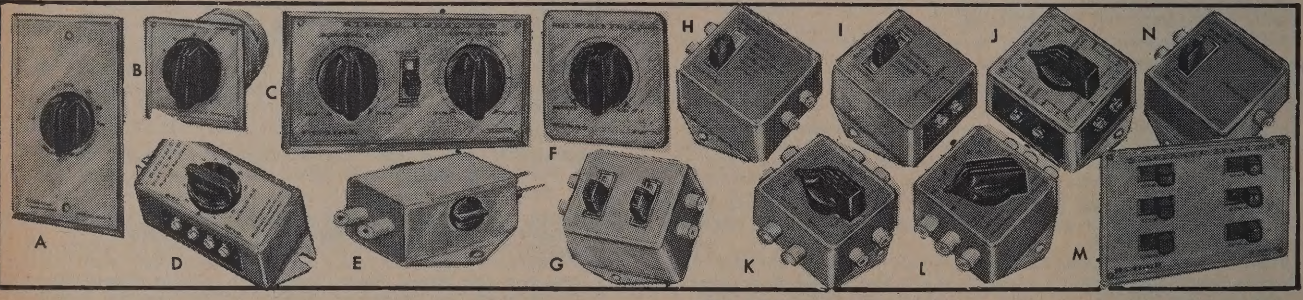


Fig.	Cat. No.	Im-pedance	Type of Mount'g	List	Fig.	Cat. No.	Im-pedance	Type of Mount'g	List
A	VC-5W	8 ohms	Wall Plate	6.00	B	VC-6P	16 ohms	Panel Mount	5.50
A	VC-6W	16 ohms	Wall Plate	6.00	D	VC-5S	8 ohms	Surface Mount	7.00
B	VC-5P	8 ohms	Panel Mount	5.50	D	VC-6S	16 ohms	Surface Mount	7.00

STEREO SPEAKER EQUALIZER WITH PHASING SWITCH. L-Pad controls adjust Stereo Speakers for equal output. Can control 2 Mono speakers.

C	VC-7	8 ohms	Wall or Panel	12.50
C	VC-8	16 ohms	Wall or Panel	12.50

DUAL VOLUME CONTROL ADAPTOR. For two channel, high impedance Stereo circuits. Has 2 Phono jack inputs, 2 phono plug outputs. Separate volume controls.

E	VC-9	Surface Mount	7.50

SPEAKER FADER CONTROL. Adjusts volume of Hi-Fi, radio, TV and remote speakers. Can be used to control volume of individual speaker.

F	VC-10P	Panel Mount	2.50
A	VC-10W	Wall Mount	3.00

MULTI-SPEAKER SELECTOR SWITCH WITH 7 POSITIONS. Select any or all speakers, up to 3. Constant impedance at all switch positions.

A	SW-1W	Wall Mount	5.50
D	SW-1S	Surface Mount	6.00

STEREO-MONO SELECTOR WITH CHANNEL REVERSING. Switch from Mono to Stereo. Has 2 phono jack inputs and outputs. Dual channel feed through for Stereo Outputs have STEREO/MONO Switch.

G	SW-2	Surface Mount with Reverse	3.50
H	SW-3	Surface Mount without Reverse	3.00

SPEAKER PHASE CONTROL. For multiple or Stereo speaker installations. Provides proper phasing of speakers. With instructions and hardware.

I	SW-4S	Surface Mount	2.50
	SW-4P	Panel Mount (Not Illus.)	1.75

STEREO SPEAKER SELECTOR SWITCH. 3 position switch gives variety of Stereo speaker selections. 2 remote pair of Stereo speakers can be connected to a Stereo amplifier and either or both "cut-in" at will. Complete with screw terminals, hardware and instructions.

J	SW-5	Surface Mount	6.25

STEREO INPUT SELECTOR SWITCH. Connect both channels of any one of 3 Stereo sources to one pair of outputs. Has 3 phono jack inputs, 1 output.

K	SW-6	Surface Mount	6.25

STEREO SPEAKER SELECTOR SWITCH. Has 1 pair phono jack inputs and 3 pairs outputs. Select any of 3 pairs of Stereo speakers.

K	SW-7	Surface Mount	6.25

MONAURAL SPEAKER SELECTOR. Select either or both of 2 remote speakers or remote speaker and Hi-Fi set.

F	SW-8	Surface Mount	2.50

MONAURAL MULTI-SPEAKER SELECTOR. Hook up 5 remote speakers to one input. Select any one of 5 remote speakers. Has one input and 5 output phono jacks.

L	SW-9	Surface Mount	5.50

MONAURAL MULTIPLE SELECTOR CONTROL. Select one of 5 input circuits to one output. Inputs are for AM, FM, Phono, Tape, and Aux. Phono jack output and input connections.

L	SW-10	Surface Mount	5.00

6 SPEAKER SELECTOR. For multi speaker Mono or Stereo Systems. Hook up up to 6 remote speakers; 6 mono or 3 pairs of Stereo speakers. With On-Off switches.

M	SW-11	Panel Mount	3.50

12 SPEAKER SELECTOR. Connections for up to 6 pairs of speakers. Mono or Stereo. 6 On-Off Switches.

M	SW-12	Panel Mount	4.25

PHONO-TUNER ADAPTOR. Old sound equipment having only one input can be brought up to date using this adaptor. Unit has 2 phono jack inputs for use with phonos, tuners, etc. With selector switch for either input, phono jack for connecting amplifier.

N	SW-13	Surface Mount	2.50

Trade Discount Applies To List Prices Only

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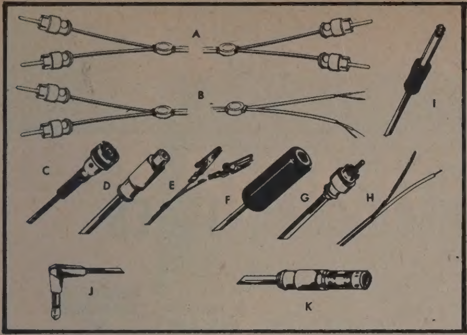
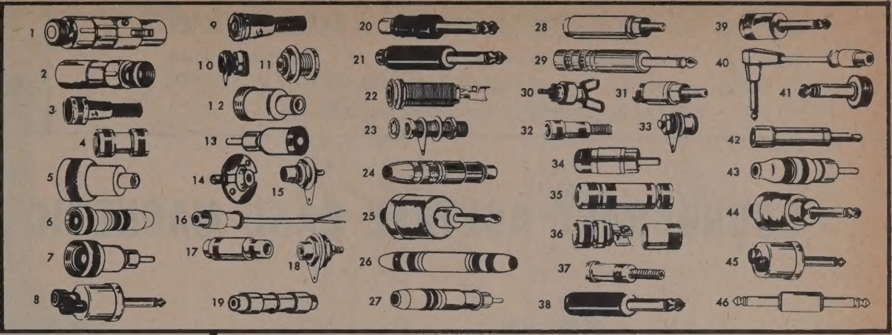
ROBINS® PATCH CORDS AND ADAPTORS





STEREO CABLE ASSEMBLIES

Fig.	Cat. No.	Length	List	Fig.	Cat. No.	Length	List
A	SMM-36	36″	3.25	B	SMS-36	36″	2.90
A	SMM-72	72″	3.75	B	SMS-72	72″	3.25
A	SMM-120	120″	4.50	B	SMS-120	120″	3.75

MOLDED CABLE ASSEMBLIES

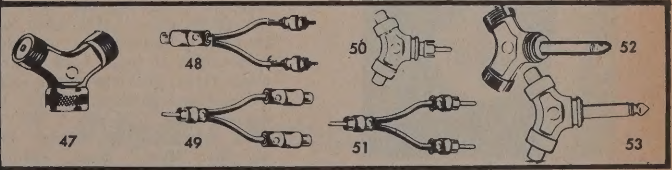
Cat. No.	Adoptor at One End Fig.	Adoptor at Other End Fig.	Length In Inches	List	Cat. No.	Adoptor at One End Fig.	Adoptor at Other End Fig.	Length In Inches	List
BS-120	C	H	120″	2.25	MS-72	G	H	72″	1.15
FF-72	D	D	72″	1.95	MS-120	G	H	120″	1.65
MC-120	G	E	120″	2.25	MT-72	G	I	72″	2.20
MF-18	G	D	18″	1.25	MT-120	G	I	120″	2.75
MF-36	G	D	36″	1.35	TC-72	I	E	72″	1.90
MF-72	G	D	72″	1.75	TC-120	I	E	120″	2.40
MF-120	G	D	120″	2.00	TF-72	I	D	72″	2.20
MJ-72	G	F	72″	2.50	TJ-120	I	F	120″	3.50
MM-18	G	G	18″	1.05	TS-72	I	H	72″	1.75
MM-36	G	G	36″	1.20	TS-120	I	H	120″	2.25
MM-72	G	G	72″	1.50	TT-72	I	I	72″	2.40
MM-120	G	G	120″	2.00	TT-120	I	I	120″	2.70
MS-18	G	H	18″	.80	XJ-180	J	K	180″	5.00
MS-36	G	H	36″	.95	XM-120	I	G	120″	4:00

ADAPTORS

FIG.	CAT. NO.	DESCRIPTION	LIST
1.	#AC-1	2-Cond., has input connector (#D-2), output connector, with unsoldered internal wire permitting connection to terminal.	3.05
2.	#AC-2	Female Mic. Connect. to input Connect.	3.05
3.	#B-1	Microphone Connector, female	.60
4.	#BB-1	Misc. Connect., double female, for connecting 2 cables with male connectors.	1.00
5.	#BF-1	Phono Jack input to female Mic. Connect. output Outside dia. main body — ½″.	1.25
6.	#BJ-1	2-Cond. Phone Jack input to female Mic. output. Removeable coupler ring converts connector to male type. Body O.D. ½″.	1.75
7.	#BP-1	Phono plug — female microphone connector.	1.00
8.	#BPJT-1	Binding Post, dual purpose, Banana Jack input to Phone plug output.	2.60
9.	#D-1	Microphone Connector, male.	.45
10.	#D-2	Mic. Panel Connect. Mounts in .385″ hole.	.40
11.	#D-3	Panel Connector, male, single contact.	.45
12.	#DF-1	Phono Jack input to male Mic. Connect. output	1.25
13.	#DP-1	Phono Plug — male Mic. Connector.	1.00
14.	#F-1	Phono Jack. Pkg. of 3.	.45
15.	#F-2	Phono Jack — back of panel mount. 2-Cond.	.50
16.	#F-3	2-Cond., long handle, phono jack to 3″ shld'd. cable. Converts screw or solder type terminals to std. Phono Jack. Mates with #M-2 adaptor.	.80
17.	#F-4	Phono Extension Jack, removable handle, shld'd. cable clamp.	.60
18.	#F-5	RF Phono Jack for front of panel mount.	.60
19.	#FF-1	Phono Plug to Phono Plug.	1.00
20.	#FT-1	Phono Plug Output — Phono Jack Input.	1.25
21.	#FTR-1	Phone Adapt., female Phono Jack end of handle. Has internal resistor circuit for connection between crystal phono pickup or radio or TV set and input of tape recorder. May be used as adaptor with magnetic phono by opening plug and twisting leads of resistor together.	1.95
22.	#J-1	Phone Jack w/long bushing. Mounts in panels up to 1¼″ thick. Mates with "Littel plugs". Ideal for Mic. Connect. 2-Cond.	1.30
22.	#J-3	Same as J-1, except 3-cond.	1.50
23.	#JA-1	Phono Jack Adapt. Mounts in panels up to 1¼″ thick.	.95
24.	#JF-1	2-Cond. Phone Jack input to Phono Jack output.	1.45
25.	#JG-1	Jack input, std. ¼″ 2-cond. to special plug for mate with jack in American Geloso Recorder. Permits use of U.S. made Microphone and plugs with recorder.	2.35
26.	#JJ-1	Coupler, 2-cond. Phone Jack ea. end. Connects 2 cables having phone plug terminations.	2.25
26.	#JJ-3	Same as JJ-1, except 3-cond.	2.75
27.	#JM-1	2-cond. phone jack input to phono plug output.	1.45
28.	#JM-2	Compact Adapt., phono jack input to phono plug output, connects Ceramic Phono Cartridge to audio amplifier which was designed for magnetic cartridge.	2.95
29.	#JR-1	Std. 2-cond. Phone Plug to 2-cond. short extension Jack. Use with late models Revere and Wollensak recorders.	2.00
30.	#M-1	Phono Plug. Pkg. of 4.	.50
31.	#M-2	Phono Plug, 2-cond. w/long screw on handle. Cable clamp.	.60
32.	#MB-1	Minature Mic. Connect. Use w/single cond. shld'd. cable. Straight Connect., single contact, female coupling ring.	.60
33.	#PC-1	Panel Connect., single contact, male.	.45
34.	#RF-1	RF Plug, 2-cond. long screw on handle. Cable clamp.	.80
35.	#SC-1	Straight Connect. w/2-screw terminals. Single contact, female, 2-piece handle w/built-in cable clamp. Connects cable with stripped ends without solder.	2.25
36.	#SC-2	Straight Connect., same as SC-1, short handle no cable clamp.	1.65
37.	#SC-3	Straight Connect., single contact, male.	.50
38.	#T-1	Phone Plug.	.80
39.	#T-1S	"Silent Phone Plug", 2-cond. w/1″ lgth. shld'd. Phenolic handle. Features circuit closing device when plug is removed. Ideal for use with musical instruments.	1.75
40.	#TAF-1	Phone Plug, right angle, 2-cond. w/long handle molded to 2″ shld'd. cable. Adapts phone jack to phono plugs.	1.75
41.	#TD-1	Mic. input, male to Phone Plug output.	.60
42.	#TJF-1	Std. Phono plug to "Tini-plug" (3/16″) output.	1.40
43.	#TJM-1	2-cond. "Tini-jack" input to phono plug output.	1.45
44.	#TJS-1	"Silent Plug" Adapt. w/2-cond. Jack input to 2-cond. plug output. Circuit closes when plug is removed.	2.95
45.	#TJT-1	Tip Jack input to Phone Plug output.	2.35
46.	#TTS-2	Coupler, 2-cond. phone plugs connect 2 assemblies having extension jack terminations.	2.00

"Y" ADAPTORS — Phono Jack and Plug type, Microphone Connectors.

FIG.	CAT. NO.	DESCRIPTION	LIST
47.	#YBDD-1	Light weight die cast, connects 2 cables (with std. mic. connectors) in parallel to one single connector.	1.65
48.	#YFMM-1	2 Phono Plugs connect. to 1 Phono Jack. 4″ shld'd. cable.	2.00
49.	#YMFF-1	Phono Plug connect. to 2 phono jacks. 4″ shld'd. cable	2.00
50.	#YMFF-2	2 Phono Jacks connect. in parallel to std. Phono Plug.	2.00
51.	#YMMM-1	3 Phono Plugs connect. together. 4″ Shld'd. cable.	2.00
52.	#YTDD-1	2 male Mic. Connect's. connected in parallel to std. 2-cond. Phone Plug.	1.90
53.	#YTFF-1	2 Phono Jacks connect. in parallel to std. 2-cond. Phone Plug.	1.90



FM INDOOR ANTENNA — FOLDED DIPOLE. Eliminates need for outdoor antenna in most locations. Easily concealed under rug or back of cabinet.
#FMA-1 2.00

REEVES SOUNDCRAFT

DIVISION OF REEVES INDUSTRIES, INC., DANBURY, CONN.

New York • Chicago • Los Angeles • Foreign Division:
25 Warren St., N.Y.C. • Canadian Reps: Vancouver • Toronto
United Kingdom Reps: Soundcraft Magnetic Ltd.

MAGNETIC RECORDING TAPE

SOUNDCRAFT ACETATE BASE MAGNETIC RECORDING TAPES

DESCRIPTION

SOUNDCRAFT STANDARD RECORDING TAPE

1½ Mil Acetate base • Standard professional quality • A durable high performance tape that is the accepted standard for professional recording applications. The tape for the perfection minded home recordist as well. Look for the Red "S" and Red diamonds on the box.

Code	Catalog No.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
S-1	10251	150′	3″	12	$ .70
S-6	10253	600′	5″	12	2.10
S-9	10294	900′	5¾″	12	2.73
S-12	10255	1200′	7″	12	3.50
S-25RM*	10299	2500′	10½″	12	10.25
S-25H	10295	2500′	HUB	12	8.00

SOUNDCRAFT STANDARD-50 RECORDING TAPE

1 Mil Acetate base • For long play • Professional quality • Standard-50 is the long-play companion to Soundcraft's Standard Tape. Standard-50 is the choice of the recording industry whenever the application calls for longer play without added strength. Easily identifiable by the Silver "S" and Silver diamonds on the box.

Code	Catalog No.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
S5-2	10503	225′	3″	12	$ .90
S5-9	10485	900′	5″	12	3.29
S5-18	10487	1800′	7″	12	5.17
S5-36RM*	10492	3600′	10½″	12	12.04

SOUNDCRAFT LIFETIME TAPE

1½ Mil "Mylar" base • Super-strength — Dimensional stability • Lifetime guarantee • Soundcraft's Lifetime tape is the ultimate in durable recording tape. Its DuPont "Mylar" base has dimensional stability that is unaffected by temperature and humidity extremes. Lifetime's exceptional strength gives added protection against tape damage. Easily Identifiable by the Yellow "S" and the Yellow diamonds on the box.

Code	Catalog No.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
L-1	10435	150′	3″	12	$ .75
L-6	10436	600′	5″	12	2.65
L-12	10437	1200′	7″	12	4.25
L-25RM*	10442	2500′	10½″	12	11.20

SOUNDCRAFT MYLAR** BASE MAGNETIC RECORDING TAPES

SOUNDCRAFT PLUS-50 RECORDING TAPE

1 Mil "Mylar" base • Long play with strength • Long life • Dimensional stability • Plus-50 is a superb combination of longer-play and tape strength. Its 1 Mil "Mylar" base gives the recordist 50% more playing time than standard 1½ Mil base tapes. Look for the Aqua "S" and the Aqua diamonds on the box.

Code	Catalog No.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
PL-2	10385	225′	3″	12	$1.00
PL-9	10386	900′	5″	12	3.40
PL-18	10388	1800′	7″	12	5.80
PL-36RM*	10391	3600′	10½″	12	13.75

SOUNDCRAFT TRIPLE-PLAY RECORDING TAPE

½ Mil "Mylar" base • Three times the playing time • Triple-Play Tape offers three times the playing time of ordinary tapes and 50 per cent more than regular double-play tapes. Unlike other triple-play tapes, Soundcraft's highly active magnetic oxide provides excellent frequency response with no compromise in sensitivity. Look for the red Box with the White "S".

Code	Catalog No.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
TP-6	10646	600′	3¼″	12	$ 2.29
TP-24	10648	2400′	5¾″	12	6.96
TP-36	10647	3600′	7″	12	10.00

SOUNDCRAFT PLUS-100X RECORDING TAPE

½ Mil Tensilized "Mylar" base • Extra long play • Extra strength • The ½ Mil "Mylar" base of Plus-100X has been Tensilized by DuPont to make it extremely strong and stretch resistant. Plus-100X offers twice the playing time plus durability and outstanding strength. Identifiable by the Gold "S" and Gold diamonds on the package.

Code	Catalog No.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
XP-3X	10667	300′	3″	12	$1.60
XP-18X	10669	1800′	5¾″	12	7.48
XP-24X	10670	2400′	7″	12	9.50
XP-48XRM*	10672	4800′	10½″	12	22.00

SOUNDCRAFT GOLDEN TONE RECORDING TAPE

GOLDEN TONE
SOUNDCRAFT

A very special tape, recommended for recordists whose equipment cannot be satisfied by ordinary recording tape. Its magnetic properties are unmatched by any other tape . . . 25% more output in the high frequencies . . . a signal-to-noise ratio at least 7 db better than other tapes, provides the greatest dynamic range possible. GTA-12; 1½ Mil Acetate Base. GTM-18T; 1 Mil "Mylar" Base Tensilized by DuPont. GTM-24T; ½ Mil "Mylar" Base Tensilized by DuPont.

Code	Catalog No.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
GTA-12	10816	1200′	7″	12	$4.70
GTM-18T	10817	1800′	7″	12	7.50
GTM-24T	10818	2400′	7″	12	11.40

*Also available on fiberglass reel with 5/16″ center opening and fiberglass reel with 3″ center opening.
**DuPont T.M.

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Scotch® Brand Recording Tape

Scotch
recording tape
3M

No. 102 All Purpose, Extra Strength: For all general recording—especially suited for irreplaceable recordings or long term storage. On super-tough, weather balanced 1½ mil polyester backing.

No. 111 All Purpose: For all general recording. International standard of the recording industry—provides flawless sound reproduction at low cost. 1½ mil plastic backing.

No. 120 High Output: Over 100% more output, greater dynamic range and freedom from distortion on signal peaks. 1½ mil plastic backing.

No. 131 Low Print: Reduces print-through (signal transfer from layer to layer) to a point below the noise level of most professional machines. Has excellent recording characteristics and allows long time storage. 1½ mil plastic backing.

No. 138 Low Print, Extra Strength: Same recording qualities as No. 131 on strong 1½ mil polyester backing.

No. 150 Extra Play, Extra Strength: 50% more playing time—withstands temperature and humidity extremes. High potency oxide on 1 mil polyester backing.

No. 175 Heavy Duty Tenzar®: This new, longer-wearing tape shrugs off hard use, rough handling . . . lasts 15 times longer than ordinary tapes. Made with a wear-resistant high potency oxide coating of the type proved exceedingly durable in heavy duty tapes for high speed computers. Available on red, blue, green, yellow or clear reels.

No. 190 Extra Play: 50% more tape—as much recording time as 1½ reels of standard tape. High potency oxide offers complete purity of sound. 1 mil plastic backing.

No. 200 Double Length, Double Strength: As much playing time as two reels of standard tape—enough to record an entire opera, concert or conference. High potency oxide on tensilized polyester backing.

No. 282 Sandwich: With exclusive micro-thin protective plastic shield over oxide coating. Eliminates oxide rub-off, wears up to 30 times longer, drastically reduces machine maintenance and provides superb sound fidelity. Strong, weatherproof 1½ mil polyester backing.

No. 290 Triple Length: The tape that gives maximum playing time at a minimum cost per foot. For all general recording uses. Especially suitable for continuous recording of lengthy musical performances such as symphonies, and for hours-long conferences, meetings, conventions. ½ mil tensilized polyester backing.

No. 8000 Quick-Load Cartridge: These compact cartridges slip into place in seconds and are ready to play. Completely self-contained. No threading. No loose ends. For use in home, education and industry. Available in 320′ or 560′ of high potency No. 150 tape.

ACCESSORIES

No. 10 Tape Library Labels: Self-sticking labels give front and edge box identification with tear-off tabs for reels. Fits all boxes in Red, Yellow, Blue, Green or White colors. List Price—50 labels $2.75.

No. 24 Colored Leader & Timing Tapes: Used to identify ends of tape and selections within a roll. Red, Blue, Green, Yellow and White in handy dispenser packages. List Price—¼″ x 100′—$.90.

No. 41 Splicing Tape: A self-sticking tape expressly made for neat noiseless splices. On metal dispensers. List Price—½″ x 150″ $.39.

No. 51 Conductive Sensing Tape: For recorders with electronic sensing controls. Sticks tight, stays clean. On dispenser card. List Price—7/32″ x 150″ $1.89.

TC-12 End-of-Reel Tape Clips: One clip packed free in each box. Prevents tape spilling. 10 clips per package—$.35.

CATALOG NO.	LENGTH	REEL	LIST PRICE
102-¼-600	600′	5″	$ 2.65
102-¼-1200	1200′	7″	4.25
102-¼-2500H	2500′	HUB	8.55
102-¼-2500R	2500′	10½″	11.35
111-¼-150	150′	3″	.70
111-¼-300	300′	4″	1.35
111-¼-600	600′	5″	2.25
111-¼-1200	1200′	7″	3.50
111-¼-2500H	2500′	HUB	7.85
111-¼-2500R	2500′	10½″	10.80
120-¼-300	300′	4″	1.35
120-¼-600	600′	5″	2.25
120-¼-1200	1200′	7″	3.50
120-¼-2500H	2500′	HUB	7.85
120-¼-2500R	2500′	10½″	10.80
131-¼-1200	1200′	7″	4.40
131-¼-2500H	2500′	HUB	9.25
131-¼-2500R	2500′	10½″	12.20
138-¼-1200	1200′	7″	5.10
138-¼-2500H	2500′	HUB	11.10
138-¼-2500R	2500′	10½″	13.90
150-¼-225	225′	3″	1.00
150-¼-900	900′	5″	3.60
150-¼-1800	1800′	7″	6.20
150-¼-3600H	3600′	HUB	11.40
150-¼-3600R	3600′	10½″	14.35
175-¼-600	600′	5″	2.40
175-¼-1200	1200′	7″	3.75
190-¼-900	900′	5″	3.50
190-¼-1800	1800′	7″	5.50
190-¼-3600H	3600′	HUB	9.85
190-¼-3600R	3600′	10½″	12.80
200-¼-300	300′	3″	1.60
200-¼-600	600′	4″	3.05
200-¼-1200	1200′	5″	5.45
200-¼-2400	2400′	7″	9.50
200-¼-4800RPS	4800′	10½″	22.00
282-¼-600	600′	5″	3.10
282-¼-1200	1200′	7″	4.95
290-¼-600	600′	3¼″	2.95
290-¼-3600	3600′	7″	11.95
8000-¼-320 C	320′		4.00
8000-¼-560 O	560′		4.50
8000-¼-560 C	560′		4.50

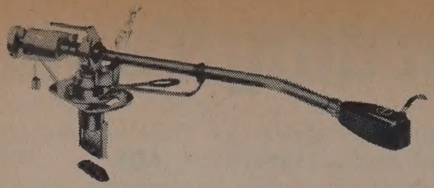
No. 8000-¼-320 C containing 320 feet of tape is available in transparent case only; No. 8000-¼-560 containing 560 feet of tape is available in opaque case (o) or transparent case (c). Unless transparent case (c) is specified, opaque case (o) will be shipped.

EMPTY REELS AND BOXES

RB-3	3″	.25
RB-3¼	3¼″	.50
RB-4	4″	.55
RB-5	5″	.65
RB-7	7″	.75

Magnetic Products Division 3M COMPANY

"SCOTCH", "TENZAR" AND THE PLAID DESIGN ARE REGISTERED TRADEMARKS OF MINNESOTA MINING AND MANUFACTURING COMPANY, ST. PAUL 19, MINNESOTA



NOW! THE ULTIMATE IN INDEPENDENT TONE ARMS

SHURE SME

MODELS 3009-3012 SERIES 2

The most remarkable independent tone arm ever made — by any standard. Brings out the very best from any high quality cartridge, mono or stereo. Virtually frictionless bearings, both horizontal and vertical . . . pivot friction at stylus tip measures less than .020 gram! Knife edge bearings are absolutely protected against dust. Manufactured to incredibly close tolerances for Shure by skilled British craftsmen. Unprecedented combination of adjustments: height, overhang, length (up to 1"!), tracking force (so accurate no pressure gauge is required, ever) . . . even bias (to counteract tendency of arm offset to pull toward center of record and "favor" one side of stereo groove over the other.) The result is an independent tone arm that carries the cartridge over the record surface with rock-like steadiness and precision — literally eliminates wear on the record and stylus. Lever operates arm through hydraulic damper.

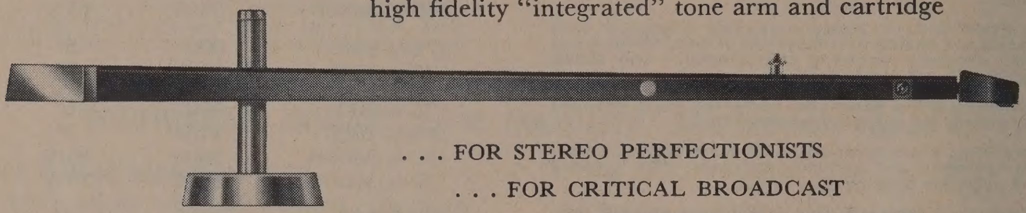
No resonances within audible spectrum! Complete with shell, alignment protractor, sockets.

MODEL 3009 Series 2 (for 12" records)	**$89.50** net
MODEL 3012 Series 2 (for 16" records)	**$99.50** net
MODEL A38A Extra plugin shell	**$ 5.50** net
MODEL S2W/12 for Shure SME 3012 Arm. With counterweight	**$ 8.75** net
MODEL S2W/9 for Shure SME 3009 Arm. With counterweight	**$ 8.75** net
MODEL S2 Separate extra Shell (can only be used with companion balance weight)	**$ 6.00** net

new . . . improved
Shure studio
SERIES M222-M226

Stereo Dynetic

high fidelity "integrated" tone arm and cartridge



. . . FOR STEREO PERFECTIONISTS
. . . FOR CRITICAL BROADCAST
AND RECORDING APPLICATIONS

NOW! Improved Performance.

The overwhelming first choice of perfectionists who appreciate the full importance of "integrated" tone-arm and cartridge to optimum stereo performance. *Tracks at incredibly light ¾ to 1.5 grams—with unparalleled fidelity* . . . absolutely minimizes record wear, and CANNOT scratch records! We urge you to make listening tests of this unit before buying any stereo cartridge or arm—you'll hear the difference.

The Studio Stereo Dynetic has a special advantage for those music lovers who like to "index". The cartridge stylus is placed far in front, making it extremely easy for you to position the stylus on the exact spot of the record you want to play. Includes stereo cable.

Still another feature of the Studio Stereo Dynetic is the fact that the stylus can be changed in the home without tools—within ten seconds.

SPECIFICATIONS	STEREOPHONIC M226, M222	MONOPHONIC M16; M12
Tracking Force	1½-2½ grams	1-2 grams
Frequency Response	20-20,000 cps± 2½ db	20-20,000± 2 db
Channel Separation	over 22.5 db at 1000 cps	*
Sensitivity: Output at 1000 cps	6 mv per channel (On Westrex /4 Test Record)	14 mv for 10 cms/sec
Recommended load impedance	47,000 ohms	10,000 ohms
Compliance: (Vertical, *Lateral)	22×10^{-6} cms/dyne	8×10^{-6} cms/dyne
Inductance	600 millihenrys	130 millihenrys
D.C. Resistance	750 ohms	180 ohms
Stylus	.0005" diamond	.0007" diamond

* Applies to stereo units only.

Model M226—Studio Stereo Dynetic for records up to 16" including M22 cartridge with .0005" Diamond Stylus	Audiophile Net: $89.50
Model M222—Studio Stereo Dynetic for records up to 12" including M22 cartridge with .0005" Diamond Stylus	Audiophile Net: $89.50
Model M22—Studio Stereo Dynetic Cartridge with .0005" Diamond Stylus.	Audiophile Net: $49.50
Model N21—Replacement Stereophonic stylus assembly for Model M21, M216, M212; .0007" Diamond tip.	Audiophile Net: $24.75
Model N22—stylus improves performance, lowers tracking force for M212. and M216 arms.	Audiophile Net $24.75
Model A29R—Adapter Plate for use with Model M12 or M212 for mounting purposes with the Rek-O-Kut turntable.	Audiophile Net $ 2.40

NOTE: WHEN REPLACING STYLUS, use only genuine Shure replacement stylus with the certification, "Precision Made by Shure." Inferior imitations can seriously downgrade the performance of the cartridge.

See Section 1320 for additional Shure Products.

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SHURE

world acclaimed

Stereo Dynetic

CARTRIDGE SERIES — MODEL M33-5 — MODEL M33-7 — MODEL M77

MODELS M33

Magnificent cartridges for the very finest sound systems. Extraordinarily compliant stylus permits ultra-light tracking pressures with flawless tracking, outstanding channel separation, highest fidelity.

MODEL M33-5—for professional tone arms

Professional Stereo Dynetic Cartridge including N33-5 stylus assembly (Red) with .0005″ diamond. Tracks at ¾ to 1.5 grams.
Audiophile Net Price $36.50

MODEL M33-7—for automatic turntables

Professional Stereo Dynetic Cartridge including N33-7 stylus assembly (White) with .0007″ diamond. Tracks at 1.5 to 3 grams.
Audiophile Net Price $36.50

MODEL N33-5

Stereo Stylus Assembly for M33-5 (also fits M33-7). Features .0005″ diamond tip. (Red plastic grip)
Audiophile Net Price $19.50

MODEL N33-7

Stereo Stylus Assembly for M33-7 (also fits M33-5). Includes .0007″ diamond tip. (White plastic grip)
Audiophile Net Price $19.50

MODEL N33-1

Dynetic Stylus is specifically designed for playing 33⅓ and 45 RPM monophonic records with .001 diamond tip. Ideal for owners of N33-5 cartridge. (Blue plastic grip.)
Audiophile Net Price $19.50

MODEL M77

An excellent, moderately-priced cartridge for use with tone arms that track at 3 to 6 grams. Higher output, superior hum shielding permits use of 2-pole motor and operation of amplifier at low gain. N77 .0007″ diamond included.
Audiophile Net Price $27.50

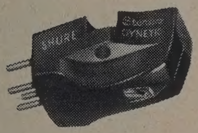
MODEL N77

Stereo Stylus Assembly for M77 Stereo Dynetic Cartridge. Includes .0007″ diamond tip. (Black plastic grip)
Audiophile Net Price $10.50

MODEL N78

Monophonic Stylus Assembly for playing 78 RPM records with M33 or M77 cartridges. .0027″ diamond tip; 30-15000 cps; Output 11.5 mv; Compliance 6 x 10^{-6} cm/dyne. 4 to 6 grams tracking.
Audiophile Net Price $8.55

SPECIFICATIONS	M33-5	M33-7	M77
Channel Separation (at 1000 cps)	Over 22.5 db	Over 22.5 db	More than 20.0 db
Frequency Response	20 to 20,000 cps	20 to 20,000 cps	20 to 17,000 cps
Output Voltage (per channel, at 100 cps)	6 mv	6 mv	9 mv
Recommended Load Impedance (per channel)	47,000 ohms	47,000 ohms	47,000 ohms
Compliance; Vertical & Lateral	22.0 x 10^{-6} cent. per dyne	20.0 x 10^{-6} cent. per dyne	6.0 x 10^{-6} cent. per dyne
Tracking Force	¾ to 1.5 grams	1.5 to 3 grams	4 to 6 grams
Inductance	600 millihenrys	600 millihenrys	600 millihenrys
D.C. Resistance	750 ohms	750 ohms	750 ohms
Terminals	4 terminals. (Furnished with adapter for 3-terminal stereo or monaural use.)		
Mounting Centers	Fits Standard ½″		
Stylus (Diamond)	.0005″	.0007″	.0007″



SHURE

Stereo Dynetic

CARTRIDGE SERIES—MODEL M3D—MODEL M3/N21D—MODEL M7D—MODEL M7/N21D

MODEL M3D

The M3D Stereo Professional Dynetic is the premium stereo phono cartridge. It reflects quality control of a high order, based on critical tolerances in all performance characteristics.

MODEL M3D WTH N21D TUBULAR STYLUS

New, higher compliance and frequency response cartridge-stylus combination designed for the perfectionist. For use with top quality independent tone arms or record changers capable of tracking at 2½ grams maximum.

MODEL M7D

The M7D Stereo Custom Dynetic is designed for the economy-conscious consumer who wants a high quality Stereo Phono Cartridge at moderate cost.

MODEL M7D WITH N21D TUBULAR STYLUS

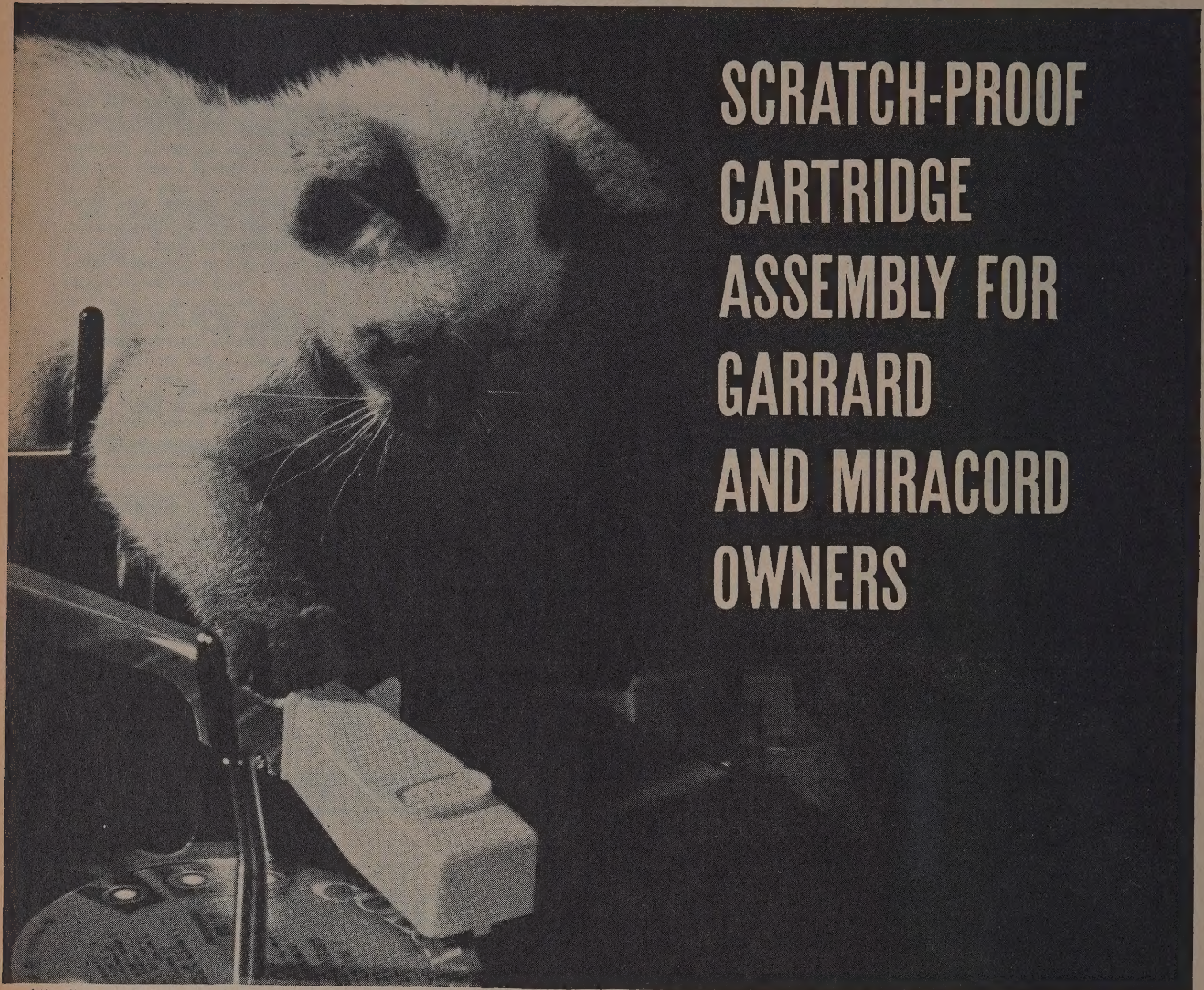
Top-rated cartridge-stylus assembly. Extraordinarily high compliance and response at modest price. For use in finest quality independent tone arms or record changers capable of tracking at 2½ grams maximum.

SPECIFICATIONS	M3D	M3/N21D	M7D	M7/N21D
Channel Separation at (1000 cps)	Over 20 db	Over 20 db	Over 20 db	Over 20 db
Frequency Response	20 to 15,000 cps (±3 db)	20 to 20,000 cps (±2½ db)	20 to 15,000 cps	20 to 20,000 cps
Output Voltage (per channel, at 1000 cps)	5 mv	4 mv	5 mv	4 mv
Recommended Load Impedance (per channel)	47,000 ohms	47,000 ohms	47,000 ohms	47,000 ohms
Complance; Vertical & Lateral	4.0 x 10^{-6} cent. per dyne	9.0 x 10^{-6} cent. per dyne	3.5 x 10^{-6} cent. per dyne	9.0 x 10^{-6} cent. per dyne
Tracking force	3 to 6 grams	2 gms. optimum (2½ max.)	4 to 7 grams	2 gms. optimum (2½ max.)
Inductance	420 millihenrys	420 millihenrys	420 millihenrys	420 millihenrys
D. C. Resistance	280 ohms	280 ohms	280 ohms	280 ohms
Terminals Mounting Centers	4 terminals. Furnished with 3-terminal adapter. Fits both ½″ and 7/16″			
Audiophile Net Price	$45.00	$47.25	$24.00	$36.75
Replacement Stylus Only:	$22.50	$24.75	$12.00	$24.75

See Section 1320 for additional Shure Products.

new from SHURE

originators of scratch-proof high fidelity tone arms



SCRATCH-PROOF CARTRIDGE ASSEMBLY FOR GARRARD AND MIRACORD OWNERS

Attention music lovers and felinophiles; interesting to note that both cat and cartridge have retractile styli for gentleness and protection from scratching

GREATER RECORD AND NEEDLE PROTECTION . . . FINER RECORD REPRODUCTION

Now, owners of Garrard Laboratory® Type "A" and AT-6 and Miracord Model 10 and Model 10H Automatic Turntables can assure themselves unprecedented and unparalleled record and needle protection, and highest sound quality simply by plugging in the Shure Stereo Dynetic GARD-A-MATIC "floating" cartridge assembly. Nothing else to buy . . . no wiring, no soldering, just plug in.

Ingenious GARD-A-MATIC cartridge inside a special tone-arm shell ends scratching due to dropping the tone arm or accidentally dragging it across the grooves . . . records stay new, sound new. Needles last longer—can't be damaged by pressing arm on record. Does away with tone arm "bounce" from floor vibrations, etc. Even plays warped records. And, the performance characteristics are those of the famed Shure Stereo Dynetic cartridges.

SPECIFICATIONS

Frequency Responses:	From 20 to 20,000 cps
Output Voltage:	6 millivolts per channel
Channel Separation:	more than 22.5 db at 1000 cps
Recommended Load Impedance:	47,000 ohms
Compliance:	20.0 x 10^{-6} cm per dyne
Tracking:	1.5 to 3.0 grams
Inductance:	600 millihenries
D. C. Resistance:	750 ohms
Stylus:	.0007″ diamond
Stylus Replacement:	N99

MODEL M99/A. Fits Garrard Laboratory® model "A". Includes tone arm head, factory mounted cartridge, .0007″ diamond, **$49.50** Audiophile Net. **MODEL M99/AT6.** Fits Garrard AT-6. Includes tone arm head, factory mounted cartridge, .0007″ diamond, **$49.50** Audiophile Net. **Model M99/M10.** Fits Miracord Models 10 or 10H. Includes tone arm head, factory mounted cartridge .0007″ diamond, **$49.50** Audiophile Net. **MODEL N99.** Replacement stylus assembly, .0007″ diamond, **$19.50.** Audiophile Net.

SHURE *Stereo Dynetic®* **GARD·A·MATIC** T.M.

CARTRIDGE ASSEMBLY

WRITE FOR DETAILS TO: SHURE BROTHERS, INC., EVANSTON, ILLINOIS

Manufactured under one or more of the following U. S. Patents: 3,055,988; 3,077,521; 3,077,522; D193,006; D193,934; Other patents pending.

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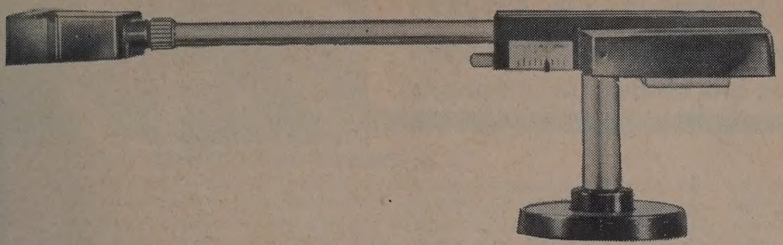
SHURE HIGH FIDELITY STEREO PRODUCTS



PROFESSIONAL TONE ARM

for use with any quality cartridge, stereo or monophonic

The Shure M232 (and M236) Professional Tone Arm is a premium-quality independent tone arm that accepts practically all cartridges (Stereo and Monophonic) and permits their maximum potential performance characteristics to be utilized. Features precision ball bearings at all pivot points, plug-in head with positive-alignment lock, variable height adjustment. Pays for itself in reduced record wear and damage. Ingeniously simple and unprecedented combination of adjustments gives instant, positive, VISUAL control over balance (without altering overall arm length), tracking force (0-8 grams), and overhang. Floats the needle over the record . . . smoothly — without "drag" — without "skip" — without unnecessary (and ruinous) force. Furnished with cable having plug on each end to simplify and speed up installation (eliminates soldering).

SPECIFICATIONS: MODEL M232 — M236 PROFESSIONAL TONE ARMS

NET PRICE:	TONE ARM M232, for 12" records	$29.95
	TONE ARM M236, for 16" records	$31.95
	Model A23H extra Plug-In Head	$ 2.40

FURNISHED ACCESSORIES: Arm rest, mounting template, mounting hardware, 4 ft. cable assembly.

DIMENSIONS: M232 — 12¹¹⁄₁₆" long, M236 — 14½" long

MONOPHONIC PROFESSIONAL

Dynetic

STEREO PROFESSIONAL MONOPHONIC

For those who prefer monophonic cartridges with monophonic records, Shure offers the outstanding Model M5D Professional Dynetic.

SPECIFICATIONS:

Frequency Response: 20 to 20,000 cps.
Sensitivity: Output at 1,000 cycles—21 millivolts for 10 cms/sec.
Recommended Load Impedance: 27,000 ohms.
Compliance: 3 x 10^{-6} centimeters per dyne.
Tracking Force: 2 to 6 grams.
Inductance. 350 millihenrys
D. C. Resistance: 440 ohms.
Model M5D—has .001" diamond for use with micro-groove records, 33⅓, 45 r.p.m.
Model M6S—has .0027" sapphire for use with standard records, 78 r.p.m.

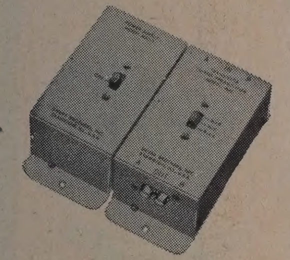
Model M5D Monophonic Professional Dynetic Phono Cartridge for LP records including N5D .001" diamond stylus. Audiophile Net: $27.50.

Model M6S Monophonic Professional Dynetic Phono Cartridge for 78 rpm records including N6S .0027" sapphire stylus. Audiophile Net: $15.00

Model N5D Monophonic Professional Dynetic stylus with .001" diamond tip. Audiophile Net: $16.50

Model N6S Monophonic Professional Dynetic stylus with .0027" sapphire tip. Audiophile Net: $5.00

TRANSISTORIZED STEREO PREAMPLIFIER MODEL M61



Compact, rugged, transistorized unit with choice of AC line or battery power supply. Slide-selector switch offers three equalization inputs.

(1) "phono" for conversion of ceramic phono inputs for use with magnetic cartridges;

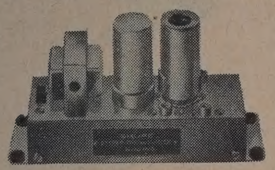
(2) "tape" for equalization of tape playback directly from tape head through hi-fi control preamplifier; and

(3) "microphone" for flat amplification wherever a boost in microphone output is required.

SPECIFICATIONS:

Net Price:	Model M61-1 (for 105-125 v. AC line)	$27.50
	Model M61-3 (30 v. Battery, included)	$26.50

Gain: Phono: 45 db (5 mv input produces .88 v. output)
Tape: 40 db (2 mv input produces .20 v. output)
Microphone: 63 db (2 mv input produces 2.8 v. output)
Frequency Response: ±2.5 db of each function's nominal characteristic from 25 cps to 15,000 cps.
Equalization: Phono: RIAA equalization (with additional treble boost of approximately 3 db at 10,000 cps to complement most magnetic cartridges).
Tape: NARTB equalization.
Microphone: Flat response. ±3 db 20 to 15,000 cps.
Input Impedance: Phono and tape: approx. 50,000 ohms at 1,000 cps.
Microphone: Approx. 20,000 ohms.
Output Impedance: Low output impedance (less than 1,000 ohms at 10,000 cps for phono and tape functions).
Channel Separation: At least 50 db at 1,000 cps. Channel Balance: 2 db at 1,000 cps (for phono and tape functions). Hum Noise: 50 db below rated output. Overall Dimensions: Length 5"; Width 5¼"; Height 2".



STEREO LINE PRE-AMPLIFIER MODEL M60

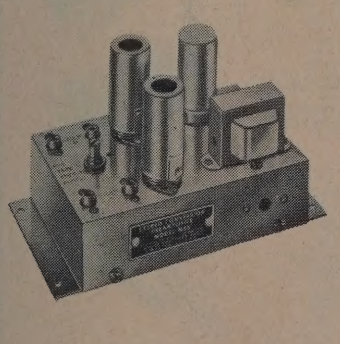
High quality, low noise, stereo line pre-amplifier providing additional gain for use with magnetic stereo phono cartridges and microphones.

Additional gain also can be provided from tape recorder outputs on standard pre-amplifier to improve quality of recordings. Provides flat output response from 30 to 80,000 cps ± ½ db. Low output impedance permits use of longer cable lengths (up to 50 feet) without loss of gain or deterioration in response when used with magnetic phono cartridges, microphones, etc.

SPECIFICATIONS:

GAIN: 17 db or 7 to 1 (5 mv. input gives 35 mv. output). Circuit change information provided to give one-third and two-thirds output.
IMPEDANCE: Input—47,000 ohms—Output—5,000 ohms.
HUM & NOISE: 64 db below rated output.
DIMENSIONS: 5⅞" x 2⅛" x 3⅜".
NET WEIGHT: 2 lbs. NET PRICE: $19.95

STEREO CONVERSION PRE-AMPLIFIER MODEL M65



Provides equalization with amplification for conversion of ceramic inputs to magnetic inputs. Gives smoother, more natural sound. As an added feature, 60 db of amplification without equalization is also provided. Permits the use of a magnetic cartridge with "package" consoles supplied with a ceramic cartridge. Also provides pre-amplification and equalization functions for other inputs (phono, tape, microphone).

SPECIFICATIONS:

GAIN: Phono: 44 db (5 mv input produces .76 v. output).
Special: 45 db (5 mv input produces .88 v. output).
Tape: 40 db (5 mv input produces .50 v. output).
Microphone: 63 db (2 mv input produces 2.8 v. output)
Frequency Response: ± 1.5 db of each function's nominal characteristic from 25 cps to 15,000 cps. EQUALIZATION: Phono: RIAA equalization (with additional treble boost of approximately 3 db at 10,000 cps to complement the high frequency characteristic of most magnetic cartridges).
Special: A Shure-developed magnetic phono equalization circuit for use with high impedance amplifiers normally used with ceramic phono cartridges.
Tape: N A R T B equalization.
Microphone: Flat response. ± 3 db from 20 to 12,000 cps.
INPUT IMPEDANCE: 47,000 ohms (all functions).
OUTPUT IMPEDANCE: low output impedance (less than 5000 ohms at 10,000 cps for phono, special and tape functions). CHANNEL SEPARATION: 40 db. CHANNEL BALANCE: ± 1 db at 1000 cps. HUM-NOISE: 50 db below rated output. OVERALL DIMENSIONS: Length 6⅞"; Width 3¹⁵⁄₁₆; Height 3¼".
NET PRICE: $24.00

See Section 1320 for additional Shure Products.

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It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

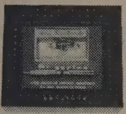
The
RADIO-ELECTRONIC
MASTER

SONOTONE
REPLACEMENT CARTRIDGES
designed to bring out the best in record changers, turntables and phonographs

NEW! SONO-FLEX® NEEDLE

Flick it — bend it — knock it — it springs back, ready to play. Gripped in a resilient butyl rubber mount, needle shank can be flexed in a 360° orbit without damage. What's more, Sono-Flex provides higher compliance, wider and flatter frequency response, lower IM distortion, and longer needle and record life. Standard in the Sonotone models 9TAF, 16TAF, 916TAF and Velocitone Mark III. Available as replacement needles for Sonotone Models 9T, 9TA, 9TAV, 16T, 16TA and 916TA.

N-9916-SF	0.7-mil sapphire, 3-mil sapphire	net **$1.80**
N-9916-S77F	dual 0.7-mil sapphire	net **$1.80**
N-9916-SDF	0.7-mil diamond, 3-mil sapphire	net **$3.60**
N-9916-D77F	dual 0.7-mil diamond	net **$5.70**

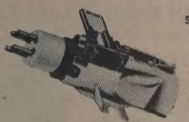


VELOCITONE MARK III

Deluxe ceramic stereo/mono cartridge, featuring new Sono-Flex needle. Matched equalizers (no tools required) feed directly into magnetic input of stereo preamp. Universal terminal plug virtually eliminates soldering or splicing for fast, easy replacement.

SPECIFICATIONS:	
Response:	20 to 20,000 cps ± 2 db
Output voltage:	11 millivolts per channel (with equalizers) .35 volt per channel (without equalizers)
Compliance:	6×10^{-6} cm/dyne
Channel separation:	30 db
Recommended load:	1 to 5 megohms
Tracking force:	2-4 grams for professional arms; 3-5 grams for changers

9TAF-SD-V diamond/sapphire, net **$11.55**
9TAF-077-V dual diamond, net **$13.35**



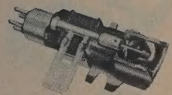
MODEL 9TAF

Features new Sono-Flex needle. Ceramic stereo/mono cartridge with low stylus mass and high compliance for flawless, hum-free reproduction of stereo and mono records. New universal tonearm terminal plug virtually eliminates soldering or splicing tonearm wires for fast, easy replacement.

SPECIFICATIONS:	
Response:	20 to 20,000 cps ± 2 db
Output voltage:	.35 volts
Compliance:	6
Channel separation:	30 db
Recommended load:	1-5 megohms
Tracking force:	2-4 grams for professional arms; 3-5 grams for changers

9TAF-SF dual sapphire, net **$5.31**
9TAF-S77 dual sapphire, net **$5.31**
9TAF-5D sapphire/diamond, net **$8.25**
9TAF-D77 dual diamond, net **$10.20**

Also available: Model 9TA (same as above without Sono-Flex needle)
9TA-S dual sapphire, net **$5.01**
9TA-S77 dual sapphire, net **$5.01**
9TA-SD sapphire/diamond, net **$7.80**
9TA-D77 dual diamond, net **$9.60**



MODEL 916TAF

Features new Sono-Flex needle. Lo-cost stereo cartridge employing some of the basic design features of the audiophile-accepted Velocitone Mark III. New universal tonearm terminal plug makes for fast, easy replacement.

SPECIFICATIONS:	
Response:	20 to 15,000 cps ± 3 db, smooth rolloff at 20,000 cps
Output voltage:	0.42 volt
Compliance:	4.0×10^{-6} cm/dyne
Channel separation:	28 db
Recommended load:	2.0 megohms
Tracking force:	3-5 grams for professional arms; 4-6 grams for changers

916TAF-S dual sapphire, net **$4.59**
916TAF-S77 dual sapphire, net **$4.59**
916TAF-SD sapphire/diamond, net **$7.05**

Also available: Model 916TA (same as above without Sono-Flex needle)
916TA-S dual sapphire, net **$4.29**
916TA-S77 dual sapphire, net **$4.29**
916TA-SD diamond/sapphire, net **$6.75**

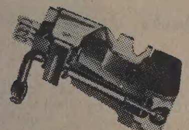
MODELS 16TAF AND 18TA CERAMIC STEREO/MONO CARTRIDGES

Remarkable quality at a realistic price. Outperforms cartridges costing much more. Model 16TAF features new Sono-Flex needle.

SPECIFICATIONS:	
Response:	20 to 10,000 cps flat (± 2 db with smooth rolloff to 20,000 cps)
Output voltage:	0.50 volt
Compliance:	2.4×10^{-6} cm/dyne
Channel separation:	22 db
Recommended load:	2.0 megohms
Tracking force:	4-6 grams for professional arms; 5-7 grams for changers

16TAF-S dual sapphire, net **$3.90**
16TAF-S77 dual sapphire, net **$3.90**
16TAF-SD diamond/sapphire, net **$6.30**
16TA-S dual sapphire, net **$3.60**
16TA-S77 dual sapphire, net **$3.60**
16TA-SD diamond/sapphire, net **$3.60**

Also available with economy plastic needle:
16TAP-S dual sapphire, net **$3.30**
16TAP-S77 dual sapphire, net **$3.30**
16TAP-SD diamond/sapphire, net **$5.55**
18TA-S dual sapphire, net **$3.60**
18TA-S77 dual sapphire, net **$3.60**
18TA-SD sapphire/diamond, net **$5.85**

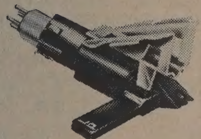


MODEL '8TA' CERAMIC STEREO/MONO TURNOVER CARTRIDGE

More than 30 leading manufacturers protect the quality of their hi-fi stereo phonographs with this cartridge. Unsurpassed frequency response, compliance, separation and rumble suppression. Free from hum.

SPECIFICATIONS:	
Response:	20 to 20,000 cps (± 2.5 db, 20 to 15,000 cps)
Output voltage:	0.3 volt
Compliance:	3.0×10^{-6} cm/dyne
Channel separation:	20 db
Recommended load:	1-5 megohms
Tracking force:	4.6 grams for changers; 3-5 grams for professional arms

8TA4-S dual sapphire, net **$5.25**
8TA4-S77 dual sapphire, net **$5.25**
8TA4-SD diamond/sapphire, net **$7.80**

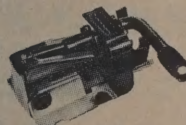


MODEL '10T2' CERAMIC STEREO/MONO CARTRIDGE

Excellent for those converting to stereo or replacing old stereo cartridges. Easy conversion with package which includes "fuse clip" mounting bracket and "jack-in" terminal plug with electrical contacts.

SPECIFICATIONS:	
Response:	20 to 15,000 cycles ± 2.5 db
Output voltage:	0.5 volt
Compliance:	1.5×10^{-6} cm/dyne
Channel separation:	18 db
Recommended load:	1-5 megohms
Tracking force:	5-7 grams

10T2-S dual sapphire, net **$5.82**
10T2-S77 dual sapphire, net **$5.82**
10T2-SD diamond/sapphire, net **$7.80**
10T2-SD77 diamond/sapphire, net **$7.80**



MODEL '2TA'

Ceramic mono cartridge. Plays stereo records. An improved version of the famous Sonotone "2T series." New needle assembly, plus increased compliance and lower tracking force, make it ideal for both stereo and mono records.

SPECIFICATIONS:	
Response:	20 to 20,000 cycles (flat to 12,000)
Output voltage:	1.0 volts
Compliance:	2.0×10^{-6} cm/dyne
Recommended load:	2-3 megohms
Tracking force:	6 grams

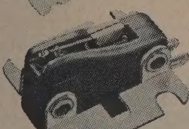
2TA-S dual sapphire, net **$3.39**
*2TA-LB-S dual sapphire, net **$3.39**
2TA-SD diamond/sapphire, net **$5.82**
*2TA-LB-SD diamond/sapphire, net **$5.82**

MODEL '3T'

Ceramic monophonic cartridge. Original equipment in many top quality phonographs. Available with or without brackets.

SPECIFICATIONS:	
Response:	20 to 20,000 cps (flat to 15,000)
Output voltage:	0.5 volt
Compliance:	2.0×10^{-6} (minimum)
Recommended load:	2-3 megohms
Tracking force:	4-6 grams

*3T-LB-S & 3T-S dual sapphire, net **$4.65**
*3T-LB-SD & 3T-SD diamond/sapphire, net **$7.44**

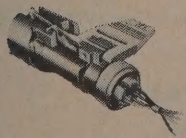


MODEL '1P'

Monophonic single-needle ceramic cartridge. Selected by leading high fidelity phonograph manufacturers to protect quality of their products.

SPECIFICATIONS:	
Response:	20 to 20,000 cps (flat to 12,000)
Output voltage:	1.0 volt
Compliance:	1.0×10^{-6} cm/dyne
Recommended load:	1-5 megohms
Tracking force:	8-10 grams

*1P-LB-1S & 1P-1S sapphire, net **$2.91**
*1P-LB-2S & 1P-2S sapphire, net **$2.91**
*1P-LB-3S & 1P-3S sapphire, net **$2.91**
*1P-LB-1D & 1P-1D diamond, net **$5.70**
*1P-LB-3D & 1P-3D diamond, net **$5.70**



MODEL '12T'

Budget-priced stereo crystal cartridge. Improves the quality of stereo phonographs . . . and at such a low cost. Available in two versions — the "12THR" with high voltage output and the "12TLA" with low voltage output.

SPECIFICATIONS (Model 12THR):	
Response:	20 to 15,000 cps (± 2 db to 10,000 cps)
Output voltage:	2.5 volts
Compliance:	1.4×10^{-6} cm/dyne in all directions of stylus motion
Channel separation:	20 db
Recommended load:	½ to 5 megohms
Tracking force:	9 to 11 grams

12THR-S dual sapphire, net **$3.51**
12THR-S77 dual sapphire, net **$3.51**

SPECIFICATIONS (Model 12TLA):	
Response:	20 to 15,000 cps (± 2 db to 10,000 cps)
Output voltage:	1.5 volts
Compliance:	2.2×10^{-6} cm/dyne
Channel separation:	23 db
Recommended load:	½ to 5 megohms
Tracking force:	6-8 grams

12TLA-S dual sapphire, net **$3.51**
12TLA-S77 dual sapphire, net **$3.51**

*LB denotes less bracket for very slim tonearms.

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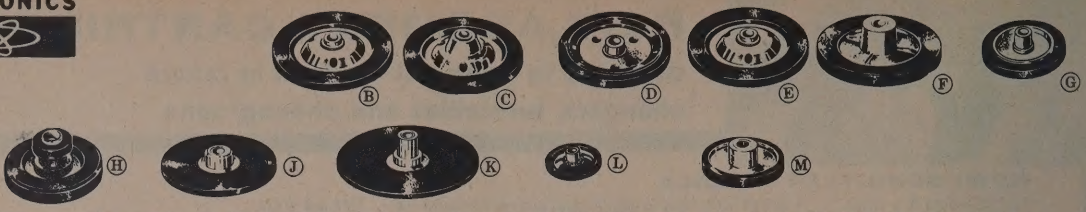
Net

Walsco ELECTRONICS

PHONO DRIVES



(B) IDLER WHEEL—2⅛" O.D. With bushing. Used on GE, Motorola, Philco, Webcor. Similar to Item No. 1440 but has .160" tire thickness.
Cat. No. 1437 Net **$1.27**

(C) IDLER WHEEL—2⅛" O.D. With bushing. Used on Columbia, GE, Motorola, Webcor.
Cat. No. 1438 Net **$1.27**

(D) IDLER WHEEL—2" O.D. With bushing. For use on Webcor. Model 1134, 1136, 1151, 1121-1.
Cat. No. 1439 Net **$1.13**

(E) IDLER WHEEL—2⅛" O.D. Comes with bushing. Similar to Item No. 1437 but has .140" tire thickness at the outer edge. Use on Webcor Model 1135 record changer.
Cat. No. 1440 Net **$1.75**

(F) IDLER WHEEL—2⅛" O.D. Used on most Webcor tape recorders.
Cat. No. 1441 Net **$2.00**

(G) IDLER WHEEL—1½" O.D. With bushing. For use with Philco & Webcor.
Cat. No. 1443 Net **$ .73**

(H) MOLDED IDLER WHEEL — RCA 45 RPM. For use with RCA Series RP168 & RP190.
Cat. No. 1447 Net **$ .92**

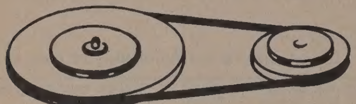
(J) IDLER WHEEL—2" O.D. For use with Collaro record changers in the 520 Series.
Cat. No. 1448 Net **$2.00**

(K) IDLER WHEEL—2½" O.D. For use with all Collaro record changers in the 54 and 530 Series.
Cat. No. 1449 Net **$2.00**

(L) IDLER WHEEL—1" O.D. For use with Crescent. In Models of 550 Series.
Cat. No. 1450 Net **$1.10**

(M) IDLER WHEEL—1 3/16" O.D. For use with VM Models 920 and 990, and Silvertone record changers.
Cat. No. 1452 Net **$ .77**

RECORDER DRIVE BELTS
ROUND BLACK RUBBER DRIVES



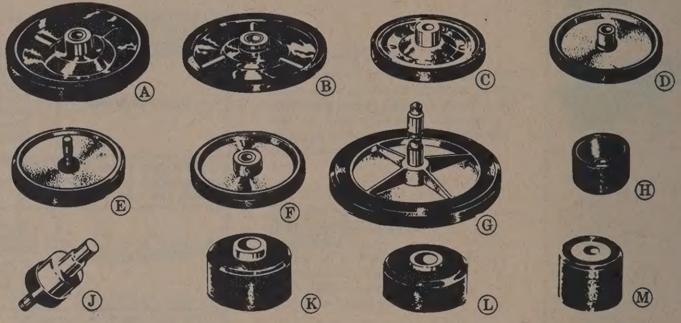
Precision ground to exacting tolerances for positive, non-slipping drive action. Will eliminate "wow" and "rumble".

Cat. No.	Insd. Circum.	Thickness	Used On	Dealer Net
1410-06	6.2"	.139"	Model VM-700, 701, 710, 711, 714 Tape Recorders	$ .45
1410-07	7.4"	.139"	RCA SRT 301, 401, 402, 403, Wilcox-Gay 3A10, 3A11	.52
1410-08	8.6"	.139"	Pentron, Crestwood & other tape recorders	.52
1410-10	10.6"	.139"	Crescent and other tape recorders	.58
1410-12	12.0"	.093"	Ampro and most Revere recorders	.58
1410-14	14.5"	.139"	Most Revere Recorders	1.07
1410-15	15.3"	.139"	Webcor Tape Recorders	1.07
1410-18	18.1"	.139"	Ampro Tape Recorders	1.42
1410-20	20.4"	.139"	Ampro Tape Recorders	1.75
1410-21	21.1"	.139"	Ampro, Gen. Ind., Webcor & other Tape Recorders	1.75
1410-50	10.75"	.085"	Webcor & Revere	.67
1410-51	11.3"	.063"	Viking Tape Recorders	1.17
1410-52	5.8" 4.3"	.139" .139"	Replaces Belts on Webcor 11 x 1736 pkg.	.95
1410-53	6.5"	.210"	Revere Tape Recorders	.52
1474	9.8"	.139"	Crestwood Tape Recorders	.62

Made of a tough, durable, specially treated fabric, to give years of service. Gives smooth, silent, non-slip action.

Cat. No.	Width	Inside Circum.	Used On	Net
1409-02	5/16"	17"	Pentron Tape Recorders	2.20
1409-03	5/16"	12¼"	Pentron, Crescent & other Tape Recorders	2.20
1409-04	5/16"	12 13/32"	VM 700, 701, 710, 711, 714 Tape Recorders	2.25
1409-05	3/16"	17"	Webcor Tape Recorders	2.25

CAPSTAN PRESSURE ROLLER—1" O.D. For use on many Pentron tape recorders.
Cat. No. 1488 Net **$1.47**



(A) IDLER WHEEL—2½" O.D. With bushing. Use on Gen. Ind., Seeburg, and other record players.
Cat. No. 1430 Net **$1.27**

(B) IDLER WHEEL—2½" O.D. Used on Webcor Model 110 record players. Replaces Manufacturer's Part No. 45P1530.
Cat. No. 1431 Net **$1.38**

(C) IDLER WHEEL—2" O.D. Use on Admiral, Columbia, Crescent, GE, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1432 Bushing I.D.—.215 Net **$ .73**
1487 Bushing I.D.—.183 Used on older Silvertone, etc. Net **$1.03**

(D) IDLER WHEEL—2" O.D. With bushing. Use on VM and GE.
Cat. No. 1433 Net **$ .80**

(E) IDLER WHEEL—2" O.D. With Shaft. Use on Admiral, Crescent, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1434 Net **$ .88**

(F) IDLER WHEEL—2" O.D. With bushing. Use on Milwaukee Stamping, Philco, Zenith and Westinghouse.
Cat. No. 1435 Net **$ .90**

(G) DRIVE WHEEL—3" O.D. For use on Zenith Cobramatic Changers. Replaces Manufacturer's Part Nos. S-16922 and S-21754, which are
Cat. No. 1473 Net **$3.58**
inter-changeable.

(H) DRIVE WHEEL—1" O.D. For use on Crescent changers of the 550 series.
Cat. No. 1451 Net **$1.25**

(J) 3-STEP DRIVE SLEEVE Used on Webcor Model 135, 136 and other late record changers.
Cat. No. 1469 Net **$1.17**

(K) PRESSURE ROLLER—⅞" O.D. For use with certain Webcor tape recorders.
Cat. No. 1455 Net **$1.63**

(L) PRESSURE ROLLER—⅞" O.D. For use on certain Webcor tape recorders, 220 series and 2614, 2615.
Cat. No. 1482 Net **$1.33**

(M) PRESSURE ROLLER—¾" O.D. For use with VM Model 700, 701, 710, 711, 714 tape recorders.
Cat. No. 1458 Net **$1.20**

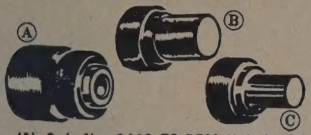
PRESSURE ROLLER—¾" O.D.
For certain RCA & Wilcox-Gay tape recorders.
Cat. No. 1457 Net **$1.75**

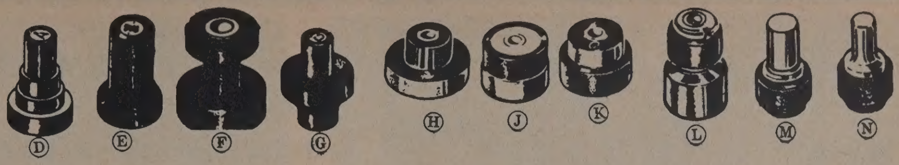
TAKE-UP DRIVER For use with VM tape recorder Model 700.
Cat. No. 1484 Net **$3.92**

SEND FOR FREE CATALOG
of the complete
UP-TO-DATE PHONO DRIVE LINE

Walsco ELECTRONICS

PHONO DRIVES





(A) Cat. No. 1460 78 RPM Net **$ .95**
1470 78 RPM Net **1.07**
(B) Cat. No. 1461 45 RPM Net **$ .95**
1471 45 RPM Net **.92**
(C) Cat. No. 1462 33⅓ RPM Net **$ .75**
1472 33⅓ RPM Net **.92**

1460, 1461 and 1462 are a Turret Drive group that is used on Crescent, GE, Motorola, RCA, VM and other record changers.

The 1470 series is used on RCA, VM and other record changers.

NOTE: Drives No. 1460, 1461 and 1462 are the same as No. 1470, 1471 and 1472 except that the 1460 series is approximately 1/64" larger in rubber diameter than the 1470 series. If model number of changes or manufacturer's part number is not known, use 1460 series. For most purposes, these two series are interchangeable.

(D)33⅓RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors replaces Mfg.'s Part No. 102941.
Cat. No. 1495-01 Net **$ .95**

(E) 45 RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102942.
Cat. No. 1495-02 Net **$ .95**

(F) 78 RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102943.
Cat. No. 1495-03 Net **$ .95**

(G) 16 RPM PULLEY—9/16" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102944.
Cat. No. 1495-04 Net **$ .95**

(H) Cat. No. 1463 78 RPM Net **$1.83**
Standard Pack: 3

(J) Cat. No. 1464 45 RPM Net **$1.83**
Standard Pack: 3

(K) Cat. No. 1465 33⅓ RPM
Standard Pack: 3
Net **$1.83**

Above 3 items are turret drives for GE and Webcor record changers.

(L) Cat. No. 1466 78 RPM Net **$1.13**
(M) Cat. No. 1467 45 RPM Net **$1.13**
(N) Cat. No. 1468 33⅓ RPM Net **$1.13**

For use on Crescent, Motorola, VM, RCA and other record changers.

(A) IDLER WHEEL—1 11/32" O.D. This is a molded rubber wheel for use on RCA Series RP-199 record changers.
Cat. No. 1454 Net **$1.58**

(B) IDLER WHEEL—1" O.D. For use with all Zenith Cobra-Matic record changers.
Cat. No. 1459 Net **$2.27**

(C) CAPSTAN IDLER—1¾" O.D. For use with VM tape recorders in the 700 series.
Cat. No. 1485 Net **$1.10**

(D) IDLER WHEEL—2" O.D. Used on certain Eicor Tape Recorders and Silvertone Record Changers.
Cat. No. 1475 Net **$1.77**

(E) IDLER WHEEL—2" O.D. For use with certain Pentron Tape Recorders.
Cat. No. 1483 Net **$1.33**

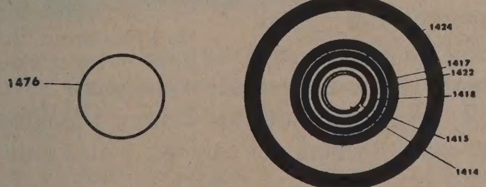
(F) IDLER PULLEY—1⅝" O.D. This is a molded rubber wheel for use on VM Record Changers in 1200 series. Also used on other types.
Cat. No. 1453 Net **$2.08**

(G) IDLER PULLEY—1 5/16" O.D. A molder rubber wheel for use with VM Record Changers in the 1200 series having 4-pole motors.
Cat. No. 1456 Net **$2.17**

(H) IDLER PULLEY—1⅝" O.D. This is a molded rubber wheel for use on certain VM record changers.
Cat. No. 1486 Net **$2.17**

(J) INTER WHEEL—2" O.D. For use with Garrard Model RC-80 Record Changers.
Cat. No. 1444 Net **$2.08**

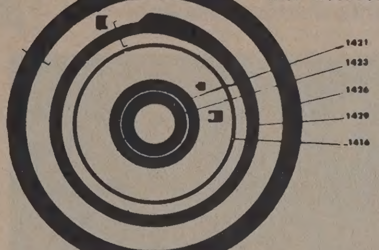
(K) INTER WHEEL—2" O.D. Has a ball-bearing hub cap. For use with Garrard T & TA record players.
Cat. No. 1445 Net **$2.08**



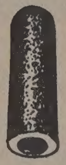
WALSCO TIRES & BELTS

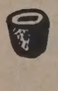
Cat. No.	I.D.	Wall Thickness	Length	Used on	Net
1414	⅝"	1/32"	¼"	Admiral, GE, VM	$ .20 per pair
1415	21/32"	1/32"	¼"	Garrard, GE, Philco	.20 per pair
1416	2¾"	1/16"	3/16"	Zenith	.22 each
1417	1½"	5/32"	3/16"	Admiral, Garrard	.18 each
1418	⅞"	⅛"	3/16"	Genl. Ind., Wilcox-Gray	.15 each
1424	2⅞"	¼"	¼"	Admiral, Crescent, RCA	.40 each
1476	15/16"	1/32"	¼"	Admiral	.22 per pair

BELTS & CAM TIRES — Special Shapes. These belts and tires are made of highest quality abrasion-resistant neoprene rubber. Illustrations are actual size with cross-sections shown on tires.



INDEX FINGER CUSHION
Used on Webcor 100, 121, 1124 series. Also on Webcor 110 and 114 series.
Cat. No. 1419
Net **$ .23** pr.





RUBBER BUMPERS—Used on VM Record Changers.
Cat. No. 1411
Net **$ .30** pr.

WALSCO RECORD ARM SLEEVE — For Garrard. Protects record arm and reduces vibration. Resilient, long-lasting neoprene rubber. (2 required).
Net **$ .20** pr.
Cat. No. 1412

WALSCO VELOCITY TRIP — For Webcor, precision-molded to manufacturers specifications.
Cat. No. 1413
Net **$ .22** pr.

WALSCO CARRIES THE MOST COMPREHENSIVE LINE OF EXACT REPLACEMENT PHONO DRIVES IN THE INDUSTRY. ADDITIONS ARE BEING CONSTANTLY MAINTAINED. FOR THE VERY LATEST LISTS, PLEASE WRITE WALSCO ELECTRONICS, ROCKFORD, ILLINOIS

WALSCO PHONO HARDWARE KIT — Kit contains over 60 parts, including phono jacks and plugs, assorted screws, spacers and springs, in transparent plastic box.
Cat. No. 1497 Net **$1.82**

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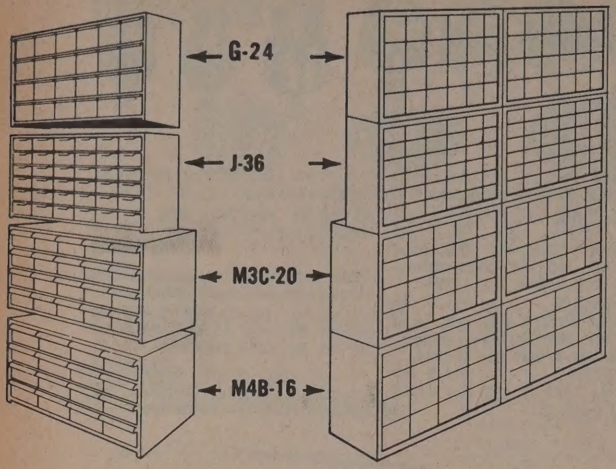
Net

A-M Akro-Mils Parts Cabinets

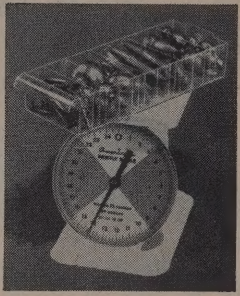


MODULAR CABINETS STACK TOGETHER—ALWAYS HAVE "BUILT-IN" APPEARANCE

Your storage can be expanded or rearranged to fit any need. Any combination of cabinets may be added anytime. Always have "built-in" look. They stand, stack, hang or fit into existing shelving.

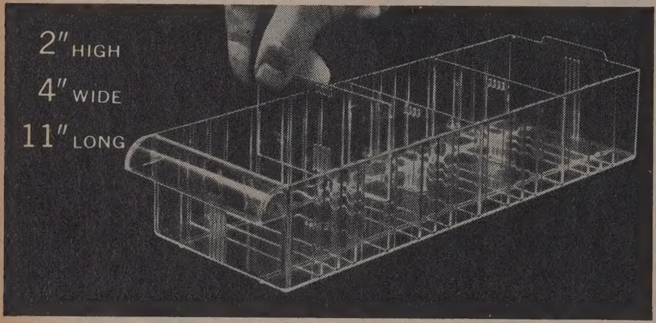
ORGANIZE SMALL ITEM STORAGE—Find Things Fast—Save Time and Space

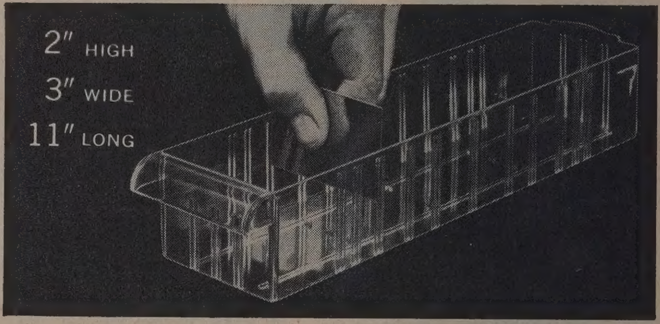
What a relief! No more time wasted searching for misplaced items. The cure is these all-purpose small storage cabinets where small articles can be found instantly—free from dust and dirt. You'll say they're just what you've always needed—finger-tip storage for items like bolts, nuts, electronic parts, medical and laboratory supplies, repair parts, film, tools, buttons, thread, office supplies, hobby material and tools—plus thousands of other items.



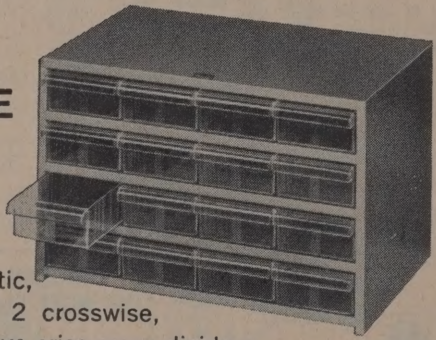
CRYSTAL-CLEAR SUPER STRONG DRAWERS

So rugged, the photo shows an Akro-Mils M4 drawer holding 14 lbs. of lead fishing sinkers with no trace of sagging. Crystal clear plastic—rust and corrosion proof.





M-4 EXTRA WIDE LONG DRAWER



M4B-16

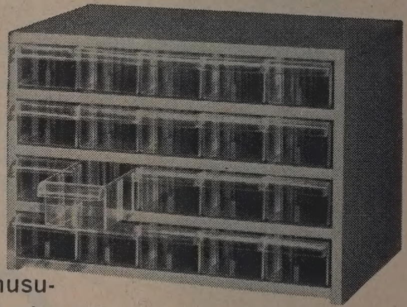
Crystal clear plastic, full width handle. 2 crosswise, 1 lengthwise and five criss-cross dividers per cabinet; 2 sets of labels.

A-M Model	No. of Drawers	Size, Inches W. x D. x H.	Wt. Lbs.	Net Each
M4B-12	12	17-7/8 x 11-1/16 x 9	14	$15.98
M4B-16	**16**	**17-7/8 x 11-1/16 x 11-3/4**	**17¼**	**17.98**
M4B-24	24	17-7/8 x 11-1/16 17-3/16	24½	31.98
M4B-40	40	17-7/8 x 11-1/16 x 28	47	52.98

DR-M4	Case of 24 M-4 plastic drawers	$14.40
D-MF	Lengthwise dividers, net package 10	1.00
M-M04A	Full-width dividers, net package 25	1.00
D-M4G	Half-width dividers, net package 25	.70
D-M4CC	Criss-cross dividers, net package 25 cross, 5 long	1.50

Ready to use—all models safely shipped in individual floating-type cartons, fully assembled. Prices F.O.B. shipping point.

M-3 LONG DRAWER



M3C-20

Durable, one-piece crystal clear plastic drawer will store unusually long items, can also be compartmented to store the smallest miniature parts. 1 crosswise divider per drawer, 1 lengthwise and 10 half-width dividers per cabinet. 2 sets index labels.

A-M Model	No. of Drawers	Size, Inches W. x D. x H.	Wt. Lbs.	Net Each
M3C-15	15	17-7/8 x 11-1/16 x 9	14	$17.00
M3C-20	**20**	**17-7/8 x 11-1/16 x 11-3/4**	**18**	**19.98**
M3C-30	30	17-7/8 x 11-1/16 x 17-3/16	26	33.50
M3C-50	50	17-7/8 x 11-1/16 x 28	38½	56.50

DR-M3	Case of 24 M3 plastic drawers	$13.20
D-MF	Lengthwise dividers—net package 10	1.00
D-M3A	Full-width dividers—net package 25	1.00
D-M3G	Half-width dividers—net package 25	.70

Ready to use—all models safely shipped in individual floating-type cartons, fully assembled. Prices F.O.B. shipping point.

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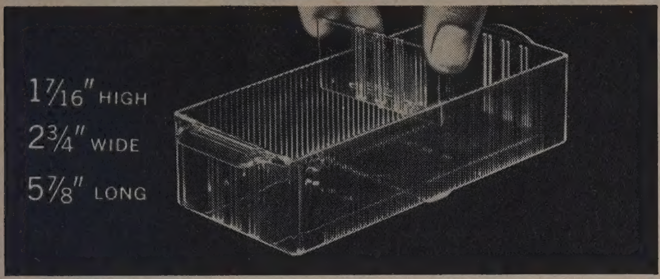
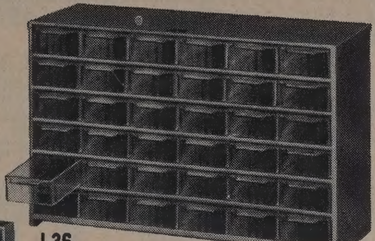
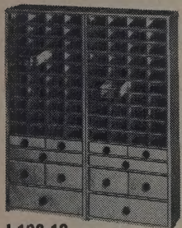
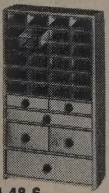
Akro-Mils Parts Cabinets



JD-1 COMPACT DRAWER


J-36

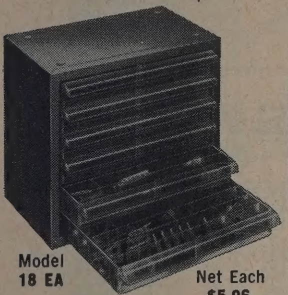

J-128-12


J-48-6

Molded from crystal-clear styrene. Infinite flexibility of lengthwise or crisscross compartments. Measure scale on bottom for visual inventory. 3 crosswise and 1 lengthwise divider with each 4 plastic drawers. 2 sets of index labels per cabinet.

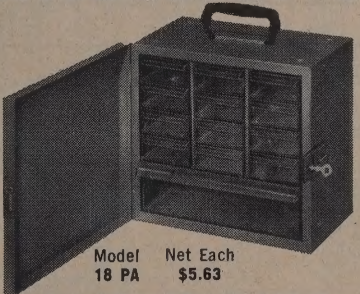
A-M Model	No. of Drawers		Size, Inches W. x D. x H.	Wt. Lbs.	Net Each
	Plastic	Steel			
J-32	32		12½ x 6 x 15¼	12½	$11.98
J-36	**36**		**17⅞ x 6 x 11¼**	**14**	**12.48**
J-48	48		12½ x 6 x 22½	18	18.98
J-48-6	24	6	12½ x 6 x 22½	18½	19.98
J-128	128		25⅛ x 6 x 30½	50	52.98
J-128-12	80	12	25⅛ x 6 x 30½	52	54.98

DR-JD-1	Case of 24 JD-1 plastic drawers	$5.52
D-JDA	Crosswise dividers, net package 50	1.25
D-JF	Lengthwise dividers, net package 25	1.25
D-JK	⅔ width dividers (also scored at ⅓ and ½), net package 25	.50


Model **18 EA** Net Each **$5.06**

6 MINIATURE PARTS DRAWERS

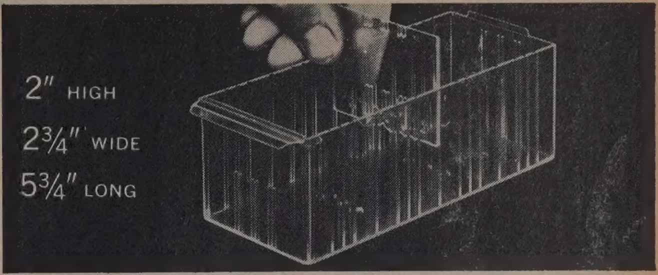
Six "roll-out" compartments per drawer—easiest access to tiniest of items. Comes with 9 dividers per drawer, plus labels. Cabinet 9" H. x 10" W. x 6" D. Wgt. 5¾ lbs.


Model **18 PA** Net Each **$5.63**

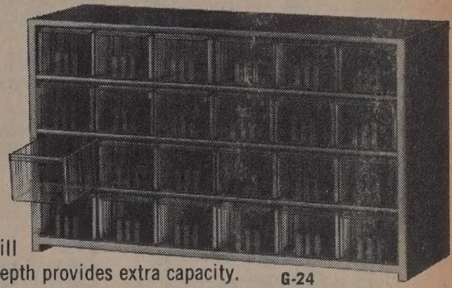
13-DRAWER PORTABLE LOCKING CABINET

12 compact plastic drawers, 1¼" x 2¼" x 5¾". 1 jumbo drawer 2½" x 8¾" x 5¾". Steel case has hinged door with lock clasp. Contents can't spill. Cabinet 9" H. x 10" W. x 6½" D. Wgt. 5¾ lbs.

Ready to use—all models safely shipped in individual floating-type cartons, fully assembled.



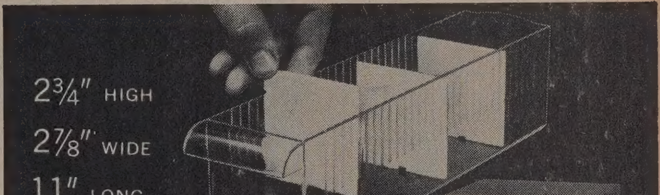
G-1 DEEP COMPACT DRAWERS


G-24

Extra thick, super strength, crystal clear plastic drawers will store heavy parts. 2" depth provides extra capacity.

A-M Model	No. of Drawers	Size, inches W. x D. x H.	Wt. Lbs.	Net Each
G-24	24	17-7/8 x 6 x 10-1/8	13	$12.48

DR-G-1	Case of 18 G-1 plastic drawers	$5.04
D-FA	Crosswise dividers, net package of 25	1.00
D-FF	Lengthwise dividers, net package of 25	1.75



RPD-1 SUPER-DEEP LONG DRAWER

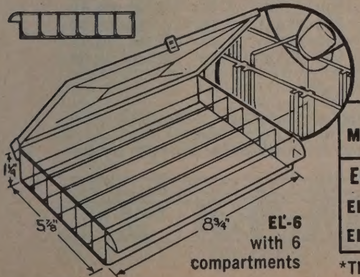
Safety catch prevents spilling. Full length runners. Removable dividers allow for creation of compartments every ¼" in a single drawer. Note: RS-24-6 and RS-32-6 (listed below) have 6 large capacity steel drawers in addition to clear plastic drawers.

RS-32

A-M Model	No. of Drawers		Size, inches W. x D. x H.	Wt. Lbs.	Net Each
	Plastic	Steel			
RS-12	12		13-5/16 x 11-1/8 x 11	12½	$13.50
RS-16	16		13-5/16 x 11-1/8 x 14-1/2	16	18.50
RS-24	24		13-5/16 x 11-1/8 x 21-1/2	22	27.00
RS-24-6	12	6	13-5/16 x 11-1/8 x 21-1/2	25	27.00
RS-32	**32**		**13-5/16 x 11-1/8 x 28-1/2**	**28½**	**37.00**
RS-32-6	20	6	13-5/16 x 11-1/8 x 28-1/2	31	37.00

DR-RPD-1	Case of 24 RPD-1 plastic drawers	$15.60
D-RA	Crosswise dividers — net package 25	1.25
D-MF	Lengthwise dividers — net package 10	1.00

101 USES FOR THESE FULLY ADJUSTABLE COMPARTMENTED PLASTIC BOXES

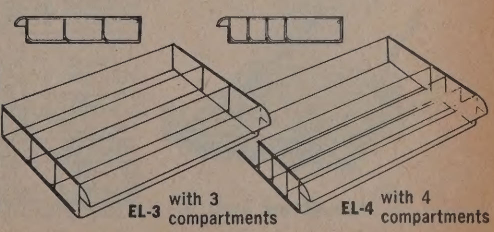


EL-6 with 6 compartments

Curved "roll-out" type compartments—fingertip can roll small items out with ease.

Model	Compartments	Dividers	Compartment Size Inches	Wt. Doz.	Price Doz.
EL-6	**6**	**9**	**8-3/4 x 1-1/4 x 15/16**	**7 lbs.**	**$9.00**
EL-3	3	9	8-3/8 x 1-1/4 x 1-7/8	7 lbs.	$9.00
EL-4	4	7	*	7 lbs.	9.00

*THREE 8-3/4 x 1-1/4 x 15/16—ONE 8-3/4 x 1-1/4 x 2-7/8


EL-3 with 3 compartments

EL-4 with 4 compartments

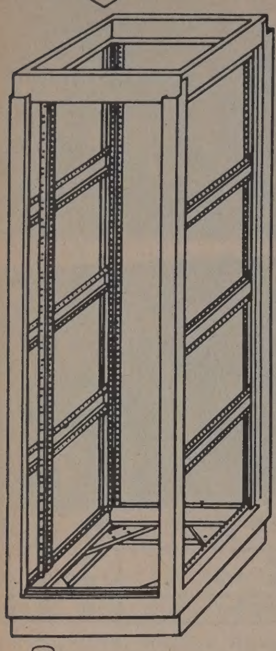
Series "60" Racks

Scientifically designed to meet all requirements for human needs as well as component physical specifications; the most practical cabinet rack developed for either a single piece of equipment or a large instrumentation system. Very economical to the user, units are shipped fully assembled and ready for immediate use.

Basic frame welded in a solid unit composed of 14-gauge cold-rolled steel channels. Sides have "U" braces with perforated channels for fastening vertical adjustable mounting rails. Rails also support other types of equipment such as brackets, shelves, slides, etc. Eliminates need of drilling holes in the rack. Sides and rear door made of 16 gauge steel. Door may be mounted to open left or right. Vertical channel, 6" wide, welded to door to prevent vibration or whip. Two pairs of panel mounting rails are supplied; fully adjustable. Panels may be mounted in front and rear at the same time. Front rails drilled and tapped 10-32 W.E. spacing. Rear rails are drilled according to universal spacing.

All Series Sixty enclosures may be quickly combined with each other to create units of any desired width as shown in the Add-A-Rack series. In addition, such accessories as desk tops, turrets, drawers, slides, sloping panel supports and front door are easily installed.

Standard finishes are smooth baked enamel over a primer. For two-tone gray, specify by adding suffix **SG**. For two-tone blue, add suffix **SB** to order number. Standard Bud relay rack panels are available for the Series Sixty racks in light gray and light blue; when ordering, add suffix **SG** for gray; **SB** for blue.

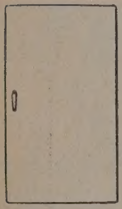


Ⓐ **Upright Rack**

UPRIGHT CABINET RACKS (FIG. A)

Completely assembled with sides, rear door and top. Standard units have plain sides and door; solid top. For greater ventilation, order units with louvered sides and/or rear door; both, with solid top. Width, 24 1/16", all units. Inside depth 20¼" clear on units with 22" outside depth; 23¾", all others. Top opening 18½" w. x 17" d. on units with 22" outside depth; 18½" w. x 20½" d., all others. **Specify Color When Ordering:** Add suffix **SG** to number for gray; suffix **SB**, for blue.

With Plain Sides and Door								Louvered Sides, Plain Door			
Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19	Height	Outside Depth	Panel Space	Wt., Lbs.	Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19
2300	$106.30	$ 95.67	$ 85.05	29⅝"	22"	21"	118	2600	$112.00	$100.80	$ 89.60
2301	131.45	118.30	105.15	40⅛"	22"	31½"	156	2601	140.00	126.00	112.00
2302	146.05	131.45	116.85	50⅝"	22"	42"	173	2602	156.50	140.85	125.20
2303	166.25	149.60	133.00	61⅛"	22"	52½"	197	2603	179.00	161.10	143.20
2304	180.25	162.20	144.20	69⅞"	22"	61¼"	220	2604	194.75	175.28	155.80
2305	200.00	180.00	160.00	78⅝"	22"	70"	235	2605	216.50	194.85	173.20
2306	218.65	196.80	174.90	87⅜"	22"	78¾"	265	2606	235.15	211.64	188.12
2307	125.50	112.95	100.40	29⅝"	25½"	21"	156	2607	135.15	121.64	108.12
2308	151.20	136.10	120.95	40⅛"	25½"	31½"	176	2608	159.80	143.82	127.84
2309	168.00	151.20	134.40	50⅝"	25½"	42"	185	2609	178.00	160.20	142.40
2310	186.50	167.85	149.20	61⅛"	25½"	52½"	211	2610	203.70	183.33	162.96
2311	207.30	186.55	165.85	69⅞"	25½"	61¼"	240	2611	219.90	197.91	175.92
2312	230.30	207.25	184.25	78⅝"	25½"	70"	256	2612	244.20	219.78	195.96
2313	251.35	226.20	201.10	87⅜"	25½"	78¾"	267	2613	266.20	239.58	212.96
With Louvered Sides and Door								Plain Sides, Louvered Door			
2700	$110.20	$ 99.18	$ 88.16	29⅝"	22"	21"	118	2800	$108.50	$ 97.65	$ 86.80
2701	137.00	123.30	109.60	40⅛"	22"	31½"	156	2801	134.30	120.87	107.44
2702	153.40	138.06	122.72	50⅝"	22"	42"	173	2802	149.20	134.28	119.36
2703	175.30	157.77	140.24	61⅛"	22"	52½"	197	2803	169.70	152.73	135.76
2704	190.80	171.72	152.64	69⅞"	22"	61¼"	220	2804	184.10	165.69	147.28
2705	212.00	190.80	169.60	78⅝"	22"	70"	235	2805	204.30	183.87	163.44
2706	230.20	207.18	184.16	87⅜"	22"	78¾"	265	2806	223.40	201.06	178.72
2707	129.90	116.91	103.92	29⅝"	25½"	21"	156	2807	127.70	114.93	102.16
2708	156.90	141.21	125.52	40⅛"	25½"	31½"	176	2808	145.00	130.50	116.00
2709	174.70	157.23	139.76	50⅝"	25½"	42"	185	2809	171.10	153.99	136.88
2710	194.30	174.87	155.44	61⅛"	25½"	52½"	211	2810	190.00	171.00	152.00
2711	215.90	194.31	172.72	69⅞"	25½"	61¼"	240	2811	211.10	189.99	168.88
2712	239.80	215.82	191.84	78⅝"	25½"	70"	256	2812	234.60	211.14	187.68
2713	261.30	235.17	209.04	87⅜"	25½"	78¾"	267	2813	256.10	230.49	204.88

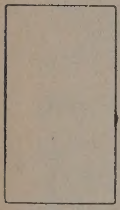


Ⓑ **Plain Door**

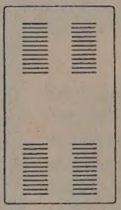
Ⓒ **Louvered Door**

ACCESSORY PERFORATED TOP

Bud No.	Width	Depth	Fits Upright Rack	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
60-2370	21 15/16"	17"	With overall depth of 22"	6	$5.65	$5.10	$4.50
60-2371	21 15/16"	20½"	With overall depth of 25½"	7	6.00	5.40	4.80



Ⓓ **Plain Side**

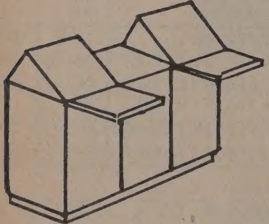


Ⓔ **Louvered Side**

ACCESSORY DOORS

Doors are interchangeable; may be used for front or rear of rack; mount to open either left or right.

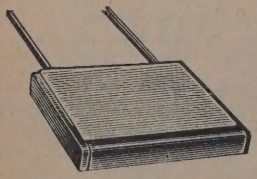
Plain Type (Fig. B)								Louvered Type (Fig. C)			
Bud No.	Net Each, Lots of 1-9	10-14	15-19	Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.	Net Each, Lots of 1-9	10-14	15-19
60-2340	$16.05	$14.45	$12.85	21 7/16"	18 15/16"	21"	8	60-2540	$18.35	$16.52	$14.68
60-2341	19.80	17.80	15.85	31 15/16"	18 15/16"	31½"	11½	60-2541	22.70	20.43	18.16
60-2342	21.90	19.70	17.50	42 7/16"	18 15/16"	42"	15½	60-2542	25.20	22.68	20.16
60-2343	24.30	21.85	19.45	52 15/16"	18 15/16"	52½"	19	60-2543	27.95	25.16	22.36
60-2344	27.05	24.35	21.65	61 11/16"	18 15/16"	61¼"	22¼	60-2544	31.05	27.95	24.84
60-2345	30.05	27.05	24.05	70 7/16"	18 15/16"	70"	25½	60-2545	34.50	31.05	27.60
60-2346	32.80	29.50	26.25	79 3/16"	18 15/16"	78¾"	29	60-2546	37.70	33.93	30.16



Typical Assembly

ACCESSORY SIDES

Plain Type (Fig. D)								Louvered Type (Fig. E)			
Bud No.	Net Each Pair, Lots 1-9	10-14	15-19	Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.	Net Each Pair, Lots 1-14	15-24	25-34
60-2560	$24.10	$21.70	$19.30	26 55/64"	22"	21"	12½	60-2580	$28.10	$25.30	$22.50
60-2561	31.50	28.35	25.20	37 23/64"	22"	31½"	17½	60-2581	37.20	33.50	29.75
60-2562	36.65	33.00	29.30	47 55/64"	22"	42"	21	60-2582	44.20	39.80	35.35
60-2563	42.70	38.45	34.15	58 23/64"	22"	52½"	26¼	60-2583	51.95	46.75	41.55
60-2564	46.70	42.05	37.35	67 7/64"	22"	61¼"	30	60-2584	57.40	51.65	45.90
60-2565	51.45	46.30	41.15	75 55/64"	22"	70"	34	60-2585	63.60	57.25	50.90
60-2566	59.00	53.10	47.20	84 39/64"	22"	78¾"	38	60-2586	70.75	63.70	56.60
60-2567	30.15	27.15	24.10	26 55/64"	25½"	21"	14½	60-2587	34.70	31.25	27.75
60-2568	39.40	35.45	31.50	37 23/64"	25½"	31½"	20	60-2588	45.30	40.75	36.25
60-2569	45.85	41.25	36.70	47 55/64"	25½"	42"	24	60-2589	52.75	47.50	42.20
60-2570	53.35	48.00	42.70	58 23/64"	25½"	52½"	29½	60-2590	61.35	55.20	49.10
60-2571	58.35	52.50	46.70	67 7/64"	25½"	61¼"	34½	60-2591	67.10	60.40	53.70
60-2572	64.30	57.90	51.45	75 55/64"	25½"	70"	39	60-2592	73.95	66.55	59.15
60-2573	67.76	61.00	54.20	84 39/64"	25½"	78¾"	43½	60-2593	77.90	70.10	62.30



Ⓕ **Desk Top**

SERIES SIXTY DESK TOP (FIG. F)

May be used in connection with any Series Sixty enclosure. Furnished completely assembled with wood-grained Formica surface. Fastens to panel mounting rails by two pre-drilled channels. Will support in excess of 200 lbs. Surface 24 1/16" wide, 19½" deep, 3 1/16" high. Available in two colors. **Specify Color:** Add suffix **SG** for gray; **SB** for blue.

Bud No.	Fits Series Sixty	Support Channel	Wt., Lbs.	Ea., 1-14	Ea., 15-24	Ea., 25-34
60-2360	With 22" depth	21 9/32" long	22	$36.05	$32.45	$28.85
60-2362●	With 25½" depth	24¾" long	23	36.75	33.08	29.40

● New product.

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Series "60" Cabinets

INCLINED PANEL CABINET RACKS (FIG. G)

Completely assembled with sides, rear door and solid top. Available in four combinations of plain or louvered sides and rear door. Size, 50⅝″ h. x 24 1/16″ w. x 22″ d., outside; 20¼″ d., clear inside. Weight, 165 lbs. **Specify Color When Ordering:** Add suffix **SG** to number for gray; suffix **SB**, for blue.

With Plain Sides and Door				Incline Panel Hgt.	Vert. Panel Hgt.	Top Opening W. x D.	Louvered Sides and Plain Door			
Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19				Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19
2330	$165.25	$148.70	$132.20	10½″	29¾″	18½″ x 11¾″	2630	$147.20	$132.48	$117.76
2331	175.15	157.65	140.10	15¾″	24½″	18½″ x 10″	2631	184.20	165.78	147.36
2332	175.15	157.65	140.10	17½″	22¾″	18½″ x 9⅜″	2632	184.20	165.78	147.36
With Louvered Sides and Door							Plain Sides, Louvered Door			
2730	$170.90	$153.81	$136.72	10½″	29¾″	18½″ x 11¾″	2830	$168.50	$151.65	$134.80
2731	181.00	162.90	144.80	15¾″	24½″	18½″ x 10″	2831	178.40	160.56	142.72
2732	181.00	162.90	144.80	17½″	22¾″	18½″ x 9⅜″	2832	178.40	160.56	142.72

ACCESSORY FRONT DOORS

Plain Type (Fig. J)								Louvered Type (Fig. K)			
Bud No.	Net Each, Lots of 1-9	10-14	15-19	Height	Width	Fits Rack Top Open. Size, In.	Wt., Lbs.	Bud No.	Net Each, Lots of 1-9	10-14	15-19
60-2350	$19.85	$17.85	$15.90	30 3/16″	18 15/16″	18½x11¾	11	60-2550	$22.80	$20.52	$18.24
60-2351	18.55	16.70	14.85	25 15/16″	18 15/16″	18½x10	9½	60-2551	21.30	19.17	17.04
60-2352	18.00	16.20	14.40	23 3/16″	18 15/16″	18½x9⅜	9	60-2552	20.70	18.63	16.56

ACCESSORY REAR DOORS

60-2342	$21.90	$19.70	$17.50	42 7/16″	18 15/16″	All sizes	15½	60-2542	$25.20	$22.68	$20.16

ACCESSORY SIDES

Specify "L" for left side or "R" for right side, determined when facing front of rack.

60-2574*	$38.45	$34.60	$30.75	47 55/64″	22″	18½x11¾	11	60-2594†	$44.20	$39.80	$35.35
60-2575*	39.55	35.60	31.65	47 55/64″	22″	18½x10	9½	60-2595†	45.50	40.95	36.40
60-2576*	39.55	35.60	31.65	47 55/64″	22″	18½x9⅜	9	60-2596†	45.50	40.95	36.40

*Fig. H. †Fig. I.

ACCESSORY PERFORATED TOPS

Bud No.	Width	Depth	Fits Rack Top Size, In.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
60-2372	21 15/16″	11 13/16″	18½ x 11¾	4	$4.40	$3.95	$3.50
60-2373	21 15/16″	10″	18½ x 10	3	4.25	3.85	3.40
60-2374	21 15/16″	9 13/32″	18½ x 9⅜	3	4.20	3.80	3.35

ADD-A-RACK SERIES

Each assembly consists of frame, top, bottom, rear door and cowlings; used as an add-on unit to join any of the Series Sixty enclosures into a bank of two or more. One standard rack plus several Add-A-Racks make any desired number of racks combined for optimum width. Colors same as above Racks.

Plain Sides					Louvered Sides					
Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of 1-9	10-14	15-19	Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of 1-9	10-14	15-19	Wt., Lbs.
2500	2300, 2600	$ 86.10	$ 77.50	$ 68.90	2900	2700, 2800	$ 88.40	$ 79.56	$ 70.72	92
2501	2301, 2601	104.75	94.30	83.80	2901	2701, 2801	107.65	96.89	86.12	113
2502	2302, 2602	114.70	103.25	91.75	2902	2702, 2802	118.00	106.20	94.40	115
2503	2303, 2603	125.30	112.75	100.25	2903	2703, 2803	128.95	116.06	103.16	145
2504	2304, 2604	140.00	126.00	112.00	2904	2704, 2804	144.00	129.60	115.20	148
2505	2305, 2605	156.00	140.40	124.80	2905	2705, 2805	160.45	144.41	128.36	152
2506	2306, 2606	167.35	150.60	133.90	2906	2706, 2806	172.25	155.03	137.80	158
2507	2307, 2607	100.00	90.00	80.00	2907	2707, 2807	102.30	92.07	81.84	120
2508	2308, 2608	117.25	105.55	93.80	2908	2708, 2808	120.15	108.14	96.12	132
2509	2309, 2609	128.00	115.20	102.40	2909	2709, 2809	131.30	118.17	105.04	138
2510	2310, 2610	139.60	125.65	111.70	2910	2710, 2810	143.25	128.93	114.60	142
2511	2311, 2611	156.10	140.50	124.90	2911	2711, 2811	160.10	144.09	128.08	164
2512	2312, 2612	174.00	156.60	139.20	2912	2712, 2812	178.45	160.61	142.76	168
2513	2313, 2613	192.50	173.25	154.00	2913	2713, 2813	197.40	177.66	157.92	172
2530	2330, 2630	132.90	119.60	106.30	2930	2730, 2830	136.20	122.58	108.96	119
2531	2331, 2631	142.10	127.90	113.70	2931	2731, 2831	145.40	130.86	116.32	119
2532	2332, 2632	142.10	127.90	113.70	2932	2732, 2832	145.40	130.86	116.32	125

SERIES SIXTY TURRETS (FIG. L)

Made of 16 gauge steel; designed so that any one of three sides may be attached to a Series Sixty upright rack or any horizontal surface. Accommodate standard 19″ panels. All mounting rails have universal spacing. Sides easily removed when a series of interconnecting turrets are desired. **Specify Color When Ordering:** Add suffix **SG** for dark gray; **SB** for dark blue. For panels, order standard Bud panels with suffix **SG** for light gray; **SB** for light blue.

Bud No.	Width	Depth	Height	Panel Space Sloping	Bottom	Rear	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
60-2364	22 1/16″	17⅞″	12 5/16″	17½″	14″	8¾″	17	$39.05	$35.15	$31.25
60-2365	22 1/16″	14⅜″	10 3/16″	12¼″	10½″	7″	14	32.55	29.30	26.05
60-2366	22 1/16″	20 13/16″	14⅜″	21″	17½″	10½″	20	41.00	36.90	32.80

SERIES SIXTY DRAWER (FIG. M)

Fits into any Series Sixty cabinet rack. Slides easily on nylon rollers. Capable of supporting heavy loads. Drawer extends to full depth while stops prevent drawer from falling out. Slides are easily attached to panel supporting rails. Silver anodized handles. Shipped completely assembled. **Specify Color When Ordering:** Add suffix **SG** to stock number for gray; **SB** for blue.

Bud No.	Size (Inside), Inches	Weight, Lbs.	Net Each, Lots of 1-14	15-24	25-34
60-2368	16⅝ x 6¾ x 19¼	28	$32.05	$28.85	$25.65

SERIES SIXTY SLIDING DESK TOP AND DESK TOP DRAWER

Fit standard Series Sixty racks. Smooth Formica* writing surface resists damage. Fits flush with front of unit when not in use. **No. 60-2361 Desk Top:** Usable area 11″ x 16⅞″. Occupies 1¾″ h. panel space. Tested to support 75 lbs. distributed weight. Ball-bearing slide mechanism mounts directly in Series Sixty racks; brackets supplied to fit other Bud cabinets. Size, 16⅞″ w. x 15⅛″ d. x 1¾″ h. with 19″ wide front panel. **No. 60-2363 Desk Top Drawer:** Hinged desk top on drawer to hold small tools, parts, etc. Ingenious latch on front panel both locks and releases drawer or top as desired. Mounts to U-brackets in cabinet; slides on nylon rollers; hardware supplied. Front panel, 19″ w. x 3½″ h. Inside size, 16⅝″ x 3¼″ x 15″.

Bud No.	Fig.	Specify Color by Suffix:	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
60-2361	N	**B**, black wrinkle; **G**, gray wrinkle; **HG**, gray hammertone; **SB**, smooth blue; **SG**, smooth gray	8	$16.65	$14.99	$13.32
60-2363●	O	**SB**, smooth blue; or **SG**, smooth gray	19	55.00	49.50	44.00

● New product. *Synthane Corp. trademark.

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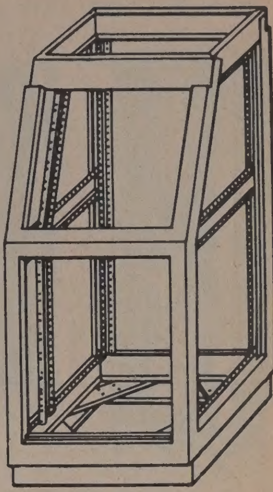
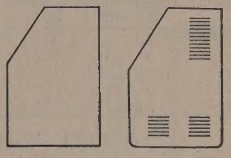
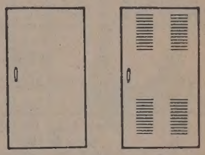


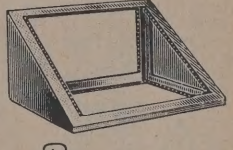
G Inclined Panel Rack



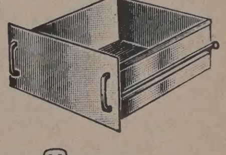
H Side Panels I



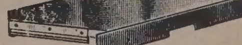
J Doors K



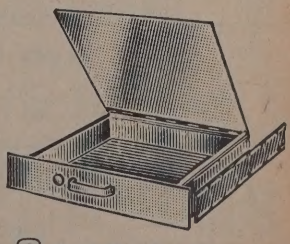
L Turret



M Drawer



N Sliding Desk Top



O Desk Top Drawer

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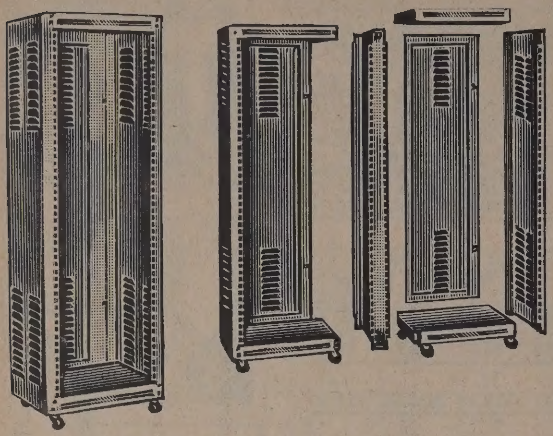
Cabinet Racks, Accessories

DELUXE RELAY RACKS WITH ADD-A-RACK



High quality relay racks made of 16-gauge steel with 7/64″ panel supports. Panel mounting supports are recessed so that no panel edges will be exposed. Both back and sides are fully louvered for best ventilation. Snap catches are positioned on the door. Rounded corners and red-lined chrome trim give streamlined appearance. Base constructed with four special supports so that casters may be applied directly to base for mobility. All standard panels will fit these racks: 22″ wide for 19″ panels; 27″ wide for 24″ panels.

Super Deluxe Series Relay Racks are equipped with adjustable panel mounting supports permitting forward and backward adjustment of panels for more efficient use of space. Adjustable points are at 1″ intervals for 9″ to 15″ clearance behind panels. Super Deluxe Racks are fitted with both front and rear doors, the rear to cover any equipment behind the panel while making it easily accessible. The front door, not louvered, conceals controls on the front panel.

Add-A-Rack Series—Where relay racks are to be joined in series. Provides additional strength and improved appearance. Includes door, top, bottom and coupling unit, all that is needed to make a double relay rack out of a single Deluxe series.

All Racks Listed are shipped knocked-down with all necessary hardware and assembly instructions. Casters optional. When ordering specify finish. Add suffix **"HG"** for gray hammertone; suffix **"G"** for gray wrinkle; and suffix **"B"** for black wrinkle.

SUPER DELUXE TWO-DOOR RACKS
WITH 19″ WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2174	42 1/16″	36¾″	102	$ 64.13	$ 57.72	$51.30
CR-2171	47 5/16″	42″	104	72.65	65.39	58.12
CR-2172	66 9/16″	61¼″	138	93.77	84.39	75.02
CR-2175●	75 5/16″	70″	150	96.00	86.40	76.80
CR-2173	82 5/16″	77″	163	112.56	101.30	90.05

WITH 24″ WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2494●	42 1/16″	36¾″	119	$ 83.00	$ 74.70	$66.40
CR-2491●	47 5/16″	42″	122	93.00	83.70	74.40
CR-2492●	66 9/16″	61¼″	160	121.00	108.90	96.80
CR-2495●	75 5/16″	70″	175	123.00	110.70	98.40
CR-2493●	82 5/16″	77″	190	145.00	130.50	116.00

ADD-A-RACK ASSEMBLIES

Includes door, top, bottom and coupling unit for add-on use with racks indicated.

Bud No.	For Use With Rack No.	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
AR-1275*	RR-1271	61	$ 34.90	$31.41	$27.92
AR-1276*	RR-1272	81	43.75	39.37	35.00
AR-1277*	RR-1273	94	51.25	46.12	41.00
AR-1778	CR-1774	70	44.34	39.91	35.47
AR-1775	CR-1771	74	49.01	44.11	39.21
AR-1776	CR-1772	100	60.96	54.86	48.77
AR-1779●	CR-1780	107	62.00	55.80	49.60
AR-1777	CR-1773	113	74.90	67.41	59.92
AR-4274●	CR-2474	82	55.00	49.50	44.00
AR-4271●	CR-2471	87	62.00	55.80	49.60
AR-4272●	CR-2472	117	77.75	69.98	62.21
AR-4275●	CR-2475	125	79.25	71.33	63.41
AR-4273●	CR-2473	132	93.25	83.93	74.61
AR-2278*	CR-2074	102	60.15	54.13	48.12
AR-2275*	CR-2071	86	68.06	61.25	54.65
AR-2276*	CR-2072	110	85.17	76.65	68.14
AR-2279●	CR-2075	120	87.00	78.30	69.60
AR-2277*	CR-2073	130	103.75	93.38	83.00
AR-3278●	CR-2484	100	78.00	70.20	62.40
AR-3275●	CR-2481	119	87.00	78.30	69.60
AR-3276●	CR-2482	129	109.00	98.10	87.20
AR-3279●	CR-2485	140	111.00	99.90	88.80
AR-3277●	CR-2483	152	131.00	117.90	104.80

*Gray hammertone standard; for black or gray wrinkle add 10% to price.

DOOR HANDLES, CATCH SETS

No. 9347: Fits flush with cabinet door; exposed parts chrome plated. **Nos. 9196 and 9223:** Lever-type handles are chrome plated with corrosion-resistant steel spindle and cam; fit Super Deluxe racks.

Bud No.	Description	Net Each, Lots of 1-49	50-99	100-149
9196	Non-locking handle	$2.66	$2.39	$2.13
9223	9196 with lock and key	5.00	4.50	4.00
9347	Flush-mount catch set	.98	.88	.78

TRUCK CASTERS

Use with all Bud relay racks and other floor mounted units. Ball bearing wheels are hard tread composition. **RC-7756** is for heavy duty applications. **RC-7758** is for extra heavy duty use (Series 60 Racks).

Bud No.	Height	Weight (Set of 4)	Net Each, Lots of 1-49	50-99	100-149
RC-7756	2⅝″	1¾ lbs.	$0.90	$0.81	$0.72
RC-7757	2″	1 lb.	.40	.36	.32
RC-7758	3¼″	6 lbs.	2.17	1.95	1.74

● New product.

DELUXE RELAY RACKS
17⅛″ Overall Depth
WITH 19″ WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-1774	42 1/16″	36¾″	82	$45.17	$40.65	$36.14
CR-1771	47 5/16″	42″	92	51.10	45.99	40.88
CR-1772	66 9/16″	61¼″	115	63.96	57.56	51.17
CR-1780●	75 5/16″	70″	125	65.00	59.50	52.00
CR-1773	82 5/16″	77″	135	76.57	68.91	61.26

WITH 24″ WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2474●	42 1/16″	36¾″	96	$57.50	$51.75	$46.00
CR-2471●	47 5/16″	42″	108	65.00	58.50	52.00
CR-2472●	66 9/16″	61¼″	135	81.50	73.35	65.20
CR-2475●	75 5/16″	70″	146	83.00	74.70	66.40
CR-2473●	82 5/16″	77″	158	97.60	87.84	78.08

EXTRA DEEP DELUXE RACKS

Same as above, except 22″ deep instead of 17⅛″ deep. Gray hammertone finish standard; for black or gray wrinkle add 10% to price.

WITH 19″ WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2074	42 1/16″	36¾″	98	$ 63.10	$56.79	$50.48
CR-2071	47 5/16″	42″	102	71.40	64.26	57.12
CR-2072	66 9/16″	61¼″	137	89.35	80.42	71.48
CR-2075●	75 5/16″	70″	148	90.80	81.72	72.66
CR-2073	82 5/16″	77″	159	106.13	95.52	84.90

WITH 24″ WIDE PANEL SPACE

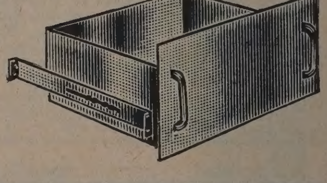
Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2484●	42 1/16″	36¾″	115	$ 81.00	$ 72.90	$64.80
CR-2481●	47 5/16″	42″	119	91.00	81.90	72.80
CR-2482●	66 9/16″	61¼″	160	114.00	102.60	91.20
CR-2485●	75 5/16″	70″	173	116.00	104.40	92.80
CR-2483●	82 5/16″	77″	186	136.00	122.40	108.80

SPACE SAVER RELAY RACKS

Same as Deluxe Series, except only 10″ deep (9″ inside, clear) to save space but retain panel height and width. Suited for use with Bud panel mounting chassis as well as standard 19″ relay rack panels; lend themselves to Add-A-Rack assembly. Gray hammertone finish standard; for black or gray wrinkle add 10% to price.

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
RR-1271	47 5/16″	42″	70	$36.60	$32.95	$29.28
RR-1272	66 9/16″	61¼″	91	45.85	41.26	36.68
RR-1273	75 5/16″	70″	100	53.75	48.37	43.00

●NEW DRAWER WITH ADJUSTABLE SLIDES



Fits any cabinet or cabinet rack with 19″ panel space. Slide bracket adjustable 16⅝″ to 22⅞″ to fit any cabinet with depth 17″ to 23″. Fastens by bracket to panel mounting rail in front and rear of cabinet. Nylon rollers for smooth movement. Hardware supplied. Specify color when ordering: Add suffix **HG** for gray hammertone; **B** for black wrinkle; or **G** for gray wrinkle.

Bud No.	Inside Size, Inches	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
D-1721●	16⅜ x 6⅜ x 16¼	19½	$40.80	$36.72	$32.64

534-63A

Relay Racks and Panels

STANDARD RELAY RACK PANELS

Choice of steel or aluminum relay rack panels, ⅛″ or 3/16″ thick, in both 19″ and 24″ widths. Specify color when ordering, use letter suffix: **B** for black wrinkle; **G** for gray wrinkle; **HG** for gray hammertone; **SB** for smooth blue; **SG** for smooth gray. Aluminum panels 5005 H-36 alloy.

STANDARD 19″ WIDE PANELS

Ht., In.	⅛″ STEEL Bud No. PS-	Net Each, Lots of 1-49	50-99	100-149	⅛″ ALUMINUM Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149
1¾	1250	$0.84	$0.76	$0.67	1101	$1.09	$0.98	$0.87
3½	1251	1.00	.90	.80	1102	1.42	1.28	1.14
5¼	1252	1.25	1.13	1.00	1103	1.92	1.73	1.54
7	1253	1.42	1.28	1.14	1104	2.42	2.18	1.94
8¾	1254	1.75	1.58	1.40	1105	2.84	2.56	2.27
10½	1255	2.09	1.88	1.67	1106	3.59	3.23	2.87
12¼	1256	2.42	2.18	1.94	1107	4.09	3.68	3.27
14	1257	2.84	2.56	2.27	1108	4.76	4.28	3.81
15¾	1258	3.09	2.78	2.47	1109	5.34	4.81	4.27
17½	1259	3.51	3.16	2.81	1110	5.85	5.27	4.68
19¼	1260	3.84	3.46	3.07	1111	6.43	5.79	5.14
21	1261	4.26	3.83	3.41	1112	7.01	6.31	5.61

•STANDARD 24″ WIDE PANELS

Ht., In.	⅛″ STEEL Bud No. PS-	Net Each, Lots of 1-49	50-99	100-149	⅛″ ALUMINUM Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149
1¾	3420	$1.25	$1.13	$1.00	2401	$1.70	$1.53	$1.36
3½	3421	1.45	1.31	1.17	2402	2.20	1.98	1.76
5¼	3422	1.80	1.62	1.44	2403	3.00	2.70	2.40
7	3423	2.05	1.85	1.65	2404	3.75	3.38	3.01
8¾	3424	2.55	2.30	2.05	2405	4.40	3.96	3.52
10½	3425	3.05	2.75	2.45	2406	5.60	5.04	4.48
12¼	3426	3.60	3.24	2.88	2407	6.35	5.72	5.09
14	3427	4.15	3.74	3.33	2408	7.40	6.66	5.92
15¾	3428	4.70	4.23	3.76	2409	8.30	7.47	6.64
17½	3429	5.20	4.68	4.16	2410	9.10	8.19	7.28
19¼	3430	5.75	5.18	4.60	2411	10.00	9.00	8.00
21	3431	6.35	5.72	5.09	2412	11.00	9.90	8.80

STANDARD 3/16″ THICK ALUMINUM PANELS

Ht., In.	Standard 19″ Wide Panels Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149	Standard 24″ Wide Panels• Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149
1¾	3101	$1.74	$ 1.57	$1.39	2431	$ 3.10	$ 2.79	$ 2.48
3½	3102	2.27	2.04	1.82	2432	4.00	3.60	3.20
5¼	3103	3.07	2.76	2.46	2433	5.50	4.95	4.40
7	3104	3.87	3.48	3.10	2434	6.80	6.12	5.44
8¾	3105	4.54	4.09	3.63	2435	8.00	7.20	6.40
10½	3106	5.74	5.17	4.59	2436	10.15	9.04	8.03
12¼	3107	6.54	5.89	5.23	2437	11.50	10.35	9.20
14	3108	7.62	6.86	6.10	2438	13.50	12.15	10.80
15¾	3109	8.54	7.69	6.83	2439	15.05	13.55	12.05
17½	3110	9.36	8.42	7.49	2440	16.50	14.85	13.20
19¼	3111	10.29	9.26	8.23	2441	18.20	16.38	14.56
21	3112	11.22	10.10	8.98	2442	20.00	18.00	16.00

SURFACE SHIELD PANELS

Bright aluminum alloy 5005 H-36 panels have blemish-free mill finish. Covered on both sides with sturdy, pressure-sensitive, white paper; protects against damage and useful for marking for drilling, positioning, etc. Standard notched sizes.

STANDARD 19″ WIDE PANELS

Ht., In.	⅛″ ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149	3/16″ ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149
1¾	1831	$0.97	$0.87	$0.78	3161	$1.79	$1.61	$1.43
3½	1832	1.34	1.21	1.07	3162	2.36	2.12	1.89
5¼	1833	1.80	1.62	1.44	3163	3.17	2.85	2.54
7	1834	2.21	1.99	1.77	3164	3.91	3.52	3.13
8¾	1835	2.66	2.39	2.13	3165	4.68	4.21	3.74
10½	1836	3.34	3.01	2.67	3166	5.90	5.31	4.72
12¼	1837	3.85	3.47	3.08	3167	6.80	6.12	5.44
14	1838	4.45	4.01	3.56	3168	7.85	7.06	6.28
15¾	1839	4.97	4.47	3.98	3169	8.76	7.88	7.01
17½	1840	5.47	4.92	4.38	3170	9.67	8.70	7.74
19¼	1841	5.99	5.39	4.79	3171	10.57	9.51	8.46
21	1842	6.50	5.85	5.20	3172	11.48	10.33	9.18

•STANDARD 24″ WIDE PANELS

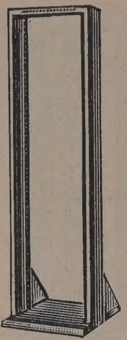
Ht., In.	⅛″ ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149	3/16″ ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149
1¾	2451	$ 1.90	$ 1.71	$1.52	3401	$ 3.55	$ 3.20	$ 2.85
3½	2452	2.50	2.25	2.00	3402	4.70	4.23	3.76
5¼	2453	3.30	2.97	2.64	3403	6.30	5.67	5.04
7	2454	4.20	3.78	3.36	3404	7.75	6.98	6.21
8¾	2455	4.90	4.41	3.92	3405	9.30	8.37	7.44
10½	2456	6.20	5.53	4.96	3406	11.70	10.53	9.36
12¼	2457	7.00	6.30	5.60	3407	13.50	12.15	10.80
14	2458	8.20	7.38	6.56	3408	15.60	14.04	12.48
15¾	2459	9.20	8.28	7.36	3409	17.40	15.66	13.92
17½	2460	10.00	9.00	8.00	3410	19.20	17.28	15.36
19¼	2461	11.00	9.90	8.80	3411	21.00	18.90	16.80
21	2462	12.00	10.80	9.60	3412	22.80	20.52	18.24

RACK SHELVES

Heavy gauge steel shelves with 1″ flange for rigidity and strength. Mount on chassis supporting angles in rack to hold power supplies, modulators, etc. Width 19″. Black enamel finish.

Bud No.	Depth, Inches	Weight, Lbs.	Net Each, Lots of 1-24	25-49	50-99
CB-1976	15″	6½	$3.47	$3.12	$2.78
CB-1977	12″	5½	2.64	2.38	2.11

•NEW DELUXE TELEPHONE-TYPE RELAY RACKS



Sturdy open rack with extra strength and greater capacity. Upright U-member is unitize-welded with ventilation provided at top. Two panel-mounting rails, at front and rear, tapped 10-32 with W.E. spacing. Made of 12 ga. steel throughout. Chassis-type base drilled for RC-7756 casters. Triangular brackets hold uprights to base; holes provided on both sides for bolting racks together in "Add-A-Rack" manner. Add suffix **HG** for gray hammertone finish; **B** for black wrinkle; or **G** for gray wrinkle. Nos. RR-1367–RR-1369 have 20⅞″ base width and take 19″ wide panels. Nos. RR-2467–RR-2469 have 25⅞″ base width and take 24″ wide panels.

Bud No.	Height, Overall	Panel Space	Net Each, Lots of 1-9	10-14	15-19
RR-1367	64⅝″	61¼″	$35.50	$31.95	$28.40
RR-1368	73⅜″	70″	36.25	32.63	29.01
RR-1369	80⅜″	77″	43.00	28.70	24.40
RR-2467	64⅝″	61¼″	45.00	40.50	36.00
RR-2468	73⅜″	70″	46.00	41.40	36.80
RR-2469	80⅜″	77″	54.50	49.05	43.60

TELEPHONE-TYPE RELAY RACKS

Standard Models: 3″ channels and crossbars of 7/64″ steel. Base has chassis type bottom with side angles. Base drilled for RC-7756 casters. Black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**).

Heavy Duty Models RR-1265 and RR-1465: Two 3½″ x 5″ x ¼″, 20⅜″ long angles form base. Steel channels are 3″ x 1⅜″, 72¼″ long. Cross bars are ⅛″ x 2 3/32″ angles. Panel holes tapped 12-24 with W.E. space. Black wrinkle finish only. Usually bolted to floor.

FOR 19″ WIDE PANELS

Bud No.	Height, Overall	Panel Space	Net Each, Lots of 1-9	10-14	15-19
RR-1263	35 39/64″	31½″	$21.71	$19.53	$17.37
RR-1363	40 55/64″	36¾″	21.96	19.76	17.57
RR-1264	70 39/64″	66½″	24.80	22.32	19.84
RR-1364	75 55/64″	71¾″	25.13	22.62	20.10
RR-1366	81 7/64″	77″	29.98	26.98	23.98
RR-1265	72¼″	66½″	54.78	49.30	43.82

•FOR 24″ WIDE PANELS

Bud No.	Height, Overall	Panel Space	Net Each, Lots of 1-9	10-14	15-19
RR-1463	35 39/64″	31½″	$28.00	$25.20	$22.40
RR-2463	40 55/64″	36¾″	29.00	26.10	23.20
RR-1464	70 39/64″	66½″	32.00	28.80	25.60
RR-2464	75 55/64″	71¾″	33.00	29.70	26.40
RR-2466	81 7/64″	77″	39.00	35.10	31.20
RR-1465	72¼″	66½″	71.00	63.90	56.80

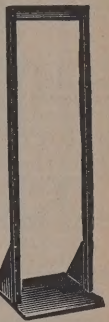
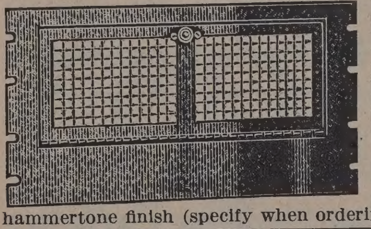


TABLE-MOUNT TELEPHONE RACK

Sturdy rack with chassis type base mounts heavy components on table where enclosures are not required. Panel mount rails recessed for flush mount of 19″ panels. Shipped knocked down. Specify black wrinkle (suffix **"B"**) or gray hammertone (**"HG"**).

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
RR-1248	24″	21″	15	$ 9.10	$ 8.19	$7.28
RR-1249	31″	28″	18	11.19	10.07	8.95

VENTILATED DOOR RACK PANELS



Generous perforated area in door provides adequate ventilation for adjacent units. Also features a newly designed plunger-type latch for positive locking and easy opening. Distance from hinged side of opening to bottom, 3½″; from lock side of opening to top, 1″. Available in black or gray wrinkle finish or gray hammertone finish (specify when ordering). ⅛″ steel, 19″ long.

Bud No.	Height, Overall	Door Size, Inches	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-814	10½″	15⅜ x 6	6	$7.52	$6.77	$6.03
PS-815	12¼″	15⅜ x 7½	7	8.27	7.44	6.62

NON-VENTILATED METAL DOOR PANELS

Bud No.	Height, Overall	Door Size, Inches	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-615	10½″	15⅜ x 6	7¼	$6.08	$5.47	$4.86
PS-616	12¼″	15⅜ x 7½	8¼	7.52	6.77	6.02

VENTILATING GRILLE PANELS

Substitute for solid panels for extra ventilation. Made of ⅛″ steel with die-cut grille 13 13/32″ wide. Standard notched 19″ wide sizes. Specify black wrinkle (suffix **B**), gray wrinkle (suffix **G**), or gray hammertone (suffix **HG**).

Bud No.	Height, Overall	Grille Height	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-808	5¼″	3⅜″	2½	$3.26	$2.93	$2.61
PS-809	7″	4⅞″	3½	3.54	3.19	2.83
PS-810	8¾″	3⅜″*	5	4.26	3.83	3.41
PS-811	10½″	5⅞″*	5¾	4.51	4.06	3.61
PS-812	12¼″	7⅜″*	6¼	4.84	4.36	3.87

*Allows 3½″ space for chassis mounting.

• New product.

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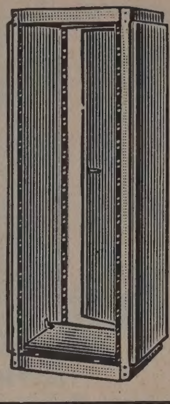
Racks, Cabinets, Blowers

PRESTIGE BALL CORNER RACKS



Attractive, practical housing for permanent or mobile instrumentation. Standard Prestige relay rack consists of framework, top, bottom, two ball cornered sides, and a ball corner door. Sides attach to frame by means of a tongue-and-slot arrangement at bottom and two screws at top. Sides easily removable for access. Drilled and tapped panel mounting rails on all four vertical members of frame. Doors mount from either left or right side. Slotted base takes ball-cornered side panels on any of the four sides. Door and side clearance permits covering of equipment without damage to knobs or controls. Provision made for recessed casters. Extra doors available for placing on any of the sides. Knockout holes provided for attaching two or more units together. Bottom will support 500 lbs., panel rails 200 lbs. suspended vertically between rails. Units take Bud SD-1717 sliding drawer assembly or CD-2210 console drawer. Shipped knocked-down, with necessary assembly hardware. **Gray hammertone finish only. Now furnished with adjustable panel mounting rails.**

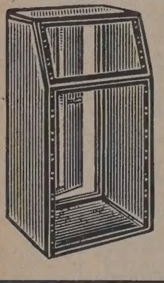
Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2280	69 9/16″	61¼″	179	$108.35	$ 97.51	$ 86.68
CR-2281	71 13/16″	66½″	186	115.55	103.99	92.44
CR-2282	82 5/16″	77″	213	129.75	116.77	103.80
DR-2290	Door for CR-2280		28	13.50	12.15	10.80
DR-2291	Door for CR-2281		33	14.40	12.96	11.52
DR-2292	Door for CR-2282		39	16.20	14.58	12.96

PRESTIGE ADD-A-RACKS

Where relay racks are to be joined in series the Add-A-Rack assembly is lower in cost yet provides additional strength and improved appearance. Consists of top, bottom, rear door and framework. Made of 16 gauge steel. Extra ball corner doors will fit adjustable panel mounting rails which are recessed so that panel will be flush with face of rack. Add-A-Racks may be added at any time as needed. Gray hammertone finish.

Bud No.	Used to Add-A-Rack to	Net Each, Lots of 1-9	10-14	15-19
CR-2284	CR-2280	$ 85.29	$76.76	$68.23
CR-2286	CR-2281	92.15	82.94	73.72
CR-2287	CR-2282	103.47	93.12	82.78

IMPERIAL INCLINED PANEL CONSOLE

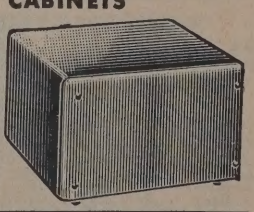


Smart looking all-aluminum Imperial console built for strength while keeping weight factor in mind. Complete assembly includes framework, top, bottom, two sides, and reinforced door with concealed hinges and flush mounted latch. Extrusions and joints are ball-cornered aluminum castings. Inclined panel set at 22½° angle for comfortable viewing. Cast brass, heavy duty hinges specifically designed to enable components, blowers, etc., to be mounted on rear door. Framework for top, inclined panel area and front are extrusions, drilled and tapped to accept standard rack panels. Casters may be attached to bottom. Standard Bud aluminum panels may be used to enclose the front and inclined panel spaces. Gray hammertone finish only.

Bud No.	Overall, Inches W. x D. x H.	Vertical Panel Size, Inches	Weight, Lbs.
BI-1828	20 15/16 x 18⅝ x 40 11/16	19 1/16 x 28 1/16	41
BI-2228	20 15/16 x 22⅛ x 40 11/16	19 1/16 x 28 1/16	47
BI-2419	20 15/16 x 19 17/32 x 43 21/32	19 1/16 x 24 9/16	43
BI-2421	20 15/16 x 21 9/32 x 43 21/32	19 1/16 x 24 9/16	46

Bud No.	Net Each, Lots of 1-9	10-14	15-19
BI-1828	$155.00	$139.50	$124.00
BI-2228	170.00	153.00	136.00
BI-2419	190.00	171.00	152.00
BI-2421	200.00	180.00	160.00

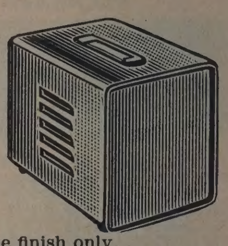
CONTOUR UTILITY CABINETS



Attractively designed utility housing with rounded contour corners. Flanged panels also have rounded corners to preserve the symmetry of design. Constructed of 20 gauge steel. Both front and rear panels are removable; the front panel is solid while the rear panel is louvered for proper ventilation. Four rubber feet, attached to base, prevent scratching surface the unit is placed on. Body is smooth, dark gray enamel; panel is smooth light gray enamel.

Bud No.	Overall Size, Inches H.	W.	D.	Net Each, Lots of 1-24	25-49	50 & Over
CU-463	4 7/32	6 7/32	3¾	$ 5.50	$4.95	$4.40
CU-465	4 7/32	6 7/32	5¾	6.35	5.72	5.08
CU-585	5 7/32	8 7/32	5¾	8.35	7.52	6.68
CU-587	5 7/32	8 7/32	7¾	9.10	8.19	7.28
CU-7125	7 7/32	12 7/32	5¾	9.70	8.73	7.76
CU-7127	7 7/32	12 7/32	7¾	10.35	9.32	8.28

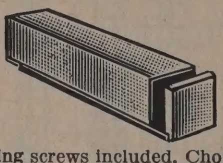
PORTACAB



Attractive, versatile cabinets desirable as housings for instrumentation requiring highly stylized appearance. Custom, quality look achieved in standard production models. Made entirely of aluminum to minimize weight. Flexible recessed handle permits easy portability as well as vertical stacking. Well louvered for adequate ventilation. Louvers point inward, permitting side-to-side placement of cabinets without space loss. Aluminum front panel recessed ½″. Welded back has opening. Perimeter of panel follows contour of body. Has four detachable rubber feet. Gray hammertone finish only.

Bud No.	Size, Inches W. x D. x H.	Wt., Lbs.	Bud Chassis	Net Each, Lots of 1-24	25-49	50-99
WA-1540	6⅛ x 8 x 8	2½	AC-402	$ 9.20	$ 8.28	$ 7.36
WA-1541	8⅛ x 12 x 9	3	AC-407	12.00	10.80	9.60
WA-1542	10⅛ x 8 x 8	3½	AC-406	10.65	9.59	8.52
WA-1543	11⅛ x 18 x 11	6½	AC-416	13.50	12.15	10.80
WA-1544	14⅛ x 18 x 12	7¾	AC-420	15.50	13.95	12.40

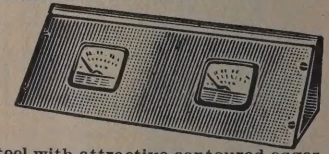
MINISLIDE



Ideal for housing components or assemblies where easy access to internally mounted parts is important. Can be mounted in a number of positions in a rack or cabinet. Accessibility achieved by removing sliding cover. Design of Minislide Box provides adequate shielding and protection from dust. Sturdily made of .050 aluminum. 4 self-tapping fastening screws included. Choice of gray hammertone (**GH**) or natural aluminum (**NA**).

Bud No.	Finish	Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
MS-2150	(GH)	3⅛ x 13 x 2⅝	1	$3.75	$3.38	$3.00
MS-2151	(GH)	5⅛ x 13 x 2⅝	1½	4.30	3.87	3.44
MS-2152	(GH)	3⅛ x 17 x 2⅝	1¼	4.15	3.74	3.32
MS-3050	(NA)	3⅛ x 13 x 2⅝	1	2.85	2.57	2.28
MS-3051	(NA)	5⅛ x 13 x 2⅝	1½	3.50	3.15	2.80
MS-3052	(NA)	3⅛ x 17 x 2⅝	1¼	3.35	3.02	2.68

DUAL-VIEW PANEL SUPPORT

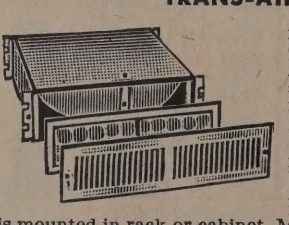


Designed for installation on a rack where an oblique view of instrument panel is desired. Engineered so that the entire assembly occupies no more space than size of supported panel. Panel support cover can be removed for easy servicing or installation of instruments. Made of heavy gauge steel with attractive contoured edges. Comes knocked-down with necessary assembly hardware, but without panels. Bud panels to fit these supports are PS-1253 (steel), and PA-1104 (aluminum) for Model IP-1120; PS-1255 (steel), and PA-1106 (aluminum) for IP-1121. Furnished in black wrinkle (add suffix **"B"**), gray hammertone (add suffix **"HG"**), gray wrinkle (add suffix **"G"**), smooth gray (suffix **"SG"**), or smooth blue (suffix **"SB"**).

Bud No. IP-1120—Requires 19″ x 7″ panel space. Wt., 3½ lbs.
Net Each, Lots of 1-14.......................................**$4.15**
Lots of 15-24, Each....**$3.74** Lots of 25-34, Each....**$3.32**

Bud No. IP-1121—Requires 19″ x 10½″ panel space. Wt., 6¾ lbs.
Net Each, Lots of 1-14.......................................**$5.80**
Lots of 15-24, Each....**$5.22** Lots of 25-34, Each....**$4.64**

TRANS-AIRE BLOWER



Ideal for use where excessive heat is generated by equipment in an enclosed rack, cabinet or console. Brings in fresh air or exhausts heated air, enabling use as an exhaust or intake blower, depending upon mounting position. Unit will operate in any position—vertical or horizontal. May be mounted to rails of standard cabinet or rack. Use of Bud Chassis Supporting Angles SA-1349, SA-1350 or CE-2219 is recommended when blower is mounted in rack or cabinet. Motor is rubber mounted to reduce vibration. Operating noise factor reduced to minimum. Thermal overload protection to prevent overheating. Automatic reset. Oil impregnated, fiberglas disposable filter can be changed without removing unit from cabinet. Three sizes provide air displacement from 100 c.f.m. to 750 c.f.m. at 0° static pressure. Complete with filter, chrome-plated grille and 18″ three-wire cord. All dimensional and technical data in table below. **Weight:** B-23 17¼ lbs., B-25 33 lbs.; B-27 35¼ lbs.; replacement filter 1 lb.

BLOWERS

Bud No.	Panel Space	Depth	Air c.f.m. High	Low	Mot. hp	Net Each, Lots of 1-9	10-14	15 Up
B-23	3½″x19″	12″	200	100	1/20	$47.10	$42.39	$37.68
B-25	5¼″x19″	14½″	500	250	1/6	53.35	48.02	42.68
B-27	7″ x19″	14½″	750	350	¼	61.35	55.22	49.08

FILTERS FOR ABOVE BLOWERS

Bud No.	Unit	Net Each, Lots of 1-24	25-49	50-99
BF-24	Filter for use with B-23	$1.35	$1.22	$1.08
BF-26	Filter for use with B-25	1.50	1.35	1.20
BF-28	Filter for use with B-27	1.65	1.49	1.32

535-62A

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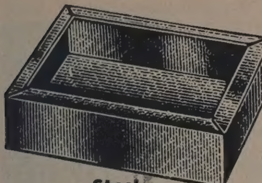
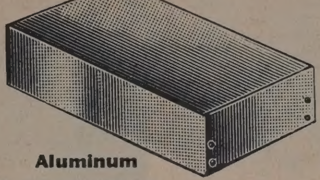
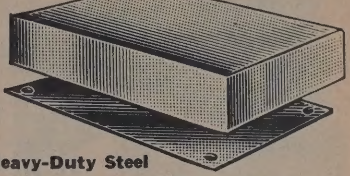
Chassis, Dial Lock

STEEL AND ALUMINUM CHASSIS BASES, PLATES


Steel


Aluminum


Heavy-Duty Steel

Each chassis is made from a single sheet of metal. All corners are reinforced and spot welded. Aluminum bases are welded on Government approved welders as used for aircraft parts; natural finish aluminum alloy 5005 H-14. All four sides are folded at the bottom for added rigidity and strength.

STEEL CHASSIS BASES

Made of 20 gauge steel except as otherwise specified.

Size, Inches D. x W. x H.	Zinc Plated Finish Bud CB-	Zinc Net Each, Lots of 1-24	25-49	50-99	Black Wrinkle Finish Bud CB-	Black Net Each, Lots of 1-24	25-49	50-99
5½ x 5½ x 1●	101*	$1.47	$1.32	$1.18	......	......	......	......
5 x 7 x 2	629*	1.30	1.17	1.04	628*	$1.07	$0.96	$0.86
4½ x 8 x 1½●	102*	1.60	1.44	1.28	......	......	......	......
5 x 9 x 1½●	103*	1.40	1.26	1.12	......	......	......	......
5 x 9½ x 2½	645*	1.67	1.50	1.34	644*	1.37	1.23	1.10
5 x 9½ x 1½	776*	1.69	1.52	1.35	788*	1.20	1.08	.96
5 x 10 x 3	605*	1.84	1.66	1.47	604*	1.27	1.14	1.02
5 x 13 x 3●	105	2.30	2.07	1.84	......	......	......	......
6 x 8 x 2●	104	1.57	1.41	1.26	......	......	......	......
6 x 14 x 3	756	2.05	1.85	1.64	755	1.75	1.58	1.40
7 x 7 x 2	1191	1.50	1.35	1.20	789	1.20	1.08	.96
7 x 9 x 2	1192	1.59	1.43	1.27	790	1.40	1.26	1.12
7 x 11 x 2	1193	1.67	1.50	1.34	791	1.45	1.31	1.16
7 x 12 x 3	793	2.05	1.85	1.64	792	1.57	1.41	1.26
7 x 13 x 2	1194	1.92	1.73	1.54	646	1.54	1.39	1.23
5 x 13½ x 2½	1198	2.17	1.95	1.74	647	1.77	1.59	1.42
7 x 15 x 3	1189	2.40	2.16	1.92	649	2.00	1.80	1.60
8½ x 15 x 3	666	2.71	2.44	2.17	665	2.24	2.02	1.79
4 x 17 x 3	1066	2.14	1.93	1.71	1068	1.80	1.62	1.44
7 x 17 x 2½	1199	2.37	2.13	1.90	648	1.99	1.79	1.59
7 x 17 x 3	758	2.59	2.33	2.07	757	2.15	1.94	1.72
8 x 10 x 2½	702	2.02	1.82	1.62	701	1.72	1.55	1.38
8 x 12 x 2½	704	2.24	2.02	1.79	703	1.75	1.58	1.40
8 x 12 x 3	760	2.34	2.11	1.87	759	1.85	1.67	1.48
8 x 17 x 2	774	2.34	2.11	1.87	650	1.70	1.53	1.36
8 x 17 x 3	775	2.62	2.39	2.10	651†	2.05	1.85	1.64
10 x 12 x 3	1195	2.25	2.03	1.80	652	1.89	1.70	1.51
12 x 12 x 3●	106	3.34	3.01	2.67	......	......	......	......
10 x 14 x 3	779	2.44	2.20	1.95	653	2.04	1.84	1.63
10 x 17 x 2	769	2.39	2.15	1.91	654†	2.00	1.80	1.60
10 x 17 x 3	637	2.84	2.57	2.27	636†	2.00	1.80	1.60
10 x 17 x 3	1196‡	3.05	2.75	2.44	655†‡	2.54	2.29	2.03
10 x 23 x 3	1197‡	3.42	3.08	2.74	656‡	2.86	2.57	2.29
11 x 17 x 2	770‡	2.81	2.53	2.25	657†‡	2.35	2.12	1.88
11 x 17 x 3	771‡	3.49	3.14	2.79	658†‡	2.77	2.49	2.22
12 x 17 x 2	661‡	3.09	2.78	2.47	663†‡	2.44	2.20	1.95
12 x 17 x 3	662‡	3.67	3.30	2.94	664†‡	2.91	2.62	2.33
13 x 17 x 2	772‡	3.72	3.35	2.98	659†‡	2.91	2.62	2.33
13 x 17 x 3	773‡	4.07	3.66	3.26	660†‡	3.41	3.07	2.73
10 x 17 x 4	641‡	3.51	3.16	2.81	640†‡	2.92	2.63	2.34
13 x 17 x 4	643‡	4.68	4.21	3.74	642†‡	3.92	3.53	3.14
10 x 17 x 5	624‡	5.34	4.81	4.27	623‡	4.51	4.06	3.61
13 x 17 x 5	626‡	5.93	5.34	4.74	625‡	4.93	4.44	3.94

*22 gauge. †Punched to accommodate chassis mounting brackets. ‡18 gauge.

STEEL CHASSIS BOTTOM PLATES

Protect wiring and keep out dust from chassis bottom. Four embossed feet. Two finishes to match chassis finish.

Fits Chassis Size, In. W. x L.	Zinc Plated Finish Bud BP-	Zinc Net Each, Lots of 1-49	50-99	100-149	Black Wrinkle Finish Bud BP-	Black Net Each, Lots of 1-49	50-99	100-149
5 x 7	706	$0.69	$0.62	$0.55	705	$0.57	$0.51	$0.46
5 x 9½	667	.75	.68	.60	680	.62	.56	.50
5 x 10	538	.73	.66	.58	536	.67	.60	.54
7 x 7	668	.97	.87	.78	681	.92	.83	.74
7 x 9	669	.99	.89	.79	682	.94	.85	.75
7 x 11	670	1.07	.96	.86	683	.95	.86	.76
7 x 12	539	1.12	1.01	.90	537	.99	.89	.79
7 x 13	671	1.20	1.08	.96	684	1.02	.92	.82
5 x 13½	672	1.00	.90	.80	685	.84	.76	.67
4 x 17	1067	1.07	.96	.86	1069	.84	.76	.67
7 x 17	673	1.37	1.23	1.10	686	.90	.81	.72
8 x 10	708	1.05	.94	.84	707	.92	.83	.74
8 x 12	710	1.34	1.21	1.07	709	1.06	.95	.85
8 x 17	674	1.54	1.39	1.23	687	.95	.86	.76
10 x 12	675	1.57	1.41	1.26	688	.95	.86	.76
10 x 14	514	1.33	1.20	1.06	517	1.25	1.13	1.00
10 x 17	676	1.60	1.44	1.28	689	1.20	1.08	.96
11 x 17	677	1.60	1.44	1.28	690	1.20	1.08	.96
12 x 17	678	1.87	1.68	1.50	691	1.27	1.14	1.02
13 x 17	679	2.24	2.02	1.79	692	1.47	1.32	1.18

HEAVY DUTY CHASSIS

Complete with 20 ga. bottom plate for uses requiring extra strength to hold heavy weights. Made of 16 ga. steel; 17″ wide.

Size, In. D. x H.	Zinc Plated Finish Bud CB-	Zinc Net Each, Lots of 1-24	25-49	50-99	Black Wrinkle Finish Bud CB-	Black Net Each, Lots of 1-24	25-49	50-99
8 x 3	1765	$4.76	$4.28	$3.81	1758	$4.26	$3.83	$3.41
11 x 3	1767	4.84	4.36	3.87	1760	4.34	3.91	3.47
13 x 2	1768	5.34	4.81	4.27	1761	4.84	4.36	3.87
13 x 3	1769	5.43	4.89	4.34	1762	4.93	4.44	3.94
13 x 4	1770	5.85	5.27	4.68	1763	5.26	4.73	4.21

ALUMINUM CHASSIS BASES

Bud No.	Size, Inches D. x W. x H.	Ga.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
AC-430	4 x 6 x 3	18	½	$1.34	$1.21	$1.07
AC-431	4 x 6 x 2	18	½	1.10	.99	.88
AC-432	4 x 17 x 3	16	1¼	2.33	2.10	1.86
AC-402	5 x 7 x 2	18	½	1.17	1.05	.94
AC-429	5 x 7 x 3	18	¾	1.42	1.28	1.14
AC-403	5 x 9½ x 2	18	½	1.24	1.12	.99
AC-401●	5 x 9½ x 2½	18	¾	1.47	1.32	1.18
AC-421	5 x 9½ x 3	18	¾	1.60	1.44	1.28
AC-404	5 x 10 x 3	18	¾	1.63	1.47	1.30
AC-422	5 x 13 x 3	18	¾	1.84	1.66	1.47
AC-433	6 x 17 x 3	16	1¼	2.67	2.40	2.14
AC-405	7 x 7 x 2	18	½	1.35	1.22	1.08
AC-406	7 x 9 x 2	18	½	1.46	1.31	1.17
AC-407	7 x 11 x 2	18	¾	1.58	1.42	1.26
AC-408	7 x 12 x 3	18	1	2.00	1.80	1.60
AC-409	7 x 13 x 2	18	¾	1.67	1.50	1.34
AC-411	7 x 15 x 3	16	1½	2.67	2.40	2.14
AC-423	7 x 17 x 3	16	1¾	2.75	2.48	2.20
AC-424	8 x 12 x 3	16	1½	2.42	2.18	1.94
AC-425	8 x 17 x 2	16	1½	2.51	2.26	2.01
AC-412†	8 x 17 x 3	16	1¾	2.84	2.56	2.27
AC-413	10 x 12 x 3	16	1½	2.67	2.40	2.14
AC-414	10 x 14 x 3	16	1¾	2.84	2.56	2.27
AC-415†	10 x 17 x 2	16	1¼	2.68	2.41	2.14
AC-416†	10 x 17 x 3	16	2	3.17	2.85	2.54
AC-426†	11 x 17 x 2	14	2¼	3.42	3.08	2.74
AC-417†	11 x 17 x 3	14	2¾	3.97	3.57	3.18
AC-418†	12 x 17 x 3	14	2¾	4.08	3.67	3.26
AC-419†	13 x 17 x 2	14	2½	3.51	3.16	2.81
AC-420†	13 x 17 x 3	14	2¾	4.26	3.83	3.41
AC-427†	10 x 17 x 4	14	3½	4.51	4.06	3.61
AC-428†	13 x 17 x 4	14	3¾	5.76	4.73	4.21

†Punched to accommodate chassis mounting brackets.

ALUMINUM CHASSIS BOTTOM PLATES

Bud No.	Fits Chassis W. x L., In.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
BPA-1589	5 x 7	⅛	$0.74	$0.67	$0.59
BPA-1590	5 x 9½	¼	.75	.68	.60
BPA-1591	5 x 10	¼	.75	.68	.60
BPA-1592	7 x 7	⅓	.77	.69	.62
BPA-1593	7 x 9	⅓	.80	.72	.64
BPA-1594	7 x 11	⅓	.90	.81	.72
BPA-1595	7 x 12	½	.97	.87	.78
BPA-1596	7 x 13	½	1.14	1.03	.91
BPA-1597	10 x 17	¾	1.52	1.37	1.22
BPA-1598	13 x 17	¾	2.07	1.86	1.66

CHASSIS DECKS

Use in carrying cases, cabinets, etc.; deck is folded 1½″ over at front and ½″ on sides. Black enamel finish only.

Bud No.	Size, In. W. x D.	Fits Cabinet Number	Net Each, Lots of 1-24	25-49	50-99
CB-522	4¾ x 5½	CU-1098	68c	61c	54c
CB-523	4¾ x 4½	CU-1099	65c	59c	52c
CB-525	5¾ x 5½	CU-1124, CU-1096	78c	70c	62c

CHASSIS SUPPORTING ANGLES

Distribute weight to sides of the rack to relieve the panel. Angles are 3″ x 1⅜″ x 7/64″ steel. Black enamel finish. **No. CE-2219** designed for attachment to rails of Console Pedestal or Prestige Relay Racks. Slotted for infinite vertical adjustment; extend to full cabinet depth; 21″ x 3″ x 2¾″.

Bud No.	Length, Inches	Weight, Lbs.	Net Per Pair, Lots of 1-24	25-49	50-99
SA-1349	14½	4	$2.25	$2.03	$1.80
SA-1350	12	3	2.17	1.95	1.74
CE-2219	21	7½	3.00	2.70	2.40

DIAL LOCK

The only simple-to-operate, efficient and inexpensive, positive dial lock on the market. Dual purpose design functions as both dial lock and position indicator. Completely eliminates problems of dial slippage and accidental movement. Nickel-plated brass construction.

Bud No. DL-1947 Dial Lock—Net Each.................**17c**

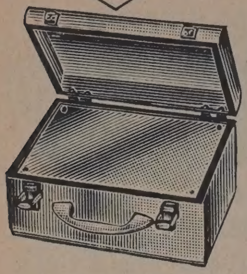
● New product.

WRITE FOR INFORMATION AND PRICES ON BUD CONSOLE AND TABLE ASSEMBLIES.

537X-63A

Cases, Racks, Chassis

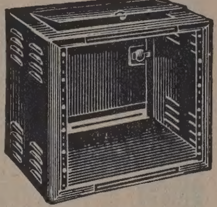
•NEW TRANSICASES



Handsome, portable instrument case with unlimited applications. Contour design fabricated of .040″ aluminum with flush-fitting aluminum panel. Foam-rubber lined lid protects instruments in case; mounted on two slide-off, bright nickel-plated hinges with toggle catches. Rubber feet at both base and back; metal plugs supplied to fill holes if rubber feet are not used. Bright nickel-plated handle. **Specify Color:** Add suffix **SB** for smooth blue; **SG**, for smooth gray enamel.

Bud No.	Inside Panel Size, Inches	Clear Internal Space Below Panel	Clear Internal Space Above Panel	Internal Aperture	Overall Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
TC-300	8 15/16 x 5 15/16	4 13/32″	1 15/32″	8″ x 5 31/32″	10 1/16 x 7 x 6	3¾	$24.95	$22.46	$19.96
TC-301	10⅜ x 7¼	4 13/32″	1 15/32″	9 7/16″ x 7 9/32″	11½ x 8¼ x 6	4½	25.50	22.95	20.40
TC-302	11⅞ x 7 15/16	5 29/32″	1 15/32″	10 15/16″ x 7 31/32″	13 x 9 x 7½	6	26.00	23.40	20.80
TC-303	15⅜ x 7 15/16	5 29/32″	1 15/32″	14 7/16″ x 7 31/32″	16½ x 9 x 7½	8	26.50	23.85	21.20
TC-304	19 x 7	7 11/32″	1 15/32″	18 1/16″ x 7 1/32″	20⅛ x 8 x 9	10	27.90	25.11	22.32

DELUXE CABINET RACKS



Rounded corners, red-lined chrome trim. There is a recessed, hinged door on the top with a snap catch. These racks are made of heavy gauge steel and are of sturdy construction. The five large sizes have a hinged rear door, while the small sizes have a welded panel in the rear. Adequate ventilation is assured by means of louvered sides and a 2½ inch opening in the bottom of the back extends the entire width. "NO-SCRATCH" EXTENDED METAL FEET ARE EMBOSSED ON THE BOTTOM. In black wrinkle (add suffix **"B"** to number when ordering), gray wrinkle (suffix **"G"**), and hammertone gray (suffix **"HG"**). **Size:** 14¾″ x 22″ w. Fits 19″ panels. **Aluminum panel cover supplied.**

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
CR-1726	8 25/32″	7″	24	$15.28	$13.75	$12.22
CR-1741	10 9/16″	8¾″	28	16.70	15.03	13.36
CR-1740	12 5/16″	10½″	31	19.12	17.21	15.30
CR-1742	14 1/16″	12¼″	32	20.12	18.11	16.10
CR-1739	15 13/16″	14″	35	21.96	19.76	17.57
CR-1743*	19 5/16″	17½″	40	26.22	23.60	20.98
CR-1727*	22 13/16″	21″	43	28.06	25.25	22.45
CR-1744*	28 1/16″	26¼″	51	30.14	27.13	24.11
CR-1728*	33 5/16″	31½″	58	31.98	28.78	25.58
CR-1745*	36 13/16″	35″	63	33.65	30.29	26.92

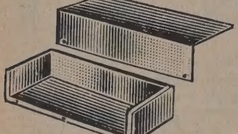
*These sizes have both top and rear doors.

HEAVY-DUTY CABINET RACKS

Similar to above units with Add-A-Cab feature (similar to Add-A-Rack) for continuously expanding systems. Panel mounting rails are integral part of the sides. Removable rear door. Louvered sides and 2½″ x 17⅞″ opening in the bottom of the back assure adequate ventilation. Made of 16 ga. steel. Gray hammertone finish; black or gray wrinkle at 10% additional charge. **Size:** 17⅞″ d. x 22″ w.

CR-1736	24½″	19¼″	50	$26.65	$23.98	$21.32
CR-1737	31½″	26¼″	57	28.75	25.87	23.00
CR-1738	40¼″	35″	70	34.15	30.73	27.32
ACR-1936	Add-A-Cab for CR-1736		42	25.40	22.86	20.32
ACR-1937	Add-A-Cab for CR-1737		52	27.40	24.66	21.92
ACR-1938	Add-A-Cab for CR-1738		57	32.55	29.29	26.04

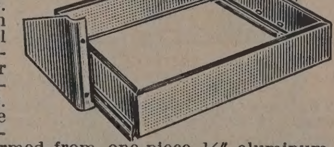
•NEW CONVERTA-BOX



Versatile enclosure combines welded base and two-sided cover. Components or controls are easily mounted to any surface of the unit. All contents easily accessible. Cover and base are fastened by self-tapping screws. Rigid 20 ga. cadmium-plated steel.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CU-341	1½ x 4 x 3	½	$1.90	$1.71	$1.52
CU-452	2 x 5 x 4	1	2.00	1.80	1.60
CU-482	2 x 8 x 5	1¼	2.09	1.88	1.67
CU-592	2½ x 9½ x 6	1¾	2.25	2.03	1.80
CU-622	2½ x 12 x 7	2¾	2.50	2.25	2.00
CU-712	2½ x 15 x 8	3½	3.34	3.01	2.67

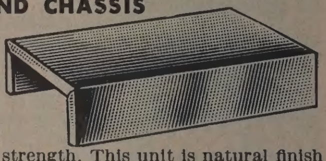
SLIDING DRAWER ASSEMBLY



Ideal for use as a record player mounting base, typewriter base, apparatus and instrument base, writing desk, etc. Installs quickly and simply in any standard rack. Can't fall out or tilt. Provides a completely safe mounting base for anything put on it. Ball bearing suspension for easy sliding. Chassis formed from one-piece 14 gauge aluminum; electro-welded. Support brackets formed from one-piece ⅛″ aluminum. Slide rail fastens securely to chassis, slides in and out easily on channeled ball bearings. Stop screw on slide rail prevents drawer from falling out of channel. Support brackets and channel finished in natural aluminum; chassis, slide and plate finished in light gray hammertone. Will support up to 50 lbs. **Chassis Size:** 16¾″ x 14″ x 3″, with ½″ flange top and bottom. *Fastens to top or bottom.

Bud No.	Description	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
SD-1717	Sliding drawer	5	$11.43	$10.29	$9.14
TP-1718	Drawer plate*	1½	2.56	2.30	2.05

OPEN-END CHASSIS



Primarily intended to be used with the various sizes and styles of Bud metal cabinets, these chassis are ideal for any type of small built-up unit such as a record amplifier, code oscillator, etc. U-shaped construction is used with ends folded over ⅜″ for additional strength. This unit is natural finish aluminum alloy 5005 H-14.

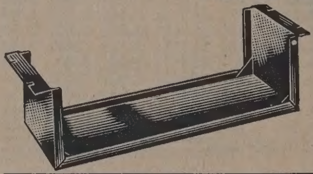
Bud No.	Size, Inches D. x W. x H.	Fits Cabinet Number	Net Each, Lots of 1-24	25-49	50-99
CB-38	7 x 6 x 2	C-1584	$1.00	$0.90	$0.80
CB-30	5 x 7 x 1½	....	.97	.87	.78
CB-41	7 x 7 x 1½	C-973	1.24	1.12	.99
CB-39	7 x 8 x 2	C-1585	1.17	1.05	.94
CB-996	5½ x 9 x 1½	C-993	1.09	.98	.87
CB-976	7½ x 9 x 1½	C-999, CD-1481	1.40	1.26	1.12
CB-40	7 x 10 x 2	C-1586	1.37	1.23	1.10
CB-997	7 x 11 x 1½	C-994, CD-1482	1.30	1.17	1.04
CB-998	7 x 13 x 1½	C-995, CD-1483	1.59	1.43	1.27

MINIATURE ALUMINUM CHASSIS

Small versions of above with ¼″ flange on bottom for bottom plate or fastening. Ideal for limited space uses. Natural finish.

CB-1623	2⅝ x 2¾ x 1¼	....	$0.38	$0.34	$0.30
CB-1624	1¾ x 3⅛ x 1	CU-883	.42	.38	.34
CB-1625	3¼ x 4½ x 2	C-1788	.48	.43	.38
CB-1626	2¾ x 4⅛ x 1	CU-728	.45	.41	.36
CB-1627	3¾ x 4⅛ x 1½	CU-729	.45	.41	.36
CB-1628	3 x 6⅛ x 1¼	C-1788	.53	.48	.42
CB-1629	5¾ x 4⅞ x 1½	CU-1098	.57	.51	.46
CB-1617	4 x 3⅛ x 1	C-1606, C-1610	.41	.37	.33
CB-1618	4 x 4⅛ x 1	C-1607, C-1611	.50	.45	.40
CB-1619	4 x 5⅛ x 1	C-1608, C-1612	.53	.48	.42
CB-1620	4 x 6⅛ x 1	C-1609, C-1613	.55	.50	.44

PANEL CHASSIS



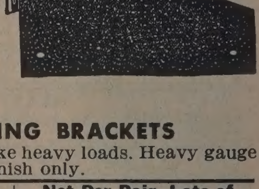
Panel mounting chassis for vertical installation where depth is limited or front service is desired. Made of .062″ aluminum alloy 5005 H-14 in natural finish. Front flange has standard notching. Fits standard 19″ panel space.

Bud No.	Height, Inches	Weight, Lbs.	Net Each, Lots of 1-24	25-49	50-99
CB-1370	1¾	¾	$2.30	$2.07	$1.84
CB-1371	3½	1¼	2.59	2.33	2.07
CB-1372	5¼	1½	2.84	2.56	2.27
CB-1373	7	2	3.26	2.93	2.61
CB-1374	8¾	2¼	3.76	3.38	3.01
CB-1375	10½	2¾	4.43	3.99	3.54
CB-1376	12¼	3	4.84	4.36	3.87
CB-1377	14	3¼	5.34	4.81	4.27

CHASSIS MOUNTING BRACKETS

Mounts chassis to panels, essential when panel supports entire chassis weight. Heavy gauge steel 6½″ high, cut away at bottom to mount flush to panel. Black enamel finish.

Bud No.	Depth, In.	Net Per Pair, Lots of 1-49	50-99	100-149
MB-458	8	$1.09	$0.98	$0.87
MB-448	10	1.35	1.22	1.08
MB-459	11	1.50	1.35	1.20
MB-449	12	1.75	1.58	1.40
MB-460	13	1.69	1.52	1.35
MB-450*	10	1.97	1.77	1.58
MB-451*	13	2.09	1.88	1.67



*8½″ high for chassis height of 4″.

TRIANGULAR MOUNTING BRACKETS

Ideal for rigid support of shelves to take heavy loads. Heavy gauge steel with ¾″ flange. Black enamel finish only.

Bud No.	Height, In.	Depth, In.	Wt., Lbs.	Net Per Pair, Lots of 1-9	10-14	15-19
MB-1266	5	5	1	$1.00	$0.90	$0.80
MB-1267	7	7	1	1.17	1.05	.94
MB-1268	9	9	1½	1.42	1.28	1.14

● New product.

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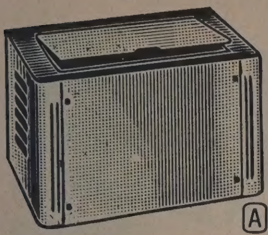
Cabinets and Cases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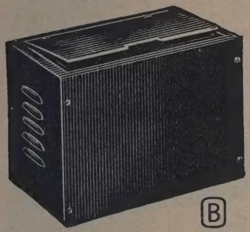
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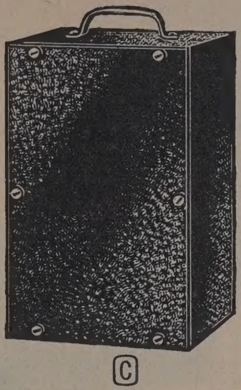
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STREAMLINED CABINETS (FIG. A)

Ideal for housing devices not requiring excessive depth. Recessed, hinged cover with convenient finger lift for access. Panels fit flush with embossed, rounded corner fronts. Recommended for use with Bud Open End Chassis. Back opening 3½" h. provides for cables or rear controls; louvered sides provide ample ventilation. **Size:** 8¼" d. x 8" h., overall. Specify black wrinkle (suffix **"B"**), gray wrinkle (suffix **"G"**) or gray hammertone (suffix **"HG"**) finish.

Bud No.	Width, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CD-1480	10½"	8" x 8"	5¾	$ 5.90	$ 5.31	$ 4.72
CD-1481	12½"	8" x 10"	6	6.01	5.41	4.81
CD-1482	14½"	8" x 12"	6½	6.31	5.68	5.05
CD-1483	16½"	8" x 14"	7	6.77	6.09	5.42
CD-1484	18½"	8" x 16"	7¾	7.36	6.62	5.89
CD-1485*	20⅝"	12" x 18"	15	14.95	13.45	11.96

*Depth is 12"; has ½" vertical chrome strip at corners.

INSTRUMENT AND RECEIVER CABINETS (FIG. B)

Economy version of the Streamlined Cabinet series. Recessed, hinged cover provides access to contents. Front panel is attached with self-tapping screws. Louvers provide ample ventilation. Bud Open End Chassis are suited for use with these units. Black wrinkle finish only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
C-973	7 x 8 x 8	5	$4.18	$3.76	$3.34
C-993	7 x 10 x 8	5½	4.84	4.36	3.87
C-994	7 x 12 x 8	5¾	5.01	4.51	4.01
C-995	7 x 14 x 8	6	5.26	4.73	4.21
C-1190	8 x 16 x 8	7	7.60	6.84	6.08
C-975	9 x 15 x 11	8	9.19	8.27	7.35
C-999	12 x 18 x 12	15	9.92	8.93	7.94

CARRYING CASES (FIG. C)

A versatile cabinet that accepts a variety of equipment. Removable front and back panels; handle may be attached to top. Available in sturdy steel or lightweight aluminum to suit your requirements.

STEEL CASES

Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**) finish when ordering.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CC-1095	5 x 6 x 9	3¼	$3.01	$2.71	$2.41
CC-1091	5 x 9 x 6	3¼	3.01	2.71	2.41
CC-1096	6 x 7 x 12	4	4.18	3.76	3.34
CC-1092	6 x 12 x 7	4	4.18	3.76	3.34
CC-1097	7 x 7¾ x 15	5	4.68	4.21	3.74
CC-1100	8 x 10 x 10	5	4.84	4.36	3.87
CC-1093	7 x 15 x 9	5	5.85	5.27	4.68

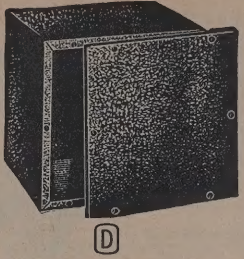
NATURAL FINISH ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
ACC-2095	5 x 6 x 9	1⅛	$3.09	$2.78	$2.47
ACC-2091	5 x 9 x 6	1⅛	3.09	2.78	2.47
ACC-2096	6 x 7 x 12	1⅓	4.50	4.05	3.60
ACC-2092	6 x 12 x 7	1⅓	4.50	4.05	3.60

GRAY HAMMERTONE ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
ACC-2095HG	5 x 6 x 9	1⅛	$3.51	$3.16	$2.81
ACC-2091HG	5 x 9 x 6	1⅛	3.51	3.16	2.81
ACC-2096HG	6 x 7 x 12	1⅓	5.09	4.58	4.07
ACC-2092HG	6 x 12 x 7	1⅓	5.09	4.58	4.07

*Aluminum alloy 5005 H-14.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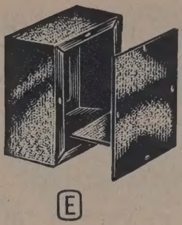
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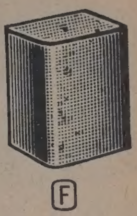
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METAL UTILITY CABINETS (FIG. D)

Highly useful housing for all types of electronic equipment such as mixers, monitors, frequency meters, etc. Both front and back panels are removable for easy accessibility.

STEEL CABINETS

Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**) finish.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
CU-883	2 x 4 x 4	¾	$1.09	$0.98	$0.87
CU-728	3 x 5 x 4	⅞	1.22	1.10	.98
CU-729	4 x 5 x 6	1¼	1.38	1.24	1.10
CU-1098	6 x 6 x 6	2½	2.09	1.88	1.67
CU-1099	5 x 6 x 9	3	2.34	2.11	1.87
CU-879	7 x 8 x 10	5	3.34	3.01	2.67
CU-1124	6 x 7 x 12	4	3.29	2.96	2.63
CU-880	8 x 10 x 10	5½	4.01	3.61	3.21
CU-881	8 x 11 x 12	6	4.34	3.91	3.47
CU-882	7 x 9 x 15	7½	4.51	4.06	3.61

NATURAL FINISH ALUMINUM CABINETS*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
AU-1083	2 x 4 x 4	¼	$1.29	$1.16	$1.03
AU-1028	3 x 5 x 4	¼	1.37	1.23	1.10
AU-1029	4 x 5 x 6	½	1.50	1.35	1.20
AU-1039	6 x 6 x 6	¾	2.17	1.95	1.74
AU-1040	5 x 6 x 9	1	2.51	2.26	2.01

GRAY HAMMERTONE ALUMINUM CABINETS*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
AU-1083HG	2 x 4 x 4	¼	$1.50	$1.35	$1.20
AU-1028HG	3 x 5 x 4	¼	1.67	1.50	1.34
AU-1029HG	4 x 5 x 6	½	1.84	1.66	1.47
AU-1039HG	6 x 6 x 6	¾	2.42	2.18	1.94
AU-1040HG	5 x 6 x 9	1	2.84	2.56	2.27

*Aluminum alloy 5005 H-14.

MINIATURE UTILITY CABINETS (FIG. E)

Ideal housing for construction of electronic devices using miniature tubes and transistorized circuitry. Front panel has a built-on chassis. Both front and rear panels are removable; fastened by self-tapping screws. Black wrinkle enamel finish.

Bud No.	Size, In. H. x W. x D.	Chassis W. x D., In.	Net Each, Lots of 1-49	50-99	100-149
C-1793	4 x 4 x 2	3⅛ x 1⅞*	$1.34	$1.21	$1.07
C-1794	4 x 5 x 3	4⅛ x 2⅞*	1.48	1.33	1.18
C-1795	5 x 4 x 3	3⅛ x 2⅞†	1.62	1.46	1.30
C-1796	6 x 5 x 4	4⅛ x 3⅞‡	1.70	1.53	1.36
C-1797	5 x 6 x 4	5⅛ x 3⅞†	1.92	1.73	1.54
C-1798	6 x 6 x 6	4⅞ x 5⅞‡	2.17	1.95	1.74

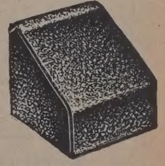
*1" high. †1¼" high. ‡1¾" high.

STREAMLINED MULTI-PURPOSE CABINETS (FIG. F)

Attractive cabinet with curved corners; uses chassis No. CB-1625. Back is entirely open for ventilation. Finished in light gray wrinkle only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
C-1787	4½ x 5½ x 3½	1	$1.70	$1.53	$1.36
C-1788	6½ x 5½ x 3½	1½	1.75	1.58	1.40

UNIVERSAL SLOPING PANEL CABINETS



Fully enclosed and shielded housing with one-piece detachable back and sides fastened to body with four self-tapping screws. Components may be mounted on back, bottom, sides or front. Will accommodate Bud Miniature Aluminum Chassis. **Size:** 4" d. x 4¼" h. Gray hammertone finish only.

ALUMINUM MODELS

Aluminum alloy 5005 H-14.

Bud No.	Uses Chassis	Width	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
AC-1610	CB-1617	4"	½	$1.68	$1.51	$1.34
AC-1611	CB-1618	5"	½	1.75	1.57	1.40
AC-1612	CB-1619	6"	¾	1.90	1.71	1.52
AC-1613	CB-1620	7"	¾	2.10	1.89	1.68

STEEL MODELS

Bud No.	Uses Chassis	Width	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
C-1606	CB-1617	4"	¾	$1.45	$1.30	$1.16
C-1607	CB-1618	5"	¾	1.55	1.39	1.24
C-1608	CB-1619	6"	1⅛	1.65	1.48	1.32
C-1609	CB-1620	7"	1⅛	1.90	1.71	1.52

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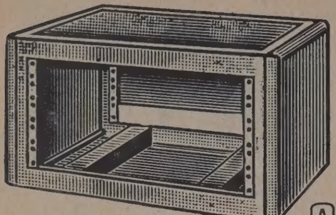
BUD Equipment Cabinets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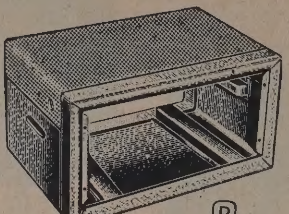
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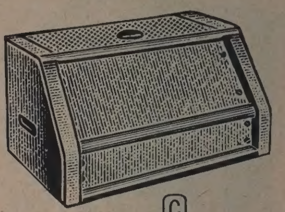
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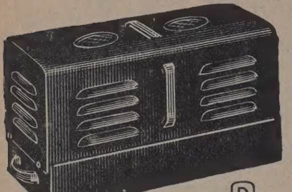
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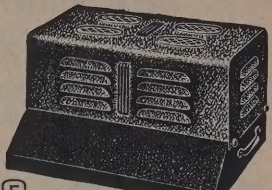
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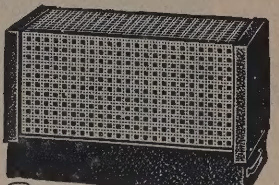
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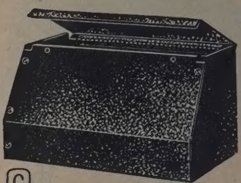
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PRESTIGE VERSA-CABINETS (FIG. A)

Sturdy framework with ball cornered sides, perforated back, solid bottom plate and two supporting channels. Front, back, top and bottom are removable for easy access; also accept 19″ panels for full closure; top panel may be perforated. An opening, 1¾″ x 19″, across the bottom of the back is supplied for controls, knobs, leads, etc.; may be covered with PS-1250 or PA-1101 panels if desired. Sides, attached by holding flanges and nut, may be removed to join one or more cabinets together, using holes supplied in frame; units may also be stacked similarly. Handles may be attached to sides if desired. Comes complete with 4 rubber mounting feet. Top may be closed, using PS-1256HG or PA-1107HG solid panels, PS-616HG or PS-815HG door panels, or PC-1710 perforated panel. **Size:** 23 3/16″ w. x 15 25/32″ d. overall. Gray hammertone finish only. Weight, 28 to 35 lbs.

VERSA-CABINETS

Bud No.	Height, Overall	Panel Space	Rear Panel	Net Each, Lots of		
				1-14	15-24	25-34
PC-1700	8¾″	5¼″	3½″	$27.25	$24.52	$21.80
PC-1701	10½″	7″	5¼″	28.92	26.03	23.14
PC-1702	12¼″	8¾″	7″	30.75	27.67	24.60
PC-1703	14″	10½″	8¾″	33.50	30.15	26.80
PC-1704	15¾″	12¼″	10½″	35.25	31.72	28.20

PERFORATED STEEL TOP PLATE

Bud No.	Size, In.	Wt., Lbs.	Net Each, Lots of		
			1-49	50-99	100-149
PC-1710	12¼ x 19	2½	$2.70	$2.43	$2.16

STANDARD PRESTIGE CABINETS (FIG. B)

Hinged solid or perforated cover with smooth grommet finger holes for easy lifting. Cabinet supplied with two supporting rails, laterally movable to fit any chassis width. Two safety shielded handle slots supplied. Made of 16 gauge steel. Takes standard 19″ panels. Complete with embossed feet. **Size:** 21⅝″ w. x 14¾″ d. overall. Gray hammertone finish only.

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-14	15-24	25-34
C-1440	9½″	7″	26	$28.22	$25.40	$22.58
C-1441	11¼″	8¾″	27	30.06	27.05	24.05
C-1442	13″	10½″	29	32.82	29.54	26.26
C-1550*	9½″	7″	26	30.56	27.50	24.45
C-1551*	11¼″	8¾″	27	32.73	29.46	26.18
C-1552*	13″	10½″	29	35.57	32.01	28.46

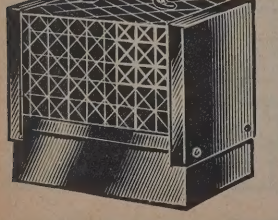
*With perforated cover; others solid.

PRESTIGE SLOPING PANEL CABINETS (FIG. C)

Ventilated top opens completely. Removable panel trim bar permits installation or removal of panels with chassis attached. Top panel is swept back for easy viewing. Takes standard 19″ panels. Shielded lifting handles. Rear opening 2½″ x 18″ for controls, etc.; panel recess 1¼″; bottom panel 3½″ high. **Size:** 22″ w. x 9″ top depth. Gray hammertone finish only. Weight, 26, 28 and 31 lbs.

Bud No.	Size, In. H. x D.	Slope Height	Net Each, Lots of		
			1-14	15-24	25-34
C-1555	11⅞ x 14⅜	7″	$36.00	$32.40	$28.80
C-1556	13¼ x 15⅛	8¾″	38.65	34.78	30.92
C-1557	14¾ x 16⅛	10½″	41.45	37.30	33.16

MINIATURE AMPLIFIER FOUNDATION



With the increased use of miniature tubes, smaller cabinets can be used when designing a compact amplifier. This amplifier foundation was designed expressly for this purpose. The chassis is 5″ x 7″ x 2″. Height, 6″. The cover is made of perforated metal. A streamlined handle makes this cabinet portable. Black wrinkle only. Net Wt., 1½ lbs.

Bud No.	Net Each, Lots of		
	1-24	25-49	50-99
CA-1754	$4.00	$3.60	$3.20

STREAMLINED FOUNDATIONS (FIG. D)

Attractive unit houses amplifiers and similar apparatus. Standard chassis with removable top cover with chrome trim. Sides and ends louvered. Handles attached to chassis. Overall height, 9″; chassis 2 5/16″ high. Specify black wrinkle (suffix **"B"**), or gray wrinkle (suffix **"G"**).

Bud No.	Size, In. W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
CA-1750	10 1/16 x 5	4¾	$6.76	$6.08	$5.41
CA-1751	12 1/16 x 7	5	8.02	7.22	6.42
CA-1752	17 1/16 x 7	8	8.52	7.67	6.82
CA-1753	17 1/16 x 10	9	9.27	8.34	7.42

SLOPING PANEL FOUNDATIONS (FIG. E)

Removable top cover mounted on 3½″ sloping front chassis. Cover is gray wrinkle with chrome trim; chassis is black wrinkle. Overall height, 9½″.

Bud No.	Chassis W. x D.	Top Depth	Wt., Lbs.	Net Each, Lots of		
				1-24	25-49	50-99
CA-1980	10″ x 8″	5″	5	$ 8.68	$ 7.81	$6.94
CA-1981	12″ x 10″	7″	6	9.35	8.42	7.48
CA-1982	17″ x 10″	7″	8	10.69	9.62	8.55
CA-1983	17″ x 13″	10″	10	11.19	10.07	8.95

STANDARD FOUNDATIONS (FIG. F)

Standard chassis with perforated cover for maximum ventilation. Handles are attached to chassis. Chassis 2½″ h., except CA-1128, 3″ h. Overall height, 8 5/16″, except CA-1128, 8 13/16″. Black wrinkle finish only.

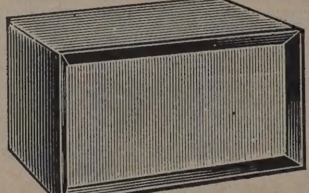
Bud No.	Size, Inches W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
CA-699	9⅝ x 5⅛	3	$5.61	$5.05	$4.49
CA-1125	13⅝ x 5⅛	4¾	6.43	5.79	5.14
CA-1126	17⅛ x 7⅛	6	7.26	6.53	5.81
CA-1128	12⅛ x 10⅛	7	7.52	6.77	6.02

SLOPING PANEL CABINETS (FIG. G)

Hinged top for easy access; front panel also removable. Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**).

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
C-1584	6½ x 7 1/16 x 7 5/16	2½	$3.30	$2.97	$2.64
C-1587	8 x 8 1/16 x 8	2¾	4.51	4.06	3.61
C-1585	6½ x 9 1/16 x 7 5/16	3	3.75	3.38	3.00
C-1588	8 x 10 1/16 x 8	3¼	5.01	4.51	4.01
C-1586	6½ x 11 1/16 x 7 5/16	3½	4.34	3.91	3.47
C-1894	8 x 14 1/16 x 8	4	5.34	4.81	4.27
C-1892	8 x 13 1/16 x 8½	5¼	5.95	5.36	4.76
C-1896	9 x 18 1/16 x 8⅛	7	7.68	6.91	6.14
C-1893	10 x 18 1/16 x 10½	8½	7.85	7.07	6.28

SHADOW CABINET



Extremely versatile housing with both front and rear panels and bottom panel removable for installation or servicing purposes. Front panel is recessed one inch to prevent accidental movement of knobs, etc., attached to it. Front edge of body is beveled. The two-piece body is of 18 gauge steel and the panels are of 16 gauge steel. Finish is light gray hammertone. Four rubber feet, attached to the bottom, eliminate marring of surfaces on which it may be placed.

Bud No.	Overall Size, Inches			Uses Bud Chassis No.	Net Each, Lots of		
	Width	Height	Depth		1-24	25-49	50 Over
SB-2140	14¼	8	10	AC-424, CB-704	$6.50	$5.85	$5.20
SB-2141	13¼	7½	9	AC-407, CB-1193	5.00	4.50	4.00
SB-2142	17	9½	11½	AC-411, CB-666	8.85	7.97	7.08
SB-2143	15½	6	9	AC-409, CB-1194	4.85	4.37	3.88

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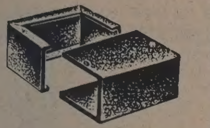
Boxes, Baffles, Cases

MINIBOXES, HANDY BOXES



Design of this box permits installation of more components than would be possible in the conventionally designed boxes the same size. Two-piece construction. **Either snap-lock or screw type.** The flange type construction assures adequate shielding. Made from heavy .040 ga. aluminum. Available in natural aluminum finish and gray hammertone finish.

GRAY HAMMERTONE MINIBOXES

Bud No.	Size, Inches L. x H. x W.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
CU-2100A	2¾ x 2⅛ x 1⅝	¼	**$0.74**	**$0.67**	**$0.59**
CU-2101A	3¼ x 2⅛ x 1⅝	¼	**.76**	**.68**	**.61**
CU-2102A	4 x 2⅛ x 1⅝	¼	**.80**	**.72**	**.64**
CU-2103A	4 x 2¼ x 2¼	¼	**.90**	**.81**	**.72**
CU-2104A	5 x 2¼ x 2¼	¼	**.95**	**.86**	**.76**
CU-2105A	5 x 4 x 3	½	**1.20**	**1.08**	**.96**
CU-2106A	5¼ x 3 x 2⅛	¼	**1.02**	**.92**	**.82**
CU-2107A	6 x 5 x 4	¾	**1.50**	**1.35**	**1.20**
CU-2108A*	7 x 5 x 3	¾	**1.65**	**1.49**	**1.32**
CU-2109A*	8 x 6 x 3½	1	**2.10**	**1.89**	**1.68**
CU-2110A*	10 x 6 x 3½	1¼	**2.35**	**2.12**	**1.88**
CU-2111A*	12 x 7 x 4	1¾	**3.20**	**2.88**	**2.56**
CU-2112A*	17 x 5 x 4	2¼	**3.20**	**2.88**	**2.56**
CU-2113A*	10 x 2 x 1⅝	½	**1.20**	**1.08**	**.99**
CU-2114A*	12 x 2½ x 2¼	¾	**1.55**	**1.40**	**1.24**
CU-2115A	4 x 2 x 2¾	¼	**.92**	**.83**	**.74**
CU-2116A	4¼ x 2¼ x 1½	¼	**.92**	**.83**	**.74**
CU-2117A	3¼ x 2⅛ x 1⅛	¼	**.78**	**.70**	**.62**

*.050″ aluminum.

NATURAL FINISH MINIBOXES

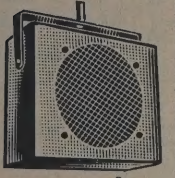
CU-3000A	2¾ x 2⅛ x 1⅝	¼	**$0.59**	**$0.53**	**$0.47**
CU-3001A	3¼ x 2⅛ x 1⅝	¼	**.61**	**.55**	**.49**
CU-3002A	4 x 2⅛ x 1⅝	¼	**.64**	**.58**	**.51**
CU-3003A	4 x 2¼ x 2¼	¼	**.72**	**.65**	**.58**
CU-3004A	5 x 2¼ x 2¼	¼	**.76**	**.68**	**.61**
CU-3005A	5 x 4 x 3	½	**.96**	**.86**	**.77**
CU-3006A	5¼ x 3 x 2⅛	¼	**.82**	**.74**	**.66**
CU-3007A	6 x 5 x 4	¾	**1.20**	**1.08**	**.96**
CU-3008A	7 x 5 x 3	¾	**1.32**	**1.19**	**1.06**
CU-3009A	8 x 6 x 3½	1	**1.68**	**1.51**	**1.34**
CU-3010A	10 x 6 x 3½	1¼	**1.88**	**1.69**	**1.50**
CU-3011A	12 x 7 x 4	1¾	**2.56**	**2.30**	**2.05**
CU-3012A	17 x 5 x 4	2¼	**2.56**	**2.30**	**2.05**
CU-3013A	10 x 2 x 1⅝	½	**.96**	**.86**	**.77**
CU-3014A	12 x 2½ x 2¼	¾	**1.24**	**1.12**	**.99**
CU-3015A	4 x 2 x 2¾	¼	**.74**	**.67**	**.59**
CU-3016A	4¼ x 2¼ x 1½	¼	**.74**	**.67**	**.59**
CU-3017A	3¼ x 2⅛ x 1⅛	¼	**.62**	**.56**	**.50**

HANDY BOXES

Similar to Miniboxes in design and construction, except made of 22 gauge steel. Black wrinkle finish only. Screw type only.

HB-1621	4¼ x 2¼ x 1½	½	**$1.15**	**$1.04**	**$0.92**
HB-1622	4 x 2 x 2¾	½	**1.17**	**1.05**	**.94**

SILVER SONANCE BAFFLES



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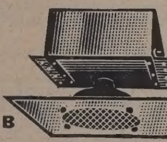


B

Universal Enclosures Bud Adjustable Mount-Bracket (**shown in Fig. A and listed below**) permits adjustment to any angle in a horizontal position. Hole in bracket passes ½″ conduit, permitting any of the speaker housings to be suspended from the ceiling. Bi-lateral feature permits sound to come from both front and back. Made of heavy gauge steel. Sound-deadening compound eliminates metallic resonance. All screws and nuts furnished for mounting speaker. No holes to drill. Light gray hammertone finish, except CS-2270, 71, 72 and 73, primer finish only.

BAFFLES (FIG. A)

Bud No.	For Spkr. Dia., In.	Size, Inches H. x W. x D.	Net Each, Lots of 1-24	25-49	50-99
CS-2240	4, 5	7¼ x 6¾ x 3 15/32	**$ 4.92**	**$ 4.43**	**$3.94**
CS-2241	5, 5½, 6	8¼ x 7½ x 4	**5.33**	**4.80**	**4.26**
CS-2242	6, 8	10 37/64 x 9½ x 5 1/16	**8.58**	**7.72**	**6.86**
CS-2243	10, 12	15 1/32 x 13½ x 7 13/64	**11.67**	**10.50**	**9.34**
CS-2270	4, 5	7¼ x 6¾ x 3 15/32	**4.58**	**4.12**	**3.66**
CS-2271	5, 5½, 6	8¼ x 7½ x 4	**4.84**	**4.36**	**3.87**
CS-2272	6, 8	10 37/64 x 9½ x 5 1/16	**8.16**	**7.34**	**6.53**
CS-2273	10, 12	15 1/32 x 13½ x 7 13/64	**11.15**	**10.04**	**8.92**

MOUNTING BRACKETS

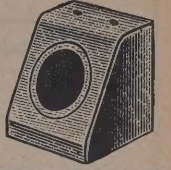
Bud No.	For Baffle	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
AB-2250	CS-2240	¾	**$1.14**	**$1.03**	**$0.91**
AB-2251	CS-2241	1	**1.14**	**1.03**	**.91**
AB-2252	CS-2242	1¼	**1.41**	**1.27**	**1.13**
AB-2253	CS-2243	2¾	**1.65**	**1.49**	**1.32**

RECESSED CEILING, WALL ENCLOSURES (FIG. B)

Suitable for an 8″ speaker. Adjustable brackets make the housing ideal for old and new installations. Treated with sound deadening compound. Grille plate is a 14″ square for use with acoustical tile ceiling. Depth, 4 1/16″. Housing dimensions, 10″ x 10″ x 4″.

Bud No.	Description	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CS-2244	Gray housing with grille	8¼	**$10.00**	**$9.00**	**$8.00**
CS-2274	Primer housing with grille	8¼	**9.69**	**8.72**	**7.75**
CS-2245	Gray grille plate only	4	**2.20**	**1.98**	**1.76**
CS-2275	Primer grille plate only	4	**2.00**	**1.80**	**1.60**

UNIVERSAL METER CASES



Center hole punched for 2″ meters, plus easily removed knock-out ring to provide fit for 3″ meters. Single piece detachable back and sides fastened to case with self-tapping screws for easy installation and servicing. Two ⅜″ knock-out holes in top provide for installation of feed-through insulators, switches, volume controls, etc. Gray hammertone finish only. **Size:** 4¼″ h. x 4″ w. x 4″ d.

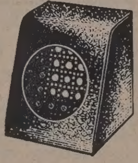
Bud No.	Construction	Weight, Lbs.	Net Each, Lots of 1-49	50-99	100-149
CM-1935	Steel	1	**$1.22**	**$1.10**	**$0.98**
CMA-1936	Aluminum	¾	**1.47**	**1.32**	**1.18**

•NEW WIDE UNIVERSAL METER CASE

Same as above, except extra wide to permit installation of small components along with a meter or accommodate a 4″ meter. Made of 5005 H-14 aluminum. **Size:** 4¼″ h. x 6″ w. x 4″ d.

CMA-1930	Aluminum	¾	**$2.40**	**$2.16**	**$1.92**

MINIATURE SPEAKER CASES



Safe, convenient steel housing for 2″ and 3″ speakers. Black wrinkle finish only.

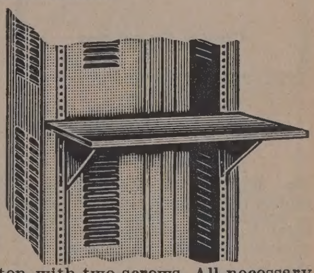
Bud No.	For Size Speaker	Net Each, Lots of 1-24	25-49	50-99
CS-1685	2″	**$1.58**	**$1.42**	**$1.26**
CS-1686	3″	**1.58**	**1.42**	**1.26**

WALL TYPE SPEAKER CASES

Steel speaker cases for table or wall use; similar in appearance to Miniature cases, above. Keyway holes are provided for wall mounting; embossed feet for table use. Unaffected by weather; will not warp or split. Brown wrinkle enamel finish only.

Bud No.	For Speaker	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CS-1948	4″	7½ x 6½ x 4¼	1¾	**$2.67**	**$2.40**	**$2.14**
CS-1939	5″	7½ x 6½ x 4¼	1¾	**2.75**	**2.48**	**2.20**
CS-1940	6″	9½ x 8 x 5⅝	3	**3.26**	**2.93**	**2.61**
CS-1941	8″	11½ x 9½ x 7	4	**4.01**	**3.61**	**3.21**
CS-1942	10″	13½ x 11½ x 8¼	5	**5.01**	**4.51**	**4.01**
CS-1943	12″	15½ x 13½ x 9¾	6	**6.10**	**5.49**	**4.88**

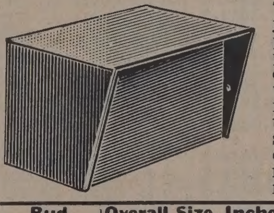
SHELF ASSEMBLY



Immediately adds extra utility to a standard rack at very little cost. Useful as a desk, work space, etc. Gray or black wrinkle finish or gray hammertone finish will match all standard Bud rack finishes. Can't fall off or tilt; will support any reasonable weight. Shelf portion supported by two brackets, punched to fit standard panel mounting strips. No panel support needed but can be attached over panel if desired. Slides welded to bottom of shelf; mounting brackets slip into slides and fasten with two screws. All necessary hardware furnished. Formed of 16 gauge steel; ½″ flange on all four sides; overall height, 7⅛″. Brackets are 7″ high. Specify finish.

Bud No.	Size, Inches D. x W.	Weight, Lbs.	Net Each, Lots of 1-14	15-24	25-34
SA-1719	16 x 22	14	**$10.40**	**$9.36**	**$8.32**
SA-1720	20 x 22	15	**10.55**	**9.50**	**8.44**

COWL-TYPE MINIBOX



The cowl-type Minibox has a projecting cover to reduce glare on the panel from overhead lighting. It also provides protection for controls and dials. Cover has two box braces to which bottom is attached with sheet metal screws. When assembled, this type of construction results in a sturdy, rigid housing. Constructed of .040″ aluminum and available in natural or light hammertone gray finish.

Bud No.	Overall Size, Inches H.	W.	D.	Net Each, Lots of 1-49	50-99	100 & Over
SC-2130*	6	10	7	**$5.95**	**$5.36**	**$4.76**
SC-2131*	7	12	8	**6.50**	**5.85**	**5.20**
SC-2132*	3	8	5	**3.45**	**3.11**	**2.76**
SC-2133*	5	5	5	**3.60**	**3.24**	**2.88**
SC-3030†	6	10	7	**4.30**	**3.87**	**3.44**
SC-3031†	7	12	8	**4.70**	**4.23**	**3.76**
SC-3032†	3	8	5	**2.45**	**2.21**	**1.96**
SC-3033†	5	5	5	**2.60**	**2.34**	**2.08**

*Painted light gray hammertone. †Natural aluminum finish.
● New product.

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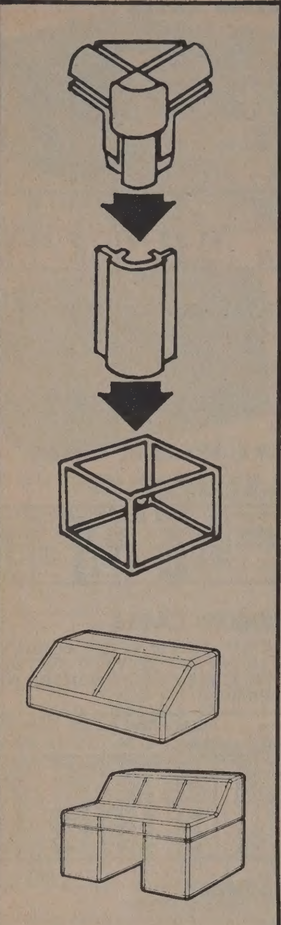
Imlok "Prototyper" Cabinets



Typical Structures

SPECIAL CONNECTORS, ACCESSORIES

No. BI-1003—T-junction connector permits making "T" with 2 lengths of extrusions; also used for picture frame effect. Fits 90° external extrusions.

No. BI-1005—90° table-top or foot connector used in place of radiused corner; has well to hold glass or wood table-top. Used also as foot or as wall mount. One leg fits 90° external extrusion; other two fit BI-2009.

No. BI-1008—Stacking plate for use with BI-1005 to permit stacking.

No. BI-1009—90° spacer bar cruciform connector.

No. BI-4001—Package of 50 friction clips; for assembly without use of screws.

No. BI-4302—Concealed brass hinge fits 90° extrusions; 3 mounting holes take 6-32 or 10-32 screws.

No. BI-4601—Chrome plated ventilation ring for dress-up. Used in addition to slots and louvers. Clips (supplied) into 2⅝" hole. Has stainless steel gauze.

Bud No.	Net Each, Lots of		
	1-14	15-24	25 Up
BI-1003	$0.96	$0.86	$0.77
BI-1005	1.26	1.13	1.01
BI-1008	.63	.57	.50
BI-1009	1.76	1.58	1.41
BI-4001	1.26	1.13	1.01
BI-4302	1.76	1.58	1.41
BI-4601	2.87	2.58	2.30

System of metal cabinet construction, ideal for research and prototype work, permits quick assembly of cases, cabinets and racks using the simplest of tools. Complex structures may be built to your design using a variety of corner castings and extrusions held rigidly with friction clips or screws. Panels may be cut to size from sheet aluminum or steel, fitted grooves or screw fastened. No grinding or welding needed.

EXTERNAL CORNER CONNECTORS

Bud No.	Description	Net Each, Lots of		
		1-14	15-24	25 Up
BI-1001	90° basic corner connector for rectangular cabinets. Use with BI-2004, BI-2014, BI-2024, BI-2034, BI-2044, BI-2054 or BI-2064 extrusions.	$0.96	$0.86	$0.77
BI-1016	67½° corner connector holds vertical wall and horizontal wall to a third rising at 67½° to the horizontal. One leg fits BI-2041 extrusion; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1024	60° corner connector similar to BI-1016. One leg fits BI-2081; other legs fit any 90° external extrusion.	1.35	1.22	1.08
BI-1002	45° corner connector similar to BI-1016. One leg fits BI-2005, BI-2015, or BI-2025; other two legs fit any 90° external extrusion.	.96	.86	.77
BI-1020	30° corner connector similar to BI-1016. One leg fits BI-2061; other two legs fit any 90° external extrusion.	1.35	1.22	1.08
BI-1012	22½° corner connector similar to BI-1016. One leg fits BI-2021; other two legs fit any 90° external extrusion.	1.35	1.22	1.08

EXTERNAL STANDARD EXTRUSIONS

Bud No.	Description	Net Each, Lots of		
		1-9	10-14	15 Up
BI-2004	12 ft. long, 90° external extrusion most used; has panel retaining groove on each flange for 0.050" panels. Ideal for small to medium sized structures with unbraced spaces up to 2 ft. long.	$ 7.44	$ 6.70	$ 5.95
BI-2004-3	3 ft. length BI-2004	2.18	1.96	1.74
BI-2004-6	6 ft. length BI-2004	4.13	3.72	3.30
BI-2004-9	9 ft. length BI-2004	5.93	5.34	4.74
BI-2064	12 ft. long, 90° extrusion with panel retaining flange to take 20 gauge panels.	8.27	7.44	6.62
BI-2064-3	3 ft. length BI-2064	2.40	2.16	1.92
BI-2064-6	6 ft. length BI-2064	4.58	4.10	3.64
BI-2064-9	9 ft. length BI-2064	6.53	5.88	5.22
BI-2041	12 ft. long, 67½° extrusion; companion to BI-1016 for unbraced spans up to 3 ft. long.	11.37	10.23	9.10
BI-2041-3	3 ft. length BI-2041	3.30	2.97	2.64
BI-2041-6	6 ft. length BI-2041	6.30	5.67	5.04
BI-2041-9	9 ft. length BI-2041	9.00	8.10	7.20
BI-2081	12 ft. long, 60° extrusion; companion to BI-1024 connector. For unbraced spans up to 3 ft. long.	11.37	10.23	9.10
BI-2081-3	3 ft. length BI-2081	3.30	2.97	2.64
BI-2081-6	6 ft. length BI-2081	6.30	5.67	5.04
BI-2081-9	9 ft. length BI-2081	9.00	8.10	7.20
BI-2005	12 ft. long, 45° extrusion used with BI-1002 connector; for spans up to 2 ft. long.	8.00	7.20	6.40
BI-2005-3	3 ft. length BI-2005	2.33	2.10	1.86
BI-2005-6	6 ft. length BI-2005	4.43	3.99	3.54
BI-2005-9	9 ft. length BI-2005	6.30	5.67	5.04
BI-2061	12 ft. long, 30° extrusion used with BI-1020 connector.	11.37	10.23	9.10
BI-2061-3	3 ft. length BI-2061	3.30	2.97	2.64
BI-2061-6	6 ft. length BI-2061	6.30	5.67	5.04
BI-2061-9	9 ft. length BI-2061	9.00	8.10	7.20
BI-2021	12 ft. long, 22½° extrusion used with BI-1012 connector.	11.37	10.23	9.10
BI-2021-3	3 ft. length BI-2021	3.30	2.97	2.64
BI-2021-6	6 ft. length BI-2021	6.30	5.67	5.04
BI-2021-9	9 ft. length BI-2021	9.00	8.10	7.20
BI-2014	12 ft. long, 90° strengthened extrusion similar to BI-2004 but stronger for use in unbraced spans up to 3 ft. long.	8.27	7.44	6.62
BI-2014-3	3 ft. length BI-2014	2.40	2.16	1.92
BI-2014-6	6 ft. length BI-2014	4.58	4.12	3.66
BI-2014-9	9 ft. length BI-2014	6.53	5.89	5.22
BI-2015	12 ft. long, 45° external strengthened extrusion used in place of BI-2005 in unbraced spans up to 3 ft. long.	9.65	8.69	7.72
BI-2015-3	3 ft. length BI-2015	2.78	2.50	2.22
BI-2015-6	6 ft. length BI-2015	5.33	4.80	4.26
BI-2015-9	9 ft. length BI-2015	7.65	6.89	6.12
BI-2054	12 ft. long, 90° strengthened extrusion with two 11/16" extended flanges to take standard ⅛"; retaining groove at root of flanges.	12.78	11.50	10.22
BI-2054-3	3 ft. length BI-2054	3.68	3.31	2.94
BI-2054-6	6 ft. length BI-2054	7.05	6.35	5.64
BI-2054-9	9 ft. length BI-2054	10.13	9.12	8.10
BI-2024	12 ft. long, 90° strengthened extrusion with one flange extended ⅝" to fit ⅛" panel; other has normal panel-retaining groove.	10.25	9.23	8.20
BI-2024-3	3 ft. length BI-2024	3.00	2.70	2.40
BI-2024-6	6 ft. length BI-2024	5.70	5.13	4.56
BI-2024-9	9 ft. length BI-2024	8.10	7.29	6.48
BI-2025	12 ft. long, 45° strengthened extrusion with one ⅝" extended flange for ⅛" panel and one normal panel-retaining groove flange.	10.83	9.75	8.66
BI-2025-3	3 ft. length BI-2025	3.15	2.84	2.52
BI-2025-6	6 ft. length BI-2025	6.00	5.40	4.80
BI-2025-9	9 ft. length BI-2025	8.55	7.70	6.84
BI-2034	12 ft. long, 90° heavy-duty extrusion takes loadings for spans over 3 ft. long. Additional returns reinforce strength. Flanges are both ⅝" deep.	16.79	15.11	13.43
BI-2034-3	3 ft. length BI-2034	4.88	4.39	3.90
BI-2034-6	6 ft. length BI-2034	9.30	8.37	7.44
BI-2034-9	9 ft. length BI-2034	13.28	11.95	10.62
BI-2044	12 ft. long, 90° reinforcing angle screws to return flanges of BI-2034 for extra rigid, boxed in section. Use with heavy-duty BI-1011 spacer bar and BI-2018 and BI-2028 extrusions to build almost any size structure.	6.66	5.99	5.33
BI-2044-3	3 ft. length BI-2044	2.45	2.21	1.96
BI-2044-6	6 ft. length BI-2044	3.68	3.31	2.94
BI-2044-9	9 ft. length BI-2044	5.25	4.73	4.20

532-62A

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Imlok "Prototyper" Cabinets

INTERNAL EXTRUSIONS

Bud No.	Description	Net Each, Lots of		
		1-9	10-14	15 Up
BI-2032	12 ft. long, 90° internal extrusion to fit BI-1028; has two panel retaining grooves; for unbraced spans up to 3 ft. long.	$12.81	$11.53	$10.25
BI-2032-3	3 ft. length BI-2032	3.75	3.38	3.00
BI-2032-6	6 ft. length BI-2032	7.05	6.35	5.64
BI-2032-9	9 ft. length BI-2032	10.15	9.14	8.12
BI-2051	12 ft. long, 67½° internal extrusion to fit BI-1017 connector. For use in unbraced spans up to 3 ft.	11.37	10.23	9.10
BI-2051-3	3 ft. length BI-2051	3.30	2.97	2.64
BI-2051-6	6 ft. length BI-2051	6.30	5.67	5.04
BI-2051-9	9 ft. length BI-2051	9.00	8.10	7.20
BI-2091	12 ft. long, 60° internal extrusion; fits BI-1025 connector.	11.37	10.23	9.10
BI-2091-3	3 ft. length BI-2091	3.30	2.97	2.64
BI-2091-6	6 ft. length BI-2091	6.30	5.67	5.04
BI-2091-9	9 ft. length BI-2091	9.00	8.10	7.20
BI-2006	12 ft. long, 45° internal extrusion has two ⅝" flanges, one with panel-retaining groove. For flat-topped, sloping front cabinets.	11.66	10.49	9.33
BI-2006-3	3 ft. length BI-2006	3.38	3.04	2.70
BI-2006-6	6 ft. length BI-2006	6.45	5.81	5.16
BI-2006-9	9 ft. length BI-2006	9.23	8.31	7.38
BI-2071	12 ft. long, 30° internal extrusion; fits BI-1021 connector.	11.37	10.23	9.10
BI-2071-3	3 ft. length BI-2071	3.30	2.97	2.64
BI-2071-6	6 ft. length BI-2071	6.30	5.67	5.04
BI-2071-9	9 ft. length BI-2071	9.00	8.10	7.20
BI-2031	12 ft. long, 22½° internal extrusion; fits BI-1013 connector.	11.37	10.23	9.10
BI-2031-3	3 ft. length BI-2031	3.30	2.97	2.64
BI-2031-6	6 ft. length BI-2031	6.30	5.67	5.04
BI-2031-9	9 ft. length BI-2031	9.00	8.10	7.20

SPACER BAR AND TABLE-TOP EXTRUSIONS

BI-2008	12 ft. long, spacer bar extrusion used to subdivide panels or act as cross-bracing members.	$20.33	$18.30	$16.26
BI-2008-3	3 ft. length BI-2008	5.85	5.27	4.68
BI-2008-6	6 ft. length BI-2008	11.18	10.06	8.94
BI-2008-9	9 ft. length BI-2008	16.13	14.52	12.90
BI-2009	12 ft. long, table-top extrusion for use at base of cabinet, as vertical member where double radius between cabinets is undesirable. Has flange with normal retaining groove; other is 1" deep to support table or bench top.	10.25	9.23	8.20
BI-2009-3	3 ft. length BI-2009	3.00	2.70	2.40
BI-2009-6	6 ft. length BI-2009	5.70	5.13	4.56
BI-2009-9	9 ft. length BI-2009	8.10	7.29	6.48

EXTERNAL SPACER BAR CONNECTORS

Bud No.	Description	Net Each, Lots of		
		1-14	15-24	25 Up
BI-1011	This connector specially designed for use with 90° external heavy duty extrusion BI-2034. One leg fits this extrusion as well as all other 90° external extrusions. The other two legs fit BI-2008.	$1.35	$1.22	$1.08
BI-1018	67½° external spacer bar connector; brace or sub-divide walls where BI-1016 is used at corners. One leg fits BI-2041; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1026	60° version of BI-1018. One leg fits BI-2081; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1007	45° version of BI-1018. One leg fits BI-2005, BI-2015 or BI-2025; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1022	30° version of BI-1018. One leg fits BI-2061 extrusion; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1014	22½° version of BI-1018. One leg fits BI-2021; other two fit any spacer bar extrusion.	1.35	1.22	1.08

INTERNAL CORNER CONNECTORS

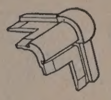
BI-1028	90° internal connector gives an included angle of 90° for L-shaped structures. One leg fits BI-2032 extrusion; other two fit any 90° external extrusion, (BI-2004, BI-2014, BI-2024, BI-2034, BI-2054).	$1.35	$1.22	$1.08
BI-1017	67½° internal connector used where two walls are to meet to include a 67½° angle. One leg fits BI-2051 extrusion; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1025	60° version of BI-1017. One leg fits BI-2091; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1006	45° version of BI-1017. One leg fits BI-2006; other two fit any 90° external extrusion. Helps make flat top, sloping front structure.	1.26	1.13	1.01
BI-1021	30° version of BI-1017. One leg fits BI-2071; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1013	22½° version of BI-1017. One leg fits BI-2031; other two fit any 90° external extrusion.	1.35	1.22	1.08

INTERNAL SPACER BAR CONNECTORS

BI-1029	90° internal spacer connector permits bracing or sub-division of spans of BI-2032. One leg fits BI-2032 internal extrusion; other two fit BI-2008 spacer bar extrusion.	$1.35	$1.22	$1.08
BI-1019	67½° internal spacer bar connector is companion to BI-1017 for sub-dividing or cross-bracing. One leg fits BI-2051; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1027	60° version of BI-1019 above; companion for BI-1025. One leg fits BI-2091; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1010	45° version of BI-1019; companion for BI-1006. One leg fits BI-2006; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1023	30° version of BI-1019; companion to BI-1021. One leg fits BI-2071; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1015	22½° version of BI-1019; companion to BI-1013. One leg fits BI-2031; other two fit any spacer bar extrusion.	1.35	1.22	1.08

CUTTING JIGS

Bud No.	Description	Net Each, Lots of		
		1-4	5-9	10 Up
BI-3003	90° cutting jig permits easy mitering of any 90° external extrusion. Makes assembly quick, easy.	$15.80	$14.22	$12.64
BI-3002	45° cutting jig for mitering any 45° external extrusion.	15.80	14.22	12.64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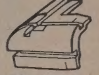
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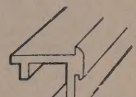
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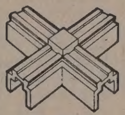
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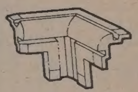
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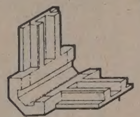
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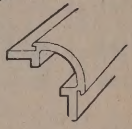
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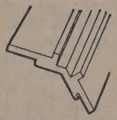
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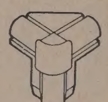
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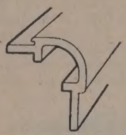
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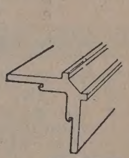
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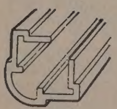
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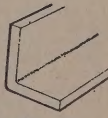
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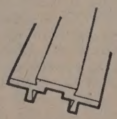
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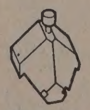
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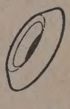
BI-4601

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BUD THE MARK OF PERFECTION

Cabinet Hardware

BUD HANDLES

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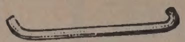
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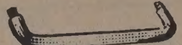
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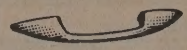
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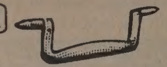
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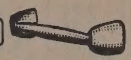
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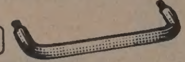
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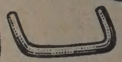

Fabricated from steel, brass or cast aluminum. Durable finish provides long wear and attractive appearance. Skin packed in pairs or bulk packed (priced singly) with all necessary mounting hardware. Designed for rugged applications, they have unlimited use in electronic, electrical and other fields.

Bud No.	Fig.	Description	Net Per Pair, Lots of 1-49	Net Per Pair, Lots of 50-99	Net Per Pair, Lots of 100-149	Bulk Pack*: Net Each, Lots of 50-99	Bulk Pack*: Net Each, Lots of 100-199	Bulk Pack*: Net Each, Lots of 200-499
H-9100	A	1″ x ¼″ chrome-plated solid brass; 4″ x ½″ mtg. cntrs.; 1″ hand clearance; four ½″ x 6-32 threaded screws	$3.96	$3.56	$3.17	$1.86	$1.67	$1.49
H-9101	A	Same, but 8″ x ½″ mtg. centers	6.15	5.54	4.92	2.90	2.61	2.33
H-9102	A	⅝″ x ¼″ chrome-plated solid brass; 4″ mtg. centers; 1″ hand clearance; two ½″ x 6-32 threaded screws	3.15	2.84	2.52	1.60	1.44	1.28
H-9103	A	Same, but has 6″ mounting centers	3.60	3.24	2.88	1.70	1.53	1.36
H-9110	B	⅜″ steel rod angular formed, chrome-plated; 6″ mtg. ctrs.; 1¼″ hand clearance; two ½″ x 10-32 screws	2.79	2.51	2.23	1.06	.95	.85
H-9111	B	⅜″ steel rod, chrome plated, 4″ mtg. ctrs.; 1″ hand clearance; two ½″ x 10-32 threaded screws	1.50	1.35	1.20	.58	.52	.46
H-9112	B	6″ mtg. center version of H-9111	1.89	1.70	1.51	.72	.65	.58
H-9113	B	8″ mtg. center version of H-9111	2.10	1.89	1.68	.82	.74	.66
H-9114	B	½″ steel rod, chrome-plated; 8″ mtg. centers; 1½″ hand clearance; two ½″ x ¼-28 thd. screws	3.51	3.16	2.81	1.32	1.19	1.06
H-9115	C	⅜″ steel rod, chrome-plated; 4″ mtg. ctrs.; 15/16″ hand clearance; two ¼-28 thd. nuts	2.40	2.16	1.92	.96	.86	.77
H-9116	C	Same, but has 6″ mtg. centers	3.00	2.70	2.40	1.14	1.03	.91
H-9120	D	Silver-anodized die-cast aluminum; 4⅜″ inside, 5⅜″ outside mtg. centers; 1″ hand clearance: four ½″ x 6-32 threaded screws	3.51	3.16	2.81	1.60	1.44	1.28
H-9121	D	Same, except chrome plated alloy	4.95	4.46	3.96	2.34	2.11	1.87
H-9123	D	Similar to H-9120 but 4½″ mtg. centers; 1″ hand clearance; two ½″ x 10-32 thd. screws	2.61	2.35	2.09	1.14	1.03	.91
H-9122	E	Silver-anodized die-cast aluminum; hinged on ¼″ steel pins with 2 hinge blocks; 6½″ inside, 7¼″ outside mtg. centers; 1½″ hand clearance; four ⅜″ x 10-32 threaded screws	5.94	5.35	4.95	2.82	2.54	2.26
H-9130	F	Silver-anodized die-cast aluminum; 3″ mtg. centers; two ⅜″ x 10-32 thd. screws; size 4 15/16″ x 3″	5.25	4.73	4.20	2.50	2.25	2.00
H-9131	G	Silver-anodized die-cast aluminum; size, 4″ x 2⅞″; 2¼″ mtg. centers; two ¾″ x ¼-28 thd. raised, counter-sunk screws and nuts	3.90	3.51	3.12	1.78	1.60	1.42
H-9140	H	Silver-anodized die-cast aluminum; 3½″ mtg. centers; ¾″ hand clearance; two ½″ x 10-32 threaded screws	2.34	2.11	1.87	1.08	.97	.86
H-9150	I	Silver-anodized die-cast aluminum; 4″ x ⅝″ mtg. centers; 1¼″ hand clearance; four ½″ x 10-32 threaded screws	3.15	2.84	2.52	1.42	1.28	1.14
H-9151	J	Silver-anodized die-cast aluminum; 5 5/16″ x ⅝″ mtg. centers; 1⅜″ hand clearance; four ½″ x 10-32 threaded screws	5.10	4.59	4.08	2.34	2.11	1.87
H-9152	J	Similar to above except 3⅞″ mtg. centers; 1⅛″ hand clearance; two ½″ x 10-32 threaded screws	4.14	3.73	3.31	1.95	1.76	1.56
H-9160	K	Chrome-plated ⅜″ steel rod; 3½″ mtg. centers; 1 11/16″ hand clearance; two ¼″-28 hex nuts	2.70	2.43	2.16	1.02	.92	.82
H-9161	K	Same, but with 5¼″ mounting centers	3.15	2.84	2.52	1.20	1.08	.96
H-9162	K	Same, but with 7″ mounting centers	3.24	2.92	2.59	1.24	1.12	.99
H-9163	K	Same, but with 8¾″ mounting centers	3.51	3.16	2.81	1.32	1.19	1.06
H-9164	K	Same, but with 10½″ mounting centers	3.96	3.56	3.17	1.35	1.22	1.08
H-9165	K	Same, but with 12¼″ mounting centers	4.35	3.92	3.48	1.50	1.35	1.20
H-9166	L	Chrome-plated ¼″ brass rod; 1 29/32″ mtg. centers; 1″ hand clearance; two ½″ x 6-32 thd. screws	1.20	1.08	.96	.54	.49	.43
H-9168	L	Same, but 3″ mtg. centers; two ¼″ x 6-32 thd. screws	1.35	1.22	1.08	.58	.52	.46

*Number shown is for skin packed pairs. For bulk packed handles (priced singly), add suffix **B** to number (example: H-9100**B**).

CHASSIS SLIDES

Inside SC-4312

Precision built slides for smooth operation, long life under repeated movement conditions. Use with full 17″ chassis in std. 19″ panel rack or cabinet. Drilled for either panel rail bracket or direct slide rail mounting. Brackets and hardware supplied. "Quick detach" models permit change of instrumentation at point of use with infinitesimal delay in exchange. **"SC" Series:** For commercial uses where top quality and performance is required, but MIL specs are not. Load ratings conservative with plus factor of at least 2:1 under normal conditions. **"SI" Series:** Adhere to MIL specifications for industrial or military requirements. Channels 7075T6 aluminum extrusions per QQ-A-277; parts of 302 stainless steel per MIL-S-5059A; bearings are 440 stainless steel per QQ-S-763. Aluminum-parts anodized per MIL-A-8625A; stainless steel parts passivated per MIL-S-5002. Lubricant is hi-low temp. grease per MIL-G-3278. Load rating extra conservative with plus factor of at least 3:1 under normal conditions.

"SC" SERIES

Bud No.	Description	Load Cap. Per Pair	Net Each, Lots of 1-14	Net Each, Lots of 15-24	Net Each, Lots of 25-34
SC-4312	Full ball-bearing slide 12″ long; 12″ travel; height, 2″; inner members do not disconnect or tilt; aluminum extrusions of 2014T6 per QQ-A-261; precision broached for flawless operation	150 lbs.	$27.15	$24.45	$21.70
SC-4316	Same, but 16″ long; 16″ travel	110 lbs.	29.10	26.20	23.30
SC-4320	Same, but 20″ long; 20″ travel	95 lbs.	31.80	28.60	25.45
SC-4412	Same, but outer track ball bearing, inner track dry lubricated friction type; quick detach facility; locks in extended position; height 2″; 12″ long; 12″ travel	150 lbs.	39.30	35.35	31.45
SC-4416	Same as SC-4412, but 16″ long; 16″ travel	110 lbs.	42.15	37.95	33.70
SC-4420	Same as SC-4412, but 20″ long; 20″ travel	95 lbs.	44.10	39.70	35.30
SC-4512	Quick detach, tilting slide with lock in extended position. Permits 90° tilt of chassis below horizontal position in 45° increments; height, 3½″; 12″ long;-12″ travel	275 lbs.	56.25	50.65	45.00
SC-4516	Same, but 16″ long; 16″ travel	215 lbs.	60.90	54.80	48.70
SC-4520	Same, but 20″ long; 20″ travel	180 lbs.	64.65	58.20	51.70

"SI" SERIES

Bud No.	Description	Load Cap. Per Pair	Net Each, Lots of 1-14	Net Each, Lots of 15-24	Net Each, Lots of 25-34
SI-4212	Ball-bearing; 12″ long; 12″ travel; 3½″ high	275 lbs.	$41.25	$37.15	$33.00
SI-4216	Same, but 16″ long; 16″ travel	225 lbs.	45.00	40.50	36.00
SI-4220	Same, but 20″ long; 20″ travel	180 lbs.	48.75	43.90	39.00
SI-4012	Same as SI-4212 except outer track ball bearing; inner, dry-lubricated friction type; quick disconnect; extended lock position	275 lbs.	48.75	43.90	39.00
SI-4016	Same, but 16″ long; 16″ travel	225 lbs.	53.40	48.15	42.80
SI-4020	Same, but 20″ long; 20″ travel	180 lbs.	59.10	53.20	47.30
SI-4112	Similar to SI-4012, but with tilting action 90° above and below horizontal in 45° increments	275 lbs.	64.65	58.20	51.70
SI-4116	Same, but 16″ long; 16″ travel	225 lbs.	69.30	62.35	55.45
SI-4120	Same, but 20″ long; 20″ travel	180 lbs.	72.15	64.95	57.70

531X-63A

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CABINET ASSEMBLIES AND AMATEUR ACCESSORIES

BUD CONSOLE ASSEMBLIES

Variety of panels, sides, doors, pedestal, table tops and drawer permit easy assembly of a variety of console units, custom made to individual requirements. Typical basic unit would consist of one pedestal, an end pedestal, three or more panels, a door, a table top and a foot rest as illustrated. Many variations of this basic design may be made, and additions or changes in design can be accomplished at any time. Because the system is sold in parts, it offers the user the highest versatility in designing or expanding units as needed.

BASIC PEDESTAL

Consists of top, bottom and four panel-mounting channels drilled and tapped to accept standard 19″ panels on each of four sides. Bottom is slotted so that sides or doors may be installed on any side. Three knock-out holes provided on each of two sides for use in assembling pedestals in series. Channels will support 200 lbs. suspended between them; bottom will support 500 lbs. Bottoms have recessed mounting brackets for hidden caster attachment. Shipped knocked-down, with necessary hardware. **Size:** 22″ w. x 22″ d. x 29 13/16″ h.

END PEDESTAL

May be used as a housing or as a support. Panel mounting rails are drilled and tapped for mounting panels on each of two sides. Accepts full size solid or louvered panels, ball-cornered doors or sides. Base has hidden caster mounting supports. When used, No. CT-2206 table top is required; eliminates the need for a second CP-2200 pedestal. **Size:** 22″ w. x 5″ d. x 29 13/16″ h. inside.

PANELS

Full-sized panels may be used to enclose the openings on any side of either of above pedestals. Available either solid or louvered. Louvered panels can be positioned with louvers pointing down or up, inside or outside the pedestal. **Size:** 24 15/32″ h. x 19″ w.

BALL-CORNERED SIDE

Can be used to enclose any side of either of above pedestals for an enhanced appearance. Attach by tongue and slot arrangement at the bottom; and, two screws at the top. Quickly removable from exterior of pedestal for service or inspection. Provide sufficient clearance for installation over knobs and dials. **Size:** 25 1/16″ h. x 20¼″ w. x 1 1/16″ d.

BALL-CORNERED DOOR

Unique hinge and locking arrangement designed so that door may open from right or left side. Attaches to any side of either pedestal with sufficient clearance for knobs, and dials. **Size:** 25 1/16″ h. x 20¼″ w. x 1 1/16″ d.

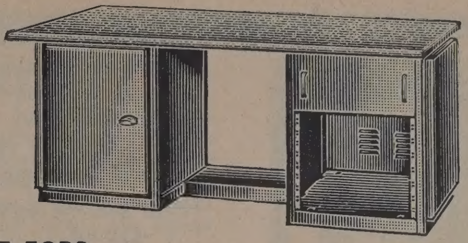


TABLE TOPS

Made of 16 ga. steel and available in three lengths. Adjustable from front to back in three positions to allow overhang as desired. Attach to the pedestals by means of brackets welded to underside of top. **Size:** 30″ w. x 1 1/16″ thick.

FOOT REST

Joins two pedestals or one pedestal and one end pedestal, depending on the size top used. Adjustable in two positions, front to back. **Size:** 22″ l. x 10″ w. x 2⅝″ thick.

CONSOLE DRAWER

Fits into pedestal in any position from top to bottom. Slides easily on nylon rollers. Capable of supporting heavy loads. Drawer extends to full depth of pedestal. Easily removable slides fasten to mounting channels in pedestal; stops prevent drawer from falling out. **Size:** 16¾″ w. x 19⅜″ d. x 6 7/16″ h., inside.

PARTS ORDERING INFORMATION

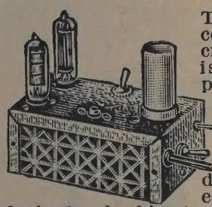
Bud No.*	Description	Wt. Lbs.	Net Each, Lots of		
			1-14	15-24	25-34
CP-2200	Basic pedestal	36	**$36.00**	**$32.40**	**$28.80**
CF-2202	End pedestal	19	**18.95**	**17.05**	**15.16**
CP-2215	Plain panel	9	**5.26**	**4.73**	**4.21**
CP-2216	Louvered panel	9	**6.00**	**5.40**	**4.80**
CK-2217	Ball-cornered side	13	**8.95**	**8.06**	**7.16**
CD-2220	Ball-cornered door	13	**10.95**	**9.85**	**8.76**
CT-2205	Table top, 25″ long	18	**22.00**	**19.80**	**17.60**
CT-2206	Table top, 52″ long	35	**26.00**	**23.40**	**20.80**
CT-2207	Table top, 69″ long	45	**32.10**	**28.89**	**25.68**
CF-2201	Foot rest	7	**3.85**	**3.46**	**3.08**
CD-2210	Console drawer	24	**32.00**	**28.80**	**25.60**

*Specify Color: Add suffix **GH** for gray hammertone; add **BH** for brown hammertone.

BUD AMATEUR ACCESSORIES

BUD SELF-POWERED FREQUENCY CALIBRATOR

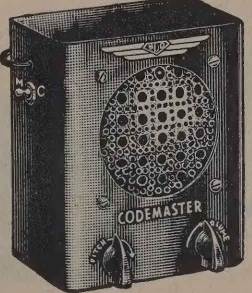
MODEL FCC-90B



The Bud FCC-90B consists of a 100 kc crystal oscillator that is completely self-powered. It will give 100 kc check points on all bands, enabling the operator to determine exact band edges. An excellent device for checking transmitter frequencies accurately. No extra wiring is required. Plug into any 110 v. receptacle, connect pick-up lead to the antenna binding post and unit is ready. ON-OFF and STAND-BY switch included. Weight, 1½ lbs.
Bud No. FCC-90B— Net Each.................. **$20.48**

BUD CODE PRACTICE OSCILLATORS AND MONITORS

MODEL CPO-128B



The Bud Codemaster is a real money-saver. No longer do you have to consider your code practice oscillator useless after you have learned the code. A flip of the switch and you have a good CW monitor. This is a really versatile instrument. It has a 4″ built-in PM dynamic speaker and will operate up to twenty earphones. A volume control and pitch control permit adjustments to suit individual requirements. Any number of keys can be connected in parallel to the oscillator for group pratice. This unit will operate on 110 volts AC or DC. An external speaker may be plugged in without the use of an output transformer. All controls are placed on the front of the unit and all jacks are in the rear. **Size:** 6½″ high, 5½″ wide and 3½″ deep. Wt., 3½ lbs.
Bud No. CPO-128B—Net Each. **$19.13**

MODEL CPO-130A

Similar to Model CPO-128B except speaker not included. Monitor feature is present and a jack is provided for output. Twenty pairs of phones and keys may be operated at one time. Operates PM speaker. **Size:** 5½″ x 4½″ x 3½″. Weight, 3¼ lbs. Gray hammertone finish.
Bud No. CPO-130A—Net Each. **$16.50**

MODEL CPO-155T

Available in earphone model only. Small, lightweight, operates entirely on transistors. Power supplied by penlight cells. **Size:** 1½″ x 2¼″ x 4¼″. Finished in light gray hammertone.
Bud No. CPO-155T—Net Each... **$5.88**

BUD GIMIX GX-79

BUD
GIMIX
PHONO
METER

GX-79

Bud GX-79 Gimix, a multi-purpose unit requiring no power supply. Calibrated for use on 10, 15, 20, 40, and 80 meter bands. No additional coils are needed, as the one coil supplied does the work on all bands. It can be used as wave-meter, monitor, field strength indicator, carrier shift indicator, and a sensitive neutralizing instrument. Shipping Weight, 1 lb.
Bud No. GX-79—Net Each............ **$9.48**

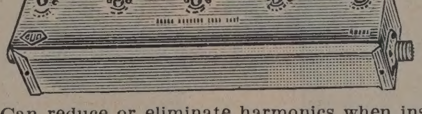
WIRELESS PHONO OSCILLATOR

Converts any standard record player to wireless operation. Record reproduction may then go to a radio receiver without use of wires. Installation instructions provided. Wired and tested; with tubes. Operates on 115 v. AC or DC. Frequency range, 1100–2150 kc. Gray hammertone finish. Weight, 1 lb.
Bud No. WO-6A—Net Each...................... **$12.05**

MODEL HF-600 HIGH PASS FILTER

Designed to have a cut-off frequency at 42 mc, rejecting signals from 0-42 mc. No attenuation above 42 mc; picture strength and quality are not affected. **Size:** 3¼″ x 2⅛″ x 1⅛″, in an attractive aluminum case. Complete installation instructions are included. Shipping Weight, 1 lb.
Bud No. HF-600—Net Each.......................... **$4.95**

LOW PASS FILTER LF-601



ADJUSTABLE
HANDLES 1 KW
LOW LOSS

Can reduce or eliminate harmonics when installed at the transmitter. Has minimum attenuation of 85 db on all frequencies above 54 mc and a minimum of 93 db above 70 mc. Maximum rejection adjustable from 60 to 90 mc. This tunable feature provides 2 slots at least 100 db down on any 2 TV channels. Cut-off frequency is 42 mc. The unit will handle a full kilowatt modulated on a reasonably flat line. Insertion loss is less than 1 db. Since the design of the filter provides an adjustable feature, the unit can be used on either a 52 or a 72 ohm coax. All capacitors used are variable. **Size:** 12″ x 2¼″ x 2½″. Shipping Weight, 2½ lbs.
Bud No. LF-601—Net Each.......................... **$17.25**

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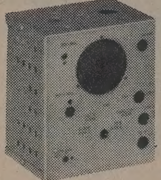
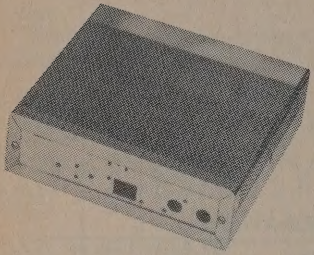
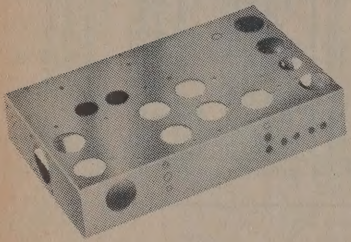
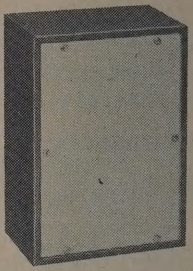
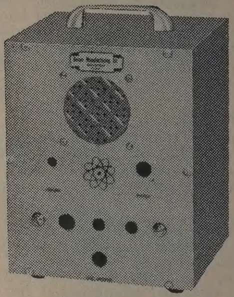
SPECIAL FABRICATION SERVICE

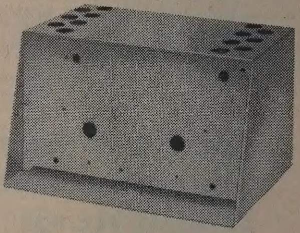












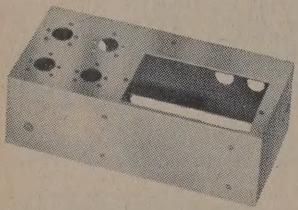
Consult your local Authorized Bud Distributor about your special enclosure problems. In reality, he is an extension of the factory's engineering department and can recommend the proper design and size for your equipment. His advice will save you time and money.

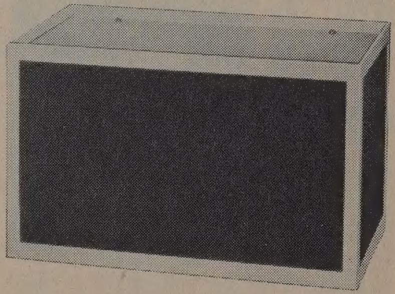
These are the services we perform:

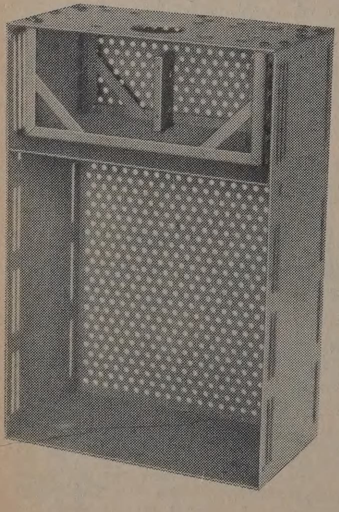
1. Modification of our standard products.
2. Specially punched panels, chassis and boxes.
3. Standard construction employing steel or aluminum.
4. Special construction employing the Imlok system of aluminum extrusions, castings and sheets.
5. Original designs based upon your circuitry requirements.

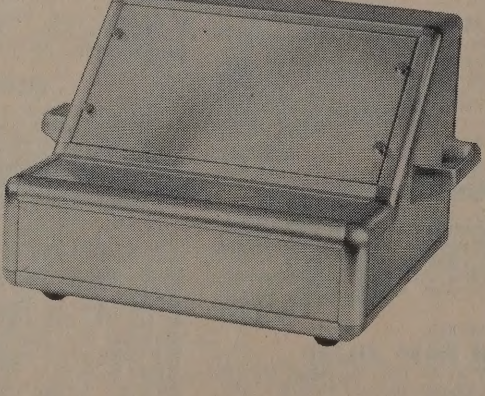
Bud can supply you with a pilot model or a production run. Our more than 35 years of experience in the electronic industry assures you that we can readily understand your problems and solve them economically. 112,000 sq. ft. of completely integrated plant facilities — from engineering, tooling and fabrication to painting, assembly and packaging insure quick delivery. Almost every type of industry, branches of the armed forces, the Space Agency and the Nuclear Energy Commission use Bud products.

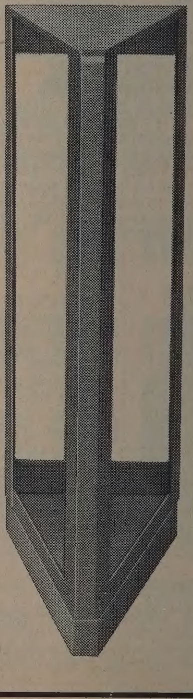
Whenever a special sheet metal enclosure is required, call in your local Authorized Bud Distributor. He is anxious to cooperate with you.











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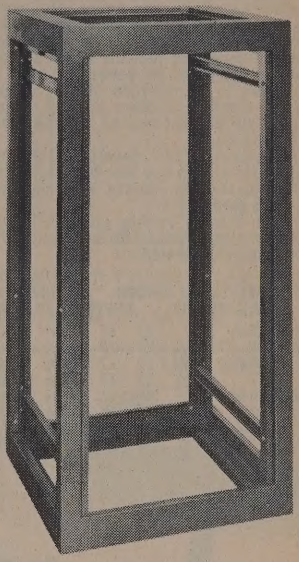
CALIFORNIA CHASSIS CO.

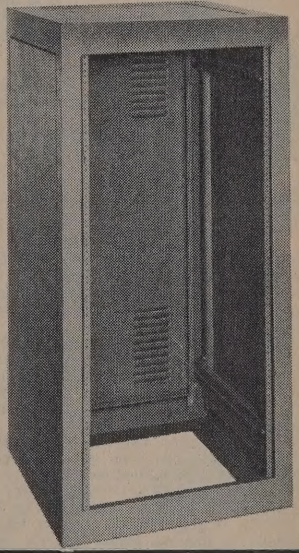
Lynwood, Calif.

ds
DESIGNER
SERIES

ALL-STEEL WELDED CABINET

This flexible AWC cabinet is available as a complete package or as separate components to satisfy individual requirements. Doors and sides are interchangeable. Doors have chrome handles — spring loaded hinge pins provide rapid removal and servicing without tools. Panel mounting angles are tapped 10-32 with universal spacing for all standard panels. Louvers on doors and sides available. Standard finish — gray hammertone; other finishes optional.



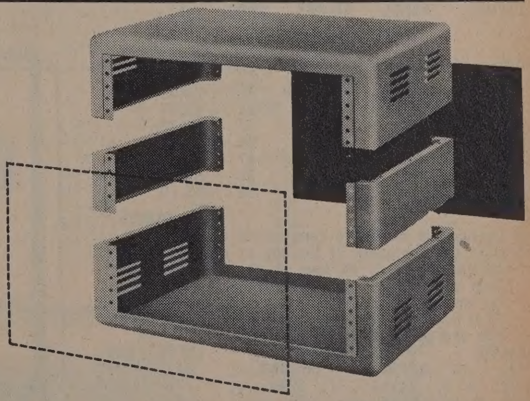


AWC-42	Assembly consisting of 42 inch panel space frame, two sides, one door, top, one pair panel mounting angles and all necessary hardware	$125.00
AWC-61	Same as above except 61¼ inch panel space frame	153.00
AWC-70	Same as above except 70 inch panel space frame	166.00
AWC-77	Same as above except 77 inch panel space frame	192.00
AWCF-42	Basic frame only — 42 inch panel space	60.40
AWCF-61	Basic frame only — 61¼ inch panel space	75.40
AWCF-70	Basic frame only — 70 inch panel space	80.40
AWCF-77	Basic frame only — 77 inch panel space	95.40
AWCS-42	Side panel — 42 inches high....each	14.75
AWCS-61	Side panel — 61¼ inches high....each	17.75
AWCS-70	Side panel — 70 inches high....each	19.75
AWCS-77	Side panel — 77 inches high....each	22.75
AWCD-42	Door — 42 inches high	17.95
AWCD-61	Door — 61¼ inches high	20.95
AWCD-70	Door — 70 inches high	23.95
AWCD-77	Door — 77 inches high	26.95
AWCT-42	Top	7.05
AWCT-61	Top	7.05
AWCT-70	Top	7.05
AWCT-77	Top	7.05
AWCP-42	Panel mounting angles — 42 inches long....pair	10.10
AWCP-61	Panel mounting angles — 61¼ inches long....pair	14.10
AWCP-70	Panel mounting angles — 70 inches long....pair	15.10
AWCP-77	Panel mounting angles — 77 inches long	17.10
AWCZ-42	Vertical supports for chassis brackets....set of four	14.30
AWCZ-61	Vertical supports for chassis brackets....set of four	16.25
AWCZ-70	Vertical supports for chassis brackets....set of four	17.30
AWCZ-77	Vertical supports for chassis brackets....set of four	19.35

ds
DESIGNER
SERIES

MULTI-PURPOSE EXPANDABLE CABINET

The MPX enclosure combines clean design and attractive finish with utility, strength and versatility. Inserts permit vertical expansion of cabinet. Standard finish — gray hammertone; other finishes optional.



MPX CABINET — Consists of top, bottom, rear panel 5¼″ high and assembly hardware. Basic cabinet provides 7″ of panel space front and back......$25.30

MPXF-10 1¾″ FILLER — each filler group listed consits of two sides, rear panel same height as sides and hardware.......... 9.22

MPXF-11	3½″	FILLER	$10.35	MPXF-18	15¾″	FILLER	$17.35
MPXF-12	5¼″	FILLER	11.50	MPXF-19	17½″	FILLER	18.50
MPXF-13	7″	FILLER	12.50	MPXF-20	19¼″	FILLER	19.50
MPXF-14	8¾″	FILLER	13.60	MPXF-21	21″	FILLER	20.60
MPXF-15	10½″	FILLER	14.69	MPXF-22	24½″	FILLER	21.80
MPXF-16	12¼″	FILLER	15.80	MPXF-23	26¼″	FILLER	22.95
MPXF-17	14″	FILLER	16.95	MPXF-24	28″	FILLER	24.10

	Width	Height	Depth
MPX Cabinet without inserts	21⅝ in.	11¼ in.	18½ in.
Font panel opening	19⅛ in.	8¾ in.	——
Back panel opening	19⅛ in.	8¾ in.	——
Inserts (in increments of 1¾ to 26¼ in.)	——	1¾ to 26¼ in.	18½ in. (side)

Recommended total panel height with inserts: 35 inches. This cabinet accepts standard relay rack panels and is drilled for universal panel mountings. 16 gauge cold rolled steel construction.

CALIFORNIA *Chassis* COMPANY

CABINET RACKS

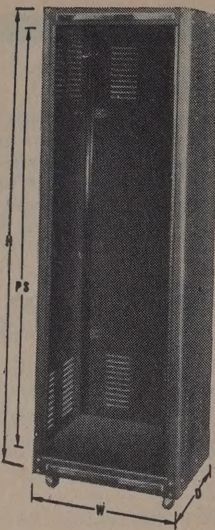
These racks are made entirely of 16 gauge steel except for the heavy steel panel supports. They have universal spacing, the holes being tapped for 10/32″ screws. Panels fit into a recess so that the edges do not show. Mounting plate on bottom of rack permits casters to be fastened directly to base for easy mobility. Casters are not included in price of rack but may be ordered separately. No. TC-10.

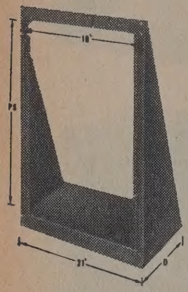
All standard 19″ panels RETMA, Western Electric or Amateur will fit these racks.

Double rows of louvres side and rear give ample ventilation.

Finish is black wrinkle, gray wrinkle or silver hammertone. Black will be furnished unless specified otherwise.

NO. CAT.	PANEL SPACE	HEIGHT	WIDTH	DEPTH	DEPTH INSIDE CLEAR.	SHIP. WT. LBS.	Net Price
CR-36	36¾	42	22	17	15½	90	47.21
CR-42	42	47¼	22	17	15½	96	53.36
CR-61	61¼	66½	22	17	15½	120	66.86
CR-77	77	82¼	22	17	15½	145	80.05
CRD-36	36¾	42	22	24	22½	99	66.86
CRD-42	42	47¼	22	24	22½	105	79.17
CRD-61	61¼	66½	22	24	22½	133	94.81
CRD-77	77	82¼	22	24	22½	160	133.97





DOR SERIES

This open rack is made of 16 gauge steel. It is useful where the larger, heavier floor model is not necessary.

Mounting holes are on universal centers tapped 10/32″.

Cat. No.	Panel Space	Overall Height	Width	Depth	Ship. Wt.	Net Price
DOR-21	21 x 19	25	21	12	18	9.66
DOR-28	28 x 19	32	21	12	19	11.92

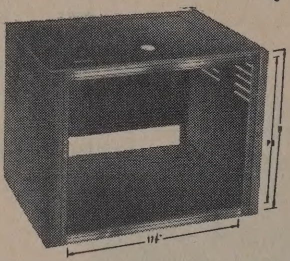
DESK CABINET RACKS

This solid welded, rounded front, deluxe desk cabinet has a professional look as well as being a sturdy utility unit. Embossed feet are on all sizes to reduce marring.

Cabinets have universal punching, accommodating W. E.; RETMA; or Amateur notched panels. Unit is made from 16 ga. steel, hav niga 2″ opening on bottom rear for ventilation in addition to side louvers.

The five smaller models have solid welded backs. The five larger models have a removable hinged rear door.

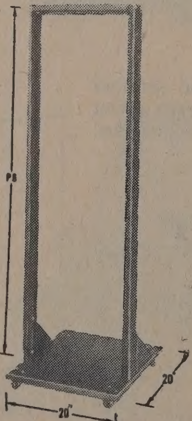
All models clear 14½″ inside depth — Outside width is 21½″. Black wrinkle is standard. If gray wrinkle or gray hammertone is desired please specify. No additional charge.



CATALOG NO.	PANEL SPACE	HEIGHT	SHPG. WT.	NET PRICE
DCR-7	7	8¹⁵⁄₁₆	25	17.14
DCR-8	8¾	10¹¹⁄₁₆	27	17.49
DCR-10	10½	12⁷⁄₁₆	29	20.01
DCR-12	12¼	14³⁄₁₆	31	21.06
DCR-14	14	15¹⁵⁄₁₆	33	22.97
DCR-17	17½	19⁷⁄₁₆	37	27.37
DCR-21	21	22¹⁵⁄₁₆	39	29.33
DCR-26	26¼	28³⁄₁₆	47	31.47
DCR-31	31½	33⁷⁄₁₆	51	33.42
DCR-35	35	36¹⁵⁄₁₆	58	35.19

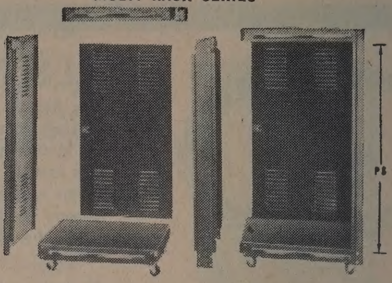
OR SERIES

These open racks are constructed so the uppermost panel mounts at the top of the ⅛″ steel upright. There is no loss of space at the top. Rack uprights are punched with universal spacing and tapped 10/32″. Two brackets of ⅛″ steel bind the uprights and a chassis like base into one solid unit.



CATALOG NO.	PANEL SPACE	OVERALL HEIGHT	SHPG. WT.	NET PRICE
OR-31	31½	32¾	27	22.76
OR-36	36¾	38	28	22.97
OR-42	42	43¼	30	24.63
OR-61	61¼	62½	37	25.45
OR-66	66½	67¾	39	25.96
OR-71	71¾	73	41	26.88
OR-77	77	78¼	42	31.28

MULTI RACK SERIES

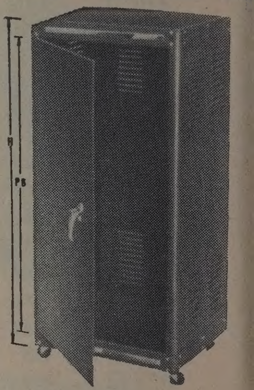


With this unit and a standard rack of the same size one can make a multiple rack or a series of connected racks. Each unit consists of a door, top, bottom, and a multi-rack connecting unit. This must have the same panel space as the unit it is to be used with. All hardware except casters is furnished. Colors are black rwinkle, gray wrinkle or gray hammertone.

CATALOG NO.	PANEL SPACE	FITS RACK	SHPG. WT.	NET PRIC
MR-36	36¾	CR-36	75	46.3
MR-42	42	CR-42	80	51.2
MR-61	61¼	CR-61	100	63.7
MR-77	77	CR-77	118	78.2

FRONT DOOR RACKS

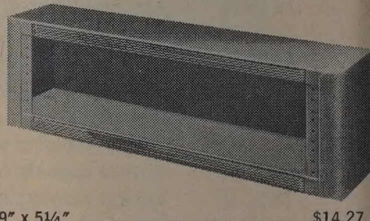
This deluxe rack series has, in addition to the rear door, a front door which completely encloses the panels. Rack strips may be moved towards the rear of the rack to allow space for meters, switches, etc. Rack strips are punched with universal spacing, and tapped 10/32″. Casters, TC-10, fit to base of rack, but are not included in price. Finish is black wrinkle (B), Graw wrinkle (G), or gray hammertone (GH). Black wrinkle shipped if no color is specified.



CATALOG NO.	HEIGHT	PANEL SPACE	SHPG. WT.	NET PRICE
FDR-36	42	36¾	102	67.80
FDR-42	47¼	42	118	75.94
FDR-61	66½	61¼	152	98.04
FDR-77	82¼	77	185	125.00

MINIATURE CABINET RACKS

The MCR combines stylized function and compactness for desktop use. Available in three sizes. Accepts standard relay rack panels and "PC" chassis units. Attractive gray hammertone with chrome trim; other finishes optional.



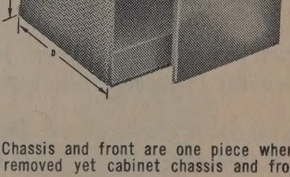
MCR-12 CABINET — Panel space 19″ x 5¼″	$14.27
MCR-13 CABINET — Panel space 19″ x 7″	14.57
MCR-14 CABINET — Panel space 19″ x 8¾″	14.87

All above items available in gray hammertone finish. Other finishes available on special order. Contact factory for special finish prices.

All MCR units have embossed feet to protect desk tops.

TYPE	WIDTH	PANEL SPACE	DEPTH	HEIGHT	WT.
MCR-12	21⅝	19 x 5¼	6⁹⁄₁₆	7⅛	11½ lb.
MCR-13	21⅝	19 x 7	6⁹⁄₁₆	8⅞	12½ lb.
MCR-14	21⅝	19 x 8¾	6⁹⁄₁₆	10⅝	13½ lb.

LOW TEMPERATURE CABINETS



This cabinet made of perforated metal with 3/32 holes on 3/16 centers, solves most thermal problems. It is a real space saver, the chassis being almost the size of the cabinet.

Chassis is .063 aluminum and bolts to the rear panel which is welded to the perforated screen. Rear steel panel has rectangular hole in it to allow access to connectors in chassis. Front panel has no screws but is held on by control knobs mounted in chassis.

Chassis and front are one piece when unit is complete and can be easily removed yet cabinet chassis and front panel are solidly held together.

Catalog Number	Cabinet Size H	W	D	Front Panel	Chassis Size	Hole in Rear Panel	Net Price
LTC-463	4½	x 7³⁄₁₆	x 9³⁄₁₆	4½x 7¼	6¹⁵⁄₁₆x 8¹⁵⁄₁₆x1½	⅞x4	6.97
LTC-464	4½	x 9³⁄₁₆	x 7³⁄₁₆	4½x 9³⁄₁₆	8¹⁵⁄₁₆x 6¹⁵⁄₁₆x1½	⅞x5	6.97
LTC-469	5¹¹⁄₁₆	x 8¾	x11³⁄₁₆	5⅝x 8¾	8 ⁷⁄₁₆x10¹⁵⁄₁₆x2	1½x5	7.82
LTC-470	5¹¹⁄₁₆	x11³⁄₁₆	x 8¹¹⁄₁₆	5⅝x11³⁄₁₆	10¹⁵⁄₁₆x 8 ⁷⁄₁₆x2	1½x6	7.82

CALIFORNIA CHASSIS CO. — Lynwood, California

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

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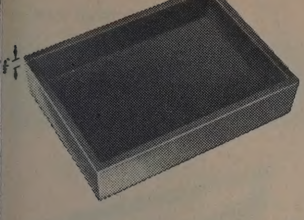
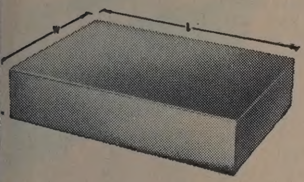
CALIFORNIA *Chassis* COMPANY





STANDARD ALUMINUM CHASSIS—All chassis are stamped and formed from one piece of material. All four corners welded and sides flanged to accommodate bottom plates.

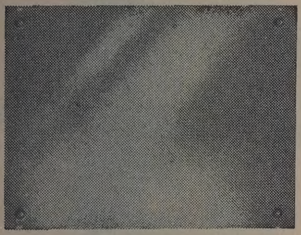
Aluminum	W	L	D	Gauge	App. Wt.	Net Price
A-134	2½ x	4½ x	1	18	¼	1.12
A-135	3½ x	4½ x	1	18	¼	1.22
A-136	3½ x	5½ x	1	18	¼	1.22
A-137	4 x	6 x	1½	18	¼	1.34
A-155	4 x	6 x	2	18	¼	1.22
A-149	4 x	6 x	3	18	¼	1.31
A-138	4 x	5 x	2	18	⅜	1.38
A-121	5½ x	5½ x	1	18	¼	1.45
A-101	5 x	7 x	2	18	⅜	1.22
A-150	5 x	7 x	3	18	⅜	1.39
A-147	4 x	8 x	2	18	⅜	1.63
A-119	4½ x	8 x	1½	18	⅜	1.31
A-122	5 x	9 x	1½	18	⅜	1.39
A-102	5 x	9½ x	2½	18	⅜	1.51
A-120	6 x	8 x	2	18	¾	1.68
A-103	5 x	10 x	3	18	½	1.82
A-104	7 x	7 x	2	18	½	1.36
A-105	7 x	9 x	2	18	¾	1.63
A-113	7 x	11 x	2	18	¾	1.77
A-106	8 x	10 x	2½	18	1	2.48
A-151	6 x	14 x	3	18	1	2.75
A-114	7 x	13 x	2	18	¾	1.87
A-139	5 x	13 x	3	18	¾	1.84
A-107	8 x	12 x	2½	18	1	2.77
A-117	7 x	12 x	3	18	1	1.96
A-124	8 x	12 x	3	18	1	2.33
A-108	10 x	12 x	3	18	1¼	2.70
A-129	12 x	12 x	3	18	1½	3.28
A-115	10 x	14 x	3	18	1¼	3.18
A-130	7 x	15 x	3	18	1¼	2.62
A-125	9 x	15 x	3	18	1½	3.45
A-118	4 x	17 x	3	18	1	2.62
A-145	6 x	17 x	3	18	1¼	2.87
A-144	7 x	17 x	2	18	1	2.81
A-152	7 x	17 x	3	18	1½	3.08
A-109	8 x	17 x	2	18	1½	2.62
A-116	8 x	17 x	3	16	1½	2.87
A-140	10 x	17 x	2	16	2¼	2.99
A-110	10 x	17 x	3	16	2½	3.37
A-153	10 x	17 x	4	16	3	4.86
A-141	10 x	17 x	5	14	3¼	5.98
A-146	11 x	17 x	2	16	1½	3.71
A-128	11 x	17 x	3	14	2½	4.45
A-127	12 x	17 x	2	14	2¼	3.74
A-123	12 x	17 x	3	14	2½	4.57
A-126	13 x	17 x	2	14	2½	3.74
A-111	13 x	17 x	3	14	2¾	4.67
A-112	13 x	17 x	4	14	3¼	5.13
A-142	13 x	17 x	5	14	3½	6.55
A-133	14 x	17 x	3	14	3¼	5.24
A-131	15 x	17 x	4	14	3¾	6.21
A-148	15 x	17 x	6	14	4	8.04
A-132	10 x	23 x	3	16	2½	4.67
A-154	17 x	17 x	3	16	2½	6.73
A-143	17 x	17 x	4	14	4¼	7.11

ENTIRE LINE OF CHASSIS DUPLICATED IN STEEL.

USE PREFACE "C" INSTEAD OF "A" FOR PLATED STEEL CHASSIS.

All aluminum chassis are etched finish. 1″ and 1½″ chassis are flanged on long side only and contain no mounting holes.

CHASSIS BOTTOM PLATES



ATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Steel Net Price
P-134	2½x 4½	1 oz.	2 oz.	.48
P-135	3½x 4½	2 oz.	¼ lb.	.48
P-136	3½x 5½	2 oz.	¼ lb.	.56
P-137	4 x 6	2 oz.	¼ lb.	.56
P-138	4 x 5	2 oz.	¼ lb.	.63
P-147	4 x 8	¼ lb.	½ lb.	.85
P-121	5½x 5½	2 oz.	½ lb.	.70
P-101	5 x 7	2 oz.	¼ lb.	.77
P-119	4½x 8	¼ lb.	½ lb.	.70
P-122	5 x 9	¼ lb.	½ lb.	.70
P-102	5 x 9½	¼ lb.	½ lb.	.75
P-120	6 x 8	¼ lb.	½ lb.	.85
P-151	6 x14	½ lb.	1¼ lb.	1.04
P-103	5 x10	¼ lb.	½ lb.	.60
P-104	7 x 7	¼ lb.	½ lb.	.88

CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Steel Net Price
BP-105	7 x 9	¼ lb.	¾ lb.	.88
BP-113	7 x11	½ lb.	1 lb.	1.19
BP-106	8 x10	¼ lb.	¾ lb.	1.17
BP-139	5 x13	¼ lb.	½ lb.	.94
BP-114	7 x13	½ lb.	1 lb.	1.34
BP-107	8 x12	¾ lb.	1¼ lb.	1.50
BP-117	7 x12	½ lb.	1 lb.	.88
BP-108	10 x12	¾ lb.	1½ lb.	1.56
BP-129	12 x12	¾ lb.	1½ lb.	1.50
BP-115	10 x14	¾ lb.	2 lb.	1.39
BP-130	7 x15	½ lb.	1 lb.	.97
BP-125	9 x15	¾ lb.	1½ lb.	1.56
BP-118	4 x17	½ lb.	1 lb.	.85
BP-145	6 x17	½ lb.	1 lb.	1.41
BP-144	7 x17	½ lb.	1 lb.	1.36
BP-109	8 x17	½ lb.	1¾ lb.	1.53
BP-110	10 x17	¾ lb.	2½ lb.	1.60
BP-128	11 x17	1 lb.	2 lb.	1.60
BP-123	12 x17	1¼ l.b	3 lb.	1.87
BP-111	13 x17	1½ lb.	3¼ lb.	2.24
BP-133	14 x17	1½ lb.	3½ lb.	2.43
BP-131	15 x17	1½ lb.	3½ lb.	2.47
BP-143	17 x17	2 lb.	5 lb.	2.99
BP-132	10 x23	1½ lb.	3¼ lb.	2.24

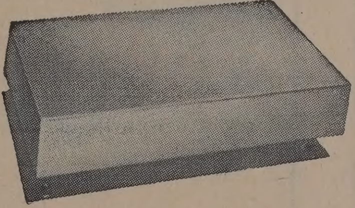
Steel bottom plates may be supplied in either zinc plate or black enamel — aluminum is caustic etched.

Actual size of BP is ⅛″ under chassis size which is shown. This allows 1/16″ of set back when attached to bottom of chassis.

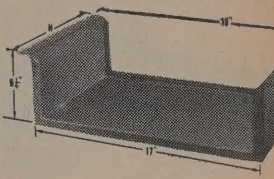
HEAVY DUTY CHASSIS 16 GAUGE STEEL

			Net Price
D-109	6¾#	8x17x2	4.68
D-116	7½	8x17x3	5.15
D-110	8½	10x17x3	5.24
D-146	8	11x17x2	5.19
D-128	10	11x17x3	5.80
D-126	9½	13x17x2	6.17
D-111	11½	13x17x3	6.55
D-112	12	13x17x4	7.48

Bottom Plates Included



PANEL CHASSIS

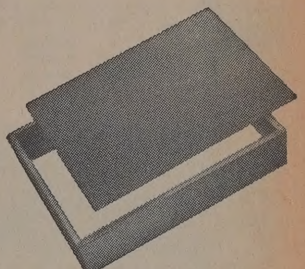


CAT. NO.	HEIGHT	WEIGHT	NET PRICE
PC-110	1¾	2 #	2.33
PC-111	3½	2¾	2.69
PC-112	5¼	4	2.96
PC-113	7	4½	3.47
PC-114	8¾	5¾	4.01
PC-115	10½	6¾	4.40
PC-116	12¼	7½	4.76
PC-117	14	8½	5.15

Larger Sizes On Request

These are constructed so the sharp rib corner is cut to a 45° angle protecting the user's wrist. 16 gauge zinc steel is standard. 14 gauge etched aluminum on request at no added cost.

REMOVABLE TOP CHASSIS



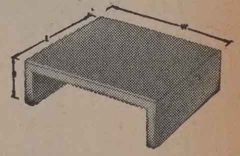
Cat. No.	Weight	Dimensions	Net Price
RT-1	5¼#	10x17x3	3.55
RT-2	7	13x17x3	4.42
RT-3	6½	10x17x4	3.93
RT-4	9	13x17x4	4.90

Experimenters and the radio amateur when designing, will find it economical to use this type chassis, as the tops and bottoms may be easily replaced or discarded. Steel-Electro Zinc Only.

TOPS ONLY FOR REMOVABLE TOP CHASSIS

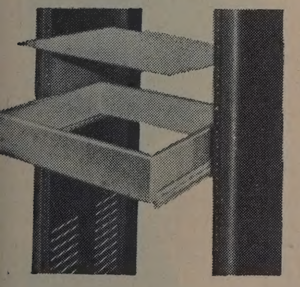
Cat. No.	Weight	Dimensions	Net Price
T-1	3#	10x17	1.70
T-2	4	13x17	2.09

Made From 16 Gauge Steel — Electro Zinc Finish



Cat. No.	Weight	W L D	Net Price
EC-1	1 #	7 x 6x2	1.02
EC-2	¾	5 x 7x1½	.97
EC-3	1	5½x 9x1½	1.12
EC-4	1¼	7½x 9x1½	1.39
EC-5	1½	7 x13x1½	1.58
EC-6	2¼	7¾x15x2	1.68
EC-7	1	7 x 8x2	1.16
EC-8	1¼	7 x10x2	1.39

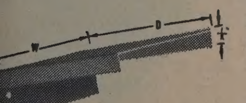
These chassis are ideal for any type of unit which is built-up, such as a record changer. Steel — Electro Zinc Only



SLIDING DRAWER CHASSIS

The drawer chassis is used where there is a need to pull out the chassis without disconnecting it from the rack. Chassis rolls in and out on ball bearings in a formed channel. When assembled it forms a rigid unit which will fit any 19″ rack. Brackets are ⅛″ Aluminum. Chassis and top plate are 14 gauge aluminum. Finish, except for slide rail assembly, is gray hammertone.

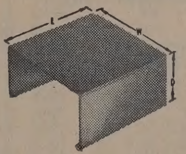
Cat. No.	Chassis Size	Brk. H	Wt.	Net Price
SD-399	16¾x14x3	6½″	6½#	$15.52



PLATFORM CHASSIS

These steel platforms are useful as variable level chassis simply by fastening to any side of a carrying case, utility box, etc. They may also be used as shields. Black enamel finish.

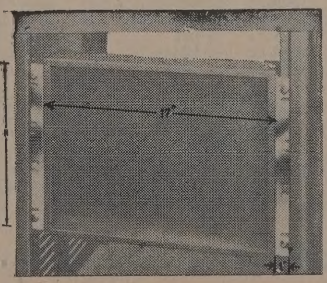
			Net Price
CD-260	4¾	5½	.70
CD-261	4¾	4½	.60
CD-262	5¾	5½	.82



MINIATURE ALUMINUM CHASSIS

These are small open end chassis for use where space is limited.

Catalog No.	Width	Length	Depth	Approx. Shpg. Wt.	Net Price
MA-210	2⅝	2¾	1¼	¼#	.39
MA-211	1¾	3⅛	1	¼	.43
MA-212	3¼	4½	2	¼	.49
MA-213	2¾	4⅛	1	¼	.46
MA-214	3¾	4⅛	1½	¼	.46
MA-215	3	6⅛	1¼	¼	.56



CHASSIS FLANGES

These 1″ chassis flanges will convert any 17″ chassis to a 19″ panel rack chassis. Made of 16 gauge Zinc plated steel.

Catalog No.	Height	Shpg. Wt.	Net Price
CF-12	5¼	½#	.94
CF-13	7	½	1.00
CF-14	8¾	1	1.07
CF-15	10½	1	1.16
CF-16	12¼	1	1.22
CF-17	14	1	1.34

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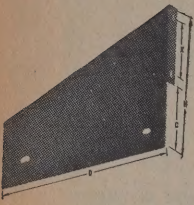
CALIFORNIA *Chassis* COMPANY



CHASSIS MOUNTING BRACKETS

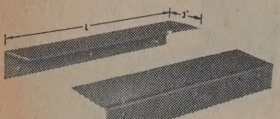
To assure the proper support for a chassis a sturdy mounting bracket it uted. Flange is ⅝″ inside dimension. Elongated hole 3/16″ x 11/32″ is centered in flange. "X" shows the distance between flange holes. Finished in Zinc plated "C" or Wrinkle "W" may be had at additional cost of 15%.

Black Enamel	Height	x	Depth	Clearance	Wt.	Net Price
E-58B	6½	2½	8	3 1/16	1¼	1.07
E-57B	6½	2½	9	3 1/16	1½	1.50
E-48B	6½	2½	10	3 1/16	1¾	1.34
E-59B	6½	2½	11	3 1/16	1¾	1.50
E-49B	6½	2½	12	3 1/16	1¾	1.75
E-60B	6½	2½	13	3 1/16	2	1.68
E-50B	8½	3½	10	4 1/16	2½	1.96
E-51B	8½	3½	13	4 1/16	3	2.09
E-52B	12	7	15	4 1/16	4½	3.09
E-53B	14	8	17	5 1/16	5¾	3.55

TRIANGULAR MOUNTING BRACKETS

Cat. No.	Height	Dimensions	Net Price
MB-55	½	5x5	1.02
MB-77	1½	7x7	1.19
MB-99	1¾	9x9	1.41

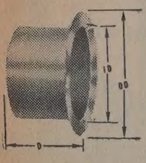
Steel — Black Enamel Only



CHASSIS SUPPORT ANGLES

These angles when bolted to the sides of a cabinet will support a heavy chassis unit. They are made of ⅛″ thick steel and are finished in black enamel only.

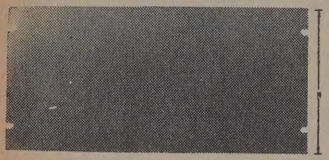
Cat. No.	Length	Width	Shpg. Lbs. Wt.	Price Net
CA-12	12	3	3	2.14
CA-14	14½	3	4	2.24



METER SHIELD

This shield is made of spun aluminum. It will fit over the meter and effectively stops most interference. Furnished with no holes and in natural finish only.

Catalog Number	L	I.D.	O.D.	Meter Size	Net Price
MSA-2	2-3/16	2-1/32	2⅞	2	1.75
MSA-3	2	2-25/32	3¾	3	1.75



RELAY RACK PANELS

Regular panels are made from ⅛″ steel or aluminum material. Aluminum is 1100 H 14. Notching is either Western Electric (WE) or Amateur (A). Finish Black or Gray Wrinkle or Silver Gray Hammertone. Aluminum is standard and will be sent unless steel is specified. Panels in any material will be furnished 24″ wide instead of 19″ wide at twice the cost.

Notching						
Western Electric	Amateur	Height	Width	Wt. Alum.	Wt. Steel	Steel Price Net
PW-10	PA-10	1¾	19	½	1¼	.87
PW-11	PA-11	3½	19	¾	2¼	1.00
PW-12	PA-12	5¼	19	1¼	4	1.34
PW-13	PA-13	7	19	1½	4¾	1.51
PW-14	PA-14	8¾	19	2	6	1.89
PW-15	PA-15	10½	19	2½	6¾	2.16
PW-16	PA-16	12¼	19	3	8¾	2.53
PW-17	PA-17	14	19	3½	9¾	2.96
PW-18	PA-18	15¾	19	4	10¾	3.28
PW-19	PA-19	17½	19	4½	12	3.74
PW-20	PA-20	19¼	19	5	13	4.13
PW-21	PA-21	21	19	5½	15¾	4.57
PW-22	PA-22	24½	19	6	18½	7.00
PW-23		26¼	19	7	20¼	7.75

METER PANELS

All panels are 5¼″ x 19″ x ⅛″ steel or aluminum, black or grey wrinkle — designed to handle either 2″ or 3″ meters. All units Western Electric notch.

ALUMINUM

Cat. No.	Wt.	No. Holes	Dia.	Net Price
MPA-32	1	3	2 3/16	2.69
MPA-52	1¼	5	2 3/16	3.13
MPA-33	1⅛	3	2 13/16	2.69
MPA-53	1	5	2 13/16	3.13

STEEL

Cat. No.	Wt.	No. Holes	Dia.	Net Price
MPS-32	3	3	2 3/16	1.94
MPS-52	2¾	5	2 3/16	2.55
MPS-33	3½	3	2 13/16	1.94
MPS-53	3	5	2 13/16	2.55

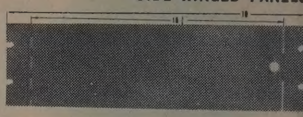
Small holes are for 2″ meters, larger holes are for 3″ meters.

HARD ALUMINUM PANELS

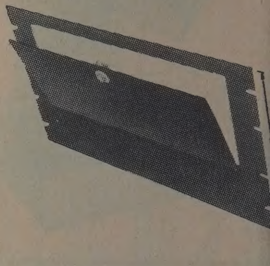
Cat. No.	Height	Width	Wt.	Net Price
PWHA-10	1¾	19	½	1.63
PWHA-11	3½	19	¾	2.06
PWHA-12	5¼	19	1¼	2.72
PWHA-13	7	19	1½	3.32
PWHA-14	8¾	19	2½	3.93
PWHA-15	10½	19	2½	4.59
PWHA-16	12¼	19	3	5.25
PWHA-17	14	19	3½	6.07
PWHA-18	15¾	19	4	6.78
PWHA-19	17½	19	4½	7.48
PWHA-20	19¼	19	5	8.18
PWHA-21	21	19	5½	8.87
PWHA-22	24½	19	6	10.73
PWHA-23	26¼	19	7	11.68

These ⅛″ panels are recommended for high quality work. They are 2024T3 aluminum. Notching is Western Electric, but Amateur on request at no added cost. We also carry a complete line of 3/16″ or .188 panels. These are all 2024T3.

SIDE HINGED PANELS



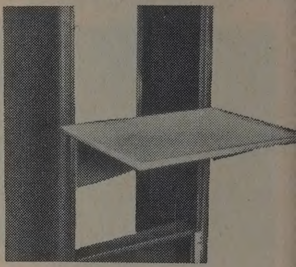
Cat. No.	Height	Wt.	Net Price
SH-12	5¼	4¼	3.66
SH-13	7	5½	3.94
SH-14	8¾	6¾	4.23
SH-15	10½	7¼	4.56
SH-16	12¼	8¾	4.91



FRONT HINGED DOOR PANEL

This door gives access to the chassis top. It is free moving and has a substantial catch. Made of ⅛″ steel. Please specify finish.

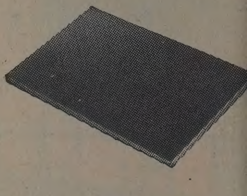
Cat. No.	Height	Door	Net Price
FH-430	10½	6 x15⅜	6.07
FH-432	12¼	7½x15⅜	7.48



EXTERIOR RACK SHELVES

The exterior shelf replaces a panel when a shelf is needed. Unit is composed of a 16 gauge steel shelf with seam welded front corners and two supporting ⅛″ steel brackets. All hardware included.

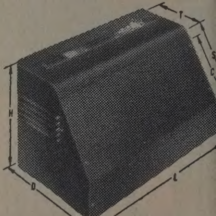
Cat No.	Shelf Size	Wt.	Net Price
ER-416	16x22	12	11.66
ER-420	20x22	15	11.83



INTERIOR RACK SHELVES

These 16 gauge steel shelves may be supported in the rack by chassis support angles CA-12 or CA-14. They are used to form a strong shelf for modulator units, power supplies etc. Finish black enamel.

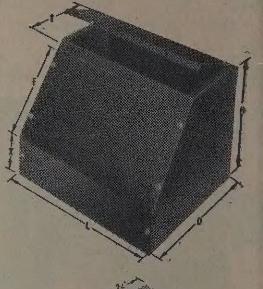
Cat. No.	Size	Shpg. Wt.	Price Net
RS-512	12x19	5½	2.64
RS-515	15x19	6½	3.47



SLOPING FRONT CABINETS

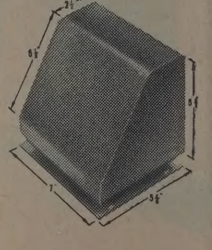
These deluxe all purpose steel cabinets are designed for wide use in the electronic field. Front and top corners are rounded, sides have stainless steel ventilators. Embossed feet to prevent scratching. Gray wrinkle finish.

Catalog No.	D	H	L	T	X	S	C	Use This Chassis	Net Price
SFC-42	8	8	8	4¼	2¾	6	5¼	C-104	5.19
SFC-44	8	8	10	4¼	2¾	6	5¼	C-105	7.29
SFC-46	8	8	14	4¼	2¾	6	5¼	C-114	8.79
SFC-48	12	12	18	6	3⅛	10⅜	9½	C-110	11.78



HINGED TOP SLOPING CABINET

This cabinet provides for a complete opening of top and front. Bottom has embossed feet. Rear has opening for connectors. Black wrinkle or Gray hammertone finishes.



ENCLOSED METER CABINET

Enclosed Meter Cabinet bottom is open. Bottom plate with embossed feet and four sheet metal screws included. Gray wrinkle unless other color specified. Available in black wrinkle, silver gray hammertone at no additional cost. Steel or Aluminum.

Catalog No. EMC-2

CALIFORNIA CHASSIS CO. — Lynwood, California

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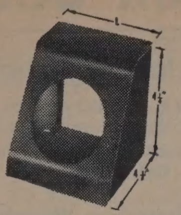
CALIFORNIA *Chassis* COMPANY

METER CABINETS

Meter Size		Aluminum Cat. No.	Net Price			Wt. Lbs.	Net Price
2″	4 ″	MC-2	1.43	½	SMC-2	1½	1.12
3″	4 ″	MC-3	1.43	½	SMC-3	1½	1.12
No Holes	4 ″	MC-4	1.43	½	SMC-4	1½	1.12
2″	4 ″	MC-6*	1.43	½	SMC-6*	1½	1.12
3″	4 ″	MC-7*	1.43	½	SMC-7*	1½	1.12
No Holes	7½″	MC-8	2.06	¾	SMC-8	2¼	1.87
3″	6 ″	HAC-MC-7*	2.06	¾			

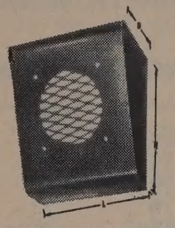
* Indicates it has two ½″ holes on ¾″ centers at top of cabinet for insulators. 2″ meter hole is 2³⁄₁₆″. 3″ meter hole is 2¹³⁄₁₆″.



WALL SPEAKER CASES

These all metal cases have keyslotted holes on the rear for easy mounting. They are also provided with embossed feet on one side. Finish is gray hammertone for ease of cleaning.

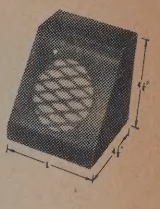
Catalog No.	Speaker Size	Hole Size	H	L	D	Wt.	Price Net
WS-304	4	3½	7½	6½	4¼	1¾	3.20
WS-305	5	4	½7	6½	4¼	1¾	3.37
WS-306	6	4¾	9½	8	5⅝	3	3.81
WS-308	8	6½	11½	9½	7	4	4.68
WS-310	10	8½	13½	11½	8¼	5	5.88
WS-312	12	10½	15½	13½	9¾	6	7.38



MINIATURE SPEAKER CABINETS

These small meter cabinets are like the MC series except the meter hole is covered by an expanded metal shield. Furnished in steel only. Black wrinkle standard.

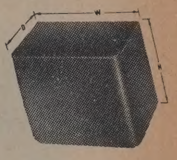
Catalog No.	Length	Meter Size	Wt. Lbs.	Net Price
MS-261	4″	2″	¾	1.77
MS-262	4″	3″	¾	1.77

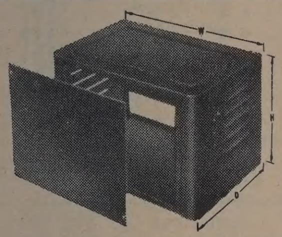


STREAMLINED MINIATURE CABINETS

This miniature steel cabinet has a radiussed face. The base has four embossed feet. There rear is open except for a ¼″ flange down two sides. This gives rigidity as well as a place to attach a back cover. Gray wrinkle standard.

Catalog No.	H	W	D	Wt.	Net Price
SM-271	4½	5½	3½	1 #	1.90
SM-272	6½	5½	3½	1½	1.96

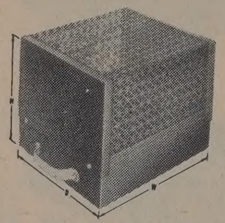




DELUXE AMPLIFIER FOUNDATION

This foundation is used where the chassis must be covered and appearance is important. Material is steel, finish is black wrinkle. Gray hammertone at no extra cost. Use suffix B or GH.

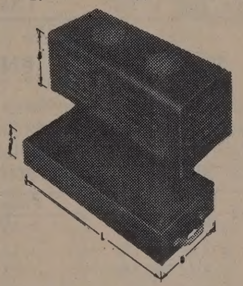
Cat. No.	Length	Depth	Wt.	Net Price
DA-420	10	5	4½	6.82
DA-421	12	7	5	8.04
DA-422	17	7	8	8.50
DA-423	17	10	9	9.25



STREAMLINED INSTRUMENT CABINET

Miniature aluminum chassis MA series are usually used with this cabinet. Black wrinkle is standard.

atalog No.	Panel Space	Height	Width	Depth	Wt.	Net Price
SC-31	8x 8	8	10½	8¼	5¾	4.37
SC-32	8x10	8	12½	8¼	6	5.42
SC-33	8x12	8	14½	8¼	6½	5.88
SC-34	8x14	8	16½	8¼	7	6.17
SC-35	8x16	8	18½	8¼	7¾	6.77
SC-36	12x18	12	20½	12	15	12.17



AMPLIFIER FOUNDATIONS

These consist of a chassis and perforated metal cover. They have ample ventilation. Handles are included in each package. Black wrinkle standard.

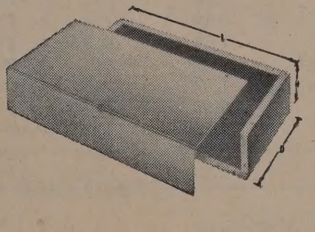
Catalog No.	Height	Width	Depth	Chassis Height	Shpg. Wt.	Net Price
AF-240*	6	7⅜	5⅛	2	2	4.49
AF-241	8 5⁄16	9⅝	5⅛	2½	3	5.61
AF-242	8 5⁄16	13⅝	5⅛	2½	4⅜	6.43
AF-243	8 5⁄16	17⅛	7⅛	2½	6	7.29
AF-244	8 13⁄16	17⅛	10⅛	3	8	10.01

* Has one handle only — at top.

UTILITY BOX — REMOVABLE COVER

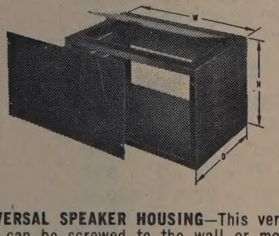
This model allows complete accessibility to the interior of the unit. All work may be completed before cover is installed.

Cat. No.	D L	H	Net Price
HA-10	3x 4	x1½	1.50
HA-11	4x 5	x2	1.96
HA-12	4x 8	x2	2.14
HA-13	5x 9½	x2½	2.33
HA-14	6x12	x2½	2.62
HA 15	7x15	x2½	3.55



INSTRUMENT CABINETS

This cabinet has a hinged access door on top and removable front cover. The elimination of the rounded corners gives more inside room. The rear has a 3½″ opening for ventilation plus louvers at each end. The open end chassis, E.C. series, is usually used with these cabinets. Black wrinkle only.

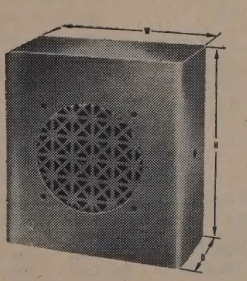


Cat. No.	H	W	D	Ship. Wt.	Net Price
HTC-342	7	8	8	5	3.77
HTC-343	7	10	8	5½	4.86
HTC-344	7	12	8	5¾	5.13
HTC-345	7	14	8	6	5.51
HTC-346	8	16	8	7	7.58
HTC-347	9	15	11	8	7.75
HTC-348	12	18	12	14½	11.12

NIVERSAL SPEAKER HOUSING—This versatile it can be screwed to the wall or mounted rectly to an outlet box. If greater adjustility is desired a yoke or "U" shaped speaker acket, one of the USHB series, can be used.

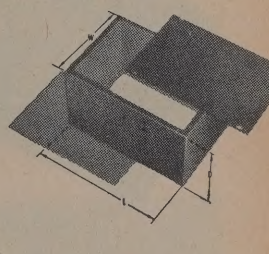
eaker openings face front and back for bilateral sound projection. This makes them very aptable for use in halls or auditoriums. Being steel they do not weather and are easy to ean. Interior is coated with a sound deadening terial. Finish is silver gray hammertone.

Cat. No.	Speak. Size	H	L	D	Wt.	Price Net
SH-534	4 or 5	7¼	6¾	3½	2½	5.51
SH-535	5 or 6	8¼	7½	4	2¾	5.98
SH-536	6 or 8	10⁹⁄₁₆	9½	5	4½	9.62
SH-540	10 or 12	15	13½	7⁷⁄₃₂	9	13.09



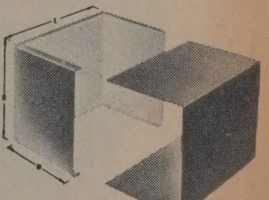
METAL UTILITY CABINETS

Catalog No.	Wt. Stl.	D	W	L	Wt. Alm.	Painted Alum.
CAB-1	¾	2″	4″	4″	⅜	1.68
CAB-2	1	3″	5″	4″	½	1.87
CAB-3	1½	4″	5″	6″	¾	2.14
CAB-4	2½	6″	6″	6″	1	2.53
CAB-5	3¼	5″	6″	9″	1¼	3.09
CAB-6	4¾	7″	8″	10″	2	3.76
CAB-7	5	6″	7″	12″	2	3.76
CAB-8	6	8″	10″	10″	2½	4.91
CAB-9	7	8″	11″	12″	2¾	5.90
CAB-10	7	7″	9″	15″	2¾	6.82



MINIATURE CABINETS

Aluminum Gray Hammertone Cat. No.	Net Price	Etched Aluminum Cat. No.	Net Price	L H W
M-51	.83	M-81	.61	2¾x2⅛x1⅝
M-52	.95	M-82	.85	2¾x2⅛x2¾
M-53	1.04	M-83	.66	3¼x2⅛x1⅛
M-54	.88	M-84	.61	3¼x2⅛x1⅝
M-55	.92	M-85	.65	4 x2⅛x1⅝
M-56	1.00	M-86	.83	4 x2¼x2½
M-57	1.16	M-87	.83	4 x2 x2¾
M-58	1.17	M-88	.87	4¼x2¼x1½
M-59	1.21	M-89	.90	5 x2¼x2¼
M-60	1.29	M-90	.99	5 x4 x3
M-61	1.14	M-91	.97	5¼x3 x2½
M-62	1.85	M-92	1.28	6 x5 x4
M-63	1.89	M-93	1.34	7 x5 x3
M-64	2.28	M-94	2.02	8 x6 x3½
M-65	1.41	M-95	1.28	10 x2 x1⅝
M-66	2.79	M-96	2.21	10 x6 x3½
M-67	1.62	M-97	1.24	12 x2½x2¼
M-68	3.30	M-98	1.97	12 x7 x4
M-69	3.88	M-99	3.28	17 x5 x4



CHROME VENTILATING LOUVERS

These are made of stainless steel with a high polish finish. They fit our sloping face cabinets but can be adopted to any unit. They fit behind a 2x4⅜ rectangular hole and mount on 4-27/32 centers. Sold pair with screws.

Catalog No. TRM-40 .78

CALIFORNIA CHASSIS CO. — Lynwood, California

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LMB® Box Chassis

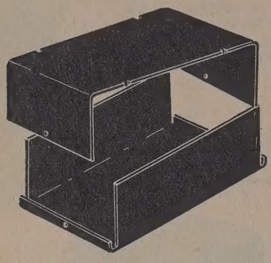
The Engineered Precision Line with Interlocking and Flangelocking Construction

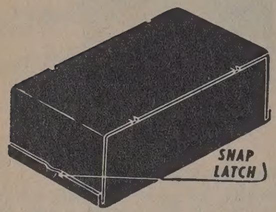
Here is the answer to box chassis needs, for the laboratory, manufacturer, experimenter, or builder. The following L. M. B. Boxes are available from stock in either interlocking (screw fastened) or snap latch. All screw fastenings are drilled and tapped. Self tapping screws are not used. Available colors include natural aluminum, gray or brown hammertone, and black crackle. When ordering specify style and color.

Aluminum used in all LMB products is aircraft quality specifications type 3003-H 14.

All prices quoted are dealer net. Manufacturers Special Discounts on Application.

Interlocking

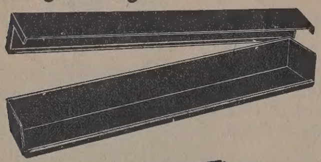


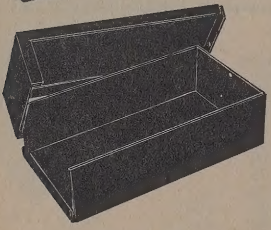


INTERLOCKING (SCREW-FASTENED OR SNAP LATCH)

Model	Size	Price	Model	Size	Price
M00	2¼″ x 1½″ x 1⅜″	.57	138	6¼″ x 3½″ x 2⅛″	1.32
00Z	2 5/16″ x 2⅛″ x 1¾″	.64	139	5½″ x 3″ x 1¼″	1.01
000	3¼″ x 2⅛″ x 1⅝″	.68	140PL	3″ x 4″ x 5″	1.29
00	4″ x 2⅛″ x 1⅝″	.71	140	3″ x 4″ x 5″	1.61
100	2¾″ x 2⅛″ x 2⅝″	.89	141PL	6″ x 4″ x 3″	1.44
101	4¼″ x 2¼″ x 1¼″	.87	141	6″ x 4″ x 3″	1.72
102	4″ x 2″ x 2¾″	1.02	142PL	6″ x 4″ x 5″	1.68
107	4″ x 2¼″ x 2¼″	.96	142	6″ x 4″ x 5″	2.11
108	5″ x 2¼″ x 2¼″	1.03	143	4″ x 4″ x 2″	1.33
135	3¾″ x 3″ x 2⅛″	.97	144	10″ x 4″ x 2½″	2.19
136	5¼″ x 3″ x 2⅛″	1.08	145	7″ x 5″ x 3″	2.11
650	6½″ x 2⅛″ x 1⅝″	1.05	146	8″ x 6″ x 4½″	2.99
137	8″ x 3″ x 2¾″	1.61	15	12″ x 2″ x 1¾″	1.61
850	8½″ x 2⅛″ x 1⅝″	1.35			

Flangelocking



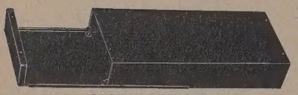


Endlock

SIDELOCK and ENDLOCK CONSTRUCTION

L. M. B. aluminum Box chassis with sidelock and endlock construction are dust proof, semi-water, and rain proof. Sturdy construction and 100% shielded. The following models are available in plain aluminum, or finished in black, gray, or brown. Endlock or sidelock construction:

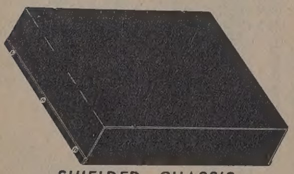
Model	Size	Price	Model	Size	Price
221	2¾″ x 3⅛″ x 1⅝″	1.13	654	6″ x 5″ x 4″	2.51
321	3¼″ x 2⅛″ x 1⅝″	1.13	666	6″ x 6″ x 6″	3.39
421	4″ x 2⅛″ x 1⅝″	1.13	686	6″ x 8″ x 6″	4.27
422	4″ x 2¼″ x 2¼″	1.29	695	6″ x 9″ x 5″	3.84
424	4″ x 2″ x 4″	1.98	753	7″ x 5″ x 3″	2.60
435	4″ x 3″ x 5″	2.19	754	7″ x 5″ x 4″	2.76
444	4″ x 4″ x 4″	1.89	863	8″ x 6″ x 3½″	2.86
531	5¼″ x 3″ x 1½″	1.29	865	8″ x 6″ x 5″	3.57
532	5¼″ x 3″ x 2⅛″	1.47	1063	10″ x 6″ x 3½″	3.57
534	5⅝″ x 3″ x 4″	2.06	1085	10″ x 8″ x 5″	4.42
543	5″ x 4″ x 3″	1.87	1221	12″ x 2″ x 1¾″	1.87
546	5″ x 4″ x 6″	2.74	1274	12″ x 7″ x 4″	4.65
645	6″ x 4″ x 5″	2.60	1754	17″ x 5″ x 4″	5.27


SLIDE COVER

SLIDE COVER (or dust cover) BOXES

Designed by BROADCAST ENGINEERS

No.	L W H	Ea.	No.	L W H	Ea.
16—Natural Aluminum	13″ x 3⅛″ x 2⅝″	$1.85	18—Natural Aluminum	13″ x 5¼″ x 2⅝″	3.50
16—Gray, Black, Brown	13″ x 3⅛″ x 2⅝″	2.52	18—Gray, Black, Brown	13″ x 5¼″ x 2⅝″	4.30
17—Natural Aluminum	13″ x 4⅛″ x 2⅝″	3.18	19—Natural Aluminum	17″ x 3⅛″ x 2⅝″	3.35
17—Gray, Black, Brown	13″ x 4⅛″ x 2⅝″	3.95	19—Gray, Black, Brown	17″ x 3⅛″ x 2⅝″	4.15

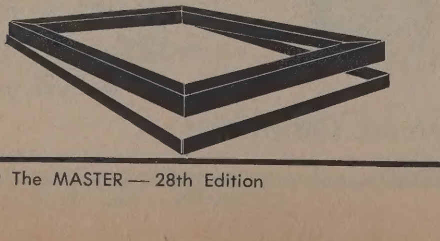

SHIELDED CHASSIS

SHIELDED CHASSIS

	L W H	Ea		L W H	Ea.
No. 20 Plain	7½″ x 7″ x 2″	$1.67	No. 21 Anodized	13″ x 10″ x 3″	$5.81
No. 20 Anodized	7½″ x 7″ x 2″	2.06	No. 22 Plain	17″ x 10″ x 3″	5.13
No. 21 Plain	13″ x 10″ x 3″	4.34	No. 22 Anodized	17″ x 10″ x 3″	6.67

PRINTED CIRCUIT CHASSIS

Printed circuit chassis are made with a shallow base with a cap cover on the bottom so that it can be removed to work on the assembly without removing the printed circuit from the chassis. All printed circuit chassis are of plain aluminum.



STANDARD SIZES

Model No.	L	W	D	Mounting Lip	Price
PC 325	3	2	½	3/16″	ea. .70
PC 635	6	3	½	3/16″	ea. .80
PC 645	6	4	½	⅛″	ea. .91
PC 855	8	5	½	⅛″	ea. 1.04
PC 10875	10	8	¾	½″	ea. 1.52
PC 12975	12	9	¾	⅝″	ea. 1.76

Model No.	Size	Mounting Lip	Model No.	Size	Mounting Lip
D 7131	7 x 13 x 1	½″	D 541	5 x 4 x 1	½″

for use in building with the Danco model No. 14 printed amplifier circuit ea. 1.17

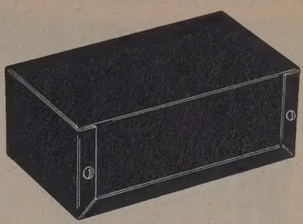
for use in building with the Danco model No. 21, 31, 41 printed preamplifier circuit ea. $ .63

PRICES SUBJECT TO CHANGE

L M B • LOS ANGELES, CALIF.

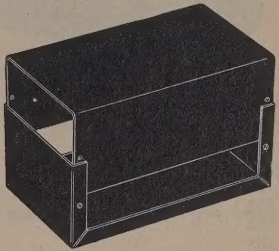
L M B® Box Chassis (Continued)

TITE-FIT BOX CHASSIS



	Each	DEALER NET Plain	DEALER NET Gray, Black, Brown		Each	DEALER NET Plain	DEALER NET Gray, Black, Brown
T-F 770	2¾x2⅛x1⅝	$ .62	$ .81	T-F 780	5¼x3 x2⅛	.82	$1.12
T-F 771	2¾x2⅛x2¾	.68	.95	T-F 781	6 x5 x4	1.47	1.83
T-F 772	3¼x2⅛x1⅛	.62	.84	T-F 782	7 x5 x3	1.40	1.86
T-F 773	3½x2⅛x1⅝	.62	.84	T-F 783	8 x6 x3½	1.72	2.25
T-F 774	4 x2⅛x1⅝	.62	.95	T-F 784	10 x6 x3½	2.02	2.54
T-F 775	4 x2¼x2¼	.75	.97	T-F 785	10 x2 x1⅝	1.15	1.57
T-F 776	4 x2 x2¾	.75	1.00	T-F 786	12 x2½x2¼	1.37	1.67
T-F 777	4¼x2¼x1½	.72	1.00	T-F 787	12 x7 x4	2.71	3.43
T-F 778	5 x2¼x2¼	.78	1.03	T-F 788	17 x5 x4	2.92	3.44
T-F 779	5 x4 x3	.94	1.32				

JIFFY BOX CHASSIS

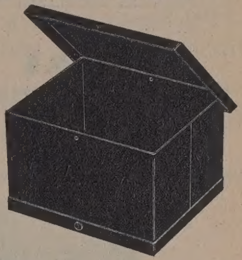


NO SCREWS

Just push together to close and the Catches snap into place—just a slight pressure of the fingers to open.

	Each	PRICES Plain	PRICES Gray, Black, Brown		Each	PRICES Plain	PRICES Gray, Black, Brown
J-870	2¾x2⅛x1⅝	.62	$ .81	J-880	5¼x3 x2⅛	$ .82	$1.12
J-871	2¾x2⅛x2¾	.68	.95	J-881	6 x5 x4	1.47	1.83
J-872	3¼x2⅛x1⅛	.62	.84	J-882	7 x5 x3	1.40	1.86
J-873	3½x2⅛x1⅝	.62	.84	J-883	8 x6 x3½	1.72	2.25
J-874	4 x2⅛x1⅝	.62	.95	J-884	10 x6 x3½	2.02	2.54
J-875	4 x2¼x2¼	.75	.97	J-885	10 x2 x1⅝	1.15	1.57
J-876	4 x2 x2¾	.75	1.00	J-886	12 x2½x2¼	1.37	1.67
J-877	4¼x2¼x1½	.72	1.00	J-887	12 x7 x4	2.71	3.43
J-878	5 x2¼x2¼	.78	1.03	J-888	17 x5 x4	2.92	3.44
J-879	5 x4 x3	.94	1.32				

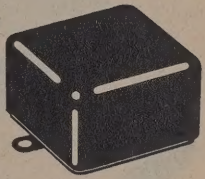
UTILITY BOXES



Give approximately 25% more usable spaces for building.

	Each	ALUM. GAUGE	PRICES Plain	PRICES Gray, Black, or Brown		Each	ALUM. GAUGE	PRICES Plain	PRICES Gray, Black, or Brown
U-C 970	4x 4x2	.040	$1.57	$1.82	U-C 976	10x 8x7	.051	$4.63	$5.35
U-C 971	5x 4x3	.040	1.69	1.98	U-C 977	12x 7x6	.051	4.46	5.30
U-C 972	6x 5x4	.040	2.18	2.52	U-C 978	10x10x8	.051	5.90	6.85
U-C 973	6x 6x6	.040	2.55	3.02	U-C 979	12x11x8	.051	7.06	8.02
U-C 974	7x 5x3	.040	2.98	3.48	U-C 980	15x 9x7	.051	7.15	8.11
U-C 975	9x 6x5	.051	3.38	3.89					

MINIATURE BOX CHASSIS



Precision made in steel only, cadmium plated. Made with or without mounting ears. Covers solder in when used in assembly.

SIZES

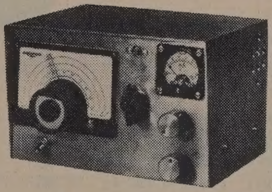
No.	L	W	H	No.	L	W	H	No.	L	W	H
M-01	1⅛″	1″	½″	* 09	2⅝″	1″	⅜″	016	2″	1¾″	¾″
02	1″	⅞″	½″	010	1¾″	1¼″	⅞″	017	2″	1¾″	1″
*04	1¼″	1³⁄₃₂″	⅞″	011	2″	1¼″	¾″	018	2″	2″	1¼″
*06	1½″	1⅛″	½″	*012	2″	1¼″	1″	*019	2½″	1¾″	⁹⁄₁₆″
07	1¾″	1″	¾″	*013	1¾″	1¼″	1″	*020	1½″	1½″	1″
*08	2¼″	1″	⁵⁄₁₆″	014	1½″	1½″	¾″	*021	2½″	1¾″	¾″
				*015	2″	1¾″	½″	022	3⅛″	1¾″	½″

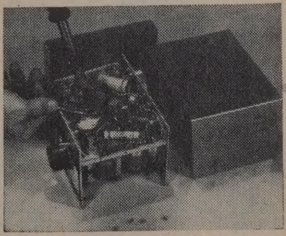
* Without Mounting Ears

PRICES

	Plain	Plated
With Mounting Ears in Lots of 100 to 999 ea.	.49	.65
Without Mounting Ears 100 to 999 ea.	.41	.57
Covers for LMB Miniature Boxes 100 to 999 ea.	.15	

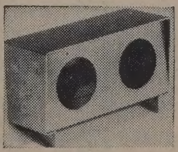
UTILITY ENCLOSURES

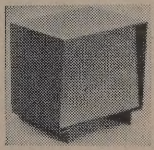




No.	L	W	H		Plain	Gray
W-1A	7″	x 5″	x 4½″	with built in chassis	$3.97	$4.84
W-1B	10″	x 4″	x 3½″	with built in chassis	3.97	4.84
W-1C	8½″	x 6⅛″	x 5″	with built in chassis	4.43	5.33
W-1D	18″	x 9″	x 11″	will accommodate an 11″ x 17″ 2″, 3″ or 4″ chassis	9.75	13.13

"AL-CAB" CABINETS for meter cases or any application where outstanding appearance is needed

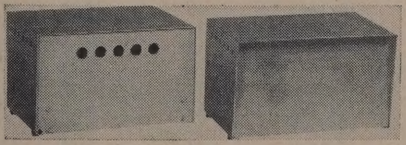




No.	L	W	H		Plain	Gray
W-2AP	3½″	x 4″	x 3″	with holes	$1.88	$2.18
W-2A	3½″	x 4″	x 3½″	without holes	1.98	2.28
W-2B	3″	x 7″	x 3½″	with and without holes	2.25	2.67
W-2C	2⅜″	x 7″	x 3½″	without holes	2.93	3.36
W-2E	4½″	x 4½″	x 3½″	without holes	2.30	2.60

Holes in W-2AP, 2B are 2¼″, 2¹³⁄₁₆″. For 4″ Meter holes and knockout, add 10% to above prices.

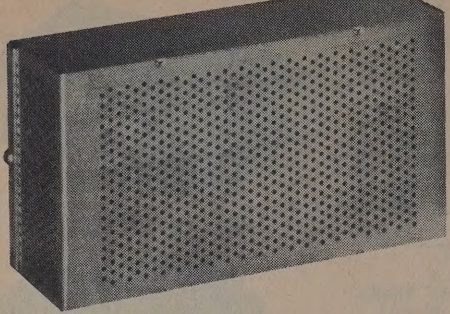
W.M. "AL-CAB" Deluxe Series All with Built-in Chassis



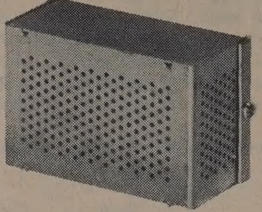
No.	L	W	H	Plain	Gray
W-2F	7½″ x	5″ x	4½″	$4.40	$5.18
W-2G	13″ x	10″ x	5¾″	9.36	11.06
W-2H	7″ x	11″ x	6″	7.38	8.63
W-2J	8″ x	11½″ x	7½″	8.10	9.35

PRICES SUBJECT TO CHANGE

L M B® (Continued)



LMB PERFORATED BOX CHASSIS



LMB Perforated Boxes are adaptable wherever heat dissipation is required as they are spaced in perforations that are set by laboratory research to give utmost heat dissipation and also give utmost shielding. They are die perforated on three sides and top of the box.

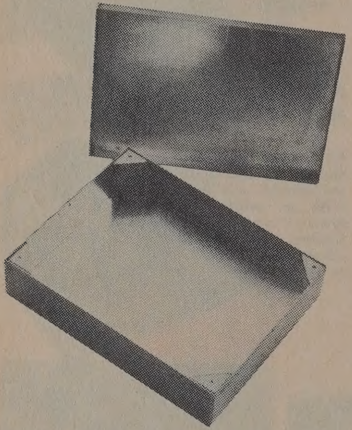
NO.	FINISH	SIZE	NET EA.	NO.	FINISH	SIZE	NET EA.
00Z	Plain or Gray	2 5/16 x 2⅛ x 1¾	$ .83	138	Plain or Gray	6¼ x 3½ x 2⅛	$1.82
000	" "	3¼ x 2⅛ x 1⅝	.95	139	" "	5½ x 3 x 1¼	1.36
00	" "	4 x 2⅛ x 1⅝	1.02	140	" "	3 x 4 x 5	1.75
100	" "	2¾ x 2⅛ x 2⅝	1.20	141	" "	6 x 4 x 3	1.88
101	" "	4¼ x 2¼ x 1¼	1.12	142	" "	6 x 4 x 5	2.18
102	" "	4 x 2 x 2¾	1.41	143	" "	4 x 4 x 2	1.40
107	" "	4 x 2¼ x 2¼	1.09	144	" "	10 x 4 x 2½	2.19
108	" "	5 x 2¼ x 2¼	1.50	650	" "	6½ x 2⅛ x 1⅝	1.41
135	" "	3¾ x 3 x 2⅛	1.36	850	" "	8½ x 2⅛ x 1⅝	1.59
136	" "	5¼ x 3 x 2⅛	1.50	15	" "	12 x 2 x 1¾	1.79
137	" "	8 x 3 x 2¾	2.14				

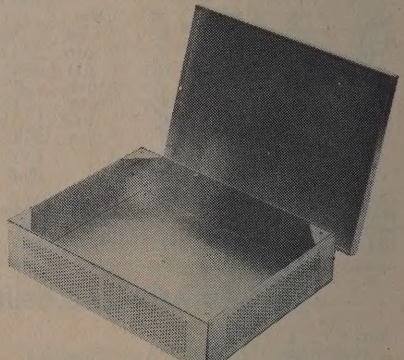
L M B
PRESENTS SOMETHING NEW IN CHASSIS —

THE CHASSIS WITH THE CAP COVER AS ORIGINATED BY LMB

Built with the new original LMB popular cap cover construction. This construction enables the builder to use either the top or the bottom of the chassis for construction. The Chassis can also be mounted on its side and construction can be on both top and bottom at the same time. Sturdily built from Aircraft quality aluminum, Type 3003, H-14, the same material as is used in the construction of all LMB precision box chassis. Special technique in welding the corners makes for a stronger chassis than the orthodox type. Cap construction allows for using all the space inside the chassis without being hindered by the mounting flange, which takes from 10% to 20% of the mounting space out of the average chassis.

The P Series are perforated on all four sides and are ideal where heat dissipation is a factor. LMB chassis — the better chassis, with the year's ahead advanced construction for your better project application. An advanced quality product competitively priced.





ALUMINUM

WITHOUT COVER				WITH CAP COVER			PERFORATED		
NO.	SIZE L W H	GUAGE	NET	NO.	L W H	NET	NO.	L W H	NET
572	5x 7x2	18	$1.17	572C	5x 7x2	$1.75	572P	5x 7x2	$2.05
573	5x 7x3	18	1.42	573C	5x 7x3	1.95	573P	5x 7x3	2.25
5952	5x9½x2	18	1.25	5952C	5x9½x2	1.85	5952P	5x9½x2	2.15
5103	5x10x3	18	1.65	5103C	5x10x3	2.25	5103P	5x10x3	2.55
5133	5x13x3	18	1.85	5133C	5x13x3	2.50	5133P	5x13x3	2.80
6173	6x17x3	18	2.67	6173C	6x17x3	3.40	6173P	6x17x3	3.70
772	7x 7x2	18	1.35	772C	7x 7x2	1.90	772P	7x 7x2	2.20
792	7x 9x2	18	1.46	792C	7x 9x2	1.95	792P	7x 9x2	2.25
7112	7x11x2	18	1.58	7112C	7x11x2	2.30	7112P	7x11x2	2.60
7123	7x12x3	18	2.03	7123C	7x12x3	2.75	7123P	7x12x3	3.05
7153	7x15x3	18	2.67	7153C	7x15x3	3.60	7153P	7x15x3	3.90
7173	7x17x3	18	2.75	7173C	7x17x3	3.70	7173P	7x17x3	4.00
8123	8x12x3	18	2.42	8123C	8x12x3	3.23	8123P	8x12x3	3.53
8172	8x17x2	18	2.52	8172C	8x17x2	3.50	8172P	8x17x2	3.80
8173	8x17x3	16	2.95	8173C	8x17x3	4.50	8173P	8x17x3	4.80
10123	10x12x3	18	2.70	10123C	10x12x3	3.60	10123P	10x12x3	4.30
10143	10x14x3	18	2.95	10143C	10x14x3	4.30	10143P	10x14x3	4.70
10172	10x17x2	16	2.85	10172C	10x17x2	4.37	10172P	10x17x2	4.77
10173	10x17x3	16	3.40	10173C	10x17x3	5.18	10173P	10x17x3	5.98
10174	10x17x4	16	4.85	10174C	10x17x4	6.37	10174P	10x17x4	7.17
11173	11x17x3	14	4.20	11173C	11x17x3	6.60	11173P	11x17x3	7.10
12172	12x17x2	14	4.50	12172C	11x17x2	6.60	12172P	12x17x2	7.20
12173	12x17x3	14	4.60	12173C	12x17x3	6.90	12173P	12x17x3	7.50
13172	13x17x2	14	4.50	13172C	13x17x2	6.60	13172P	13x17x2	7.30
13173	13x17x3	14	4.80	13173C	13x17x3	6.90	13173P	13x17x3	7.50
13174	13x17x4	14	5.95	13174C	13x17x4	7.95	13174P	13x17x4	8.55

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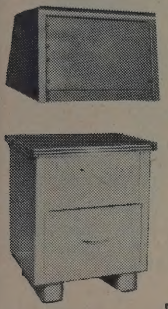
METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

CONSOLES FOR INDUSTRY . . . SCHOOLS . . . AIRPORTS . . . BROADCASTING RECORDING . . . TESTING APPARATUS . . . FOR 19″ RACK PANELS

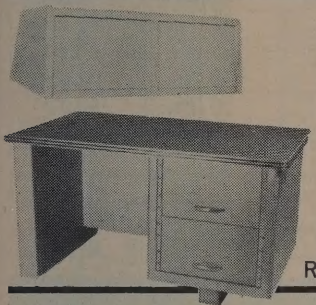

RB-100

RB-100 SINGLE PEDESTAL UNIT

This unit is designed for economy in the smaller broadcast station, school lab, etc.; a low cost unit with a wide range of uses. This unit is equipped with a sliding drawer (PD-1050-16) built into the cabinet. A blank panel (PM-1610) is provided above or below the drawer for equipment. The top has office gray linoleum touched off by attractive metal trim.

NOTE: Drawers furnished with panel mtg. screws showing unless requested as pictured.

Net Price **$148.50**

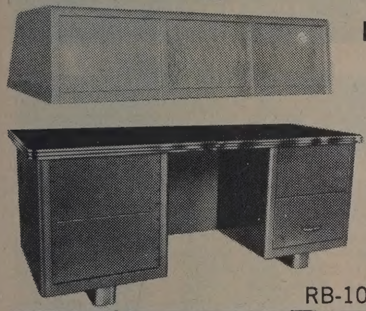

RB-101

RB-101 DOUBLE PEDESTAL UNIT

This console is designed for The Dual Turret RBT-101, equivalent to a 30 classroom unit. This unit is equipped with a sliding drawer (PD-1050-16) built in the upper or lower section of the cabinet. A blank panel (PM-1610) is provided in the remaining space. This console has a hard linoleum top trimmed with metal molding.

See Note above.

Net Price **$189.75**


RB-102

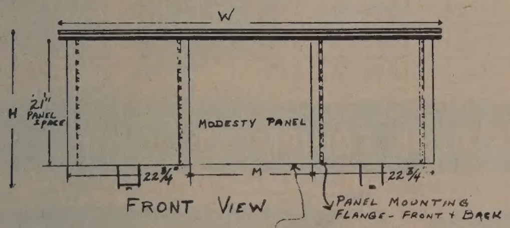
RB-102 TRIPLE PEDESTAL UNIT

This unit is the ultimate in console design. It is able to handle equipment for a 60 classroom unit. Plenty of space is provided on this large top for work area. A sliding drawer (PD-1050-16) with sufficient room for a 16″ Transcription turntable is provided in this unit. Three blank 10½″ (PM-1610) panels are provided in the remaining space. The top is an attractive office gray set off by metal trim.

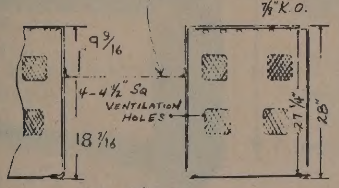
See Note above.

Net Price **$330.00**

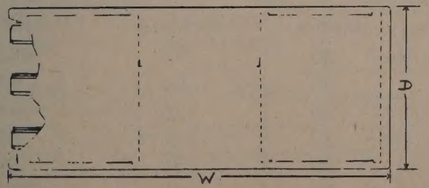
ARCHITECTS AND ENGINEERS SPECIFICATIONS



FRONT VIEW



TOP VIEW



MATERIAL: 18 ga. CRS

CONSTRUCTION:

1. Spot weld throughout. 2. Tops are spot welded and fastened with sheet metal screws. 3. Corners, brazed for added strength and finish appearance. 4. Modesty panels in the two larger models are removable via sheet metal screws. 5. Each pedestal has 21″ panel space both front and rear recessed ¼″. Rear panel furnished with (4) 4½″ screened ventilating holes same as bottom of each pedestal. 6. Panel mounting holes are punched on standard Western Electric spacing. 10-24 oval head screws, Tinnerman clips and finish washers furnished. 7. Six ⅞″ wire knockouts are provided toward rear of bottom of each pedestal. These knockouts accommodate ½″ conduit or pipe. 8. Top is covered with gray matching linoleum and trimmed with a special aluminum trim. Trim provides 2 spaces for plastic feature strips.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Catalog No.	H	D	W	M	Inside Pedestal Depth	Ship. Wt.
RB-100	29″	30″	26″		27¼″	125
RB-101	29″	30″	53″	23¼″	27¼″	190
RB-102	29″	30″	70″	21½″	27¼″	250

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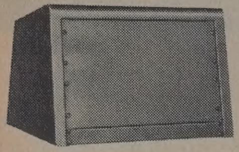
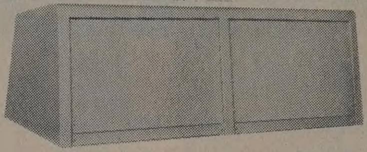
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

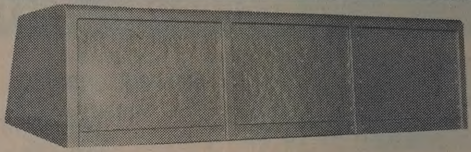
TURRETS FOR USE WITH "RB" SERIES — 19" PANELS



RBT-100 -100-1 -100-2



RBT-101 -101-1 -101-2



RBT-102 -102-1 -102-2

Turret console combinations are attractive instruments that accentuate any control room, office, etc., with their modern design.

Turrets featured in three different series and three sizes within each series offer a multiple of combinations that can be used in conjunction with our RB series of consoles. These combinations are readily adaptable to specialized applications in control equipment, testing facilities, sound systems, control units in language laboratories and many other applications in industry and entertainment services.

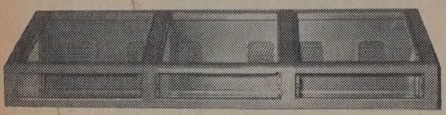
The standard turret which has 12¼" panel space is especially designed for use on the consoles (RB-100, RB-101, RB-102) and on equipment tables (RB-80-1, RB-80-3, RB-90-1, RB-90-3), although it has a wide variety of other uses.

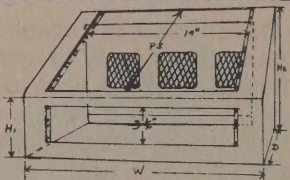
MATERIAL: 18 ga. CRS. **CONSTRUCTION:** 1. Spot weld throughout. 2. Corners brazed for added strength and finish appearance. 3. Removable rear panel for easy access to cabinet components. 4. Five ⅞" knockouts provided in rear of each panel space. These knockouts accommodate ½" conduit or pipe. 5. Two 6⅛" channel irons formed from 18 ga. CRS comprise the bottom of each turret. This type construction adds **rigidity.** 6. Front panel space has 10° slope. Rear of turrets has 10° slope. 7. Panel mounting holes are punched on standard Western Electric spacing. 8. 10/24 oval head screws, Tinnerman clips and finishing washers are furnished. 9. Panel spacing is recessed ¼". FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

For front height add 2" to H dimension.

Cat. No.	W	H	WT	WB	PS	No. of Units	Shipping Weight	Net Price
RBT-100	21¾	15½	13½	18	12¼	1	40 lbs.	$46.68
RBT-101	42	15½	13½	18	12¼	2	65 lbs.	63.54
RBT-102	62¼	15½	13½	18	12¼	3	110 lbs.	82.25
RBT-100-1	21¾	17¼	12¾	18	14	1	50 lbs.	48.74
RBT-101-1	42	17¼	12¾	18	14	2	80 lbs.	66.04
RBT-100-2	21¾	13¾	11⅝	15⅞	10½	1	35 lbs.	85.97
RBT-102-1	62¼	17¼	12¾	18	14	3	130 lbs.	46.20
RBT-101-2	42	13¾	11⅝	15⅞	10½	2	60 lbs.	62.87
RBT-102-2	62¼	13¾	11⅝	15⅞	10½	3	105 lbs.	79.37

INSTRUCTORS TURRETS FOR USE WITH "RB" SERIES — 19" PANELS





The T-103-1, 103-2, 103-3 series of turrets are especially designed for the language lab control unit ensemble. The low slope affords easy vision of the classroom as well as the equipment installed therein. These turrets are the result of considerable study in the field of audio education and are designed with the instructor, as well as maintenance personnel, in mind. Other applications of this turret are feasible where low slope aids vision of dials, meters and switch panel from a standing position. Takes panels:—ARP-123; RP-123; PM-163 or PA-163—lower space. Upper space:—ARP-1217; RP-1217; PM-1617 or PA-1617. Panels not furnished—order separately.

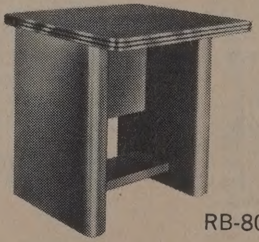
SPECIFICATIONS

MATERIAL: 18 ga. CRS. **CONSTRUCTION:** 1. Spot weld throughout. 2. Corners brazed for added strength and finished appearance. 3. Removable rear panel for easy access to cabinet components. 4. Five ⅞" knockouts provided in rear of each panel space. These knockouts accommodate ½" conduit or pipe. 5. Two 6⅛" channel irons formed from 18 ga. CRS comprise the bottom of each turret. This construction adds **rigidity.** 6. Front panel, 3½" x 19", is made especially for our SP-1635 switch panel. 7. 17½" panel space in all bays provides ample space for most installations. 8. Panel mounting holes are punched on standard Western Electric spacing. 9. 10/24 oval head screws, Tinnerman clips and finishing washers are furnished. 10. Panel spacing is recessed 5/16" to flush mount panel. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

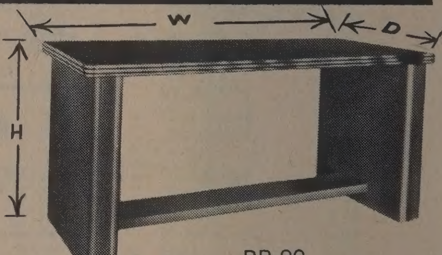
Cat. No.	W	H1	H2	D	PS	Shipping Weight	Net Price
T-103-1	22	6⅜	10	18½	17½	40 lbs.	$37.50
T-103-2	42¾	6⅜	10	18½	17½	65 lbs.	67.50
T-103-3	63⅜	6⅜	10	18½	17½	95 lbs.	99.00

EQUIPMENT TABLES FOR SMALL OR LARGE DESK EQUIPMENT

Equipment tables are exclusively in the line. They are very handy when small equipment is being used. Models 80-1 — 80-3 have an overhanging top and plenty of knee room and are used for the smaller equipment. Models 90-1—90-3 are for larger table mounting equipment and have larger tops for more working area. Top is attractive linoleum with bright metal trim. Finish is modern silver gray hammertone.



RB-80



RB-90

Cat. No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
RB-80-1	26	29	26	75	$62.91
RB-80-2	36	29	26	95	68.11
RB-80-3	46½	29	26	120	71.61
RB-90-1	53	29	30	120	84.94
RB-90-2	60	29	30	130	87.12
RB-90-3	70	29	30	150	89.27

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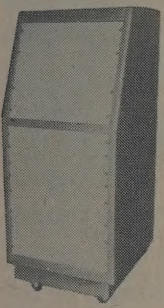
CABINET CONSOLES



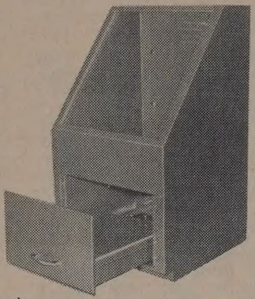
CR-1001

This is a combination console and rack cabinet for applications requiring a minimum of horizontal space.

The upper panel space is large enough to mount a 17" television screen for testing equipment.

Lower panel area has sufficient space for control equipment.

Net Price **$150.00**



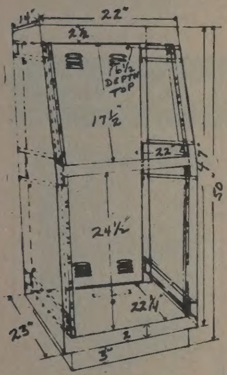
CR-1005

This console rack fits in well where height might be a problem yet offers a sufficient amount of panel space for most applications.

The base area contains a space for mounting a record player or an automatic turntable drawer. The control panel area has a 38° slope for good visibility.

Rear of console rack has a removable louvered panel for easy servicing of the unit.

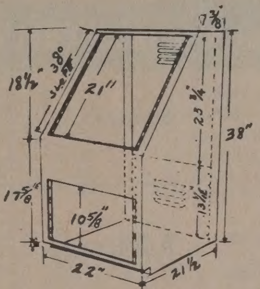
Net Price **$112.50**



CR-1001

MATERIAL: 16 ga. CRS except panel mounting angles and these are made of 13 ga. CRS. CONSTRUCTION: 1. Spot welded and brazed throughout. 2. Upper and lower panel mounting angles drilled and tapped to 10-32 thread. 3. Ball corners brazed for added strength and finish appearance. 4. Rear panel removable, attached with Tinnerman clips and screws. 5. 1¾" x 6" rectangle slot punched out of bottom and 1½" dia. hole in rear bottom for wiring inlet. 6. All reinforced channel iron on sides (3 ea. side) formed from 18 ga. CRS. 7. Channel support panel mounting angles and are fastened with ¼ x 20 binding head screws. 8. Upper panel space is on a 20° slope. 9. Two sets of four louvers each provided in top and bottom of rear panel. 10. Sides, front and back, and top, are formed with ⅝" radius. 11. Sides and top have a ¼" flange turned in for added strength and smooth corners. 12. Four gussets—one on each corner, drilled for mounting 2½" rubber casters. 13. Casters are guaranteed to hold up 100 lbs. of weight each; total load capacity per console is 400 lbs. 14. Cabinet weight—105 lbs. 15. Shipping weight—140 lbs. Shipped assembled. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

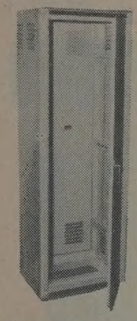
ARCHITECTS AND ENGINEERS SPECIFICATIONS



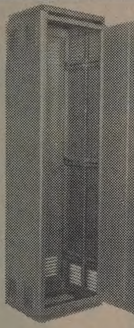
CR-1005

MATERIAL: 16 ga. CRS. CONSTRUCTION. 1. Spot welded and brazed throughout. 2. Upper and lower panel mounting holes are punched to standard 1¼" x ½" spacing. 3. 10-24 Tinnerman clips, 10-24 oval head screws and finishing washers furnished. 4. Rear panel removable; attached with sheet metal screws. 5. Upper panel space has a 38° slope. 6. All corners are square—not rounded. 7. Cabinet strength is accomplished via formed parts eliminating channels for supporting members. 8. Louvers in fixed lower rear panel are reversed and faced up to help dissipate heat. 9. Shipping weight—110 lbs. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

TRANSMITTER RACKS



STR Standard



DTR Deluxe

Transmitter racks are made to accommodate 19", 24" and 30" rack panels. All models are furnished with front and rear doors.

Rear door opening provides easy access for equipment maintenance and installation. Front door furnishes full covering for dials, knobs, etc., mounted on panels. Front door is provided with a locking handle and rear door with a flush mounted lock and handle. This gives added protection where it is necessary to lock all components.

Slotted channels (3 per side) permit panel mounting angles to be recessed to full cabinet depth by simply tightening screws that hold each angle in place.

	Catalog No.	Net Price *		Catalog No.	Net Price *
Standard For 19" Panels	STR-3675	$105.62	DeLuxe For 19" Panels	DTR-3675	$117.56
	STR-4200	107.90		DTR-4200	119.83
	STR-6125	114.28		DTR-6125	126.23
	STR-7000	119.26		DTR-7000	127.71
	STR-7700	121.72		DTR-7700	142.15
For 24" Panels	STR-7024	158.98	For 24" Panels	DTR-7024	176.72
	STR-7724	179.85		DTR-7724	200.44
For 30" Panels	STR-7030	182.90	For 30" Panels	DTR-7030	209.39
	STR-7730	186.82		DTR-7730	214.50

*Assembled Price.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

MATERIAL: 16 ga. CRS. Panel mounting angles 16 ga. CRS. Punch for Tinnerman Clips.

CONSTRUCTION:

1. Louvers are provided in sides and rear door—four sets of six louvers each.
2. Assembled with ¼-20 bolts and nuts.
3. Rear doors swing on rigid slip joint hinges. Front doors mounted on continuous hinges.
4. All models furnished with stainless steel feature strip (colored) trim.
5. Shipped knocked down unless otherwise requested.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Size	Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price *
Standard for 19" Panels	STR-3675	23	42	18½	36¾	130	$105.62
	STR-4200	23	47¼	18½	42	140	107.90
	STR-6125	23	66½	18½	61¼	150	114.28
	STR-7000	23	75¼	18½	70	155	119.26
	STR-7700	23	82¼	18½	77	160	121.72
For 24" Panels	STR-7024	27⅞	75¼	24	70	230	158.98
	STR-7724	27⅞	82¼	24	77	245	179.85
For 30" Panels	STR-7030	33⅞	75¼	24	70	250	182.90
	STR-7730	33⅞	82¼	24	77	265	186.82
DeLuxe for 19" Panels	DTR-3675	23	43⅞	18½	36¾	135	117.56
	DTR-4200	23	49⅛	18½	42	145	119.83
	DTR-6125	23	68⅜	18½	61¼	155	126.23
	DTR-7000	23	77⅛	18½	70	160	127.71
	DTR-7700	23	84⅛	18½	77	160	142.15
For 24" Panels	DTR-7024	27⅞	77⅛	24	70	235	176.72
	DTR-7724	27⅞	48⅛	24	77	250	200.44
For 30" Panels	DTR-7030	33⅞	77⅛	24	70	255	209.39
	DTR-7730	33⅞	84⅛	24	77	270	214.50

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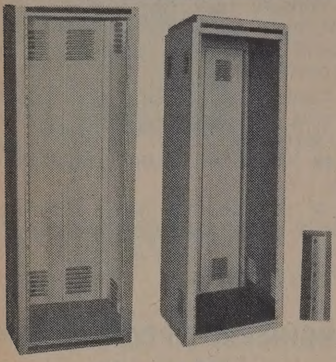
Net

METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

CABINET RELAY RACKS FOR STANDARD 19″ RACK PANELS



SCR standard DCR deluxe

MATERIAL: 16 ga. CRS.
CONSTRUCTION:
1. Panel mounting angles are punched to standard 1¼″ x ½″ spacings and are formed as part of the cabinet side.
2. Panel mounting offset is ¼″ deep (See Inset).
3. 10-24 Tinnerman clips, oval head screws and finishing washers furnished for panel space.
4. Louvers are provided in sides and rear door—Four sets of six louvers each.
5. Assembled with ¼-20 pan head bolts and nuts.
6. Rear doors swing on rigid slip joint hinges permitting easy removal.
7. All models furnished with stainless steel feature strip (colored) trim, top and bottom.
8. All models shipped knocked down unless assembled is requested.
FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Cabinet Relay Racks are rigidly constructed of 16 ga. steel. These racks are completely bolted together.

Panel mounting space is recessed ¼″ to give a more modernistic and pleasing appearance. The rear doors swing on rigid slip joint hinges which permit it to be easily removed. The standard type rack has square front vertical corners. The rounded type rack has rounded front vertical corners. The deluxe type rack has a dome top with rounded front vertical corners.

Front door with 1¼″ depth furnished on request.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

Standard	Net Price *	Round Corner	Net Price *	DeLuxe	Net Price*
SCR-3675	$46.37	RCR-3675	$46.37	DCR-3675	$54.70
SCR-4200	49.87	RCR-4200	49.87	DCR-4200	63.36
SCR-6125	61.88	RCR-6125	61.88	DCR-6125	67.65
SCR-7000	66.52	RCR-7000	66.52	DCR-7000	69.46
SCR-7700	69.30	RCR-7700	69.30	DCR-7700	81.29

*Assembled Price

Model	Catalog No.	Height-in.	Width-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price *
Standard	SCR-3675	41⅛	22⅜	18½	36¾	100	$46.37
	SCR-4200	46⅜	22⅜	18½	42	110	49.87
	SCR-6125	65⅝	22⅜	18½	61¼	130	61.88
	SCR-7000	74⅜	22⅜	18½	70	140	66.52
	SCR-7700	81⅜	22⅜	18½	77	150	69.30
Round Corner	RCR-3675	41⅛	22⅜	18½	36¾	100	46.37
	RCR-4200	46⅜	22⅜	18½	42	110	49.87
	RCR-6125	65⅝	22⅜	18½	61¼	130	61.88
	RCR-7000	74⅜	22⅜	18½	70	140	66.52
	RCR-7700	81⅜	22⅜	18½	77	150	69.30
DeLuxe	DCR-3675	43	22⅜	18½	36¾	105	54.70
	DCR-4200	48¼	22⅜	18½	42	115	63.36
	DCR-6125	67½	22⅜	18½	61¼	135	67.65
	DCR-7000	76¼	22⅜	18½	70	145	69.46
	DCR-7700	83¼	22⅜	18½	77	155	81.29

AMPLIFIER CABINETS RACKS AND CONSOLES

For Recessed Application—TB Series
The recessed type amplifier enclosure has a grille cover. The door is equipped with a lock and piano hinge. The grille has an opening in the top part to permit hot air to escape. The back enclosure is designed to reflect the hot air toward the front of the cabinet so that it may escape. Adequate knockouts are placed in back for all wiring purposes. All TB's are furnished complete with TBG-1000 grille.

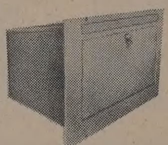
Surface Mounted—STB Series
Same size and panel space as TB listed above. Made for those applications where surface mounting is required. STB Panel Mtg. Angles furnished on request.

Heavy Duty—HTB Series
This cabinet offers adequate panel mounting space for most applications where the above listed TB's are too small. The rack portion of the cabinet is completely removable and mounted on 4 nylon ball bearing slides. The rack will support a maximum of 200 lbs. of weight. Maintenance convenience is offered in that the rack can be pulled forward to afford easy access to all components. Sturdy construction features of this cabinet are incorporated to give you quality in an economical unit. Doors are furnished with flush mounted locks.

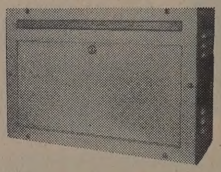
TB and STB
MATERIAL: 16 ga. CRS body
11 ga. CRS grille
CONSTRUCTION:
1. All spot weld and braze construction.
2. Panel mounting angles are supported in slotted bracket, adjustable 9½″ front to rear, affording ample clearance for dials, tuning knobs, switches, etc., on TB only.
3. 10½″ of maximum panel space.
4. Panel mounting angles are punched for use with Tinnerman clips.
FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

HTB
MATERIAL: 16 ga. CRS cabinet
⅛″ thick angle iron with 11 ga. bracing on rack.
CONSTRUCTION:
1. Spot weld and electric arc construction on cabinet. Electric arc weld on removable rack.
2. Panel mounting angles drilled and tapped for 10/24 thread.
3. Nylon ball bearing slides used on rack.
4. Complete panel mounting rack is removable.
5. Front door made to provide adequate clearance space for dials, knobs, etc.
FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

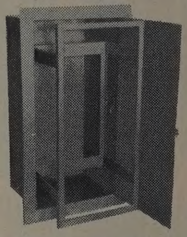
TB Series



STB Series



HTB Series



Catalog No.	Model	Height	Width	Depth	Ship. Wt.	Net Price
TBG-1000	Grille	16″	23″		13 lbs.	$15.51
TB -1200	Encl.	13″	20″	12″	35 lbs.	25.30
TB -1500	Encl.	13″	20″	15″	38 lbs.	27.70
TB -1800	Encl.	13″	20″	18″	41 lbs.	28.74

Catalog No.	Inside			Outside			Net Price
	H	W	D	H	W	D	
STB-1200	14″	21″	11¹⁵⁄₁₆″	16″	23″	12″	$29.25
STB-1500	14″	21″	14¹⁵⁄₁₆″	16″	23″	15″	32.42
STB-1800	14″	21″	17¹⁵⁄₁₆″	16″	23″	18″	34.20

Catalog No.	Cabinet Only			Removable Rack			P.S.	Ship. Wt.	Net Price
	Height	Width	Depth	Height	Width	Depth			
HTB-1575	17¾″	21⁹⁄₁₆″	18″	18⅜″	20⁵⁄₁₆″	16″	15¾″	85	$ 66.47
HTB-2800	30″	21⁹⁄₁₆″	18″	30⅝″	20⁵⁄₁₆″	16″	28″	125	85.93
HTB-4200	45¼″	21⁹⁄₁₆″	18″	44⅝″	20⁵⁄₁₆″	16″	42″	175	107.13
HTB-6152	61¼″	21⁹⁄₁₆″	18″	63⅞″	20⁵⁄₁₆″	16″	61¼″	225	135.96

Door frame is 27¼″ wide or 2²⁷⁄₃₂″ wider each side than cabinet width. Add 6″ to cabinet height for overall height of door frame.

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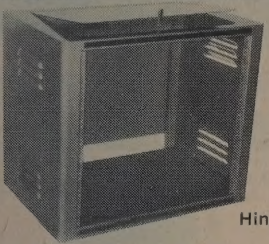
METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

DELUXE DESK CABINET RACKS FOR STANDARD 19″ RACK PANELS — 15″ DEEP



Hinged Door Back Type

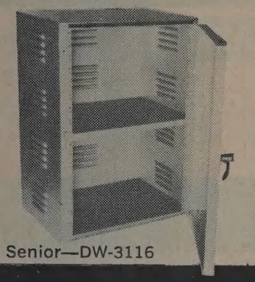
DC SERIES These cabinets are completely welded together to save on assembly time and costs. Panel mounting angles are punched to standard 1¼″-½″ spacings. Enough 10-24 speed clips and machine screws are furnished to mount several rack panels. To give a more pleasing appearance, the mounting angles are constructed to permit recessing of rack panels. All models have a recessed door on top for easy access to equipment. The six largest sizes have a door in back which permits access from the back. All models have a bright chrome strip on top and bottom of front. Phono drawer PD-1050-14 can be mounted in these cabinets except DC-875.

ARCHITECTS AND ENGINEERS SPECIFICATIONS — MATERIAL: 16 ga. CRS. CONSTRUCTION: 1. Completely welded together for rigidity. 2. Rounded front corners. 3. Panels fastened with Tinnerman clips. 4. 10-24 screws, Tinnerman clips and finish washers furnished. 5. 5/16″ recessed panel mounting flanges. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
DC- 875*	22¾	10⅞	15	8¾	26	$16.75
DC-1050*	22¾	12⅝	15	10½	28	18.48
DC-1225*	22¾	14⅜	15	12¼	30	21.28
DC-1400*	22¾	16⅛	15	14	35	22.44
DC-1750	22¾	19⅝	15	17½	38	25.74
DC-2100	22¾	23⅛	15	21	42	27.59
DC-2450	22¾	26⅝	15	24½	46	27.97
DC-2625	22¾	28⅜	15	26¼	48	28.38
DC-3150	22¾	33⅝	15	31½	52	29.53
DC-3500	22¾	37⅛	15	35	56	31.35

(*) Solid back type.

DELUXE WALL MOUNTING AMPLIFIER CABINET SENIOR MODEL . . . JUNIOR MODEL



Senior—DW-3116

Here is a sturdy cabinet designed for housing the new style amplifiers. Completely welded construction with facilities for wall mounting. DW3116 comes complete with cabinet shelf and door with locking handle. Tamper proof inside hinges. Deep enough for the new larger amplifiers and wide enough for amplifiers using plugs on the side. Plenty of ventilation from louvers on sides and back.

Catalog No.	Height	Depth	Width	PS	Ship. Wt.	Net Price
Senior DW-3116	31″	16″	21″	28″	75 lbs.	$67.50
Junior DW-1616	16⅛″	16″	21″	14″	50 lbs.	44.25

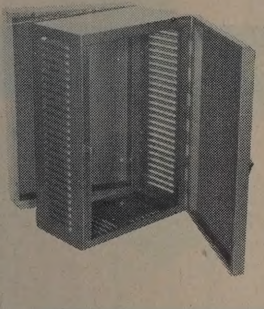
MATERIAL: 16 ga. CRS

CONSTRUCTION:

1. Completely welded together for rigidity.
2. Panels fastened with Tinnerman clips.
3. 10-24 screws, Tinnerman clips and finish washers furnished.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

SECTIONAL WALL MOUNTING CABINET 193 SERIES



This series of cabinets is designed for maximum installation convenience. Swing out feature of cabinets permits less handling of components on the job or in the shop. Dowel pins and heavy hinge assure you of durability and a greater amount of weight acceptance of components. Camloc studs interlock two sections with a flush lock mounted on front door in A & B models, locking handle on C & D models to complete a totally enclosed locking unit. The cabinets are available in four vertical panel sizes. If a phono drawer is required, order PD-1050-14. See specifications below.

ARCHITECTS AND ENGINEERS SPECIFICATIONS
MATERIAL: 16 ga. CRS, 11 ga. reinforced angle for wall mounting. CONSTRUCTION: 1. Each section is spot welded and brazed at corners for sturdiness. 2. Panel mounting holes are tapped for 10-32 threads. 3. Bottom and sides of middle section are louvered for maximum heat dissipation. 4. Dowel pins prevent sagging. 5. Each section is hinged with a heavy continuous hinge having a ¼″ pin diameter. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

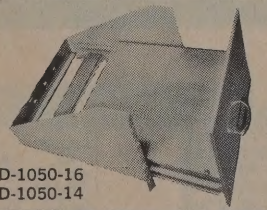
Model No.	Dimensions								Ship. Weight	Net Price
	A	B	C	D	E	F	G-ps	D-E-F		
193A	20⅝	18 13/16	19⅛	4½	11	1¾	15¾	17¼	50#	$ 74.27
193B	20⅝	31	19⅛	4½	11	1¾	28	17¼	75#	78.26
193C	20⅝	45	19⅛	4½	11	1¾	42	17¼	125#	95.73
193D	20⅝	64 5/16	19⅛	4½	11	1¾	61¼	17¼	175#	105.86

PANEL MOUNTING PHONO & STORAGE DRAWERS FOR 19″ RACKS

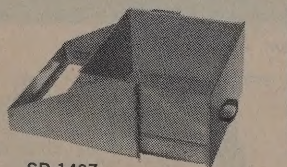
325 SLIDE

With Ball Bearing Drawer Slides

All drawers illustrated are made of 16 ga. steel. Phono drawer chassis has a ¾″ flange to accommodate a plywood or masonite base for a record changer. Base is included with drawer.

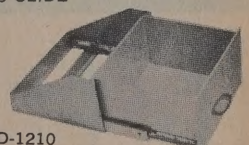


PD-1050-16
PD-1050-14



SD-1407
SD-1410

335 SLIDE



DSD-1210
DSD-1207

Catalog No.	P.S.	Chassis Size	Ship. Wt.	Net Price
PD-1050-14	10½″	16⅜″ W x 14″ D x 3¾″ H	16 lbs.	$21.75
PD-1050-16	10½″	16⅜″ W x 16″ D x 3¾″ H	18 lbs.	21.75
SD-1410	10½″	16″ W x 16″ L x 9¾″ D	18 lbs.	24.75
SD-1407	7″	16″ W x 16″ L x 6¼″ D	16 lbs.	23.25
DSD-1210	10½″	16″ W x 16″ L x 9¾″ D	18 lbs.	33.25
DSD-1207	7″	16″ W x 16″ L x 6¼″ D	16 lbs.	32.25

Finished in Silver Gray Hammertone with an attractive chrome drawer pull.

PD-1050-16 or 14 Phono Drawer The phono drawer is obtainable in two sizes, 14″ depth and 18″ depth. The 14″ depth is made to fit our DC, STR, 193 series of cabinets while the 17½″ depth can be used in consoles (RB), SCR and DR cabinets. Mounted on slides with nylon rim ball bearing rollers, this drawer pushes in and out with ease. Extends a full 12″ from front of cabinet. If full extension slide is desired add suffix "E" to these part numbers. Weight load—75 lbs.

SD-1410 or 1407 Storage Drawer A storage drawer to accommodate those extra tape reels, tools and what have you. Same slides illustrated in our PD-1050 shown above. Two panel sizes are offered, 10½″ and 7″ by 16″ length front to rear. 16″ depth fits our STR, SCR, RB and DR cabinets. 10½″ panel drawer has storage space 9⅝″ D x 16″ L x 16″ W. 7″ panel drawer has storage space 6¼″ D x 16″ L x 16″ W. Weight load 75 lbs.

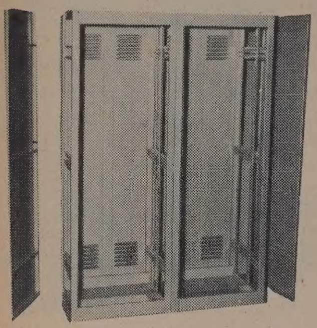
DSD-1210 or 1207 Deluxe Storage Drawer The ultimate in storage drawer capacity and convenience. These drawers feature a full extension slide permitting the drawer to be pulled out 15″ from cabinet. Smooth operation is provided by ball bearing rollers. Instant drawer removal and positive stopping, positive closing are additional features offered. Weight load—150 lbs.

Two panel sizes are offered, 7″ x 10½″ by 16″ length front to rear. 10½″ panel drawer has storage space of 9⅝″ D x 16″ L x 15½″ W. 7″ panel drawer has storage space of 6¼″ D x 16″ L x 15½″ W.

METAL WORKS INCORPORATED

STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

DUPLI-RACK

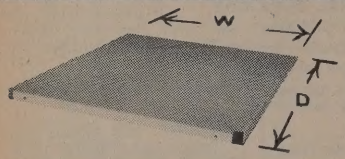


Dupli-rack features a maximum of cabinet space in a minimum of floor space at a savings in cost. To increase the size of an installation, simply remove the detachable side panels, bolt the units together through holes provided, forming a sturdy unit, and slip the detachable side panels on each side. This becomes an attractive installation where the addition of units will always remain the same in color tone and freshness of appearance. Each unit is of weld construction, forming a sturdy and rigid piece of equipment. Basic unit consists of frame and rear door.

SPECIFICATIONS MATERIAL: 16 ga. CRS. Panel mounting angles 11 ga. CRS. CONSTRUCTION: (1) Braze and spotweld assembly. (2) Detachable side panels are formed and supported and fastened by brackets. (3) Louvers provided in rear door. (4) Panel mounting angles drilled and tapped to 10-24 thread on standard 1¼″ x ½″ spacing. (5) Locking handle furnished on front door with flush mounted lock and separate handle on rear door.

Rack with Rear Door					Detachable Side Panels			Front Door		
	Overall Ht.	Panel Space	Ship. Wt. Lbs.	Net Price		Ship. Wt. Lbs. (Per Pair)	Net Price		Ship. Wt. Lbs.	Net Price
DR-3675	42⅞″	36¾″	100	$ 71.12	DSP-36	20	$27.36	FDR-36	10	$15.39
DR-4200	48⅛″	42″	104	72.63	DSP-42	24	31.89	FDR-42	12	17.49
DR-6125	67⅜″	61¼″	120	77.88	DSP-61	32	38.64	FDR-61	18	22.35
DR-7000	76⅛″	70″	129	83.88	DSP-70	36	42.54	FDR-70	20	24.87
DR-7700	83⅛″	77″	133	104.13	DSP-77	40	48.93	FDR-77	22	28.11

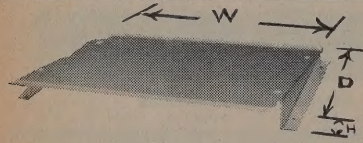
CABINET RACK SHELF FOR CABINET RACKS, DESK RACKS AND CONSOLES



Constructed of one piece of No. 16 gauge sheet steel. Formed 1″ high. Shelf has holes in side and front and back for mounting to cabinet or rack. Finished in brilliant silver gray hammertone unless otherwise specified.

Catalog No.	For:	Width-in.	Depth-in.	Ship. Wt. Lbs	Net Price
CS-1201	RB Models	22⅝	26⁵⁄₁₆	14	$4.09
CS-1202	DC Models	22⅝	11¹⁹⁄₃₂	9	3.05
CS-1203	SCR Models	22⅛	14⁹⁄₁₆	10	3.27
CS-1204	RCR and DCR Models	22⅛	14⁹⁄₁₆	10	3.27

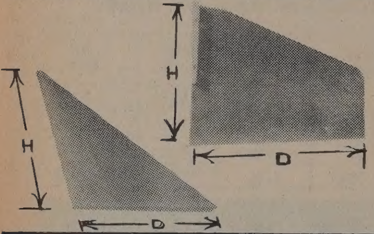
TURRET SHELF FOR "RBT" TURRETS



The Turret Shelf is designed for extremely heavy equipment in the turret. It is made of No. 16 gauge steel and is designed to be movable both forward and backward, and up and down. This model fits all Turrets. Special sizes available upon request. Finished in standard gray hammertone.

Catalog No.	Height-in.	Width-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
TS-1000	1¾	17	10½	8	$6.82

CHASSIS MOUNTING BRACKETS TRIANGULAR AND STANDARD TYPE

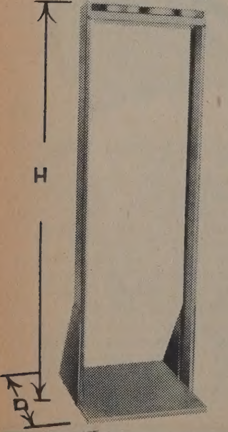


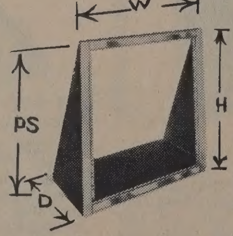
These brackets are made of No. 16 gauge sheet steel. The standard brackets are notched for 3″ and 4″ high chassis and will fit any of our standard or heavy duty chassis. The triangular brackets can be used where greater strength is required. All brackets are sold in pairs only and are finished in gray hammertone.

(*) Standard type notched for 3″ chassis.
(**) Standard type notched for 4″ chassis.

Catalog No.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
MB-155	5	5	2	$ .83
MB-177	7	7	3	.96
MB-199	9	9	5	1.16
CB-308*	7	8	3	.83
CB-311*	7	11	4	1.18
CB-313*	7	13	4	1.39
CB-413**	8¾	13	5	1.49
CB-417**	8¾	17	7	1.78

RELAY RACKS CHANNEL AND TABLE TYPE





TR DESK TYPE

These Table Racks are constructed of heavy No. 16 gauge steel and are completely welded together for strength. Mounting holes are drilled to standard 1¼″—½″ spacings. All panel mounting hardware is supplied. Each rack is finished in silver gray hammertone and is trimmed with bright chrome molding.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
TR-121	22	24	12	21	17	$6.93
TR-128	22	31	12	28	20	8.58

RR CHANNEL TYPE

Channel Relay Racks are constructed of No. 11 ga. steel. The vertical channels are drilled and tapped on 1¼″—½″ spacing and for No. 10-24 machine screws. Racks are shipped knocked down or assembled. Hardware included. Each rack is finished in silver gray hammertone unless otherwise specified.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
RR-156	19¹⁄₁₆	61³⁄₁₆	20	56	70	$29.50
RR-163	19¹⁄₁₆	68³⁄₁₆	20	63	80	30.47
RR-170	19¹⁄₁₆	75³⁄₁₆	20	70	90	31.28
RR-177	19¹⁄₁₆	82³⁄₁₆	20	77	100	31.51
RR-184	19¹⁄₁₆	89³⁄₁₆	20	84	110	33.00

Net

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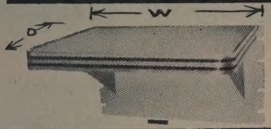
MWI

METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

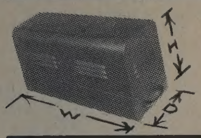
DESK PANEL TO FIT 19″ RACKS



The Desk Panel is constructed of No. 16 gauge steel and is entirely spotwelded together for strength. The front corners of the top are rounded to give a pleasing appearance. This model is finished in the standard silver gray hammertone lacquer.

Catalog No.	Panel Size-in.	Top Size-in.	Ship. Wt.	Net Price
DT-1050	19″ x 10½″	17¾″ Wide x 16″ Deep	15 Lbs.	$14.02

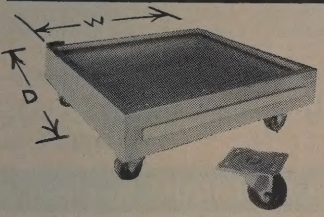
AMPLIFIER FOUNDATIONS STREAMLINED TYPE



A modern cover with rounded corners and bright chrome trim. Constructed of cold rolled steel and finished in gray hammertone.

Catalog No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
SAF-919	12	9	7	10	$6.19
SAF-925	17	9	7	11	5.28
SAF-928	17	9	10	13	6.60

ROLLER TRUCKS FOR CABINET AND TRANSMITTER RACKS

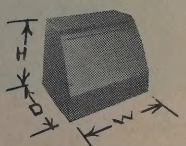


Made entirely from No. 16 gauge steel with reinforced corners for the 2½″ dia. rollers. Trucks are completely assembled. They are finished in gray hammertone.

Casters — 2½″ dia. ball bearing type. 400 lb. cap. Shipping wt. 2¼ lbs.

Catalog Number	For:	Inside Dimensions Width-in.	Depth-in.	Shipping Wt. Lbs.	Net Price
RT-500	"DC" Models	23	15¼	19	$22 56
RT-501	"RR" Models	20½	19½	20	22.77
RT-502	"SCR", "RCR", "DCR" (19″ Panels)	23	19	21	22.97
RT-503	"STR", "DTR"	23½	19	24	23.10
RT-504	"DTR" and "STR" (24″ Panels)	27½	24¼	28	24.21
RT-505	"DTR" and "STR" (30″ Panels)	33½	24¼	30	25.03

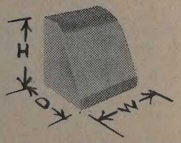
UTILITY CABINETS SLOPING FRONT, REMOVABLE PANEL TYPE



This Cabinet is constructed of No. 18 gauge steel. It has a rounded top corner and a removale front panel. Back of cabinet is provided with louvres and has an opening for leads. Finished in gray hammertone.

Catalog No.	Height-in.	Width-in.	Depth-in.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
SFC-500	8	8	8	SC-104	6	$6.52
SFC-501	8	10	8	SC-105	7	6.72
SFC-502	8	14	8	SC-109	8	6.93
SFC-503	9	18	8	SC-112	10	7.34
SFC-504	12	18	12	SC-116	14	8.17

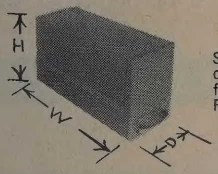
MINIATURE UTILITY CABINET



This Miniature Utility Cabinet is made of No. 22 gauge steel. The back is removable and also ventilated. It has a clean modern appearance and is finished in gray hammertone.

Catalog No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
UC-100	4³⁄₁₆	4½	4¼	1	$1.07
UC-101	5³⁄₁₆	4½	4¼	1½	1.22
UC-102	6³⁄₁₆	4½	4¼	2	1.40
UC-103	7³⁄₁₆	4½	4¼	2½	1.65

AMPLIFIER FOUNDATIONS PERFORATED COVER TYPE

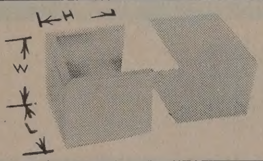


Similar to the streamlined type except that this cover is made of perforated metal for better ventilation. Finished in gray hammertone.

Catalog No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
AF-915	10	9	5	8	$4.04
AF-920	14	9	6	9	4.87
AF-924	17	9	7	10	6.85
AF-922	12	9	10	10	5.78
AF-927	17	9	10	11	7.75

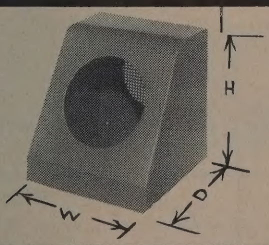
MINIATURE (2 PIECE) ALUMINUM CASES

These Handy Two Piece Cases are made of No. 16 gauge aluminum. The design of this case permits installation of a variety of components. Natural aluminum or gray hammertone finish is available. Shipping weight of all cases is 1 lb.



Catalog No.	Length-in.	Width-in.	Height-in.	Net Price
MA-1000	2¾	2⅛	1⅝	$ .60
MA-1001	3¼	2⅛	1⅝	.61
MA-1002	4	2	2¾	.83
MA-1003	4	2⅛	1⅝	.63
MA-1004	4	2¼	2¼	.83
MA-1005	4¼	2¼	1½	.86
MA-1006	5	2¼	2¼	.87
MA-1007	5	4	3	.96
MA-1008	5¼	3	2⅛	.96
MA-1009	6	5	4	1.20
MA-1010	7	5	3	1.32
MA-1011	8	6	3½	2.03
MA-1012	10	2	1⅝	1.16
MA-1013	10	6	3½	2.15
MA-1014	12	2½	2¼	1.24
MA-1015	12	7	4	2.77
MA-1016	17	5	4	3.30

METER CASES FOR 2″ OR 3″ METERS



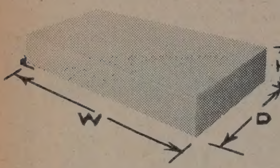
These Meter Cases are available to accommodate 2″ or 3″ Meters. They are made of No. 22 gauge steel. A rounded top corner and a sloping front gives this model a modernistic appearance. Finished in silver gray hammertone.

Catalog No.	For:	Width-in.	Height-in.	Depth-in	Ship. Wt. Lbs.	Net Price
MC-200	2″ Meter	4³⁄₁₆	4½	4¼	1	$1.07
MC-300	3″ Meter	4³⁄₁₆	4½	4¼	1	1.07

METAL WORKS INCORPORATED

STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

CHASSIS Standard Steel and Aluminum Blank Chassis



These Standard Chassis are constructed of one piece of metal. They have reinforced corners. The bottoms are flanged on two sides to give maximum strength with maximum room.

Steel chassis are made of No. 18 gauge sheet steel and are finished in gray hammertone.

Aluminum chassis are constructed of No. 18 gauge (.040) sheet aluminum and is available in natural aluminum or gray hammertone.

Steel		Size			Aluminum		
Catalog No.	Ship. Wt. Lbs.	Depth-in.	Width-in.	Height-in.	Catalog No.	Ship. Wt. Lbs.	Net‡ Price
SC-100	2	5½	9½	1½	AC-100	1	$ .83
SC-101	2	5	7	2	AC-101	1	.89
SC-102	3	5	10	3	AC-102	1	1.09
SC-103	4	6	14	3	AC-103	2	1.32
SC-104	2	7	7	2	AC-104	1	.98
SC-105	2	7	9	2	AC-105	1	1.09
SC-106	3	7	11	2	AC-106	1	1.16
SC-107	3	7	11	3	AC-107	1	1.25
SC-108	3	7	12	3	AC-108	1	1.31
SC-109	3	7	13	2	AC-109	1	1.31
SC-110	4	7	15	3	AC-110	2	1.49
SC-111	3	4	17	3	AC-111	1	1.31
SC-112	4	7	17	3	AC-112	2	1.58
SC-113	4	10	12	3	AC-113	2	1.55
SC-114	5	10	14	3	AC-114	3	1.65
SC-115	5	10	17	2	AC-115	3	1.72
SC-116	5	10	17	3	AC-116	3	1.79
SC-117	5	10	17	4	AC-117	3	2.08
SC-118	5	12	17	2	AC-118	3	1.82
SC-119	5	12	17	3	AC-119	3	2.15
SC-120	6	12	17	4	AC-120	3	2.35
SC-121	1	4	6	2	AC-121	½	.93
SC-122	1	4	6	3	AC-122	½	1.01
SC-123	1¼	5	7	3	AC-123	¾	1.07
SC-124	1¼	5	9½	2	AC-124	½	1.19
SC-125	1½	5	9½	3	AC-125	¾	1.28
SC-126	1¾	5	13	3	AC-126	¾	1.41
SC-127	1½	6	17	3	AC-127	1¼	1.62
SC-128	1¾	8	12	3	AC-128	1½	1.58
SC-129	2½	8	17	2	AC-129*	1½	1.50
SC-130	3	8	17	3	AC-130*	1¾	1.95
SC-131	4	11	17	2	AC-131*	2¼	2.24
SC-132	4	11	17	3	AC-132*	2¾	2.60
SC-133	5	13	17	2	AC-133*	2½	2.70
SC-134	5	13	17	3	AC-134*	2¾	3.15
SC-135	7	13	17	4	AC-135*	3¾	3.53

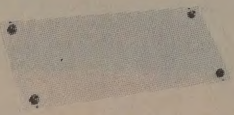
*Also available in 14 or 16 gauge aluminum.

HEAVY DUTY STEEL CHASSIS

Heavy duty chassis are similar to standard steel chassis except that this model is constructed of No. 16 gauge material. Bottom plates are included with this chassis. Heavy duty chassis are available in gray hammertone.

Catalog No.	Depth-in.	Width-in.	Height-in.	Ship. Wt. Lbs.	Net Price
HC- 82	8	17	2	8	$2.89
HC- 83	8	17	3	9	3.14
HC-112	11	17	2	10	3.30
HC-113	11	17	3	11	3.55
HC-132	13	17	2	12	3.80
HC-133	13	17	3	13	3.96
HC-134	13	17	4	14	4.46
HC-174	17	17	4	17	5.94

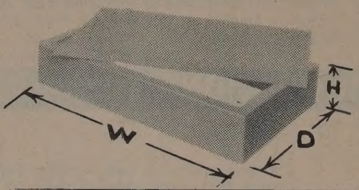
BOTTOM PLATES Steel and Aluminum



Catalog Number				
Steel	Aluminum	Dimensions-in.	Ship. Wt. Lbs.	Net‡ Price
BP-401	ABP-401	4 x 7	2	$.55
BP-402	ABP-402	5 x 7	1	.40
BP-403	ABP-403	5 x 10	1	.41
BP-404	ABP-404	5½ x 9½	1	.40
BP-405	ABP-405	6 x 14	1	.58
BP-406	ABP-406	7 x 7	1	.43
BP-407	ABP-407	7 x 9	1	.45
BP-408	ABP-408	7 x 11	1	.58
BP-409	ABP-409	7 x 12	2	.71
BP-410	ABP-410	7 x 13	2	.66
BP-411	ABP-411	7 x 15	2	.68
BP-412	ABP-412	7 x 17	2	.70
BP-413	ABP-413	8 x 17	2	.71
BP-414	ABP-414	10 x 12	2	.71
BP-415	ABP-415	10 x 14	2	.73
BP-416	ABP-416	10 x 17	2	.94
BP-417	ABP-417	11 x 17	3	.96
BP-418	ABP-418	13 x 17	3	1.11
BP-419	ABP-419	17 x 17	4	1.64

Bottom plates are made to match standard steel and aluminum chassis. They are made of No. 18 gauge steel and aluminum. Finished in natural aluminum, black enamel, or gray hammertone, and furnished with four dimple glides.

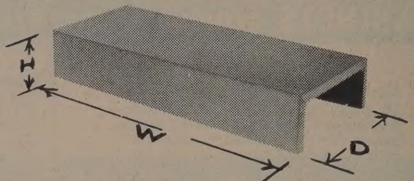
REMOVABLE TOP TYPE CHASSIS



Made of No. 18 gauge sheet steel. Top and bottom edges of chassis are flanged in on four sides. Top plate, which is included with chassis, is removable. Finished in black enamel or gray hammertone.

Chassis Catalog No.	Depth.-in.	Width-in.	Height-in.	Ship. Wt. Lbs.	Net Price
RTC-103	10	17	3	8	$3.43
RTC-104	10	17	4	10	3.80
RTC-133	13	17	3	11	3.58
RTC-134	13	17	4	12	4.37
Replacement Tops					
TRC-1710	10	17		2	1.32
TRC-1713	13	17		3	1.58

CHASSIS - STEEL and ALUMINUM Open End Type

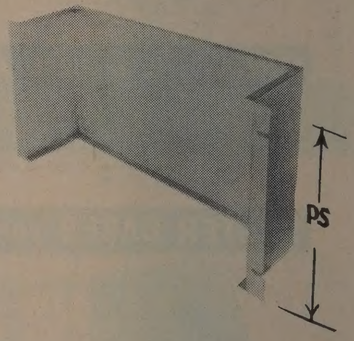


Made of No. 18 gauge steel or aluminum with reinforced corners. Finished in natural aluminum, black enamel, or gray hammertone.

Catalog Number						
Steel	Aluminum	Depth-in.	Width-in.	Height-in.	Ship. Wt. Lbs.	Net‡ Price
OC-101	AOC-101	5	7	2	1	$.65
OC-102	AOC-102	5	10	3	1	.74
OC-103	AOC-103	6	14	3	1	.83
OC-104	AOC-104	7	7	2	1	.99
OC-105	AOC-105	7	9	2	1	.99
OC-106	AOC-106	7	11	2	1	1.07
OC-109	AOC-109	7	13	2	1	1.24
OC-112	AOC-112	7	17	3	2	1.29
OC-113	AOC-113	10	12	3	2	1.44
OC-114	AOC-114	10	14	3	2	1.55
OC-116	AOC-116	10	17	3	3	1.65

PANEL MOUNTING TYPE CHASSIS

Made of heavy gauge aluminum. Flanges are notched for standard 1¼″—½″ rack mounting. All chassis are 5¼″ deep. Corners are reinforced for strength. Natural aluminum finish.



Catalog No.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
RMC-161	1¾″	1	$2.08
RMC-163	3½″	2	2.48
RMC-165	5¼″	2	2.63
RMC-167	7″	2	3.13
RMC-168	8¾″	3	3.43
RMC-1610	10½″	3	3.88
RMC-1612	12¼″	3	3.98
RMC-1614	14″	4	4.62

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‡Net Price for Steel. Aluminum Price on Request.

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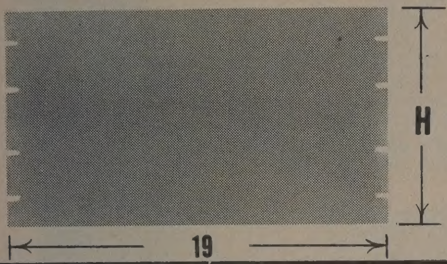
19″ RACK PANELS

Steel panels finished in Silver Gray Hammertone unless otherwise specified.

⅛″ Aluminum and Steel Blank Panels

Aluminum Furnished Unpainted — Painted on Request, So States on Order.

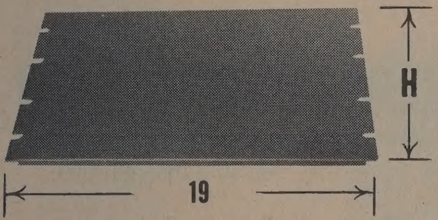


Aluminum			Steel *		
Catalog No.	Ship. Wt. Lbs.	Height-in.	Catalog No.	Ship. Wt. Lbs.	Net Price
ARP- 121	.4	1¾	RP- 121	2	$.83
ARP- 123	.8	3½	RP- 123	5	1.16
ARP- 125	1.2	5¼	RP- 125	7	1.65
ARP- 127	1.6	7	RP- 127	8	1.98
ARP- 128	2.0	8¾	RP- 128	9	2.31
ARP-1210	2.5	10½	RP-1210	10	2.94
ARP-1212	2.8	12¼	RP-1212	12	3.47
ARP-1214	3.3	14	RP-1214	13	4.16
ARP-1215	3.6	15¾	RP-1215	14	4.33
ARP-1217	4.1	17½	RP-1217	15	4.95
ARP-1219	4.5	19¼	RP-1219	16	5.28
ARP-1221	4.9	21	RP-1221	16	5.80

*Steel Price on Request.

Formed 1/16″ Thick Aluminum and Steel Blank Panels

Aluminum Furnished Unpainted — Painted on Request, So States on Order.

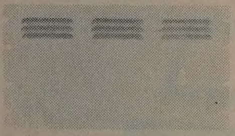


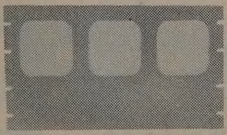
Aluminum			Steel *		
Catalog No.	Ship. Wt. Lbs.	Height-in.	Catalog No.	Ship. Wt. Lbs.	Net Price
PA- 161	½	1¾	PM- 161	1	$.99
PA- 163	1	3½	PM- 163	2½	1.29
PA- 165	1¼	5¼	PM- 165	3½	1.65
PA- 167	1½	7	PM- 167	4	2.11
PA- 168	1½	8¾	PM- 168	4½	2.56
PA-1610	1¾	10½	PM-1610	5	3.17
PA-1612	2	12¼	PM-1612	6	3.63
PA-1614	2¼	14	PM-1614	6½	4.16
PA-1615	2½	15¾	PM-1615	7	4.59
PA-1617	2½	17½	PM-1617	7½	5.15
PA-1619	2¾	19¼	PM-1619	8	5.61
PA-1621	3	21	PM-1621	8	6.07

*Steel Price on Request.

Formed 1/16″ Thick Steel Ventilated Panels

Louvre Type





Grille Type *			Louvre Type			
Catalog No.	Height-in.	Ship. Wt. Lbs.	Catalog No.	Height-in.	Ship. Wt. Lbs.	Net Price
VP- 205	5¼ panel	3½	LP- 105	5¼ panel	3½	$2.76
VP- 207	7 panel	4	LP- 107	7 panel	4	3.04
VP- 208	8¾ panel	4½	LP- 108	8¾ panel	4½	3.30
VP-2010	10½ panel	5	LP-1010	10½ panel	5	3.63
VP-2012	12¼ panel	6	LP-1012	12¼ panel	6	4.09

*Grille Price on Request.

Formed 1/16″ Thick Steel Ventilated Panels

Round Hole SRP

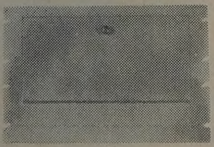
Square Hole SRP-1

Round Hole	Speaker	Height-in.	Square Hole	Ship. Wt. Lbs.	Net Price
SRP- 68	6″	8¾″ panel	SRP 68-1	4½	$2.57
SRP- 810	8″	10½″ panel	SRP 810-1	5	3.30
SRP-1012	10″	12¼″ panel	SRP1012-1	6	3.88
SRP-1214	12″	14″ panel	SRP1214-1	6½	4.54

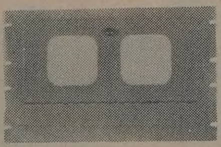
Formed 1/16″ Thick Steel Meter Panels 5¼″ High

Catalog No.	Size and Style	Ship. Wt. Lbs.	Net Price
MP-23	For 2″ meter with 3 holes	3½	$1.32
MP-25	For 2″ meter with 5 holes	3½	1.90
MP-33	For 3″ meter with 3 holes	3½	1.32
MP-35	For 3″ meter with 5 holes	3½	1.90

Standard Type



Grille Type



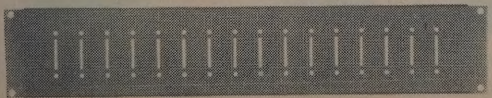
⅛″ Thick Steel Door Panels

Panels have flush doors, with piano hinge and are equipped with spring catch and chrome knob — All doors are located 1″ from top, to allow space for chassis at bottom.

Standard Door Panel	Height-in.	Ship. Wt. Lbs.	Grille Panel	Door Opening	Net Price
DP- 875	8¾″ Panel	5	GDP- 875	4½″ x 15⅜″	$4.79
DP-1050	10½″ Panel	5½	GDP-1050	6″ x 15⅜″	5.12
DP-1225	12¼″ Panel	6	GDP-1225	7½″ x 15⅜″	5.45

Switch Panels

Furnished with 16 slots 1″ apart unless otherwise specified.



Catalog No.	Height-in.	Ship. Wt. Lbs.	Net Price
SP-1635	3½	2	$2.97

Slots 3/16″ W x 1⅛″ L

Screw Holes 1⅝″ Centers

ALL ABOVE PANELS ARE AVAILABLE 30″ AND 24″ WIDE

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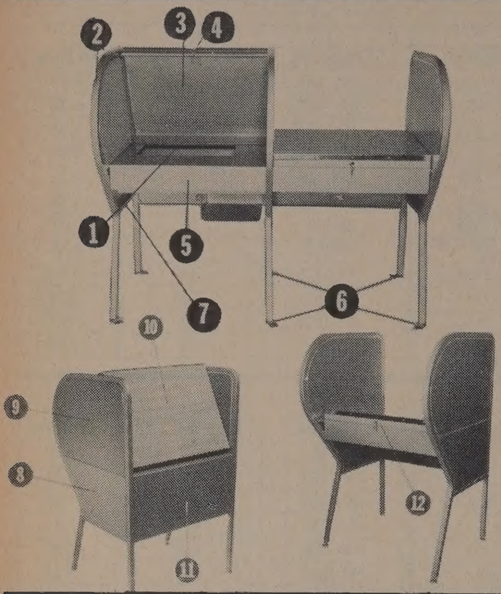
MWI

METAL WORKS INCORPORATED

STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

ALL METAL LANGUAGE LABORATORY FURNITURE



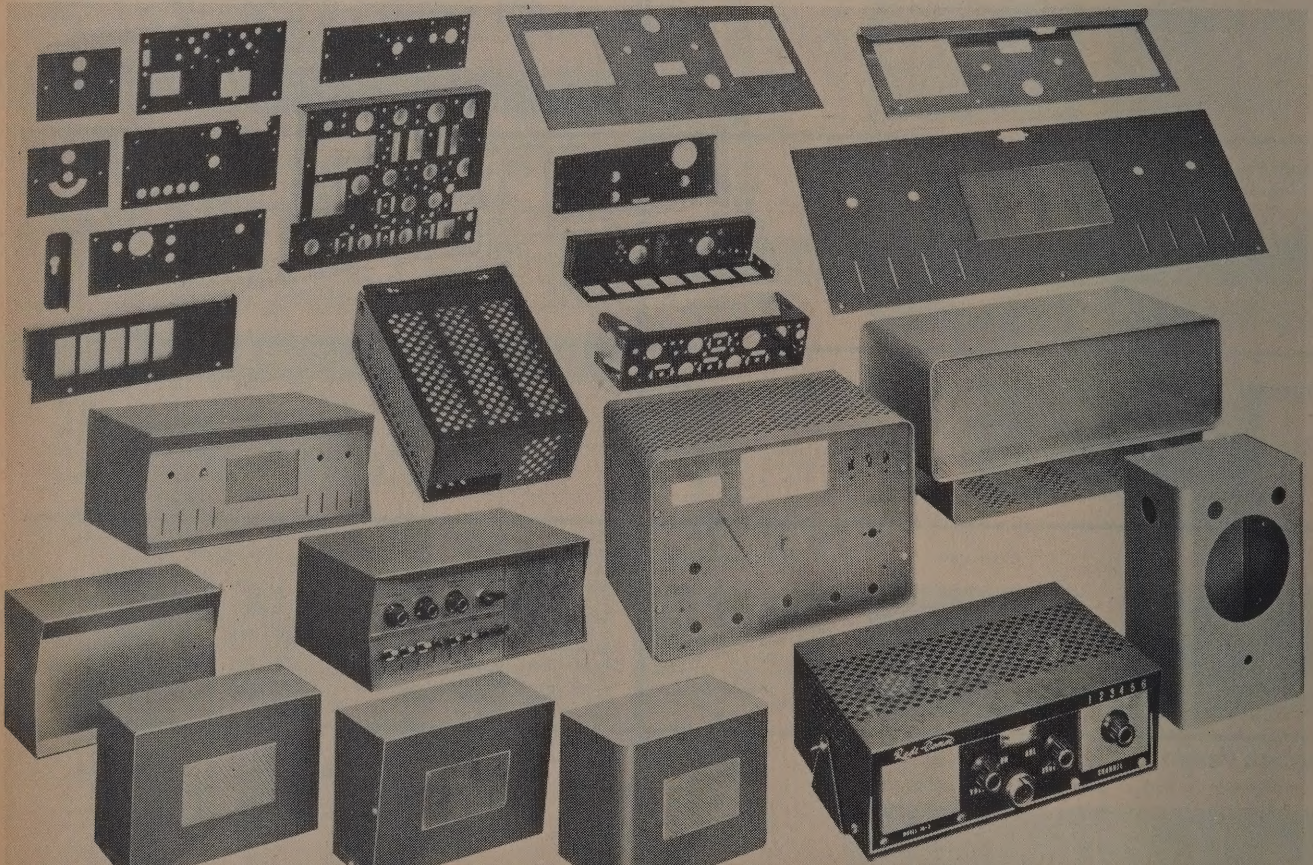
METAL WORKS new design in Student Booths brings you "tomorrow's booth" today! Featured below are three views of the 500 Series. These booths are designed to minimize noise entering the booth and prevent the students' response from adding to the general noise level. Designed to meet today's needs in an ever expanding educational program, they can be added to as funds permit, or as the language program expands, by simply bolting on additional units, consisting of only 1 leg and deck. They are adaptable to flush mount any tape recorder. Design is simple, yet unique in that the curved one piece leg conformation does away with sharp corners. No part of the booths protrude into the aisle leaving all aisle space clear for passage. 'K' leg permits easier entry and discharge from booth.

WHY METAL BOOTHS ARE BEST FOR SCHOOL USE

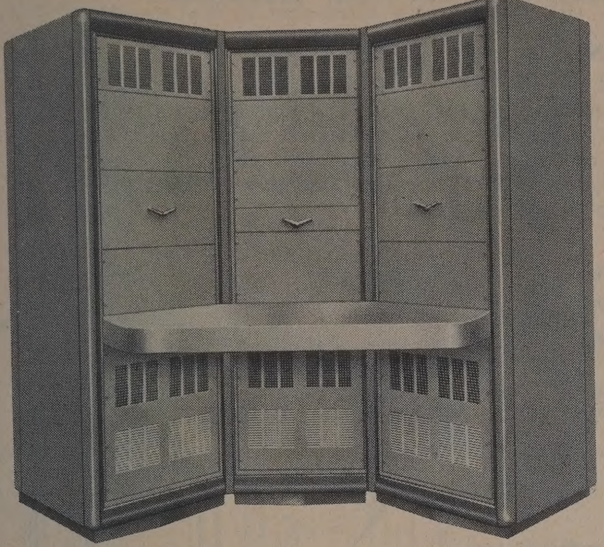
Metal Booths provide an important safety feature, insuring that all accessible surfaces are at ground potential. Metal Booths also provide better head dissipation permitting equipment to run cooler, and are less resonant than wood or plywood. An installation providing less mechanical hum from deck. Complete information about Metal Works all metal language laboratory furniture furnished on request.

CUSTOM METAL-WORK TO CUSTOMER SPECIFICATION: IF YOU CAN DRAW IT—WE CAN MAKE IT! QUOTATIONS ON REQUEST!

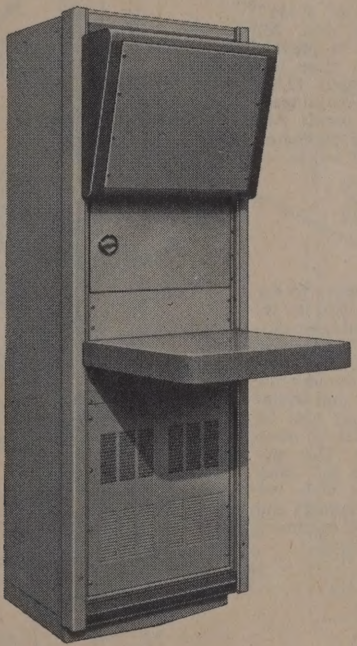
- A few illustrations of metalware parts featuring a multitude of hole patterns, designs and shapes available through MWI Wales Stripping fabrication.
- Many manufacturers have us punch standard chassis, MA cases, panels, etc., as fast economical solutions for some of their requirements.
- Wide choice of materials such as aluminum, cold roll steel, special plated steel sheet, etc., made up to your specifications.



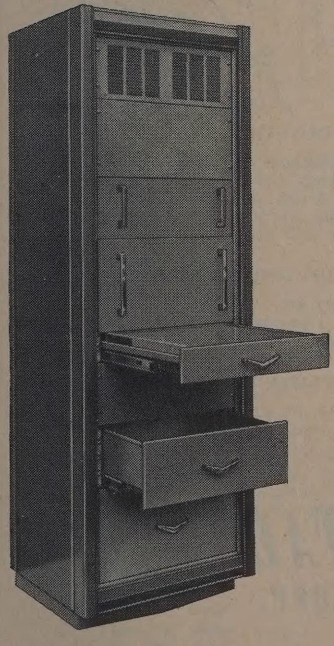
SUPERIOR CHARACTERISTICS OF PAR-METAL Modular Cabinet Racks



SERIES "PL" RACKS
With Rear Door Only
equipped with detachable side panels and optional recessed bases.



SERIES "PX" RACKS
With Rear Door Only
(Recessed base is optional.



SERIES "PR" RACKS
With Rear Door Only
equipped with detachable side panels.
(Recessed base is optional).

Every **Par-Metal Modular Cabinet Rack** is securely welded into an integral unit, except where needed for purposes of adjustment or accessibility. No metal screws, clips, or similar devices are used. Every care has been taken to facilitate your assembly problems with a minimum of parts, an efficient utilization of space, and rapid accessibility to interior components.

•

DESIGN: All sizes listed may be obtained with conventional solid side walls, or with open side walls and detachable side panels. Side shields for use between racks are also available.

•

DIMENSIONS: Racks are available for 19", 24", or 30" wide panels. Cabinet heights are 48⅛", 67⅜", 77⅛" and 83⅛"; depths available are 18" or 24".

•

MODULAR GROUPS: All models may be joined into modular groups; cabinets of the same height, in varying panel widths, *with and without front doors,* may be intermixed; Series *"PL"* racks may be combined with our console units.

•

MID-RAIL MOUNTING OF PANELS: The panel mounting angles or "strips" are fully adjustable on all racks, and may be positioned at any location from front to back. Additional panel mounting angles may be easily inserted where needed for mounting terminals boards, etc.

•

VERTICAL SIDE SUPPORTS: These supports provide a simple method for supporting chassis and other equipment in the racks.

•

ADJUSTABLE FLOOR LEVELERS are supplied with all racks as standard.

•

SLIDING SHELVES AND DRAWERS: These are constructed for mounting on the front of the racks the same as regular panels.

•

SLOPING INSTRUMENT PANELS and EXTENSION DESK TABLES for single and modular assemblies are available for all modular racks.

•

ANGULAR SECTION FRAMES are available as standard units for all Modular Cabinet Racks listed on Par-Metal Pages 4 to 9, with a choice of 30° or 45° angles.

•

FACILITIES for special ventilation problems and other custom requirements are available. A few examples in common use are shown on Par-Metal Page 3.

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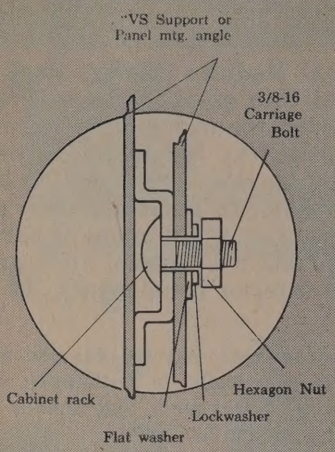
DETAILS OF CONSTRUCTION AND ASSEMBLY

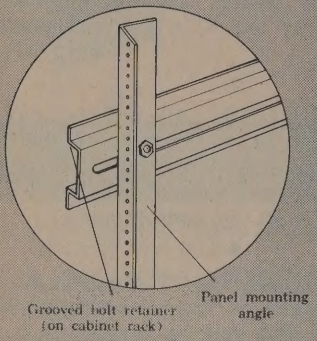
RACK CONSTRUCTION:

The frame shown is used on series "FL", "FR", "PL", and "PR" racks. The top and bottom is made from 7/64" steel. The four uprights are also 7/64" steel, and have multiple-formed angle bends to insure rigidity. Series "PX" and "FX" racks are similar, except that the solid side walls are made from 1/16" steel. The entire assembly is securely welded to form an integral unit.

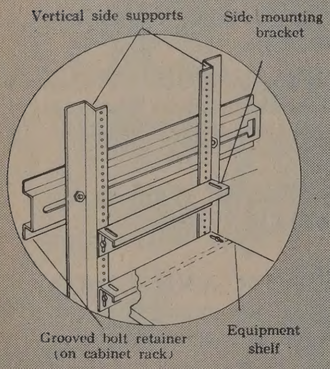
BOLT RETAINER RAILS


"VS Support or
Panel mtg. angle
3/8-16 Carriage Bolt
Hexagon Nut
Cabinet rack
Lockwasher
Flat washer

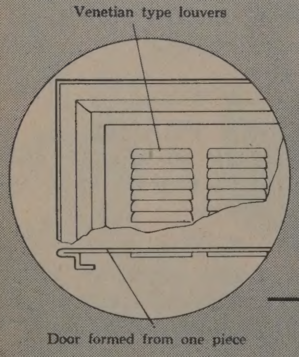
PANEL MOUNTING ANGLES

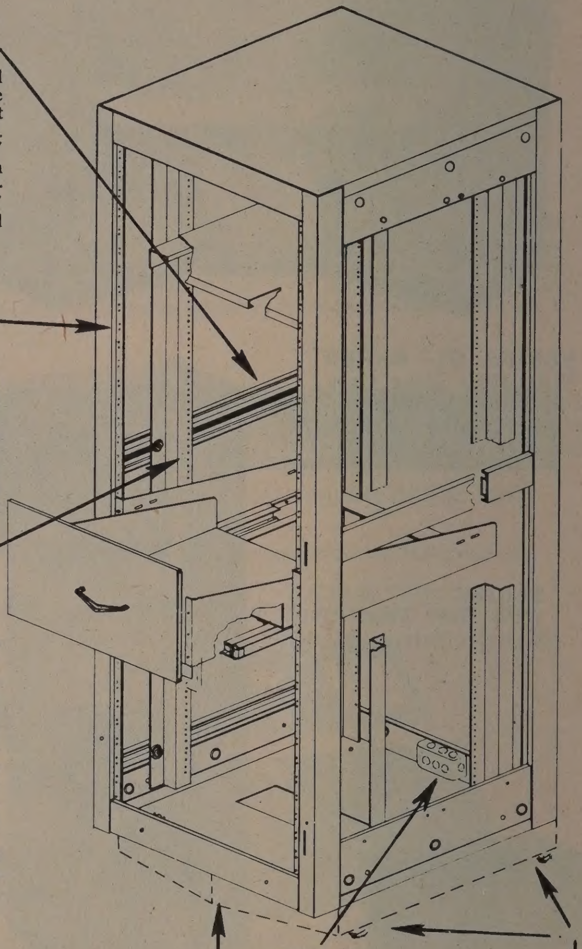

Grooved bolt retainer (on cabinet rack)
Panel mounting angle

VERTICAL SIDE SUPPORTS


Vertical side supports
Side mounting bracket
Grooved bolt retainer (on cabinet rack)
Equipment shelf

DOORS


Venetian type louvers
Door formed from one piece



- **BOLT RETAINER RAILS:**

To these are bolted the panel mounting angles and vertical side supports, which may be located at any position from front to back. These rails are made from 7/64" steel, and are rigidly welded in place. Angles and supports are securely fastened to rails with 3/8" diam. steel bolts, lock washers, and hexagon nuts.

- **PANEL MOUNTING ANGLES:**

They are made from 1½" x 1½" x 3/16" thick structural steel. All holes are die punched to provide accurate spacings with close tolerances; holes are tapped 12/24 thread on 5/8"-5/8"-½" universal spacings for standard rack panels. Additional angles may be purchased for mounting terminal blocks or other devices.

- **VERTICAL SIDE SUPPORTS:**

These supports are fastened to the same bolt retainer rails used for securing the panel mounting angles. Holes are 5/8"-5/8"-½" universal spacings tapped 10/32 thread, to provide maximum adjustment for side mounting brackets and equipment shelves. They may also be used for attaching slides or other custom made brackets. The supports are made from 7/64" thick steel, locked in place with 3/8" diameter screws, lock washers and hexagon nuts, to afford maximum support.

- **SIDE MOUNTING BRACKETS:**

These may be used separately or with shelves as shown. Slotted holes on the brackets provide any vertical adjustment required.

DOORS:

For sake of clarity, doors are not shown on the frame drawing. They are stamped from one piece of 1/16" steel, and "dutch-formed" on all sides providing smooth double-thick edges. Adequate ventilation is obtained from full ventilating (venetian-type) louvers. Lock type handles are supplied on racks with both front and rear doors. Non-locking handles are used on racks with rear doors only; locking type handles are optional.

- **OUTLETS:**

"Knockout holes" are available on cabinet side for connecting cables; a duplex outlet, outlet box and plate are mounted on cabinet under rear door.

- **RECESSED SUB-BASES:**

They are available for all universal type racks as an optional accessory.

- **FLOOR LEVELERS:**

Four are supplied with all universal type racks.

PAR-METAL PRODUCTS CORP.
Long Island City 3, N.Y.

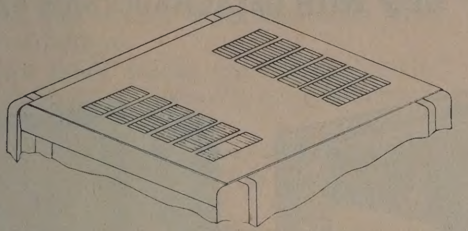
PAR-METAL ELECTRONIC HOUSINGS

MODIFICATIONS OF MODULAR CABINET RACKS

CABINET TOPS

Without departing from the basic design of our Modular Cabinet Racks (see Par-Metal Pages 4 to 9), it is possible for us to modify them to meet your special requirements. Below are several modifications, which we have adopted as standard. We have available many standard dies for making openings, louvers, circular holes, etc., in the sides, tops, and bottoms of racks.

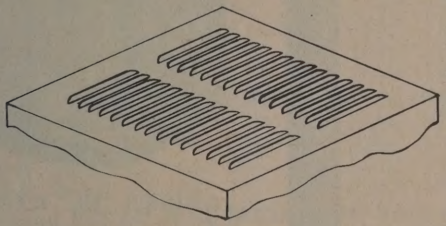
FOR SERIES "PL" AND "FL" CABINET RACKS ONLY



With "venetian" type louvers in top similar to those used on standard rack doors. In ordering, specify the rack catalog number, "WITH TOP MODIFICATION TC". Additional cost per rack is as follows:

Rack Size	Net Price
22″ wide, 18″ deep	$2.00
22″ wide, 24″ deep	2.00
27″ wide, 24″ deep	2.50
33″ wide, 24″ deep	3.00

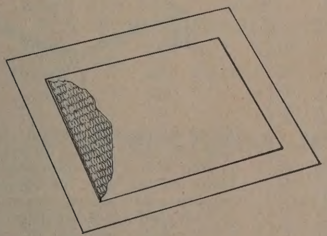
FOR SERIES "PR", "FR", "PX", AND "FX" RACKS



With 7″ wide pressed louvers in top from front to back as illustrated above. When ordering, add to rack catalog number "WITH TOP MODIFICATION TB". Additional cost per rack is as follows:

Rack Size	Louvers	Net Price
22″ wide, 18″ deep	2 rows	$3.00
22″ wide, 24″ deep	2 rows	3.50
27″ wide, 24″ deep	2 rows	4.00
33″ wide, 24″ deep	3 rows	5.10

FOR SERIES "PL", "FL", "PR", "FR", "PX" AND "FX" RACKS

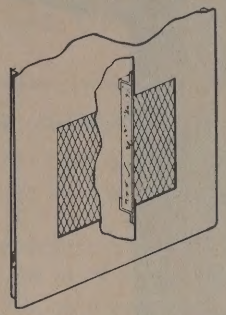


With rectangular opening in top as shown above. The opening is covered with flat expanded steel mesh, .055″ thick, having diamond shaped openings 5/16″ x 7/8″; mesh is spot-welded underneath. When ordering, add to rack catalog number. "WITH TOP MODIFICATION TA". Additional cost per rack is as follows:

Rack Size	Opening Size	Net Price
22″ wide, 18″ deep	16″ x 12″	$5.25
22″ wide, 24″ deep	16″ x 18″	5.75
27″ wide, 24″ deep	21″ x 18″	6.50
33″ wide, 24″ deep	27″ x 18″	8.00

DOOR MODIFICATIONS

FOR DOORS ON ALL MODULAR CABINET RACKS

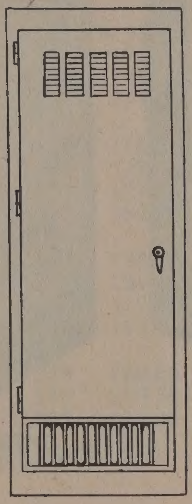


Above is illustrated a grilled opening and interior frame for a removable air filter, which is installed in the lower section of the door. The same provision can be made at the top of the door, if so specified. The filter sizes below are standard; other sizes are available if required. When ordering, specify the rack catalog number "WITH MODIFICATION FD DOOR". (Prices include filters).

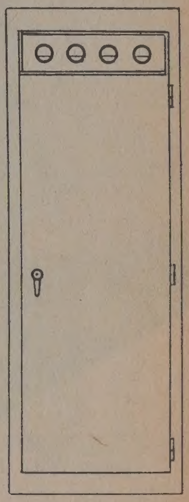
Rack Size	Filter Size	Net Price
22″ wide, 18″ deep	10″ x 10″ x 1″	$ 7.50
22″ wide, 24″ deep	10″ x 10″ x 1″	7.50
27″ wide, 24″ deep	10″ x 10″ x 1″	7.50
*33″ wide, 24″ deep	10″ x 10″ x 1″	15.00

*On each door—cabinet has double doors

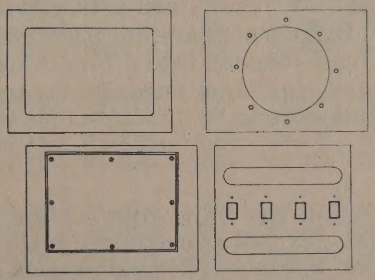
MODIFIED LENGTH, HINGING, LOUVRES, ETC.



There are several modifications on our standard racks which can be made without additional cost as follows: 1. Doors hinged on left side. 2. Louvers at top only. 3. Louvers at bottom only. 4. Louvers omitted entirely. The drawings illustrate doors of modified length which can be made to your specifications for use with cooling units, meter panels, etc. at a nominal increase in cost.



SPECIAL OPENINGS, HOLES, ETC.



The drawing above indicates some of the stock tools which we have available. Such tools can be used for square or rectangular openings of almost any size. We also have tool equipment to punch or nibble holes up to 14″ diameter. These openings or holes can be located in cabinet sides, tops, bottoms or doors within the limits of such equipment.

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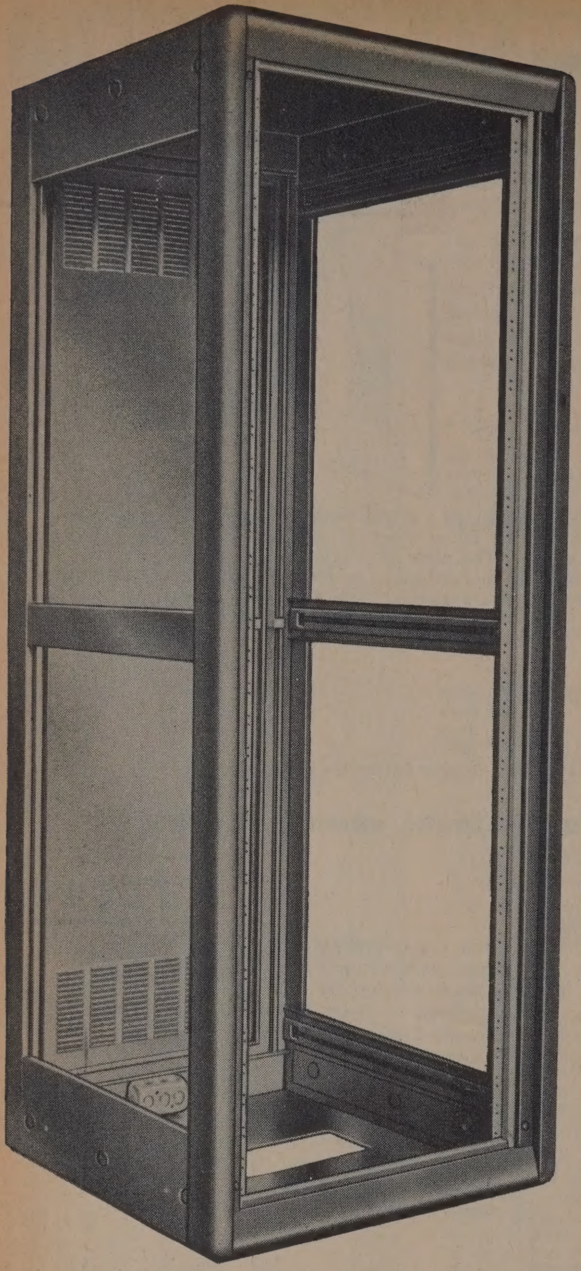
PAR-METAL

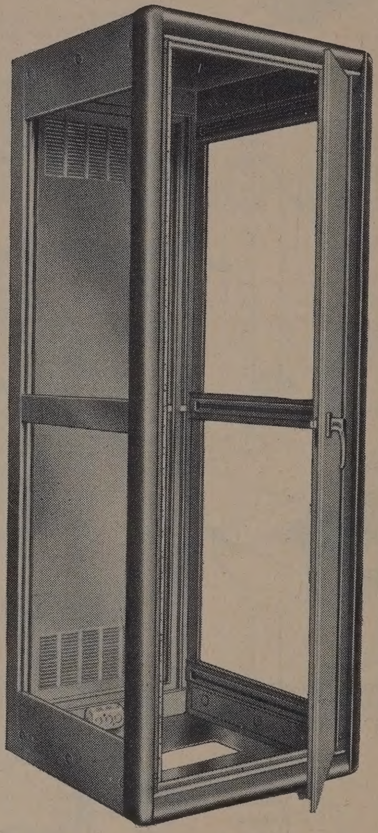
Modular Cabinet Racks

SERIES "PL" & "FL" RACKS WITH OPEN SIDE WALLS FOR 19"–24"–30" WIDE PANELS

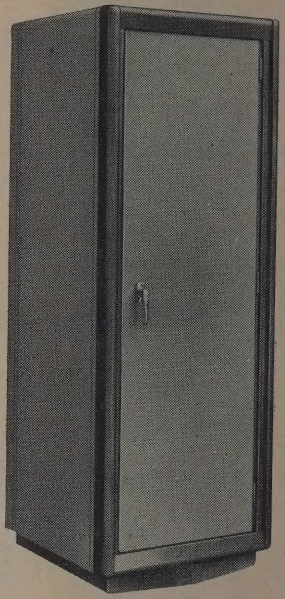
18" & 24" DEEP WITH DETACHABLE SIDE PANELS



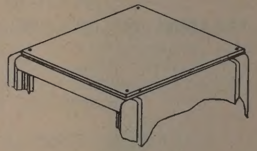
SERIES "PL" RACKS
With Rear Door Only



SERIES "FL" RACKS
With Front and Rear Doors



SERIES "FL" RACKS
With Front and Rear Doors
Equipped with detachable side panels and recessed sub-base as optional items.



These standard models have a removable top plate which is held in place by four spring loaded machine screws. These screws may be adjusted to lift the top plate above the rack, which provides adjustable ventilation through a rectangular opening in top of rack.

Series "PL" and "FL" racks are attractively styled with built-in custom quality. Ball corners are not used merely as a sales feature, but are attractively blended into a functional modular design. The rack frames have the same rugged construction featured in all **Par-Metal Modular Racks.**

Serious consideration has been given to the problem of stability, as well as maximum flexibility for modular assembly. Removable side panels make the interior readily accessible for assembly, inspection, and adjustment.

STANDARD EQUIPMENT: All racks are equipped as shown, with door(s), one pair of panel mounting angles, and all necessary hardware. Recessed sub-bases are not included, but listed as an optional accessory.

PLEASE SPECIFY FINISH WHEN ORDERING!

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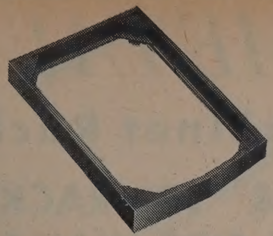
RECESSED RACK SUB-BASES



These heavy duty bases will fit under any of the racks listed below. They are rigidly made from 7/64″ thick steel with the 4 holes in the top matching those in the racks, and with 4 adjustable floor levellers at bottom.

Where roller trucks are mounted under racks, recessed bases are not recommended or required.

Complete listing of recessed bases for all cabinet racks and prices are given in chart below.

BEFORE ORDERING PLEASE READ INSTRUCTIONS BELOW:

Specify racks by catalog number; also detachable side panels. (Catalog number of side panels is for one pair).

If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks. All front vertical corner and joining trims are narrow type to permit installation of sliding shelves, rack type extension tables, chassis slides, etc.

FINISHES: YOUR CHOICE OF THE FOLLOWING

Specify finish *"LH"* for light grey hammertone enamel.
Specify finish *"DH"* for dark grey hammertone enamel.
Specify finish *"LD"* for light grey hammertone cabinets with dark grey hammertone trim on front of assembly.
Specify finish *"GM"* for dark grey metallic enamel.
Specify finish *"BG"* for blue grey wrinkle enamel.
Specify finish *"BW"* for black wrinkle enamel.
Specify finish *"PC"* for primer coat only.

Locking type handles are standard on series "FL" racks. They may be obtained on series "PL" racks at $1.00 extra. Plain doors without louvers may be substituted for louvered doors (and vice-versa) without additional charge. Other useful modifications to doors and racks are illustrated on PAR-METAL page 3.

SERIES "PL" & "FL" RACKS WITH OPEN SIDE WALLS

FOR 19″ - 24″ - 30″ WIDE PANELS — 18″ & 24″ DEEP WITH DETACHABLE SIDE PANELS

TYPE "PL" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Cat. No.	Shipping Wt. Lbs.	Net Price
FOR 19″ WIDE PANELS—18″ DEEP RACKS															
PL-4818-A	48⅛″	22″	18″	42″ x19″	16⅝″	17¾″	19⅛″	110	$ 92.00	RL-418	40	$40.00	RB-2217	18	$15.00
PL-6718-A	67⅜″	22″	18″	61¼″x19″	16⅝″	17¾″	19⅛″	150	105.00	RL-618	55	48.90	RB-2217	18	15.00
PL-7718-A	76⅛″	22″	18″	70″ x19″	16⅝″	17¾″	19⅛″	160	116.75	RL-718	60	52.20	RB-2217	18	15.00
PL-8418-A	83⅛″	22″	18″	77″ x19″	16⅝″	17¾″	19⅛″	180	128.50	RL-818	65	55.80	RB-2217	18	15.00
FOR 19″ WIDE PANELS—24″ DEEP RACKS															
PL-4824-A	48⅛″	22″	24″	42″ x19″	22⅝″	17¾″	19⅛″	125	110.50	RL-424	50	47.20	RB-2223	22	16.00
PL-6724-A	67⅜″	22″	24″	61¼″x19″	22⅝″	17¾″	19⅛″	165	126.00	RL-624	60	55.80	RB-2223	22	16.00
PL-7724-A	76⅛″	22″	24″	70″ x19″	22⅝″	17¾″	19⅛″	175	137.75	RL-724	65	59.40	RB-2223	22	16.00
PL-8424-A	83⅛″	22″	24″	77″ x19″	22⅝″	17¾″	19⅛″	190	152.75	RL-824	70	62.60	RB-2223	22	16.00
FOR 24″ WIDE PANELS—24″ DEEP RACKS															
PL-4827-A	48⅛″	27″	24″	42″ x24″	22⅝″	22¾″	24⅛″	150	139.75	RL-424	50	47.20	RB-2723	25	17.50
PL-6727-A	67⅜″	27″	24″	61¼″x24″	22⅝″	22¾″	24⅛″	185	158.75	RL-624	60	55.80	RB-2723	25	17.50
PL-7727-A	76⅛″	27″	24″	70″ x24″	22⅝″	22¾″	24⅛″	200	170.50	RL-724	65	59.40	RB-2723	25	17.50
PL-8427-A	83⅛″	27″	24″	77″ x24″	22⅝″	22¾″	24⅛″	215	187.75	RL-824	70	62.60	RB-2723	25	17.50
FOR 30″ WIDE PANELS—24″ DEEP RACKS															
PL-6733-A	67⅜″	33″	24″	61¼″x30″	22⅝″	28¾″	30⅛″	245	189.50	RL-624	60	55.80	RB-3323	28	18.75
PL-7733-A	76⅛″	33″	24″	70″ x30″	22⅝″	28¾″	30⅛″	270	205.50	RL-724	65	59.40	RB-3323	28	18.75
PL-8433-A	83⅛″	33″	24″	77″ x30″	22⅝″	28¾″	30⅛″	285	224.25	RL-824	70	62.60	RB-3323	28	18.75

TYPE "FL" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Cat. No.	Shipping Wt. Lbs.	Net Price
FOR 19″ WIDE PANELS—18″ DEEP RACKS															
FL-4818-A	48⅛″	22″	18″	42″ x19″	16¼″	17¾″	19⅛″	125	$109.25	RL-418	40	$40.00	RB-2217	18	$15.00
FL-6718-A	67⅜″	22″	18″	61¼″x19″	16¼″	17¾″	19⅛″	170	128.00	RL-618	55	48.90	RB-2217	18	15.00
FL-7718-A	76⅛″	22″	18″	70″ x19″	16¼″	17¾″	19⅛″	180	145.25	RL-718	60	52.20	RB-2217	18	15.00
FL-8418-A	83⅛″	22″	18″	77″ x19″	16¼″	17¾″	19⅛″	200	157.00	RL-818	65	55.80	RB-2217	18	15.00
FOR 19″ WIDE PANELS—24″ DEEP RACKS															
FL-4824-A	48⅛″	22″	24″	42″ x19″	22¼″	17¾″	19⅛″	145	130.75	RL-424	50	47.20	RB-2223	22	16.00
FL-6724-A	67⅜″	22″	24″	61¼″x19″	22¼″	17¾″	19⅛″	190	149.00	RL-624	60	55.80	RB-2223	22	16.00
FL-7724-A	76⅛″	22″	24″	70″ x19″	22¼″	17¾″	19⅛″	205	166.75	RL-724	65	59.40	RB-2223	22	16.00
FL-8424-A	83⅛″	22″	24″	77″ x19″	22¼″	17¾″	19⅛″	215	181.25	RL-824	70	62.60	RB-2223	22	16.00
FOR 24″ WIDE PANELS—24″ DEEP RACKS															
FL-4827-A	48⅛″	27″	24″	42″ x24″	22¼″	22¾″	24⅛″	170	160.00	RL-424	50	47.20	RB-2723	25	17.50
FL-6727-A	67⅜″	27″	24″	61¼″x24″	22¼″	22¾″	24⅛″	220	188.00	RL-624	60	55.80	RB-2723	25	17.50
FL-7727-A	76⅛″	27″	24″	70″ x24″	22¼″	22¾″	24⅛″	240	199.00	RL-724	65	59.40	RB-2723	25	17.50
FL-8427-A	83⅛″	27″	24″	77″ x24″	22¼″	22¾″	24⅛″	245	223.00	RL-824	70	62.60	RB-2723	25	17.50
FOR 30″ WIDE PANELS—24″ DEEP RACKS															
FL-6733-A	67⅜″	33″	24″	61¼″x30″	22¼″	28¾″	30⅛″	280	231.50	RL-624	60	55.80	RB-3323	28	18.75
FL-7733-A	76⅛″	33″	24″	70″ x30″	22¼″	28¾″	30⅛″	310	252.75	RL-724	65	59.40	RB-3323	28	18.75
FL-8433-A	83⅛″	33″	24″	77″ x30″	22¼″	28¾″	30⅛″	325	274.00	RL-824	70	62.60	RB-3323	28	18.75

*Clearance between front and rear doors.

**Indicates clearance for chassis between panel mounting strips.

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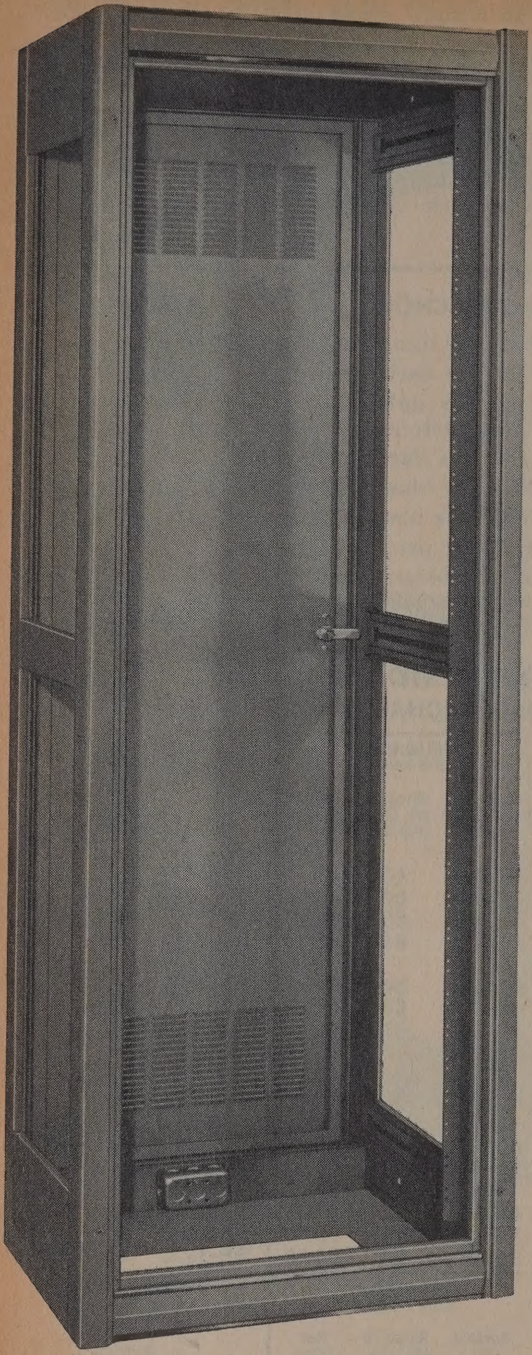
PAR-METAL

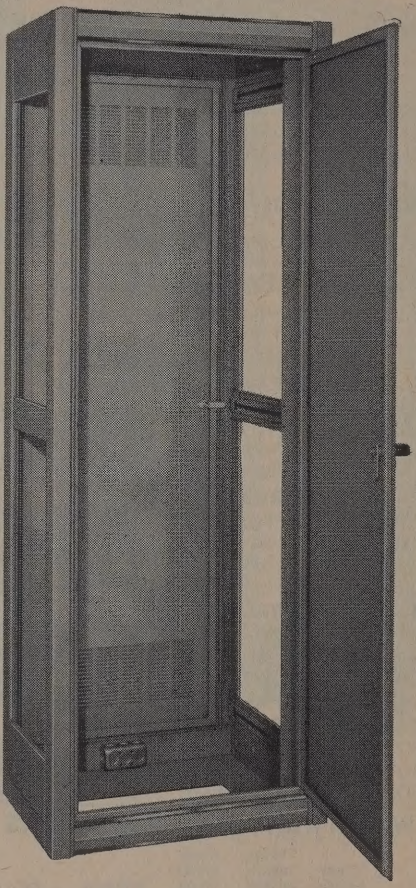
Modular Cabinet Racks

SERIES "PR" & "FR" RACKS WITH OPEN SIDE WALLS FOR 19"–24"–30" PANELS

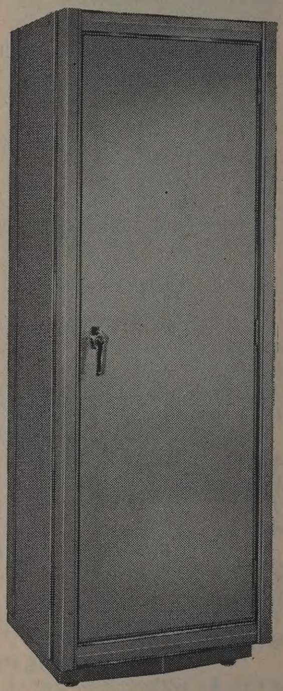
18" & 24" DEEP WITH DETACHABLE SIDE PANELS



SERIES "PR" RACKS
With Rear Door Only



SERIES "FR" RACKS
With Front and Rear Doors



SERIES "FR" RACKS
With Front and Rear Doors equipped with detachable side panels and recessed sub-base as optional items.

Series "PR" and "FR" racks use the same sturdy cabinet frames as the DeLuxe racks listed on **PAR-METAL Page 4.** New horizontal mouldings and vertical corner trims on the front of racks, with new compact side panels, creates a distinctive appearance in keeping with the current trend in cabinet styling. In effect, a frame is provided which can be finished in a contrasting color at your option.

STANDARD EQUIPMENT: All racks are equipped as shown, with door(s), one pair of panel mounting angles, and all necessary hardware. Recessed sub-bases are not included, but listed as an optional accessory.

CORNER TRIMS: Narrow type corner trims are standard to permit assembly with all accessories and sliding shelves. Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

PLEASE SPECIFY FINISH WHEN ORDERING!

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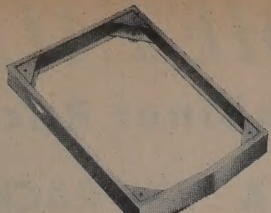
RECESSED RACK SUB-BASES



These heavy duty bases will fit under any of the racks listed below. They are rigidly made from 7/64″ thick steel with the 4 holes in the top matching those in the racks, and with 4 adjustable floor levellers at bottom.

Where roller trucks are mounted under racks, recessed bases are not recommended or required.

Complete listing of recessed bases for all cabinet racks and prices are given in chart below.

BEFORE ORDERING PLEASE READ INSTRUCTIONS BELOW:

Specify racks by catalog number; also detachable side panels. (Catalog number of side panels is for one pair).

If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks. All front vertical corner and joining trims are narrow type to permit installation of sliding shelves, rack type extension tables, chassis slides, etc.

FINISHES: YOUR CHOICE OF THE FOLLOWING

Specify finish *"LH"* for light grey hammertone enamel.

Specify finish *"DH"* for dark grey hammertone enamel.

Specify finish *"LD"* for light grey hammertone cabinets with dark grey hammertone trim on front of assembly.

Specify finish *"GM"* for dark grey metallic enamel.

Specify finish *"BG"* for blue grey wrinkle enamel.

Specify finish *"BW"* for black wrinkle enamel.

Specify finish *"PC"* for primer coat only.

Locking type handles are standard on series "FR" racks. They may be obtained on series "PR" racks at $1.00 extra. Plain doors without louvers may be substituted for louvered doors (and vice-versa) without additional charge. Other useful modifications to doors and racks are illustrated on PAR-METAL page 3.

SERIES "PR" & "FR" RACKS WITH OPEN SIDE WALLS

FOR 19″ - 24″ - 30″ WIDE PANELS — 18″ & 24″ DEEP WITH DETACHABLE SIDE PANELS

TYPE "PR" SERIES RACKS — WITH REAR DOORS ONLY

										DETACHABLE SIDE PANELS			RECESSED BASES (Optional)		
Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	Cat. No.	Shipping Wt. Lbs.	Net Price
FOR 19″ WIDE PANELS—18″ DEEP RACKS															
PR-4818-B	48⅛″	22″	18″	42″ x19″	16⅝″	17¾″	19⅛″	110	$ 80.60	RS-418-B	40	$34.50	RB-2217	18	$15.00
PR-6718-B	67⅜″	22″	18″	61¼″x19″	16⅝″	17¾″	19⅛″	150	92.20	RS-618-B	55	41.40	RB-2217	18	15.00
PR-7718-B	76⅛″	22″	18″	70″ x19″	16⅝″	17¾″	19⅛″	160	103.80	RS-718-B	60	44.70	RB-2217	18	15.00
PR-8418-B	83⅛″	22″	18″	77″ x19″	16⅝″	17¾″	19⅛″	180	115.20	RS-818-B	65	48.30	RB-2217	18	15.00
FOR 19″ WIDE PANELS—24″ DEEP RACKS															
PR-4824-B	48⅛″	22″	24″	42″ x19″	22⅝″	17¾″	19⅛″	125	97.70	RS-424-B	50	41.70	RB-2223	22	16.00
PR-6724-B	67⅜″	22″	24″	61¼″x19″	22⅝″	17¾″	19⅛″	165	112.00	RS-624-B	60	48.30	RB-2223	22	16.00
PR-7724-B	76⅛″	22″	24″	70″ x19″	22⅝″	17¾″	19⅛″	175	123.50	RS-724-B	65	51.90	RB-2223	22	16.00
PR-8424-B	83⅛″	22″	24″	77″ x19″	22⅝″	17¾″	19⅛″	190	138.30	RS-824-B	70	55.10	RB-2223	22	16.00
FOR 24″ WIDE PANELS—24″ DEEP RACKS															
PR-4827-B	48⅛″	27″	24″	42″ x24″	22⅝″	22¾″	24⅛″	150	126.20	RS-424-B	50	41.70	RB-2723	25	17.50
PR-6727-B	67⅜″	27″	24″	61¼″x24″	22⅝″	22¾″	24⅛″	185	143.80	RS-624-B	60	48.30	RB-2723	25	17.50
PR-7727-B	76⅛″	27″	24″	70″ x24″	22⅝″	22¾″	24⅛″	200	155.30	RS-724-B	65	51.90	RB-2723	25	17.50
PR-8427-B	83⅛″	27″	24″	77″ x24″	22⅝″	22¾″	24⅛″	215	172.30	RS-824-B	70	55.10	RB-2723	25	17.50
FOR 30″ WIDE PANELS—24″ DEEP RACKS															
PR-6733-B	67⅜″	33″	24″	61¼″x30″	22⅝″	28¾″	30⅛″	245	173.20	RS-624-B	60	48.30	RB-3323	28	18.75
PR-7733-B	76⅛″	33″	24″	70″ x30″	22⅝″	28¾″	30⅛″	270	189.00	RS-724-B	65	51.90	RB-3323	28	18.75
PR-8433-B	83⅛″	33″	24″	77″ x30″	22⅝″	28¾″	30⅛″	285	207.40	RS-824-B	70	55.10	RB-3323	28	18.75

TYPE "FR" SERIES RACKS — WITH FRONT AND REAR DOORS

										DETACHABLE SIDE PANELS			RECESSED BASES (Optional)		
Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	Cat. No.	Shipping Wt. Lbs.	Net Price
FOR 19″ WIDE PANELS—18″ DEEP RACKS															
FR-4818-B	48⅛″	22″	18″	42″ x19″	16¼″	17¾″	19⅛″	125	$ 97.70	RS-418-B	40	$34.50	RB-2217	18	$15.00
FR-6718-B	67⅜″	22″	18″	61¼″x19″	16¼″	17¾″	19⅛″	170	115.20	RS-618-B	55	41.40	RB-2217	18	15.00
FR-7718-B	76⅛″	22″	18″	70″ x19″	16¼″	17¾″	19⅛″	180	132.20	RS-718-B	60	44.70	RB-2217	18	15.00
FR-8418-B	83⅛″	22″	18″	77″ x19″	16¼″	17¾″	19⅛″	200	143.80	RS-818-B	65	48.30	RB-2217	18	15.00
FOR 19″ WIDE PANELS—24″ DEEP RACKS															
FR-4824-B	48⅛″	22″	24″	42″ x19″	22¼″	17¾″	19⅛″	145	118.00	RS-424-B	50	41.70	RB-2223	22	16.00
FR-6724-B	67⅜″	22″	24″	61¼″x19″	22¼″	17¾″	19⅛″	190	134.90	RS-624-B	60	48.30	RB-2223	22	16.00
FR-7724-B	76⅛″	22″	24″	70″ x19″	22¼″	17¾″	19⅛″	205	152.50	RS-724-B	65	51.90	RB-2223	22	16.00
FR-8424-B	83⅛″	22″	24″	77″ x19″	22¼″	17¾″	19⅛″	215	166.80	RS-824-B	70	55.10	RB-2223	22	16.00
FOR 24″ WIDE PANELS—24″ DEEP RACKS															
FR-4827-B	48⅛″	27″	24″	42″ x24″	22¼″	22¾″	24⅛″	170	146.50	RS-424-B	50	41.70	RB-2723	25	17.50
FR-6727-B	67⅜″	27″	24″	61¼″x24″	22¼″	22¾″	24⅛″	220	172.90	RS-624-B	60	48.30	RB-2723	25	17.50
FR-7727-B	76⅛″	27″	24″	70″ x24″	22¼″	22¾″	24⅛″	240	183.80	RS-724-B	65	51.90	RB-2723	25	17.50
FR-8427-B	83⅛″	27″	24″	77″ x24″	22¼″	22¾″	24⅛″	245	207.40	RS-824-B	70	55.10	RB-2723	25	17.50
FOR 30″ WIDE PANELS—24″ DEEP RACKS															
FR-6733-B	67⅜″	33″	24″	61¼″x30″	22¼″	28¾″	30⅛″	280	215.20	RS-624-B	60	48.30	RB-3323	28	18.75
FR-7733-B	76⅛″	33″	24″	70″ x30″	22¼″	28¾″	30⅛″	310	236.20	RS-724-B	65	51.90	RB-3323	28	18.75
FR-8433-B	83⅛″	33″	24″	77″ x30″	22¼″	28¾″	30⅛″	325	257.20	RS-824-B	70	55.10	RB-3323	28	18.75

*Clearance between front and rear doors.

**Indicates clearance for chassis between panel mounting strips.

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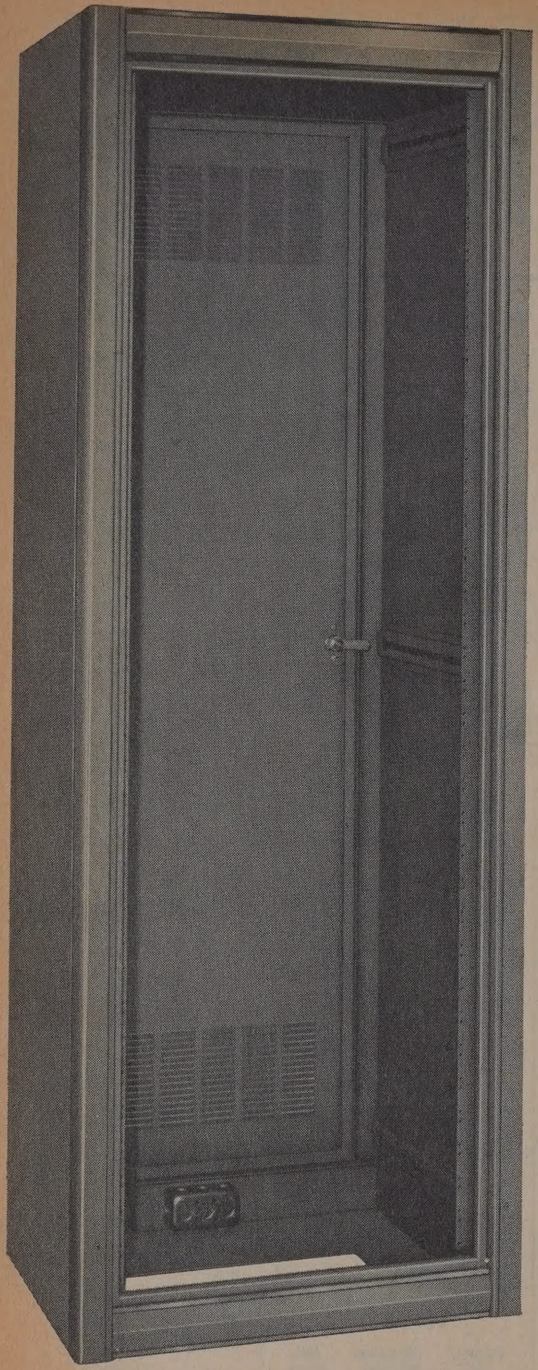
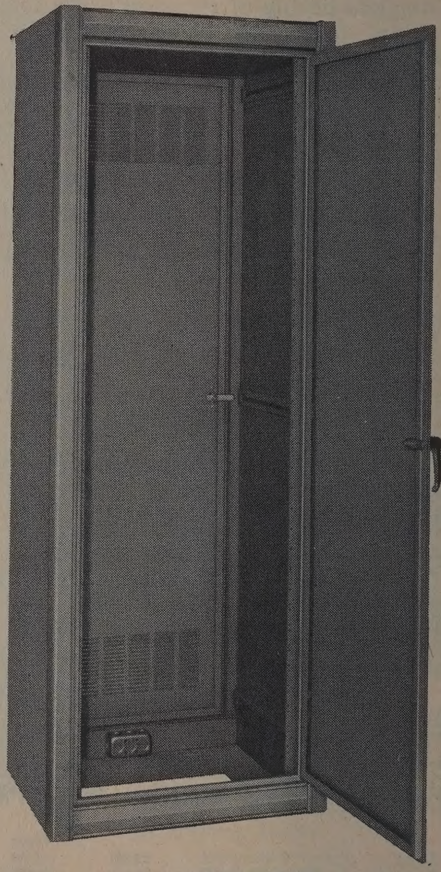


SERIES "PX" RACKS
With Rear Door Only

PAR-METAL

Modular Cabinet Racks

SERIES "PX" & "FX" RACKS WITH SOLID SIDE WALLS FOR 19"–24"–30" WIDE PANELS 18" and 24" DEEP



SERIES "FX" RACKS
With Front and Rear Doors

Series "PX" and "FX" racks are similar to our "PR" racks listed on **PAR-METAL Page 6** except that they are constructed with **SOLID SIDE WALLS** as shown. Where open side racks are not required, the cost of detachable side panels is eliminated.

These racks feature the same horizontal mouldings and corner trims used on our "PR" series, resulting in a trim, compact appearance. The new styling, in effect, provides an attractive frame around the front of the rack where contrasting color finishes are used.

STANDARD EQUIPMENT: All racks are equipped as shown, with door(s), one pair of panel mounting angles, and all necessary hardware. Recessed sub-bases are not included, but listed as an optional accessory.

CORNER TRIMS: Narrow type corner trims are standard to permit assembly with all accessories and sliding shelves. Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

PLEASE SPECIFY FINISH WHEN ORDERING!

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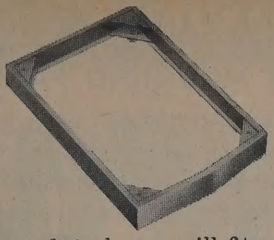
RECESSED RACK SUB-BASES



These heavy duty bases will fit under any of the racks listed below. They are rigidly made from 7/64″ thick steel with the 4 holes in the top matching those in the racks, and with 4 adjustable floor levellers at bottom.

Where roller trucks are mounted under racks, recessed bases are not recommended or required.

Complete listing of recessed bases for all cabinet racks and prices are given in chart below.

BEFORE ORDERING PLEASE READ INSTRUCTIONS BELOW:

Specify racks by catalog number.

If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks. All front vertical corner and joining trims are narrow type to permit installation of sliding shelves, rack type extension tables, chassis slides, etc.

FINISHES: YOUR CHOICE OF THE FOLLOWING

Specify finish *"LH"* for light grey hammertone enamel.

Specify finish *"DH"* for dark grey hammertone enamel.

Specify finish *"LD"* for light grey hammertone cabinets with dark grey hammertone trim on front of assembly.

Specify finish *"GM"* for dark grey metallic enamel.

Specify finish *"BG"* for blue grey wrinkle enamel.

Specify finish *"BW"* for black wrinkle enamel.

Specify finish *"PC"* for primer coat only.

Locking type handles are standard on series "FX" racks. They may be obtained on series "PX" racks at $1.00 extra. Plain doors without louvers may be substituted for louvered doors (and vice-versa) without additional charge. Other useful modifications to doors and racks are illustrated on PAR-METAL page 3.

SERIES "PX" & "FX" RACKS WITH SOLID SIDE WALLS

FOR 19″ - 24″ - 30″ WIDE PANELS — 18″ & 24″ DEEP

TYPE "PX" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions			Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	RECESSED BASES (Optional)		
	Height	Width	Depth							Catalog No.	Shipping Wt. Lbs.	Net Price
	FOR 19″ WIDE PANELS — 18″ DEEP RACKS											
PX-3718-B	42⅞″	22″	18″	36¾″x19″	16⅞″	17¾″	19⅛″	105	$ 69.00	RB-2217	18	$15.00
PX-4818-B	48⅛″	22″	18″	42″ x19″	16⅞″	17¾″	19⅛″	120	80.60	RB-2217	18	15.00
PX-6718-B	67⅜″	22″	18″	61¼″x19″	16⅞″	17¾″	19⅛″	155	92.20	RB-2217	18	15.00
PX-7718-B	76⅛″	22″	18″	70″ x19″	16⅞″	17¾″	19⅛″	170	103.80	RB-2217	18	15.00
PX-8418-B	83⅛″	22″	18″	77″ x19″	16⅞″	17¾″	19⅛″	185	115.20	RB-2217	18	15.00
	FOR 19″ WIDE PANELS — 24″ DEEP RACKS											
PX-4824-B	48⅛″	22″	24″	42″ x19″	22⅝″	17¾″	19⅛″	140	97.70	RB-2223	22	16.00
PX-6724-B	67⅜″	22″	24″	61¼″x19″	22⅝″	17¾″	19⅛″	180	112.00	RB-2223	22	16.00
PX-7724-B	76⅛″	22″	24″	70″ x19″	22⅝″	17¾″	19⅛″	195	123.50	RB-2223	22	16.00
PX-8424-B	83⅛″	22″	24″	77″ x19″	22⅝″	17¾″	19⅛″	210	138.30	RB-2223	22	16.00
	FOR 24″ WIDE PANELS — 24″ DEEP RACKS											
PX-4827-B	48⅛″	27″	24″	42″ x24″	22⅝″	22¾″	24⅛″	155	126.20	RB-2723	25	17.50
PX-6727-B	67⅜″	27″	24″	61¼″x24″	22⅝″	22¾″	24⅛″	200	143.80	RB-2723	25	17.50
PX-7727-B	76⅛″	27″	24″	70″ x24″	22⅝″	22¾″	24⅛″	225	155.30	RB-2723	25	17.50
PX-8427-B	83⅛″	27″	24″	77″ x24″	22⅝″	22¾″	24⅛″	240	172.30	RB-2723	25	17.50
	FOR 30″ WIDE PANELS — 24″ DEEP RACKS											
PX-6733-B	67⅜″	33″	24″	61¼″x30″	22⅝″	28¾″	30⅛″	260	173.20	RB-3323	28	18.75
PX-7733-B	76⅛″	33″	24″	70″ x30″	22⅝″	28¾″	30⅛″	280	189.00	RB-3323	28	18.75
PX-8433-B	83⅛″	33″	24″	77″ x30″	22⅝″	28¾″	30⅛″	300	207.40	RB-3323	28	18.75

TYPE "FX" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions			Panel Space	Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	RECESSED BASES (Optional)		
	Height	Width	Depth							Catalog No.	Shipping Wt. Lbs.	Net Price
	FOR 19″ WIDE PANELS — 18″ DEEP RACKS											
FX-4818-B	48⅛″	22″	18″	42″ x19″	16¼″	17¾″	19⅛″	135	$ 97.70	RB-2217	18	$15.00
FX-6718-B	67⅜″	22″	18″	61¼″x19″	16¼″	17¾″	19⅛″	175	115.20	RB-2217	18	15.00
FX-7718-B	76⅛″	22″	18″	70″ x19″	16¼″	17¾″	19⅛″	190	132.20	RB-2217	18	15.00
FX-8418-B	83⅛″	22″	18″	77″ x19″	16¼″	17¾″	19⅛″	205	143.80	RB-2217	18	15.00
	FOR 19″ WIDE PANELS — 24″ DEEP RACKS											
FX-4824-B	48⅛″	22″	24″	42″ x19″	22¼″	17¾″	19⅛″	160	118.00	RB-2223	22	16.00
FX-6724-B	67⅜″	22″	24″	61¼″x19″	22¼″	17¾″	19⅛″	205	134.90	RB-2223	22	16.00
FX-7724-B	76⅛″	22″	24″	70″ x19″	22¼″	17¾″	19⅛″	225	152.50	RB-2223	22	16.00
FX-8424-B	83⅛″	22″	24″	77″ x19″	22¼″	17¾″	19⅛″	235	166.80	RB-2223	22	16.00
	FOR 24″ WIDE PANELS — 24″ DEEP RACKS											
FX-4827-B	48⅛″	27″	24″	42″ x24″	22¼″	22¾″	24⅛″	175	146.50	RB-2723	25	17.50
FX-6727-B	67⅜″	27″	24″	61¼″x24″	22¼″	22¾″	24⅛″	235	172.90	RB-2723	25	17.50
FX-7727-B	76⅛″	27″	24″	70″ x24″	22¼″	22¾″	24⅛″	265	183.80	RB-2723	25	17.50
FX-8427-B	83⅛″	27″	24″	77″ x24″	22¼″	22¾″	24⅛″	270	207.40	RB-2723	25	17.50
	FOR 30″ WIDE PANELS — 24″ DEEP RACKS											
FX-6733-B	67⅜″	33″	24″	61¼″x30″	22¼″	28¾″	30⅛″	295	215.20	RB-3323	28	18.75
FX-7733-B	76⅛″	33″	24″	70″ x30″	22¼″	28¾″	30⅛″	320	236.20	RB-3323	28	18.75
FX-8433-B	83⅛″	33″	24″	77″ x30″	22¼″	28¾″	30⅛″	345	257.20	RB-3323	28	18.75

*Clearance between front and rear doors.

**Indicates clearance for chassis between panel mounting strips.

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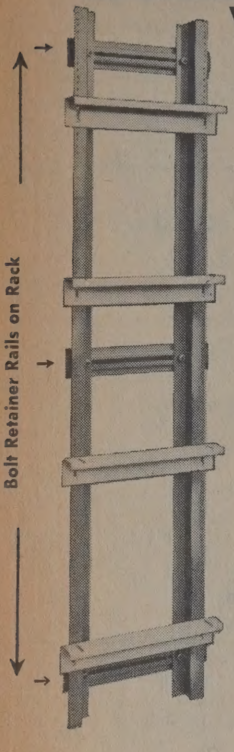
PAR-METAL CABINET RACK ACCESSORIES

VERTICAL SIDE SUPPORTS


Bolt Retainer Rails on Rack

These vertical side supports are supplied in sets of four uprights to fit all Modular racks listed on PAR-METAL Pages 4 thru 9. (Cut shows side mounting brackets in place which are sold separately — see listing below).

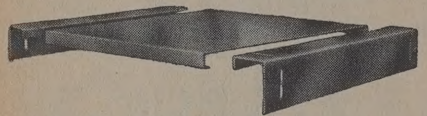
Supports are fastened to bolt retainer rails which hold panel mounting angles in place, and are adjustably mounted from front to back of rack. Holes are **drilled** and **tapped vertically** to provide adequate vertical adjustment for mounting brackets, shelves, and various sliding devices.

When installed in racks for 19" wide panels, the clearance between supports (from right to left) is 17¾". On 24" wide panel racks, the clearance is 22¾"; on 30" wide panel racks, the clearance is 28¾". Supports are 2⅝" wide and 1½" deep.

Supports are made from 7/64" thick steel, finished in aluminum enamel. Each set is supplied with ⅜" dia. bolts, lock washers, and nuts for rack mounting.

Cat. No.	Height	To Fit Modular Cabinet Racks	Sh. Wt. Lbs.	Net Price Set of 4
VS-36	40 27/32"	Series 3718	22	$15.00
VS-42	46 3/32"	Series 4818, 4824, 4827	25	16.50
VS-61	65 11/32"	Series 6718, 6724, 6727, 6733	35	21.75
VS-70	74 3/32"	Series 7718, 7724, 7727, 7733	39	25.50
VS-77	81 3/32"	Series 8418, 8424, 8427, 8433	45	28.35

SIDE MOUNTING BRACKETS



Brackets BR-118 and Shelf SS-1918

These brackets will fit on Vertical Side Supports shown above. They are sold in pairs, and slotted to provide vertical adjustment at any height required. Brackets are 2" wide and 1-13/16" high. The vertical face of the bracket is also slotted to match holes in equipment shelves listed below. Where desirable, the horizontal face of the bracket may be bolted to the vertical side supports. They are made from ⅛" steel, zinc plated finish. Necessary bolts are supplied.

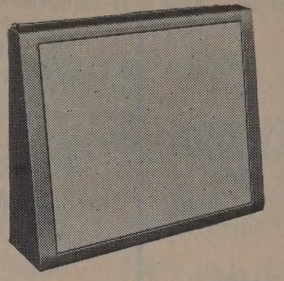
Cat. No.	Length	To Fit Racks	Shpg. Wt.	Net Price
BR-118	14"	All 18" deep racks	4 lbs.	$3.30 per pair
BR-124	20"	All 24" deep racks	6 lbs.	4.45 per pair

EQUIPMENT SHELVES

These shelves will assemble with the side mounting brackets listed above, to make a complete shelf between Vertical Side Supports. Made from 1/16" steel, zinc plated. Necessary bolts for assembly are included. All shelves are ⅞" high.

Cat. No.	Width	Depth	To Fit Racks	Net Price
SS-1918	17⅝"	14¼"	19" panels-18" deep	$3.50
SS-1924	17⅝"	20¼"	19" panels-24" deep	4.20
SS-2724	22⅝"	20¼"	24" panels-24" deep	4.95
SS-3324	28⅝"	20¼"	30" panels-24" deep	7.20

SLOPING RACK MOUNTING PANELS



These panels are intended for installation on relay racks, and are installed the same as other standard rack panels.

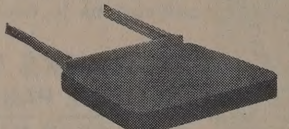
The front slopes at an angle of 20°, and it may be used with the slope upward or downward (see illustrations) on PAR-METAL Page 1.

Front and back have removable panels. They are designed for single unit or modular group assemblies.

Constructed from 1/16" sheet steel; panels are included in prices listed below. Available in all finishes—please specify when ordering. **All panels are 7⅝" deep.**

Cat. No.	Panel Space Required	Sloping Panel Size	Rear Panel Size	Net Price
SP-1719	17½" x 19"	15¾" x 19"	14" x 19"	$42.00
SP-1724	17½" x 24"	15¾" x 24"	14" x 24"	50.00
SP-1730	17½" x 30"	15¾" x 30"	14" x 30"	65.00

RACK TYPE EXTENSION TABLES



These tables are mounted to the front of cabinet racks as illustrated on PAR-METAL Page 1. They are made from ¾" plywood to which is bonded 1/16" thick formica of a dark grey pattern on both top and apron, which is 2½" high.

The apron is substantially reinforced for fastening to horizontal channel type supports. The channels are made from 7/64" thick steel, and are bolted to vertical side supports which are securely mounted on the inside wall of the rack. The tables may be adjusted at any height from the floor. This assembly provides a very rigid structure, with a smooth writing space across the entire top. There are no metal parts exposed, and no painted metal surfaces to deteriorate with constant usage.

The tables may be installed on any of the cabinet racks (without front door) listed on PAR-METAL Pages 4 thru 9. They are also available for modular rows of four or more racks.

ALL OF THESE TABLE ASSEMBLIES REQUIRE ONLY 3½" OF PANEL SPACE (height).

Cat. No.	Table Size	Type	Rack Panel Width	Net Price
RX-119	21¼" x 20"	Single	19"	$ 33.60
RX-219	42⅛" x 20"	Double	19"	62.40
RX-319	64¼" x 20"	Triple	19"	83.20
RX-419	86⅜" x 20"	Quadruple	19"	113.20
RX-124	26¼" x 20"	Single	24"	38.40
RX-224	52⅛" x 20"	Double	24"	76.00
RX-324	79¼" x 20"	Triple	24"	102.40
RX-130	32¼" x 20"	Single	30"	44.00
RX-230	64⅛" x 20"	Double	30"	80.00

PANEL MOUNTING ANGLES

These panel mounting angles (or strips) are the same as used in all Modular type racks (see PAR-METAL Pages 4 thru 9). They are supplied with necessary bolts to fit into the bolt retainer rails which hold the pair of panel mounting angles regularly supplied with each rack (see PAR-METAL Page 3 for further description).

It is often desirable to use an additional pair of panel mounting angles for mounting chassis, terminal strips, etc. They may be adjusted to any depth within the rack from front to back.

Angle No.	Length	To Fit Modular Cabinet Racks	Net Price Per Pair
PA-36	40-27/32"	PX-3718	$ 9.50
PA-42	46-3/32"	PL, FL, PX, FX, PR, FR-4818, 4824, 4827	11.50
PA-61	65-11/32"	PL, FL, PX, FX, PR, FR-6718, 6724, 6727, 6733	15.90
PA-70	74-3/32"	PL, FL, PX, FX, PR, FR-7718, 7724, 7727, 7733	18.10
PA-77	81-3/32"	PL, FL, PX, FX, PR, FR-8418, 8424, 8427, 8433	19.80

SIDE SHIELDS FOR SERIES "PL", "FL", "PR", and "FR" RACKS

Where PL, FL, PR, FR, Series Racks are used in groups, it is often desirable to use a shield between racks. The shield fits into the upper and lower opening of the rack, each one shielding one half of the side. No drilling is necessary when attaching the shields. One shield per side ONLY is required for Racks 48⅛" in height.

Shield No.	To Fit Rack No.	Size		Net Price Per Shield
		Height	Width	
P-418	FR-PR-FL-PL-4818	36 "	13½"	$6.50
P-618	FR-PR-FL-PL-6718	26¼"	13½"	5.25
P-718	FR-PR-FL-PL-7718	30½"	13½"	5.75
P-818	FR-PR-FL-PL-8418	34 "	13½"	6.25
P-424	FR-PR-FL-PL-4824	36 "	19½"	8.00
P-624	FR-PR-FL-PL-6724	26¼"	19½"	6.25
P-724	FR-PR-FL-PL-7724	30½"	19½"	7.00
P-824	FR-PR-FL-PL-8424	34 "	19½"	7.75
P-424	FR-PR-FL-PL-4827	36 "	19½"	8.00
P-624	FR-PR-FL-PL-6727, 6733	26¼"	19½"	6.25
P-724	FR-PR-FL-PL-7727, 7733	30½"	19½"	7.00
P-824	FR-PR-FL-PL-8427, 8433	34 "	19½"	7.75

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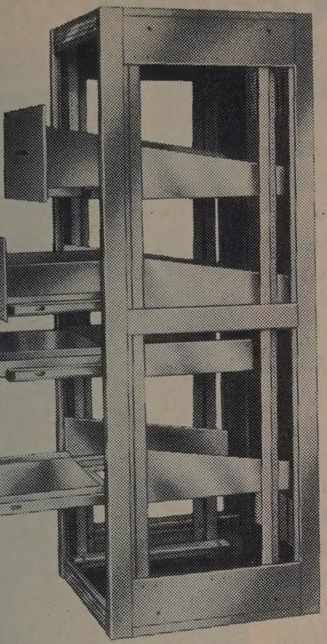
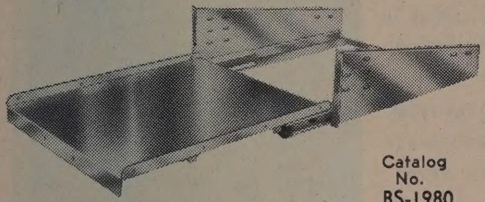
PAR-METAL RACK TYPE SLIDE ASSEMBLIES





GENERAL DESCRIPTION

These slide assemblies will save considerable layout and assembly time as an alternate method of attaching individual slides directly to the interior of a rack. All models are screw mounted to the front panel mounting angles of relay racks, the same as regular panels. Additional holes are provided in the side brackets of the shelf assembly for mounting to our standard vertical side supports. Either method will provide a rigid support; both may be used together where desirable.

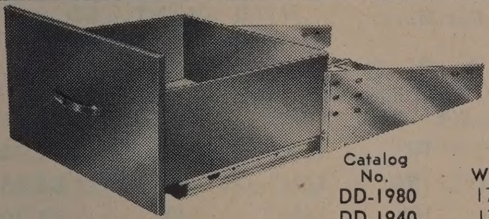
The basic slide assemblies for use in 19″ wide panel **racks will accommodate chassis up to 17″ wide.** All of the "usable space" noted below may be fully extended from the front of the rack; load capacities are based on the shelf in this position. All units are ruggedly constructed to withstand constant usage. The frames and brackets are made from 7/64″ thick steel. All parts are securely welded or fastened with stainless steel rivets.

BASIC SLIDE ASSEMBLIES

The basic slide assembly illustrated is sold as a complete unit, ready for installation in all 18″ or 24″ deep racks. Panels may be attached to chassis by using standard *brackets or any other convenient method. The panel and chassis assembly is then bolted directly to the slide pan. Formed panels with a minimum height of 7″ are recommended. Four models are listed to fit racks using panels either 19″ or 24″ wide. The BS-1940 and BS-2419 are identical in size, but have different load capacities. All load capacities are conservatively rated to carry the full load with the sliding shelf completely extended. All parts are zinc plated.

Catalog No.	Usable Space Width	Usable Space Depth	Panel Width	Rack Depth	Bracket Height	Shelf Height	Load Capacity	Net Price	Shipping Weight
BS-1980	17⅛″	14″	19″	18″	6½″	1¾″	50 lbs.	$19.25	24 lbs.
BS-1940	17⅛″	20″	19″	24″	6½″	1¾″	36 lbs.	25.50	32 lbs.
BS-2419	17⅛″	20″	19″	24″	6½″	1¾″	60 lbs.	30.75	32 lbs.
BS-2424	22⅛″	20″	24″	24″	6½″	1¾″	55 lbs.	33.00	35 lbs.

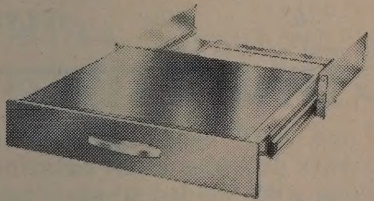
Special brackets are available for mounting rack panels, as listed on Par-Metal page 19.



STORAGE DRAWER ASSEMBLIES

These drawers are suitable for stationery, instruments, parts, etc. The drawers are mounted on the basic slide assemblies described above. They are available either 7″ or 10½″ high to match standard rack panels of the same height. Three models are listed for racks with 19″ wide panels, and one for 24″ wide panel racks.

Catalog No.	Usable Space Width	Usable Space Length	Depth	Panel Height	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight
DD-1980	17″	14″	5″	7″	19″	18″	40 lbs.	$26.50	33 lbs.
DD-1940	17″	20″	5″	7″	19″	24″	25 lbs.	35.00	42 lbs.
DD-2419	17″	20″	8″	10½″	19″	24″	45 lbs.	41.90	50 lbs.
DD-2424	22″	20″	8″	10½″	24″	24″	45 lbs.	46.75	50 lbs.



DESK SHELF ASSEMBLIES

This assembly effectively provides a retractable writing desk, or may be used for supporting test instruments or other devices. When not in use, it saves valuable aisle space. The writing surface is charcoal grey micarta. The front requires only 3½″ of panel space, and is provided with a drawer pull. It is made for racks using panels either 19″ or 24″ wide. No. SK-1970 and SK-2419 are identical except for load capacity.

Catalog No.	Shelf Size Width	Shelf Size Depth	Writing Surface	Pulls Out	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight
SK-1970	17″	17″	Micarta	16⅜″	19″	18-24″	36 lbs.	$36.00	32 lbs.
SK-2419	17″	17″	Micarta	16⅜″	19″	18-24″	60 lbs.	41.50	32 lbs.
SK-2424	22″	17″	Micarta	16⅜″	24″	24″	60 lbs.	48.75	35 lbs.

IMPORTANT: When ordering, please specify paint finish on front panels or drawer fronts of series "DD" or "SK" assemblies. Standard finishes are grey hammertone, black wrinkle, blue grey wrinkle, primer coat only. Other finishes available.

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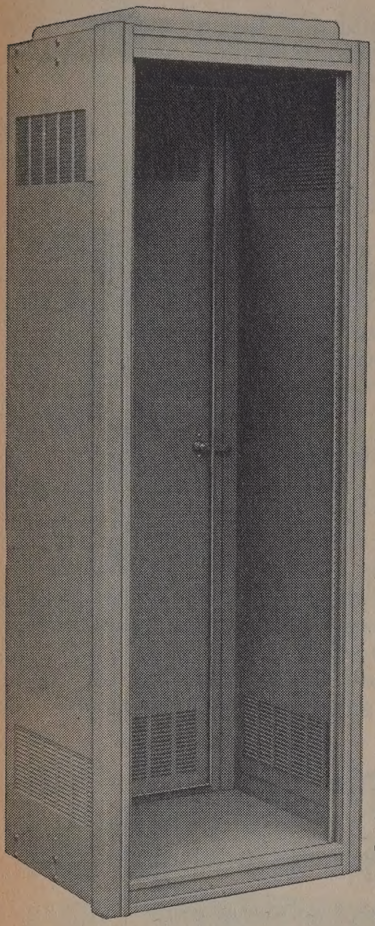
PAR-METAL TYPE "A" RELAY RACKS

DELUXE TYPE—FOR 19″ WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

CABINET: The entire cabinet is made from 1/16″ sheet steel. The sides are adequately ventilated with "venetian" type louvres similar to our universal cabinet racks. The vertical corner trims and formed mouldings at top and bottom are designed to effect a distinctive frame around the front of the rack. Racks are shipped "**knocked down**" for easy assembly.

CORNER TRIMS: All front vertical corner and joining trims are narrow type (do not overlap panels) to permit installation of sliding shelves, drawers, tables, etc.

PANEL MOUNTING: Angle irons are 7/64″ thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

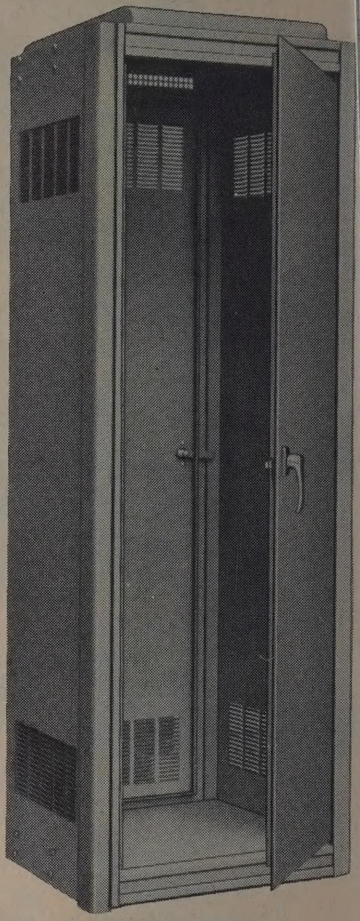
HARDWARE: Doors are the same as our universal racks. **"Series ER-225A"** racks are equipped with "automobile" type non-locking handles on rear doors. On **"Series FD-225A"** racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FINISH: Blue grey wrinkle finish is standard. Black wrinkle enamel or grey hammertone enamel is also available without extra charge if so specified on your order.

ROLLER TRUCK: Use either No. RT-412 or HD-412 for all racks listed on this page; roller trucks are listed on Par-Metal Page 15.

PANELS: Panels 19″ wide to fit these racks are listed on Par-Metal Pages 16 and 17.

SHELVES: For Series ER-225A Racks, use shelf No. ER-2212 listed on Par-Metal Page 19. To install shelves in Series FD-225A, it is recommended that Vertical Side Supports, Brackets and Shelves listed on Par-Metal Page 10 be used.

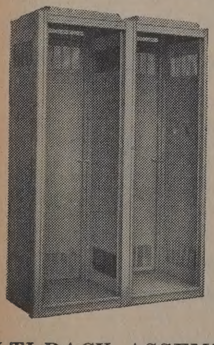


"FD" SERIES
WITH FRONT AND
REAR DOOR

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Shipping Wt. Lbs.	Net Price
ER-223-A	Rear only	43¼x22x18″	36¾x19″	**17⅝″	19″	16¾″	90	**$ 52.20**
ER-225-A	Rear only	67¾x22x18″	61¼x19″	**17⅝″	19″	16¾″	120	**64.35**
ER-227-A	Rear only	83½x22x18″	77 x19″	**17⅝″	19″	16¾″	140	**77.70**
FD-223-A	Front & Rear	43¼x22x18″	36¾x19″	19⅛″	19″	*16″	110	**66.90**
FD-225-A	Front & Rear	67¾x22x18″	61¼x19″	19⅛″	19″	*16″	150	**83.10**
FD-227-A	Front & Rear	83½x22x18″	77 x19″	19⅛″	19″	*16″	175	**103.95**

*clearance between front and rear doors. **between panel mounting angles.

MULTI-RACK CABINET ASSEMBLIES



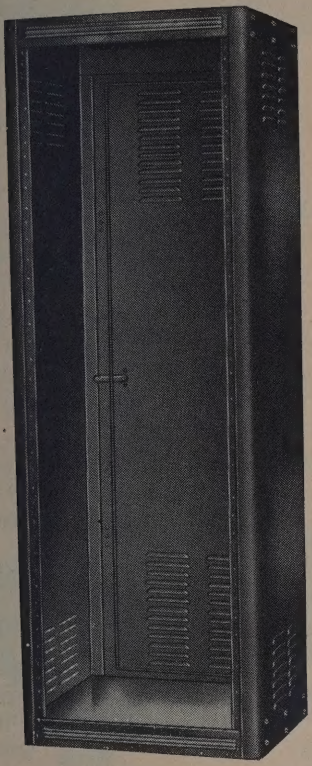
MULTI-RACK ASSEMBLY

MULTI-RACK ASSEMBLIES: Both **Series "ER"** and **"FD"** racks may be set up in rows as shown. The use of "venetian type" louvers provides a flat exterior surface on the sides of the racks; separate side plates with welded screw studs inserted at top and bottom of adjacent sides simplifies the assembly — no screwdrivers or wrenches are needed. Vertical joining trims overlap the joint between racks on the sketch.

SERIES "FD" RACKS: This series with front and rear doors has adjustable panel mounting angles, which may be located at any distance from front to rear of rack. VERTICAL SIDE SUPPORTS listed on Par-Metal Page 10 will fit into these racks.

PAR-METAL TYPE "A" RELAY RACKS

ROUNDED CORNER TYPE—FOR 19″ WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

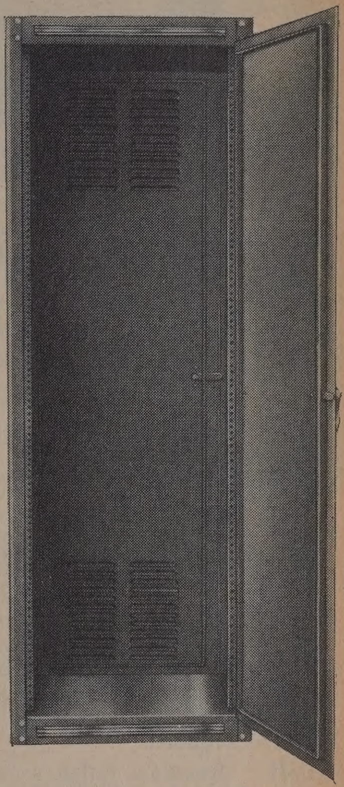
THESE RACKS ARE SIMILAR in construction to our Series ER-225A Racks. They provide a combination of standard functional design and superior construction at a modest price. The vertical front corners are nicely rounded, and the top and bottom are trimmed with chrome finished mouldings. The panels fit into a recess, so that the edges are not exposed.

CABINET: Entire cabinet is constructed of 1/16″ thick cold-rolled steel. These racks are shipped "knocked-down" with necessary bolts for easy assembly. Screws for mounting panels are supplied.

PANEL MOUNTING: Angle irons are 7/64″ thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

HARDWARE: Doors are of same design as our universal racks. **"SERIES ER-215A"** racks are equipped with "automobile" type non-locking handles on rear doors. On **"SERIES FD-215A"** racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FRONT DOOR RACKS: On Series FD-215A racks, the front panel mounting angles are recessed 2″ deep to allow clearance for dials, etc. The clear inside depth behind the panel is 15″.



"FD" SERIES
WITH FRONT AND REAR DOOR

SPECIFICATION

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Depth	Clear Inside Width (Rear)	Clear Inside Width (Front)	Shipping Wt. Lbs.	Net Price
ER-213-A	Rear only	42 x22x18″	36¾x19″	16¾″	19″	**17⅝″	85	**$37.20**
ER-215-A	Rear only	66½x22x18″	61¼x19″	16¾″	19″	**17⅝″	110	**54.90**
ER-217-A	Rear only	82¼x22x18″	77 x19″	16¾″	19″	**17⅝″	130	**66.30**
FD-215-A	Front & Rear	66½x22x18″	61¼x19″	*15″	19″	19⅛″	130	**73.92**
FD-217-A	Front & Rear	82¼x22x18″	77 x19″	*15″	19″	19⅛″	155	**89.10**

*clearance behind panel. **between panel mounting angles.

FINISH: Black wrinkle enamel or grey hammertone is also available without extra charge if so specified on your order.

PANELS: Panels 19″ wide to fit these racks are listed on Par-Metal Pages 16 and 17.

ROLLER TRUCK: No. RT-412 will fit all racks listed on this page. Roller trucks are listed on Par-Metal Page 15.

SHELVES: For series ER-215A racks, use shelf No. ER-2212. For series FD-215A racks, use shelf No. R-2225. Both shelves are listed on Par-Metal Page 19.

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PAR-METAL CHANNEL RELAY RACKS

DELUXE TYPE RACKS for 19″ and 24″ wide panels

No. RR-197

These DeLuxe Channel Type Relay Racks are **made from 7/64″ thick steel,** and extend the utility and applicability of the standard channel relay rack.

The panel space is 77″ x 19″, to match a standard height used on enclosed cabinet racks.

The upright channels have been modified to an 8″ overall depth, which when combined with a formed recess for the panels, greatly increases the rigidity of the rack. The edges of the panels are not exposed.

The rack is drilled and tapped for 10/32 screws at **both front and back,** permitting the optional use of either panels, or dish type chassis mounted to the racks at both front and back. The **full** panel space of 77″ x 19″ is available on the back, the same as the front.

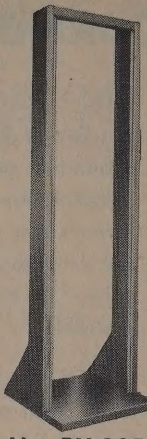
The clear distance between panel mounting flanges (from front to back) is 6-3/4″. It is practicable to use this 6″ depth as an enclosure for dish type chassis listed on Par-Metal Page 19.

When such chassis are mounted at the back, the addition of standard or hinged type panels (see Par-Metal 17) will make a rack enclosure with a clear depth of 6-3/4″.

The top cross-brace is provided with a grille for ventilation where needed. Two holes are located on each side for bolting racks together in rows; there are no projecting screw heads on the sides.

The top brace and the vertical channel members are securely welded together. The base and rear braces are shipped knocked down, with all necessary bolts for assembly. Panel mounting screws are also supplied.

FINISH: Standard finish is black ripple enamel. Blue grey wrinkle or grey hammertone is also available without extra charge if so specified on your order.



No. RX-195

STANDARD TYPE RACKS for 19″ wide panels

These racks are sturdily constructed from 7/64″ pressed steel, and are braced at the back as illustrated. They have been improved by a formed recess for the panels; the edges of the panels are no longer exposed, and the rigidity of the rack has been greatly increased. The two vertical members and the top crossbrace are securely WELDED TOGETHER.

Panel mounting holes are accurately drilled for standard rack panels, tapped for 10-32 machine screws at the front only. An ample supply of panel mounting screws are supplied.

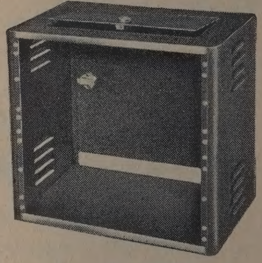
Upright channels are 3″ deep with flanges 1⅛″ wide. Clearance between uprights is 17¾″. Base is 20⅞″ deep and extends both front and rear, and is 21″ wide for either unit.

FINISH: Standard finish is black wrinkle. For blue grey wrinkle or grey hammertone enamel add 10%.

CAT. NO.	OVERALL HEIGHT	PANEL HEIGHT	SHP. WT. LBS.	NET PRICE
RX-195	74 7/16″	71¾″	55	$25.50
RX-193	39 7/16″	36¾″	45	21.00

Catalog Number	Overall Dimensions Height	Width	Depth	Panel Space	Clearance between Uprights	Clear Depth in Channel	Shipping Weight	Net Price
RR-194	64-5/8″	21-1/8″	26″	61-1/4″x19″	17-7/8″	6-3/4″ inside	88 lbs.	$38.50
RR-196	73-3/8″	21-1/8″	26″	70″ x19″	17-7/8″	6-3/4″ inside	95 lbs.	41.00
RR-197	80-3/8″	21-1/8″	26″	77″ x19″	17-7/8″	6-3/4″ inside	102 lbs.	43.50
RR-1922	64-5/8″	26-1/8″	26″	61-1/4″x24″	22-7/8″	6-3/4″ inside	100 lbs.	49.00
RR-1923	73-7/8″	26-1/8″	26″	70″ x24″	22-7/8″	6-3/4″ inside	105 lbs.	52.50
RR-1924	80-3/8″	26-1/8″	26″	77″ x24″	22-7/8″	6-3/4″ inside	112 lbs.	55.00

DESK PANEL CABINET RACKS For Standard 19″ Rack Panels



No. DL-1713

In keeping with our other De Luxe racks, the vertical front corners are rounded and the top and bottom are trimmed with chrome finished mouldings. Panels fit into a recess, so that the edges are not exposed. Panel mounting holes are accurately drilled on universal centers, for standard rack panels. Holes are tapped for 10/32 machine screws.

They may be used with any chassis up to 13″ x 17″ in size. All cabinets are rigidly constructed of 1/16″ thick cold rolled sheet steel, with all joints electrically welded. Louvres provide ample ventilation through sides and back. Piano type hinges are used on the top doors, which are provided with chrome plated handles. Panel mounting screws and washers are furnished.

FINISH: BLACK RIPPLE ENAMEL is standard. Blue grey wrinkle or grey hammertone is also available without extra charge if so specified on your order.

PANELS: Rack panels to fit these racks are listed on Par-Metal Pages 16 and 17.

(With door in top only) (not illustrated)

Catalog No.	Cabinet Size	Available Panel Space	Shp.Wt. Lbs.	Net Price
DL-1210	10½″x21½″x15″ deep	8¾″x19″	28	$16.20
DL-128	12¼″x21½″x15″ deep	10½″x19″	29	17.70
DL-1225	14″ x21½″x15″ deep	12¼″x19″	30	19.20
DL-1413	15¾″x21½″x15″ deep	14″ x19″	32	21.00

RACK SHELF: Rack shelf No. R-2128 listed on Par-Metal Page 19 is designed to fit these racks.

(With door in top and door on rear panel)

Catalog No.	Cabinet Size	Available Panel Space	Shp.Wt. Lbs.	Net Price
DL-1713	19¼″x21½″x15″ deep	17½″x19″	38	$22.80
DL-2613	28″ x21½″x15″ deep	26¼″x19″	48	26.70
DL-3513	36¾″x21½″x15″ deep	35″ x19″	58	29.55

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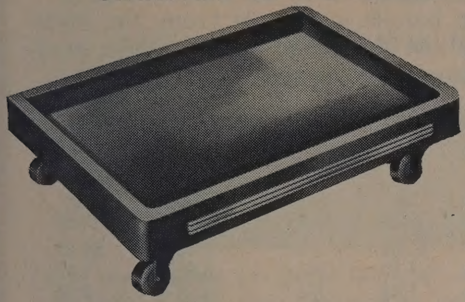
PAR-METAL — ROLLER TRUCKS — SHELVES

STANDARD ROLLER TRUCKS FOR RACKS

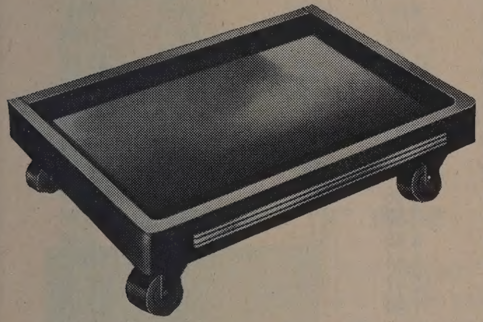


These trucks are especially designed for use on our Cabinet racks, and have rounded corners at the front with a chrome finished moulding. Overall size is about 2″ wider than the racks for better distribution of weight.

Casters are ball-bearing swivel type with 2″ rubber composition wheels. **FINISH: BLUE GREY RIPPLE** is standard. Also available in Grey Hammertone at an additional cost of 10%. Shipping weight on all sizes is 22 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Net Price
RT-410	DL-1713, 2613, 3513	14	$10.68
RT-412	ER-213, ER, FD-215, 217-A	13	11.19
	ER-223, ER-225, ER-227-A	12	12.87
	FD-223, 225, 227-A	12	13.65
	PX, FX-3718, 4818, 6718	9	
	PX, FX-7718, 8418	9	
	PX, FX-4824, 6724, 7724, 8424	9	17.64

HEAVY DUTY ROLLER TRUCKS



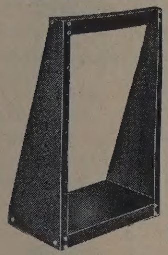
Heavy duty roller trucks are similar in size and design to the standard units, except that they have reinforced bottoms, and are equipped with heavy-duty swivel type casters, and 3″ diam. wheels.

Recommended for use on all 24″ deep racks, and on other racks where necessary. 3″ casters have a load capacity of 225 lbs. per wheel. **FINISH: BLUE GREY RIPPLE** is standard; Black Ripple is optional without extra charge. Also available in Grey Hammertone or primer coat only at an additional cost of 10%. Shipping weight is 35 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Net Price
HD-412	ER-223, ER-225, ER-227-A	13	$22.00
HD-418	FD-223, FD-225, FD-227-A	13	24.00
	PX, FX-3718, 4818, 6718	9	
	PX, FX-7718, 8418	9	
HD-420	PX, FX-4824, 6724	9	25.40
	PX, FX-7724, 8424	9	
*HD-425	PL, FL, PR, FR-4818, 6718	5 and 7	25.60
	PL, FL, PR, FR-7718, 8418	5 and 7	
*HD-426	PL, FL, PR, FR-4824, 6724,	5 and 7	28.30
	PL, FL, PR, FR-7724, 8424	5 and 7	
HD-427	PX, FX-4827, 6727,	9	28.60
	PX, FX-7727, 8427	9	
*HD-432	PL, FL, PR, FR-4827, 6727	5 and 7	31.10
	PL, FL, PR, FR-7727, 8427	5 and 7	
HD-434	PX, FX-6733, 7733, 8433	9	35.50
*HD-438	PL, FL, PR, FR-6733, 7733	5 and 7	38.60
	PL, FL, PR, FR-8433	5 and 7	

*For racks with detachable side panels attached to racks.

TABLE TYPE RACKS

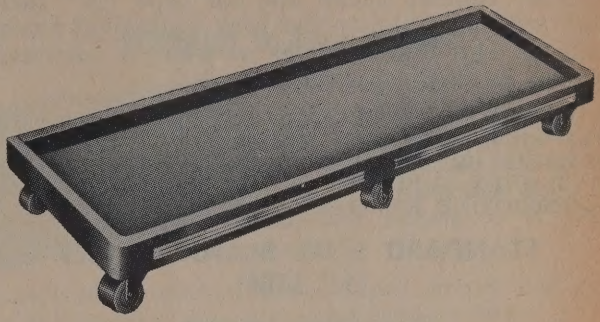


THESE RACKS are intended for table mounting and are useful where a regular floor type heavy duty rack is not required.

The base is constructed of one piece, similar to a chassis. Mounting holes are accurately drilled on universal centers, tapped for 10/32 screws. They are finished in black ripple enamel and shipped "knocked down" with all necessary screws.

Cat. No.	Overall Size	Panel Space	Shp. Wt. Lbs.	Net Price
TR-2520	24x21x12″	21x19″	17	$8.70
TR-3220	31x21x12″	28x19″	20	9.90

HEAVY DUTY DOUBLE WIDTH ROLLER TRUCKS



It is often necessary to mount groups of 2 of our enclosed racks on roller trucks. The truck illustrated above is used for that purpose. They are similar to our heavy duty trucks except that they have been reinforced with heavier steel because of their greater length.

They are supplied with 6 heavy-duty swivel type casters with 3″ diameter wheels. These casters have a load capacity of 225 lbs. per wheel.

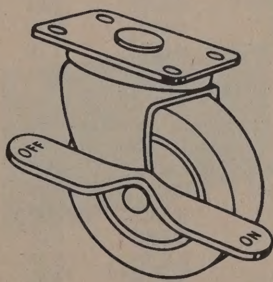
FINISH: BLUE GREY RIPPLE is standard; Black Ripple is optional without extra charge. Also available in Grey Hammertone or primer coat only at an additional cost of 10%.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Net Price
HD-412-2	ER-223, ER-225, ER-227-A	13	$44.00
HD-418-2	FD-223, FD-225, FD-227-A	13	48.00
	PX, FX-3718, 4818, 6718	9	
	PX, FX-7718, 8418	9	
HD-420-2	PX, FX-4824, 6724	9	50.80
	PX, FX-7724, 8424	9	
*HD-425-2	PL, FL, PR, FR-4818, 6718	5 and 7	51.20
	PL, FL, PR, FR-7718, 8418	5 and 7	
*HD-426-2	PL, FL, PR, FR-4824, 6724	5 and 7	56.60
	PL, FL, PR, FR-7724, 8424	5 and 7	
HD-427-2	PX, FX-4827, 6727	9	57.20
	PX, FX-7727, 8427	9	
*HD-432-2	PL, FL, PR, FR 4827, 6727	5 and 7	62.20
	PL, FL, PR, FR-7727, 8427	5 and 7	
HD-434-2	PX, FX-6733, 7733, 8433	9	71.00
*HD-438-2	PL, FL, PR, FR 6733, 7733	5 and 7	77.20
	PL, FL, PR, FR-8433	5 and 7	

*For racks with detachable side panels attached to racks.

WE CAN SUPPLY ON A "SEMI-CUSTOM" BASIS pressed steel roller trucks for our cabinet racks up to 36″ wide and 88″ long. They can be equipped with 4″ dia. wheel casters and necessary foot brakes. The extra width is used in front of the rack assembly to provide stability where extension shelves and other accessories are mounted on the front of the racks. Drawings and prices available upon request.

BRAKE TYPE CASTERS



During the past few years, the use of brakes on roller trucks has become desirable both as a utility and safety measure. This is particularly true where racks have been loaded to capacity with heavy equipment.

We now have available foot brake type casters as illustrated for use on all heavy duty roller trucks. Brake type casters are supplied to replace the two front casters of single roller trucks and to replace the three front casters of double roller trucks. Additional cost per roller truck is as follows:

For single units (HD-412, etc.)	$ 8.50
For double units (HD-412-2, etc.)	12.75

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PAR-METAL RACK PANELS 19"-24"-30" WIDE

All panels on this page are uniformly slotted to fit modular cabinet racks and all type "A" racks. They will also fit any other rack equipment having multiple 1¼"-½" spacings or what is commonly termed as W.E. spacing.

IN ADDITION TO FINISHES LISTED BELOW, THEY MAY BE OBTAINED IN LIGHT GREY EQUIPMENT ENAMEL, OR MEDIUM GREY ENAMEL, PRIMER COAT ONLY SUPPLIED AT SAME PRICE AS GREY HAMMERTONE ENAMEL.

STANDARD STEEL BLANK PANELS
⅛" STEEL

Standard flat panels made from ⅛" thick steel, either 19", 24", or 30" wide. Other finishes available as mentioned in page heading.

19" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6600	G-6600	$ .81	1¾"	H-6600	$ .87
6601	G-6601	1.02	3½"	H-6601	1.11
6602	G-6602	1.29	5¼"	H-6602	1.41
6603	G-6603	1.56	7"	H-6603	1.71
6604	G-6604	1.86	8¾"	H-6604	2.04
6605	G-6605	2.10	10½"	H-6605	2.31
6606	G-6606	2.49	12¼"	H-6606	2.73
6607	G-6607	2.89	14"	H-6607	3.18
6608	G-6608	3.24	15¾"	H-6608	3.54
6609	G-6609	3.60	17½"	H-6609	3.96
6610	G-6610	3.98	19¼"	H-6610	4.38
6611	G-6611	4.29	21"	H-6611	4.71

24" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6201	G-6201	$1.38	3½"	H-6201	$1.52
6202	G-6202	1.77	5¼"	H-6202	1.95
6203	G-6203	2.16	7"	H-6203	2.38
6204	G-6204	2.76	8¾"	H-6204	3.04
6205	G-6205	3.15	10½"	H-6205	3.47
6206	G-6206	3.57	12¼"	H-6206	3.93
6207	G-6207	4.35	14"	H-6207	4.79
6208	G-6208	4.95	15¾"	H-6208	5.45
6209	G-6209	5.40	17½"	H-6209	5.94
6210	G-6210	6.09	19¼"	H-6210	6.70
6211	G-6211	6.60	21"	H-6211	7.26

30" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6301	G-6301	$2.10	3½"	H-6301	$2.31
6302	G-6302	2.55	5¼"	H-6302	2.81
6303	G-6303	3.00	7"	H-6303	3.30
6304	G-6304	3.60	8¾"	H-6304	3.96
6305	G-6305	3.99	10½"	H-6305	4.39
6306	G-6306	4.71	12¼"	H-6306	5.18
6307	G-6307	5.37	14"	H-6307	5.91
6308	G-6308	6.00	15¾"	H-6308	6.60
6309	G-6309	6.72	17½"	H-6309	7.39
6310	G-6310	7.44	19¼"	H-6310	8.18
6311	G-6311	8.16	21"	H-6311	8.98

STANDARD ALUMINUM BLANK PANELS

These aluminum panels are made from No. 3003-H14 aluminum alloy. Panels 24" or 30" wide, made from $\frac{3}{16}$" aluminum, are available on order.

19" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6675	G-6675	$ .96	1¾"	H-6675	$1.05
6676	G-6676	1.35	3½"	H-6676	1.47
6677	G-6677	1.86	5¼"	H-6677	2.04
6678	G-6678	2.37	7"	H-6678	2.61
6679	G-6679	2.88	8¾"	H-6679	3.15
6680	G-6680	3.42	10½"	H-6680	3.75
6681	G-6681	3.89	12¼"	H-6681	4.26
6682	G-6682	4.56	14"	H-6682	5.01
6683	G-6683	5.13	15¾"	H-6683	5.64
6684	G-6684	5.60	17½"	H-6684	6.15
6685	G-6685	6.27	19¼"	H-6685	6.90
6686	G-6686	6.87	21"	H-6686	7.56

24" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6275	G-6275	$1.80	1¾"	H-6275	$1.98
6276	G-6276	2.28	3½"	H-6276	2.51
6277	G-6277	3.00	5¼"	H-6277	3.30
6278	G-6278	3.81	7"	H-6278	4.19
6279	G-6279	4.74	8¾"	H-6279	5.21
6280	G-6280	5.73	10½"	H-6280	6.30
6281	G-6281	6.66	12¼"	H-6281	7.33
6282	G-6282	7.62	14"	H-6282	8.38
6283	G-6283	8.58	15¾"	H-6283	9.44
6284	G-6284	9.54	17½"	H-6284	10.49
6285	G-6285	10.47	19¼"	H-6285	11.52
6286	G-6286	11.40	21"	H-6286	12.54

30" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6376	G-6376	$2.73	3½"	H-6376	$3.00
6377	G-6377	3.96	5¼"	H-6377	4.36
6378	G-6378	5.19	7"	H-6378	5.71
6379	G-6379	6.42	8¾"	H-6379	7.06
6380	G-6380	7.65	10½"	H-6380	8.42
6381	G-6381	8.88	12¼"	H-6381	9.77
6382	G-6382	10.11	14"	H-6382	11.12
6383	G-6383	11.34	15¾"	H-6383	12.47
6384	G-6384	12.57	17½"	H-6384	13.83
6385	G-6385	13.80	19¼"	H-6385	15.18
6386	G-6386	15.00	21"	H-6386	16.50

19" WIDE PANELS — $\frac{3}{16}$" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6675-3	G-6675-3	$1.65	1¾"	H-6675-3	$1.74
6676-3	G-6676-3	2.28	3½"	H-6676-3	2.40
6677-3	G-6677-3	3.36	5¼"	H-6677-3	3.54
6678-3	G-6678-3	4.14	7"	H-6678-3	4.38
6679-3	G-6679-3	5.16	8¾"	H-6679-3	5.43
6680-3	G-6680-3	6.18	10½"	H-6680-3	6.51
6681-3	G-6681-3	7.20	12¼"	H-6681-3	7.59
6682-3	G-6682-3	8.22	14"	H-6682-3	8.64
6683-3	G-6683-3	9.30	15¾"	H-6683-3	9.78
6684-4	G-6684-3	10.35	17½"	H-6684-3	10.89
6685-3	G-6685-3	11.40	19¼"	H-6685-3	12.00
6686-3	G-6686-3	12.60	21"	H-6686-3	13.26

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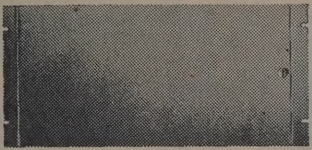
PAR-METAL RACK PANELS 19" & 24" WIDE

(FOR FURTHER DESCRIPTION, SEE PRECEDING PAGE)

SIDE HINGED BLANK PANELS
1/8" STEEL 19" WIDE



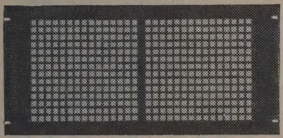
These door panels are made from 1/8" steel, hinged at the sides with a cowl type fastener to hold the door closed.

May be mounted on racks with hinges on right or left side. Clear opening (width) is 15¾".

Standard finishes are black wrinkle, blue grey wrinkle, or smooth grey hammertone enamel. Primer coat only is available at hammertone price.

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
HP-350	GP-350	$3.15	3½"	HA-350	$3.37
HP-525	GP-525	3.27	5¼"	HA-525	3.60
HP-700	GP-700	3.57	7"	HA-700	3.93
HP-875	GP-875	3.84	8¾"	HA-875	4.22
HP-1050	GP-1050	4.14	10½"	HA-1050	4.56
HP-1225	GP-1225	4.41	12¼"	HA-1225	4.85
HP-1400	GP-1400	4.77	14"	HA-1400	5.25
HP-1750	GP-1750	6.90	17½"	HA-1750	7.59
HP-2100	GP-2100	7.50	21"	HA-2100	8.25

GRILLE PANELS 19" WIDE — 1/8" STEEL

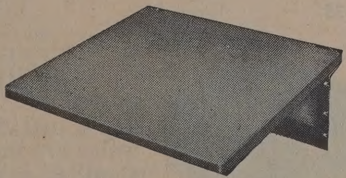


This modern type ventilating grille panel is stamped into the panel itself; it is not a pieced assembly.

Black Wrinkle Cat. No.	Grey Wrinkle Cat. No.	Net Price	Panel Size	Grille Size	Grey Hammertone Cat. No.	Grey Hammertone Net Price
P-661	G-661	$2.94	5¼"	3⅜x14⅜"	H-661	$3.23
P-662	G-662	3.24	7"	4⅞x14⅜"	H-662	3.56
P-663	G-663	3.87	8¾"	6⅞x14⅜"	H-663	4.26
P-664	G-664	3.54	8¾"	*3⅞x14⅜"	H-664	3.89
P-665	G-665	4.29	10½"	8⅜x14⅜"	H-665	4.72
P-666	G-666	4.02	10½"	*5⅞x14⅜"	H-666	4.42
P-667	G-667	4.35	12¼"	*7⅜x14⅜"	H-667	4.79

* Allows 3½" space at bottom for chassis mounting.

STANDARD DESK PANELS

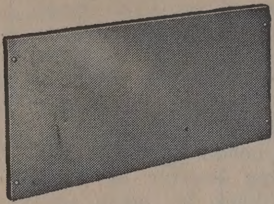


These standard tables are rigidly made of 1/16" thick furniture steel. The rounded front corners are of seamless construction and the flanges of the shelf are folded in to provide smooth edges underneath.

They are securely mounted to regular 1/8" steel panels, size 10½ x 19". They may be obtained in two sizes and finishes as listed below. The tables are 22" wide to give full working space across the front of the racks when mounted in place. Shipping weight is 25 lbs.

Cat. No.	Width	Depth	Finish	Net Price
BT-2216	22"	16"	Black enamel	$15.45
GT-2216	22"	16"	Blue Grey enamel	15.45
HT-2216	22"	16"	Grey Hammertone	17.00
BT-2220	22"	20"	Black enamel	16.95
GT-2220	22"	20"	Blue Grey enamel	16.95
HT-2220	22"	20"	Grey Hammertone	18.65

FORMED BLANK PANELS



These panels are made from 1/16" thick steel, with formed edges to make an overall thickness of 7/16". They are made 19" and 24" wide, with mounting holes on standard centers to fit relay racks.

In addition to standard finishes listed, primer coat only can be supplied at same cost as hammertone enamel.

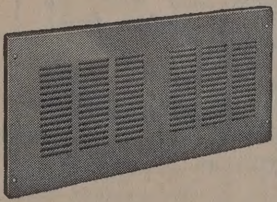
19" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
P-600	G-600	$1.29	1¾"	H-600	$1.42
P-601	G-601	1.38	3½"	H-601	1.52
P-602	G-602	1.56	5¼"	H-602	1.72
P-603	G-603	1.83	7"	H-603	2.01
P-604	G-604	2.19	8¾"	H-604	2.39
P-605	G-605	2.46	10½"	H-605	2.71
P-606	G-606	2.88	12¼"	H-606	3.17
P-607	G-607	3.24	14"	H-607	3.56
P-608	G-608	3.72	15¾"	H-608	4.09
P-609	G-609	4.11	17½"	H-609	4.52
P-610	G-610	4.53	19¼"	H-610	4.98
P-611	G-611	4.95	21"	H-611	5.45

24" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
P-641	G-641	$1.95	3½"	H-641	$2.15
P-642	G-642	2.37	5¼"	H-642	2.61
P-643	G-643	2.85	7"	H-643	3.14
P-644	G-644	3.42	8¾"	H-644	3.76
P-645	G-645	3.78	10½"	H-645	4.16
P-646	G-646	4.14	12¼"	H-646	4.55
P-647	G-647	4.62	14"	H-647	5.08
P-648	G-648	5.22	15¾"	H-648	5.74
P-649	G-649	5.82	17½"	H-649	6.40
P-650	G-650	6.45	19¼"	H-650	7.10
P-651	G-651	7.02	21"	H-651	7.72

19" WIDE FORMED PANELS — 1/16" STEEL VENTILATED TYPE



These are standard formed panels with louvre type ventilation as shown above. Primer coat only available at same price as hammertone. Same panels can be supplied in 24" width if required.

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
PV-603	GV-603	$3.45	7"	HV-603	$3.80
PV-604	GV-604	3.90	8¾"	HV-604	4.29
PV-605	GV-605	4.29	10½"	HV-605	4.72
PV-606	GV-606	4.86	12¼"	HV-606	5.35
PV-608	GV-608	5.70	15¾"	HV-608	6.27
PV-611	GV-611	7.56	21"	HV-611	8.32

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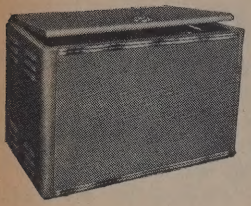
PAR-METAL — DESK CABINETS — AMPLIFIER CHASSIS

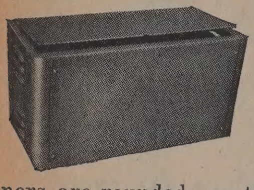
DELUXE TYPE CABINETS



These cabinets make attractive housings for commercial and amateur use. The formed type door, with modern handle, is **hinged at the back** for full access to the interior. Chrome finished mouldings are mounted on the front at top and bottom. Cabinet has ventilating louvres **on each side**, and full width opening at back for leads, etc. Standard finish is blue grey ripple enamel. Prices do not include chassis which are listed on PAR METAL Page 19.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-300	9x12⅛x 8"	8½x10"	7x 9x2"	6	$ 7.95
CA-301	9x16⅛x 8"	8½x14"	7x13x2"	7	9.00
CA-302	10x17⅛x11"	9½x15"	10x14x3"	8	12.15
CA-303	10x20⅛x 9"	9½x18"	8x17x3"	11	12.15
CA-304	13x20⅛x12"	12½x18"	10x17x3"	15	13.65

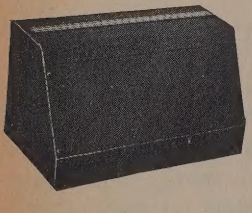
ROUNDED CORNER TYPE CABINETS



Standard type cabinets are similar in design to those listed above. They have **flat type doors**, hinged at back to permit full access to the interior. The vertical front corners are rounded; ventilating louvres are stamped in both sides, and full width opening is provided at the back for leads. Standard finish is blue grey ripple enamel. Prices do not include chassis, which are listed on PAR METAL Page 19.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-200	8½x10⅛x 8"	8½x 8"	7x 7x2"	6	$ 5.85
CA-201	8½x12⅛x 8"	8½x10"	7x 9x2"	7	6.30
CA-202	8½x16⅛x 8"	8½x14"	7x13x2"	8	7.65
CA-203	9½x17⅛x11"	9½x15"	10x14x3"	11	10.05
CA-204	12½x20⅛x12"	12½x18"	10x17x3"	15	11.85

SLOPING FRONT CABINETS



May be readily adapted as instrument cases for use in studios, laboratories, etc.

- Top corner is rounded and trimmed with a chrome moulding, and with the blue grey ripple finish makes a very attractive case.
- A chassis may be mounted to a front panel and removed as a unit.
- Rear of case is ventilated, with an opening for connections.
- Prices do not include chassis, which are listed on PAR METAL Page 19.

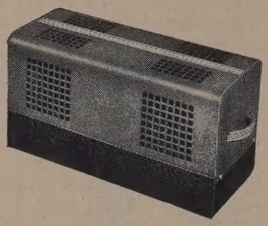
Catalog No.	Overall Dimensions	For Chassis	Shp. Wt. Lbs.	Net Price
SF-500	8x 8x 8"	7x 7x2"	6	$ 5.70
SF-501	8x10x 8"	7x 9x2"	7	6.30
SF-502	8x14x 8"	7x13x2"	8	6.75
SF-503	9x18x 8"	7x17x3"	10	8.40
SF-504	12x18x12"	10x17x3"	14	10.20

AMPLIFIER FOUNDATION CHASSIS
SLOPING FRONT TYPE

These amplifier foundations are useful where a sloping panel is desirable for mounting meters, etc. This panel is removeable and protrudes 3" from the face of the screen cover. All parts are finished in blue grey ripple enamel, trimmed with a chrome finished moulding and handles at each end. **Chassis are supplied WITH bottom plates.**

Cat. No.	Chassis Size	Screen Cover	Shp. Wt. Lbs.	Net Price
F-10120	10x12x3"	6½" high	11	$ 9.15
F-10170	10x17x3"	6½" high	13	10.80
F-13170	13x17x3"	6½" high	15	11.85

ROUNDED CORNER TYPE

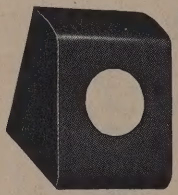


Rounded corners effectively streamline the screen covers of these chassis. Ventilation is obtained through rectangular screen openings. The moulding and handles, finished in chrome with red striping, gives the units a distinctive, modern design.

The screen cover is finished in blue grey ripple enamel to contrast with the black chassis. Chassis are drilled for bottom plates, which are listed on PAR METAL Page 19.

Cat. No.	Chassis Size	Depth of Cover	Shp. Wt. Lbs.	Net Price
DF-510	5x10x3"	6"	7	$5.10
DF-615	6x14x3"	6"	8	5.67
DF-717	7x17x3"	6"	9	6.57
DF-1012	10x12x3"	6"	9	6.57
DF-1017	10x17x3"	6"	10	7.35
DF-1317	13x17x3"	6"	12	8.76

UTILITY CASES & CANS
STEEL METER CASES

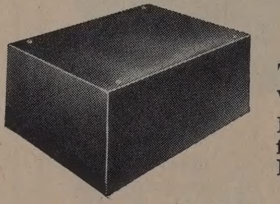


These meter cases may be obtained for 2" and 3" meters, in both single and triple units.

They are substantially made of steel, with welded joints, and black ripple enamel finish. Top front corner is rounded.

Cat. No.	Meters	Meter Hole	Shp. Wt. Lbs.	Net Price
SM-12	Single 2"	2¼"	1	$1.32
SM-32	Three 2"	2¼"	2	3.00
SM-13	Single 3"	2 13/16"	1	1.32
SM-33	Three 3"	2 13/16"	2	3.00

STEEL UTILITY CASES



These cases have flat tops and bottoms, which are removable.

Made from 20 gauge sheet steel, with flanged edges and spot-welded corners. Finished in black ripple enamel.

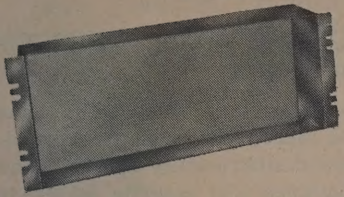
Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price
MC-442	4x 4x 2"	1	$1.11
MC-453	4x 5x 3"	2	1.32
MC-596	5x 9x 6"	4	2.52
MC-654	6x 5x 4"	3	1.47
MC-666	6x 6x 6"	3	2.04

Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price
MC-8101	8x10x10"	7	$3.87
MC-8107	8x10x 7"	6	3.45
MC-1128	11x12x 8"	9	4.29
MC-1597	15x 9x 7"	8	4.76

PAR-METAL PRODUCTS CORP. • Long Island City 3, N. Y.

PAR-METAL BLANK CHASSIS BASES

VERTICAL RACK MOUNTING CHASSIS



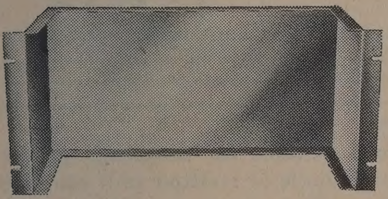
TO FIT 19'' STANDARD RACKS

These chassis are fabricated from 1/16″ **thick aluminum** with etched finish, or 1/16″ **thick steel,** zinc plated. Overall length including mounting flanges is 18¾″. They are designed to mount under 19″ wide formed panels listed on PAR METAL Page 17. The 4 15/16″ height is for use with 5¼″ high panels, 6 11/16″ for 7″ high panels, etc.

Additional slots are provided in chassis side flanges to clear panel attachment screws. Although chassis are 18¾″ overall width, they will fit on any relay rack.

ALUMINUM Cat. No.	Net Price	Chassis Dimensions	STEEL Cat. No.	Net Price
AC-402	$3.98	4-15/16″x17″x3″	SC-402	$3.06
AC-403	4.54	6-11/16″x17″x3″	SC-403	3.45
AC-404	5.10	8- 7/16″x17″x3″	SC-404	3.84
AC-405	5.64	10- 3/16″x17″x3″	SC-405	4.23
AC-406	6.30	11-15/16″x17″x3″	SC-406	4.59

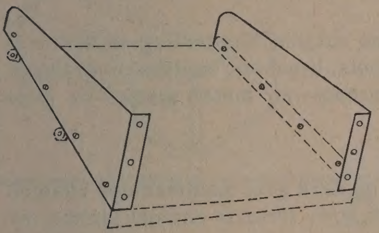
VERTICAL RACK MOUNTING CHASSIS



TO FIT 19'' STANDARD RACKS

These chassis are suitable for installation in all cabinet relay racks. They may also be used on Deluxe channel racks listed on PAR-METAL Page 14. Material used is 1/16″ aluminum, with corners welded for added rigidity. Etched finish on inside and outside. All chassis are 5¼″ deep; overall width is 19″; chassis width inside is 16⅞″.

Catalog No.	Height	Shipping Wt. Lbs.	Net Price
AC-430	1¾″	2	$2.70
AC-431	3½″	3	3.09
AC-432	5¼″	3	3.51
AC-433	7″	4	3.90
AC-434	8¾″	5	4.29
AC-435	10½″	5	4.80
AC-436	12¼″	6	5.46
AC-437	14″	7	5.97



PANEL MOUNTING BRACKETS FOR BASIC SLIDE ASSEMBLIES

These brackets are useful for attaching rack panels to the sliding shelves of our series "BS" basic slide assemblies listed on Par-Metal page 11. Special short screws and nuts are supplied for mounting brackets which assures free movement of the shelf after assembly.

Brackets are made from 1/16″ steel, zinc plated. Brackets are 6½″ high at front, and 3½″ at back. Front flange is 9/16″ wide. Made in two lengths, for 14″ and 20″ deep shelf assemblies. Price listed below is for one pair of brackets, with mounting screws and nuts.

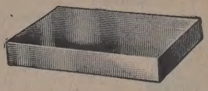
Cat. No.	Length	To Fit Assembly	Net Price
BR-14	14¼″	BS-1980	$2.55 pair
BR-20	20¼″	BS-1940, 2419, 2424	3.45 pair

SHELVES FOR CABINET RACKS

These shelves are designed to fit into the various type "A" enclosed racks listed in this catalog. They are constructed to be mounted inside the rack, with side bolt mounting. All shelves are 1″ high, and finished in black ripple enamel. Shipping weight of all shelves is 10 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Shelf Size	Net Price
ER-2112	ER-213, ER-215, ER-217	13	13″x21 15/16″	$3.60
R-2225	FD-215, FD-217	13	12″x21 15/16″	3.60
ER-2212	ER-223, ER-225, ER-227-A	12	15″x21 15/16″	3.60
R-2128	DL-1713, 2613, 3513	14	12″x21 3/16″	2.94

CHASSIS



Stamped from one piece of cold rolled steel zinc-plated, and have four solid sides with welded corners. Bottom edges are flanged in on four sides to provide additional reinforcement, and they are drilled for bottom plates. The chassis are made from #20 gauge steel, except those marked (*) which are stamped from 1/16″ steel for heavy-duty use.

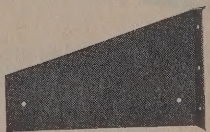
Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
C-4508	5 x 10 x 3″	3	$1.38
C-4510	7 x 7 x 2″	2	1.08
C-4511	7 x 9 x 2″	2	1.29
C-4513	7 x 13 x 2″	3	1.56
C-4515	7 x 17 x 3″	4	1.98
C-4532	8 x 17 x 3″	5	1.98
C-4524	10 x 14 x 3″	5	2.01
C-4526	10 x 17 x 3″	7	2.22
C-4533*	11 x 17 x 2″	7	2.91
C-4534*	11 x 17 x 3″	9	3.18
C-4535*	13 x 17 x 2″	8	3.12
C-4536*	13 x 17 x 3″	9	3.51
C-4537*	13 x 17 x 4″	10	3.87
C-4540*	17 x 17 x 4″	13	4.65

BOTTOM PLATES

These bottom plates have holes to match the standard type chassis listed above, and also have pressed bumpers at the four corners.

Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
CP-4508	5 x 10″	1	$ .48
CP-4510	7 x 7″	1	.57
CP-4511	7 x 9″	1	.66
CP-4513	7 x 13″	2	.75
CP-4515	7 x 17″	2	.87
CP-4531	8 x 17″	2	.90
CP-4524	10 x 14″	2	.90
CP-4528	10 x 17″	2	1.08
CP-4533	11 x 17″	2	1.05
CP-4535	13 x 17″	3	1.26
CP-4540	17 x 17″	4	1.71

CHASSIS MOUNTING BRACKETS



These brackets are made for assembly with our standard or heavy duty type chassis listed directly above. Panels must be at least 7″ high.

FINISH: Black enamel only. They are made from 1/16″ thick steel. Cat. Nos. SB-78 thru SB-713 Chassis Mounting Brackets are to be used with the stipulated size base only. Cat. No. SB-717 is used for 17″ Bases and larger sizes.

Cat. No.	Base Dimension	Shp. Wt. Lbs.	Net Price
SB- 78	For 8″	2	$1.05
SB-710	For 10″	2	1.23
SB-711	For 11″	2	1.32
SB-713	For 13″	3	1.50
SB-717	For 17″	4	2.31

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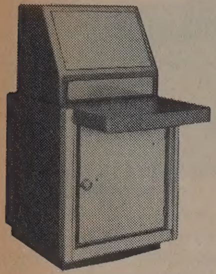
PAR-METAL MODULAR CONSOLE ASSEMBLIES

GENERAL DESCRIPTION

SINGLE UNIT ASSEMBLY



This illustration shows one of our three basic single unit assemblies. Other single unit assembles are shown on the next page.

The combination of a control cabinet mounted on table, desk or similar support usually called a console has been in general use in the electronics industry many years.

While it is obvious that no particular fixed design can serve every requirement, **we have devised a group of standard units,** the combination of which is readily adaptable for specialized applications in control equipment, testing facilities, sound distribution systems and industrial purposes. These models have been functionally designed and smartly styled to keep pace with current trends. New modular units have been added, all of which may be grouped or expanded to meet your specific needs.

The **versatile pedestal racks** are the keystone to the entire assembly. They are constructed for heavy duty use, having all the essential features of our type "PL" cabinet racks listed on PAR-METAL Page 5. This would include panel mounting angles which are adjustable from front to back, and provision for installing chassis mounting brackets and shelves where needed. They offer an efficient utilization of space, complete accessibility for servicing, and are **solidly built** to withstand heavy strains **whether in a laboratory or a moving vehicle.**

Two models of pedestal frames are available, which are identical except for the depth (front to back). PD-224 frame (24¼" deep) unit may be used without an extension desk table as illustrated below.

There are four models of desk panel cabinets suitable for mounting on the pedestal frame top to make a complete console. Single or multiple unit consoles may be combined with our Series "PL" racks.

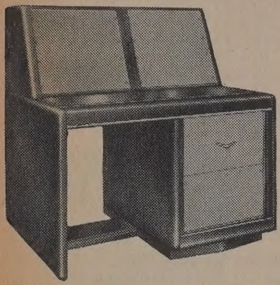
The PD-234 frame (34¼" deep) forms a complete desk structure without the use of extension shelves. When one of our desk panel cabinets is mounted on top, additional space is available in front as a desk writing surface. The 34¼" depth also provides additional interior space.

Unit assemblies are not limited to triple units, and may be extended to modular groups of five or more. If you have a specific problem, do not hesitate to consult us.

The **side panels** are readily detachable from the outside. No drilling or fitting is necessary for the assembly of pedestals, cabinets, brackets, shelves or drawers. All panel mounting holes are tapped for screws—no metal screws or clips are used.

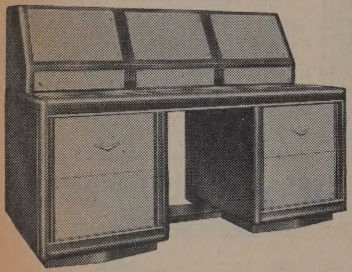
Our standard finish is a combination of light and dark grey hammertone enamel. Other standard finishes, including black or blue grey wrinkle enamel, light grey or medium grey enamel or primer coat only, are optional without additional cost.

DOUBLE UNIT ASSEMBLY



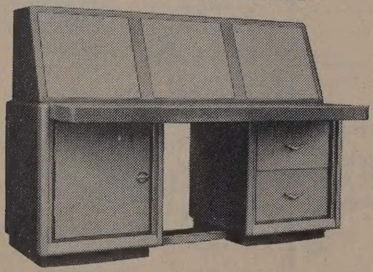
In this double unit assembly, the pedestal rack can also be fitted on the left side.

TRIPLE UNIT ASSEMBLY



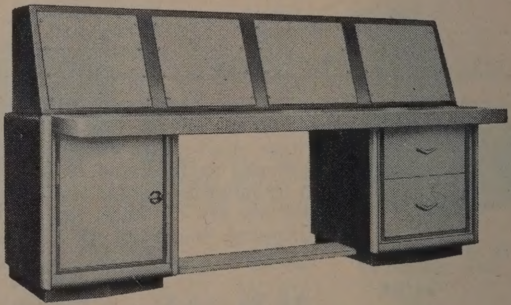
Various triple unit assemblies are available as shown on this and the followng page.

ALTERNATE TRIPLE UNIT ASSEMBLY



The above unit consists of: two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. HS-103 high slope cabinet, one No. CD-24 center desk section and one CT-319 extension table, (door drawers, or rack panels for front and back are optional).

TYPICAL QUAD UNIT ASSEMBLY



The above unit consists of: two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. HS-104 high slope cabinet, one No. CD-24-2 center desk section and one CT-419 extension table, (door drawers, or rack panels for front and back are optional).

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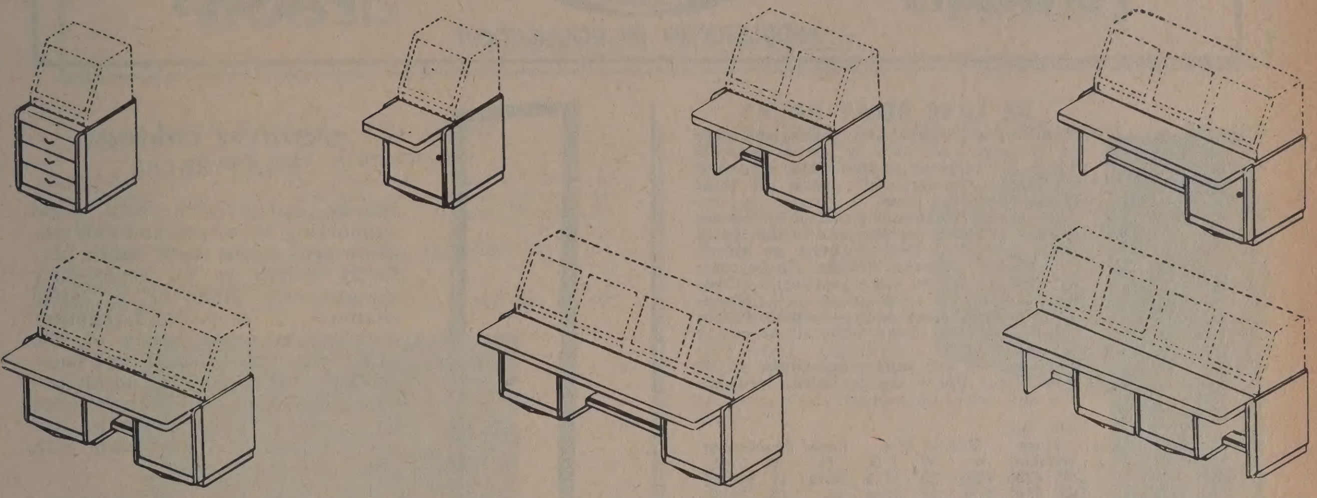
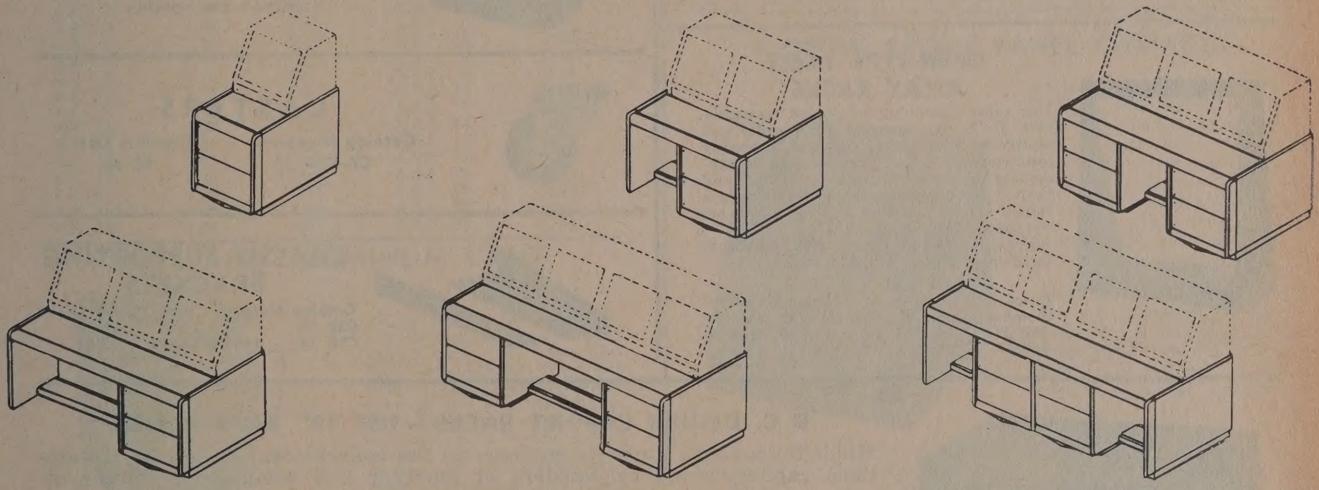
PAR-METAL MODULAR CONSOLE ASSEMBLIES

The sketches below show some of the complete Consoles which may be assembled from standard units available. Complete listings, drawings, and prices are in our Catalog No. 63.

TYPICAL ASSEMBLIES USING 24″ DEEP PEDESTAL RACKS

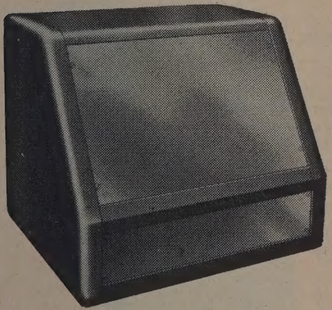


TYPICAL ASSEMBLIES USING 34″ DEEP PEDESTAL RACKS

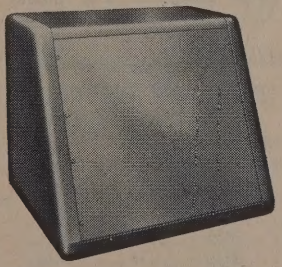


DESK PANEL CABINETS

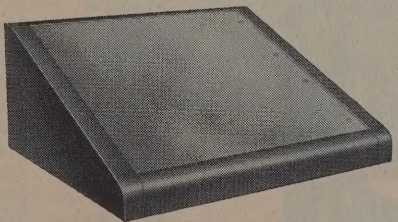
The desk control cabinets shown below are ideal **for use in the laboratory, for test equipment,** and **other industrial applications.** All are available in single, double, triple, or quad units as shown in the above typical assemblies.



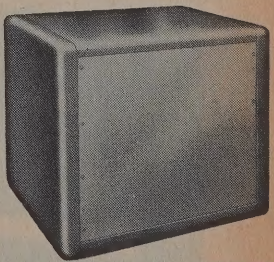
DUAL PANEL



HIGH SLOPE PANEL



LOW SLOPE PANEL



VERTICAL PANEL

Complete information on MODULAR CONSOLE ASSEMBLIES including explanatory drawing of side section is available in our Catalog 63. Kindly write directly to home office for your copy.

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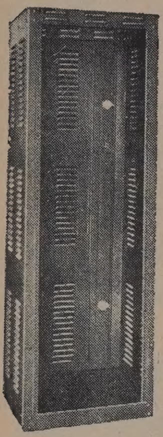
CABINETS
CHASSIS

MIDDLETOWN MANUFACTURING CO.

CASES
PANELS

MIDDLETOWN IN CONNECTICUT

DE LUXE RELAY RACKS



Middletown De Luxe Relay Racks are made of 16-gauge steel with ⅛″ panel supports which are recessed so that edges of panels set flush. Standard 19″ panels fit these racks. (See next page.)

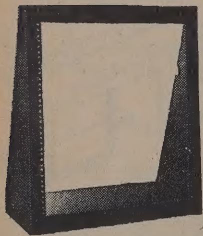
Adequate ventilation is provided by louvres in the two sides, the door and in the top at front and back. Door is hung on sturdy hinges and has snap catches. Racks come with rigid, built-in caster supports. (Casters not included in price of rack.) Furnished in either black or grey wrinkle finish. Shipped knocked down with all necessary hardware.

Rack shelves and supporting angles to fit these Relay Racks are available. Information and prices on request.

Cat. No. (Black Wrinkle)	Overall Size H	W	D	Panel Size H	W	Dealer Cost
DRR 4236	42 1/16	22	17¼	36¾	19	$45.00
DRR 4742	47 5/16	22	17¼	42	19	51.00
DRR 6661	66 9/16	22	17¼	61¼	19	63.50
DRR 8277	82 5/16	22	17¼	77	19	76.00

Note: When ordering grey wrinkle, add prefix "G" to catalog number. Dimensions in Inches.

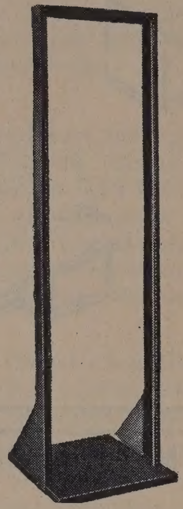
OPEN-TYPE TABLE RELAY RACKS



For table mounting of power transmitters, P. A. systems and other radio and electronic apparatus. Rack is ruggedly constructed with strong base to accommodate heavy components. Drilled and tapped for conventional 19″ wide panels which set in recess so that no edges are exposed. (See next page.)

Shipped knocked down with necessary hardware. Black wrinkle finish.

Catalog Number	Overall Size H	W	D	Panel Space H	W	Dealer Cost
TRR 24	24	21	12	21	19	$ 8.30
TRR 31	31	21	12	28	19	10.40



OPEN-TYPE CHANNEL RELAY RACKS

Sturdy construction with rigid supporting members and side angle braces make these racks perfectly suited to all heavy-duty assignments. Made of ⅛″ steel channels, 3″ deep. Held together with angle cross pieces of the same material. Chassis type base. Drilled and tapped to accommodate conventional 19″ panels. (See next page.) Black wrinkle finish. Shipped knocked down with necessary hardware.

Cat. No.	Overall Size H	W	D	Panel Size H	W	Dealer Cost
OCR 35	35½	21	22	31½	19	$21.60
OCR 70	70½	21	22	66½	19	24.60

Dimensions in inches

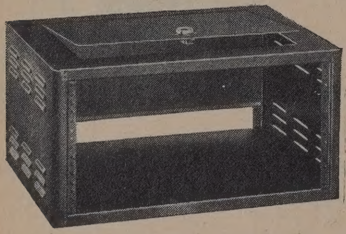
CASTERS

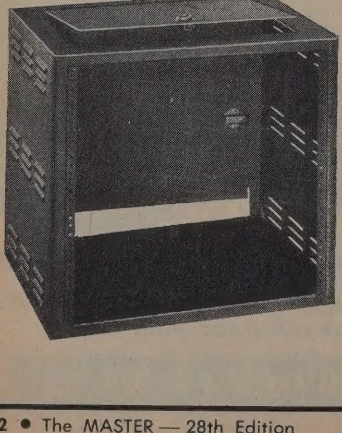
Catalog Number	Dealers Cost
CA 234	.99 ea.

CHASSIS SUPPORTING BRACKETS

Catalog Number	Size	Dealer Cost
CSB 12	12 x 3 x 3	$1.98
CSB 14	14½ x 3 x 3	2.08

D. C. DELUXE CABINET RACKS — USE 19″ RACK PANELS





Middletown D. C. Cabinets conform to the conventional design of streamlined cabinets used by builders of amateur and commercial equipment.

Features

- ★ **Constructed of 16 gauge steel, electrically welded.**
- ★ **Adequate ventilation is provided by sufficient louvres in sides, and ventilation in back.**
- ★ **Front Vertical posts rounded.**
- ★ **Flush panel mounting (recessed).**
- ★ **Drilled and tapped for 10/32″ screws on universal centers.**
- ★ **Flush door in top fitted with flush snaplock and piano hinges.**
- ★ **Black Wrinkle finish. *Grey Wrinkle if desired.***

Standard 19″ panels fit these cabinets. For panel sizes, see listing next page.

CATALOG NUMBER (Black Wrinkle)	OVERALL SIZE H	W	D	PANEL SPACE H	W	TYPE OF UNIT	Dealer Cost
*DC 108	10½	21½	15	8¾	19	Single	$13.80
*DC 1210	12¼	21½	15	10½	19	Single	15 60
*DC 1412	14	21½	15	12¼	19	Single	16 80
*DC 1514	15¾	21½	15	14	19	Single	18.60
**DC 1917	19¼	21½	15	17½	19	Double	22.20
**DC 2119	21	21½	15	19¼	19	Double	23.40
**DC 2321	22¾	21½	15	21	19	Double	24.00
**DC 2826	28	21½	15	26¼	19	Triple	25.80
**DC 3635	36¾	21½	15	35	19	Quad.	28.20

*Door in Top only.

**Door in Top & Rear.

Note: When ordering grey wrinkle, add prefix "G" to catalog number.
Dimensions in Inches.

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CABINETS
CHASSIS

MIDDLETOWN
MANUFACTURING
CO.

CASES
PANELS

MIDDLETOWN IN CONNECTICUT

RACK PANELS — 19" LONG
(Steel and Aluminum)

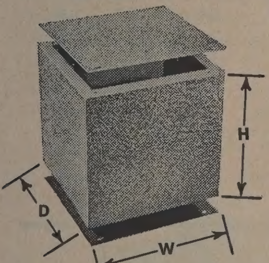
Middletown Rack Panels are offered in either ⅛" steel or ⅛" aluminum. They are 19" wide and are slotted for conventional W. E. mounting. Twelve standard sizes. Furnished in black or grey wrinkle finish.

Note: When ordering grey wrinkle, add prefix "G" to catalog number.

*Available on special order.
Aluminum panels 3/16" thick available at 60% increase in cost above ⅛" al. panels.

Cat. No. Steel (Blk. Wrinkle)	Dealer Cost	Height	Cat. No. Aluminum (Black Wrinkle)	Dealer Cost
R.P. 1	$ .85	1¾"	A.R.P. 1	$ 1.10
R.P. 3	1.02	3½"	A.R.P. 3	1.44
R.P. 5	1.23	5¼"	A.R.P. 5	1.94
R.P. 7	1.43	7"	A.R.P. 7	2.45
R.P 8	1.76	8¾"	A.R.P. 8	2.86
R.P. 10	2.10	10½"	A.R.P. 10	3.60
R.P. 12	2.45	12¼"	A.R.P. 12	4 05
R.P. 14	2.87	14"	A.R.P. 14	4.79
R.P. 15	3.11	15¾"	A.R.P. 15	5.32
R.P. 17	3.52	17½"	A.R.P. 17	5.87
R.P. 19	3.70	19¼"	A.R.P. 19	6.37
R.P. 21	4.20	21"	A.R.P. 21	6.89
R.P. 26*	5.40	26¼"	A.R.P. 26*	9.18
R.P. 35*	7.50	35"	A.R.P. 35	11.94

STEEL AND ALUMINUM CASES



These cases are similar to our standard steel utility cans except they have flat tops and bottoms which are held in place with self tapping screws and are removable. These cases are of sturdy construction and have spot welded corners. Case has flanges on all edges. Steel cases furnished in black wrinkle. Aluminum cases are natural.

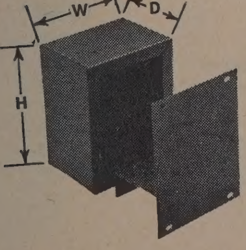
STEEL

Catalog Number	Size W	D	H	Dealer Cost
SC 442	4"	4"	2"	$ .96
SC 453	4"	5"	3"	1.08
SC 465	4"	6"	5"	1.36
SC 564	5"	6"	4"	1.64
SC 666	6"	6"	6"	1.98
SC 1276	12"	7"	6"	2.89
SC 1287	12"	7¾"	6½"	3.95
SC 1576	15"	7¾"	6½"	3.49
SC 1597	15"	9"	7"	3.32

ALUMINUM

Catalog Number	Dealer Cost
AC 442	$1.26
AC 453	1.38
AC 465	1.60
AC 564	1.60
AC 666	1.85
AC 596	2.50
AC 1276	3.75

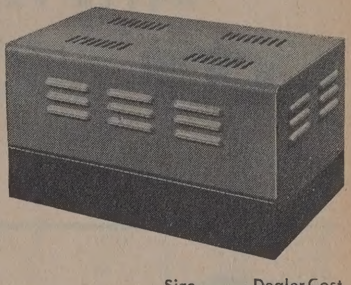
STEEL CASES WITH BUILT IN CHASSIS



Catalog Number	H W D	Chassis Size	Deale Cost
SCWC 442	4 4 2	1 x2⅞x1⅞	$1.26
453	4 5 3	1 x3⅞x2⅞	1.46
543	5 4 3	1¼x2⅞x2⅞	1.46
654	6 5 4	1¾x3⅞x3⅞	1.70
645	5 6 4	1¼x4⅞x3⅞	1.7[illegible]
666	6 6 6	1¾x4⅞x5⅞	1.92

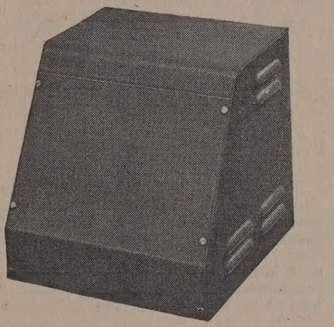
AMPLIFIER FOUNDATIONS—DeLuxe Models

This unit is designed to meet the most critical requirements. It has rounded corners, special Middletown designed louvres on all 4 sides and elongated holes on top to give maximum ventilation. Chassis are finished in Black wrinkle. Covers are finished in Grey wrinkle. Chassis are drilled for bottom plates which are listed separately. Covers all have a depth of 6"



Cat. No.	Size	Dealer Cost
A.F.-5109	5 x 10 x 9"	$4.20
A.F.-6149	6 x 14 x 9"	4.85
A.F.-7179	7 x 17 x 9"	5.62
A.F.-10129	10 x 12 x 9"	5.62
A.F.-10179	10 x 17 x 9"	6.38
A.F.-13179	13 x 17 x 9"	7.68

SLOPING FRONT PANEL CABINETS

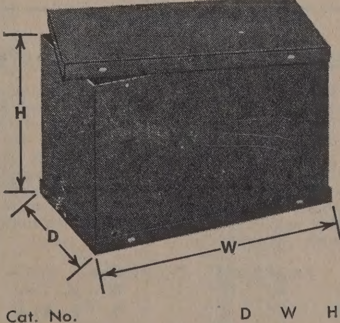


Sloping front panel cabinets have a wide application in the electronic field since they are adaptable for various uses. They are constructed of heavy gauge steel electrically spot-welded. Top corner is rounded, front panel is removable, and louvres on sides provide ventilation.

Back panel is ventilated on top and an opening is provided on the bottom so that connections can be made directly to the rear of the chassis. Finished in Grey wrinkle.

Cat. No.	H.W.D.	Chassis Size	Dealer Cost
S.F.-888	8 x 8 x 8"	7 x 7 x 2"	$4.48
S.F.-8108	8 x 10 x 8"	7 x 9 x 2"	4.97
S.F.-8128	8 x 12 x 8"	7 x 11 x 2"	5.26
S.F.-8148	8 x 14 x 8"	7 x 13 x 2"	5.32
S.F.-121812	12 x 18 x 12"	10 x 17 x 3"	9.42

STEEL UTILITY CANS



These Utility Cans are ruggedly constructed from sheet steel with spot welded reinforced corners. Tops and bottoms are removable and are flanged on all four sides. Held in place with self-tapping screws.

Cat. No.	D W H	Weight	Dealer Cost
U.C.565	5½ x 6 x 5½"	3 lbs.	$2.16
U.C.596	5 x 9 x 6"	5 lbs.	2 51
U.C.8107	8 x 10 x 7"	6 lbs.	3.12
U.C.81010	8 x 10 x 10"	7 lbs.	3.72
U.C.11128	11 x 12 x 8"	9 lbs.	4.58

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CABINETS CHASSIS

MIDDLETOWN MANUFACTURING CO.

CASES PANELS

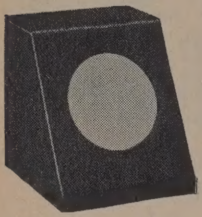
MIDDLETOWN IN CONNECTICUT

METER PANELS

Middletown Meter Panels are made 5¼″ high and are made to the same specifications as our Rack Panels—are available to fit 3″ meters.

Cat. No.	Holes	Hole Size	Dealer Cost
R.P.M. 33	3	2¹³⁄₁₆″	$1.65
R.P.M. 35	5	2¹³⁄₁₆″	2.23

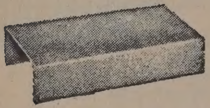
METER CASES



These cases have sloping front panel with rounded top corner which blends with streamline equipment. They are sturdily constructed from sheet steel with welded joints.

Cat. No.	Meter	Hole Size	H.W.D.	Dealer Cost
M.C. 13	Single 3″	2¹³⁄₁₆″	4½ x 4 x 4	$1.32
M.C. 33	3-3″ Meters	2¹³⁄₁₆″	4½ x 11¼ x 4	3.24

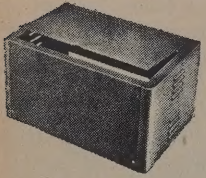
ALUMINUM MIDGET CHASSIS



These small, open-end aluminum chassis are ideal for miniature tube assemblies and all applications where space is limited. Made of prime sheet aluminum with ¼″ flange on bottom for fastening down, or attaching bottom plate. Finish is natural aluminum.

Cat. No. AMC	Size D	W	H	Dealer Cost	Cat. No. AMC	Size D	W	H	Dealer Cost
221	2⁵/₆	2¾	1¼	$ .36	541	5¾	4⅞	1½	$ .57
131	1¾	3⅛	1	.39	431	4	3⅛	1	.42
342	3¼	4½	2	.42	441	4	4⅛	1	.48
241	2¾	4⅛	1	.42	451	4	5⅛	1	.51
341	3¾	4⅛	1½	.42	461	4	6⅛	1	.57
361	3	6⅛	1¼	.51					

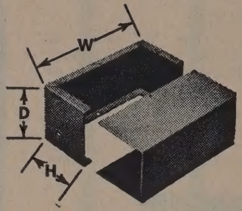
ROUNDED CORNER CABINETS



These are de luxe streamlined cabinets with front vertical corners rounded. Flush panel door, hung on full-length piano hinge, provided in top for convenient access. Ventilating louvres on sides. Opening at bottom of rear panel permits easy accessibility for leads, cables, etc. Front panel held in position with self-tapping screws. Grey wrinkle finish. Sturdily built of sheet steel.

Catalog No.	Size H	W	D	Panel Space H	W	Chassis Size D	W	H	Dealer Cost
RC 8108	8	10	8	8	8	7	7	2	$4.47
RC 8128	8	12	8	8	10	7	9	2	4.91
RC 8168	8	16	8	8	14	7	13	2	6.27
RC 91711	9	17	11	9	15	10	14	3	9.35
RC 122012	12	20	12	12	18	10	17	3	11.59

Chassis are not included unless ordered.
See chassis listings. Dimensions in Inches.



MULTI-MOUNTS

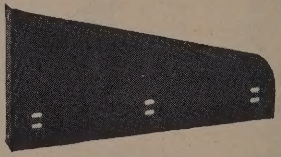
These are all-purpose boxes with an unlimited field of application in radio and electronics. Made from prime sheet aluminum. Two-piece telescoping construction, each half forming three sides. Finish is natural aluminum or grey hammer-tone.

Natural Aluminum Catalog Number	Dealer Cost	SIZE H	W	D	Grey Hammertone Catalog Number	Dealer Cost
MM 122	$ .69	1⅝	2¾	2⅛	GHMM 122	$ .78
MM 132	.69	1⅝	3¼	2⅛	GHMM 132	.78
MM 142	.74	1⅝	4	2⅛	GHMM 142	.81
MM 242	.95	2¼	4	2¼	GHMM 242	1.05
MM 252	.98	2¼	5	2¼	GHMM 252	1.08
MM 354	1.15	3	5	4	GHMM 354	1.26
MM 253	1.12	2⅛	5¼	3	GHMM 253	1.20
MM 465	1.40	4	6	5	GHMM 465	1.50
MM 375	1.56	3	7	5	GHMM 375	1.88
MM 386	2.30	3½	8	6	GHMM 386	2.52
MM 3106	2.90	3½	10	6	GHMM 3106	3.14
MM 4127	3.21	4	12	7	GHMM 4127	3.60
MM 4175	3.80	4	17	5	GHMM 4175	4.23
MM 1102	1.15	1⅝	10	2	GHMM 1102	1.37
MM 2122	1.55	2¼	12	2½	GHMM 2122	1.65
MM 2420	.93	2¾	4	2	GHMM 2420	1.02
MM 1420	.95	1½	4¼	2¼	GHMM 1420	1.05

CHASSIS BRACKETS

Mounting

These brackets are for chassis listed on next page. Front end of the bracket is seven inches high. Finished in black wrinkle.



Catalog Number	Size	Shipping Weight	Dealer Cost
C.B. 8	For 8″ Base	2 lbs.	$ .96
C.B. 11	For 11″ Base	3 lbs.	1.35
C.B. 13	For 13″ Base	3 lbs.	1.62

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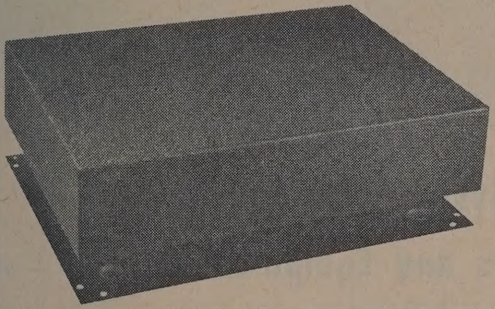
CABINETS CHASSIS

MIDDLETOWN MANUFACTURING CO.

CASES PANELS

MIDDLETOWN IN CONNECTICUT

CHASSIS AND BOTTOM PLATES



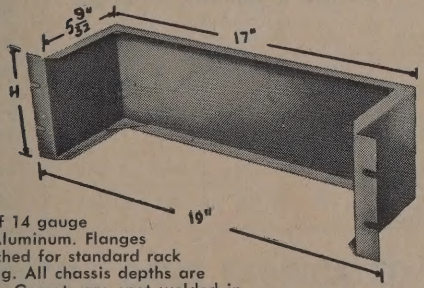
Middletown **STANDARD** Steel Chassis are made from one piece of steel, spot welded at all four corners. 22-, 20- and 16-gauge steel is used as indicated in the table. Bottom edges are folded over on four sides for additional rigidity. Black wrinkle finish.

Middletown **ALUMINUM** Chassis are made from one piece of prime sheet aluminum, 16- and 18-gauge aluminum is used as indicated in the table. The design and construction of these chassis are identical with Middletown blank steel chassis. Natural aluminum finish.

Middletown **BOTTOM PLATES** are drilled and have pressed bumpers at corners. Material is 20-gauge steel. Gauge of aluminum bottom plates match gauge of chassis. Natural finish.

PANEL CHASSIS

TO FIT 19″ STANDARD RACKS



Made of 14 gauge (.064) Aluminum. Flanges are notched for standard rack mounting. All chassis depths are 5-9/32″. Gussets are spot welded in each corner for greater strength. Natural finish.

	Height	Ship. Wt. Lbs.	Dealer Cost
PCV1	1¾″	¾	$2.50
PCV3	3½″	1¾	2.80
PCV5	5¼″	1½	3.05
PCV7	7″	2	3.45
PCV8	8¾″	2¼	4.10
PCV10	10½″	2¾	4.45
PCV12	12¼″	3	4.90
PCV14	14″	3¼	5.30

CHASSIS — STEEL AND ALUMINUM

STEEL		ALUMINUM		SIZE			DEALER COST	
Cat. No.	GAUGE	Cat. No.	GAUGE	D	W	H	Steel	Alum.
*BS 442	22	ABC 442	18	4	4	2	.94	1.10
BS 462	22	ABC 462	18	4	6	2	1.05	1.30
BS 463	20	ABC 463	18	4	6	3	1.07	1.35
BS 4173	20	ABC 4173	16	4	17	3	1.65	2.38
BS 572	22	ABC 572	18	5	7	2	1.05	1.35
BS 573	22	ABC 573	18	5	7	3	1.11	1.41
BS 591	22	ABC 591	18	5½	9½	1½	1.10	1.41
BS 592	22	ABC 592	18	5	9½	2	1.15	1.45
BS 5103	22	ABC 5103	18	5	10	3	1.25	1.62
BS 5133	20	ABC 5133	18	5	13	3	1.59	1.82
BS 6143	20	ABC 6143	16	6	14	3	1.68	2.55
BS 6173	20	ABC 6173	16	6	17	3	1.80	2.75
BS 772	22	ABC 772	18	7	7	2	1.10	1.35
BS 792	22	ABC 792	18	7	9	2	1.33	1.48
BS 7112	20	ABC 7112	18	7	11	2	1.37	1.59
BS 7123	20	ABC 7123	18	7	12	3	1.52	1.94
BS 7132	20	ABC 7132	18	7	13	2	1.48	1.68
BS 7153	20	ABC 7153	16	7	15	3	1.76	2.90
BS 7173	20	ABC 7173	16	7	17	3	1.97	2.88
BS 8123	20	ABC 8123	16	8	12	3	1.82	2.33
BS 8172	20	ABC 8172	16	8	17	2	1.79	2.65
BS 8173	20	ABC 8173	16	8	17	3	1.97	2.95
BS 10123	20	ABC 10123	16	10	12	3	1.89	2.70
BS 10143	20	ABC 10143	16	10	14	3	1.98	3.21
BS 10172	20	ABC 10172	16	10	17	2	1.98	3.15
BS 10173	20	ABC 10173	16	10	17	3	2.05	3.40
BS 10174	20	ABC 10174	16	10	17	4	2.40	4.25
BS 11172	16	ABC 11172	16	11	17	2	2.60	3.52
BS 11173	16	ABC 11173	16	11	17	3	2.85	4.23
BS 12172	20	ABC 12172	16	12	17	2	2.13	3.79
BS 12173	20	ABC 12173	16	12	17	3	2.45	4.42
BS 12174	20	ABC 12174	16	12	17	4	2.58	4.88
BS 13172	16	ABC 13172	16	13	17	2	3.00	3.94
BS 13173	16	ABC 13173	16	13	17	3	3.45	4.62
BS 13174	16	ABC 13174	16	13	17	4	3.85	5.37

Steel Chassis available in zinc plate at additional cost
**No flange on 4 x 4 x 2 Chassis*

STEEL AND ALUMINUM BOTTOM PLATES

CATALOG NUMBER STEEL	SIZE	CATALOG NUMBER ALUMINUM	DEALER COST Steel	DEALER COST Alum.
BP 46	4 x 6	ABP 46	$ .40	$ .88
BP 417	4 x 17	ABP 417	.60	1.35
BP 57	5 x 7	ABP 57	.42	.82
BP 59B	5 x 9½	ABP 59B	.42	.82
BP 59	5½ x 9½	ABP 59	.42	.84
BP 510	5 x 10	ABP 510	.48	.88
BP 513	5 x 13	ABP 513	.70	1.00
BP 614	6 x 14	ABP 614	.66	1.34
BP 617	6 x 17	ABP 617	.74	1.38
BP 77	7 x 7	ABP 77	.48	.88
BP 79	7 x 9	ABP 79	.51	.92
BP 711	7 x 11	ABP 711	.60	.98
BP 712	7 x 12	ABP 712	.60	1.06
BP 713	7 x 13	ABP 713	.66	1.20
BP 715	7 x 15	ABP 715	.72	1.24
BP 717	7 x 17	ABP 717	.78	1.30
BP 812	8 x 12	ABP 812	.80	1.20
BP 817	8 x 17	ABP 817	.81	1.40
BP 1012	10 x 12	ABP 1012	.81	1.40
BP 1014	10 x 14	ABP 1014	.84	1.54
BP 1017	10 x 17	ABP 1017	1.02	1.62
BP 1117	11 x 17	ABP 1117	1.05	2.00
BP 1217	12 x 17	ABP 1217	1.11	2.20
BP 1317	13 x 17	ABP 1317	1.20	2.30

Steel Bottom Plates available in zinc plate at additional cost

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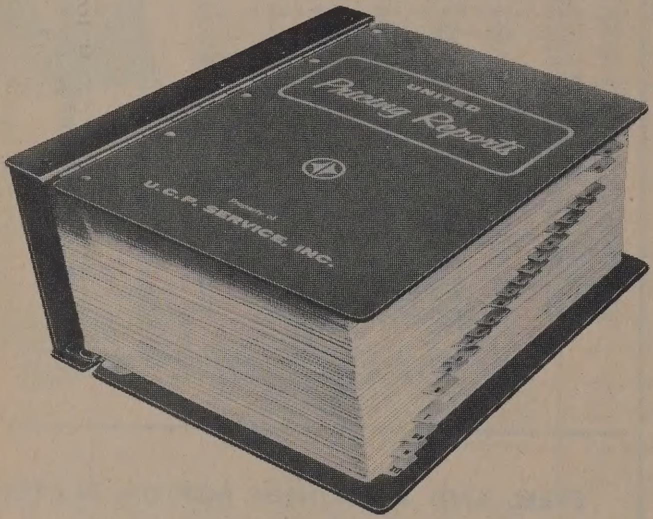

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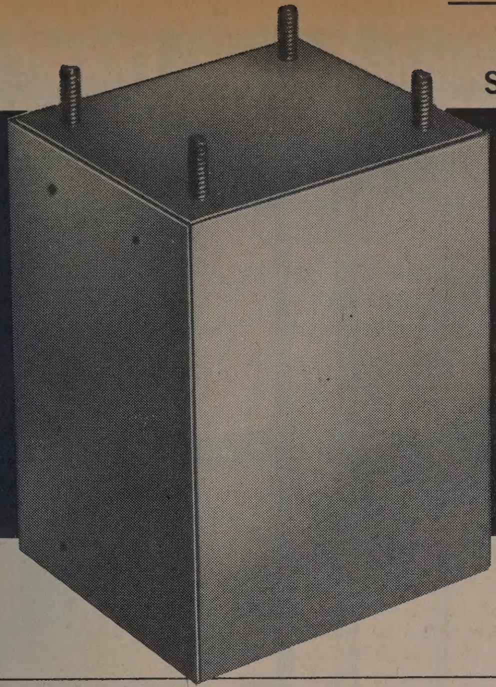

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- EQUIPMENT

TELEMETAL CAN #	MIL-T-27 A SIZE	A	B	C	F	G	H	K	GAUGE CASE	GAUGE COVER
TP-100	AF	3/4	3/4	1 1/8	◆	◆	4-40x3/8	9/16	.019	.019
TP-101	AG	1	1	1 3/8	◆	◆	4-40x3/8	3/4	.019	.019
TP-102	AH	1 5/16	1 5/16	1 3/4	◆	◆	6-32x3/8	1 1/4	.019	.019
TP-103	AJ	1 5/8	1 5/8	2 3/8	1 3/16	1 3/16	6-32x3/8	—	.019	.025
TP-104	EA	1 15/16	1 13/16	2 3/4	1 3/8	1 1/4	6-32x3/8	—	.019	.025
TP-105	EB	1 15/16	1 13/16	2 7/16	1 3/8	1 1/4	6-32x3/8	—	.019	.025
TP-106	FA	2 5/16	2 1/16	3 1/8	1 11/16	1 7/16	6-32x3/8	—	.019	.025
TP-107	FB	2 5/16	2 1/16	2 1/2	1 11/16	1 7/16	6-32x3/8	—	.019	.025
TP-108	GA	2 3/4	2 3/8	3 13/16	2 1/8	1 3/4	6-32x3/8	—	.019	.025
TP-109	GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	6-32x3/8	—	.019	.025
TP-110	HB	3 1/16	2 5/8	4 1/4	2 19/64	1 55/64	8-32x3/8	—	.025	.031
TP-111	AH	3 1/16	2 5/8	3 3/16	2 19/64	1 55/64	8-32x3/8	—	.025	.031
TP-112	JA	3 9/16	3 1/16	4 7/8	2 5/8	2 1/8	8-32x3/8	—	.025	.031
TP-113	JB	3 9/16	3 1/16	3 7/8	2 5/8	2 1/8	8-32x3/8	—	.025	.031
TP-114	KA	3 15/16	3 3/8	5 1/4	3	2 7/16	10-32x1/2	—	.025	.031
TP-115	KB	3 15/16	3 3/8	4 5/16	3	2 7/16	10-32x1/2	—	.025	.031
TP-116	LA	4 5/16	3 11/16	5 9/16	3 5/16	2 11/16	10-32x1/2	—	.031	.037
TP-117	LB	4 5/16	3 11/16	4 1/2	3 5/16	2 11/16	10-32x1/2	—	.031	.037
TP-118	MA	4 11/16	4	6	3 11/16	3	1/4-20x5/8	—	.031	.037
TP-119	MB	4 11/16	4	4 15/16	3 11/16	3	1/4-20x5/8	—	.031	.037
TP-120	NA	5 1/16	4 5/16	6 13/16	4 1/16	3 5/16	1/4-20x5/8	—	.031	.037
TP-121	NB	5 1/16	4 5/16	5 1/2	4 1/16	3 5/16	1/4-20x5/8	—	.031	.037
TP-122	OA	5 1/2	4 1/2	6 3/4	3 3/4	3	1/4-20x5/8	—	.031	.037

MATERIAL

Cold Rolled Steel

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Spot Welded

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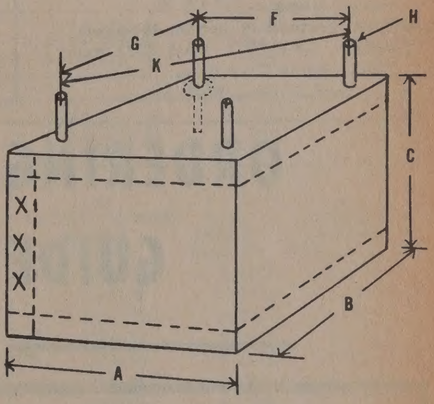

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Tolerances on dimensions A and B are +0 to −1/16 for cases AF, AG, and AJ, and +0 to −1/8 for all other cases.

Tolerances on dimension C are +0 to −1/8 for cases AF, AG, AH and AJ, and +0 to −3/16 for all other cases.

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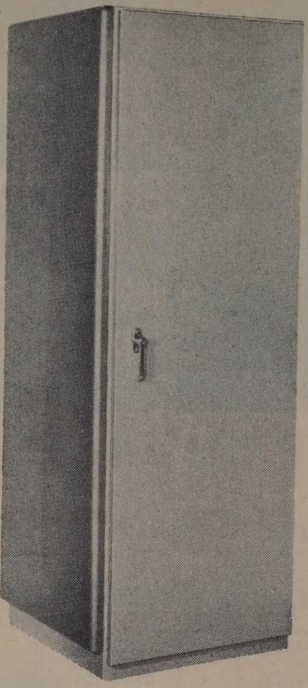
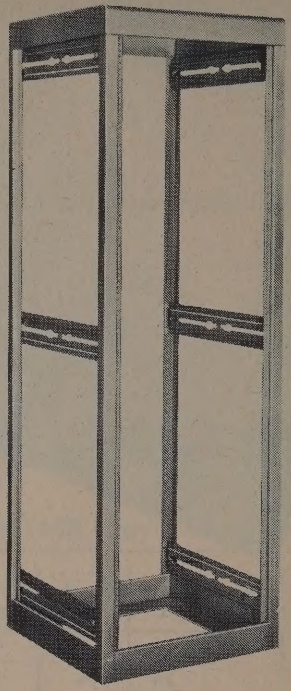
PREM-O-RAK® MODULAR Rounded Corner FRAMES

22″ and 25½″ DEEP for 19″ and 24″ PANELS

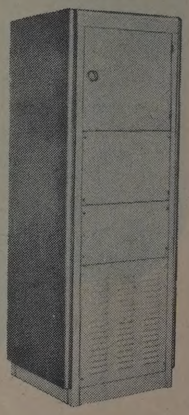
- **Designed for MULTIPLE INSTALLATIONS.**
- **TOPS OF FRONT AND REAR ARE ROUNDED.**
- **Frames accommodate Ball Cornered End Panels (CEP Series)**
- Frame Made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA series).
- Panel mounting angles are held in place at three points by ⅜″ carriage bolts and are adjustable to any desired position by means of channel slides.
- Three combination 1⅜″ and 1⅛″ diameter knockouts furnished on both sides of top and bottom to provide access for cabling between racks.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2″), CA-5 (3″) and CA-6 (double 2″) casters.
- Finished in Gray Hammertone.



Above unit consists of Frame FA Series), 2 End Panels (CEP Series) and Door (DF Series).



FA FRAME



Above unit consists of Frame (FA Series), 2 End Panels (CEP Series), Flush Door (CD Series), Louvred Panel (FPL Series) and Formed Panels (FP Series)

FRAMES — 22″ WIDE

22″ DEEP					25½″ DEEP		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
FA-42-22	50	$78.00	48⅝″	42 x 19″	FA-42-255	58	$81.96
FA-52-22	65	84.60	59⅛″	52½ x 19″	FA-52-255	75	88.80
FA-61-22	80	95.85	67⅞″	61¼ x 19″	FA-61--255	92	105.60
FA-70-22	100	112.44	76⅝″	70 x 19″	FA-70-255	115	123.60
FA-77-22	110	115.59	83⅝″	77 x 19″	FA-77-255	127	127.20

FRAMES — 27″ WIDE

22″ DEEP					25½″ DEEP		
FA-2761-22	90	105.00	67⅞″	61¼ x 24″	FA-2761-255	98	114.60
FA-2770-22	110	123.60	76⅝″	70 x 24″	FA-2770-255	123	135.60
FA-2777-22	120	126.00	83⅝′	77 x 24″	FA-2777-255	135	138.00

ORDERING GUIDE →

FRAME Cat. No.	Use END PANEL (Page 12) Cat. No.	Use DOOR (Page 12) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 13 Cat. No.	Use SHELF (Page 13 Cat. No.	Use CHASSIS SLIDES (Pages 26 & 27) Length
FA-42-22	CEP-42-22	DF-42	CSA-22	S-22-22	20″
FA-52-22	CEP-52-22	DF-52	CSA-22	S-22-22	20″
FA-61-22	CEP-61-22	DF-61	CSA-22	S-22-22	20″
FA-70-22	CEP-70-22	DF-70	CSA-22	S-22-22	20″
FA-77-22	CEP-77-22	DF-77	CSA-22	S-22-22	20″
FA-42-255	CEP-42-255	DF-42	CSA-255	S-22-255	24″
FA-52-255	CEP-52-255	DF-52	CSA-255	S-22-255	24″
FA-61-255	CEP-61-255	DF-61	CSA-255	S-22-255	24″
FA-70-255	CEP-70-255	DF-70	CSA-255	S-22-255	24″
FA-77-255	CEP-77-255	DF-77	CSA-255	S-22-255	24″
FA-2761-22	CEP-61-22	DF-2761	CSA-22	S-27-22	20″
FA-2770-22	CEP-70-22	DF-2770	CSA-22	S-27-22	20″
FA-2777-22	CEP-77-22	DF-2777	CSA-22	S-27-22	20″
FA-2761-255	CEP-61-255	DF-2761	CSA-255	S-27-255	24″
FA-2770-255	CEP-70-255	DF-2770	CSA-255	S-27-255	24″
FA-2777-255	CEP-77-255	DF-2777	CSA-255	S-27-255	24″

INDUSTRIAL DISCOUNTS

Apply to any PREMIER products listed in this catalog.

If total order at net price is:	DISCOUNT
Up to $199.99	Net Price
$200 to $399.99	Net Less 10%
$400 to $549.99	Net Less 15%
$550 to $699.99	Net Less 20%
$700 to $999.99	Net Less 25%
$1,000 to $2,499.99	Net Less 30%
$2,500 OR MORE	Net Less 33⅓%

ALL PRICES F.O.B. BRONX, N. Y. 10474

PREMIER PAGE 6

SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FANS

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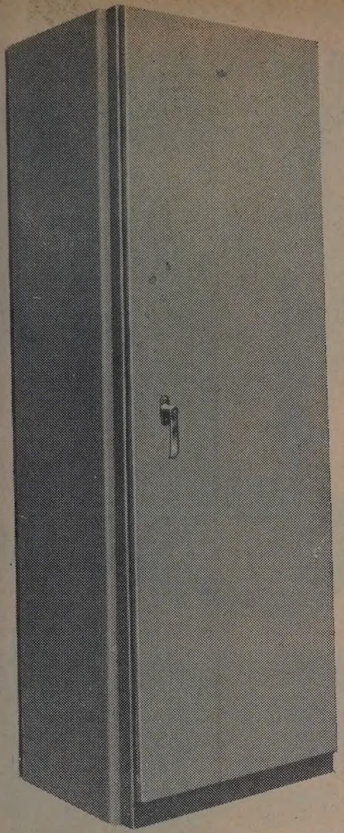
PREMIER MODULAR Square Cornered FRAMES

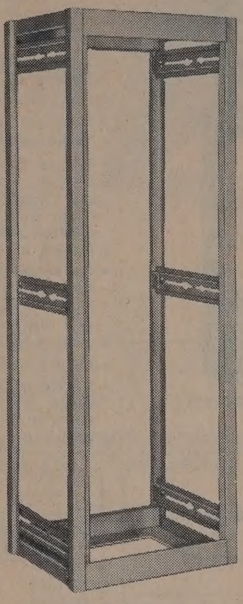
18" and 24" DEEP For 19", 24" and 30" PANELS



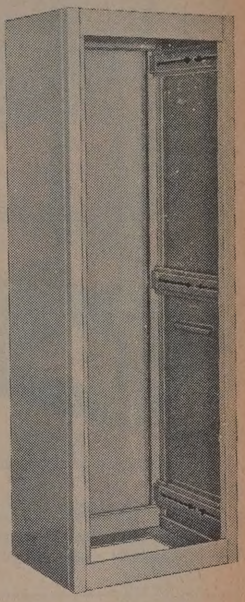
Above unit consists of Frame (PRXA Series), Rounded Side Panels (SP Series) and Door (DF Series)

- **DESIGNED FOR MULTIPLE INSTALLATIONS**
- **TOPS of FRONT and REAR are SQUARE**
- **FRAMES ACCOMMODATE FLUSH SIDE PANELS (FL Series) or ROUNDED SIDE PANELS (SP Series)**

- Frame made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA series).
- Panel mounting angles are held in place at three points by ⅜" carriage bolts and are adjustable to any desired position by means ot channel slides.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2"), CA-5 (3") and CA-6 (double 2") casters.
- Finished in Gray Hammertone.



PRXA FRAME



Above unit consists of Frame (PRXA Series), Flush Side Panels (FL Series) and Door (DF Series)

FRAMES

18" DEEP			22" WIDE		24" DEEP		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
PRXA-36	40	$42.50	42⅞"	36¾ x 19"	PRXA-36-24	50	$62.50
PRXA-42	48	46.80	48⅛"	42 x 19"	PRXA-42-24	58	70.80
PRXA-52	60	57.60	58⅝"	52½ x 19"	PRXA-52-24	72	78.00
PRXA-61	70	71.70	67⅜"	61¼ x 19"	PRXA-61-24	85	99.54
PRXA-70	88	86.76	76⅛"	70 x 19"	PRXA-70-24	108	118.56
PRXA-77	100	88.56	83⅛"	77 x 19"	PRXA-77-24	120	126.00
18" DEEP			27" WIDE		24" DEEP		
PRXA-2761	100	80.58	67⅜"	61¼ x 24"	PRXA-2761-24	134	112.38
RXA-2770	104	95.58	76⅛"	70 x 24"	PRXA-2770-24	140	123.00
PRXA-2777	116	100.20	83⅛"	77 x 24"	PRXA-2777-24	156	128.76
18" DEEP			33" WIDE		24" DEEP		
PRXA-3361	122	85.56	67⅜"	61¼ x 30"	PRXA-3361-24	162	118.80
PRXA-3370	126	109.14	76⅛"	70 x 30"	PRXA-3370-24	169	140.64
PRXA-3377	142	110.76	83⅛"	77 x 30"	PRXA-3377-24	190	143.52

Modification Available For Customized Requirements

FOR FA & PRXA FRAMES

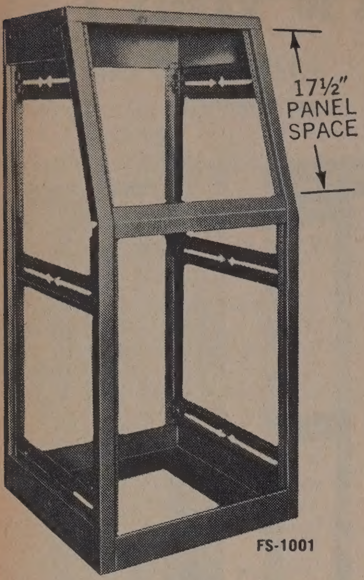
- Louvres, cutouts or holes in top.
- Solid bottom — no cut-out.
- Base can be supplied inverted.
- Omission of rectangular KO's on uprights.
- Opening in top with ½" recess for mounting a panel.
- Provisions for eye bolts in top.
- Provisions for mounting special size casters.
- Provision for rubber gasketing and filters.
- Panel mounting angles can be supplied copper plated .0005".
- Special finishes available.

ORDERING GUIDE

FRAME Cat. No.	ROUNDED SIDE PANEL (Page 12) Cat. No.		FLUSH SIDE PANEL (Page 12 Cat. No.	Use DOOR (Page 12) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 13)	Use SHELF (Page 13)	Use CHASSIS SLIDES (Pages 26 & 27)
PRXA-36	SP-36	USE EITHER OR	FL-36	DF-36	CSA-18	S-2218	16"
PRXA-42	SP-42		FL-42	DF-42	CSA-18	S-2218	16"
PRXA-52	SP-52		FL-52	DF-52	CSA-18	S-2218	16"
PRXA-61	SP-61		FL-61	DF-61	CSA-18	S-2218	16"
PRXA-70	SP-70		FL-70	DF-70	CSA-18	S-2218	16"
PRXA-77	SP-77		FL-77	DF-77	CSA-18	S-2218	16"
PRXA-36-24	SP-36-24		FL-36-24	DF-36	CSA-24	S-2224	22"
PRXA-42-24	SP-42-24		FL-42-24	DF-42	CSA-24	S-2224	22"
PRXA-52-24	SP-52-24		FL-52-24	DF-52	CSA-24	S-2224	22"
PRXA-61-24	SP-61-24		FL-61-24	DF-61	CSA-24	S-2224	22"
PRXA-70-24	SP-70-24		FL-70-24	DF-70	CSA-24	S-2224	22"
PRXA-77-24	SP-77-24		FL-77-24	DF-77	CSA-24	S-2224	22"
PRXA-2761	SP-61		FL-61	DF-2761	CSA-18	S-2718	16"
PRXA-2770	SP-70		FL-70	DF-2770	CSA-18	S-2718	16"
PRXA-2777	SP-77		FL-77	DF-2777	CSA-18	S-2718	16"
PRXA-2761-24	SP-61-24		FL-61-24	DF-2761	CSA-24	S-2724	22"
PRXA-2770-24	SP-70-24		FL-70-24	DF-2770	CSA-24	S-2724	22"
PRXA-2777-24	SP-77-24		FL-77-24	DF-2777	CSA-24	S-2724	22"
PRXA-3361	SP-61		FL-61	DF-3361	CSA-18	S-3318	16"
PRXA-3370	SP-70		FL-70	DF-3370	CSA-18	S-3318	16"
PRXA-3377	SP-77		FL-77	DF-3377	CSA-18	S-3318	16"
PRXA-3361-24	SP-61-24		FL-61-24	DF-3361	CSA-24	S-3324	22"
PRXA-3370-24	SP-70-24		FL-70-24	DF-3370	CSA-24	S-3324	22"
PRXA-3377-24	SP-77-24		FL-77-24	DF-3377	CSA-24	S-3324	22"

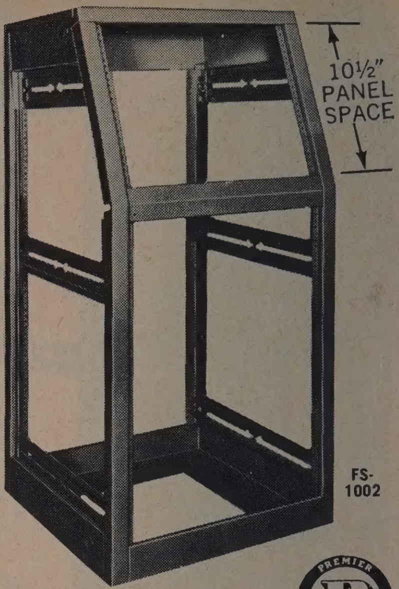
ALL PRICES F.O.B. BRONX, N. Y. 10474 PREMIER PAGE 7 SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FANS

PREM-O-RAK® MODULAR CONSOLE SYSTEM



10½" and 17½" SLOPED FRONT CONSOLE FRAMES FOR 19" and 24" PANELS

- TOPS OF FRONT AND REAR ARE ROUNDED
- Frames accommodate Ball Cornered End Panels (CEP Series)
- Designed for Multiple Installations
- Made of No. 14 Gauge (.0747) Steel
- Sloped Front Is 19° from Vertical
- Frame Completely Welded Throughout
- All Panel Mounting Angles are made of No. 12 Guage Steel and Tapped on both legs 10/32 on E.I.A. Spacings (⅝-⅝-½). Front and Rear Vertical Angles Are Adjustable to Any Desired Position.
- Panels Fit into ½" Recess.
- Combination 1⅜" and 1⅛" Diameter Knockouts on Top and Bottom to Provide Access for Cabling Between Racks.
- Holes Punched in Bottom to Accommodate CA-4 (2"), CA-5 (3") and CA-6 (double 2") casters.
- A Rectangular Cutout Is Provided in Bottom for Leads, etc.
- Front Cross Piece Removable.
- Rectangular Knockouts On Rear Uprights to Accommodate Hinge and Handle Latch Brackets so that Door can be Mounted Either Left or Right.
- Finished in Gray Hammertone.



MODIFICATIONS AVAILABLE FOR CUSTOMIZED REQUIREMENTS FOR FS AND/OR CPF SERIES

* Vertical Panel Mounting Angles can be supplied Copper Plated .0005".

* Top of CPF Frame can be modified to accept a one-piece Multiple-width Formica Panel when used with work-top (WTO Series) and/or other pedestal frames.

* Louvres, holes or cut-outs in top or FS frame.

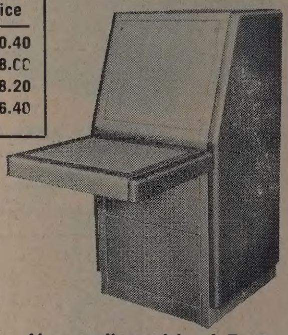
* Opening in top of FS with ½" recess for mounting a panel.

Cat. No.	Width	Height	Depth*	Sloped Front Panel Space	Front Vertical Space	Rear Vertical Space	Ship. Wt. Lbs.	Net Price
FS-1001	22"	50"	22"	17½ x 19"	26¼ x 19"	42 x 19"	66	**$80.40**
FS-1002	22"	47"	22"	10½ x 19"	29¾ x 19"	42 x 19"	64	**78.00**
FS-1003	27"	50"	22"	17½ x 24"	26¼ x 24"	42 x 24"	76	**88.20**
FS-1004	27"	47"	22"	10½ x 24"	29¾ x 24"	42 x 24"	74	**86.40**

*Also available 25½" deep

ORDERING GUIDE

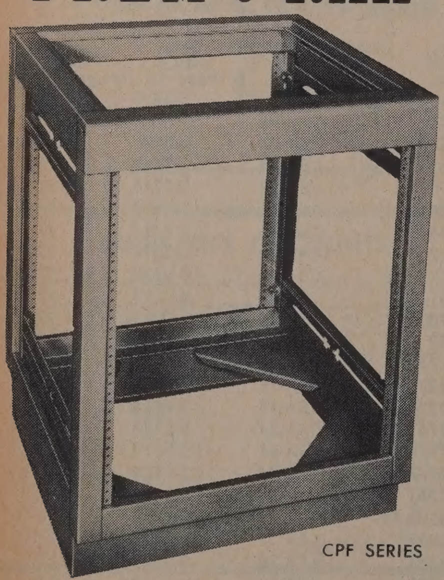
FRAME Cat No.	USE END PANEL Page 12) Cat. No.	USE REAR DOOR (Page 12) Cat. No.	USE SHELF (Page 10) Cat. No.	USE CHASSIS SLIDES (Pgs. 26 & 27) Length
FS-1001	CEP-1201 (LH and/or RH)	DF-42	SH-101	20"
FS-1002	CEP-1202 (LH and/or RH)	DF-42	SH-101	20"
FS-1003	CEP-1201 (LH and/or RH)	DF-2742	SH-102	20"
FS-1004	CEP-1202 (LH and/or RH)	DF-2742	SH-102	20"



Above unit consists of Frame (FS Series), 2 End Panels (CEP-1201 Series), Writing Work Shelf (WW Series) and 2 End Panels (CEP Series) for shelf.

PREM-O-RAK®

CONSOLE PEDESTAL FRAMES



CPF SERIES

- TOPS OF FRONT AND REAR ARE ROUNDED.
- Frames accommodate Ball Cornered End Panel (CEP Series).
- Units are designed for multiple installation.
- Adjustable panel mounting angles front and rear are tapped on both legs for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½).
- Panels fit into ½" recess.
- Two rectangular knockouts supplied on one top cross member to accommodate channels of Writing Work Shelf.
- Brackets welded in base and punched to accommodate CA-5 (3") casters and supplied with adapter to accommodate CA-4 (2") casters.
- Frame made of No. 16 gauge steel; panel mounting angles of 12 gauge steel.
- Finished in Gray Hammertone.

Cat. No.	Width	Depth*	Height with Casters	Height without Casters	Front & Rear Panel Space	Top Panel Space	Shpg. Wt. Lbs.	Net Price
CPF-101	22"	22"	30"	29½"	21 x 19"	17½ x 19"	45	$56.64
CPF-102	22"	22"	37"	36½"	28 x 19"	17½ x 19"	48	64.20
CPF-103	27"	22"	30"	29½"	21 x 24"	17½ x 24"	50	63.00
CPF-104	27"	22"	37"	36½"	28 x 24"	17½ x 24"	53	72.00
CPF-101-34	22"	34¼"	30"	29½"	21 x 19"	29¾ x 19"	54	78.00

*Also available 25½" deep.

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 12) Cat. No.	Use DOOR (Page 9) Cat. No.	Use SHELVES (Page 10) Cat. No.	Use CHASSIS-SLIDES (Pages 26 & 27) Length
CPF-101	CEP-401	CD-21	SH-101	20"
CPF-102	CEP-402	CD-28	SH-101	20"
CPF-103	CEP-401	CD-2124	SH-102	20"
CPF-104	CEP-402	CD-2824	SH-102	20"
CPF-101-34	CEP-401-34	CD-21	SH-103	—

SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS & FANS

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Net

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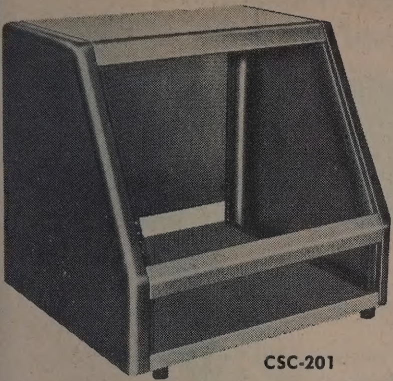
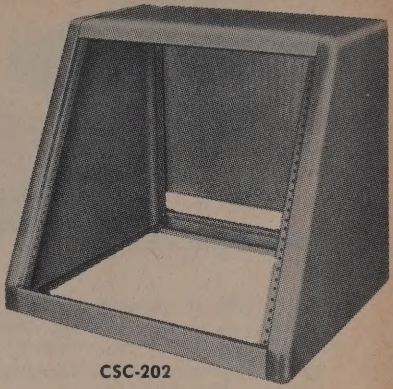
PREM-O-RAK MODULAR CONSOLE SYSTEM

CONSOLE SLOPING CABINETS



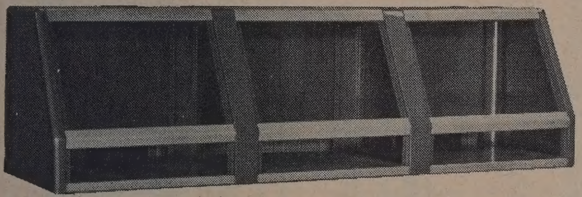
CSC-201

- BOTH FRONT AND REAR HAVE ATTRACTIVE BALL CORNERS.
- Shipped knocked down with necessary hardware for easy assembly.
- All screws for assembling console are not visible from the outside.
- Both front and rear are tapped for 10/32 machine screws on E.I.A. spacings (5/8-5/8-1/2).
- Interlocking removable rear panel made of perforated metal and held in place by four captive screws.
- Made of No. 16 gauge steel.
- Rear panel has 1¾″ opening on bottom for leads, etc.
- Panels fit into ½″ recess.
- May be used individually or in multiples.
- Handsomely finished in Two Tone Hammertone—Top, cross-piece and base are Gray Hammertone. Rear and side panels are Brown Hammertone.



CSC-202

Cat. No.	Width	Height	Depth	Sloped Panel Space	Front Vertical Panel Space	Rear Panel Space	Slope from Vertical	Bottom Panel Space	Ship. Wt. Lbs.	Net Price
CSC-201	21¾″	18⅛″	18″	12¼″ x19″	3½″ x 9″	15¾″ x 19″	30°	———	35	$55.00
CSC-202	21¾″	18⅞″	18⅞″	17½″ x 19″	———	15¾″ x 19″	25°	15¾″ x 19″	40	$60.00

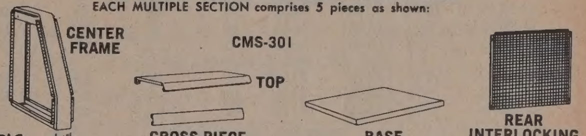


One Triple CSC-201 consists of one CSC-201 and two CMS-301

MULTIPLE SECTION for SLOPING CABINET

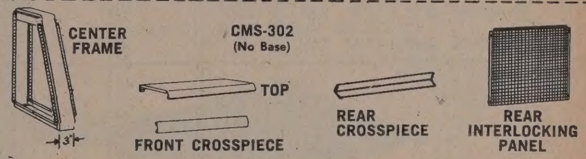
Catalog No.	Shipping Wt. Lbs.	Net Price
CMS-301	26	$36.00
CMS-302	28	$40.00

EACH MULTIPLE SECTION comprises 5 pieces as shown:



EXAMPLE: ⟶3″⟵

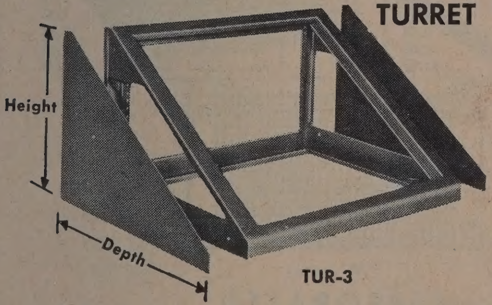
One Double CSC-201 consists of one CSC-201 and one CMS-301
One Triple CSC-201 consists of one CSC-201 and two CMS-301



DESIGNED FOR MULTIPLE INSTALLATION

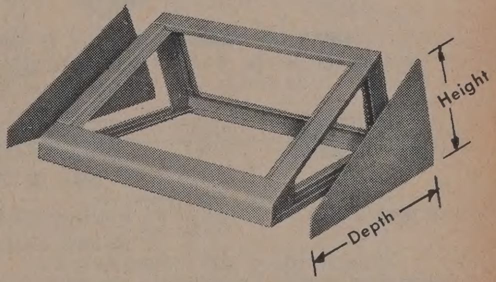
The PREM-O-RAK CONSOLE CABINETS can be joined together to make multiple units by means of a center frame section which is bolted to the top, cross-piece and base. When ordering multiple units specify number of units, such as Double, Triple, etc.

TURRET WITH FLAT SIDE PANELS



TUR-3

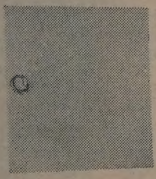
- Made of No. 16 gauge steel.
- All panel openings tapped for 10/32 machine screws on E.I.A. spacings (5/8-5/8-1/2).
- Panels fit into ½″ recess.
- Flat side panels are assembled at factory before shipping.
- Frame finished in Gray Hammertone. Side panels finished in Brown Hammertone.



TUR-1

Cat. No.	Width	Height	Depth	Sloped Front PanelSpace	Rear Panel Space	Bottom Panel Space	Ship. Wt. lbs.	Net Price
TUR-1	22″	9¾″	21″	14″ x 19″	7″ x 19″	17½″ x 19″	25	$40.00
TUR-3	22″	12¼″	17½″	17½″ x 19″	8¾″ x 19″	14″ x 19″	20	34.80

FLUSH DOORS — ½″ DEEP



For Prem-O-Rak Console Frames CPF, FS, FA, POR and CSC Series.

- Made of 16 gauge steel
- Finished in Gray Hammertone.
- Doors can be mounted either left or right hand by rotating door 180°.
- Hinge brackets are punched to accommodate panel mounting angles on cabinets.
- Furnished with attractive round chrome plated handle and snap catch.

Cat. No.	Height	Width	Shpg. Wt. Lbs.	Net Price
CD-17	17½″	19″	7	$11.90
CD-21	21″	19″	8	12.85
CD-26	26¼″	19″	9	14.40
CD-28	28″	19″	10	15.10
CD-29	29¾″	19″	11	15.75
CD-42	42″	19″	16	25.65
CD-1724	17½″	24″	8	14.30
CD-2124	21″	24″	9	15.40
CD-2824	28″	24″	12	18.15
CD-2924	29¾″	24″	13	18.90
CD-4224	42″	24″	17	31.50

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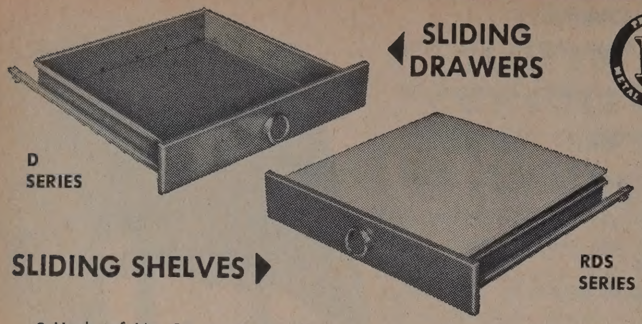
PREM-O-RAK® MODULAR CONSOLE SYSTEM



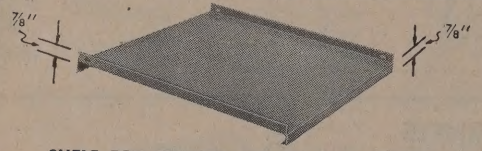
- Made of No. 16 gauge steel.
- Mounted on suspension slides, which sustain 46 lbs.
- Drawer extends 16″ from front of cabinet.
- Supplied with brackets for mounting to tapped holes of panel mounting angles.
- Furnished with attractive, round chrome-plated handle.
- Shipped knocked down with all necessary hardware for easy assembly.
- Will fit CPF, FS, & FA SERIES.
- Finished in Gray Hammertone.
- Sliding shelves supplied with Gray linen weave Formica (2-C-1) on top surface.

SLIDING DRAWERS

Cat. No.	Panel Size	Drawer Size W	D	H	Shpg. Wt. Lbs.	Net Price
	FOR 19″ WIDE PANEL SPACE					
D-1916	10⅜″x18⅞″	16⅛″	16	6″	23	$18.90
D-2016	6⅞″x18⅞″	16⅛″	16	6″	22	18.15
D-2316	3⅜″x18⅞″	16⅛″	16	2 11/16″	16	17.10
	FOR 24″ WIDE PANEL SPACE					
D-2116	10⅜″x23⅞″	21⅛″	16	6″	25	22.70
D-2216	6⅞″x23⅞″	21⅛″	16	6″	24	21.75
D-2416	3⅜″x23⅞″	21⅛″	16	2 11/16″	17	18.90

SLIDING SHELVES

Cat. No.	Panel Size	Shelf Size	Shpg. Wt. Lbs.	Net Price
	FOR 19″ WIDE PANEL SPACE			
RDS-319-22	3⅜″ x 18⅞″	16 3/16″ x 15 15/16″	20	$34.65
	FOR 24″ WIDE PANEL SPACE			
RDS-324-22	3⅜″ x 23⅞″	21 3/16″ x 15 15/16″	22	44.10



SHELF FOR FRAMES CPF, FA & FS SERIES

- Made of No. 16 Ga. Steel
- Finished in Gray Hammertone
- Mounts to 10-32 tapped holes on side leg of Panel Mounting Angles.

Cat. No.	Depth	Width	For use with	Net Price
SH-101	20½″	19 15/16″	CPF-101, CPF-102 FS-1001, FS-1002 22″ (Deep) x 22″ (Wide) FA	$9.45
SH-102	20½″	24 15/16″	CPF-103, CPF-104 FS-1003, FS-1004 22″ (Deep) x 27″ (Wide) FA	10.72
SH-103	32¾″	19 15/16″	CPF-101-34	12.60

FORMICA WRITING PANELS

19″ and 24″ WIDE — ½″ THICK

Gray Linen Weave Pattern Formica 2-C-1 bonded to plywood as top surface; Unfinished Formica bonded to bottom surface.

19″ WIDE

Cat. No.	Panel Space	Fits into	Net Price
FWP-1019	10½″ x 19″	WW-15-22 & WW-15-255	$6.60
FWP-1419	14″ x 19″	WW-18-22 & WW-18-255	8.40
FWP-1719	17½″ x 19″	WW-22-22 & WW-22-255, WTO-22-22 & Top Panel Space of CPF-101 and CPF-102	10.20
FWP-2919	29¾″ x 19″	CPF-101-34, WTO-22-34	20.00

24″ WIDE

Cat. No.	Panel Space	Fits into	Net Price
FWP-1024	10½″ x 24″	WW-2715-22, WW-2715-255	$7.20
FWP-1424	14″ x 24″	WW-2718-22, WW-2718-255	9.00
FWP-1724	17½″ x 24″	WW-2722-22, WW-2722-255, WTO-27-22 & Top Panel Space of CPF-103 & CPF-104	10.80

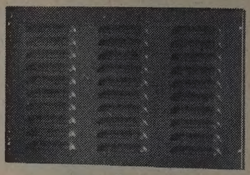
MODIFICATIONS AVAILABLE

- One piece Multplie Widths
- Other standard Formica colors or Patterns

FORMED PANELS — 19″ and 24″ WIDE

FP Series

BLANK



FPL Series

LOUVRED

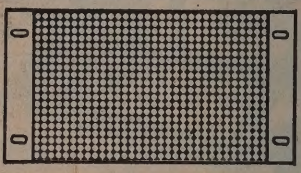
- Made of one piece of No. 16 gauge steel, with edges formed for overall depth of ½″.
- Each panel has only 2 mounting holes on each side.
- Finished in Gray Hammertone.

BLANK

19″ WIDE				24″ WIDE		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Shpg. Wt. Lbs.	Net Price
FP-119	1½	$1.21	1¾″	—	—	—
FP-319	2	1.25	3½″	FP-324	3	$1.52
FP-519	2½	1.45	5¼″	FP-524	3½	1.72
FP-719	3	1.65	7″	FP-724	4	2.00
FP-819	4	2.02	8¾″	FP-824	5	2.45
FP-1019	5	2.50	10½″	FP-1024	6	3.00
FP-1219	6	2.90	12¼″	FP-1224	7	3.45
FP-1419	6½	3.25	14″	FP-1424	7½	3.90
FP-1519	7	3.75	15¾″	FP-1524	8	4.50
FP-1719	7½	4.15	17½″	FP-1724	8½	4.95
FP-1919	8	4.52	19¼″	FP-1924	9	5.42
FP-2119	9	4.95	21″	FP-2124	10	5.95
FP-2219	10	5.50	22¾″	FP-2224	11	6.60
FP-2619	11	6.12	26¼″	FP-2624	12	7.35
FP-2819	12	6.60	28″	FP-2824	13	7.95
FP-4219	18	11.00	42″	FP-4224	20	13.20

LOUVRED

19″ WIDE				24″ WIDE		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Shpg. Wt. Lbs.	Net Price
FPL-719	3	$3.48	7″	FPL-724	4	$4.16
FPL-819	4	3.90	8¾″	FPL-824	5	4.70
FPL-1019	5	4.30	10½″	FPL-1024	6	5.15
FPL-1219	6	4.85	12¼″	FPL-1224	7	5.82
FPL-1419	6½	5.22	14″	FPL-1424	7½	6.30
FPL-1719	7½	6.12	17½″	FPL-1724	8½	7.35
FPL-2119	9	7.60	21″	FPL-2124	10	9.12
FPL-2219	10	8.25	22¾″	FPL-2224	11	9.35
FPL-2619	11	8.52	26¼″	FPL-2624	12	10.25
FPL-2819	12	9.05	28″	FPL-2824	13	10.85
FPL-4219	18	15.40	42″	FPL-4224	20	18.70



PFP Series

PERFORATED

- Made of No. 20 gauge steel with 1/16″ diameter holes on 3/16″ staggered centers.
- Edges formed on 4 sides.
- Overall depth ½″.
- Each panel has 2 mounting holes on each side.
- Finished in Gray Hammertone.

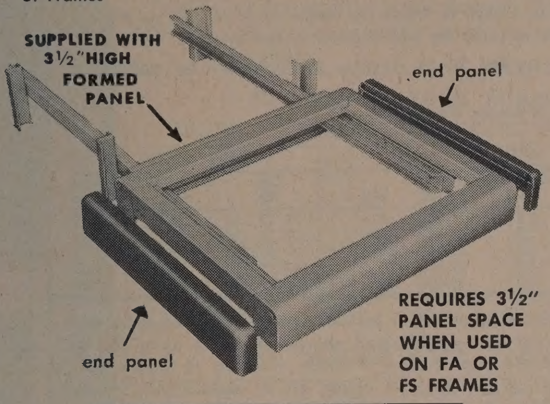
19″ WIDE				24″ WIDE		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Shpg. Wt. Lbs.	Net Price
PFP-319	1¾	$2.75	3½″	PFP-324	2¾	$3.50
PFP-519	2¼	3.00	5¼″	PFP-524	3¼	3.90
PFP-719	2¾	3.75	7″	PFP-724	3¾	5.00
PFP-819	3¾	4.25	8¾″	PFP-824	4¾	5.75
PFP-1019	4¾	5.00	10½″	PFP-1024	5¾	6.25
PFP-1219	5¾	5.60	12¼″	PFP-1224	6¾	7.40
PFP-1419	6¼	6.20	14″	PFP-1424	7¼	8.00
PFP-1519	6¾	6.80	15¾″	PFP-1524	7¾	8.90
PFP-1719	7¼	7.25	17½″	PFP-1724	8¼	9.50
PFP-1919	7¾	7.95	19¼″	PFP-1924	8¾	10.50
PFP-2119	8¾	8.50	21″	PFP-2124	9¾	11.25
PFP-2619	10¾	10.00	26¼″	PFP-2624	11¾	13.00
PFP-2819	11¾	11.00	28″	PFP-2824	12¾	14.25

ALL PRICES F.O.B. BRONX, N. Y. 10474

PREM-Ō-RAK® MODULAR CONSOLE SYSTEM

WRITING WORK SHELVES

- Made Of No. 16 Gauge Steel
- Tops Of Front And Rear Are Rounded
- Shipped Knocked Down • Finished In Gray Hammertone
- Supplied With Channels And Brackets For Mounting To Inside of Frames


SUPPLIED WITH 3½"HIGH FORMED PANEL
end panel
end panel
REQUIRES 3½" PANEL SPACE WHEN USED ON FA OR FS FRAMES

NOTE:
Top of shelf can be modified to accept one piece multiple width Formica panel when used in multiple installations.

DESIGNED FOR SINGLE OR MULTIPLE INSTALLATION

22" WIDE — 3" HIGH

To Fit 22" DEEP FRAMES					To Fit 25½" DEEP FRAMES		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Top Panel Space	Depth	Cat. No.	Shpg. Wt. Lbs.	Net Price
WW-15-22	11	$37.80	10½" x 19"	15"	WW-15-255	12	$38.60
WW-18-22	12	39.70	14" x 19"	18½"	WW-18-255	13	40.50
WW-22-22	13	41.58	17½" x 19"	22"	WW-22-255	14	42.38

27" WIDE

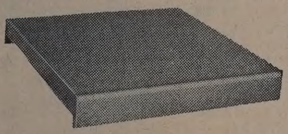
Cat. No.	Shpg. Wt. Lbs.	Net Price	Top Panel Space	Depth	Cat. No.	Shpg. Wt. Lbs.	Net Price
WW-2715-22	14	43.40	10½" x 24"	15"	WW-2715-255	15	44.26
WW-2718-22	15	44.74	14" x 24"	18½"	WW-2718-255	16	45.52
WW-2722-22	16	46.00	17½" x 24"	22"	WW-2722-255	17	46.80

END PANELS FOR WRITING WORK SHELF

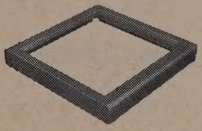
- Ball cornered • Attaches to Writing Work Shelf by means of 2 captive screws • Made of one piece of No. 18 gauge steel
- Finished in Brown Hammertone

Cat. No.	Lbs.	Used With	Net Price
CEP-15	1½	WW-15-22, 15-255; 2715-22, 2715-255	$3.75
CEP-18	2	WW-18-22, 18-255; 2718-22, 2718-255	4.00
CEP-22	2½	WW-22-22, 22-255; 2722-22, 2722-255	4.25

WORK TOPS FOR MULTIPLE ASSEMBLY — 3" HIGH



CWT Series
Solid Type



WTO Series
Open Type

- Tops of front and rear are rounded.
- Designed for mounting between two Pedestal Frames or when used with End Pedestal (PE Series).
- USE SHORT END PANELS (CSS Series) FOR THIS INSTALLATION.
- Made of No. 16 gauge steel.
- Finished in Gray Hammertone.

NOTE:
Top of WTO series can be modified to accept one piece multiple width Formica panel when used with pedestal frame CPF series.

WORK TOPS

Solid Type

Cat. No.	Width	Depth	Shp. Wt. Lbs.	Net Price
CWT-601	22"	22"	14	$14.00
CWT-603	27"	22"	18	16.50
CWT-601-34	22"	34¼"	20	20.80

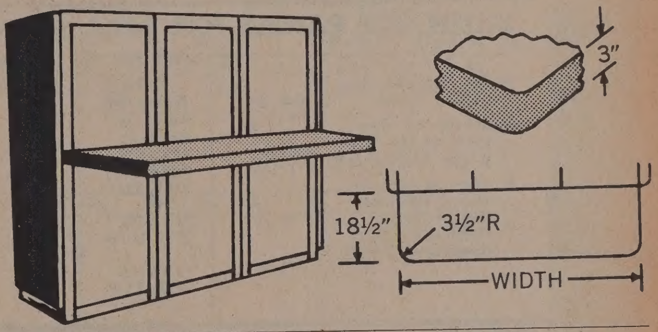
Open Type

Cat. No.	Width	Depth	Panel Space	Shpg. Wt. Lbs.	Net Price
WTO-22-22	22"	22"	17½ x 19"	9½	$28.35
WTO-27-22	27"	22"	17½ x 24"	11	34.02
WTO-22-34	22"	34¼"	29¾ x 19"	12	44.10

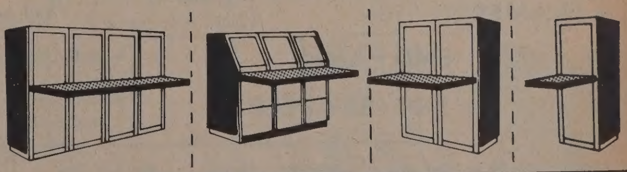
ONE PIECE FORMICA WORK WRITING SHELVES

For 22" Wide FA and FS FRAMES

- Gray linen weave Formica (2-C-1) bonded to ¾" plywood
- Other Standard Formica Colors or Patterns Available.
- 3" self edged Formica skirt on 3 sides
- Supplied with 3½ x 19" formed panel, channels and brackets



TO FIT 22" DEEP FRAMES				TO FIT 25½" DEEP FRAMES	
Cat. No.	Net Price	Depth	Width	Cat. No.	Net Price
For 1 Vertical Frame (FA or PRXA Series) or 1 Sloped Front Frame (FS Series)					
OFT-2218-22	$75.00	18½"	22"	OFT-2218-255	$76.00
For 2 Vertical Frames (FA or PRXA Series) or 2 Sloped Front Frames (FS Series) Side By Side					
OFT-4418-22	95.00	18½"	44"	OFT-4418-255	96.00
For 3 Vertical Frames (FA or PRXA Series) or 3 Sloped Front Frames (FS Series) Side By Side					
OFT-6618-22	115.00	18½"	66"	OFT-6618-255	117.00
For 4 Vertical Frames (FA or PRXA Series) or 4 Sloped Front Frames (FS Series) Side By Side					
OFT-8818-22	140.00	18½"	88"	OFT-8818-255	142.00



NOTE:
ONE PIECE Formica shelves available for use with semi-circular arrangements when used with Wedge Frames.

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PREMIER PAGE 11

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PREMIER PANELS AND DOORS

ROUNDED SIDE PANELS FOR PRXA FRAMES

Made of No. 16 Gauge Steel Finished in Gray Hammertone

1½″ DEEP

15″ WIDE FOR 18″ DEEP FRAMES

Cat. No.	Size	Shpg. Wt. Lbs.	Net Price
SP-36	42¾ x 15 x 1½″	19	$16.50
SP-42	48 x 15 x 1½″	20	17.40
SP-52	58½ x 15 x 1½″	21	19.54
SP-61	67¼ x 15 x 1½″	23	22.62
SP-70	76 x 15 x 1½″	26	24.32
SP-77	83 x 15 x 1½″	28	26.15

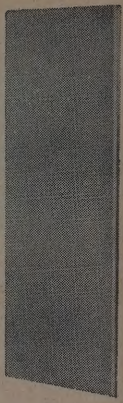
21″ WIDE FOR 24″ DEEP FRAMES

Cat. No.	Size	Shpg. Wt. Lbs.	Net Price
SP-36-24	42¾ x 21 x 1½″	21	$21.50
SP-42-24	48 x 21 x 1½″	22	22.44
SP-52-24	58½ x 21 x 1½″	25	24.58
SP-61-24	67¼ x 21 x 1½″	28	27.12
SP-70-24	76 x 21 x 1½″	31	29.18
SP-77-24	83 x 21 x 1½″	34	31.50

END PANELS — 1-11/32″ DEEP FOR FA FRAMES

- Made of one piece of 16 gauge steel.
- BALL CORNERED.
- End panels attach to frame by means of a bracket on bottom and held securely by two captive screws on top.
- Panels supplied blank. Louvres furnished at no additional charge.
- Finished in Brown Hammertone.

22″ WIDE				25½″ WIDE		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Hgt.	Cat. No.	Shpg. Wt. Lbs.	Net Price
CEP-42-22	23	$18.90	45¼″	CEP-42-255	28	$22.05
CEP-52-22	27	22.70	55¾″	CEP-52-255	32	25.85
CEP-61-22	30	25.20	64½″	CEP-61-255	35	27.75
CEP-70-22	33	27.10	73¼″	CEP-70-255	38	30.25
CEP-77-22	35	29.30	80¼″	CEP-77-255	40	32.20



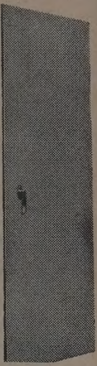
DOORS FOR FS, FA and PRXA FRAMES 13/16″ DEEP

• Made of No. 16 gauge steel • Doors can be mounted either left or right hand by rotating door 180° • Doors supplied blank. Louvres furnished at no additional charge • Doors hung on slip jointed hinges and equipped with locking handle and 2 keys • Door mounted to frame by 3 removable hinge brackets, permitting the door to be mounted either left or right hand. Handle latch bracket also supplied • Finished in Gray Hammertone. • **Specify hinged-side when doors are furnished louvred.**

21½″ WIDE				26½″ WIDE		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Shpg. Wt. Lbs.	Net Price
DF-36	17	$25.00	40 5/16″	DF-2736	23	$31.00
DF-42	20	26.40	45 9/16″	DF-2742	26	32.40
DF-52	25	29.40	56 1/16″	DF-2752	31	35.40
DF-61	28	33.60	64 13/16″	DF-2761	34	39.60
DF-70	31	36.00	73 9/16″	DF-2770	38	43.50
DF-77	34	38.40	80 9/16″	DF-2777	41	45.00

32½″ WIDE (DOUBLE DOORS with 3 Point Locking Device)

Cat. No.	Shpg. Wt. Lbs.	Height	Net Price	Cat. No.	Shpg. Wt. Lbs.	Height	Net Price	Cat. No.	Shpg. Wt. Lbs.	Height	Net Price
DF-3361	40	64 13/16″	$45.00	DF-3370	45	73 9/16″	$50.50	DF-3377	48	80 9/16″	$54.00



FLUSH SIDE PANELS FOR PRXA FRAMES — ½″ DEEP

- Fits into side recess of frame.
- Made of one piece of No. 16 gauge steel.
- Clips on to horizontal side section of frame. Finished in Gray Hammertone.

15″ WIDE for 18″ DEEP FRAMES					21″ WIDE for 24″ DEEP FRAMES			
Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each	Height	Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each
FL-36	PRXA-36	18	$14.75	42¾″	FL-36-24	PRXA-36-24	20	$19.75
FL-42	PRXA-42	19	15.66	48″	FL-42-24	PRXA-42-24	21	20.46
FL-52	PRXA-52	21	17.72	58½″	FL-52-24	PRXA-52-24	24	22.50
FL-61	PRXA-61, 2761, 3361	22	20.64	67¼″	FL-61-24	PRXA-61-24, 2761-24; 3361-24	27	24.90
FL-70	PRXA-70, 2770, 3370	25	22.26	76″	FL-70-24	PRXA-70-24, 2770-24; 3370-24	30	26.88
FL-77	PRXA-77, 2777, 3377	27	24.00	83″	FL-77-24	PRXA-77-24, 2777-24; 3377-24	33	29.00

END PANELS FOR SLOPED FRONT CONSOLE FRAME — 1-11/32″ DEEP

- Ball Cornered.
- Made of One Piece No. 18 Gauge Steel.
- End Panels Attached to Frame by Means of a Bracket on Bottom and Held Securely by Two Captive Screws on Top
- Supplied Blank; Louvres Furnished at No Additional Charge
- Finished in Brown Hammertone.

22″ WIDE

End Panels	Used for Frame	Ship. Wt. Lbs.	Net Price
CEP-1201 LH	Left side FS-1001 & 1003	20	$22.62
CEP-1201 RH	Right side FS-1001 & 1003	20	22.62
CEP-1202 LH	Left side FS-1002 & 1004	18	18.90
CEP-1202 RH	Right side FS-1002 & 1004	18	18.90

*Also available 25½″ wide.

END PANELS FOR PEDESTAL FRAMES

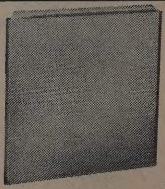
- Made of one piece of No. 18 gauge steel.
- Finished in Brown Hammertone.
- For easy installation and access, the end panels attach to pedestal frame CPF Series by means of 2 brackets on bottom and held securely with 2 captive screws on top.

END PANEL 1-11/32″ DEEP

- Ball Cornered.
- Finished in Brown Hammertone.

Cat. No.	Width*	Height	For use with	Ship. Wt. Lbs.	Net Price
CEP-401	22″	26″	CPF-101 & 103	17	$15.75
CEP-402	22″	33″	CPF-102 & 104	20	18.90
CEP-401-34	34¼″	26″	CPF-101-34	22	20.80

*Also available 25½″ wide.



SHORT END PANEL — 1-11/32″ DEEP

Used only when work top is mounted between 2 pedestal frames • Finished in Brown Hammertone.

Cat. No.	Width*	Height	For use with	Ship. Wt. Lbs.	Net Price
CSS-701	22″	23″	CPF-101 & 103	15	$10.00
CSS-701-34	34¼″	23″	CPF-101-34	18	13.20

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PREM-Ô-RAK® MODULAR CONSOLE SYSTEM

30° and 45° WEDGE FRAMES

- Designed for use in Semi-Circular Arrangements when bolted to Pedestal Frames (CPF Series) or Transmitter Rack Frames (FA Series)

NOTE: One piece Formica Shelf available for semi-circular arrangements.

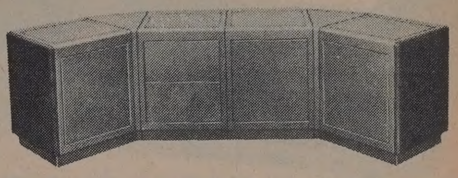
- Constructed of 16 gauge steel
- Completely welded throughout
- Supplied with formed panel on rear
- End panels (CEP Series) can be mounted to the side of wedge frames if desired
- Finished in Gray Hammertone

30° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-30-42-22	48⅝″	22″	F-42-22	$122.10
WED-30-52-22	59⅛″	22″	F-52-22	132.00
WED-30-61-22	67⅞″	22″	F-61-22	138.60
WED-30-70-22	76⅝″	22″	F-70-22	148.50
WED-30-77-22	83⅝″	22″	F-77-22	155.10
WED-30-42-255	48⅝″	25½″	F-42-255	146.50
WED-30-52-255	59⅛″	25½″	F-52-255	154.44
WED-30-61-255	67⅞″	25½″	F-61-255	158.40
WED-30-70-255	76⅝″	25½″	F-70-255	171.60
WED-30-77-255	83⅝″	25½″	F-77-255	178.20

45° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-45-42-22	48⅝″	22″	F-42-22	$125.40
WED-45-52-22	59⅛″	22″	F-52-22	135.30
WED-45-61-22	67⅞″	22″	F-61-22	141.90
WED-45-70-22	76⅝″	22″	F-70-22	151.80
WED-45-77-22	83⅝″	22″	F-77-22	158.40
WED-45-42-255	48⅝″	25½″	F-42-255	149.82
WED-45-52-255	59⅛″	25½″	F-52-255	157.30
WED-45-61-255	67⅞″	25½″	F-61-255	161.70
WED-45-70-255	76⅞″	25½″	F-70-255	174.90
WED-45-77-255	83⅝″	25½″	F-77-255	181.50



30° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-30-101	29½″	22″	CPF-101 & 103	$102.30
WED-30-102	36½″	22″	CPF-102 & 104	108.90

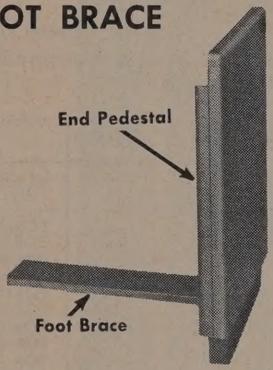
45° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-45-101	29½″	22″	CPF-101 & 103	$105.60
WED-45-102	36½″	22″	CPF-102 & 104	112.20

END PEDESTAL and FOOT BRACE

FOR DOUBLE UNIT ASSEMBLY

- Made of No. 18 gauge steel
- Ball cornered
- End Pedestal mounts to Work Top CWT Series or WTO Series. Foot Brace mounts to Pedestal Frame CPF Series and End Pedestal PE-901
  - Foot Brace can be mounted between two Pedestal Frames (CPF Series).
- Finished in Brown Hammertone

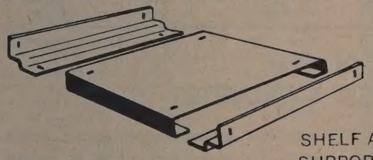


END PEDESTAL

Cat. No.	Depth	Height	Shpg. Wt. Lbs.	Net Price
PE-901	22″	29½″	25	$31.50
PE-901-34	34¼″	29½″	30	47.25

FOOT BRACE

Cat. No.	Shpg. Wt. Lbs.	Used With	Net Price
FB-801	3	22″ Wide Work Tops	$8.92
FB-802	3½	27″ Wide Work Tops	9.64

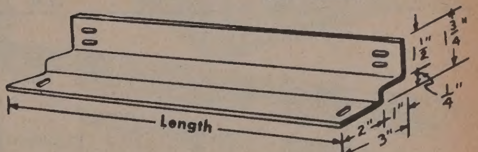


SHELF AND CHASSIS SUPPORT ANGLES IN POSITION

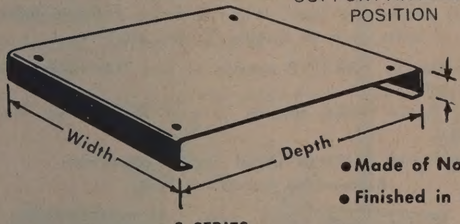
CHASSIS SUPPORT ANGLES

- Made of No. 12 ga. steel
- Accommodates Shelf (S Series)
- Finished in Gray Hammertone
- Mounts to tapped holes on side legs of Panel Mounting Angles of FA & PRXA series.

CSA SERIES



Cat. No.	Length	To Fit Frames	Net Price Pair
CSA-18	16⅛″	18″ deep PRXA	$4.50
CSA-22	20⅛″	22″ deep FA	5.00
CSA-24	22⅛″	24″ deep PRXA	5.25
CSA-255	23⅝″	25½″ deep FA	5.50



S SERIES

SHELVES

- Made of No. 16 Gauge Steel
- Finished in Gray Hammertone

Cat. No.	Depth	Width	To Fit Frames		Net Price
S-22-22	20⅜″	17½″	22″ W x 22″ D	FA	$3.93
S-27-22	20⅜″	22½″	27″ W x 22″ D	FA	5.10
S-22-255	23⅞″	17½″	22″ W x 25½″ D	FA	4.62
S-27-255	23⅞″	22½″	27″ W x 25½″ D	FA	5.82
S-22-18	16⅜″	17½″	22″ W x 18″ D	PRXA	3.39
S-27-18	16⅜″	22½″	27″ W x 18″ D	PRXA	4.14
S-33-18	16⅜″	28½″	33″ W x 18″ D	PRXA	5.58
S-22-24	22⅜″	17½″	22″ W x 24″ D	PRXA	4.38
S-27-24	22⅜″	22½″	27″ W x 24″ D	PRXA	5.58
S-33-24	22⅜″	28½″	33″ W x 24″ D	PRXA	6.84

PANEL MOUNTING ANGLES—1¼″ x 1¼″

Made of #12 Ga. (.104) thick steel punched and tapped 10—32 on E.I.A. spacings (⅝-⅝-½) on both legs. Finished in Grey Hammertone.

PANEL MOUNTING ANGLES			TO FIT RACKS
Cat. No.	Height	Net Price Pr.	
PMA-212-12	21″	7.60	CPF-101 and 103
PMA-282-12	28″	10.00	CPF-102 and 104
PMA-362-12	36¾″	11.55	PRXA, RMA, & FD-36 series
PMA-422-12	42″	13.20	FA, PRXA, FS, RMA & FD—42 series
PMA-522-12	52½″	15.20	FA and PRXA—52 series
PMA-612-12	61¼″	16.50	FA, PRXA, RMA & FD—61 series
PMA-702-12	70″	18.50	FA, PRXA, RMA & FD—70 series
PMA-722-12	77″	20.00	FA, PRXA, RMA & FD—77 series

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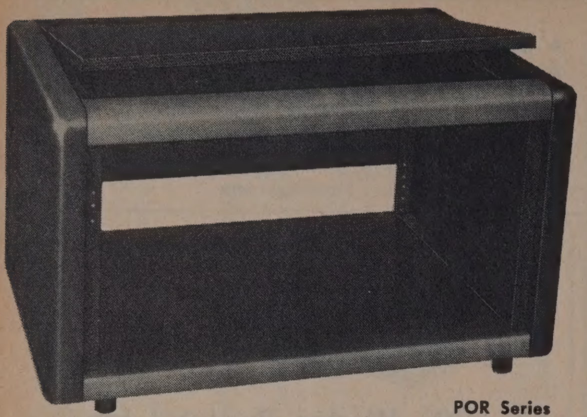
PREM-O-RAK® DESK CABINET RACKS



POR Series

BOTH FRONT AND REAR OF TOP HAVE ATTRACTIVE BALL CORNERS.

THE ARISTOCRAT OF DESK CABINET RACKS

Available in 24 different sizes—
from 3½" to 35" panel spaces

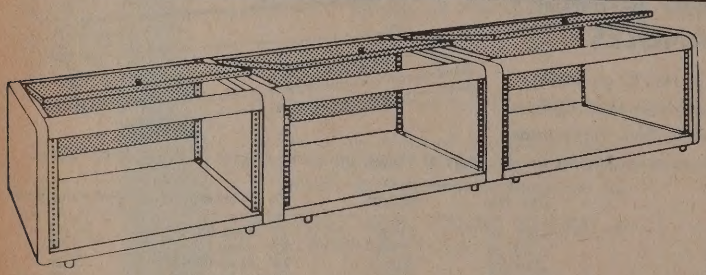
Both 15½" and 18" deep for standard 19" panels

Modifications Available For Customized Requirements
FOR POR SERIES

- Solid top panel
- Solid rear panel
- Full rear panels-solid or perforated
- Drop handles (HW-5) welded to sides
- Recessed handles on sides
- Unit can be supplied completely welded
- Special finishes
- Holes and cutouts in sides and base.

- All screws for assembling PREM-O-RAK are not visible from the outside.
- Both front and rear verticals are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½") so that panels may be mounted on both front and rear if desired.
- Interlocking removable top made of perforated metal and held in place by only one captive screw.
- Interlocking removable rear panel made of perforated metal and held in place by two captive screws.
- Rigidly constructed of #16 gauge steel.
- Rear Panel has 3½" opening on bottom for leads, etc., except on POR-3, 318, 5, 518.
- Panels fit into ½" recess.
- Base supplied with four rubber feet.
- Components may be mounted on base before assembly of rack into a complete unit.
- HANDSOMELY FINISHED IN TWO-TONE HAMMERTONE.
  Top cross braces and base are Gray Hammertone.
  Top and rear panel and side panels are Brown Hammertone.

15¼" DEEP				ALL CABINETS ARE 21¾" WIDE		18" DEEP			
Catalog No.	Shp. Wt. Lbs.	Use Slide Length	Net Price	Overall Height	Panel Space	Catalog No.	Ship. Wt. Lbs.	Use Slide Length	Net Price
POR-3	18	14"	$25.10	5⅞"	3½"	POR-318	20	16"	$26.40
POR-5	20	14"	26.40	7⅝"	5¼"	POR-518	22	16"	29.10
POR-7	22	14"	27.75	9⅜"	7"	POR-718	24	16"	30.70
POR-8	24	14"	29.10	11⅛"	8¾"	POR-818	26	16"	32.25
POR-10	26	14"	33.30	12⅞"	10½"	POR-1018	29	16"	36.75
POR-12	28	14"	36.05	14⅝"	12¼"	POR-1218	31	16"	40.00
POR-14	32	14"	40.20	16⅜"	14"	POR-1418	35	16"	44.35
POR-17	40	14"	47.85	19⅞"	17½"	POR-1718	44	16"	52.70
POR-21	44	14"	52.00	23⅜"	21"	POR-2118	48	16"	57.55
POR-26	45	14"	56.15	28⅝"	26¼"	POR-2618	49	16"	61.85
POR-31	50	14"	58.90	33⅞"	31½"	POR-3118	55	16"	65.65
POR-35	55	14"	62.40	37⅜"	35"	POR-3518	60	16"	68.80



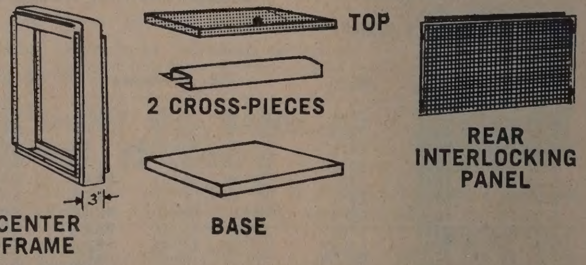
Above unit is one Triple POR-8 which consists of one POR-8 two MOR-8

MULTIPLE SECTION FOR PREM-O-RAK DESK CABINETS

PREM-O-RAK DESK CABINETS can be joined together to make multiple units by means of a center frame section which is bolted to the top cross pieces and base. When ordering multiple units specify number of units, such as Double, Triple, etc.

EXAMPLE: One Double POR-1218 consists of one POR-1218 and one MOR-1218.
One Triple POR-8 consists of one POR-8 and two MOR-8.

EACH MULTIPLE SECTION (MOR Series) comprises 6 pieces as shown.



15¼" DEEP					18" DEEP		
Cat. No.	Ship. Wt. Lbs.	Net Price	Overall Height	Panel Space	Cat. No.	Ship. Wt Lbs.	Net Price
MOR-3	16	$17.60	5⅞"	3½"	MOR-318	18	$18.50
MOR-5	17	18.50	7⅝"	5¼"	MOR-518	19	20.40
MOR-7	18	19.40	9⅜"	7"	MOR-718	20	21.60
MOR-8	19	20.40	11⅛"	8¾"	MOR-818	21	22.70
MOR-10	20	23.40	12⅞"	10½"	MOR-1018	23	25.85
MOR-12	21	25.30	14⅝"	12¼"	MOR-1218	24	27.80
MOR-14	23	28.20	16⅜"	14"	MOR-1418	26	31.10
MOR-17	31	33.55	19⅞"	17½"	MOR-1718	34	37.00
MOR-21	33	36.45	23⅜"	21"	MOR-2118	37	40.30
MOR-26	34	39.40	28⅝"	26¼"	MOR-2618	38	43.35
MOR-31	36	41.25	33⅞"	31½"	MOR-3118	40	46.00
MOR-35	40	43.70	37⅜"	35"	MOR-3518	44	48.20

ALL PRICES F.O.B. BRONX, N. Y. 10474

SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FANS

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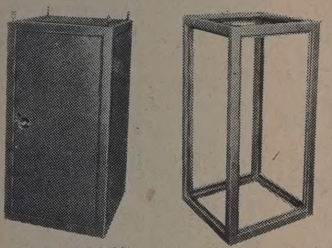
PREMIER HEAVY DUTY RACKS

FOR 19", 24" AND 30" RACK PANELS — 18" AND 24" DEEP

- Rigidly constructed of #16 gauge steel with a #12 gauge steel bottom and welded throughout.
- Panel mounting angles are 3/16" thick and are tapped 10-32 on E.I.A. spacings (5/8-5/8-1/2).
- Rear doors are hung on sturdy slip-jointed hinges and closed by a chrome handle. Locking handle with 2 keys available at additional cost.
- Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- A rectangular cut-out is made in the bottom for leads ,etc.
- RMA-7030 Rack supplied with double rear doors and with a 3-point locking device.
- FD Series are furnished with locking handle and 2 keys on Front Door.
- **All racks are supplied without louvres on sides unless specified.**
- Vertical rounded corner "J" type moldings are supplied with RMA series.
- When joining RMA racks for multiple installation, specify amount of center "U" type moldings (supplied at no additional cost). EXAMPLE: Three RMA-3619 requires two "J" and two "U" moldings.
- Tops and bottoms are trimmed with red striped chrome moulding.
- Panel mounting angles are adjustable to any distance from the front by means of channel slides.
- A Duplex Receptacle and Outlet Box are furnished in the Back Under the Door.
- Racks finished in either Black or Blue-Gray wrinkle, Gray or Brown Hammertone.
- SPECIFY COLOR WHEN ORDERING.



POC SERIES

PREM-O-CUBE Heavy Duty Cubicles

23 1/8", 28 1/8" and 34 1/8" deep for Standard 19", 24" and 30" wide panels. Panel Spaces Available: 36 7/8", 42 1/8", 61 3/8", 70 1/8", 77 1/8", 80 5/8".

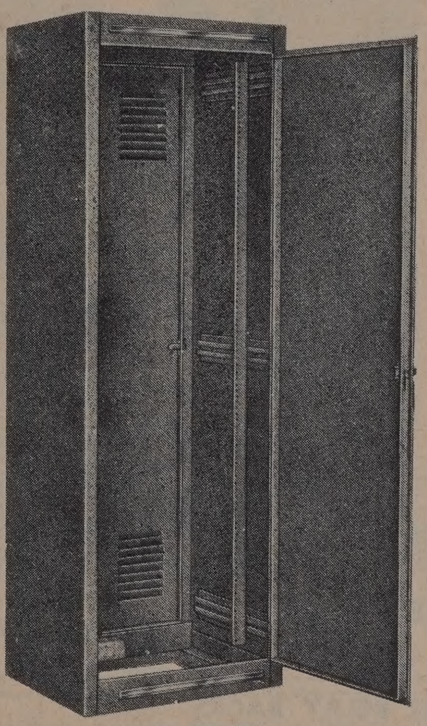
FEATURES: Frame made of No. 12 ga steel and supplied with 10-32 tapped holes on EIA spacings on both legs of all vertical uprights • Top of frame supplied with knock out in each corner to accommodate eye bolts for lifting • Top and side panels, and doors made of No. 14 ga steel and supplied with a return flange on all sides so they can be easily gasketed.
• Doors are supplied with a full length piano hinge and a flush round chrome handle with a 3 point locking arrangement. A cylinder lock can be furnished when required • Doors and/or side panels can be mounted to any of the openings of frame • Standard Color: Green Kromotex.
ACCESSORIES: • Horizontal cross pieces available so that a standard pair of panel mounting angles (PMA series) can be used for internal mounting of equipment. • Heavy duty roller truck equipped with 4" dia. casters • Eyebolts for lifting.

PREMIER Printed Circuit Card Holder

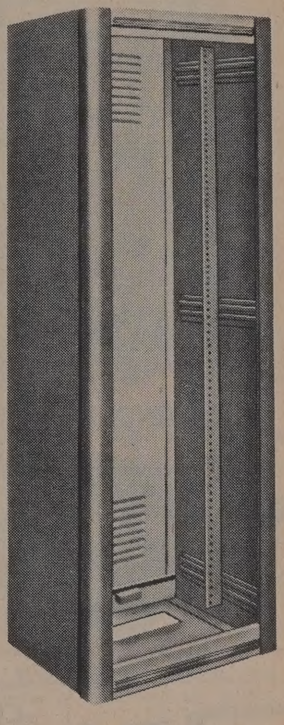
To fit Standard 19" & 24" wide racks • For 5 1/4", 7 & 8 3/4" heigh's.

PCH SERIES

• To accommodate Printed Circuit Cards from 4 1/2" to 14 1/2" deep • 19" wide holder accommodates 31 cards • 24" wide holder accommodates 39 cards • Holder is supplied with all necessary guides and hardware for assembly • The guides are positioned by inserting a tab in the rear and a push rivet in the front • The guides are adjustable on 17/32" centers • Entire unit is made of No. 16 ga. Cold Rolled steel. Guides are Cadmium Plated and colored Iridite • Frame finished in Gray Hammertone.



FD SERIES



RMA SERIES

SPECIFY COLOR WHEN ORDERING

18" DEEP RACKS

Cat. No.	Shpg. Wt. Lbs	Net Price	H & W	Panel Space	Use Slide* Length
RMA-3619	100	$ 66.15	42 7/8x22"	36 3/4x19"	16"
RMA-4219	130	78.00	48 1/8x22"	42 x19"	16"
RMA-6119	150	86.01	67 3/8x22"	61 1/4x19"	16"
RMA-7618	170	105.84	76 1/8x22"	70 x19"	16"
RMA-7719	190	109.20	83 1/8x22"	77 x19"	16"

18" DEEP RACKS WITH FRONT DOORS

Cat. No.	Shpg. Wt. Lbs.	Net Price
FD-3619	115	$102.39
FD-4219	120	108.00
FD-6119	175	115.77
FD-7019	200	132.30
FD-7719	220	142.23

24" DEEP RACKS

Cat. No.	Shpg. Wt. Lbs.	Net Price	H & W	Panel Space	Use Slide* Length
RMA-3619-24	110	$ 84.00	42 7/8x22"	36 3/4x19"	22"
RMA-4219-24	130	93.05	48 1/8x22"	42 x19"	22"
RMA-6119-24	175	122.40	67 3/8x22"	61 1/4x19"	22"
RMA-7618-24	200	132.30	76 1/8x22"	70 x19"	22"
RMA-7719-24	225	148.86	83 1/8x22"	77 x19"	22"
RMA-2742	170	120.78	48 1/8x27"	42 x24"	22"
RMA-2761	210	137.58	67 3/8x27"	61 1/4x24"	22"
RMA-2770	240	148.59	76 1/8x27"	70 x24"	22"
RMA-2777	270	165.39	83 1/8x27"	77 x24"	22"
RMA-7030	240	191.85	76 1/8x33"	70 x30"	22"

24" DEEP RACKS WITH FRONT DOORS

Cat. No.	Shpg. Wt. Lbs.	Net Price
FD-3619-24	125	$105.00
FD-4219-24	150	111.00
FD-6119-24	200	152.16
FD-7019-24	255	158.76
FD-7719-24	270	181.89
FD-2742	180	140.19
FD-2761	230	165.39
FD-2770	260	176.22
FD-2777	290	198.45

* Use Slide Adapter Kit (Cat. No. SAK-35 for rear mounting. (See page 27)

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PREMIER PAGE 15

SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FANS

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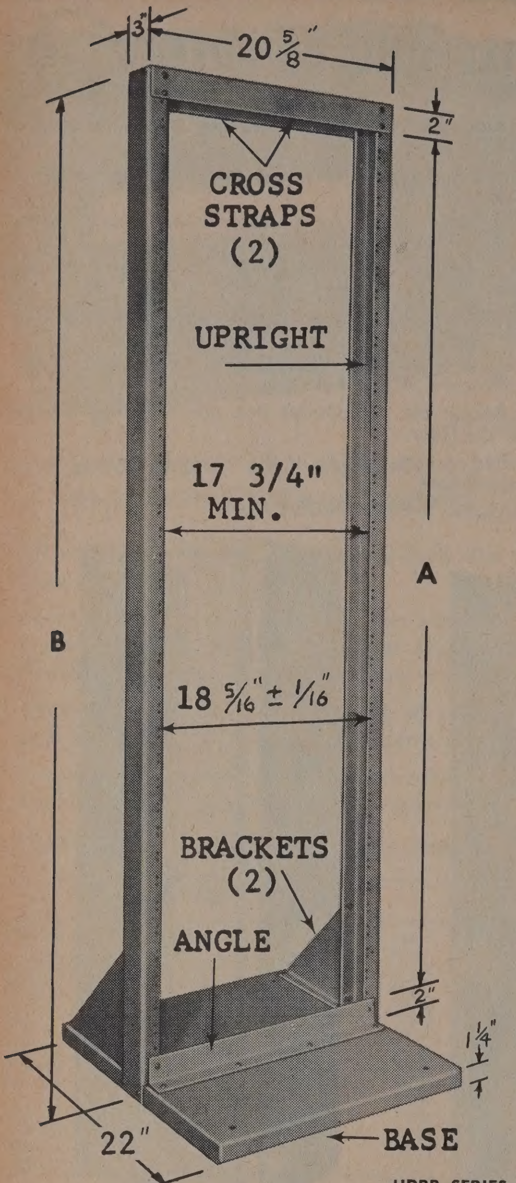
PREMIER RELAY RACKS



HDRR SERIES

HEAVY DUTY RELAY RACK

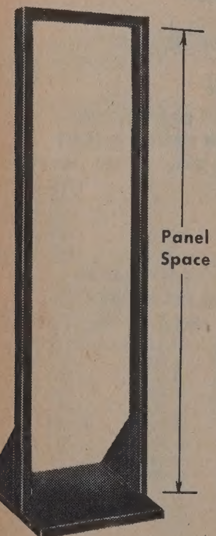
MEETS MIL-STD-189

- Uprights and top cross straps made of 3/16″ sheet steel.
- Base and Brackets made of No. 12 gauge sheet steel.
- Base angle made of 2 x 2 x 3/16″ steel.
- Panel mounting holes are tapped 10-32 on E.I.A. spacings (1¼-½″).
- Finished in Zinc Chromate Primer (MIL SPEC. 6889A).
- Shipped knocked down and assembled with ¼-20 x ¾″ long hex head cap screws and nuts.

Catalog No.	Panel Space (A)	Frame Height (B)	Net Price
HDRR-6619	66 21/32″	71 29/32″	$67.00
HDRR-7319	73 21/32″	78 29/32″	73.00
HDRR-7719	77 5/32″	82 13/32″	77.00

ALSO AVAILABLE IN HEIGHTS UP TO 10 FT.

PRICES UPON REQUEST



RR SERIES

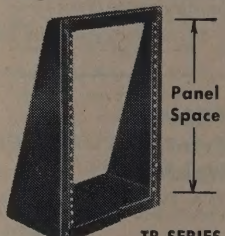
CHANNEL RELAY RACKS

- Rigidly constructed of #12 gauge cold rolled sheet steel and finished in Black Wrinkle.
- Vertical members and top crossbrace are welded together.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½″).
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Base punched to accommodate CA-4 (2″) and CA-5 (3″) casters.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
RR-800	39¼″	20″	18⅜″	36¾″ x 19″	40	$21.20
RR-801	74¼″	20″	20⅞″	71¾″ x 19″	55	25.20
RR-802	79½″	20″	20⅞″	77″ x 19″	60	29.20

NOTE: Available in Gray Hammertone at no additional cost. Add "GH" to catalog number when ordering.

TABLE TYPE RELAY RACKS



TR SERIES

- Rigidly constructed of #16 gauge cold rolled sheet steel and finished in Black Wrinkle.
- Base constructed of one piece, similar to a chassis.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½″).
- Racks are shipped knocked down with all necessary bolts for easy assembly.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
TR-2119	25″	21″	12″	21 x 19″	17	$ 8.82
TR-2819	32″	21″	12″	28 x 19″	20	11.04

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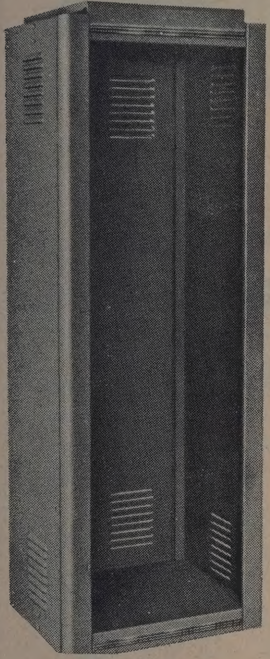
PREMIER ENCLOSED RELAY RACKS

FOR STANDARD 19" RACK PANELS

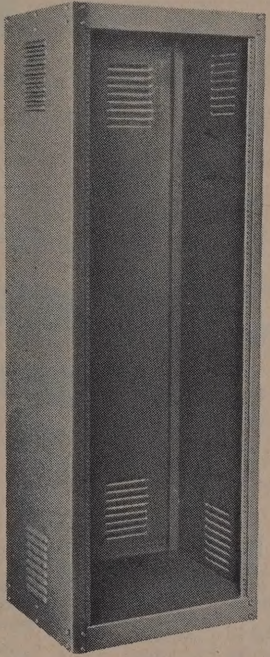
- Rigidly constructed of #16 gauge cold rolled sheet steel.
- The panel mounting angles are of #12 gauge steel and are tapped for 10-32 machine screws on E.I.A. spacings (5/8-5/8-1/2).
- Panels fit into a 5/16" recess so that the edges are not exposed.
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Rear doors are hung on sturdy slip-jointed hinges, and closed by a chrome handle. Locking handle with two keys available at additional cost.
- Holes punched in bottom to accommodate CA-4 and CA-5 casters.
- Round hole and 5 mounting holes on top of cabinets to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- STANDARD TYPE have square front vertical corners.
- DELUXE TYPE — The removable vertical corner mouldings are rounded and cover the mounting screws.
- DELUXE TYPE — Top and bottom are trimmed with red stripped chrome finished moulding.
- FRONT DOOR TYPE has front vertical rounded corners and is supplied with locking chrome handle and two keys for front door.
- Cabinets finished in either Black or Blue Gray Wrinkle, Gray or Brown Hammertone.
- SPECIFY COLOR WHEN ORDERING.

DELUXE TYPE



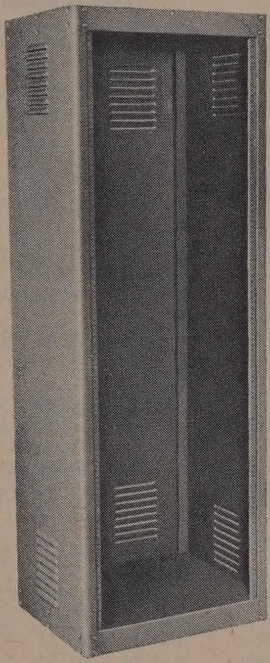
DR SERIES

STANDARD TYPE



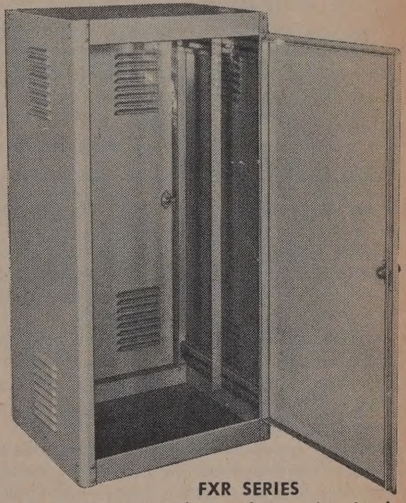
RS SERIES

ROUNDED TYPE



R SERIES

FRONT DOOR TYPE



FXR SERIES

Supplied with adjustable Panel Mounting Angles

SPECIFY COLOR WHEN ORDERING

Racks are 22" wide x 18" deep

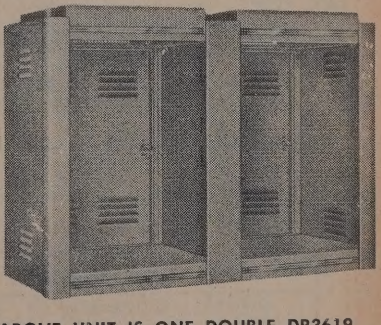
	Cat. No.	Overall Height	Panel Space	Use Slide Length*	Ship. Wt.—Lbs.	Net Price
DELUXE	DR-3619	43⅛"	36¾"	16"	85	$56.70
	DR-6119	67⅝"	61¼"	16"	135	69.30
	DR-7719	83⅜"	77"	16"	160	83.90
STANDARD	RS-3619	41⅞"	36¾"	16"	80	41.70
	RS-6119	66⅜"	61¼"	16"	120	62.10
	RS-7719	82⅛"	77"	16"	140	74.55
ROUNDED	R-3619	41⅞"	36¾"	16"	80	41.70
	R-4219	47⅛"	42"	16"	90	47.75
	R-6119	66⅜"	61¼"	16"	120	62.10
	R-7719	82⅛"	77"	16"	140	74.55
FRONT DOOR	FXR-3619	41⅞"	36¾"	16"	93	61.60
	FXR-4219	47⅛"	42"	16"	105	70.65
	FXR-6119	66⅜"	61¼"	16"	140	88.84
	FXR-7719	82⅛"	77"	16"	164	104.50

	Cat. No.	Overall Height	Panel Space	Use Slide Length*	Used With	Net Price
MULTIPLE RACK SECTIONS	DMR-3619	43⅛"	36¾"	16"	DR-3619	$56.96
	DMR-6119	67⅝"	61¼"	16"	DR-6119	68.02
	DMR-7719	83⅜"	77"	16"	DR-7719	81.18
	MR-3619	41⅞"	36¾"	16"	R&RS-3619	39.40
	MR-4219	47⅛"	42"	16"	R&RS-4219	45.45
	MR-6119	66⅜"	61¼"	16"	R&RS-6119	57.60
	MR-7719	82⅛"	77"	16"	R&RS-7719	69.95
	MXR-3619	41⅞"	36¾"	16"	FXR-3619	59.40
	MXR-4219	47⅛"	42"	16"	FXR-4219	68.45
	MXR-6119	66⅜"	61¼"	16"	FXR-6119	86.65
	MXR-7719	82⅛"	77"	16"	FXR-7719	102.50

*Use Slide Adapter Kit (Cat. No. SAK-35) for rear mounting. (See page 27)

MULTIPLE RACK UNITS

These racks can be joined together to make multiple units by means of a solid center partition which is bolted to the top and bottom. Each multiple section comprises a top, bottom, rear door and center partition. On MXR Models, front door is also supplied. When ordering multiple units, specify number of units, such as double, triple, quad, etc.



ABOVE UNIT IS ONE DOUBLE DR3619

Example:

One Double DR-3619 consists of one DR-3619 and one DMR-3619.

One Triple RS-3619 consists of one RS-3619 and two MR-3619.

One Quad R-3619 consists of one R-3619 and three MR-3619.

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SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS & FANS

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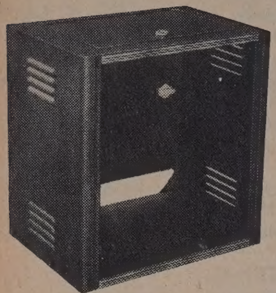
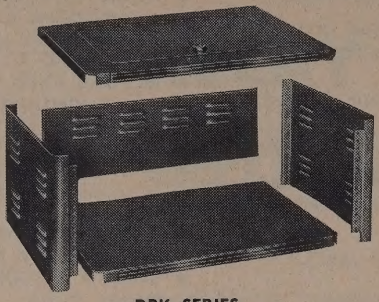
Net

PREMIER DESK CABINET RACKS

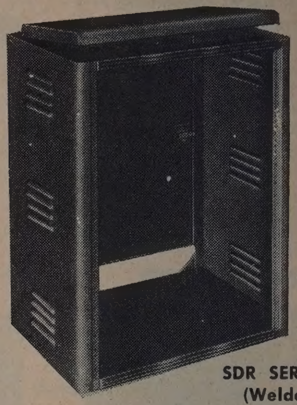
IN WELDED AND KNOCKED DOWN MODELS — BOTH 15¼" AND 18" DEEP



DCR SERIES
(Welded)



DRK SERIES
(Knocked Down)



SDR SERIES
(Welded)

MODIFICATIONS AVAILABLE FOR CUSTOMIZED REQUIREMENTS

- Omission of Chrome mouldings and moulding holes.
- Weld Drop Handles (HW-5) on sides.
- Perforated top door.
- Omission of louvres on sides and/or rear door.
- Solid top — no door.
- Cut outs or holes on sides, top, rear and base.
- Special finishes.

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome finished moulding.
- Rigidly constructed of No. 16 Ga. cold rolled sheet steel.
- Panels fit into a ¼" recess so that the edges are not exposed.
- Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (If Series) Fans, available at additional cost.
- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings (⅝-⅝-½).
- Piano type hinges are used on the top doors, which are provided with snap catches.
- Top door on Model SDR open to 90° and have a rounded front corner.
- DRK is identical to DCR except shipped knocked down with all necessary bolts for easy assembly. On these models the bolts are not visible from the outside and have the same appearance as the welded models.
- Gussets welded at bottom of rear on Models 170-350 for additional strength.
- Cabinets finished in either Black or Blue, Gray Wrinkle, Gray or Brown Hammertone.
- Specify color when ordering.

WALL MOUNTING BRACKETS

FOR MOUNTING DESK CABINET RACKS ON WALL — REMOVE REAR DOOR AND USE WALL MOUNTING BRACKETS.

Catalog No. WB-19
Net Price $2.85

Sold in sets only.
Finished in Gray Finish.
Shipping Weight 2½ lbs.

21¾" WIDE x 15¼" DEEP

	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-70	$13.90	SDR-70	$19.00	DRK-70	$13.15	8¾"	7"	22	14"
	DCR-80	14.60	SDR-80	19.75	DRK-80	13.90	10½"	8¾"	24	14"
	DCR-100	16.45	SDR-100	21.55	DRK-100	15.75	12¼"	10½"	26	14"
	DCR-120	17.80	SDR-120	22.85	DRK-120	17.05	14"	12¼"	28	14"
	DCR-140	19.75	SDR-140	24.85	DRK-140	19.00	15¾"	14"	32	14"
WITH DOOR ON TOP AND REAR	DCR-170	23.40	SDR-170	28.45	DRK-170	22.65	19¼"	17½"	40	14"
	DCR-190	24.50	SDR-190	29.65	DRK-190	23.75	21"	19¼"	42	14"
	DCR-210	25.40	SDR-210	30.75	DRK-210	24.70	22¾"	21"	44	14"
	DCR-260	27.40	SDR-260	32.55	DRK-260	26.70	28"	26¼"	45	14"
	DCR-310	28.85	SDR-310	34.00	DRK-310	28.15	33¼"	31½"	50	14"
	DCR-350	30.30	SDR-350	35.40	DRK-350	29.60	36¾"	35"	55	14"

21¾" WIDE x 18" DEEP

	Catalog No.	Net Price	Catalog No.	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-1880	$17.55	SDR-1880	$22.70	10½"	8¾"	26	16"
	DCR-18100	19.75	SDR-18100	24.85	12¼"	10½"	29	16"
	DCR-18120	21.30	SDR-18120	26.40	14"	12¼"	31	16"
	DCR-18140	23.66	SDR-18140	28.80	15¾"	14"	35	16"
WITH DOOR ON TOP AND REAR	DCR-18170	28.05	SDR-18170	33.20	19¼"	17½"	44	16"
	DCR-18190	29.40	SDR-18190	34.50	21"	19¼"	46	16"
	DCR-18210	30.45	SDR-18210	35.60	22¾"	21"	48	16"
	DCR-18260	32.86	SDR-18260	38.00	28"	26¼"	49	16"
	DCR-18310	34.65	SDR-18310	39.70	33¼"	31½"	55	16"
	DCR-18350	36.40	SDR-18350	41.50	36¾"	35"	60	16"

SPECIFY COLOR WHEN ORDERING

ALL PRICES F.O.B. BRONX, N. Y. 10474

*Use Slide Adapter Kit (Cat. No. SAK-35) for rear mounting. (See page 27)

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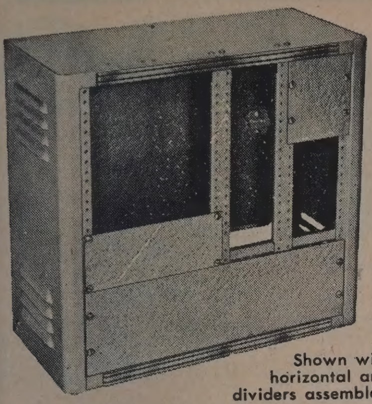
SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FANS

PREMIER Standard PRECISION BUILT METAL HOUSINGS



MDK
Series

Shown with panels, horizontal and vertical dividers assembled.

MODU-RAK®

12" DEEP MINIATURE DESK RACKS

for modular construction of test equipment

FOR STANDARD 19" RACK PANELS

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome moulding.
- Rigidly constructed of No. 16 gauge cold rolled sheet steel.
- Panels fit into a recess so that the edges are not exposed.

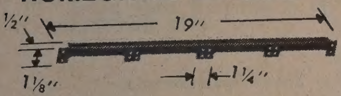
21¾" WIDE x 12" DEEP

	Catalog No.	Overall Height	Available Panel-Space	Ship. Wt. Lbs.	Net Price
WITH REMOVABLE REAR PANEL	MDK-50	7"	5¼ x 19"	16	$11.25
	MDK-70	8¾"	7 x 19"	20	11.65
	MDK-80	10½"	8¾ x 19"	21	12.35
	MDK-100	12¼"	10½ x 19"	23	14.20
	MDK-120	14"	12¼ x 19"	25	15.50
	MDK-140	15¾"	14 x 19"	29	17.50
WITH REAR DOOR	MDK-170	19¼"	17½ x 19"	36	21.25
	MDK-210	22¾"	21 x 19"	39	23.15
	MDK-260	28"	26¼ x 19"	40	25.35
	MDK-280	29¾"	28 x 19"	41	27.35

- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings.
- 6 knock-out holes are provided on top and bottom of MDK-70 through MDK 280 series to accommodate angle brackets (Cat. No. AB-2).
- Rear doors have snap catches.
- Bolts are not visible from the outside and these units have the same appearance as the welded models.
- FINISHED IN GRAY HAMMERTONE
- SHIPPED KNOCKED-DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY

ACCESSORIES FOR SUBDIVIDING MODU-RAK INTO MODULAR UNITS

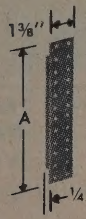
HORIZONTAL DIVIDERS



- Holes punched to accommodate vertical dividers (DV Series) which subdivides MODU-RAK into 9½" and 4¾" widths.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

Catalog No.	Dimensions	Net Price
DH-19	19" x 1⅛"	$3.42
DH-95	9½" x 1⅛"	2.80

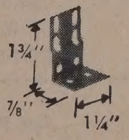
VERTICAL DIVIDERS



- Two rows of 10-32 tapped holes punched on E.I.A. Spacings.
- Made of No. 16 gauge steel.
- Finished in gray Hammertone.

Cat. No.	"A" Available Panel Mtg. Space	Net Price
DV-5	5¼"	$0.95
DV-7	7"	1.30
DV-8	8¾"	1.60
DV-10	10½"	1.95
DV-12	12¼"	2.05
DV-14	14"	2.25
DV-17	17½"	2.95
DV-21	21"	3.60
DV-26	26¼"	4.45
DV-28	28"	4.70

ANGLE BRACKETS



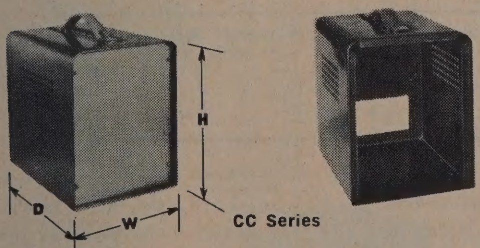
- Punched to accommodate vertical dividers.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

Cat. No.	Net Price	sold in
AB-2	$1.09 pr.	pairs only

COMPACT CABINETS

With ROUNDED CORNERS ON BOTH FRONT AND REAR OF TOP

"Customized" Design for Instrumentation



CC Series

SPECIFICATIONS

• Body made of 20 gauge steel • Front Panel made of .064 aluminum • Recessed Handle supplied on top • Perforated Sides for ventilation • Base supplied with four rubber feet • Panel fits into ½" recess • Two-inch opening in rear for leads • Finished in two tone Metallic Grey Enamel; Body — dark grey metallic; Front panel —light grey metallic • Supplied with necessary screws for assembly • Welded construction

MODIFICATIONS AVAILABLE

- Louvres on sides
- Holes and cutouts in body and panel
- Special sizes
- Special finishes

Cat. No.	Depth	Width	Height	Use Chassis	Wt. in Lbs.	Net Price
CC-2000	8"	6⅛"	8"	ACH 426 5 x 7 x 2	4	$8.35
CC-2001	8"	8⅛"	8"	ACH 403 7 x 7 x 2	5	9.10
CC-2002	8"	10⅛"	8"	ACH 404 7 x 9 x 2	6	9.75
CC-2003	12"	8⅛"	9"	ACH 405 7x11x2	7	10.60
CC-2004	18"	11⅛"	11"	ACH 415 10x17x3	10	12.70
CC-2005	18"	14⅛"	12"	ACH 423 13x17x3	11	14.50

FEATURES

- DISTINCTIVE NEW STYLING • COMPLETE VERSATILITY
- ECONOMICAL • SIX SIZES
- STURDY STEEL BODY

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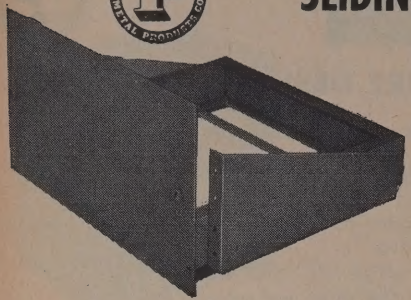
PREMIER RACK ACCESSORIES



SLIDING DRAWERS TO FIT STANDARD 19" RACKS 15" AND 18" DEEP

Panel made of #12 gauge steel; chassis of #16 steel and has a 1" flange on top and bottom to accommodate plywood for the record changer. The chassis is mounted on ball-bearing suspension siides which can sustain 40 lbs. Drawer extends 11" from front of cabinet. Entire unit mounts on angle brackets which can be bolted on to the cabinet. Supplied knocked down with all necessary bolts for easy assembly. Locks in place by means of 2 latches. Finished in Black or Blue-Gray wrinkle, and Gray or Brown Hammertone.

SPECIFY COLOR WHEN ORDERING.

Catalog No	Will Fit Rack No.	Panel Size	Chassis Size W. D. H.	Ship. Wt. Lbs.	Net Price
RD-10	R, RS, DCR-18, SDR-18, RMA & FD Models	10⅜" x 18⅞"	17" x 16" x 3"	15	$17.25
RD-12		12⅛" x 18⅞"	17" x 16" x 4"	18	19.15
RD-10-14	DCR, SDR, DRK, RMA & FD	10⅜" x 18⅞"	17" x 14" x 3"	14½	17.10
RD-12-14	R, RS, DCR-18, SDR-18 Models	12⅛" x 18⅞"	17" x 14" x 4"	17	19.00

FRONT DOORS TO FIT STANDARD 19" DESK RACK CABINETS AND ENCLOSED RACKS

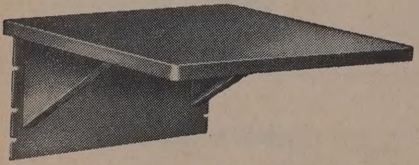
Constructed from one piece of #16 gauge steel. Two concealed piano hinges are provided with holes, punched to accommodate E.I.A. spacings and are made to fit on top of the panels. Supplied with cylinder lock and cam bracket to hold door in position. All necessary bolts furnished for easy assembly. All doors are 20½" wide x 1¼" deep. Finished in Black or Blue Gray Wrinkle, Gray or Brown Hammertone.

SPECIFY COLOR WHEN ORDERING.

FD-300-306 MODELS

Cat. No.	Will Fit Rack No.	Height	Ship Wt. Lbs.	Net Price
FD-300	DCR, DRK, SDR, 18260	26¼"	10	$14.66
FD-301	DCR, DRK, SDR, 18310	31½"	11	17.04
FD-302	DCR, DRK, SDR, 18350	35"	12	19.00
FD-303	DCR, DRK, SDR, 18120	12¼"	6	11.05
FD-304	DCR, DRK, SDR, 18140	14"	7	12.00
FD-305	DCR, DRK, SDR, 18170	17½"	8	13.04
FD-306	DCR, DRK, SDR, 18210	21"	9	14.04

DESK PANELS

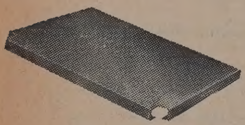


- Made of No. 16 gauge steel and bolted to a standard steel panel 10½" x 19".
- Front corners are rounded.
- Finished in Black or Blue-Gray Enamel Gray or Brown Hammertone.
- SHIPPED KNOCKED DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY.

Cat. No.	Width	Depth	Ship. Wt. Lbs.	Net Price
DP-1016	22"	16"	20	$17.90
DP-1020	22"	20"	22	18.30

RACK SHELVES

Made of one piece of #16 Ga. Cold Rolled Steel, 1" high. Holes are punched on sides for mounting to rack. Finished in Black or Blue-Gray Wrinkle, Gray or Brown Hammertone. **SPECIFY COLOR WHEN ORDERING.**



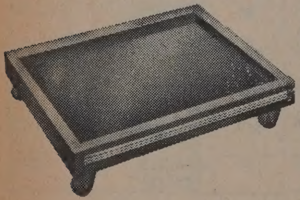
Cat. No.	Will Fit Rack No.	Shelf Size	Shp. Wt. Lbs.	Net Price
RS-1106	All 15¼" SDR and DCR Racks	12x21 9/16	7	$3.10
RS-1107	R, RS, DR, 18" deep RMA, DCR and SDR Racks	15x21 13/16	7	3.85
RS-1108	18" deep FD Racks	13x21 13/16	7	3.50
RS-1110	For 27" wide - 24" deep Racks (RMA-27 and FD-27 Series)	22x26⅞	8	7.26
RS-1111	MDK Series - 21¾" wide	10x21 9/16	6	3.00
RS-1112	For 22" wide - 24" deep Racks (RMA, FD Series)	22x21 13/16	7	6.20

CHASSIS SUPPORTS

Made of #12 gauge steel. Finished in black enamel. Sold in pairs only.

Cat. No.	Size	Ship. Wt. Lbs.	Net Price
CS-12	12 x 3 x 3"	4	$2.15
CS-14	14½ x 3 x 3"	5¼	2.35

ROLLER TRUCKS FOR RACKS



Made from 1 piece of No. 16 ga. Cold Rolled Steel. Supplied with either 2" or 3" diameter casters and bolts for easy assembly. Finished in Black or Blue-Gray Wrinkle, Gray or Brown Hammertone with a red striped chrome molding. **SPECIFY COLOR WHEN ORDERING.**

With 2" Dia Casters Cat. No.	Ship. Wt. lbs.	Net Price	Will Fit Rack No.	Inside Dimen- sions	With 3" Dia. Casters Cat. No.	Ship. Wt. lbs.	Net Price
RT-1100	22	$10.45	All 15¼" Racks	15¾ x 22¼"	RT-1100-3	24	$15.70
RT-1101	22	13.20	R, RS, DR, 18" deep FXR, RMA, FD, DCR and SDR Racks	18¾ x 22¾"	RT-1101-3	24	18.45
RT-1103	23	16.38	24" deep FD and RMA Racks	22½ x 24½"	RT-1103-3	25	21.65
RT-1110	25	24.50	RMA-27 and FD-27 Series	27½ x 24½"	RT-1110-3	27	30.00
RT-1111	30	31.50	RMA-7030	33½ x 24½"	RT-1111-3	32	36.75

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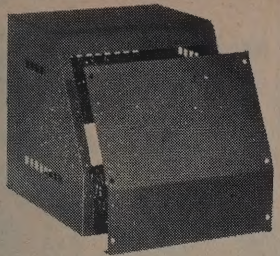
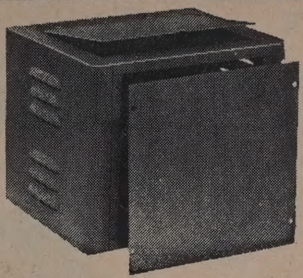
PREMIER Standard PRECISION BUILT METAL HOUSINGS



SLOPING FRONT

Cabinet has rounded top corners and a removable front panel. Back of cabinet is perforated and has opening for leads. Constructed of #20 gauge steel. Finished in Blue-Gray Wrinkle.

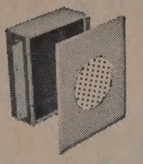
Catalog No.	H. W. D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
SFC-500	8 x 8⅛ x 8″	CH-403	6	$4.90
SFC-501	8 x 10⅛ x 8″	CH-404	7	5.45
SFC-502	8 x 14⅛ x 8″	CH-406	8	5.84
SFC-503	9 x 18⅛ x 8″	CH-409	10	8.38
SFC-504	12 x 18⅛ x 12″	CH-415	14	10.70



HINGED TOP ROUNDED CORNER TYPE

Cabinet has front vertical rounded corners and a removable front panel. Back of cabinet is louvred and has opening for leads. Constructed of #20 gauge steel. Finished in Blue-Gray Wrinkle.

Catalog No.	H. W. D.	Panel Size	Use Chassis No.	Ship Wt. Lbs.	Net Price
HTC-200	8x10 3/16x 8″	8x 8″	CH-403	6	$5.05
HTC-201	8x12 3/16x 8″	8x10″	CH-404	6½	5.45
HTC-202	8x16 3/16x 8″	8x14″	CH-406	11	7.10
HTC-203	9x17 3/16x11″	9x15″	CH-413	6½	10.96
HTC-204	12x20 3/16x12″	12x18″	CH-415	13½	12.95
HTC-205	8x14 3/16x 8″	8x12″	CH-405	7¼	6.28



RECESSED SPEAKERS BOXES AND PLATES

Designed with adjustable mounting brackets for easy installation in walls or acoustical tile ceilings. Speaker plate has beveled edges to give the same appearance as an acoustica tile, and is easily fastened to the speaker box by means of iTnnerman nuts. Box made of #20 gauge steel; plate of #16 gauge steel with perforated grille spot-welded behind the opening. Interior sprayed with special undercoating to eliminate metallic sound. Finished in grap primer.

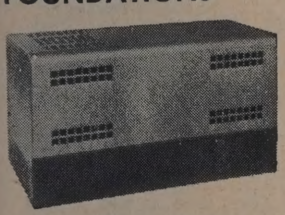
SPEAKER BOX

Catalog No.	W. H. D.	Ship. Wt. Lbs.	Net Price
SB-1010	10 x 10 x 4″	4	$5.75
SB-1012	10 x 12 x 4″	5	6.05

SPEAKER PLATE

Catalog No.	W. H.	Speaker Size	Ship. Wt. Lbs.	Net Price
SP-1212	12 x 12″	8″	2½	$2.84
SP-1214	12 x 14″	8″	3	3.04

AMPLIFIER FOUNDATIONS



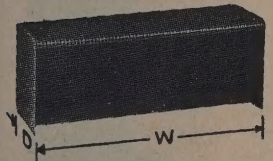
STANDARD TYPE

STANDARD TYPE

TOP COVER has perforations, rounded corners and is 6″ high. Finishd in Blue-Gray Wrinkle.

CHASSIS constructed of one piece with corners spot-welded. Finished in Black Wrinkle.

Cat. No.	Chassis Size	Ship. Wt. Lbs.	Net Price
AF-510	5″ x 10″ x 3″	5	$5.05
AF-615	6″ x 14″ x 3″	7	5.85
AF-1017	10″ x 17″ x 3″	11	7.85
AF-1317	13″ x 17″ x 3″	13	8.43



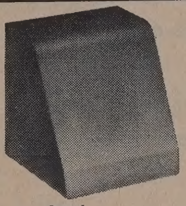
PERFORATED TYPE COVERS

PERFORATED TYPE COVERS

TOP COVER made of perforated steel and has rounded corners with solid ends. 6″ high except PC-57*. Finished in Blue-Gray Wrinkle. Supplied without chassis.

Cat. No.	W.	D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
*PC-57	7″	5″	ACH or CH-426	1	$3.40
PC-510	10″	5″	ACH or CH-401	1¾	3.45
PC-615	14″	6″	ACH or CH-402	2⅜	4.00
PC-717	17″	7″	ACH or CH-409	3	4.40
PC-1012	12″	10″	ACH or CH-412	3	4.50
PC-1017	17″	10″	ACH or CH-415	3¼	5.45

* 4″ high.

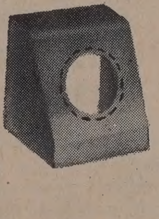


STEEL and ALUMINUM Sloping Panel Cabinets

ROUND TOP CORNERS WITH SLOPING FRONT

No. 20 gauge Steel—Black Wrinkle Finish. No. 18 gauge (.040) Aluminum—Natural Aluminum finish.

Steel Cat. No.	W. D. H.	Ship. Wt. Lbs.	Net Price	Alum. Cat. No.	Net Price
SPC-1200	4 3/16x4 1/16x4 5/16	¾	$1.20	ASPC-1200	1.51
SPC-1201	5 3/16x4 1/16x4 5/16	1	1.36	ASPC-1201	1.71
SPC-1202	6 3/16x4 1/16x4 5/16	1	1.54	ASPC-1202	1.94
SPC-1203	7 3/16x4 1/16x4 5/16	1½	1.86	ASPC-1203	2.33

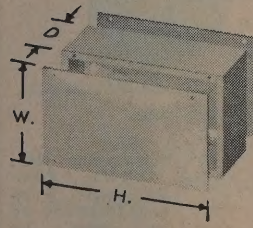


2 in 1 STEEL & ALUMINUM METER CASES

Center Hole for 2″ meter (2-3/16″ dia.) increases to 3″ (2-13/16″ dia). meter hole by simply removing a knock-out. Size: 4 3/16x4 5/16x4 1/16″. Supplied with two ½″ dia. knockouts. #20 gauge steel—Black Wrinkle Finish, #18 gauge (.040) Aluminum — Natural Aluminum Finish.

	Cat. No.	Sh. Wt.	Net Price
ALUMINUM	ASPC-23	¾	$1.66
STEEL	SPC-23	¾	1.40

UTILITY CASES



ALUMINUM

Constructed of #16 ga. (.051) aluminum with ½″ flanged edges, spot welded corners and two removable flat covers. Natural Aluminum finish or Gray Hammertone.

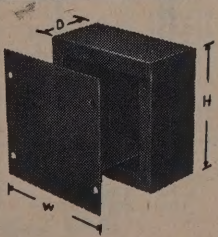
Natural Aluminum Cat. No.	Net Price	Size H. W. D.	Ship. Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AC-442	$1.40	4 4 2″	½	PAC-442	$1.55
AC-453	1.54	4 5 3″	¾	PAC-453	1.78
AC-564	1.82	5 6 4″	1	PAC-564	2.25
AC-596	3.00	5 9 6″	1½	PAC-596	3.40
AC-666	2.10	6 6 6″	1½	PAC-666	2.35
AC-1276	4.10	12 7 6″	2¼	PAC-1276	4.55
AC-1597	5.65	15 9 7″	3½	PAC-1597	6.25
AC-695	3.00	6 9 5″	1½	PAC-695	3.40

STEEL

Constructed of #20 ga. sheet steel with ½″ flanged edges, spot welded corners, and two removable flat covers. Finished in Black Wrinkle.

Catalog No.	H.	W.	D.	Ship. Wt. Lbs.	Net Price
C-442	4″	4″	2″	⅞	$1.05
C-453	4″	5″	3″	1¼	1.25
C-564	5″	6″	4″	1¾	1.45
C-596	5″	9″	6″	3	2.25
C-666	6″	6″	6″	2¼	2.00
C-695	6″	9″	5″	3	2.25
C-754	7″	5″	4″	2	1.60
C-8101	10″	10″	8″	6	3.75
C-1276	12″	7″	6″	4½	3.15

STEEL UTILITY CASES WITH CHASSIS ATTACHED



Made of #20 gauge steel with a chassis spot welded to front panel. Front and rear panels are removable. Finished in black wrinkle.

Catalog No.	Height	Width	Depth	Chassis Size	Ship. Wt. Lbs.	Net Price
CA-1400	4″	4″	2″	1 x 2⅞ x 1⅞″	1	$1.35
CA-1401	4″	5″	3″	1 x 3⅞ x 2⅞″	1¼	1.60
CA-1402	5″	4″	3″	1¼ x 2⅞ x 2⅞″	1¼	1.60
CA-1403	6″	5″	4″	1¾ x 3⅞ x 3⅞″	2	2.00
CA-1404	5″	6″	4″	1¼ x 4⅞ x 3⅞″	2	2.00
CA-1405	6″	6″	6″	1¾ x 4⅞ x 5⅞″	3	2.10

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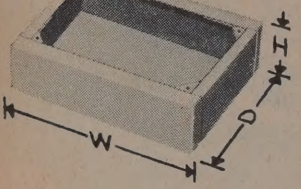
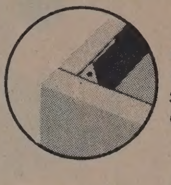
PREMIER STEEL and ALUMINUM CHASSIS

STEEL and ALUMINUM BLANK



EXCLUSIVE PREMIER FEATURE!


View of Chassis Showing Gusset Spot-Welded in Corner.

Chassis are of one piece construction with gussets spot-welded to the bottom flanges for additional strength. Corners have rounded effect and single inside thickness for mounting components. Bottom edges are flanged in on four sides and punched for bottom plates.

Steel chassis are made of No. 20 gauge cold rolled steel, except those marked * which are of No. 16 gauge. Steel chassis are finished in either Black Wrinkle or Zinc Plated. Zinc plated furnished if finish is not specified.

Aluminum chassis are made of No. 18 gauge (.040) aluminum, except those marked * which are of No. 14 gauge (.064). Natural Aluminum Finish.

ALUMINUM			Size			STEEL		
Cat. No.	Ship. Wt. Lbs.	Net Price	D.	W.	H.	Cat. No.	Ship. Wt. Lbs.	Net Price
ACH-400	½	$1.33	5½''	9½''	1½''	CH-400	1	$1.10
ACH-401	¾	1.52	5''	10''	3''	CH-401	1½	1.55
ACH-402	1	2.57	6''	14''	3''	CH-402	2½	1.80
ACH-403	½	1.33	7''	7''	2''	CH-403	1¼	1.30
ACH-404	½	1.39	7''	9''	2''	CH-404	1½	1.55
ACH-405	¾	1.52	7''	11''	2''	CH-405	1⅞	1.60
ACH-406	¾	1.64	7''	13''	2''	CH-406	2	1.70
ACH-407	1	2.89	7''	15''	3''	CH-407	2¾	2.00
ACH-408	1	2.36	4''	17''	3''	CH-408	2¼	1.80
ACH-409	1½	2.85	7''	17''	3''	CH-409	3⅛	2.20
ACH-410	1⅛	2.89	8''	17''	2''	CH-410	2¾	2.00
ACH-411	1½	3.00	8''	17''	3''	CH-411	5¼	2.20
ACH-412	1¼	2.68	10''	12''	3''	CH-412	2¾	2.15
ACH-413	1¼	3.40	10''	14''	3''	CH-413	3¼	2.25
ACH-414	1¼	3.26	10''	17''	2''	CH-414	3¼	2.30
ACH-415*	1⅞	3.65	10''	17''	3''	CH-415*	6	2.60
ACH-416*	2	4.20	10''	17''	4''	CH-416*	7½	2.90
ACH-417*	1¾	3.48	11''	17''	2''	CH-417*	5¼	3.15
ACH-418*	2	4.27	11''	17''	3''	CH-418*	6¼	3.45
ACH-419*	1⅞	3.81	12''	17''	2''	CH-419*	5	2.40
ACH-420*	2⅛	4.51	12''	17''	3''	CH-420*	7	2.90
ACH-421*	2⅞	4.98	12''	17''	4''	CH-421*	8½	3.15
ACH-422*	1⅞	4.02	13''	17''	2''	CH-422*	6	3.45
ACH-423*	2⅛	4.79	13''	17''	3''	CH-423*	7	4.00
ACH-424*	2½	5.48	13''	17''	4''	CH-424*	10	4.55
ACH-425	⅞	1.64	7''	11''	3''	CH-425	2¼	1.70
ACH-426	¼	1.29	5''	7''	2''	CH-426	1	1.25
ACH-427	1¼	2.91	8½''	15''	3''	CH-427	3	2.30
ACH-428	¼	1.50	5''	7''	3''	CH-428	1¼	1.30
ACH-429	¾	1.80	5''	13''	3''	CH-429	2	1.90
ACH-430	1	2.19	8''	12''	3''	CH-430	2½	2.00
ACH-431	¼	1.29	4''	6''	2''	CH-431	1	1.25
ACH-432	¼	1.33	4''	6''	3''	CH-432	1	1.25
ACH-433	⅞	1.83	7''	12''	3''	CH-433	2½	1.75
ACH-434	1	2.70	6''	17''	3''	CH-434	4	2.15
ACH-435*	2½	5.37	10''	23''	3''	CH-435*	10	3.30
ACH-436	¼	1.09	4''	6''	1½''	CH-436	¾	1.25
ACH-437	⅜	1.13	4''	8''	2''	CH-437	1	1.30
ACH-438*	3	10.79	17''	17''	4''	CH-438*	13	6.50
—	—	—	10''	17''	5''	CH-439*	8½	3.50
—	—	—	13''	17''	5''	CH-440*	11	5.15
ACH-441	1	1.68	8''	10''	2½''	CH-441	2½	1.70

*Made from No. 14 gauge (.064) aluminum.

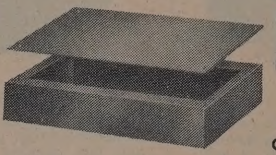
*Made from No. 16 gauge steel.

FOR BOTTOM PLATES AND CHASSIS MOUNTING BRACKETS SEE PAGE 23

ALL PRICES F.O.B. BRONX, N. Y. 10474

REMOVABLE TOP

Made of #16 Ga. Cold Rolled Steel. Top and Bottom edges flanged in on four sides. Top plate is removable. Finished in either Black Wrinkle or Zinc Plated. Zinc plated furnished if finish is not specified.



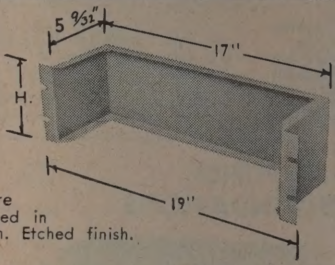
Cat. No.	Size	Ship. Wt. Lbs.	Net Price
RCH-415	10 x 17 x 3	5	$4.82
RCH-416	10 x 17 x 4	5	5.35
RCH-423	13 x 17 x 3	9	5.05
RCH-424	13 x 17 x 4	10	6.25

REPLACEMENT TOPS

Cat. No.	Size	Ship. Wt. Lbs.	Net Price
RTC-415	10 x 17	2	$1.90
RTC-423	13 x 17	3	2.30

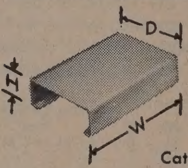
ALUMINUM VERTICAL PANEL

TO FIT 19'' STANDARD RACKS



Made of 14 gauge (.064) Aluminum. Flanges are notched for standard rack mounting. All chassis depths are 5-9/32''. Gussets are spot welded in each corner for greater strength. Etched finish.

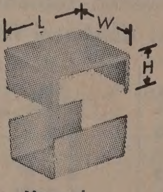
Catalog No.	Height	Ship. Wt. Lbs.	Net Price
ACH-1200	1¾''	¾	$2.55
ACH-1201	3½''	1¾	2.79
ACH-1202	5¼''	1½	3.04
ACH-1203	7''	2	3.51
ACH-1204	8¾''	2¼	4.14
ACH-1205	10½''	2¾	4.44
ACH-1206	12¼''	3	4.95
ACH-1207	14''	3¼	5.35



ALUMINUM OPEN END

Made of 18 ga. (.040) Aluminum.

Catalog No.	Depth	Width	Height	Ship. Wt. Lbs.	Net Price
ACH-1350	2⅝''	2¾''	1¼''	¼	$ .40
ACH-1351	1¾''	3⅛''	1''	¼	.44
ACH-1352	3¼''	4½''	2''	¼	.46
ACH-1353	2¾''	4⅛''	1''	¼	.46
ACH-1354	3¾''	4⅛''	1½''	¼	.46
ACH-1355	3''	6⅛''	1¼''	¼	.55
ACH-1356	5¾''	4⅞''	1½''	¼	.58
ACH-1357	4''	3⅛''	1''	½	.46
ACH-1358	4''	4⅛''	1''	½	.50
ACH-1359	4''	5⅛''	1''	½	.54
ACH-1360	4''	6⅛''	1''	½	.59



ALUMINUM MINIATURE UTILITY CASES

A two piece case made of #16 Ga. (.051) aluminum. Natural Aluminum Finish or Gray Hammertone.

Natural Aluminum Cat. No.	Net Price	L.	W.	H.	Ship Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AMC-1000*	$ .70	2¾''	2⅛''	1⅝''	¼	PMC-1000*	$ .79
AMC-1001*	.70	3¼''	2⅛''	1⅝''	¼	PMC-1001*	.79
AMC-1002*	.73	4''	2⅛''	1⅝''	¼	PMC-1002*	.83
AMC-1003	.96	4''	2¼''	2¼''	⅜	PMC-1003	1.06
AMC-1004	.99	5''	2¼''	2¼''	½	PMC-1004	1.09
AMC-1005	1.17	5''	4''	3''	½	PMC-1005	1.23
AMC-1006	1.09	5¼''	3''	2⅛''	1	PMC-1006	1.19
AMC-1007	1.39	6''	5''	4''	¾	PMC-1007	1.53
AMC-1008	1.56	7''	5''	3''	1⅛	PMC-1008	1.69
AMC-1009	2.31	8''	6''	3½''	1½	PMC-1009	2.45
AMC-1010	2.88	10''	6''	3½''	1¾	PMC-1010	3.04
AMC-1011	3.24	12''	7''	4''	2	PMC-1011	3.57
AMC-1012	3.84	17''	5''	4''	½	PMC-1012	4.20
AMC-1013	1.17	10''	2''	1⅝''	¼	PMC-1013	1.23
AMC-1014	1.53	12''	2½''	2¼''	¼	PMC-1014	1.65
AMC-1015	.93	4''	2''	2¾''	⅜	PMC-1015	1.20
AMC-1016	.96	4¼''	2¼''	1½''	¼	PMC-1016	1.06

*18 Gauge (.040)

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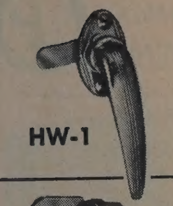
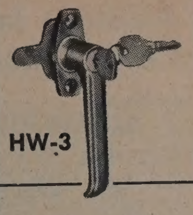
PREMIER HARDWARE


HW-1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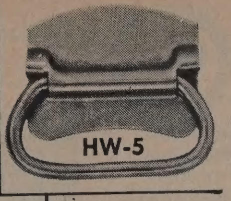
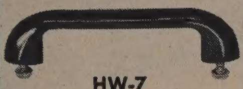
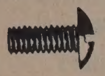

HW-5

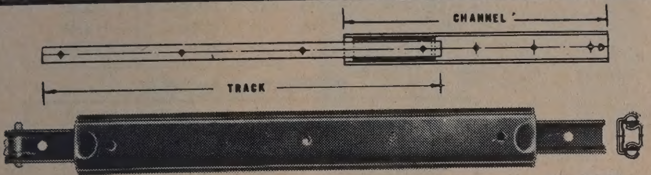
HW-6


HW-7


HW-13

Cat. No.	Item	Net Price
HW-1	NON-LOCKING HANDLE Chrome plated	$2.40
HW-3	LOCKING HANDLE with 2 keys — Chrome plated	5.10
HW-5	DROP HANDLE Finished in Black, Gray and Blue Wrinkle; Gray and Brown Hammertone	.75
HW-6	CYLINDER LOCK with 2 keys — Nickel plated	4.20
HW-7	BLACK NYLON HANDLE with 2 screws	.51
HW-13	TRUSS HEAD MACHINE SCREWS 10/32 x ¾" Nickel plated	2.00 per 100*

*Minimum Quantity



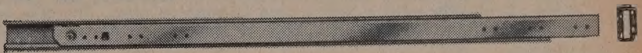
"A" SERIES

Patent No. 2,542,247

- May be mounted on side or underneath.
- Ball bearing spacer and patented silencer spring eliminates slide noise and vibration.
- All members made of 16 gauge cold rolled steel.
- Black oxidized finish.

Catalog No.	Slide Travel	Channel Length	Track Length	Load Cap.	Net Price Per Pair
A-50-13	9"	11"	13"	50	$2.80
A-40-15	11	11	15	40	2.90
A-30-165	12½	11	16½	30	3.00
A-30-185	14½	11	18½	30	3.20

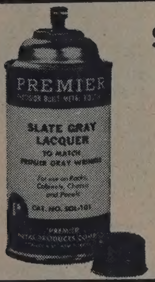
PREMIER ECONOMY SLIDES



"330" SERIES

- Side mounted.
- Each slide rolls on 2 concealed and dust-free nylon wheels.
- No metal-to-metal contact—noiseless operation.
- Drawer is tilted up for quick removal.
- Made of 16 gauge cold rolled steel and zinc plated.

Catalog No.	Slide Travel	Track Length	Channel Length	Load Cap.	Net Price Per Pair
330-62-12	7⅞"	12"	12"	62	$3.25
330-58-14	9⅞	14	14	58	3.40
330-54-16	11⅞	16	16	54	3.50
330-50-18	13⅞	18	18	50	3.70
330-46-20	15⅞	20	20	46	3.80

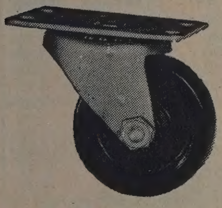


Self-Spraying LACQUER Available in 3 Colors

Cat. No.	To Match
SGL-101	Premier Blue-Gray Wrinkle
GHL-102	Premier Gray Hammertone
BHL-103	Premier Brown Hammertone

NET PRICE: $1.95 EACH 12 oz CAN

2" - 3" - 4" DIA. CASTERS



Made of non-marking composition wheel with Ball Bearing Swivel Plate. Packed one set of 4 in box with screws for assembly.

Cat. No.	Kind of Wheel	Wheel Size	Overall Height	Cap. per caster—lbs.	Net Price Set of 4
CA-4	Plaskite	2" dia. x 13/16"	2 7/16"	80	$4.25
CA-5	Rockite	3" dia. x 1¼"	3 13/16"	225	10.00
CA-6	Soft Double Rubber	2" dia. x 1⅝"	2 13/16"	125	12.00
CA-7*	Rockite	3" dia. x 1¼"	3 13/16"	225	22.00
CA-8**	Rockite	4" dia. x 1⅝"	5¼"	450	44.00

*Foot operated friction brake for positive locking wheel.
**With roller bearing wheel.

CHASSIS MOUNTING BRACKETS

- Constructed of No. 16 gauge steel.
- Finished in Black enamel.
- Sold in pairs only.

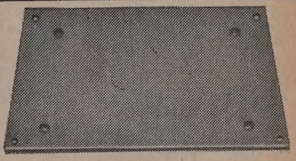
STANDARD TYPE

	Cat. No.	H.	D.	Ship. Wt. Lbs.	Net Price
Notched for 3" Chassis	CB-78	6½"	8"	1½	$1.06
	CB-710	6½"	10"	1¾	1.42
	CB-711	6½"	11"	2	1.55
	CB-712	6½"	12"	2⅛	1.66
	CB-713	6½"	13"	2¼	1.80
	CB-717	6½"	17"	3	2.80
Notched for 4" Chassis	CB-810	8½"	10"	2⅜	2.10
	CB-813	8½"	13"	3	2.22

TRIANGULAR TYPE

Cat. No.	Height	Depth	Ship. Wt. Lbs.	Net Price
TCB-55	5"	5"	1	$1.04
TCB-77	7"	7"	1	1.18
TCB-99	9"	9"	1½	1.44

ALUMINUM AND STEEL BOTTOM PLATES



The bottom plates have holes to match the chassis and have 4 pressed dimples. Steel plates made of No. 20 gauge steel, finished in either Black Wrinkle or Zinc Plated. Aluminum plates made of No. 18 gauge (.040). Natural aluminum finish.

ALUMINUM			STEEL		
Cat. No.	Net Price	Size	Cat. No.	Ship. Wt. Lbs.	Net Price
ABP-400	$0.87	5½" x 9½"	BP-400	1	$0.50
ABP-401	.87	5" x 10"	BP-401	1	.55
ABP-402	1.32	6" x 14"	BP-402	1	.75
ABP-403	.90	7" x 7"	BP-403	1	.55
ABP-404	.96	7" x 9"	BP-404	1	.60
ABP-405	1.06	7" x 11"	BP-405	1	.80
ABP-406	1.32	7" x 13"	BP-406	2	.80
ABP-407	1.32	7" x 15"	BP-407	2	.90
ABP-408	1.32	4" x 17"	BP-408	2	.85
ABP-409	1.36	7" x 17"	BP-409	2	.95
ABP-410	1.53	8" x 17"	BP-410	2	.95
ABP-412	1.50	10" x 12"	BP-412	2	.95
ABP-413	1.37	10" x 14"	BP-413	2	1.00
ABP-414	1.72	10" x 17"	BP-414	2	1.25
ABP-418	2.16	11" x 17"	BP-418	3	1.30
ABP-419	2.28	12" x 17"	BP-419	3	1.35
ABP-422	2.41	13" x 17"	BP-422	3	1.45
ABP-423	.87	5" x 7"	BP-423	1	.50
ABP-424	.99	5" x 13"	BP-424	1	.80
ABP-425	1.32	8" x 12"	BP-425	2	1.15
ABP-426	.87	4" x 6"	BP-426	1	.50
ABP-427	1.14	7" x 12"	BP-427	2	1.00
ABP-428	1.36	6" x 17"	BP-428	2	.95
ABP-429	2.55	10" x 23"	BP-429	2	2.00
ABP-430	.87	4" x 8"	BP-430	1	.50
ABP-431	2.57	17" x 17"	BP-431	4	2.10
ABP-432	2.41	8½" x 15"	BP-432	1½	1.45
ABP-433	1.14	8" x 10"	BP-433	1	1.00

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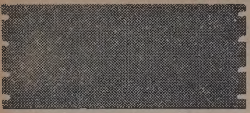
PREMIER STEEL & ALUMINUM RACK PANELS



BLANK RACK PANELS

9½" - 19" - 24" - 30" WIDTHS

REVERSIBLE

MATERIAL

Steel..#12 Ga. (.104) Cold Rolled
Aluminum...⅛" thick — 5005-H36 Alloy
Aluminum...3/16" thick — 6061-T6 Alloy

FINISH

19" wide painted panels are finished in 2 types of Reversible colors.

Reversible Wrinkle

One side is Black Wrinkle — the other side is Blue-Gray Wrinkle

— or —

Reversible Hammertone

One side is Gray Hammertone — the other side is Brown Hammertone

9½", 24" and 30" wide panels are finished on both sides in **either** Black or Blue-Gray Wrinkle, Gray or Brown Hammertone.

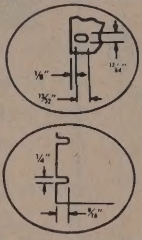
MASKED ALUMINUM PANELS

Made of bright natural aluminum covered on both sides with special self-adhesive paper. Drilling or milling can be done on paper in place, affording complete damage protection. Paper is removed simply by peeling.

NOTCHING

All panels are notched according to E.I.A. Standards and will fit any rack having multiple ⅝ - ⅝ - ½ or 1¼ - ½ spacings.

All panels have open slots except the 1¾" & 3½" high, which have closed slots for rigidity.



***NOTE: All panels are cut 1/32" less than nominal height.**

ALUMINUM

Made of ⅛" Thick Aluminum

9½" Wide

Cat. No.	Ship. Wt.	*Nominal Height	Net Price
ARP-195	¼	1¾"	$0.95
ARP-395	½	3½"	1.25
ARP-595	¾	5¼"	1.85
ARP-795	1	7"	2.25
ARP-895	1¼	8¾"	2.65
ARP-1095	1½	10½"	3.30
ARP-1295	1¾	12¼"	4.85
ARP-1495	2	14"	4.40

Modifications Available

- Panels can be notched to meet MIL-Std-189.
- ⅛" thick Aluminum Panels available in 6061T6 alloy.
- 19" wide panels can be finished in same color on both sides.
- Special Finishes.
- Special Heights.

19" WIDE

*Nominal	Masked Aluminum — ⅛" Thick			Painted Aluminum — ⅛" Thick			Painted Aluminum — 3/16" Thick			Painted Steel — No. 12 Gauge		
Height	Cat. No.	Shipping Wt. Lbs.	Net Price	Cat. No.	Shipping Wt. Lbs.	Net Price	Cat. No.	Shipping Wt. Lbs.	Net Price	Cat. No.	Shipping Wt. Lbs.	Net Price
1¾"	MAP-119	½	$ 1.06	ARP-119	½	$ 1.12	ARP-119-36	¾	$ 1.80	RP-119	1	$ .85
3½"	MAP-319	1	1.45	ARP-319	1	1.50	ARP-319-36	1½	2.35	RP-319	2	1.00
5¼"	MAP-519	1½	1.95	ARP-519	1½	2.05	ARP-519-36	2½	3.30	RP-519	3	1.20
7"	MAP-719	2	2.35	ARP-719	2	2.46	ARP-719-36	3	4.00	RP-819	4	1.40
8¾"	MAP-819	2½	2.85	ARP-819	2½	2.95	ARP-819-36	3¾	4.75	RP-719	5¼	1.70
10½"	MAP-1019	3	3.55	ARP-1019	3	3.75	ARP-1019-36	4½	6.00	RP-1019	6¼	2.05
12¼"	MAP-1219	3½	4.15	ARP-1219	3½	4.15	ARP-1219-36	5	6.95	RP-1219	7¼	2.45
14"	MAP-1419	4	4.75	ARP-1419	4	5.00	ARP-1419-36	6	8.00	RP-1419	8¼	2.82
15¾"	MAP-1519	4	5.30	ARP-1519	4	5.50	ARP-1519-36	6	8.90	RP-1519	9	3.16
17½"	MAP-1719	4¾	5.85	ARP-1719	4¾	6.10	ARP-1719-36	7	9.80	RP-1719	10½	3.50
19¼"	MAP-1919	5	6.40	ARP-1919	5	6.70	ARP-1919-36	7½	10.75	RP-1919	12	3.85
21"	MAP-2119	6	6.95	ARP-2119	6	7.50	ARP-2119-36	9	11.65	RP-2119	12½	4.25
26¼"	MAP-2619	7½	9.00	ARP-2619	7½	10.20	ARP-2619-36	11½	15.00	RP-2619	15½	6.00
31½"	MAP-3119	8½	10.50	ARP-3119	8½	13.70	ARP-3119-36	13½	17.60	RP-3119	19	7.70
35"	MAP-3519	10	12.50	ARP-3519	10	14.85	ARP-3519-36	15	20.50	RP-3519	22	9.00

24" WIDE

Aluminum — 1/8" Thick				Steel — No. 12 Gauge		
Cat. No.	Ship. Wt. Lbs.	Net Price	*Nominal Height	Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-324	1¼	$2.30	3½"	RP-324	2¼	$1.50
ARP-524	2	3.40	5¼"	RP-524	3½	1.85
ARP-724	2½	4.10	7"	RP-724	4½	2.10
ARP-824	3	4.90	8¾"	RP-824	6	2.60
ARP-1024	3½	6.15	10½"	RP-1024	7	3.10
ARP-1224	4	7.20	12¼"	RP-1224	8	3.66
ARP-1424	4½	8.25	14"	RP-1424	9	4.20
ARP-1524	5	9.15	15¾"	RP-1524	10	4.75
ARP-1724	5½	10.10	17½"	RP-1724	11	5.25
ARP-1924	6	11.05	19¼"	RP-1924	12	5.80
ARP-2124	6½	12.05	21"	RP-2124	13	6.40

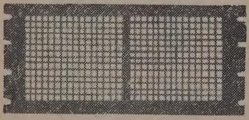
30" WIDE

Aluminum — 1/8" Thick				Steel — No. 12 Gauge		
Cat. No.	Ship. Wt. Lbs.	Net Price	*Nominal Height	Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-330	1½	$3.05	3½"	RP-330	3	$1.85
ARP-530	2¼	4.55	5¼"	RP-530	4½	2.45
ARP-730	3	5.50	7"	RP-730	6	2.80
ARP-830	3¾	6.50	8¾"	RP-830	8	3.40
ARP-1030	4½	8.20	10½"	RP-1030	9¼	3.45
ARP-1230	5	9.55	12¼"	RP-1230	10¼	4.85
ARP-1430	6	10.95	14"	RP-1430	12	5.60
ARP-1530	6½	12.25	15¾"	RP-1530	13½	6.35
ARP-1730	7	13.50	17½"	RP-1730	15	6.95
ARP-1930	7½	14.75	19¼"	RP-1930	18	7.66
ARP-2130	9	16.05	21"	RP-2130	19	8.50

PANELS — 19" WIDE FINISHED IN EITHER BLACK OR BLUE GRAY WRINKLE, GRAY OR BROWN HAMMERTONE

Made of No. 12 Gauge Steel

IF COLOR IS NOT SPECIFIED, BLACK WRINKLE IS FURNISHED.



⅜" Sq. Perforated

GRILLE PANELS

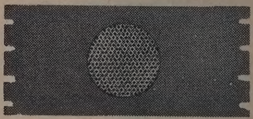
Cat. No.	Grill Size	*Nominal Height	Ship. Wt. Lbs.	Net Price
GRP-601	3⅞"x13⅜"	5¼"	2	$3.40
GRP-602	3⅞"x13⅜"	7"	2	3.64
GRP-603	5⅞"x13⅜"	8¾"	2½	4.40
GRP-604	*3⅞"x13⅜"	8¾"	2½	4.05
GRP-605	7⅞"x13⅜"	10½"	2½	4.82
GRP-606	*5⅞"x13⅜"	10½"	2½	4.40
GRP-607	*7⅞"x13⅜"	12¼"	3	5.00

* Allows 3½" space at bottom for chassis mounting.

SIDE HINGED DOOR PANELS

Can be used for left or right hand opening. Supplied with a quick turn fastener. Full height piano hinge welded to panel.

Cat. No.	Height	Net Price
SHP-319	3½"	$3.30
SHP-519	5¼"	3.44
SHP-719	7"	3.76
SHP-819	8¾"	4.04
SHP-1019	10½"	4.36
SHP-1219	12¼"	4.66
SHP-1419	14"	5.05
SHP-2119	21"	8.00



SPEAKER PANELS

A piece of perforated metal is spot-welded behind the opening.

Cat. No.	Height	Spkr. Size	Hole Size	Ship. Wt. Lbs.	Net Price
SRP-819	8¾"	6"	4⅝"	6	$3.20
SRP-1019	10½"	8"	6½"	8	4.04
SRP-1219	12¼"	10"	8½"	9	4.82
SRP-1419	14"	12"	11"	10	5.54

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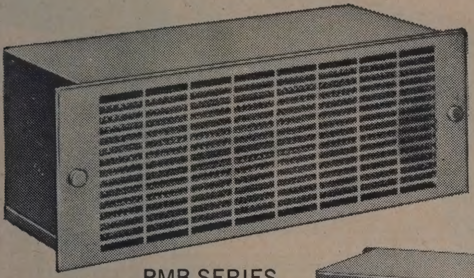
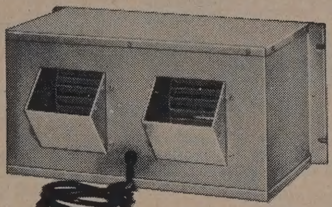
PREM-O-KOOL BLOWERS and FANS

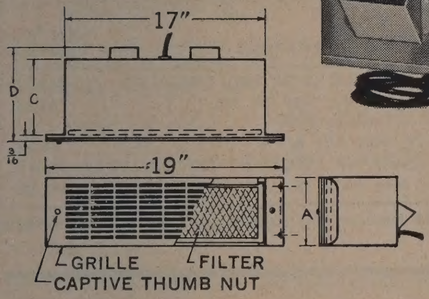
MAXIMUM COOLING with MINIMUM SPACE!



PMB SERIES



REAR VIEW



TO FIT STANDARD 19" WIDE PANEL SPACE

Units available to fit Standard 24" wide panel space. Prices upon request.

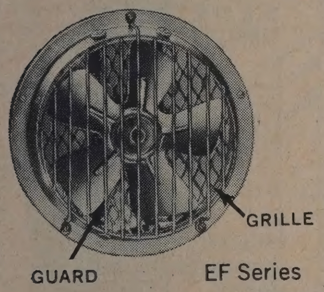
PANEL MOUNTED BLOWERS

- Permanently lubricated motors with lubricant temperature range from −29°C to +148°C.
- Permanent type washable filter—easily removable from front.
- Low noise level with minimum of vibration.
- Standard E.I.A. notching.
- Grille supplied with 2 captive thumb nuts.
- Units furnished with 3′6" lead with molded male plug.
- Performance data prepared by impartial, independent testing laboratory.
- Motors are 115 Volt 50/60 cycle, single phase AC.
- Housing and grille made of cold rolled steel and finished in gray hammer-tone.

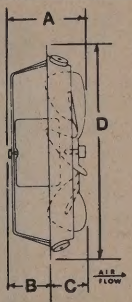
GRILLE FINISHED TO MATCH COLOR OF PREMIER CABINETS OR FRAMES AT NO ADDITIONAL COST.

CATALOG NO.	PMB-5-150	PMB-7-285	PMB-8-410*	PMB-10-750
CFM at 0" S.P.	150	285	410	750
PANEL HEIGHT (A)	5¼"	7"	8¾"	10½"
FILTER	16⅝"x4⅞" x½"	16⅝"x6¾" x½"	16⅝"x8⅜" x½"	16⅝"x10⅛" x½"
DEPTH OF ENCLOSURE ONLY (C)	6¼"	8½"	9¾"	11½"
OVERALL DEPTH including outlets and front grille (D)	7"	10¼"	11¼"	13⅜"
MOTOR				
RPM	3000	1500	1500	1500
WATTS	120	78	125	255
VOLTS	115	115	115	115
CYCLES	50/60	50/60	50/60	50/60
AMPS	1.5	1.1	1.3	2.2
TYPE	Ball Bearing shaded pole	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor
SHIPPING WT. LBS.	14	24	26	35
NET PRICE	$125.00	$150.00	$175.00	$220.00

*Supplied with grille on rear outlets.



EF Series



PREM-O-KOOL

EXHAUST and INTAKE FANS

PREM-O-KOOL fans are available for exhausting air from cabinets (EF Series) and for drawing air into cabinets (IF Series).

- Motors are 115 volts 50/60 cycle single phase AC.
- Minimum space required.
- Supplied with 18" lead.
- Fan and motor assembly shock mounted for minimum noise and vibration.
- Permanently lubricated ball bearing, shaded pole motors with low temperature rise.
- Easily interchangeable accessories for flexibility of mounting in cabinets.
- Cut-out and mounting holes for fans can be provided on any Premier rack or cabinet at slight additional cost.

Patent No. 3,019,965.
Other Patents Pending.

EXHAUST FANS

Cat. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	A		C	D	Hole Dia. Required	Net Price
EF-165	165	20	1650	6½"	2⅞"	1⅝"	1¼"	8½"	7⅜"	$50.00
EF-220	220	25	1550	6½	3¼	1⅝	1⅝	8½	7⅜	45.00
EF-300	300	65	3000	6½	4⅛	2⅝	1½	8½	7⅜	45.00
EF-400	400	46	1460	8	3⅝	1⅞	1¾	10½	9¼	54.00
EF-550	550	90	1600	9	4⅜	2⅛	2¼	11½	10⁵⁄₁₆	57.00
EF-750	750	105	1560	10	4⅜	2⅛	2¼	12½	11⁵⁄₁₆	60.00

ACCESSORIES FOR EXHAUST FANS

GUARDS

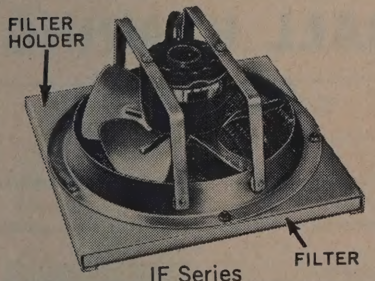
Cat. No.	Used with Fan	Dia.	Depth	Net Price
GU-6	EF165, 220, 300	6¾"	1⅞"	$2.40
GU-8	EF400	8¼	2³⁄₁₆	2.40
GU-9	EF550	9¼	2⅜	3.00
GU-10	EF750	10¼	2⅜	3.60

GRILLES

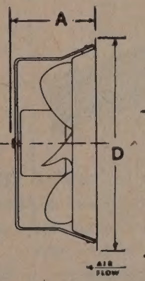
Cat. No.	Used with Fan	Dia.	Net Price
GR-6	EF165,220,300	8½"	$2.40
GR-8	EF400	10½	2.40
GR-9	EF550	11½"	3.00
GR-10	EF750	12½	3.60

SLEEVES

Cat. No.	Used with Fan	Dia.	Depth	Net Price
SL-6	EF165,220,300	8½"	1¾"	$3.60
SL-8	EF400	10½	2	3.60
SL-9	EF550	11½	2⅜	4.20
SL-10	EF750	12½	2⅜′	4.80



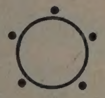
IF Series



INTAKE FANS

Cat. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	Dimensions A	Dimensions D	Hole Diam. Required	Net Price
IF-160	160	20	1650	6½"	2⅞"	8½"	7⅜"	$50.00
IF-180	180	25	1550	6½	3¼	8½	7⅜	45.00
IF-300	300	65	3000	6½	4⅛	8½	7⅜	45.00
IF-360	360	46	1460	8	3¾	10½	9¼	54.00
IF-540	540	90	1600	9	4⅜	11½	10⁵⁄₁₆	57.00
IF-740	740	105	1560	10	4⅜	12½	11⁵⁄₁₆	60.00

PREMIER CABINETS AND RACKS



FA, PRXA, RMA, R, RS, DR, DCR, DRK, SDR, POR and FXR models may be supplied with one round and 5 mounting holes to accommodate Exhaust and Intake Fans, at additional cost.

ACCESSORIES FOR INTAKE FANS

FILTERS Permanent washable type, ½" thick

Cat. No.	Used with Fan	Size	Net Price
FL-6	IF 160, 180, 300	8⅜" Sq.	$2.40
FL-8	IF 360	10⅜ Sq.	2.40
FL-9	IF 540	11⅜ Sq.	3.00
FL-10	IF 740	12⅜ Sq.	3.00

FILTER HOLDERS

Cat. No.	Used with Fan	Size	Depth	Net Price
FH-6	IF 160, 180, 300	8⁹⁄₁₆" Sq.	⅝"	$4.80
FH-8	IF 360	10⁹⁄₁₆ Sq.	⅝	4.80
FH-9	IF 540	11⁹⁄₁₆ Sq.	⅝	6.00
FH-10	IF 740	12⁹⁄₁₆ Sq.	⅝	7.20

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PREMIER PAGE 25

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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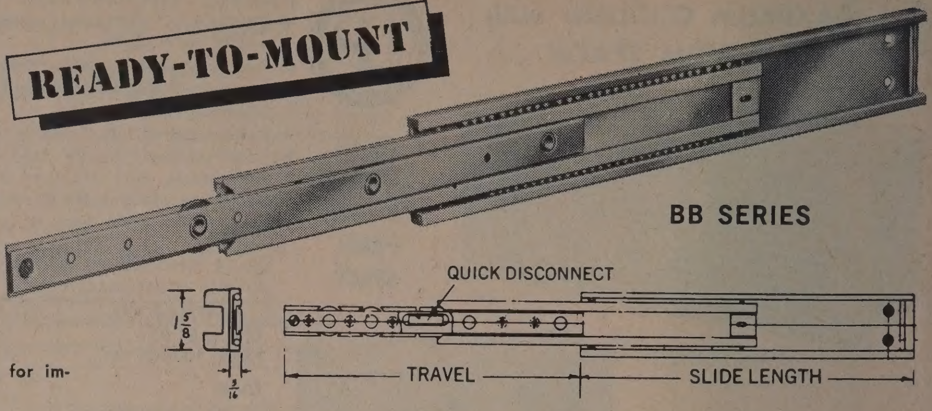
PREM-O-RAK® Standard CHASSIS SLIDES

100 lb. BALL BEARING SLIDES

READY-TO-MOUNT



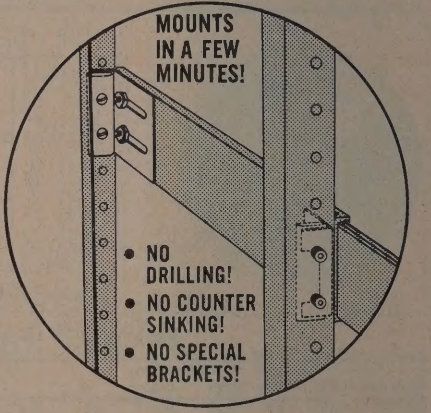
- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.
- Carries load of 100 lbs. when fully extended.
- Glides smoothly on stainless steel ball bearings.
- 5/16" horizontal side space adjustable ± 1/16.
- 1 5/8" vertical side space.
- 3 telescoping anodized aluminum members.
- Allows full accessibility for instantaneous servicing.
- Slide mounts standard 17" wide chassis.
- Slide locks in open position.
- Supplied with all necessary hardware for immediate installation.

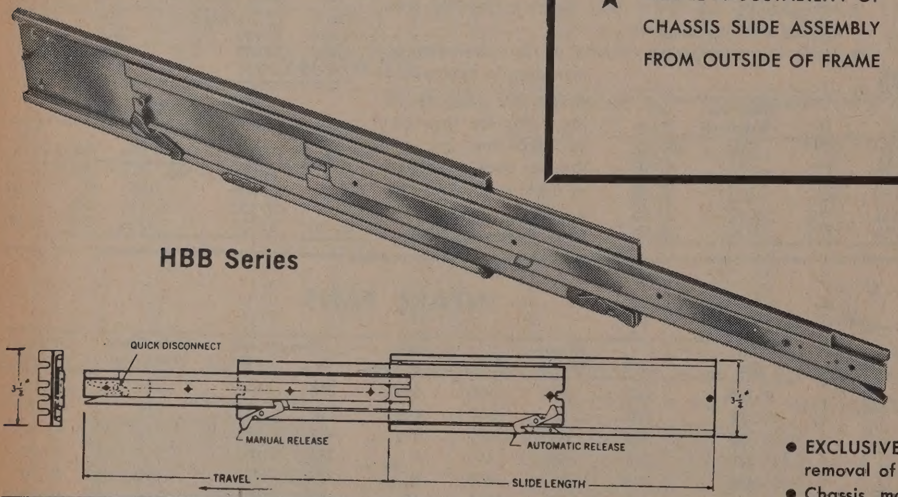
Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per Pair
BB-100-14	100	14"	13"	15¼" deep POR (DCR, SDR, DRK)*	$63.25
BB-100-16	100	16	15	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR*)	63.25
BB-100-20	100	20	19	FS, 22" deep CPF & FA	68.50
BB-100-22	100	22	21	24" deep PRXA (RMA, FD)*	69.75
BB-100-24	100	24	23	25½" deep FA & FS	71.50

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis (See page 27).

★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES

★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE OF FRAME


MOUNTS IN A FEW MINUTES!
• NO DRILLING!
• NO COUNTER SINKING!
• NO SPECIAL BRACKETS!



200 lb. HEAVY BALL BEARING SLIDES

- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.
- Chassis may be removed from side by depressing quick release lever.
- Slide locks in open position.
- ½" horizontal side space adjustable ± 3/32.
- Carries loads of 200 lbs. when fully extended.
- 3½" vertical side space.
- 4 telescoping anodized aluminum members.
- Allows full accessibility for instantaneous servicing.
- Glides smoothly on stainless steel ball bearings.
- Slide mounts standard 17" wide chassis.
- Supplied with all necessary hardware for immediate installation.

Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per Pair
HBB-200-14	200	14"	13"	15¼" deep POR (DCR, SDR, DRK)*	$81.50
HBB-200-16	200	16	15	18" deep PRXA, POR, (R, RS, RMA, FD, DCR, SDR)*	81.50
HBB-200-20	200	20	19	FS, 22" deep CPF & FA	88.75
HBB-200-22	200	22	21	24" deep PRXA, (RMA, FD)*	92.00
HBB-200-24	200	24	23	25½" deep FA & FS	94.00

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthisis (See page 27)

PREMIER PAGE 26

ALL PRICES F.O.B. BRONX, N. Y. 10474

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PREM-Ō-RAK® *Standard* CHASSIS SLIDES

READY-TO-MOUNT

SOLID BEARING SLIDES

CARRY 75 lb. and 175 lb. LOADS

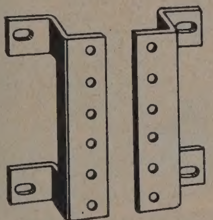
- **TILT and NON-TILT MODELS.**
- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.
- SB-75 Series carry 75 lbs. fully extended. SB-175 Series carry 175 lbs. fully extended.
- Made of high strength cold rolled steel.
- Withstands 100 hours salt spray.
- Slide mounts standard 17" wide chassis.
- 3 telescoping members allow full accessibility for instant servicing.
- SB-75 Series—.386 horizontal side space adjustable ± 1/32.

  SB-175 Series—.398 horizontal side space adjustable ± 1/32.
- Finish: Electro zinc plated, chromate treated and completely coated with Molybedenum Disulphide lubricant.
- SB-175-DL Series have detent locks which allow chassis to be tilted either up or down and locked at 90° for easy servicing.

SLIDE ADAPTER KIT

Required for rear mounting on RM, RMA, FD, RS, R, DCR, DRK, SDR and SDRK models.

- Mounts to inside rear flange by drilling 4 holes.
- Made of No. 12 gauge steel and tapped 10-32 on E.I.A. spacings (5/8-5/8-1/2).
- Finished in Gray Hammertone.



Kit includes 2 brackets, four 10-32 screws and keps.

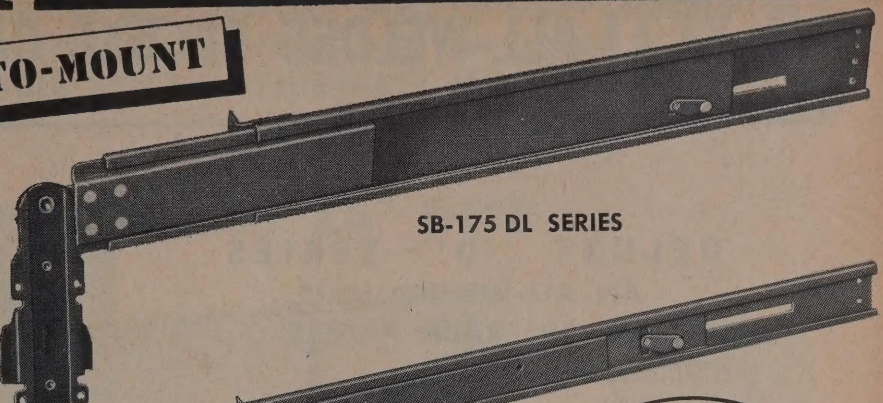
Cat. No. SAK-35 **$3.00 Net Price**

SLIDE TILTING KIT

For tilting one pair of slides. Consists of 4 special screws, lock washers and nuts.

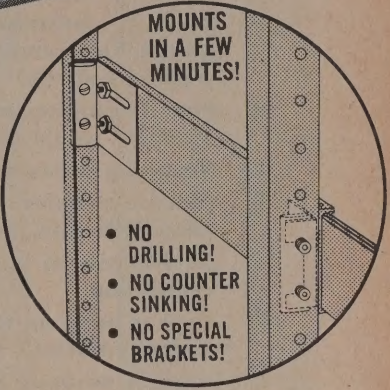
STK-75	(For SB-75 series)	**$1.50 Net Price**
STK-175	(For SB-175 series)	**1.75 Net Price**

ALL PRICES F.O.B. N. Y. 59, N. Y.



SB-175 DL SERIES

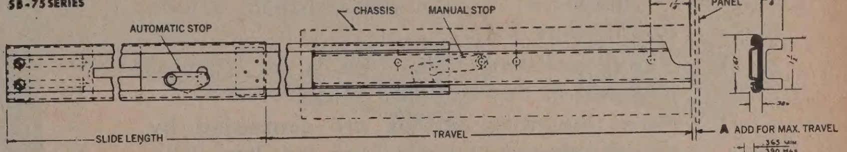
SB-75 SERIES


MOUNTS IN A FEW MINUTES!
• NO DRILLING!
• NO COUNTER SINKING!
• NO SPECIAL BRACKETS!

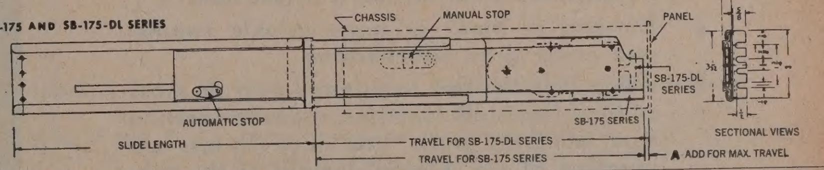
★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES

★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE OF FRAME

SB-75 SERIES

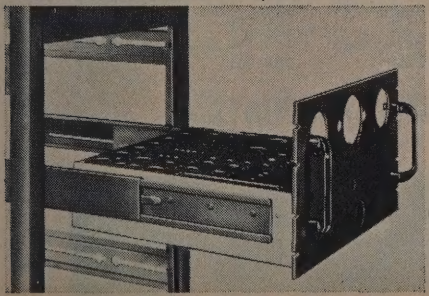

AUTOMATIC STOP
CHASSIS
MANUAL STOP
PANEL
SLIDE LENGTH
TRAVEL
A ADD FOR MAX. TRAVEL

SB-175 AND SB-175-DL SERIES

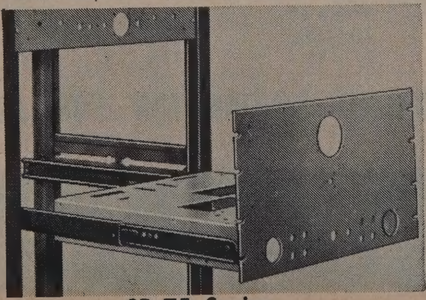

CHASSIS
MANUAL STOP
PANEL
SB-175-DL SERIES
AUTOMATIC STOP
SB-175 SERIES
SECTIONAL VIEWS
SLIDE LENGTH
TRAVEL FOR SB-175-DL SERIES
TRAVEL FOR SB-175 SERIES
A ADD FOR MAX. TRAVEL

Catalog No.	Load Rating lbs.	Slide Length	Travel Length	(A) Add for Max. Travel	Will Fit Racks	Net Price per-Pair
SB-75-14	75	14"	14½"	1"	15¼" deep POR (DCR, SDR, DRK)*	$17.50
SB-75-16	75	16	14½	3	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	17.50
SB-75-20	75	20	18½	3	FS, 22" deep CPF & FA	17.50
SB-75-22	75	22	22½	1	24" deep PRXA (RMA, FD)*	18.75
SB-75-24	75	24	22½	3	25½" deep FA & FS	19.75
SB-175-14	175	14"	14½"	1"	15¼" deep POR (DCR, SDR, DRK)*	$37.25
SB-175-16	175	16	18½	1	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	37.25
SB-175-20	175	20	22½	1	FS, 22" deep CPF & FA	37.25
SB-175-22	175	22	24	1	24" deep PRXA (RMA, FD)*	39.50
SB-175-24	175	24	26½	1	25½" deep FA & FS	40.25
SB-75-DL-14	75	14"	15"	—	15¼" deep POR (DCR, SDR, DRK)*	$40.00
SB-75-DL-16	75	16	17	—	18"d. PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	$40.00
SB-75-DL-20	75	20	21	—	FS, 22" deep CPF & FA	40.00
SB-75-DL-22	75	22	23	—	24" deep PRXA (RMA, FD)*	42.50
SB-75-DL-24	75	24	25	—	25½" deep FA & FS	44.00
SB-175-DL-14	175	14"	14½"	—	15¼" deep POR, (DCR, SDR, DRK)*	$59.00
SB-175-DL-16	175	16	18¼	—	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	59.00
SB-175-DL-20	175	20	22¼	—	FS, 22" deep CPF & FA	59.00
SB-175-DL-22	175	22	26¼	—	24" deep PRXA (RMA, FD)*	61.50
SB-175-DL-24	175	24	26¼	—	25½" deep FA & FS	63.50

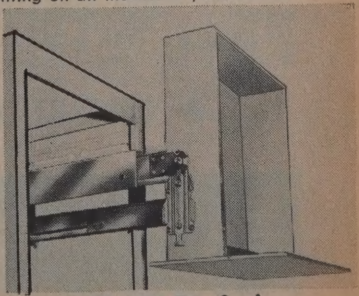
*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis.



SB-175 Series



SB-75 Series



SB-175-DL Series

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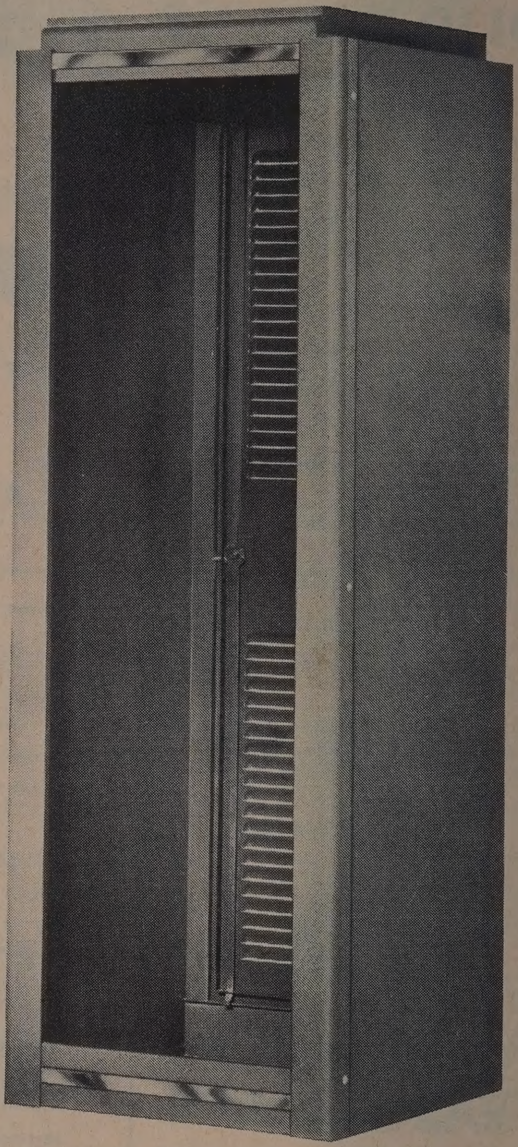
WYCO METAL PRODUCTS ALL-WELDED DELUXE CABINET RACKS



DELUXE "D" SERIES

AN ALL-WELDED UNIT FOR 19" RACK PANELS

SPECIFICATIONS:

A. Rack is constructed throughout from 16 gauge high-quality steel and is completely welded together.

B. Panel mounting angles constructed of 1½ x 1½ x ⅛" angle iron.

C. Mounting holes are tapped 10/32 thread.

D. Mounting holes are at 1¼"-½" spacings. (WESTERN ELECTRIC SPACING.)

E. Double row of louvres in rear door provide ventilation.

F. Door is hung on loose-pin hinges; it may be easily removed.

G. Door is securely locked by means of an "automotive" type highly-polished handle and linkage rods.

H. Highly polished metal trim is on front of rack at top and bottom.

I. Panel mounting screws are concealed by detachable corner vertical trim (see Item "L").

J. Finished in black or grey wrinkle enamel and silver grey hammertone.

K. When it is desired to "gang" two or more of these cabinets together, order connecting trim, using the prefix "AD" plus the last two numbers of the catalog number of the cabinet.

L. Narrow vertical trim, allowing for removal of 19" panels, without removing vertical trim, is available, upon request, at no additional charge.

RACKS — 18½" DEEP

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside width (Rear)	Clear Inside Depth	Approx. Shipping Weight	Dealer Cost
D 1869	69⅝ x 23⅝ x 18½	61¼ x 19	17⅞	19⅝	16¾	155 lbs.	$112.07
D 1878	78⅜ x 23⅝ x 18½	70 x 19	17⅞	19⅝	16¾	167 lbs.	122.73
D 1885	85⅜ x 23⅝ x 18½	77 x 19	17⅞	19⅝	16¾	180 lbs.	138.71

RACKS — 24" DEEP

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside width (Rear)	Clear Inside Depth	Approx. Shipping Weight	Dealer Cost
D 2469	69⅝ x 23⅝ x 24	61¼ x 19	17⅞	19⅝	22¼	176 lbs.	$131.61
D 2478	78⅜ x 23⅝ x 24	70 x 19	17⅞	19⅝	22¼	192 lbs.	142.26
D 2485	85⅜ x 23⅝ x 24	77 x 19	17⅞	19⅝	22¼	205 lbs.	159.97

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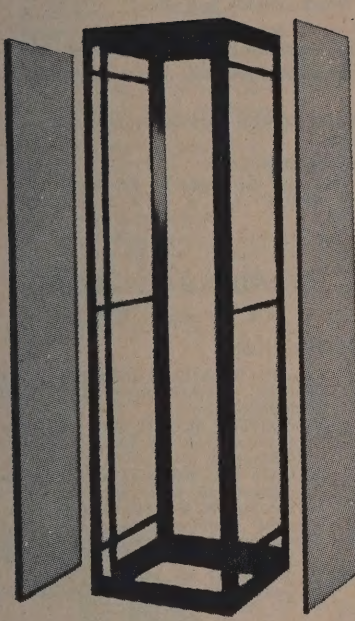
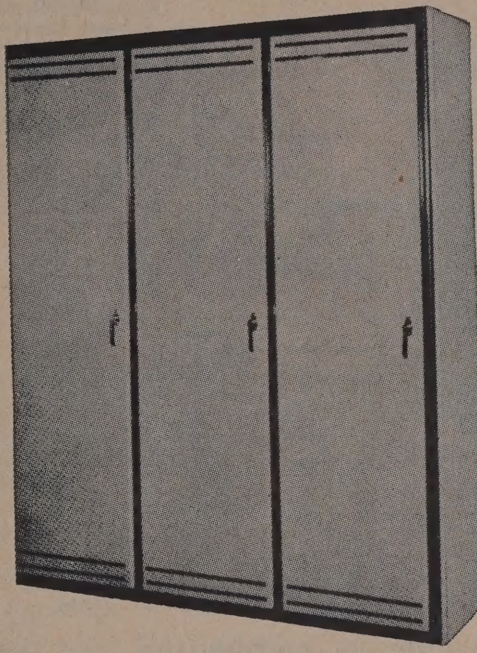
WYCO
METAL PRODUCTS

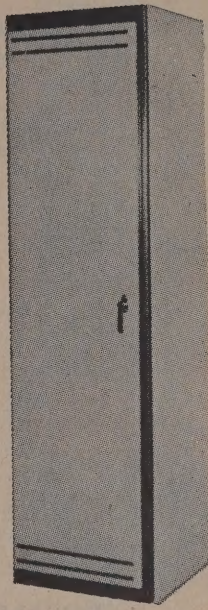
MULTIPLE RACK INSTALLATIONS

ALL-WELDED FRAME—FOR 19″ MODELS
REMOVABLE SIDES—ADJUSTABLE MOUNTING ANGLES

18″ DEEP AND 24″ DEEP







SPECIFICATIONS:

- A. Sides are removable for MULTIPLE RACK installations of two or more units.
- B. This series consists of one frame and rear door, or one frame, rear and front door.
- C. Removable sides sold separately, in pairs only.
- D. Fabricated of high-quality, heavy gauge steel and electronically welded together.
- E. Panel mounting angles are 3/16″ structural steel with mounting holes tapped 10-32 thread on 1¼″-½″ spacing.
- F. Panel mounting angles are adjustable from front to back.
- G. Highly-polished trim on doors.
- H. "Automotive" type, highly-polished handles on doors.
- I. Door can be mounted left or right hand.
- J. Bottom has cut-out for cables, leads, etc.
- K. Louvres in doors, sides and cabinet top can be added at no additional cost.
- L. A rectangular or round opening can be put into cabinet top at no additional cost.
- M. Available in primer coat, two-tone grey enamel (frame in dark grey; doors and ends in silver-grey hammertone), black or grey wrinkle.
- N. Heavy-duty Caster #RC7773 may be used with this series.

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18″ DEEP RACK

REAR DOOR ONLY					FRONT AND REAR DOOR				
Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost	Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost
RW861	67⅜″	61¼″	123	$103.28	FW618	67⅜″	61¼″	143	$122.24
RW870	76⅛″	70″	129	119.30	FW708	76⅛″	70″	152	132.71
RW877	83⅛″	77″	143	123.60	FW778	83⅛″	77″	168	145.50

24″ DEEP RACK

REAR DOOR ONLY					FRONT AND REAR DOOR				
Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost	Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost
RW461	67⅜″	61¼″	144	123.94	FW614	67⅜″	61¼″	169	$146.67
RW470	76⅛″	70″	153	143.22	FW704	76⅛″	70″	183	167.65
RW477	83⅛″	77″	169	152.03	FW774	83⅛″	77″	202	178.42

18″ DEEP REMOVABLE SIDES

Catalog No.	Approx. Shp. Wt. Pairs	Dealer Cost
RS 1861	45 lbs.	$37.88 pr.
RS 1870	50 lbs.	40.76 pr.
RS 1877	55 lbs.	43.84 pr.

24″ DEEP REMOVABLE SIDES

Catalog No.	Approx. Shp. Wt. Pairs	Dealer Cost
RS 2461	56 lbs.	$45.46 pr.
RS 2470	64 lbs.	48.88 pr.
RS 2477	70 lbs.	52.79 pr.

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WYCO
METAL PRODUCTS

ALL-WELDED CABINET RACKS

DELUXE SERIES "G" AND "DF" — STANDARD SERIES "SL" AND "S"

DESCRIPTION:

A. 16 ga. high quality steel.
B. Welded together.
C. Panel mounting angles ⅛" steel.
D. Western Electric spacing.
E. Tapped 10/32.
F. Louvres rear door.
G. Rear door hung on loose-pin hinges.
H. Rear door has flush-type latch.
I. Highly-polished trim at front, top and bottom.
J. Front corners rounded.
K. Available grey or black wrinkle and silver grey hammertone.
L. "SL" and "S" series have detachable vertical trim.
M. "G" and "DF" series panel mounting angles adjustable front to back.
N. "DF" series has front door with automotive type handle and three point catch.
O. "SL" series has louvres at sides.
P. Narrow vertical trim can be ordered for "SL" and "S" series.

SPECIFICATIONS:

Cat. No.	Overall Dim.	Panel Space	Approx. Ship. Wt. Lbs.	Dealer Cost
G 6119	67⅜" x 22" x 18"	61¼" x 19"	165	$ 99.14
G 7019	76⅛" x 22" x 18"	70" x 19"	185	111.56
G 7719	83⅛" x 22" x 18"	77" x 19"	195	123.92
DF 1961	67⅜" x 22" x 18"	61¼" x 19"	185	123.92
DF 1970	76⅛" x 22" x 18"	70" x 19"	200	142.22
DF 1977	83⅛" x 22" x 18"	77" x 19"	210	154.64
SL 1842	42⅞" x 21⅛" x 18"	36¾" x 19"	107	71.13
SL 1867	67⅜" x 21⅛" x 18"	61¼" x 19"	145	92.08
SL 1883	83⅛" x 21⅛" x 18"	77" x 19"	177	116.86

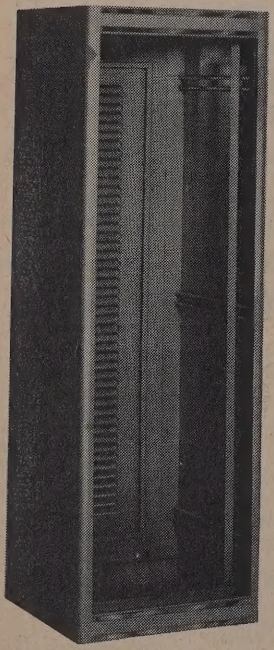
STANDARD "S" SERIES

FOR 19" RACK PANELS

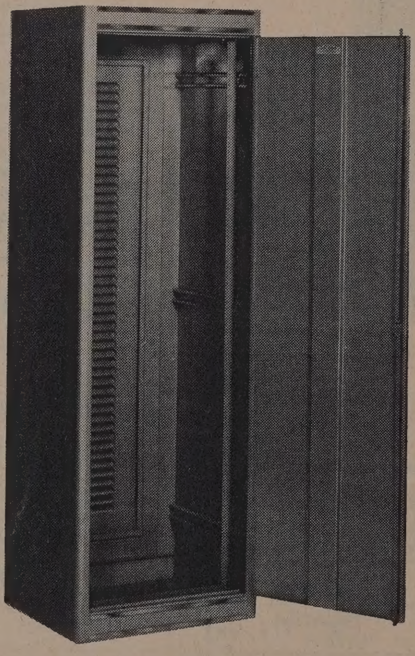
SPECIFICATIONS:

A. ALL SPECIFICATIONS AND DIMENSIONS OF "SL" SERIES APPLY, EXCEPT FOR FOLLOWING:
  (1) LOUVRES AT SIDE ARE OMITTED to facilitate use of racks in rows or "gangs."
  (2) When it is desirable to set up these cabinets in rows or "gangs," we can supply a connecting trim for a small additional charge. Order connecting trim, using prefix "AS" plus the last two numbers of the catalog number of the cabinet.
  (3) Catalog Numbers are prefaced with "S" instead of "SL."

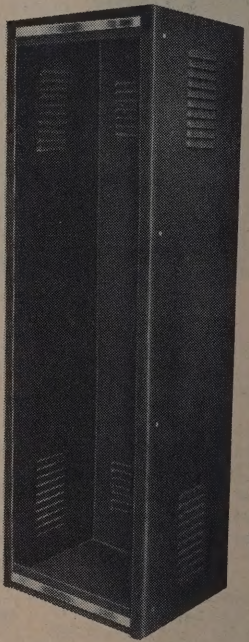
➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ➤



"G" SERIES
ADJUSTABLE MOUNTING ANGLE



"DF" SERIES
ADJUSTABLE MOUNTING ANGLE



"SL" SERIES
DETACHABLE VERTICAL TRIM AT FRONT CORNERS

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METAL PRODUCTS

CABINET RACKS - RELAY RACKS EXPAND-A-RACKS

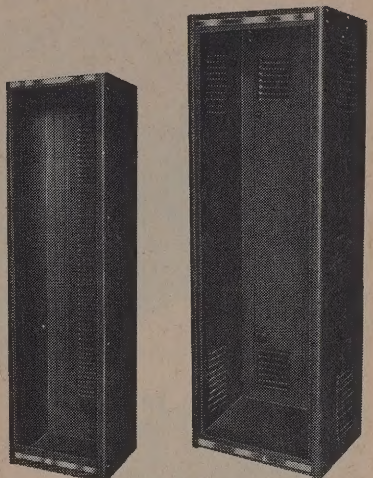
MODEL "W" AND BANNER "B" SERIES

DESCRIPTION: "W" SERIES

A. 16 gauge high-quality steel.
B. Front corners are rounded.
C. Panel mounting angles 1/8" steel.
D. Mounting holes tapped 10/32 thread.
E. Mounting holes are UNIVERSAL CENTERS.
F. Louvres in rear door and sides.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. RACK IS SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
K. Finished in black or grey wrinkle and silver grey hammertone.
L. There are four brackets spot welded to the bottom of the cabinet. Our casters (catalog No. RC100) can be attached to these brackets. This offers instant mobility, if required.

DESCRIPTION: "B" SERIES

A. 16 gauge high-quality steel and is welded together.
B. Panel mounting angles 1½x1½x1/8" angle iron.
C. Mounting holes are 10/32 thread.
D. (WESTERN ELECTRIC SPACING.)
E. Louvres in rear doors.
F. Rear corners re-inforced.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. Panel mounting screws concealed by vertical trim.
K. Finished in black or grey wrinkle enamel and silver grey hammertone.
L. When it is desirable to set up racks in rows or "gangs," order connecting trim, using the prefix "AB" plus the last two numbers of the catalog number of the cabinet.

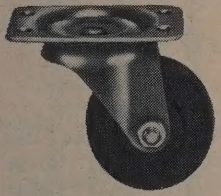


"B" SERIES

SPECIFICATIONS:

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Approx. Shipping Weight	Dealer Cost
W 1036	42 x22x17¼	36¾x19	17⅞	17¼	15⅞	88 lbs.	$45.17
W 1042	47¼x22x17¼	42 x19	17⅞	17¼	15⅞	95 lbs.	51.10
W 1061	66½x22x17¼	61¼x19	17⅞	17¼	15⅞	122 lbs.	63.96
W 1077	82¼x22x17¼	77 x19	17⅞	17¼	15⅞	148 lbs.	76.57
B 1876	76⅛x21⅛x18	70 x19	17⅞	17¼	16½	178 lbs.	124.49

"W" SERIES



CASTERS

DESCRIPTION:

A. Can be used with our "W" series and Expand-A-Rack series.
B. Load capacity of a set of four is 520 lbs.
C. The swivel bearing wheels are made of a hard fibrous compound.

CATALOG NO. RC-100 APPROX. SHIP. WT. EACH 8 oz.
DEALER COST $1.10 ea.

➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ➤

EXPAND-A-RACK SERIES

DESCRIPTION:

A. When it is necessary to join two or more racks together, WYCO METAL PRODUCTS offers the "EXPAND-A-RACK" series.
B. Figure "A" shows two Expand-A-Racks joined together.
C. Figure "B" illustrates the method of expanding your present rack space. In place of purchasing an additional rack, a unit, consisting of the following items, would be bought: (a) the door; (b) the top; (c) the bottom; (d) an Expand-A-Rack joining unit. The right or left side of your existing relay cabinet rack is dis-assembled and replaced with an Expand-A-Rack joining unit. Following this step, the top and bottom are assembled. The cabinet side removed from the original rack is then fastened onto the second rack. Upon hanging the additional door, two complete racks are now joined together.
D. Wyco's Expand-A-Rack series may be purchased by one of two methods. One method consists of buying one complete rack (the "W" series) plus one Expand-A-Rack unit. If you already have one of our basic "W" series cabinets, then order an Expand-A-Rack unit.
E. Supports are electronically welded to the bottom to receive our casters (#RC-100).
F. There is an ample amount of compound knockouts in the Expand-A-Rack joining unit center partition. This allows cables and leads to be taken from one cabinet to the other.
G. Available in Grey or Black Wrinkle and Silver Grey Hammertone.

SPECIFICATIONS:

Cat. No.	Used to Expand-A-Rack With	Approx. Ship Wt. Lbs.	Dealer Cost
E-400	W-1036	74	$44.34
E-401	W-1042	78	49.01
E-402	W-1061	99	60.95
E-403	W-1077	126	74.90

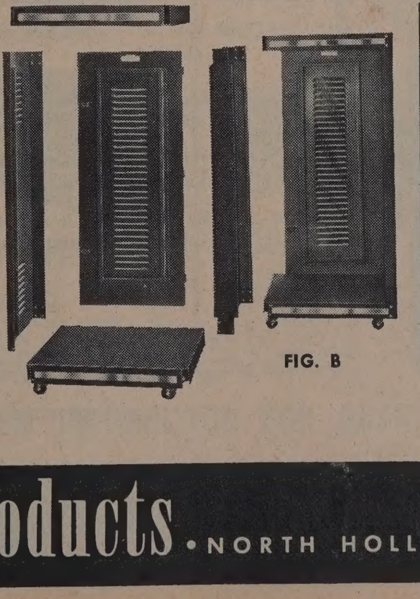


FIG. B

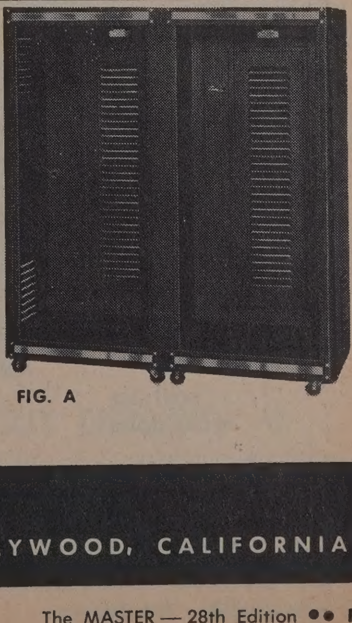


FIG. A

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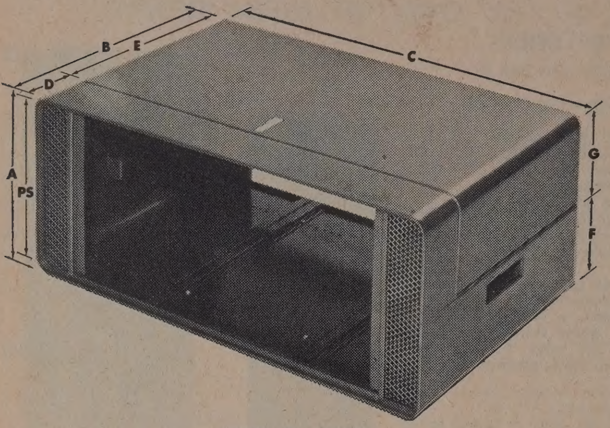
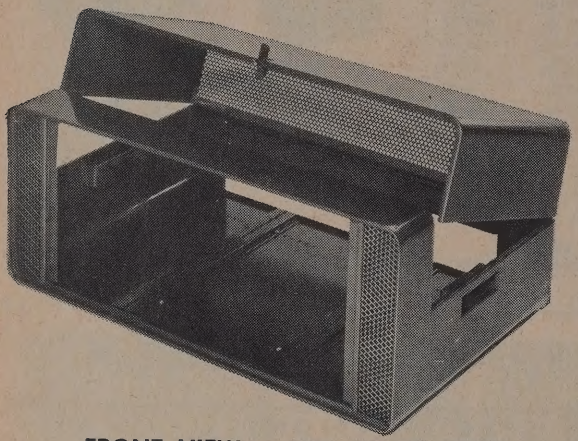
WYCO
METAL PRODUCTS

THE "SUPREME LINE" CABINET SERIES AND PORTABLE SCOPE DOLLY



FRONT VIEW



FRONT VIEW — TOP DOOR OPEN

DESCRIPTION:

A. Fabricated of 16 ga. steel.

B. Mounting holes tapped 10-32.

C. Mounting holes: Universal spacing.

D. Ventilated by perforated metal front and back and rear opening.

E. Top door has continuous piano hinge.

F. Top door has flush-type latch.

G. Embossed feet with rubber bumpers at bottom.

H. Adjustable Hat-section type rails, furnished to support chassis, have holes for bolting to cabinet bottom and chassis.

I. Recessed carrying handles are in sides of cabinet.

J. Finished in dark grey hammertone.

K. Utilization of our standard aluminum or steel panels in silver grey hammertone finish with this series creates an attractive contrast.

SPECIFICATIONS

CAT #	PANEL SPACE	A	B	C	D	E	F	G	H	I	Approx. Ship. Wt. Lbs.	Dealer Cost
SL 7760	7x19	7¾	15	24	3	12	3⅞	3⅞	3⅛	3⅞	23	$26.39
SL 7761	8¾x19	9½	15	24	3	12	4¾	4¾	3⅛	4¾	25	28.15
SL 7762	10½x19	11¼	15	24	3	12	5⅝	5⅝	3⅛	5⅝	27	29.91
SL 7763	12¼x19	13	15	24	3	12	6½	6½	3⅛	6½	29	33.87
SL 7764	14x19	14¾	15	24	3	12	7⅜	7⅜	3⅛	7⅜	31	37.66

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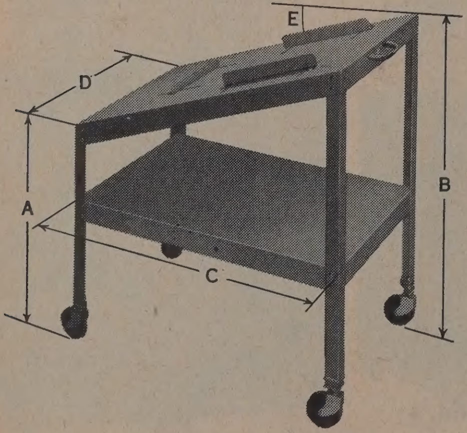

PORTABLE
SCOPE DOLLY

DESCRIPTION

A. Shelves fabricated of high-quality steel.

B. Legs fabricated of structural steel for strength.

C. Highly - polished functional handle included.

D. By adjusting brackets on the top shelf, almost any popular type of laboratory scope may be carried.

E. Full - swivel 3" rubber casters included.

F. Painted in smooth silver-grey hammertone.

G. Shipped knocked-down with all necessary hardware for easy assembly.

CAT. #	Type	"A"	"B"	"C"	"D"	"E"	Approx. Ship. Wt.	Price
SD 7783	sloping	21¾"	32½"	28"	19"	20°	30#	$34.95

(PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

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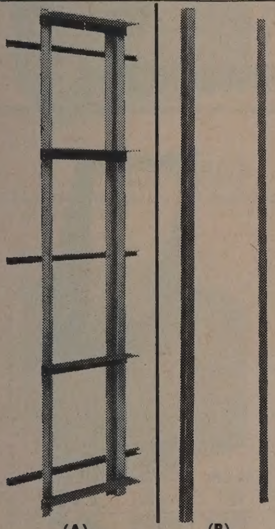
WYCO
METAL PRODUCTS

SLIDES — SLIDE ASSEMBLIES
SLIDING DRAWERS
VERTICAL SLIDE SUPPORTS — EXTRA MOUNTING ANGLES
HEAVY DUTY CASTERS

(A) VERTICAL SIDE SUPPORTS

Description: (A) Bolts to Unistrut members in following series cabinets: RW/FW/G/DF. (B) 12 ga. steel; painted hammertone. (C) 10-32 holes; Universal spacing. (D) Supports shelves, mounting brackets and slide units. (E) Support brackets not included; order separately. (F) Mounting hardware included.

Cat. #	Panel Space	Ship Wt.	Price Set 4
ZA-7757	61¼″	30	$20.38
ZA-7758	70″	34	23.71
ZA-7759	77″	38	26.54

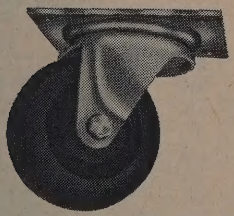


(B) EXTRA MOUNTING ANGLES

Description: (A) Order when additional pair mounting angles required for following cabinet series: RW/FW/DF/G. (B) 12 ga. steel; painted grey hammertone. (C) 10-32 holes; WE spacing.

Cat. #	Panel Space	Ship Wt.	Price Per Pr.
MA-7774	61¼″	22	$17.48
MA-7775	70″	26	19.89
MA-7776	77″	30	21.73

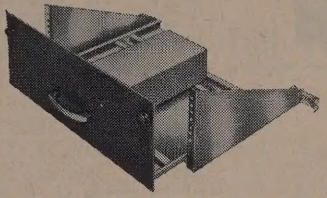
HEAVY DUTY CASTER



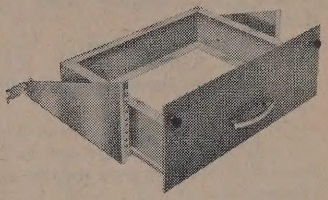
Description: (A) Capacity: 200# per caster. (B) 4″ x 1⅝″ full-swivel wheel. (C) All rubber cushion tread, hard fibrous center. (D) Used on RW/FW cabinet series.
Catalog #RC-7773
PRICE: ea. $5.18

PHOTOGRAPHS A, B, C, D, ARE EXAMPLES OF SLIDE ASSEMBLIES FOR 19″ RACKS

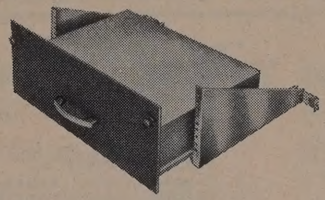
(A) Example: Slide Assembly Using Chassis LESS Than 17″ Width



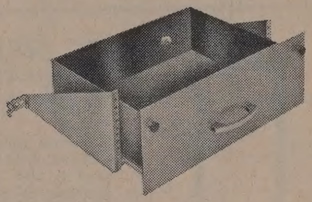
(B) Example: Slide Assembly Using Chassis Frame



(C) Example: Slide Assembly Using 17″ Wide Chassis

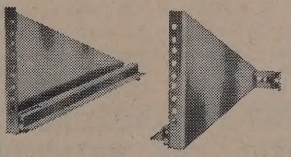


(D) Example: Slide Assembly Using Drawer



ORDER COMBINATION OF PARTS, DESCRIBED BELOW, TO BUILD ASSEMBLIES, AS REQUIRED, FOR 19″ RACK MOUNTING

SLIDES FOR 17″ WIDE CHASSIS



Catalog #BS-7777
PRICE: $7.77 pr. net

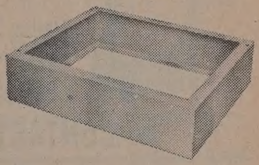
Description: (A) Supports 17″ wide chassis. (B) Supports 75 lbs. in extended position. (C) Travels on roller bearings. (D) 14″ deep in closed position. (E) Extends 10″ to front when pulled out. (F) Attaches to rear side of mounting angle. (G) Fabricated of heavy-gauge, plated steel.

SUPPORTS FOR CHASSIS LESS THAN 17″ WIDE

Catalog #BS-7778
PRICE: $2.29 pr. net

Description: (A) Used with BS-7777 to support any chassis less than 17″ wide. (B) Heavy-gauge, plated steel. (C) Includes hardware for attaching to basic slides.

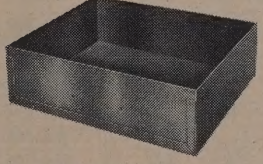
CHASSIS FRAMES



Catalog #BS-7779
PRICE: $5.12 net

Description: (A) Size 17″ x 14″ x 3″ x 1″ flange. (B) 1″ flange supports plywood for record changer. (C) Heavy-gauge, plated steel. (D) Includes hardware for attaching to basic slides.

DRAWER



Catalog #BS-7780
PRICE: $8.96 net

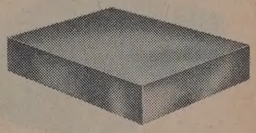
Description: (A) Size: 17″ wide x 14″ deep x 5″ high. (B) Heavy-gauge steel. (C) Painted black enamel. (D) Includes hardware for attaching to basic slides.

FRONT SLIDE PANEL

Cat. #	Size	Price
BS-7781	7″x19″	$4.59 net
BS-7782	10½″x19″	5.22 net

Description: (A) Used as front panel; attaches to slide assembly. (B) 12 gauge steel. (C) Handle and quick-turn latches included. (D) Colors: Grey and Black wrinkle or grey hammertone.

STANDARD CHASSIS



Description: (A) Standard aluminum or steel chassis may be used with our slide unit. (B) See list of sizes described in this catalog.

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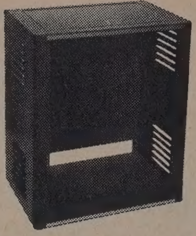
WYCO METAL PRODUCTS

CABINET RACKS - RELAY RACKS CHASSIS - CASES

MODEL "C" SERIES

DESCRIPTION:



- A. Constructed of heavy gauge high-quality steel and is completely welded together.
- B. Front vertical corners rounded.
- C. Mounting holes tapped 10/32 thread.
- D. Mounting holes spaced on UNIVERSAL CENTERS.
- E. Louvres in side provide ample ventilation.
- F. Highly-polished trim at top and bottom of front.
- G. Top door has piano hinge and flush-type latch.
- H. Finished in black or grey wrinkle and silver grey hammertone.
- I. Embossed feet on bottom minimize marring of table tops.

SPECIFICATIONS:

(DOOR IN TOP ONLY)

Catalog Number	Dimensions	Panel Space	Approx. Shipping Weight	Dealer Cost
C719	8¾x22x15 Deep	7 x19	25 lbs.	$15.28
C819	10½x22x15 Deep	8¾x19	27 lbs.	16.70
C1019	12¼x22x15 Deep	10½x19	28 lbs.	19.12
C1219	14 x22x15 Deep	12¼x19	30 lbs.	20.12
C1419	15¾x22x15 Deep	14 x19	32 lbs.	21.96
(DOOR IN TOP AND REAR)				
C1719	19¼x22x15 Deep	17½x19	36 lbs.	$26.22
C2119	22¾x22x15 Deep	21 x19	40 lbs.	28.06
C2619	28 x22x15 Deep	26¼x19	43 lbs.	30.14
C3119	33¼x22x15 Deep	31½x19	47 lbs.	31.98
C3519	36¾x22x15 Deep	35 x19	50 lbs.	33.65

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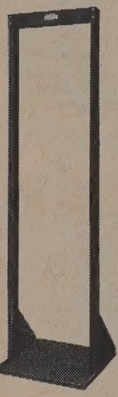
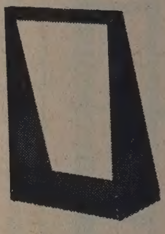


"RC" SERIES

- A. Rack constructed of ⅛" high-quality steel.
- B. Mounting holes are tapped 10/32 thread.
- C. Mounting holes are spaced on UNIVERSAL CENTERS.
- D. Base is 20" x 20".
- E. Finished in black wrinkle only.
- F. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.

"RT" SERIES

- A. Rack constructed of heavy gauge high-quality steel.
- B. Mounting holes are tapped 10/32 thread.
- C. Mounting holes are spaced on UNIVERSAL CENTERS.
- D. Finished in black wrinkle only.
- E. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.



SPECIFICATIONS:

Catalog Number	Panel Space	Approx. Shipping Weight	Dealer Cost
RC36	36¾x19	28 lbs	$21.96
RC71	71¾x19	41 lbs.	25.13

Catalog Number	Panel Space	Height	Width	Depth	Approx. Shipping Weight	Dealer Cost
RT21	21x19	25"	21"	12"	16 lbs.	$ 9.10
RT28	28x19	32"	21"	12"	18 lbs.	11.19

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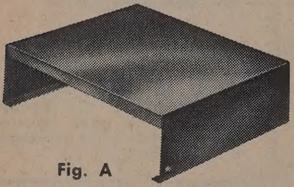


Fig. A

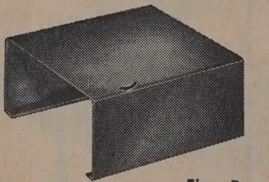


Fig. B

OPEN END CHASSIS

DESCRIPTION: Fig. A

- A. Can be utilized on all types of small built-up units such as record amplifier, code oscillator, etc.
- B. Electro-Zinc plated.

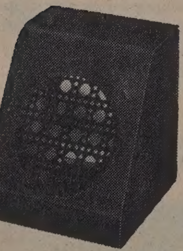
MINIATURE ALUMINUM CHASSIS

DESCRIPTION: Fig. B

- A. Ideal for miniature tube applications, sub-assemblies, small receivers, narrow band FM adaptors.
- B. Has ¼" flanges on bottom.
- C. Etched aluminum finish.

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Dealer Cost
E-570	7"	6"	2"	1	$1.00
E-571	5"	7"	1½"	¾	.97
E-572	7"	7"	1½"	¾	1.24
E-573	7"	8"	2"	1	1.17
E-574	5½"	9"	1½"	¾	1.09
E-575	7½"	9"	1½"	1	1.40
E-576	7"	10"	2"	1¼	1.37
E-577	7"	11"	1½"	1¼	1.30
E-578	7"	13"	1½"	1½	1.59
E-579	10¾"	14"	2"	2½	1.87
E-580	7¾"	15"	2"	2	1.78

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Dealer Cost
MA-700	2⅝"	2¾"	1¼"	¼	$.38
MA-701	1¾"	3⅛"	1"	¼	.42
MA-702	3¼"	4½"	2"	¼	.48
MA-703	2¾"	4⅛"	1"	¼	.45
MA-704	3¾"	4⅛"	1½"	¼	.45
MA-705	3"	6⅛"	1¼"	¼	.53
MA-706	5¾"	4⅞"	1½"	¼	.57
MA-707	4"	3⅛"	1"	½	.41
MA-708	4"	4⅛"	1"	½	.50
MA-709	4"	5⅛"	1"	½	.53
MA-710	4"	6⅛"	1"	½	.55



MINIATURE SPEAKER CASE

DESCRIPTION:

- A. Houses midget 2" or 3" speaker.
- B. Silver Grey Hammertone Finish.

SPECIFICATIONS:

Catalog Number	Hole Diameter	Fits Speaker Size	Approx. Ship. Wt. Lbs.	Dealer Cost
MS-80	2¼"	2"	¾	$1.58
MS-81	2$\frac{13}{16}$"	3"	¾	1.58

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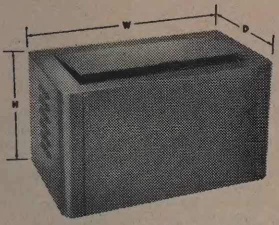
WYCO
METAL PRODUCTS

RECEIVER CABINETS - SLOPING PANEL/TOP OPENING - MULTI-USE CABINETS - CHASSIS DECK



MODEL "CS" RECEIVER CABINET (Description)

(A.) Front vertical corners are rounded. (B.) Has recessed, hinged, top door. (C.) Top door opened by finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Louvers in side provide ventilation. (F.) Silver grey hammertone only.

Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.	Dealer Cost
CS 7727	8″	10½″	8¼″	8″x 8″	6¼	$4.31
CS 7728	8″	12½″	8¼″	8″x10″	6½	5.31
CS 7729	8″	14½″	8¼″	8″x12″	7	5.78
CS 7730	8″	16½″	8¼″	8″x14″	7½	6.05
CS 7731	8″	18½″	8¼″	8″x16″	8¼	6.63
CS 7732	12″	20⅝″	12″	12″x18″	15½	12.06

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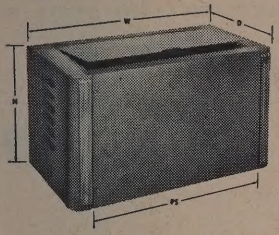

MODEL "DC" RECEIVER CABINET (Description)

(A.) Description of Model "DC" Receiver Cabinet is same as Model "CS" Cabinet except for following: There are two vertical, highly-polished trim strips on face of cabinet.

Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.	Dealer Cost
DC 7733	8″	10½″	8¼″	8″x 8″	6¼	$6.41
DC 7734	8″	12½″	8¼″	8″x10″	6½	6.51
DC 7735	8″	14½″	8¼″	8″x12″	7	6.88
DC 7736	8″	16½″	8¼″	8″x14″	7½	7.33
DC 7737	8″	18½″	8¼″	8″x16″	8¼	8.06
DC 7738	12″	20⅝″	12″	12″x18″	15½	14.66

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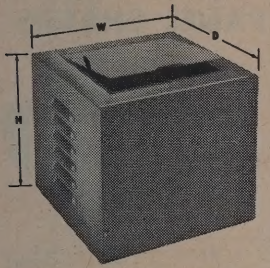

MODEL "CR" RECEIVER CABINET (Description)

(A.) Front vertical corners are square. (B.) Top door is recessed and hinged. (C.) Top door has finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Ventilation is supplied by louvers. (F.) Finished in silver grey hammertone only.

Cat. #	H	W	D	Approx. Ship. Wt. Lbs.	Dealer Cost
CR 7720	7″	8″	8″	5½	$4.18
CR 7721	7″	10″	8″	6	4.84
CR 7722	7″	12″	8″	6¼	5.01
CR 7723	7″	14″	8″	6½	5.26
CR 7724	8″	16″	8″	7½	7.60
CR 7725	9″	15″	11″	8½	9.19
CR 7726	12″	18″	12″	15½	9.92

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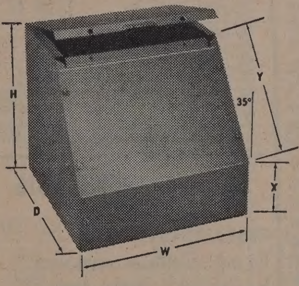
SLOPING PANEL/TOP OPENING CABINET

(Description)

(A.) Sloping front panel, included, is attached with self-tapping screws. (B.) Hinged, top door has finger lift. (C.) Opening at back for leads and ventilation. (D.) Silver grey hammertone only.



Cat. #	H	W	D	X	Y	Approx. Ship. Wt. Lbs.	Dealer Cost
SC 7739	6½″	7 1/16″	7 5/16″	2¼″	5 1/16″	3	$3.30
SC 7740	8″	8 1/16″	8″	2¼″	6 7/16″	3¼	4.51
SC 7741	6½″	9 1/16″	7 5/16″	2¼″	5 1/16″	3½	3.75
SC 7742	8″	10 1/16″	8″	2¼″	6⅞″	3¾	5.01
SC 7743	6½″	11 1/16″	7 5/16″	2¼″	5 1/16″	4	4.34
SC 7744	8″	14 1/16″	8″	2¼″	6⅞″	4½	5.34
SC 7745	8″	13 1/16″	8½″	2¾″	6 5/16″	4¾	5.59
SC 7746	9″	18 1/16″	8⅛″	2¼″	6 15/16″	7½	7.68
SC 7747	10″	18 1/16″	10½″	3¼″	8⅛″	8¾	7.85

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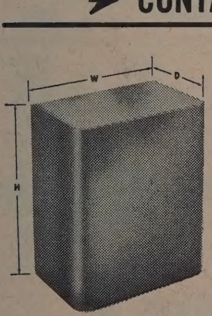


MULTI-USE CABINET (Description)

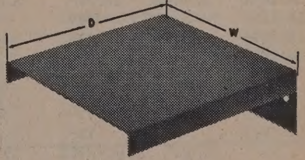
(A.) Ventilated by open back. (B.) Streamlined by rounded corners. (C.) Silver grey hammertone only.

Cat. #	H	W	D	Approx. Ship. Wt. Lbs.	Dealer Cost
MC 7748	4½″	5½″	3½″	1¼	$1.70
MC 7749	6½″	5½″	3½″	1¾	1.75

CHASSIS DECK (Description)

(A.) Can be used for interstage shielding. (B.) Made of steel. (C.) Painted black enamel.

Cat. #	W	D	Approx. Ship. Wt. Lbs.	Dealer Cost
CD 7754	4¾″	5½″	1	$.68
CD 7755	4¾″	4½″	1	.65
CD 7756	5¾″	5½″	1½	.78



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CHASSIS

Cad Plated Cat. No.	Depth	STEEL Width	Ht.	Ga.	Approx. Ship. Wt.-Lbs.	Dealer Cost Cad.
CP-1300	5″	7″	2″	22	1	$1.30
CP-1301	5″	9½″	2½″	22	1¼	1.67
CP-1302	5″	9½″	1½″	22	1	1.69
CP-1303	5″	10″	3″	22	1¼	1.84
CP-1304	6″	14″	3″	20	1¾	2.05
CP-1305	7″	7″	2″	22	1½	1.50
CP-1306	7″	9″	2″	22	1½	1.59
CP-1307	7″	11″	2″	20	1½	1.67
CP-1308	7″	12″	3″	20	1¾	2.05
CP-1309	7″	13″	2″	20	2	1.92
CP-1310	5″	13½″	2½″	20	1¾	2.17
CP-1311	7″	15″	3″	20	2	2.40
CP-1312	8½″	15″	3″	20	2½	2.71
CP-1313	4″	17″	3″	20	2¼	2.14
CP-1314	7″	17″	2½″	20	2½	2.37
CP-1315	7″	17″	3″	20	1¾	2.59
CP-1316	8″	10″	2½″	20	2	2.02
CP-1317	8″	12″	2½″	20	2½	2.24
CP-1318	8″	12″	3″	20	1¾	2.34
CP-1319	8″	17″	2″	20	2½	2.34
CP-1320	8″	17″	3″	20	3¼	2.62
CP-1321	10″	12″	3″	20	3	2.25
CP-1322	10″	14″	3″	20	4	2.44
*CP-1323	10″	17″	2″	20	3¼	2.39
*CP-1324	10″	17″	3″	20	4	2.84
*CP-1325	10″	17″	3″	18	5	3.05
CP-1326	10″	23″	3″	18	5½	3.42
*CP-1327	11″	17″	2″	18	4½	2.81
*CP-1328	11″	17″	3″	18	4½	3.49
*CP-1329	12″	17″	2″	18	4½	3.09
*CP-1330	12″	17″	3″	18	5¼	3.67
*CP-1331	13″	17″	2″	18	5	3.72
*CP-1332	13″	17″	3″	18	5½	4.07
*CP-1333	10″	17″	4″	18	6½	3.51
*CP-1334	13″	17″	4″	18	7½	4.68
CP-1335	10″	17″	5″	18	7½	5.34
CP-1336	13″	17″	5″	18	8	5.93

Cat. No.	Depth	ALUMINUM Width	Ht.	Gauge	Approx. Shipping Wt.-Lbs.	Dealer Cost
CA-2001	4″	6″	3″	18	½	$1.34
CA-2002	4″	6″	2″	18	½	1.10
CA-2003	4″	17″	3″	16	1¼	2.33
CA-2004	5″	7″	2″	18	½	1.17
CA-2005	5″	7″	3″	16	¾	1.42
CA-2006	5″	9½″	2″	18	½	1.24
CA-2007	5″	9½″	3″	18	¾	1.60
CA-2008	5″	10″	3″	18	¾	1.63
CA-2009	5″	13″	3″	18	¾	1.84
CA-2010	6″	17″	3″	16	1¼	2.67
CA-2011	7″	7″	2″	18	½	1.35
CA-2012	7″	9″	2″	18	½	1.46
CA-2013	7″	11″	2″	18	¾	1.58
CA-2014	7″	12″	3″	18	1	2.00
CA-2015	7″	13″	2″	18	¾	1.67
CA-2016	7″	15″	3″	16	1½	2.67
CA-2017	7″	17″	3″	16	1¾	2.75
CA-2018	8″	12″	3″	16	1½	2.42
CA-2019	8″	17″	2″	16	1½	2.51
CA-2020	8″	17″	3″	16	1¾	2.84
CA-2021	10″	12″	3″	16	1½	2.67
CA-2022	10″	14″	3″	16	1¾	2.84
CA-2023	10″	17″	2″	16	1¼	2.68
CA-2024	10″	17″	3″	16	2	3.17
CA-2025	11″	17″	2″	14	2¼	3.42
CA-2026	11″	17″	3″	14	2¾	3.97
CA-2027	12″	17″	3″	14	2¾	4.08
CA-2028	13″	17″	2″	14	2½	3.51
CA-2029	13″	17″	3″	14	2¾	4.26
CA-2030	10″	17″	4″	14	3½	4.51
CA-2031	13″	17″	4″	14	3¾	5.26

STEEL CHASSIS

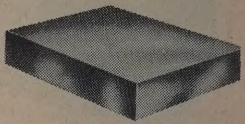
DESCRIPTION:

A. Fabricated from one piece of steel.
B. All corners electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached if desired.
D. Finished in Cad. Plate.
E. Asterisk indicates holes punched to receive chassis mounting brackets.

ALUMINUM CHASSIS

DESCRIPTION:

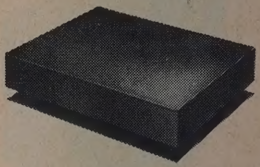
A. Fabricated of one piece of aluminum, 3003-H14.
B. All corners are electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached, if desired.
D. Etched aluminum finish, MIL-C-5541.
E. Gauges indicated are aluminum gauges.



HEAVY DUTY AND PANEL CHASSIS

DESCRIPTION:

A. Made of cold Rolled steel.
B. Bottom plate included at no additional charge.
C. Available in Cad. Plate.

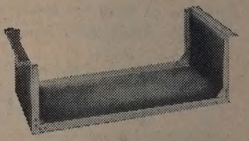


Cad. Plated Cat No.	Steel Guage	Depth	Width	Height	Approx. Shipping Wt. - Lbs.	Dealer Cost Cad Plated
C-627	20	8″	17″	2″	6	$4.50
C-628	20	8″	17″	3″	7½	4.76
C-629	18	11″	17″	2″	8½	4.78
C-630	18	11″	17″	3″	9	4.84
C-631	18	13″	17″	2″	9½	5.34
C-632	18	13″	17″	3″	10	5.43
C-633	18	13″	17″	4″	11	5.85

PANEL CHASSIS ALUMINUM OR STEEL

DESCRIPTION:

A. .062 aluminum (3003-H14).
B. Aluminum etched finish.
C. Flange notched for mounting to rack mounting angles.



Alum. Cat. #	W.	H.	D.	Alum. Wt.	Alum. Cost
PC-505	19″	1¾	5⁹⁄₃₂	¾	$2.30
PC-506	19″	3½	5⁹⁄₃₂	1¼	2.59
PC-507	19″	5¼	5⁹⁄₃₂	1½	2.84
PC-508	19″	7	5⁹⁄₃₂	2	3.26
PC-509	19″	8¾	5⁹⁄₃₂	2¼	3.76
PC-510	19″	10½	5⁹⁄₃₂	2¾	4.43
PC-511	19″	12¼	5⁹⁄₃₂	3	4.84
PC-512	19″	14	5⁹⁄₃₂	3¼	5.34

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WYCO
METAL PRODUCTS

ROLLER TRUCKS - BOTTOM PLATES - SHELVES SUPPORTING ANGLES - MOUNTING BRACKETS

CHASSIS BOTTOM PLATES

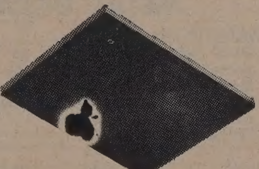
STEEL AND ALUMINUM

DESCRIPTION:

- A. Protects component parts and wiring from dust.
- B. Four embossed feet protect table top or other surfaces from being marred.
- C. Catalog number R6023 to R6045 are Cad plated steel.
- D. Catalog numbers R6046 to R6055 are Aluminum etched finish.

Cad. Plated Cat. No.	Aluminum Etched Cat. No.	W.	L.	Steel Ship. Wt.	Alum. Ship. Wt.	Dealer Cost B.W.	Dealer Cost Cad.	Dealer Cost Alum.
R-6023	R-6046	5″	7″	½	⅛	$.57	$.69	$.74
R-6024	R-6047	5″	9½″	¾	¼	.62	.75	.75
R-6025	R-6048	5″	10″	¾	¼	.67	.73	.75
R-6026	R-6049	7″	7″	1	⅓	.92	.97	.77
R-6027	R-6050	7″	9″	1	⅓	.94	.99	.90
R-6028	R-6051	7″	11″	1	⅓	.95	1.07	.90
R-6029	R-6052	7″	12″	1¼	½	.99	1.12	.97
R-6030	R-6053	7″	13″	1¼	½	1.02	1.20	1.14
R-6031		5″	13½″	1		.84	1.00	—
R-6032		7″	15″	1¼		1.00	1.37	—
R-6033		8½″	15″	1½		1.04	1.47	—
R-6034		4″	17″	1½		.84	1.07	—
R-6035		6″	17″	1½		.90	1.37	—
R-6036		8″	10″	1¼		.92	1.05	—
R-6037		8″	12″	1½		1.06	1.34	—
R-6038		8″	17″	1¾		.95	1.54	—
R-6039		10″	12″	1½		.95	1.57	—
R-6040		10″	14‘	1½		1.25	1.33	—
R-6041	R-6054	10″	17″	1¾	¾	1.20	1.60	1.52
R-6042		11″	17″	1½		1.20	1.60	—
R-6043		12″	17″	2		1.27	1.87	—
R-6044	R-6055	13″	17″	2½	¾	1.47	2.24	2.07
R-6045		10″	23″	2¼		2.07	2.37	—

RACK SHELVES



DESCRIPTION:

- A. Used to mount heavy power supplies, modulator units, etc.
- B. Supported by chassis supporting angles which are described on this page.
- C. Made of heavy gauge steel.
- D. Finished in black enamel only.

Cat. No.	Size	Wt. Lbs.	Dealer Cost
S195	19″x15″	6½	$3.47
S196	19″x12″	5½	2.64
S197	17⅝″x14¼″	5	3.34
S198	17⅝″x20¼″	5½	4.38

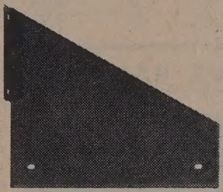
CHASSIS SUPPORTING ANGLES

DESCRIPTION:

- A. Used when heavy weights are encountered in chassis construction.
- B. Distributes weight on sides of rack to relieve panel.
- C. Made of ⅛″ steel.
- D. Finished in black enamel only.
- E. Sold in pairs only.

Cat. No.	Length	Wt. Lbs.	Dealer Cost
A143	14½″	4	$2.25 pr.
A144	12″	3	2.17 pr.
A145	20″	7	3.34 pr.

CHASSIS MOUNTING BRACKETS

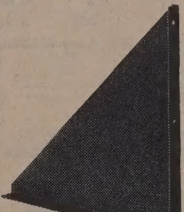


DESCRIPTION:

- A. Used to insure proper support of chassis.
- B. Made of heavy gauge steel.
- C. Cut away at bottom to provide clearance so that chassis can mount flush against panel.
- D. Finished in black enamel only.
- E. Cat. # CB-565 and CB-566 designed for 4″ chassis height.
- F. Sold in pairs only.

Cat. No.	H.	D.	Wt. Lbs.	Dealer Cost
CB-560	6½″	8″	1¼	$1.09 pr.
CB-561	6½″	10″	1¾	1.35 pr.
CB-562	6½″	11″	2	1.50 pr.
CB-563	6½″	12″	2	1.75 pr.
CB-564	6½″	13″	2½	1.69 pr.
CB-565	8½″	10″	2¼	1.97 pr.
CB-566	8½″	13″	3	2.09 pr.

TRIANGULAR MOUNTING BRACKETS



DESCRIPTION:

- A. When large weights are involved in panel and chassis assemblies, triangular mounting brackets are used as supports.
- B. Fabricated of heavy gauge steel; finished in Black enamel only.
- C. Sold only in pairs.

Cat. No.	Size	Approx. Shipping Wt. - Lbs.	Dealer Cost
TB-410	5″x5″	1	$1.00 pr.
TB-411	7″x7″	1	1.17 pr.
TB-412	9″x9″	1½	1.42 pr.

ROLLER TRUCKS

SPECIFICATIONS:

- A. Roller Truck constructed from heavy gauge high-quality steel.
- B. Casters have 2″ rubber wheels and are ball-bearing swivel type.
- C. Finished in grey only.

Catalog No.	Constr. for Rack Series	Description of Rack	Inside Clearance	Approx. Ship. Weight	Dealer Cost
T 18	SL	Page #4	21½x18½	16 lbs.	$13.79
	S	Page #4			
	B	Page #5			
T 19	D (18½″ Deep)	Page #2	23⅞x18¾	18 lbs.	14.66
	W	Page #5			
T 24	D (24″ Deep)	Page #2	23⅞x24¼	22 lbs.	15.86

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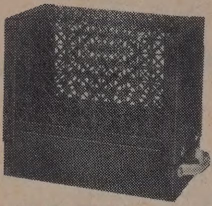
WYCO
METAL PRODUCTS

AMPLIFIER FOUNDATIONS - RACK PANELS SLOPING PANEL SUPPORTS - CABINETS

AMPLIFIER FOUNDATIONS



DESCRIPTION:

A. Consists of standard chassis and perforated metal cover.
B. Includes handles.
C. Available in Black Wrinkle only.

Cat. No.	Height	Width	Depth	Height Chassis	Approx. Shipping Wt. - Lbs.	Dealer Cost
AF-680	8 5/16"	9⅝"	5⅛"	2½"	3	$5.61
AF-681	8 5/16"	13⅝"	5⅛"	2½"	4¾	6.43
AF-682	8 5/16"	17⅛"	7⅛"	2½"	6	7.26
AF-683	8 13/16"	17⅛"	10⅛"	3"	8	8.50
AF-684	8 13/16"	12⅛"	10⅛"	3"	7	7.52

STANDARD RELAY RACK PANELS

DESCRIPTION:

A. 11 ga. STEEL or ⅛" ALUMINUM.
B. 19" wide.
C. Western Electric notching.
D. Available in black or grey wrinkle, silver grey hammertone and unpainted finish.

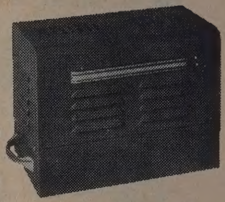
MINIATURE AMPLIFIER FOUNDATION

DESCRIPTION:

A. Chassis size 5" x 7" x 2".
B. Perforated metal cover.
C. Includes handle.
D. Black Wrinkle finish only.

Catalog No.	Approx. Shipping Weight - Lbs.	Dealer Cost
MA-1000	2	$4.00

STREAMLINED AMPLIFIER FOUNDATIONS



DESCRIPTION:

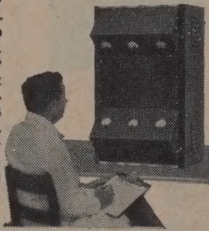
A. Consists of standard chassis and streamlined removable top cover.
B. Includes attractive stainless steel trim and handles.
C. Available in Silver Grey Hammertone only.

Catalog No.	Width	Depth	Approx. Shipping Wt. - Lbs.	Dealer Cost
SA-670	10 1/16"	5"	4¾	$6.76
SA-671	12 1/16"	7"	5	8.02
SA-672	17 1/16"	7"	8	8.52
SA-673	17 1/16"	10"	9	9.27

STEEL								ALUMINUM							
Cat. No.	Height	Wt. Lbs.	Dealer Cost	Cat. No.	Height	Wt. Lbs.	Dealer Cost	Cat. No.	Height	Wt. Lbs.	Dealer Cost	Cat. No.	Height	Wt. Lbs.	Dealer Cost
SP-210	1¾"	1¼	$ .84	SP-216	12¼"	8¼	$2.42	AP-320	1¾"	¼	$1.09	AP-326	12¼"	2¾	$4.09
SP-211	3½"	2¼	1.00	SP-217	14"	9½	2.84	AP-321	3½"	¾	1.42	AP-327	14"	3	4.76
SP-212	5¼"	3¼	1.25	SP-218	15¾"	10¾	3.09	AP-322	5¼"	1	1.93	AP-328	15¾"	3½	5.34
SP-213	7"	4½	1.42	SP-219	17½"	11¾	3.51	AP-323	7"	1¾	2.42	AP-329	17½"	4	5.85
SP-214	8¾"	6	1.75	SP-220	19¼"	13	3.84	AP-324	8¾"	2	2.84	AP-330	19¼"	4¼	6.43
SP-215	10½"	7	2.09	SP-221	21"	14¼	4.26	AP-325	10½"	2½	3.59	AP-331	21"	5	7.01

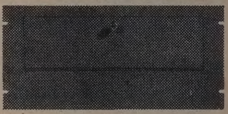
SLOPING PANEL SUPPORT

In answer to many requests from engineers within the industry, WYCO METAL PRODUCTS presents the all-new SLOPING PANEL SUPPORT, The SLOPING PANEL SUPPORT allows for mounting of the standard 19" panel in sloping position. This enables the engineer or equipment user to more easily view the rack mounted instrument panel. From this illustration, it is easy to see that the SLOPING PANEL SUPPORT offers a variety of positions in which a standard 19" panel may be supported in sloping position. The SLOPING PANEL SUPPORT is fabricated of heavy gauge steel and is finished in Grey only.



Prefix "G" Cat. No.	Supports Panel Size	Requires Panel Space	Prefix "G" Ship. Wt.	Dealer Cost "G"
G-350	5¼" x 19"	7"	2	$3.60
G-531	7" x 19"	10½"	4	4.20
G-532	8¾" x 19"	12¼"	4½	4.67
G-353	10½" x 19"	15¾"	6½	5.90
G-354	12¼" x 19"	17½"	7	6.80
G-355	14" x 19"	21"	9	7.97

METAL DOOR RACK PANELS

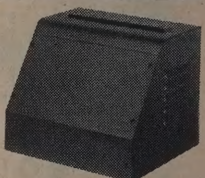


DESCRIPTION:

A. Used when accessability to component parts on chassis is necessary.
B. Made of ⅛" steel.
C. Available in black or grey wrinkle and silver grey hammertone.
D. 19" wide.

Cat. No.	Height	Door Opening	Wt. Lbs.	Dealer Cost
RP-310	10½"	15⅜" x 5⅞"	7¼	$6.08
RP-311	12¼"	15⅜" x 7⅝"	8¼	7.52

SLOPING FRONT CABINET



DESCRIPTION:

A. Top corner rounded.
B. Attractive high-polish moulding at top.
C. Front panel is removable.
D. Chassis may be mounted to front panel and removed as unit.
E. Louvres at both sides; vented at rear.
F. Available in silver grey hammertone only.

Cat. No.	Height	Width	Depth	Dealer Cost
K810	8"	8"	8"	$5.13
K811	8"	10"	8"	7.06
K812	8"	14"	8"	8.53
K813	12"	18"	12"	11.46

NOTE: If desired, an attractive handle can be used with above "K" series cabinet. Holes to mount moulding are spaced for handle, also. Catalog # for handle is HK70. Dealer Cost: $.92

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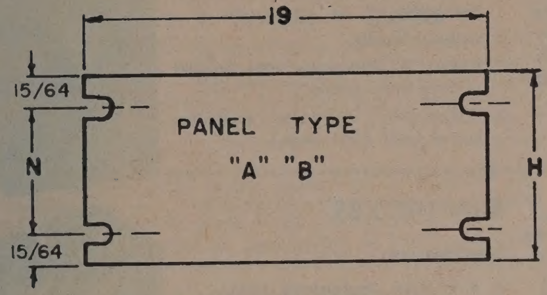
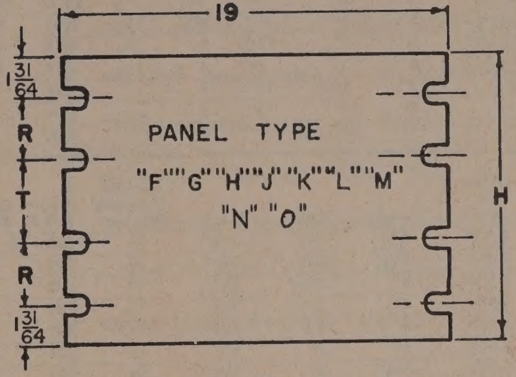
WYCO
METAL PRODUCTS

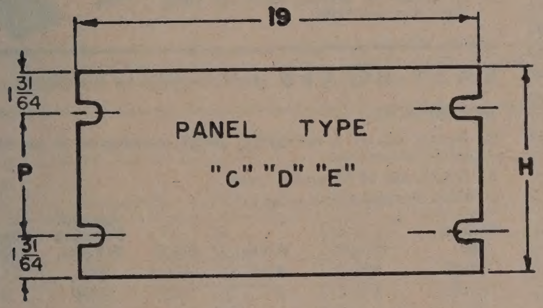
2024-T3
HARD ALUMINUM PANELS

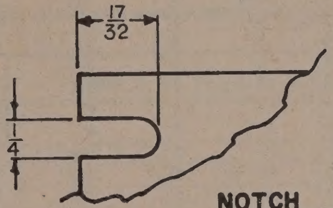
1/8" (.125) AND 3/16" (.188) THICK

RELAY RACK PANEL NOTCHING









NOTCH DETAIL

NOTE: (A) For 3-1/16" Thick Panels, Add (-316). EXAMPLE: HAP-175-316
(B) 24" Wide Panels are available. Add (-24). EXAMPLE: HAP-175-24

Panel Type	Catalog No. 1/8" Thick	H	N	P	R	T
"A"	HAP-175	1-23/32	1¼			
"B"	HAP-350	3-15/32	3			
"C"	HAP-525	5-7/32		2¼		
"D"	HAP-700	6-31/32		4		
"E"	HAP-875	8-23/32		5¾		
"F"	HAP-1050	10-15/32			2¼	3
"G"	HAP-1225	12-7/32			3½	2¼

Panel Type	Catalog No. 1/8" Thick	H	N	P	R	T
"H"	HAP-1400	13-31/32			4	3
"J"	HAP-1575	15-23/32			4	4¾
"K"	HAP-1750	17-15/32			4	6½
"L"	HAP-1925	19-7/32			5¼	5¾
"M"	HAP-2100	20-31/32			5¾	6½
"N"	HAP-2450	24-15/32			7	7½
"O"	HAP-2625	26-7/32			7	9¼

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Catalog No.	Net Price
HAP-175	$1.63
HAP-175-316	2.09
HAP-350	2.06
HAP-350-316	2.62
HAP-525	2.72
HAP-525-316	3.47
HAP-700	3.32

Catalog No.	Net Price
HAP-700-316	$4.25
HAP-875	3.93
HAP-875-316	5.00
HAP-1050	4.59
HAP-1050-316	5.87
HAP-1225	5.25
HAP-1225-316	6.73

Catalog No.	Net Price
HAP-1400	$6.07
HAP-1400-316	7.77
HAP-1575	6.78
HAP-1575-316	8.67
HAP-1750	7.48
HAP-1750-316	9.57
HAP-1925	8.18

Catalog No.	Net Price
HAP-1925-316	$10.47
HAP-2100	8.87
HAP-2100-316	11.36
HAP-2450	10.73
HAP-2450-316	12.34
HAP-2625	11.68
HAP-2625-316	13.65

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WYCO METAL PRODUCTS BOXES-CASES-CABINETS-DESK PANELS

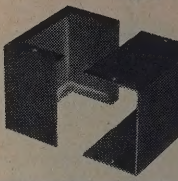
CARRYING CASE

DESCRIPTION:

- A. Front and rear panels are removable.
- B. Includes handle.
- C. Prefix "D" designates steel finished in Grey Hammertone.
- D. Prefix "DA" designates aluminum etched finish (.051 alum.).

Steel Cat. No.	Alum. Cat. No.	Depth	Width	Height	Steel Approx. Ship. Wt.	Alum. Approx. Ship. Wt.	Dealer Cost Steel	Dealer Cost Alum.
D-850	DA-857	5″	6″	9″	3¼	1⅛	$3.01	$3.09
D-851	DA-858	5″	9″	6″	3¼	1⅛	3.01	3.09
D-852	DA-859	6″	7″	12″	4	1⅓	4.18	4.50
D-853	DA-860	6″	12″	7″	4	1⅓	4.18	4.50
D-854	—	7″	7¾″	15″	5		4.68	—
D-855	—	8″	10″	10″	5		4.84	—
D-856	—	7″	15″	9″	5		5.85	—

MINITBOXES



DESCRIPTION:

- A. Fabricated of aluminum (.051).
- B. Design assures necessary shielding.
- C. Available in etched finish or Silver Grey Hammertone.

Silver Grey Cat. No.	Etched Cat. No.	Length	Width	Height	Approx. Shipping Wt.-Lbs.	Dealer Cost S.G.H.	Dealer Cost Etched
E-900	E-918	2¾″	2⅛″	1⅝″	¼	$ .85	$ .62
E-901	E-919	3¼″	2⅛″	1⅝″	¼	.92	.62
E-902	E-920	4″	2⅛″	1⅝″	¼	.92	.62
E-903	E-921	4″	2¼″	2¼″	¼	1.00	.75
E-904	E-922	5″	2¼″	2¼″	¼	1.09	.78
E-905	E-923	5″	4″	3″	½	1.25	.94
E-906	E-924	5¼″	3″	2⅛″	¼	1.09	.82
E-907	E-925	6″	5″	4″	¾	1.90	1.47
E-908	E-926	7″	5″	3″	¾	1.82	1.40
E-909	E-927	8″	6″	3½″	1	2.23	1.72
E-910	E-928	10″	6″	3½″	1¼	2.59	2.02
E-911	E-929	12″	7″	4″	1¾	3.27	2.71
E-912	E-930	17″	5″	4″	2¼	3.51	2.92
E-913	E-931	10″	2″	1⅝″	½	1.38	1.15
E-914	E-932	12″	2½″	2¼″	¾	1.70	1.37
E-915	E-933	4″	2″	2¾″	¼	1.09	.75
E-916	E-934	4¼″	2¼″	1½″	¼	1.00	.72
E-917	E-935	3¼″	2⅛″	1⅛″	¼	.84	.62

EASY BOXES (SAME DESIGN AS MINITBOX)

DESCRIPTION:

- A. Design allows a number of small components to be easily wired or serviced.
- B. Fabricated of 22 gauge steel.
- C. Black Wrinkle finish only.

Catalog No.	Height	Width	Depth	Approx. Shipping Wt.-Lbs.	Dealer Cost
H-105	2¼″	4¼″	1½″	½	$1.15
H-106	2″	4″	2¾″	½	1.17

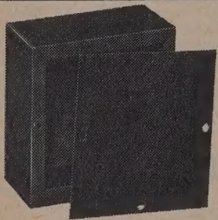
DESK PANELS

DESCRIPTION:

- A. Table is constructed of heavy gauge high-quality steel and measures 21″ x 16″.
- B. Panel, constructed of ⅛″ steel, is 10½″ x 19″.
- C. Front corners of table are rounded.
- D. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for easy assembly.
- E. Finished in black or grey enamel and silver grey hammertone.

Catalog No.	Width	Depth	Approx. Shipping Weight	Dealer Cost
DP 16	21″	16″	14 lbs.	$14.79

METAL UTILITY CABINETS

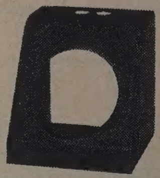


DESCRIPTION:

- A. Cabinet has two removable covers.
- B. Prefix MU designates steel finished in Silver Grey Hammertone only.
- C. Prefix LU designates aluminum in an etched finish (.051 Alum.).
- D. Used for amplifiers, monitors, input stages, meters, tranceivers, etc.

Steel Cat. No.	Alum. Cat. No.	Depth	Width	Ht.	Steel Approx. Ship. Wt. Lbs.	Alum. Approx. Ship. Wt. Lbs.	Dealer Cost Steel	Dealer Cost Alum.
MU-750	LU-760	2″	4″	4″	¾	¼	$1.09	$1.29
MU-751	LU-761	3″	5″	4″	1	¼	1.22	1.37
MU-752	LU-762	4″	5″	6″	1¼	½	1.38	1.50
MU-753	LU-763	6″	6″	6″	2½	¾	2.09	2.17
MU-754	LU-764	5″	6″	9″	3	1	2.34	2.51
MU-755	—	7″	8″	10″	5		3.34	—
MU-756	—	6″	7″	12″	4		3.29	—
MU-757	—	8″	10″	10″	5½		4.01	—
MU-758	—	8″	11″	12″	6		4.34	—
MU-759	—	7″	9″	15″	7½		4.51	—

METER CASES



DESCRIPTION:

- A. Sloping front with top corner rounded.
- B. Prefix "MC" designates steel Grey Hammertone finish.
- C. Prefix "AC" designates aluminum etched finish.

Catalog No.	Hole Diameter	Approx. Ship. Wt. - Lbs.	Dealer Cost
MC-73	2¼″	1	$1.10
MC-74	2 13/16″	1	1.10
AC-86	2¼″	⅓	1.42
AC-87	2 13/16″	⅓	1.42

MINIATURE UTILITY CABINETS

DESCRIPTION:

- A. Front and rear panels are removable.
- B. Chassis attached to front panel.
- C. Fabricated in steel; Silver Grey Hammertone only.

Cat. No.	Ht.	Width	Depth	Chassis Size	Approx. Shipping Wt.-Lbs.	Dealer Cost
A-780	4″	4″	2″	1″ x3⅛″x1⅞″	¾	$1.34
A-781	4″	5″	3″	1″ x4⅛″x2⅞″	1	1.48
A-782	5″	4″	3″	1¼″x3⅛″x2⅞″	1	1.62
A-783	6″	5″	4″	1¾″x4⅛″x3⅞″	1¾	1.70
A-784	5″	6″	4″	1¼″x5⅛″x3⅞″	1¾	1.92
A-785	6″	6″	6″	1¾″x4⅞″x5⅞″	2¾	2.17

➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ◄

Wyco Metal Products • NORTH HOLLYWOOD, CALIFORNIA

AEROVOX CAPACITORS

ELECTROLYTICS

TYPE AFH (85°C) TWIST PRONG ELECTROLYTIC CAPACITOR

SINGLES • DUALS • TRIPLES • QUADS

The outstanding line of twist-prong mounting electrolytic capacitors with all the latest refinements — 85°C operation — high purity aluminum foil construction through out — improved moisture resistant seal. Types AFHS-PWHS are specially constructed for high ripple current circuits. PWH and PWHS are constructed for printed wiring board applications.

These units operate over a wide temperature range with a minimum change in capacitance.

While designed for filter audio bypass applications in Radio-TV and Amplifier equipment as exact replacements, many values are rapidly gaining acceptance in industrial applications.

They are manufactured to meet all requirements of EIA specification number RS-154. Capacity tolerances of this specification are listed below.

ELECTROLYTIC CAPACITY TOLERANCES

0-50 Volts	—	—10 +250%
51-350 Volts	—	—10 +100%
351 Volts & Up	—	—10 +50%

Aerovox Corporation is currently working on a size reduction program. Many sizes shown in the following listing reflect latest design figures. However Aerovox reserves the right to furnish previous catalog sizes until present stocks are depleted.

The AFH capacitors listed here include only those ratings which might find usage in industrial applications. A complete line of 1152 ratings may be found in the latest Aerovox Catalog, IDC 563, and may be requested from Aerovox Corporation, Distributor Division, or through your nearest authorized Aerovox Industrial Distributor.

SINGLES

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 1-00-50	2000	6	1-3/8 x 2	$1.83
AFH 1-01-25	225	15	3/4 x 2	1.05
AFH 1-02	1000	15	1 x 1½	1.53
AFH 1-03	2000	15	1-3/8 x 2	2.07
AFH 1-04	3000	15	1-3/8 x 2½	2.55
AFH 1-06	40	25	3/4 x 2	.81
AFH 1-08	500	25	1 x 2	1.53
AFH 1-10	1000	25	1-3/8 x 2	2.13
AFH 1-11	100	50	3/4 x 2	.99
AFH 1-12	150	50	3/4 x 2	1.08
AFH 1-13	500	50	1-3/8 x 2	1.59
AFH 1-13-05	500	50	1 x 3	1.59
AFH 1-14	1000	50	1-3/8 x 3½	2.25
AFH 1-14-50	1500	50	1-3/8 x 3	2.64
AFH 1-16	30	150	1 x 2	.93
AFH 1-18	50	150	1 x 2	.99
AFHS 1-20	80	150	1 x 2	1.11
AFH 1-21	100	150	1 x 2	1.20
AFHS 1-22	120	150	1 x 2	1.23
AFHS 1-22-05	120	150	1-3/8 x 2	1.29
AFHS 1-23	140	150	1 x 1¾	1.26
AFH 1-24	150	150	1 x 2½	1.29
AFH 1-24-01	150	150	1-3/8 x 2	1.29
AFHS 1-24-25	200	150	1-3/8 x 2	1.47
AFHS 1-24-75	300	150	1-3/8 x 2½	1.68
PWH 1-25-75	160	200	1-3/8 x 3	1.74
AFH 1-29	40	250	1 x 2	1.08
AFH 1-31-25	100	250	1 x 3	1.62
AFH 1-31-75	150	250	1-3/8 x 2	1.86
AFHS 1-31-85	200	250	1-3/8 x 2	2.19
AFH 1-35	80	300	1 x 1¾	1.53
AFH 1-36	100	300	1 x 2½	1.74
AFH 1-37	125	300	1-3/8 x 2	2.10
AFHS 1-37-25	150	300	1-3/8 x 2	2.10
AFH 1-37-35	250	300	1-3/8 x 4	3.33
AFH 1-39	30	350	1 x 1½	1.14
AFH 1-40	40	350	1 x 1½	1.20
AFH 1-41	50	350	1 x 2	1.26
AFH 1-42	80	350	1-3/8 x 2	1.71
AFHS 1-43	125	350	1-3/8 x 2	2.19
AFH 1-43-20	150	350	1-3/8 x 2	2.37
AFH 1-45	20	400	1 x 2	1.29
AFH 1-48	10	450	1 x 1½	.93
AFH 1-49	15	450	1 x 1½	1.26
AFH 1-50	20	450	1 x 1½	1.08
AFH 1-51	30	450	1 x 1½	1.17
AFH 1-52	40	450	1 x 1¾	1.23
AFH 1-53	50	450	1 x 2½	1.41

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

SINGLES (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 1-54	60	450	1-3/8 x 2½	1.62
AFH 1-55	80	450	1-3/8 x 2½	1.83
AFH 1-55-20	100	450	1-3/8 x 2½	2.07
AFH 1-55-25	125	450	1-3/8 x 3	2.37
AFH 1-56-10	40	475	1-3/8 x 2	1.50
AFH 1-58	10	500	1 x 2	.96
AFH 1-59	20	500	1 x 2	1.11
AFH 1-60	30	500	1 x 2	1.23
AFH 1-61	40	500	1 x 2½	1.50
AFH 1-62	80	500	1-3/8 x 2½	2.16
AFH 1-63	90	500	1-3/8 x 3½	2.34

DUALS

AFH 2-08	20-20	150	1 x 1½	1.02
AFH 2-11	30-30	150	1 x 1½	1.11
AFH 2-12	40-20	150	1 x 1½	1.08
AFH 2-13	40-30	150	1 x 1½	1.11
AFH 2-14	40-40	150	1 x 1½	1.14
AFH 2-15	50-30	150	1 x 1½	1.20
AFH 2-16	50-50	150	1 x 1½	1.29
AFH 2-17	60-60	150	1 x 1½	1.41
PWH 2-17-50	70-30	150	1 x 1½	1.32
AFH 2-18	75-75	150	1 x 1¾	1.56
AFH 2-19-25	80-50	150	1 x 1½	1.44
AFH 2-20	80-80	150	1-3/8 x 2	1.59
AFH 2-20-50	125-100	150	1-3/8 x 2	2.10
AFH 2-20-61	150-100	150	1-3/8 x 2	2.01
AFHS 2-21	200-5	150	1-3/8 x 2½	1.62
AFH 2-22	200-125	150	1-3/8 x 3	2.25
AFH 2-22-50	200-150	150	1-3/8 x 3	2.25
AFH 2-23	200-200	150	1-3/8 x 3	2.40
AFH 2-24	60-60	200	1-3/8 x 2	1.53
AFHS 2-24-20	100-100	200	1-3/8 x 3	2.10
AFHS 2-24-75	200-5	200	1-3/8 x 2½	1.83
AFH 2-26	20-20	250	1 x 1½	1.14
AFH 2-29	40-40	250	1 x 1½	1.50
AFHS 2-30	150-150	250	1-3/8 x 4	3.09
AFHS 2-30-75	200-200	250	1-3/8 x 4	3.66
AFH 2-34	80-80	300	1-3/8 x 3	2.43
AFH 2-35	120-20	300	1-3/8 x 3	2.40
AFH 2-36	15-15	350	1 x 2	1.35
AFH 2-39	30-30	350	1 x 3	1.74
AFH 2-40	50-30	350	1-3/8 x 2	1.89
AFH 2-40-40	60-30	350	1-3/8 x 2	1.89
AFH 2-40-80	80-40	350	1-3/8 x 2½	2.37
AFH 2-41	80-80	350	1-3/8 x 3½	2.82
AFH 2-41-10	90-40	350	1-3/8 x 2½	2.58
AFH 2-41-40	100-60	350	1-3/8 x 3½	2.88

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ELECTROLYTICS–(Continued)

DUALS (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFHS 2-41-50	100-100	350	1-3/8 x 3	3.69
AFHS 2-41-80	160-10	350	1-3/8 x 3	2.58
AFH 2-45-10	80-20	400	1-3/8 x 2	2.73
AFH 2-45-40	80-60	400	1-3/8 x 4	2.91
AFH 2-45-60	120-40	400	1-3/8 x 4	3.15
AFH 2-46	5-5	450	1 x 2	1.05
AFH 2-47	10-10	450	1 x 2	1.14
AFH 2-49	15-15	450	1 x 2½	1.35
AFH 2-50	20-10	450	1 x 1¾	1.35
AFH 2-51	20-20	450	1 x 2½	1.53
AFH 2-52	30-10	450	1 x 3	1.50
AFH 2-54	30-30	450	1-3/8 x 2	1.83
AFH 2-55	40-10	450	1 x 2	1.59
AFH 2-56	40-20	450	1-3/8 x 2	1.80
AFH 2-57	40-40	450	1-3/8 x 2½	2.07
AFH 2-59	50-50	450	1-3/8 x 3	2.31
AFH 2-60	60-20	450	1-3/8 x 3	2.13
AFH 2-61	60-40	450	1-3/8 x 3	2.37
AFH 2-61-50	60-60	450	1-3/8 x 3	3.36
AFH 2-62	80-10	450	1-3/8 x 2	2.16
AFH 2-63	80-20	450	1-3/8 x 2¼	2.34
AFH 2-64	80-40	450	1-3/8 x 2¼	2.61
AFH 2-64-25	100-40	450	1-3/8 x 3½	2.91
AFH 2-64-50	15-15	475	1 x 2½	1.41
AFH 2-66	40-10	475	1-3/8 x 2½	1.86
AFH 2-66-60	80-50	475	1-3/8 x 3	3.12
AFH 2-67	10-10	500	1 x 2	1.23
AFH 2-69	20-20	500	1-3/8 x 2	1.71
AFH 2-71	30-10	500	1-3/8 x 2½	1.71
AFH 2-71-01	30-10	500	1 x 3	1.56
AFH 2-71-75	30-30	500	1-3/8 x 2	1.95
AFH 2-72	40-40	500	1-3/8 x 2½	2.64
AFH 2-73	60-40	500	1-3/8 x 3½	2.76
AFH 2-86-70	100/30	400/50	1-3/8 x 2½	2.34
AFH 2-86-72	80/80	400/200	1-3/8 x 2½	2.37
AFH 2-94-30	30/200	450/150	1-3/8 x 3	2.10

TRIPLES

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 3-05	20-20-20	150	1 x 2	1.38
AFH 3-06	30-30-10	150	1 x 2	2.10
AFH 3-07	40-20-10	150	1 x 2	1.41
AFH 3-08	40-20-20	150	1 x 2	1.44
AFH 3-09	40-30-20	150	1 x 2	1.50
AFH 3-10	40-40-40	150	1 x 2	1.56
AFH 3-11-20	50-40-10	150	1 x 1½	1.53
AFH 3-11-50	50-50-50	150	1 x 1¾	1.80
AFH 3-12	60-40-20	150	1 x 2	1.65
PWH 3-12-10	70-15-15	150	1 x 2	1.62
AFH 3-12-20	70-40-40	150	1 x 3	1.77
AFH 3-13	80-40-20	150	1 x 2½	1.74
AFH 3-13-08	100-30-10	150	1 x 2	1.83
AFH 3-13-15	120-80-40	150	1-3/8 x 2	2.28
AFH 3-13-30	120-120-40	150	1-3/8 x 2	2.43
AFH 3-13-50	200-100-60	150	1-3/8 x 2	2.73
AFH 3-13-75	200-150-150	200	1-3/8 x 4	4.50
AFH 3-17-10	20-20-20	250	1 x 2½	1.56
AFH 3-20	40-20-20	250	1 x 3	1.74
AFH 3-21	80-80-60	250	1-3/8 x 3	2.94
AFH 3-22	10-10-10	300	1 x 2	1.44
AFH 3-25	60-20-10	300	1-3/8 x 2	2.07
AFH 3-25-50	80-40-40	300	1-3/8 x 2½	2.85
AFH 3-26	120-50-40	300	1-3/8 x 4	3.39
AFH 3-28-30	30-20-10	350	1 x 2½	1.95
AFH 3-29	60-40-20	350	1-3/8 x 2	2.55
AFH 3-29-25	60-50-50	350	1-3/8 x 2¼	2.94
AFH 3-29-50	80-60-60	350	1-3/8 x 3½	3.33
AFH 3-29-75	90-40-20	350	1-3/8 x 3	3.15
AFH 3-30	10-10-10	400	1 x 1½	1.44
AFH 3-30-75	90-10-5	400	1-3/8 x 3	2.64
AFH 3-31	10-10-10	450	1 x 2	1.56

TRIPLES (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 3-34	15-15-15	450	1 x 3	1.86
AFH 3-35	20-10-10	450	1 x 2	1.77
AFH 3-36	20-20-20	450	1-3/8 x 2	2.16
AFH 3-37	30-20-20	450	1-3/8 x 2	2.31
AFH 3-39	30-30-30	450	1-3/8 x 2	2.61
AFH 3-41	40-10-10	450	1-3/8 x 2	2.01
AFH 3-42	40-30-20	450	1-3/8 x 2	2.58
AFH 3-43	40-40-10	450	1-3/8 x 2	2.52
AFH 3-43-50	40-40-20	450	1-3/8 x 2½	2.67
AFH 3-44	40-40-40	450	1-3/8 x 3	2.94
AFH 3-44-50	50-40-30	450	1-3/8 x 4	2.94
AFH 3-45	60-20-20	450	1-3/8 x 3½	2.76
AFH 3-45-10	60-30-10	450	1-3/8 x 3	2.70
AFH 3-45-25	60-40-20	450	1-3/8 x 3	3.00
AFH 3-45-35	80-10-10	450	1-3/8 x 2½	2.58
AFH 3-46	80-40-20	450	1-3/8 x 3	3.24
AFH 3-49-10	30-30-20	475	1-3/8 x 2	2.85
AFH 3-50-07	40-30-10	475	1-3/8 x 3	2.70
AFH 3-50-10	40-30-30	475	1-3/8 x 3	3.09
AFH 3-51	10-10-10	500	1 x 3	1.62
AFH 3-52	30-20-20	500	1-3/8 x 2¼	2.52
AFH 3-53	40-10-10	500	1-3/8 x 2	2.34
AFH 3-54	40-40-10	500	1-3/8 x 2½	3.03
AFH 3-72	40-20/20	150/25	1 x 1½	1.38
AFH 3-77	50-30/20	150/25	1 x 1½	1.50
AFH 3-79	50-50/20	150/25	1 x 3	1.59
AFH 3-82	80-40/20	150/25	1 x 2½	1.68
AFH 3-82-40	80-40/300	150/25	1-3/8 x 2½	2.22
AFH 3-84-75	80-10/20	200/50	1 x 1¾	1.68
AFH 3-120	20-20/20	400/25	1 x 3	1.71
AFH 3-124	10-10/10	450/25	1 x 1½	1.41
AFH 3-125	10-10/20	450/25	1 x 1½	1.44
AFH 3-132	40-20/20	450/25	1-3/8 x 2	2.10
AFH 3-187-05	20/100/140	450/400/300	1-3/8 x 4	4.17

QUADS

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 4-01	40-40-40-30	150	1-3/8 x 2	2.01
AFH 4-01-40	100-80-60-40	150	1-3/8 x 3	2.79
AFHS 4-01-55	200-200-60-30	175	1-3/8 x 3½	3.33
AFH 4-01-80	40-20-10-10	300	1-3/8 x 2	2.37
AFH 4-02	40-40-20-10	300	1-3/8 x 2½	2.73
AFH 4-02-10	40-40-30-20	300	1-3/8 x 3	2.91
AFH 4-02-30	60-40-10-10	300	1-3/8 x 2½	2.73
AFH 4-02-90	200-20-20-20	300	1-3/8 x 3½	3.69
AFH 4-04	40-20-20-10	350	1-3/8 x 2	2.61
AFH 4-04-50	40-40-40-40	350	1-3/8 x 2¼	3.60
AFH 4-05-55	80-60-40-20	350	1-3/8 x 3½	3.84
AFH 4-06-40	50-40-30-20	400	1-3/8 x 4	3.30
AFH 4-07	80-20-10-10	400	1-3/8 x 3½	3.03
AFH 4-10	10-10-10-10	450	1-3/8 x 2	2.01
AFH 4-14	20-20-20-20	450	1-3/8 x 2½	2.82
AFH 4-15-30	30-30-20-20	450	1-3/8 x 3	4.23
AFH 4-16	35-35-10-5	450	1-3/8 x 2	2.79
AFH 4-17	40-10-10-10	450	1-3/8 x 2	2.49
AFH 4-18-10	40-35-10-10	450	1-3/8 x 2	2.88
AFH 4-18-30	40-40-20-20	450	1-3/8 x 3	3.33
AFH 4-18-40	40-40-30-30	450	1-3/8 x 3	3.63
AFH 4-18-45	40-40-40-40	450	1-3/8 x 3½	3.87
AFH 4-18-50	60-20-20-20	450	1-3/8 x 3	3.39
AFH 4-18-60	60-30-10-2	450	1-3/8 x 3	3.06
AFH 4-18-80	80-10-10-10	450	1-3/8 x 4	3.03
AFH 4-19-10	20-20-10-10	475	1-3/8 x 2½	2.61
AFH 4-19-20	20-20-20-20	475	1-3/8 x 2½	3.12
AFH 4-19-50	40-20-10-10	475	1-3/8 x 2½	3.06
AFH 4-20	10-10-10-10	500	1-3/8 x 2	2.10
AFH 4-20-50	40-40-8-8	500	1-3/8 x 4	3.42
AFH 4-46	60-40-20/50	300/25	1-3/8 x 3	2.79
AFH 4-58-75	80-40/40-20	400/350	1-3/8 x 4	3.87
AFH 4-59	10-10-10/20	450/25	1-3/8 x 2	1.89

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

AEROVOX CAPACITORS

ELECTROLYTICS — (Continued)

TYPE PRS "DANDEE" (85°C)

SINGLES • DUALS • TRIPLES • MULTIPLES

Metal Can Tubular Electrolytic Capacitors TYPE PRS-AC (AC rated units) NP-PRS (non-polarized units)

Compact, electrolytic tubular capacitors furnished in aluminum cans with cardboard insulating sleeves. Designed for use in television and radio applications where space is at a premium.
Included in this listing are the AC rated units (PRS-AC) and non-polarized units (NP PRS) for replacement use in cross-over networks and color TV receivers.
Single section capacitors are furnished with bare tinned copper leads 3 inches long. Negative grounded to case. Multiple units are furnished with insulated, stranded copper leads 5 inches long. Negative is common and grounded to case. Multiple units have common cathode.
Sizes listed are diameters over cardboard insulating sleeve. For actual can size deduct 1/16" from diameter and 1/4" from length. Multiple units are supplied with mounting strap. If mounting strap is required on single units, specify on order.
Tolerance and surge voltage are in accordance with EIA Specification RS-154.

The factory is currently in the process of reducing sizes of this type. Aerovox reserves the right to ship sizes listed below until present stock is depleted and smaller sizes as they become available.

TYPE PRS – SINGLES

Prs No.	Cap. Mfd.	Size	Net Price*
		4V	
1050	2000	1-1/16 x 2¾	$1.38
		6V	
1100	100	9/16 x 1-3/8	.72
1110	250	11/16 x 1¾	.81
1120	500	13/16 x 1¾	.93
1130	1000	15/16 x 2¼	1.14
1140	1500	1-1/16 x 2¼	1.26
1145	2000	1-1/16 x 2¾	1.38
		10V	
1147	2000	1-1/16 x 2	1.47
		12V	
1150	100	11/16 x 1¼	.72
1160	250	11/16 x 2	.87
1170	500	13/16 x 2	1.02
1180	1000	13/16 x 2¼	1.35
		15V	
1200	100	11/16 x 1½	.75
1210	250	11/16 x 2	.93
1220	500	15/16 x 2¼	1.05
1230	1000	1-1/16 x 2¼	1.38
1240	2000	1-1/16 x 4¼	1.92
		25V	
1250	10	9/16 x 1¼	.60
1255	16	9/16 x 1¼	.60
1260	25	9/16 x 1¼	.60
1265	50	9/16 x 1¼	.66
1270	100	11/16 x 1¾	.81
1280	250	13/16 x 1¾	1.02
1290	500	1-1/16 x 2¼	1.38
1295	1000	1-1/16 x 2½	1.98
		50V	
1300	2	9/16 x 1¼	.54
1310	5	9/16 x 1¼	.60
1320	10	9/16 x 1¼	.60
1330	20	9/16 x 1¼	.60
1340	25	9/16 x 1¼	.63
1350	50	11/16 x 1½	.72
1360	100	11/16 x 1¾	.84
1370	150	13/16 x 1¾	.93
1380	250	15/16 x 1¾	1.05
1390	500	1-1/16 x 2¼	1.44
		150V	
1400	4	9/16 x 1¼	.60
1405	8	9/16 x 1¼	.63
1410	10	9/16 x 1-3/8	.63
1420	12	9/16 x 1-3/8	.66
1430	16	11/16 x 1½	.69
1440	20	11/16 x 1¾	.72
1450	24	11/16 x 1¾	.75
1460	30	13/16 x 1½	.78
1470	40	13/16 x 1¾	.81
1480	50	15/16 x 1¾	.84
1490	60	15/16 x 1¾	.90
1500	80	15/16 x 1¾	.96
1510	100	15/16 x 2¼	1.05
1520	150	1-1/16 x 2¼	1.14
1530	200	1-1/16 x 3	1.32
1540	300	1-1/16 x 4	1.53
		250V	
1550	4	11/16 x 1¼	.60
1555	8	11/16 x 1½	.69
1560	12	11/16 x 1¾	.75
1565	16	13/16 x 1½	.78
1570	20	13/16 x 1½	.81
1575	30	13/16 x 2¼	.87
1580	40	13/16 x 2¼	.93
1585	50	15/16 x 2¼	1.02
1590	60	15/16 x 2¼	1.08
1595	100	1-1/16 x 3¼	1.47

TYPE PRS–SINGLES (Cont)

Prs No.	Cap. Mfd.	Size	Net Price*
		350V	
1600	4	11/16 x 1½	$ .63
1610	8	11/16 x 1¾	.72
1620	10	13/16 x 1¾	.75
1630	12	13/16 x 1¾	.78
1640	16	13/16 x 1¾	.84
1650	24	13/16 x 2	.93
1660	30	13/16 x 2¼	.99
1670	40	15/16 x 2¼	1.05
1680	50	1-1/16 x 2¼	1.11
1690	60	1-1/16 x 2½	1.17
		450V	
1700	1	9/16 x 1¼	.66
1705	2	9/16 x 1¼	.69
1710	4	11/16 x 1½	.69
1715	8	11/16 x 1-7/8	.75
1720	10	11/16 x 1-7/8	.78
1725	12	13/16 x 1-7/8	.81
1730	16	13/16 x 2	.84
1735	20	13/16 x 2¼	.93
1740	30	15/16 x 2¼	1.02
1750	40	15/16 x 2¾	1.08
1760	50	15/16 x 3½	1.26
1770	60	1-1/16 x 3¼	1.41
1780	80	1-1/16 x 3¾	1.68
1790	100	1-1/16 x 4	1.92
		500V	
1800	4	11/16 x 2	.72
1805	8	13/16 x 1¾	.78
1810	10	15/16 x 1¾	.81
1815	12	15/16 x 2¼	.84
1820	16	1-1/16 x 2¼	.90
1830	20	1-1/16 x 2¼	.96
1840	30	1-1/16 x 2¾	1.05
		600V	
1845	4	7/8 x 2¾	1.44
1850	8	15/16x3-1/16	1.71
1860	10	15/16x3-1/16.	1.77
1870	12	1-1/16x3-1/16	1.89
1880	16	1-1/16x3-9/16	2.07
1890	20	1-1/16x3-9/16	2.13
		700V	
1900	8	15/16x3-1/16	1.74
1905	10	1-1/16x3-1/16	1.83
1910	12	1-1/16x3-9/16	1.95
1915	16	1-1/16x3-9/16	2.10

TYPE PRS – DUALS

Prs No.	Cap. Mfd.	Size	Net Price*
		15V	
2020	500-150	15/16 x 1¾	1.62
		25V	
2050	10-10	11/16 x 1¼	.84
2075	20-20	11/16 x 1¼	.84
		150V	
2150	8-8	11/16 x 1¾	.90
2155	16-8	11/16 x 2¼	.93
2160	20-10	13/16 x 1½	.93
2165	20-20	13/16 x 1¾	.99
2170	30-20	15/16 x 1¾	1.02
2175	30-30	15/16 x 1¾	1.08
2180	40-20	15/16 x 1¾	1.05
2190	40-30	15/16 x 2¼	1.08
2195	40-40	15/16 x 2¼	1.08
2200	50-30	15/16 x 2¼	1.17
2210	50-50	15/16 x 2¼	1.26
2220	80-20	15/16 x 2¼	1.29
2230	80-40	15/16 x 2¾	1.32
2240	80-50	1-1/16x2¾	1.41
2245	100-100	1-1/16x3¼	1.92
		200V	
2250	8-8	11/16 x 1¾	.90

TYPE PRS–DUALS (Cont)

Prs No.	Cap. Mfd.	Size	Net Price*
2260	16-8	11/16 x 2¼	$ .96
2280	16-16	13/16 x 1¾	1.02
2290	30-30	15/16 x 2¼	1.29
		250V	
2300	10-10	13/16 x 1¾	.99
2320	16-16	13/16 x 2¼	1.07
2330	20-20	15/16 x 2¼	1.11
2340	30-30	15/16 x 2¼	1.35
		300V	
2345	50-10	1-1/16 x 2¼	1.50
		450V	
2350	8-8	13/16 x 2¼	1.02
2360	10-10	15/16 x 2¼	1.11
2370	16-8	15/16 x 2¼	1.20
2380	16-16	1-1/16 x 2¼	1.35
2390	20-20	15/16 x 3	1.50
2400	30-30	1-1/16 x 3¼	1.80
2410	40-20	1-1/16 x 3¼	1.77
2420	40-40	1-1/16 x 4	2.01
2430	50-30	1-1/16 x 4	2.04

TYPE PRS – TRIPLES

Prs No.	Cap. Mfd.	Size	Net Price*
		15V	
3200	500-100-100	15/16 x 1-13/16	1.80
		150V	
3500	20-20-20	15/16 x 1¾	1.51
3550	30-20-10	15/16 x 1¾	1.51
3555	30-25-20	1-1/16 x 1¾	1.51
3560	30-30-20	1-1/16 x 1¾	1.58
3570	30-30-30	15/16 x 2¼	1.58
3600	40-20-20	15/16 x 2¼	1.58
3625	40-30-20	15/16 x 2¼	1.58
3650	40-40-20	1-1/16 x 2¼	1.63
3675	40-40-40	1-1/16 x 2¼	1.67
3700	50-30-10	15/16 x 2¼	1.58
3750	50-30-20	1-1/16 x 2½	1.63
3800	80-40-20	1-1/16 x 2½	1.74
3825	80-50-20	1-1/16 x 2¾	1.74
		450V	
3900	10-10-10	1-1/16 x 2¾	1.67

TYPE PRS – MULTIPLE VOLTAGES

Prs No.	Cap. Mfd.	VCDW	Size	Net Price*
4150	40-40/250	150/10	1-1/16x2¼	$1.71
4200	20-20/20	150/25	13/16 x 1¾	1.48
4300	30-20/20	150/25	15/16 x 1¾	1.50
4350	30-20/100	150/25	15/16 x 2¼	1.58
4400	40-20/20	150/25	15/16 x 1¾	1.53
4425	40-30/20	150/25	15/16 x 2¼	1.55
4450	40-40/20	150/25	15/16 x 2¼	1.59
4475	40-40/100	150/25	1-1/16 x 2¼	1.67
4500	50-30/20	150/25	1-1/16 x 1¾	1.59
4525	50-30/100	150/25	1-1/16 x 2¼	1.67
4550	50-30/250	150/25	1-1/16 x 2¾	1.81
4575	50-50/20	150/25	1-1/16 x 2¼	1.66
4600	80-20/100	150/25	1-1/16 x 2¼	1.69
4650	80-40/20	150/25	1-1/16 x 2¼	1.69
4700	20-20/20	450/25	1-1/16 x 2¾	1.86
*4800	20/100	475/50	1 x 2-11/16	1.56
4805	20/100	500/25	1 x 3	1.56

*No Tube

TYPE PRS – AC Rated

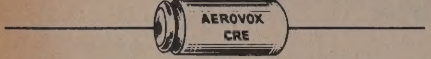
Prs No.	Cap. Mfd.	Size	Net Price*
		10 VAC	
6200	8	11/16 x 1½	$ .75
		25 VAC	
6400	20	13/16 x 1½	.75
		50 VAC	
6500	30	7/8 x 1-5/8	.84
6550	60	¾ x 2-5/8	.93

NP-PRS–NON-POLARIZED

Prs No.	Cap. Mfd.	Size	Net Price*
		3 VNP	
7050	1000	1-1/16 x 2¼	1.29
		6 VNP	
7100	500	15/16 x 2¼	1.17
		10 VNP	
7200	25	7/16 x 1¼	.69
7220	50	13/16 x 1½	.72
7240	450	1-1/16 x 1¾	1.20
7245	500	1-1/16 x 1¾	1.20
		15 VNP	
7250	500	1-1/16 x 2¼	1.31
7275	1000	1-1/16 x 3¾	1.74
		25 VNP	
7300	2	13/16 x 1½	.69
7315	10	11/16 x 1¾	.75
7330	50	15/16 x 1½	.84
7340	100	15/16 x 1¾	1.02
		30 VNP	
7350	20	13/16 x 1½	.75
		50 VNP	
7400	2	13/16 x 1¼	.69
7405	4	13/16 x 1¼	.75
		150 VNP	
7450	40	1-1/16 x 2¼	1.02
		200 VNP	
7500	2	11/16 x 1¼	.75
		300 VNP	
7525	1	9/16 x 1¼	.75
		350 VNP	
7550	5	15/16 x 1¾	.78
7555	10	1-1/16 x 2	.93
7560	20	1-1/16 x 2¼	1.09
		400 VNP	
7650	10	1-1/16 x 2	.93
		450 VNP	
7750	4	15/16 x 1½	.84

*Request O.E.M. Prices in the following quantities 25-49, 50-99, 100-249

ELECTROLYTICS—(Continued)
TYPE CRE ULTRA-MINIATURE 85°C ALUMINUM CASED ELECTROLYTICS



Temperature Range: —30°C to +85°C
Capacitance Tolerance: —10%, +100%
Nominal lead length: 1½″

Ultra-miniature, tubular, aluminum cased electrolytics with tinned copper leads. Furnished with insulating sleeves of heat shrinkable mylar tubing which adds only 1/32″ to can diameter and 1/16″ to length.

Ideal for use in bypass, filter, and coupling applications in low-voltage, compact, miniaturized equipments such as personal radios, hearing aids, microphones, wire receivers, etc.

Elimination of variable or high resistance connections, freedom from corrosion and extremely low leakage characteristics have been attained through the use of a combination of all-welded construction, high purity ingredients and extreme care in manufacture and test procedures.

Packaging: Packaged in new, patented, straight-lead, 5-pack container. Keeps leads straight. Holds five units. The 5-pack is adaptable to packaging in bulk or in single inside cartons. For full technical information request Bulletin NPJ-124

STOCK LISTING

Mfd.	Size	Catalog Number *	Net **Price
		3 VDCW	
1	B	CRE200A	$ .75
2	B	CRE201A	.75
3	B	CRE202A	.75
4	B	CRE203A	.75
5	B	CRE204A	.75
6	B	CRE205A	.75
8	B	CRE206A	.75
10	B	CRE207A	.75
15	B	CRE209A	.75
20	B	CRE211A	.75
25	B	CRE212A	.75
30	C	CRE213A	.75
35	C	CRE214A	.75
40	C	CRE215A	.75
50	C	CRE217A	.75
60	D	CRE218A	.84
75	D	CRE220A	.84
100	D	CRE223A	.84
125	E	CRE226A	.87
150	E	CRE228A	.87
175	F	CRE230A	.90
200	F	CRE231A	.90
225	G	CRE232A	.96
250	G	CRE233A	.96
300	G	CRE235A	.99
350	H	CRE237A	1.02
400	H	CRE239A	1.02
450	J	CRE241A	1.05
500	J	CRE243A	1.05
		6 VDCW	
1	B	CRE300A	.81
2	B	CRE301A	.81
3	B	CRE302A	.81
4	B	CRE303A	.81
5	B	CRE304A	.81
6	B	CRE305A	.81
8	B	CRE306A	.81
10	B	CRE307A	.81
15	B	CRE309A	.81
20	C	CRE311A	.81
25	C	CRE312A	.81
30	C	CRE313A	.84
35	C	CRE314A	.84
40	D	CRE315A	.84
50	D	CRE317A	.84
60	D	CRE318A	.84
75	E	CRE320A	.87
100	E	CRE323A	.90
125	F	CRE326A	.93
150	G	CRE328A	.93
175	H	CRE330A	.96
200	H	CRE331A	.96
225	H	CRE332A	.99
250	H	CRE333A	1.02
300	J	CRE335A	1.08
350	J	CRE337A	1.08
		12 VDCW	
1	B	CRE400A	$ .84
2	B	CRE401A	.84
3	B	CRE402A	.84
4	B	CRE403A	.84
5	B	CRE404A	.84
6	B	CRE405A	.84
8	B	CRE406A	.84
10	B	CRE407A	.84
12	B	CRE408A	.84
15	C	CRE409A	.84
20	C	CRE411A	.84
25	C	CRE412A	.84
30	D	CRE413A	.87
35	D	CRE414A	.87
40	E	CRE415A	.93
50	E	CRE417A	.93
60	E	CRE418A	.93
75	F	CRE420A	.99
100	F	CRE423A	1.05
125	G	CRE426A	1.08
150	H	CRE428A	1.14
175	H	CRE430A	1.17
200	H	CRE431A	1.23
225	J	CRE432A	1.32
250	J	CRE433A	1.32
		15 VDCW	
1	B	CRE450A	.84
2	B	CRE451A	.84
3	B	CRE452A	.84
4	B	CRE453A	.84
5	B	CRE454A	.84
6	B	CRE455A	.84
8	B	CRE456A	.84
10	B	CRE457A	.84
15	C	CRE459A	.87
20	C	CRE461A	.87
25	D	CRE462A	.87
30	D	CRE463A	.90
35	E	CRE464A	.93
40	E	CRE465A	.96
50	E	CRE467A	.96
60	F	CRE468A	1.02
75	F	CRE470A	1.02
100	G	CRE473A	1.08
125	H	CRE476A	1.17
150	H	CRE478A	1.17
175	J	CRE480A	1.26
200	J	CRE481A	1.26
		25 VDCW	
1	B	CRE600A	.84
2	B	CRE601A	.84
3	B	CRE602A	.84
4	B	CRE603A	.84
5	B	CRE604A	.84
6	C	CRE605A	.84
8	C	CRE606A	.87
10	C	CRE607A	.87
		25 VDCW (Cont.)	
15	D	CRE609A	$ .87
20	E	CRE611A	.90
25	E	CRE612A	.93
30	E	CRE613A	.96
35	F	CRE614A	.99
40	F	CRE615A	1.02
50	G	CRE617A	1.08
60	G	CRE618A	1.08
75	H	CRE620A	1.17
100	J	CRE623A	1.26
125	J	CRE626A	1.26
		50 VDCW	
1	B	CRE750A	.84
2	B	CRE751A	.84
3	C	CRE752A	.84
4	C	CRE753A	.84
5	C	CRE754A	.87
6	D	CRE755A	.87
8	D	CRE756A	.90
10	D	CRE757A	.90
15	E	CRE759A	.90
20	F	CRE761A	.90
25	G	CRE762A	.93
30	G	CRE763A	.96
35	H	CRE764A	1.02
40	H	CRE765A	1.05
50	J	CRE767A	1.11
		100 VDCW	
1	D	CRE900A	.84
2	D	CRE901A	.84
3	D	CRE902A	.84
4	E	CRE903A	.84
5	E	CRE904A	.90
6	E	CRE905A	.90
8	F	CRE906A	.93
10	G	CRE907A	.93
12	G	CRE908A	.93
15	H	CRE909A	.93
20	J	CRE911A	.96
25	J	CRE912A	.96
		150 VDCW	
1	D	CRE950A	.84
2	E	CRE951A	.87
3	E	CRE952A	.87
4	E	CRE953A	.87
5	E	CRE954A	.93
6	F	CRE955A	.93
8	G	CRE956A	.96
10	H	CRE957A	.96
15	H	CRE959A	.96
20	J	CRE961A	.96

SIZE CHART			
B	¼ x ½	F	3/8 x 13/16
C	¼ x 11/16	G	3/8 x 15/16
D	5/16 x 11/16	H	3/8 x 1¼
E	3/8 x 11/16	J	3/8 x 1½

*When ordering units without insulating sleeve delete suffix letter 'A' from Catalog No.
**Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249.

AEROVOX

CAPACITORS

ELECTROLYTICS — (Continued)

TYPE PTT TUBULAR PLASTIC-CASED ELECTROLYTICS

AEROVOX
PTT

Small in size big in performance, designed especially for wide applications in transistorized circuitry and cramped electronic assemblies, here is a truly MINIATURE electrolytic tubular that will handle full sized loads. Aerovox Type PTT units feature "Polycap" cases that are the next best thing to metal cans for maximum protection against humidity. Advanced construction techniques assure long capacitor life. Units are rated for operation at temperatures from —30°C to +65°C.

This type was formerly designated as PTT-PWE.

For full technical information request Bulletin NPJ-111.

3 VDCW

Cap.	PTT #	Size	Net Price*
1	PTT 1	A	$ .42
2	PTT 2	A	.42
3	PTT 3	A	.42
5	PTT 4	A	.42
8	PTT 5	A	.42
10	PTT 6	A	.42
15	PTT 7	A	.42
20	PTT 8	A	.42
25	PTT 9	A	.42
30	PTT 10	A	.42
40	PTT 11	A	.42
50	PTT 12	B	.42
100	PTT 13	C	.45
200	PTT 14	E	.45
250	PTT 15	F	.48
300	PTT 16	G	.54
500	PTT 17	K	.75

6 VDCW

Cap.	PTT #	Size	Net Price*
1	PTT 18	A	.42
2	PTT 19	A	.42
3	PTT 20	A	.42
5	PTT 21	A	.42
8	PTT 22	A	.42
10	PTT 23	A	.42
15	PTT 24	A	.42
20	PTT 25	A	.42
25	PTT 26	B	.42
30	PTT 27	B	.42
40	PTT 28	C	.45
50	PTT 29	C	.45
100	PTT 30	E	.45
200	PTT 31	F	.48
250	PTT 32	H	.60
300	PTT 33	K	.75

10 VDCW

Cap.	PTT #	Size	Net Price*
1	PTT 34	A	.42
2	PTT 35	A	.42
3	PTT 36	A	.42
5	PTT 37	A	.42
8	PTT 38	A	.42
10	PTT 39	A	.42
15	PTT 40	A	.42
20	PTT 41	B	.42
25	PTT 42	C	.45
30	PTT 43	C	.45
40	PTT 44	C	.45
50	PTT 45	D	.45
100	PTT 46	E	.45
200	PTT 47	K	.75

12 VDCW

Cap.	PTT #	Size	Net Price*
1	PTT 48	A	.42
2	PTT 49	A	.42
3	PTT 50	A	.42
5	PTT 51	A	.42
8	PTT 52	A	.42
10	PTT 53	A	.42
15	PTT 54	B	.42
20	PTT 55	C	.45
25	PTT 56	C	.45
30	PTT 57	C	.45
40	PTT 58	C	.45
50	PTT 59	E	.45
100	PTT 60	H	.60

15 VDCW

Cap.	PTT #	Size	Net Price*
1	PTT 61	A	$ .42
2	PTT 62	A	.42
3	PTT 63	A	.42
5	PTT 64	A	.42
8	PTT 65	A	.42
10	PTT 66	B	.42
15	PTT 67	B	.42
20	PTT 68	C	.45
25	PTT 69	C	.45
30	PTT 70	C	.45
40	PTT 71	C	.45
50	PTT 72	E	.45
100	PTT 73	H	.60

25 VDCW

Cap.	PTT #	Size	Net Price*
1	PTT 74	A	.42
2	PTT 75	A	.42
3	PTT 76	A	.42
5	PTT 77	A	.42
8	PTT 78	A	.42
10	PTT 79	B	.42
15	PTT 80	C	.45
20	PTT 81	C	.45
25	PTT 82	C	.45
30	PTT 83	D	.45
40	PTT 84	D	.45
50	PTT 85	E	.45
100	PTT 86	J	.66

50 VDCW

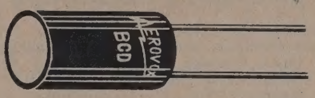
Cap.	PTT #	Size	Net Price*
1	PTT 87	A	.42
2	PTT 88	A	.42
3	PTT 89	A	.42
5	PTT 90	B	.42
8	PTT 91	C	.45
10	PTT 92	C	.45
15	PTT 93	D	.45
20	PTT 94	D	.45
25	PTT 95	F	.48
30	PTT 96	H	.60
40	PTT 97	K	.75
50	PTT 98	K	.75

SIZE CHART

A	¼ x ¾
B	¼ x 7/8
C	3/8 x ¾
D	3/8 x 7/8
E	3/8 x 1
F	3/8 x 1¼
G	3/8 x 1-3/8
H	3/8 x 1½
J	3/8 x 1¾
K	3/8 x 2

***Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249**

TYPE B C D UPRIGHT MOUNTING PLASTIC CASED ELECTROLYTICS



"Polycap" cased, epoxy end filled electrolytic capacitors. Upright mounting for replacement in printed wiring, transistorized personal radios and car radios.

Small size and type of mounting make these units ideal for use in any printed wiring circuit.

Plastic case and epoxy end seal offer good moisture barrier which protects against drying out or leakage of electrolyte.

High purity foil insures long life and low leakage.

Minimum 1" lead length assists in threading connections into printed wiring boards even in tightest spaces.

Positive lead is identified by a + (plus) mark on case.

For full technical information request Bulletin NPJ-108.

Cap. Mfds.	BCD No.	Size	Net Price*
	3 VDCW		
1	3001	A	$ .87
2	3002	A	.87
3	3003	A	.87
4	3004	A	.87
5	3005	A	.87
6	3006	A	.87
8	3008	A	.87
10	3010	A	.87
15	3015	A	.87
20	3020	A	.87
25	3025	A	.87
35	3035	A	.90
50	3050	A	.93
75	3075	A	1.02
100	3100	B	1.05
150	3150	C	1.05
200	3200	C	1.08
250	3250	D	1.17
300	3300	D	1.20
500-50	3X50050	P	1.38
	5 VNP		
5	5005	B	1.08

Cap. Mfds.	BCD No.	Size	Net Price*
	6VDCW		
1	6001	A	.87
2	6002	A	.87
3	6003	A	.87
4	6004	A	.87
5	6005	A	.87
6	6006	A	.87
8	6008	A	.87
10	6010	A	.87
15	6015	A	.87
20	6020	A	.87
25	6025	A	.90
35	6035	A	.93
50	6050	A	1.02
75	6075	B	1.05
100	6100	C	1.14
150	6150	D	1.17
200	6200	D	1.17
100-30	6X10030	E	.87

Cap. Mfds.	BCD No.	Size	Net Price*
	10 VNP		
5	10005	G	1.11
	10 VDCW		
10	10010	A	1.08
25	10025	A	1.17
50	10050	B	1.05
80	10080	C	1.11
100	10100	C	1.17
190	10190	E	1.20
50-30	10X5030	D	.87
50-50	10X5050	D	.90
80-50	10X8050	D	.96
80-80	10X8080	D	1.02

Cap. Mfds.	BCD No.	Size	Net Price*
	12 VDCW		
1	12001	A	.87
2	12002	A	.87
3	12003	A	.87
4	12004	A	.87
5	12005	A	.90
6	12006	A	.90
8	12008	A	.90
10	12010	A	$ .90
15	12015	A	.93
20	12020	A	.93
25	12025	A	.93
35	12035	A	.93
50	12050	B	.99
75	12075	C	1.05
100	12100	D	1.14
150	12150	E	1.17
250	12250	K	1.26
500	12500	F	1.32

Cap. Mfds.	BCD No.	Size	Net Price*
	15 VDCW		
1	15001	A	.87
2	15002	A	.87
3	15003	A	.87
4	15004	A	.87
5	15005	A	.90
6	15006	A	.90
8	15008	A	.90
10	15010	A	.90
15	15015	A	.93
20	15020	A	.93
25	15025	A	.93
35	15035	B	.93
50	15050	C	.99
75	15075	D	1.08
100	15100	D	1.17
100-100	*15X100100	N	1.26
300-100	15X300100	M	1.32
	18 VDCW		
100	18100	H	1.17
	20 VDCW		
200	20200	J	1.26

Cap. Mfds.	BCD No.	Size	Net Price*
	25 VDCW		
1	25001	A	.90
2	25002	A	.90
3	25003	A	.93
4	25004	A	.99
5	25005	A	.99
6	25006	A	.99
8	25008	A	.99
10	25010	B	.99
15	25015	B	.99
20	25020	B	.99
25	25025	B	.99
35	25035	C	1.05
50	25050	D	1.05
75	25075	D	1.17

Cap. Mfds.	BCD No.	Size	Net Price*
	50 VDCW		
1	50001	A	.90
2	50002	A	.90
3	50003	A	.93
4	50004	A	.99
5	50005	A	.99
6	50006	A	.99
8	50008	A	.99
10	50010	B	.99
15	50015	C	.99
20	50020	C	.99
25	50025	D	.99

* Common Positive

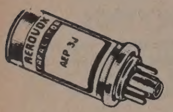
SIZE CODE

A-3/8 x 5/8
B-3/8 x ¾
C-7/16 x ¾
D-½ x ¾
E-½ x 7/8
F-5/8 x 1-3/8
G-½ x 1-1/8
H-5/8 x ¾
J-5/8 x 1-1/8
K-½ x 1¼
M-9/16 x 1½
N-5/8 x 1¼
P-5/8 x 1½

LEAD SPACING

Diameter	Spacing
3/8	.187
7/16	.250
1/2	.312

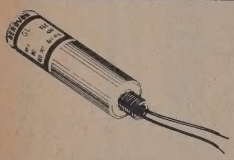
ELECTROLYTICS — (Continued)



TYPE AEP
Plug-in Electrolytic Capacitors

Hermetically sealed, dry electrolytic capacitor furnished in round, aluminum can and 4-pin, octal-base mounting. For quick changes, readily removed and replaced in a standard octal-base tube socket.
For use where continuous service is important. They are ideally suited for experimental testing, juke boxes and communication receiver uses. These units are the commercial equivalents of Type CE51's, 2's and 3's, as listed in MIL Specification C62A.
Operating temperature to +65°C. Quadruple element units furnished with ground lug for cathode connection.

Type	Capacity Mfd.	VDCW	Diam. x Hght.	Net Price*
SINGLE ELEMENT UNITS				
AEP400P	2000	15	1-3/8 x 2½	$3.43
AEP5A	25	25	1-5/32 x 2½	2.29
AEP4D	20	150	1-5/32 x 2½	2.29
AEP8D	40	150	1-5/32 x 2½	2.33
AEP80D	400	150	1-3/8 x 3½	3.45
AEP2J	10	450	1-5/32 x 2½	2.34
AEP3J	15	450	1-5/32 x 2½	2.39
AEP4J	20	450	1-5/32 x 2½	2.44
AEP6J	30	450	1-5/32 x 2½	2.53
AEP8J	40	450	1-5/32 x 2½	2.77
AEP16J	80	450	1-3/8 x 3½	3.25
AEP2L	10	600	1-3/8 x 4¼	2.84
DUAL ELEMENT UNITS				
AEP44D	20-20	150	1-5/32 x 2½	2.46
AEP88D	40-40	150	1-5/32 x 2½	2.54
AEP22J	10-10	450	1-5/32 x 2½	2.57
AEP44J	20-20	450	1-3/8 x 2½	2.90
AEP62J	30-10	450	1-5/32 x 2½	2.97
AEP88J	40-40	450	1-3/8 x 3	3.31
TRIPLE ELEMENT UNITS				
AEP444D	20-20-20	150	1-5/32 x 2½	2.61
AEP88D4A	40-40/20	150/25	1-5/32 x 2½	2.67
AEP222J	10-10-10	450	1-5/32 x 2½	2.78
AEP22J4A	10-10/20	450/25	1-5/32 x 2½	2.69
AEP44J4A	20-20/20	450/25	1-3/8 x 2½	3.03
AEP444J	20-20-20	450	1-3/8 x 3	3.29
AEP822J	40-10-10	450	1-3/8 x 3	3.23
QUADRUPLE ELEMENT UNITS				
AEPG444D4A	20-20-20/20	150/25	1-3/8 x 2½	2.87
AEPG2222J	10-10-10-10	450	1-3/8 x 2½	3.11
AEPG444J4A	20-20-20/20	450/25	1-3/8 x 3	3.34



TYPE GL

These ever-popular inverted-mounting, aluminum can units, are furnished with the same high purity materials as the more expensive type E and G. Two separate color-coded leads 4" long for each section. Inverted chassis mounting can be made, using palnut and threaded neck. Threaded neck size ⅝—18.

SINGLE ELEMENT

Cap. Mfd.	Size—DxH	Net Price *
TYPE GL600		
600 VDCW 750V Surge Peak		
4	1-3/8 x 4	$1.71
8	1-3/8 x 4½	1.85
16	1-3/8 x 4½	2.37
TYPE GL475		
475 VDCW 550V Surge Peak		
8	1-3/8 x 3	1.52
12	1-3/8 x 3	1.61
16	1-3/8 x 3	1.66
TYPE GL450		
450 VDCW 525V Surge Peak		
4	1-3/8 x 3	1.50
8	1-3/8 x 3	1.54
10	1-3/8 x 3	1.56
12	1-3/8 x 3	1.58
16	1-3/8 x 3	1.62
20	1-3/8 x 3	1.66
30	1-3/8 x 3	1.76
40	1-3/8 x 3	1.86
80	1-3/8 x 4	2.46

DUAL ELEMENT

Cap. Mfd.	Size—DxH	Net Price *
TYPE GL475		
8-8	1-3/8 x 4	$1.76
TYPE GL450		
8-8	1-3/8 x 4	1.73
10-10	1-3/8 x 4	1.77
12-12	1-3/8 x 4	1.81
16-8	1-3/8 x 4	1.81
16-16	1-3/8 x 4	1.90
20-20	1-3/8 x 4	1.98

TRIPLE ELEMENT

Cap. Mfd.	Size—DxH	Net Price *
TYPE GL450		
8-8-8	1-3/8 x 4	1.93
10-10-10	1-3/8 x 4	1.98

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

AEROVOX
HCB
MFD
1000
VDC
12
RED POS PLN NEG

TYPES HCB and NPB
High Capacity Low Voltage Bakelite Cased Electrolytics

Type HCB units are polarized electrolytic capacitors designed for use in industrial applications such as battery eliminators, power supplies, electric fence controls and sound movie projectors. For non-polarized applications in welding and control equipment Type NPB units are available.

Both types feature heavy-duty, moisture resistant bakelite cases which eliminate the need for outer cardboard insulating tubes. Operating temperature range from —40°C to +85°C. Capacitance tolerance up to 150 VDCW —10% +100%, over 150 VDCW —10% +50%. High capacity etched plate construction assures long trouble-free operation. Units supplied with wrap around—footed brackets for vertical mtg.—horizontal mtg. available on Special Order.

For full technical information request bulletin NPJ-117.

TYPE HCB

Capacity MFD	Size	Net Price**
6 VDCW—8V Surge		
12000	1-13/16 x 4-3/8	$8.16
12 VDCW—18V Surge		
500	1-7/16 x 2¾	2.70
1000	1-7/16 x 2¾	2.94
2000	1-7/16 x 2¾	3.36
3000	1-7/16 x 3-3/8	3.96
4000	1-7/16 x 3-3/8	4.60
6000	1-13/16 x 3-3/8	5.20
10000	1-13/16 x 4-3/8	7.82
18 VDCW—25V Surge		
500	1-7/16 x 2¾	2.89
1000	1-7/16 x 2¾	3.31
1500	1-7/16 x 2¾	3.39
2000	1-7/16 x 2¾	3.47
4000	1-13/16 x 3-3/8	5.37
6000	1-13/16 x 3-3/8	5.62
25 VDCW—40V Surge		
500	1-7/16 x 2¾	2.89
1000	1-7/16 x 2¾	3.19
1250	1-7/16 x 3-3/8	3.43
2000	1-7/16 x 3-3/8	4.15
3000	1-13/16 x 3-3/8	4.88
4000	1-13/16 x 3-3/8	5.58
6000	1-13/16 x 4-3/8	7.12

HCB (Continued)

Capacity MFD	Size	Net Price**
50 VDCW—75V Surge		
500	1-7/16 x 3-3/8	$3.33
1000	1-7/16 x 3-3/8	4.25
2000	1-13/16 x 3-3/8	5.06
3000	1-13/16 x 4-3/8	7.00
4000	2-1/16 x 4-3/8	7.32
150 VDCW—185V Surge		
1000	1-13/16 x 4-3/8	6.44

TYPE NPB

Capacity MFD	Size	Net Price**
125 VNP—175V Surge		
200	1-7/16 x 3-3/8	4.04
300	1-13/16 x 3-3/8	4.87
500	1-13/16 x 4-3/8	6.30
300 VNP—375V Surge		
15	1-7/16 x 2¾	2.87
100	1-13/16 x 3-3/8	6.13
200	2-1/16 x 4-3/8	7.00
450 VNP—525V Surge		
50	1-13/16 x 3-3/8	6.30
100	2-1/16 x 4-3/8	7.70

**Request O.E.M. Prices in the following quantities:
10-24, 25-49, 50-99, 100-249

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ELECTROLYTICS-(Continued)

TYPE QE 61 — QE 71

Type QE capacitors are aluminum electrolytics designed for applications requiring high reliability and long life. Typical applications are in computor equipment, power supplies, telephone networks, industrial electronic equipment and high grade commercial and laboratory test instruments.

These units are manufactured with special high purity materials and processed under controlled conditions of cleanliness with the most modern equipment available. The aluminum container is hermetically sealed and furnished with low screw inserts with a pressure type safety vent provided in the cover.

Operating temperatures for QE61 is —20°C to +65°C. For the QE71 it is —20°C to +85°C. Standard capacity tolerance 2.5 Volts to 150 Volts is —10% +100%. For 151 Volts to 450 Volts —10% +50%. QE61 will be furnished with heat shrinkable mylar tubing which adds only .010 to the diameter and .020 to the length of the can size as shown.

For complete engineering details including ripple currents, dissipation factor, etc., request our latest bulletin NPJ-125.

AVAILABLE CAN SIZES AND DESIGNATION

Can Size	Designation	Can Size	Designation	Can Size	Designation	Can Size	Designation	Can Size	Designation
1⅜ x 1⅜	A1	1¾ x 2⅛	B1	2 x 3⅛	C1	2½ x 3⅛	D1	3 x 4⅛	E1
1⅜ x 2⅛	A2	1¾ x 3⅛	B2	2 x 4⅛	C2	2½ x 4⅛	D2	3 x 4⅝	E2
1⅜ x 3⅛	A3	1¾ x 4⅛	B3	2 x 4⅝	C3	2½ x 4⅝	D3	3 x 5⅛	E3
1⅜ x 4⅛	A4	1¾ x 4⅝	B4	2 x 5⅛	C4	2½ x 5⅛	D4	3 x 5⅝	E4
1⅜ x 4⅝	A5	1¾ x 5⅛	B5	2 x 5⅝	C5	2½ x 5⅝	D5		

MAXIMUM RATINGS IN MFD. FOR QE61

Can Size	3 VDCW 5 VDC Surge	5 VDCW 8 VDC Surge	10 VDCW 15 VDC Surge	15 VDCW 20 VDC Surge	20 VDCW 30 VDC Surge	25 VDCW 40 VDC Surge	35 VDCW 50 VDC Surge	40 VDCW 60 VDC Surge	50 VDCW 75 VDC Surge	60 VDCW 85 VDC Surge	75 VDCW 100 VDC Surge	100 VDCW 135 VDC Surge	150 VDCW 190 VDC Surge	200 VDCW 250 VDC Surge	250 VDCW 300 VDC Surge	300 VDCW 350 VDC Surge	350 VDCW 400 VDC Surge	400 VDCW 475 VDC Surge	450 VDCW 525 VDC Surge
A1	3600	2800	1800	1500	1200	950	650	600	470	430	240	160	130	100	80	65	45	30	25
A2	7300	5600	3600	3100	2400	1900	1350	1200	940	870	480	330	260	200	155	125	95	65	45
A3	14000	11000	7300	6100	4900	3800	2700	2400	1850	1700	950	650	520	400	310	250	185	125	95
A4	22000	16000	11000	9200	7400	5800	4100	3650	2830	2600	1450	1000	785	600	460	385	280	190	140
A5	25000	19000	12000	10000	8600	6800	4800	4250	3300	2700	1650	1170	900	700	540	450	330	225	165
B1	13000	9000	6500	5400	4300	3400	2400	2100	1650	1300	890	600	480	370	280	235	165	115	85
B2	26000	19900	13000	10000	8700	6800	4800	4300	3300	2700	1750	1200	950	740	570	470	330	230	170
B3	39000	29000	19000	16000	13000	10000	7300	6400	5000	4100	2600	1800	1400	1100	850	700	490	345	250
B4	45000	34000	22000	19000	15000	12000	8500	7500	5800	4800	3100	2100	1650	1300	1000	830	575	400	300
B5	52000	39000	26000	21000	17000	13000	9700	8600	6600	5500	3500	2450	1900	1450	1150	940	660	460	345
C1	33000	25000	16000	14000	11000	8900	6300	5600	4300	3600	2300	1600	1200	960	750	600	435	290	225
C2	50000	38000	25000	21000	17000	13000	9500	8300	6500	5400	3400	2400	1800	1450	1100	920	655	445	340
C3	59000	45000	29000	24000	19000	15000	11000	9700	7600	6300	4000	2800	2200	1600	1300	1050	760	520	395
C4	67000	51000	34000	28000	22000	17000	12000	11200	8700	7200	4600	3200	2400	1900	1500	1200	870	590	450
C5	78000	58000	38000	31000	25000	20000	14000	12600	9700	8100	5200	3600	2800	2100	1650	1350	990	665	510
D1	57000	43000	28000	23000	19000	14000	10000	9300	7200	6000	3800	2600	2050	1600	1250	975	740	500	375
D2	85000	65000	42000	35000	28000	22000	15000	14000	10900	9100	5800	4000	3100	2400	1850	1500	1100	745	570
D3	99000	75000	49000	39000	33000	26000	18000	16300	12700	10600	6800	4600	3600	2800	2150	1800			
D4	112000	86000	56000	46000	37000	29000	21000	18600	14400	12000	7600	5200	4100	3100	2475	2000			
D5	126000	96000	63000	52000	42000	33000	23000	20900	16200	13500	8600	5900	4600	3500	2700	2250			
E1	127000	97000	63000	52000	42000	33000	23000	21000	16300	13600	8700	6000	4700	3600	2800	2300	1650	1100	850
E2	148000	113000	74000	61000	49000	39000	27000	24400	19000	15900	10100	7000	5400	4200	3200	2700			
E3	166000	127000	83000	69000	55000	44000	31000	27500	21400	17800	11300	7800	6100	4700	3600	3000			
E4	194000	143000	94000	78000	62000	49000	35000	30900	24000	20000	12800	8800	6900	5300	4100	3400			

STOCK LISTING FOR QE61

Cat. No.	Size	Capacity	Net Price*
	10 VDCW		
61QE2048M	A1	1800	$2.97
61QE2049M	A2	3600	3.45
61QE2051M	A3	7300	4.71
61QE2052M	A4	11000	5.61
61QE2058M	C2	25000	8.79
	15 VDCW		
61QE2072M	A1	1500	2.97
61QE2073M	A2	3100	3.54
61QE2075M	A3	6100	4.38
61QE2076M	A4	9200	5.61
61QE2079M	C1	14000	7.41
61QE2083M	C2	21000	8.94
61QE2086M	C4	28000	11.16
61QE2088M	D2	35000	12.00
	25 VDCW		
61QE2120M	A1	950	2.97
61QE2121M	A2	1900	3.60
61QE2123M	A3	3800	4.62
61QE2124M	A4	5800	5.70
61QE2127M	C1	8900	6.72
61QE2131M	C2	13000	9.60
	25 VDCW Cont.		
61QE2134M	C4	17000	$10.20
61QE2136M	D2	22000	11.52
61QE2140M	E1	33000	13.56
	35 VDCW		
61QE2164M	E1	23000	13.50
61QE2165M	E2	27000	14.10
	40 VDCW		
61QE2171M	A3	2400	4.86
61QE2175M	C1	5600	7.05
61QE2178M	C2	8300	9.27
61QE2184M	D2	14000	13.50
61QE2185M	D3	16300	13.80
	50 VDCW		
61QE2192M	A1	470	2.97
61QE2193M	A2	940	3.75
61QE2195M	A3	1850	4.23
61QE2196M	A4	2830	5.79
61QE2199M	C1	4300	7.20
61QE2202M	C2	6500	8.19
61QE2206M	C4	8700	10.20
61QE2208M	D2	10900	12.90
	75 VDCW		
61QE2243M	A3	950	$ 4.05
61QE2247M	C1	2300	5.43
61QE2256M	D2	5800	10.41
	100 VDCW		
61QE2268M	A4	1000	4.62
61QE2271M	C1	1600	5.22
61QE2274M	C2	2400	6.30
61QE2278M	C4	3200	8.64
61QE2280M	D2	4000	10.26
	150 VDCW		
61QE2291M	A3	520	3.30
61QE2292M	A4	785	4.05
61QE2295M	C1	1200	5.55
61QE2298M	C2	1800	6.72
61QE2304M	D2	3100	9.06
61QE2308M	E1	4700	13.17
61QE2309M	E2	5400	14.10
	200 VDCW		
61QE2315M	A3	400	3.27
61QE2319M	C1	960	6.90
61QE2323M	C2	1450	9.00
	200 VDCW Cont.		
61QE2325M	D1	1600	$ 9.75
	250 VDCW		
61QE2340M	A4	460	3.90
61QE2343M	C1	750	5.40
61QE2346M	C2	1100	9.00
	300 VDCW		
61QE2363M	A3	250	3.75
	350 VDCW		
61QE2387M	A3	185	3.66
61QE2400M	D2	1100	11.25
	450 VDCW		
61QE2430M	C2	340	5.82
61QE2436M	D2	570	7.26
61QE2437M	E1	850	10.80

*Request O.E.M. Prices in the following quantities: 25-49, 50-99

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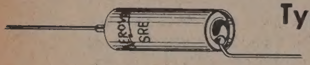
AEROVOX CAPACITORS

ADDITIONAL STYLES

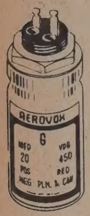
For complete information on any Types shown on this page request Catalog or Brochure from Aerovox Corporation, Distributor Division, or your nearest authorized Aerovox Industrial Distributor.



Type SRE "Bantam" Metal Tubular Electrolytics

Although smaller than the PRS the SRE handles full size loads at operating temperature range of 0°C to 85°C at rated voltage. Sealed in aluminum cans and furnished with a cardboard insulating sleeve. Negative grounded to can. If required without tube specify type SREN.

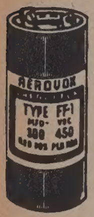
33 Stock Values – 8 Voltages



TYPE G
Insulated Screw-Mounting Capacitors

Hermetically-sealed aluminum can unit, threaded cover size ⅞—16 with hex nut and washer for convenient mounting on chassis. Washer can be used to insulate can from chassis. Terminals molded in cover. Cathode connection thru terminal in cover. These units are the commercial equivalent of case style CE41 and 42 of specification MIL C62A.

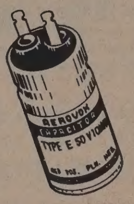
7 Stock Values – 3 Voltages



TYPE FF
Photo-Flash Capacitors

Selective choice of highest purity materials makes these units ideal for rugged photoflash application calling for lowest leakage requirements. Type FF-1 furnished in molded black plastic container, type FF-2 in aluminum can with black glazed tubing; both units furnished with screw lug terminals. Highly resistant to moisture and oil. Surge voltages and time duty cycles as listed in EIA specification No. RS-154.

2 Stock Values

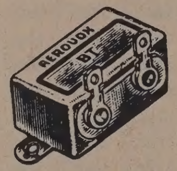


TYPE E
Hermetically-Sealed, Aluminum, Round Metal-Cased Capacitors

Can be mounted with terminals upright or inverted by use of a ring-type clamp provided with unit. Can is floating, thus having two terminals on single-section capacitors, three on duals, and four on triples.

These units are the commercial equivalent of case style CE31, 2 and 3 of MIL Specification C62A.

16 Stock Values – 10 Voltages

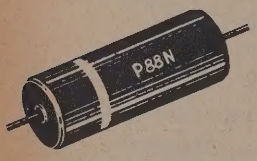


TYPE BT
Drawn-Case "Bathtub" Electrolytic Capacitors

Hermetically-sealed units designed for rigid mounting in minimum space. Of sturdy construction, these high-quality units are commercial equivalent to the case style CE63 of MIL Specification C62A.

21 Stock Values – 6 Voltages

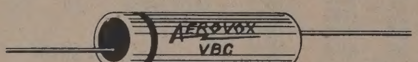
PAPER CAPACITORS



TYPE P88N
†DURANITE
Duranite Blue Molded Tubular Capacitors

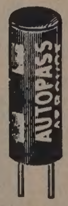
Toughest capacitors ever offered for radio-electronic equipment. DURANITE capacitors. Design, impregnant, processing, and casing insure glove-fitting contact and seal throughout. DURANITE provides a permanent, non-varying, rock-hard casing, does not dry out, does not develop cracks or fissures. Pig-tail leads firmly imbedded, won't pull out, won't work loose. Moisture-proof; operate from sub-zero to over 212°F. Exposure to temperatures of 250°F. will not impair life or performance, no deterioration on the shelf. A white band around one end of the capacitor identifies the outside foil.

Type VBC Vibrator Buffer Capacitors



These units are heavy-duty, Hyvol M impregnated, vibrator buffer capacitors in ceramic tubes, specifically designed for severe-service auto-radio applications.

AUTOPASS® Vertical Mounting Plastic-Cased Paper Capacitors



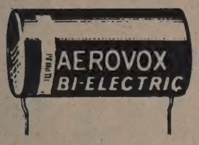
Aerovox Autopass capacitors were specifically designed and developed for use in conjunction with printed-wiring assemblies where it is highly desirable to mount capacitors at right angles to the mounting surface thereby conserving valuable space

AEROVOX CAPACITORS

PAPER CAPACITORS

BI-ELECTRIC® MYLAR* PAPER BYPASS TUBULARS

Radial Lead Mounting



Two famous dielectrics . . . quality kraft tissue and Mylar* film . . . are combined with Aerolene impregnant and exclusive "Polycap"® plastic case to bring you a truly superior bypass capacitor. The advanced construction techniques presented in "Bi-Electric" capacitors offer distinct advantages over other radial lead types. "Polycap"® case provides a solid uniform coating from end-to-end. Controlled end-fills provide sealed protection, and leads cannot crack end-fill or pull-out when leads are extended for axial mounting. Standard capacitance tolerance is ±10%. Operating temperature range is —30°C to +100°C.

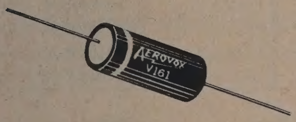
For full technical information request bulletin NPJ-118 Rev.

* DuPont Trademark

Cap. Mfd.	Cat. #	Size	Net Price*
		200 VDCW	
.01	BE2S1	11/32 x 11/16	$.15
.015	BE2S15	3/8 x 11/16	.15
.02	BE2S2	7/16 x 27/32	.15
.022	BE2S22	7/16 x 27/32	.15
.047	BE2S47	7/16 x 27/32	.18
.05	BE2S5	15/32 x 1-1/8	.18
.1	BE2P1	17/32 x 1-5/32	.21
.15	BE2P15	9/16 x 1-5/32	.24
.2	BE2P2	5/8 x 1-5/16	.27
.22	BE2P22	5/8 x 1-5/16	.27
.25	BE2P25	11/16 x 1-9/16	.27
.33	BE2P33	11/16 x 1-9/16	.30
.47	BE2P47	¾ x 1-9/16	.36
.5	BE2P5	¾ x 1-9/16	.36
		400 VDCW	
.01	BE4S1	3/8 x 11/16	.15
.015	BE4S15	7/16 x 27/32	.15
.02	BE4S2	7/16 x 27/32	.18
.022	BE4S22	7/16 x 27/32	.18
.025	BE4S25	7/16 x 27/32	.18
.03	BE4S3	7/16 x 27/32	.18
.033	BE4S33	7/16 x 27/32	.18
.04	BE4S4	15/32 x 1-1/8	$.21
.047	BE4S47	15/32 x 1-1/8	.21
.05	BE4S5	15/32 x 1-1/8	.21
.068	BE4S68	½ x 1-1/8	.24
.1	BE4P1	9/16 x 1-5/32	.24
.15	BE4P15	5/8 x 1-5/16	.30
.2	BE4P2	11/16 x 1-9/16	.33
.22	BE4P22	11/16 x 1-9/16	.36
.25	BE4P25	11/16 x 1-9/16	.36
.33	BE4P33	¾ x 1-9/16	.42
		600 VDCW	
.001	BE6D1	11/32 x 11/16	.15
.0012	BE6D12	11/32 x 11/16	.15
.0015	BE6D15	11/32 x 11/16	.15
.0018	BE6D18	11/32 x 11/16	.15
.002	BE6D2	11/32 x 11/16	.15
.0022	BE6D22	11/32 x 11/16	.15
.0025	BE6D25	3/8 x 11/16	.15
.0027	BE6D27	3/8 x 11/16	.15
.003	BE6D3	3/8 x 11/16	.15
.0033	BE6D33	3/8 x 11/16	.15
.0039	BE6D39	3/8 x 11/16	.15
.004	BE6D4	13/32 x 11/16	.15
.0047	BE6D47	13/32 x 11/16	.15
.005	BE6D5	13/32 x 21/32	.15
.0056	BE6D56	13/32 x 27/32	$.15
.006	BE6D6	13/32 x 27/32	.15
.0068	BE6D68	13/32 x 27/32	.18
.007	BE6D7	13/32 x 27/32	.18
.0075	BE6D75	13/32 x 27/32	.18
.008	BE6D8	13/32 x 27/32	.18
.0082	BE6D82	13/32 x 27/32	.18
.01	BE6S1	13/32 x 27/32	.18
.015	BE6S15	15/32 x 13/16	.18
.018	BE6S18	17/32 x 7/8	.18
.02	BE6S2	17/32 x 7/8	.18
.022	BE6S22	17/32 x 7/8	.18
.025	BE6S25	15/32 x 1-5/32	.21
.027	BE6S27	15/32 x 1-5/32	.21
.03	BE6S3	15/32 x 1-5/32	.21
.033	BE6S33	15/32 x 1-5/32	.21
.039	BE6S39	15/32 x 1-5/32	.21
.04	BE6S4	17/32 x 1-5/32	.21
.047	BE6S47	17/32 x 1-5/32	.24
.05	BE6S5	17/32 x 1-5/32	.24
.056	BE6S56	17/32 x 1-5/32	.24
.06	BE6S6	5/8 x 1-5/16	.24
.068	BE6S68	5/8 x 1-5/16	.27
.075	BE6S75	5/8 x 1-5/16	.27
.1	BE6P1	5/8 x 1-5/16	.27
.15	BE6P15	11/16 x 1-9/16	$.33
.2	BE6P2	¾ x 1-9/16	.36
.22	BE6P22	¾ x 1-9/16	.36
		1000 VDCW	
.001	BE10D1	11/32 x 11/16	.18
.0012	BE10D12	11/32 x 11/16	.18
.0015	BE10D15	11/32 x 11/16	.18
.0018	BE10D18	11/32 x 11/16	.18
.002	BE10D2	3/8 x 11/16	.18
.0022	BE10D22	3/8 x 11/16	.18
.0033	BE10D33	13/32 x 27/32	.18
.0047	BE10D47	13/32 x 27/32	.21
.0068	BE10D68	15/32 x 13/16	.21
.01	BE10S1	17/32 x 7/8	.24
.018	BE10S18	15/32 x 1-5/32	.24
.025	BE10S25	17/32 x 1-5/32	.24
.027	BE10S27	17/32 x 1-5/32	.24
.033	BE10S33	5/8 x 1-5/16	.30
.039	BE10S39	5/8 x 1-5/16	.30
.047	BE10S47	5/8 x 1-5/16	.30
.056	BE10S56	11/16 x 1-9/16	.33
.068	BE10S68	11/16 x 1-9/16	.33
.075	BE10S75	11/16 x 1-9/16	.36
.1	BE10P1	¾ x 1-9/16	.36
.15	BE10P15	15/16 x 1	.36

TYPE V161

AEROFILM® (MYLAR*) CAPACITORS



V161 Aerofilm Tubular Capacitors are high quality units in Polycap® cases. These units have exceptionally high insulation resistance and low dielectric absorption and power factor. They are extremely stable having a relatively small capacitance change with temperature variations over a range of 0 to 85°C.

Their excellent resistance to humidity and moisture are due to the use of Aerofilm (Aerovox's trade name for Mylar* polyester film), finest quality casing material, and an epoxy end fill which will not flow, soften or melt at any operating temperature. Standard tolerance is ±20% but also available in ±5% and ±10%.

This type was formerly designated as V84C-V161.

Cap. Mfd.	Size	Net Price*
	200 VDCW	
.0047	9/32 x 15/16	$.15
.0068	9/32 x 15/16	.15
.01	9/32 x 15/16	.15
.015	9/32 x 15/16	.15
.022	5/16 x 1	.15
.033	5/16 x 1	.15
.047	5/16 x 1-1/16	.15
.05	5/16 x 1-1/16	.15
.068	11/32 x 1-1/16	.18
.1	3/8 x 1¼	.21
.15	13/32 x 1¼	.24
.22	½ x 1¼	.24
.25	½ x 1¼	.27
.33	½ x 1½	.33
.47	9/16 x 1½	.39
.68	19/32 x 1¾	.51
1.0	13/16 x 1-7/8	.57
	400 VDCW	
.0015	9/32 x 15/16	.15
.0022	9/32 x 15/16	.15
.0033	9/32 x 15/16	.15
.0047	9/32 x 15/16	$.15
.0068	9/32 x 15/16	.15
.01	5/16 x 1	.15
.015	5/16 x 1	.15
.02	5/16 x 1-1/16	.15
.022	11/32 x 1-1/16	.15
.03	3/8 x 1-1/16	.18
.033	3/8 x 1-1/16	.18
.047	3/8 x 1¼	.18
.05	3/8 x 1¼	.18
.068	7/16 x 1¼	.21
.1	½ x 1¼	.21
.15	9/16 x 1½	.36
.22	9/16 x 1½	.39
.25	9/16 x 1¾	.39
.33	5/8 x 1¾	.51
.47	11/16 x 2	.66
.5	11/16 x 2	.69
.68	25/32 x 2	.87
1.0	7/8 x 2-1/8	1.05
	600 VDCW	
.001	9/32 x 15/16	.15
.0015	9/32 x 15/16	.15
.002	9/32 x 15/16	.15
.0022	9/32 x 15/16	.15
.003	9/32 x 15/16	$.15
.0033	9/32 x 15/16	.15
.004	5/16 x 1	.15
.0047	5/16 x 1	.15
.005	5/16 x 1	.15
.0068	5/16 x 1	.18
.01	11/32 x 1-1/16	.18
.015	3/8 x 1-3/16	.18
.02	3/8 x 1-3/16	.18
.022	13/32 x 1-3/16	.18
.03	7/16 x 1-3/16	.21
.033	7/16 x 1-3/16	.21
.04	½ x 1¼	.24
.047	½ x 1¼	.24
.05	½ x 1¼	.24
.068	½ x 1½	.27
.075	½ x 1½	.27
.1	9/16 x 1½	.30
.15	5/8 x 1-5/8	.39
.2	23/32 x 1-5/8	.48
.22	¾ x 1-5/8	.51
.25	¾ x 1¾	.54
.33	13/16 x 1-7/8	.78
.47	7/8 x 2-1/8	.84
.5	7/8 x 2-1/8	.87

*Dupont trademark

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

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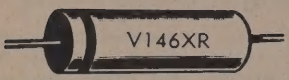
PAPER CAPACITORS (cont.)

TYPE V146XR AEROFILM®
"WRAP AND FILL" MYLAR CAPACITORS



Miniature, mylar, tubular capacitor sections, extended foil construction, wrapped with a synthetic film and end-sealed with a plastic resin.

These units offer high insulation resistance, high operating temperature, low power factor and outstanding resistance to moisture.

Ideal for use in miniaturized circuits where size and weight are important factors.

Leads: solder-coated "copper-weld" wire, 2" minimum length. Over .375 diameter #20AWG (.032) .375 and smaller #22AWG (.025).

Tolerance: Standard ±10%. Available in closer tolerances on special order.

Operating Temperature Range: Capable of operation in a temperature range of —65°C to +85°C at full voltage rating and to 125°C with voltage derating as follows:

DC Rated Voltage at 85°C	Maximum DC Working Voltage at 125°C
150	100
200	125
400	200
600	300

For Full technical information request bulletin NPJ-121

STOCK LISTING

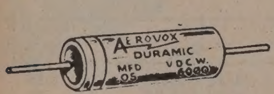
Capacity	150 VDC	Cat.	Net	200 VDC	Cat.	Net	400 VDC	Cat.	Net	600 VDC	Cat.	Net
In Mfd.	D L	No.	Price*	D L	No.	Price*	D L	No.	Price*	D L	No.	Price*
.001	See Note 1			.156 x 1/2	V146XR-16	.21	156 x 5/8	V146XR-37	.21	156 x 3/4	V146XR-58	.24
.0015	See Note 1			.156 x 1/2	V146XR-17	.21	.156 x 5/8	V146XR-38	.21	.171 x 3/4	V146XR-59	.24
.0022	See Note 1			.156 x 1/2	V146XR-18	.21	.156 x 5/8	V146XR-39	.21	.187 x 3/4	V146XR-60	.24
.0033	See Note 1			.156 x 1/2	V146XR-19	.21	.156 x 5/8	V146XR-40	.24	.203 x 3/4	V146XR-61	.24
.0047	See Note 1			.156 x 1/2	V146XR-20	.21	.187 x 5/8	V146XR-41	.24	.234 x 3/4	V146XR-62	.27
.0068	See Note 1			.156 x 1/2	V146XR-21	.21	.218 x 5/8	V146XR-42	.24	.265 x 3/4	V146XR-63	.27
.01	.156 x ½	V146XR- 1	.21	.171 x 1/2	V146XR-22	.21	.250 x 5/8	V146XR-43	.27	.312 x 3/4	V146XR-64	.30
.015	.187 x ½	V146XR- 2	.21	.203 x 1/2	V146XR-23	.21	.296 x 5/8	V146XR-44	.27	.312 x 7/8	V146XR-65	.30
.022	.203 x 5/8	V146XR- 3	.24	.250 x 5/8	V146XR-24	.24	.312 x 3/4	V146XR-45	.27	.375 x 7/8	V146XR-66	.30
.033	.218 x 5/8	V146XR- 4	.24	.250 x 3/4	V146XR-25	.24	.312 x 7/8	V146XR-46	.27	.406 x 1	V146XR-67	.30
.047	.234 x 3/4	V146XR- 5	.27	.296 x 3/4	V146XR-26	.27	.343 x 7/8	V146XR-47	.30	.453 x 1	V146XR-68	.33
.068	.265 x 3/4	V146XR- 6	.27	.343 x 3/4	V146XR-27	.27	.375 x 1	V146XR-48	.33	.531 x 1	V146XR-69	.36
.1	.281 x 7/8	V146XR- 7	.36	.375 x 7/8	V146XR-28	.36	.421 x 1	V146XR-49	.33	.562 x 1-3/8	V146XR-70	.42
.15	.328 x 7/8	V146XR- 8	.36	.453 x 7/8	V146XR-29	.36	.468 x 1-1/4	V146XR-50	.36	.671 x 1-3/8	V146XR-71	.45
.22	.385 x 1	V146XR- 9	.39	.438 x 1-1/8	V146XR-30	.39	.546 x 1-3/8	V146XR-51	.42	.718 x 1-5/8	V146XR-72	.51
.33	.375 x 1-1/8	V146XR-10	.45	.484 x 1-1/8	V146XR-31	.45	.593 x 1-5/8	V146XR-52	.66	.765 x 2	V146XR-73	.90
.47	.468 x 1-1/4	V146XR-11	.51	.546 x 1-1/4	V146XR-32	.51	.671 x 1-5/8	V146XR-53	.78	.859 x 2	V146XR-74	1.14
.68	.562 x 1-1/4	V146XR-12	.57	.609 x 1-5/8	V146XR-33	.57	.796 x 1-3/4	V146XR-54	.96	1.016 x 2	V146XR-75	1.53
1.0	.593 x 1-1/2	V146XR-13	.87	.671 x 1-3/4	V146XR-34	.87	.812 x 2	V146XR-55	1.20	1.125 x 2-1/2	V146XR-76	2.55
1.5	.718 x 1-3/4	V146XR-14	1.23	.828 x 1-3/4	V146XR-35	1.23	.921 x 2-1/4	V146XR-56	1.56	1.234 x 3	V146XR-77	3.48
2.0	.812 x 1-3/4	V146XR-15	1.50	.875 x 1-7/8	V146XR-36	1.50	1.093 x 2-1/4	V146XR-57	2.04	1.421 x 3	V146XR-78	4.38

Note 1: These capacity values are only made at 200 VDC or higher.
The 200 VDC unit may be used for lower voltage requirements since sizes are as small as or smaller than competitive 100 VDC units.

*Request O.E.M. prices in the following quantities: 25-49, 50-99, 100-499

® Registered Trademark

TYPE P84CM DURAMIC® Ceramic-Cased Tubular Capacitors



New ceramic (dense steatite) encased paper tubular for performance above that of conventional paper tubulars. New thermosetting end-seals for exceptional humidity protection—250 hour humidity test as per REC-118. Firmly imbedded terminals will not work loose or pull out. Operating temps are —55°C to +85°C. Meets all requirements of EIA Spec. REC-118, hi-temp range, class M.

Cap.	2500 VDCW		6000 VDCW		10,000 VDCW		12,500 VDCW		15,000 VDCW	
Mfd.	Size Dia. x Lgth.	Net Price*	Size Dia. x Lgth.	Net Price*	Size Dia. x Lgth.	Net Price*	Size Dia. x Lgth.	Net Price*	Size Dia. x Lgth.	Net Price*
.0001	3/8 x 1-1/2	.57	3/8 x 1-3/4	.66	7/16 x 2-1/4	.69			17/32 x 2-1/2	1.05
.00025	3/8 x 1-1/2	.57	3/8 x 1-3/4	.66	11/16 x 2-1/4	.69	11/16 x 2-1/4	.96	3/4 x 2-1/2	1.05
.0005	3/8 x 1-1/2	.57	7/16 x 1-3/4	.66	11/16 x 2-1/4	.69			7/8 x 2-1/2	1.14
.001	3/8 x 1-1/2	.57	17/32 x 1-3/4	.72	15/16 x 2-1/4	.69			*1 x 2-1/2	1.17
.003	7/16 x 1-1/2	.57	5/8 x 2-1/8	.75	1 x 2-3/4	.78			*1-1/4x 3	1.26
.005	17/32 x 1-9/16	.60	3/4 x 2-1/8	.75	*1 x 3	.90			*1-3/8x 3-1/4	1.38
.01	5/8 x 1-7/8	.63	15/16 x 2-1/8	.93	*1-3/8 x 3	1.08				
.03	13/16 x 2	.75	*1-3/16 x 2-5/8	1.47						
.05	25/32 x 2-5/8	.87	*1-3/16 x 3-1/8	1.80						
.1	*1 x 2-5/8	1.11								
.15	*1 x 3-1/8	1.17								

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

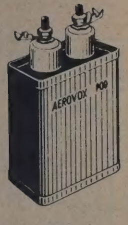
*Will be furnished in cardboard tube Type P84M

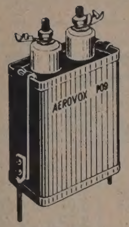
AEROVOX CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES

TYPE P09

PAPER CAPACITORS


P09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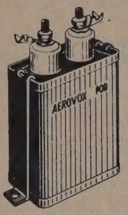
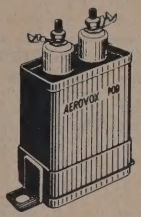

P09MS


P09MB

Immersion-proof units in sturdy, rectangular metal cans. High-voltage screw-type pillar terminals fitted with soldering lugs. Use of HYVOL M or J allows exceptionally compact size for capacity, working voltage and safety factor. Intended for heavy-duty, continuous service in transmitters, amplifiers, etc. Operating temperature —55 to +85°C.

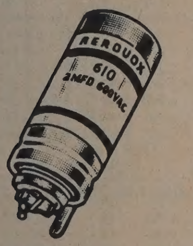
Standard tolerance +20 —10%. Other tolerance on request.

Type MB bracket is supplied unless otherwise specified except on units with base sizes 3¾" x 3-5/16" and 3¾" x 4-5/16" where Type MS bracket is supplied. MSB bracket is available for all sizes on request.

Cap.	Size	Net Price*
	600V	
.5	1-1/16 x 1-13/16 x 2¼	$2.41
1.0	1-1/16 x 1-13/16 x 2¼	2.57
2.0	1-1/16 x 1-13/16 x 2-7/8	3.12
3.0	1-1/16 x 1-13/16 x 3-7/8	3.69
4.0	1-3/16 x 2½ x 3½	4.25
5.0	1-1/16 x 1-13/16 x 4¾	4.63
6.0	1-3/16 x 2½ x 4¾	5.00
8.0	1¼ x 3¾ x 3-7/8	6.16
10.0	1¼ x 3¾ x 4¾	6.63
12.0	1½ x 3¾ x 4¾	7.47
15.0	1¾ x 3¾ x 4¾	8.70
	1000V	
.1	1-1/16 x 1-13/16 x 1-5/8	2.15
.25	1-1/16 x 1-13/16 x 2¼	2.50
.5	1-1/16 x 1-13/16 x 2¼	2.56
1.0	1-1/16 x 1-13/16 x 2¼	2.79
2.0	1-1/16 x 1-13/16 x 3-7/8	3.53
3.0	1-3/16 x 2½ x 3½	4.16
4.0	1-3/16 x 2½ x 4¾	4.79
5.0	1¼ x 3¾ x 3-7/8	5.34
6.0	1¼ x 3¾ x 4¾	5.89
8.0	1¼ x 3¾ x 4¾	6.91
10.0	1¾ x 3¾ x 4¾	$7.94
12.0	2¼ x 3¾ x 3-7/8	8.71
15.0	2½ x 3¾ x 4¾	10.47
	1500V	
.5	1-1/16 x 1-13/16 x 2-7/8	3.12
1.0	1-1/16 x 1-13/16 x 3-7/8	3.34
2.0	1-3/16 x 2½ x 4¼	4.27
3.0	1-3/16 x 2½ x 4¾	5.24
4.0	1¼ x 3¾ x 4¾	6.21
5.0	1¾ x 3¾ x 4¾	7.07
6.0	1¾ x 3¾ x 4¾	7.94
8.0	2½ x 3¾ x 4¾	9.92
10.0	3-3/16 x 3¾ x 4¾	11.44
12.0	3-3/16 x 3¾ x 4¾	13.17
15.0	3¾ x 4-9/16 x 4¾	15.79
	2000V	
.1	1-1/16 x 1-13/16 x 2-1/8	3.63
.25	1-1/16 x 1-13/16 x 2-1/8	3.81
.5	1-1/16 x 1-13/16 x 2-7/8	4.06
1.0	1-3/16 x 2½ x 3½	4.58
2.0	1¼ x 3¾ x 4¼	5.70
3.0	1¼ x 3¾ x 4¾	6.80
4.0	2¼ x 3¾ x 3-7/8	$ 7.90
5.0	2¼ x 3¾ x 4¾	8.99
6.0	3-3/16 x 3¾ x 4½	10.09
8.0	3-3/16 x 3¾ x 4¾	11.77
10.0	3¾ x 4-9/16 x 4¾	13.77
12.0	3¾ x 4-9/16 x 5½	16.01
15.0	3¾ x 4-9/16 x 6½	19.36
	2500V	
.5	1-3/16 x 2½ x 3½	5.43
1.0	1¾ x 3¾ x 3¼	6.45
2.0	1¾ x 3¾ x 4¾	8.63
4.0	3¾ x 4-9/16 x 4	12.73
10.0	3¾ x 4-9/16 x 6-3/8	24.51
	3000V	
.1	1-3/16 x 2½ x 2	6.95
.25	1-3/16 x 2½ x 2½	7.39
.5	1-3/16 x 2½ x 3-7/8	8.09
1.0	2¼ x 3¾ x 3-7/8	9.56
2.0	3-3/16 x 3¾ x 4-1/8	12.45
4.0	3¾ x 4-9/16 x 4¾	17.62
	4000V	
.1	2¼ x 3¾ x 2¾	7.23
.25	2¼ x 3¾ x 2¾	$ 7.85
.5	2¼ x 3¾ x 3-7/8	9.04
1.0	2¼ x 3¾ x 5-1/8	11.34
2.0	3¾ x 4-9/16 x 5-1/8	12.55
4.0	3¾ x 4-9/16 x 8½	24.60
	5000V	
.1	2¼ x 3¾ x 2¾	7.44
.25	2¼ x 3¾ x 3-7/8	8.22
.5	2¼ x 3¾ x 4½	9.81
1.0	3¾ x 4-9/16 x 4-3/8	13.55
2.0	3¾ x 4-9/16 x 6	20.50
	6000V	
.1	2¼ x 3¾ x 3-3/8	10.76
.25	2¼ x 3¾ x 4½	13.16
1.0	3¾ x 4-9/16 x 7½	19.49
	7500V	
.1	2¼ x 3¾ x 3-7/8	13.45
.25	3¾ x 4-9/16 x 3-7/8	14.17
.5	3¾ x 4-9/16 x 5-1/8	15.99

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99

TYPE P10



Cylindrical hermetically sealed can with screw-base folded cover for vertical mounting. These units are Hyvol M or J impregnated and filled for long life and safe operation at temperatures from —55 to +85°C.

Standard units have two terminals, case floating.

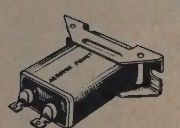
Standard tolerance +20% —10%. Other tolerances available on request.

Capacity	600 V D C W Size	Net Price*	1000 V D C W Size	Net Price*	1500 V D C W Size	Net Price*
.5					1½ x 2-3/8	$3.77
1.0			1½ x 2-7/8	3.82	1½ x 3-7/8	4.12
2.0	1½ x 2-7/8	3.57	1½ x 4½	4.53		
4.0	1½ x 4½	4.82				

*Request O.E.M. Prices in the following quantities: 10-99

TYPE P16 and P16-CT

Small corrosion and immersion-proof unit for severe atmospheric and climatic conditions. P16-CT is standard; P16 is available in 400 and 600 volts. Operating temperature —55 to +85° C. Dual units have two terminals, case grounded. Standard tolerance +20 —10%. CP091S and CP091F brackets available for P16. Base Size 1-3/16 x 11/16. Impregnated with either Hyvol M or Hyvol J.



SINGLE CAPACITY	400 V D C W HEIGHT P16, P16-CT	400 V D C W Net Price*	600 V D C W HEIGHT P16, P16-CT	600 V D C W Net Price*	1000 V D C W HEIGHT P16-CT	1000 V D C W Net Price*	DUAL CAPACITY	600 V D C W HEIGHT P16, P16-CT	600 V D C W Net Price*
.05			1-1/16	$1.76	1-3/8	$1.83	2 x .05	1-3/8	$2.06
.1	1-1/16	$1.80	1-3/8	1.85	1-3/8	1.89	2 x .1	1-5/8	2.13
.25	1-3/8	1.87	1-5/8	1.91	2	1.94	2 x .25	2	2.30
.5	1-5/8	1.91	2	1.96	2¾	2.13	2 x .5	2¾	2.64
1.0	2	2.16	2¾	2.20					

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499

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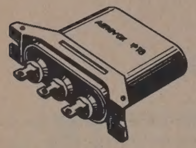
INDUSTRIAL SECTION—STANDARD TYPES (Continued)

TYPE P18-CB



Similar to P16 in construction and electrical characteristics. Because of the difference in the base size type P18-CB can be supplied with three terminals. Dual units are case floating, triples are case grounded. The size difference also makes these units suitable for use in assemblies where P16's do not fit. Operating temperature range —55 to +85° C. Standard tolerance +20 — 10%. Impregnated with either Hyvol M or Hyvol J.

Capacity	400 VDCW P18-CB		600 VDCW P18-CB		1000 VDCW P18-CB	
	Height	Net* Price	Height	Net* Price	Height	Net* Price
.01					1-1/16	2.02
.02					1-1/16	2.06
.05	1	2.02	1-1/16	2.07	1-1/16	2.11
.1	1	2.09	1-1/16	2.14	1-1/2	2.18
.25	1-1/4	2.17	1-1/2	2.21	2	2.25
.5	1-1/2	2.24	2	2.29	2-1/2	2.44
1.0	2	2.48	2-3/4	2.53		

Capacity	400 VDCW P18-CB		600 VDCW P18-CB		1000 VDCW P18-CB	
	Height	Net* Price	Height	Net* Price	Height	Net* Price
2 x .01					1-1/16	2.46
2 x .02					1-1/16	2.49
2 x .05	1	2.47	1-1/16	2.52	1-1/2	2.58
2 x .1	1-1/4	2.54	1-1/2	2.59	2	2.68
2 x .25	1-1/2	2.72	2	2.78	2-3/4	2.85
2 x .5	2-1/4	2.98	2-3/4	3.05		

Capacity	400 VDCW P18-CB		600 VDCW P18-CB		1000 VDCW P18-CB	
	Height	Net* Price	Height	Net* Price	Height	Net* Price
3 x .01					1-1/16	2.94
3 x .02					1-1/16	3.05
3 x .05	1-1/8	2.97	1-1/2	3.04	1-1/2	3.09
3 x .1	1-5/8	3.04	1-1/2	3.11	2-1/2	3.21
3 x .25	2	3.27	2-3/4	3.33		

BASE SIZE 1-3/4 x 9/16

TYPE P30
Bathtub Case

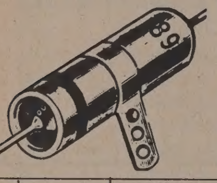
High-quality bypass capacitors furnished in drawn metal bathtub cases, hermetically sealed. These units are Hyvol M or J impregnated for operation at temperatures from —55 to +85°. C. They are especially recommended for applications where high reliability and superior performance are required. Typical applications for these rugged units would include marine, aircraft and tropical climates. Standard tolerance +20% —10%.

*Also available with top terminals, size 2 x 1¾ x ⅞, Type P30JT.

Capacity	400 VDCW P30		600 VDCW P30		1000 VDCW P30	
	Size	Net* Price	Size	Net* Price	Size	Net* Price
.05	1¾ x 1 x ¾	1.65	1¾ x 1 x ¾	1.73	1¾ x 1 x ¾	1.80
.1	1¾ x 1 x ¾	1.72	1¾ x 1 x ¾	1.78	1¾ x 1 x ¾	1.89
.25	1¾ x 1 x ¾	1.82	1¾ x 1 x 13/16	1.85	1¾ x 1 x 7/8	1.93
.5	1¾ x 1 x 7/8	1.97	1¾ x 1 x 1	1.98	2 x 1¾ x 7/8	2.06
.75	2-1/16 x 1¼ x 7/8	2.13	2-1/16 x 1¼ x 7/8*	2.14	2 x 1¾ x 7/8	2.44
1.0	2 x 1¾ x 7/8	2.29	2 x 1¾ x 1	2.30	2 x 2 x 1-1/8	2.82
2.0	2 x 2 x 1-1/8	2.97	2 x 2 x 1-3/16	3.06		

Capacity	400 VDCW P30		600 VDCW P30		1000 VDCW P30	
	Size	Net* Price	Size	Net* Price	Size	Net* Price
2 x .05	1¾ x 1 x ¾	2.29	1¾ x 1 x ¾	2.37	1¾ x 1 x ¾	2.47
2 x .1	1¾ x 1 x ¾	2.37	1¾ x 1 x ¾	2.44	1¾ x 1 x 7/8	2.51
2 x .25	1¾ x 1 x 15/16	2.42	1¾ x 1 x 1	2.51	2 x 1¾ x 7/8	2.76
2 x .5	2 x 1¾ x 7/8	2.77	2 x 1¾ x 7/8	2.82	2 x 2 x 1-3/16	3.57
2 x 1.0	2 x 2 x 1-1/8	3.42	2 x 2 x 1-3/16	3.44		
3 x .05	1¾ x 1 x ¾	2.66	1¾ x 1 x 13/16	2.71	1¾ x 1 x 13/16	3.81
3 x .1	1¾ x 1 x 13/16	2.75	1¾ x 1 x 15/16	2.78	2 x 1¾ x 7/8	3.09
3 x .25	2 x 1¾ x 7/8	3.01	2 x 1¾ x 7/8	3.09	2 x 2 x 1-1/8	3.85
3 x .5	2 x 2 x 1	3.71	2 x 2 x 1-3/16	3.81		

TYPE P89M



Immersion-proof, oil-impregnated, oil filled units in hermetically sealed metal tubes. Ideal for coupling and bypass functions in transmitters, high-voltage applications and for use in test equipment. Case is insulated, not connected to the capacitor section. Standard units are supplied with cardboard insulating sleeve and radial mounting bracket (Type P89M). All sizes shown are can sizes. For size over insulating sleeve add 1/16" to diameter and 3/16" to length.

Available in the following style variations:

P89M	—with cardboard insulating sleeve; radial mtg. bracket.
P89MA	—with cardboard insulating sleeve and tangential mounting bracket.
P89MAP	—with plastic insulating sleeve and tangential mtg. bracket.
P89MAY	—without insulating sleeve but with tangential mounting bracket.
P89MP	—with plastic insulating sleeve, radial mtg. bracket.
P89MX	—without mounting bracket but with cardboard insulating sleeve.
P89MXP	—without mounting bracket but with plastic insulating sleeve.
P89MXY	—without insulating sleeve or mtg. bracket.
P89MY	—without insulating sleeve but with radial mounting bracket.

Voltage	Capacity	Can Size	Net** Price	Voltage	Capacity	Can Size	Net** Price	Voltage	Capacity	Can Size	Net** Price
2000V	.001	3/4 x 1-5/8	1.93	2500V	.005	3/4 x 1-5/8	2.13	3000V	.03	1 x 2-1/4	2.21
2000V	.005	3/4 x 1-5/8	1.97	2500V	.01	3/4 x 1-3/4	2.15	3000V	.05	1 x 2-1/2	2.27
2000V	.01	3/4 x 1-5/8	1.99	2500V	.02	3/4 x 2	2.18	3000V	.1	1-3/8 x 2-3/4	2.42
2000V	.015	3/4 x 1-3/4	2.00	2500V	.03	3/4 x 2-1/4	2.21	4000V	.05	1-3/8 x 3-1/4	4.10
2000V	.02	3/4 x 1-7/8	2.02	2500V	.05	7/8 x 2-1/2	2.27	4000V	.1	1-3/8 x 4-3/4	4.40
2000V	.03	3/4 x 1-7/8	2.05	2500V	.1	1 x 3	2.42	6000V	.005	1 x 2-1/2	4.15
2000V	.04	3/4 x 2-1/4	2.08	3000V	.005	7/8 x 1-5/8	2.13	6000V	.01	1 x 3-1/4	4.19
2000V	.05	7/8 x 2-1/4	2.12	3000V	.01	7/8 x 1-3/4	2.15	6000V	.05	1-3/8 x 5	4.43
2000V	.1	1 x 2-1/2	2.25	3000V	.02	7/8 x 2	2.18				

**Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

For high-speed flash photography, flash signaling equipment, pulsing and other energy storage uses

TYPE PX—Energy Storage Capacitors

VDC Peak	Nominal Cap. Mfd.	Type No.	Net Price
	22.5 Watt Seconds		
1500	20	PX10D1	$9.00
	50.0 Watt Seconds		
2000	28	PX14D3	13.20
	75.0 Watt Seconds		
2500	24	PX14D2	13.20
3000	16	PX18D1	15.00
	100.0 Watt Seconds		
2500	30	PX15D1	22.20
4000	12.5	PX20D1	14.40

Size: Depth x Width x Height

PX10D1	2-1/2" x 3-3/4" x 4-5/8"
PX15D1	4-9/16" x 3-3/4" x 6-1/2"
ALL OTHERS	4-9/16" x 3-3/4" x 4-5/8"

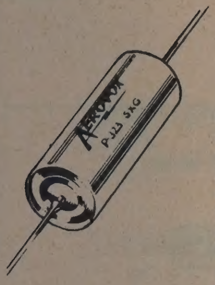
*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499

AEROVOX

CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES (Continued)

PAPER SUB-MINIATURES



Tubular, metal-cased capacitors, hermetically sealed with glass terminal end seals. Miniaturized, conventional, foil-paper construction. Especially developed to meet high temperature and minimum space requirements of present day electronic equipment. Designed for rugged long life operation, these units are preferred for many of those applications where reliability is a factor. Impregnated with Hyvol "S" a special, high-temperature-operating, stable, liquid impregnant for operation at elevated temperature. These units are capable of withstanding a voltage breakdown test of twice rated voltage between terminals or between terminals and case, for a one-minute period. Ambient temperature shall be plus 25°C. plus or minus 10° C. during this test. Power factor will be less than 1% when measured or referred to a frequency of 1000 cycles per second at 25°C. Type P323S and P323SX are rigidly processed to assure operation over the temperature range of —65°C. to +125°C. The capacitor sections on types P323S utilize an inserted tab construction to obtain minimum size. Type P323SX utilizes extended foil construction for those applications where operation is required at very low AC voltages.

For equivalent types rated —65°C. to +100°C. in the same case size as shown order as P123S, SX, etc. and request prices.

These subminiature units are widely used in many applications because of their high reliability and varied case styles. To order any of these style variations add the suffix letter shown to the basic designation listed.

Suffix	STYLE VARIATIONS		Suffix	STYLE VARIATIONS	
	Description	Can size change		Description	Can size change
† S-SX † G	As listed One end grounded	As listed Deduct 1/16" from length	GV	One end grounded with side vertical bracket	Deduct 1/16" from length
† GP	Grounded with plastic insulating sleeve	Add 1/16" to diameter	V	Both ends insulated with side vertical bracket	As listed
† P	Both ends insulated with plastic sleeve	Add 1/16" to diameter and length	GB	One end grounded with soldered tangential bracket	Deduct 1/16" from length
GT	One end grounded with threaded neck mounting	Deduct 1/16" from length	B	Both ends insulated with soldered tangential bracket	As listed
T	Both ends insulated with threaded neck mounting	As listed	GL	One end grounded with tab terminals	Deduct 1/16" from length
GE	One end grounded with axial threaded stud	Deduct 1/16" from length	L	Both ends insulated with tab terminals	As listed
GR	One end grounded with two radial threaded studs	Deduct 1/16" from length	R	Both ends insulated with two radial threaded studs	As l:sted

†These style variations are available from stock. All others listed above are available on special order.

Cap.	P323S	Price*	P323SX	Price*
100 VOLTS				
.001	.175 x 3/4	1.47	.175 x 3/4	1.50
.0015	.175 x 3/4	1.47	.175 x 3/4	1.50
.0022	.175 x 3/4	1.49	.175 x 3/4	1.50
.0033	.175 x 3/4	1.49	.175 x 3/4	1.50
.0047	.175 x 3/4	1.49	.175 x 3/4	1.50
.0068	.175 x 3/4	1.49	.195 x 3/4	1.50
.01	.175 x 3/4	1.50	.235 x 3/4	1.50
.015	.175 x 3/4	1.50	.235 x 3/4	1.50
.022	.195 x 3/4	1.50	.312 x 7/8	1.55
.027	.235 x 3/4	1.50	.312 x 7/8	1.58
.033	.235 x 3/4	1.50	.312 x 7/8	1.58
.047	.312 x 7/8	1.50	.312 x 7/8	1.62
.068	.312 x 7/8	1.55	.400 x 7/8	1.62
.082	.312 x 7/8	1.58	.400 x 7/8	1.67
.1	.312 x 7/8	1.58	.400 x 7/8	1.67
.12	.400 x 7/8	1.67	.400 x 1-1/8	1.67
.15	.400 x 7/8	1.67	.400 x 1-1/8	1.67
.18	.400 x 1-1/8	1.67	.400 x 1-3/8	1.78
.22	.400 x 1-1/8	1.67	.400 x 1-3/8	1.78
.27	.400 x 1-3/8	1.90	.562 x 1-1/8	1.98
.33	.400 x 1-3/8	1.90	.562 x 1-1/8	1.98
.39	.562 x 1-1/8	2.02	.562 x 1-3/8	2.06
.47	.562 x 1-1/8	2.02	.562 x 1-3/8	2.06
.56	.562 x 1-3/8	2.10	.562 x 1-5/8	2.21
.68	.562 x 1-3/8	2.10	.562 x 1-5/8	2.21
.82	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
1.00	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
200 VOLTS				
.001	.235 x 3/4	1.47	.235 x 3/4	1.50
.0012	.235 x 3/4	1.47	.235 x 3/4	1.50
.0015	.235 x 3/4	1.47	.235 x 3/4	1.50
.0018	.235 x 3/4	1.49	.235 x 3/4	1.50
.0022	.235 x 3/4	1.49	.235 x 3/4	1.50
.0027	.235 x 3/4	1.49	.235 x 3/4	1.52
.0033	.235 x 3/4	1.49	.235 x 3/4	1.52
.0039	.235 x 3/4	1.49	.235 x 3/4	1.52
.0047	.235 x 3/4	1.49	.235 x 3/4	1.52
.0056	.235 x 3/4	1.49	.235 x 3/4	1.55
.0068	.235 x 3/4	1.49	.235 x 3/4	1.55
.0082	.235 x 3/4	1.50	.312 x 7/8	1.62
.01	.235 x 3/4	1.50	.312 x 7/8	1.62
.012	.235 x 3/4	1.50	.312 x 7/8	1.62
.015	.235 x 3/4	1.50	.312 x 7/8	1.62
.018	.235 x 3/4	1.50	.312 x 7/8	1.67
.022	.235 x 3/4	1.50	.312 x 7/8	1.67
.027	.312 x 7/8	1.50	.312 x 7/8	1.67
.033	.312 x 7/8	1.50	.312 x 7/8	1.67
.039	.312 x 7/8	1.55	.400 x 7/8	1.70
.047	.312 x 7/8	1.55	.400 x 7/8	1.70
.056	.312 x 7/8	1.58	.400 x 7/8	1.70
200 VOLTS (Cont.)				
.068	.312 x 7/8	1.58	.400 x 7/8	1.70
.082	.400 x 7/8	1.62	.400 x 1-1/8	1.72
.1	.400 x 7/8	1.62	.400 x 1-1/8	1.72
.12	.400 x 1-1/8	1.65	.400 x 1-3/8	1.78
.15	.400 x 1-1/8	1.65	.400 x 1-3/8	1.78
.18	.400 x 1-3/8	1.80	.562 x 1-1/8	1.90
.22	.400 x 1-3/8	1.80	.562 x 1-1/8	1.90
.27	.562 x 1-1/8	1.94	.562 x 1-3/8	2.02
.33	.562 x 1-1/8	1.94	.562 x 1-3/8	2.02
.39	.562 x 1-3/8	2.06	.562 x 1-5/8	2.10
.47	.562 x 1-3/8	2.06	.562 x 1-5/8	2.10
.56	.562 x 1-7/8	2.18	.670 x 1-5/8	2.38
.68	.562 x 1-7/8	2.18	.670 x 1-5/8	2.38
.82	.670 x 1-7/8	2.61	.750 x 2-1/8	2.67
1.00	.670 x 1-7/8	2.61	.750 x 2-1/8	2.67
300 VOLTS				
.001	.235 x 3/4	1.47	.235 x 3/4	1.55
.0015	.235 x 3/4	1.47	.235 x 3/4	1.55
.0022	.235 x 3/4	1.49	.235 x 3/4	1.55
.0033	.235 x 3/4	1.49	.235 x 3/4	1.55
.0047	.235 x 3/4	1.49	.235 x 3/4	1.55
.0068	.235 x 3/4	1.50	.312 x 7/8	1.62
.01	.235 x 3/4	1.50	.312 x 7/8	1.67
.015	.235 x 3/4	1.52	.312 x 7/8	1.68
.022	.312 x 7/8	1.58	.312 x 7/8	1.70
.033	.312 x 7/8	1.58	.400 x 7/8	1.72
.047	.312 x 7/8	1.62	.400 x 7/8	1.72
.068	.400 x 7/8	1.67	.400 x 1-1/8	1.72
.1	.400 x 1-1/8	1.67	.400 x 1-3/8	1.75
.15	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90
.22	.562 x 1-1/8	1.86	.562 x 1-3/8	2.02
.33	.562 x 1-3/8	2.02	.562 x 1-5/8	2.14
.47	.562 x 1-7/8	2.46	.670 x 1-5/8	2.56
.68	.670 x 1-7/8	2.61	.750 x 2-1/8	2.66
1.00	.750 x 2-1/8	3.37	1.000 x 2-1/8	3.39
400 VOLTS				
.001	.235 x 3/4	1.49	.235 x 3/4	1.57
.0012	.235 x 3/4	1.49	.235 x 3/4	1.57
.0015	.235 x 3/4	1.49	.235 x 3/4	1.57
.0018	.235 x 3/4	1.49	.235 x 3/4	1.57
.0022	.235 x 3/4	1.49	.235 x 3/4	1.57
.0027	.235 x 3/4	1.52	.235 x 3/4	1.58
.0033	.235 x 3/4	1.52	.235 x 3/4	1.58
.0039	.235 x 3/4	1.52	.312 x 7/8	1.67
.0047	.235 x 3/4	1.52	.312 x 7/8	1.67
.0056	.235 x 3/4	1.52	.312 x 7/8	1.67
.0068	.235 x 3/4	1.52	.312 x 7/8	1.67
.0082	.235 x 3/4	1.55	.312 x 7/8	1.70
400 VOLTS (Cont.)				
.01	.235 x 3/4	1.55	.312 x 7/8	1.70
.012	.312 x 7/8	1.58	.312 x 7/8	1.70
.015	.312 x 7/8	1.58	.312 x 7/8	1.70
.018	.312 x 7/8	1.60	.400 x 7/8	1.75
.022	.312 x 7/8	1.60	.400 x 7/8	1.75
.027	.312 x 7/8	1.60	.400 x 7/8	1.75
.033	.312 x 7/8	1.60	.400 x 7/8	1.75
.039	.400 x 7/8	1.67	.400 x 1-1/8	1.78
.047	.400 x 7/8	1.67	.400 x 1-1/8	1.78
.056	.400 x 1-1/8	1.70	.400 x 1-3/8	1.78
.068	.400 x 1-1/8	1.70	.400 x 1-3/8	1.78
.082	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90
.1	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90
.12	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.15	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.18	.562 x 1-3/8	2.02	.562 x 1-5/8	2.10
.22	.562 x 1-3/8	2.02	.562 x 1-5/8	2.10
.27	.562 x 1-7/8	2.06	.670 x 1-5/8	2.30
.33	.562 x 1-7/8	2.06	.670 x 1-5/8	2.30
.39	.670 x 1-7/8	2.46	.750 x 2-1/8	2.66
.47	.670 x 1-7/8	2.46	.750 x 2-1/8	2.66
.56	.750 x 2-1/8	3.27	.750 x 2-3/8	3.51
.68	.750 x 2-1/8	3.27	.750 x 2-3/8	3.51
.82	1.000 x 1-7/8	3.38	1.000 x 2-5/8	3.64
1.00	1.000 x 1-7/8	3.38	1.000 x 2-5/8	3.64
600 VOLTS				
.001	.235 x 3/4	1.50	.235 x 3/4	1.58
.0012	.235 x 3/4	1.50	.235 x 3/4	1.58
.0015	.235 x 3/4	1.50	.235 x 3/4	1.58
.0018	.235 x 3/4	1.50	.235 x 3/4	1.58
.0022	.235 x 3/4	1.50	.235 x 3/4	1.58
.0027	.235 x 3/4	1.55	.312 x 7/8	1.62
.0033	.235 x 3/4	1.55	.312 x 7/8	1.62
.0039	.235 x 3/4	1.55	.312 x 7/8	1.68
.0047	.235 x 3/4	1.55	.312 x 7/8	1.68
.0056	.235 x 3/4	1.55	.312 x 7/8	1.70
.0068	.235 x 3/4	1.55	.312 x 7/8	1.70
.0082	.312 x 7/8	1.58	.312 x 7/8	1.72
.01	.312 x 7/8	1.58	.312 x 7/8	1.72
.012	.312 x 7/8	1.62	.400 x 7/8	1.75
.015	.312 x 7/8	1.62	.400 x 7/8	1.75
.018	.312 x 7/8	1.62	.400 x 7/8	1.76
.022	.312 x 7/8	1.62	.400 x 7/8	1.76
.027	.400 x 7/8	1.68	.400 x 1-1/8	1.76
.033	.400 x 7/8	1.68	.400 x 1-1/8	1.76
.039	.400 x 1-1/8	1.70	.400 x 1-3/8	1.82
.047	.400 x 1-1/8	1.70	.400 x 1-3/8	1.82
.056	.400 x 1-3/8	1.78	.562 x 1-1/8	1.94
.068	.400 x 1-3/8	1.78	.562 x 1-1/8	1.94
.082	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
600 VOLTS (Cont.)				
.1	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.12	.562 x 1-3/8	1.98	.562 x 1-5/8	2.10
.15	.562 x 1-3/8	1.98	.562 x 1-5/8	2.10
.18	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
.22	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
.27	.670 x 1-7/8	2.38	.750 x 2-1/8	2.66
.33	.670 x 1-7/8	2.38	.750 x 2-1/8	2.66
.39	.750 x 2-1/8	2.67	.750 x 2-3/8	2.77
.47	.750 x 2-1/8	2.67	.750 x 2-3/8	2.77
.56	1.000 x 1-7/8	3.33	1.000 x 2-1/8	3.67
.68	1.000 x 1-7/8	3.33	1.000 x 2-1/8	3.67
.82	1.000 x 2-3/8	3.45	1.000 x 2-5/8	3.78
1.00	1.000 x 2-3/8	3.45	1.000 x 2-5/8	3.78
1000 VOLTS				
.001	.400 x 7/8	1.73	.400 x 7/8	1.82
.0012	.400 x 7/8	1.73	.400 x 7/8	1.82
.0015	.400 x 7/8	1.73	.400 x 7/8	1.82
.0018	.400 x 7/8	1.73	.400 x 7/8	1.82
.0022	.400 x 7/8	1.73	.400 x 7/8	1.82
.0027	.400 x 7/8	1.78	.400 x 7/8	1.86
.0033	.400 x 7/8	1.78	.400 x 7/8	1.86
.0039	.400 x 7/8	1.78	.400 x 7/8	1.94
.0047	.400 x 7/8	1.78	.400 x 7/8	1.94
.0056	.400 x 7/8	1.78	.400 x 7/8	1.95
.0068	.400 x 7/8	1.78	.400 x 7/8	1.95
.0082	.400 x 7/8	1.82	.400 x 7/8	1.98
.01	.400 x 7/8	1.82	.400 x 7/8	1.98
.012	.400 x 7/8	1.86	.400 x 1-1/8	2.01
.015	.400 x 7/8	1.86	.400 x 1-1/8	2.01
.018	.400 x 1-1/8	1.86	.400 x 1-3/8	2.03
.022	.400 x 1-1/8	1.86	.400 x 1-3/8	2.03
.027	.400 x 1-3/8	1.94	.562 x 1-1/8	2.03
.033	.400 x 1-3/8	1.94	.562 x 1-1/8	2.03
.039	.562 x 1-1/8	1.95	.562 x 1-3/8	2.09
.047	.562 x 1-1/8	1.95	.562 x 1-3/8	2.09
.056	.562 x 1-3/8	2.05	.562 x 1-5/8	2.23
.068	.562 x 1-3/8	2.05	.562 x 1-5/8	2.23
.082	.562 x 1-5/8	2.19	.670 x 1-5/8	2.28
.1	.562 x 1-5/8	2.19	.670 x 1-5/8	2.28
.12	.670 x 1-5/8	2.28	.670 x 1-7/8	2.41
.15	.670 x 1-5/8	2.28	.670 x 1-7/8	2.41
.18	.750 x 2-1/8	2.47	.750 x 2-1/8	2.74
.22	.750 x 2-1/8	2.47	.750 x 2-1/8	2.74
.27	.750 x 2-5/8	2.74	1.000 x 2-1/8	3.05
.33	.750 x 2-5/8	2.74	1.000 x 2-1/8	3.05
.39	1.000 x 2-1/8	3.08	1.000 x 2-3/8	3.19
.47	1.000 x 2-1/8	3.08	1.000 x 2-3/8	3.19

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499

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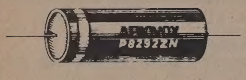
INDUSTRIAL SECTION — STANDARD TYPES (Continued)

METALLIZED-PAPER CAPACITORS

TYPE P8292ZN PLASTIC-CASED, METALLIZED-PAPER TUBULARS



Featuring an exclusive "polycap" plastic-case construction, these capacitors offer outstanding resistance to humidity and improved insulation resistance. The high temperature impregnant permits operation over the temperature range of —30°C to +100°C at working voltage. Distinctive black cases are completely free of any wax coating to facilitate handling problems in automatic insertion and assembly equipment. Standard tolerance on these units is ±20%. Available in closer tolerances upon request at an additional charge. Mechanical Tolerances— ±1/16" on length and diameter.

For full technical information request Bulletin NPJ-113.

200 VDCW

Cap. Mfd.	D x L	Catalog Number	Net* Price
.01	1/4 x 19/32	P8292ZN6	$ .44
.02	1/4 x 21/32	P8292ZN7	.44
.03	5/16 x 23/32	P8292ZN8	.45
.05	5/16 x 23/32	P8292ZN9	.45
.1	3/8 x 23/32	P8292ZN10	.47
.25	1/2 x 23/32	P8292ZN11	.68
.5	7/16 x 1-5/32	P8292ZN12	.80
1.0	9/16 x 1-5/32	P8292ZN13	1.07
2.0	5/8 x 1-21/32	P8292ZN14	1.46

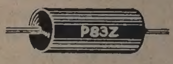
400 VDCW

Cap. Mfd.	D x L	Catalog Number	Net* Price
.01	5/16 x 23/32	P8292ZN15	.44
.02	3/8 x 23/32	P8292ZN16	.45
.03	3/8 x 23/32	P8292ZN17	.45
.05	7/16 x 23/32	P8292ZN18	.47
.1	7/16 x 1-5/32	P8292ZN19	.51
.25	9/16 x 1-5/32	P8292ZN20	.74
.5	5/8 x 1-15/32	P8292ZN21	.95
1.0	11/16 x 1-31/32	P8292ZN22	1.32
2.0	7/8 x 2-3/8	P8292ZN23	1.86

600 VDCW

Cap. Mfd.	D x L	Catalog Number	Net* Price
.01	3/8 x 23/32	P8292ZN24	.45
.02	3/8 x 23/32	P8292ZN25	.47
.03	7/16 x 23/32	P8292ZN26	.50
.05	1/2 x 23/32	P8292ZN27	.53
.1	7/16 x 1-5/32	P8292ZN28	.59
.25	5/8 x 1-5/32	P8292ZN29	.92
.5	11/16 x 1-19/32	P8292ZN30	1.15
1.0	13/16 x 2	P8292ZN31	1.43
2.0	1 x 2-3/8	P8292ZN32	2.03

TYPE P83Z
Microminiatures



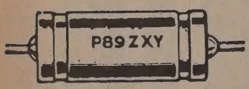
Ultra-small, new metallized paper dielectric capacitor particularly applicable in the electronic field to replace the low capacity paper units now being used. Hyvol K impregnated in humidity resistant molded thermo-plastic cases.
Standard Tolerance ±25%.

Cap. Mfd.	Voltage	Case Size (Inches) Dia. x Lgth.	Net* Price
.004	200 VDC	3/16 x 7/16	$.21
.005	200 VDC	3/16 x 7/16	.21
.01	200 VDC	3/16 x 7/16	.21
.02	200 VDC	1/4 x 9/16	.27
.04	200 VDC	1/4 x 9/16	.27
.002	400 VDC	3/16 x 7/16	.21
.003	400 VDC	1/4 x 9/16	.27
.008	400 VDC	1/4 x 9/16	.27
.01	400 VDC	1/4 x 9/16	.27
.0005	600 VDC	3/16 x 7/16	.21
.0008	600 VDC	3/16 x 7/16	.21
.001	600 VDC	3/16 x 7/16	.21
.002	600 VDC	1/4 x 9/16	.27
.0022	600 VDC	1/4 x 9/16	.27
.0047	600 VDC	1/4 x 9/16	.27
.005	600 VDC	1/4 x 9/16	.27

Operating temperature range −15°C to +85°C without derating.

TYPE P89ZXY †
Hermetically Sealed Tubulars

Hermetically sealed metallized paper capacitors. Sealed in metal cases with rubber bakelite end seals. Impregnated with Hyvol K or Hyvol M, these units are manufactured for operating temperature of −55°C. to +70°C. without voltage derating and operation up to 95°C. ambient with derating.
Standard units are furnished without insulating tube or bracket (P89ZXY).
Standard tolerance ±20%. Also available in ±10% and ±5% on special order.



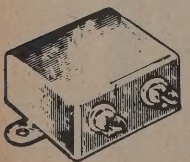
Style Variations

P89ZP	—with plastic insulating sleeve and radial mounting bracket.
P89ZXP	—without mounting bracket but with plastic insulating sleeve.
P89ZXY	—without insulating sleeve or mounting bracket.
P89ZY	—without insulating sleeve but with radial mounting bracket.

Cap. Mfd.	Size 150 VDC	Net* Price	Size 200 VDC	Net* Price	Size 400 VDC	Net* Price	Size 600 VDC	Net* Price
.01							3/8 x 1	1.30
.02							3/8 x 1	1.30
.03					3/8 x 1	1.27	7/16 x 1	1.30
.05			3/8 x 1	1.22	7/16 x 1	1.27	1/2 x 1	1.35
.1			7/16 x 1	1.27	7/16 x 1-5/16	1.35	1/2 x 1-1/2	1.40
.25			1/2 x 1	1.40	5/8 x 1-5/16	1.57	5/8 x 1-5/8	1.73
.5			1/2 x 1-5/16	1.53	5/8 x 2	1.76	3/4 x 2	1.94
1.0			5/8 x 1-1/2	1.81	3/4 x 2½	2.21	13/16 x 2-1/2	2.54
2.0			5/8 x 2	2.24	1 x 2½	3.19	1-1/4 x 2-1/2	3.66
3.0	3/4 x 2	2.97						
4.0	13/16 x 2	3.51						
6.0	1 x 2	4.62						

†This type to be discontinued when present stocks are depleted.
Type P123ZN is recommended as replacement.

TYPE P30ZN High Temperature Bathtub Case



AEROVOX type P30ZN Aerolene impregnated metallized-paper capacitors housed in "bathtub" metal cases hermetically sealed. Operating temperature range —65°C. to +125°C. at full rating Standard Tolerance ±20%.

Capacity	150 V	Net* Price	200 V	Net* Price	400 V	Net* Price	600 V	Net* Price
.1			1-3/4 x 1 x 3/4	2.15	1-3/4 x 1 x 3/4	2.30	1-3/4 x 1 x 3/4	2.37
.25			1-3/4 x 1 x 3/4	2.39	1-3/4 x 1 x 3/4	2.42	1-3/4 x 1 x 3/4	2.46
.5			1-3/4 x 1 x 3/4	2.44	1-3/4 x 1 x 3/4	2.58	1-3/4 x 1 x 3/4	2.60
1.0			1-3/4 x 1 x 3/4	2.86	1-3/4 x 1 x 7/8	2.96	1-3/4 x 1¼ x 7/8	3.26
2.0			1-3/4 x 1 x 3/4	3.53	2 x 1-3/4 x 13/16	3.74	2 x 2 x 7/8	3.85
3.0	1-3/4 x 1 x 3/4	3.29			2 x 1-3/4 x 15/16	4.21	2 x 2 x 1-1/8	5.45
4.0	1-3/4 x 1 x 3/4	3.95			2 x 2 x 1	4.97	2 x 2 x 1-1/4	6.53
5.0	1-3/4 x 1 x 3/4	4.39			2 x 2 x 1-1/4	5.99		
6.0	1-3/4 x 1¼ x 7/8	4.57						
8.0	2 x 1-3/4 x 3/4	5.29						
10.0	2 x 1-3/4 x 3/4	6.09						
12.0	2 x 2 x 7/8	6.82						
15.0	2 x 2 x 1	8.25						

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

Net

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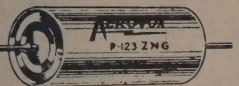
AEROVOX CAPACITORS

INDUSTRIAL SECTION—STANDARD TYPES (Continued)
METALLIZED-PAPER



Metallized paper tubulars hermetically sealed in metal tubes with glass end seals soldered for positive moisture seal. Designed to meet critical operating temperatures and the need for increased reliability in the electronic field. The P123ZN—Aerolene impregnated—is manufactured to meet operating temperature range of —55C to +100C at full voltage rating and +125C with voltage derating to 75%. P123ZNG is case grounded. P123ZN is case insulated. Standard tolerance .01 mfd. and lower ±25%, .015 mfd. and up ±20%. Also available in ±10% and ±5% on special order. Units rated at 50 Volts are stocked at ±10%. These units are equivalent to characteristic M of MIL-C-18312. Suffix P denotes plastic tube; B denotes mtg. bracket (not available with plastic tube); T denotes threaded neck terminal.

TYPES P123ZN, P123ZNG

Metal-Cased Capacitors

MIL CONVERSION CHART

Type	
CH04A1M	P123ZN
CH04A3M	P123ZNG
CH05A1M	P123ZNP
CH05A3M	P123ZNGP

Voltage	
G	50V
C	200V
E	400V
F	600V

Capacity
First two figures are significant figures —third figure represents number of zeros to follow

Tolerance	
K	±10%
M	±20%

EXAMPLE

CH04A1M (P123ZN)	E (400V)	223 (.022)	K (±10%)

Capacity	P123ZN	Net Price*	P123ZNP	Net Price*	P123ZNG	Net Price*	P123ZNGP	Net Price*
50 Volts								
.047	.195 x 13/16	2.11	.257 x 7/8	2.19	.195 x 3/4	1.31	.257 x 13/16	1.39
.068	.195 x 13/16	2.13	.257 x 7/8	2.21	.195 x 3/4	1.33	.257 x 13/16	1.41
.1	.195 x 15/16	2.15	.257 x 1	2.23	.195 x 7/8	1.35	.257 x 15/16	1.43
.15	.235 x 15/16	2.18	.297 x 1	2.26	.235 x 7/8	1.38	.297 x 15/16	1.46
.22	.312 x 13/16	2.22	.374 x 7/8	2.30	.312 x 3/4	1.42	.374 x 13/16	1.50
.33	.312 x 1-1/8	2.27	.374 x 1-3/16	2.35	.312 x 1-1/16	1.47	.374 x 1-1/8	1.55
.47	.312 x 1-3/16	2.34	.374 x 1-1/4	2.42	.312 x 1-1/8	1.54	.374 x 1-3/16	1.62
.68	.400 x 1-1/8	2.54	.462 x 1-3/16	2.62	.400 x 1-1/16	1.73	.462 x 1-1/8	1.81
1.0	.400 x 1-5/16	2.75	.462 x 1-3/8	2.83	.400 x 1-1/4	1.95	.462 x 1-5/16	2.03
1.5	.500 x 1-1/8	3.08	.562 x 1-3/16	3.16	.500 x 1-1/16	2.28	.562 x 1-1/8	2.36
2.0	.562 x 1-5/16	3.41	.624 x 1-3/8	3.49	.562 x 1-1/4	2.61	.624 x 1-5/16	2.69
3.0	.562 x 1-7/16	3.86	.624 x 1-1/2	3.94	.562 x 1-3/8	3.06	.624 x 1-7/16	3.14
4.0	.670 x 1-7/16	4.31	.732 x 1-1/2	4.39	.670 x 1-3/8	3.51	.732 x 1-7/16	3.59
200 Volts								
.0005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.001	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.002	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.003	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.01	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.012	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.015	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.018	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.02	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.022	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.027	.235 x 5/8	1.37	.297 x 11/16	1.40	.235 x 9/16	1.02	.297 x 5/8	1.05
.033	.235 x 5/8	1.38	.297 x 11/16	1.41	.235 x 9/16	1.03	.297 x 5/8	1.06
.039	.235 x 11/16	1.40	.297 x 3/4	1.43	.235 x 5/8	1.05	.297 x 11/16	1.08
.04	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.047	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.05	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.056	.235 x 13/16	1.43	.297 x 7/8	1.46	.235 x 3/4	1.08	.297 x 13/16	1.11
.068	.312 x 13/16	1.45	.374 x 7/8	1.48	.312 x 3/4	1.10	.374 x 13/16	1.13
.082	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.14
.1	.312 x 13/16	1.48	.374 x 7/8	1.51	.312 x 3/4	1.13	.374 x 13/16	1.16
.12	.312 x 1-1/8	1.49	.374 x 3/16	1.52	.312 x 1-1/16	1.14	.374 x 1-1/8	1.17
.15	.312 x 1-1/8	1.49	.374 x 1-3/16	1.52	.312 x 1-1/16	1.14	.374 x 1-1/8	1.17
.18	.312 x 1-1/8	1.50	.374 x 1-3/16	1.53	.312 x 1-1/16	1.15	.374 x 1-1/8	1.18
.2	.312 x 1-1/8	1.50	.374 x 1-3/16	1.53	.312 x 1-1/16	1.15	.374 x 1-1/8	1.18
.22	.312 x 1-1/8	1.50	.374 x 1-3/16	1.53	.312 x 1-1/16	1.15	.374 x 1-1/8	1.18
.25	.312 x 1-1/8	1.62	.374 x 1-3/16	1.65	.312 x 1-1/16	1.27	.374 x 1-1/8	1.30
.27	.400 x 1-1/8	1.62	.462 x 1-3/16	1.65	.400 x 1-1/16	1.27	.462 x 1-1/8	1.30
.33	.400 x 1-1/8	1.62	.462 x 1-3/16	1.65	.400 x 1-1/16	1.27	.462 x 1-1/8	1.30
.39	.400 x 1-1/8	1.70	.462 x 1-3/16	1.73	.400 x 1-1/16	1.35	.462 x 1-1/8	1.38
.47	.400 x 1-1/8	1.71	.462 x 1-3/16	1.74	.400 x 1-1/16	1.36	.462 x 1-1/8	1.39
.5	.400 x 1-1/8	1.73	.462 x 1-3/16	1.76	.400 x 1-1/16	1.38	.462 x 1-1/8	1.41
.56	.500 x 1-1/8	1.73	.562 x 1-3/16	1.77	.500 x 1-1/16	1.38	.562 x 1-1/8	1.41
.68	.500 x 1-1/8	1.78	.562 x 1-3/16	1.82	.500 x 1-1/16	1.43	.562 x 1-1/8	1.47
.82	.562 x 1-1/8	1.90	.624 x 1-3/16	1.94	.562 x 1-1/16	1.55	.624 x 1-1/8	1.59
1.0	.562 x 1-1/8	1.92	.624 x 1-3/16	1.96	.562 x 1-1/16	1.57	.624 x 1-1/8	1.61
1.5	.562 x 1-5/8	2.73	.624 x 1-11/16	2.77	.562 x 1-9/16	2.38	.624 x 1-5/8	2.42
2.0	.562 x 1-7/8	2.73	.624 x 1-15/16	2.77	.562 x 1-13/16	2.38	.624 x 1-7/8	2.42
3.0	.670 x 1-7/8	3.62	.732 x 1-15/16	3.66	.670 x 1-13/16	3.27	.732 x 1-7/8	3.31
4.0	.750 x 1-7/8	3.89	.812 x 1-15/16	3.95	.750 x 1-13/16	3.54	.812 x 1-7/8	3.60
5.0	1.000 x 1-7/8	4.10	1.062 x 1-15/16	4.16	1.000 x 1-13/16	3.75	1.062 x 1-7/8	3.81
6.0	1.000 x 1-7/8	4.31	1.062 x 1-15/16	4.37	1.000 x 1-13/16	3.96	1.062 x 1-7/8	4.02
400 Volts								
.0005	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.001	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.002	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.003	.235 x 5/8	1.39	.297 x 11/16	1.42	.235 x 9/16	1.04	.297 x 5/8	1.07
.005	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.07
.01	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.10
400 Volts (Continued)								
.012	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.10
.015	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.10
.018	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.10
.02	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.10
.022	.235 x 13/16	1.43	.297 x 7/8	1.46	.235 x 3/4	1.08	.297 x 13/16	1.11
.027	.312 x 13/16	1.43	.374 x 7/8	1.46	.312 x 3/4	1.08	.374 x 13/16	1.11
.033	.312 x 13/16	1.43	.374 x 7/8	1.46	.312 x 3/4	1.08	.374 x 13/16	1.11
.039	.312 x 1-1/8	1.43	.374 x 1-3/16	1.46	.312 x 1-1/16	1.08	.374 x 1-1/8	1.11
.04	.312 x 1-1/8	1.43	.374 x 1-3/16	1.46	.312 x 1-1/16	1.08	.374 x 1-1/8	1.11
.047	.312 x 1-1/8	1.43	.374 x 1-3/16	1.46	.312 x 1-1/16	1.08	.374 x 1-1/8	1.11
.05	.312 x 1-1/8	1.43	.374 x 1-3/16	1.46	.312 x 1-1/16	1.08	.374 x 1-1/8	1.11
.056	.312 x 1-1/8	1.50	.374 x 1-3/16	1.53	.312 x 1-1/16	1.15	.374 x 1-1/8	1.18
.068	.312 x 1-1/8	1.53	.374 x 1-3/16	1.56	.312 x 1-1/16	1.18	.374 x 1-1/8	1.21
.082	.400 x 1-1/8	1.54	.462 x 1-3/16	1.57	.400 x 1-1/16	1.19	.462 x 1-1/8	1.22
.1	.400 x 1-1/8	1.55	.462 x 1-3/16	1.58	.400 x 1-1/16	1.20	.462 x 1-1/8	1.23
.12	.500 x 1-1/8	1.60	.562 x 1-3/16	1.64	.500 x 1-1/16	1.25	.562 x 1-1/8	1.29
.15	.500 x 1-1/8	1.63	.562 x 1-3/16	1.67	.500 x 1-1/16	1.28	.562 x 1-1/8	1.32
.18	.500 x 1-1/8	1.64	.562 x 1-3/16	1.68	.500 x 1-1/16	1.29	.562 x 1-1/8	1.33
.2	.500 x 1-1/8	1.64	.562 x 1-3/16	1.68	.500 x 1-1/16	1.29	.562 x 1-1/8	1.33
.22	.500 x 1-1/8	1.64	.562 x 1-3/16	1.68	.500 x 1-1/16	1.29	.562 x 1-1/8	1.33
.25	.500 x 1-1/8	1.81	.562 x 1-3/16	1.85	.500 x 1-1/16	1.46	.562 x 1-1/8	1.50
.27	.562 x 1-1/8	1.81	.624 x 1-3/16	1.85	.562 x 1-1/16	1.46	.624 x 1-1/8	1.50
.33	.562 x 1-3/8	1.81	.624 x 1-7/16	1.85	.562 x 1-5/16	1.46	.624 x 1-3/8	1.50
.39	.562 x 1-5/8	1.90	.624 x 1-11/16	1.94	.562 x 1-9/16	1.55	.624 x 1-5/8	1.59
.47	.562 x 1-5/8	1.94	.624 x 1-11/16	1.98	.562 x 1-9/16	1.59	.624 x 1-5/8	1.63
.5	.562 x 1-5/8	2.14	.624 x 1-11/16	2.18	.562 x 1-9/16	1.79	.624 x 1-5/8	1.83
.56	.670 x 1-5/8	2.14	.723 x 1-11/16	2.18	.670 x 1-9/16	1.82	.732 x 1-5/8	1.86
.68	.670 x 1-5/8	2.17	.732 x 1-11/16	2.21	.670 x 1-9/16	1.82	.732 x 1-5/8	1.86
.82	.670 x 1-7/8	2.30	.732 x 1-15/16	2.34	.670 x 1-13/16	1.95	.732 x 1-7/8	1.99
1.0	.670 x 2-1/8	2.31	.732 x 2-3/16	2.35	.670 x 2-1/16	1.96	.732 x 2-1/8	2.00
1.5	.750 x 2-3/8	3.00	.812 x 2-7/16	3.06	.750 x 2-5/16	2.65	.812 x 2-3/8	2.71
2.0	1.000 x 1-7/8	3.51	1.062 x 1-15/16	3.57	1.000 x 1-13/16	3.16	1.062 x 1-7/8	3.22
600 Volts								
.0005	.235 x 1/2	1.40	.297 x 9/16	1.43	.235 x 7/16	1.05	.297 x 1/2	1.08
.001	.235 x 5/8	1.40	.297 x 11/16	1.43	.235 x 9/16	1.05	.297 x 5/8	1.08
.002	.235 x 5/8	1.40	.297 x 11/16	1.43	.235 x 9/16	1.05	.297 x 5/8	1.08
.003	.235 x 5/8	1.43	.297 x 11/16	1.46	.235 x 9/16	1.08	.297 x 5/8	1.11
.005	.235 x 5/8	1.45	.297 x 11/16	1.48	.235 x 9/16	1.10	.297 x 5/8	1.13
.01	.235 x 13/16	1.45	.297 x 7/8	1.48	.235 x 3/4	1.10	.297 x 13/16	1.13
.012	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.14
.015	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.14
.018	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.14
.02	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.14
.022	.312 x 13/16	1.48	.374 x 7/8	1.51	.312 x 3/4	1.13	.374 x 13/16	1.16
.027	.400 x 13/16	1.48	.462 x 7/8	1.51	.400 x 3/4	1.13	.462 x 13/16	1.16
.033	.400 x 13/16	1.48	.462 x 7/8	1.51	.400 x 3/4	1.13	.462 x 13/16	1.16
.039	.400 x 13/16	1.49	.462 x 7/8	1.52	.400 x 3/4	1.14	.462 x 13/16	1.17
.04	.400 x 13/16	1.49	.462 x 7/8	1.52	.400 x 3/4	1.14	.462 x 13/16	1.17
.047	.400 x 13/16	1.50	.462 x 7/8	1.53	.400 x 3/4	1.15	.462 x 13/16	1.18
.05	.400 x 13/16	1.50	.462 x 7/8	1.53	.400 x 3/4	1.15	.462 x 13/16	1.18
.056	.400 x 1-1/8	1.55	.462 x 1-3/16	1.58	.400 x 1-1/16	1.20	.462 x 1-1/8	1.23
.068	.400 x 1-1/8	1.57	.462 x 1-3/16	1.60	.400 x 1-1/16	1.22	.462 x 1-1/8	1.25
.082	.400 x 1-1/8	1.60	.462 x 1-3/16	1.63	.400 x 1-1/16	1.25	.462 x 1-1/8	1.28
.1	.400 x 1-1/8	1.61	.462 x 1-3/16	1.64	.400 x 1-1/16	1.26	.462 x 1-1/8	1.30
.12	.500 x 1-1/8	1.70	.562 x 1-3/16	1.74	.500 x 1-1/16	1.35	.562 x 1-1/8	1.39
.15	.500 x 1-1/8	1.75	.562 x 1-3/16	1.79	.500 x 1-1/16	1.40	.562 x 1-1/8	1.44
.18	.562 x 1-1/8	1.81	.624 x 1-3/16	1.85	.562 x 1-1/16	1.46	.624 x 1-1/8	1.50
.2	.562 x 1-3/8	1.85	.624 x 1-7/16	1.89	.562 x 1-5/16	1.50	.624 x 1-3/8	1.54
.22	.562 x 1-3/8	1.88	.624 x 1-7/16	1.92	.562 x 1-5/16	1.53	.624 x 1-3/8	1.57
.25	.562 x 1-3/8	1.91	.624 x 1-7/16	1.95	.562 x 1-5/16	1.56	.624 x 1-3/8	1.60
.27	.670 x 1-5/8	1.91	.624 x 1-11/16	1.95	.562 x 1-9/16	1.56	.624 x 1-5/8	1.60
.33	.562x 1-5/8	2.09	.624 x 1-11/16	2.13	.562 x 1-9/16	1.74	.624 x 1-5/8	1.78
.39	.670 x 1-5/8	2.18	.732 x 1-11/16	2.22	.670 x 1-9/16	1.83	.732 x 1-5/8	1.87
.47	.670 x 1-5/8	2.21	.732 x 1-11/16	2.25	.670 x 1-9/16	1.86	.732 x 1-5/8	1.90
.5	.670 x 1-7/8	2.33	.732 x 1-15/16	2.37	.670 x 1-13/16	1.98	.732 x 1-7/8	2.02
.56	.670 x 1-7/8	2.33	.732 x 1-15/16	2.37	.670 x 1-13/16	1.98	.732 x 1-7/8	2.02
.68	.670 x 1-7/8	2.35	.732 x 1-15/16	2.39	.670 x 1-13/16	2.00	.732 x 1-7/8	2.04
.82	.750 x 2-3/8	2.48	.812 x 2-7/16	2.54	.750 x 2-5/16	2.13	.812 x 2-3/8	2.19
1.0	.750 x 2-3/8	2.49	.812 x 2-7/16	2.55	.750 x 2-5/16	2.14	.812 x 2-3/8	2.20
1.5	1.000 x 1-7/8	3.01	1.062 x 1-15/16	3.07	1.000 x 1-13/16	2.66	1.062 x 1-7/8	2.72
2.0	1.000 x 2-3/8	3.54	1.062 x 2-7/16	3.60	1.000 x 2-5/16	3.19	1.062 x 2-3/8	3.25

*Request O.E.M. Prices in the following quantities: 25-99, 100-499

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INDUSTRIAL SECTION — STANDARD TYPES (cont.)
METALLIZED PAPER

TYPE P323ZN

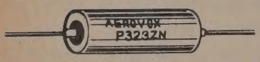
125°C, No Derating

Metal-Cased, Metallized-Paper Tubulars Similar to CH04 and CH05 —

MIL-C-18312

Characteristic N

Refer to previous page for MIL conversion chart.



Miniature, hermetically-sealed in metal cases with glass terminal end-seal, Type P323ZN units are designed for operation at temperatures from —55°C to +125°C WITHOUT DERATING for voltage. They will meet all the requirements for minimum size, light weight and high temperature in present day electronic equipments. Designed for long life, rugged duty and high reliability operation in critical military and premium priced commercial electronic assemblies. Standard tolerance is ±20%. Closer tolerance available on special order.

200 VDCW

Capacity Mfd.	P323ZN Case Floating		P323ZNP Case Floating Plastic Insulating Sleeve		P323ZNG Case Grounded		P323ZNGP Case Grounded Plastic Insulating Sleeve	
	Size	Net Price*	Size	Net Price*	Size	Net Price*	Size	Net Price*
.01	.175 x 1/2	1.51	.237 x 5/8	1.59	.175 x 7/16	1.16	.237 x 1/2	1.24
.012	.195 x 5/8	1.51	.257 x 11/16	1.59	.195 x 9/16	1.16	.257 x 5/8	1.24
.015	.195 x 5/8	1.51	.257 x 11/16	1.59	.195 x 9/16	1.16	.257 x 5/8	1.24
.018	.235 x 5/8	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x 5/8	1.24
.022	.235 x 5/8	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x 5/8	1.24
.027	.235 x 5/8	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x 5/8	1.24
.033	.235 x 3/4	1.53	.297 x 13/16	1.61	.235 x 11/16	1.18	.297 x 3/4	1.26
.039	.235 x 13/16	1.53	.297 x 7/8	1.61	.235 x 3/4	1.18	.297 x 13/16	1.26
.047	.235 x 13/16	1.57	.297 x 7/8	1.65	.235 x 3/4	1.22	.297 x 13/16	1.30
.056	.235 x 13/16	1.57	.297 x 7/8	1.65	.235 x 3/4	1.22	.297 x 13/16	1.30
.068	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.082	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.1	.312 x 13/16	1.63	.374 x 7/8	1.71	.312 x 3/4	1.28	.374 x 13/16	1.36
.12	.312 x 1-1/8	1.63	.374 x 1-3/16	1.71	.312 x 1-1/16	1.28	.374 x 1-1/8	1.36
.15	.312 x 1-1/8	1.67	.374 x 1-3/16	1.75	.312 x 1-1/16	1.32	.374 x 1-1/8	1.40
.18	.400 x 7/8	1.67	.462 x 15/16	1.75	.400 x 13/16	1.32	.462 x 7/8	1.40
.22	.400 x 7/8	1.67	.462 x 15/16	1.75	.400 x 13/16	1.32	.462 x 7/8	1.40
.27	.400 x 1-1/8	1.67	.462 x 1-3/16	1.75	.400 x 1-1/16	1.32	.462 x 1-1/8	1.40
.33	.400 x 1-1/8	1.82	.462 x 1-3/16	1.90	.400 x 1-1/16	1.47	.462 x 1-1/8	1.55
.39	.400 x 1-1/8	1.82	.462 x 1-3/16	1.90	.400 x 1-1/16	1.47	.462 x 1-1/8	1.55
.47	.500 x 1-1/8	1.93	.562 x 1-3/16	2.01	.500 x 1-1/16	1.58	.562 x 1-1/8	1.66
.56	.500 x 1-1/8	1.93	.562 x 1-3/16	2.01	.500 x 1-1/16	1.58	.562 x 1-1/8	1.66
.68	.500 x 1-1/8	2.00	.562 x 1-3/16	2.08	.500 x 1-1/16	1.65	.562 x 1-1/8	1.73
.82	.562 x 1-1/8	2.00	.624 x 1-3/16	2.08	.562 x 1-1/16	1.65	.624 x 1-1/8	1.73
1.0	.562 x 1-1/8	2.15	.624 x 1-3/16	2.23	.562 x 1-1/16	1.80	.624 x 1-1/8	1.88
1.5	.562 x 1-5/8	3.22	.624 x 1-11/16	3.30	.562 x 1-9/16	2.87	.624 x 1-5/8	2.95
2.0	.670 x 1-5/8	3.90	.732 x 1-11/16	3.98	.670 x 1-9/16	3.55	.732 x 1-5/8	3.63
3.0	.670 x 1-7/8	4.26	.732 x 1-15/16	4.34	.670 x 1-13/16	3.91	.732 x 1-7/8	3.99
4.0	.750 x 1-7/8	5.09	.812 x 1-15/16	5.17	.750 x 1-13/16	4.73	.812 x 1-7/8	4.81
5.0	1.000 x 1-7/8	5.61	1.062 x 1-15/16	5.69	1.000 x 1-13/16	5.26	1.062 x 1-7/8	5.34
6.0	1.000 x 1-7/8	6.03	1.062 x 1-15/16	6.11	1.000 x 1-13/16	5.68	1.062 x 1-7/8	5.76
8.0	1.000 x 1-7/8	6.23	1.062 x 1-15/16	6.31	1.000 x 1-13/16	5.87	1.062 x 1-7/8	5.95
10.0	1.000 x 2-3/8	7.97	1.062 x 2-7/16	8.05	1.000 x 2-5/16	7.62	1.062 x 2-3/8	7.70
12.0	1.000 x 2-5/8	8.87	1.062 x 2-11/16	8.95	1.000 x 2-9/16	8.52	1.062 x 2-5/8	8.60

*Request O.E.M. Prices in the following quantities: 25-99, 100-499

400 VDCW

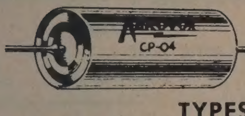
Capacity Mfd.	P323ZN Case Floating		P323ZNP Case Floating Plastic Insulating Sleeve		P323ZNG Case Grounded		P323ZNGP Case Grounded Plastic Insulating Sleeve	
	Size	Net Price*	Size	Net Price*	Size	Net Price*	Size	Net Price*
.001	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.0022	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.0047	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.01	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.012	.235 x 13/16	1.56	.297 x 7/8	1.64	.235 x 3/4	1.21	.297 x 13/16	1.29
.015	.235 x 13/16	1.56	.297 x 7/8	1.64	.235 x 3/4	1.21	.297 x 13/16	1.29
.018	.312 x 13/16	1.60	.374 x 7/8	1.68	.312 x 3/4	1.25	.374 x 13/16	1.33
.022	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.027	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.033	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.039	.312 x 1-1/8	1.61	.374 x 1-3/16	1.69	.312 x 1-1/16	1.26	.374 x 1-1/8	1.34
.047	.312 x 1-1/8	1.61	.374 x 1-3/16	1.69	.312 x 1-1/16	1.26	.374 x 1-1/8	1.34
.056	.312 x 1-1/8	1.64	.374 x 1-3/16	1.72	.312 x 1-1/16	1.29	.374 x 1-1/8	1.37
.068	.400 x 1-1/8	1.69	.462 x 1-3/16	1.77	.400 x 1-1/16	1.34	.462 x 1-1/8	1.42
.082	.400 x 1-1/8	1.70	.462 x 1-3/16	1.78	.400 x 1-1/16	1.35	.462 x 1-1/8	1.43
.1	.400 x 1-1/8	1.74	.462 x 1-3/16	1.82	.400 x 1-1/16	1.39	.462 x 1-1/8	1.47
.12	.500 x 1-1/8	1.79	.562 x 1-3/16	1.87	.500 x 1-1/16	1.44	.562 x 1-1/8	1.52
.15	.500 x 1-1/8	1.84	.562 x 1-3/16	1.92	.500 x 1-1/16	1.49	.562 x 1-1/8	1.57
.18	.500 x 1-1/8	1.88	.562 x 1-3/16	1.96	.500 x 1-1/16	1.53	.562 x 1-1/8	1.61
.22	.562 x 1-1/8	1.91	.624 x 1-3/16	1.99	.562 x 1-1/16	1.56	.624 x 1/1/8	1.64
.27	.562 x 1-1/8	1.97	.624 x 1-3/16	2.05	.562 x 1-1/16	1.62	.624 x 1-1/8	1.70
.33	.562 x 1-3/8	2.11	.624 x 1-7/16	2.19	.562 x 1-5/16	1.76	.624 x 1-3/8	1.84
.39	.562 x 1-5/8	2.19	.624 x 1-11/16	2.27	.562 x 1-9/16	1.84	.624 x 1-5/8	1.92
.47	.562 x 1-5/8	2.34	.624 x 1-11/16	2.42	.562 x 1-9/16	1.99	.624 x 1-5/8	2.07
.56	.670 x 1-5/8	2.49	.732 x 1-11/16	2.57	.670 x 1-9/16	2.14	.732 x 1-5/8	2.22
.68	.670 x 1-7/8	2.68	.732 x 1-15/16	2.76	.670 x 1-13/16	2.33	.732 x 1-7/8	2.41
.82	.750 x 1-7/8	2.85	.812 x 1-15/16	2.93	.750 x 1-13/16	2.50	.812 x 1-7/8	2.58
1.0	.750 x 1-7/8	2.94	.812 x 1-15/16	3.02	.750 x 1-13/16	2.59	.812 x 1-7/8	2.67
1.5	1.000 x 1-7/8	3.90	1.062 x 1-15/16	3.98	1.000 x 1-13/16	3.55	1.062 x 1-7/8	3.63
2.0	1.000 x 1-7/8	4.86	1.062 x 1-15/16	4.94	1.000 x 1-13/16	4.51	1.062 x 1-7/8	4.59

600 VDCW

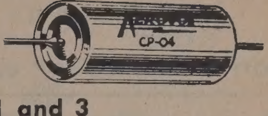
.001	.235 x 3/4	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x 3/4	1.35
.0022	.235 x 3/4	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x 3/4	1.35
.0047	.235 x 3/4	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x 3/4	1.35
.01	.312 x 13/16	1.62	.374 x 7/8	1.70	.312 x 3/4	1.27	.374 x 13/16	1.35
.012	.312 x 13/16	1.63	.374 x 7/8	1.71	.312 x 3/4	1.28	.374 x 13/16	1.36
.015	.312 x 13/16	1.63	.374 x 7/8	1.71	.312 x 3/4	1.28	.374 x 13/16	1.36
.018	.312 x 13/16	1.64	.374 x 7/8	1.72	.312 x 3/4	1.29	.374 x 13/16	1.37
.022	.312 x 13/16	1.64	.374 x 7/8	1.72	.312 x 3/4	1.29	.374 x 13/16	1.37
.027	.312 x 1-1/8	1.64	.374 x 1-3/16	1.72	.312 x 1-1/16	1.29	.374 x 1-1/8	1.37
.033	.312 x 1-1/8	1.64	.374 x 1-3/16	1.72	.312 x 1-1/16	1.29	.374 x 1-1/8	1.37
.039	.400 x 1-1/8	1.64	.462 x 1-3/16	1.72	.400 x 1-1/16	1.29	.462 x 1-1/8	1.37
.047	.400 x 1-1/8	1.66	.462 x 1-3/16	1.74	.400 x 1-1/16	1.31	.462 x 1-1/8	1.39
.056	.400 x 1-1/8	1.70	.462 x 1-3/16	1.78	.400 x 1-1/16	1.35	.462 x 1-1/8	1.43
.068	.400 x 1-1/8	1.77	.462 x 1-3/16	1.85	.400 x 1-1/16	1.42	.462 x 1-1/8	1.50
.082	.500 x 1-1/8	1.79	.562 x 1-3/16	1.87	.500 x 1-1/16	1.43	.562 x 1-1/8	1.51
.1	.500 x 1-1/8	1.79	.562 x 1-3/16	1.87	.500 x 1-1/16	1.43	.562 x 1-1/8	1.51
.12	.500 x 1-1/8	1.90	.562 x 1-3/16	1.98	.500 x 1-1/16	1.55	.562 x 1-1/8	1.63
.15	.500 x 1-1/8	2.00	.562 x 1-3/16	2.08	.500 x 1-1/16	1.65	.562 x 1-1/8	1.73
.18	.562 x 1-1/8	2.09	.624 x 1-3/16	2.17	.562 x 1-1/16	1.74	.624 x 1-1/8	1.82
.22	.562 x 1-3/8	2.16	.624 x 1-7/16	2.24	.562 x 1-5/16	1.81	.624 x 1-3/8	1.89
.27	.562 x 1-5/8	2.34	.624 x 1-11/16	2.42	.562 x 1-9/16	1.99	.624 x 1-5/8	2.07
.33	.562 x 1-5/8	2.46	.624 x 1-11/16	2.54	.562 x 1-9/16	2.11	.624 x 1-5/8	2.19
.39	.670 x 1-5/8	2.57	.732 x 1-11/16	2.65	.670 x 1-9/16	2.22	.732 x 1-5/8	2.30
.47	.670 x 1-5/8	2.68	.732 x 1-11/16	2.76	.670 x 1-9/16	2.33	.732 x 1-5/8	2.41
.56	.670 x 1-7/8	2.79	.732 x 1-15/16	2.87	.670 x 1-13/16	2.44	.732 x 1-7/8	2.52
.68	.670 x 1-7/8	2.94	.732 x 1-15/16	3.02	.670 x 1-13/16	2.59	.732 x 1-7/8	2.67
.82	1.000 x 1-7/8	3.35	1.062 x 1-15/16	3.43	1.000 x 1-13/16	2.99	1.062 x 1-7/8	3.07
1.0	1.000 x 1-7/8	3.42	1.062 x 1-15/16	3.50	1.000 x 1-13/16	3.07	1.062 x 1-7/8	3.15
1.5	1.000 x 1-7/8	4.19	1.062 x 1-15/16	4.27	1.000 x 1-13/16	3.83	1.062 x 1-7/8	3.91
2.0	1.000 x 2-3/8	5.16	1.062 x 2-7/16	5.24	1.000 x 2-5/16	4.81	1.062 x 2-3/8	4.89

AEROVOX

CAPACITORS



INDUSTRIAL SECTION — MIL TYPES
MIL-C-25C



TYPES CPO4 and CPO5 — Characteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CPO4 and CPO5 are inserted tab construction; CPO8 and CPO9 are extended foil construction. Standard tolerance is ±10% (K). Specify Vibration Grade when ordering.

		CP04, CHAR. K				CP05, CHAR. K			
		P323S		P323SG		P323SP		P323SGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.027	100V	CP04A1KB273K–	1.50	CP04A3KB273K–	.96	CP05A1KB273K–	1.56	CP05A3KB273K–	1.02
.033	100V	CP04A1KB333K–	1.50	CP04A3KB333K–	.96	CP05A1KB333K–	1.56	CP05A3KB333K–	1.02
.082	100V	CP04A1KB823K–	1.58	CP04A3KB823K–	1.04	CP05A1KB823K–	1.64	CP05A3KB823K–	1.10
.1	100V	CP04A1KB104K–	1.58	CP04A3KB104K–	1.04	CP05A1KB104K–	1.64	CP05A3KB104K–	1.10
.12	100V	CP04A1KB124K–	1.67	CP04A3KB124K–	1.13	CP05A1KB124K–	1.72	CP05A3KB124K–	1.18
.15	100V	CP04A1KB154K–	1.67	CP04A3KB154K–	1.13	CP05A1KB154K–	1.72	CP05A3KB154K–	1.18
.18	100V	CP04A1KB184K–	1.67	CP04A3KB184K–	1.13	CP05A1KB184K–	1.72	CP05A3KB184K–	1.18
.22	100V	CP04A1KB224K–	1.67	CP04A3KB224K–	1.13	CP05A1KB224K–	1.72	CP05A3KB224K–	1.18
.27	100V	CP04A1KB274K–	1.90	CP04A3KB274K–	1.36	CP05A1KB274K–	1.95	CP05A3KB274K–	1.41
.33	100V	CP04A1KB334K–	1.90	CP04A3KB334K–	1.36	CP05A1KB334K–	1.95	CP05A3KB334K–	1.41
.39	100V	CP04A1KB394K–	2.02	CP04A3KB394K–	1.48	CP05A1KB394K–	2.09	CP05A3KB394K–	1.55
.47	100V	CP04A1KB474K–	2.02	CP04A3KB474K–	1.48	CP05A1KB474K–	2.09	CP05A3KB474K–	1.55
.56	100V	CP04A1KB564K–	2.10	CP04A3KB564K–	1.56	CP05A1KB564K–	2.17	CP05A3KB564K–	1.63
.68	100V	CP04A1KB684K–	2.10	CP04A3KB684K–	1.56	CP05A1KB684K–	2.17	CP05A3KB684K–	1.63
.82	100V	CP04A1KB824K–	2.14	CP04A3KB824K–	1.60	CP05A1KB824K–	2.21	CP05A3KB824K–	1.67
1.0	100V	CP04A1KB105K–	2.14	CP04A3KB105K–	1.60	CP05A1KB105K–	2.21	CP05A3KB105K–	1.67
.012	200V	CP04A1KC123K–	1.50	CP04A3KC123K–	.96	CP05A1KC123K–	1.56	CP05A3KC123K–	1.02
.015	200V	CP04A1KC153K–	1.50	CP04A3KC153K–	.96	CP05A1KC153K–	1.56	CP05A3KC153K–	1.02
.018	200V	CP04A1KC183K–	1.50	CP04A3KC183K–	.96	CP05A1KC183K–	1.56	CP05A3KC183K–	1.02
.022	200V	CP04A1KC223K–	1.50	CP04A3KC223K–	.96	CP05A1KC223K–	1.56	CP05A3KC223K–	1.02
.039	200V	CP04A1KC393K–	1.55	CP04A3KC393K–	1.01	CP05A1KC393K–	1.60	CP05A3KC393K–	1.06
.047	200V	CP04A1KC473K–	1.55	CP04A3KC473K–	1.01	CP05A1KC473K–	1.60	CP05A3KC473K–	1.06
.056	200V	CP04A1KC563K–	1.58	CP04A3KC563K–	1.04	CP05A1KC563K–	1.64	CP05A3KC563K–	1.10
.068	200V	CP04A1KC683K–	1.58	CP04A3KC683K–	1.04	CP05A1KC683K–	1.64	CP05A3KC683K–	1.10
.082	200V	CP04A1KC823K–	1.62	CP04A3KC823K–	1.08	CP05A1KC823K–	1.67	CP05A3KC823K–	1.13
.1	200V	CP04A1KC104K–	1.62	CP04A3KC104K–	1.08	CP05A1KC104K–	1.67	CP05A3KC104K–	1.13
.12	200V	CP04A1KC124K–	1.65	CP04A3KC124K–	1.11	CP05A1KC124K–	1.70	CP05A3KC124K–	1.16
.15	200V	CP04A1KC154K–	1.65	CP04A3KC154K–	1.11	CP05A1KC154K–	1.70	CP05A3KC154K–	1.16
.18	200V	CP04A1KC184K–	1.80	CP04A3KC184K–	1.26	CP05A1KC184K–	1.85	CP05A3KC184K–	1.31
.22	200V	CP04A1KC224K–	1.80	CP04A3KC224K–	1.26	CP05A1KC224K–	1.85	CP05A3KC224K–	1.31
.27	200V	CP04A1KC274K–	1.94	CP04A3KC274K–	1.40	CP05A1KC274K–	2.02	CP05A3KC274K–	1.48
.33	200V	CP04A1KC334K–	1.94	CP04A3KC334K–	1.40	CP05A1KC334K–	2.02	CP05A3KC334K–	1.48
.39	200V	CP04A1KC394K–	2.06	CP04A3KC394K–	1.52	CP05A1KC394K–	2.13	CP05A3KC394K–	1.59
.47	200V	CP04A1KC474K–	2.06	CP04A3KC474K–	1.52	CP05A1KC474K–	2.13	CP05A3KC474K–	1.59
.56	200V	CP04A1KC564K–	2.18	CP04A3KC564K–	1.64	CP05A1KC564K–	2.25	CP05A3KC564K–	1.71
.68	200V	CP04A1KC684K–	2.18	CP04A3KC684K–	1.64	CP05A1KC684K–	2.25	CP05A3KC684K–	1.71
.82	200V	CP04A1KC824K–	2.61	CP04A3KC824K–	2.07	CP05A1KC824K–	2.68	CP05A3KC824K–	2.14
1.0	200V	CP04A1KC105K–	2.61	CP04A3KC105K–	2.07	CP05A1KC105K–	2.68	CP05A3KC105K–	2.14
.0082	400V	CP04A1KE822K–	1.55	CP04A3KE822K–	1.01	CP05A1KE822K–	1.60	CP05A3KE822K–	1.06
.01	400V	CP04A1KE103K–	1.55	CP04A3KE103K–	1.01	CP05A1KE103K–	1.60	CP05A3KE103K–	1.06
.027	400V	CP04A1KE273K–	1.60	CP04A3KE273K–	1.06	CP05A1KE273K–	1.66	CP05A3KE273K–	1.12
.033	400V	CP04A1KE333K–	1.60	CP04A3KE333K–	1.06	CP05A1KE333K–	1.66	CP05A3KE333K–	1.12
.039	400V	CP04A1KE393K–	1.67	CP04A3KE393K–	1.13	CP05A1KE393K–	1.72	CP05A3KE393K–	1.18
.047	400V	CP04A1KE473K–	1.67	CP04A3KE473K–	1.13	CP05A1KE473K–	1.72	CP05A3KE473K–	1.18
.056	400V	CP04A1KE563K–	1.70	CP04A3KE563K–	1.16	CP05A1KE563K–	1.76	CP05A3KE563K–	1.22
.068	400V	CP04A1KE683K–	1.70	CP04A3KE683K–	1.16	CP05A1KE683K–	1.76	CP05A3KE683K–	1.22
.082	400V	CP04A1KE823K–	1.75	CP04A3KE823K–	1.21	CP05A1KE823K–	1.80	CP05A3KE823K–	1.26
.1	400V	CP04A1KE104K–	1.75	CP04A3KE104K–	1.21	CP05A1KE104K–	1.80	CP05A3KE104K–	1.26
.12	400V	CP04A1KE124K–	1.90	CP04A3KE124K–	1.36	CP05A1KE124K–	1.97	CP05A3KE124K–	1.43
.15	400V	CP04A1KE154K–	1.90	CP04A3KE154K–	1.36	CP05A1KE154K–	1.97	CP05A3KE154K–	1.43
.18	400V	CP04A1KE184K–	2.02	CP04A3KE184K–	1.48	CP05A1KE184K–	2.09	CP05A3KE184K–	1.55
.22	400V	CP04A1KE224K–	2.02	CP04A3KE224K–	1.48	CP05A1KE224K–	2.09	CP05A3KE224K–	1.55
.27	400V	CP04A1KE274K–	2.06	CP04A3KE274K–	1.52	CP05A1KE274K–	2.13	CP05A3KE274K–	1.59
.33	400V	CP04A1KE334K–	2.06	CP04A3KE334K–	1.52	CP05A1KE334K–	2.13	CP05A3KE334K–	1.59
.39	400V	CP04A1KE394K–	2.46	CP04A3KE394K–	1.92	CP05A1KE394K–	2.53	CP05A3KE394K–	1.99
.47	400V	CP04A1KE474K–	2.46	CP04A3KE474K–	1.92	CP05A1KE474K–	2.53	CP05A1KE474K–	1.99
.56	400V	CP04A1KE564K–	3.27	CP04A3KE564K–	2.73	CP05A1KE564K–	3.36	CP05A3KE564K–	2.80
.68	400V	CP04A1KE684K–	3.27	CP04A3KE684K–	2.73	CP05A1KE684K–	3.36	CP05A3KE684K–	2.80
.82	400V	CP04A1KE824K–	3.38	CP04A3KE824K–	2.84	CP05A1KE824K–	3.47	CP05A3KE824K–	2.93
1.0	400V	CP04A1KE105K–	3.38	CP04A3KE105K–	2.84	CP05A1KE105K–	3.47	CP05A3KE105K–	2.93
.001	600V	CP04A1KF102K–	1.50	CP04A3KF102K–	.96	CP05A1KF102K–	1.56	CP05A3KF102K–	1.02
.0012	600V	CP04A1KF122K–	1.50	CP04A3KF122K–	.96	CP05A1KF122K–	1.56	CP05A3KF122K–	1.02
.0015	600V	CP04A1KF152K–	1.50	CP04A3KF152K–	.96	CP05A1KF152K–	1.56	CP05A3KF152K–	1.02
.0018	600V	CP04A1KF182K–	1.50	CP04A3KF182K–	.96	CP05A1KF182K–	1.56	CP05A3KF182K–	1.02
.0022	600V	CP04A1KF222K–	1.50	CP04A3KF222K–	.96	CP05A1KF222K–	1.56	CP05A3KF222K–	1.02
.0027	600V	CP04A1KF272K–	1.55	CP04A3KF272K–	1.01	CP05A1KF272K–	1.60	CP05A3KF272K–	1.06
.0033	600V	CP04A1KF332K–	1.55	CP04A3KF332K–	1.01	CP05A1KF332K–	1.60	CP05A3KF332K–	1.06
.0039	600V	CP04A1KF392K–	1.55	CP04A3KF392K–	1.01	CP05A1KF392K–	1.60	CP05A3KF392K–	1.06
.0047	600V	CP04A1KF472K–	1.55	CP04A3KF472K–	1.01	CP05A1KF472K–	1.60	CP05A3KF472K–	1.06
.0056	600V	CP04A1KF562K–	1.55	CP04A3KF562K–	1.01	CP05A1KF562K–	1.60	CP05A3KF562K–	1.06
.0068	600V	CP04A1KF682K–	1.55	CP04A3KF682K–	1.01	CP05A1KF682K–	1.60	CP05A3KF682K–	1.06
.0082	600V	CP04A1KF822K–	1.58	CP04A3KF822K–	1.04	CP05A1KF822K–	1.64	CP05A3KF822K–	1.12
.01	600V	CP04A1KF103K–	1.58	CP04A3KF103K–	1.04	CP05A1KF103K–	1.64	CP05A3KF103K–	1.12
.012	600V	CP04A1KF123K–	1.62	CP04A3KF123K–	1.08	CP05A1KF123K–	1.67	CP05A3KF123K–	1.13
.015	600V	CP04A1KF153K–	1.62	CP04A3KF153K–	1.08	CP05A1KF153K–	1.67	CP05A3KF153K–	1.13
.018	600V	CP04A1KF183K–	1.62	CP04A3KF183K–	1.08	CP05A1KF183K–	1.67	CP05A3KF183K–	1.13
.022	600V	CP04A1KF223K–	1.62	CP04A3KF223K–	1.08	CP05A1KF223K–	1.67	CP05A3KF223K–	1.13
.027	600V	CP04A1KF273K–	1.68	CP04A3KF273K–	1.14	CP05A1KF273K–	1.74	CP05A3KF273K–	1.20
.033	600V	CP04A1KF333K–	1.68	CP04A3KF333K–	1.14	CP05A1KF333K–	1.74	CP05A3KF333K–	1.20
.039	600V	CP04A1KF393K–	1.70	CP04A3KF393K–	1.16	CP05A1KF393K–	1.76	CP05A3KF393K–	1.22
.047	600V	CP04A1KF473K–	1.70	CP04A3KF473K–	1.16	CP05A1KF473K–	1.76	CP05A3KF473K–	1.22

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 100-499

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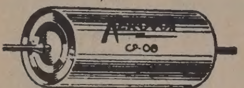
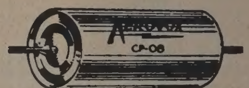
Net

AEROVOX CAPACITORS

		CP04, CHAR. K						CP05, CHAR. K	
		P323S		P323SG		P323SP		P323SGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.056	600V	CP04A1KF563K–	1.78	CP04A3KF563K–	1.24	CP05A1KF563K–	1.84	CP05A3KF563K–	1.30
.068	600V	CP04A1KF683K–	1.78	CP04A3KF683K–	1.24	CP05A1KF683K–	1.84	CP05A3KF683K–	1.30
.082	600V	CP04A1KF823K–	1.90	CP04A3KF823K–	1.36	CP05A1KF823K–	1.97	CP05A3KF823K–	1.43
.1	600V	CP04A1KF104K–	1.90	CP04A3KF104K–	1.36	CP05A1KF104K–	1.97	CP05A3KF104K–	1.43
.12	600V	CP04A1KF124K–	1.98	CP04A3KF124K–	1.44	CP05A1KF124K–	2.05	CP05A3KF124K–	1.49
.15	600V	CP04A1KF154K–	1.98	CP04A3KF154K–	1.44	CP05A1KF154K–	2.05	CP05A3KF154K–	1.49
.18	600V	CP04A1KF184K–	2.14	CP04A3KF184K–	1.60	CP05A1KF184K–	2.21	CP05A3KF184K–	1.66
.22	600V	CP04A1KF224K–	2.14	CP04A3KF224K–	1.60	CP05A1KF224K–	2.21	CP05A3KF224K–	1.66
.27	600V	CP04A1KF274K–	2.38	CP04A3KF274K–	1.84	CP05A1KF274K–	2.45	CP05A3KF274K–	1.91
.33	600V	CP04A1KF334K–	2.38	CP04A3KF334K–	1.84	CP05A1KF334K–	2.45	CP05A3KF334K–	1.91
.39	600V	CP04A1KF394K–	2.67	CP04A3KF394K–	2.13	CP05A1KF394K–	2.76	CP05A3KF394K–	2.22
.47	600V	CP04A1KF474K–	2.67	CP04A3KF474K–	2.13	CP05A1KF474K–	2.76	CP05A3KF474K–	2.22
.56	600V	CP04A1KF564K–	3.33	CP04A3KF564K–	2.79	CP05A1KF564K–	3.42	CP05A3KF564K–	2.88
.68	600V	CP04A1KF684K–	3.33	CP04A3KF684K–	2.79	CP05A1KF684K–	3.42	CP05A3KF684K–	2.88
.015	1000V	CP04A1KG153K–	1.86	CP04A3KG153K–	1.24	CP05A1KG153K–	1.93	CP05A3KG153K–	1.31
.018	1000V	CP04A1KG183K–	1.86	CP04A3KG183K–	1.24	CP05A1KG183K–	1.93	CP05A3KG183K–	1.31
.022	1000V	CP04A1KG223K–	1.86	CP04A3KG223K–	1.24	CP05A1KG223K–	1.93	CP05A3KG223K–	1.31
.027	1000V	CP04A1KG273K–	1.94	CP04A3KG273K–	1.31	CP05A1KG273K–	2.00	CP05A3KG273K–	1.38
.033	1000V	CP04A1KG333K–	1.94	CP04A3KG333K–	1.31	CP05A1KG333K–	2.00	CP05A3KG333K–	1.38
.039	1000V	CP04A1KG393K–	1.95	CP04A3KG393K–	1.33	CP05A1KG393K–	2.02	CP05A3KG393K–	1.40
.047	1000V	CP04A1KG473K–	1.95	CP04A3KG473K–	1.33	CP05A1KG473K–	2.02	CP05A3KG473K–	1.40
.056	1000V	CP04A1KG563K–	2.05	CP04A3KG563K–	1.43	CP05A1KG563K–	2.12	CP05A3KG563K–	1.49
.068	1000V	CP04A1KG683K–	2.05	CP04A3KG683K–	1.43	CP05A1KG683K–	2.12	CP05A3KG683K–	1.49
.082	1000V	CP04A1KG823K–	2.19	CP04A3KG823K–	1.57	CP05A1KG823K–	2.27	CP05A3KG823K–	1.65
.1	1000V	CP04A1KG104K–	2.19	CP04A3KG104K–	1.57	CP05A1KG104K–	2.27	CP05A3KG104K–	1.65
.12	1000V	CP04A1KG124K–	2.28	CP04A3KG124K–	1.66	CP05A1KG124K–	2.36	CP05A3KG124K–	1.72
.15	1000V	CP04A1KG154K–	2.28	CP04A3KG154K–	1.66	CP05A1KG154K–	2.36	CP05A3KG154K–	1.72
.18	1000V	CP04A1KG184K–	2.47	CP04A3KG184K–	1.85	CP05A1KG184K–	2.55	CP05A3KG184K–	1.91
.22	1000V	CP04A1KG224K–	2.47	CP04A3KG224K–	1.85	CP05A1KG224K–	2.55	CP05A3KG224K–	1.91
.27	1000V	CP04A1KG274K–	2.74	CP04A3KG274K–	2.12	CP05A1KG274K–	2.82	CP05A3KG274K–	2.20
.33	1000V	CP04A1KG334K–	2.74	CP04A3KG334K–	2.12	CP05A1KG334K–	2.82	CP05A3KG334K–	2.20
.39	1000V	CP04A1KG394K–	3.08	CP04A3KG394K–	2.46	CP05A1KG394K–	3.18	CP05A3KG394K–	2.56
.47	1000V	CP04A1KG474K–	3.08	CP04A3KG474K–	2.46	CP05A1KG474K–	3.18	CP05A3KG474K–	2.56



INDUSTRIAL SECTION — MIL TYPES
MIL-C-25C



TYPES CP08 and CP09—Characteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are extended foil construction. Standard tolerance is ±10% (K). Specify Vibration Grade when ordering.

		CP08, CHAR. K						CP09, CHAR. K	
		P323SX		P323SXG		P323SXP		P323SXGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.0082	100V	CP08A1KB822K–	1.50	CP08A3KB822K–	.96	CP09A1KB822K–	1.56	CP09A3KB822K–	1.02
.01	100V	CP08A1KB103K–	1.50	CP08A3KB103K–	.96	CP09A1KB103K–	1.56	CP09A3KB103K–	1.02
.012	100V	CP08A1KB123K–	1.50	CP08A3KB123K–	.96	CP09A1KB123K–	1.56	CP09A3KB123K–	1.02
.015	100V	CP08A1KB153K–	1.50	CP08A3KB153K–	.96	CP09A1KB153K–	1.56	CP09A3KB153K–	1.02
.039	100V	CP08A1KB393K–	1.62	CP08A3KB393K–	1.08	CP09A1KB393K–	1.67	CP09A3KB393K–	1.13
.047	100V	CP08A1KB473K–	1.62	CP08A3KB473K–	1.08	CP09A1KB473K–	1.67	CP09A3KB473K–	1.13
.082	100V	CP08A1KB823K–	1.67	CP08A3KB823K–	1.13	CP09A1KB823K–	1.72	CP09A3KB823K–	1.18
.1	100V	CP08A1KB104K–	1.67	CP08A3KB104K–	1.13	CP09A1KB104K–	1.72	CP09A3KB104K–	1.18
.12	100V	CP08A1KB124K–	1.67	CP08A3KB124K–	1.13	CP09A1KB124K–	1.72	CP09A3KB124K–	1.18
.15	100V	CP08A1KB154K–	1.67	CP08A3KB154K–	1.13	CP09A1KB154K–	1.72	CP09A3KB154K–	1.18
.18	100V	CP08A1KB184K–	1.78	CP08A3KB184K–	1.24	CP09A1KB184K–	1.84	CP09A3KB184K–	1.30
.22	100V	CP08A1KB224K–	1.78	CP08A3KB224K–	1.24	CP09A1KB224K–	1.84	CP09A3KB224K–	1.30
.27	100V	CP08A1KB274K–	1.98	CP08A3KB274K–	1.44	CP09A1KB274K–	2.05	CP09A3KB274K–	1.51
.33	100V	CP08A1KB334K–	1.98	CP08A3KB334K–	1.44	CP09A1KB334K–	2.05	CP09A3KB334K–	1.51
.39	100V	CP08A1KB394K–	2.06	CP08A3KB394K–	1.52	CP09A1KB394K–	2.13	CP09A3KB394K–	1.59
.47	100V	CP08A1KB474K–	2.06	CP08A3KB474K–	1.52	CP09A1KB474K–	2.13	CP09A3KB474K–	1.59
.56	100V	CP08A1KB564K–	2.21	CP08A3KB564K–	1.67	CP09A1KB564K–	2.29	CP09A3KB564K–	1.75
.68	100V	CP08A1KB684K–	2.21	CP08A3KB684K–	1.67	CP09A1KB684K–	2.29	CP09A3KB684K–	1.75
.82	100V	CP08A1KB824K–	2.38	CP08A3KB824K–	1.84	CP09A1KB824K–	2.45	CP09A3KB824K–	1.91
1.0	100V	CP08A1KB105K–	2.38	CP08A3KB105K–	1.84	CP09A1KB105K–	2.45	CP09A3KB105K–	1.91
.0039	200V	CP08A1KC392K–	1.52	CP08A3KC392K–	.98	CP09A1KC392K–	1.58	CP09A3KC392K–	1.04
.0047	200V	CP08A1KC472K–	1.52	CP08A3KC472K–	.98	CP09A1KC472K–	1.58	CP09A3KC472K–	1.04
.0056	200V	CP08A1KC562K–	1.55	CP08A3KC562K–	1.01	CP09A1KC562K–	1.60	CP09A3KC562K–	1.06
.0068	200V	CP08A1KC682K–	1.55	CP08A3KC682K–	1.01	CP09A1KC682K–	1.60	CP09A3KC682K–	1.06
.018	200V	CP08A1KC183K–	1.67	CP08A3KC183K–	1.13	CP09A1KC183K–	1.72	CP09A3KC183K–	1.18
.022	200V	CP08A1KC223K–	1.67	CP08A3KC223K–	1.13	CP09A1KC223K–	1.72	CP09A3KC223K–	1.18
.027	200V	CP08A1KC273K–	1.67	CP08A3KC273K–	1.13	CP09A1KC273K–	1.72	CP09A3KC273K–	1.18
.033	200V	CP08A1KC333K–	1.67	CP08A3KC333K–	1.13	CP09A1KC333K–	1.72	CP09A3KC333K–	1.18
.039	200V	CP08A1KC393K–	1.70	CP08A3KC393K–	1.16	CP09A1KC393K–	1.76	CP09A3KC393K–	1.22
.047	200V	CP08A1KC473K–	1.70	CP08A3KC473K–	1.16	CP09A1KC473K–	1.76	CP09A3KC473K–	1.22
.056	200V	CP08A1KC563K–	1.70	CP08A3KC563K–	1.16	CP09A1KC563K–	1.76	CP09A3KC563K–	1.22
.068	200V	CP08A1KC683K–	1.70	CP08A3KC683K–	1.16	CP09A1KC683K–	1.76	CP09A3KC683K–	1.22
.082	200V	CP08A1KC823K–	1.72	CP08A3KC823K–	1.18	CP09A1KC823K–	1.77	CP09A3KC823K–	1.23
.1	200V	CP08A1KC104K–	1.72	CP08A3KC104K	1.18	CP09A1KC104K–	1.77	CP09A3KC104K–	1.23
.12	200V	CP08A1KC124K–	1.78	CP08A3KC124K–	1.24	CP09A1KC124K–	1.84	CP09A3KC124K–	1.30
.15	200V	CP08A1KC154K–	1.78	CP08A3KC154K–	1.24	CP09A1KC154K–	1.84	CP09A3KC154K–	1.30
.18	200V	CP08A1KC184K–	1.90	CP08A3KC184K–	1.36	CP09A1KC184K–	1.97	CP09A3KC184K–	1.43
.22	200V	CP08A1KC224K–	1.90	CP08A3KC224K–	1.36	CP09A1KC224K–	1.97	CP09A3KC224K–	1.43
.27	200V	CP08A1KC274K–	2.02	CP08A3KC274K–	1.48	CP09A1KC274K–	2.09	CP09A3KC274K–	1.55

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499

AEROVOX

CAPACITORS

		CP08, CHAR. K				CP09, CHAR. K			
		P323SX		P323SXG		P323SXP		P323SXGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*
.33	200V	CP08A1KC334K–	2.02	CP08A3K C334K–	1.48	CP09A1KC334K–	2.09	CP09A3KC334K–	1.55
.39	200V	CP08A1KC394K–	2.10	CP08A3KC394K–	1.56	CP09A1KC394K–	2.17	CP09A3KC394K–	1.63
.47	200V	CP08A1KC474K–	2.10	CP08A3KC474K–	1.56	CP09A1KC474K–	2.17	CP09A3KC474K–	1.63
.56	200V	CP08A1KC564K–	2.38	CP08A3KC564K–	1.84	CP09A1KC564K–	2.45	CP09A3KC564K–	1.91
.68	200V	CP08A1KC684K–	2.38	CP08A3KC684K–	1.84	CP09A1K C684K–	2.45	CP09A3KC684K–	1.91
.82	200V	CP08A1KC824K–	2.67	CP08A3KC824K–	2.13	CP09A1KC824K–	2.76	CP09A3KC824K–	2.22
1.0	200V	CP08A1KC105K–	2.67	CP08A3KC105K–	2.13	CP09A1KC105K–	2.76	CP09A3KC105K–	2.22
.0027	400V	CP08A1KE272K–	1.58	CP08A3KE272K–	1.04	CP09A1KE272K–	1.64	CP09A3KE272K–	1.10
.0033	400V	CP08A1KE332K–	1.58	CP08A3KE332K–	1.04	CP09A1KE332K–	1.64	CP09A3KE332K–	1.10
.012	400V	CP08A1KE123K–	1.70	CP08A3KE123K–	1.16	CP09A1KE123K–	1.76	CP09A3KE123K–	1.22
.015	400V	CP08A1KE153K–	1.70	CP08A3KE153K–	1.16	CP09A1KE153K–	1.76	CP09A3KE153K–	1.22
.027	400V	CP08A1KE273K–	1.75	CP08A3KE273K–	1.21	CP09A1KE273K–	1.80	CP09A3KE273K–	1.26
.033	400V	CP08A1KE333K–	1.75	CP08A3KE333K–	1.21	CP09A1KE333K–	180	CP09A3KE333K–	1.26
.039	400V	CP08A1KE393K–	1.78	CP08A3KE393K–	1.24	CP09A1KE393K–	1.84	CP09A3KE393K–	1.30
.047	400V	C P08A1KE473K–	1.78	CP08A3KE473K–	1.24	CP09A1KE473K–	1.84	CP09A3KE473K–	1.30
.056	400V	CP08A1KE563K–	1.78	CP08A3KE563K–	1.24	CP09A1KE563K–	1.84	CP09A3KE563K–	1.30
.068	400V	CP08A1KE683K–	1.78	CP08A3KE683K–	1.24	CP09A1KE683K–	1.84	CP09A3KE683K–	1.30
.082	400V	CP08A1KE823K–	1.90	CP08A3KE823K–	1.36	CP09A1KE823K–	1.97	CP09A3KE823K–	1.43
.1	400V	CP08A1KE104K–	1.90	CP08A3KE104K–	1.36	CP09A1KE104K–	1.97	CP09A3KE104K–	1.43
.12	400V	CP08A1KE124K–	1.98	CP08A3KE124K–	1.44	CP09A1KE124K–	2.05	CP09A3KE124K–	1.51
.15	400V	CP08A1KE154K–	1.98	CP08A3KE154K–	1.44	CP09A1KE154K–	2.05	CP09A3KE154K–	1.51
.18	400V	CP08A1KE184K–	2.10	CP08A3KE184K–	1.56	CP09A1KE184K–	2.17	CP09A3KE184K–	1.63
.22	400V	CP08A1KE224K–	2.10	CP08A3KE224K–	1.56	CP09A1KE224K–	2.17	CP09A3KE224K–	1.63
.27	400V	CP08A1KE274K–	2.30	CP08A3KE274K–	1.76	CP09A1KE274K–	2.37	CP09A3KE274K–	1.83
.33	400V	CP08A1KE334K–	2.30	CP08A3KE334K–	1.76	CP09A1KE334K–	2.37	CP09A3KE334K–	1.83
.39	400V	CP08A1KE394K–	2.66	CP08A3KE394K–	2.12	CP09A1KE394K–	2.75	CP09A3KE394K–	2.21
.47	400V	CP08A1KE474K–	2.66	C P08A3KE474K–	2.12	CP09A1KE474K–	2.75	CP09A3KE474K–	2.21
.001	600V	CP08A1KF102K–	1.58	CP08A3KF102K–	1.04	CP09A1KF102K–	1.64	CP09A3KF102K–	1.10
.0012	600V	CP08A1KF122K–	1.58	CP08A3KF122K–	1.04	CP09A1KF122K–	1.64	CP09A3KF122K–	1.10
.0015	600V	CP08A1KF152K–	1.58	CP08A3KF152K–	1.04	CP09A1KF152K–	1.64	CP09A3KF152K–	1.10
.0018	600V	CP08A1KF182K–	1.58	CP08A3KF182K–	1.04	CP09A1KF182K–	1.64	CP09A3KF182K–	1.10
.0022	600V	CP08A1KF222K–	1.58	CP08A3KF222K–	1.04	CP09A1KF222K–	1.64	CP09A3KF222K–	1.10
.0027	600V	CP08A1KF272K–	1.62	CP08A3KF272K–	1.08	CP09A1KF272K–	1.67	CP09A3KF272K–	1.13
.0033	600V	CP08A1KF332K–	1.62	CP08A3KF332K–	1.08	CP09A1KF332K–	1.67	CP09A3KF332K–	1.13
.0039	600V	CP08A1KF392K–	1.68	CP08A3KF392K–	1.14	CP09A1KF392K–	1.74	CP09A3KF392K–	1.20
.0047	600V	CP08A1KF472K–	1.68	CP08A3KF472K–	1.14	CP09A1KF472K–	1.74	CP09A3KF472K–	1.20
.0056	600V	CP08A1KF562K–	1.70	CP08A3KF562K–	1.16	CP09A1KF562K–	1.76	CP09A3KF562K–	1.22
.0068	600V	CP08A1KF682K–	1.70	CP08A3KF682K–	1.16	CP09A1KF682K–	1.76	CP09A3KF682K–	1.22
.0082	600V	CP08A1KF822K–	1.72	CP08A3KF822K–	1.18	CP09A1KF822K–	1.77	CP09A3KF822K–	1.23
.01	600V	CP08A1KF103K–	1.72	CP08A3KF103K–	1.18	CP09A1KF103K–	1.77	CP09A3KF103K–	1.23
.012	600V	CP08A1KF123K–	1.75	CP08A3KF123K–	1.21	CP09A1KF123K–	1.80	CP09A3KF123K–	1.26
.015	600V	CP08A1KF153K–	1.75	CP08A3KF153K–	1.21	CP09A1KF153K–	1.80	CP09A3KF153K–	1.26
.018	600V	CP08A1KF183K–	1.76	CP08A3KF183K–	1.22	CP09A1KF183K–	1.82	CP09A3KF183K–	1.28
.022	600V	CP08A1KF223K–	1.76	CP08A3KF223K–	1.22	CP09A1KF223K–	1.82	CP09A3KF223K–	1.28
.027	600V	CP08A1KF273K–	1.76	CP08A3KF273K–	1.22	CP09A1KF273K–	1.82	CP09A3KF273K–	1.28
.033	600V	CP08A1KF333K–	1.76	CP08A3KF333K–	1.22	CP09A1KF333K–	1.82	CP09A3KF333K–	1.28
.039	600V	CP08A1KF393K–	1.82	CP08A3KF393K–	1.28	CP09A1KF393K–	1.87	CP09A3KF393K–	1.33
.047	600V	CP08A1KF473K–	1.82	CP08A3KF473K–	1.28	CP09A1KF473K–	1.87	CP09A3KF473K–	1.33
.056	600V	CP08A1KF563K–	1.94	CP08A3KF563K–	1.40	CP09A1KF563K–	2.02	CP09A3KF563K–	1.48
.068	600V	CP08A1KF683K–	1.94	CP08A3KF683K–	1.40	CP09A1KF683K–	2.02	CP09A3KF683K–	1.48
.082	600V	CP08A1KF823K–	1.98	CP08A3KF823K–	1.44	CP09A1KF823K–	2.05	CP09A3KF823K–	1.51
.1	600V	CP08A1KF104K–	1.98	CP08A3KF104K–	1.44	CP09A1KF104K–	2.05	CP09A3KF104K–	1.51
.12	600V	CP08A1KF124K–	2.10	CP08A3KF124K–	1.56	CP09A1KF124K–	2.17	CP09A3KF124K–	1.63
.15	600V	CP08A1KF154K–	2.10	CP08A3KF154K–	1.56	CP09A1KF154K–	2.17	CP09A3KF154K–	1.63
.18	600V	CP08A1KF184K–	2.38	CP08A3KF184K–	1.84	CP09A1KF184K–	2.45	CP09A3KF184K–	1.91
.22	600V	CP08A1KF224K–	2.38	CP08A3KF224K–	1.84	CP09A1KF224K–	2.45	CP09A3KF224K–	1.91
.27	600V	CP08A1KF274K–	2.66	CP08A3KF274K–	2.12	CP09A1KF274K–	2.75	CP09A 3KF274K–	2.21
.33	600V	CP08A1KF334K–	2.66	CP08A3KF334K–	2.12	CP09A1KF334K–	2.75	CP09A3KF334K–	2.21
.39	600V	CP08A1KF394K–	2.77	CP08A3KF394K–	2.23	CP09A1KF394K–	2.86	CP09A3KF394K–	2.32
.47	600V	CP08A1KF474K–	2.77	CP08A3KF474K–	2.23	CP09A1KF474K–	2.86	CP09A3KF474K–	2.32
.001	1000V	CP08A1KG102K–	1.82	CP08A3KG102K–	1.20	CP09A1KG102K–	1.88	CP09A3KG102K–	1.26
.0012	1000V	CP08A1KG122K–	1.82	CP08A3KG122K–	1.20	CP09A1KG122K–	1.88	CP09A3KG122K–	1.26
.0015	1000V	CP08A1KG152K–	1.82	CP08A3KG152K–	1.20	CP09A1KG152K–	1.88	CP09A3KG152K–	1.26
.0018	1000V	CP08A1KF182K–	1.82	CP08A3KG182K–	1.20	CP09A1KG182K–	1.88	CP09A3KG182K–	1.26
.0022	1000V	CP08A1KG222K–	1.82	CP08A3KG222K–	1.20	CP09A1KG222K–	1.88	CP09A3KG222K–	1.26
.0027	1000V	CP08A1KG272K–	1.86	CP08A3K G272K–	1.24	CP09A1KG272K–	1.93	CP09A3KG272K–	1.30
.0033	1000V	CP08A1KG332K–	1.86	CP08A3KG332K–	1.24	CP09A1KG332K–	1.93	CP09A3KG332K–	1.30
.0039	1000V	CP08A1KG392K–	1.94	CP08A3KG392K–	1.31	CP09A1KG392K–	2.00	CP09A3KG392K–	1.37
.0047	1000V	CP08A1KG472K–	1.94	CP08A3KG472K–	1.31	CP09A1KG472K–	2.00	CP09A3KG472K–	1.37
.0056	1000V	CP08A1KG562K–	1.95	CP08A3KG562K–	1.33	CP09A1KG562K–	2.02	CP09A3KG562K–	1.40
.0068	1000V	CP08A1KG682K–	1.95	CP08A3KG682K–	1.33	CP09A1KG682K–	2.02	CP09A3KG682K–	1.40
.0082	1000V	CP08A1KG822K–	1.98	CP08A3KG822K–	1.36	CP09A1KG822K–	2.04	CP09A3KG822K–	1.42
.01	1000V	CP08A1KG103K–	1.98	CP08A3KG103K–	1.36	CP09A1KG103K–	2.04	CP09A3KG103K–	1.42
.012	1000V	CP08A1KG123K–	2.01	CP08A3KG123K–	1.39	CP09A1KG123K–	2.07	CP09A3KG123K–	1.45
.015	1000V	CP08A1KG153K–	2.01	CP08A3KG153K–	1.39	CP09A1KG153K–	2.07	CP09A3KG153K–	1.45
.018	1000V	CP08A1KG183K–	2.03	CP08A3KG183K–	1.40	CP09A1KG183K–	2.09	CP09A3KG183K–	1.47
.022	1000V	CP08A1KG223K–	2.03	CP08A3KG223K–	1.40	CP09A1KG223K–	2.09	CP09A3KG223K–	1.47
.027	1000V	CP08A1KG273K–	2.03	CP08A3KG273K–	1.40	CP09A1KG273K–	2.09	CP09A3KG273K–	1.47
.033	1000V	CP08A1KG333K–	2.03	CP08A3KG333K–	1.40	CP09A1KG333K–	2.09	CP09A3KG333K–	1.47
.039	1000V	CP08A1KG393K–	2.09	CP08A3KG393K–	1.47	CP09A1KG393K–	2.15	CP09A3KG393K–	1.53
.047	1000V	CP08A1KG473K–	2.09	CP08A3KG473K–	1.47	CP09A1KG473K–	2.15	CP09A3KG473K–	1.53
.056	1000V	CP08A1KG563K–	2.23	CP08A3KG563K–	1.61	CP09A1KG563K–	2.32	CP09A3KG563K–	1.70
.068	1000V	CP08A1KG683K–	2.23	CP08A3KG683K–	1.61	CP09A1KG683K–	2.32	CP09A3KG683K–	1.70
.082	1000V	CP08A1KG823K–	2.28	CP08A3KG823K–	1.66	CP09A1KG823K–	2.36	CP09A3KG823K–	1.74
.1	1000V	CP08A1KG104K–	2.28	CP08A3KG104K–	1.66	CP09A1KG104K–	2.36	CP09A3KG104K–	1.74
.12	1000V	CP08A1KG124K–	2.41	CP08A3KG124K–	1.79	CP09A1KG124K–	2.49	CP09A3KG124K–	1.87
.15	1000V	CP08A1KG154K–	2.41	CP08A3KG154K–	1.79	CP09A1KG154K–	2.49	CP09A3KG154K–	1.87
.18	1000V	CP08A1KG184K–	2.74	CP08A3KG184K–	2.12	CP09A1KG184K–	2.82	CP09A3KG184K–	2.20
.22	1000V	CP08A1KG224K–	2.74	CP08A3KG224K–	2.12	CP09A1KG224K–	2.82	CP09A3KG224K–	2.20
.27	1000V	CP08A1KG274K–	3.05	CP08A3KG274K–	2.43	CP09A1KG274K–	3.16	CP09A3KG274K–	2.54
.33	1000V	CP08A1KG334K–	3.05	CP08A3KG334K–	2.43	CP09A1KG334K–	3.16	CP09A3KG334K–	2.54
.39	1000V	CP08A1KG394K–	3.19	CP08A3KG394K–	2.57	CP09A1KG394K–	3.29	CP09A3KG394K–	2.67
.47	1000V	CP08A1KG474K–	3.19	CP08A3KG474K–	2.57	CP09A1KG474K–	3.29	CP09A3KG474K–	2.67

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499

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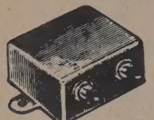
Net

AEROVOX

CAPACITORS

INDUSTRIAL SECTION — MIL TYPES MIL-C-25C



TYPES CP53, CP54, CP55

Hyvol J or H oil impregnated and filled, drawn-metal cased capacitors, immersion proof and hermetically sealed. This unusually compact "bathtub" type capacitor is the most popular of the small units for severe operating conditions. Available with terminals on side (CP53), top (CP54), or bottom (CP55). The standard tolerance on single section units is ±10% (K), on multiple section units +20 —10% (V).

CAP.	VOLT.	P30 SIDE TERM.	Net Price*	P30-T TOP TERM.	Net Price*	P30-B BOTTOM TERM.	Net Price*
2.0	100V	CP53B1EB205K	$2.64				
4.0	100V	CP53B1EB405K	3.26				
1.0	200V	CP53B1EC105K	2.27				
2.0	200V	CP53B1EC205K	2.90				
.5	400V	CP53B1KE504K	2.02	CP54B1KE504K	$2.02		$
3X.5	400V	CP53B5EE504V	3.82				
.25	600V	CP53B1EF254K	1.91	CP54B1EF254K	1.91	CP55B1EF254K	1.91
.5	600V	CP53B1EF504K	2.06	CP54B1EF504K	2.06	CP55B1EF504K	2.06
1.0	600V	CP53B1EF105K	2.41	CP54B1EF105K	2.41	CP55B1EF105K	2.41
2.0	600V	CP53B1EF205K	3.22	CP54B1EF205K	3.22	CP55B1EF205K	3.22
2X.05	600V	CP53B4EF503V	2.47	CP54B4EF503V	2.47	CP55B4EF503V	2.47
2X.1	600V	CP53B4EF104V	2.51	CP54B4EF104V	2.51	CP55B4EF104V	2.51
2X.25	600V	CP53B4EF254V	2.59	CP54B4EF254V	2.59	CP55B4EF254V	2.59
2X.5	600V	CP53B4EF504V	2.95	CP54B4EF504V	2.95	CP55B4EF504V	2.95
2X1.0	600V	CP53B4EF105V	3.49	CP54B4EF105V	3.49	CP55B4EF105V	3.49
3X.1	600V	CP53B5EF104V	$2.87	CP54B5EF104V	$2.87	CP55B5EF104V	$2.87
3X.25	600V	CP53B5EF254V	3.17	CP54B5EF254V	3.17	CP55B5EF254V	3.17
3X.5	600V	CP53B5EF504V	3.88	CP54B5EF504V	3.88	CP55B5EF504V	3.88
.05	1000V	CP53B1EG503K	1.84				
.1	1000V	CP53B1EG104K	1.95				
.25	1000V	CP53B1EG254K	2.02				
.5	1000V	CP53B1EG504K	2.16				
1.0	1000V	CP53B1EG105K	2.90				
2X.05	1000V	CP53B4EG503V	2.53				
2X.1	1000V	CP53B4EG104V	2.53				
2X.25	1000V	CP53B4EG254V	2.83				
2X.5	1000V	CP53B4EG504V	3.71				
3X.05	1000V	CP53B5EG503V	2.94				
3X.1	1000V	CP53B5EG104V	3.21				
3X.25	1000V	CP53B5EG254V	3.92				

CHARACTERISTIC F

CAP.	VOLT.	P30J SIDE TERM.	Net Price*
8.0	100V	CP53B1FB805K	$4.86
10.0	100V	CP53B1FB106K	6.05

MIL-C-25C

CP63, CP65 — Characteristics E & K

Compact, Hyvol M or J oil impregnated and filled, rectangular units. Immersion proof and hermetically sealed. Dual secton has case grounded. Channel brackets attached. Standard tolerance on single section units, ±10% (K), on multiple section units +20 —10% (V).

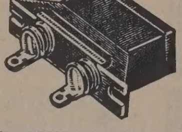
CAP.	VOLT.	P16-CT TOP TERM.	Net Price*	P16-CB BOTTOM TERM.	Net Price*
.1	400V	CP63B1KE104K	$1.90	CP65B1KE104K	$1.90
.25	400V	CP63B1KE254K	1.94		
1.0	400V	CP63B1EE105K	2.21		
.05	600V	CP63B1EF503K	1.83	CP65B1EF503K	1.83
.25	600V	CP63B1EF254K	2.00	CP65B1EF254K	2.00
.5	600V	CP63B1EF504K	2.07	CP65B1EF504K	2.07
1.0	600V	CP63B1EF105K	2.31	CP65B1EF105K	2.31
2X.1	600V	CP63B6EF104V	2.51	CP65B6EF104V	2.51
2X.25	600V	CP63B6EF254V	2.66	CP65B6EF254V	2.66
2X.5	600V	CP63B6EF504V	2.81	CP65B6EF504V	2.81
.01	1000V	CP63B1EG103K	1.87	CP65B1EG103K	1.87
.02	1000V	CP63B1EG203K	1.87	CP65B1EG203K	1.87
.05	1000V	CP63B1EG503K	1.90	CP65B1EG503K	1.90
.1	1000V	CP63B1EG104K	1.98		
.25	100V	CP63B1EG254K	1.99		
.5	1000V	CP63B1EG504K	2.20		

MIL-C-25C

CP91 — Characteristics E & K

Former issues of MIL-C-25 listed variations of this item as CP61 and CP90. CP91 base size 1⁵⁄₁₆ x ⅝. Brackets must be ordered separately. Specify CP091F (footed) or CP091S (spade).

CAP.	VOLT.	P16 NO. BRACKETS	Net Price*
.1	400V	CP91B1KE104K	$1.82
.25	400V	CP91B1KE254K	1.87
1.0	400V	CP91B1EE105K	2.13
.05	600V	CP91B1EF503K	1.75
.25	600V	CP91B1EF254K	1.92
.5	600V	CP91B1EF504K	1.99
1.0	600V	CP91B1EF105K	2.23
2X.05	600V	CP91B6EF503V	2.36
2X.1	600V	CP91B6EF104V	2.44
2X.25	600V	CP91B6EF254V	2.58
2X.5	600V	CP91B6EF504V	2.73
.01	1000V	CP91B1EG103K	1.79
.02	1000V	CP91B1EG203K	1.79
.05	1000V	CP91B1EG503K	1.82
.1	1000V	CP91B1EG104K	1.91
.25	1000V	CP91B1EG254K	1.92
.5	1000V	CP91B1EG504K	2.12



MIL-C-25C

TYPES CP67, CP69 — Characteristics E

Hyvol M or J oil impregnated and filled unit, rectangular cased. Similar to CP91 except additional length in base size of 1¾ x ⁹⁄₁₆ permits 2 or 3 sections, case floating. Single units also can be used for special applications where type CP91 does not fit. Both CP67 and CP69 supplied with channel brackets attached. Standard tolerance on single section units ±10% (K), on multiple section units +20 —10% (V).

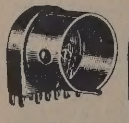
CAP.	VOLT.	P18-CT TOP TERM.	Net Price*	P18-CB BOTTOM TERM.	Net Price*
.05	600V	CP67B1EF503K	$2.13	CP69B1EF503K	$2.13
.1	600V	CP67B1EF104K	2.23	CP69B1EF104K	2.23
.25	600V	CP67B1EF254K	2.30	CP69B1EF254K	2.30
.5	600V	CP67B1EF504K	2.40	CP69B1EF504K	2.40
1.0	600V	CP67B1EF105K	2.63	CP69B1EF105K	2.63
2X.05	600V	CP67B4EF503V	2.64	CP69B4EF503V	2.64
2X.1	600V	CP67B4EF104V	2.69	CP69B4EF104V	2.69
2X.25	600V	CP67B4EF254V	2.90	CP69B4EF254V	2.90
2X.5	600V	CP67B4EF504V	3.25	CP69B4EF504V	3.25
3X.05	600V	CP67B5EF503V	3.15	CP69B5EF503V	3.15
3X.1	600V	CP67B5EF104V	3.24	CP69B5EF104V	3.24
3X.25	600V	CP67B5EF254V	3.52	CP69B5EF254V	3.52
.01	1000V	CP67B1EG103K	2.14	CP69B1EG103K	2.14
.02	1000V	CP67B1EG203K	2.16	CP69B1EG203K	2.16
.05	1000V	CP67B1EG503K	2.20	CP69B1EG503K	2.20

CAP.	VOLT.	P18-CB BOTTOM TERM.	Net Price*
.1	1000V	CP69B1EG104K	$2.27
.25	1000V	CP69B1EG254K	2.36
.5	1000V	CP69B1EG504K	2.53
2X.01	1000V	CP69B4EG103V	2.54
2X.02	1000V	CP69B4EG203V	2.61
2X.05	1000V	CP69B4EG503V	2.69
2X.1	1000V	CP69B4EG104V	2.78
2X.25	1000V	CP69B4EG254V	2.96
3X.01	1000V	CP69B5EG103V	3.12
3X.02	1000V	CP69B5EG203V	3.15
3X.05	1000V	CP69B5EG503V	3.25
3X.1	1000V	CP69B5EG104V	3.37

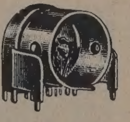
RIGHT ANGLE TUBE SOCKETS

Type A

Type AX



Type B



Type BX

Ordering Example: RA7A = (Type 7 Pin Socket)

Available in 7-pin and 9-pin types in four styles, these sockets are designed to meet existing MIL Specifications. Active contacts are silver plated and non-fatiguing contact pressure provides proper insertion and withdrawal pressure with a minimum of contact resistance. Ideal for hand or mechanical insertion into printed-wiring boards using simple in-line punched round holes. Templates are furnished with each socket. Long terminals permit use of sockets on wide range of board thickness.

Type A — for general purpose applications.
Type AX — for special applications (military and commercial) where extra strength and rigidity are required.
Type B — same as Type A except tube shield shell added.
Type BX — same as Type AX except tube shield shell added.

RA 7 — 7 pin right angle tube socket. RA 9 — 9 pin right angle tube socket

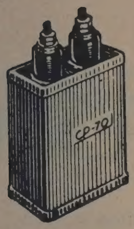
Cat. No.	Net Price**
RA7A	$ .83
RA7AX	.85
RA7B	.90
RA7BX	1.08
RA9A	.99
RA9AX	1.01
RA9B	1.06
RA9BX	1.24

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499
**Request O.E.M. Prices in the following quantities: 25-99, 100-499

INDUSTRIAL SECTION — MIL TYPES

TYPE CP70 MIL-C-25C

Characteristics E and F • Porcelain and Riveted Terminals



Hyvol M or J oil impregnated and filled, large, rectangular, metal-cased capacitor for heavy-duty, continuous-service applications such as power supplied for transmitters, amplifiers, etc. immersion proof and hermetically sealed. Available with either high-voltage screw-type porcelain-pillar terminals or the space-saving riveted terminal. Pillar terminals have soldering lugs.

Standard tolerance ±10% (K). MIL-C-25C mounting brackets are also available for all units.

Units meet Vibration Grade 1 of MIL-C-25C—Designated by addition of numeral 1 to part number.

Capacity	Voltage	CHAR. E P09 Porc. Term	Case Size and Brkt. Desig.	Net Price*	CHAR. F P09 Porc. Term	Case Size and Brkt. Desig.	Net Price*	CHAR. E P09-R Rivet Term	Case Size and Brkt. Desig.	Net Price*	CHAR. F P09-R Rivet Term	Case Size and Brkt. Desig.	Net Price*
1.0	600V	CP70E1EF105K	A2	3.62				CP70B1EF105K	A2	3.06			
2.0	600V	CP70E1EF205K	A4	4.29	CP70E1FF205K	A3	4.09	CP70B1EF205K	A4	3.96	CP70B1FF205K	A3	3.77
4.0	600V	CP70E1EF405K	B4	5.68	CP70E1FF405K	B3	5.58	CP70B1EF405K	B4	5.52	CP70B1FF405K	B3	5.26
6.0	600V	CP70E1EF605K	C2	6.86	CP70E1FF605K	B6	6.55	CP70B1EF605K	C2	6.54	CP70B1FF605K	B6	6.23
8.0	600V	CP70E1EF805K	C3	8.43	CP70E1FF805K	C2	8.07	CP70B1EF805K	C3	7.89	CP70B1FF805K	C2	7.75
10.0	600V	CP70E1EF106K	D3	9.11	CP70E1FF106K	C4	8.69	CP70B1EF106K	D3	8.78	CP70B1FF106K	C4	8.37
.1	1000V	CP70E1EG104K	A1	2.70									
.25	1000V	CP70E1EG254K	A2	3.06									
.5	1000V	CP70E1EG504K	A2	3.24									
1.0	1000V	CP70E1EG105K	A3	4.14	CP70E1FG105K	A2	3.84	CP70B1EG105K	A3	3.68			
2.0	1000V	CP70E1EG205K	A6	5.41	CP70E1FG205K	A5	4.87	CP70B1EG205K	A6	4.73	CP70B1FG205K	A5	4.51
4.0	1000V	CP70E1EG405K	C2	6.84	CP70E1FG405K	B6	6.56	CP70B1EG405K	C2	6.38	CP70B1FG405K	B6	6.22
6.0	1000V	CP70E1EG605K	D3	8.46	CP70E1FG605K	C4	8.09	CP70B1EG605K	D3	8.13	CP70B1FG605K	C4	7.75
8.0	1000V	CP70E1EG805K	D5	9.05				CP70B1EG805K	D5	8.93	CP70B1FG805K	D2	9.15
10.0	1000V	CP70E1EG106K	E5	10.99	CP70E1FG106K	D5	10.91	CP70B1EG106K	E5	10.82	CP70B1FG106K	D5	10.08
12.0	1000V	CP70E1EG126K	E6	11.89				CP70B1EG126K	E6	11.75	CP70B1FG126K	E4	11.69
15.0	1000V	CP70E1EG156K	G2	13.15	CP70E1FG156K	F1	13.09	CP70B1EG156K	G2	13.01	CP70B1FG156K	F1	12.95
.5	1500V	CP70E1EH504K	A3	3.95				CP70B1EH504K	A3	3.46			
1.0	1500V	CP70E1EH105K	A6	4.64	CP70E1FH105K	A5	4.37	CP70B1EH105K	A6	4.23			
2.0	1500V	CP70E1EH205K	B6	6.54	CP70E1FH205K	B5	5.57	CP70B1EH205K	B6	5.51	CP70B1FH205K	B5	5.25
4.0	1500V	CP70E1EH405K	D4	8.77	CP70E1FH405K	C4	8.14	CP70B1EH405K	D4	8.20	CP70B1FH405K	C4	7.82
6.0	1500V	CP70E1EH605K	E5	10.66	CP70E1FH605K	D5	10.40	CP70B1EH605K	E5	10.53	CP70B1FH605K	D5	10.09
8.0	1500V	CP70E1EH805K	F2	13.66	CP70E1FH805K	F1	12.99	CP70B1EH805K	F2	12.92	CP70B1FH805K	F1	12.66
10.0	1500V	CP70E1EH106K	G4	15.64	CP70E1FH106K	G2	15.06	CP70B1EH106K	G4	13.79	CP70B1FH106K	G2	14.66
12.0	1500V	CP70E1EH126K	J3	17.01	CP70E1FH126K	G2	16.97	CP70B1EH126K	J3	16.89	CP70B1FH126K	G2	16.84
15.0	1500V	CP70E1EH156K	J6	18.74	CP70E1FH156K	J3	18.68	CP70B1EH156K	J6	18.61	CP70B1FH156K	J3	18.56
.25	2000V	CP70E1EJ254K	B1	4.47									
.5	2000V	CP70E1EJ504K	B2	4.64									
1.0	2000V	CP70E1EJ105K	B6	5.67	CP70E1FJ105K	B3	5.62						
2.0	2000V	CP70E1EJ205K	C4	6.71	CP70E1FJ205K	C3	6.65						
4.0	2000V	CP70E1EJ405K	E6	9.45	CP70E1FJ405K	E3	9.40						
6.0	2000V				CP70E1FJ605K	G1	12.24						
10.0	2000V				CP70E1FJ106K	J3	17.64						
12.0	2000V				CP70E1FJ126K	J5	20.50						
15.0	2000V				CP70E1FJ156K	J7	22.04						
.1	2500V	CP70E1EK104K	B1	6.50									
.5	2500V	CP70E1EK504K	B4	6.99	CP70E1FK504K	B3	6.93						
1.0	2500V	CP70E1EK105K	D2	7.97	CP70E1FK105K	D1	7.90						
2.0	2500V	CP70E1EK205K	E5	12.88	CP70E1FK205K	D5	12.82						
4.0	2500V	CP70E1EK405K	J2	17.96									
10.0	2500V	CP70E1EK106K	J10	40.72									
.1	3000V	CP70E1EL104K	B2	8.30									
.25	3000V	CP70E1EL254K	B3	8.79									
.5	3000V	CP70E1EL504K	B6	9.76									
1.0	3000V	CP70E1EL105K	E4	12.06									
2.0	3000V	CP70E1EL205K	G2	15.01	CP70E1FL205K	G1	11.45						
4.0	3000V	CP70E1EL405K	J7	22.05	CP70E1FL405K	J3	21.99						
.1	4000V	CP70E1EM104K	E1	10.99									
.25	4000V				CP70E1FM254K	E1	11.08						
.5	4000V				CP70E1FM504K	E3	12.15						
1.0	4000V				CP70E1FM105K	E6	15.27						
2.0	4000V				CP70E1FM205K	J4	21.56						
4.0	4000V	CP70E1EM405K	J11	39.44	CP70E1FM405K	J10	35.62						
.1	5000V	CP70E1EN104K	E1	11.41									
.25	5000V	CP70E1EN254K	E3	12.72									
.5	5000V	CP70E1EN504K	E6	15.44	CP70E1FN504K	E4	13.38						
1.0	5000V				CP70E1FN105K	J2	17.95						
2.0	5000V				CP70E1FN205K	J6	28.86						
.1	6000V	CP70D1EP104K	E3	13.68	CP70D1FP104K	E2	12.65						
.25	6000V	CP70D1EP254K	E5	16.50	CP70D1FP254K	E4	14.22						
.5	6000V	CP70D1EP504K	J3	20.58									
1.0	6000V	CP70D1EP105K	J11	32.46	CP70D1FP105K	J9	29.51						
.1	7500V				CP70D1FR104K	E3	13.46						
.25	7500V				CP70D1FR254K	J1	16.80						
.5	7500V				CP70D1FR504K	J4	23.69						

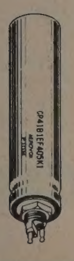
A1	1¹³⁄₁₆ x 1¹⁄₁₆ x 1⅝
A2	1¹³⁄₁₆ x 1¹⁄₁₆ x 2¼
A3	1¹³⁄₁₆ x 1¹⁄₁₆ x 2⅞
A4	1¹³⁄₁₆ x 1¹⁄₁₆ x 3¼
A5	1¹³⁄₁₆ x 1¹⁄₁₆ x 3⅞
A6	1¹³⁄₁₆ x 1¹⁄₁₆ x 4¾
B1	2½ x 1³⁄₁₆ x 2½
B2	2½ x 1³⁄₁₆ x 2⅞
B3	2½ x 1³⁄₁₆ x 3½
B4	2½ x 1³⁄₁₆ x 3⅞
B5	2½ x 1³⁄₁₆ x 4¼
B6	2½ x 1³⁄₁₆ x 4¾
C2	3¾ x 1¼ x 3⅞
C3	3¾ x 1¼ x 4¼
C4	3¾ x 1¼ x 4¾
D1	3¾ x 1¾ x 3¼
D2	3¾ x 1¾ x 3⅞
D3	3¾ x 1¾ x 4
D4	3¾ x 1¾ x 4¼
D5	3¾ x 1¾ x 4¾
E1	3¾ x 2¼ x 2¾
E2	3¾ x 2¼ x 3⅜
E3	3¾ x 2¼ x 4¼
E4	3¾ x 2¼ x 4½
E5	3¾ x 2¼ x 4¾
E6	3¾ x 2¼ x 5⅛
F1	3¾ x 2½ x 4¾
F2	3¾ x 2½ x 5¾
G1	3¾ x 3³⁄₁₆ x 4½
G2	3¾ x 3³⁄₁₆ x 4¾
G4	3¾ x 3³⁄₁₆ x 5½
J1	4⁹⁄₁₆ x 3¾ x 3⅞
J2	4⁹⁄₁₆ x 3¾ x 4⅜
J3	4⁹⁄₁₆ x 3¾ x 4¾
J4	4⁹⁄₁₆ x 3¾ x 5⅛
J5	4⁹⁄₁₆ x 3¾ x 5½
J6	4⁹⁄₁₆ x 3¾ x 6
J7	4⁹⁄₁₆ x 3¾ x 6½
J9	4⁹⁄₁₆ x 3¾ x 7½
J10	4⁹⁄₁₆ x 3¾ x 8½
J11	4⁹⁄₁₆ x 3¾ x 9⅝

If MIL brackets are required with units, specify CPO7S (spade) or CPO7F (footed) and add the bracket designation listed beside the unit.

Example: CP70E1EF504K with CPO7SA2 brackets.

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99

TYPE CP41 — Characteristics E and F



Cylindrical, hermetically sealed can with screwbase molded cover for vertical mounting. Operating temperature range —55 +85°C. Solder lug. nonremovable terminals MIL designation B). Supplied with mounting nut and lockwasher. Standard tolerance ±10% (K).

Units meet Vibration Grade 1 of MIL-C-25C Designated by addition of numeral 1 to part number.

Capacity	Voltage	Char. E P10M	Net Price*	Char. F P10M	Net Price*
2.0	600V	CP41B1EF205K	4.82	CP41B1FF205K	4.82
4.0	600V	CP41B1EF405K	5.67	CP41B1FF405K	5.67
1.0	1000V	CP41B1EG105K	5.27	CP41B1FG105K	5.27
2.0	1000V	CP41B1EG205K	5.27	CP41B1FG205K	5.57
.5	1500V			CP41B1FH504K	4.62
1.0	1500V			CP41B1FH105K	6.42

*Request O.E.M. Prices in the following quantities: 10-99

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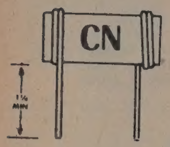
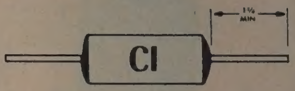
INDUSTRIAL CERAMIC CAPACITORS (cont.)

Temperature Compensating Tubulars





Popular values in accordance with the latest revisions of specification MIL-C-20 and EIA specification RS-198. Uninsulated units are furnished color coded, packaged in bulk. Insulated units—stamped with part number. Voltage rating 500 VDCW.

NPO

	UNINSULATED TYPE CN		INSULATED TYPE CI	
Cap.	MIL No.	Net Price*	MIL No.	Net Price*
.3	CC20CKOR3C	.33	CC 21CKOR3C	.33
.5	CC20CKOR5C	.33	CC21CKOR5C	.33
.68	CC20CKR68C	.33	CC21CKR68C	.33
.75	CC20CKR75C	.33	CC21CKR75C	.33
1.0	CC20CK010C	.33	CC21CK010C	.33
1.2	CC20CK1R2C	.33	CC21CK1R2C	.33
1.5	CC20CK1R5C	.33	CC21CK 1R5C	.33
2.0	CC20CK020C	.33	CC21CK020C	.33
2.2	CC20CK2R2C	.33	CC21CK2R2C	.33
3.0	CC20CJ030C	.33	CC21CJ030C	.33
4.0	CC20CH040C	.33	CC21CH040C	.33
5.0	CC20CH050C	.33	CC21CH050C	.33
6.0	CC20CH060C	.33	CC 21CH060C	.33
6.2	CC20CH6R2C	.33	CC21CH6R2C	.33
7.0	CC20CH070C	.33	CC21CH070C	.33
8.0	CC20CH080C	.33	CC21CH080C	.33
9.0	CC20CH090C	.33	CC21CH090C	.33
10.0	CC20CH100C	.33	CC 21CH 100C	.33
12.0	CC20CH120G	.33	CC21CH120G	.33
15.0	CC20CH150G	.33	CC21CH150G	.33
18.0	CC20CH180G	.33	CC21CH180G	.33
20.0	CC20CH 200G	.33	CC21CH200G	.33
22.0	CC20CH220G	.33	CC21CH220G	.33
24	CC25CH240G	.33	CC26CH240G	.33
27	CC25CH270G	.33	CC26CH270G	.33
30	CC25CH300G	.33	CC26CH300G	.33
33	CC25CH330G	.33	CC26CH330G	.33
36	CC25CH360J	.33	CC26CH360J	.33
39	CC25CH 390J	.33	CC26CH390J	.33
43	CC25CH430J	.33	CC36CH430J	.33
47	CC25CH470J	.33	CC36CH470J	.33
51	CC25CH510J	.33	CC36CH510J	.33
56	CC32CG560J	.33	CC36CG560J	.33
62	CC32CG620J	.33	CC36CG620J	.33
68	CC32CG680J	.33	CC36CG680J	.33
75	CC32CG750J	.33	CC36CG750J	.33
82	CC32CG820J	.33	CC36CG820J	.33
91	CC32CG910J	.33	CC36CG910J	.33
100	CC32CG101G	.33	CC36CG101J	.33
110	CC32CG111G	.33	CC36CG111J	.66
120	CC35CG121G	.50	CC36CG121J	.66
130	CC35CG131G	.50	CC36CG131J	.66
150	CC35CG151G	.50	CC36CG151J	.66
160	CC45CG161G	.66		
180	CC45CG181G	.66		
200	CC45CG201G	.66		
220	CC45CG221G	.66		
240	CC45CG241G	.66		
270	CC45CG271F	.99		
300	CC45CG301F	.99		

N750

	UNINSULATED TYPE CN		INSULATED TYPE CI	
Cap.	MIL No.	Net Price*	MIL No.	Net Price*
.5	CC20UKOR5C	.33		
.75	CC20UKR75C	.33	CC21UKR75C	.33
1.0	CC20UK010C	.33	CC21UK010C	.33
1.5	CC20UK1R5C	.33	CC21UK1R5C	.33
2.0	CC20UK020C	.33	CC21UK020C	.33
5.0	CC20UJ050C	.33	CC21UJ050C	.33
10.0	CC20UJ100C	.33	CC21UJ100C	.33
12.0	CC20UJ120G	.33	CC20UJ120G	.33
15.0	CC20UJ150G	.33	CC21UJ150G	.33
18.0	CC20UJ180G	.33	CC21UJ180G	.33
20.0	CC20UJ200G	.33	CC21UJ200G	.33
22.0	CC20UJ220G	.33	CC21UJ220G	.33
24.0	CC20UJ240G	.33	CC21UJ240G	.33
27.0	CC20UJ270G	.33	CC21UJ270G	.33
30.0	CC20UJ300G	.33	CC21UJ300G	.33
33.0	CC20UJ330G	.33	CC21UJ330G	.33
36.0	CC20UJ360J	.33	CC21UJ360J	.33
39.0	CC20UJ390J	.33	CC21UJ390J	.33
43.0	CC20UJ430J	.33	CC21UJ430J	.33
47.0	CC20UJ470J	.33	CC21UJ470J	.33
51.0	CC20UJ510J	.33	CC21UJ510J	.33
56.0	CC20UJ560J	.33	CC21UJ560J	.33
62.0	CC20UJ620J	.33	CC21UJ620J	.33
68.0	CC25UJ680J	.33	CC26UJ680J	.33
75.0	CC25UJ750J	.33	CC26UJ750J	.33
82.0	CC25UJ820J	.33	CC26UJ820J	.33
91.0	CC25UJ910J	.33	CC26UJ910J	.33
100.0	CC25UJ101G	.33	CC26UJ101J	.33
110	CC25UJ111G	.33	CC26UJ111J	.33
120	CC25UJ121G	.33	CC26UJ121J	.33
130	CC25UJ131G	.33	CC36UJ131J	.33
150	CC25UJ151G	.33	CC36UJ151J	.33
160	CC32UJ161G	.33	CC36UJ161J	.33
180	CC32UJ181G	.33	CC36UJ181J	.66
200	CC32UJ201G	.33	CC36UJ201J	.66
220	CC32UJ221G	.33	CC36UJ221J	.66
240	CC32UJ241G	.33	CC36UJ241J	.66
270	CC35UJ271F	.99	CC36UJ271J	.66
300	CC35UJ301F	.99	CC36UJ301J	.66
330	CC35UJ331F	.99	CC36UJ331F	.66
360	CC35UJ361F	.99	CC36UJ361J	.66
390	CC45UJ391F	.99		
430	CC45UJ431F	.99		
470	CC45UJ471F	.99		

Type Designation MIL	Max. Size	TOLERANCE Letter Descrip.	TOLERANCE Tolerance
CC20	.200 x .400	C	± .25 mmf.
CC21	.200 x .562		
CC25	.250 x .655	F	± 1%
CC26	.250 x .812		
CC32	.250 x .860	G	± 2%
CC35	.255 x 1.090		
CC36	.340 x 1.328	J	± 5%
CC45	.340 x 1.890		

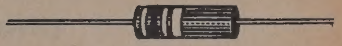
*Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999

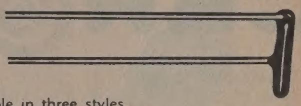
© U.C.P., Inc.

AEROVOX CAPACITORS

CERAFIL®

INDUSTRIAL CERAMIC CAPACITORS
ULTRAMINIATURE CAPACITORS
DIPPED-RADIAL & AXIAL LEADS
MOLDED-AXIAL LEADS





Cerafil® capacitors are the smallest ceramic capacitors available anywhere. These remarkably ultra-miniature units are designed primarily for air-borne and space-borne equipments, having critical space and weight parameters. They are also designed for transistorized circuit applications in hearing aids and other critical requirements where space and weight are at an absolute premium. The unique design and construction features of Cerafil® capacitors make it possible to obtain extremely high capacities per unit volume. These tiny capacitors are the ideal answer to many problems created by the growing trend towards miniaturization of electronic assemblies and equipments.

When tested using Cerafil® ratings, these units will meet or surpass the requirements of MIL-C-11015C.

All 29 stock values are available in three styles.

1. C80V dipped axial leads (Also referred to as C80A or C80T)
2. Dipped radial lead units (Also referred to as C80R)
3. Completely new molded MC80V

The new molded unit features a rugged epoxy encapsulation which provides an even greater degree of reliability to the already missile proven Cerafil®. Increased mechanical strength and the uniform dimensions make the molded Cerafil® ideal for automated assembly operation.

For full technical information request Bulletins NPJ-119 REV. and NPJ-120 REV.

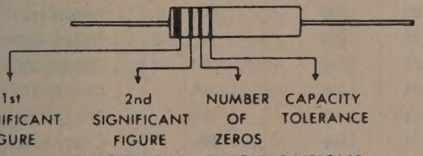
Capacity	†Dimensions		Dipped Axial Leads		Dipped Radial Leads		Mil-C-11015C	Dimensions +.003 −.005		Molded Axial Leads			
	Diameter	Length	Part No.	Net Price*	Part No.	Net Price*	Part No.	Diameter	Length	± 20% Part No.	Net Price*	± 10% Part No.	Net Price*
.00001	.090	.320	C80V100AM	.52	C80V100RM	.57	AXCK12AX100M	.087	.315	MC80V100AM	.47	MC80V100AK	.59
.000022	.090	.320	C80V220AM	.52	C80V220RM	.57	AXCK12AX220M	.087	.315	MC80V220AM	.47	MC80V220AK	.59
.000033	.090	.320	C80V330AM	.52	C80V330RM	.57	AXCK12AX330M	.087	.315	MC80V330AM	.47	MC80V330AK	.59
.000047	.090	.320	C80V470AM	.52	C80V470RM	.57	AXCK12AX470M	.087	.315	MC80V470AM	.47	MC80V470AK	.59
.000056	.090	.320	C80V560AM	.52	C80V560RM	.57		.087	.315	MC80V560AM	.47	MC80V560AK	.59
.000068	.090	.320	C80V680AM	.52	C80V680RM	.57		.087	.315	MC80V680AM	.47	MC80V680AK	.59
.000082	.090	.320	C80V820AM	.52	C80V820RM	.57		.087	.315	MC80V820AM	.47	MC80V820AK	.59
.0001	.090	.320	C80V101AM	.52	C80V101RM	.57	AXCK12AX101M	.087	.315	MC80V101AM	.47	MC80V101AK	.59
.00022	.090	.320	C80V221AM	.52	C80V221RM	.57	AXCK12AX221M	.087	.315	MC80V221AM	.47	MC80V221AK	.59
.00033	.090	.320	C80V331AM	.52	C80V331RM	.57	AXCK12AX331M	.087	.315	MC80V331AM	.47	MC80V331AK	.59
.00047	.090	.320	C80V471AM	.52	C80V471RM	.57	AXCK12AX471M	.087	.315	MC80V471AM	.47	MC80V471AK	.59
.00056	.090	.320	C80V561AM	.52	C80V561RM	.57		.087	.315	MC80V561AM	.47	MC80V561AK	.59
.00068	.090	.320	C80V681AM	.52	C80V681RM	.57		.087	.315	MC80V681AM	.47	MC80V681AK	.59
.00082	.090	.320	C80V821AM	.52	C80V821RM	.57		.087	.315	MC80V821AM	.47	MC80V821AK	.59
.001	.090	.320	C80V102AM	.46	C80V102RM	.51	AXCK12AX102M	.087	.315	MC80V102AM	.41	MC80V102AK	.51
.002	.120	.500	C80V202AM	.76	C80V202RM	.84		.117	.495	MC80V202AM	.68	MC80V202AK	.85
.0022	.120	.500	C80V222AM	.76	C80V222RM	.84	AXCK13AX222M	.117	.495	MC80V222AM	.68	MC80V222AK	.85
.0033	.120	.500	C80V332AM	.76	C80V332RM	.84	AXCK13AX332M	.117	.495	MC80V332AM	.68	MC80V332AK	.85
.0047	.120	.500	C80V472AM	.76	C80V472RM	.84	AXCK13AX472M	.117	.495	MC80V472AM	.68	MC80V472AK	.85
.005	.120	.500	C80V502AM	.76	C80V502RM	.84		.117	.495	MC80V502AM	.68	MC80V502AK	.85
.0068	.180	.500	C80V682AM	1.00	C80V682RM	1.19		.157	.495	MC80V682AM	.90	MC80V682AK	1.13
.01	.180	.500	C80V103AM	1.00	C80V103RM	1.19	AXCK14AX103M	.157	.495	MC80V103AM	.90	MC80V103AK	1.13
.02	.200	.500	C80V203AM	1.83	C80V203RM	2.03		.197	.495	MC80V203AM	1.65	MC80V203AK	2.06
.022	.200	.500	C80V223AM	3.05	C80V223RM	3.38	AXCK15AX223M	.237	.645	MC80V223AM	2.75	MC80V223AK	3.44
.033	.240	.650	C80V333AM	3.05	C80V333RM	3.38		.237	.645	MC80V333AM	2.75	MC80V333AK	3.44
.047	.240	.650	C80V473AM	3.05	C80V473RM	3.38	AXCK16AX473M	.237	.645	MC80V473AM	2.75	MC80V473AK	3.44
.05	.240	.650	C80V503AM	3.05	C80V503RM	3.38		.237	.645	MC80V503AM	2.75	MC80V503AK	3.44
.068	.310	.750	C80V683AM	5.48	C80V683RM	6.08		.277	.745	MC80V683AM	4.93	MC80V683AK	6.16
.1	.310	.750	C80V104AM	5.48	C80V104RM	6.08	AXCK17AX104M	.277	.745	MC80V104AM	4.93	MC80V104AK	6.16

†Overall length may exceed dimensions shown by as much as 1/16'' due to deposit of insulating material on leads.

MARKING

The following color code system is used to denote capacity in micromicrofarads and tolerance.

Read from left to right starting with the largest band.



CAPACITANCE	TOLERANCE
±20%	Black
±10%	Brown

CAPACITANCE			
0	Black	5	Green
1	Brown	6	Blue
2	Red	7	Violet
3	Orange	8	Gray
4	Yellow	9	White

ELECTRICAL SPECIFICATIONS

1. VOLTAGE — 100 VDCW; 300 VDCT
2. CAPACITY TOLERANCE — ±10% (K), ±20% (M) as listed above.
3. INSULATION RESISTANCE — 100 mfd.—megohms or 10,000 megohms whichever is smaller.
4. TEMPERATURE COEFFICIENT — (—55°C to +85°C.)
   No voltage +10% to —15%.
   100 volts applied — +10% to —35%.
5. POWER FACTOR — 2.5% maximum.
6. OPERATING TEMPERATURE
   —55°C to 85°C at 100 volts
   —55°C to 125°C at 50 volts

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

MECHANICAL SPECIFICATIONS

1. All dimensions in inches.
2. LEADS — Tinned Copper
   C80V—Below .01 mfd.—#26 gauge.
   .01 and above—#22 gauge.

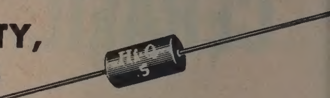
   MC80V—.005 and below—#26 gauge.
   .0051 and above—#22 gauge.
3. LEAD LENGTHS — C80V—1½'' Min.
   MC80V—1 15/32'' Min.
4. MARKING — Color code. No code for temperature coefficient; no code for lead designation since it is obvious.

AEROVOX

CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

CEROL® HIGH CAPACITY, HIGH RELIABILITY, ROLLED CERAMIC CAPACITORS



Cerol®capacitors are rolled ceramic capacitors in the high capacitance range of paper and plastic film dielectrics but in much smaller physical sizes and with superior electrical characteristics. Designed for general applications in bypass-coupling, filtering and blocking circuits. Excellent electrical characteristics for critical applications in decoupling and pulse circuits where low series resistance at high frequencies together with miniature sizes are required. Low series resistance makes them ideal for use in all computer circuits. Operating temperature range at rated voltage —55°C to 85°C and at 50% rated voltage —55°C to 125°C. Capacitance tolerance is ±20%. Will meet or surpass all the requirements of MIL-C-11015B.

Cerol capacitors are available in three types; type CR89, CR90 and CR91 rated at 50V, 100V and 200V respectively at 85°C and derated by 50% at 125°C.

Units are stamped with the rated voltage for identification of type.

For full technical information request Bulletin NPJ-112 (Rev.)

Value	TYPE CR89 – 50 VDCW				TYPE CR90 – 100 VDCW				TYPE CR91 – 200 VDCW				
	Stock Items	D Max In.	L Max In.	Net Price*	Stock Items	D Max In.	L Max In.	Net Price*	Stock Items	D Max In.	L Max In.	Net Price*	
.1 MFD	CR89W104AM	.140	.400	3.65	CR90V104AM	.210	.690	4.05	CR91W104AM	.290	.495	4.86	Brown, Black, Yellow & Black
.25 MFD	CR89W254AM	.210	.495	4.86	CR90V254AM	.260	.690	5.40	CR91W254AM	.350	.690	6.48	Red Green, Yellow & Black
.5 MFD	CR89W504AM	.260	.495	7.90	CR90V504AM	.350	.690	8.77	CR91W504AM	.440	.690	10.54	Green, Black, Yellow & Black
1.0 MFD	CR89W105AM	.260	.690	12.15	CR90V105AM	.480	.690	13.50	CR91W105AM	.470	1.000	16.20	Brown, Black, Green, Black
2.0 MFD	CR89W205AM	.350	.690	18.23	CR90V205AM	.400	1.440	20.25	CR91W205AM	.520	1.440	24.30	Red, Black, Green, Black

SPECIFICATIONS

Axial gold plated dumet leads are standard. Tinned copper leads also available on special order. All values — #22 gauge except CR89W104AM has 26 gauge leads. For non-standard values, use dimensions of next higher standard value and order special.

Power Factor — 2% Maximum
Insulation Resistance = 100 Meg. — Mfd. minimum
Series Resistance < .20 ohms at 8 to 10 mc.
Test Voltage = 3 times Rated Voltage
Other requirements per MIL-C-11015C

T. C. —55° to +125°C	TYPE CR90	TYPES CR89 & CR91
0 Voltage	+15%, —25%	+10%, —30%
@ Rated Voltage	+15%, —35%	+10%, —40%

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

MILITARY CERAMIC DISCS

MIL-C-11015B DISC CERAMICS

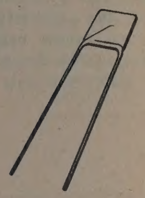
These general purpose capacitors are made in accordance with the requirements of the Military Specifications. Rated at 500 VDCW. Units identified by letter A as 5th digit are made to operate from —55°C to +85°C. Those with letter B as fifth digit operate from —55°C to +125°C. Tolerances as noted.

CAP.	TOL.	MIL NO.	Net Price*	CAP.	TOL.	MIL NO.	Net Price*
2.2 mmf	10%	CK60BV2R2K	.28	220 mmf	10%	CK61BX221K	.25
3.3	10%	CK60BV3R3K	.28	220	20%	CK61BX221M	.24
4.7	10%	CK60BV4R7K	.28	330	10%	CK61BX331K	.25
6.8	10%	CK60BV6R8K	.28	330	20%	CK61BX331M	.24
10	10%	CK60BV100K	.28	470	10%	CK61BX471K	.25
15	10%	CK60BV150K	.28	470	20%	CK61BX471M	.24
22	10%	CK60BV220K	.28	680	10%	CK61BX681K	.25
33	10%	CK60BX330K	.25	680	20%	CK61BX681M	.24
33	20%	CK60BX330M	.24	2200	20%	CK61AW222M	.22
47	10%	CK60BX470K	.25	820	10%	CK62BX821K	.25
47	20%	CK60BX470M	.24	820	20%	CK62BX821M	.24
68	10%	CK60BX680K	.25	1000	10%	CK62BX102K	.25
68	20%	CK60BX680M	.24	1000	20%	CK62BX102M	.24
100	10%	CK60BX101K	.25	1500	10%	CK62BX152K	.25
100	20%	CK60BX101M	.24	1500	20%	CK62BX152M	.24
150	10%	CK60BX151K	.25	2200	10%	CK62AX222K	.23
150	20%	CK60BX151M	.24	2200	20%	CK62AX222M	.22
220	10%	CK60AX221K	.23	3300	20%	CK62AW332M	.22
220	20%	CK60AX221M	.22	4700	20%	CK62AW472M	.22
330	10%	CK60AX331K	.23	6800	20%	CK62AW682M	.22
330	20%	CK60AX331M	.22	8200	20%	CK62AW822M	.24
470	10%	CK60AX471K	.23	2200	10%	CK63BX222K	.25
470	20%	CK60AX471M	.22	2200	20%	CK63BX222M	.24
680	20%	CK60AW681M	.21	3300	10%	CK63BX332K	.25
820	20%	CK60AW821M	.21	3300	20%	CK63BX332M	.24
1000	20%	CK60AW102M	.21	10000	20%	CK63AW103M	.24
1500	20%	CK60AW152M	.25				

*Request O.E.M. Prices in the following quantities: 50-99, 100-499, 500-999

INDUSTRIAL CERAMIC CAPACITORS (cont.)

SUBMINIATURE THIN PLATE CAPACITORS
TYPES TPNPO, TP 25 & TP 89



Subminiature rectangular ceramic capacitors with a difference. Slim design allows close assembly, small size-maximum circuit density. Ideal for transistorized circuit and micromodule applications.

- Close temperature coefficients
- Operation to 125°C
- Closer standard tolerances
- Radial or axial lead
- Gold plate Dumet leads

For complete technical data request bulletin NPJ-122.

TYPICAL PROPERTIES

	TYPE TPNPO	TYPE TP25	TYPE TP89
Voltage, VDCW @ 85° C, (Derated 50% @ 125° C)	50	50	50
Power Factor, Maximum @ 1 KC.	.1%	.6%	2%
Temperature Coefficient with 0 Voltage, —55°C to +125°C.	0±30PPM °C	+5%, —8%	+10%, —30%
Temperature Coefficient with rated Voltage applied, —55°C to +125°C	0±30PPM/°C	+5%, —10%	+10%, —40%
Capacity Tolerance	±5%	±10%	±20%

TYPICAL CAPACITY RANGE—MMF

MAXIMUM SIZE (L x W x t)	TYPE TPNPO	TYPE TP25	TYPE TP89
.100 x .100 x .060″	5 - 20	25 - 140	360 - 1300
.150 x .150 x .060″	21 - 50	141 - 350	1301 - 3300
.200 x .200 x .060″	51 - 100	351 - 700	3301 - 6600
.250 x .250 x .060″	101 - 160	701 - 1200	6601 - 10500
.300 x .300 x .060″	161 - 220	1201 - 1500	10501 - 14500
.350 x .350 x .060″	221 - 305	1501 - 2100	14501 - 20000

Spacing between radial leads is .100″ on the .100″ and .150″ case sizes; .200″ on all other case sizes.

STOCK VALUES†

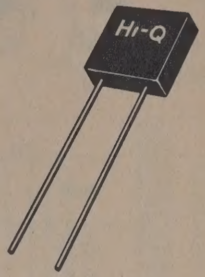
Capacitance In MMFD.	CAT. NO. TPNPO	*Net Price	CAT. NO. TP25	*Net Price	CAT. NO. TP89	*Net Price
4.7	TPNPO-4R7*J	.68				
6.8	TPNPO-6R8*J	.68				
10.0	TPNPO-100*J	.68				
15.0	TPNPO-150*J	.68				
22.0	TPNPO-220*J	.68				
33.0	TPNPO-330*J	.68	TP25-330*K	.60		
47.0	TPNPO-470*J	.68	TP25-470*K	.60		
68.0	TPNPO-680*J	.68	TP25-680*K	.60		
100	TPNPO-101*J	.68	TP25-101*K	.60		
150	TPNPO-151*J	.82	TP25-151*K	.60		
220	TPNPO-221*J	.82	TP25-221*K	.60		
330			TP25-331*K	.60		
470			TP25-471*K	.60	TP89-471*M	.48
680			TP25-681*K	.60	TP89-681*M	.48
1000			TP25-102*K	.72	TP89-102*M	.48
1500			TP25-152*K	.72	TP89-152*M	.48
2200			TP25-222*K	1.45	TP89-222*M	.48
3300					TP89-332*M	.48
4700					TP89-472*M	.48
6800					TP89-682*M	.58
10,000					TP89-103*M	.58
15,000					TP89-153*M	1.16
20,000					TP89-203*M	1.16

*Insert "A" for axial leads or "R" for radial leads

†Intermediate values and closer tolerances available on special order

*Request O.E.M. Prices in the following quantities: 50-99, 100-499

TYPE MC52-MC62
MIL TYPE CK05-CK06



Test and compare these new **reliable** types.

- Will meet MIL-C-11015/18/19
- Will operate without derating at 200VDC from —55°C to +150°C
- Life tested at 400 VDC, 150°C
- Manufactured in complete, new automated facility
- Molded (not shell encased)
- Ceralam Process

DIMENSIONS
CK05—.195 x .195 x .095
CK06—.295 x .295 x .095

These units are marked with capacity, voltage and tolerance.

For complete technical data request bulletin NPJ-123

Cap. MMF.	Commercial Designation		MIL-C-11015C Designation ± 10%	*Net Price	± 20%	*Net Price
10	MC52CW100*		CK05CW100K	1.21	CK05CW100M	.85
12	MC52CW120*		CK05CW120K	1.21		
15	MC52CW150*		CK05CW150K	1.21	CK05CW150M	.85
18	MC52CW180*		CK05CW180K	1.21		
22	MC52CW220*		CK05CW220K	1.21	CK05CW220M	.85
27	MC52CW270*		CK05CW270K	1.21		
33	MC52CW330*		CK05CW330K	1.21	CK05CW330M	.85
39	MC52CW390*		CK05CW390K	1.21		
47	MC52CW470*		CK05CW470K	1.21	CK05CW470M	.85
56	MC52CW560*		CK05CW560K	1.21		
68	MC52CW680*		CK05CW680K	1.21	CK05CW680M	.85
82	MC52CW820*		CK05CW820K	1.21		
100	MC52CW101*		CK05CW101K	1.21	CK05CW101M	.85
120	MC52CW121*		CK05CW121K	.85		
150	MC52CW151*		CK05CW151K	.85	CK05CW151M	.73
180	MC52CW181*		CK05CW181K	.85		
220	MC52CW221*		CK05CW221K	.85	CK05CW221M	.73
270	MC52CW271*		CK05CW271K	.85		
330	MC52CW331*		CK05CW331K	.85	CK05CW331M	.73
390	MC52CW391*		CK05CW391K	.85		
470	MC52CW471*		CK05CW471K	.85	CK05CW471M	.73
560	MC52CW561*		CK05CW561K	.85		
680	MC52CW681*		CK05CW681K	.85	CK05CW681M	.73
820	MC52CW821*		CK05CW821K	.85		
1000	MC52CW102*	MC62CW102*	CK05CW102K	.85	CK05CW102M	.73
1200	MC52CW122*	MC62CW122*	CK06CW122K	1.15		
1500	MC52CW152*	MC62CW152*	CK06CW152K	1.15	CK06CW152M	.99
1800	MC52CW182*	MC62CW182*	CK06CW182K	1.15		
2200	MC52CW222*	MC62CW222*	CK06CW222K	1.15	CK06CW222M	.99
2700		MC62CW272*	CK06CW272K	1.15		
3300		MC62CW332*	CK06CW332K	1.15	CK06CW332M	.99
3900		MC62CW392*	CK06CW392K	1.15		
4700		MC62CW472*	CK06CW472K	1.15	CK06CW472M	.99
5600		MC62CW562*	CK06CW562K	2.75		
6800		MC62CW682*	CK06CW682K	2.75	CK06CW682M	2.29
8200		MC62CW822*	CK06CW822K	2.75		
10000		MC62CW103*	CK06CW103K	2.75	CK06CW103M	2.29
12000		MC62CW123*				

For price of Commercial Units deduct 5¢ from Military Prices.

*Add K for ± 10% tolerance or M for ± 20% tolerance

*Request O.E.M. Prices in the following quantities: 50-99. 100-249, 250-499, 500-999

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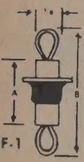
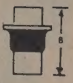
INDUSTRIAL CERAMIC CAPACITORS (cont.)

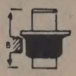
Eyelet Feed-Thru Capacitors



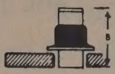
EF-1



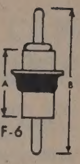
EF-3



EF-4



EF-5



EF-6

Hi-Q Feed-Thru Capacitors Eyelet Type are the ultimate in miniaturization because of unique design. This design is such that the capacitors can be soldered directly to a chassis and provide excellent bypass performance where space is critical. The low inductance characteristics brought about through the construction of the capacitors make the eyelet type ideal for high frequency bypass.

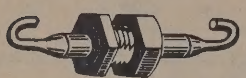
***Net Price .33**

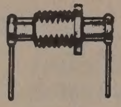
Style	Capacity in mmf						D.C. Working Voltage	Size A	Size B
EF-1	50	100	200	500	1000	1500	500	.375	.750
EF-3	50	100	200	500	1000	1500	500	—	.375
EF-4	50	100	200	500			250	—	.250
EF-5	50	100	200	500	1000		250	—	.250
EF-6	50	100	200	500	1000	1500	500	.375	.875

Tolerance ±20% up to and including 500 mmfd.
GMV above 500 mmfd.

*Request O.E.M. prices in the following quantities: 25-99, 100-249, 250-499, 500-999.

Feed-Thru Capacitors


FEED-THRU TYPE CFC


FEED-THRU TYPE CF

Hi-Q Feed-Thru Capacitors provide means to transmit thru shields or ground potentials and simultaneously by-pass unwanted frequencies. A good mechanical connection is provided by the silver-plated bushing. These are excellent dependable units even under severe mechanical vibrations as in aircraft, missiles and automotive requirements. All units are flash tested at 1250 volts D.C.

****Net Price .99**

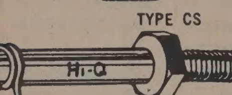
Type	Cap. Mmfd.	Thread
CFC-1	500 mmf.	12-28
	1000 mmf.	12-28
	1500 mmf.	12-28
CF-1	1500 mmf.	1/4-28

Tolerance ±20%

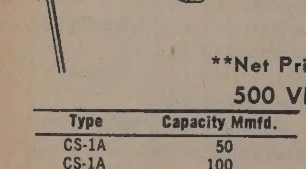
Type	Cap. Mmfd.	Thread
CF-2	1800 mmf.	5/16-24
	2300 mmf.	5/16-24
	3000 mmf.	5/16-24
CF-3	4000 mmf.	5/16-24
CF-4	7000 mmf.	5/16-24

Stand-Off Capacitors

TYPE MCS



TYPE CS



Hi-Q stand-off capacitors have a screw fixture for mounting to the chassis or common ground. All units are coated with a high temperature enamel, stamped with capacity and supplied with mounting nut, if desired.

The MCS is a quick mounting type which permits high speed mechanical installation. The ceramic tube is enclosed in a cadmium-plated metal case with a specially developed end seal for protection against humidity and temperature changes. All units are flash tested at 1250 volts D.C. The power factor is under 3% and the insulation resistance is above 7500 megohms.

****Net Price .99**

500 VDCW

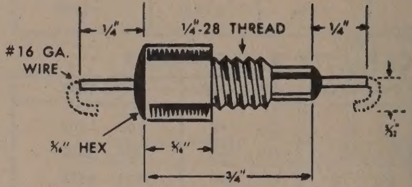
Type	Capacity Mmfd.
CS-1A	50
CS-1A	100
CS-1B	500
CS-1B	1000
CS-1B	1500
CS-2	3000
CS-3	4000

Type	Capacity Mmfd.
CS-4	7500
CIS-1	50
CIS-1	100
CIS-1	500
CIS-1	1000
CIS-2	1500
MCS	1500

Radial leads only
Tolerance ±10% up to and including 500 mmf.
±20% above 500 mmf.

Heavy Duty Feed-Thru Capacitors

Type BLF-ICC



BLF

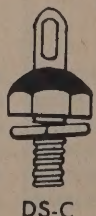
FRACTIONAL TOLERANCES ±1/32

These heavy-duty Feed-Thru capacitors are the same as listed in specification MIL-C-11015. Units through 100 mmf. are rated at 1000 VDCW, values above 100 mmf. are rated at 500 VDCW. Capacity tolerance is ±10% except on the 1000 mmf. and 1500 mmf. which have capacity tolerance of ±20%.

Capacity	Part Number	**Net Price
10	AXCK70AX100K	1.32
33	AXCK70AX330K	1.32
47	AXCK70AX470K	1.32
68	AXCK70AX680K	1.32
100	AXCK70AX101K	1.32
470	AXCK70AX471K	1.32
680	AXCK70AX681K	1.32
1000	AXCK70AW102M	1.32
1500	AXCK70AW152M	1.32

Disk Stand-Off Capacitors

Type DS-C


DS-C

These units are very popular in industrial applications having a critical space requirement but requiring a stand-off capacitor. These stock units are furnished with captive lock washers, are rated at 950 VDCW. Capacity tolerance GMV. Both units are furnished with threaded portion 5/16" long, #6-32 thread.

Capacity	**Net Price
470	.90
1000	.90

**Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999

AEROVOX CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS

General Purpose Bypass Coupling Disks

Type IDI

These industrial ceramic disks capacitors offer small physical sizes with high capacity. Mainly used for by-pass coupling or filter applications these units contain maximum protection against humidity, voltage breakdown, vibration. Rated for 500 VDCW these units are flash tested at 1500 VDC. Units will be marked with capacity and tolerance except those units which have a CK number listed. Such units are equivalent to those listed in MIL-C-11015 and will be marked with the number shown in the listing.

***NET PRICE .15**

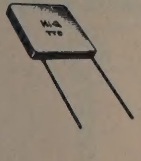
Cap. mmf	Size	Tolerance
2.2	DI-1	±.5 mmf.
3.3	DI-1	±.5 mmf.
4.7	DI-1	±.5 mmf.
5.0	DI-1	±10%
6.0	DI-1	±10%
6.5	DI-1	±10%
7.5	DI-1	±10%
8.0	DI-1	±10%
8.2	DI-1	±10%
10	DI-1	±10%
12	DI-1	±10%
15	DI-1	±10%
18	DI-1	±10%
20	DI-1	±10%
22	DI-1	±10%
24	DI-1	±10%
25	DI-1	±10%
27	DI-1	±10%
30	DI-1	±10%
33	DI-1	±10%
39	DI-1	±10%
47	DI-1	±10%
50	DI-1	±10%
51	DI-1	±10%
56	DI-1	±10%
68	DI-1	±10%
75	DI-1	±10%
82	DI-1	±10%
91	DI-1	±10%
100	DI-1	±10%
120	DI-1	±10%
130	DI-1	±10%
150	DI-1	±10%
180	DI-1	±10%
200	DI-1	±10%
220	DI-1	±10%
240	DI-1	±10%
250	DI-1	±10%
270	DI-1	±10%
300	DI-1	±10%
330	DI-1	±10%
350	DI-1	±10%
360	DI-1	±10%
390	DI-1	±10%
400	DI-1	±10%
470	DI-1	±10%

Cap. mmf	Size	Tolerance	Mil Equivalent MIL-C-11015A
470	DI-1	+100-20%	CK60Y471Z
500	DI-1	±10%	
510	DI-1	±10%	
560	DI-1	±10%	
600	DI-2	±10%	
680	DI-2	±10%	
680	DI-1	+100-20%	CK60Y681Z
750	DI-2	±10%	
800	DI-2	±10%	
820	DI-2	±10%	
820	DI-1	+100-20%	CK60Y821Z
910	DI-2	±10%	
1000	DI-2	±10%	
1000	DI-2	+100-20%	CK61Y102Z
1200	DI-3	±10%	
1300	DI-3	±10%	
1500	DI-3	±10%	
1500	DI-3	+100-20%	CK61Y152Z
1600	DI-4	±10%	
1800	DI-4	±10%	
2000	DI-4	±10%	
2200	DI-4	±20%	
2200	DI-4	+100-20%	CK62Y222Z
2500	DI-4	±20%	
2700	DI-4	±20%	
3000	DI-4	±20%	
3300	DI-4	±20%	
3300	DI-4	+100-20%	CK62Y332Z
3900	DI-2	GMV	
4000	DI-2	GMV	
4300	DI-2	GMV	
4700	DI-4	±20%	
4700	DI-4	+100-20%	CK62Y472Z
5000	DI-3	GMV	
5600	DI-3	GMV	
6800	DI-3	GMV	
7500	DI-4	GMV	
8200	DI-4	GMV	
10000	DI-5	±20%	
10000	DI-5	+100-20%	CK63Y103Z

Type TTD Transistor Disks

These square miniature disks are ideally suited for all applications where size is a factor such as transistorized radios and industrial applications having critical space requirements.

Units are rated at 100 VDCW ±20% standard tolerance.



Capacity	Length & Width	Thickness	Net Price*
.005	.280	.125	.24
.01	.340	.125	.24
.02	.430	.125	.30
.025	.465	.125	.30
.03	.465	.125	.30
.05	.535	.125	.36
.1	.700	.125	.54

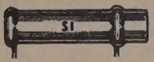
*Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999

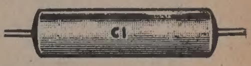
GENERAL PURPOSE TUBULARS

The items listed below fall into two type categories. The type SI or "Dog Bone" Durez coated tubular, and the CI which is an insulated tubular made in a ceramic tube.

***NET PRICE .17**

500 VDCW





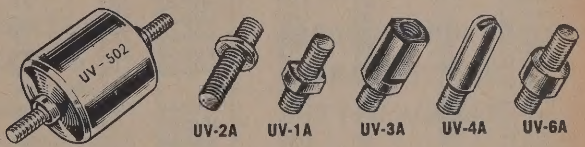
Cap. Mmfd.	Size		Cap. Mmfd.	Size		Cap. Mmfd.	Size	
5	SI-1	CI-1	120	SI-1	CI-1	1800	SI-2	CI-2
10	SI-1	CI-1	150	SI-1	CI-1	2000	SI-2	CI-2
12	SI-1	CI-1	180	SI-1	CI-1	2200	SI-7	CI-3
15	SI-1	CI-1	200	SI-1	CI-1	2400	SI-7	CI-3
18	SI-1	CI-1	220	SI-1	CI-1	2500	SI-7	CI-3
20	SI-1	CI-1	240	SI-1	CI-1	2700	SI-7	CI-3
22	SI-1	CI-1	250	SI-1	CI-1	3000	SI-19	CI-3
24	SI-1	CI-1	270	SI-1	CI-1	3300	SI-19	CI-3
25	SI-1	CI-1	300	SI-1	CI-1	4000	SI-19	CI-3
27	SI-1	CI-1	330	SI-1	CI-1	4700	SI-3	CI-3
30	SI-1	CI-1	360	SI-1	CI-1	5000	SI-3	CI-3
33	SI-1	CI-1	390	SI-1	CI-1	5100	SI-3	CI-3
39	SI-1	CI-1	470	SI-1	CI-1	5600	SI-3	CI-3
47	SI-1	CI-1	500	SI-1	CI-1	6000	SI-3	CI-3
50	SI-1	CI-1	510	SI-1	CI-1	6800	SI-4	
51	SI-1	CI-1	560	SI-1	CI-1	7500	SI-4	
56	SI-1	CI-1	680	SI-1	CI-1	10,000	SI-5	
68	SI-1	CI-1	750	SI-1	CI-1	15,000	SI-6	
75	SI-1	CI-1	820	SI-1	CI-2	17,500	SI-6	
82	SI-1	CI-1	910	SI-1	CI-2	20,000	SI-5	GMV
91	SI-1	CI-1	1000	SI-1	CI-2	25,000	SI-5	GMV
100	SI-1	CI-1	1200	SI-2	CI-2	30,000	SI-6	GMV
110	SI-1	CI-1	1500	SI-2	CI-2	33,000	SI-6	GMV

Standard Tolerance ±20%

HIGH VOLTAGE "CARTWHEELS"

Hi-Q high voltage "cartwheels" are thoroughly tested units capable of assuring dependable service while withstanding high voltages. This new universal type (UV) offers interchangeable terminals in 5 styles for use in filter and by-pass applications in TV high voltage power supplies.

Terminal Hardware

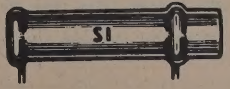


STOCK ITEMS				STOCK ITEMS—TERMINAL HARDWARE			
Type	Voltage	Cap. Mmfd.	Net Price*	Type	Net Price*	Type	Net Price*
UV-501	10,000 VDCW	500 mmf.	.84	UV-1A	.06	UV-4A	.06
UV-502	20,000 VDCW	500 mmf.	1.11	UV-2A	.06	UV-6A	.06
UV-503	30,000 VDCW	500 mmf.	2.70	UV-3A	.06		

*Request O.E.M. Prices in the following quantities: 50-up

TUBULAR and DISK CAPACITOR SIZES

Designation	Size	Designation	Size
SI-1	.234 x .437	CI-1	.250 x .562
SI-2	.234 x .687	CI-2	.250 x .812
SI-3	.312 x 1.250	CI-3	.340 x 1.320
SI-4	.375 x 1.093	DI-0	1/4
SI-5	.375 x 1.600	DI-1	5/16
SI-6	.375 x 1.968	DI-2	3/8
SI-7	.275 x .875	DI-3	7/16
SI-13	.234 x .468	DI-4	19/32
SI-19	.312 x .937	DI-5	11/16
SI-22	.280 x .750	DI-6	3/4
SI-27	.275 x .500	DI-7	29/32



AEROVOX CAPACITORS

Hi-Q DISK CAPACITORS

DISK CAPACITORS
Bypass and Coupling

BPD-GMV CAPACITOR
Stock Items 1000 VDCW

Type	Cap. Mfd.	Dia.	Net Price*	Type	Cap. Mfd.	Dia.	Net Price*
BPD	.00001	5/16	$.15	BPD	.0033	7/16	$.15
BPD	.000015	5/16	.15	BPD	.004	7/16	.15
BPD	.000022	5/16	.15	BPD	.0047	19/32	.15
BPD	.000025	5/16	.15	BPD	.005	19/32	.15
BPD	.000033	5/16	.15	BPD	.0068	19/32	.15
BPD	.000047	5/16	.15	BPD	.01	3/4	.18
BPD	.00005	5/16	.15				
BPD	.000068	5/16	.15	BPD	.015	29/32	.24
BPD	.0001	5/16	.15	BPD	.02	29/32	.36
BPD	.00012	5/16	.15	BPD	.03	29/32	.39
BPD	.00015	5/16	.15	BPD	.05	29/32	.42
BPD	.0002	5/16	.15	**DUALS and TRIPLES**			
BPD	.00027	5/16	.15	BPD2-2 x	.001	7/16	.24
BPD	.00033	5/16	.15	BPD2-2 x	.0015	19/32	.24
BPD	.00047	5/16	.15	BPD2-2 x	.002	19/32	.24
BPD	.0005	5/16	.15	BPD2-2 x	.0022	19/32	.24
BPD	.00068	5/16	.15	BPD2-2 x	.003	3/4	.27
BPD	.0008	5/16	.15	BPD2-2 x	.004	3/4	.27
BPD	.001	5/16	.15	BPD2-2 x	.0047	3/4	.27
BPD	.0015	5/16	.15	BPD2-2 x	.01	3/4	.30
BPD	.002	3/8	.15	BPD2-2 x	.02	29/32	.42
BPD	.0022	3/8	.15	BPD3-3 x	.0015	3/4	.30
BPD	.0025	3/8	.15	BPD3-3 x	.002	3/4	.30

Hi-VOLTAGE DISK CAPACITORS

General Purpose

Hi-Q high voltage disk capacitors are available in many capacities and voltage ratings. These types offer many possible uses in TV circuits where voltages above 500 are necessary. They are the ideal units for dependable day-after-day service. Hi-Q has available numerous combinations of capacity, working voltages and physical sizes. These units are manufactured to specific tolerances as listed.

1500 VDCW

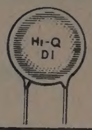
Type	Capacity Mmfd.	Net Price*	Dia.
HVD-15	4.7	$.21	7/16
HVD-15	6.8	.21	7/16
HVD-15	10	.21	7/16
HVD-15	15	.21	7/16
HVD-15	22	.21	7/16
HVD-15	33	.21	7/16
HVD-15	39	.21	7/16
HVD-15	47	.21	7/16
HVD-15	56	.21	7/16
HVD-15	68	.21	7/16
HVD-15	82	.21	7/16
HVD-15	100	.21	7/16
HVD-15	120	.21	7/16
HVD-15	150	.21	7/16
HVD-15	180	.21	7/16
HVD-15	220	.21	7/16
HVD-15	270	.21	7/16
HVD-15	330	.21	7/16
HVD-15	390	.21	9/16
HVD-15	470	.21	9/16
HVD-15	560	.21	9/16
HVD-15	680	.21	9/16
HVD-15	820	.21	9/16
HVD-15	1000	.21	9/16
HVD-15	1200	.21	9/16
HVD-15	1500	.21	11/16
HVD-15	2200	.21	11/16
HVD-15	3300	.21	11/16
HVD-15	4700	.24	15/16
HVD-15	5600	.24	15/16
3000 VDCW			
HVD-30	4.7	.24	9/16
HVD-30	6.8	.24	9/16
HVD-30	10	.24	9/16
HVD-30	15	.24	9/16
HVD-30	22	.24	9/16
HVD-30	33	.24	9/16
HVD-30	39	.24	9/16
HVD-30	47	.24	9/16
HVD-30	56	.24	9/16
HVD-30	68	.24	9/16
HVD-30	82	.24	9/16
HVD-30	100	.24	9/16
HVD-30	120	.24	9/16
HVD-30	150	.24	9/16
HVD-30	180	.24	9/16
HVD-30	220	.24	9/16
HVD-30	270	.24	9/16
HVD-30	330	.24	9/16

3000 VDCW (Continued)

Type	Capacity Mmfd.	Net Price*	Dia.
HVD-30	390	.24	9/16
HVD-30	470	.24	9/16
HVD-30	560	.24	9/16
HVD-30	680	.24	9/16
HVD-30	820	$.24	9/16
HVD-30	1000	.24	9/16
HVD-30	1200	.24	9/16
HVD-30	1500	.24	9/16
HVD-30	2200	.24	9/16
HVD-30	3300	.24	11/16
6000 VDCW			
HVD-60	4.7	.39	11/16
HVD-60	6.8	.39	11/16
HVD-60	10	.39	11/16
HVD-60	15	.39	11/16
HVD-60	18	.39	11/16
HVD-60	22	.39	11/16
HVD-60	30	.39	11/16
HVD-60	33	.39	11/16
HVD-60	39	.39	11/16
HVD-60	47	.39	11/16
HVD-60	56	.39	11/16
HVD-60	68	.39	11/16
HVD-60	82	.39	11/16
HVD-60	100	.39	11/16
HVD-60	120	.39	11/16
HVD-60	150	.39	11/16
HVD-60	180	.39	11/16
HVD-60	220	.39	11/16
HVD-60	270	.39	11/16
HVD-60	330	.39	11/16
HVD-60	390	.39	11/16
HVD-60	470	.39	11/16

Tolerance ±20% up to .001 mfd.
+80% −20% over .001 mfd.

DI-DISK CAPACITORS



General Purpose
Stock Items 1000 VDCW

Type	Cap. Mmfd	Dia.	Net Price*	Type	Cap. Mmfd	Dia.	Net Price*
D1	3.3	5/16	$.15	D1	300	5/16	$.15
D1	5	5/16	.15	D1	330	5/16	.15
D1	6.8	5/16	.15	D1	390	5/16	.15
D1	8.2	5/16	.15	D1	470	5/16	.15
D1	10	5/16	.15	D1	500	5/16	.15
D1	12	5/16	.15	D1	560	5/16	.15
D1	15	5/16	.15	D1	680	5/16	.15
D1	18	5/16	.15	D1	750	3/8	.15
D1	20	5/16	.15	D1	820	3/8	.15
D1	22	5/16	.15	D1	1000	3/8	.15
D1	25	5/16	.15	D1	1200	7/16	.15
D1	27	5/16	.15	D1	1500	7/16	.15
D1	30	5/16	.15	D1	1800	19/32	.15
D1	33	5/16	.15	D1	2000	19/32	.15
D1	39	5/16	.15	D1	2200	19/32	.15
D1	47	5/16	.15	D1	2500	19/32	.15
D1	50	5/16	.15	D1	2700	19/32	.15
D1	56	5/16	.15	D1	3000	11/16	.15
D1	68	5/16	.15	D1	3300	11/16	.15
D1	82	5/16	.15	D1	4000	11/16	.15
D1	100	5/16	.15	D1	4700	3/4	.15
D1	120	5/16	.15	D1	5000	3/4	.15
D1	150	5/16	.15	D1	5600	3/4	.18
D1	180	5/16	.15	D1	6800	29/32	.18
D1	200	5/16	.15	D1	7500	29/32	.18
D1	220	5/16	.15	D1	10000	29/32	.18
D1	250	5/16	.15				
D1	270	5/16	.15				

Standard tolerance ± 10%.

TEMPERATURE COMPENSATING
DISK CAPACITORS — 500 VDCW

Type	NPO Cap. Mmfd.	Dia.	Net Price*	Type	NPO Cap. Mmfd.	Dia.	Net Price*
NPO-D1	1.0	5/16	$.30	NPO-D1	22	7/16	$.30
NPO-D1	1.5	5/16	.30	NPO-D1	25	7/16	.30
NPO-D1	2.2	5/16	.30	NPO-D1	33	19/32	.30
NPO-D1	3.0	5/16	.30	NPO-D1	39	19/32	.30
NPO-D1	3.3	5/16	.30	NPO-D1	47	19/32	.30
NPO-D1	4.7	5/16	.30	NPO-D1	50	19/32	.30
NPO-D1	5.0	5/16	.30	NPO-D1	68	11/16	.30
NPO-D1	6.8	5/16	.30	NPO-D1	75	11/16	.30
NPO-D1	8.2	5/16	.30	NPO-D1	100	3/4	.30
NPO-D1	10	5/16	.30	NPO-D1	120	29/32	.45
NPO-D1	15	3/8	.30	NPO-D1	150	29/32	.45
NPO-D1	20	3/8	.30				

Type	N-750 Capacity Mmfd.	Size	Net Price*	Type	N-750 Capacity Mmfd.	Size	Net Price*
N750-D1	10	5/16	$.30	N750-D1	100	19/32	$.30
N750-D1	15	5/16	.30	N750-D1	150	19/32	.45
N750-D1	20	5/16	.30	N750-D1	200	11/16	.45
N750-D1	22	5/16	.30	N750-D1	220	11/16	.45
N750-D1	25	5/16	.30	N750-D1	330	29/32	.45
N750-D1	33	5/16	.30	N750-D1	360	29/32	.45
N750-D1	47	3/8	.30	N750-D1	390	29/32	.45
N750-D1	68	7/16	.30	N750-D1	430	29/32	.45
N750-D1	75	7/16	.30				

Standard Tolerance — up to 10 mmf. ±.5 mmf., above 10 mmf. +10%

VIBRATOR BUFFER CAPACITORS — DAC 1600 VDCW — GMV

Vibrator Buffer Capacitors — ceramic disks for use as buffers in car radios and similar equipment, compact, easily assembled, ¼ the size of previous paper tubular types rated for 1600 VDCW GMV. For use as replacements only when original equipment uses ceramic buffer.

Type	Capacity Mfd.	Dia.	Net Price*	Type	Capacity Mfd.	Dia.	Net Price*
DAC-2	.001	11/16	$.30	DAC-9	.005	15/16	$.30
DAC-3	.002	11/16	.30	DAC-22	.006	15/16	.30
DAC-4	.0022	11/16	.30	DAC-23	.0068	1	.30
DAC-5	.003	11/16	.30	DAC-24	.007	1	.30
DAC-6	.0033	11/16	.30	DAC-25	.0075	1	.30
DAC-7	.004	15/16	.30	DAC-26	.008	1	.30
DAC-8	.0047	15/16	.30	DAC-27	.01	1	.30

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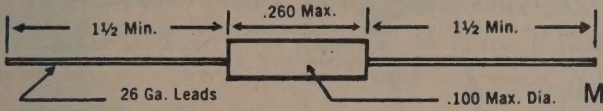
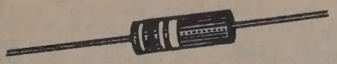
*Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999

© U.C.P., Inc.

MC-70 CERAMIC CAPACITOR

10 µµf to 20,000 µµf available in a uniform molded case





Another new development from one of the world's leading pioneers in the design and manufacture of ceramic capacitors, the MC-70 is ideally suited for automatic insertion in printed circuits. And it's sized right for Cordwood packaging compatibility. Check the specifications for yourself . . .

CAPACITY RANGES IN uuf	MINIMUM CAPACITY TOLERANCE	MAXIMUM POWER FACTOR	* *RATED VOLTAGE AT 85°C	*CAPACITY CHANGE FROM —55°C TO +125°C		*TEMPERATURE COEFFICIENT LETTER FOR PART # DESIGNATION
				*WITH ZERO VOLTAGE APPLIED	*WITH RATED VOLTAGE APPLIED	
10-35	±5%	.1%	100VDC	±1%	±1%	A
36-65	±5%	.1%	100VDC	±6%	±6%	B
66-300	±10%	.6%	100VDC	+3% −7.5%	+3% −7.5%	C
301-600	±10%	2 %	100VDC	+5% −15%	+5% −17%	D
601-2000	±10%	2.5%	100VDC	+10% −15%	+10% −25%	E
2001-5000	±10%	2.5%	100VDC	+10% −20%	+10% −30%	F
5001-10,000	±20%	2.5%	100VDC	+10% −30%	+10% −40%	G
10,000-20,000	±20%	2.5%	50VDC	+10% −30%	+10% −40%	G

*TEMPERATURE COEFFICIENTS AVAILABLE ONLY AS LISTED

* * DERATE 50% AT 125°C

TYPICAL PART NUMBER CODE EXAMPLE FOR 10,000 µµf

MC	70	G	103	A	M
MOLDED CERAMIC	STYLE	TEMPERATURE COEFFICIENT (see last column above)	CAPACITY µµf First Two Figures Significant Third Figure Indicates Number of Zeros	AXIAL LEADS	CAPACITY TOLERANCE J=±5% X=+50% K=±10% −20% M=±20% Z=GMV

Gold plated dumet leads are standard.

† STOCK LISTING

Cap.	Part No.	Net Price*	Cap.	Part No.	Net Price*
10	MC70A100AK	$.64	680	MC70E681AK	$.64
15	MC70A150AK	.64	820	MC70E821AK	.64
22	MC70A220AK	.64	1000	MC70E102AK	.64
33	MC70A330AK	.64	1500	MC70E152AK	1.46
47	MC70B470AK	.64	2200	MC70F222AK	3.38
56	MC70B560AK	.64	3300	MC70F332AK	3.38
68	MC70C680AK	.64	4700	MC70F472AK	3.38
82	MC70C820AK	.64	5600	MC70G562AM	3.09
100	MC70C101AK	.64	6800	MC70G682AM	3.09
150	MC70C151AK	.64	8200	MC70G822AM	3.09
220	MC70C221AK	.64	10000	MC70G103AM	3.09
330	MC70D331AK	.64	15000	MC70G153AM*	5.28
470	MC70D471AK	.64	20000	MC70G203AM*	5.28
560	MC70D561AK	.64	†100 VDCW	*50 VDCW	

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

Hi-Q PLATE ASSEMBLIES

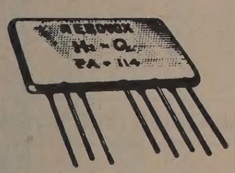
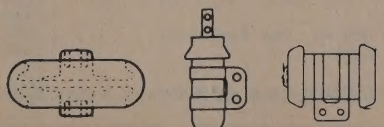


Plate assemblies are combinations of resistor-capacitor networks in one rugged miniature unit. Manufactured with high dielectric base plates and covered with a Durez moisture-proof coating and impregnated with low-loss microcrystalline wax. Simplifies assembly and gives dependable service. Widely used in radio and TV applications.
146 Stock items available. Request Catalog.

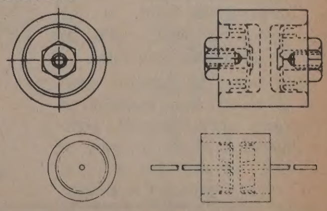
HP POWER & TRANSMITTING CERAMIC CAPACITORS

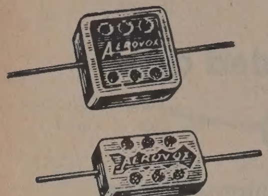
Exclusive with Aerovox these Power and Transmitting Capacitors are gaining increasing popularity as a replacement for higher priced Transmitting Mica Capacitors. Units may be operated to 105°C without derating and may be safely stored at temperatures of −80°C to +185°C. The dielectric used retains its properties at frequencies above 1000 megacycles to the degree that the inductance at the connections are major limitations in the determination of series resonance frequencies. The effective frequency limit in many cases depends on the method of mounting. Mainly used for By-Pass and Blocking applications these units are finding an increasing usage by manufacturers of transmitters and other allied equipment.



AEROCUP - POWER & TRANSMITTING TYPE AC0-AC8

Smaller version of the HPA - HPC etc. These Transmitting Ceramics find many applications due to standard mounting variations including Wire or Screw Terminals and Female inserts. Available in a wide range of capacities, tolerances, voltages and temperature coefficients. For full engineering details request Catalog from Aerovox Corporation, Distributor Division, or nearest authorized Aerovox Industrial Distributor.





M I C A S

MIL Types CM15, CM20, CM30, CM35

AEROVOX Types 1459, 1468, 1469, 1467, 1464

Compact, precision-made mica dielectric capacitors made in accordance with specification MIL-C-5B. Units are furnished color coded and tested to meet all MIL requirements for 'N' temperature rating and all vibration grades of this specification. Types 1467 and 1468 are stacked mica and foil units molded in yellow bakelite. Types 1459, 1464 and 1469 are silvered mica molded in red bakelite. TYPE 1459 MINATURE MICA IS THE LATEST EDITION TO THIS MOLDED MICA LINE.

Type CM-15 (500 VDCW)

1459

Cap. Mmf.	Type Designation	Net Price*
1	CM-15C-010	.24
2	CM-15C-020	.24
3	CM-15C-030	.24
5	CM-15C-050	.24
10	CM-15C-100	.24
12	CM-15C-120	.24
15	CM-15C-150	.24
18	CM-15C-180	.24
20	CM-15C-200	.24
22	CM-15C-220	.24
24	CM-15E-240	.24
27	CM-15E-270	.24
30	CM-15E-300	.24
33	CM-15E-330	.24
36	CM-15E-360	.24
39	CM-15E-390	.24
43	CM-15E-430	.24
47	CM-15E-470	.24
50	CM-15E-500	.24
51	CM-15E-510	.24
56	CM-15E-560	.24
62	CM-15E-620	.24
68	CM-15E-680	.24
75	CM-15E-750	.24
82	CM-15E-820	.27
91	CM-15E-910	.27
100	CM-15E-101	.27
110	CM-15E-111	.27
120	CM-15E-121	.27
130	CM-15E-131	.27
150	CM-15E-151	.27
160	CM-15E-161	.30
180	CM-15E-181	.30
200	CM-15E-201	.30
220	CM-15E-221	.33
240	CM-15E-241	.33
250	CM-15E-251	.33
270	CM-15E-271	.36
300	CM-15E-301	.36
330	CM-15E-331	.39
360	CM-15E-361	.42
390	CM-15E-391	.42
430*	CM-15E-431	.45
470*	CM-15E-471	.48
500*	CM-15E-501	.48
510*	CM-15E-511	.48

Type CM-20 (500 VDCW)

1468LS

Cap. Mmf.	Type Designation	Net Price*
1	CM-20B-010	.18
5	CM-20B-050	.18
10	CM-20B-100	.18
12	CM-20B-120	.18
15	CM-20B-150	.18
18	CM-20B-180	.18
20	CM-20B-200	.18
22	CM-20B-220	.18
24	CM-20B-240	.18
25	CM-20B-250	.18
27	CM-20B-270	.18
30	CM-20B-300	.18
33	CM-20B-330	.12
36	CM-20B-360	.12
39	CM-20B-390	.12
40	CM-20B-400	.12
43	CM-20B-430	.12
47	CM-20B-470	.12
50	CM-20B-500	.12
51	CM-20B-510	.12
56	CM-20B-560	.12
62	CM-20B-620	.12
68	CM-20B-680	.12
75	CM-20B-750	.12
82	CM-20B-820	.12
91	CM-20B-910	.12
100	CM-20B-101	.12
110	CM-20B-111	.12
120	CM-20B-121	.12
130	CM-20B-131	.15
150	CM-20B-151	.15
160	CM-20B-161	.15
180	CM-20B-181	.15
200	CM-20B-201	.15
220	CM-20B-221	.15
240	CM-20B-241	.18
250	CM-20B-251	.18
270	CM-20B-271	.18
300	CM-20B-301	.18
330	CM-20B-331	.18
350	CM-20B-351	.18
360	CM-20B-361	.18
390	CM-20B-391	.18
400	CM-20B-401	.18
430	CM-20B-431	.18
470	CM-20B-471	.18
500	CM-20B-501	.18
510	CM-20B-511	.18
560	CM-20B-561	.21
600	CM-20B-601	.21
620	CM-20B-621	.21
680	CM-20B-681	.21
750	CM-20B-751	.21
800	CM-20B-801	.24
820	CM-20B-821	.24
900	CM-20B-901	.27
910	CM-20B-911	.27
1000	CM-20B-102	.27

1469

Cap. Mmf.	Type Designation	Net Price*
5	CM-20C-050	.24
10	CM-20C-100	.24
12	CM-20C-120	.24
15	CM-20C-150	.24
18	CM-20C-180	.24
20	CM-20C-200	.24
22	CM-20C-220	.24
24	CM-20C-240	.24
25	CM-20C-250	.24
27	CM-20C-270	.24
30	CM-20C-300	.24
33	CM-20C-330	.24
36	CM-20C-360	.24
39	CM-20C-390	.24
40	CM-20C-400	.24
43	CM-20C-430	.24
47	CM-20C-470	.24
50	CM-20C-500	.24
51	CM-20C-510	.24
56	CM-20C-560	.24
62	CM-20C-620	.24
68	CM-20C-680	.24
70	CM-20C-700	.24
75	CM-20C-750	.24
82	CM-20C-820	.24
91	CM-20C-910	.24
100	CM-20C-101	.24
110	CM-20C-111	.27
120	CM-20C-121	.27
130	CM-20C-131	.27
150	CM-20C-151	.27
160	CM-20C-161	.27
180	CM-20C-181	.27
200	CM-20D-201	.27
220	CM-20D-221	.27
240	CM-20D-241	.33
250	CM-20D-251	.33
270	CM-20D-271	.33
300	CM-20D-301	.33
330	CM-20D-331	.33
350	CM-20D-351	.33
360	CM-20D-361	.33
390	CM-20D-391	.39
400	CM-20D-401	.39
430	CM-20D-431	.39
470	CM-20D-471	.42
500	CM-20D-501	.42
510	CM-20D-511	.42
560	CM-20D-561	.45
620	CM-20D-621	.45
680	CM-20D-681	.48
750	CM-20D-751	.48
820	CM-20D-821	.51
910	CM-20D-911	.51
1000	CM-20D-102	.54

Type CM-30 (500 VDCW)

1467LS

Cap. Mmf.	Type Designation	Net Price*
470	CM-30B-471	.18
500	CM-30B-501	.18
510	CM-30B-511	.18
560	CM-30B-561	.18
620	CM-30B-621	.18
680	CM-30B-681	.18
750	CM-30B-751	.18
820	CM-30B-821	.18
910	CM-30B-911	.18
1000	CM-30B-102	.21
1100	CM-30B-112	.21
1200	CM-30B-122	.21
1300	CM-30B-132	.21
1500	CM-30B-152	.24
1600	CM-30B-162	.24
1800	CM-30B-182	.27
2000	CM-30B-202	.27
2200	CM-30B-222	.27
2400	CM-30B-242	.30
2500	CM-30B-252	.30
2700	CM-30B-272	.30
3000	CM-30B-302	.36
3300	CM-30B-332	.36
3600	CM-30B-362	.36
3900	CM-30B-392	.39
4000	CM-30B-402	.39
4300	CM-30B-432	.39
4700	CM-30B-472	.39
5000	CM-30B-502	.42
5100	CM-30B-512	.42
5600	CM-30B-562	.42
6000	CM-30B-602	.54
6200	CM-30B-622	.54
6800	CM-30B-682	.54
7000	CM-30B-702	.54
7500	CM-30B-752	.60
8000	CM-30B-802	.60
8200	CM-30B-822	.60
9000	CM-30B-902	.66
9100	CM-30B-912	.66
10000	CM-30B-103	.72

1464

Cap. Mmf.	Type Designation	Net Price*
470	CM-30D-471	.42
510	CM-30D-511	.42
560	CM-30D-561	.45
620	CM-30D-621	.45
680	CM-30D-681	.48
750	CM-30D-751	.48
800	CM-30D-801	.51
820	CM-30D-821	.51
900	CM-30D-901	.54
910	CM-30D-911	.54
1000	CM-30D-102	.60
1100	CM-30D-112	.60
1200	CM-30D-122	.69
1300	CM-30D-132	.69
1500	CM-30D-152	.75
1600	CM-30D-162	.75
1800	CM-30D-182	.75
2000	CM-30D-202	.81
2200	CM-30D-222	.81
2400	CM-30D-242	.96
2500	CM-30D-252	.96
2700	CM-30D-272	1.08
3000	CM-30D-302	1.14
3300	CM-30D-332	1.14
3600	CM-30D-362	1.20
3900	CM-30D-392	1.20
4000	CM-30D-402	1.20
4300	CM-30D-432	1.26
4700	CM-30D-472	1.26
5000	CM-30D-502	1.29
5100	CM-30D-512	1.29
5600	CM-30D-562	1.35
6200	CM-30D-622	1.44
6800	CM-30D-682	1.50
7500	CM-30D-752	1.50
8200	CM-30D-822	1.50
9100	CM-30D-912	1.50

Type CM-35 (500 VDCW)

1467LS

Cap. Mmf.	Type Designation	Net Price*
3600	CM-35B-362	.36
3900	CM-35B-392	.39
4000	CM-35B-402	.39
4300	CM-35B-432	.39
4700	CM-35B-472	.39
5000	CM-35B-502	.42
5100	CM-35B-512	.42
5600	CM-35B-562	.42
6200	CM-35B-622	.54
6800*	CM-35B-682	.57
7000*	CM-35B-702	.57
7500*	CM-35B-752	.60
8000*	CM-35B-802	.69
8200*	CM-35B-822	.69
9100*	CM-35B-912	.69
10000*	CM-35B-103	.84
12000*	CM-35B-123	.96
13000*	CM-35B-133	1.02
14000*	CM-35B-143	1.08
15000*	CM-35B-153	1.20

1464

Cap. Mmf.	Type Designation	Net Price*
3600	CM-35D-362	1.20
3900	CM-35D-392	1.20
4000	CM-35D-402	1.20
4300	CM-35D-432	1.26
4700	CM-35D-472	1.26
5000	CM-35D-502	1.29
5100	CM-35D-512	1.29
5600	CM-35D-562	1.35
6000	CM-35D-602	1.44
6200	CM-35D-622	1.44
6800*	CM-35D-682	1.59
7000*	CM-35D-702	1.59
7500*	CM-35D-752	1.68
8000*	CM-35D-802	1.80
8200*	CM-35D-822	1.80
9100*	CM-35D-912	1.92
10000*	CM-35D-103	2.10

N O T E S

In mica and foil construction the standard tolerance is ±20%. Also available in ±10% and ±5%. Closest available tolerance up to and including 10 mmf. is ±1 mmf.; above 10 mmf. ±2% or ±2 mmf., whichever is greater.

In silver mica the standard tolerance is ±5%. Also available in ±2% and ±1%. Closest available tolerance up to 10 mmf. is ±½ mmf.; 10 mmf. and up ±1% or ± 1 mmf., whichever is greater.

Nominal Size All CM30 Units — 53/64 x 53/64 x 9/32
Nominal Size All CM35 Units — 53/64 x 53/64 x 21/64
Nominal Size All CM20 Units — 45/64 x 29/64 x 3/16
Nominal Size All CM15 Units — 1/2 x 9/32 x 9/16

*Capacities are 300 WV. Type Designation 1467XLS and 1464X.

*Request O.E.M. Prices in the following quantities: 50-99, 100 and up

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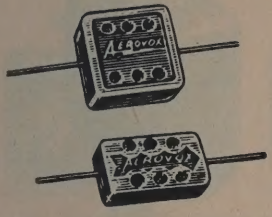
RECEIVING MICA CAPACITORS — (Continued)



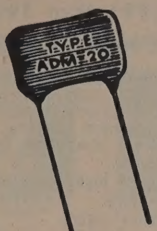
Type 1469HV and 1464HV

Designed especially for television, low power transmitters and power amplifier applications, these capacitors feature the highest voltages ever before available in these case sizes. They are furnished in silvered mica molded in red Bakelite. Standard Tolerance is plus and minus 5% and they are tested to meet EIA standards. Units are marked with capacity and working voltage and are tested at double the rated voltage to insure long life.

Type 1469-HV **Type 1464-HV**

Type 1469-HV 1000 VDCW 2000 VDCT Cap. Mmfd.	**Net Price	Type 1469-HV 1500 VDCW 3000 VDCT Cap. MMfd.	**Net Price	Type 1464-HV 1000 VDCW 2000 VDCT Cap. Mmfd.	**Net Price	Type 1464-HV 1500 VDCW 3000 VDCT Cap. Mmfd.	**Net Price
5	.27	5	.30			430	.90
10	.27	10	.30			470	.90
12	.27	12	.30			500	.90
15	.27	15	.30			510	.90
18	.27	18	.30			560	.90
20	.27	20	.30			620	.90
22	.27	22	.30	680	.72	680	.90
24	.27	24	.30	750	.72	750	.90
25	.27	25	.30	820	.72	820	1.02
27	.27	27	.30	910	.72	910	1.08
30	.27	30	.30	1000	.72	1000	1.08
33	.27	33	.30	1100	.72	1100	1.14
36	.27	36	.30	1200	.78	1200	1.32
39	.27	39	.30	1300	.78	1300	1.38
43	.27	43	.30	1500	.90	1500	1.56
47	.27	47	.33	1600	.96	1600	1.56
50	.27	50	.33	1800	.96	1800	1.74
51	.27	51	.33	2000	1.02	2000	1.92
56	.27	56	.33	2200	1.14	2200	2.04
62	.27	62	.33	2400	1.26	2400	2.16
68	.27	68	.33	2500	1.26		
75	.27	75	.33	2700	1.26		
82	.27	82	.33	3000	1.38		
91	.30	91	.36	3300	1.44		
100	.30	100	.36	3600	1.62		
110	.30	110	.36	3900	1.68		
120	.30	120	.36	4000	1.68		
130	.30	130	.36	4300	1.80		
150	.30	150	.42	4700	1.98		
160	.33	160	.42	5000	2.04		
180	.33	180	.42	5100	2.04		
200	.33	200	.48				
220	.36	220	.48				
240	.36	240	.48				
250	.39	250	.60				
270	.39	270	.60				
300	.42	300	.66				
330	.42	330	.66				
350	.42	350	.69				
360	.42	360	.69				
390	.42	390	.69				
400	.42	400	.69				
430	.45						
470	.45						
500	.45						
510	.45						
560	.48						
620	.51						

**Request O.E.M. Prices in the following quantities: 50-99, 100-up



DIPPED, SILVERED MICA CAPACITORS

TYPES ADM-15, ADM-19, ADM-20 and ADM-30

Aerovox plastic-coated dipped-mica units exceed many of the advantages of molded mica units, and at the same time are smaller than conventional units. Meeting all the applicable MIL-C-5B Test Standards for molded mica capacitors, these unique dipped-mica units offer the following features:

• High operating temperatures —55° to +125°C • Excellent long-life characteristics • Improved temperature coefficient range • Radial leads for automatic insertion and plug-in assemblies • Ideal for printed-wiring assemblies • Unsurpassed performance and stability characteristics • Smaller physical size.

Humidity Resistance: these capacitors shall have an insulation resistance of not less than 2,000 megohms after being subjected to the Humidity Resistance Test as outlined in MIL-C-5B. Minimum Insulation Resistance: 25,000 megohms at 25°C; 1000 meghoms at 125°C.

Capacitors will be marked with capacity and tolerance. In addition voltage rating wil be marked on all units other than 500 volts rating.

For full technical information request Bulletin NPJ-104.

CHARACTERISTICS

ADM-15—from 5 to 20 mmf. Characteristic "C".
from 22 to 150 mmf. Characteristic "E".
from 160 mmf. and up Characteristic "F"

ADM-19—All capacities listed "F" Characteristic.

ADM-20—All capacities listed "F" Characteristic.

ADM-30—All capacities listed "F" Characteristic.

Standard Tolerance ±5%

Minimum tolerance for capacitances up to and including 10 mmf. is ± ½ mmf., for all other capacitances ± 1% or 1 mmf. whichever is greater.

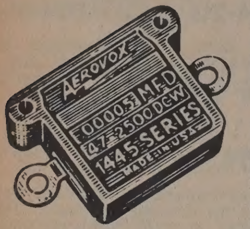
Sizes	L	W	T
ADM-15	15/32	5/16	7/32 max.
ADM-19	21/32	15/32	7/32 max.
ADM-20	3/4	15/32	7/32 max.
ADM-30	25/32	27/32	5/16 max.

Cap. Mmf.	Type Designation	Net Price**	Type Designation	Net Price**	Type Designation	Net Price**	Type Designation	Net Price**
5	ADM-15-050	$.17						
10	ADM-15-100	.17						
12	ADM-15-120	.17						
15	ADM-15-150	.17						
18	ADM-15-180	.17						
20	ADM-15-200	.17						
22	ADM-15-220	.17						
24	ADM-15-240	.17						
27	ADM-15-270	.17						
30	ADM-15-300	.17						
33	ADM-15-330	.17						
36	ADM-15-360	.17						
39	ADM-15-390	.17						
43	ADM-15-430	.17						
47	ADM-15-470	.17						
50	ADM-15-500	.17						
51	ADM-15-510	.17						
56	ADM-15-560	.17						
62	ADM-15-620	.17						
68	ADM-15-680	.17						
75	ADM-15-750	.17						
82	ADM-15-820	.17						
91	ADM-15-910	.17						
100	ADM-15-101	.17	ADM-19-101	.17				
110	ADM-15-111	.20	ADM-19-111	.20				
120	ADM-15-121	.20	ADM-19-121	.20				
130	ADM-15-131	.20	ADM-19-131	.20				
150	ADM-15-151	.20	ADM-19-151	.20				
160	ADM-15-161	.23	ADM-19-161	.20				
180	ADM-15-181	.23	ADM-19-181	.20				
200	ADM-15-201	.23	ADM-19-201	.20				
220	ADM-15-221	.26	ADM-19-221	.20				
240	ADM-15-241	.26	ADM-19-241	.23				
250	ADM-15-251	.26	ADM-19-251	.23				
270	ADM-15-271	.30	ADM-19-271	.26				
300	ADM-15-301	.30	ADM-19-301	.26				
330	ADM-15-331	.33	ADM-19-331	.26				
360	ADM-15-361	.33	ADM-19-361	.30				
390	ADM-15-391	.36	ADM-19-391	.30				
430	*ADM-15-431	.36	ADM-19-431	.30				
470	*ADM-15-471	.40	ADM-19-471	.33				
500	*ADM-15-501	.40	ADM-19-501	.33				
510	*ADM-15-511	.40	ADM-19-511	.33				
560			ADM-19-561	.36				
620			ADM-19-621	.36				
680			ADM-19-681	.40	ADM-20-681	$.33		
750			ADM-19-751	.40	ADM-20-751	.33		
820			ADM-19-821	.40	ADM-20-821	.33		
910			ADM-19-911	.43	ADM-20-911	.36		
1000			ADM-19-102	.46	ADM-20-102	.40		
1100			ADM-19-112	.46	ADM-20-112	.40		
1200			ADM-19-122	.50	ADM-20-122	.43		
1300			ADM-19-132	.53	ADM-20-132	.46		
1500			ADM-19-152	.56	ADM-20-152	.50		
1600			ADM-19-162	.59	ADM-20-162	.53		
1800			ADM-19-182	.66	ADM-20-182	.59		
2000			ADM-10-202	.73	ADM-20-202	.63		
2200			ADM-19-222	.79	ADM-20-222	.69		
2400			*ADM-19-242	.86	ADM-20-242	.73		
2500			*ADM-19-252	.89	ADM-20-252	.78		
2700			*ADM-19-272	.92	ADM-20-272	.79		
3000			*ADM-19-302	.99	ADM-20-302	.86		
3300					ADM-20-332	.92		
3600					ADM-20-362	.99		
3900					ADM-20-392	1.06		
4300					*ADM-20-432	1.06	ADM-30-432	$1.06
4700					*ADM-20-472	1.12	ADM-30-472	1.12
5000					*ADM-20-502	1.16	ADM-30-502	1.16
5100					*ADM-20-512	1.19	ADM-30-512	1.16
5600							ADM-30-562	1.19
6200							ADM-30-622	1.25
6800							ADM-30-682	1.39
7500							ADM-30-752	1.52
8200							ADM-30-822	1.65
9100							ADM-30-912	1.78
10000							ADM-30-103	1.98
12000							*ADM-30-123	2.11
13000							*ADM-30-133	2.31
15000							*ADM-30-153	2.54

*All items asterisked are rated at 300 VDCW.

TRANSMITTING MICA CAPACITORS

TYPES 1445, 1446 and 1447



Designed with insulated mounting holes 1 5/16" apart independent of soldering lugs. Used to shunt meter windings.

Size: 1 1/8" x 1 5/8" x 11/32"

Standard Tolerance ±10% ±5% and ±2% tolerance are available on special order. Meter Mounting Bracket E available. Specify when ordering. These units are equivalent to case styles CM45 and CM50 of specification MIL-C5B.

TYPE 1445 600 VDCW 1000 VDCT		**TYPE 1446** 1200 VDCW 2500 VDCT		**TYPE 1447** 2500 VDCW 5000 VDCT	
Cap. Mfd.	Net Price	Cap. Mfd.	Net Price	Cap. Mfd.	Net Price
.00005	.72	.00005	.96	.00005	1.14
.0001	.72	.0001	.96	.000075	1.14
.00015	.72	.00015	.96	.0001	1.14
.0002	.72	.0002	.96	.00015	1.14
.00025	.72	.00025	.96	.0002	1.14
.0003	.72	.0003	.96	.00025	1.32
.00035	.72	.00035	.96	.0003	1.35
.0004	.72	.0004	.96	.00035	1.35
.0005	.72	.0005	.96	.0004	1.38
.001	.72	.001	1.08	.0005	1.44
.0015	.72	.0015	1.38	.001	1.68
.002	.78	.002	1.44	.0015	2.13
.0025	.78	.0025	1.68	.002*	2.49
.003	.87	.003	1.83	.0025*	2.76
.004	.90	.004*	1.83	.003*	2.94
.005	.93	.005*	1.98	.004*	3.39
.006	1.08	.006*	1.98	.005*	3.84
.008	1.14	.008*	2.31		
.01	1.29	.01*	3.06		
.015*	1.59	.015*	3.60		
.02*	1.83				
.025*	2.16				
.03*	2.67				
.04*	3.39				

*Thickness 7/16"

OTHER TRANSMITTING MICA CAPACITOR TYPES

TYPES 1650L, 1651L, 1652L, 1653L and 1654L

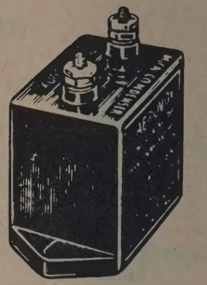
Heaviest-duty molded in bakelite mica capacitors of the AEROVOX line. Threaded mounting holes for roundhead screw terminals or plain holes available. Add suffix "A" for plain holes.

AEROVOX
MFD
1652-.0001S
2500 VDC

24 Stock Values at 600 WVDC
21 Stock Values at 1200 WVDC
20 Stock Values at 2500 WVDC
15 Stock Values at 3750 WVDC
11 Stock Values at 5000 WVDC

TYPES 1991 thru 1996

Porcelain-Cased Capacitors



Ideal for high-frequency application. Glazed porcelain case, high temperature wax sealed. Heavy duty power terminals. Minimum power loss due to dielectric absorption. No heating at full load.

Size: 4" overall by 3" high; 2½" between mounting holes.

Standard Tolerance ±10%

Cap. Mfd.	DC Voltage Rating	Type	Maximum Current Capacity – Amperes				Net Price
			15 mc	7.5 mc	3750 kc	1875 kc	
.00005	12,500	1996	3	2.5	1.5	1	10.80
.0001	12,500	1996	5	4	3	2	10.80
.00025	12,500	1996	7	8	6	4	10.80
.0005	12,500	1996	8	9	8	7	10.80
	7,000	1994	7	8	6	4	8.91
.001	12,500	1996	9	10	11	12	10.80
	7,000	1994	8	9	10	8	9.66
	3,500	1992	8	9	8	5	9.51
.0015	12,500	1996	9	10	11	12	12.66
	7,000	1994	9	9	10	8	10.59
	5,000	1993	8	9	9	7	10.59
	3,500	1992	8	9	8	5	9.51
	2,000	1991	7	8	8	5	9.51
.002	12,500	1996	9	12	13	15	15.00
	10,000	1995	9	10	11	12	13.83
	7,000	1994	9	9	10	10	12.66
	5,000	1993	8	9	9	8	11.88
	3,500	1992	8	8	9	7	11.16
	2,000	1991	7	8	8	6	11.16
.003	12,500	1996	9	12	13	15	18.60
	10,000	1995	9	11	12	13	16.20
	7,000	1994	9	10	10	10	13.80
	5,000	1993	8	9	9	9	12.78
	3,500	1992	8	9	9	8	11.88
	2,000	1991	7	8	8	7	11.88
.005	10,000	1995	10	13	14	15	19.47
	7,000	1994	9	11	12	11	18.39
	5,000	1993	9	11	12	10	12.93
	3,500	1992	9	10	11	9	12.78
	2,000	1991	8	9	10	8	12.78
.01	7,000	1994	10	13	15	15	20.37
	5,000	1993	10	13	15	15	19.89
	3,500	1992	10	13	14	14	19.47
	2,000	1991	10	13	14	14	19.47
.02	3,500	1992	10	14	16	17	19.47
	2,000	1991	10	13	15	15	18.12
.05	3,500	1992	10	14	17	18	22.56
	2,000	1991	10	14	16	17	19.47
.1	2,000	1991	10	14	17	18	22.56

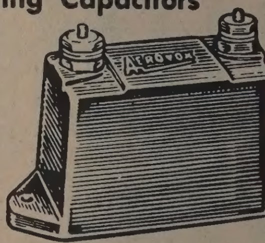
TYPES 1550L, 1570L and 1590L

Potted Transmitting Capacitors

TYPE 1550L (Similar to CM70)

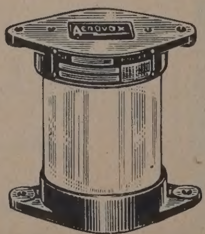
TYPE 1570L (Similar to CM65)

TYPE 1590L



TYPES 1940, 1950, 1960, 1970 and 1980

Stack-Mounting Transmitting Capacitors



TYPE 1940

TYPE 1950 (Similar to CM75)

TYPE 1960 (Similar to CM80)

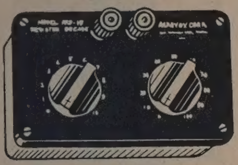
TYPE 1970 (Similar to CM85)

TYPE 1980 (Similar to CM90)

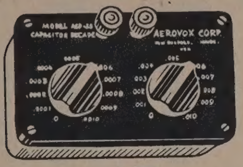
CAPACITORS

AEROVOX DECADE BOXES

RESISTANCE **CAPACITANCE** **INDUCTANCE**

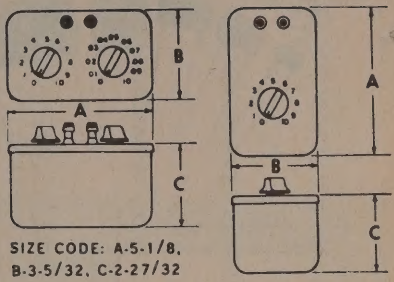


ARD



ACD

ALD



SIZE CODE: A-5-1/8, B-3-5/32, C-2-27/32

Laboratory quality Standards in capacitance, resistance and inductance at a price far below that of equivalent quality Standards. Available in ten units: three resistance decades, three capacitance decades and four inductance decades. Housed in a seamless, drawn steel case coated with gray enamel. Panels are black with the markings engraved in white.

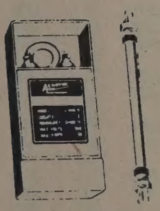
For full technical information request Bulletin NPJ-109.

All ratings are maximum and no guarantee can be enforced if ratings are exceeded in any way. Overload can change accuracy or cause actual burn-outs. Multiple dial units have the highest value multipliers on the left-hand side so that readings are in order exactly as they should be read.

PART NO.	TYPE	DIELECTRIC	DIALS	RANGE	STEPS	ACCURACY ± 1st Dial	ACCURACY ± 2nd Dial	RATING 1st Dial	RATING 2nd Dial	Net PRICE
					RESISTANCE					
ARD-15	R	Wire-Wound	2	0 to 110 ohms	1.0 ohm	5%	3%	1.0 Amp	.5 Amp	15.15
ARD-23	R	Wire-Wound	2	0 to 11 K	100 ohm	3%	3%	100 Ma.	50 Ma.	15.15
ARD-31	R	Carbon Deposited	2	0 to 1.1 meg.	10 K ohms	1%	1%	5 Ma.	2 Ma.	15.15
					CAPACITANCE					
ACD-13	C	Mica	2	0 to .011 mfd.	.0001 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	14.50
ACD-23	C	Oil Paper	2	0 to 1.1 mfd.	.01 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	16.50
ACD-33	C	Oil-Paper	1	0 to 10.0 mfd.	1.0 mfd.	3%	–	600 VDC 220 VAC	–	27.25
					INDUCTANCE					
ALD-12	L	Toroidal	1	0 to 10 mh.	1.0 mh.	2%	–	250 MaDC	–	29.90
ALD-22	L	Toroidal	1	0 to 100 mh.	10.0 mh.	2%	–	79 MaDC	–	29.90
ALD-32	L	Toroidal	1	0 to 1.0 hy.	100.0 mh.	2%	–	25 MaDC	–	29.90
ALD-42	L	Toroidal	1	0 to 10.0 hy.	1.0 hy.	2%	–	8 MaDC	–	32.90

FILTERS

SCREEN ROOM FILTERS



Screen room filters comply with rigid specifications set up by the designers of the most advanced type screen rooms. All have attenuation equal to or exceeding that of the screen room. Easy mounting arrangements plus high attenuation assure you of the finest equipment specially designed for screen room use. These filters are hermetically sealed and terminals at both ends are shielded using knock-outs for ¾" and 1" conduit.

1¼" diameter mounting hole on all cases is countersunk to permit flush mounting of the filter on the screen room.

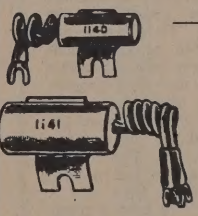
For full technical information request Bulletin NPJ-127.

Part No.	Curr. (Amps.)	Circuits	CPS	Attenuation vs. Frequency	Size L x W x D	Net Price
*S-1076-1	50	1	0-60	100 db from 14 kc to 1000 mc	20" x 3-5/8" x 3-5/8"	95.00
*S-1076-2	50	2	0-60	100 db from 14 kc to 1000 mc	20" x 7-3/16" x 3-5/8"	190.00
*S-1076-3	50	3	0-60	100 db from 14 kc to 1000 mc	20-1/8" x 10-7/8" x 3-11/16	285.00
S-1142-1	30	1	0-400	100 db from 150 kc to 1000 mc	10-1/8" x 2-7/8" x 2-7/16"	36.50
S-1142-2	30	2	0-400	100 db from 150 kc to 1000 mc	10-1/8" x 4-3/4" x 2-7/16"	48.50
S-1142-3	30	3	0-400	100 db from 150 kc to 1000 mc	10-1/8" x 7" x 2-7/16"	62.50
S-1302-1	100	1	0-60	100 db from 200 kc to 1000 mc	14" x 4-3/8" x 4-3/8"	70.00
*S-1303-1	60	1	0-1000	100 db from 100 kc to 1000 mc	20" x 3-5/8" x 3-5/8"	100.00
S-1304-1	80	1	0-60	100 db from 14 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	105.00
S-1305-1	100	1	0-1000	100 db from 100 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	120.00
S-1361-1	100	1	0-60	100 db from 14 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	130.00
S-1432-1	100	1	0-60	100 db from 100 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	95.00
S-1455-1	100	1	0-60	100 db from 150 kc to 1000 mc	22" x 4-3/8" x 4-3/8"	90.00

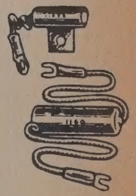
					Overall L.	Overall D.	
S-1468-A	50	1	0-1000	60 db/1000 mc to 10000 mc	10-3/4"	7/8"	70.00
S-1468-B	100	1	0-1000	60 db/1000 mc to 10000 mc	10-3/4"	7/8"	80.00

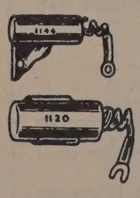
*250 VAC/DC. All others 500VAC/DC.

AUTO-RADIO CAPACITORS

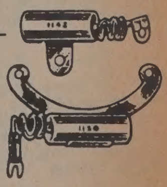


Type	Net Price	Cap. Mfd.
		SINGLE ELEMENT
Car Generators		
Type 1120	.54	1.0
Type 1140	.39	0.5
		DUAL ELEMENT
Type 1141	.90	0.5-0.5
Ford Auto Radios		
Type 1144	.48	0.5
For 1936 Models		
Type 1150	.60	0.5





Type	Net Price	Cap. Mfd.
Ammeter Condenser		
Type 1160	.54	0.5
Oil Gage Filter Condenser		
Type 1142-0	.54	0.25



For complete Catalog listing and Engineering information on RF Noise Suppressors and Interference Filters request Catalog from Aerovox Corporation, Distributor Division, or your nearest authorized Aerovox Industrial Distributor.

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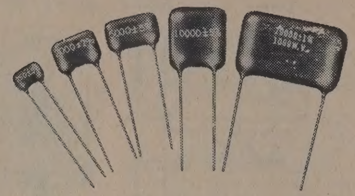
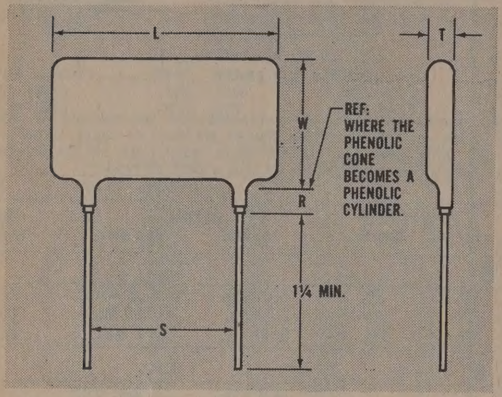
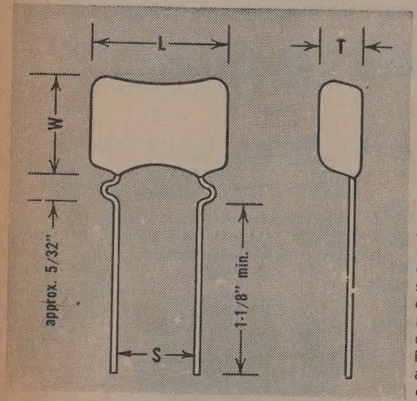
ELMENCO CAPACITORS

DUR-MICA CASE SIZES





	DM10	DM-15	DM-16	DM-19	DM-20	DM-30	DM-42	DM-43
S ± 1/32	9/64	15/64	1/2	11/32	7/16	7/16	1-1/16	1-11/16
"R" max.	1/8	1/8	9/64	9/64	9/64	11/64	11/64	11/64
LEAD WIRE GAGE	#26	#22	#22	#20	#20	#18	#18	#18



Crimped Leads

In addition to the straight lead design, DM capacitors are also available with crimped leads for printed circuit application. The crimp provides a positive stop when capacitors are mounted. This prevents interference of resin coat on the leads with dip-solder operation, provides greater mounting uniformity, and elevates the components slightly above the surface of the board. The crimp lead design is not a regularly stocked item, but it is available to special order at a small fixed handling charge.

Lead wire gage for crimped lead units is the same as for straight lead capacitors with the exception of DM15 and DM16. Crimped lead gage of DM15 and DM16 is #20.

Maximum Dimensions

The following is a tabulation of maximum dimensions of the various DM case sizes. They have been specified to anticipate variations in coat thickness and minor protrusions on the surface. As a result, average dimensions of a given lot may be appreciably smaller than those listed.

It is to be noted that the leads are not centered in the thickness dimension as can be seen on the end view dimensional drawing. Construction of Elmenco Dur-Mica capacitors provides for leads to project from one surface of the mica stack, causing them in turn to extend from one edge of the capacitor. Regardless of case size and overall thickness, leads will always be within 1/16 to 3/32 from one of the capacitor surfaces.

Not all dimensions of every capacitance value are listed below. It has been found that size varies almost linearly with capacitance value. As a result, dimensions of values between those specified below should be determined by interpolation.

CASE SIZES — DUR-MICA SERIES

CASE SIZE	Cap. mmf.	Volt. VDCW	L max.	W max.	T max.
DM10	10	500	.360	.330	.190
	50	500	.370	.340	.190
	100	500	.370	.350	.200
	150	500	.380	.360	.210
	250	500	.390	.380	.220
	300	300	.390	.380	.220
	390	100	.390	.380	.220
DM15 (CM05)	10	500	.450	.360	.170
	100	500	.460	.360	.180
	200	500	.460	.380	.190
	300	500	.470	.390	.210
	500	500	.490	.420	.240
	560	300	.470	.390	.210
	680	300	.470	.390	.210
	820	300	.470	.400	.230
	1000	100	.490	.420	.240
DM16	430	500	.730	.390	.210
	600	500	.740	.400	.220
	720	500	.740	.410	.230
	720	300	.730	.380	.200
	900	300	.740	.390	.220
	1300	300	.740	.390	.230
DM19 (CM06)	100	500	.640	.500	.190
	500	500	.650	.510	.200
	1000	500	.650	.520	.220
	2000	500	.670	.530	.240
	3000	500	.680	.550	.280
	5000	500	.710	.590	.360
	6200	300	.690	.570	.330
	8200	100	.700	.580	.350
DM20	680	500	.750	.510	.200
	1000	500	.750	.510	.200
	2000	500	.760	.520	.220
	3900	500	.780	.560	.300
	5600	500	.790	.570	.330
	6800	300	.790	.560	.320
	7500	100	.780	.560	.300
	10000	100	.790	.570	.340
DM30 (CM07)	4300	500	.780	.860	.270
	6800	500	.780	.870	.300
	10000	500	.800	.890	.340
	15000	500	.810	.900	.390
	20000	500	.830	.920	.450
	20000	300	.810	.890	.370
	25000	300	.820	.910	.420
	30000	300	.830	.920	.460
	36000	100	.830	.920	.450
DM42 (CM08)	20000	500	1.420	.870	.300
	30000	500	1.440	.890	.350
	50000	500	1.480	.920	.460
	62000	300	1.470	.920	.450
	82000	100	1.480	.920	.460
DM43	50000	500	2.060	.900	.380
	68000	500	2.070	.910	.440
	75000	300	2.060	.900	.380
	100000	300	2.070	.910	.440
	130000	100	2.090	.930	.490

TYPE SCDM SINGLE COAT

SCDM10	10	500	.310	.230	.120
	100	500	.320	.230	.130
	180	500	.330	.240	.150
	250	500	.340	.250	.160
	300	300	.340	.250	.160
	390	100	.340	.250	.160
SCDM15	10	500	.430	.280	.140
	100	500	.430	.280	.150
	270	500	.440	.300	.160
	510	500	.450	.310	.190
	560	300	.450	.310	.160
	820	300	.450	.310	.170
	1000	100	.450	.310	.170

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ELMENCO CAPACITORS

TYPES
DM-15, DM-16
DM-19, DM-20

DUR-MICA

TYPE DM-10 500VDCW

(SCDM 10 values and prices the same)

Cap. Mmf.	Type Designation	Net Price (1-24) Tolerance ± 10% "K"	± 5% "J"	± 2% "G"	± 1% "F"
1	DM-10-010†	$0.18			
2	DM-10-020†	.18			
3	DM-10-030†	.18			
5	DM-10-050	.18			
10	DM-10-100	.18	$0.20		
12	DM-10-120	.21	.23		
15	DM-10-150	.21	.23		
18	DM-10-180	.21	.23		
20	DM-10-200	.21	.23		
22	DM-10-220	.21	.23		
24	DM-10-240	.21	.23		
27	DM-10-270	,21	.23	$0.28	
30	DM-10-300	.21	.23	.28	
33	DM-10-330	.21	.23	.28	
36	DM-10-360	.21	.23	.28	
39	DM-10-390	.21	.23	.28	
43	DM-10-430	.21	.23	.28	
47	DM-10-470	.24	.26	.31	
50	DM-10-500	.24	.26	.31	$0.38
51	DM-10-510	.24	.26	.31	.38
56	DM-10-560	.24	.26	.31	.38
62	DM-10-620	.24	.26	.31	.38
68	DM-10-680	.24	.26	.31	.38
75	DM-10-750	.24	.26	.31	.38
82	DM-10-820	.24	.26	.31	.38
91	DM-10-910	.24	.26	.31	.38
100	DM-10-101	.24	.26	.31	.38
110	DM-10-111	.24	.26	.31	.38
120	DM-10-121	.27	.30	.35	.43
130	DM-10-131	.27	.30	.35	.43
150	DM-10-151	.30	.33	.37	.48
160	DM-10-161	.33	.37	.43	.53
180	DM-10-181	.36	.40	.47	.58
200	DM-10-201	.36	.40	.47	.58
220	DM-10-221	.39	.43	.51	.62
240	DM-10-241	.42	.46	.55	.67
250	DM-10-251	.42	.46	.55	.67
270*	DM-10-271	.42	.46	.55	.67
300*	DM-10-301	.45	.50	.59	.72
330**	DM-10-331	.45	.50	.59	.72
360**	DM-10-361	.48	.53	.62	.77
390**	DM-10-391	.51	.56	.67	.82

TYPE DM-15 500VDCW

(SCDM15 values and prices the same)

1	DM-15-010†	$0.15			
2	DM-15-020†	.15			
3	DM-15-030†	.15			
5	DM-15-050†	.15			
10	DM-15-100	.15	$0.17		
12	DM-15-120	.15	.17		
15	DM-15-150	.15	.17		
18	DM-15-180	.15	.17		
20	DM-15-200	.15	.17		
22	DM-15-220	.15	.17		
24	DM-15-240	.15	.17		
27	DM-15-270	.15	.17	$0.20	
30	DM-15-300	.15	.17	.20	
33	DM-15-330	.15	.17	.20	
36	DM-15-360	.15	.17	.20	
39	DM-15-390	.15	.17	.20	
43	DM-15-430	.15	.17	.20	
47	DM-15-470	.15	.17	.20	
50	DM-15-500	.15	.17	.20	$0.24
51	DM-15-510	.15	.17	.20	.24
56	DM-15-560	.15	.17	.20	.24
62	DM-15-620	.15	.17	.20	.24
68	DM-15-680	.15	.17	.20	.24
75	DM-15-820	.15	.17	.20	.24
82	DM-15-820	.15	.17	.20	.24
91	DM-15-910	.15	.17	.20	.24
100	DM-15-101	.15	.17	.20	.24
110	DM-15-111	.18	.20	.23	.29
120	DM-15-121	.18	.20	.23	.29
130	DM-15-131	.18	.20	.23	.29
150	DM-15-151	.18	.20	.23	.29
160	DM-15-161	.21	.23	.28	.34
180	DM-15-181	.21	.23	.28	.34
200	DM-15-201	.21	.23	.28	.34
220	DM-15-221	.24	.26	.31	.38
240	DM-15-241	.24	.26	.31	.38
250	DM-15-251	.24	.26	.31	.38
270	DM-15-271	.27	.30	.35	.43
300	DM-15-301	.27	.30	.35	.43
330	DM-15-331	.30	.33	.39	.48
360	DM-15-361	.30	.33	.39	.48
390	DM-15-391	.33	.37	.43	.53
430	DM-15-431	.33	.37	.43	.53
470	DM-15-471	.36	.40	.47	.58
500	DM-15-501	.36	.40	.47	.58
510	DM-15-511	.36	.40	.47	.58
560*	DM-15-561	.39	.43	.51	.62
620*	DM-15-621	.42	.46	.55	.67
680*	DM-15-681	.45	.50	.59	.72
750*	DM-15-751	.48	.53	.62	.77
820*	DM-15-821	.51	.56	.67	.82
910**	DM-15-911	57	.63	.74	.86
1000**	DM-15-102	60	.66	.78	.96

NOTE

Characteristics on above are as follows:
DM-15 "C" Characteristic from 1 to 20 Mmf.
DM-15 "E" Characteristic from 22 to 82 Mmf.
DM-15 "F" Characteristic from 91 and up.
†Minimum Tolerance ±0.5 Mmf

TYPE DM-19 500VDCW

Cap. Mmf.	Type Designation	Net Price (1-24) Tolerance ± 10% "K"	± 5% "J"	± 2% "G"	± 1% "F"
100	DM-19-101	$0.15	$0.17	$0.18	$0.23
110	DM-19-111	.18	.20	.18	.27
120	DM-19-121	.18	.20	.18	.27
130	DM-19-131	.18	.20	.18	.27
150	DM-19-151	.18	.20	.18	.27
160	DM-19-161	.18	.20	.18	.27
180	DM-19-181	.18	.20	.18	.27
200	DM-19-201	.18	.20	.18	.27
220	DM-19-221	.18	.20	.18	.27
240	DM-19-241	.21	.23	.25	.32
250	DM-19-251	.21	.23	.25	.32
270	DM-19-271	.24	.26	.29	.36
300	DM-19-301	.24	.26	.29	.36
330	DM-19-331	.24	.26	.29	.36
360	DM-19-361	.27	.30	.32	.41
390	DM-19-391	.27	.30	.32	.41
430	DM-19-431	.27	.30	.32	.41
470	DM-19-471	.30	.33	.36	.45
500	DM-19-501	.30	.33	.36	.45
510	DM-19-511	.30	.33	.36	.45
560	DM-19-561	.33	.37	.40	.50
620	DM-19-521	.33	.37	.40	.50
680	DM-19-681	.36	.40	.43	.54
750	DM-19-751	.36	.40	.43	.54
820	DM-19-821	.36	.40	.43	.54
910	DM-19-911	.39	.43	.47	.59
1000	DM-19-102	.42	.46	.50	.63
1100	DM-19-112	.42	.46	.50	.63
1200	DM-19-122	.45	.50	.54	.68
1300	DM-19-132	.48	.53	.58	.72
1500	DM-19-152	.51	.56	.61	.77
1600	DM-19-162	.54	.59	.65	.81
1800	DM-19-182	.60	.66	.72	.90
2000	DM-19-202	.66	.73	.79	.99
2200	DM-19-222	.72	.79	.86	1.08
2400	DM-19-242	.78	.86	.94	1.17
2500	DM-19-252	.81	.89	.97	1.23
2700	DM-19-272	.84	.92	1.01	1.26
3000	DM-19-302	.90	.99	1.08	1.35
3300	DM-19-332	.96	1.06	1.15	1.44
3600	DM-19-362	1.02	1.12	1.22	1.53
3900	DM-19-392	1.08	1.19	1.30	1.62
4300	DM-19-432	1.14	1.25	1.37	1.71
4700	DM-19-472	1.20	1.32	1.44	1.80
5000	DM-19-502	1.26	1.39	1.51	1.89
5100	DM-19-512	1.26	1.39	1.51	1.89
5600*	DM-19-562	1.32	1.45	1.58	1.98
6200*	DM-19-622	1.38	1.52	1.66	2.07
6800**	DM-19-682	1.38	1.52	1.66	2.07
7500**	DM-19-752	1.44	1.58	1.73	2.16
8200**	DM-19-822	1.50	1.65	1.80	2.25

TYPE DM-20 500VDCW

680	DM-20-681	$0.30	$0.33	$0.36	$0.45
750	DM-20-751	.30	.33	.36	.45
820	DM-20-821	.30	.33	.36	.45
910	DM-20-911	.33	.37	.40	.50
1000	DM-20-102	.36	.40	.43	.54
1100	DM-20-112	.36	.40	.43	.54
1200	DM-20-122	.39	.43	.47	.59
1300	DM-20-132	.42	.46	.50	.63
1500	DM-20-152	.45	.50	.54	.68
1600	DM-20-162	.48	.53	.58	.72
1800	DM-20-182	.54	.59	.65	.81
2000	DM-20-202	.57	.63	.68	.86
2200	DM-20-222	.63	.70	.76	.75
2400	DM-20-242	.66	.73	.79	.99
2500	DM-20-252	.66	.73	.79	.99
2700	DM-20-272	.72	.79	.86	1.08
3000	DM-20-302	.78	.86	.94	1.17
3300	DM-20-332	.84	.92	1.01	1.26
3600	DM-20-362	.90	.99	1.08	1.35
3900	DM-20-392	.96	1.06	1.15	1.44
4300	DM-20-432	1.02	1.12	1.22	1.53
4700	DM-20-472	1.08	1.19	1.30	1.62
5000	DM-20-502	1.14	1.25	1.37	1.71
5100	DM-20-512	1.17	1.29	1.40	1.76
5600	DM-20-562	1.20	1.32	1.44	1.80
6200*	DM-20-622	1.20	1.32	1.44	1.80
6800*	DM-20-682	1.26	1.39	1.51	1.89
7500**	DM-20-752	1.32	1.45	1.58	1.98
8200**	DM-20-822	1.44	1.58	1.73	2.16
9100**	DM-20-912	1.62	1.78	1.94	2.43
10000**	DM-20-103	1.80	1.98	2.16	2.70

Notes: Higher DM-20 values are available on special order as follows:
up to 10,000 mmf. at 500VDCW
up to 12,000 mmf. at 300VDCW
up to 18,000 mmf. at 100VDCW
Characteristics of DM-19 and DM-20 are as follows:
C characteristics 1 to 160 mmf.
E characteristic 180 to 510 mmf.
F characteristic 560 and up.
For ±½% double the list price of the 5% units.

Lower values less than above listing use DM-15 prices.

All capacities marked with * are 300VDCW.

All capacities marked with ** are 100VDCW.

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ELMENCO CAPACITORS

TYPES
DM-30, DM-40, DM-42
DM-43, SCDM-15

DUR-MICA

TYPE DM-30 500VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance (1-24) ± 10% "K"	± 5% "J"	± 2% "G"	± 1% "F"
4300	DM-30-432	$0.96	$1.06	$1.15	$1.25
4700	DM-30-472	1.02	1.12	1.22	1.33
5000	DM-30-502	1.05	1.16	1.26	1.37
5100	DM-30-512	1.05	1.16	1.26	1.37
5600	DM-30-562	1.08	1.19	1.30	1.40
6200	DM-30-622	1.14	1.25	1.37	1.48
6800	DM-30-682	1.26	1.39	1.51	1.64
7500	DM-30-752	1.38	1.52	1.66	1.79
8200	DM-30-822	1.50	1.65	1.80	1.95
9100	DM-30-912	1.62	1.78	1.94	2.11
10000	DM-30-103	1.80	1.98	2.16	2.34
12000	DM-30-123	2.10	2.41	2.52	2.73
13000	DM-30-133	2.25	2.48	2.70	2.93
15000	DM-30-153	2.55	2.81	3.06	3.32
16000	DM-30-163	2.70	2.97	3.24	3.51
18000	DM-30-183	3.00	3.30	3.60	3.90
20000	DM-30-203	3.30	3.63	3.96	4.29
22000*	DM-30-223	3.42	3.76	4.10	4.45
24000"	DM-30-243	3.69	4.06	4.43	4.80
25000*	DM-30-253	3.84	4.22	4.61	4.99
27000*	DM-30-273	4.11	4.52	4.93	5.35
30000**	DM-30-303	4.50	4.95	5.40	5.85
33000**	DM-30-333	4.95	5.45	5.94	6.44
36000**	DM-30-363	5.40	5.94	6.48	7.02

TYPE DM-40 500VDCW

This case size series is available, but it is not carried as a standard stock item as yet. Add 15% to net prices for DM-30 values with comparable specifications to determine the DM-40 net price. Delivery time is four weeks.

TYPE DM-42 500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price Tolerance (1-24) ± 5% "J"	± 2% "G"	± 1% "F"
10000	DM-42-103	$ 2.40	$ 3.00	$ 3.60
12000	DM-42-123	2.82	3.52	4.23
13000	DM-42-133	3.00	3.75	4.50
15000	DM-42-153	3.48	4.35	5.22
16000	DM-42-163	3.66	4.58	5.49
18000	DM-42-183	4.08	5.10	6.12
20000	DM-42-203	4.56	5.70	6.84
22000	DM-42-223	4.98	6.23	7.47
24000	DM-42-243	5.40	6.75	8.10
25000	DM-42-253	5.64	7.05	8.46
27000	DM-42-273	6.06	7.57	9.09
30000	DM-42-303	6.66	8.33	9.99
33000	DM-42-333	7.32	9.15	10.98
36000	DM-42-363	7.98	9.97	11.97
39000	DM-42-393	8.64	10.80	12.96
43000	DM-42-433	9.36	11.70	14.04
47000	DM-42-473	10.08	12.60	15.12
50000	DM-42-503	10.56	13.20	15.84
51000	DM-42-513	10.80	13.50	16.20
56000*	DM-42-563	10.20	12.75	15.30
62000*	DM-42-623	11.22	14.03	16.83
68000**	DM-42-683	12.24	15.30	18.36
75000**	DM-42-753	13.44	16.80	20.16
82000**	DM-42-823	14.70	18.39	22.05

TYPE DM-43 500 VDCW

47000	DM-43-473	$17.04	$19.60	$21.30
50000	DM-43-503	17.40	20.02	21.76
51000	DM-43-513	17.76	20.42	22.20
56000	DM-43-563	19.44	22.36	24.30
62000	DM-43-623	21.48	24.70	26.86
68000	DM-43-683	23.40	26.92	29.26
75000*	DM-43-753	19.20	22.08	24.00
82000*	DM-43-823	21.00	24.16	26.26
91000*	DM-43-913	22.80	26.22	28.50
100000*	DM-43-104	25.20	28.98	31.50
110000**	DM-43-114	20.40	23.46	25.50
120000**	DM-43-124	22.20	25.54	27.76
130000**	DM-43-134	24.00	27.60	30.00

All capacities marked with * are 300WV. ** are 100 WV.

SCDM15 capacitors are units which have been given a single protective resin coat rather than the full series of dips to which standard units are subjected. There is a marked difference in size of these thin-coated capacitors, but there is a sacrifice in moisture resistance as a result. SCDM15 units are therefore recommended for applications requiring extreme miniaturization such as military and transistor filter, networks, and delay lines. However, for long term high reliability of operation, the capacitors should receive additional environmental protection such as encapsulation, circuit potting, or hermetic sealing.

	Cap.	Volt	L	W	T
Type SCDM-15 Case Sizes:*	10	500	.415	.267	.144
	40	500	.417	.268	.146
	100	500	.419	.271	.148
	200	500	.423	.275	.152
	400	500	.430	.283	.160
	400	300	.425	.277	.156
	600	300	.430	.282	.162
	820	300	.437	.287	.169
	1000	100	.442	.290	.174

* Please refer to DM-15 case size information on page 366 which is equally applicable to SCDM-15 units.

TYPE HRDM

Capacitance Values (mmf.) DM10	DM-15	Net Price Tolerance (1-24) ± 10%	± 5%	± 2%	± 1%
	1-100	$ .30	$ .32	$ .35	$ .39
1-10	110-150	.33	.35	.39	.44
12-43	160-200	.38	.39	.43	.49
47-110	220-250	.39	.42	.47	.53
120-130	270-300	.42	.45	.51	.59
150	330-36	.45	.48	.54	.63
160	390-430	.48	.52	.59	.68
180-200	470-510	.51	.56	.63	.74
220	560	.56	.60	.68	.80
240-270	620	.61	.64	.72	.86
300-330	680	.62	.68	.77	.92
360	750	.66	.71	.81	.96
390	820	.69	.75	.86	1.02
	910	.75	.81	.94	1.06
	1000	.80	.95	.98	1.11
DM19	**DM20**				
100		.30	.32	.33	.38
110-220		.33	.35	.37	.42
240-250		.36	.39	.41	.47
270-330		.39	.42	.44	.51
360-430		.42	.45	.48	.56
470-510	680-820	.45	.48	.51	.60
560-620	910	.48	.52	.55	.65
680-820	1000-1100	.51	.56	.59	.70
910	1200	.54	.59	.62	.75
1000-1100	1300	.57	.62	.66	.79
1200	1500	.60	.65	.70	.84
1300	1600	.63	.68	.74	.88
1500		.70	.76	.81	.98
1600	1800	.70	.76	.81	.93
	2000	.73	.79	.84	1.02
1800		.76	.82	.88	1.09
	2200	.79	.86	.92	1.12
2000	2400-2500	.82	.89	.96	1.16
	2700	.88	.96	1.03	1.25
2200		.90	.98	1.06	1.29
	3000	.95	1.02	1.11	1.35
2400		.97	1.05	1.14	1.38
2500		1.00	1.09	1.17	1.43
2700	3300	1.04	1.13	1.22	1.49
3000	3600	1.10	1.20	1.29	1.58
3300	3900	1.17	1.27	1.37	1.68
3600	4300	1.23	1.34	1.45	1.78
3900	4700	1.30	1.41	1.53	1.88
4300	5000-5100	1.37	1.49	1.61	1.98
4700	5600-6200	1.48	1.55	1.69	2.08
5000-5100	6800	1.50	1.62	1.77	2.18
5600	7500	1.56	1.70	1.86	2.29
6200-6800		1.63	1.77	1.94	2.39
7500	8200	1.69	1.85	2.03	2.50
8200		1.76	1.92	2.11	2.61
	9100	1.85	2.04	2.21	2.85
	1000	2.07	2.25	2.45	3.04
	DM30				
	4300	1.13	1.23	1.33	1.43
	4700	1.19	1.30	1.41	1.51
	5000-5100	1.23	1.34	1.44	1.55
	5600	1.26	1.37	1.48	1.59
	6200	1.32	1.44	1.56	1.68
	6800	1.53	1.58	1.71	1.82
	7500	1.57	1.71	1.86	2.00
	8200	1.69	1.85	2.01	2.16
	9100	1.81	1.98	2.16	2.33
	10000	2.00	2.19	2.38	2.57
	12000	2.39	2.62	2.85	3.08
	13000	2.55	2.81	3.05	3.29
	15000	2.97	3.16	3.43	3.71
	16000	3.03	3.33	3.63	3.92
	18000	3.36	.69	4.01	4.34
	20000	3.68	4.04	4.39	4.74
	22000	3.80	4.17	4.53	4.90
	24000	4.09	4.48	4.87	5.27
	25000	4.25	4.66	5.07	5.48
	27000	4.53	4.98	5.42	5.86
	30000	4.88	5.37	5.84	6.32
	33000	5.36	5.90	6.42	6.94
	36000	5.83	6.41	6.98	7.55

NOTE: Voltage ratings of items listed correspond to those indicated for the standard line DM capacitors in equivalent values and cases sizes indicated on previous pages.

THERE IS A SET-UP AND HANDLING CHARGE OF $2.00 PER ITEM NET FOR HRDM CAPACITORS IN ADDITION TO THE UNIT PRICES INDICATED ABOVE.

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electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

TYPES
VDM-20, VDM-30
VDM-42, VDM-43
HVDM-42, HVDM-43

HIGH VOLTAGE DUR-MICA

A new line of ELMENCO Silvered Hi-Voltage Dur-Mica capacitors is now available to complement the similar values in the molded configuration. These high voltage capacitors afford the same facility of use in low power applications by providing reliable operation in a small case size. Elmenco Dur-Mica capacitors may be substituted for similarly rated molded units normally supplied in the larger CM45, CM50, CM55, and CM60 case sizes.
The Dur-Mica design provides advantage of higher temperature operation (125° C. max.); radial leads for printed circuit application; higher capacitance in a given case size; and improved reliability. The dipped units, being solidly impregnated with corona resistant material, do not have the voids which make molded types susceptible to corona. As a result, the dipped capacitors can be supplied with voltage rating as high as 5000VDCW.
All Elmenco Dur-Mica capacitors are silvered mica construction. They conform to electrical and environmental specifications set forth in MIL-C-5 specifications.

VDM-20 HI-VOLTAGE

TOLERANCE ± 5%
Net Price (1-24)

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
5	VDM-20-050K			.24
10	VDM-20-100J	USE	USE	.24
12	VDM-20-120J	2500V	2500V	.24
15	VDM-20-150J			.24
18	VDM-20-180J	↑	.24	.27
20	VDM-20-200J		.24	.27
22	VDM-20-220J		.24	.27
24	VDM-20-240J		.24	.27
27	VDM-20-270J	USE	.24	.27
30	VDM-20-300J	1500V	.24	.27
33	VDM-20-330J		.24	.30
36	VDM-20-360J		.24	.30
39	VDM-20-390J	↓	.24	.30
43	VDM-20-430J	.24	.27	.30
47	VDM-20-470J	.24	.27	.33
50	VDM-20-500J	.24	.27	.33
51	VDM-20-510J	.24	.27	.33
56	VDM-20-560J	.24	.27	.33
62	VDM-20-620J	.24	.27	.36
68	VDM-20-680J	.24	.27	.36
75	VDM-20-750J	.24	.27	.36
82	VDM-20-820J	.24	.30	.39
91	VDM-20-910J	.24	.30	.42
100	VDM-20-110J	.27	.30	.42
110	VDM-20-111J	.27	.30	.45
120	VDM-20-121J	.27	.30	.45
130	VDM-20-131J	.27	.33	.48
150	VDM-20-151J	.27	.33	.51
160	VDM-20-161J	.30	.36	.57
180	VDM-20-181J	.30	.36	.57
200	VDM-20-201J	.30	.36	.63
220	VDM-20-221J	.30	.39	.66
240	VDM-20-241J	.30	.39	.69
250	VDM-20-251J	.30	.42	.72
270	VDM-20-271J	.30	.42	.75
300	VDM-20-301J	.33	.45	.81
330	VDM-20-331J	.33	.48	.87
360	VDM-20-361J	.33	.48	.93
390	VDM-20-391J	.36	.51	
430	VDM-20-431J	.36	.54	
470	VDM-20-471J	.36	.57	
500	VDM-20-501J	.39	.60	
510	VDM-20-511J	.39	.60	
560	VDM-20-561J	.39	.69	
620	VDM-20-621J	.42	.69	
680	VDM-20-681J	.45	.72	
750	VDM-20-751J	.45	.78	
820	VDM-20-821J	.48	.84	
910	VDM-20-911J	.51	.90	
1000	VDM-20-102J	.54	.96	
1100	VDM-20-112J	.57	1.05	
1200	VDM-20-122J	.60	1.11	
1300	VDM-20-132J	.63	1.20	
1500	VDM-20-152J	.66		
1600	VDM-20-162J	.69		
1800	VDM-20-182J	.75		
2000	VDM-20-202J	.84		
2200	VDM-20-222J	.90		
2400	VDM-20-242J	.96		
2700	VDM-20-272J	1.05		
3000	VDM-20-302J	1.14		

NOTE: All above units can be supplied in characteristic "C"-"D"-"E"-"F" at above net prices.

VDM-30 HI-VOLTAGE

TOLERANCE ± 5%
Net Price (1-24)

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
390	VDM-30-391J			1.50
430	VDM-30-431J	↑	↑	1.62
470	VDM-30-471J			1.74
500	VDM-30-501J			1.92
510	VDM-30-511J			1.92
560	VDM-30-561J			2.04
620	VDM-30-621J		USE	2.16
680	VDM-30-681J		CASE	2.40
750	VDM-30-751J		VDM20	2.52
820	VDM-30-821J	USE CASE		2.82
910	VDM-30-911J	VDM20		3.06
1000	VDM-30-102J			3.30
1100	VDM-30-112J			3.60
1200	VDM-30-122J			3.84
1300	VDM-30-132J		↓	4.08
1500	VDM-30-152J		2.10	4.80
1600	VDM-30-162J		2.16	5.04
1800	VDM-30-182J		2.40	5.52
2000	VDM-30-202J		2.64	6.30
2200	VDM-30-222J		2.76	6.72
2400	VDM-30-242J		3.00	7.32
2700	VDM-30-272J		3.30	8.10
3000	VDM-30-302J	↓	3.60	
3300	VDM-30-332J	2.58	4.02	
3600	VDM-30-362J	2.82	4.38	
3900	VDM-30-392J	3.00	4.68	
4300	VDM-30-432J	3.24	5.04	
4700	VDM-30-472J	3.60	5.52	
5000	VDM-30-502J	3.78	5.82	
5100	VDM-30-512J	3.78	6.00	
5600	VDM-30-562J	4.14	6.60	
6200	VDM-30-622J	4.50	7.20	
6800	VDM-30-682J	5.04		
7500	VDM-30-752J	5.40		
8200	VDM-30-822J	6.00		
9100	VDM-30-912J	6.48		
10000	VDM-30-103J	7.20		

VDM-42 HI-VOLTAGE

3000	VDM-42-302J			5.76
3300	VDM-42-332J	↑	↑	5.16
3600	VDM-42-362J			6.48
3900	VDM-42-392J			7.02
4300	VDM-42-432J		USE VDM30	7.80
4700	VDM-42-472J	USE	CASE	8.28
5000	VDM-42-502J	VDM30		8.76
5100	VDM-42-512J	CASE		8.76
5600	VDM-42-562J		↓	9.54
6200	VDM-42-622J			10.56
6800	VDM-42-682J		6.60	11.58
7500	VDM-42-752J		7.02	12.60
8200	VDM-42-822J		7.68	13.56
9100	VDM-42-912J		8.40	15.06
10000	VDM-42-103J	↓	9.00	16.38
12000	VDM-42-123J	6.84	10.62	
13000	VDM-42-133J	7.50	11.40	
15000	VDM-42-153J	8.34	13.02	
16000	VDM-42-163J	9.00	13.92	
18000	VDM-42-183J	9.84	15.54	
20000	VDM-42-203J	10.92		
22000	VDM-42-223J	12.00		
24000	VDM-42-243J	12.84		
25000	VDM-42-253J	13.44		
27000	VDM-42-273J	14.04		
30000	VDM-42-303J	14.58		

Above prices are for Standard 5% Tolerance. Add 15% for 2% Tolerance; Add 25% for 1% Tolerance; Add 100% for ½% Tolerance. Minimum Tolerance ± 0.5 mmf.

VDM-43 HI-VOLTAGE

TOLERANCE ± 5%
Net Price (1-24)

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
12000	VDM-43-123J		USE	19.44
13000	VDM-43-133J	↑	VDM42	20.64
15000	VDM-43-153J		CASE	23.64
20000	VDM-43-203J	USE	16.80	
22000	VDM-43-223J	VDM42 CASE	18.60	
24000	VDM-43-243J		19.80	
25000	VDM-43-253J		21.00	
27000	VDM-43-273J		22.20	
30000	VDM-43-303J	↓	24.00	
33000	VDM-43-333J	16.62		
36000	VDM-43-363J	18.24		
39000	VDM-43-393J	19.74		
43000	VDM-43-433J	21.60		
47000	VDM-43-473J	23.40		

SPECIAL HVDM-42 & HVDM-43 5000WV UNITS

CAP. MMF.	TYPE DESIGNATION	10000 VOLTS DC TEST 5000 VOLTS DC WKG.
5	HVDM-42-050K	6.96
10	HVDM-42-100J	6.96
12	HVDM-42-120J	6.96
15	HVDM-42-150J	6.96
18	HVDM-42-180J	6.96
20	HVDM-42-200J	6.96
22	HVDM-42-220J	6.96
24	HVDM-42-240J	6.96
27	HVDM-42-270J	6.96
30	HVDM-42-300J	7.80
33	HVDM-42-330J	7.80
36	HVDM-42-360J	7.80
39	HVDM-42-390J	7.80
43	HVDM-42-430J	7.80
47	HVDM-42-470J	7.80
50	HVDM-42-500J	7.80
51	HVDM-42-510J	7.80
56	HVDM-42-560J	7.80
62	HVDM-42-620J	8.64
68	HVDM-42-680J	8.64
75	HVDM-42-750J	8.64
82	HVDM-42-820J	8.64
91	HVDM-42-910J	9.48
100	HVDM-42-101J	9.48
110	HVDM-42-111J	9.48
120	HVDM-42-121J	10.32
130	HVDM-42-131J	10.32
150	HVDM-42-151J	11.16
160	HVDM-42-161J	11.16
180	HVDM-42-181J	12.00
200	HVDM-42-201J	12.84
220	HVDM-42-221J	12.84
240	HVDM-42-241J	13.68
250	HVDM-42-251J	13.68
270	HVDM-42-271J	14.52
300	HVDM-42-301J	15.36
330	HVDM-42-331J	16.20
360	HVDM-42-361J	17.04
390	HVDM-42-391J	17.88
430	HVDM-42-431J	19.56
470	HVDM-42-471J	20.16
500	HVDM-42-501J	21.00
510	HVDM-42-511J	21.84
560	HVDM-42-561J	22.68
620	HVDM-42-621J	25.20
680	HVDM-43-681J	29.40
750	HVDM-43-751J	31.80
820	HVDM-43-821J	34.20
910	HVDM-43-911J	36.60

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

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NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

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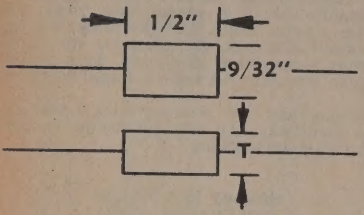
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

TYPES
CM-15
CM-19, CM-20

MOLDED SILVERED MICA

TYPE CM-15



T—from 1-300 mmf. 3/16"
T—from 301-510 mmf. 7/32"

500 VDCW

Cap. Mmf.	Type Designation	(1-24) Net Price Tolerance 5% "J"	2% "G"	1% "F"
1	CM-15-C-010†	$0.18		
2	CM-15-C-020†	.18		
3	CM-15-C-030†	.18		
5	CM-15-C-050†	.18		
10	CM-15-C-100	.18		
12	CM-15-C-120	.18		
15	CM-15-C-150	.18		
18	CM-15-C-180	.18		
20	CM-15-C-200	.18		
22	CM-15-C-220	.18		
24	CM-15-E-240	.18		
27	CM-15-E-270	.18	$0.22	
30	CM-15-E-300	.18	.22	
33	CM-15-E-330	.18	.22	
36	CM-15-E-360	.18	.22	
39	CM-15-E-390	.18	.22	
43	CM-15-E-430	.18	.22	
47	CM-15-E-470	.18	.22	
50	CM-15-E-500	.18	.22	$0.26
51	CM-15-E-510	.18	.22	.26
56	CM-15-E-560	.18	.22	.26
62	CM-15-E-620	.18	.22	.26
68	CM-15-E-680	.18	.22	.26
75	CM-15-E-750	.18	.22	.26
82	CM-15-E-820	.18	.22	.26
91	CM-15-E-910	.18	.22	.26
100	CM-15-E-101	.18	.22	.26
110	CM-15-E-111	.21	.25	.30
120	CM-15-E-121	.21	.25	.30
130	CM-15-E-131	.21	.25	.30
150	CM-15-E-151	.21	.25	.30
160	CM-15-E-161	.24	.29	.34
180	CM-15-E-181	.24	.29	.34
200	CM-15-E-201	.24	.29	.34
220	CM-15-E-221	.27	.32	.39
240	CM-15-E-241	.27	.32	.39
250	CM-15-E-251	.27	.32	.39
270	CM-15-E-271	.30	.36	.43
300	CM-15-E-301	.30	.36	.43
330	CM-15-E-331	.33	.40	.47
360	CM-15-E-361	.36	.43	.52
390	CM-15-E-391	.39	.47	.56
430	CM-15-E-431	.42	.50	.61
470	CM-15-E-471	.45	.54	.65
500	CM-15-E-501	.48	.58	.69
510	CM-15-E-511	.48	.58	.69
560**	CM-15-E-561	.48	.58	.69
620**	CM-15-E-621	.51	.61	.73
680**	CM-15-E-681	.54	.65	.78
750**	CM-15-E-751	.57	.68	.82
820**	CM-15-E-821	.60	.72	.86

NOTES—**100 VDCW.
†Closest Tolerance ±0.5 mmf.

SPECIFICATIONS NOTES:

±½% tolerance available above 100 mmf. at double ±5% list price.

CM15, available "F" characteristic above 30 mmf.
CM19, 20 available "E" characteristic above 110 mmf.
CM19, 20 available "F" characteristic above 200 mmf.

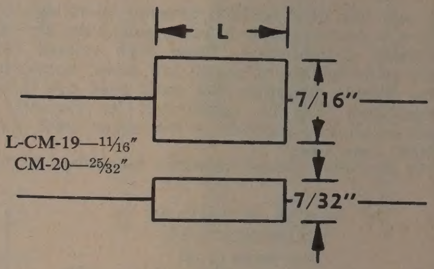
All CM30, 35, and 42 values listed are available in "F" characteristic.

CM-15

EL-MENCO
MADE IN USA

CM-19

TYPE CM-19 & 20



500 VDCW

Cap. Mmf.	Type Designation	(1-24) Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
5	CM-20C-050	$0.18	$0.20	$0.25
10	CM-20C-100	.18	.20	.25
12	CM-20C-120	.18	.20	.25
15	CM-20C-150	.18	.20	.25
18	CM-20C-180	.18	.20	.25
20	CM-20C-200	.18	.20	.25
22	CM-20C-220	.18	.20	.25
24	CM-20C-240	.18	.20	.25
27	CM-20C-270	.18	.20	.25
30	CM-20C-300	.18	.20	.25
33	CM-20C-330	.18	.20	.25
36	CM-20C-360	.18	.20	.25
39	CM-20C-390	.18	.20	.25
43	CM-20C-430	.18	.20	.25
47	CM-20C-470	.18	.20	.25
50	CM-20C-500	.18	.20	.25
51	CM-20C-510	.18	.20	.25
56	CM-20C-560	.18	.20	.25
62	CM-20C-620	.18	.20	.25
68	CM-20C-680	.18	.20	.25
75	CM-20C-750	.18	.20	.25
82	CM-20C-820	.18	.20	.25
91	CM-20C-910	.18	.20	.25
100	CM-20C-101	.18	.20	.25
110	CM-20C-111	.21	.23	.29
120	CM-20C-121	.21	.23	.29
130	CM-20C-131	.21	.23	.29
150	CM-20C-151	.21	.23	.29
160	CM-20C-161	.21	.23	.29
180	CM-20C-181	.21	.23	.29
200	CM-20D-201	.21	.23	.29
220	CM-20D-221	.21	.23	.29
240	CM-20D-241	.24	.26	.34
250	CM-20D-251	.24	.26	.34
270	CM-20D-271	.27	.30	.38
300	CM-20D-301	.27	.30	.38
330	CM-20D-331	.27	.30	.38
360	CM-20D-361	.30	.33	.42
390	CM-20D-391	.30	.33	.42
430	CM-20D-431	.30	.33	.42
470	CM-20D-471	.33	.37	.46
500	CM-20D-501	.33	.37	.46
510	CM-20D-511	.33	.37	.46
560	CM-20D-561	.33	.37	.46
620	CM-20D-621	.36	.40	.50
680	CM-20D-681	.36	.40	.50
750	CM-20D-751	.39	.43	.55
820	CM-20D-821	.42	.46	.59
910	CM-20D-911	.42	.46	.59
1000	CM-20E-102	.45	.50	.63
1100	CM-20E-112	.45	.50	.63
1200	CM-20E-122	.48	.53	.67
1300	CM-20E-132	.48	.53	.67
1500	CM-20E-152	.51	.56	.71
1600	CM-20E-162	.54	.59	.76
1800	CM-20E-182	.60	.66	.84
2000	CM-20E-202	.66	.73	.92
2200	CM-20E-222	.72	.79	1.01
2400	CM-20E-242	.75	.83	1.05
2500	CM-20E-252	.78	.86	1.09
2700	CM-20E-272	.84	.92	1.18
3000	CM-20E-302	.90	.99	1.26
3300	CM-20E-332	.96	1.06	1.34
3600*	CM-20E-362	1.02	1.12	1.43
3900*	CM-20E-392	1.03	1.19	1.51
4300*	CM-20E-432	1.14	1.25	1.60
4700*	CM-20E-472	1.20	1.32	1.68
5000*	CM-20E-502	1.26	1.39	1.76
5100*	CM-20E-512	1.26	1.39	1.76

NOTE—*300 VDCW.

CM19 case size is available in values up to 2700 mmf. In values above 1000 mmf add 10% to the prices indicated.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

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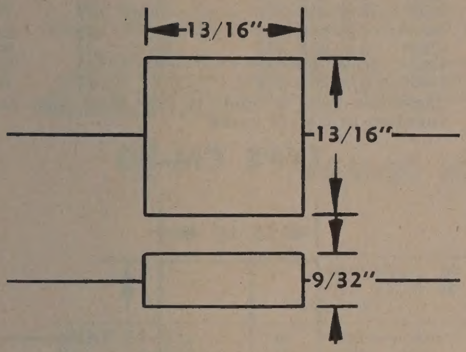
ELMENCO CAPACITORS

TYPES
CM-19, CM-20, CM-30
CM-35, CM-42

MOLDED SILVERED MICA

TYPE CM-30



500 VDCW

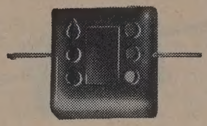
Cap. Mmf.	Type Designation	(1-24) Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
510	CM-30-E-511	$0.33	$0.37	$0.40
560	CM-30-E-561	.36	.40	.43
620	CM-30-E-621	.36	.40	.43
680	CM-30-E-681	.39	.43	.47
750	CM-30-E-751	.39	.43	.47
820	CM-30-E-821	.42	.46	.50
910	CM-30-E-911	.42	.46	.50
1000	CM-30-E-102	.45	.50	.54
1100	CM-30-E-112	.45	.50	.54
1200	CM-30-E-122	.45	.50	.54
1300	CM-30-E-132	.48	.53	.58
1500	CM-30-E-152	.51	.56	.61
1600	CM-30-E-162	.51	.56	.61
1800	CM-30-E-182	.54	.59	.65
2000	CM-30-E-202	.60	.66	.72
2200	CM-30-E-222	.66	.73	.79
2400	CM-30-E-242	.72	.79	.86
2500	CM-30-E-252	.72	.79	.86
2700	CM-30-E-272	.78	.86	.94
3000	CM-30-E-302	.84	.92	1.01
3300	CM-30-E-332	.90	.99	1.08
3600	CM-30-E-362	.96	1.06	1.15
3900	CM-30-E-392	1.02	1.12	1.22
4300	CM-30-E-432	1.08	1.19	1.30
4700	CM-30-E-472	1.14	1.25	1.37
5000	CM-30-E-502	1.20	1.32	1.44
5100	CM-30-E-512	1.20	1.32	1.44
5600	CM-30-E-562	1.26	1.39	1.51
6200	CM-30-E-622	1.32	1.45	1.58

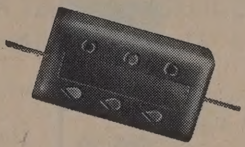
NOTE:—All above "SILVERED MICA" units can be supplied in "F" Characteristic at no extra cost. For ±½% Tolerance double the 5% List prices.

All Type CM-42 units can be supplied in "F" characteristic at no extra cost. For ±½% Tolerance double the 1% list price.

All CM30, 35, and 42 values listed are available in "F" characteristic.

CM-30





CM-42

TYPES CM25 & CM40

Although CM25 and CM40 are not listed, they are still available and most items are in stock. Use CM20 list prices for corresponding CM25 values and CM30 and CM35 prices for comparable CM40 values.

TYPE HTCM

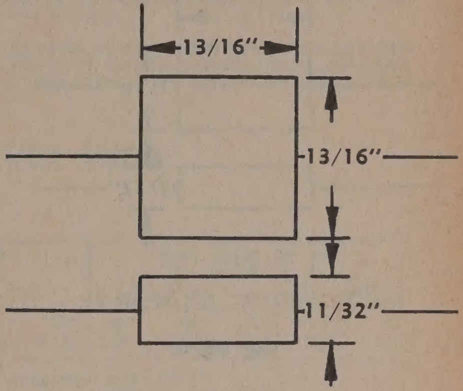
We supply Elmenco Type HTCM capacitors for these temperature grades requiring operation above the old limit of 85°C. After extensive characteristic evaluation and analysis of hundreds of life tests under varying temperature, voltage and other environmental conditions; it was found that modification of standard design molded mica capacitors was necessary to maintain our standards. We admit that we are very conservative in our design parameters, but we believe that this is the prime reason for universal acceptance of Elmenco products. The modifications which affect the price are as follows:

1. Every mica film is selected for excellence of electrical characteristics at elevated temperatures. This is done 100%, not on a sampling basis.
2. A more expensive molding material is used to preserve strength and electrical characteristics at temperatures in excess of 150°C. This molding material was also selected for the lower molding pressure required. The lower molding stress greatly enhances reliability of the mica films.
3. A solid high temperature impregnant is used in place of the wax for greater stability and retention of resistance to moisture. Wax will have a tendency to melt out at the specified temperatures, causing possible change in capacitance value, loss of moisture resistance after a few cycles, and possible fouling of adjacent circuitry.

With these modifications a vast improvement is obtained in operating reliability at elevated temperature. The expected failure rate is reduced to a small fraction of what might otherwise be expected of standard design capacitors.

Write for Special Pricing

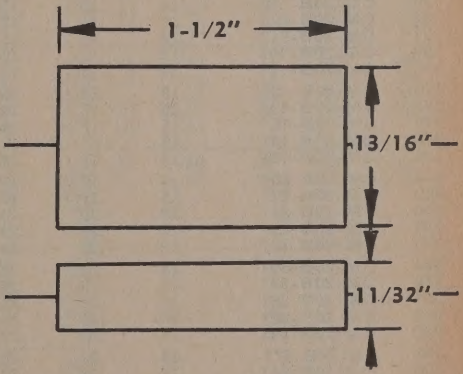
TYPE CM-35



500 VDCW

Cap. Mmf.	Type Designation	(1-24) Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
6800*	CM-35-E-682	1.32	1.45	1.58
7500*	CM-35-E-752	1.44	1.58	1.73
8200*	CM-35-E-822	1.56	1.72	1.87
9100*	CM-35-E-912	1.68	1.85	2.02
10000*	CM-35-E-103	1.86	2.05	2.23
12000*	CM-35-E-123	2.16	2.38	2.59
15000*	CM-35-E-153	2.58	2.84	3.10
6800	VCM-35-E-682	1.44	1.58	1.73
7500	VCM-35-E-752	1.56	1.72	1.87
8200	VCM-35-E-822	1.68	1.85	2.02
9100	VCM-35-E-912	1.86	2.05	2.23
10000	VCM-35-E-103	2.04	2.24	2.45

TYPE CM-42



500 VDCW

12000	CM-42-E-123	2.82	3.25	3.53
13000	CM-42-E-133	3.06	3.52	3.83
15000	CM-42-E-153	3.48	4.00	4.35
16000	CM-42-E-163	3.72	4.28	4.65
18000	CM-42-E-183	4.14	4.76	5.18
20000	CM-42-E-203	4.56	5.24	5.70
22000	CM-42-E-223	4.98	5.73	6.23
24000	CM-42-E-243	5.40	6.21	6.75
25000	CM-42-E-253	5.64	6.49	7.05
27000*	CM-42-E-273	5.40	6.21	6.75
30000*	CM-42-E-303	5.64	6.49	7.05
33000*	CM-42-E-333	6.12	7.04	7.65
36000*	CM-42-E-363	6.84	7.87	8.55
39000*	CM-42-E-393	7.56	8.69	9.45

All capacities marked with * are 300WV.

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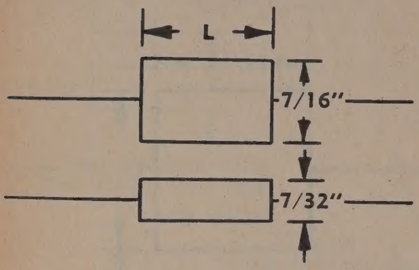
ELMENCO CAPACITORS

TYPES
CM-19, CM-20
CM-30, CM-35

MOLDED FOIL MICA

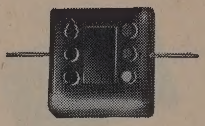
TYPE CM-19 & 20



L—CM-19—11/16": CM-20—25/32"

CM-19

EL-MENCO
MADE IN USA



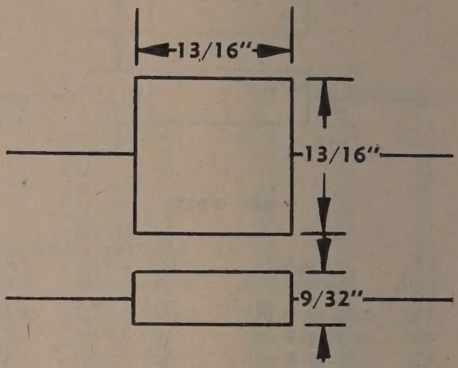
CM-30

500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance (1-24) "M" ±20%	"K" ±10%	"J" ±5%
5	CM-20B-050	$0.18	$0.20	
10	CM-20B-100	.18	.20	$0.23
12	CM-20B-120	.18	.20	.23
15	CM-20B-150	.18	.20	.23
18	CM-20B-180	.18	.20	.23
20	CM-20B-200	.18	.20	.23
22	CM-20B-220	.18	.20	.23
24	CM-20B-240	.18	.20	.23
27	CM-20B-270	.18	.20	.23
30	CM-20B-300	.18	.20	.23
33	CM-20B-330	.12	.13	.15
36	CM-20B-360	.12	.13	.15
39	CM-20B-390	.12	.13	.15
43	CM-20B-430	.12	.13	.15
47	CM-20B-470	.12	.13	.15
50	CM-20B-500	.12	.13	.15
51	CM-20B-510	.12	.13	.15
56	CM-20B-560	.12	.13	.15
62	CM-20B-620	.12	.13	.15
68	CM-20B-680	.12	.13	.15
75	CM-20B-750	.12	.13	.15
82	CM-20B-820	.12	.13	.15
91	CM-20B-910	.12	.13	.15
100	CM-20B-101	.12	.13	.15
110	CM-20B-111	.12	.13	.15
120	CM-20B-121	.12	.13	.15
130	CM-20B-131	.15	.17	.19
150	CM-20B-151	.15	.17	.19
160	CM-20B-161	.15	.17	.19
180	CM-20B-181	.15	.17	.19
200	CM-20B-201	.15	.17	.19
220	CM-20B-221	.15	.17	.19
240	CM-20B-241	.18	.20	.23
250	CM-20B-251	.18	.20	.23
270	CM-20B-271	.18	.20	.23
300	CM-20B-301	.18	.20	.23
330	CM-20B-331	.18	.20	.23
360	CM-20B-361	.18	.20	.23
390	CM-20B-391	.18	.20	.23
430	CM-20B-431	.18	.20	.23
470	CM-20B-471	.18	.20	.23
500	CM-20B-501	.18	.20	.23
510	CM-20B-511	.18	.20	.23
560	CM-20B-561	.21	.23	.26
620	CM-20B-621	.21	.23	.26
680	CM-20B-681	.21	.23	.26
750	CM-20B-751	.21	.23	.26
820	CM-20B-821	.24	.26	.30
910	CM-20B-911	.27	.30	.34
1000	CM-20B-102	.27	.30	.34
1100	CM-20B-112	.30	.33	.38
1200	CM-20B-122	.30	.33	.38
1300	CM-20B-132	.30	.33	.38
1500	CM-20B-152	.36	.40	.45
1600	CM-20B-162	.36	.40	.45
1800	CM-20B-182	.42	.46	.53
2000	CM-20B-202	.45	.50	.56
2200	CM-20B-222	.48	.53	.60
2400	CM-20B-242	.51	.56	.64
2500	CM-20B-252	.54	.59	.68
2700	CM-20B-272	$0.57	$0.63	$0.71
3000	CM-20B-302	.60	.66	.75
3300	CM-20B-332	.63	.70	.79
3600*	CM-20B-362	.60	.66	.75
3900*	CM-20B-392	.63	.70	.79
4300*	CM-20B-432	.66	.73	.83
4700*	CM-20B-472	.72	.79	.90
5000*	CM-20B-502	.75	.83	.94
5100*	CM-20B-512	.75	.83	.94

Capacities from 5 mmf. to 2700 mmf. can be supplied in CM-19 cases.

TYPE CM-30



T—CM-30—9/32"; CM-35—11/32"

500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance (1-24) "M" ±20%	"K" ±10%	"J" ±5%
510	CM-30-B-511	$0.18	$0.22	$0.23
560	CM-30-B-561	.18	.22	.23
620	CM-30-B-621	.18	.22	.23
680	CM-30-B-681	.18	.22	.23
750	CM-30-B-751	.18	.22	.23
820	CM-30-B-821	.18	.22	.23
910	CM-30-B-911	.18	.22	.23
1000	CM-30-B-102	.21	.23	.26
1100	CM-30-B-112	.21	.23	.26
1200	CM-30-B-122	.21	.23	.26
1300	CM-30-B-132	.21	.23	.26
1500	CM-30-B-152	.24	.26	.30
1600	CM-30-B-162	.24	.26	.30
1800	CM-30-B-182	.27	.30	.34
2000	CM-30-B-202	.27	.30	.34
2200	CM-30-B-222	.27	.30	.34
2400	CM-30-B-242	.30	.33	.38
2500	CM-30-B-252	.30	.33	.38
2700	CM-30-B-272	.30	.33	.38
3000	CM-30-B-302	.36	.40	.45
3300	CM-30-B-332	.36	.40	.45
3600	CM-30-B-362	.36	.40	.45
3900	CM-30-B-392	.39	.45	.51
4300	CM-30-B-432	.39	.45	.51
4700	CM-30-B-472	.39	.45	.51
5000	CM-30-B-502	.42	.49	.55
5100	CM-30-B-512	.42	.49	.55
5600	CM-30-B-562	.42	.49	.55
6200	CM-30-B-622	.54	.62	.70

TYPE CM-35

6800*	CM-35-B-682	$0.57	$0.63	$0.71
7500*	CM-35-B-752	.60	.66	.75
8200*	CM-35-B-822	.69	.76	.86
9100*	CM-35-B-912	.69	.76	.86
10000*	CM-35-B-103	.84	.92	1.05
12000*	CM-35-B-123	.96	1.06	1.20
15000*	CM-35-B-153	1.20	1.32	1.50
6800	VCM-35-B-682	.63	.70	.79
7500	VCM-35-B-752	.69	.76	.86
8200	VCM-35-B-822	.78	.86	.97
9100	VCM-35-B-912	.78	.86	.97
10000	VCM-35-B-103	.93	1.03	1.16

All capacities marked with * are 300WV.

CM19 case size is available in values up to 2700 MMF. In values above 1000 MMF add 10% to the prices indicated.

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ELMENCO CAPACITORS

Type VCM-20

Demand for smaller units in higher voltages designed to meet the requirements for TELEVISION, POWER AMPLIFIERS, LOW POWER TRANSMITTERS, and various INDUSTRIAL USES has increased. EL-MENCO designed and produced units listed below are especially adaptable to compact circuits where space is an important factor. Their acceptance has been overwhelming by the various manufacturers of TELEVISION RECEIVERS.

In many cases, these units will do the work of capacitors molded in CM-45, CM-50, and CM-55 cases without breaking down. NO SPECIAL MOUNTINGS ARE NECESSARY; just wire right into the circuit.

The capacitors are molded in low-loss Phenolic Resin in CM-20, CM-35, CM-42 cases and tested at double the branded voltage. They are tested for dielectric strength, insulation resistance, temperature coefficient capacitance drift, susceptibility to humidity, and length of life, according to RMA Standards. All units are wax-dipped for protection against salt water immersion.

VCM-20 HI-VOLTAGE MOLDED SILVER MICA

CHARACTERISTICS "B" - "C" & "D"

		2000 VOLTS DC TEST 1000 VOLTS DC WKG. TOLERANCE . . . . . NET PRICE					3000 VOLTS DC TEST 1500 VOLTS DC WKG. TOLERANCE . . . . . NET PRICE					5000 VOLTS DC TEST 2500 VOLTS DC WKG. TOLERANCE . . . . . NET PRICE				
Cap. Mmf.	Type Designation	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
5	VCM-20-050	$0.18	$0.21	$0.27								$0.21	$0.24			
10	VCM-20-100	.18	.21	.27			USE 2500 WV UNITS		$0.30			.21	.24	$0.30		
12	VCM-20-120	.18	.21	.27					.30			.21	.24	.30		
15	VCM-20-150	.18	.21	.27					.30			.21	.24	.30		
18	VCM-20-180	.18	.21	.27					.30			.21	.24	.30		
20	VCM-20-200	.18	.21	.27					.30			.21	.24	.30		
22	VCM-20-220	.18	.21	.27					.30			.21	.24	.30		
24	VCM-20-240	.18	.21	.27					.30			.21	.24	.30		
27	VCM-20-270	.18	.21	.27	$0.31				.30	$0.35		.21	.24	.30	$0.35	
30	VCM-20-300	.18	.21	.27	.31		$0.21	$0.24	.30	.35		.24	.28	.36	.41	
33	VCM-20-330	.18	.21	.27	.31		.21	.24	.30	.35		.24	.28	.36	.41	
36	VCM-20-360	.18	.21	.27	.31		.21	.24	.30	.35		.24	.28	.36	.41	
39	VCM-20-390	.18	.21	.27	.31		.21	.24	.30	.35		.24	.28	.36	.41	
43	VCM-20-430	.18	.21	.27	.31		.21	.24	.30	.35		.24	.28	.36	.41	
47	VCM-20-470	.18	.21	.27	.31		.21	.24	.33	.38		.24	.28	.42	.49	
50	VCM-20-500	.18	.21	.27	.31	$0.34	.21	.24	.33	.38	$0.41	.24	.28	.42	.49	$0.53
51	VCM-20-510	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53
56	VCM-20-560	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53
62	VCM-20-620	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53
68	VCM-20-680	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.27	.31	.48	.55	.60
75	VCM-20-750	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.30	.35	.54	.62	.68
82	VCM-20-820	.18	.21	.27	.31	.34	.21	.24	.33	.38	.45	.30	.35	.54	.62	.68
91	VCM-20-910	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.30	.35	.54	.62	.68
100	VCM-20-101	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.33	.40	.60	.69	.75
110	VCM-20-111	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.36	.43	.66	.76	.83
120	VCM-20-121	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.36	.43	.72	.83	.90
130	VCM-20-131	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.36	.43	.72	.83	.90
150	VCM-20-151	.21	.24	.30	.35	.38	.24	.28	.42	.49	.53	.39	.47	.78	.90	.98
160	VCM-20-161	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53	.42	.50	.84	.97	1.05
180	VCM-20-181	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53	.42	.50			
200	VCM-20-201	.24	.28	.33	.38	.41	.27	.31	.48	.55	.60	.48	.58	.96	1.10	1.20
220	VCM-20-221	.24	.28	.36	.41	.45	.27	.31	.48	.55	.60	.51	.61	.96	1.10	1.20
240	VCM-20-241	.24	.28	.36	.41	.45	.27	.31	.48	.55	.60					
250	VCM-20-251	.24	.28	.39	.45	.49	.33	.40	.60	.69	.75					
270	VCM-20-271	.24	.28	.39	.45	.49	.33	.40	.60	.69	.75					
300	VCM-20-301	.27	.31	.42	.49	.53	.36	.43	.66	.76	.83					
330	VCM-20-331	.27	.31	.42	.49	.53	.36	.43	.66	.76	.83					
360	VCM-20-361	.27	.31	.42	.49	.53	.36	.43	.69	.79	.86					
390	VCM-20-391	.27	.31	.42	.49	.53	.39	.47	.69	.79	.86					
430	VCM-20-431	.30	.35	.45	.52	.56	.39	47	.72	.83	.90					
470	VCM-20-471	.30	.35	.45	.52	.56	.42	.50	.75	.86	.94					
500	VCM-20-501	.30	.35	.45	.52	.56	.42	.50	.78	.90	.98					
510	VCM-20-511	.30	.35	.45	.52	.56	.42	.50	.78	.90	.98					
560	VCM-20-561	.33	.40	.48	.55	.60	.48	.58	.81	.93	1.01					
620	VCM-20-621	.33	.40	.51	.59	.64										
680	VCM-20-681	.36	.43	.54	.62	.68										
750	VCM-20-751	.36	.43	.57	.65	.71										
820	VCM-20-821	.39	.47	.60	.69	.75										
910	VCM-20-911	.42	.50	.63	.73	.79										
1000	VCM-20-102	.45	.54	.66	.76	.83										
1100	VCM-20-112	.48	.55	.72	.83	.90										
1200	VCM-20-122	.51	.59	.75	.86	.94										
1300	VCM-20-132	.54	.62	.78	.90	.98										

Indicated Prices are for Quantities of 1-24 of an item.

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

NET (For quantities of 25 or more, please contact your local Arco-Elmenco industrial distributor)

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ARCO
electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO
CAPACITORS

Types
VCM-35 & 42

VCM-35 & 42 HI-VOLTAGE REGULAR FOIL MICA

VCM-35 & 42 HI-VOLTAGE SILVERED MICA

		"B" CHARACTERISTIC						"C" - "D" - "E" - "F" CHARACTERISTIC								
		2000VDC Test 1000VDC Wkg. NET PRICE		3000VDC Test 1500VDC Wkg. NET PRICE		5000VDC Test 2500VDC Wkg. NET PRICE		2000VDC Test 1000VDC Wkg. NET PRICE			3000VDC Test 1500VDC Wkg. NET PRICE			5000VDC Test 2500VDC Wkg. NET PRICE		
Cap. Mmf.	Type Designation	"M" ±20%	"K" ±10%	"M" ±20%	"K" ±10%	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%	"J" ±5%	"G" ±2%	"F" ±1%	"J" ±5%	"G" ±2%	"F" ±1%
240	VCM-35-241					$0.36	$0.41							$0.72	$0.83	$0.90
250	VCM-35-251					.36	.41							.72	.83	.90
270	VCM-35-271					.36	.41							.72	.83	.90
300	VCM-35-301					.39	.45							.78	.90	.98
330	VCM-35-331					.39	.45							.78	.90	.98
360	VCM-35-361					.45	.52							.90	1.04	1.13
390	VCM-35-391					.48	.55							.96	1.10	1.20
430	VCM-35-431					.48	.55							.96	1.10	1.20
470	VCM-35-471					.48	.55							.96	1.10	1.20
500	VCM-35-501					.51	.59							1.02	1.18	1.28
510	VCM-35-511					.51	.59							1.02	1.18	1.28
560	VCM-35-561					.54	.62							1.08	1.24	1.35
620	VCM-35-621			$0.45	$0.52						$0.90	$1.04	$1.13			
680	VCM-35-681			.45	.52						.90	1.04	1.13			
750	VCM-35-751			.45	.52						.90	1.04	1.13			
820	VCM-35-821			.51	.59						1.02	1.18	1.28			
910	VCM-35-911			.54	.62						1.08	1.24	1.35			
1000	VCM-35-102			.54	.62						1.08	1.24	1.35			
1100	VCM-35-112	$0.36	$0.41	.57	.65			$0.72	$0.83	$0.90	1.14	1.31	1.43			
1200	VCM-35-122	.39	.45	.66	.76			.78	.90	.98	1.32	1.52	1.65			
1300	VCM-35-132	.39	.45	.69	.79			.78	.90	.98	1.38	1.59	1.73			
1500	VCM-35-152	.45	.52	.78	.90			.90	1.04	1.13	1.56	1.79	1.95			
1600	VCM-35-162	.48	.55	.78	.90			.96	1.10	1.20	1.56	1.79	1.95			
1800	VCM-35-182	.48	.55	.87	1.00			.96	1.10	1.20	1.74	2.00	2.18			
2000	VCM-35-202	.51	.59	.96	1.10			1.02	1.18	1.28	1.92	2.21	2.40			
2200	VCM-35-222	.57	.65	1.02	1.18			1.14	1.31	1.43	2.04	2.35	2.55			
2400	VCM-35-242	.63	.73	1.08	1.24			1.26	1.45	1.58	2.16	2.48	2.70			
2700	VCM-35-272	.63	.73	1.20	1.38			1.26	1.45	1.58	2.40	2.76	3.00			
3000	VCM-35-302	.69	.79	1.32	1.52			1.38	1.59	1.73	2.64	3.04	3.30			
3300	VCM-35-332	.72	.83	1.38	1.59			1.44	1.66	1.80	2.76	3.17	3.45			
3600	VCM-35-362	.81	.93					1.62	1.86	2.03						
3900	VCM-35-392	.84	.97					1.68	1.92	2.10						
4300	VCM-35-432	.90	1.04					1.80	2.07	2.25						
4700	VCM-35-472	.99	1.14					1.98	2.28	2.48						
5000	VCM-35-502	1.05	1.20					2.04	2.35	2.55						
5100	VCM-35-512	1.05	1.20					2.04	2.35	2.55						
5600	VCM-35-562	1.20	1.38					2.28	2.62	2.85						
6200	VCM-42-622	1.53	1.74					3.12	3.57	3.90						
6800	VCM-42-682	1.59	1.83					3.33	3.81	4.14						
7500	VCM-42-752	1.68	1.92					3.54	4.08	4.44						
8200	VCM-42-822	1.74	2.01					3.84	4.41	4.80						
9100	VCM-42-912	1.89	2.16					4.20	4.80	5.22						
10000	VCM-42-103	2.04	2.34					4.56	5.22	5.70						
12000	VCM-42-123	2.16	2.49					5.28	6.06	6.60						
13000	VCM-42-133	2.52	2.91					5.76	6.63	7.20						
15000	VCM-42-153	2.88	3.33					6.48	7.47	8.10						
16000	VCM-42-163	3.24	3.75					6.93	7.95	8.64						

Indicated Prices are for Quantities of 1-24 of an item.

NOTE:—All above units can be supplied in characteristic "C"-"D"-"E"-"F" at the above list prices.

WHEN ORDERING PLEASE SPECIFY WORKING VOLTAGE RATING

REGULAR FOIL MICA
Designate VCM-35B

SILVERED MICA
Designate VCM-35C-D-E or F

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

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ARCO
electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

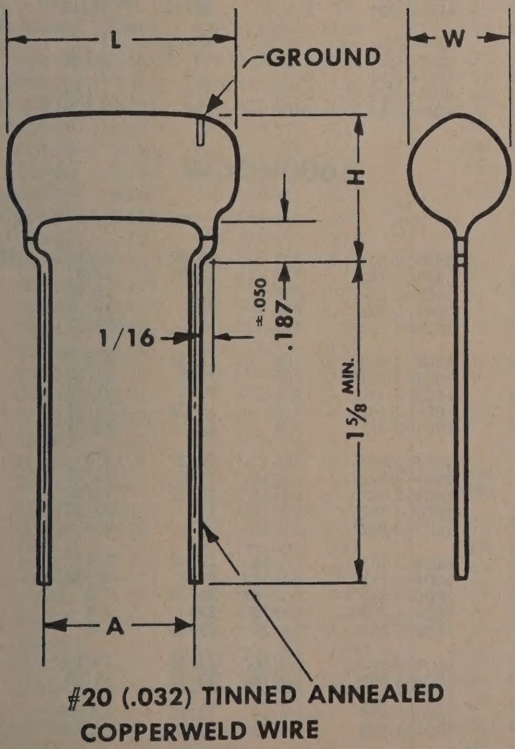
TYPE MPD

DIPPED MYLAR*—PAPER (Elmenco type MPD)

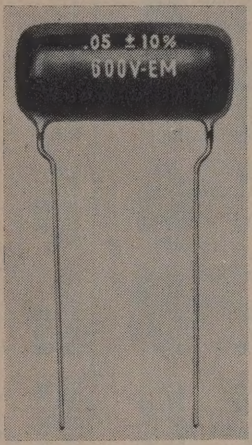
The new Elmenco Type MPD (ARCO dp) capacitors are dip-coated tubular Mylar*-paper dielectric capacitors. They represent a double breakthrough in capacitor design by combining missile and computer quality with commercial radio-TV cost. The "dp" series is designed for near universal use from TV by-pass to critical industrial applications requiring stringent electrical and environmental characteristics. New high levels of ruggedness, stability, and reliability have been achieved, yet these new Elmenco capacitors are miniaturized for transistor circuitry.

Elmenco Type MPD capacitors are non-inductively wound and vacuum dipped to obtain solid impregnation and a rugged, moisture-proof coat. New fabricating techniques realize the full potential of the dielectric materials utilizing most of the low-cost procedures of the exclusive Elmenco dip-coat process. The result is a product of electrical excellence with high reliability in operation at 125°C. without derating. The specifications listed on this and following pages well-illustrate the inherent quality of these capacitors.

NOTE: The 100VDCW rated dp units are pure mylar* dielectric capacitors.



CASE SIZE	1	2	3	4	5	6
DIM. "A" ± 1/32	1/4	7/16	23/32	27/32	1 3/32	1 27/32



ACTUAL SIZE

SPECIFICATIONS

Tolerance ± 10%.

VOLTAGE RATINGS:	100VDCW, 200VDCW, 400VDCW, 600VDCW, 1600VDCW, (1000VDCW upon request).
INSULATION RESISTANCE:	@ 25°C.: 5000 megohm-microfarads or 100,000 megohms minimum, whichever is the lesser. @ 125°C.: 70 megohm-microfarads or 1400 megohms minimum, whichever is the lesser.
POWER FACTOR:	1.0% maximum at 1kc.
TEMPERATURE RANGE:	—55°C. to +125°C. with no voltage derating.
CAPACITANCE CHANGE VS. TEMPERATURE:	From 25°C. to —55° (—9.0% max.) From 25°C. to +125°C. (+12.0% max.)

LONG TERM OPERATING STABILITY AT FULL RATED VOLTAGE AND RATED TEMPERATURE EXTREMES IS ± 2% MAXIMUM.

Part Numbers:

The part numbers indicated in the table of values on page 385 are constructed as follows:

6	DP	- 2 -	103
Voltage Rating (in 100's of volts DCW)	Type Designation	Case Size	Cap. Value (2 sig. figs. & dec. mult.)

The above example calls for a .01 mfd. capacitor with a 600VDCW voltage rating. Case dimensions are shown in the table of values listing on page 376.

* Reg. Du Pont Trademark

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ELMENCO
CAPACITORS

TYPE
MPD

DIPPED MYLAR*—PAPER (Elmenco type MPD)

100VDCW

Cap Mfd.	Part No.	L	W	H	Net Price (1-24)
.005	1DP-1-502	11/16	5/16	1/2	$0.18
.006	1DP-1-602	11/16	5/16	1/2	.18
.0068	1DP-1-682	11/16	5/16	1/2	.18
.0075	1DP-1-752	11/16	5/16	1/2	.18
.01	1DP-1-103	11/16	5/16	1/2	.18
.015	1DP-1-153	23/32	11/32	17/32	.18
.02	1DP-1-203	23/32	11/32	19/32	.18
.022	1DP-1-223	23/32	11/32	19/32	.18
.025	1DP-1-253	23/32	11/32	19/32	.18
.03	1DP-1-303	23/32	3/8	5/8	.18
.033	1DP-1-333	23/32	3/8	5/8	.18
.04	1DP-1-403	23/32	3/8	5/8	.18
.047	1DP-2-473	7/8	11/32	19/32	.21
.05	1DP-2-503	7/8	11/32	19/32	.21
.056	1DP-2-563	7/8	3/8	5/8	.21
.068	1DP-2-683	7/8	13/32	5/8	.21
.075	1DP-2-753	7/8	13/32	5/8	.21
.1	1DP-2-104	29/32	7/16	11/16	.21
.15	1DP-3-154	1-1/4	7/16	11/16	.24
.2	1DP-3-204	1-9/32	1/2	23/32	.27
.22	1DP-3-224	1-9/32	1/2	23/32	.27
.25	1DP-3-254	1-9/32	17/32	3/4	.30
.33	1DP-4-334	1-3/8	9/16	13/16	.36
.47	1DP-4-474	1-3/8	21/32	29/32	.45
.5	1DP-4-504	1-3/8	21/32	29/32	.45
.68	1DP-5-684	1-9/16	11/16	15/16	.66
1.0	1DP-5-105	1-9/16	3/4	1	.96

200VDCW

Cap Mfd.	Part No.	L	W	H	Net Price (1-24)
.1	2DP-3-104	1-7/32	1/2	23/32	$0.21
.15	2DP-3-154	1-1/4	9/16	25/32	.24
.2	2DP-4-204	1-11/32	5/8	7/8	.27
.22	2DP-4-224	1-11/32	5/8	7/8	.27
.25	2DP-4-254	1-11/32	21/32	7/8	.30
.33	2DP-5-334	1-9/16	21/32	7/8	.36
.47	2DP-5-474	1-9/16	3/4	1	.45
.5	2DP-5-504	1-9/16	25/32	1	.45

400VDCW

Cap. Mfd.	Part No.	L	W	H	Net Price (1-24)
.01	4DP-1-103	23/32	3/8	5/8	$0.15
.015	4DP-1-153	23/32	7/16	21/32	.15
.02	4DP-2-203	7/8	13/32	5/8	.15
.022	4DP-2-223	7/8	13/32	5/8	.18
.025	4DP-2-253	7/8	7/16	21/32	.18
.03	4DP-2-303	7/8	15/32	21/32	.18
.033	4DP-2-333	7/8	15/32	21/32	.18
.04	4DP-3-403	1-3/16	7/16	21/32	.18
.047	4DP-3-473	1-3/16	7/16	21/32	.21
.05	4DP-3-503	1-3/16	7/16	21/32	21
.056	4DP-3-563	1-3/16	15/32	11/16	21
.068	4DP-3-683	1-3/16	1/2	23/32	.24
.075	4DP-3-753	1-1/4	17/32	3/4	.24
.1	4DP-3-104	1-1/4	19/32	27/32	.24
.15	4DP-4-154	1-11/32	5/8	7/8	.27
.2	4DP-5-204	1-9/16	5/8	7/8	.33
.22	4DP-5-224	1-9/16	21/32	7/8	.33
.25	4DP-5-254	1-9/16	11/16	15/16	.36
.27	4DP-5-274	1-9/16	11/16	15/16	.36
.33	4DP-5-334	1-9/16	3/4	15/16	.54
.47	4DP-6-474	2-3/8	13/16	1-1/16	.78
.5	4DP-6-504	2-3/8	13/16	1-1/16	.78

600VDCW

Cap. Mfd.	Part No.	L	W	H	Net Price (1-24)
.001	6DP-1-102	11/16	11/32	17/32	$0.15
.0012	6DP-1-122	11/16	11/32	17/32	.15
.0015	6DP-1-152	11/16	11/32	17/32	.15
.002	6DP-1-202	11/16	11/32	17/32	.15
.0022	6DP-1-222	11/16	11/32	17/32	.15
.0025	6DP-1-252	11/16	11/32	17/32	.15
.0027	6DP-1-272	11/16	11/32	17/32	.15
.003	6DP-1-302	11/16	11/32	17/32	.15
.0033	6DP-1-332	11/16	11/32	17/32	.15
.0039	6DP-1-392	11/16	11/32	9/16	.15
.004	6DP-1-402	11/16	11/32	9/16	.15
.0047	6DP-1-472	23/32	3/8	19/32	.15
.005	6DP-1-562	23/32	3/8	19/32	.15
.0056	6DP-1-562	23/32	3/8	19/32	.15
.006	6DP-1-602	23/32	3/8	5/8	.15
.0068	6DP-1-682	23/32	13/32	21/32	.18
.0075	6DP-2-752	7/8	11/32	9/16	.18
.008	6DP-2-802	7/8	11/32	9/16	.18
.0082	6DP-2-822	7/8	11/32	9/16	.18
.01	6DP-2-103	7/8	3/8	19/32	.18
.012	6DP-2-123	7/8	3/8	19/32	.18
.015	6DP-2-153	7/8	13/32	5/8	.18
.02	6DP-2-203	7/8	7/16	21/32	.18
.022	6DP-2-223	7/8	15/32	21/32	.18
.025	6DP-2-253	7/8	1/2	11/16	.21
.027	6DP-3-273	1-3/16	7/16	21/32	.21
.03	6DP-3-303	1-3/16	7/16	21/32	.21
.033	6DP-3-333	1-3/16	7/16	21/32	.21
.039	6DP-3-393	1-3/16	15/32	11/16	.21
.04	6DP-3-403	1-3/16	15/32	11/16	.21
.047	6DP-3-473	1-3/16	1/2	23/32	.24
.05	6DP-3-503	1-3/16	1/2	23/32	.24
.056	6DP-3-563	1-3/16	17/32	3/4	.24
.06	6DP-3-603	1-3/16	17/32	3/4	.27
.068	6DP-4-683	1-11/32	17/32	13/16	.27
.075	6DP-4-753	1-11/32	17/32	13/16	.27
.082	6DP-4-823	1-11/32	9/16	27/32	.27
.1	6DP-4-104	1-11/32	5/8	7/8	.27
.15	6DP-5-154	1-9/16	21/32	7/8	.36
.2	6DP-5-204	1-9/16	23/32	15/16	.42
.22	6DP-5-224	1-9/16	25/32	1	.42
.25	6DP-5-254	1-9/16	13/16	1-1/6	.45
.33	6DP-6-334	2-3/8	3/4	1	.63
.47	6DP-6-474	2-3/8	7/8	1-1/8	.90
.5	6DP-6-504	2-3/8	7/8	1-1/8	.90

1600VDCW

Cap. Mfd.	Part No.	L	W	H	Net Price (1-24)
.001	16DP-2-102	7/8	11/32	9/16	$0.24
.0015	16DP-2-152	7/8	11/32	9/16	.24
.0018	16DP-2-182	7/8	3/8	19/32	.24
.002	16DP-2-202	7/8	3/8	19/32	.24
.0022	16DP-2-222	7/8	3/8	19/32	.24
.0025	16DP-2-252	7/8	13/32	5/8	.27
.003	16DP-2-302	7/8	7/16	21/32	.27
.0033	16DP-2-332	7/8	7/16	21/32	.27
.004	16DP-2-402	7/8	15/32	21/32	.27
.0047	16DP-2-472	7/8	1/2	23/32	.27
.005	16DP-2-502	7/8	17/32	3/4	.27
.006	16DP-3-602	1-3/16	7/16	21/32	.30
.007	16DP-3-702	1-3/16	15/32	11/16	.30
.0075	16DP-3-752	1-3/16	1/2	23/32	.30
.008	16DP-3-802	1-3/16	17/32	3/4	.30
.01	16DP-3-103	1-3/16	17/32	3/4	.30
.015	16DP-4-153	1-11/32	9/16	27/32	.33
.02	16DP-4-203	1-11/32	21/32	7/8	.36
.022	16DP-4-223	1-9/16	5/8	7/8	.42
.025	16DP-5-253	1-9/16	21/32	7/8	.42
.03	16DP-5-303	1-9/16	11/16	15/16	.42
.033	16DP-5-333	1-9/16	23/32	15/16	.42
.04	16DP-5-403	1-9/16	3/4	1	.45
.047	16DP-5-473	1-9/16	13/16	1-1/16	.48
.05	16DP-5-503	1-9/16	13/16	1-1/16	.48

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ARCO CAPACITORS

TYPES
CCD, 3CCD
6CCD, CCS

CERAMIC DISC

MINIATURE GENERAL PURPOSE

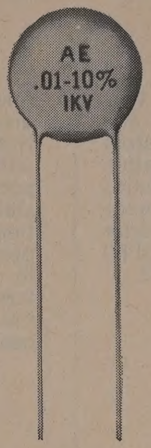
ARCO Type CCD ceramic disc capacitors have improved ceramic bodies which impart longer life and greater stability to any application. The standard CCD line has a ±10% tolerance and 1000VDCW rating, making possible a single ceramic disc stock for universal use. Whether a broad coupling or by-pass application, or a critical close tolerance use, ARCO CCD units fill the bill with dependability and economy. The 'space-saving' size of ARCO discs is another feature designed to offer greater service convenience with complete safety of operation. In addition to the 1000VDCW line, higher voltage ratings are available in Type CCD units. 3000VDCW (Type 3CCD) and 6000VDCW (Type 6CCD) disc ceramics are supplied in tolerance of ±20%.

TYPE CCD

± 10% Tolerance — 1000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price (1-24)
5	CCD-050	$0.15	390	CCD-391	$0.15
10	CCD-100	0.15	400	CCD-401	0.15
12	CCD-120	0.15	470	CCD-471	0.15
15	CCD-150	0.15	500	CCD-501	0.15
18	CCD-180	0.15	560	CCD-561	0.15
20	CCD-200	0.15	680	CCD-681	0.15
22	CCD-220	0.15	750	CCD-751	0.15
25	CCD-250	0.15	800	CCD-801	0.15
27	CCD-270	0.15	820	CCD-821	0.15
30	CCD-300	0.15	1000	CCD-102	0.15
33	CCD-330	0.15	1200	CCD-122	0.15
39	CCD-390	0.15	1500	CCD-152	0.15
47	CCD-470	0.15	2000	CCD-202	0.15
50	CCD-500	0.15	2200	CCD-222	0.15
56	CCD-560	0.15	2500	CCD-252	0.15
68	CCD-680	0.15	2700	CCD-272	0.15
75	CCD-750	0.15	3000	CCD-302	0.15
82	CCD-820	0.15	3300	CCD-332	0.15
91	CCD-910	0.15	3900	CCD-392	0.15
100	CCD-101	0.15	4700	CCD-472	0.15
120	CCD-121	0.15	5000	CCD-502	0.18
150	CCD-151	0.15	5600	CCD-562	0.18
180	CCD-181	0.15	6800	CCD-682	0.18
200	CCD-201	0.15	8200	CCD-822	0.18
220	CCD-221	0.15	10000	CCD-103	0.18
250	CCD-251	0.15	*15000	CCD-153	0.18
270	CCD-271	0.15	*20000	CCD-203	0.18
300	CCD-301	0.15	††30000	CCD-303	0.30
330	CCD-331	0.15	†40000	CCD-403	0.36
			†50000	CCD-503	0.42

*±20% tolerance
†500VDCW, +80, −20% tolerance
††500VDCW, ±20% tolerance



TYPE 3CCD

High Voltage — ± 20% Tolerance

3000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price (1-24)
4.7	3CCD-4R7	$0.24	150	3CCD-151	$0.24
6.8	3CCD-6R8	0.24	180	3CCD-181	0.24
10	3CCD-100	0.24	220	3CCD-221	0.24
15	3CCD-150	0.24	270	3CCD-271	0.24
22	3CCD-220	0.24	330	3CCD-331	0.24
27	3CCD-270	0.24	390	3CCD-391	0.24
33	3CCD-330	0.24	470	3CCD-471	0.24
39	3CCD-390	0.24	560	3CCD-561	0.24
47	3CCD-470	0.24	680	3CCD-681	0.24
56	3CCD-560	0.24	820	3CCD-821	0.24
68	3CCD-680	0.24	1000	3CCD-102	0.24
82	3CCD-820	0.24	2000	3CCD-202	0.24
100	3CCD-101	0.24	5000	3CCD-502	0.24
120	3CCD-121	0.24			

TYPE 6CCD

High Voltage — ± 20% Tolerance

6000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price (1-24)
4.7	6CCD-4R7	$0.36	100	6CCD-101	$0.36
6.8	6CCD-6R8	0.36	120	6CCD-121	0.42
10	6CCD-100	0.36	150	6CCD-151	0.36
15	6CCD-150	0.36	220	6CCD-221	0.36
22	6CCD-220	0.36	330	6CCD-331	0.36
27	6CCD-270	0.36	470	6CCD-471	0.36
33	6CCD-330	0.36	560	6CCD-561	0.42
47	6CCD-470	0.36	680	6CCD-681	0.42
56	6CCD-560	0.36	820	6CCD-821	0.42
68	6CCD-680	0.36	1000	6CCD-102	0.42
82	6CCD-820	0.36	2000	6CCD-202	0.42

TEMPERATURE STABLE

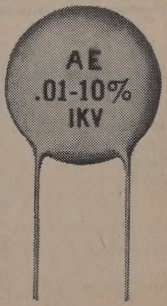
This new ELMENCO ceramic capacitor maintains excellent capacitance stability with wide temperature variation. The graph illustrates typical percentage variation of capacity value with temperature. The operating temperature range has been extended to —55°C. to +125°C. without derating of the 1000VDCW specification. Standard tolerance is ±10%. The combined small size, low cost, and high stability represents another significant advance in the quality line of ELMENCO capacitors. All units are marked "TS" for identification.

TYPE CCS

± 10% Tolerance — 1000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price (1-24)
150	CCS-151	$0.18	820	CCS-821	$0.21
180	CCS-181	0.18	1000	CCS-102	0.21
200	CCS-201	0.18	1200	CCS-122	0.21
220	CCS-221	0.18	1500	CCS-152	0.21
250	CCS-251	0.18	1800	CCS-182	0.21
270	CCS-271	0.18	2000	CCS-202	0.21
300	CCS-301	0.18	2200	CCS-222	0.21
330	CCS-331	0.18	2500	CCS-252	0.24
390	CCS-391	0.18	2700	CCS-272	0.24
470	CCS-471	0.18	3000	CCS-302	0.24
500	CCS-501	0.18	3300	CCS-332	0.24
560	CCS-561	0.18	3900	CCS-392	0.24
620	CCS-621	0.18	4700	CCS-472	0.24
680	CCS-681	0.18			
750	CCS-751	0.18			

LOOK for the "A.E." brand on all ARCO disc ceramic capacitors



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ARCO
CAPACITORS

TYPE CCTO, CCTN
NPO - TYPE CCTO
N750 - TYPE CCTN
VARIABLE CERAMIC
TRIMMER - FEED
THRU CERAMICS

TEMPERATURE COMPENSATING

TYPE CCTO

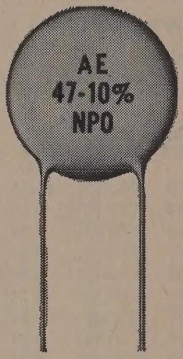
Elmenco Type CCTO ceramic disc capacitors are zero temperature coefficient units specifically suited for high stability, high Q application. In addition to extreme temperature stability, Type CCTO capacitors have very high insulation resistance and low aging rate. These special characteristics are added to the high 1000VDCW rating and close tolerance of the entire Elmenco ceramic line to provide a superior capacitor for the special purpose intended. Type CCTO capacitors are identified by "NPO" printed on each unit.

NPO-TYPE CCTO

(ELMENCO Type TC)
±10% TOLERANCE
1000 VDCW

Cap. mmf.	Part Number	Net Price (1-24)
*2.2	CCTO-2R2	$0.30
*3.3	CCTO-3R3	0.30
*4.7	CCTO-4R7	0.30
5.0	CCTO-050	0.30
6.8	CCTO-6R8	0.30
10	CCTO-100	0.30
12	CCTO-120	0.30
15	CCTO-150	0.30
18	CCTO-180	0.30
20	CCTO-200	0.30
22	CCTO-220	0.30
24	CCTO-240	0.30
27	CCTO-270	0.30
30	CCTO-300	0.30
33	CCTO-330	0.30
36	CCTO-360	0.30
39	CCTO-390	0.30
47	CCTO-470	0.30
51	CCTO-510	0.33
56	CCTO-560	0.33
68	CCTO-680	0.33
75	CCTO-750	0.33
82	CCTO-820	0.33
100	CCTO-101	
120	CCTO-121	0.33
150	CCTO-151	0.33

* ±.5 mmf. tolerance



TYPE CCTN

Another member of the Elmenco temperature compensating disc ceramic line is the Type CCTN unit which has a negative temperature coefficient of —750 ppm/°C. (N750). These units are used to counterbalance shifts in other circuit components with change in temperature. The result is a more stable circuit essential to many frequency control applications. Improved ceramic bodies in the temperature compensating line provide greater long term stability in addition to accurate temperature compensation. Type CCTN capacitors are identified by "N750" imprinted on each unit except the smallest size. On the small units the E.I.A. temperature coefficient designation "U2" is imprinted.

N750-TYPE CCTN

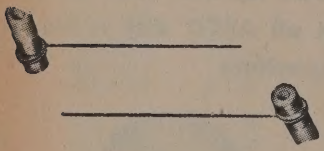
(ELMENCO Type TC)
±10% TOLERANCE
1000 VDCW

Cap. mmf.	Part Number	Net Price (1-24)
5	CCTN-050	$0.30
10	CCTN-100	0.30
15	CCTN-150	0.30
22	CCTN-220	0.30
27	CCTN-270	0.30
33	CCTN-330	0.30
39	CCTN-390	0.30
47	CCTN-470	0.30
56	CCTN-560	0.30
62	CCTN-620	0.30
68	CCTN-680	0.30
75	CCTN-750	0.30
82	CCTN-820	0.30
100	CCTN-101	0.30
120	CCTN-121	0.30
150	CCTN-151	0.30
200	CCTN-201	0.30
220	CCTN-221	0.30
270	CCTN-271	0.30
300	CCTN-301	0.30
330	CCTN-331	0.30
390	CCTN-391	0.30
470	CCTN-471	0.30

AE
82-10%
N750

NOTE: In addition to the NPO and N750 standard stock ratings, a wide assortment of other negative temperature coefficient ratings are available to special order. N030, N080, N150, N220, N330, N470, N1500, N2100, N3300, N4100, N4700, and N5600 ratings are included. Specifications and prices will be supplied upon request.

VARIABLE CERAMIC TRIMMER

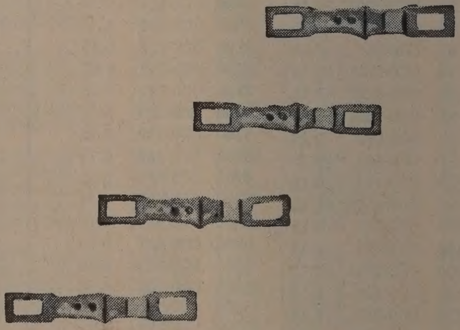


Adjustable ceramic trimmer capacitor for high frequency applications. Silvered Steatite tubes ⅝" in length provide capacity ranges listed below upon insertion of 6-32 screw.

PART No.	CAP. RANGE MMF.	NET PRICE 1-24
CV-1	0.5 - 3	$0.21
CV-2	1 - 4	.21
CV-3	2 - 6	.21

FEED THRU CERAMICS

Compact rugged ceramic feed through capacitors are designed for high frequency coupling with a minimum of inductive reactance through elimination of wire leads. These units are three dot RMA coded and rated at 500VDCW.



PART No.	CAP. (MMF) (Guar. Min. Val.)	NET PRICE 1-24
CCF-501	500	$0.24
CCF-102	1000	.24
CCF-152	1500	.24
CCF-202	2000	

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

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ELMENCO CAPACITORS

TYPES 46, 40, PC46 42

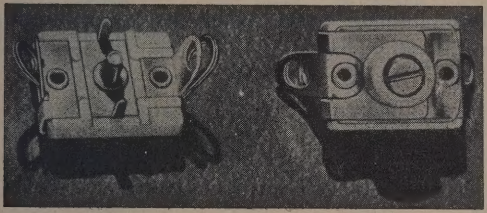
TRIMMERS

El-Menco Trimming Condensers are treated for resistance to humidity and for permanence of capacity setting.

The base is made of the lowest dielectric loss ceramic material available and the mica is clear India Ruby.

The soldering lugs may be bent in any position without affecting capacity setting due to the rigid construction of adjusting plates.

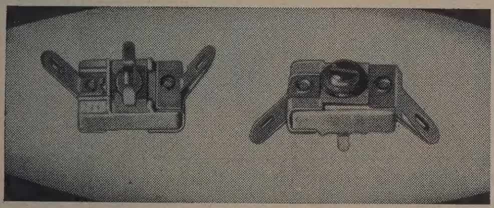
Trimmers shown here are standard sizes and capacities. Voltage 350 VDCT — 175 VDCW.



TYPE 46 STANDARD TRIMMER ¾'' x ⅝''

TYPE 46—STANDARD TRIMMER

TYPE 46W		GUARANTEED RANGE		
NUMBER PART	PLATES NUMBER OF	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
460	1¼ Pl.	15	1.5	$0.30
461	1¾ Pl.	30	2.7	.30
462	2 Pl.	80	5	.30
463	3 Pl.	180	9	.33
464	4 Pl.	280	25	.39
465	5 Pl.	380	50	.42
466	6 Pl.	480	80	.48
467	7 Pl.	580	110	.54
468	8 Pl.	680	140	.57
469	9 Pl.	780	170	.63
4610	10 Pl.	900	190	.72
4611	11 Pl.	1000	210	.78
4612	12 Pl.	1100	240	.84
4613	13 Pl.	1200	300	.93
4614	14 Pl.	1300	340	1.02
4615	15 Pl.	1400	390	1.11

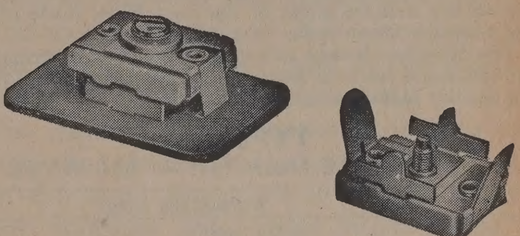


TYPE 40 MINIATURE TRIMMER ⅜'' x 9/16''

TYPE 40—MINIATURE TRIMMER

TYPE 40		GUARANTEED RANGE		
NUMBER PART	PLATES NUMBER OF	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
400	1⅛ Pl.	7	0.9	$0.30
402	2 Pl.	20	1.5	.30
403	3 Pl.	85	8	.36
404	4 Pl.	60	8	.39

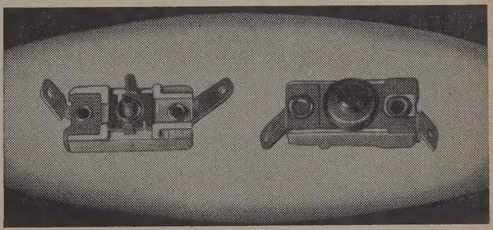
TYPE PC
PRINTED CIRCUIT TRIMMERS



The Elmenco trimmer capacitors, Types 40, 42, and 46, have been adapted for printed circuit techniques through alteration of terminals and mounting configuration. The holes in the terminal lugs are removed since necessity for hook-up is eliminated. The resulting solid terminals have greatly increased spring action, allowing the trimmer to be "snapped in" the printed circuit board and firmly held until soldered. The mounting lug portion of the trimmer has also been modified to facilitate positioning and support of the unit. Drawings of the trimmers and mounting layout are available upon request at no charge.

This printed circuit style is identified by the prefix letters "PC" preceding the regular part number. All listed values are available in the PC style.

For net price add $0.03 to the net price of the standard trimmer.



TYPE 42 MIDGET TRIMMER ⅜'' x ¾''

TYPE 42—MIDGET TRIMMER

TYPE 42		GUARANTEED RANGE		
NUMBER PART	PLATES NUMBER OF	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
420	1⅛ Pl.	12	1	$0.30
421	1¾ Pl.	25	2	.30
422	2 Pl.	25	4	.30
423	3 Pl.	100	7	.33
424	4 Pl.	150	14	.39
425	5 Pl.	200	24	.42
426	6 Pl.	250	37	.48
427	7 Pl.	300	55	.54
428	8 Pl.	250	70	.57
429	9 Pl.	400	90	.63
4210	10 Pl.	450	110	.75
4211	11 Pl.	500	130	.84
4212	12 Pl.	550	150	.90
4213	13 Pl.	600	170	.99
4214	14 Pl.	650	190	1.05
4215	15 Pl.	700	210	1.14

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ELMENCO CAPACITORS

TYPES 30, 30M

Single and Dual PADDERS

El-Menco Padding Condensers have been acclaimed by engineers as the finest development in adjustable mica condensers.

The construction is such as to completely enclose and protect the delicate edges of the mica films, made of the finest quality clear India ruby mica.

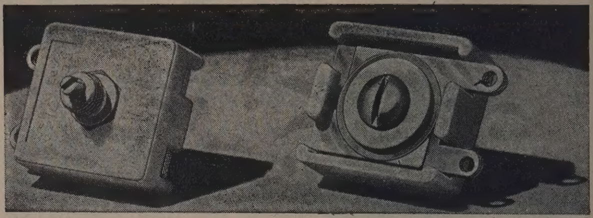
The phosphor bronze adjusting plates assure permanent resilience and freedom from mechanical fatigue. All parts are heavily plated to resist corrosion.

TYPE 30

500 Volts DC Flash-Test — 250 WVDC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2½ Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
302	2 Pl.	130	15	$0.54
303	3 Pl.	340	65	.57
304	4 Pl.	550	100	.63
305	5 Pl.	760	190	.69
306	6 Pl.	970	275	.72
307	7 Pl.	1180	350	.78
308	8 Pl.	1390	450	.84
309	9 Pl.	1600	550	.87
310	10 Pl.	1890	650	.93
311	11 Pl.	2110	780	.99
312	12 Pl.	2380	880	1.05
313	13 Pl.	2605	1150	1.14
314	14 Pl.	2880	1300	1.20
315	15 Pl.	3055	1400	1.26

Screw is insulated from top plate my mica washer. Above maximum capacity values are based on using 1½ to 1¾ Mil Mica films.



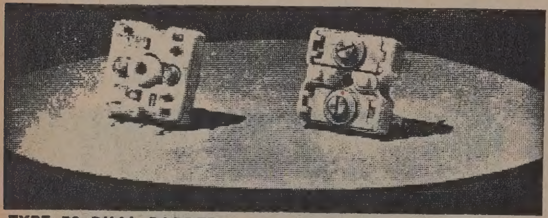
TYPE 30 AND TYPE 30-M PADDER 7/8'' x 15/16''

TYPE 30-M

1000 Volts DC Flash-Test — 500 Working Volts DC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 1¾ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
302-M	2 Pl.	120	15	$0.54
303-M	3 Pl.	320	65	.60
304-M	4 Pl.	500	100	.66
305-M	5 Pl.	690	180	.72
306-M	6 Pl.	880	265	.78
307-M	7 Pl.	1070	340	.84
308-M	8 Pl.	1260	425	.90
309-M	9 Pl.	1415	525	.96
310-M	10 Pl.	1600	615	1.02
311-M	11 Pl.	1785	730	1.08
312-M	12 Pl.	1970	800	1.14
313-M	13 Pl.	2155	1000	1.20
314-M	14 Pl.	2340	1100	1.29
315-M	15 Pl.	2525	1200	1.35

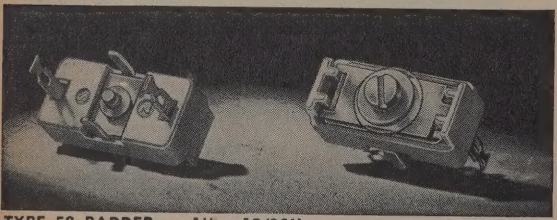
Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 2 to 2¼ Mil Mica.



TYPE 50 DUAL PADDER 175VDCW
(will fit any size shield having dimensions exceeding 1-1/16'' x 1-1/16'')

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
502	2 Pl.	80	7.5	$0.60
503	3 Pl.	160	19	.69
504	4 Pl.	240	50	.78

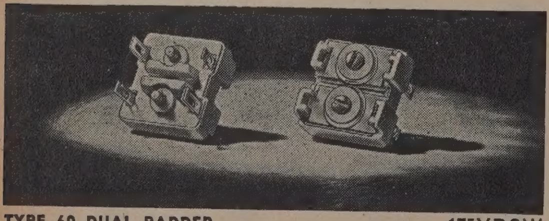
◄TYPE 50 Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding 1$\frac{1}{16}$'' x 1$\frac{1}{16}$''.



TYPE 58 PADDER 1'' x 15/32'' 175VDCW

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
582	2 Pl.	80	7.5	$0.39
583	3 Pl.	160	19	.42
584	4 Pl.	240	50	.45

◄TYPE 58 Padder is a single variable trimmer section provided with a two-pronged staple mounting for attachment to bracket or chassis. Base is made of lowest loss steatite and the mica is India Ruby.



TYPE 60 DUAL PADDER 175VDCW
(will fit any size shield having dimensions exceeding ¾'' x ¾'')

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
602	2 Pl.	55	7	$0.54
603	3 Pl.	100	15	.63
604	4 Pl.	160	35	.72
605	5 Pl.	220	60	.81

◄TYPE 60 Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding ¾'' x ¾''.

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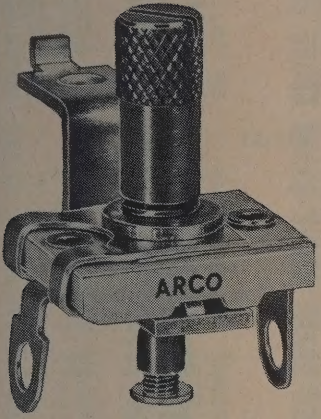
VARIABLE COMPRESSION MICA CAPACITORS



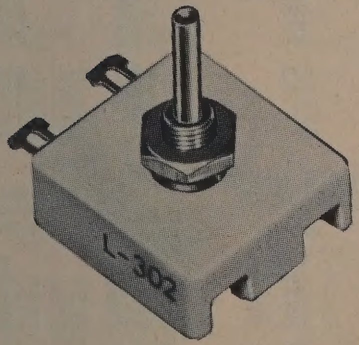
TYPE S46

Net Price:
Add 27¢ to the
Net price of
trimmer alone

A complete Type 46 trimmer assembly with mounting bracket and adjusting shaft for ease of tuning. Can be supplied as pictured from stock or with construction variations to order.

To specify precede trimmer part number with the letter "S".

For example:
Type 460 trimmer will be ordered as S-460.



TYPE - L30

Net Price:
Add .06¢ to the
Net price of
padder alone

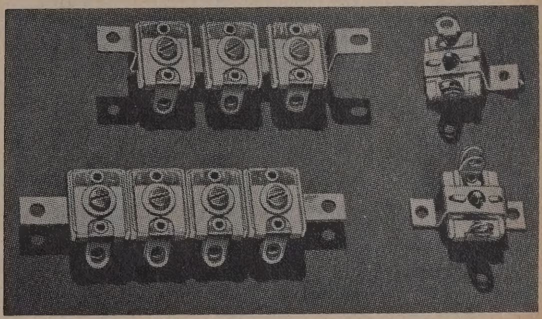
The Type 30 or Type 30M padder can now be obtained with a special adjusting screw which has been lengthened to accommodate a tuning knob. To obtain a padder with the special screw, precede the regular padder part number with the letter "L". For example, a 302 padder with the special screw would be specified as "L-302".

●

NOTE: Knobs may also be obtained if desired at a cost of 30¢ each net.

The two new assemblies shown at left have been developed due to increasing demands for miniaturized tuning devices. However, certain precautions must be taken in design so that these variable mica capacitors are not used in circuits for which they are not adapted. These assemblies are highly stable for components of their design, but they do not match the stability of the air dielectric tuners. Short term drift of the mica trimmers and padders after tuning is negligible. Long term drift at one setting due to changes in atmospheric conditions and physical motion should be well within ± 2%.

It should also be remembered that variable compression type mica capacitors do not have linear variation with adjustment. Rate of change of capacity decreases per turn as the screw is withdrawn. For example, a 306 padder will reduce to half the nominal maximum value within one opening turn. Those with a greater number of plates require further screw disengagement for a similar percentage reduction in capacity value. On the other hand, a 302 padder will reach one-half the nominal maximum in less than one-half turn open. Type 46 trimmers operate in much the same way. Detailed information on specific sizes is available upon request.



Mounting brackets as illustrated above can be supplied for all types of trimmers in flat "Z" (single mounting hole with or without non-rotational stop), and "U" (dual mounting hole) configurations.

	Net Price (1-24)
Bracket for mounting 1 Trimmer	$0.09
Bracket for mounting 2 Trimmers	.11
Bracket for mounting 3 Trimmers	.13
Bracket for mounting 4 Trimmers	.14
Bracket for mounting 5 Trimmers	.16
Bracket for mounting 6 Trimmers	.18

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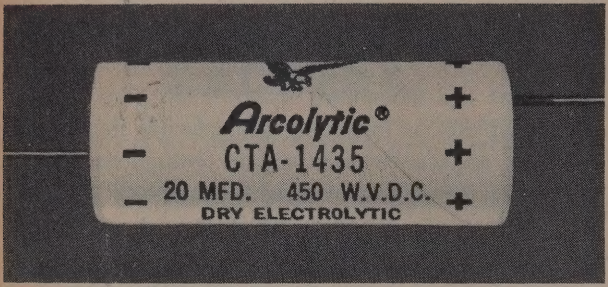
TUBULAR ELECTROLYTIC CAPACITORS



ARCOLYTIC TUBULARS

- Made with 99.99% high purity aluminum foil.
- Higher reliability because of practically no impurities in the foil.
- Maximum operating temperature: 85°C. (Type CTW: 75°C.)
- Perfect replacement electrolytic for all types entertainment units.
- Extended shelf and and operating life at both normal and eleveated tempertaures.
- Built and tested to meet EIA specification RS-154.

Type CTA Single and multiple section tubular electrolytics in drawn aluminum cans with cardboard sleeves. Single section units have bare wire leads with negative grounded to can. Multiple units have a common negative grounded to can, and all leads have vari-colored insulated wire for ease of identification.

Type CTW Same as type CTA except that these are multiple section electrolytics in wax-filled cardboard tubes.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTA-1050	50	6	½ x 1¼	.57
CTA-1055	100	6	½ x 1¼	.72
CTA-1060	250	6	⅝ x 1¾	.81
CTA-1065	500	6	¾ x 1¾	.93
CTA-1070	1000	6	¾ x 2¼	1.14
CTA-1075	1500	6	1 x 2¼	1.26
CTA-1080	2000	6	1 x 2¾	1.38
CTA-1085	100	15	⅝ x 1¼	.75
CTA-1090	250	15	⅝ x 1¾	.93
CTA-1095	500	15	¾ x 2¼	1.05
CTA-1100	1000	15	⅞ x 2¼	1.38
CTA-1105	2	25	½ x 1¼	.54
CTA-1110	5	25	½ x 1¼	.60
CTA-1115	10	25	½ x 1¼	.60
CTA-1125	50	25	½ x 1¼	.60
CTA-1120	25	25	⅝ x 1¼	.66
CTA-1130	100	25	⅝ x 1¾	.81
CTA-1135	250	25	⅞ x 2¼	1.02
CTA-1140	500	25	1 x 2¼	1.38
CTA-1145	1	50	½ x 1¼	.54
CTA-1150	2	50	½ x 1¼	.54
CTA-1155	5	50	½ x 1¼	.60
CTA-1160	10	50	½ x 1¼	.60
CTA-1165	20	50	⅝ x 1¼	.60
CTA-1170	25	50	⅝ x 1¼	.63
CTA-1175	50	50	⅝ x 1¾	.72
CTA-1180	100	50	¾ x 1¾	.84
CTA-1185	150	50	¾ x 1¾	.93
CTA-1190	250	50	⅞ x 1¾	1.05
CTA-1195	500	50	1 x 2¼	1.44
CTA-1200	4	150	½ x 1¼	.60
CTA-1205	5	150	½ x 1¼	.60
CTA-1210	8	150	⅝ x 1¼	.63
CTA-1215	10	150	⅝ x 1¼	.63
CTA-1220	12	150	⅝ x 1¼	.66
CTA-1225	16	150	⅝ x 1¾	.69
CTA-1230	20	150	⅝ x 1¾	.72
CTA-1235	25	150	⅝ x 1¾	.75
CTA-1240	30	150	¾ x 1¾	.78
CTA-1245	40	150	¾ x 1¾	.81
CTA-1250	50	150	⅞ x 1¾	.84
CTA-1255	60	150	⅞ x 1¾	.90
CTA-1260	80	150	¾ x 2¼	.96
CTA-1265	100	150	1 x 2¼	1.05
CTA-1270	150	150	1¼ x 2¼	1.14
CTW-1275	200	150	1¼ x 2¾	1.32
CTW-1280	250	150	1¼ x 3¼	1.53
CTW-1285	300	150	1¼ x 3¾	1.53
CTW-1290	150	200	1 x 3¾	1.53
CTW-1295	200	200	1¼ x 3¾	1.74
CTA-1300	4	250	⅝ x 1¼	.60
CTA-1305	8	250	⅝ x 1¼	.69
CTA-1310	10	250	⅝ x 1¾	.72
CTA-1315	12	250	⅝ x 1¾	.75
CTA-1320	16	250	⅝ x 1¾	.78
CTA-1325	20	250	¾ x 1¾	.81
CTA-1330	30	250	¾ x 2¼	.87
CTA-1335	40	250	¾ x 2¼	.93
CTA-1340	50	250	⅞ x 2¼	1.02
CTA-1345	60	250	⅞ x 2¼	1.08
CTA-1350	100	250	1 x 2¾	1.47
CTW-1355	140	300	1 x 3¾	1.89
CTA-1360	4	350	⅝ x 1¼	.63
CTA-1365	8	350	⅝ x 1¾	.72
CTA-1370	10	350	⅝ x 1¾	.75
CTA-1375	12	350	¾ x 1¾	.78
CTA-1380	16	350	¾ x 1¾	.84
CTA-1385	20	350	⅞ x 1¾	.87
CTA-1390	30	350	⅞ x 2¼	.99
CTA-1395	40	350	1 x 2¼	1.05
CTA-1398	60	350	1 x 2¾	1.17
CTA-1400	1	450	½ x 1¼	.66
CTA-1405	2	450	½ x 1¼	.66
CTA-1410	4	450	⅝ x 1¼	.69
CTA-1415	8	450	⅝ x 1¾	.75
CTA-1420	10	450	¾ x 1¾	.78
CTA-1425	12	450	¾ x 1¾	.81
CTA-1430	16	450	⅞ x 1¾	.84
CTA-1435	20	450	⅞ x 2¼	.93
CTA-1440	30	450	1 x 2¼	1.02
CTA-1445	40	450	1 x 2¾	1.08
CTA-1450	50	450	1 x 3¼	1.26
CTA-1455	60	450	1 x 3¼	1.41
CTA-1460	80	450	1 x 3¾	1.68
CTA-1465	100	450	1¼ x 3¾	1.92
CTA-1470	8	500	¾ x 1¾	.78
CTA-1475	10	500	⅞ x 1¾	.81
CTA-1480	16	500	⅞ x 2¼	.90
CTA-1485	20	500	1 x 2¼	.96
CTA-1490	30	500	1 x 2¾	1.05
CTA-1500	8	600	1 x 2¾	1.71
CTA-1505	10	600	1 x 2¾	1.77
CTA-1510	16	600	1 x 3¾	2.07
CTA-1515	20	600	1 x 3¾	1.05
CTA-1520	8	700	1 x 2¾	2.13
CTA-1525	10	700	1 x 2¾	2.07
CTA-1530	16	700	1 x 3¾	2.13

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTA-2030	10-10	50-50	⅝ x 1¾	.84
CTA-2035	8-8	150-150	⅝ x 1¾	.90
CTA-2040	16-16	150-150	¾ x 1¾	1.08
CTA-2045	20-12	150-150	¾ x 1¾	.96
CTA-2050	20-20	150-150	¾ x 1¾	.98
CTA-2055	30-20	150-150	⅞ x 1¾	1.02
CTA-2060	30-30	150-150	⅞ x 1¾	1.08
CTA-2065	40-20	150-150	⅞ x 1¾	1.05
CTA-2070	40-30	150-150	⅞ x 2¼	1.08
CTA-2075	40-40	150-150	⅞ x 2¼	1.11
CTA-2080	50-30	150-150	⅞ x 2¼	1.17
CTA-2085	50-50	150-150	⅞ x 2¼	1.26
CTA-2090	80-30	150-150	1 x 2¼	1.32
CTA-2100	80-40	150-150	1 x 2¾	1.32
CTA-2105	80-50	150-150	1 x 2¾	1.41
CTW-2110	100-100	150-150	1 x 3¾	1.92
CTW-2115	250-50	150-150	1¼ x 3¾	2.22
CTW-2120	200-5	150-150	1 x 3¾	1.59
CTW-2125	250-200	150-150	1¼ x 4¾	2.52
CTA-2130	20-20	250-250	⅞ x 2¼	1.11
CTA-2135	40-10	250-250	⅞ x 2¼	1.23
CTA-2140	80-10	250-250	1 x 3¼	1.53
CTW-2145	120-80	250-250	1¼ x 3¾	2.40
CTW-2150	140-5	350-350	1¼ x 4¼	2.49
CTW-2155	80-100	450-50	1¼ x 4¼	2.22

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TUBULAR ELECTROLYTIC CAPACITORS

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTA-2160	8-8	450-450	⅞ x 2¼	1.02
CTA-2165	10-10	450-450	1 x 2¼	1.11
CTA-2170	16-8	450-450	1 x 2¼	1.20
CTA-2175	20-20	450-450	1 x 2¾	1.50
CTA-2180	30-30	450-450	1 x 3¼	1.80
CTA-2185	40-40	450-450	1 x 3¾	2.04
CTA-2190	50-30	450-450	1 x 3¾	2.04

TRIPLE UNITS

CTA-3050	20-20-20	150-150-150	⅞ x 1¾	1.50
CTA-3055	30-30-30	150-150-150	⅞ x 2¼	1.56
CTA-3060	40-30-20	150-150-150	⅞ x 2¼	1.56
CTA-3063	40-40-20	150-150-150	1 x 2¼	1.41
CTA-3065	40-40-40	150-150-150	1 x 2¼	1.68
CTA-3070	50-30-20	150-150-150	1 x 2¼	1.62
CTA-3075	80-40-20	150-150-150	1 x 2¾	1.74
CTW-3078	150-150-150	150-150-150	1⅜ x 4¼	2.91
CTW-3080	250-200-10	150-150-150	1¼ x 4¼	2.76
CTA-3085	60-40-250	150-150-15	1 x 3¼	1.56
CTA-3090	80-30-300	150-150-15	1 x 3¾	1.74
CTA-3095	20-20-20	150-150-25	⅞ x 1¾	1.47
CTA-3100	40-20-20	150-150-25	1 x 1¾	1.53
CTA-3105	40-30-20	150-150-25	⅞ x 2¼	1.56
CTA-3110	40-40-20	150-150-25	1 x 2¼	1.59
CTA-3115	40-40-100	150-150-25	1 x 2¼	1.68
CTA-3120	50-30-20	150-150-25	1 x 2¼	1.59
CTA-3125	50-30-100	150-150-25	1 x 2¼	1.68
CTA-3130	50-30-250	150-150-25	1 x 3	1.86
CTA-3135	50-50-20	150-150-25	1 x 2¼	1.65
CTA-3140	80-20-100	150-150-25	1 x 2¾	1.68
CTA-3145	80-40-20	150-150-25	1 x 2¾	1.68
CTW-3150	250-120-50	150-150-25	1⅜ x 4	2.61
CTW-3153	120-40-100	300-250-50	1⅜ x 4¼	2.97
CTW-3155	60-60-60	300-300-300	1⅜ x 3½	2.82
CTW-3160	80-40-100	300-300-50	1⅜ x 3½	2.55
CTW-3165	100-60-100	300-300-50	1⅜ x 4¼	2.97
CTW-3168	120-40-10	300-300-250	1⅜ x 3½	2.91
CTW-3170	60-60-4	350-350-350	1⅜ x 3¼	2.31
CTW-3175	140-5-200	350-350-200	1½ x 4¾	4.02

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTW-3178	10-20-100	400-150-150	1¼ x 4¾	2.46
CTW-3180	5-80-40	450-400-400	1¾ x 4¼	2.73
CTA-3185	20-20-20	450-450-25	1¼ x 3	1.86
CTA-3190	40-40-20	450-450-25	1 x 3¾	2.28

QUADRUPLE UNITS

CTW-4050	40-20-20-100	150-150-150-25	1 x 3¼	1.86
CTW-4055	150-100-20-100	300-300-300-50	1½ x 4¾	4.17
CTW-4060	120-40-40-10	300-300-300-250	1¼ x 4¾	3.72
CTW-4065	140-5-200-100	350-300-200-150	1½ x 4¾	4.92
CTW-4070	140-5-200-30	350-300-200-200	1½ x 4¾	4.59
CTW-4075	80-60-40-20	350-350-300-150	1¼ x 4¾	3.54
CTW-4085	80-10-40-100	400-400-300-50	1⅜ x 4¼	3.27
CTW-4090	10-80-40-100	450-300-250-50	1⅜ x 4¼	2.88
CTW-4095	20-120-40-100	450-300-250-50	1¼ x 4¾	3.69
CTW-4100	10-80-40-40	450-300-300-250	1⅜ x 4¼	2.97
CTW-4105	20-20-20-10	450-450-450-450	1⅜ x 3¾	2.55
CTW-4110	40-20-20-10	450-450-450-450	1¼ x 4¼	2.82
CTW-4115	40-40-20-20	450-450-450-450	1½ x 4¼	3.27

FIVE LEADS

CTW-5050	40-20-20-20-50	300-300-300-300-75	1⅜ x 4¼	3.03

PRINTED CIRCUIT

APC-2100	50-30	150-150	1 x 2½	1.56
APC-2105	50-50	150-150	1 x 2½	1.62
APC-2110	80-30	150-150	1 x 3	1.65
APC-2115	100-50	150-150	1 x 3½	1.77

ANTENNA ROTOR CAPACITOR

CRA-1000	70	50 VAC	⅞ x 3	.75
CRA-1050	120	50 VAC	1 x 2¾	.99
CRA-1200	210-240	50 VAC	1 x 3¾	1.80
CRA-1220	210-290	50 VAC	1 x 3¾	1.68

PRINTED CIRCUIT TWIST MOUNTS

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-1250	140	150	1 x 2½	1.29
CTP-1350	375	165	1⅜ x 3½	1.80
CTP-1450	160	200	1⅜ x 3	1.74
CTP-1550	50	350	1 x 2	1.26
CTP-1650	20	450	1 x 2	1.08

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-2150	250-250	16-16	1 x 2	1.65
CTP-2275	500-100	16-16	1 x 2	1.86
CTP-2350	800-250	16-16	1 x 2½	2.01
CTP-2360	500-200	18-18	1 x 2	2.01
CTP-2475	50-30	150-150	1 x 2	1.20
CTP-2550	80-30	150-150	1 x 2	1.35
CTP-2625	80-40	150-150	1 x 3	1.38
CTP-2700	200-5	150-150	1⅜ x 2½	1.62
CTP-2775	2-20	300-25	1 x 2	.87
CTP-2850	10-10	300-50	1 x 2	.96
CTP-2875	150-100	300-150	1⅜ x 4	2.70
CTP-2890	10-10	300-300	1⅜ x 2	1.05

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-3130	250-250-50	16-16-16	1 x 2	1.95
CTP-3160	500-250-50	16-16-16	1 x 2	2.10
CTP-3190	500-250-250	16-16-16	1 x 2	2.46
CTP-3220	70-30-100	150-150-10	1 x 2	1.68
CTP-3250	40-30-250	150-150-10	1 x 2½	1.86

PRINTED CIRCUIT TWIST MOUNTS

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-3280	80-60-250	150-150-10	1 x 2½	2.04
CTP-3310	80-60-400	150-150-10	1 x 3	2.19
CTP-3340	90-40-400	150-150-10	1 x 3	2.10
CTP-3370	40-20-20	150-150-25	1 x 2½	1.38
CTP-3400	80-20-20	150-150-25	1 x 2	1.62
CTP-3430	70-30-20	150-150-25	1 x 2½	1.62
CTP-3460	30-30-30	150-150-150	1 x 2	1.50
CTP-3490	40-40-20	150-150-150	1 x 2½	1.50
CTP-3510	40-40-30	150-150-150	1 x 2½	1.62
CTP-3540	50-30-20	150-150-150	1 x 2	1.56
CTP-3570	50-40-30	150-150-150	1 x 2½	1.62
CTP-3600	60-60-40	150-150-150	1⅜ x 2	1.86
CTP-3630	70-15-15	150-150-150	1 x 2	1.62
CTP-3660	80-60-10	150-150-150	1 x 3	1.77
CTP -3670	100-80-40	175-175 -175	1 x 3	2.40
CTP-3690	10-10-20	300-50-25	1 x 2	1.26
CTP-3720	150-60-200	300-200-150	1⅜ x 4	3.57
CTP-3750	60-10-25	300-300-25	1⅜ x 2	1.83
CTP-3780	150-100-30	300-300-300	1⅜ x 4	3.81
CTP-3810	125-5-100	350-150-10	1⅜ x 3½	2.76
CTP-3830	40-30-20	400-350-300	1⅜ x 2½	2.37

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTP-4100	290-30-10-100	150-150-150-10	1⅜ x 3½	2.70
CTP-4200	50-40-10-50	150-150-150-25	1⅜ x 2	1.89
CTP-4300	100-40-10-50	150-150-150-25	1⅜ x 2	2.22
CTP-4400	60-60-40-10	150-150-150-150	1⅜ x 2	2.19
CTP-4500	100-60-60-40	350-350-200-75	1⅜ x 4	3.93
CTP-4600	40-20-10-100	350-350-350-50	1⅜ x 2½	2.61
CTP-4700	40-30-20-20	400-350-350-350	1⅜ x 2½	2.97

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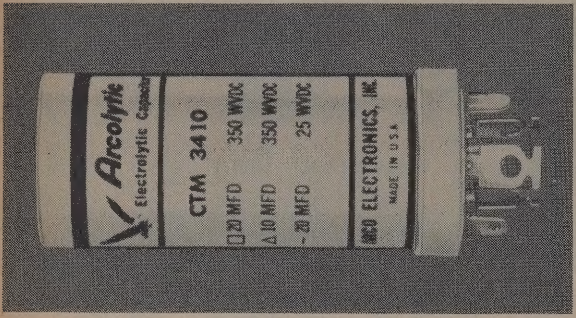
TWIST MOUNT ELECTROLYTIC CAPACITORS



ARCOLYTIC TWIST MOUNTS

- Made with 99.99% pure aluminum foil.
- Hermetically sealed in aluminum cans.
- Designed for high temperature operation: 85°C.
- Made to withstand high surge voltages and high ripple currents.
- Greater shelf and operating life because only premium grade ingredients are used.
- Built and tested to meet EIA specification RS-154.
- Complete with phenolic and metal mounting plates.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
†CTM-1050	.5 @ 15.75 KC	3 N.P.	1 x 2	1.59
CTM-1059	1 OHM @ 60 CPS	3 N.P.	1⅜ x 2½	2.40
†CTM-1068	10 OHM @ 30 CPS	3 N.P.	1⅜ x 2	1.65
CTM-1077	1000	6	1⅜ x 2	1.44
*CTM-1086	2000	6	1⅜ x 2	1.83
CTM-1095	1000	10	1 x 2½	1.92
CTM-1104	3000	10	1⅜ x 3	2.19
*CTM-1113	225	15	¾ x 2	1.05
*CTM-1122	1000	15	1 x 2½	1.53
CTM-1131	1500	15	1 x 3	2.07
*CTM-1140	2000	15	1⅜ x 2	2.07
*CTM-1149	3000	15	1⅜ x 3	2.55
CTM-1158	4000	15	1⅜ x 3½	2.25
CTM-1167	25	25	¾ x 2	.93
CTM-1176	40	25	¾ x 2	.81
†CTM-1185	50	25	1 x 2	1.02
CTM-1194	100	25	¾ x 2	1.20
*CTM-1203	500	25	1 x 2	1.53
*CTM-1212	1000	25	1⅜ x 2	2.13
CTM-1221	4	50	¾ x 2	.93
CTM-1230	25	50	¾ x 2	.78
*CTM-1239	100	50	¾ x 2	.99
*CTM-1248	150	50	¾ x 2½	1.08
*CTM-1257	250	50	1 x 2½	1.20
*CTM-1266	500	50	1⅜ x 2½	1.59
*CTM-1275	1000	50	1⅜ x 3½	2.25
*CTM-1284	1500	50	1⅜ x 4	2.64
CTM-1293	10	150	1 x 2	.99
CTM-1302	20	150	1 x 2	1.08
CTM-1311	25	150	1 x 2	1.14
*CTM-1320	30	150	1 x 2	.93
CTM-1329	40	150	1 x 2	1.20
*CTM-1338	50	150	1 x 2	.99
CTM-1347	60	150	1 x 2	1.32
*CTM-1356	80	150	1 x 2½	1.11
CTM-1365	80	150	1⅜ x 2	1.38
*CTM-1374	100	150	1 x 2½	1.20
CTM-1383	110	150	1 x 3	1.62
*CTM-1392	120	150	1 x 2½	1.29
*CTM-1401	120	150	1⅜ x 2½	1.29
*CTM-1410	140	150	1 x 3	1.29
*CTM-1419	150	150	1 x 3	1.29
*CTM-1428	150	150	1⅜ x 3	1.29
CTM-1436	200	150	1 x 3	1.86
*CTM-1437	200	150	1⅜ x 3½	1.47
*CTM-1446	300	150	1⅜ x 3½	1.68
*CTM-1455	375	165	1⅜ x 3½	2.79
CTM-1464	40	200	1 x 2	1.29
*CTM-1472	125	200	1 x 3	1.74
*CTM-1473	125	200	1⅜ x 2½	1.68
CTM-1481	160	200	1 x 3½	1.98
*CTM-1482	160	200	1⅜ x 3	1.89
CTM-1491	500	200	1⅜ x 4	3.96
*CTM-1500	15	250	1 x 2	1.17
CTM-1509	20	250	1 x 2	.96
CTM-1518	30	250	1 x 2	1.29
*CTM-1527	40	250	1 x 2	1.08
CTM-1536	50	250	1 x 2½	1.47
CTM-1545	60	250	1 x 3	1.23
CTM-1554	80	250	1 x 3½	1.62
*CTM-1563	100	250	1 x 3	1.62
*CTM-1572	150	250	1⅜ x 2½	1.86
*CTM-1581	200	250	1⅜ x 3½	2.19
CTM-1590	15	300	1 x 2	1.20
CTM-1599	30	300	1 x 2	1.32
CTM-1608	50	300	1 x 2½	1.53
CTM-1617	60	300	1 x 3	1.26
*CTM-1626	80	300	1 x 3½	1.53
*CTM-1635	100	300	1 x 4	1.74
*CTM-1644	125	300	1⅜ x 3½	2.10
*CTM-1653	150	300	1⅜ x 3½	2.10
*CTM-1662	250	300	1⅜ x 4	2.10
CTM-1651	10	350	1 x 2	1.14
CTM-1660	15	350	1 x 2	1.23
CTM-1669	20	350	1 x 2	1.32
*CTM-1678	30	350	1 x 2	1.14
*CTM-1687	40	350	1 x 2	1.20
*CTM-1696	50	350	1 x 2	1.26
*CTM-1705	60	350	1 x 3	1.32
*CTM-1714	80	350	1⅜ x 2	1.71
*CTM-1723	125	350	1⅜ x 3½	2.37
CTM-1732	140	350	1⅜ x 4	2.97
*CTM-1741	150	350	1⅜ x 4	2.37
CTM-1750	320	350	1⅜ x 4	4.05
CTM-1759	10	400	1 x 2	1.14
CTM-1768	20	400	1 x 2	1.32
CTM-1777	40	400	1⅜ x 2	1.82
CTM-1786	50	400	1⅜ x 2½	1.65
CTM-1795	80	400	1⅜ x 3	2.22
CTM-1804	100	400	1⅜ x 3	2.55
*CTM-1813	4	450	1 x 2	.84
*CTM-1822	10	450	1 x 2	.93
*CTM-1831	15	450	1 x 2	1.02
*CTM-1840	20	450	1 x 2	1.08
CTM-1849	25	450	1 x 2½	1.14
*CTM-1858	30	450	1 x 2½	1.17
*CTM-1867	40	450	1 x 3	1.23
*CTM-1876	50	450	1 x 3	1.41
*CTM-1885	60	450	1⅜ x 2½	1.56
*CTM-1894	80	450	1⅜ x 2½	1.83
*CTM-1903	100	450	1⅜ x 3	2.07
*CTM-1912	125	450	1⅜ x 4	2.31
CTM-1921	20	475	1 x 2½	1.38
CTM-1930	30	475	1 x 3	1.50
*CTM-1939	40	475	1⅜ x 2	1.50
CTM-1948	90	475	1⅜ x 3½	2.64
*CTM-1957	10	500	1 x 2	1.02
*CTM-1966	20	500	1 x 2½	1.11
*CTM-1975	30	500	1 x 3	1.20
*CTM-1984	40	500	1 x 3½	1.50
*CTM-1993	80	500	1⅜ x 3	2.16
CTM-1995	90	500	1⅜ x 3½	2.10
CTM-1997	15	525	1⅜ x 3	1.11

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-2050	(.5 OHM @ 15.75 K 2.5 OHM) @ 60 CPS		1⅜ x 2	2.70
†CTM-2054	1000-500	6 N.P.-6 N.P.	1⅜ x 2	2.94
*CTM-2058	250-1000	10-6	1⅜ x 2	1.71
†CTM-2062	200-40	10-10	1 x 2	1.20
*CTM-2066	1000-1000	15-15	1 x 3½	2.64
*CTM-2070	1000-1000	15-15	1⅜ x 2½	2.64
CTM-2074	250-250	16-16	1 x 2	2.07
*CTM-2079	500-200	16-16	1 x 2	1.62
*CTM-2080	1000-50	16-16	1 x 2½	2.34
*CTM-2078	500-100	16-16	1 x 2	1.50
CTM-2082	20-20	25-25	1 x 2	1.08
CTM-2086	40-40	25-25	1 x 2	1.20
*CTM-2090	100-70	25-25	1 x 2	1.08
CTM-2094	150-50	25-25	1 x 2	1.44
*CTM-2098	500-500	25-25	1⅜ x 2	2.64
*CTM-2101	1000-500	25-25	1⅜ x 2	3.30
*CTM-2106	50-50	50-50	1 x 2	1.02
*CTM-2110	100-25	50-50	1 x 2	1.14
*CTM-2114	100-100	50-50	1 x 2	1.26
*CTM-2118	50-500	150-5	1 x 3	1.47
CTM-2122	40-20	150-25	1 x 2	1.29
CTM-2126	40-150	150-25	1 x 2	1.52

*Preferred Type †Discontinued

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TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-2130	50-150	150-25	1 x 2½	1.65
*CTM-2134	150-100	150-25	1⅜ x 2½	1.62
CTM-2138	40-20	150-50	1 x 2	1.53
*CTM-2142	150-50	150-50	1 x 3	1.68
*CTM-2146	150-100	150-50	1⅜ x 2½	1.95
CTM-2150	20-10	150-150	1 x 2	1.20
*CTM-2154	20-20	150-150	1 x 2	1.02
CTM-2158	30-15	150-150	1 x 2	1.32
CTM-2162	30-20	150-150	1 x 2	1.32
*CTM-2166	30-30	150-150	1 x 2	1.11
*CTM-2170	40-20	150-150	1 x 2	1.11
*CTM-2174	40-30	150-150	1 x 2	1.11
*CTM-2178	40-40	150-150	1 x 2½	1.14
*CTM-2182	50-30	150-150	1 x 2½	1.20
*CTM-2186	50-50	150-150	1 x 2½	1.29
*CTM-2190	60-20	150-150	1 x 2	1.23
*CTM-2194	60-60	150-150	1 x 3½	1.41
*CTM-2198	70-30	150-150	1 x 2½	1.32
*CTM-2202	75-75	150-150	1 x 3	1.56
*CTM-2206	80-40	150-150	1⅜ x 2½	1.38
*CTM-2210	80-50	150-150	1 x 2½	1.44
*CTM-2214	80-60	150-150	1 x 3	1.50
*CTM-2218	80-80	150-150	1⅜ x 2	1.59
*CTM-2222	100-30	150-150	1 x 2½	1.68
CTM-2226	100-100	150-150	1⅜ x 2½	2.43
*CTM-2230	125-100	150-150	1⅜ x 2½	2.01
*CTM-2234	150-80	150-150	1⅜ x 2½	1.83
CTM-2238	150-150	150-150	1⅜ x 3	2.64
*CTM-2242	200-5	150-150	1⅜ x 2½	1.62
*CTM-2246	200-125	150-150	1⅜ x 3½	2.25
*CTM-2250	200-150	150-150	1⅜ x 4	2.25
*CTM-2254	200-200	150-150	1⅜ x 4	2.40
*CTM-2258	60-125	200-25	1 x 3	1.44
CTM-2262	30-10	200-50	1 x 2	1.38
CTM-2266	100-100	200-50	1⅜ x 2½	2.13
CTM-2270	40-40	200-200	1 x 3	1.74
*CTM-2274	60-60	200-200	1 x 3	2.04
*CTM-2278	60-60	200-200	1⅜ x 2	2.04
*CTM-2282	100-100	200-200	1⅜ x 3	2.10
*CTM-2286	200-5	200-200	1⅜ x 2½	1.83
CTM-2290	40-350	250-15	1⅜ x 2	2.07
CTM-2294	40-25	250-25	1 x 2½	1.50
CTM-2298	50-100	250-50	1⅜ x 2	1.95
CTM-2302	80-100	250-50	1⅜ x 2½	2.13
*CTM-2306	100-150	250-50	1⅜ x 3	2.19
CTM-2310	40-25	250-150	1 x 2½	2.07
CTM-2314	10-10	250-250	1 x 2	1.29
*CTM-2318	20-20	250-250	1 x 2	1.14
CTM-2322	30-30	250-250	1 x 2½	1.65
CTM-2326	40-20	250-250	1 x 3	1.65
*CTM-2330	40-40	250-250	1 x 2	1.50
CTM-2334	150-40	250-250	1⅜ x 3	2.88
*CTM-2338	150-150	250-250	1⅜ x 4	3.09
*CTM-2342	200-200	250-250	1⅜ x 4	3.63
*CTM-2346	35-500	300-6	1 x 2½	2.13
CTM-2350	20-20	300-25	1 x 2	1.38
CTM-2354	20-100	300-25	1 x 2½	2.04
*CTM-2358	10-40	300-50	1 x 2	1.02
CTM-2362	80-100	300-50	1⅜ x 3	2.37
CTM-2366	60-200	300-150	1⅜ x 3	2.79
CTM-2370	80-100	300-150	1⅜ x 2½	2.73
CTM-2374	60-10	300-200	1 x 3½	1.89
*CTM-2378	100-100	300-200	1 x 4	2.58
CTM-2382	20-60	300-250	1 x 3½	2.07
CTM-2386	10-10	300-300	1 x 2	1.32
CTM-2390	15-15	300-300	1 x 2	1.44
*CTM-2394	40-30	300-300	1 x 3	1.59
CTM-2398	40-40	300-300	1⅜ x 2½	2.25
CTM-2402	50-50	300-300	1⅜ x 2½	2.52
CTM-2406	60-20	300-300	1⅜ x 2½	2.10
CTM-2410	60-60	300-300	1⅜ x 2½	2.55
CTM-2414	75-75	300-300	1⅜ x 3	2.85
CTM-2418	80-40	300-300	1⅜ x 2½	2.67
CTM-2422	80-60	300-300	1⅜ x 3½	2.79
*CTM-2426	80-80	300-300	1⅜ x 3	2.43
*CTM-2430	120-20	300-300	1⅜ x 3½	2.40
*CTM-2434	120-40	300-300	1⅜ x 3½	2.61
CTM-2438	150-100	300-300	1⅜ x 3½	4.05
*CTM-2442	200-80	300-300	1⅜ x 4	3.15
CTM-2446	20-20	350-25	1 x 2	1.44
CTM-2450	40-20	350-25	1 x 2½	1.77
CTM-2454	80-100	350-50	1⅜ x 3	3.39
CTM-2458	20-100	350-75	1 x 2½	1.68
CTM-2462	5-75	350-150	1 x 2½	1.59
CTM-2466	40-10	350-200	1⅜ x 2	1.83
CTM-2470	20-30	350-250	1 x 3	1.74
CTM-2474	40-10	350-250	1 x 3	1.83
CTM-2478	60-80	350-250	1⅜ x 3½	2.58
CTM-2482	20-10	350-300	1 x 2	1.53
CTM-2486	30-30	350-300	1 x 3½	1.98
CTM-2490	60-20	350-300	1⅜ x 2½	2.13
*CTM-2494	15-15	350-350	1 x 2	1.35
CTM-2498	20-20	350-350	1 x 3	1.74
CTM-2502	30-20	350-350	1 x 3½	1.95
*CTM-2506	30-30	350-350	1 x 3	1.74
*CTM-2510	50-30	350-350	1⅜ x 2½	1.89
*CTM-2514	60-30	350-350	1⅜ x 3	1.89
CTM-2518	80-4	350-350	1⅜ x 2½	2.40
*CTM-2522	80-20	350-350	1⅜ x 3	2.10
*CTM-2526	80-40	350-350	1⅜ x 3	2.46
*CTM-2530	80-80	350-350	1⅜ x 4	2.82
*CTM-2534	90-40	350-350	1⅜ x 3	2.58
CTM-2538	100-40	350-350	1⅜ x 3	3.45
*CTM-2542	100-60	350-350	1⅜ x 3½	2.88
*CTM-2546	100-100	350-350	1⅜ x 4	3.69
*CTM-2550	160-10	350-350	1⅜ x 3	2.58
CTM-2554	50-50	385-385	1⅜ x 3	2.73
*CTM-2558	35-100	400-50	1 x 3	1.56
CTM-2562	40-100	400-50	1⅜ x 2	2.04
*CTM-2566	100-30	400-50	1⅜ x 3	2.34
*CTM-2570	80-80	400-200	1⅜ x 3½	2.37
CTM-2574	60-80	400-250	1⅜ x 4	2.94
CTM-2578	4-140	400-300	1⅜ x 3	2.16
CTM-2582	100-80	400-350	1⅜ x 4	4.08
CTM-2586	15-15	400-400	1 x 2½	1.68
CTM-2590	30-10	400-400	1 x 3	1.77
CTM-2594	60-60	400-400	1⅜ x 4	3.30
CTM-2598	75-75	400-400	1⅜ x 4	3.63
CTM-2602	80-10	400-400	1⅜ x 3½	2.55
CTM-2606	80-20	400-400	1⅜ x 3	2.73
CTM-2610	80-40	400-400	1⅜ x 4	3.09
*CTM-2614	80-60	400-400	1⅜ x 3	2.82
*CTM-2618	120-40	400-400	1⅜ x 4	3.15
*CTM-2622	10-20	450-25	1 x 2	1.02
CTM-2626	10-50	450-25	1 x 2½	1.29
CTM-2630	20-20	450-25	1 x 2	1.50
CTM-2634	20-100	450-25	1 x 2½	1.65
†CTM-2638	40-20	450-25	1 x 3	1.83
CTM-2642	80-10	450-25	1⅜ x 3	2.55
CTM-2646	80-20	450-25	1⅜ x 3	2.55
CTM-2650	10-100	450-50	1 x 2½	1.53
CTM-2654	30-25	450-50	1 x 2½	1.74
CTM-2658	40-50	450-50	1 x 3½	2.25
*CTM-2662	40-100	450-50	1 x 3½	1.68
*CTM-2666	50-100	450-50	1⅜ x 2½	1.80
*CTM-2668	80-50	450-50	1⅜ x 3	2.10
*CTM-2670	80-100	450-50	1⅜ x 3	2.25
CTM-2674	10-50	450-100	1⅜ x 2	1.53
CTM-2678	20-100	450-100	1⅜ x 2	2.19
CTM-2682	30-40	450-150	1⅜ x 2	2.19
*CTM-2686	30-200	450-150	1⅜ x 3	2.10
CTM-2690	40-150	450-150	1⅜ x 3	2.58
CTM-2694	80-50	450-150	1⅜ x 3	2.82
CTM-2698	80-60	450-150	1⅜ x 3½	3.12
CTM-2702	80-40	450-200	1⅜ x 3	2.85
*CTM-2706	20-50	450-250	1 x 3	1.68
CTM-2710	20-150	450-250	1⅜ x 3	2.88
*CTM-2714	40-10	450-300	1 x 3	1.56
CTM-2718	10-100	450-350	1⅜ x 3½	3.00
CTM-2722	20-80	450-350	1⅜ x 3½	2.73
CTM-2726	25-15	450-350	1 x 3	1.92
*CTM-2730	40-10	450-350	1⅜ x 2	1.56
CTM-2734	40-20	450-350	1⅜ x 2½	2.13
CTM-2738	40-40	450-350	1⅜ x 3	2.49
CTM-2742	30-20	450-400	1 x 3	2.04
*CTM-2746	5-5	450-450	1 x 2	1.02
*CTM-2750	10-10	450-450	1 x 2	1.14
CTM-2754	15-10	450-450	1 x 2½	1.68
*CTM-2758	15-15	450-450	1 x 2½	1.35
*CTM-2762	20-10	450-450	1 x 2½	1.35
*CTM-2766	20-20	450-450	1 x 3	1.53
*CTM-2770	30-10	450-450	1 x 3	1.44
CTM-2774	30-10	450-450	1⅜ x 2	1.80
CTM-2778	30-15	450-450	1⅜ x 2	1.98
*CTM-2782	30-30	450-450	1⅜ x 2½	1.83
CTM-2786	40-5	450-450	1 x 3	1.92
CTM-2790	40-15	450-450	1⅜ x 2½	2.10
*CTM-2794	40-20	450-450	1⅜ x 2½	1.95
*CTM-2798	40-40	450-450	1⅜ x 3	2.07
CTM-2802	50-40	450-450	1⅜ x 3	2.70
*CTM-2806	50-50	450-450	1⅜ x 3	2.31
*CTM-2810	60-20	450-450	1⅜ x 3	2.13
*CTM-2814	60-40	450-450	1⅜ x 3½	2.37
*CTM-2818	60-60	450-450	1⅜ x 3½	2.70
*CTM-2822	80-10	450-450	1⅜ x 3	2.16
*CTM-2826	80-20	450-450	1⅜ x 3	2.34
*CTM-2830	80-30	450-450	1⅜ x 4	2.52
*CTM-2834	80-40	450-450	1⅜ x 3½	3.03
*CTM-2838	80-80	450-450	1⅜ x 4½	3.96
*CTM-2842	100-40	450-450	1⅜ x 4	2.91

*Preferred Type
†Discontinued

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TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-2846	10-20	475-25	1 x 2	1.29
*CTM-2850	30-100	475-50	1⅜ x 3½	1.65
CTM-2854	75-50	475-50	1⅜ x 3	2.73
CTM-2858	40-80	475-200	1⅜ x 2½	2.73
CTM-2862	80-80	475-250	1⅜ x 4	2.79
CTM-2866	20-100	475-300	1⅜ x 3½	2.97
*CTM-2870	20-100	475-400	1⅜ x 4	2.70
CTM-2874	40-40	475-400	1⅜ x 3	2.82
*CTM-2878	15-15	475-475	1 x 2½	1.41
*CTM-2882	30-10	475-475	1 x 3	1.56
*CTM-2886	40-10	475-475	1⅜ x 2½	1.86
CTM-2890	40-40	475-475	1⅜ x 3	3.24
CTM-2894	60-40	475-475	1⅜ x 4	3.42
CTM-2898	80-40	475-475	1⅜ x 4	3.78
*CTM-2902	80-50	475-475	1⅜ x 4	3.12
CTM-2906	80-50	500-50	1⅜ x 3½	2.85
CTM-2910	60-80	500-150	1⅜ x 3	2.82
CTM-2914	40-50	500-200	1⅜ x 3	2.52
CTM-2918	15-20	500-300	1 x 2½	1.74
CTM-2922	20-100	500-300	1⅜ x 3	2.94
CTM-2926	40-40	500-400	1⅜ x 3	2.82
CTM-2930	4-4	500-500	1 x 2½	1.29
*CTM-2934	10-10	500-500	1 x 2½	1.17
*CTM-2938	20-20	500-500	1⅜ x 2½	1.71
*CTM-2942	30-10	500-500	1⅜ x 3	1.56
*CTM-2946	30-30	500-500	1⅜ x 3	1.95
CTM-2950	40-25	500-500	1⅜ x 3	2.73
*CTM-2954	40-40	500-500	1⅜ x 3	2.58
*CTM-2958	60-40	500-500	1⅜ x 3½	2.76

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-3020	1500-1500-1500	3-3-3	1 x 3½	5.40
CTM-3022	200-200-30	10-10-10	1 x 2	2.04
CTM-3022.7	850-400-4	16-16-11.5RMS	1 x 2½	3.00
CTM-3022.9	1000-500-4	16-16-11.5RMS	1 x 2½	3.12
*CTM-3023	1000-500-4	16-16-11.5RMS	1⅜ x 2	2.46
*CTM-3024	400-100-100	16-16-16	1 x 2	1.80
CTM-3026	500-100-100	16-16-16	1 x 2	2.10
CTM-3028	500-500-100	16-16-16	1 x 2	2.34
*CTM-3029	1000-500-20	16-16-16	1⅜ x 2	2.58
CTM-3030	40-500-500	25-10-10	1 x 2½	3.03
*CTM-3032	20-20-20	25-25-25	1 x 2	1.17
CTM-3034	40-40-40	25-25-25	1 x 2	1.92
CTM-3036	30-30-30	50-50-50	1 x 2	1.91
CTM-3038	20-250-100	150-15-15	1⅜ x 2	2.61
CTM-3040	40-25-130	150-25-15	1 x 3	2.97
CTM-3042	50-100-20	150-50-25	1 x 3	2.58
CTM-3044	100-50-25	150-50-25	1 x 3	2.70
*CTM-3046	15-15-1200	150-150-2	1 x 2	1.89
CTM-3048	30-20-100	150-150-6	1 x 2	2.16
CTM-3050	20-20-100	150-150-10	1 x 2	2.13
CTM-3052	20-20-250	150-150-10	1 x 2	2.34
†CTM-3054	30-30-200	150-150-10	1 x 2	2.25
*CTM-3056	40-20-150	150-150-10	1 x 2	1.44
CTM-3058	40-20-200	150-150-10	1 x 2½	2.25
CTM-3060	40-20-250	150-150-10	1 x 2½	2.43
CTM-3062	40-40-100	150-150-10	1 x 2½	2.25
CTM-3064	40-40-250	150-150-10	1 x 2½	3.39
CTM-3066	50-30-100	150-150-10	1 x 2½	2.43
CTM-3068	80-20-200	150-150-10	1⅜ x 2	2.58
*CTM-3070	80-30-300	150-150-10	1⅜ x 2	1.69
CTM-3072	80-60-250	150-150-10	1 x 2½	2.88
*CTM-3074	90-40-400	150-150-10	1⅜ x 2½	2.10
CTM-3076	100-20-200	150-150-10	1⅜ x 2½	2.97
*CTM-3078	100-80-200	150-150-10	1⅜ x 2½	2.16
CTM-3080	60-40-400	150-150-15	1⅜ x 2	2.88
CTM-3082	80-20-100	150-150-15	1⅜ x 2	2.52
CTM-3084	20-20-20	150-150-25	1 x 2	1.98
CTM-3086	20-20-200	150-150-25	1 x 3	2.34
CTM-3088	30-20-20	150-150-25	1 x 2	2.04
CTM-3090	30-30-20	150-150-25	1 x 2	2.07
*CTM-3092	40-20-20	150-150-25	1 x 2½	1.38
*CTM-3094	40-20-100	150-150-25	1 x 2½	1.50
*CTM-3096	40-20-200	150-150-25	1 x 2	1.62
*CTM-3098	40-40-20	150-150-25	1 x 2	1.44
*CTM-3100	40-40-200	150-150-25	1 x 3	1.68
*CTM-3102	40-40-250	150-150-25	1 x 3	1.89
*CTM-3104	50-30-20	150-150-25	1 x 2½	1.50
*CTM-3106	50-30-100	150-150-25	1 x 3	1.62
CTM-3108	50-30-200	150-150-25	1⅜ x 2	2.61
CTM-3110	50-30-300	150-150-25	1 x 3	3.06
*CTM-3112	50-50-20	150-150-25	1 x 3	1.59
CTM-3114	50-50-200	150-150-25	1 x 3	2.76
CTM-3116	60-20-20	150-150-25	1 x 2	2.31
*CTM-3118	60-40-200	150-150-25	1 x 3	1.83
CTM-3120	60-60-100	150-150-25	1⅜ x 2	2.76
CTM-3122	80-20-20	150-150-25	1 x 3	2.40
CTM-3124	80-30-300	150-150-25	1⅜ x 2	3.30
*CTM-3126	80-40-20	150-150-25	1 x 2½	1.68
*CTM-3128	80-40-300	150-150-25	1⅜ x 2½	2.22
CTM-3130	120-60-20	150-150-25	1⅜ x 2½	3.03
†CTM-3132	300-80-200	150-150-50	1⅜ x 4	2.97
CTM-3134	10-10-10	150-150-150	1 x 2	1.86
*CTM-3136	20-20-20	150-150-150	1 x 2	1.38
*CTM-3138	30-30-10	150-150-150	1 x 2	1.71
*CTM-3140	40-20-10	150-150-150	1 x 2	1.41
*CTM-3142	40-20-20	150-150-150	1 x 2	1.44
*CTM-3144	40-30-20	150-150-150	1 x 2	1.50
*CTM-3146	40-40-40	150-150-150	1 x 3½	1.56
†CTM-3148	50-20-20	150-150-150	1 x 2½	2.31
*CTM-3150	50-40-10	150-150-150	1 x 2½	1.53
CTM-3152	50-50-10	150-150-150	1⅜ x 2	2.43
*CTM-3154	50-50-50	150-150-150	1 x 3	1.80
CTM-3156	50-50-50	150-150-150	1⅜ x 3	2.70
*CTM-3158	60-40-20	150-150-150	1 x 3	1.65
CTM-3160	60-40-30	150-150-150	1⅜ x 2	2.52
CTM-3162	60-50-50	150-150-150	1⅜ x 2	2.79
*CTM-3164	70-15-15	150-150-150	1 x 2½	1.62
*CTM-3166	70-40-40	150-150-150	1 x 3	2.43
CTM-3168	80-20-20	150-150-150	1 x 3½	2.52
*CTM-3170	80-30-10	150-150-150	1 x 3	1.65
*CTM-3172	80-40-20	150-150-150	1 x 3	1.74
CTM-3174	80-50-50	150-150-150	1 x 3	2.94
CTM-3176	80-80-80	150-150-150	1⅜ x 3	3.39
*CTM-3178	100-30-10	150-150-150	1 x 3	1.83
*CTM-3180	120-80-40	150-150-150	1⅜ x 3½	2.28
*CTM-3182	120-120-40	150-150-150	1⅜ x 3	2.43
CTM-3184	150-50-25	150-150-150	1⅜ x 3	3.24
*CTM-3186	200-100-60	150-150-150	1⅜ x 3½	2.73
†CTM-3188	200-140-60	150-150-150	1⅜ x 4	4.02
*CTM-3190	200-150-150	150-150-150	1⅜ x 4	4.50
*CTM-3192	300-100-80	150-150-150	1⅜ x 4	4.65
CTM-3194	80-40-50	200-100-50	1⅜ x 2½	2.76
CTM-3196	40-40-20	200-150-25	1 x 3	2.34
*CTM-3198	60-200-140	200-150-150	1⅜ x 4	2.88
CTM-3200	20-20-20	200-200-25	1 x 2	2.07
CTM-3202	30-20-20	200-200-25	1 x 2	2.31
CTM-3204	30-20-40	200-200-25	1 x 2	2.31
*CTM-3206	60-5-20	200-200-50	1 x 2½	1.50
*CTM-3208	60-5-100	200-200-50	1 x 2½	1.74
*CTM-3209	60-5-200	200-200-50	1 x 2½	1.92
*CTM-3210	80-10-20	200-200-50	1 x 3	1.68
CTM-3212	80-40-100	200-200-50	1⅜ x 3	3.15
CTM-3214	90-90-20	200-200-50	1⅜ x 3	3.42
CTM-3216	100-10-40	200-200-50	1⅜ x 2	2.85
*CTM-3218	30-20-40	200-200-150	1 x 2½	1.62
CTM-3220	20-20-20	200-200-200	1 x 2½	2.25
CTM-3222	30-20-20	200-200-200	1 x 2½	2.43
CTM-3224	40-40-20	200-200-200	1 x 2½	2.73
CTM-3226	50-30-30	200-200-200	1⅜ x 2	2.85
*CTM-3228	250-200-10	200-200-200	1⅜ x 4	4.02
CTM-3230	40-40-20	250-150-25	1⅜ x 2	2.43
*CTM-3232	80-40-50	250-150-50	1⅜ x 2½	1.41
CTM-3234	15-20-20	250-150-150	1 x 2	2.16
*CTM-3236	60-40-20	250-200-25	1⅜ x 2	1.98
*CTM-3238	15-15-20	250-250-25	1 x 2	1.41
CTM-3240	20-15-20	250-250-25	1 x 2½	2.13
*CTM-3242	30-30-20	250-250-25	1 x 3	1.68
CTM-3244	60-60-25	250-250-25	1 x 3½	3.42
CTM-3246	70-70-20	250-250-50	1⅜ x 3	3.51
*CTM-3248	90-90-20	250-250-50	1⅜ x 3	2.76
CTM-3250	40-20-10	250-250-150	1⅜ x 2	2.49
CTM-3252	40-40-10	250-250-200	1⅜ x 2	2.67
CTM-3254	80-80-60	250-250-200	1⅜ x 3½	4.05
CTM-3256	15-15-10	250-250-250	1 x 2	2.22
CTM-3258	20-20-10	250-250-250	1 x 2	2.25
*CTM-3260	20-20-20	250-250-250	1 x 2	1.56
CTM-3262	30-15-10	250-250-250	1 x 2½	2.43
CTM-3264	30-15-15	250-250-250	1 x 2	2.49
CTM-3266	30-20-10	250-250-250	1 x 2	2.43
†CTM-3268	40-20-10	250-250-250	1 x 2½	2.58
*CTM-3270	40-20-20	250-250-250	1 x 3½	1.74
*CTM-3272	80-10-10	250-250-250	1 x 3	1.92
*CTM-3274	80-80-60	250-250-250	1⅜ x 3	2.94
*CTM-3276	10-500-500	300-15-15	1⅜ x 2½	3.51
CTM-3278	20-10-10	300-75-25	1⅜ x 3	2.13
*CTM-3280	100-60-20	300-150-25	1⅜ x 3	2.52
CTM-3282	140-200-100	300-150-50	1⅜ x 4	5.16
*CTM-3284	20-150-80	300-150-150	1⅜ x 3	2.37
*CTM-3286	60-200-30	300-150-150	1⅜ x 4	3.90
CTM-3288	100-150-30	300-150-150	1⅜ x 4	4.47
*CTM-3290	100-200-30	300-150-150	1⅜ x 4	3.12
*CTM-3292	100-200-60	300-150-150	1⅜ x 4	3.00
CTM-3294	20-80-10	300-250-200	1⅜ x 2½	3.12
CTM-3296	16-20-20	300-250-250	1 x 3	2.34
CTM-3298	40-80-40	300-250-250	1⅜ x 3	3.78
†CTM-3300	60-30-30	300-250-250	1⅜ x 2½	3.39
*CTM-3302	100-60-20	300-250-250	1⅜ x 4	2.94
*CTM-3304	200-60-20	300-250-250	1⅜ x 4	3.30
CTM-3306	20-20-20	300-300-25	1 x 2½	2.49
CTM-3308	40-15-20	300-300-25	1 x 3	2.67

*Preferred Type †Discontinued **NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)**

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ARCO
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Arcolytic

TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-3310	40-20-20	300-300-25	1⅜ x 2	2.79
CTM-3312	140-10-100	300-300-25	1⅜ x 3½	4.02
*CTM-3313	20-20-50	300-300-50	1 x 2½	1.80
CTM-3314	30-30-25	300-300-50	1 x 3	2.61
*CTM-3316	100-10-60	300-300-50	1⅜ x 2½	2.43
CTM-3318	125-20-20	300-300-50	1⅜ x 3	4.02
CTM-3320	125-20-100	300-300-50	1⅜ x 3	4.41
*CTM-3322	125-60-40	300-300-50	1⅜ x 4	3.12
*CTM-3324	140-100-60	300-300-50	1⅜ x 4	3.63
*CTM-3326	140-100-100	300-300-50	1⅜ x 4	5.04
*CTM-3328	200-20-10	300-300-100	1⅜ x 4	2.94
CTM-3330	40-40-20	300-300-150	1⅜ x 2	3.24
CTM-3332	140-10-200	300-300-150	1⅜ x 4	3.30
†CTM-3334	10-10-15	300-300-250	1 x 2	2.22
*CTM-3336	10-10-10	300-300-300	1 x 2	1.44
*CTM-3338	60-20-10	300-300-300	1⅜ x 2	2.07
CTM-3340	80-20-10	300-300-300	1⅜ x 2½	3.42
*CTM-3342	80-40-40	300-300-300	1⅜ x 2½	3.15
CTM-3344	100-40-20	300-300-300	1⅜ x 3½	3.30
*CTM-3346	120-50-40	300-300-300	1⅜ x 4	3.51
*CTM-3348	150-100-10	300-300-300	1⅜ x 4	3.81
†CTM-3350	160-60-20	300-300-300	1⅜ x 4	4.92
CTM-3352	200-140-20	300-300-300	1⅜ x 4	6.36
†CTM-3354	30-25-100	350-25-6	1 x 2½	1.68
CTM-3356	5-100-40	350-25-25	1 x 2	2.13
CTM-3358	40-100-25	350-50-25	1⅜ x 2	2.88
CTM-3360	10-50-100	350-100-75	1 x 3	2.58
*CTM-3362	20-50-100	350-100-75	1 x 3	1.86
CTM-3364	10-10-250	350-150-15	1 x 2½	2.49
*CTM-3366	10-50-100	350-150-50	1 x 3½	1.71
CTM-3367	40-200-100	350-150-150	1⅜ x 3½	3.00
CTM-3368	60-200-30	350-150-150	1⅜ x 4	3.00
CTM-3370	40-80-500	350-200-25	1⅜ x 3½	4.56
*CTM-3372	125-5-100	350-200-75	1⅜ x 3½	3.18
CTM-3374	50-10-500	350-250-5	1⅜ x 2½	3.33
CTM-3376	50-10-1000	350-250-5	1⅜ x 2½	3.66
CTM-3378	20-30-20	350-250-25	1 x 3	2.52
CTM-3380	30-20-100	350-250-50	1 x 3	2.94
CTM-3382	100-40-5	350-250-50	1⅜ x 2½	2.91
CTM-3384	30-20-10	350-250-250	1 x 3½	2.70
CTM-3386	10-80-25	350-300-25	1⅜ x 3	3.06
*CTM-3388	30-30-20	350-300-25	1 x 3	1.89
†CTM-3390	30-50-20	350-300-25	1⅜ x 2½	3.24
CTM-3392	10-40-5	350-300-150	1 x 2½	2.58
†CTM-3394	20-40-10	350-300-150	1 x 3½	2.85
CTM-3396	40-20-10	350-300-200	1⅜ x 2	2.97
CTM-3398	100-40-40	350-300-250	1⅜ x 3½	2.91
CTM-3400	10-10-1400	350-350-3	1⅜ x 3	2.94
*CTM-3402	15-10-20	350-350-25	1 x 2½	1.50
CTM-3404	15-15-20	350-350-25	1 x 2½	2.43
CTM-3406	20-5-30	350-350-25	1 x 2	2.22
*CTM-3408	20-5-100	350-350-25	1 x 3	1.56
*CTM-3410	20-10-20	350-350-25	1 x 2½	1.53
*CTM-3412	20-20-20	350-350-25	1 x 2½	1.74
CTM-3414	30-10-20	350-350-25	1 x 2½	2.76
*CTM-3416	30-20-20	350-350-25	1 x 2½	1.86
CTM-3418	30-20-40	350-350-25	1 x 3	2.85
*CTM-3420	30-30-20	350-350-25	1⅜ x 2	2.04
CTM-3422	40-5-30	350-350-25	1⅜ x 2	2.61
CTM-3424	40-40-50	350-350-25	1⅜ x 2½	3.39
CTM-3426	60-10-25	350-350-25	1⅜ x 2½	2.70
CTM-3428	90-40-50	350-350-25	1⅜ x 3½	4.41
CTM-3430	100-20-20	350-350-25	1⅜ x 3½	4.26
*CTM-3432	200-10-50	350-350-50	1⅜ x 4	3.15
CTM-3434	10-5-30	350-350-50	1 x 2	1.98
CTM-3436	10-5-150	350-350-50	1 x 3	2.43
*CTM-3438	20-5-150	350-350-50	1 x 3	1.77
*CTM-3440	20-10-100	350-350-50	1⅜ x 2½	1.74
CTM-3442	70-40-50	350-350-50	1⅜ x 3½	3.90
CTM-3444	80-10-40	350-350-50	1⅜ x 3	3.42
CTM-3446	80-10-100	350-350-50	1⅜ x 3	3.69
CTM-3448	100-20-50	350-350-50	1⅜ x 3	4.17
CTM-3450	80-40-400	350-350-50	1⅜ x 4	3.39
*CTM-3452	150-4-30	350-350-50	1⅜ x 3½	2.85
CTM-3454	30-20-100	350-350-75	1⅜ x 2½	3.60
†CTM-3456	40-20-10	350-350-100	1⅜ x 2	2.58
*CTM-3458	30-20-100	350-350-150	1⅜ x 2½	2.40
CTM-3460	40-20-10	350-350-150	1 x 3	2.88
CTM-3462	40-40-100	350-350-200	1⅜ x 4	4.32
*CTM-3464	80-40-100	350-350-200	1⅜ x 4	3.27
*CTM-3466	100-60-20	350-350-200	1⅜ x 4	3.20
*CTM-3468	20-10-5	350-350-250	1 x 2½	1.53
CTM-3470	30-10-20	350-350-250	1 x 3	2.76
CTM-3472	20-20-10	350-350-350	1 x 3	2.67
*CTM-3474	30-20-10	350-350-350	1 x 2½	1.95
CTM-3476	50-50-50	350-350-350	1⅜ x 3½	4.38
CTM-3478	60-20-10	350-350-350	1⅜ x 4	2.40
*CTM-3480	60-40-20	350-350-350	1⅜ x 4	2.55
CTM-3482	60-40-40	350-350-350	1⅜ x 4	4.23
*CTM-3484	60-50-50	350-350-350	1⅜ x 4	2.94
CTM-3486	80-40-40	350-350-350	1⅜ x 4	4.77
*CTM-3488	80-60-60	350-350-350	1⅜ x 4	3.33

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
*CTM-3490	90-40-20	350-350-350	1⅜ x 4	3.15
CTM-3492	100-20-20	350-350-350	1⅜ x 4	3.09
CTM-3494	100-40-10	350-350-350	1⅜ x 4	3.15
CTM-3496	100-100-10	350-350-350	1⅜ x 4	4.08
CTM-3497	100-100-40	350-350-350	1⅜ x 4½	4.50
CTM-3498	120-40-40	350-350-350	1⅜ x 4	5.58
*CTM-3500	140-140-20	350-350-350	1⅜ x 4	4.59
CTM-3502	20-50-50	400-10-10	1 x 2	2.13
*CTM-3504	40-200-60	400-200-200	1⅜ x 4	3.33
CTM-3506	10-5-40	400-300-25	1 x 2	1.98
CTM-3508	60-40-20	400-300-25	1⅜ x 3½	3.78
CTM-3510	80-20-10	400-300-300	1⅜ x 3½	3.84
CTM-3512	10-50-30	400-350-25	1 x 3½	2.79
CTM-3514	100-10-200	400-350-25	1⅜ x 3	2.94
CTM-3516	80-20-100	400-350-50	1⅜ x 3½	4.05
CTM-3518	100-10-20	400-350-50	1⅜ x 3½	4.05
CTM-3520	20-15-10	400-350-350	1 x 3	2.67
CTM-3522	10-20-20	400-350-350	1 x 3	2.40
CTM-3524	15-15-40	400-400-25	1 x 3	2.52
*CTM-3526	20-20-20	400-400-25	1 x 3	1.71
CTM-3528	30-10-20	400-400-25	1 x 3	2.55
CTM-3530	20-10-40	400-400-50	1 x 3	2.40
CTM-3532	30-10-150	400-400-50	1⅜ x 2½	3.06
CTM-3534	80-40-100	400-400-50	1⅜ x 4	4.50
*CTM-3536	80-40-150	400-400-50	1⅜ x 4	3.15
*CTM-3538	100-10-20	400-400-50	1⅜ x 3½	2.70
CTM-3540	20-20-20	400-400-100	1 x 3	2.67
CTM-3542	20-10-10	400-400-350	1 x 3	2.43
CTM-3544	20-10-40	400-400-350	1 x 3	3.06
*CTM-3546	20-20-10	400-400-350	1 x 3	1.80
*CTM-3548	60-30-20	400-400-350	1⅜ x 3	2.73
*CTM-3550	80-20-10	400-400-350	1⅜ x 3	2.58
*CTM-3552	100-10-80	400-400-350	1⅜ x 4	3.66
*CTM-3554	10-10-10	400-400-400	1 x 2½	1.44
CTM-3556	40-10-10	400-400-400	1 x 3	1.89
*CTM-3558	90-10-5	400-400-400	1⅜ x 3	2.64
CTM-3560	100-30-20	400-400-400	1⅜ x 4	4.95
CTM-3562	10-20-10	450-25 25	1 x 2	1.95
CTM-3564	30-20-20	450-25-25	1 x 3	2.49
†CTM-3566	30-100-25	450-25-25	1⅜ x 2	2.67
CTM-3568	10-100-20	450-50-25	1 x 3	2.31
CTM-3570	80-100-20	350-50-50	1⅜ x 3	3.84
CTM-3572	10-50-100	450-150-25	1 x 3	2.49
*CTM-3574	40-40-130	450-150-50	1⅜ x 3	2.22
CTM-3576	40-50-100	450-150-50	1⅜ x 2½	3.30
*CTM-3578	10-50-100	450-150-75	1 x 3	1.95
CTM-3580	20-50-100	450-150-75	1⅜ x 2	3.06
*CTM-3582	40-90-50	450-150-150	1⅜ x 3	2.40
CTM-3584	20-80-50	450-200-50	1⅜ x 2½	3.06
*CTM-3586	10-100-200	450-200-25	1 x 3½	2.16
*CTM-3588	10-100-100	450-200-50	1 x 3½	2.16
*CTM-3590	20-60-100	450-250-25	1⅜ x 2½	2.19
CTM-3592	10-60-60	450-250-250	1⅜ x 4	3.60
*CTM-3594	10-80-80	450-250-250	1⅜ x 4	2.49
CTM-3596	20-40-10	450-250-250	1⅜ x 2	2.85
CTM-3598	20-60-40	450-250-250	1⅜ x 3	3.57
*CTM-3600	80-40-40	450-250-250	1⅜ x 4	2.88
*CTM-3602	10-40-10	450-300-150	1⅜ x 2	1.86
CTM-3604	30-10-10	450-300-150	1⅜ x 2	2.67
*CTM-3606	5-80-40	450-300-300	1⅜ x 3	2.49
CTM-3608	10-100-20	450-300-300	1⅜ x 3	3.90
CTM-3610	20-15-10	450-300-300	1⅜ x 3	2.58
CTM-3612	10-10-20	450-350-25	1 x 2½	2.07
CTM-3614	10-10-50	450-350-25	1 x 3	2.16
*CTM-3616	30-15-40	450-350-25	1⅜ x 2	1.92
*CTM-3618	30-40-50	450-350-25	1 x 4	2.22
CTM-3620	20-80-100	450-350-50	1⅜ x 3½	4.05
CTM-3622	80-50-100	450-350-200	1⅜ x 4	3.51
CTM-3624	15-20-20	450-350-250	1⅜ x 2	2.67
CTM-3626	20-15-10	450-350-300	1 x 3	2.76
CTM-3628	40-50-50	450-350-300	1⅜ x 4	4.38
CTM-3630	20-15-15	450-350-350	1 x 3	2.94
*CTM-3632	20-40-10	450-350-350	1⅜ x 2½	2.10
*CTM-3634	20-80-10	450-350-350	1⅜ x 3	2.55
*CTM-3636	40-80-40	450-350-350	1⅜ x 3½	3.24
CTM-3638	50-80-10	450-350-350	1⅜ x 3½	4.41
CTM-3640	60-20-20	450-350-350	1⅜ x 3½	3.87
CTM-3642	60-40-20	450-350-350	1⅜ x 3½	4.14
CTM-3644	10-30-150	450-400-5	1 x 3	2.70
CTM-3646	30-50-40	450-400-25	1⅜ x 3	3.51
*CTM-3648	60-80-20	450-400-250	1⅜ x 4	3.27
CTM-3650	10-30-30	450-400-300	1⅜ x 2½	3.03
CTM-3652	10-30-40	450-400-300	1⅜ x 2½	3.30
CTM-3654	4-40-40	450-400-300	1⅜ x 2½	4.14
*CTM-3656	10-10-10	450-450-25	1 x 2½	1.44
*CTM-3658	10-10-20	450-450-25	1 x 2½	1.44
CTM-3660	15-15-20	450-450-25	1 x 3	2.43
*CTM-3662	15-15-40	450-450-25	1 x 2½	1.65
*CTM-3664	20-10-20	450-450-25	1 x 3	1.62
CTM-3666	20-15-20	450-450-25	1 x 3½	2.61
*CTM-3668	20-20-20	450-450-25	1 x 3	1.83

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

*Preferred Type
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TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
*CTM-3670	30-30-20	450-450-25	1⅜ x 2½	2.13
*CTM-3672	30-30-125	450-450-25	1⅜ x 3	2.37
*CTM-3674	40-20-20	450-450-25	1⅜ x 2½	2.10
*CTM-3676	40-40-20	450-450-25	1⅜ x 3	2.34
*CTM-3678	40-40-40	450-450-25	1⅜ x 3	2.37
*CTM-3680	80-10-125	450-450-25	1⅜ x 3½	2.67
*CTM-3682	80-40-100	450-450-25	1⅜ x 4	3.03
*CTM-3684	10-10-40	450-450-50	1 x 2½	1.50
*CTM-3686	20-10-50	450-450-50	1 x 3	1.71
CTM-3688	20-20-100	450-450-50	1⅜ x 2½	3.15
*CTM-3690	30-10-150	450-450-50	1⅜ x 2½	2.10
*CTM-3692	30-15-150	450-450-50	1⅜ x 3	2.22
CTM-3694	30-30-40	450-450-50	1⅜ x 3	3.30
*CTM-3696	35-25-150	450-450-50	1⅜ x 3	2.37
CTM-3698	40-10-40	450-450-50	1⅜ x 2½	2.99
*CTM-3700	40-10-100	450-450-50	1⅜ x 3	2.58
CTM-3702	40-30-25	450-450-50	1⅜ x 2½	3.39
*CTM-3704	40-40-100	450-450-50	1⅜ x 3½	2.58
*CTM-3706	60-40-75	450-450-50	1⅜ x 4	2.79
*CTM-3708	80-20-100	450-450-50	1⅜ x 4	2.88
CTM-3710	80-50-50	450-450-50	1⅜ x 4	4.68
CTM-3712	30-30-125	450-450-75	1⅜ x 3	4.05
†CTM-3714	10-10-50	450-450-100	1⅜ x 2	2.40
CTM-3716	30-20-30	450-450-150	1⅜ x 2½	3.15
*CTM-3718	40-40-40	450-450-150	1⅜ x 3½	2.49
*CTM-3720	40-10-80	450-450-200	1⅜ x 3	2.34
*CTM-3722	40-10-100	450-450-200	1⅜ x 3½	2.49
*CTM-3724	40-40-60	450-450-200	1⅜ x 3½	2.67
*CTM-3726	40-40-100	450-450-200	1⅜ x 4	2.97
CTM-3728	15-10-120	450-450-300	1⅜ x 3½	4.23
CTM-3730	15-15-10	450-450-300	1 x 3½	2.58
†CTM-3732	15-5-15	450-450-350	1 x 3	2.58
CTM-3734	20-20-60	450-450-350	1⅜ x 3½	4.56
CTM-3736	40-10-10	450-450-350	1⅜ x 3	2.97
CTM-3738	40-40-60	450-450-350	1⅜ x 4	4.11
*CTM-3740	40-40-80	450-450-350	1⅜ x 4	3.33
*CTM-3742	50-5-50	450-450-350	1⅜ x 3½	2.55
†CTM-3744	60-20-40	450-450-350	1⅜ x 4	4.41
*CTM-3746	10-10-10	450-450-450	1 x 3	1.56
CTM-3748	15-15-10	450-450-450	1 x 3½	2.67
*CTM-3750	15-15-15	450-450-450	1 x 3	1.86
*CTM-3752	20-10-10	450-450-450	1 x 3	1.74
*CTM-3754	20-20-20	450-450-450	1⅜ x 2½	2.16
*CTM-3756	30-10-10	450-450-450	1⅜ x 2	1.89
*CTM-3758	30-20-20	450-450-450	1⅜ x 3	2.31
CTM-3760	30-30-10	450-450-450	1⅜ x 3	3.39
*CTM-3762	30-30-30	450-450-450	1⅜ x 3½	2.61
*CTM-3764	40-10-10	450-450-450	1⅜ x 3	2.01
*CTM-3766	40-30-20	450-450-450	1⅜ x 3	2.58
*CTM-3768	40-40-10	450-450-450	1⅜ x 2½	2.49
*CTM-3770	40-40-20	450-450-450	1⅜ x 3	2.57
*CTM-3772	40-40-40	450-450-450	1⅜ x 3½	2.94
CTM-3774	50-30-30	450-450-450	1⅜ x 3½	4.29
*CTM-3776	50-40-30	450-450-450	1⅜ x 3½	2.94
CTM-3778	60-10-10	450-450-450	1⅜ x 3	3.51
*CTM-3780	60-20-20	450-450-450	1⅜ x 3	2.76
*CTM-3782	60-30-10	450-450-450	1⅜ x 3	2.70
*CTM-3784	60-40-20	450-450-450	1⅜ x 3½	3.00
CTM-3786	80-40-10	450-450-450	1⅜ x 4	4.56
*CTM-3788	80-40-20	450-450-450	1⅜ x 4	3.24
*CTM-3790	20-50-20	475-50-25	1 x 3	1.65
*CTM-3792	80-80-50	475-150-50	1⅜ x 4	2.91
CTM-3794	10-100-40	475-200-50	1⅜ x 2½	3.03
CTM-3796	40-40-100	475-250-50	1⅜ x 3	3.87
CTM-3798	40-40-100	475-250-100	1⅜ x 3	3.69
CTM-3800	40-40-10	475-250-250	1⅜ x 3½	3.00
CTM-3802	20-20-40	475-300-25	1⅜ x 2	2.79
CTM-3804	40-40-100	475-300-50	1⅜ x 3½	4.05
*CTM-3806	40-80-10	475-300-300	1⅜ x 3½	2.91
CTM-3808	10-100-25	475-350-25	1⅜ x 3	2.73
*CTM-3810	10-4-100	475-350-50	1 x 2½	1.59
*CTM-3812	20-10-5	475-350-150	1 x 2½	1.68
*CTM-3814	10-4-40	475-350-250	1⅜ x 2	1.65
CTM-3816	20-20-10	475-350-350	1 x 3	2.88
CTM-3818	40-40-25	475-400-50	1⅜ x 3	3.87
CTM-3820	10-45-100	475-450-50	1⅜ x 3	3.30
CTM-3822	40-40-20	475-450-50	1⅜ x 3	3.96
*CTM-3824	10-40-100	475-450-200	1⅜ x 3	2.52
CTM-3826	40-20-20	475-450-450	1⅜ x 3	4.05
*CTM-3828	40-80-10	475-450-450	1⅜ x 4	3.30
CTM-3830	40-40-500	475-475-10	1⅜ x 3½	4.92
CTM-3832	10-10-5	475-475-25	1 x 2½	2.22
CTM-3834	10-10-100	475-475-25	1 x 3	2.40
CTM-3836	20-10-20	475-475-25	1 x 3	2.61
CTM-3838	10-10-150	475-475-50	1 x 3	2.70
CTM-3840	20-10-20	475-475-50	1 x 3	2.67
*CTM-3842	20-10-100	475-475-50	1⅜ x 2	1.95
CTM-3844	25-10-20	475-475-50	1 x 3	2.67
*CTM-3846	20-10-100	475-475-400	1⅜ x 4	3.15
CTM-3848	20-20-60	475-475-400	1⅜ x 3½	4.32

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
*CTM-3850	20-20-60	475-475-450	1⅜ x 4	2.91
CTM-3852	10-10-10	475-475-475	1 x 3	2.43
CTM-3854	30-30-10	475-475-475	1⅜ x 3	3.60
*CTM-3856	30-30-20	475-475-475	1⅜ x 3	2.67
CTM-3858	40-10-10	475-475-475	1⅜ x 3	3.48
*CTM-3860	40-20-20	475-475-475	1⅜ x 3	2.85
*CTM-3862	40-30-10	475-475-475	1⅜ x 3	2.20
*CTM-3864	40-30-30	475-475-475	1⅜ x 4	3.09
CTM-3866	40-35-10	475-475-475	1⅜ x 3	4.11
CTM-3868	10-80-10	500-150-150	1 x 3½	2.58
CTM-3870	10-100-40	500-200-50	1⅜ x 2½	3.03
CTM-3872	40-40-100	500-250-50	1⅜ x 3	3.87
CTM-3874	20-20-40	500-300-25	1⅜ x 2	2.79
CTM-3876	20-40-100	500-300-25	1⅜ x 2½	3.24
CTM-3878	5-100-200	500-300-150	1⅜ x 4	4.65
CTM-3880	40-40-25	500-400-50	1⅜ x 3	3.87
CTM-3882	20-40-100	500-450-25	1⅜ x 3	3.42
CTM-3884	80-20-100	500-450-50	1⅜ x 4	4.59
CTM-3886	10-40-40	500-450-450	1⅜ x 3½	3.75
CTM-3888	30-20-20	500-500-25	1⅜ x 2½	3.21
CTM-3890	10-10-100	500-500-50	1 x 3½	2.58
*CTM-3892	20-10-100	500-500-50	1 x 4	1.98
CTM-3894	30-10-20	500-500-50	1⅜ x 2½	2.79
*CTM-3896	40-40-100	500-500-200	1⅜ x 4	3.48
CTM-3898	10-10-5	500-500-350	1 x 2½	2.25
*CTM-3900	20-20-60	500-500-400	1⅜ x 3½	2.88
*CTM-3902	10-10-10	500-500-500	1 x 3	1.02
CTM-3904	30-20-20	500-500-500	1⅜ x 3	2.52
*CTM-3906	40-10-10	500-500-500	1⅜ x 3	2.34
*CTM-3908	40-40-10	500-500-500	1⅜ x 3½	3.03

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
*CTM-4010	750-600-350-4	16-16-16-11.5RMS	1⅜ x 2	3.12
*CTM-4011	750-750-350-4	16-16-16-11.5RMS	1⅜ x 2	3.30
CTM-4020	40-40-40-40	25-25-25-25	1⅜ x 2	2.49
CTM-4022	5-5-25-100	75-75-25-15	1⅜ x 2	2.40
*CTM-4025	50-20-150-30	150-150-15-15	1⅜ x 2	1.89
CTM-4028	40-40-50-200	150-150-25-10	1⅜ x 2	2.85
*CTM-4031	20-20-160-40	150-150-25-25	1⅜ x 2	1.92
CTM-4034	40-40-100-100	150-150-25-25	1⅜ x 2	3.03
CTM-4037	40-40-200-100	150-150-25-25	1⅜ x 2	3.21
*CTM-4040	50-40-160-40	150-150-25-25	1⅜ x 2	2.13
CTM-4043	80-20-160-40	150-150-25-25	1⅜ x 2	3.33
CTM-4047	80-30-100-40	150-150-25-25	1⅜ x 2	3.12
CTM-4050	40-40-100-100	150-150-50-50	1⅜ x 2	3.33
CTM-4052	30-20-20-200	150-150-150-10	1⅜ x 2	2.79
*CTM-4055	40-40-20-200	150-150-150-10	1⅜ x 2	1.92
CTM-4058	50-30-25-200	150-150-150-10	1⅜ x 2	3.03
*CTM-4061	60-40-20-200	150-150-150-10	1⅜ x 2	2.07
CTM-4064	80-80-10-200	150-150-150-10	1⅜ x 2½	3.51
*CTM-4067	200-30-10-100	150-150-150-10	1⅜ x 3½	2.46
*CTM-4070	290-30-10-100	150-150-150-10	1⅜ x 3½	2.70
CTM-4073	60-20-20-1000	150-150-150-15	1⅜ x 2½	4.20
CTM-4076	20-20-20-20	150-150-150-25	1⅜ x 2	2.61
CTM-4079	30-20-20-100	150-150-150-25	1⅜ x 2	2.85
*CTM-4082	30-30-30-40	150-150-150-25	1⅜ x 2	1.86
*CTM-4085	40-20-20-20	150-150-150-25	1⅜ x 2	1.77
CTM-4088	40-30-20-100	150-150-150-25	1⅜ x 2	2.88
*CTM-4092	40-40-30-20	150-150-150-25	1⅜ x 2	1.86
CTM-4095	40-40-30-120	150-150-150-25	1⅜ x 2	3.15
*CTM-4098	40-40-40-20	150-150-150-25	1⅜ x 2	1.89
†CTM-4101	40-40-40-100	150-150-150-25	1⅜ x 2	3.03
*CTM-4104	40-40-40-160	150-150-150-25	1⅜ x 2	2.13
*CTM-4107	50-20-20-200	150-150-150-25	1⅜ x 2	2.10
*CTM-4110	50-30-30-100	150-150-150-25	1⅜ x 2	2.04
*CTM-4113	50-50-50-20	150-150-150-25	1⅜ x 2	2.13
CTM-4116	50-50-50-100	150-150-150-25	1⅜ x 2	3.39
CTM-4118	60-30-10-60	150-150-150-25	1⅜ x 2	2.76
CTM-4120	60-40-20-20	150-150-150-25	1⅜ x 2	2.97
CTM-4122	60-60-10-60	150-150-150-25	1⅜ x 2	3.15
CTM-4124	70-40-40-25	150-150-150-25	1⅜ x 2½	3.12
CTM-4126	80-40-30-100	150-150-150-25	1⅜ x 2½	3.33
*CTM-4128	80-40-40-20	150-150-150-25	1⅜ x 2	2.13
*CTM-4130	80-40-40-40	150-150-150-25	1⅜ x 2½	2.16
*CTM-4132	80-40-40-100	150-150-150-25	1⅜ x 2½	2.25
CTM-4134	80-50-50-25	150-150-150-25	1⅜ x 2½	3.42
CTM-4136	80-60-40-100	150-150-150-25	1⅜ x 2½	3.57
*CTM-4138	100-90-60-200	150-150-150-25	1⅜ x 3	2.97
CTM-4140	125-125-40-100	150-150-150-25	1⅜ x 3	4.47
*CTM-4143	250-200-10-25	150-150-150-50	1⅜ x 4	3.21
*CTM-4146	200-200-100-10	150-150-150-75	1⅜ x 4	3.57
*CTM-4148	40-40-40-30	150-150-150-150	1⅜ x 2	1.98
CTM-4150	50-40-30-30	150-150-150-150	1⅜ x 2	3.06
CTM-4152	50-50-50-50	150-150-150-150	1⅜ x 2½	3.51
CTM-4154	80-50-20-20	150-150-150-150	1⅜ x 2½	3.33
*CTM-4156	100-80-60-40	150-150-150-150	1⅜ x 3	2.79
*CTM-4159	200-200-60-30	175-175-175-175	1⅜ x 4	3.33
*CTM-4163	250-200-10-10	175-175-150-150	1⅜ x 4	3.30
CTM-4165	40-20-10-20	200-200-200-25	1⅜ x 2	2.88

*Preferred Type †Discontinued

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TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
CTM-4167	60-20-5-50	200-200-200-50	1⅜ x 3	3.15
CTM-4170	40-40-50-80	250-250-150-150	1⅜ x 2½	3.69
*CTM-4173	100-40-10-100	250-250-250-50	1⅜ x 3½	3.09
CTM-4176	80-60-40-20	250-250-250-150	1⅜ x 4	4.59
CTM-4178	40-40-20-20	250-250-250-250	1⅜ x 2½	3.60
CTM-4180	100-40-80-20	300-50-25-25	1⅜ x 3	4.11
*CTM-4183	20-150-150-100	300-150-150-30	1⅜ x 4	3.18
*CTM-4185	10-200-140-30	300-150-150-150	1⅜ x 3½	3.06
*CTM-4188	10-200-200-30	300-150-150-150	1⅜ x 4	3.21
*CTM-4190	100-60-10-20	300-200-150-50	1⅜ x 3½	2.91
CTM-4193	120-20-20-100	300-250-25-30	1⅜ x 3½	4.77
*CTM-4195	200-20-100-20	300-250-50-25	1⅜ x 4	3.48
CTM-4198	40-40-40-40	300-250-250-25	1⅜ x 2½	3.96
CTM-4200	80-5-60-20	300-300-150-25	1⅜ x 3	2.61
CTM-4203	100-40-125-50	300-300-150-50	1⅜ x 4	5.58
*CTM-4205	140-10-10-100	300-300-150-50	1⅜ x 3½	3.03
*CTM-4208	100-10-200-30	300-300-150-150	1⅜ x 4	3.54
*CTM-4210	140-10-200-30	300-300-150-150	1⅜ x 4	3.75
*CTM-4213	140-10-200-60	300-300-150-150	1⅜ x 4½	3.84
*CTM-4215	150-20-10-250	300-300-250-50	1⅜ x 4	3.63
CTM-4218	10-10-10-20	300-300-300-25	1⅜ x 2	2.67
CTM-4220	40-30-20-50	300-300-300-25	1⅜ x 2½	3.75
*CTM-4223	60-40-20-50	300-300-300-25	1⅜ x 3½	2.82
CTM-4225	30-30-15-30	300-300-300-50	1⅜ x 3	3.30
CTM-4228	60-30-10-60	300-300-300-50	1⅜ x 2½	3.78
*CTM-4230	150-30-30-150	300-300-300-50	1⅜ x 4	3.66
*CTM-4233	40-40-40-20	300-300-300-150	1⅜ x 3	2.94
*CTM-4235	120-40-40-10	300-300-300-250	1⅜ x 4	3.78
*CTM-4238	40-20-10-10	300-300-300-300	1⅜ x 2	2.37
*CTM-4240	40-40-20-10	300-300-300-300	1⅜ x 3½	2.73
*CTM-4243	40-40-30-20	300-300-300-300	1⅜ x 3	2.91
*CTM-4245	60-40-10-10	300-300-300-300	1⅜ x 2½	2.73
*CTM-4248	100-40-20-20	300-300-300-300	1⅜ x 4	5.22
CTM-4250	100-50-10-5	300-300-300-300	1⅜ x 4	4.65
*CTM-4253	140-100-20-20	300-300-300-300	1⅜ x 4½	4.26
*CTM-4255	150-100-10-10	300-300-300-300	1⅜ x 4	3.99
CTM-4258	150-150-30-30	300-300-300-300	1⅜ x 4½	4.62
*CTM-4260	200-20-20-20	300-300-300-300	1⅜ x 4	3.75
CTM-4263	20-150-80-20	350-150-150-25	1⅜ x 3	4.11
CTM-4265	60-60-30-160	350-150-150-25	1⅜ x 3	4.11
CTM-4268	40-50-20-80	350-150-150-50	1⅜ x 3	3.66
CTM-4270	20-60-160-40	350-200-25-25	1⅜ x 2	3.60
CTM-4273	15-80-40-200	350-200-200-25	1⅜ x 3	4.05
CTM-4275	20-100-100-10	350-200-200-100	1⅜ x 4	4.50
CTM-4278	20-100-100-20	350-200-200-200	1⅜ x 4	4.65
†CTM-4280	20-40-10-250	350-300-150-50	1⅜ x 3	4.14
CTM-4283	140-10-10-100	350-300-150-50	1⅜ x 4	3.45
*CTM-4285	20-150-10-250	350-300-150-50	1⅜ x 4	3.66
CTM-4288	40-40-20-20	350-300-300-25	1⅜ x 3½	4.05
*CTM-4290	160-30-30-20	350-300-300-50	1⅜ x 4	3.48
*CTM-4293	30-30-50-100	350-300-300-75	1⅜ x 3	3.15
CTM-4295	40-80-10-10	350-300-300-300	1⅜ x 3	3.21
*CTM-4298	140-100-20-20	350-300-300-300	1⅜ x 4½	4.62
*CTM-4300	160-30-10-4	350-300-300-300	1⅜ x 3½	3.63
*CTM-4303	160-60-10-4	350-300-300-300	1⅜ x 4	3.78
*CTM-4305	40-10-100-25	350-350-25-25	1⅜ x 2	2.25
*CTM-4308	60-4-100-40	350-350-25-25	1⅜ x 2½	2.28
CTM-4310	100-4-50-50	350-350-50-25	1⅜ x 3½	4.50
CTM-4313	200-10-4-20	350-350-50-25	1⅜ x 4	5.22
CTM-4315	60-5-50-20	350-350-50-50	1⅜ x 2½	2.19
CTM-4318	100-20-50-30	350-350-50-50	1⅜ x 3½	4.89
*CTM-4320	60-20-80-100	350-350-150-50	1⅜ x 4	2.94
CTM-4323	60-10-100-100	350-350-150-10	1⅜ x 4	3.60
*CTM-4325	100-60-100-100	350-350-150-10	1⅜ x 4½	4.08
CTM-4328	15-15-150-150	350-350-150-150	1⅜ x 3½	4.17
CTM-4330	40-20-10-20	350-350-200-25	1⅜ x 2	3.51
CTM-4333	40-20-100-10	350-350-200-50	1⅜ x 3	4.29
CTM-4335	80-20-20-100	350-350-200-50	1⅜ x 3½	4.50
CTM-4338	80-20-20-200	350-350-200-50	1⅜ x 3½	4.86
*CTM-4340	60-40-60-20	350-350-200-150	1⅜ x 3½	3.03
CTM-4343	80-60-60-10	350-350-200-150	1⅜ x 4	5.04
CTM-4344	100-60-10-100	350-350-200-150	1⅜ x 4½	3.90
CTM-4345	50-30-8-20	350-350-250-200	1⅜ x 2½	4.05
CTM-4348	15-15-15-15	350-350-300-25	1⅜ x 2	3,12
CTM-4350	35-35-10-20	350-350-300-25	1⅜ x 2½	3.75
CTM-4353	100-80-10-20	350-350-300-50	1⅜ x 4	3.96
CTM-4355	100-60-40-40	350-350-300-75	1⅜ x 4	4.08
CTM-4358	10-10-10-10	350-350-300-300	1⅜ x 2	2.79
CTM-4360	10-10-10-20	350-350-350-25	1⅜ x 2	2.67
*CTM-4363	20-10-5-10	350-350-350-25	1⅜ x 2	1.86
*CTM-4365	30-10-5-200	350-350-350-25	1⅜ x 2	2.28
CTM-4368	30-20-20-20	350-350-350-25	1⅜ x 2½	3.69
CTM-4370	40-20-5-10	350-350-350-25	1⅜ x 2½	3.42
CTM-4373	40-20-20-25	350-350-350-25	1⅜ x 2½	3.84
CTM-4375	40-25-25-20	350-350-350-25	1⅜ x 3	4.20
*CTM-4378	40-40-20-20	350-350-350-25	1⅜ x 3	2.79
*CTM-4380	40-40-30-10	350-350-350-25	1⅜ x 3	2.97
*CTM-4383	40-40-40-40	350-350-350-25	1⅜ x 3	3.12
*CTM-4385	120-20-10-50	350-350-350-25	1⅜ x 3	3.36
CTM-4388	15-15-15-50	350-350-350-50	1⅜ x 2	3.39
CTM-4390	40-30-10-50	350-350-350-50	1⅜ x 3	3.96
*CTM-4393	40-40-40-150	350-350-350-50	1⅜ x 4	3.39
CTM-4395	50-40-20-100	350-350-350-50	1⅜ x 3	4.65
CTM-4398	50-40-40-160	350-350-350-50	1⅜ x 4	5.19
CTM-4400	60-25-25-100	350-350-350-50	1⅜ x 3½	4.65
*CTM-4403	60-30-30-150	350-350-350-50	1⅜ x 3	3.30
*CTM-4405	70-40-10-50	350-350-350-50	1⅜ x 3	3.15
*CTM-4408	100-10-10-20	350-350-350-50	1⅜ x 3½	3.09
*CTM-4410	100-20-10-20	350-350-350-50	1⅜ x 3½	3.24
*CTM-4413	100-40-30-50	350-350-350-50	1⅜ x 4	3.93
CTM-4415	140-20-10-100	350-350-350-50	1⅜ x 4	5.55
*CTM-4418	90-30-5-100	350-350-350-75	1⅜ x 3½	3.69
CTM-4420	80-60-40-20	350-350-350-150	1⅜ x 4	5.49
CTM-4424	20-10-5-60	350-350-350-200	1⅜ x 2½	3.30
*CTM-4428	30-10-5-100	350-350-350-200	1⅜ x 2½	2.73
CTM-4432	30-20-5-100	350-350-350-200	1⅜ x 3	2.82
CTM-4439	80-40-10-100	350-350-350-200	1⅜ x 3½	4.47
CTM-4443	130-20-10-40	350-350-350-300	1⅜ x 4	5.88
CTM-4446	35-30-20-10	350-350-350-350	1⅜ x 3	4.17
*CTM-4449	40-20-20-10	350-350-350-350	1⅜ x 2½	2.61
CTM-4453	40-25-25-10	350-350-350-350	1⅜ x 2½	3.57
*CTM-4456	40-40-40-40	350-350-350-350	1⅜ x 4	3.60
*CTM-4459	80-60-40-20	350-350-350-350	1⅜ x 4	3.84
*CTM-4461	90-40-30-30	350-350-350-350	1⅜ x 4	4.08
CTM-4464	100-20-10-5	350-350-350-350	1⅜ x 3½	4.77
*CTM-4467	100-40-10-10	350-350-350-350	1⅜ x 3½	3.60
*CTM-4469	100-40-25-25	350-350-350-350	1⅜ x 4	3.93
CTM-4471	50-20-100-25	400-200-150-25	1⅜ x 2½	4.20
CTM-4473	20-20-10-40	400-250-250-25	1⅜ x 2½	3.03
*CTM-4475	40-120-10-150	400-250-250-50	1⅜ x 4	3.54
CTM-4477	10-100-10-100	400-300-75-25	1⅜ x 2½	4.23
CTM-4479	30-40-50-200	400-300-250-150	1⅜ x 4	5.40
CTM-4481	20-30-20-20	400-300-300-25	1⅜ x 2½	3.42
CTM-4483	80-40-20-10	400-300-300-300	1⅜ x 4	5.01
CTM-4485	20-40-100-10	400-350-50-50	1⅜ x 3	3.78
*CTM-4487	20-10-10-20	400-350-200-25	1⅜ x 2	1.92
*CTM-4489	40-80-100-25	400-350-200-50	1⅜ x 3½	3.57
CTM-4491	40-10-80-10	400-350-250-250	1⅜ x 4	4.20
CTM-4493	80-40-20-20	400-350-300-300	1⅜ x 3½	3.84
CTM-4495	10-50-30-30	400-350-350-25	1⅜ x 3	3.96
†CTM-4497	35-25-25-20	400-350-350-25	1⅜ x 2½	4.11
CTM-4499	80-40-10-10	400-350-350-25	1⅜ x 4	4.77
*CTM-4501	20-50-40-80	400-350-350-50	1⅜ x 3	3.00
†CTM-4503	30-60-20-100	400-350-350-50	1⅜ x 4	4.50
*CTM-4505	40-80-10-100	400-350-350-200	1⅜ x 4	3.72
CTM-4507	40-100-20-10	400-350-350-350	1⅜ x 4	3.90
CTM-4509	10-10-25-25	400-400-25-25	1⅜ x 2	2.52
CTM-4511	20-5-20-20	400-400-25-25	1⅜ x 2	2.76
CTM-4513	20-20-40-10	400-400-25-25	1⅜ x 2½	4.56
CTM-4515	50-25-100-20	400-400-50-25	1⅜ x 3	4.20
*CTM-4517	50-40-100-100	400-400-50-25	1⅜ x 4	3.06
CTM-4519	80-40-100-20	400-400-50-25	1⅜ x 4	5.04
*CTM-4521	100-10-30-20	400-400-50-50	1⅜ x 3½	3.06
CTM-4523	20-10-10-25	400-400-100-25	1⅜ x 2	2.79
*CTM-4525	20-20-100-100	400-400-100-100	1⅜ x 3	3.12
*CTM-4527	20-10-20-25	400-400-200-25	1⅜ x 2	1.98
CTM-4529	10-10-40-10	400-400-200-50	1⅜ x 2	2.88
CTM-4530	80-40-100-100	400-400-200-50	1⅜ x 4	3.90
CTM-4531	40-30-80-10	400-400-200-200	1⅜ x 3½	4.47
CTM-4533	80-10-80-100	400-400-250-50	1⅜ x 4	3.48
CTM-4535	40-10-80-10	400-400-250-250	1⅜ x 3½	4.23
CTM-4537	5-5-50-80	400-400-300-250	1⅜ x 3	4.20
*CTM-4539	50-20-20-25	400-400-350-25	1⅜ x 3	2.67
†CTM-4541	60-40-40-10	400-400-350-50	1⅜ x 3½	5.19
*CTM-4543	100-10-20-20	400-400-350-50	1⅜ x 4	4.92
CTM-4544	20-20-20-20	400-400-400-25	1⅜ x 2½	3.48
CTM-4545	60-30-30-150	400-400-400-25	1⅜ x 4	5.22
*CTM-4547	80-40-10-20	400-400-400-25	1⅜ x 4	3.18
*CTM-4549	80-40-30-40	400-400-400-25	1⅜ x 4	3.57
CTM-4551	90-40-10-40	400-400-400-25	1⅜ x 4	5.22
CTM-4553	40-40-40-150	400-400-400-50	1⅜ x 4	5.13
*CTM-4555	90-20-10-50	400-400-400-50	1⅜ x 4	3.24
CTM-4557	80-20-10-100	400-400-400-50	1⅜ x 4	4.74
*CTM-4558	80-40-10-100	400-400-400-200	1⅜ x 4	3.78
*CTM-4559	80-40-30-4	400-400-400-350	1⅜ x 4	3.54
CTM-4561	30-30-20-20	400-400-400-400	1⅜ x 3	4.38
CTM-4563	40-35-10-10	400-400-400-400	1⅜ x 3	4.02
†CTM-4565	50-40-30-20	400-400-400-400	1⅜ x 4	3.39
CTM-4567	80-10-10-10	400-400-400-400	1⅜ x 3½	4.23
*CTM-4569	80-25-10-10	400-400-400-400	1⅜ x 4	3.15
*CTM-4571	100-40-10-10	400-400-400-400	1⅜ x 4	3.66
CTM-4574	40-40-30-10	450-150-50-50	1⅜ x 3	3.39
CTM-4577	10-80-40-100	450-200-200-50	1⅜ x 3	3.84
*CTM-4579	20-80-20-50	450-200-200-50	1⅜ x 3	2.46
CTM-4581	20-160-50-50	450-250-75-50	1⅜ x 4	3.06
CTM-4582	60-40-10-80	450-250-150-50	1⅜ x 3½	4.32
CTM-4585	40-40-40-20	450-250-250-25	1⅜ x 3	4.02
*CTM-4588	60-80-40-20	450-250-250-150	1⅜ x 4	3.39
*CTM-4591	10-100-10-100	450-300-75-25	1⅜ x 3	2.85
CTM-4594	10-10-60-100	450-300-200-50	1⅜ x 3	3.42
CTM-4597	10-40-40-100	450-300-250-50	1⅜ x 3½	3.96
CTM-4600	30-40-50-200	450-300-250-150	1⅜ x 4	5.40
*CTM-4603	25-100-10-60	450-300-300-50	1⅜ x 3	3.18
*CTM-4606	40-40-40-20	450-300-300-150	1⅜ x 3	2.94

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Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price (1-24)
*CTM-4609	10-100-20-20	450-300-300-200	1⅜ x 3	3.03
CTM-4612	10-100-20-20	450-300-300-300	1⅜ x 3	4.74
CTM-4615	10-40-80-10	450-350-200-200	1⅜ x 3½	4.23
*CTM-4618	10-40-100-100	450-350-250-50	1⅜ x 3	3.33
CTM-4621	40-30-15-50	450-350-300-50	1⅜ x 3	3.93
CTM-4624	10-140-20-10	450-350-300-300	1⅜ x 4	5.37
*CTM-4625	10-140-100-20	450-350-300-300	1⅜ x 4	4.50
†CTM-4627	10-100-10-20	450-350-350-25	1⅜ x 3	4.68
*CTM-4630	10-60-40-25	450-350-350-25	1⅜ x 4	2.76
CTM-4633	20-15-15-20	450-350-350-25	1⅜ x 2½	3.42
*CTM-4636	20-80-50-100	450-350-350-50	1⅜ x 4	3.60
CTM-4639	30-40-40-10	450-350-350-200	1⅜ x 3½	4.65
CTM-4642	80-10-30-40	450-400-300-150	1⅜ x 4	4.74
*CTM-4645	80-10-40-30	450-400-300-300	1⅜ x 4	5.48
CTM-4648	5-60-50-20	450-400-350-25	1⅜ x 3½	4.56
CTM-4651	10-40-30-40	450-400-400-25	1⅜ x 3	3.96
CTM-4654	80-40-10-150	450-400-400-50	1⅜ x 4	5.40
CTM-4657	10-40-40-100	450-400-400-50	1⅜ x 3½	4.38
CTM-4660	60-40-20-20	450-400-400-100	1⅜ x 4	5.22
CTM-4664	10-10-20-20	450-450-25-25	1⅜ x 2	2.67
CTM-4666	20-10-100-50	450-450-25-25	1⅜ x 2	3.21
*CTM-4669	20-15-20-20	450-450-25-25	1⅜ x 2	2.07
*CTM-4672	30-30-125-125	450-450-25-25	1⅜ x 3	2.91
CTM-4675	30-10-150-30	450-450-50-50	1⅜ x 3	3.69
*CTM-4678	20-20-60-100	450-450-150-25	1⅜ x 2½	3.84
*CTM-4681	40-40-125-125	450-450-150-25	1⅜ x 4	3.42
*CTM-4684	10-10-60-100	450-450-200-50	1⅜ x 3	2.31
*CTM-4687	35-25-20-100	450-450-200-50	1⅜ x 3	2.79
CTM-4690	40-40-100-60	450-450-200-200	1⅜ x 4	3.63
CTM-4693	10-10-10-50	450-450-300-25	1⅜ x 2	2.85
CTM-4696	40-40-10-50	450-450-300-50	1⅜ x 3½	4.23
CTM-4699	20-20-30-30	450-450-300-300	1⅜ x 3½	4.05
CTM-4702	20-5-50-20	450-450-350-25	1⅜ x 2½	4.11
CTM-4705	20-20-30-30	450-450-350-350	1⅜ x 3	4.56
CTM-4708	40-10-35-10	450-450-350-350	1⅜ x 3½	4.14
CTM-4710	40-20-80-10	450-450-350-350	1⅜ x 4	5.22
*CTM-4712	40-40-30-30	450-450-350-350	1⅜ x 4	3.54
*CTM-4714	10-10-10-20	450-450-450-25	1⅜ x 2	1.89
CTM-4716	10-10-10-100	450-450-450-25	1⅜ x 2	2.94
CTM-4718	15-10-10-20	450-450-450-25	1⅜ x 3	2.97
CTM-4720	20-10-10-100	450-450-450-25	1⅜ x 2	3.33
*CTM-4722	20-20-20-20	450-450-450-25	1⅜ x 2½	2.49
CTM-4724	30-15-15-40	450-450-450-25	1⅜ x 2½	3.75
CTM-4726	30-20-20-20	450-450-450-25	1⅜ x 3	3.96
CTM-4728	30-30-10-20	450-450-450-25	1⅜ x 3	3.93
*CTM-4730	30-30-10-125	450-450-450-25	1⅜ x 3	2.82
CTM-4732	30-30-20-20	450-450-450-25	1⅜ x 3	4.20
CTM-4734	40-10-10-250	450-450-450-25	1⅜ x 3	4.23
CTM-4736	40-15-10-25	450-450-450-25	1⅜ x 3	3.69
CTM-4738	40-20-10-20	450-450-450-25	1⅜ x 3	3.84
*CTM-4740	40-20-20-20	450-450-450-25	1⅜ x 3	2.76
*CTM-4742	40-20-20-40	450-450-450-25	1⅜ x 3	2.79
*CTM-4744	40-30-10-20	450-450-450-25	1⅜ x 3½	2.70
*CTM-4746	40-40-10-20	450-450-450-25	1⅜ x 3½	2.82
*CTM-4748	40-40-20-20	450-450-450-25	1⅜ x 3½	3.00
*CTM-4750	40-40-40-40	450-450-450-25	1⅜ x 3	3.30
CTM-4752	50-40-5-20	450-450-450-25	1⅜ x 3	4.32
*CTM-4754	60-40-40-10	450-450-450-25	1⅜ x 4	3.60
*CTM-4756	60-50-5-20	450-450-450-25	1⅜ x 4	3.21
*CTM-4758	80-40-40-40	450-450-450-25	1⅜ x 4	3.87
CTM-4760	10-10-10-150	450-450-450-25	1⅜ x 2½	3.33
*CTM-4762	20-20-20-100	450-450-450-25	1⅜ x 2½	2.73
*CTM-4764	30-30-15-30	450-450-450-25	1⅜ x 3	2.73
CTM-4766	30-30-15-100	450-450-450-25	1⅜ x 3½	4.41
*CTM-4768	40-20-10-100	450-450-450-25	1⅜ x 3½	2.76
*CTM-4770	40-40-10-25	450-450-450-25	1⅜ x 3	2.82
*CTM-4772	40-40-10-50	450-450-450-25	1⅜ x 4	2.88
*CTM-4774	60-40-10-25	450-450-450-25	1⅜ x 4	3.15
*CTM-4776	40-40-10-100	450-450-450-100	1⅜ x 3½	3.33
CTM-4778	10-10-10-10	450-450-450-150	1⅜ x 2	2.85
*CTM-4780	60-10-10-20	450-450-450-150	1⅜ x 3	2.73
CTM-4782	35-35-10-10	450-450-450-200	1⅜ x 3½	4.14
CTM-4785	40-10-10-100	450-450-450-200	1⅜ x 4	4.41
CTM-4788	40-40-30-10	450-450-450-200	1⅜ x 4	4.83
CTM-4790	30-10-10-10	450-450-450-250	1⅜ x 2½	3.48
†CTM-4792	40-10-10-40	450-450-450-250	1⅜ x 3½	4.02
*CTM-4794	40-20-10-100	450-450-450-250	1⅜ x 4	3.51
†CTM-4796	60-10-10-40	450-450-450-250	1⅜ x 3½	4.38
*CTM-4798	40-10-10-40	450-450-450-350	1⅜ x 3	2.85
CTM-4800	40-20-20-20	450-450-450-350	1⅜ x 3	4.50
CTM-4802	40-40-10-10	450-450-450-350	1⅜ x 3½	4.32
*CTM-4804	5-5-5-5	450-450-450-450	1⅜ x 2	1.80
*CTM-4806	10-10-10-10	450-450-450-450	1⅜ x 2	2.01
*CTM-4808	20-10-10-10	450-450-450-450	1⅜ x 2½	2.22
*CTM-4810	20-20-20-20	450-450-450-450	1⅜ x 3	2.82
CTM-4812	25-20-20-20	450-450-450-450	1⅜ x 3½	4.38
*CTM-4814	30-15-15-15	450-450-450-450	1⅜ x 3	2.67
CTM-4816	30-20-20-10	450-450-450-450	1⅜ x 3	4.14
CTM-4818	30-30-15-10	450-450-450-450	1⅜ x 3½	4.23
*CTM-4820	30-30-20-20	450-450-450-450	1⅜ x 3	3.12
CTM-4822	30-30-30-15	450-450-450-450	1⅜ x 4	4.77
*CTM-4824	35-35-10-5	450-450-450-450	1⅜ x 3½	2.76
*CTM-4826	40-10-10-10	450-450-450-450	1⅜ x 3	2.46
CTM-4828	40-20-20-10	450-450-450-450	1⅜ x 3	4.32
*CTM-4830	40-35-10-10	450-450-450-450	1⅜ x 3	2.88
*CTM-4832	40-40-4-4	450-450-450-450	1⅜ x 3½	2.79
*CTM-4834	40-40-20-20	450-450-450-450	1⅜ x 4	3.33
*CTM-4836	40-40-30-30	450-450-450-450	1⅜ x 4	3.63
*CTM-4838	40-40-40-40	450-450-450-450	1⅜ x 4	3.87
*CTM-4840	60-20-20-20	450-450-450-450	1⅜ x 4	3.39
*CTM-4842	60-30-10-2	450-450-450-450	1⅜ x 3	3.06
CTM-4844	70-10-10-5	450-450-450-450	1⅜ x 3	4.29
*CTM-4846	80-10-10-10	450-450-450-450	1⅜ x 4	3.03
*CTM-4848	40-40-50-80	475-250-150-50	1⅜ x 3½	3.00
*CTM-4850	20-40-100-80	475-300-50-25	1⅜ x 3	2.67
*CTM-4852	10-100-10-100	475-300-300-25	1⅜ x 3½	2.94
*CTM-4854	20-80-20-10	475-300-300-300	1⅜ x 3½	3.00
*CTM-4856	20-140-20-10	475-300-300-300	1⅜ x 4	3.60
CTM-4858	10-20-100-25	475-350-25-25	1⅜ x 2	2.07
†CTM-4860	10-40-80-100	475-350-200-100	1⅜ x 3½	4.32
*CTM-4862	20-40-80-100	475-350-200-100	1⅜ x 4	3.27
*CTM-4864	10-40-80-100	475-350-300-100	1⅜ x 4	3.33
*CTM-4866	10-30-5-80	475-350-350-50	1⅜ x 2½	3.33
*CTM-4868	10-140-4-100	475-350-350-50	1⅜ x 4	3.51
*CTM-4870	10-130-20-10	475-350-350-350	1⅜ x 4	3.60
CTM-4872	20-60-40-10	475-350-350-350	1⅜ x 3½	4.68
*CTM-4874	30-130-10-10	475-350-350-350	1⅜ x 4	3.84
*CTM-4876	10-40-100-10	475-400-50-25	1⅜ x 2½	2.43
*CTM-4878	10-40-4-100	475-400-350-50	1⅜ x 2½	2.43
*CTM-4880	10-80-40-100	475-400-400-50	1⅜ x 4	3.48
*CTM-4882	5-70-25-5	475-400-400-400	1⅜ x 3½	3.03
CTM-4884	10-10-80-50	475-450-200-60	1⅜ x 3	3.48
CTM-4886	25-20-20-100	475-450-300-50	1⅜ x 3	4.14
CTM-4888	25-20-40-100	475-450-300-50	1⅜ x 3½	4.47
*CTM-4890	10-60-30-125	475-450-400-50	1⅜ x 4	3.33
*CTM-4892	10-50-30-30	475-450-450-25	1⅜ x 3	2.85
*CTM-4894	10-40-10-100	475-450-450-50	1⅜ x 2½	2.58
*CTM-4896	15-15-80-40	475-475-300-50	1⅜ x 3	2.88
CTM-4898	50-30-20-20	475-475-300-300	1⅜ x 4	5.13
*CTM-4900	40-10-4-40	475-475-350-300	1⅜ x 3	2.97
CTM-4902	40-10-40-10	475-475-350-350	1⅜ x 3	3.30
*CTM-4904	20-10-20-100	475-475-450-25	1⅜ x 2½	2.52
CTM-4906	10-5-80-40	475-475-450-50	1⅜ x 3½	4.41
CTM-4908	30-30-10-20	475-475-475-25	1⅜ x 3	4.11
CTM-4910	40-20-10-10	475-475-475-25	1⅜ x 3	4.38
CTM-4912	80-30-10-20	475-475-475-25	1⅜ x 4	5.19
*CTM-4914	20-20-10-10	475-475-475-300	1⅜ x 2½	2.58
*CTM-4916	50-30-10-20	475-475-475-300	1⅜ x 3½	3.36
CTM-4918	10-10-10-10	475-475-475-475	1⅜ x 2	3.15
*CTM-4920	20-20-10-10	475-475-475-475	1⅜ x 2½	2.61
*CTM-4922	20-20-20-20	475-475-475-475	1⅜ x 3	3.06
CTM-4924	40-10-10-10	475-475-475-475	1⅜ x 3	4.20
*CTM-4926	40-20-10-10	475-475-475-475	1⅜ x 3	3.06
CTM-4928	10-10-4-20	500-300-300-25	1⅜ x 2	1.74
CTM-4930	10-100-30-100	500-300-300-25	1⅜ x 3½	4.68
CTM-4932	5-100-10-200	500-300-300-150	1⅜ x 4	5.28
CTM-4934	20-80-20-10	500-300-300-300	1⅜ x 3½	4.50
*CTM-4936	30-10-150-30	500-450-50-50	1⅜ x 3	2.52
*CTM-4938	10-10-10-10	500-500-500-500	1⅜ x 2	2.10
*CTM-4940	40-40-8-8	500-500-500-500	1⅜ x 4	3.42

*Preferred Type †Discontinued

INSULATING TUBES FOR TWIST MOUNT CAPACITORS

Cat. No.	CTM Dimensions	Net Price
TMT-1	1 x 2	.06
TMT-2	1 x 2½	.06
TMT-3	1 x 3	.06
TMT-4	1 x 3½	.06
TMT-5	1 x 4	.06
TMT-6	1⅜ x 2	.06
TMT-7	1⅜ x 2½	.06
TMT-8	1⅜ x 3	.06
TMT-9	1⅜ x 3½	.06
TMT-10	1⅜ x 4	.06

BAKELITE MOUNTING PLATES FOR CTM CAPACITORS

BMP-1	1	.06
BMP-2	1⅜	.06

METAL MOUNTING PLATES FOR CTM CAPACITORS

MMP-1	1	.06
MMP-2	1⅜	.06

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Industrial Distributor)

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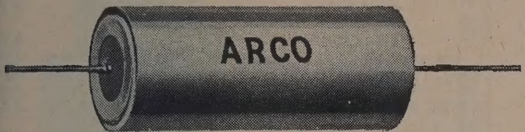
ARCO electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

PLASTIC FILM CAPACITORS

TYPES PT, PJ

Type PT capacitors are polystyrene dielectric enclosed in non-ferrous metallic tubes with compression glass end seals. The principle features of this type are high stability, high insulation resistance, low dielectric absorption, and low dissipation factor. Their principle uses include precision filter and tuned circuits, analog computer circuits, pulse networks, servo systems, reference capacitors, and high Q applications.



SPECIFICATIONS:

DISSIPATION FACTOR: .01% max. at 25°C. .02% max. at 85°C.
INSULATION RESISTANCE: 10^5 megohm-microfarads min. for 100vDCW and 200VDCW units; 10^6 megohm-microfarads for 400-VDCW and higher ratings (at 25°C.)
TEMPERATURE RANGE: —55°C. to +85°C.
TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C. This specification may be tightened if required for specific values.
DIELECTRIC ABSORPTION: .05% max. at 25°C.
STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.
TOLERANCES: standard tolerance ±5%. Also available, ±10% ±3% ±2% ±1% ±½ ±¼%.

TYPE PT

100 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*1PT-102J	.001	7/8 x .312	6.34
*1PT-202J	.002	7/8 x .312	3.17
1PT-222J	.0022	7/8 x .312	3.17
1PT-272J	.0027	7/8 x .312	3.17
*1PT-332J	.0033	7/8 x .312	3.17
1PT-392J	.0039	7/8 x .312	3.17
*1PT-472J	.0047	7/8 x .312	3.17
*1PT-502J	.005	7/8 x .312	3.17
*1PT-682J	.0068	7/8 x .312	3.17
1PT-822J	.0082	7/8 x .312	3.17
*1PT-103J	.01	7/8 x .312	3.17
1PT-123J	.012	7/8 x .312	3.19
*1PT-153J	.015	7/8 x .312	3.20
*1PT-203J	.02	7/8 x .312	3.22
*1PT-223J	.022	7/8 x .312	3.24
1PT-273J	.027	1 x .312	3.27
*1PT-333J	.033	1 x .312	3.30
1PT-393J	.039	1 x .400	3.34
*1PT-473J	.047	1 x .400	3.38
*1PT-503J	.05	1 x .400	3.40
*1PT-683J	.068	1 x .400	3.57
1PT-823J	.082	1 1/8 x .400	3.71
*1PT-104J	.1	1 1/8 x .500	3.89
*1PT-124J	.12	1 1/8 x .500	4.10
*1PT-154J	.15	1 7/16 x .500	4.38
*1PT-204J	.2	1 7/16 x .500	4.90
*1PT-224J	.22	1 7/16 x .500	5.04
1PT-274J	.27	1 7/16 x .562	5.43
*1PT-334J	.33	1 13/16 x .562	5.85
1PT-394J	.39	1 13/16 x .562	6.30
*1PT-474J	.47	1 7/8 x .670	6.86
*1PT-504J	.5	1 7/8 x .670	7.18

200 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*2PT-102J	.001	7/8 x .312	6.34
*2PT-202J	.002	7/8 x .312	3.17
2PT-222J	.0022	7/8 x .312	3.17
2PT-272J	.0027	7/8 x .312	3.17
*2PT-332J	.0033	7/8 x .312	3.17
2PT-392J	.0039	7/8 x .312	3.17
*2PT-472J	.0047	7/8 x .312	3.17
*2PT-502J	.005	7/8 x .312	3.17
*2PT-682J	.0068	7/8 x .312	3.17
2PT-822J	.0082	7/8 x .312	3.17
*2PT-103J	.01	7/8 x .312	3.17
2PT-123J	.012	1 x .312	3.20
2PT-153J	.015	1 x .312	3.24
2PT-203J	.02	1 x .400	3.31
2PT-223J	.022	1 x .400	3.32
2PT-273J	.027	1 x .400	3.35
2PT-333J	.033	1 1/8 x .400	3.40
2PT-393J	.039	1 1/8 x .400	3.44
2PT-473J	.047	1 1/8 x .400	3.50
2PT-503J	.05	1 1/8 x .500	3.64
2PT-683J	.068	1 7/16 x .500	3.99
2PT-823J	.082	1 7/16 x .500	4.31
2PT-104J	.1	1 7/16 x .500	4.66
2PT-124J	.12	1 7/16 x .562	4.97
2PT-154J	.15	1 7/16 x .562	5.43
2PT-204J	.2	1 13/16 x .562	6.16
2PT-224J	.22	1 7/8 x .670	6.44
2PT-274J	.27	1 7/8 x .670	7.11
2PT-334J	.33	1 7/8 x .750	7.88
2PT-394J	.39	1 15/16 x 1.00	8.65
2PT-474J	.47	1 15/16 x 1.00	9.70
2PT-504J	.5	1 15/16 x 1.00	10.22

400 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*4PT-102J	.001	7/8 x .312	6.34
*4PT-202J	.002	7/8 x .312	3.17
4PT-222J	.0022	7/8 x .312	3.17
4PT-272J	.0027	7/8 x .312	3.11
*4PT-332J	.0033	7/8 x .312	3.17
4PT-392J	.0039	7/8 x .312	3.17
*4PT-472J	.0047	7/8 x .312	3.17
*4PT-502J	.005	7/8 x .312	3.17
*4PT-682J	.0068	7/8 x .312	3.22
4PT-822J	.0082	7/8 x .312	3.26
*4PT-103J	.01	1 x .312	3.31
*4PT-153J	.015	1 x .400	3.39
*4PT-203J	.02	1 x .400	3.48
*4PT-223J	.022	1 x .400	3.50
4PT-273J	.027	1 1/8 x .400	3.57
*4PT-333J	.033	1 1/8 x .400	3.68
4PT-393J	.039	1 1/8 x .500	3.75
*4PT-473J	.047	1 7/16 x .500	3.89
*4PT-503J	.05	1 7/16 x .500	3.96
*4PT-683J	.068	1 7/16 x .500	4.34
4PT-823J	.082	1 7/16 x .562	4.65
*4PT-104J	.1	1 13/16 x .562	5.04
4PT-124J	.12	1 13/16 x .562	5.46
*4PT-154J	.15	1 7/8 x .670	6.06
*4PT-204J	.2	1 7/8 x .750	7.07
*4PT-224J	.22	1 7/8 x .750	7.42
4PT-274J	.27	1 15/16 x 1.00	8.30
*4PT-334J	.33	1 15/16 x 1.00	9.38
4PT-394J	.39	1 15/16 x 1.00	10.43

600 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*6PT-102J	.001	7/8 x .312	6.34
*6PT-202J	.002	7/8 x .312	3.17
6PT-222J	.0022	7/8 x .312	3.17
6PT-272J	.0027	7/8 x .312	3.17
*6PT-332J	.0033	7/8 x .312	3.19
6PT-392J	.0039	7/8 x .312	3.22
*6PT-472J	.0047	7/8 x .312	3.27
*6PT-502J	.005	7/8 x .312	3.28
6PT-682J	.0068	7/8 x .312	3.33
6PT-822J	.0082	1 x .312	3.37
*6PT-103J	.01	1 x .400	3.41
6PT-153J	.015	1 x .400	3.54
*6PT-203J	.02	1 1/8 x .400	3.68
6PT-223J	.022	1 1/8 x .400	3.75
6PT-273J	.027	1 1/8 x .500	3.89
6PT-333J	.033	1 7/16 x .500	4.06
6PT-393J	.039	1 7/16 x .500	4.17
6PT-473J	.047	1 7/16 x .562	4.31
*6PT-503J	.05	1 7/16 x .562	4.38
6PT-683J	.068	1 13/16 x .562	5.22
6PT-823J	.082	1 7/8 x .670	5.60
*6PT-104J	.1	1 7/8 x .750	6.09
6PT-124J	.12	1 7/8 x .750	6.65
6PT-154J	.15	1 15/16 x .100	7.49
*6PT-204J	.2	1 15/16 x .100	8.58
6PT-224J	.22	1 15/16 x .100	10.19

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

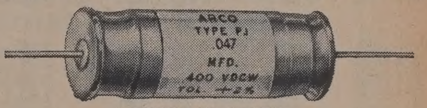
* The starred items are stock items available for immediate delivery.

NOTE: The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changed for different tolerances.

1000 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*10PT-102J	.001	7/8 x .312	6.34
10PT-152J	.0015	7/8 x .312	6.34
*10PT-202J	.002	7/8 x .312	3.17
10PT-222J	.0022	7/8 x .312	3.19
10PT-272J	.0027	7/8 x .312	3.21
*10PT-332J	.0033	7/8 x .312	3.24
10PT-392J	.0039	7/8 x .312	3.27
*10PT 472J	.0047	7/8 x .312	3.31
*10PT-502J	.005	7/8 x .312	3.34
10PT-682J	.0068	1 x .312	3.40
10PT-822J	.0082	1 x .400	3.44
10PT-103J	.01	1 x .400	3.50
10PT-153J	.015	1 1/8 x .400	3.68
10PT-203J	.02	1 1/8 x .500	3.85
10PT-223J	.022	1 7/16 x .500	3.92
10PT-273J	.027	1 7/16 x .500	4.10
10PT-333J	.033	1 7/16 x .500	4.27
10PT-393J	.039	1 7/16 x .562	4.41
10PT-473J	.047	1 13/16 x .562	4.62
10PT-503J	.05	1 7/8 x .670	4.69
10PT-683J	.068	1 7/8 x .750	5.64
10PT-823J	.082	1 15/16 x 1.00	6.23
10PT-104J	.1	1 15/16 x 1.00	6.97

Type PJ capacitors are polystyrene dielectric enclosed in silicone treated fused polystyrene jackets. The same superior quality of the Type PT hermetically sealed units is preserved in Type PJ units while effecting a marked saving in both size and price. Extensive evaluation has confirmed the excellent moisture resistance of this design as well as extreme ruggedness. The Type PJ will meet MIL tests for vibration, shock, moisture resistance and immersion as well as providing the excellent electrical characteristics specified.



SPECIFICATIONS:

DISSIPATION FACTOR: .01% max. at 25°C. .02% max. at 85°C.
INSULATION RESISTANCE: 10^5 megohm-microfarads at 25°C.
TEMPERATURE RANGE: —55°C. to +85°C.
TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C.
DIELECTRIC ABSORPTION: .05% max. at 25°C.
STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.
TOLERANCES: standard tolerance ±5%. ±10% ±3% ±2% ±1% ±½% also available.

TYPE PJ

100 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*1PJ-102J	.001	11/16 x 9/32	2.98
*1PJ-202J	.002	11/16 x 9/32	1.49
1PJ-222J	.0022	11/16 x 9/32	1.49
1PJ-272J	.0027	11/16 x 9/32	1.49
*1PJ-332J	.0033	11/16 x 9/32	1.49
1PJ-392J	.0039	11/16 x 9/32	1.49
*1PJ-472J	.0047	11/16 x 9/32	1.49
*1PJ-502J	.005	11/16 x 9/32	1.49
*1PJ-682J	.0068	11/16 x 9/32	1.49
1PJ-822J	.0082	11/16 x 9/32	1.49
*1PJ-103J	.01	11/16 x 9/32	1.49
1PJ-123J	.012	11/16 x 5/16	1.51
*1PJ-153J	.015	11/16 x 5/16	1.51
*1PJ-203J	.02	11/16 x 5/16	1.53
*1PJ-223J	.022	11/16 x 5/16	1.54
1PJ-273J	.027	7/8 x 5/16	1.56
*1PJ-333J	.033	7/8 x 5/16	1.60
1PJ-393J	.039	7/8 x 3/8	1.63
*1PJ-473J	.047	7/8 x 3/8	1.67
*1PJ-503J	.05	7/8 x 3/8	1.69
*1PJ-683J	.068	7/8 x 13/32	1.83
1PJ-823J	.082	1 x 3/8	1.94
*1PJ-104J	.1	1 x 7/16	2.09
*1PJ-124J	.12	1 x 15/32	2.28
*1PJ-154J	.15	1 1/4 x 7/16	2.54
*1PJ-204J	.2	1 1/4 x 1/2	2.99
*1PJ-224J	.22	1 1/4 x 1/2	3.12
1PJ-274J	.27	1 1/4 x 9/16	3.43
*1PJ-334J	.33	1 5/8 x 17/32	3.82
1PJ-394J	.39	1 5/8 x 9/16	4.20
*1PJ-474J	.47	1 5/8 x 5/8	4.69
*1PJ-504J	.5	1 5/8 x 5/8	4.97

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ARCO electronics inc.

Great Neck, New York

Branches: Dallas 7, Los Angeles 35

PLASTIC FILM CAPACITORS

TYPES PJ, MT

TYPE PJ

200 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*2PJ-102J	.001	11/16 x 9/32	2.98
*2PJ-202J	.002	11/16 x 9/32	1.49
2PJ-222J	.0022	11/16 x 9/32	1.49
2PJ-272J	.0027	11/16 x 9/32	1.49
*2PJ-332J	.0033	11/16 x 9/32	1.49
2PJ-392J	.0039	11/16 x 9/32	1.49
2PJ-472J	.0047	11/16 x 9/32	1.49
*2PJ-502J	.005	11/16 x 9/32	1.49
*2PJ-682J	.0068	11/16 x 9/32	1.49
2PJ-822J	.0082	11/16 x 5/16	1.49
*2PJ-103J	.01	11/16 x 5/16	1.49
2PJ-123J	.012	7/8 x 5/16	1.54
2PJ-153J	.015	7/8 x 5/16	1.54
2PJ-203J	.02	7/8 x 3/8	1.60
2PJ-223J	.022	7/8 x 3/8	1.61
2PJ-273J	.027	7/8 x 3/8	1.65
2PJ-333J	.033	1 x 3/8	1.68
2PJ-393J	.039	1 x 3/8	1.72
2PJ-473J	.047	1 x 7/16	1.77
2PJ-503J	.05	1 x 7/16	1.88
2PJ-683J	.068	1 1/4 x 7/16	2.21
2PJ-823J	.082	1 1/4 x 1/2	2.52
2PJ-104J	.1	1 1/4 x 1/2	2.78
2PJ-124J	.12	1 1/4 x 17/32	3.05
2PJ-154J	.15	1 1/4 x 9/16	3.44
2PJ-204J	.2	1 5/8 x 9/16	4.09
2PJ-224J	.22	1 5/8 x 5/8	4.34
2PJ-274J	.27	1 3/4 x 11/16	4.90
2PJ-334J	.33	1 3/4 x 3/4	5.56

400 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*4PJ-102J	.001	11/16 x 9/32	2.98
*4PJ-202J	.002	11/16 x 9/32	1.49
4PJ-222J	.0022	11/16 x 9/32	1.49
4PJ-272J	.0027	11/16 x 9/32	1.49
*4PJ-332J	.0033	11/16 x 9/32	1.49
4PJ-392J	.0039	11/16 x 9/32	1.49
*4PJ-472J	.0047	11/16 x 9/32	1.49
*4PJ-502J	.005	11/16 x 9/32	1.49
*4PJ-682J	.0068	11/16 x 5/16	1.53
4PJ-822J	.0082	11/16 x 5/16	1.56
*4PJ-103J	.01	7/8 x 5/16	1.60
*4PJ-153J	.015	7/8 x 11/32	1.68
*4PJ-203J	.02	7/8 x 3/8	1.75
*4PJ-223J	.022	7/8 x 3/8	1.77
4PJ-273J	.027	1 x 3/8	1.84
*4PJ-333J	.033	1 x 13/32	1.92
4PJ-393J	.039	1 x 7/16	2.00
*4PJ-473J	.047	1 1/4 x 7/16	2.10
*4PJ-503J	.05	1 1/4 x 7/16	2.16
4PJ-683J	.068	1 1/4 x 1/2	2.49
4PJ-823J	.082	1 1/4 x 9/16	2.77
*4PJ-104J	.1	1 5/8 x 17/32	3.12
4PJ-124J	.12	1 5/8 x 9/16	3.47
*4PJ-154J	.15	1 5/8 x 5/8	3.99
*4PJ-204J	.2	1 3/4 x 11/16	4.90
4PJ-224J	.22	1 3/4 x 11/16	5.18
4PJ-274J	.27	1 3/4 x 3/4	5.95

600 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*6PJ-102J	.001	11/16 x 9/32	2.98
*6PJ-202J	.002	11/16 x 9/32	1.49
6PJ-222J	.0022	11/16 x 9/32	1.49
6PJ-272J	.0027	11/16 x 9/32	1.49
*6PJ-332J	.0033	11/16 x 9/32	1.50
6PJ-392J	.0039	11/16 x 9/32	1.53
6PJ-472J	.0047	11/16 x 5/16	1.56
*6PJ-502J	.005	11/16 x 5/16	1.59
6PJ-682J	.0068	11/16 x 5/16	1.62
6PJ-822J	.0082	7/8 x 5/16	1.66
*6PJ-103J	.01	7/8 x 11/32	1.70
6PJ-153J	.015	7/8 x 3/8	1.81
*6PJ-203J	.02	1 x 3/8	1.92
6PJ-223J	.022	1 x 13/32	1.97
6PJ-273J	.027	1 x 7/16	2.11
6PJ-333J	.033	1 1/4 x 7/16	2.25
6PJ-393J	.039	1 1/4 x 1/2	2.35
6PJ-473J	.047	1 1/4 x 9/16	2.48
*6PJ-503J	.05	1 1/4 x 9/16	2.55
6PJ-683J	.068	1 5/8 x 9/16	3.26
6PJ-823J	.082	1 5/8 x 5/8	3.57
*6PJ-104J	.1	1 3/4 x 11/16	4.03
6PJ-124J	.12	1 3/4 x 3/4	4.52

1000 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
*10PJ-102J	.001	11/16 x 9/32	2.98
10PJ-152J	.0015	11/16 x 9/32	2.98
*10PJ-202J	.002	11/16 x 9/32	1.49
10PJ-222J	.0022	11/16 x 9/32	1.50
10PJ-272J	.0027	11/16 x 9/32	1.52
*10PJ-332J	.0033	11/16 x 5/16	1.55
10PJ-392J	.0039	11/16 x 5/16	1.58
*10PJ-472J	.0047	11/16 x 5/16	1.61
*10PJ-502J	.005	11/16 x 5/16	1.63
10PJ-682J	.0068	7/8 x 5/16	1.68
10PJ-822J	.0082	7/8 x 11/32	1.72
10PJ-103J	.01	7/8 x 3/8	1.78
10PJ-153J	.015	1 x 3/8	1.93
10PJ-203J	.02	1 x 7/16	2.08
10PJ-223J	.022	1 1/4 x 13/32	2.14
10PJ-273J	.027	1 1/4 x 7/16	2.30
10PJ-333J	.033	1 1/4 x 1/2	2.45
10PJ-393J	.039	1 1/4 x 9/16	2.57
10PJ-473J	.047	1 5/8 x 9/16	2.74
10PJ-503J	.05	1 5/8 x 5/8	2.82
10PJ-683J	.068	1 3/4 x 3/4	3.64

HERMETICALLY SEALED MYLAR* DIELECTRIC TYPE MT

200 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
2MT-102J	.001	1 x .235	7.00
2MT-202J	.002	1 x .235	7.00
2MT-222J	.0022	1 x .235	7.00
2MT-272J	.0027	1 x .235	4.66
2MT-332J	.0033	1 x .235	4.66
2MT-392J	.0039	1 x .235	4.66
2MT-472J	.0047	1 x .235	4.66
2MT-502J	.005	1 x .235	4.66
2MT-822J	.0082	1 x .235	3.50
2MT-682J	.0068	1 x .235	3.50
2MT-103J	.01	1 x .235	3.50
2MT-123J	.012	1 x .235	3.50
2MT-153J	.015	1 x .235	3.50
2MT-183J	.018	1 x .235	3.50
2MT-223J	.022	1 x .235	3.50
2MT-273J	.027	1 x .235	3.57
2MT-333J	.033	1 x .312	3.57
2MT-393J	.039	1 x .312	3.64
2MT-473J	.047	1 x .312	3.64
2MT-563J	.056	1 x .312	3.64
2MT-683J	.068	1 x .312	3.71
2MT-823J	.082	1 x .312	3.71
2MT-104J	.1	1 x .400	3.78
2MT-124J	.12	1 x .400	3.85
2MT-154J	.15	1 x .400	3.92
2MT-184J	.18	1 1/8 x .500	3.99
2MT-224J	.22	1 1/8 x .500	4.10
2MT-274J	.27	1 1/8 x .562	4.20
2MT-334J	.33	1 1/8 x .562	4.31
2MT-394J	.39	1 7/16 x .500	4.41
2MT-474J	.47	1 7/16 x .500	4.59
2MT-564J	.56	1 7/16 x .562	4.69
2MT-684J	.68	1 7/16 x .670	4.80
2MT-824J	.82	1 7/16 x .670	4.90
2MT-105J	1.0	1 7/8 x .670	5.04
2MT-125J	1.2	1 7/8 x .750	5.32
2MT-155J	1.5	1 7/8 x .750	5.67
2MT-185J	1.8	1 15/16 x 1.000	6.09
2MT-225J	2.2	1 15/16 x 1.000	6.93

*DuPont Trademark

400 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
4MT-102J	.001	1 x .235	7.00
4MT-202J	.002	1 x .235	7.00
4MT-222J	.0022	1 x .235	7.00
4MT-272J	.0027	1 x .235	4.66
4MT-332J	.0033	1 x .235	4.66
4MT-392J	.0039	1 x .235	4.66
4MT-472J	.0047	1 x .235	4.66
4MT-502J	.005	1 x .235	3.85
4MT-682J	.0068	1 x .235	3.85
4MT-822J	.0082	1 x .235	3.85
4MT-103J	.01	1 x .235	3.85
4MT-123J	.012	1 x .235	3.89
4MT-153J	.015	1 x .312	3.89
4MT-183J	.018	1 x .312	3.92
4MT-223J	.022	1 x .312	3.96
4MT-273J	.027	1 x .312	3.99
4MT-333J	.033	1 x .312	4.03
4MT-393J	.039	1 x .400	4.06
4MT-473J	.047	1 x .400	4.10
4MT-563J	.056	1 x .400	4.13
4MT-683J	.068	1 1/8 x .500	4.17
4MT-823J	.082	1 1/8 x .500	4.20
4MT-104J	.1	1 1/8 x .562	4.27
4MT-124J	.12	1 1/8 x .562	4.34
4MT-154J	.15	1 7/16 x .500	4.41
4MT-184J	.18	1 7/16 x .562	4.48
4MT-224J	.22	1 7/16 x .562	4.62
4MT-274J	.27	1 7/16 x .670	4.73
4MT-334J	.33	1 7/8 x .670	4.83
4MT-394J	.39	1 7/8 x .670	4.97
4MT-474J	.47	1 7/8 x .670	5.14
4MT-564J	.56	1 7/8 x .750	5.39
4MT-684J	.68	1 15/16 x 1.000	5.39
4MT-824J	.82	1 15/16 x 1.000	5.53
4MT-105J	1.0	1 15/16 x 1.000	5.67

600 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
6MT-102J	.001	1 x .312	7.00
6MT-202J	.002	1 x .312	7.00
6MT-222J	.0022	1 x .312	7.00
6MT-272J	.0027	1 x .312	4.66
6MT-332J	.0033	1 x .312	4.66
6MT-392J	.0039	1 x .312	4.66
6MT-472J	.0047	1 x .312	4.66
6MT-502J	.005	1 x .312	4.31
6MT-682J	.0068	1 x .312	4.31
6MT-822J	.0082	1 x .312	4.31
6MT-103J	.01	1 x .312	4.31
6MT-123J	.012	1 x .312	4.34
6MT-153J	.015	1 x .312	4.38
6MT-183J	.018	1 x .400	4.41
6MT-223J	.022	1 x .400	4.45
6MT-273J	.027	1 x .400	4.48
6MT-333J	.033	1 x .400	4.55
6MT-393J	.039	1 1/8 x .500	4.59
6MT-473J	.047	1 1/8 x .562	4.62
6MT-563J	.056	1 1/8 x .562	4.66
6MT-683J	.068	1 1/8 x .562	4.69
6MT-823J	.082	1 7/16 x .500	4.73
6MT-104J	.1	1 7/16 x .562	4.80
6MT-124J	.12	1 13/16 x .562	4.90
6MT-154J	.15	1 13/16 x .562	4.97
6MT-184J	.18	1 7/16 x .670	5.04
6MT-224J	.22	1 7/8 x .670	5.22
6MT-274J	.27	1 7/16 x .750	5.32
6MT-334J	.33	1 7/8 x .750	5.46
6MT-394J	.39	1 15/16 x 1.000	5.60
6MT-474J	.47	1 15/16 x 1.000	5.81
6MT-564J	.56	1 15/16 x 1.000	5.95

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changes for different tolerances.
* The starred items are stock items available for immediate delivery.

SIZE REDUCTIONS: If a particular application has critical space limitations, the standard dimensions tabulated above may be reduced appreciably through special monitoring of film thickness.

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Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

CM-15, CM-20, CM-30 Mica Capacitor Kits

ARCO CM-15 MINIATURE MICA CAPACITOR KIT #1

El-Menco
HANDY KIT
Miniature
CAPACITORS
El-Menco
CM-15 CAPACITOR KIT

THESE MINIATURES FIT INTO THE SMALLEST AREA CAPACITOR SIZE (9/32" x ½" x 3/16")

SPECIAL KIT LIST PRICE

ONLY $75.00

FOR EXPERIMENTAL WORK

DON'T GET CAUGHT SHORT!

ALWAYS HAVE THE CORRECT CAPACITY ON HAND!

This Handy Kit consists of 46 most commonly used Capacitors . . . per MIL-C-5 specifications . . . five of each capacity as listed on page 367 packed in individual tuck boxes, of 5 each properly identified for permanent use.

•

The complete set of capacitors amounts to $89.50 at list prices. You get the entire set *for only* $75.00.

COMPARE THE COST!

THESE KITS CONTAIN FIVE EACH OF THE FOLLOWING ELMENCO MICA CAPACITORS (500 V D C W)

CM20 Cap. mmf.	CM20 Cap. mmf.	CM20 Cap. mmf.	CM20 Cap. mmf.	CM30 Cap. mmf.	CM30 Cap. mmf.
5	39	120	390	1100	3600
10	43	130	430	1200	3900
12	47	150	470	1300	4300
15	51	160	510	1500	4700
18	56	180	560	1600	5100
20	62	200	620	1800	5600
22	68	220	680	2000	6200
24	75	240	750	2200	CM35
27	82	270	820	2400	6800*
30	91	300	910	2700	7500*
33	100	330	1000	3000	8200*
36	110	360		3300	9100*
					10000*

*300VDCW

PER MIL-C-5 SPECIFICATIONS

El-Menco
SILVERED MICA
CAPACITOR KIT
El-Menco

MIL-C-5

ARCO SILVERED MICA KIT #3

SPECIAL KIT LIST PRICE

$260

Purchased individually the total list price value of the capacitors contained in this kit would be . . . $291

This kit contains the complete range of ELMENCO silvered molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of letters "C", "D" or "E" characteristics as specified and letter "J" (5%) tolerance and are MIL color coded.

El-Menco
REGULAR FOIL MICA
CAPACITOR KIT
El-Menco

MIL-G-5

◆ ARCO REG. FOIL MICA KIT #2

This kit contains the complete range of ELMENCO regular foil molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of the letter "B" characteristics and letter "K" (10%) tolerance and are MIL color coded.

SPECIAL KIT LIST PRICE

$140

Purchased individually the total list price value of the capacitors contained in this kit would be . . . $158.40

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Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

DM-15 KIT #10 & 11
DM-15
STOCK PACKAGE

FOR: ENGINEERING LABS • GOVERNMENTAL AGENCIES • EXPERIMENTAL LABS SCHOOLS, ETC.

DUR-MICA the silvered mica capacitor coated with a specially developed plastic coating for extra durability . . . provides maximum protection at environmental extremes of moisture and temperature.

ARCO DM-15 KIT
ELMENCO
DUR-MICA CAPACITORS
ARCO CAPACITOR KIT

ARCO DM-15 KIT #10

This handy kit consists of five of each DM-15 capacity as listed. All are 500 VDCW and ±5% tolerance . . . packed in individual transparent plastic snap boxes, properly identified for ease of handling.

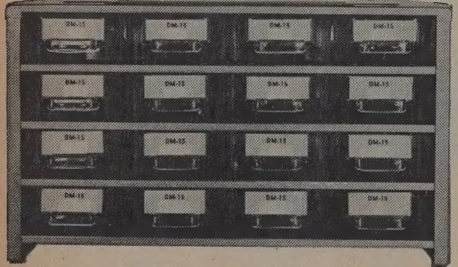
SPECIAL KIT LIST PRICE $95.00

Purchased individually the total list price value of the capacitors contained in this kit would be — **$103.31**

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
1	DM-15-010†	91	DM-15-910
2	DM-15-020†	100	DM-15-101
3	DM-15-030†	110	DM-15-111
5	DM-15-050†	120	DM-15-121
10	DM-15-100	130	DM-15-131
12	DM-15-120	150	DM-15-151
15	DM-15-150	160	DM-15-161
18	DM-15-180	180	DM-15-181
20	DM-15-200	200	DM-15-201
22	DM-15-220	220	DM-15-221
24	DM-15-240	240	DM-15-241
27	DM-15-270	250	DM-15-251
30	DM-15-300	270	DM-15-271
33	DM-15-330	300	DM-15-301
36	DM-15-360	330	DM-15-331
39	DM-15-390	360	DM-15-361
43	DM-15-430	390	DM-15-391
47	DM-15-470	430*	DM-15-431
50	DM-15-500	470*	DM-15-471
51	DM-15-510	500*	DM-15-501
56	DM-15-560	510*	DM-15-511
62	DM-15-620	560*	DM-15-561
68	DM-15-680	620*	DM-15-621
75	DM-15-750	680*	DM-15-681
82	DM-15-820	750*	DM-15-751
		820*	DM-15-821

* All capacitors marked with * are 300WV.
† Minimum tolerance ±0.5 mmf.

ARCO MINIATURE DM-15 CAPACITOR STOCK PACKAGE



SPECIAL LIST PRICE $596

Distinctive Steel Cabinet With Plastic Pull-Out Drawers Supplied FREE With DM-15 Package.

Purchased individually the total list price value of the capacitors contained in this package would be — **$715**

A complete stock of DM-15 capacitors (fifty-one items) totaling 2100 capacitors; fifty each of the most used values and 25 each of the others. Capacity range is 1-820 mmf., tolerance ±5% or ±0.5 mmf., whichever is greater.

ARCO
DUR-MICA KIT
ELMENCO
DUR-MICA CAPACITORS
ARCO CAPACITOR KIT

ARCO DUR-MICA KIT #11

This Kit contains five each of the following listed DUR-MICA capacitors, all 500 VDCW and ±5% tolerance; or ±0.5 mmf., whichever is greater. Packed in individual transparent plastic snap boxes, properly identified for ease of handling.

SPECIAL KIT LIST PRICE $250.00

Purchased individually the total list price value of the capacitors contained in this kit would be — **$286.35**

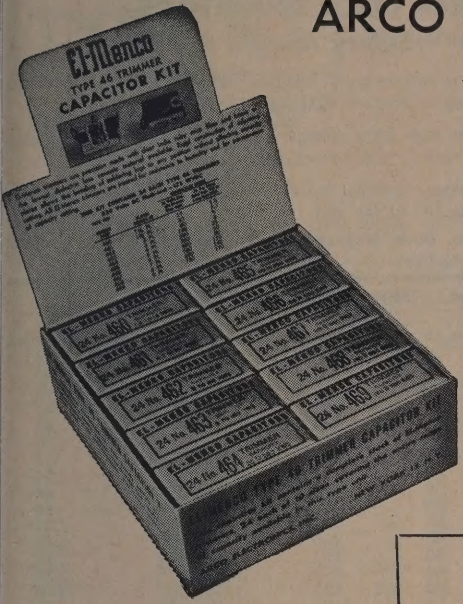
CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
2	DM15-020M	360	DM19-361J
5	DM15-050K	390	DM19-391J
10	DM15-100J	430	DM19-431J
12	DM15-120J	470	DM19-471J
15	DM15-150J	510	DM19-511J
18	DM15-180J	560	DM19-561J
20	DM15-200J	620	DM19-621J
22	DM15-220J	680	DM20-681J
24	DM15-240J	750	DM20-751J
27	DM15-270J	820	DM20-821J
30	DM15-300J	910	DM20-911J
33	DM15-330J	1000	DM20-102J
36	DM15-360J	1100	DM20-112J
39	DM15-390J	1200	DM20-122J
43	DM15-430J	1300	DM20-132J
47	DM15-470J	1500	DM20-152J
51	DM15-510J	1600	DM20-162J
56	DM15-560J	1800	DM20-182J
62	DM15-620J	2000	DM20-202J
68	DM15-680J	2200	DM20-222J
75	DM15-750J	2400	DM20-242J
82	DM15-820J	2700	DM20-272J
91	DM15-910J	3000	DM20-302J
100	DM15-101J	3300	DM20-332J
110	DM15-111J	3600	DM20-362J
120	DM15-121J	3900	DM20-392J
130	DM15-131J	4300	DM20-432J
150	DM15-151J	4700	DM30-472J
160	DM19-161J	5100	DM30-512J
180	DM19-181J	5600	DM30-562J
200	DM19-201J	6200	DM30-622J
220	DM19-221J	6800	DM30-682J
240	DM19-241J	7500	DM30-752J
270	DM19-271J	8200	DM30-822J
300	DM19-301J	9100	DM30-912J
330	DM19-331J	10000	DM30-103J

ARCO
electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO
CAPACITORS

TYPES
46 TRIMMER
30 & 30M PADDER
KITS

ARCO TYPE 46 TRIMMER KIT #5


El-Menco
TYPE 46 TRIMMER CAPACITOR KIT
24 No. 460
24 No. 461
24 No. 462
24 No. 463
24 No. 464
24 No. 465
24 No. 466
24 No. 467
24 No. 468
24 No. 469

This Kit Contains 24 of Each Trimmer Listed Below

TYPE 46W

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	At A Turns Open Cap. Will Be Less Than MMF.
460	1¼ Pl.	15	1.5
461	1¾ Pl.	30	2.7
462	2 Pl.	80	5
463	3 Pl.	180	9
464	4 Pl.	280	25
465	5 Pl.	380	50
466	6 Pl.	480	80
467	7 Pl.	580	110
468	8 Pl.	680	140
469	9 Pl.	780	170

The total list price for all units included in the kit is $170.40

Yet you may have this complete kit for only

SPECIAL KIT
LIST PRICE

$150⁰⁰

A complete stock of trimmers and padders is provided in these compact, easily handled, and readily accessible kits. Always have a full line of El-Menco trimmers and padders available for immediate use.

ARCO TYPE 30 PADDER KIT #6

This Kit Contains 12 Each of Padders Listed Below

The total list price for all units included in the kit is $244.20

Yet you may have this complete kit for only

SPECIAL KIT
LIST PRICE

$210⁰⁰

El-Menco
TYPE 30 PADDER
CAPACITOR KIT
EL-MENCO
TYPE 30 PADDER
CAPACITOR KIT
ARCO ELECTRONICS INC.
NEW YORK 13, N.Y.

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	At 2½ Turns Open Cap. Will Be Less Than MMF.
302	2 Pl.	130	15
303	3 Pl.	340	65
304	4 Pl.	550	100
305	5 Pl.	760	190
306	6 Pl.	970	275
307	7 Pl.	1180	350
308	8 Pl.	1390	450
309	9 Pl.	1600	550
310	10 Pl.	1890	650
311	11 Pl.	2110	780
312	12 Pl.	2330	880
313	13 Pl.	2605	1150
314	14 Pl.	2830	1300
315	15 Pl.	3055	1400

ARCO TYPE 30M PADDER KIT #6M

This Kit Contains 12 Each of Padders Listed Below

The total list price for all units included in the kit is $261.60

Yet you may have this complete kit for only

SPECIAL KIT
LIST PRICE

$225⁰⁰

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	At 2½ Turns Open Cap. Will Be Less Than MMF.
302-M	2 Pl.	120	15
303-M	3 Pl.	320	65
304-M	4 Pl.	500	100
305-M	5 Pl.	690	180
306-M	6 Pl.	880	265
307-M	7 Pl.	1070	340
308-M	8 Pl.	1260	425
309-M	9 Pl.	1415	525
310-M	10 Pl.	1600	615
311-M	11 Pl.	1785	730
312-M	12 Pl.	1970	800
313-M	13 Pl.	2155	1000
314-M	14 Pl.	2340	1100
315-M	15 Pl.	2525	1200

ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON MINIMITE®
TYPE MM

Miniature Metal-Cased Tubular
ELECTROLYTIC CAPACITORS

Temperature Range
−30°C to +85°C

ASTRON "SM"* Safety Margin Construction

- Hermetically sealed aluminum-cased tubulars. Small and light. Ideal for under-chassis mounting in compact, tight assemblies.
- Designed to withstand high surge voltages and high ripple currents. Stable capacitance characteristics. Long service life.
- Exceptionally low leakage. Terminal tab connections provide permanent low-resistance contact for life of the unit.
- Outer insulating tube. Duals have centered mounting strap, and 3 leads insulated (common negative).

SINGLE MINIMITE (2 Leads)

Cat. No.	Cap. Mf.	WVDC	†Dia. x L.	Sugg. Resale Price
MM-50-3	50	3	½ x 1 1/16	.57
MM-500-3	500	3	⅝ x 1 1/16	.93
MM-50-6	50	6	½ x 1 1/16	.57
MM-100-6	100	6	½ x 1 1/16	.72
MM-500-6	500	6	⅝ x 1⅜	.93
MM-1000-6	1000	6	¾ x 1⅝	1.14
MM-100-10	100	10	½ x 1 1/16	.75
MM-100-15	100	15	½ x 1 1/16	.75
MM-250-15	250	15	⅝ x 1⅜	.75
MM-500-15	500	15	⅝ x 1⅝	1.05
MM-1000-15	1000	15	⅞ x 1⅝	1.38
MM-10-25	10	25	½ x 1 1/16	.60
MM-25-25	25	25	½ x 1 1/16	.60
MM-50-25	50	25	½ x 1 1/16	.66
MM-100-25	100	25	⅝ x 1 1/16	.81
MM-250-25	250	25	¾ x 1⅝	1.02
MM-500-25	500	25	⅞ x 1⅝	1.44
MM-2-50	2	50	½ x 1 1/16	.54
MM-4-50	4	50	½ x 1 1/16	.57
MM-10-50	10	50	½ x 1 1/16	.60
MM-25-50	25	50	½ x 1 1/16	.60
MM-50-50	50	50	⅝ x 1 1/16	.72
MM-100-50	100	50	⅝ x 1⅝	.84
MM-4-150	4	150	½ x 1 1/16	.60
MM-8-150	8	150	½ x 1 1/16	.63
MM-10-150	10	150	⅝ x 1 1/16	.69
MM-16-150	16	150	⅝ x 1 1/16	.69
MM-20-150	20	150	⅝ x 1⅜	.72
MM-30-150	30	150	⅝ x 1⅝	.78
MM-40-150	40	150	¾ x 1⅜	.81
MM-50-150	50	150	¾ x 1⅝	.84
MM-80-150	80	150	⅞ x 1⅝	.96
MM-100-150	100	150	⅞ x 1¾	1.05
MM-150-150	150	150	1 x 2 1/16	1.14
MM-200-150	200	150	1 x 3	1.23
MM-8-250	8	250	⅝ x 1 1/16	.69
MM-16-250	16	250	⅝ x 1⅝	.78
MM-20-250	20	250	¾ x 1⅜	.81

(Cont.) SINGLE MINIMITE (2 Leads)

Cat. No.	Cap. Mf.	WVDC	†Dia. x L.	Sugg. Resale Price
MM-40-250	40	250	⅞ x 1⅝	.93
MM-8-350	8	350	⅝ x 1⅜	.72
MM-10-350	10	350	⅝ x 1⅝	.75
MM-20-350	20	350	¾ x 1⅝	.87
MM-4-450	4	450	⅝ x 1 1/16	.69
MM-8-450	8	450	⅝ x 1⅝	.75
MM-10-450	10	450	¾ x 1⅜	.78
MM-12-450	12	450	¾ x 1⅝	.81
MM-16-450	16	450	⅞ x 1⅝	.84
MM-20-450	20	450	⅞ x 1⅝	.93
MM-30-450	30	450	1 x 1⅝	1.02
MM-40-450	40	450	1 x 2 1/16	1.08
MM-50-450	50	450	1 x 2⅜	1.23
MM-60-450	60	450	1 x 3	1.38
MM-80-450	80	450	1⅛ x 3	1.68
MM-8-500	8	500	¾ x 1⅝	.78
MM-16-500	16	500	⅞ x 2 1/16	.90
MM-20-500	20	500	⅞ x 2 1/16	.96

‡DUAL MINIMITE (3 Leads, Common Negative)

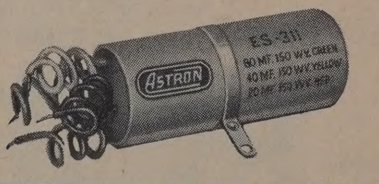
MM-2x20-150	20+20	150	¾ x 1⅜	.93
MM-2x30-150	30+30	150	⅞ x 1⅝	1.08
MM-2x40-150	40+40	150	⅞ x 1⅝	1.11
MM-5030-150	50+30	150	⅞ x 1⅝	1.17
MM-2x50-150	50+50	150	⅞ x 2 1/16	1.06
MM-8040-150	80+40	150	⅞ x 2 1/16	1.32
MM-2x8-450	8+8	450	⅞ x 1⅝	1.02
MM-2x10-450	10+10	450	⅞ x 1¾	1.11
MM-168-450	16+8	450	1 x 1⅝	1.17
MM-2x16-450	16+16	450	1 x 2 1/16	1.35
MM-2x20-450	20+20	450	1 x 2⅜	1.50
MM-2x40-450	40+40	450	1⅛ x 3	2.04

†Dimensions are for metal tubes. Add 1/16" to diameter and ⅛" to length for dimensions over cardboard insulating tubes.
‡Supplied with radial mounting strap.
*TRADE MARK

ASTRON
TYPE ES

Cardboard-Cased ELECTROLYTICS

Temperature Range
−30°C to +85°C



- Dual and triple-section units. Can be used in place of costlier metal-can types of equal rating in television, radio, radio-phonos and other equipment. 85°C operation.
- Sections wrapped in plastic film. Lasting protection from moisture, humidity, severest climatic conditions. High-melting-point wax fill.
- Centered radial mounting strap. Plastic insulated wire leads, 6" long. Color coding on tubes.
- Overall wax coating for added protection against moisture and humidity.

DUAL UNITS (Common Negative)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Resale Price
ESD-140	10+10/50	⅝ x 2⅜	.84
ESD-150	8+8/150	⅝ x 2⅜	.87
ESD-155	20+20/150	¾ x 2⅛	.99
ESD-156	30+20/150	¾ x 2⅛	1.02
ESD-160	30+30/150	⅞ x 2⅛	1.08
ESD-163	40+20/150	⅞ x 2⅛	1.05
ESD-165	40+40/150	⅞ x 2¼	1.11
ESD-170	50+30/150	⅞ x 2¼	1.17
ESD-175	50+50/150	1 x 2¼	1.26
ESD-190	80+40/150	1 x 2½	1.35
ESD-250	16+16/250	¾ x 2½	1.08
ESD-255	20+20/250	⅞ x 2¼	1.11
ESD-450	8+8/450	⅞ x 2⅛	1.02
ESD-455	20+20/450	1 x 2⅝	1.50
ESD-475	40+40/450	1⅛ x 3½	2.04

*Trade Mark

TRIPLE UNITS (Common Negative)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Resale Price
EST-555	20+20+20/150	⅞ x 2⅛	1.32
EST-560	40+20+20/150	⅞ x 2¼	1.35
EST-570	40+30+20/150	⅞ x 2½	1.41
EST-575	40+40+20/150	1 x 2¼	1.41
EST-580	40+40+40/150	1 x 2½	1.47
EST-585	60+40+20/150	1 x 2½	1.44
EST-595	80+40+20/150	1 x 2¾	1.50
EST-610	40+10/150+ 20/25	⅞ x 2⅛	1.17
EST-620	40+30/150+ 20/25	1 x 2¼	1.38
EST-625	40+40/150+ 40/25	1 x 2¾	1.44
EST-640	50+30/150+100/25	1 x 2¾	1.50
EST-655	50+30/150+200/10	1 x 2¾	1.53

ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors ASTRON®

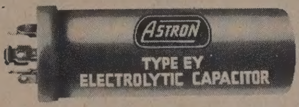
SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE EY

TWIST-PRONG ELECTROLYTICS

"SM" Safety Margin Construction*

TEMPERATURE RANGE
−30°C to +85°C



- Widest choice of singles, and dual, triple and quadruple capacitance voltage combinations in smallest practical aluminum can sizes.
- Ideal for replacement in television, radio and other high quality electronic equipment where high ripple and high surge voltages are encountered.
- Hermetically sealed. Designed for 85°C. operation.
- Quick, easy, firm mounting through chassis slots or slotted plates for insulated or grounded connection. Mounting prong ring serves as common negative terminal.
- Terminal coding clearly stamped on container.
- Individually packaged for the service trade, including metal and phenolic mounting plates.

SINGLE UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYS-90	2000/6	1⅜x2	1.53
EYS-100	1000/15	1 x3	1.53
EYS-105	2000/15	1⅜x3	2.07
EYS-108	3000/15	1⅜x3	2.09
EYS-115	100/25	1 x2	.96
EYS-120	500/25	1 x3	1.53
EYS-125	1000/25	1⅜x3	2.13
EYS-130	500/50	1⅜x2½	1.59
EYS-131	1000/50	1⅜x3	2.25
EYS-133	1500/50	1⅜x4	2.25
EYS-135	50/150	1 x2	.99
EYS-140	80/150	1 x2	1.11
EYS-145	100/150	1 x2	1.20
EYS-150	120/150	1 x2½	1.26
EYS-151	120/150	1⅜x2	1.26
EYS-155	140/150	1 x3	1.29
EYS-160	150/150	1 x3	1.29
EYS-161	200/150	1⅜x2½	1.47
EYS-162	300/150	1⅜x3	1.68
EYS-165	15/250	1 x2	.93
EYS-170	30/250	1 x2	1.02
EYS-175	40/250	1 x2	1.08
EYS-180	60/250	1 x2½	1.23
EYS-185	80/250	1 x3	1.29
EYS-186	100/250	1 x2½	1.61
EYS-190	150/250	1⅜x2½	1.86
EYS-1901	200/250	1⅜x3	2.38
EYS-1902	80/300	1 x3	1.53
EYS-191	100/300	1⅜x2½	1.73
EYS-193	150/300	1⅜x3	2.10
EYS-195	30/350	1 x2	1.14
EYS-200	40/350	1 x2½	1.20
EYS-205	50/350	1 x3	1.26
EYS-215	80/350	1⅜x2½	1.71
EYS-220	125/350	1⅜x3	2.19
EYS-222	150/350	1⅜x3½	2.37
EYS-225	80/400	1⅜x2½	1.77
EYS-230	10/450	1 x2	.93
EYS-235	20/450	1 x2	1.05
EYS-240	30/450	1 x2½	1.17
EYS-245	40/450	1 x3	1.23
EYS-246	50/450	1 x3½	1.41
EYS-247	60/450	1⅜x2½	1.55
EYS-250	80/450	1⅜x3	1.83
EYS-251	100/450	1⅜x3	2.07
EYS-253	125/450	1⅜x4	2.55
EYS-255	30/475	1 x3	1.20
EYS-260	40/475	1⅜x2	1.50
EYS-265	90/475	1⅜x3½	2.00
EYS-266	10/500	1 x2	.95
EYS-267	20/500	1 x2½	1.11
EYS-268	30/500	1 x3	1.20
EYS-269	40/500	1 x3½	1.50
EYS-270	80/500	1⅜x3½	1.91
EYS-271	90/500	1⅜x3½	.96

*Trade Mark

DUAL UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYD-500	1000-1000/15	1⅜x3	2.64
EYD-505	150-50/25	1 x2	1.05
EYD-506	50-50/50	1 x2	1.02
EYD-507	100-25/50	1 x2	1.11
EYD-508	20-20/150	1 x2	1.02
EYD-510	30-30/150	1 x2	1.05
EYD-511	40-20/150	1 x2	1.08
EYD-512	40-30/150	1 x2	1.12
EYD-513	40-40/150	1 x2	1.14
EYD-514	50-30/150	1 x2	1.20
EYD-515	50-50/150	1 x2½	1.17
EYD-5151	60-60/150	1 x2½	1.42
EYD-5152	75-75/150	1 x3	1.56
EYD-5153	80-40/150	1 x2½	1.38
EYD-5154	80-80/150	1⅜x2	1.60
EYD-516	125-100/150	1⅜x2½	2.10
EYD-517	200-5/150	1⅜x2½	1.65
EYD-520	200-200/150	1⅜x3½	2.40
EYD-525	20-20/250	1 x2	1.14
EYD-530	40-40/250	1 x2½	1.50
EYD-532	150-150/250	1⅜x4	3.10
EYD-533	200-200/250	1⅜x4½	3.66
EYD-540	80-80/300	1⅜x3½	2.43
EYD-545	120-20/300	1⅜x3	2.28
EYD-547	120-40/300	1⅜x3½	2.61
EYD-550	15-15/350	1 x2	1.35
EYD-555	20-20/350	1 x2½	1.41
EYD-556	30-30/350	1 x3	1.74
EYD-557	50-30/350	1⅜x2½	1.90
EYD-558	80-20/350	1⅜x2½	2.10
EYD-559	80-40/350	1⅜x3	2.38
EYD-560	80-80/350	1⅜x3½	2.82
EYD-5601	90-40/350	1⅜x3	2.58
EYD-561	100-100/350	1⅜x4	3.70
EYD-562	160-10/350	1⅜x3½	2.58
EYD-563	40-10/400	1⅜x2½	1.50
EYD-5631	80-60/400	1⅜x3½	2.92
EYD-564	5-5/450	1 x2	.96
EYD-565	10-10/450	1 x2	1.14
EYD-566	15-15/450	1 x2½	1.36
EYD-567	20-10/450	1 x2½	1.36
EYD-575	20-20/450	1 x3	1.53
EYD-576	30-10/450	1 x3	1.50
EYD-580	30-30/450	1⅜x2½	1.83
EYD-581	40-20/450	1⅜x2½	1.80
EYD-585	40-40/450	1⅜x3	2.07
EYD-586	50-50/450	1⅜x3	2.32
EYD-587	60-20/450	1⅜x3	2.14
EYD-588	60-40/450	1⅜x3	2.37
EYD-590	80-10/450	1⅜x3	2.16
EYD-592	80-20/450	1⅜x3	2.34
EYD-600	80-40/450	1⅜x4	2.61
EYD-601	100-40/450	1⅜x4	2.92
EYD-602	15-15/475	1 x2½	1.42
EYD-603	30-10/475	1⅜x2	1.56
EYD-604	40-10/475	1⅜x2½	1.86
EYD-605	40-40/475	1⅜x3½	2.58
EYD-6051	80-50/475	1⅜x4	3.12
EYD-606	10-10/500	1 x2½	1.17
EYD-610	20-20/500	1⅜x2½	1.71
EYD-611	30-10/500	1⅜x2½	1.56
EYD-615	40-40/500	1⅜x4	2.64
EYD-616	60-40/500	1⅜x3½	2.76
EYD-617	100/400 30/50	1⅜x2½	1.86
EYD-620	250/10 1000/6	1⅜x2	1.71
EYD-621	50/150 500/5	1 x2½	1.48
EYD-622	150/150 100/25	1⅜x2½	1.62
EYD-623	100/250 150/50	1⅜x3	2.19
EYD-624	35/300 500/6	1 x2½	1.68
EYD-625	20/350 30/250	1 x2½	1.38
EYD-630	60/350 80/250	1⅜x3	2.07
EYD-633	80/350 100/50	1⅜x3	2.37
EYD-6331	35/400 100/50	1 x3	1.56
EYD-634	10/450 20/25	1 x2	1.02
EYD-635	20/450 20/25	1 x2½	1.20
EYD-640	20/450 100/100	1⅜x2½	1.59
EYD-644	20/450 50/250	1 x3	1.68
EYD-645	20/450 80/350	1⅜x3	2.19
EYD-650	30/450 40/150	1⅜x2	1.50
EYD-651	30/450 200/150	1⅜x3	2.10
EYD-655	40/450 20/25	1 x3½	1.44
EYD-660	40/450 10/350	1⅜x2½	1.56
EYD-661	50/450 100/50	1⅜x2½	1.80
EYD-665	80/450 50/50	1⅜x3	2.10
EYD-666	80/450 100/50	1⅜x3½	2.26
EYD-670	20/475 100/300	1⅜x3½	2.37
EYD-671	20/475 100/400	1⅜x4	2.70
EYD-675	40/500 50/200	1⅜x3½	2.01

TRIPLE UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYT-999	20-20-20/25	1 x2	1.17
EYT-1000	40-40-40/25	1 x2	1.29
EYT-1001	20-20-20/150	1 x2	1.38
EYT-1005	40-20-20/150	1 x2	1.44
EYT-1007	40-30-20/150	1 x2	1.50
EYT-1010	40-40-40/150	1 x2½	1.56
EYT-1012	50-40-10/150	1 x2½	1.53
EYT-1015	50-50-50/150	1 x3	1.80
EYT-1016	60-40-20/150	1 x2½	1.65
EYT-1017	70-15-15/150	1 x2½	1.62
EYT-1018	80-40-20/150	1 x3	1.74
EYT-1019	120-80-40/150	1⅜x2½	2.28
EYT-10191	120-120-40/150	1⅜x3	2.44
EYT-10192	200-100-60/150	1⅜x3½	2.74
EYT-10193	200-150-150/150	1⅜x4	4.50
EYT-10194	20-20-20/250	1 x2	1.56
EYT-1020	40-20-10/250	1 x2½	1.71
EYT-1021	40-20-20/250	1 x2½	1.74
EYT-1022	80-80-60/250	1⅜x3½	2.94
EYT-1023	60-20-10/300	1⅜x2	2.07
EYT-1024	80-40-40/300	1⅜x3	2.86
EYT-10241	120-50-40/300	1⅜x4	3.40
EYT-10242	20-20-10/350	1 x2½	2.68
EYT-10243	30-20-10/350	1 x3	1.96
EYT-1025	60-40-20/350	1⅜x3	2.55
EYT-1026	60-50-50/350	1⅜x3½	2.94
EYT-10261	80-60-60/350	1⅜x4	3.34
EYT-10262	90-40-20/350	1⅜x3½	3.16

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE EY Twist-Prong Electrolytics *(Con't.)*

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYT-10263	100-100-10/350	1⅜x4	3.30
EYT-1027	40-40-20/400	1⅜x3	2.25
EYT-1028	30-50-4/400	1⅜x2½	2.31
EYT-1029	80-20-10/400	1⅜x3	2.58
EYT-10291	90-10-5/400	1⅜x3	2.64
EYT-1030	10-10-10/450	1 x3	1.56
EYT-10301	15-15-15/450	1 x3	1.86
EYT-1035	20-10-10/450	1 x3	1.77
EYT-1040	20-20-20/450	1⅜x3	2.16
EYT-1041	30-20-20/450	1⅜x3	2.31
EYT-1045	30-30-30/450	1⅜x3½	2.61
EYT-1046	40-10-10/450	1⅜x2½	2.16
EYT-1047	40-30-20/450	1⅜x3	2.58
EYT-1050	40-40-10/450	1⅜x3½	2.49
EYT-1051	40-40-20/450	1⅜x3½	2.68
EYT-1055	40-40-40/450	1⅜x4	2.94
EYT-1056	50-40-30/450	1⅜x3½	2.94
EYT-1057	60-20-20/450	1⅜x3½	2.76
EYT-1058	60-40-20/450	1⅜x3½	3.00
EYT-1060	60-30-10/450	1⅜x3½	2.70
EYT-1065	80-40-20/450	1⅜x4½	3.24
EYT-1070	10-10-10/475	1 x3	1.62
EYT-1075	30-30-20/475	1⅜x3½	2.64
EYT-1078	40-10-10/475	1⅜x3½	2.34
EYT-10781	40-30-10/475	1⅜x3	2.70
EYT-1079	40-30-30/475	1⅜x3½	3.10
EYT-1080	10-10-10/500	1 x3½	1.62
EYT-1081	30-20-20/500	1⅜x3	2.52
EYT-1082	40-10-10/500	1⅜x3	2.34
EYT-1083	40-40-10/500	1⅜x3½	3.04
EYT-1085	40-20/150 20/25	1 x2	1.38
EYT-1087	40-20/150 100/25	1 x2½	1.50
EYT-1088	40-20/150 200/25	1 x2½	1.62
EYT-10882	40-40/150 20/25	1 x2	1.44
EYT-10883	40-40/150 250/25	1 x3	1.89
EYT-10884	50-30/150 20/25	1 x2	1.50
EYT-1089	50-30/150 30/25	1 x2	1.56
EYT-10891	50-30/150 100/25	1 x2½	1.62
EYT-1090	50-50/150 20/25	1 x2½	1.62
EYT-10901	80-30/150 300/10	1⅜x2	1.89
EYT-10902	80-40/150 20/25	1 x2½	1.68
EYT-1091	80-40/150 300/25	1⅜x2½	2.22
EYT-1093	100-80/150 200/10	1⅜x2½	2.16
EYT-1095	120-60/150 20/25	1⅜x2½	1.98
EYT-1097	30-20/200 40/25	1 x2	1.68
EYT-10971	30-20/200 40/150	1 x2½	1.62
EYT-1098	60-5/200 20/50	1 x2½	1.50
EYT-1100	100-10/200 40/50	1⅜x2	1.86
EYT-1101	15-15/250 20/25	1 x2	1.41
EYT-1102	30-30/250 20/25	1 x2½	1.68
EYT-1105	40-20/250 10/150	1 x2½	1.65
EYT-1110	70-70/250 20/50	1⅜x2½	2.34
EYT-1112	90-90/250 20/50	1⅜x3	2.76
EYT-1113	10-10/300 10/15	1 x2	1.41
EYT-1115	10-10/300 15/250	1 x2	1.47
EYT-1117	100-10/300 60/50	1⅜x2½	2.43
EYT-11191	200-20/300 10/100	1⅜x4	2.94
EYT-1120	10-5/350 150/50	1 x3	1.62
EYT-1121	15-10/350 20/25	1 x2	1.50
EYT-1122	20-5/350 100/25	1 x2½	1.56
EYT-1123	20-5/350 150/50	1 x3	1.78
EYT-1124	20-10/350 20/25	1 x2	1.53
EYT-1125	15-15/350 20/25	1 x2½	1.50
EYT-11251	20-10/350 5/250	1 x2	1.53
EYT-1126	20-20/350 20/25	1 x2½	1.68
EYT-1130	30-20/350 20/25	1 x3	1.86
EYT-1131	30-20/350 100/150	1⅜x2½	2.40
EYT-1135	30-30/350 20/25	1⅜x2	2.04
EYT-1140	30-30/350 50/50	1⅜x2½	2.10
EYT-1145	40-20/350 10/100	1⅜x2	1.68
EYT-1150	40-40/350 50/25	1⅜x2½	2.22

*Trade Mark

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYT-1151	20-20/400 10/350	1 x3	1.80
EYT-1153	40-10/400 200/50	1⅜x3½	2.22
EYT-11531	60-30/400 20/350	1⅜x3	2.74
EYT-11532	80-40/400 150/50	1⅜x3½	3.10
EYT-11533	100-10/400 20/50	1⅜x3½	2.70
EYT-1154	100-10/400 80/350	1⅜x4	3.66
EYT-1155	10-10/450 20/25	1 x2½	1.44
EYT-1160	10-10/450 40/50	1 x2½	1.65
EYT-1162	15-15/450 40/25	1 x2½	1.65
EYT-1163	20-10/450 20/25	1 x2½	1.62
EYT-1165	20-10/450 50/50	1 x3	1.71
EYT-1170	20-20/450 20/25	1 x3½	1.86
EYT-1175	20-20/450 60/350	1⅜x3½	2.40
EYT-1177	30-10/450 150/50	1⅜x2½	1.50
EYT-1180	30-30/450 20/25	1⅜x2½	2.10
EYT-1185	30-30/450 40/50	1⅜x3	2.19
EYT-1186	30-30/450 125/25	1⅜x3	2.38
EYT-1188	40-10/450 100/50	1⅜x3	2.58
EYT-1190	40-10/450 80/200	1⅜x3	2.34
EYT-1195	40-10/450 100/200	1⅜x3½	2.46
EYT-1200	40-10/450 10/350	1⅜x2½	1.98
EYT-1201	40-20/450 20/25	1⅜x2½	2.10
EYT-1205	40-20/450 25/50	1⅜x3	2.04
EYT-1210	40-40/450 20/25	1⅜x3½	2.37
EYT-1215	40-40/450 40/25	1⅜x3½	2.40
EYT-1217	40-40/450 100/50	1⅜x3½	2.58
EYT-1220	40-40/450 40/150	1⅜x3½	2.49
EYT-1221	40-40/450 60/200	1⅜x3½	2.68
EYT-1225	40-40/450 100/200	1⅜x4	2.97
EYT-12251	40-40/450 80/350	1⅜x4	3.34
EYT-12252	60-40/450 75/50	1⅜x3½	2.76
EYT-12253	80-10/450 125/25	1⅜x3½	2.64
EYT-1226	80-20/450 100/50	1⅜x4	2.88
EYT-1240	80-40/450 100/25	1⅜x4½	3.06
EYT-1241	20-10/475 100/400	1⅜x4	3.16
EYT-1245	20-20/475 60/400	1⅜x4	2.88
EYT-1250	10-10/500 4/350	1 x3	1.50
EYT-1251	20-10/500 100/50	1 x3½	1.98
EYT-1255	10-10/500 100/50	1 x3½	1.71
EYT-1260	30-10/500 20/50	1⅜x2½	1.86
EYT-1261	40-40/500 100/200	1⅜x4	3.52
EYT-1262	60/200 200-140/150	1⅜x4	2.88
EYT-1263	10/300 500-500/15	1⅜x2	2.34
EYT-1264	20/300 150-80/150	1⅜x3	2.37
EYT-1265	40/300 80/40/250	1⅜x3	2.61
EYT-1266	100/300 200-60/150	1⅜x4	3.34
EYT-12661	200/300 60-20/250	1⅜x4½	3.48
EYT-1267	60/400 20-20/350	1⅜x3	2.55
EYT-1270	80/400 20-10/300	1⅜x3½	2.55
EYT-12701	5/450 80-40/300	1⅜x3	2.49
EYT-1273	10/450 20-10/25	1 x2	1.29
EYT-12731	10/450 80-80/250	1⅜x3	2.52
EYT-1275	20/450 40-10/250	1⅜x2	1.89
EYT-1276	20/450 40-10/350	1⅜x2½	2.10
EYT-1277	20/450 80-10/350	1⅜x3	2.55
EYT-1280	30/450 100-25/25	1⅜x2	1.80
EYT-1281	40/450 90-50/150	1⅜x3	2.37
EYT-1282	80/450 40-40/250	1⅜x4	2.98
EYT-1290	40/450 90-50/150	1⅜x3½	2.40
EYT-1291	40/475 80-10/450	1⅜x3½	3.30
EYT-1292	80/250 40/150 50/50	1⅜x2½	1.41
EYT-1295	20/350 30/250 20/25	1 x2½	1.68
EYT-1300	100/300 60/150 20/25	1⅜x2½	1.71
EYT-1301	20/350 50/100 100/75	1 x3	1.86
EYT-1310	10/350 50/150 100/50	1 x3	1.71
EYT-1313	20/350 10/300 20/25	1 x2½	1.50
EYT-1315	20/350 40/300 10/150	1 x3	1.89
EYT-1320	30/350 30/300 20/25	1 x3	1.89
EYT-1321	125/350 5/200 100/75	1⅜x3½	3.18
EYT-1325	40/350 20/300 10/200	1⅜x2	1.98
EYT-1327	60/400 40/300 20/25	1⅜x3	2.52

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYT-1328	10/450 50/150 100/75	1 x3	1.96
EYT-1329	10/450 40/300 10/150	1⅜x2	1.86
EYT-1330	10/450 30/400 30/300	1⅜x2½	2.01
EYT-1335	20/450 60/250 100/25	1⅜x2½	2.19
EYT-1340	20/450 80/350 100/50	1⅜x3½	2.70
EYT-1341	30/450 15/350 40/25	1⅜x2	1.44
EYT-1342	30/450 40/350 50/25	1 x4	2.22
EYT-1345	40/450 40/150 130/50	1⅜x3	2.19
EYT-13451	10/475 4/350 40/250	1⅜x2	1.80
EYT-1346	10/475 40/450 100/200	1⅜x3	2.52
EYT-1350	10/475 100/200 40/50	1⅜x2½	2.01
EYT-1351	20/475 50/50 20/25	1 x3	1.65
EYT-1352	80/475 80/150 50/50	1⅜x4	2.92
EYT-1360	20/500 20/300 40/25	1⅜x2½	1.86
EYT-1365	40/500 40/250 100/50	1⅜x3½	2.25

QUADRUPLE UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYQ-1998	100-80-60-40/150	1⅜x3	2.79
EYQ-1999	40-20-10-10/300	1⅜x2	2.37
EYQ-2000	40-40-20-10/300	1⅜x2½	2.73
EYQ-20004	40-40-30-20/300	1⅜x3	2.91
EYQ-20005	60-40-10-10/300	1⅜x2½	2.73
EYQ-2002	200-20-20-20/300	1⅜x4½	3.70
EYQ-2003	80-40-20-10/350	1⅜x3½	3.12
EYQ-2004	40-40-40-40/350	1⅜x3½	3.60
EYQ-2005	30-30-20-20/400	1⅜x3½	2.91
EYQ-2007	50-40-30-20/400	1⅜x4	3.39
EYQ-2010	80-10-10-10/400	1⅜x3½	2.82
EYQ-2011	80-25-10-10/400	1⅜x3½	3.03
EYQ-2012	5-5-5-5/450	1⅜x2	1.80
EYQ-2015	10-10-10-10/450	1⅜x2	2.01
EYQ-2020	20-10-10-10/450	1⅜x2½	2.22
EYQ-2025	20-20-20-20/450	1⅜x3	2.82
EYQ-2027	20-60-20-20/450	1⅜x3½	3.39
EYQ-2030	30-15-15-15/450	1⅜x3	2.67
EYQ-2035	30-30-15-10/450	1⅜x3½	2.82
EYQ-2036	30-30-20-20/450	1⅜x3½	3.12
EYQ-2037	35-35-10- 5/450	1⅜x3	2.79
EYQ-2038	40-10-10-10/450	1⅜x3	2.49
EYQ-2040	40-20-10-10/450	1⅜x3	2.67
EYQ-2041	40-35-10-10/450	1⅜x3	2.88
EYQ-2042	40-40- 4- 4/450	1⅜x3½	2.79
EYQ-2043	40-40-20-20/450	1⅜x4	3.34
EYQ-20431	40-40-30-30/450	1⅜x4	3.64
EYQ-2044	40-40-40-40/450	1⅜x4½	3.87
EYQ-20441	60-20-20-20/450	1⅜x4	3.40
EYQ-20442	60-30-10- 2/450	1⅜x3½	3.06
EYQ-20443	80-10-10-10/450	1⅜x3½	3.03
EYQ-2045	10-10-10-10/475	1⅜x2	2.10
EYQ-2048	20-20-10-10/475	1⅜x2½	2.62
EYQ-2049	20-20-20-20/475	1⅜x3	3.12
EYQ-2050	40-20-10-10/475	1⅜x3½	3.06
EYQ-2051	10-10-10-10/500	1⅜x2	2.10
EYQ-2052	40-40- 8- 8/500	1⅜x3½	3.42
EYQ-2053	30-30-30/150 40/25	1⅜x2	1.86
EYQ-2054	40-20-20/150 20/25	1⅜x2	1.77
EYQ-20541	40-40-20/150 200/10	1⅜x2	1.96
EYQ-20542	40-40-30/150 20/25	1⅜x2	1.86
EYQ-2055	40-40-40/150 20/25	1⅜x2	1.89
EYQ-2056	40-40-40/150 160/25	1⅜x2	2.13
EYQ-20561	50-20-20/150 200/25	1⅜x2	2.10
EYQ-20562	50-30-30/150 100/25	1⅜x2	2.07
EYQ-2057	50-50-50/150 20/25	1⅜x2	2.13
EYQ-2058	60-40-20/150 200/10	1⅜x2	2.10
EYQ-20581	80-40-40/150 40/25	1⅜x2	2.16
EYQ-20582	80-40-40/150 100/25	1⅜x2½	2.25
EYQ-20583	100-90-60/150 200/25	1⅜x3	2.97
EYQ-2059	200-200-100/150 10/75	1⅜x4	3.58
EYQ-2060	80-60-40/250 20/150	1⅜x3	3.06
EYQ-2065	100-40-10/250 100/50	1⅜x3	3.09
EYQ-2066	40-20-20/300 25/25	1⅜x2	2.40

ASTRON

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EAST NEWARK, NEW JERSEY

Capacitors

ASTRON®

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE EY Twist-Prong Electrolytics *(Con't.)*

QUADRUPLE UNITS (Cont.)

CAT. NO.	CAP. MF./WVDC	DIA x LENGTH	SUGG. RESALE PRICE
EYQ-2074	40-40-10/300 20/15	1⅜ x 2½	2.55
EYQ-2075	40-40-40/300 20/150	1⅜ x 2½	2.94
EYQ-2076	60-40-20/300 50/25	1⅜ x 2½	2.82
EYQ-20761	120-40-40/300 10/250	1⅜ x 4	3.70
EYQ-20762	150-20-10/300 250/50	1⅜ x 4	3.64
EYQ-2077	150-40-10/300 100/50	1⅜ x 4	3.54
EYQ-20771	20-10- 5/350 20/25	1⅜ x 2	1.86
EYQ-20772	30-10- 5/350 200/25	1⅜ x 2	2.28
EYQ-20773	30-10- 5/350 100/200	1⅜ x 2½	2.64
EYQ-20774	30-20- 5/350 100/200	1⅜ x 3	2.82
EYQ-2080	40-20-20/350 25/25	1⅜ x 2½	2.55
EYQ-2081	40-40-30/350 10/25	1⅜ x 3	2.97
EYQ-2085	40-40-40/350 40/25	1⅜ x 3	3.12
EYQ-2090	40-40-40/350 150/50	1⅜ x 3½	3.42
EYQ-2091	90-30- 5/350 100/75	1⅜ x 3½	3.70
EYQ-2092	100-10-10/350 20/50	1⅜ x 3	3.09
EYQ-2094	100-40-30/350 50/50	1⅜ x 4	3.94
EYQ-20941	100-80-10/350 20/50	1⅜ x 4	3.96
EYQ-2095	20-20-20/400 20/25	1⅜ x 2½	2.31
EYQ-2096	80-40-10/400 20/25	1⅜ x 3½	3.18
EYQ-20961	80-40-10/400 100/200	1⅜ x 4	3.78
EYQ-20962	80-40-30/400 40/25	1⅜ x 4	3.58
EYQ-2097	80-60-15/400 60/50	1⅜ x 4	3.75
EYQ-2105	10-10-10/450 20/25	1⅜ x 2	1.89
EYQ-2110	10-10-10/450 10/150	1⅜ x 2	1.89
EYQ-2115	20-10-10/450 100/25	1⅜ x 2½	2.22
EYQ-2120	20-20-20/450 20/25	1⅜ x 2½	2.49
EYQ-2125	20-20-20/450 100/50	1⅜ x 3	2.73
EYQ-2126	30-30-10/450 125/25	1⅜ x 3	2.70
EYQ-2130	30-30-15/450 30/50	1⅜ x 3	2.49
EYQ-2135	30-30-20/450 20/25	1⅜ x 3½	2.79
EYQ-2140	40-10-10/450 250/25	1⅜ x 3½	2.55
EYQ-2145	40-10-10/450 10/350	1⅜ x 3	2.34
EYQ-2146	40-10-10/450 40/350	1⅜ x 3	2.86
EYQ-2150	40-15-10/450 20/25	1⅜ x 3	2.46
EYQ-2151	40-20-10/450 100/50	1⅜ x 3½	2.76
EYQ-2152	40-20-10/450 100/250	1⅜ x 4	2.52
EYQ-2153	40-20-20/450 20/25	1⅜ x 3½	2.76
EYQ-2155	40-20-20/450 40/25	1⅜ x 3½	2.79
EYQ-2160	40-30-10/450 20/25	1⅜ x 3	2.76
EYQ-2162	40-40-10/450 50/50	1⅜ x 3½	2.88
EYQ-2163	40-40-10/450 100/100	1⅜ x 4	3.21
EYQ-2164	40-40-20/450 20/25	1⅜ x 3½	3.00
EYQ-21641	40-40-40/450 40/25	1⅜ x 3½	3.30
EYQ-2165	40-40-40/450 25/50	1⅜ x 4	2.82
EYQ-2170	60-10-10/450 20/150	1⅜ x 3½	2.76
EYQ-2171	60-40-10/450 25/50	1⅜ x 3½	3.15
EYQ-2172	60-40-40/450 10/25	1⅜ x 4	3.60
EYQ-2173	60-50- 5/450 20/25	1⅜ x 3½	3.21
EYQ-2175	20-20-10/475 10/300	1⅜ x 3	2.58
EYQ-2180	40-20-10/475 10/25	1⅜ x 3½	2.91
EYQ-2181	20-20/150 160-40/25	1⅜ x 2	1.92
EYQ-2182	50-20/150 150-30/15	1⅜ x 2	1.92
EYQ-2183	100-10/300 200-30/150	1⅜ x 4½	3.54
EYQ-2184	60- 4/350 100-40/25	1⅜ x 2½	2.28
EYQ-2185	40-10/400 80-10/250	1⅜ x 3½	2.82
EYQ-2186	100-10/400 30-20/50	1⅜ x 3½	3.06
EYQ-2190	10-10/450 20-20/25	1⅜ x 2	1.77
EYQ-2195	20-20/450 20-20/25	1⅜ x 2	2.16
EYQ-2197	40-10/450 35-10/350	1⅜ x 4	3.30
EYQ-2198	40-40/450 100-60/200	1⅜ x 4	3.64
EYQ-2200	40-40/450 30-30/350	1⅜ x 4½	3.54
EYQ-2202	60-10/300 10/75 10/25	1⅜ x 2	2.16
EYQ-22021	80- 5/300 60/150 20/25	1⅜ x 2½	2.58
EYQ-2203	60-40/350 60/200 20/150	1⅜ x 3½	3.00
EYQ-22031	10-10/450 60/200 100/50	1⅜ x 3	2.31
EYQ-22032	20-20/450 60/150 100/25	1⅜ x 2½	2.55
EYQ-22033	35-25/450 20/200 100/50	1⅜ x 3	2.79

QUADRUPLE UNITS (Cont.)

CAT. NO.	CAP. MF./WVDC	DIA x LENGTH	SUGG. RESALE PRICE
EYQ-22034	40-40/450 125/150 125/25	1⅜ x 4	3.42
EYQ-2205	10- 5/475 80/450 40/50	1⅜ x 4	2.97
EYQ-2210	15-15/475 80/300 40/50	1⅜ x 3½	2.88
EYQ-2211	20-10/475 20/450 100/25	1⅜ x 2½	2.52
EYQ-2212	40-10/475 4/350 40/300	1⅜ x 3	2.97
EYQ-2213	20/400 50-40/350 80/50	1⅜ x 3	3.00
EYQ-2215	10/450 120-40/300 25/25	1⅜ x 4	3.15
EYQ-2220	10/450 60-40/350 25/25	1⅜ x 3½	2.76
EYQ-2222	10/450 100-10/350 20/25	1⅜ x 3½	3.15
EYQ-2225	20/450 80-20/200 50/50	1⅜ x 3	2.49
EYQ-2227	25/450 100-10/300 50/50	1⅜ x 3	3.15
EYQ-22271	40/450 40-40/300 20/150	1⅜ x 3	2.94
EYQ-22272	60/450 80-40/250 20/150	1⅜ x 4	3.39
EYQ-2228	10/475 140-40/350 100/50	1⅜ x 4	3.18
EYQ-2229	10/475 40-10/450 100/50	1⅜ x 3	2.58
EYQ-2230	25/500 80-10/350 10/50	1⅜ x 4½	2.70
EYQ-2235	100/300 40/50 80-20/25	1⅜ x 3	2.70
EYQ-2236	80/450 10/400 40-30/300	1⅜ x 4	3.48
EYQ-2237	30/500 10/450 150-30/50	1⅜ x 3	2.52
EYQ-2238	10/300 200-140-30/150	1⅜ x 4½	3.06
EYQ-22381	10/300 200-200-30/150	1⅜ x 4½	3.21
EYQ-22391	160/350 60-10-4/300	1⅜ x 4	3.84
EYQ-22392	30/475 130-10-10/350	1⅜ x 4	3.84
EYQ-22393	20/300 150-150/150 100/30	1⅜ x 3½	3.18
EYQ-2240	120/300 20/250 100/50 20/25	1⅜ x 3½	3.03
EYQ-2245	200/300 20/250 100/50 20/25	1⅜ x 4½	3.27
EYQ-2246	20/350 150/300 10/250 250/50	1⅜ x 4	3.66
EYQ-2250	10/450 10/300 60/200 100/50	1⅜ x 2½	2.28
EYQ-2255	20/450 20/400 20/350 20/25	1⅜ x 3	2.28
EYQ-2260	80/450 10/400 30/300 40/150	1⅜ x 4½	3.15
EYQ-2261	10/475 40/350 80/300 100/100	1⅜ x 4	3.34
EYQ-2262	10/475 40/400 4/350 100/50	1⅜ x 2½	2.44
EYQ-2263	20/300 20-8-4/250	1⅜ x 2	1.86
EYQ-2265	10/475 10/450 80/200 50/60	1⅜ x 3	2.31
EYQ-2270	10/475 60/450 30/400 125/50	1⅜ x 4	3.27
EYQ-2275	20/475 40/300 100/50 80/25	1⅜ x 3	2.70
EYQ-2276	20/475 40/350 80/200 100/100	1⅜ x 4	3.27
EYQ-2280	25/475 20/450 40/300 100/50	1⅜ x 3½	2.97
EYQ-2281	40/475 40/250 50/150 80/50	1⅜ x 3½	3.00

*Trade Mark

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

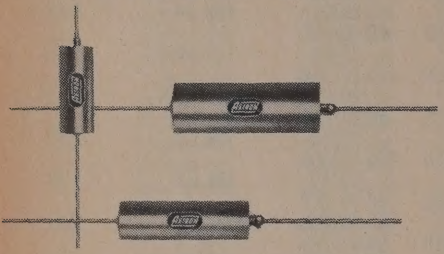
Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE TES

MIL TYPES CS-12 CS-13

TEMP. RANGE
−80°C to +125°C
With Voltage Derating



SOLID ELECTROLYTE TANTALUM CAPACITORS

The Astron Type TES solid electrolyte tantalum capacitor is a sub-miniature metal cased, hermetically sealed unit, containing only solid materials. The tantalum oxide dielectric endows these capacitors with long shelf life and flat characteristics even at extremes of rated temperatures.

Astron TES capacitors are rugged and reliable units for use in the following applications: transistorized equipment, computers, air craft and missiles, networks and general power supplies, portable equipment, and hearing aids.

CASE CODE	CASE DIMENSIONS — INCHES						WIRE SIZE	
Mil-C-26655 and Astron Size Designations	UNINSULATED D (±.010) x L (±.031)		*MYLAR INSULATING SLEEVE D (±.015) x L (±.031)		RIGID INSULATING SLEEVE D (±.016) x L (±.010)		WIRE LEAD GAUGE	WIRE LEAD DIA.
A	.125	.250	.135	.286	.157	.375	24	.020
B	.175	.438	.185	.474	.204	.562	24	.020
C	.279	.650	.289	.686	.312	.790	22	.025
D	.341	.750	.351	.786	.375	.890	22	.025

NOTES TO STANDARD RATINGS:

1. Standard ratings and tolerances are as shown on the table. Non-standard ratings and tolerances are available on request.
2. For insulating sleeve add M for Mylar* or R for rigid after the TES designation. Example (1) TESM-47-35 for 0.47 mfd 35 volt ±20% tolerance capacitor with Mylar* sleeve. (2) TESR-1M-35-10 for 1 mfd ±10% 35 volt capacitor with rigid sleeve.

6 VDC WORKING, 8 VD SURGE at 85°C

CAP. MFD.	MAX. Rs ‡(ohms)	Case	20% Tolerance	10% Tolerance	MIL Number
.1	798	A	TES-1-6	TES-1-6-10	
.12	664	A		TES-12-6-10	
.15	533	A	TES-15-6	TES-15-6-10	
.18	443	A		TES-18-6-10	
.22	363	A	TES-22-6	TES-22-6-10	
.27	297	A		TES-27-6-10	
.33	242	A	TES-33-6	TES-33-6-10	
.39	205	A		TES-39-6-10	
.47	170	A	TES-47-6	TES-47-6-10	
.56	142	A		TES-56-6-10	
.68	118	A	TES-68-6	TES-68-6-10	
.82	97.3	A		TES-82-6-10	
1.	79.8	A	TES-1M-6	TES-1M-6-10	
1.2	66.4	A		TES-1.2M-6-10	
1.5	53.3	A	TES-1.5M-6	TES-1.5M-6-10	
1.8	44.3	A		TES-1.8M-6-10	
2.2	36.3	A	TES-2.2M-6	TES-2.2M-6-10	
2.7	29.7	A		TES-2.7M-6-10	
3.3	24.2	A	TES-3.3M-6	TES-3.3M-6-10	
3.9	20.5	A		TES-3.9M-6-10	
4.7	17.0	A	TES-4.7M-6	TES-4.7M-6-10	
5.6	14.2	A		TES-5.6M-6-10	CS12BB5R6
6.8	11.8	A	TES-6.8M-6	TES-6.8M-6-10	CS12BB6R8
8.2	9.7	B		TES-8.2M-6-10	
10.	8.0	B	TES-10M-6	TES-10M-6-10	
12.	6.6	B		TES-12M-6-10	
15.	5.3	B	TES-15M-6	TES-15M-6-10	
18.	4.4	B		TES-18M-6-10	
22.	3.6	B	TES-22M-6	TES-22M-6-10	
27.	3.0	B		TES-27M-6-10	
33.	2.4	B	TES-33M-6	TES-33M-6-10	
39.	2.1	B		TES-39M-6-10	
47.	1.7	B	TES-47M-6	TES-47M-6-10	CS12BB470
56.	1.4	B		TES-56M-6-10	CS12BB560
60.	1.3	B	TES-60M-6		
68.	1.2	C	TES-68M-6	TES-68M-6-10	
82.	.97	C		TES-82M-6-10	
100.	.80	C	TES-100M-6	TES-100M-6-10	
120.	.66	C		TES-120M-6-10	
150.	.53	D	TES-150M-6	TES-150M-6-10	CS12BB151
180.	.44	C	TES-180M-6	TES-180M-6-10	CS12BB181
220.	.36	D	TES-220M-6	TES-220M-6-10	
270.	.30	D		TES-270M-6-10	CS12BB271
330.	.24	D	TES-330M-6	TES-330M-6-10	CS12BB331

10 VDC WORKING, 13 VDC SURGE at 85°C

CAP. MFD.	MAX. Rs ‡(ohms)	Case	20% Tolerance	10% Tolerance	MIL Number
.1	798	A	TES-1-10	TES-1-10-10	
.12	664	A		TES-12-10-10	
.15	533	A	TES-15-10	TES-15-10-10	
.18	443	A		TES-18-10-10	
.22	363	A	TES-22-10	TES-22-10-10	
.27	297	A		TES-27-10-10	
.33	242	A	TES-33-10	TES-33-10-10	
.39	205	A		TES-39-10-10	
.47	170	A	TES-47-10	TES-47-10-10	
.56	142	A		TES-56-10-10	
.68	118	A	TES-68-10	TES-68-10-10	
.82	97.3	A		TES-82-10-10	
1.	79.8	A	TES-1M-10	TES-1M-10-10	
1.2	66.4	A		TES-1.2M-10-10	
1.5	53.3	A	TES-1.5M-10	TES-1.5M-10-10	
1.8	44.3	A		TES-1.8M-10-10	
2.2	36.3	A	TES-2.2M-10	TES-2.2M-10-10	
2.7	29.7	A		TES-2.7M-10-10	
3.3	24.2	A	TES-3.3M-10	TES-3.3M-10-10	
3.9	20.5	A		TES-3.9M-10-10	CS12BC3R9
4.7	17.0	A	TES-4.7M-10	TES-4.7M-10-10	CS12BC4R7
5.6	14.2	B		TES-5.6M-10-10	
6.8	11.8	B	TES-6.8M-10	TES-6.8M-10-10	
8.2	9.7	B		TES-8.2M-10-10	
10.	8.0	B	TES-10M-10	TES-10M-10-10	
12.	6.6	B		TES-12M-10-10	
15.	5.3	B	TES-15M-10	TES-15M-10-10	
18.	4.4	B		TES-18M-10-10	
22.	3.6	B	TES-22M-10	TES-22M-10-10	
27.	3.0	B		TES-27M-10-10	CS12BC270
33.	2.4	B	TES-33M-10	TES-33M-10-10	CS12BC330
39.	2.1	B		TES-39M-10-10	CS12BC390
40.	2.0	B	TES-40M-10		
47.	1.7	C	TES-47M-10	TES-47M-10-10	
56.	1.4	C		TES-56M-10-10	
68.	1.2	C	TES-68M-10	TES-68M-10-10	
82.	.97	C		TES-82M-10-10	CS12BC820
100.	.80	C	TES-100M-10	TES-100M-10-10	CS12BC101
120.	.66	C	TES-120M-10	TES-120M-10-10	CS12BC121
150.	.53	D	TES-150M-10	TES-150M-10-10	
180.	.44	D		TES-180M-10-10	CS12BC181
220.	.36	D	TES-220M-10	TES-220M-10-10	CS12BC221

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† To specify ±5%, replace -10 in Astron Catalog number with -5
‡ Rs is equivalent series resistance at 6% dissipation factor
*Trade Mark

ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

ASTRON TYPE TES

MIL TYPES CS-12 CS-13

SOLID ELECTROLYTE TANTALUM CAPACITORS

TEMPERATURE RANGE
−80°C to +125°C

With Voltage Derating

15 VDC WORKING 20 VDC SURGE at 85°C

Cap. Mfd.	Max. Rs ‡(ohms)	CASE	CATALOG NUMBER† 20% Tolerance	CATALOG NUMBER† 10% Tolerance	MIL Number
.1	798	A	TES-1-15	TES-1-15-10	
.12	664	A		TES-12-15-10	
.15	533	A	TES-15-15	TES-15-15-10	
.18	443	A		TES-18-15-10	
.22	363	A	TES-22-15	TES-22-15-10	
.27	297	A		TES-27-15-10	
.33	242	A	TES-33-15	TES-33-15-10	
.39	205	A		TES-39-15-10	
.47	170	A	TES-47-15	TES-47-15-10	
.56	142	A		TES-56-15-10	
.68	118	A	TES-68-15	TES-68-15-10	
.82	97.3	A		TES-82-15-10	
1.	79.8	A	TES-1M-15	TES-1M-15-10	
1.2	66.4	A		TES-1.2M-15-10	
1.5	53.3	A	TES-1.5M-15	TES-1.5M-15-10	
1.8	44.3	A		TES-1.8M-15-10	
2.2	36.3	A	TES-2.2M-15	TES-2.2M-15-10	
2.7	29.7	A		TES-2.7M-15-10	CS12BD2R7
3.3	24.2	A	TES-3.3M-15	TES-3.3M-15-10	CS12BD3R3
3.9	20.5	B		TES-3.9M-15-10	
4.7	17.0	B	TES-4.7M-15	TES-4.7M-15-10	
5.6	14.2	B		TES-5.6M-15-10	
6.8	11.8	B	TES-6.8M-15	TES-6.8M-15-10	
8.2	9.7	B		TES-8.2M-15-10	
10.	8.0	B	TES-10M-15	TES-10M-15-10	
12.	6.6	B		TES-12M-15-10	
15.	5.3	B	TES-15M-15	TES-15M-15-10	
18.	4.4	B		TES-18M-15-10	CS12BD180
22.	3.6	B	TES-22M-15	TES-22M-15-10	CS12BD220
27.	3.0	C		TES-27M-15-10	
33.	2.4	C	TES-33M-15	TES-33M-15-10	
39.	2.1	C		TES-39M-15-10	
47.	1.7	C	TES-47M-15	TES-47M-15-10	
56.	1.4	C		TES-56M-15-10	CS12BD560
68.	1.2	C	TES-68M-15	TES-68M-15-10	CS12BD680
82.	.97	D		TES-82M-15-10	
100.	.80	D	TES-100M-15	TES-100M-15-10	
120.	.66	D		TES-120M-15-10	CS12BD121
150.	.53	D	TES-150M-15	TES-150M-15-10	CS12BD151

20 VDC WORKING 26 VDC SURGE

Cap. Mfd.	Max. Rs ‡(ohms)	CASE	CATALOG NUMBER† 20% Tolerance	CATALOG NUMBER† 10% Tolerance	MIL Number
.0022	36,300	A	TES-0022-20	TES-0022-20-10	
.0027	29,700	A		TES-0027-20-10	
.0033	24,200	A	TES-0033-20	TES-0033-20-10	
.0039	20,500	A		TES-0039-20-10	
.0047	17,000	A	TES-0047-20	TES-0047-20-10	

20 VDC WORKING 26 VDC SURGE at 85°C

Cap. Mfd.	Max. Rs ‡(ohms)	CASE	CATALOG NUMBER† 20% Tolerance	CATALOG NUMBER† 10% Tolerance	MIL Number
.0056	14,200	A		TES-0056-20-10	
.0068	11,800	A	TES-0068-20	TES-0068-20-10	
.0082	9,730	A		TES-0082-20-10	
.01	7,980	A	TES-01-20	TES-01-20-10	
.012	6,640	A		TES-012-20-10	
.015	5,330	A	TES-015-20	TES-015-20-10	
.018	4,430	A		TES-018-20-10	
.022	3,630	A	TES-022-20	TES-022-20-10	
.027	2,970	A		TES-027-20-10	
.033	2,420	A	TES-033-20	TES-033-20-10	
.039	2,050	A		TES-039-20-10	
.047	1,700	A	TES-047-20	TES-047-20-10	
.056	1,420	A		TES-056-20-10	
.068	1,180	A	TES-068-20	TES-068-20-10	
.082	973	A		TES-082-20-10	
.1	798	A	TES-1-20	TES-1-20-10	
.12	664	A		TES-12-20-10	
.15	533	A	TES-15-20	TES-15-20-10	
.18	443	A		TES-18-20-10	
.22	363	A	TES-22-20	TES-22-20-10	
.27	297	A		TES-27-20-10	
.33	242	A	TES-33-20	TES-33-20-10	
.39	205	A		TES-39-20-10	
.47	170	A	TES-47-20	TES-47-20-10	
.56	142	A		TES-56-20-10	
.68	118	A	TES-68-20	TES-68-20-10	
.82	97.3	A		TES-82-20-10	
1.	79.8	A	TES-1M-20	TES-1M-20-10	
1.2	66.4	A		TES-1.2M-20-10	CS12BE1R2
1.5	53.3	A	TES-1.5M-20	TES-1.5M-20-10	CS12BE1R5
1.8	44.3	A		TES-1.8M-20-10	CS12BE1R8
2.2	36.3	A	TES-2.2M-20	TES-2.2M-20-10	CS12BE2R2
2.7	29.7	B		TES-2.7M-20-10	
3.3	24.2	B	TES-3.3M-20	TES-3.3M-20-10	
3.9	20.5	B		TES-3.9M-20-10	
4.7	17.0	B	TES-4.7M-20	TES-4.7M-20-10	
5.6	14.2	B		TES-5.6M-20-10	
6.8	11.8	B	TES-6.8M-20	TES-6.8M-20-10	
8.2	9.7	B		TES-8.2M-20-10	CS12BE8R2
10.	8.0	B	TES-10M-20	TES-10M-20-10	CS12BE100
12.	6.6	B		TES-12M-20-10	CS12BE120
15.	5.3	B	TES-15M-20	TES-15M-20-10	CS12BE150
18.	4.4	C		TES-18M-20-10	
22.	3.6	C	TES-22M-20	TES-22M-20-10	
27.	3.0	C		TES-27M-20-10	CS12BE270
33.	2.4	C	TES-33M-20	TES-33M-20-10	CS12BE330
39.	2.1	C		TES-39M-20-10	CS12BE390
47.	1.7	C	TES-47M-20	TES-47M-20-10	CS12BE470
56.	1.4	D		TES-56M-20-10	CS12BE560
68.	1.2	D	TES-68M-20	TES-68M-20-10	CS12BE680
82.	.97	D		TES-82M-20-10	CS12BE820
100.	.80	D	TES-100M-20	TES-100M-20-10	CS12BE101

35 VDC WORKING 46 VDC SURGE at 85°C

Cap. Mfd.	Max. Rs ‡(ohms)	CASE	CATALOG NUMBER† 20% Tolerance	CATALOG NUMBER† 10% Tolerance	MIL Number
.0022	36,300	A	TES-0022-35	TES-0022-35-10	
.0027	29,700	A		TES-0027-35-10	
.0033	24,200	A	TES-0033-35	TES-0033-35-10	
.0039	20,500	A		TES-0039-35-10	
.0047	17,000	A	TES-0047-35	TES-0047-35-10	
.0056	14,200	A		TES-0056-35-10	
.0068	11,800	A	TES-0068-35	TES-0068-35-10	
.0082	9,730	A		TES-0082-35-10	
.01	7,980	A	TES-01-35	TES-01-35-10	
.012	6,640	A		TES-012-35-10	
.015	5,330	A	TES-015-35	TES-015-35-10	
.018	4,430	A		TES-018-35-10	
.022	3,630	A	TES-022-35	TES-022-35-10	
.027	2,970	A		TES-027-35-10	
.033	2,420	A	TES-033-35	TES-033-35-10	
.039	2,050	A		TES-039-35-10	
.047	1.700	A	TES-047-35	TES-047-35-10	
.056	1,420	A		TES-056-35-10	
.068	1,180	A	TES-068-35	TES-068-35-10	
.082	973	A		TES-082-35-10	
.1	798	A	TES-1-35	TES-1-35-10	
.12	664	A		TES-12-35-10	
.15	533	A	TES-15-35	TES-15-35-10	
.18	443	A		TES-18-35-10	
.22	363	A	TES-22-35	TES-22-35-10	
.27	297	A		TES-27-35-10	
.33	242	A	TES-33-35	TES-33-35-10	CS12BFR33
.39	205	A		TES-39-35-10	CS12BFR39
.47	170	A	TES-47-35	TES-47-35-10	CS12BFR47
.56	142	A		TES-56-35-10	CS12BFR56
.68	118	A	TES-68-35	TES-68-35-10	CS12BFR68
.82	97.3	A		TES-82-35-10	CS12BFR82
1.	79.8	A	TES-1M-35	TES-1M-35-10	CS12BF010
1.2	66.4	B		TES-1.2M-35-10	CS12BF1R2
1.5	53.3	B	TES-1.5M-35	TES-1.5M-35-10	CS12BF1R5
1.8	44.3	B		TES-1.8M-35-10	CS12BF1R8
2.2	36.3	B	TES-2.2M-35	TES-2.2M-35-10	CS12BF2R2
2.7	29.7	B		TES-2.7M-35-10	CS12BF2R7
3.3	24.2	B	TES-3.3M-35	TES-3.3M-35-10	CS12BF3R3
3.9	20.5	B		TES-3.9M-35-10	CS12BF3R9
4.7	17.0	B	TES-4.7M-35	TES-4.7M-35-10	CS12BR4R7
5.6	14.2	B		TES-5.6M-35-10	CS12BF5R6
6.8	11.8	B	TES-6.8M-35	TES-6.8M-35-10	CS12BF6R8
8.2	9.7	C		TES-8.2M-35-10	CS12BF8R2
10.	8.0	C	TES-10M-35	TES-10M-35-10	CS12BF100
12.	6.6	C		TES-12M-35-10	CS12BF120
15.	5.3	C	TES-15M-35	TES-15M-35-10	CS12BF150
18.	4.4	C		TES-18M-35-10	CS12BF180
22.	3.6	C	TES-22M-35	TES-22M-35-10	CS12BF220
27.	3.0	D		TES-27M-35-10	CS12BF270
33.	2.4	D	TES-33M-35	TES-33M-35-10	CS12BF330
39.	2.1	D		TES-39M-35-10	CS12BF390
47.	1.7	D	TES-47M-35	TES-47M-35-10	CS12BF470

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† To Specify ±5%, replace -10 in Astron Catalog number with -5
‡ Rs is equivalent series resistance at 6% dissipation factor
*Trade Mark

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ASTRON
DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

ASTRON®

SPECIALISTS IN CAPACITOR MINIATURIZATION

* SUBMINIATURE PAPER CAPACITORS

Glass-to-Metal Sealed Tubulars

ASTRON
TQF CAPACITOR
125°C OPERATION

TEMPERATURE RANGE
−65°C to +125°C

For Commercial and Military Applications

- Amazingly small sizes, compact and light-weight units.
- Highly dependable operation at temperatures up to 125°C. without voltage derating.
- Exceptional capacitance stability over entire temperature range of −65°C. to +125°C.
- High insulation resistance, low power factor, unusually low resonance loss. High test voltage indicates extra margin of safety in operation.
- Built to exceed stringent requirements of Specification MIL-C-25.
- Positive hermetic closure of the metal cases is assured by glass-to-metal solder seal terminals.
- Tubulars supplied in a variety of construction and mounting styles to meet your specific needs: extended foil or inserted tab; capacitor section grounded to case or insulated from case; plastic outer sleeve; with soldered-on tangential or L-type bracket; screw neck mounting style; or stud-base mounting style.

*Trade Mark

ASTRON CROSS-REFERENCE TABLE TO MIL-C-25

ASTRON TYPE	MIL TYPE	DESCRIPTION	
TQF	CPO4	Uninsulated Body	**INSERTED TAB CONSTRUCTION** Capacitors with inserted tab construction are ideal for minimum size consideration. They are the smallest paper-foil capacitors available, the most compact units for operation over a wide temperature range to 125°C. without derating and can be used in AC as well as DC applications. Where smallest possible capacitor sizes are required, coupled with maximum capacitance stability and high insulation resistance over a wide temperature range, "inserted tab construction" is best suited for the application.
TQFP	CPO5	Insulated Body	
AQF	CPO8	Uninsulated Body	**EXTENDED FOIL CONSTRUCTION** Capacitors with extended foil construction are ideal where long life, excellent capacitance-temperature stability, high insulation resistance and small size, coupled with outstanding electrical characteristics over a wide temperature range, are required. They can be used in AC as well as DC applications. The extended foil non-inductive construction offers the lowest possible resonant losses in both low and high voltage applications.
AQFP	CPO9	Insulated Body	

EXPLANATION or DESIGNATIONS and CATALOG NUMBERING SYSTEM

ASTRON CATALOG NUMBER

TQ FP 2 33 10 A T

CAPACITOR TYPE (TQ)

Internal Construction:
T = Inserted Tab Construction
A = Extended Foil Construction

Case Style
Q = Metal Tubular, glass seals

GENERAL CONSTRUCTION (FP)

Circuit:
F = Floating, Circuit 1 2 leads
G = Grounded, Circuit 2 1 leads
— = Grounded, Circuit 3 2 leads
P = Plastic sleeve
C = Threaded Neck less flats
S = Threaded Neck less flats
W = Radial Mounting Stud
V = Axial Mounting Stud

VOLTAGE RATINGS (2)
Expressed in hundreds of volts

CAPACITANCE (33)
Expressed in Micro-Microfarads x 100. Over .99 mfd, add M to Capacitance.

CAPACITANCE TOLERANCE (10)
±20% = omitted, ±10% = 10, ±5% = 5, ±2% = 2

BRACKET STYLE (A)
A = Tangential type bracket
B = Vertical Mounting bracket
Y = Radial bracket

LUG TERMINAL (T)
Available on all AQ + TQ Type Capacitors.
Add suffix "T" to complete Type designation.

MILITARY TYPE NUMBER

PER MIL-C-25 = CP 09 A I K C 33 4 K 3

CAPACITOR TYPE (CP)
Paper Capacitor
Per MIL-C-25

STYLE (09)
04 — Inserted Tab
05 — Inserted Tab with Insulating Sleeve
08 — Extended Foil
09 — Extended Foil with Insulating Sleeve
10 — Inserted Tab with Tangential Bracket
11 — Inserted Tab with Threaded Neck
12 — Extended Foil with Tangential Bracket
13 — Extended Foil with Threaded Neck

TERMINAL TYPE (A)
A = Axial Wire Leads

CIRCUIT (I)
1 = Insulated from Case — 2 Leads
3 = Grounded to Case — 2 Leads

TEMPERATURE CHARACTERISTIC (K)
K = −55°C to +125°C
E = −55°C to +85°C

VOLTAGE RATING (C)
B = 100 VDC
C = 200 VDC
E = 400 VDC
F = 600 VDC
G = 1000 VDC

CAPACITANCE IN pf (33)

DECIMAL MULTIPLIER (Number in Zeros) (4)

CAPACITANCE TOLERANCE (K)
J = ±5% K = ±10% M = ±20%

VIBRATION GRADE (3)
1 = 10-55 C.P.S. 3 = 10-2000 C.P.S.

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

Subminiature Paper Capacitors *(Con't.)*

TYPES TQF (CP04) and TQFP (CP05)

Inserted Tab Construction

(Capacitor Section Insulated From Case)

100 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
	TQF-1-001-10	.001	.235 x ¾
	TQF-1-0015-10	.0015	.235 x ¾
	TQF-1-0022-10	.0022	.235 x ¾
	TQF-1-0033-10	.0033	.235 x ¾
	TQF-1-0047-10	.0047	.235 x ¾
	TQF-1-0068-10	.0068	.235 x ¾
	TQF-1-01-10	.01	.235 x ¾
	TQF-1-015-10	.015	.235 x ¾
	TQF-1-022-10	.022	.235 x ¾
	TQF-1-027-10	.027	.235 x ¾
CPO4A1K-B333K3	TQF-1-033-10	.033	.235 x ¾
	TQF-1-047-10	.047	.312 x ⅞
	TQF-1-068-10	.068	.312 x ⅞
CPO4A1K-B104K3	TQF-1-1-10	.1	.312 x ⅞
CPO4A1K-B154K3	TQF-1-15-10	.15	.400 x ⅞
CPO4A1K-B224K3	TQF-1-22-10	.22	.400 x 1⅛
	TQF-1-27-10	.27	.400 x 1⅜
CPO4A1K-B334K3	TQF-1-33-10	.33	.400 x 1⅜
CPO4A1K-B474K3	TQF-1-47-10	.47	.562 x 1⅛
CPO4A1K-B684K3	TQF-1-68-10	.68	.562 x 1⅜
CPO4A1K-B105K3	TQF-1-1M-10	1.0	.562 x 1⅞

200 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
	TQF-2-001-10	.001	.235 x ¾
	TQF-2-0015-10	.0015	.235 x ¾
	TQF-2-0022-10	.0022	.235 x ¾
	TQF-2-0033-10	.0033	.235 x ¾
	TQF-2-0047-10	.0047	.235 x ¾
	TQF-2-0068-1	.0068	.235 x ¾
	TQF-2-01-10	.01	.235 x ¾
CPO4A1K-C153K3	TQF-2-015-10	.15	.235 x ¾
CPO4A1K-C223K3	TQF-2-022-10	.022	.235 x ¾
	TQF-2-027-10	.027	.312 x ⅞
	TQF-2-033-10	.033	.312 x ⅞
CPO4A1K-C473K3	TQF-2-047-10	.047	.312 x ⅞
CPO4A1K-C683K3	TQF-2-068-10	.068	.312 x ⅞
CPO4A1K-C104K3	TQF-2-1-10	.1	.400 x ⅞
CPO4A1K-C224K3	TQF-2-15-10	.15	.400 x 1⅛
CPO4A1K-C154K3	TQF-2-22-10	.22	.400 x 1⅜
	TQF-2-27-10	.27	.562 x 1⅛
CPO4A1K-C334K3	TQF-2-33-10	.33	.562 x 1⅛
CPO4A1K-C474K3	TQF-2-47-10	.47	.562 x 1⅜
CPO4A1K-C684K3	TQF-2-68-10	.68	.562 x 1⅞
CPO4A1K-C105K3	TQF-2-1M-10	1.0	.670 x 1⅞

300 VOLTS DC WORKING

300 volt units
available in
commercial
stamping only.

300 volt ratings
not listed in
specificaion
MIL-C-25C.

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
	TQF-3-001-10	.001	.235 x ¾
	TQF-3-0015-10	.0015	.235 x ¾
	TQF-3-0022-10	.0022	.235 x ¾
	TQF-3-0033-10	.0033	.235 x ¾
	TQF-3-0047-10	.0047	.235 x ¾
	TQF-3-0068-10	.0068	.235 x ¾
	TQF-3-01-10	.01	.235 x ¾
	TQF-3-015-10	.015	.235 x ¾
	TQF-3-022-10	.022	.312 x ⅞
	TQF-3-027-10	.027	.312 x ⅞
	TQF-3-033-10	.033	.312 x ⅞
	TQF-3-047-10	.047	.312 x ⅞
	TQF-3-068-10	.068	.400 x ⅞
	TQF-3-1-10	.1	.400 x 1⅛
	TQF-3-15-10	.15	.400 x 1⅜
	TQF-3-22-10	.22	.562 x 1⅛
	TQF-3-27-10	.27	.562 x 1⅜
	TQF-3-33-10	.33	.562 x 1⅜
	TQF-3-47-10	.47	.562 x 1⅞
	TQF-3-68-10	.68	.670 x 1⅞
	TQF-3-1M-10	1.0	.750 x 2⅛

400 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
	TQF-4-001-10	.001	.235 x ¾
	TQF-4-0015-10	.0015	.235 x ¾
	TQF-4-0022-10	.0022	.235 x ¾
	TQF-4-0033-10	.0033	.235 x ¾
	TQF-4-0047-10	.0047	.235 x ¾
	TQF-4-0068-10	.0068	.235 x ¾
CPO4A1K-E103K3	TQF-4-01-10	.01	.235 x ¾
	TQF-4-015-10	.015	.312 x ⅞
	TQF-4-022-10	.022	.312 x ⅞
	TQF-4-027-10	.027	.312 x ⅞
CPO4A1K-E333K3	TQF-4-033-10	.033	.312 x ⅞
CPO4A1K-E473K3	TQF-4-047-10	.047	.400 x ⅞
CPO4A1K-E683K3	TQF-4-068-10	.068	.400 x 1⅛
CPO4A1K-E104K3	TQF-4-1-10	.1	.400 x 1⅜
CPO4A1K-E154K3	TQF-4-15-10	.15	.562 x 1⅛
CPO4A1K-E224K3	TQF-4-22-10	.22	.562 x 1⅜
	TQF-4-27-10	.27	.562 x 1⅞
CPO4A1K-E334K3	TQF-4-33-10	.33	.562 x 1⅞
CPO4A1K-E474K3	TQF-4-47-10	.47	.670 x 1⅞
	TQF-4-56-10	.56	.750 x 2⅛
CPO4A1K-E684K3	TQF-4-68-10	.68	.750 x 2⅛
CPO4A1K-E105K3	TQF-4-1M-10	1.0	1.000 x 1⅞

600 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
CPO4A1K-F102K3	TQF-6-001-10	.001	.235 x ¾
CPO4A1K-F152K3	TQF-6-0015-10	.0015	.235 x ¾
CPO4A1K-F222K3	TQF-6-0022-10	.0022	.235 x ¾
CPO4A1K-F332K3	TQF-6-0033-10	.0033	.235 x ¾
CPO4A1K-F472K3	TQF-6-0047-10	.0047	.235 x ¾
CPO4A1K-F682K3	TQF-6-0068-10	.0068	.235 x ¾
CPO4A1K-F103K3	TQF-6-01-10	.01	.312 x ⅞
CPO4A1K-F153K3	TQF-6-015-10	.015	.312 x ⅞
CPO4A1K-F223K3	TQF-6-022-10	.022	.312 x ⅞
	TQF-6-027-10	.027	.400 x ⅞
CPO4A1K-F333K3	TQF-6-033-10	.033	.400 x ⅞
CPO4A1K-F473K3	TQF-6-047-10	.047	.400 x 1⅛
CPO4A1K-F683K3	TQF-6-068-10	.068	.400 x 1⅜
CPO4A1K-F104K3	TQF-6-1-10	.1	.562 x 1⅛
CPO4A1K-F154K3	TQF-6-15-10	.15	.562 x 1⅜
CPO4A1K-F224K3	TQF-6-22-10	.22	.562 x 1⅞
	TQF-6-27-10	.27	.670 x 1⅞
CPO4A1K-F334K3	TQF-6-33-10	.33	.670 x 1⅞
CPO4A1K-F474K3	TQF-6-47-10	.47	.750 x 2⅛
CPO4A1K-F684K3	TQF-6-68-10	.68	1.000 x 1⅞

1000 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
	TQF-10-001-10	.001	.400 x ⅞
	TQF-10-0015-10	.0015	.400 x ⅞
	TQF-10-0022-10	.0022	.400 x ⅞
	TQF-10-0033-10	.0033	.400 x ⅞
	TQF-10-0047-10	.0047	.400 x ⅞
	TQF-10-0068-10	.0068	.400 x ⅞
	TQF-10-01-10	.01	.400 x ⅞
CPO4A1K-G153K3	TQF-10-015-10	.015	.400 x ⅞
CPO4A1K-G223K3	TQF-10-022-10	.022	.400 x 1⅛
	TQF-10-027-10	.027	.400 x 1⅜
CPO4A1K-G333K3	TQF-10-033-10	.033	.400 x 1⅜
CPO4A1K-G473K3	TQF-10-047-10	.047	.562 x 1⅛
CPO4A1K-G683K3	TQF-10-068-10	.068	.562 x 1⅜
CPO4A1K-G104K3	TQF-10-1-10	.1	.562 x 1⅝
CPO4A1K-G154K3	TQF-10-15-10	.15	.670 x 1⅝
CPO4A1K-G224K3	TQF-10-22-10	.22	.750 x 2⅛
	TQF-10-27-10	.27	.750 x 2⅝
CPO4A1K-G334K3	TQF-10-33-10	.33	.750 x 2⅝
CPO4A1K-G474K3	TQF-10-47-10	.47	1.000 x 2⅛

TYPES AQF (CP08) and AQFP (CP09)

Extended Foil Construction

(Capacitor Section Insulated From Case)

100 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
	AQF-1-001-10	.001	.235 x ¾
	AQF-1-0015-10	.0015	.235 x ¾
	AQF-1-0022-10	.0022	.235 x ¾
	AQF-1-0033-10	.0033	.235 x ¾
	AQF-1-0047-10	.0047	.235 x ¾
CPO8A1K-B103K3	AQF-1-01-10	.01	.235 x ¾
CPO8A1K-B153K3	AQF-1-015-10	.015	.235 x ¾
	AQF-1-022-10	.022	.312 x ⅞
	AQF-1-033-10	.033	.312 x ⅞
CPO8A1K-B473K3	AQF-1-047-10	.047	.312 x ⅞
	AQF-1-068-10	.068	.400 x ⅞
CPO8A1K-B104K3	AQF-1-1-10	.1	.400 x ⅞
CPO8A1K-B154K3	AQF-1-15-10	.15	.400 x 1⅛
CPO8A1K-B224K3	AQF-1-22-1	.22	.400 x 1⅜
	AQF-1-27-10	.27	.562 x 1⅛
CPO8A1K-B334K3	AQF-1-33-10	.33	.562 x 1⅛
CPO8A1K-B474K3	AQF-1-47-10	.47	.562 x 1⅜
	AQF-1-56-10	.56	.562 x 1⅝
CPO8A1K-B684K3	AQF-1-68-10	.68	.562 x 1⅝
CPO8A1K-B105K3	AQF-1-1M-10	1.0	.670 x 1⅝

200 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
	AQF-2-001-10	.001	.235 x ¾
	AQF-2-0015-10	.0015	.235 x ¾
	AQF-2-0022-10	.0022	.235 x ¾
	AQF-2-0033-10	.0033	.235 x ¾
CPO8A1K-C472K3	AQF-2-0047-10	.0047	.235 x ¾
CPO8A1K-C682K3	AQF-2-0068-10	.0068	.235 x ¾
	AQF-2-01-10	.01	.312 x ⅞
	AQF-2-015-10	.015	.312 x ⅞
CPO8A1K-C223K3	AQF-2-022-10	.022	.312 x ⅞
CPO8A1K-C333K3	AQF-2-033-10	.033	.312 x ⅞
CPO8A1K-C473K3	AQF-2-047-10	.047	.400 x ⅞
	AQF-2-056-10	.056	.400 x ⅞
CPO8A1K-C683K3	AQF-2-068-10	.068	.400 x ⅞
CPO8A1K-C104K3	AQF-2-1-10	.1	.400 x 1⅛
CPO8A1K-C154K3	AQF-2-15-10	.15	.400 x 1⅜
CPO8A1K-C224K3	AQF-2-22-10	.22	.562 x 1⅛
	AQF-2-27-10	.27	.562 x 1⅜
CPO8A1K-C334K3	AQF-2-33-10	.33	.562 x 1⅜
CPO8A1K-C474K3	AQF-2-47-10	.47	.562 x 1⅝
	AQF-2-56-10	.56	.670 x 1⅝
CPO8A1K-C684K3	AQF-2-68-10	.68	.670 x 1⅝
CPO8A1K-C105K3	AQF-2-1M-10	1.0	.750 x 2⅛

*Trade Mark

300 VOLTS DC WORKING

300 volt units
available in
commercial
stamping only.

300 volt ratings
not listed in
specificaion
MIL-C-25C.

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
	AQF-3-001-10	.001	.235 x ¾
	AQF-3-0015-10	.0015	.235 x ¾
	AQF-3-0022-10	.0022	.235 x ¾
	AQF-3-0033-10	.0033	.235 x ¾
	AQF-3-0047-10	.0047	.235 x ¾
	AQF-3-01-10	.01	.312 x ⅞
	AQF-3-015-10	.015	.312 x ⅞
	AQF-3-022-10	.022	.312 x ⅞
	AQF-3-033-10	.033	.400 x ⅞
	AQF-3-047-10	.047	.400 x ⅞
	AQF-3-068-10	.068	.400 x 1⅛
	AQF-3-1-10	.1	.400 x 1⅜
	AQF-3-15-10	.15	.562 x 1⅛
	AQF-3-22-1	.22	.562 x 1⅜
	AQF-3-27-19	.27	.562 x 1⅝
	AQF-3-33-10	.33	.562 x 1⅝
	AQF-3-47-10	.47	.670 x 1⅝
	AQF-3-56-10	.56	.750 x 2⅛
	AQF-3-68-10	.68	.750 x 2⅛
	AQF-3-1M-10	1.0	.750 x 2⅜

400 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
	AQF-4-001-10	.001	.235 x ¾
	AQF-4-0015-10	.0015	.235 x ¾
	AQF-4-0022-10	.0022	.235 x ¾
CPO8A1K-E332K3	AQF-4-0033-10	.0033	.235 x ¾
	AQF-4-0047-10	.0047	.312 x ⅞
	AQF-4-0068-10	.0068	.312 x ⅞
	AQF-4-01-10	.01	.312 x ⅞
CPO8A1K-E153K3	AQF-4-015-10	.015	.312 x ⅞
	AQF-4-022-10	.022	.400 x ⅞
CPO8A1K-E333K3	AQF-4-033-10	.033	.400 x ⅞
CPO8A1K-E473K3	AQF-4-047-10	.047	.400 x 1⅛
CPO8A1K-E683K3	AQF-4-068-10	.068	.400 x 1⅜
CPO8A1K-E104K3	AQF-4-1-10	.1	.562 x 1⅛
CPO8A1K-E154K3	AQF-4-15-10	.15	.562 x 1⅜
CPO8A1K-E224K3	AQF-4-22-10	.22	.562 x 1⅝
	AQF-4-27-10	.27	.670 x 1⅝
CPO8A1K-E334K3	AQF-4-33-10	.33	.670 x 1⅝
CPO8A1K-E474K3	AQF-4-47-10	.47	.750 x 2⅛

600 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
CPO8A1K-F102K3	AQF-6-001-10	.001	.235 x ¾
CPO8A1K-F152K3	AQF-6-0015-10	.0015	.235 x ¾
CPO8A1K-F222K3	AQF-6-0022-10	.0022	.235 x ¾
CPO8A1K-F332K3	AQF-6-0033-10	.0033	.312 x ⅞
CPO8A1K-F472K3	AQF-6-0047-10	.0047	.312 x ⅞
CPO8A1K-F682K3	AQF-6-0068-10	.0068	.312 x ⅞
CPO8A1K-F103K3	AQF-6-01-10	.01	.312 x ⅞
CPO8A1K-F153K3	AQF-6-015-10	.015	.400 x ⅞
CPO8A1K-F223K3	AQF-6-022-10	.022	.400 x ⅞
CPO8A1K-F333K3	AQF-6-033-10	.033	.400 x 1⅛
CPO8A1K-F473K3	AQF-6-047-10	.047	.400 x 1⅜
CPO8A1K-F683K3	AQF-6-068-10	.068	.562 x 1⅛
CPO8A1K-F104K3	AQF-6-1-10	.1	.562 x 1⅜
CPO8A1K-F154K3	AQF-6-15-10	.15	.562 x 1⅝
CPO8A1K-F224K3	AQF-6-22-10	.22	.670 x 1⅝
	AQF-6-27-10	.27	.750 x 2⅛
CPO8A1K-F334K3	AQF-6-33-10	.33	.750 x 2⅛
CPO8A1K-F474K3	AQF-6-47-10	.47	.750 x 2⅜

1000 VOLTS DC WORKING

Mil Number	ASTRON Number	Cap. µF	Size D. x L.
CPO8A1K-G102K3	AQF-10-001-10	.001	.400 x ⅞
CPO8A1K-G152K3	AQF-10-0015-10	.0015	.400 x ⅞
CPO8A1K-G222K3	AQF-10-0022-10	.0022	.400 x ⅞
CPO8A1K-G332K3	AQF-10-0033-10	.0033	.400 x ⅞
CPO8A1K-G472K3	AQF-10-0047-10	.0047	.400 x ⅞
CPO8A1K-G682K3	AQF-10-0068-10	.0068	.400 x ⅞
CPO8A1K-G103K3	AQF-10-01-10	.01	.400 x ⅞
CPO8A1K-G153K3	AQF-10-015-10	.015	.400 x 1⅛
CPO8A1K-G223K3	AQF-10-022-10	.022	.400 x 1⅜
CPO8A1K-G333K3	AQF-10-033-10	.033	.562 x 1⅛
CPO8A1K-G473K3	AQF-10-047-10	.047	.562 x 1⅜
CPO8A1K-G683K3	AQF-10-068-10	.068	.562 x 1⅝
CPO8A1K-G104K3	AQF-10-1-10	.1	.670 x 1⅝
CPO8A1K-G154K3	AQF-10-15-10	.15	.670 x 1⅞
CPO8A1K-G224K3	AQF-10-22-10	.22	.750 x 2⅛
CPO8A1K-G334K3	AQF-10-33-10	.33	1.000 x 2⅛
CPO8A1K-G474K3	AQF-10-47-10	.47	1.000 x 2⅜

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

ASTRON®

SPECIALISTS IN CAPACITOR MINIATURIZATION

Bathtub PAPER Capacitors

ASTRON TYPE
ADM

MIL TYPES
CP53 thru CP55
of MIL C-25C

ASTRON
ADM
6-2 X 1M

TEMP. RANGE
−55°C to +85°C

- Non-inductively wound. Mineral oil impregnated and filled. Hermetically sealed.
- Operating temperature range −55°C. to +85°C.
- Built to comply with strict requirements of MIL-C-25C. Silicone rubber compression seal lug terminals. Completely immersion-proof.
- Single units have two terminals; duals have three terminals (one common); triple units have three terminals (case common).
- Standard position of Type ADM terminals is on side (MIL-C-25C Style CP53). Available also with terminals on top (ASTRON Type ADMT or MIL Style CP54) and bottom terminals. (ASTRON Type ADMB or MIL Style CP55).
- Cap. Tolerance: ±20% (M).
- Cap. Tolerance: ±10% (K).

Military Number	Astron Type	L. x W. x H.
100 VOLTS DC WORKING		
CP53B1EB105M	ADM-1-1M	1 13/16 x 1 x ⅞
CP53B1EB205M	ADM-1-2M	2 x 1¾ x ⅞
CP53B1EB405M	ADM-1-4M	2 x 2 x 1⅛
200 VOLTS DC WORKING		
CP53B1EC504M	ADM-2-5	1 13/16 x 1 x ⅞
CP53B1EC105M	ADM-2-1M	2 x 1¾ x ⅞
CP53B1EC205M	ADM-2-2M	2 x 2 x 1
400 VOLTS DC WORKING		
CP53B1EE504M	ADM-4-5	1 13/16 x 1 x ⅞
CP53B1EE105M	ADM-4-1M	2 x 1¾ x ⅞
CP53B5EE504M	ADM-4-3x5	2 x 2 x 1⅛
600 VOLTS DC WORKING		
CP53B1EF503M	ADM-6-05	1 13/16 x 1 x ¾
CP53B1EF104M	ADM-6-1	1 13/16 x 1 x ¾
CP53B1EF254M	ADM-6-25	1 13/16 x 1 x ¾
CP53B1EF504M	ADM-6-5	1 13/16 x 1 x 1
CP53B1EF105M	ADM-6-1M	2 x 1¾ x 1
CP53B1EF205M	ADM-6-2M	2 x 2 x 1⅛
CP53B4EF503M	ADM-6-2x05	1 13/16 x 1 x ¾
CP53B4EF254M	ADM-6-2x25	1 13/16 x 1 x 1
CP53B4EF504M	ADM-6-2x5	2 x 1¾ x 1
CP53B4EF105M	ADM-6-2x1M	2 x 2 x 1⅛
CP53B5EF503M	ADM-6-3x05	1 13/16 x 1 x ¾
CP53B5EF104M	ADM-6-3x1	1 13/16 x 1 x ⅞
CP53B5EF254M	ADM-6-3x25	2 x 1¾ x ⅞
CP53B5EF504M	ADM-6-3x5	2 x 2 x 1⅛
1000 VOLTS DC WORKING		
CP53B1EG503M	ADM-10-05	1 13/16 x 1 x ¾
CP53B1EG104M	ADM-10-1	1 13/16 x 1 x ¾
CP53B1EG254M	ADM-10-25	1 13/16 x 1 x ⅞
CP53B1EG504M	ADM-10-5	2 x 1¾ x ⅞
CP53B1EG105M	ADM-10-1M	2 x 2 x 1⅛
CP53B4EG503M	ADM-10-2x05	1 13/16 x 1 x ⅞
CP53B4EG104M	ADM-10-2x1	1 13/16 x 1 x ¾
CP53B4EG254M	ADM-10-2x25	2 x 1¾ x ⅞
CP53B4EG504M	ADM-10-2x5	2 x 2 x 1⅛
CP53B5EG503M	ADM-10-3x05	1 13/16 x 1 x ¾
CP53B5EG104M	ADM-10-3x1	2 x 1¾ x ⅞
CP53B5EG254M	ADM-10-3x25	2 x 2 x 1⅛

*Trade Mark

Oil-Filled Metal Tubulars

ASTRON TYPE
ARMF

MIL TYPES
CP25 thru CP29
of MIL C-25C

ASTRON
ARMF 6-1
.1MF 600 WVDC

- Non-inductively wound. Mineral oil impregnated and filled. Hermetically sealed.
- Excellent capacitance stability and low power factor over entire temperature range −55°C. to +85°C.
- Units listed are internally insulated from case. Also available with capacitor section grounded to case (Type ARMG) and in accordance with all Specification MIL-C-25C styles CP25-26-27-28-29.
- Wire leads 1½" long. Standard capacitance tolerance ±20%.

TEMP. RANGE
−55°C to +85°C

CAPACITOR SECTION INSULATED FROM CASE; CIRCUIT I

ARMF (MIL Style CP-25): Sizes as shown.

MIL Style CP-26 ARMFP: Basic ARMF with plastic outer sleeve (P) for insulated body. Add 3/16" to length and 1/16" to diameter.

MIL Style CP27 ARMF-Y: Basic ARMF with riveted radial mounting strap "Y" on uninsulated body. Case sizes as listed.

MIL Style CP-28 ARMFP-Y: Basic ARMF with plastic outer sleeve (P) and riveted radial mounting strap "Y". Add 3/16" to length, 1/16" to diameter.

MIL Style CP-29 ARMF-A: Basic ARMF with tangential soldered-on mounting bracket "A". Case sizes as listed.

CAPACITOR SECTION GROUNDED TO CASE: CIRCUIT 3

MIL Style CP-25 ARMG: Deduct ⅛" from length of ARMF sizes listed. Uninsulated body.

MIL Style CP-26 ARMGP: Basic ARMG with plastic outer sleeve (P) for insulated body. Add 1/16" to length and diameter of ARMF sizes listed.

MIL Style CP-27 ARMG-Y: Basic ARMG with riveted radial mounting strap "Y" on uninsulated body. Deduct ⅛" from length of ARMF sizes listed.

MIL Style CP-28 ARMGP-Y: Basic ARMG with plastic outer sleeve (P) and riveted radial mounting strap "Y". Add 1/16" to diameter and length of ARMF sizes listed.

MIL Style CP-29 ARMG-A: Basic ARMG with tangential soldered-on mounting bracket "A". Deduct ⅛" from length of ARMF sizes listed.

Military Number	Astron Type	Cap. Mf.	Dia. x Length
200 VOLTS DC WORKING			
CP25A1EC104M	ARMF-2-1	.1	⅝ x 1⅝
CP25A1EC254M	ARMF-2-25	.25	¾ x 2⅛
CP25A1EC504M	ARMF-2-5	.5	1 x 2⅛
600 VOLTS DC WORKING			
CP25A1EF302M	ARMF-6-003	.003	7/16 x 1⅛
CP25A1EF602M	ARMF-6-006	.006	7/16 x 1⅛
CP25A1EF103M	ARMF-6-01	.01	7/16 x 1⅛
CP25A1EF203M	ARMF-6-02	.02	7/16 x 1⅝
CP25A1EF503M	ARMF-6-05	.05	⅝ x 1½
CP25A1EF104M	ARMF-6-1	.1	⅝ x 1⅞
CP25A1EF254M	ARMF-6-25	.25	1 x 2⅛
CP25A1EF504M	ARMF-6-5	.5	1 x 2⅝
1000 VOLTS DC WORKING			
CP25A1EG302M	ARMF-10-003	.003	⅝ x 1⅛
CP25A1EG602M	ARMF-10-006	.006	⅝ x 1⅛
CP25A1EG103M	ARMF-10-01	.01	⅝ x 1⅛
CP25A1EG203M	ARMF-10-02	.02	⅝ x 1½
CP25A1EG503M	ARMF-10-05	.05	¾ x 1⅝
CP25A1EG104M	ARMF-10-1	.1	1 x 1⅞
CP25A1EG254M	ARMF-10-25	.25	1 x 2⅝
1500 VOLTS DC WORKING			
CP25A1EH302M	ARMF-15-003	.003	1 x 1¼
CP25A1EH602M	ARMF-15-006	.006	1 x 1¼
CP25A1EH103M	ARMF-15-01	.01	1 x 1¼
CP25A1EH203M	ARMF-15-02	.02	1 x 1⅝
CP25A1EH503M	ARMF-15-05	.05	1 x 1⅞
CP25A1EH104M	ARMF-15-1	.1	1 x 2⅛

Net

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

ASTRON®

SPECIALISTS IN CAPACITOR MINIATURIZATION

PLASTIC CASED TUBULAR METALLIZED PAPER CAPACITOR

ASTRON METALITE® HY-MET
TYPE MLV

ASTRON Type MVL are axial lead, tubular type metallized paper capacitors contained in plastic tubes with an epoxy end fill to provide maximum moisture resistance. They are free of the usual wax coating and therefore are ideal for potting in plastic resins. The capacitor sections are impregnated in a solid thermosetting plastic which allows operation at temperatures up to 100°C.

It is intended that the Type MVL Capacitors will replace ASTRON types ML and MLL Metallized Paper Tubulars.

TEMPERATURE RANGE
−30°C to +100°C

Catalog Number	Cap. Mfd.	Diameter (Inches) D	Length (Inches) L
50 VOLTS			
MVL-.5-1	.1	9/32	11/16
MVL-.5-22	.22	9/32	1
MVL-.5-33	.33	5/16	1
MVL-.5-47	.47	⅜	1
MVL-.5-1M	1.0	7/16	1
MVL-.5-2M	2.0	9/16	1⅛
MVL-.5-4M	4.0	11/16	1 5/16
MVL-.5-6M	6.0	11/16	1⅞
MVL-.5-8M	8.0	13/16	1⅞
200 VOLTS			
MVL-2-01	.01	¼	19/32
MVL-2-01	.02	¼	21/32
MVL-2-03	.03	¼	23/32
MVL-2-05	.05	¼	23/32
MVL-2-1	.1	5/16	23/32
MVL-2-25	.25	7/16	23/32
MVL-2-5	.5	7/16	1 5/32
MVL-2-1M	1.0	9/16	1 5/32
MVL-2-2M	2.0	⅝	1 21/32
MVL-2-3M	3.0	¾	1 25/32
400 VOLTS			
MVL-4-01	.01	¼	23/32
MVL-4-02	.02	5/16	23/32
MVL-4-03	.03	5/16	23/32
MVL-4-05	.05	⅜	23/32
MVL-4-1	.1	7/16	1 5/32
MVL-4-25	.25	½	1 5/32
MVL-4-5	.5	⅝	1 15/32
MVL-4-1M	1.0	11/16	1 31/32
MVL-4-2M	2.0	⅞	2⅜
600 VOLTS			
MVL-6-01	.01	¼	23/32
MVL-6-02	.02	5/16	23/32
MVL-6-03	.03	⅜	23/32
MVL-6-05	.05	7/16	23/32
MVL-6-1	.1	7/16	1 5/32
MVL-6-25	.25	⅝	1 5/32
MVL-6-5	.5	11/16	1 19/32
MVL-6-1M	1.0	13/16	2
MVL-6-2M	2.0	1	2⅜

NOTE: (1) Wire Size: Up to and including 11/16″ — #22awg. Above 11/16″ — #20 awg.
(2) Standard capacity tolerance is ±20%. Special tolerances of ±10% or ±5% are available upon request. Specify by adding tolerance numerals to the part number. Example: MVL-2-1M-10.

SUBMINIATURE TUBULAR METALLIZED PAPER CAPACITOR

ASTRON METALITE® HY-MET
TYPE MQLF

TEMPERATURE RANGE
−55°C to +100°C

With Voltage Derating

ASTRON
HY-MET
MQL-1.5-6M

- Smallest paper capacitors available for the given ratings.
- Solid thermosetting impregnant.
- Tinned, non-ferrous metal cases. Hermetically sealed.
- Non-inductively wound. Capacitor section grounded to case, glass-to-metal seal terminal at one end. Available also with section insulated from case with glass-to-metal terminal at each end (Type MQLF).

Cat. No.	Cap Mf.	Dia. x Length
150 VOLTS DC WORKING		
MQLF-1.5-4M	4.0	1 x 1 13/16
MQLF-1.5-6M	6.0	1 x 1 13/16
MQLF-1.5-8M	8.0	1 x 2 5/16
200 VOLTS DC WORKING		
MQLF-2-01	.01	.235 x 13/16
MQLF-2-022	.022	.235 x 13/16
MQLF-2-033	.033	.235 x 13/16
MQLF-2-047	.047	.235 x 13/16
MQLF-2-05	.05	.235 x 13/16
MQLF-2-068	.068	.312 x 13/16
MQLF-2-1	.1	.312 x 13/16
MQLF-2-15	.15	.312 x 1⅛
MQLF-2-22	.22	.312 x 1⅛
MQLF-2-25	.25	.312 x 1⅛
MQLF-2-33	.33	.400 x 1⅛
MQLF-2-47	.47	.400 x 1⅛
MQLF-2-5	.5	.400 x 1⅛
MQLF-2-68	.68	.500 x 1⅛
MQLF-2-1M	1.0	.562 x 1⅛
MQLF-2-2M	2.0	.562 x 1 13/16
400 VOLTS DC WORKING		
MQLF-4-01	.01	.235 x 13/16
MQLF-4-022	.022	.235 x 13/16
MQLF-4-033	.033	.312 x 13/16
MQLF-4-047	.047	.312 x 1⅛
MQLF-4-05	.05	.312 x 1⅛
MQLF-4-068	.068	.400 x 1⅛
MQLF-4-1	.1	.400 x 1⅛
MQLF-4-22	.22	.500 x 1⅛
MQLF-4-25	.25	.500 x 1⅛
MQLF-4-33	.33	.562 x 1 5/16
MQLF-4-47	.47	.562 x 1 13/16
MQLF-4-5	.5	.562 x 1 13/16
MQLF-4-68	.68	.670 x 1 13/16
MQLF-4-1M	1.0	.670 x 2 5/16
MQLF-4-2M	2.0	1 x 2 5/16
600 VOLTS DC WORKING		
MQLF-6-01	.01	.235 x 13/16
MQLF-6-022	.022	.312 x 13/16
MQLF-6-033	.033	.400 x 13/16
MQLF-6-047	.047	.400 x 13/16
MQLF-6-05	.05	.400 x 13/16
MQLF-6-068	.068	.400 x 1⅛
MQLF-6-1	.1	.400 x 1⅛
MQLF-6-15	.15	.500 x 1⅛
MQLF-6-22	.22	.562 x 1 5/16
MQLF-6-25	.25	.562 x 1 5/16
MQLF-6-33	.33	.562 x 1 13/16
MQLF-6-47	.47	.670 x 1 13/16
MQLF-6-5	.5	.670 x 1 13/16
MQLF-6-68	.68	.670 x 2 5/16
MQLF-6-1M	1.0	.750 x 2 5/16
MQLF-6-2M	2.0	1 x 2 5/16

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

METALLIZED MYLAR® CAPACITORS

ASTRON METALITE®
TYPE RLR

TEMPERATURE RANGE
−55°C to +125°C

ASTRON
RLR 2-1M

ASTRON TYPE RLR metallized Mylar* capacitors provide reliable operation even under adverse conditions in spite of their smaller size and lower cost.

Type RLR is an uncased unit, with a tough, protective Mylar* wrap and epoxy end seal . . . ideal for potted assembly, military and commercial applications.

WVDC	Catalog Number	Mfd. Cap.	Dia. x Lgth.
200	RLR 2-01	.01	.155″ x ⅝″
	RLR 2-012	.012	.165″ x ⅝″
	RLR 2-015	.015	.180″ x ⅝″
	RLR 2-018	.018	.190″ x ⅝″
	RLR 2-022	.022	.205″ x ⅝″
	RLR 2-027	.027	.220″ x ⅝″
	RLR 2-047	.047	.200″ x ¾″
	RLR 2-068	.068	.220″ x ¾″
	RLR 2-1	.1	.255″ x ¾″
	RLR 2-15	.15	.227″ x 1⅛″
	RLR 2-22	.22	.262″ x 1⅛″
	RLR 2-33	.33	.305″ x 1⅛″
	RLR 2-47	.47	.355″ x 1⅛″
	RLR 2-56	.56	.380″ x 1⅛″
	RLR 2-68	.68	.415″ x 1⅛″
	RLR 2-1M	1.0	.490″ x 1⅛″
	RLR 2-1.5M	1.5	.470″ x 1⅝″
	RLR 2-2M	2.0	.535″ x 1⅝″
	RLR 2-3M	3.0	.595″ x 1⅞″
	RLR 2-6M	6.0	.825″ x 1⅞″

Cap. Tolerance ±20%.

* Reg. DuPont Trade Mark

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ASTRON Capacitors

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

SPECIALISTS IN CAPACITOR MINIATURIZATION

"TRANSISTORIZED" SUBMINIATURE METALLIZED PAPER CAPACITORS 50 WVDC

ASTRON TYPE MQZF

TEMPERATURE RANGE
−55°C to +125°C

NOTE:

1. Standard MQZF is supplied in "floating" construction.
2. Grounded construction is available upon request. Specify Type MQZ. Subtract 1/16″ from length for sizes listed.
3. For plastic insulating outer sleeve (P) specify MQZFP or MQZP.
   (A) For floating type add 1/16″ to diameter and length of sizes listed.
   (B) For grounded units add 1/16″ to diameter to sizes listed.
4. Standard tolerance of Type MQZF is ±20%; special tolerances of ±10% and ±5% available upon request. Specify by adding tolerance numerals to part number. Example: MQZF-.5-1M-10.

Catalog Number	WVDC	Cap. Mfd.	Dia. ±1/64″ (Inches) D	Length ±1/32″ (Inches) L
MQZ-F .5-047	50	.047	.195	11/16
MQZ-F .5-068	50	.068	.195	13/16
MQZ-F .5-1	50	.1	.235	11/16
MQZ-F .5-15	50	.15	.235	13/16
MQZ-F .5-22	50	.22	.235	1
MQZ-F .5-33	50	.33	.312	1
MQZ-F .5-47	50	.47	.312	1
MQZ-F .5-68	50	.68	.400	1
MQZ-F .5-1M	50	1.0	.400	1
MQZ-F .5-1.5M	50	1.5	.500	1⅛
MQZ-F .5-2M	50	2.0	.562	1⅛
MQZ-F .5-4M	50	4.0	.670	1 11/32
MQZ-F .5-6M	50	6.0	.670	1 15/16
MQZ-F .5-8M	50	8.0	.750	1 15/16

Metal-Cased Tubulars

ASTRON METALITE® TYPE MRF

- Type MRF supplied with capacitor section insulated from case. Also available with section grounded to case (Type MRG).
- Lead length 1¾″ minimum.
- Standard capacitance tolerance: ±20%.

ASTRON
METALITE
MRF-1.5-10M
10.0 MF-150 WVDC

TEMPERATURE RANGE
−65°C to +85°C

Cat. No.	Cap. Mf.	Dia. x Length
150 VOLTS DC WORKING		
MRF-1.5-4M	4.0	1 x1 15/16
MRF-1.5-6M	6.0	1 x1 15/16
MRF-1.5-8M	8.0	1⅛x1 15/16
MRF-1.5-10M	10.0	1¼x1 15/16
200 VOLTS DC WORKING		
MRF-2-05	.05	⅜x ⅞
MRF-2-1	.1	7/16x ⅞
MRF-2-25	.25	½x ⅞
MRF-2-5	.5	½x1⅜
MRF-2-1M	1.0	.670x1⅜
MRF-2-2M	2.0	.670x1⅞
400 VOLTS DC WORKING		
MRF-4-03	.03	⅜x ⅞
MRF-4-05	.05	½x ⅞
MRF-4-1	.1	½x1⅜
400 VOLTS DC WORKING (CONT.)		
MRF-4-25	.25	.670x1⅜
MRF-4-5	.5	.670x1⅞
MRF-4-1M	1.0	¾x2⅜
MRF-4-2M	2.0	1 x2 7/16
MRF-4-3M	3.0	1⅛x2 7/16
MRF-4-4M	4.0	1¼x2 7/16
600 VOLTS DC WORKING		
MRF-6-01	.01	⅜x ⅞
MRF-6-02	.02	7/16x ⅞
MRF-6-03	.03	7/16x ⅞
MRF-6-05	.05	½x ⅞
MRF-6-1	.1	½x1⅜
MRF-6-2	.2	.670x1⅜
MRF-6-25	.25	.670x1⅜
MRF-6-5	.5	.670x1⅞
MRF-6-1M	1.0	¾x2⅜
MRF-6-2M	2.0	1⅛x2 7/16
MRF-6-3M	3.0	1¼x2 7/16

Standard capacitance tolerance: ±20%   Other tolerances are available.

VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE CIRCUIT 1

TYPE AND DESCRIPTION

UNINSULATED BODY Sizes shown in listings	MRF	— Basic type as listed.
	MRF-Y	— with radial (Y) bracket.
	MRF-A	— with tangential (A) soldered-on bracket.
INSULATED BODY Add 3/16″ to length and 1/16″ to dia.	MRFP	— Basic type, with plastic sleeve (P).
	MRFP-Y	— with plastic sleeve (P) and radial (Y) bracket.

CAPACITOR SECTION GROUNDED TO CASE CIRCUIT 3

TYPE AND DESCRIPTION

UNINSULATED BODY deduct 3/32″ from length shown in listings	MRG	— Basic grounded section unit.
	MRG-Y	— with radial (Y) bracket.
	MRG-A	— with tangential (A) soldered-on bracket.
INSULATED BODY Add 3/32″ to length and 1/16″ to dia. shown in listings	MRGP	— Basic grounded section type with plastic sleeve (P).
	MRGP-Y	— with plastic sleeve (P) and radial (Y) bracket.

MYLAR* Metallized Capacitors

ASTRON METALITE® TYPE RQLF

TEMPERATURE RANGE
−55°C to +125°C

ASTRON
TYPE RQLF

ASTRON TYPE RQLF combines in a miniature hermetically sealed case the outstanding attributes of reliability at high temperatures up to +125°C without derating — with significant savings of space. They will find their main applications in military reliability equipment and in critical industrial circuits.
Type RQLF Mylar* metallized capacitors are available in various military case and mounting styles.

WVDC	Catalog Number	Cap. Mfd.	Dia. x Length in inches
200	RQLF2-01	.010	.235 x ¾
	RQLF-2-012	.012	.235 x ¾
	RQLF2-015	.015	.235 x ¾
	RQLF2-018	.018	.235 x ¾
	RQLF2-022	.022	.235 x ¾
	RQLF2-027	.027	.235 x ¾
	RQLF2-033	.033	.235 x ¾
	RQLF2-039	.039	.312 x ⅞
	RQLF2-047	.047	.312 x ⅞
	RQLF2-056	.056	.312 x ⅞
	RQLF2-068	.068	.312 x ⅞
	RQLF2-082	.082	.312 x ⅞
	RQLF2-1	.1	.312 x ⅞
	RQLF2-12	.12	.312 x 1⅛
	RQLF2-15	.15	.312 x 1⅛
	RQLF2-18	.18	.400 x ⅞
	RQLF2-22	.22	.400 x ⅞
	RQLF2-27	.27	.400 x 1⅛
	RQLF2-33	.33	.400 x 1⅛
	RQLF2-39	.39	.500 x 1⅛
	RQLF2-47	.47	.500 x 1⅛
	RQLF2-56	.56	.500 x 1⅛
	RQLF2-68	.68	.500 x 1⅛

WVDC	Cat. No.	Cap. Mfd.	D. x L.
200	RQLF2-82	.82	.562 x 1⅛
	RQLF2-1.M	1.0	.562 x 1⅛
	RQLF2-1.5M	1.5	.562 x 1⅝
	RQLF2-2.M	2.0	.670 x 1⅝
	RQLF2-3.M	3.0	.670 x 1⅞
	RQLF2-4.M	4.0	.750 x 1⅞
	RQLF2-5.M	5.0	1.00 x 1⅞
	RQLF2-6.M	6.0	1.00 x 1⅞
	RQLF2-8.M	8.0	1.00 x 1⅞
	RQLF2-10.M	10.0	1.00 x 2⅝
	RQLF2-12.M	12.0	1.00 x 2⅝
400	RQLF4-01	.010	.312 x ⅞
	RQLF4-012	.012	.312 x ⅞
	RQLF4-015	.015	.312 x ⅞
	RQLF4-018	.018	.312 x ⅞
	RQLF4-022	.022	.312 x ⅞
	RQLF4-027	.027	.312 x 1⅛
	RQLF4-033	.033	.312 x 1⅛
	RQLF4-039	.039	.400 x 1⅛
	RQLF4-047	.047	.400 x 1⅛
	RQLF4-056	.056	.400 x 1⅛
	RQLF4-068	.068	.400 x 1⅛
	RQLF4-082	.082	.500 x 1⅛
	RQLF4-1	.1	.500 x 1⅛
	RQLF4-12	.12	.500 x 1⅛
	RQLF4-15	.15	.500 x 1⅛
	RQLF4-18	.18	.562 x 1⅜
	RQLF4-22	.22	.562 x 1⅜
	RQLF4-27	.27	.562 x 1⅝
	RQLF4-33	.33	.562 x 1⅝
	RQLF4-39	.39	.670 x 1⅝
	RQLF4-47	.47	.670 x 1⅝
	RQLF4-56	.56	.670 x 1⅞
	RQLF4-68	.68	.670 x 1⅞
	RQLF4-82	.82	.750 x 1⅞
	RQLF4-1.M	1.0	.750 x 1⅞
	RQLF4-1.5M	1.5	1.00 x 1⅞
	RQLF4-2.M	2.0	1.00 x 1⅞
	RQLF4-3.M	3.0	1.00 x 2⅝

WVDC	Cat. No.	Cap. Mfd.	D. x L.
600	RQLF6-01	.010	.312 x ⅞
	RQLF6-012	.012	.312 x ⅞
	RQLF6-015	.015	.312 x ⅞
	RQLF6-018	.018	.312 x 1⅛
	RQLF6-022	.022	.312 x 1⅛
	RQLF6-027	.027	.312 x 1⅛
	RQLF6-033	.033	.312 x 1⅛
	RQLF6-039	.039	.400 x 1⅛
	RQLF6-047	.047	.400 x 1⅛
	RQLF6-056	.056	.400 x 1⅛
	RQLF6-068	.068	.400 x 1⅛
	RQLF6-082	.082	.500 x 1⅛
	RQLF6-1	.1	.500 x 1⅛
	RQLF6-12	.12	.562 x 1⅛
	RQLF6-15	.15	.562 x 1⅛
	RQLF6-18	.18	.562 x 1⅜
	RQLF6-22	.22	.562 x 1⅜
	RQLF6-27	.27	.562 x 1⅝
	RQLF6-33	.33	.562 x 1⅝
	RQLF6-39	.39	.670 x 1⅝
	RQLF6-47	.47	.670 x 1⅝
	RQLF6-56	.56	.670 x 1⅞
	RQLF6-68	.68	.670 x 1⅞
	RQLF6-82	.82	1.00 x 1⅞
	RQLF6-1.M	1.0	1.00 x 1⅞
	RQLF6-1.5M	1.5	1.00 x 2⅛
	RQLF6-2.M	2.0	1.00 x 2⅛
	RQLF6-2.5M	2.5	1.00 x 2⅝

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

SPECIALISTS IN CAPACITOR MINIATURIZATION

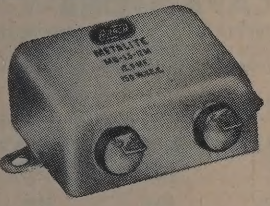
ASTRON METALITE® TYPES MD and MDL

MIL TYPES CH53, CH54, CH55 of MIL C-18312

TYPE MD AND MDL

- Units meet MIL tests for moisture resistance, thermal cycle immersion and vibration.
- Single units have two terminals; dual units have three terminals, one terminal common negative.
- Up to 75% reduction in sizes over conventional paper — foil capacitors with higher capacitance ratings than ever offered before in same size.
- Standard capacitance tolerance plus or minus 20%. OTHER TOLERANCES ARE AVAILABLE.

TYPE MD



OPERATING TEMPERATURE RANGE
−65°C to +85°C

- Standard position of terminals on side. Also available with terminals on top (Type MDT) or bottom (Type MDB).
- Hermetically sealed. Silicone rubber compression seal lug terminals.

TYPE MDL

ASTRON
METALITE
MDL-15-12M
12MF. 150 WVDC

OPERATING TEMPERATURE RANGE
−65°C to +125°C

- Standard position of terminals is on side. Can be supplied with top terminals (Type MDLT) or bottom terminals (Type MDLB).
- Hermetically sealed. Lug type glass to metal sealed terminals.

BATHTUB METALLIZED PAPER CAPACITORS

WVDC	Cat. No.	Cap. Mf.	L	W	H	Mfg. Ctr.
150	MD or MDL-1.5-3M	3.0	1¾	1	⅞	2⅛
	MD or MDL-1.5-4M	4.0	1¾	1	⅞	2⅛
	MD or MDL-1.5-5M	5.0	1¾	1	⅞	2⅛
	MD or MDL-1.5-6M	6.0	1¾	1¼	⅞	2⅛
	MD or MDL-1.5-8M	8.0	2	1¾	¾	2⅜
	MD or MDL-1.5-10M	10.0	2	1¾	⅜	2⅜
	MD or MDL-1.5-12M	12.0	2	2	⅞	2⅜
	MD or MDL-1.5-15M	15.0	2	2	1	2⅜
	MD or MDL-1.5-16M	16.0	2	2	1⅛	2⅜
	MD or MDL-1.5-18M	18.0	2	2	1¼	2⅜
	MD or MDL-1.5-20M	20.0	2	2	1½	2⅜
	MD or MDL-1.5-2x4M	4.0-4.0	2	1¾	⅜	2⅜
	MD or MDL-1.5-2x6M	6.0-6.0	2	2	⅞	2⅜
200	MD or MDL-2-1	.1	1¾	1	¾	2⅛
	MD or MDL-2-25	.25	1¾	1	¾	2⅛
	MD or MDL-2-5	.5	1¾	1	¾	2⅛
	MD or MDL-2-1M	1.0	1¾	1	¾	2⅛
	MD or MDL-2-2M	2.0	1¾	1	¾	2⅛
	MD or MDL-2-2x1M	1.0-1.0	1¾	1	¾	2⅛
	MD or MDL-2-2x2M	2.0-2.0	1¾	1	⅞	2⅛
400	MD or MDL-4-1	.1	1¾	1	¾	2⅛
	MD or MDL-4-25	.25	1¾	1	¾	2⅛
	MD or MDL-4-5	.5	1¾	1	¾	2⅛
	MD or MDL-4-1M	1.0	1¾	1	⅞	2⅛
	MD or MDL-4-2M	2.0	2	1¾	13/16	2⅜
	MD or MDL-4-3M	3.0	2	1¾	15/16	2⅜
	MD or MDL-4-4M	4.0	2	2	1	2⅜
	MD or MDL-4-5M	5.0	2	2	1¼	2⅜
	MD or MDL-4-6M	6.0	2	2	1½	2⅜
	MD or MDL-4-2x5	.5- .5	1¾	1	⅞	2⅛
	MD or MDL-4-2x1M	1.0-1.0	2	1¾	⅞	2⅜
	MD or MDL-4-2x2M	2.0-2.0	2	2	1⅛	2⅜
600	MD or MDL-6-1	.1	1¾	1	¾	2⅛
	MD or MDL-6-25	.25	1¾	1	¾	2⅛
	MD or MDL-6-5	.5	1¾	1	¾	2⅛
	MD or MDL-6-1M	1.0	1¾	1¼	⅞	2⅛
	MD or MDL-6-2M	2.0	2	2	⅞	2⅜
	MD or MDL-6-3M	3.0	2	2	1⅛	2⅜
	MD or MDL-6-4M	4.0	2	2	1⅜	2⅜
	MD or MDL-6-2x25	.25-.25	1¾	1	¾	2⅛
	MD or MDL-6-2x5	.5- .5	1¾	1¼	⅞	2⅛
	MD or MDL-6-2x1M	1.0-1.0	2	2	1	2⅜

ASTRON HY-MET* METALITE® TYPES MXJ and MXLJ

MIL TYPES CH 70 of MIL C-18312

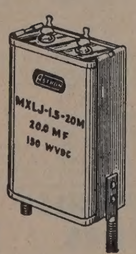
MXJ-4-4M
4.0 MF
400 WVDC

Type MXJ

OPERATING TEMPERATURE RANGE
−60°C to +85°C

Type MXLJ

OPERATING TEMPERATURE RANGE
−65°C to +125°C



TYPE MXJ & MXLJ

- Higher capacitance than ever before achieved in MIL Style CP70 cases, due to use of metallized paper sections.
- MXJ — Hermetically sealed. Silicone rubber compression seal lug terminals. Units meet MIL tests for moisture resistance, thermal cycle immersion and vibration.
- MXJ and MXLJ — Spade bolt "J" brackets supplied with each unit for convenient, rigid mounting.
- MXJ and MXLJ — Standard capacitance tolerance: 20%.
- MXLJ — Hermetically sealed. Glass-to-metal sealed lug terminals.

* Trade Mark

RECTANGULAR CASED METALLIZED PAPER CAPACITORS

IN TERNEPLATE CASES STYLE CP70

Cat. No.	Cap. Mf.	L	W	H	Mfg. Ctr.
100 VOLTS DC WORKING					
MXJ or MXLJ-1-100M	100.0	3¾	3¾	4 13/16	4
150 VOLTS DC WORKING					
MXJ or MXLJ-1.5-4M	4.0	1¾	1	1⅝	2
MXJ or MXLJ-1.5-10M	10.0	1¾	1	2⅝	2
MXJ or MXLJ-1.5-12M	12.0	1¾	1	2⅞	2
MXJ or MXLJ-1.5-15M	15.0	1¾	1	3⅜	2
MXJ or MXLJ-1.5-20M	20.0	1¾	1	4⅜	2
MXJ or MXLJ-1.5-25M	25.0	2½	1 3/16	3	2¾
MXJ or MXLJ-1.5-30M	30.0	2½	1 3/16	3⅞	2¾
MXJ or MXLJ-1.5-50M	50.0	2½	1 3/16	4¾	2¾
400 VOLTS DC WORKING					
MXJ or MXLJ-4-2M	2.0	1¾	1	2⅛	2
MXJ or MXLJ-4-4M	4.0	1¾	1	2⅞	2
MXJ or MXLJ-4-6M	6.0	1¾	1	3⅞	2
MXJ or MXLJ-4-8M	8.0	1¾	1	4¾	2
MXJ or MXLJ-4-10M	10.0	2½	1 3/16	3⅞	2¾
MXJ or MXLJ-4-20M	20.0	2½	1 3/16	4¾	2¾
MXJ or MXLJ-4-30M	30.0	3¾	1¼	4¾	4
600 VOLTS DC WORKING					
MXJ or MXLJ-6-1M	1.0	1¾	1	1⅝	2
MXJ or MXLJ-6-2M	2.0	1¾	1	2⅜	2
MXJ or MXLJ-6-4M	4.0	1¾	1	3⅞	2
MXJ or MXLJ-6-6M	6.0	1¾	1	4¾	2
MXJ or MXLJ-6-8M	8.0	2½	1 3/16	3⅞	2¾
MXJ or MXLJ-6-10M	10.0	2½	1 3/16	4¾	2¾
MXJ or MXLJ-6-15M	15.0	3¾	1¼	4¾	4
MXJ or MXLJ-6-20M	20.0	3¾	1¾	4¼	4

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

ASTRON®

SPECIALISTS IN CAPACITOR MINIATURIZATION

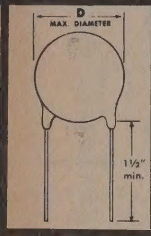
DISC and TUBULAR CERAMIC CAPACITORS

SKOTTIE ELECTRONICS, INC.
Peckville, Pa.
A wholly-owned subsidiary of
ASTRON DIVISION
Renwell Industries, Inc.

SKOTTIE STYLE TXD-

HIGH K GENERAL PURPOSE DISC CAPACITORS

SKOTTIE STYLE TXD all purpose disc ceramics provide the highest available capacitances at 25°C in the smallest possible size. These capacitors exhibit less capacitance change with temperature than the limits specified in the EIA RS-198 specification for Z5U ceramics. This specification allows a maximum capacitance change of +22% and −56% along a temperature range of +10°C to +85°C.



DISC CAPACITOR SIZES For All Disc Types

SKOTTIE DISC SIZE CODE	MAX. DIA. (D)
4	.290"
5	.350"
6	.410"
7	.475"
8	.570"
10	.670"
12	.790"
14	.925"

SPECIFICATIONS

WORKING VOLTAGE: 600 W.V.D.C.
TEST VOLTAGE (Flash): 1500 W.V.D.C.
POWER FACTOR: 1.5% Maximum at 1 kc (initial).
CAPACITANCE: Measured at 25°C, an RMS voltage between 0.5 and 5.0 and a frequency of 1 kc.
INITIAL INSULATION RESISTANCE: Over 10,000 megohms.
INSULATION: Phenolic vacuum-impregnated.
LEADS: No. 22 (.026" dia.) or No. 20 gauge (.032" dia.) tinned copper.
MARKING: Manufacturer's identification, capacitance and tolerance.
CAPACITANCE TOLERANCES:
K = ±10% X = +80%-20%
M = ±20% Y = GMV (+100%-0%)
Z = +100%-20%

CAPACITANCE (pf) VS. SIZE

SKOTTIE STYLE and SIZE CODE	CAPACITANCE RANGE (pf)
TXD-4	1000 to 2000
TXD-5	2000 to 3000
TXD-6	3000 to 5000
TXD-8	5000 to 10,000
TXD-10	10,000 to 20,000
TXD-12	20,000 to 30,000

Specify desired Capacitance.

ORDERING INFORMATION

Example:	Style	*Size	*Capacitance	*Tolerance
	TXD —	8 —	502 —	M

***SIZE:** As shown above.

***CAPACITANCE (mmf):** The capacitance is indicated by a three digit number. The first two numbers are significant; the third specifies the number of zeros to follow.

***TOLERANCE:**
The letter (K) designates ±10%.
The letter (M) designates ±20%.
The letter (X) designates +80%-20%.
The letter (Y) designates GMV (+100%-0%).
The letter (Z) designates +100%-20%.

SKOTTIE STYLE TCD-

TEMPERATURE COMPENSATING DISC CAPACITORS

SKOTTIE temperature compensating disc ceramic capacitors have a characteristically high "Q", high dielectric strength, excellent insulation resistance, low frequency coefficient of capacitance and very low aging rates. They are manufactured in the various disc styles established, MIL-C-11015, and E.I.A. RS-198 specification.

SPECIFICATIONS

WORKING VOLTAGE: 600 V.D.C. (Higher voltages available).
TEST VOLTAGE (Flash): 1500 V.D.C.
"Q": Over 1000 at 1 megacycle, for capacitances of 15 pf to 400 pf.
INITIAL LEAKAGE RESISTANCE: Over 10,000 megohms.
CAPACITANCE TOLERANCE: At 25°C: ±5% ±10% ±20%. Special tolerances available.
INSULATION: Phenolic vacuum wax impregnated.
LEADS: No. 22 (.026" diameter) or No. 20 guage (.032") tinned copper.
MARKING: Capacitance, tolerance, and temperature coefficient.

ORDERING INFORMATION

EXAMPLE:	Style	*Size	*Capacitance	*Tolerance	*Temp Coef.
	TCD —	4 —	100 —	K —	NPO

***SIZE:**	Size as shown in table.
***TEMP. COEF.:**	Temperature coefficients as listed above or EIA characteristic.
***CAPACITANCE:**	The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeros to follow.
***TOLERANCE:**	The letter (M) designates ±20%. The letter (K) designates ±10%. The letter (J) designates ±5% or ±.5 pf for 10 pf or less.

MAXIMUM CAPACITANCES (pf) VS. SIZE

Skottie Style: Max. Dia.	TCD-4 .290"	TCD-5 .350"	TCD-6 .410"	TCD-8 .570"	TCD-10 .670"	TCD-12 .790"
TEMP. COEFF.	Min. & Max.	Max.	Max.	Max.	Max.	Max.
P100	1 to 6 pf	—pf	9 pf	28 pf	—pf	—pf
NPO	1 to 15	22	34	56	105	135
N030	1 to 16	23	35	56	106	140
N080	3 to 17	24	36	70	113	150
N150	3 to 18	33	40	85	123	190
N220	3 to 23	38	52	90	130	226
N330	3 to 25	40	56	100	148	248
N470	3 to 30	44	60	124	205	276
N750	3 to 45	65	90	164	300	356
N1500	20 to 65	120	150	300	375	550
N2200	20 to 100	125	180	370	600	850
N3300	20 to 175	250	275	710	1000	1300
N4700	30 to 275	325	350	1300	1500	2200
N5600	40 to 350	375	390	1500	2400	3500

SKOTTIE STYLE TYD-

MINIATURE LOW VOLTAGE 50-100 V.D.C. DISC CAPACITORS

SKOTTIE STYLE TYD all purpose ceramics provide the highest available capacitances at 25°C in the smallest possible size. These capacitors exhibit capacity change with temperature as specified in the EIA RS-198 specification for Z5V. This specification allows a max. cap. change of +22% to 82% for a temperature range of +10°C to +85°C.

CAPACITANCES VS. SIZE

SKOTTIE STYLE and SIZE CODE	STANDARD VALUES OTHER AVAILABLE
TYD-4	.001, .002, .003, .005 MF
TYD-6	.01 MF
TYD-7	.02 MF, .03 MF
TYD-10	.04 MF, .05 MF, .01 MF
TYD-14	*.05 MF, *.1 MF

*Rated at 500 Volt D.C.
Specify desired Capacitance.

ORDERING INFORMATION

EXAMPLE:	Style	*Size	*Capacitance	*Tolerance
	TYD —	8 —	502 —	M

***SIZE:**	As shown in table.
***CAPACITANCE (pf):**	The capacitance is indicated by a three digit number. The first two numbers are significant; the third specifies the number of zeros to follow.
***TOLERANCE:**	The letter (K) designates ±10%. The letter (M) designates ±20%. The letter (X) designates +80%-20%. The letter (Y) designates GMV (+100%-0%). The letter (Z) designates +100%-20%.

SKOTTIE STYLE TSD-

TEMPERATURE "STABLE" DISC CAPACITORS

SKOTTIE STYLE TSD Stable Capacitance Ceramics afford the best available linearity of capacitance with temperature range. These units are notable for extremely low aging rate and excellent dielectric strength. The standard 1000 V.D.C. working voltage rating is ultra conservative. Meet Y5D characteristics in specifications RS-198.

MAX. CAPACITANCES (pf) VS. SIZE

SKOTTIE STYLE and SIZE CODE	CAPACITANCE RANGE (pf)
TSD-4	600
TSD-5	900
TSD-6	1500
TSD-8	2400
TSD-10	3600
TSD-12	6500

Specify desired Capacitance.

ORDERING INFORMATION

EXAMPLE:	Style	*Size	**Capacitance	***Tolerance
	TSD —	5 —	101 —	J

***SIZE:**	As shown in table.
****CAPACITANCE (mmf):**	The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeros to follow.
*****TOLERANCE:**	The letter (M) designates ±20%. The letter (K) designates ±10%. The letter (J) designates ±5%.

SPECIFICATIONS:

TYD & TSD

WORKING VOLTAGE: 600 W.V.D.C.

TEST VOLTAGE (FLASH): 1500 W.V.D.C.

POWER FACTOR: 1.5% Maximum at 1 kc (initial)

CAPACITANCE: Measured at 25°C, an RMS voltage between 0.5 and 5.0 and a frequency of 1 kc.

INITIAL INSULATION RESISTANCE: Over 10,000 megohms.

INSULATION: Phenolic vacuum-wax impregnated.

LEADS: No. 22 (.026" diameter) or No. 20 gauge (.032" dia.) tinned copper.

MARKING: Manufacturer's identification, capacitance and tolerance.

CAPACITANCE TOLERANCES:
K = ±10% Y = GMV (+ 100% - 0%)
M = ±20% X = + 80% - 20%
Z = + 100% - 20%

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ASTRON

DIVISION RENWELL INDUSTRIES, INC.
EAST NEWARK, NEW JERSEY

Capacitors

ASTRON®

SPECIALISTS IN CAPACITOR MINIATURIZATION

SKOTTIE STYLE TFD- "FREQUENCY STABLE" DISC CAPACITORS

STYLE TFD FREQUENCY Stable Capacitance Ceramics exceed the standards specified in the EIA RS-198 specification for Z5F temperature characteristics. This specification allows a maximum capacitance change of ±7.5% for a temperature range of +10°C + 85°C. These capacitors exhibit excellent capacitance stability with voltage and frequency and afford relatively high capacitance vs. size.

MAX. CAPACITANCES (pf) VS. SIZE

SKOTTIE STYLE and SIZE CODE	MAX. CAPACITANCE RANGE (pf)
TFD-4	1000
TFD-5	1500
TFD-6	2000
TFD-8	4000
TFD-10	5000
TFD-12	10,000

Specify desired Capacitance.

ORDERING INFORMATION

EXAMPLE:	Style		*Size		*Capacitance		*Tolerance
	TFD	—	8	—	272	—	M

***SIZE:** As shown in table.

***CAPACITANCE (pf):** The capacitance is indicated by a three digit number. The first two numbers are signficant; the third specifies the number of zeros to follow.

***TOLERANCE:** The letter (K) designates ±10%.
The letter (M) designates ±20%.
The letter (X) designates +80% −20%.
The letter (Y) designates GMV (+100% −0%).
The letter (Z) designates +100% −20%.

SKOTTIE STYLE TED- "SEMI-STABLE" DISC CAPACITORS

SKOTTIE STYLE TED Semi-stable Capacitance Ceramics exceed the standard specified in the EIA RS-198 specification for X5S temperature characteristics. This specification allows a maximum capacitance change of ±22% for a temperature range of −55°C to +85°C. These capacitors exhibit excellent capacitance stability with voltage and frequency and afford relatively high capacitance vs. size.

SPECIFICATIONS: TFD, TED

WORKING VOLTAGE: 600 W.V.D.C.
TEST VOLTAGE (Flash): 1500 W.V.D.C.
POWER FACTOR: 1.5% Maximum at 1 kc (initial).
CAPACITANCE: Measured at 25°C, an RMS voltage between 0.5 and 5.0 and a frequency of 1 kc.
INITIAL INSULATION RESISTANCE: Over 10,000 megohms.
INSULATION: Phenolic vacuum-wax impregnated.
LEADS: No. 22 (.026" dia.) or No. 20 gauge (.032" dia.) tinned copper.
MARKING: Manufacturer's identification, capacitance and tolerance.
CAPACITANCE TOLERANCES:
K = ±10% X = +80%-20%
M = ±20% Y = GMV (+100%-0%)
Z = +100%-20%

ORDERING INFORMATION

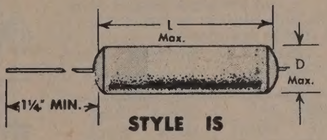
EXAMPLE:	Style		*Size		*Capacitance		*Tolerance
	TED	—	8	—	272	—	M

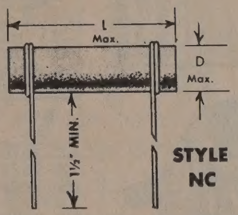
***SIZE:** As shown in table.

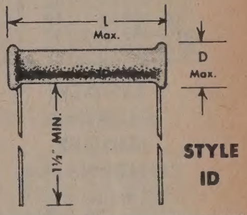
***CAPACITANCE (pf):** The capacitance is indicated by a three digit number. The first two numbers are significant; the third specifies the number of zeros to follow.

***TOLERANCE:** The letter (K) designates ±10%.
The letter (M) designates ±20%.
The letter (X) designates +80% −20%.
The letter (Y) designates GMV (+100% −0%).
The letter (Z) designates +100% −20%.

TUBULAR SIZE CHART







SKOTTIE STYLE & SIZE CODE	STEATITE CASE INSULATED TUBULAR — TYPE IS 1	2	3	LACQUER COATED UNINSULATED TUBULARS — TYPE NC 1	2	27	7	19	3	5	DUREZ INSULATED TUBULARS — TYPE ID 1	2	27	7	19	3	5
MAX. LENGTH (L)	.562	.812	1.320	.400	.655	.470	.825	.860	1.090	1.875	.468	.750	.540	.875	.937	1.250	.375
MAX. DIAM. (D)	.250	.250	.340	.200	.200	.240	.250	.250	.255	.340	.250	.250	.290	.312	.312	.312	.200
MIL-C-20 STYLE	CC21	CC26	CC36	CC20	CC25	CC30	CC32	—	CC35	CC45	CC22	CC27	CC31	CC33	—	CC37	CC47

SKOTTIE STYLE IS, NC, ID Hi-K TUBULAR CAPACITORS

SKOTTIE Hi-K Tubular Ceramic Capacitors are general purpose high dielectric constant ceramic capacitors that conform to MIL-C-20, MIL-C-11015 and the EIA RS-198 specification for Z5U ceramics. This specification allows a maximum capacitance change of ±3.3% of room temperature capacitance from −30°C to +85°C with a maximum capacitance of 1800 pf to the high dielectric constant bodies with a maximum capacitance of 10,000 pf in the same case.

TEMPERATURE CHARACTERISTIC			MINIMUM-MAXIMUM CAPACITANCE (pf) for SKOTTIE HI-K TUBULARS	
MAXIMUM CAPACITANCE CHANGE	TEMP. RANGE FOR MAXIMUM CAPACITANCE CHANGE	E.I.A. SYMBOL FOR TEMP. CHAR.	Size Code (1)	Size Code (2)
±3.3%	−30 +85C	Y5D	750	1800
±7.5%	−55 +85C	X5F	215	650
±10%	−55 +85C	X5P	575	1500
±22%	−55 +85C	X5S	2000	3500
±7.5%	+10 +85C	Z5F	1200	2500
+22% −56%	+10 +85C	Z5V	3000	7500
+22% −82%	+10 +85C	Z5V	5000	10,000

NOTE: Specifications Same as for Styles TFD and TED above.

ORDERING INFORMATION

EXAMPLE:	*Style		*Size		*EIA Char.		*Capacitance		*Tolerance
	ID	—	27	—	Z5U	—	50	—	K

***STYLE:** ID — Insulated Durez tubular
NC — Non-Insulated tubular
IS — Insulated Steatite tubular

***SIZE:** Sizes as shown above.

***EIA CHARACTERISTIC:** As listed above.

***CAPACITANCE:** The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeros to follow.

***TOLERANCE:** The letter (M) designates ±20%.
The letter (K) designates ±10%.
The letter (J) designates ±5%.

SKOTTIE STYLE IS, NC, ID TEMP. COMPENSATING TUBULAR CAPACITORS

SKOTTIE Temperature Compensating Tubular ceramic capacitors are available in the widest ranges of temperature coefficients having any predetermined value from P120 to a negative coefficient of N5600. (See chart)

SKOTTIE Tubulars are available in three different styles in accordance with MIL-C-20, MIL-C-11015 and the EIA RS-198 specification. They are capable of operating over a temperature range with proper derating from −55°C to +125°C.

MAXIMUM CAPACITANCES (mmfd) VS. SIZE

SIZE CODE:	(1)	(13)	(2)	(27)	(7)	(19)	(3)
TEMPERATURE COEFFICIENT							
P120	.3 to 12 pf	— pf	15 pf	— pf	40 pf	— pf	60 pf
NPO	.3 to 25	33	45	50	100	120	160
N030	.3 to 25	34	46	52	103	125	165
N080	.3 to 29	39	48	59	120	140	182
N150	.3 to 32	44	56	68	137	160	202
N220	.3 to 36	48	65	74	150	175	220
N330	.3 to 39	54	80	81	169	192	242
N470	.3 to 46	64	90	110	205	230	282
N750	.3 to 65	90	120	150	290	320	387
N1400	1 to 100	140	225	300	465	500	595
N2200	1 to 165	—	265	—	—	—	—
N3300	1 to 300	—	380	—	—	—	—
N4700	1 to 560	—	825	—	—	—	—
N5600	1 to 850	—	1200	—	—	—	—

NOTE: Specifications Same as for Style TCD.

ORDERING INFORMATION

EXAMPLE:	*Style		*Size		*Capacitance		*Tolerance		*Temp. Coeff.
	ID	—	27	—	500	—	K	—	NPO

***STYLE:** ID — Insulated Durez tubular
NC — Non-insulated tubular
IS — Insulated Steatite tubular

***SIZE:** Sizes as shown above.

***TEMP. COEF.:** Temperature coefficient as listed above.

***CAPACITANCE:** The capacitance is indicated by a three digit number. The first two numbers are significant; the third digit specifies the number of zeros to follow.

***TOLERANCE:** The letter (M) designates ±20%.
The letter (K) designates ±10%.
The letter (J) designates ±5%.

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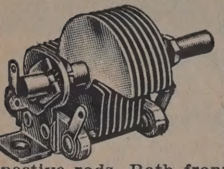
Variable Condensers

MIDGET CONDENSERS DOUBLE BEARING



Small, sturdy, high mechanical and electrical efficiency. Alsimag insulation. Rotor and stator plates are cadmium-plated brass and are electro soldered to their respective rods. Both front and rear bearings. Furnished in either mid-line (straight line wave length), or semi-circular (straight line capacity) plates.

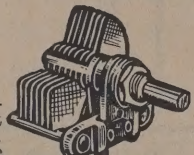
SEMI-CIRCULAR TYPE

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Air Gap	Net Each
MC-1850	15	3	.024″	$1.82
MC-1852	33	4	.024″	1.88
MC-1853	50	5	.024″	2.48
MC-1855	100	7	.024″	2.70
MC-1856	140	7	.024″	2.78
MC-1858	190	9	.024″	3.00
MC-1859	235	10	.024″	3.45
MC-1860	300	12	.024″	3.75
MC-1861	15	4	.060″	2.40
MC-1862	35	5	.060″	2.48
MC-1865	100	12	.060″	3.24

MID-LINE TYPE

MC-900	25	4	.024″	$2.29
MC-902	35	5	.024″	2.31
MC-903	50	6	.024″	2.43
MC-904	75	7	.024″	2.54
MC-905	100	7	.024″	2.76
MC-906	140	7	.024″	3.00
MC-909	250	11	.024″	3.36
MC-910	300	13	.024″	3.66

SINGLE BEARING MIDGET CONDENSERS

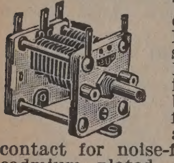


Construction is identical to the Midget condensers described. These condensers have a front bearing only.

SEMI-CIRCULAR TYPE

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Air Gap	Net Each
MC-1870	15	3	.024″	$1.80
MC-1872	33	4	.024″	1.88
MC-1873	50	5	.024″	1.95
MC-1875	100	7	.024″	2.10
MC-1876	140	8	.024″	2.40
MC-1881	50	7	.060″	2.40

"CE" MIDGET CONDENSERS SINGLE SECT'N DOUBLE BEARING



To meet UHF and laboratory equipment use. Brass rotor and stator stacks electro soldered. End plates of Alsimag insulate mounting bushings and angles from rotor and stator assembly. Special wiper contact for noise-free tuning. All metal cadmium plated. Either panel or base mounting.

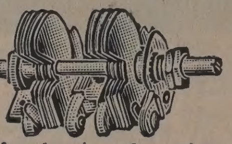
Bud No.	Cap., μμf. Max.	Cap., μμf. Min.	Air Gap	Over. Lg.	Net Ea.
CE-2001	35	6	.030″	2 23/32″	$3.00
CE-2002	50	7	.030″	2 27/32″	3.42
CE-2004	100	9	.030″	3 11/32″	4.05
CE-2005	150	10	.030″	3 13/32″	4.13
CE-2006	200	11	.030″	4 1/4″	4.80
CE-2007	250	12	.030″	4 3/4″	5.40
CE-2008	300	15	.030″	5 3/16″	5.48
CE-2015	100	13	.060″	4 9/16″	4.65

"CE" TYPE DUAL MIDGETS

Similar to "CE", but double bearing. Feature rotor wiping contact at assembly center for maximum high frequency efficiency. Opposed rotor construction.

CE-2033	50	7	.030″	3 15/32″	$4.50
CE-2035	100	9	.030″	4 25/32″	5.36
CE-2036	150	10	.030″	5 7/8″	6.45

DOUBLE GANG MIDGET CONDENSERS



Designed for chassis and panel mounting. Construction identical with other midgets.

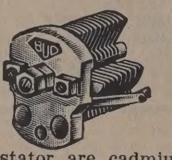
MID-LINE PLATE TYPE (STRAIGHT LINE WAVE LENGTH)

Bud No.	Cap. Per Sec. μμf Max.	Cap. Per Sec. μμf Min.	Air Gap	Over. Lg.	Net Ea.
MC-911A	100	6	.024″	4 3/16″	$4.46
MC-912A	140	7	.024″	4 9/16″	4.83

SEMI-CIRCULAR PLATE TYPE (STRAIGHT LINE CAPACITY)

MC-1882A	100	7	.024″	4 3/16″	$4.35

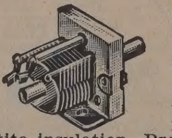
TINY-MITE PADDERS



Maintain constant capacity under all temperature and humidity conditions. For IF applications, fixed tuned circuits for exciters, ganged condenser air trimmers, and plug-in coil padding. Rotor and stator are cadmium-plated brass plates, .015″ thick. Fit inside standard 1 1/2″ diameter coil forms. Insulation is Steatite. May be adjusted in capacity by either a screwdriver or a 1/4″ hex. wrench.

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Air Gap	Net Each
LC-2076	15	2	.017″	$1.65
LC-2077	25	2.5	.017″	1.73
LC-2078	35	3	.017″	1.80
LC-2079	50	3.9	.017″	1.95
LC-2080	75	4.5	.017″	2.10
LC-2081	100	5.5	.017″	2.25
LC-2082	140	6.5	.017″	2.40

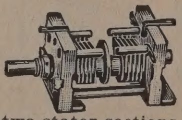
TINY-MITE SINGLE SECTION TUNING CONDENSERS



Designed for applications where space or weight are limiting factors and for tuning of UHF circuits. Rigid construction, close fitting bearing, positive rotor contact and Steatite insulation. Brass parts are cadmium plated.

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Air Gap	Net Each
LC-1640	8	2.5	.017″	$1.71
LC-1641	15	3	.017″	1.82
LC-1642	25	4	.017″	1.95
LC-1643	35	5	.017″	1.95
LC-1644	50	6	.017″	2.10
LC-1645	75	7	.017″	2.33
LC-1646	100	9	.017″	2.40
LC-1650	25	5.5	.037″	2.01

TINY-MITE DUAL CONDENSERS

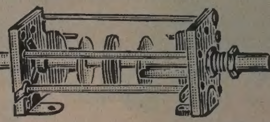


Construction similar to the regular Tiny-Mite Tuning Condensers. End pieces held firmly with three tie-rods. Separate round plate soldered on rotor rod to shield two stator sections. Large surface front and rear bearings for smooth rotation.

Bud No.	Cap. per Sec. Max. μμf	Cap. per Sec. Min. μμf	Air Gap	Over. Lgth.	Net Each
LC-1659	8	2.5	.017″	2 17/32″	$2.90
LC-1660	15	3	.017″	2 21/32″	3.30
LC-1661	25	4	.017″	2 15/16″	3.93
LC-1662	50	6	.017″	3 5/8″	4.35
LC-1663	100	9	.017″	4 27/32″	5.33
LC-1664	10	4	.037″	3 1/16″	3.51
LC-1665	15	5	.037″	3 17/32″	4.26

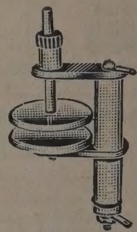
102X-62A

THREE-GANG TINY-MITE



Bud No.	Cap. Per Sec. μμf Max.	Cap. Per Sec. μμf Min.	Plates Per Section	Net Each
LC-1845	11	5	5	$5.25
LC-1846	17	5	7	5.85
LC-1847	25	6	9	6.23

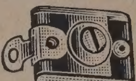
FEED-THRU NEUTRALIZING CONDENSERS



Particularly suited for circuits using tubes with grid lead terminated in the base. Single hole mounting, feed-thru design. Aluminum plates rounded at edge to cut down losses. After tuning, movable plate may be locked with knurled nut. Wt., 1/4 lb.

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Net Ea.
NC-852	6	.5	$2.40
NC-853	11	1	3.36

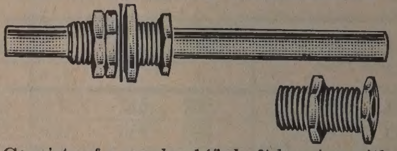
MIDGET TRIMMER CONDENSERS



Primarily intended for antenna coupling, interstage coupling and tracking applications. Ceramic base.

Bud No.	Cap., μμf Max.	Cap., μμf Min.	Wt., Lb.	Net Each
MT-833	36	3	1/4	$0.15
MT-828	420	94	1/4	.30

PANEL BEARING ASSEMBLIES

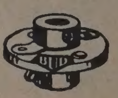


Consists of a regular 1/4″ shaft bearing with 6″ and 3″ lengths of 1/4″ brass rod inserted and held by washers to prevent the shaft from shifting. Facilitate the panel control of condensers, potentiometers, etc., which must be mounted away from the panel. Bearing fits in 13/32″ hole on panels to 5/16″ thick.

Bud No.	Overall Lgth., In.	Depth Behind Panel	Wt., Lbs.	Net Each
PB-530	6″	4 3/4″	1 1/4	$0.66
PB-531	3″	1 3/4″	3/4	.54
PB-532	Bearing only		1/4*	.18

*Pkg. of 15; others, pkg. of 10.

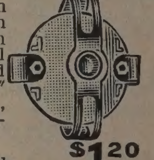
INSULATED FLEXIBLE COUPLINGS



Tandem operation of two or more units is readily accomplished through the use of these couplers. Direct shaft alignment is not essential, and all couplers are made to fit 1/4″ shafts.

Bud. No.	Diam. In.	Hgt. In.	Insulation	Net Each
FC-795	1 1/16	11/16	Ceramic	$0.78
FC-845	1 1/16	5/8	Bakelite	.60
FC-855	1 1/2	11/16	Bakelite	.54

HIGH VOLTAGE FLEXIBLE COUPLING



Special spring construction permits wide gap between shaft connections, freedom from back-lash and unusual flexibility. Springs attached to glazed steatite discs 1/2″ dia. x 3/16″ th. Overall dia., 1 15/16″. Accommodates standard 1/4″ shaft.

Bud No. FC-614—Net Each..... $1.20

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Centralab.

Ceramic Capacitors

DD, ID CERAMIC DISC HI-KAPS®

Ideal for bypass coupling or filter service where high capacity is required and control stability is secondary. Operate for long periods of time under extreme moisture, temperature and vibration. **DD Types:** Rated 1000 WVDC except: DD6-103, DD-153, DD-203, DD-303, DD-403 and DD-503. which are 600 WVDC. **ID Types:** Rated 500 WVDC. **Tolerance:** ±10% unless otherwise noted.

Cap., µµf	CRL Number		Dia., In.	Cap., µµf	CRL Number		Dia., In.	Cap., µµf	CRL Number		Dia., In.	Cap., µµf	CRL Number		Dia., In.
	DD-	ID-			DD-	ID-			DD-	ID-			DD-	ID-	
3.3*	3R3	3R3	¼	68	680	680	¼	500	501	501	¼	3000†	302	.003	⅜
5	050	050	¼	75	750	750	¼	510	511	511	¼	3300†	332	.0033	9/16
6	060	060	¼	82	820	820	¼	560	561	561	¼	3900†	392	.0039	9/16
6.8	6R8	6R8	¼	91	910	910	¼	600	601	601	¼	4000†	402	.004	9/16
7.5	7R5	7R5	¼	100	101	101	¼	680	681	681	¼	4300†	432	.0043	9/16
8	080	080	¼	120	121	121	¼	750	751	751	¼	4700‡	472	.4722	9/16
10	100	100	¼	130	131	131	¼	800†	801	.0008	¼	4700†	472G	.0047	9/16
12	120	120	¼	150	151	151	¼	820	821	821	¼	5000‡	5022	......	9/16
15	150	150	¼	180	181	181	¼	910	911	911	¼	5000†	502	.005	9/16
18	180	180	¼	200	201	201	¼	1000	102	102	⅜	5600†	562	.0056	9/16
20	200	200	¼	220	221	221	¼	1000†	102G	.001	¼	6800†	682	.0068	9/16
22	220	220	¼	240	241	241	¼	1200	122	122	⅜	7500†	752	.0075	9/16
24	240	240	¼	250	251	251	¼	1200†	122G	.0012	¼	8200†	822	.0082	9/16
25	250	250	¼	270	271	271	¼	1300	132	132	⅜	10,000†	103	#	11/16
27	270	270	¼	300	301	301	¼	1500	152	152	⅜	10,000‡	1032	1032	11/16
30	300	300	¼	330	331	331	¼	1500†	152G	.0015	¼	10,000†	6-103	.01	9/16
33	330	330	¼	350	351	351	¼	1600	162	162	⅜	15,000§	153	.015	11/16
39	390	390	¼	360	361	361	¼	1800	182	182	⅜	20,000†	......	203	⅝
47	470	470	¼	390	391	391	¼	2000†	202	.002	⅜	20,000§	203	.02	11/16
50	500	500	¼	400	401	401	¼	2200†	222	.0022	⅜	30,000§	303	.03	⅞
51	510	510	¼	470	471	471	¼	2500†	252	.0025	⅜	40,000§	403	.04	⅞
56	560	560	¼	470†	471G	.00047	¼	2700†	272	.0027	⅜	50,000§	503	.05	⅞

Tolerance: *±0.5 µµf. †GMV. ‡±20%. §+80, —20%. #9/16" dia.

DD, ID INDUSTRIAL NET PRICES

Values, µµf	Net Each, Lots of				
	1-24	25-99	100-249	250-499	500-999
DD Types					
3.3 thru 8,200	15c	11.9c	10c	7.5c	5.6c
10,000 thru 20,000	24c	19c	16c	12c	9c
30,000 thru 50,000	45c	35.6c	30c	22.5c	16.9c
ID Types					
3.3 thru 10,000	15c	11.9c	10c	7.5c	5.6c
15,000 and ID-.02	18c	14.3c	12c	9c	6.8c
ID-203, -.03, -.04, -.05	36c	28.5c	24c	18c	13.5c

MIL-C-11015B GENERAL PURPOSE CERAMIC DISC HI-KAPS® (500 WVDC)

Cap., µµf (PF)	CRL No. & MIL-C-11015B Designation	Cap., µµf (PF)	CRL No. & MIL-C-11015B Designation	Cap., µµf (PF)	CRL No. & MIL-C-11015B Designation
2.2*	CK60BV2R2K	220*	CK60AX221K	820†	CK62BX821M
3.3*	CK60BV3R3K	220†	CK60AX221M	1000*	CK62BX102K
4.7*	CK60BV4R7K	330*	CK60AX331K	1000†	CK62BX102M
6.8*	CK60BV6R8K	330†	CK60AX331M	1500*	CK62BX152K
10*	CK60BV100K	330*	CK61BX331K	1500†	CK62BX152M
15*	CK60BV150K	330†	CK61BX331M	2200*	CK62AX222K
22*	CK60BV220K	470*	CK60AX471K	2200†	CK62AX222M
33*	CK60BX330K	470†	CK60AX471M	2200*	CK63BX222K
33†	CK60BX330M	470*	CK61BX471K	2200†	CK63BX222M
47*	CK60BX470K	470†	CK61BX471M	3300*	CK63BX332K
47†	CK60BX470M	680*	CK61BX681K	3300†	CK63BX332M
150*	CK60BX151K	680†	CK61BX681M		
150†	CK60BX151M	820*	CK62BX821K		

Tolerances: *±10%; †±20%.

MIL-C-11015B INDUSTRIAL NET PRICES

Values, µµf	Net Each, Lots of				
	1-24	25-99	100-249	250-499	500-999
2.2 thru 680	21c	16.6c	14c	10.5c	7.9c
820 thru 1500	27c	21.4c	18c	13.5c	10c
2200 (—AX—)	27c	21.4c	18c	13.5c	10c
2200 (—BX—), 3300	30c	23.7c	20c	15c	11.3c

TYPES CE TEMPERATURE STABLE AND CF SEMI-STABLE DISC HI-KAPS®

Offer exceptional stability through an extended temperature range; for applications requiring low capacity change between —55°C and +85°C temperatures. Rated 500 WVDC. Life test, 1000 hours at 1000 v. DC at +85°C. Leakage resistance, 10,000 megs, min. initial; 1000 megs, after humidity. Phenolic insulation vacuum impregnated with high temperature wax. Power factor, 2% max. at 1 kc. Leads #22 tinned copper, 1½" lg. minimum. Tolerance, ±10%. Only .156" thick.

TYPES CE AND CF (Cont'd)

Dia.: 150—560 µµf, .290" 680—1800 µµf, .385"; 2000—3900 µµf, .590"; 4700—6200 µµf, .690"; 8200 and 10K µµf, .920".

Temperature Stable "K"						Temp. Semi-Stable "K"					
Cap. µµf	No. CE-	Cap. µµf	No. CE-	Cap. µµf	No. CE-	Cap. µµf	No. CF-	Cap. µµf	No. CF-	Cap. µµf	No. CF-
150	151	500	501	800	801	1200	122	2200	222	5000	502
220	221	560	561	1000	102	1500	152	3300	332	6200	622
330	331	680	681			1800	182	3900	392	8200	822
470	471	750	751			2000	202	4700	472	10K	103

SEE NEXT COLUMN

3000-6000 VOLT HI-VO-DISC® CAPACITORS

All these units are highly efficient for bypass-coupling in high frequency circuits under conditions of extreme humidity or temperature. Special phenolic insulation with triple, high temperature wax impregnation. Maintain high capacity and performance at 85°C. Tolerance: ±20%.

INDUSTRIAL NET PRICES

TYPE DD30 (3000 WVDC)

Values, µµf	Net Each, Lots of				
	1-24	25-99	100-249	250-499	500-999
4.7 thru 120	$0.24	$0.19	$0.16	$0.12	$0.09
150	.24	.19	.16	.12	.09
180 thru 270	.24	.19	.16	.12	.09
300 thru 470	.24	.19	.16	.12	.09
500 and 560	.24	.19	.16	.12	.09
680 thru 820	.24	.19	.16	.12	.09
1000 thru 5000	.30	.237	.20	.15	.113

TYPE DD60 (6000 WVDC)

4.7 thru 820	$0.36	$0.285	$0.24	$0.18	$0.135
1000 thru 2200	.60	.475	.40	.30	.225

Capacity, µµf	3000 Volt, DC Working		6000 Volt, DC Working	
	CRL No.	Dia.	CRL No.	Dia.
4.7	DD30-4R7	¼"	DD60-4R7	9/16"
10	DD30-100	¼"	DD60-100	9/16"
15	DD30-150	¼"	DD60-150	9/16"
22	DD30-220	¼"		
25	DD30-250	¼"		
30	DD30-300	¼"	DD60-300	9/16"
33	DD30-330	¼"	DD60-330	9/16"
39	DD30-390	¼"	DD60-390	9/16"
47	DD30-470	¼"	DD60-470	9/16"
50	DD30-500	¼"	DD60-500	9/16"

SEE NEXT COLUMN

CE, CF INDUSTRIAL NET PRICES

Values, µµf	Net Each, Lots of				
	1-24	25-99	100-249	250-499	500-999
150 thru 1800	18c	14.3c	12c	9c	6.8c
2000 thru 6200	21c	16.6c	14c	10.5c	7.9c
8200 and 10K	24c	19c	16c	12c	9c

TYPE DD2 DUO-KAPS®

Single disc, dual capacity. Double Durez Insulation. Rated 600 v. DC, working; 1200 v. DC, test. Tolerance: GMV. Dia A—.390"; B—.594"; C—.719".

Cap., µµf	CRL No.	Cap., µµf	Net Each, Lots of				
			1-24	25-99	100-249	250-499	500-999
2 x .001	DD2-102	A	$0.24	$0.19	$0.16	$0.12	$0.09
2 x .0015	DD2-152	B	.24	.19	.16	.12	.09
2 x .005	DD2-502*	C	.36	.285	.24	.18	.135

*Tolerance: —20, +80%.

TYPE DD3 SHIELDED DUO-KAPS®

Three leads—two capacitors in the space formerly needed for one. Shielded to minimize stray capacities between discs. Rated 600 v. DC, working; 1200 v. DC, test. Tolerance: GMV. Dia.: A—.391"; B—.593"; C—.719".

2 x .001	DD3-102	A	$0.30	$0.238	$0.20	$0.15	$0.113
2 x .0015	DD3-152	A	.30	.238	.20	.15	.113
2 x .002	DD3-202	B	.30	.238	.20	.15	.113
2 x .005	DD3-502	B	.30	.238	.20	.15	.113
2 x .01	DD3-103	C	.30	.238	.20	.15	.113

D6 TUBULAR BC HI-KAPS®

Rated 600 v. DC working; 1200 v., test. Tropicalized. Operating temp.: —55° to +85°C. Tolerance: ±0.5 pf, D6-030; ±10%, 5 pf thru 680 pf; ±20%, 750 pf thru 2200 pf; GMV, 2500 pf and up.

Cap., µµf	CRL No.	Size *	Cap., µµf	CRL No.	Size *	Cap., µµf	CRL No.	Size *
3	D6-030	A	100	D6-101	A	820	D6-821	A
5	D6-050	A	120	D6-121	A	1000	D6-102	A
10	D6-100	A	150	D6-151	A	1200	D6-122	A
12	D6-120	A	180	D6-181	A	1500	D6-152	A
15	D6-150	A	200	D6-201	A	1800	D6-182	A
20	D6-200	A	220	D6-221	A	2000	D6-202	B
22	D6-220	A	250	D6-251	A	2200	D6-222	B
25	D6-250	A	270	D6-271	A	2500	D6-252	B
27	D6-270	A	300	D6-301	A	2700	D6-272	B
33	D6-330	A	330	D6-331	A	3000	D6-302	B
39	D6-390	A	390	D6-391	A	3300	D6-332	B
40	D6-400	A	400	D6-401	A	4000	D6-402	B
47	D6-470	A	470	D6-471	A	4700	D6-472	C
50	D6-500	A	500	D6-501	A	5000	D6-502	C
56	D6-560	A	560	D6-561	B	5600	D6-562	C
68	D6-680	A	600	D6-601	B	10000	D6-103	D
75	D6-750	A	680	D6-681	B			
82	D6-820	A	750	D6-751	A			

*Size: A—.260" x .460". B—.260" x .790". C—.280" x .900". D—.330" x 1.21".

D6 INDUSTRIAL NET PRICES

Values, µµf	Net Each, Lots of				
	1-24	25-99	100-249	250-499	500-999
3 thru 5000	$0.15	$0.119	$0.10	$0.075	$0.056
5600 & 10,000	.18	.143	.12	.09	.068

TYPE CPR POLYSTRENE CAPACITORS (500 WVDC)

Highly reliable sealed polystyrene foil capacitors. Ideal direct replacements for micas and mylars in TV and radio. **Tol.**, ±5%. **Size:** 20—250µµf, .394" l. x .157-.276" dia.; 251—3000 µµf, .591" l. x .197-.413" dia.; 3001—10,000 µµf, .787" l. x .335-.531" dia. **Number indicates capacitance in** µµf **(PF).**

CRL No.	CRL No.	CRL No.	CRL No.	CRL No.	CRL No.
CPR-20J	CPR-68J	CPR-220J	CPR-680J	CPR-2200J	CPR-5600J
CPR-22J	CPR-75J	CPR-240J	CPR-750J	CPR-2400J	CPR-6200J
CPR-24J	CPR-82J	CPR-270J	CPR-820J	CPR-2500J	CPR-6800J
CPR-27J	CPR-91J	CPR-300J	CPR-910J	CPR-2700J	CPR-7500J
CPR-30J	CPR-100J	CPR-330J	CPR-1000J	CPR-3000J	CPR-8200J
CPR-33J	CPR-110J	CPR-350J	CPR-1100J	CPR-3300J	CPR-9100J
CPR-36J	CPR-120J	CPR-390J	CPR-1200J	CPR-3600J	CPR-10000J
CPR-39J	CPR-130J	CPR-430J	CPR-1300J	CPR-3900J	
CPR-43J	CPR-150J	CPR-470J	CPR-1500J	CPR-4300J	
CPR-47J	CPR-160J	CPR-510J	CPR-1600J	CPR-4700J	
CPR-56J	CPR-180J	CPR-560J	CPR-1800J	CPR-5000J	
CPR-62J	CPR-200J	CPR-620J	CPR-2000J	CPR-5100J	

TYPE CPR INDUSTRIAL NET PRICES

Values, µµf (PF)	Net Each, Lots of				
	1-24	25-99	100-249	250-499	500-999
20 thru 1000	15c	11.9c	10c	7.5c	5.6c
1100 thru 3000	18c	14.3c	12c	9c	6.8c
3300 thru 10,000	21c	16.6c	14c	10.5c	7.9c

Capacity µµf	3000 V. DC Working		6000 V. DC Working	
	CRL No.	Dia.	CRL No.	Dia.
56	DD30-560	¼"	DD60-560	9/16"
68	DD30-680	¼"	DD60-680	9/16"
75	DD30-750	¼"	DD60-750	9/16"
82	DD30-820	¼"	DD60-820	9/16"
100	DD30-101	¼"	DD60-101	9/16"
120	DD30-121	¼"	DD60-121	9/16"
150	DD30-151	¼"	DD60-151	9/16"
180	DD30-181	¼"	DD60-181	9/16"
200	DD30-201	¼"	DD60-201	9/16"
220	DD30-221	¼"	DD60-221	9/16"
250	DD30-251	¼"	DD60-251	9/16"
270	DD30-271	¼"	DD60-271	9/16"
300	DD30-301	¼"	DD60-301	9/16"
330	DD30-331	¼"	DD60-331	9/16"
390	DD30-391	¼"	DD60-391	9/16"
400	DD30-401	¼"		
470	DD30-471	⅜"	DD60-471	9/16"
500	DD30-501	⅜"	DD60-501	9/16"
560	DD30-561	⅜"	DD60-561	9/16"
680	DD30-681	⅜"	DD60-681	9/16"
750	DD30-751	⅜"	DD60-751	9/16"
820	DD30-821	⅜"	DD60-821	9/16"
1000	DD30-102	9/16"	DD60-102	¾"
1200	DD30-122	9/16"	DD60-122	¾"
1500	DD30-152	9/16"	DD60-152	¾"
2000	DD30-202	⅝"	DD60-202	⅞"
2200	DD30-222	⅝"	DD60-222	⅞"
2500	DD30-252	⅝"		
2700	DD30-272	⅝"		
3000	DD30-302	¾"		
3300	DD30-332	⅞"		
3900	DD30-392	⅞"		
4700	DD30-472	⅞"		
5000	DD30-502	⅞"		

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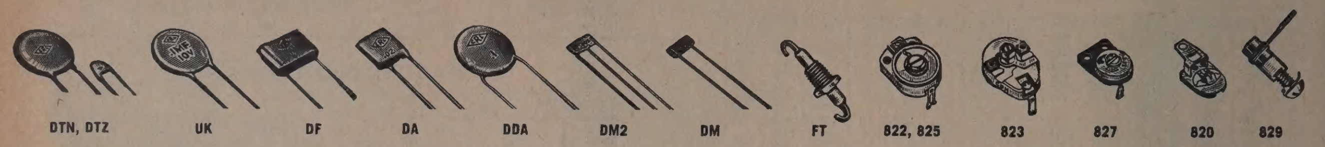
Special Capacitors



LOW VOLTAGE CAPACITORS

Miniature ceramic capacitors designed to meet the demands for high capacity, low voltage applications in transistor circuits. Double durez insulation with high vacuum wax impregnation to withstand extreme temperature, humidity and vibration. Where size permits, capacitors are stamped with capacity and voltage.

TYPE UK ULTRA-KAPS* (3 WVDC)

Cap., µf	CRL No.	Tol.	Max. Dia.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.005	UK-502	GMV	.120"	75c	59.4c	50c	37.5c	28.1c
.01	UK-103	GMV	.120"	75c	59.4c	50c	37.5c	28.1c
.02	UK-203	GMV	.120"	75c	59.4c	50c	37.5c	28.1c
.1	UK-104	GMV	.220"	54c	42.8c	36c	27c	20.3c
.22	UK-224	GMV	.290"	33c	26.2c	22c	16.5c	12.4c
.47	UK-474	GMV	.408"	33c	26.2c	22c	16.5c	12.4c
1.0	UK-105	GMV	.590"	54c	42.8c	36c	27c	20.3c
2.2	UK-225	GMV	.840"	54c	42.8c	36c	27c	20.3c

TYPE UK10 ULTRA-KAPS* (10 WVDC)

.05	UK10-503	+80 —20%	.290"	33c	26.2c	22c	16.5c	12.4c
.1	UK10-104	+80 —20%	.408"	33c	26.2c	22c	16.5c	12.4c
.2	UK10-204	+80 —20%	.590"	33c	26.2c	22c	16.5c	12.4c
.47	UK10-474	+80 —20%	.840"	54c	42.8c	36c	27c	20.3c

TYPE UK20 ULTRA-KAPS* (20 WVDC)

.05	UK20-503	+80 —20%	.408"	33c	26.2c	22c	16.5c	12.4c
.1	UK20-104	+80 —20%	.590"	33c	26.2c	22c	16.5c	12.4c
.2	UK20-204	+80 —20%	.840"	33c	26.2c	22c	16.5c	12.4c

*Trademark.

TYPE DA PLATE CAPACITOR (30 WVDC)

Cap., µf	CRL No.	Tolerance	Size In.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.02	DA-203	+100 —20%	½x½	$0.36	$0.285	$0.24	$0.18	$0.135
.05	DA-503	+100 —20%	½x½	.81	.641	.54	.405	.304
.1	DA-104	+100 —20%	½x½	1.35	1.070	.90	.675	.506

TYPE CK DISC CAPACITORS (50 WVDC)

Cap., µf	CRL No.	Tolerance	Max. Dia.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.005	CK-502	+80 —20%	.385"	21c	16.6c	14c	10.5c	7.9c
.01	CK-103	+80 —20%	.385"	21c	16.6c	14c	10.5c	7.9c
.02	CK-203	+80 —20%	.590"	21c	16.6c	14c	10.5c	7.9c
.025	CK-253	+80 —20%	.590"	21c	16.6c	14c	10.5c	7.9c
.03	CK-303	+80 —20%	.590"	21c	16.6c	14c	10.5c	7.9c
.05	CK-503	+80 —20%	.690"	21c	16.6c	14c	10.5c	7.9c
.1	CK-104	+80 —20%	.719"	60c	47.5c	40c	30c	22.5c

TYPE DDA DISC CAPACITORS (75 WVDC)

Cap., µf	CRL No.	Tolerance	Max. Dia.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.05	DDA-503	+80 —30%	.690"	30c	23.8c	20c	15c	11.3c
.1	DDA-104	+80 —30%	.719"	60c	47.5c	40c	30c	22.5c

TYPE DDM DISC CAPACITORS (150 WVDC)

.005	DDM-502	+60 —40%	.385"	30c	23.8c	20c	15c	11.3c
.01	DDM-103	+60 —40%	.385"	30c	23.8c	20c	15c	11.3c
.02	DDM-203	+60 —40%	.406"	54c	42.8c	36c	27c	20.3c
2x.01	DDM2-103	+60 —40%	.390"	54c	42.8c	36c	27c	20.3c

TYPE DM FLAT-PLATE MIN-KAPS®

150 VDCW, 300 v. DC test. Size: 7/32" x 17/32" x 7/64". Tolerance: +50%, —20%, except (*) +80%, —20%.

Cap., µf	CRL No.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.0001	DM-101	$0.30	$0.238	$0.20	$0.15	$0.113
.0002	DM-201	.30	.238	.20	.15	.113
.0003	DM-301	.30	.238	.20	.15	.113
.0005	DM-501	.30	.238	.20	.15	.113
.001	DM-102	.30	.238	.20	.15	.113
.002*	DM-202	.30	.238	.20	.15	.113
.003*	DM-302	.30	.238	.20	.15	.113
.005*	DM-502	.30	.238	.20	.15	.113
.01*	DM-103	.60	.475	.40	.30	.225
2 x .005*	DM2-502	.60	.475	.40	.30	.225

TYPE DF FLAT-PLATE HI-KAPS®

A dependable 600 volt ceramic capacitor recommended for general replacement applications where their unusual thinness makes them useful. Types listed below are 1 7/16" l. x 1 1/16" h. 600 v. DC, working: 1200 v. DC, test. Tolerance: GMV except DF-104, +80, —20%.

Cap., µf	CRL No.	Thickness	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
.05	DF-503	7/32"	$0.75	$0.594	$0.50	$0.375	$0.281
.1	DF-104	19/64"	1.05	.831	.70	.525	.394

FT AND MFT FEED-THRU HI-KAPS®

Rated 500 v. DC, working: 1000 v. DC, test. **Type FT:** Hooked end terminals; mounting nut supplied. **Type MFT:** 1/4" (max.) flange eyelet inserts in .160" hole; solders direct to chassis.

Type FT Hi-Kaps® µµf	No.	Tolerance	Type MFT Hi-Kaps® µµf	No.	Tolerance
500	FT-500	±20%	50	MFT-50	±10%
1000	FT-1000	±20%	100	MFT-100	±10%
1500	FT-1500	−20, +50%	500	MFT-500	±20%
1800	FT-1800	−20, +50%	1000	MFT-1000	GMV
2300	FT-2300	−20, +50%			

FT, MFT INDUSTRIAL NET PRICES

All Values, CRL Type	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
FT	$0.75	$0.594	$0.50	$0.375	$0.281
MFT	.30	.238	.20	.15	.113

CERAMIC TRIMMER CAPACITORS

Highly stable, small lightweight design. Power factor less than 0.2% at 1 mc. All units rated 500 v. DC, working; 1,000 v. DC, test. **Suffix Z:** Indicates zero temperature coefficient. **Suffix N:** Indicates negative coefficient. Shpg. Wt., 3 oz. max.

CRL Type 820—High dielectric ceramic base impervious to moisture. Flat rotor and stator. Mounting holes take No. 4 machine screws; 5/8" x 27/32".

CRL Type 822—Steatite body; silver rotor and stator plates; 41/64" x 27/32". Mtg. holes take No. 4 screw.

CRL Type 823—Steatite body; 15/16" x 1 3/32".

CRL Type 827—Ceramic molded phenolic body has high stability under vibration. Insulation resistance 10,000 megs. minimum. Size: 17/32" x 3/4".

CRL Types 829-3, -4, -6, -7, -10—Tiny, tubular, high voltage types for TV or FM. Ceramic bodies .215" dia. Full capacity in 180° rotation.

Range, µµf	CRL No.	Range, µµf	CRL No.	Range, µµf	CRL No.	Range, µµf	CRL No.
1.0-3.5	820D	2.0-7.5	822-CZ	5.-12	823-EZ	2.5-7	827A
2.5-6.0	820A	2.5-13.0	822-BZ	6.-25	823-DZ	3.5-12	827B
5.0-20	820B	3.0-12	822-FZ	10.-50	823-BZ	6.0-30	827C
7.0-35	820C	4.5-25	822-AZ	12-62	823-AZ	7.0-35	827D
35-55	820E*	2.0-6.0	822-DN	5.-15	823-FN	.5-3	829-3
55-75	820F*	4.0-30	822-EN	8.-25	823-EN	1.-4	829-4
70-90	820G*	4.5-25	822-CN	8.-50	823-DN	1.-6	829-6
1.5-3	822-DZ	7.0-45	822-BN	10.-100	823-BN	1.-7.5	829-7
1.5-7	822-EZ	8.0-50	822-AN	20.-125	823-AN	1.5-10	829-10

*Less brackets

CRL TYPE 825 (MIL-C81A) TRIMMER CAPACITORS

Ceramic design meets MIL-C-81A specifications. Strong, low loss steatite base with pure silver fired on top surface to form stator plate. Rated 500 WVDC: 1500 v. DC test. Power Factor, less than 0.2% at 1 mc. Drift ±0.75% or ±0.5 µµf, whichever is greater. Insulation resistance, 10,000 megs. initial; 1000 megs. after humidity. Silver-plated brass terminals bent at 90° angle from plane of stator, 19/64" lg. Mtg. holes clear #4 machine screws. Body, 27/32" lg. x 41/64" W. Shipping Weight, 2 oz.

Zero Temp. Coefficient Cap., µµf	CRL No.	MIL Spec.	N650 Temp. Coefficient Cap., µµf	CRL No.	MIL Spec.
1.5-7	825-EZ	CV11A070	2.0-6	825-DN	CV11D060
3.0-12	825-FZ	CV11A120	4.0-30	825-EN	CV11D300
4.5-25	825-AZ	CV11A250	7.0-45	825-BN	CV11D450

TRIMMER INDUSTRIAL NET PRICES

All Values, CRL Series	Net Each, Lots of 1-9	10-24	25-99	100-249
820	$0.78	$0.65	$0.618	$0.52
822	1.14	.95	.90	.76
823	3.60	3.00	2.85	2.40
825	1.05	.875	.83	.70
827	.75	.625	.594	.50

All Values, CRL Series	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
829-3, 829-4	$0.30	$0.238	$0.20	$0.15	$0.113
829-6	.30	.238	.20	.15	.113
829-7, 829-10	.30	.238	.20	.15	.113

NOTE: Items requiring certified test data and government source inspection are special. Prices and information supplied upon request.

TEMPERATURE COMPENSATING DISC HI-KAPS®

Very popular unit that replaces mica types in all applications. High stability and small size, using TC ceramic dielectric material. Type DTZ is NPO or zero TC disc type. Type DTN is an N750TC type. Thickness: 5/32" and 7/32". Tolerance: ±5%.

TYPE DTN (N750)

Cap., µµf	CRL No.	Dia., In.	Cap., µµf	CRL No.	Dia., In.	CAP., µµf	CRL No.	Dia., In.
5	DTN-5*	1/4	25	DTN-25	1/4	100	DTN-100	3/8
10	DTN-10*	1/4	33	DTN-33	1/4	150	DTN-150	9/16
15	DTN-15	1/4	47	DTN-47	1/4	200	DTN-200	9/16
20	DTN-20	1/4	68	DTN-68	3/8	220	DTN-220	9/16
22	DTN-22	1/4	75	DTN-75	3/8	330	DTN-330	5/8

TYPE DTZ (NPO)

1.5	DTZ-1R5*	1/4	22	DTZ-22	3/8	100	DTZ-100	9/16
2.2	DTZ-2R2*	1/4	25	DTZ-25	3/8	120	DTZ-120	5/8
3.3	DTZ-3R3*	1/4	33	DTZ-33	3/8	150	DTZ-150	3/4
4.7	DTZ-4R7*	1/4	47	DTZ-47	9/16	180	DTZ-180	9/16
6.8	DTZ-6R8*	1/4	50	DTZ-50	9/16	200	DTZ-200	9/16
10	DTZ-10	1/4	68	DTZ-68	9/16	220	DTZ-220	5/8
15	DTZ-15	1/4	75	DTZ-75	9/16	270	DTZ-270	5/8
20	DTZ-20	1/4	82	DTZ-82	9/16			

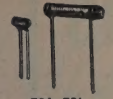
Tolerance, ±0.5 µµf.

TYPE DTN & DTZ INDUSTRIAL NET PRICES

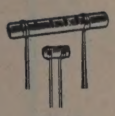
CRL No.	Net Each, Lots of 1-24	25-99	100-249	250-499	500-999
DTN-5 thru 100	$0.30	$0.238	$0.20	$0.15	$0.113
DTN-150 thru 330	.45	.356	.30	.225	.169
DTZ-IR5 thru 100	.30	.238	.20	.15	.113
DTZ-120 thru 270	.45	.356	.30	.225	.169

Centralab®

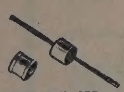
Special Capacitors



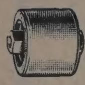
TCA, TCL



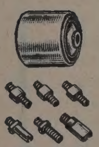
Type TC



853, 854, 855



850, 858



Type TV-20

TEMPERATURE COMPENSATING TUBULARS

Limit frequency drift in RF circuits where temperature variations are prevalent. Ceramic body construction changes capacities as the temperature varies; complies with JAN-C-20A specifications. Rated 1,200 volts DC, test; 600 volts DC, working. Extremely compact. Weight, 2 oz. **Type TCZ:** NPO or zero units, superior to micas for all uses. Show zero capacitance changeover temperature range —20°C to +85°C. Left end coded black. **Type TCN:** N750 units show negative capacity of —750 parts per million per degree C rise in temperature. Left end coded violet. Size: A—.400″ x .200″. B—.690″ x .200″. C—.860″ x .225″. D—1.165″ x .285″. E—1.625″ x 285″.

Cap. µµf	Type TCN Units			Type TCZ Units		
	CRL Number	Size	Tol. ±	CRL Number	Size	Tol. ±
0.5				TCZ-R5	A	.25 µµf
0.68				TCZ-R68	A	.25 µµf
1.0				TCZ-1	A	.25 µµf
1.5				TCZ-1R5	A	.25 µµf
2.2				TCZ-2R2	A	.25 µµf
3.3	TCN-3R3	A	.5 µµf	TCZ-3R3	A	.25 µµf
4.7				TCZ-4R7	A	.5 µµf
5.0	TCN-5	A	.5 µµf			
6.8				TCZ-6R8	A	.5 µµf
10	TCN-10	A	.5µµf	TCZ-10	A	.5 µµf
12	TCN-12	A	2%	TCZ-12	A	2%
15	TCN-15	A	2%	TCZ-15	A	2%
18	TCN-18	A	2%	TCZ-18	A	2%
20	TCN-20	A	2%	TCZ-20	A	2%
22	TCN-22	A	2%	TCZ-22	A	2%
24	TCN-24	A	2%	TCZ-24	A	2%
25	TCN-25	A	2%	TCZ-25	A	2%
27	TCN-27	A	2%	TCZ-27	A	2%
30	TCN-30	A	2%	TCZ-30	A	2%
33	TCN-33	A	2%	TCZ-33	A	2%
36	TCN-36	A	2%	TCZ-36	A	2%
39	TCN-39	A	2%	TCZ-39	A	2%
43	TCN-43	A	2%	TCZ-43	B	2%
47	TCN-47	A	2%	TCZ-47	B	2%
50	TCN-50	A	2%	TCZ-50	B	2%
51	TCN-51	A	2%	TCZ-51	B	2%
56	TCN-56	A	2%	TCZ-56	B	2%
62	TCN-62	A	2%	TCZ-62	B	2%
68	TCN-68	A	2%	TCZ-68	B	2%
75	TCN-75	A	2%	TCZ-75	B	2%
82	TCN-82	A	2%	TCZ-82	B	2%
91	TCN-91	A	2%	TCZ-91	C	2%
100	TCN-100	A	2%	TCZ-100	C	2%
110	TCN-110	B	5%	TCZ-110	D	5%
120	TCN-120	B	5%	TCZ-120	D	5%
130	TCN-130	B	5%	TCZ-130	D	5%
150	TCN-150	B	5%	TCZ-150	D	5%
160	TCN-160	B	5%	TCZ-160	D	5%
180	TCN-180	B	5%	TCZ-180	D	5%
200	TCN-200	B	5%	TCZ-200	D	5%
220	TCN-220	C	5%	TCZ-220	D	5%
240	TCN-240	C	5%	TCZ-240	E	5%
270	TCN-270	C	5%	TCZ-270	E	5%
300	TCN-300	D	5%	TCZ-300	E	5%
330	TSN-330	D	5%			
360	TCN-360	D	5%			
390	TCN-390	D	5%			
430	TCN-430	D	5%			
470	TCN-470	D	5%			
510	TCN-510	D	5%			
560	TCN-560	E	5%			
620	TCN-620	E	5%			
680	TCN-680	E	5%			
750	TCN-750	E	5%			

INDUSTRIAL NET PRICES
TYPE TCN (N750 UNITS)

Values, µµf	Net Each, Lots of				
	1-24	25-99	100-249	250-499	500-999
3.3 and 5.0	$0.30	$0.238	$0.20	$0.15	$0.113
10	.30	.238	.20	.15	.113
12 and 15	.30	.238	.20	.15	.113
18	.30	.238	.20	.15	.113
20	.30	.238	.20	.15	.113
22 thru 62	.30	.238	.20	.15	.113
68 thru 100	.30	.238	.20	.15	.113
110 thru 270	.30	.238	.20	.15	.113
300 thru 510	.45	.356	.30	.225	.169
560 thru 750	.60	.475	.40	.30	.225

TYPE TCZ (NPO UNITS)

Values, µµf	1-24	25-99	100-249	250-499	500-999
0.5 thru 3.3	$0.30	$.238	$0.20	$0.15	$0.113
4.7	.30	.238	.20	.15	.113
6.8	.30	.238	.20	.15	.113
10	.30	.238	.20	.15	.113
12 and 15	.30	.238	.20	.15	.113
18	.30	.238	.20	.15	.113
20	.30	.238	.20	.15	.113
22 and 24	.30	.238	.20	.15	.113
25 thru 56	.30	.238	.20	.15	.113
62 thru 100	.30	.238	.20	.15	.113
110 thru 220	.45	.356	.30	.225	.169
240 thru 300	.60	.475	.40	.30	.225

TYPE TCA AND TCL TUBULAR HI-KAPS®

Intermediate stock values. This group changes negatively capacity-wise with temperature increases. **Type TCA:** Changes 330 parts per million per degree C. **Type TCL:** Changes minus 1500 parts per million per degree C. **Size:** .400″ x .200″, except TCA-100, .690″ x .200″.

Cap. µµf	CRL Number	Tol. ±	Net Each, Lots of				
			1-24	25-99	100-249	250-499	500-999
10	TCA-10	.5 µµf	$0.30	$0.238	$0.20	$0.15	$0.113
15	TCA-15	2%	.30	.238	.20	.15	.113
22	TCA-22	2%	.30	.238	.20	.15	.113
33	TCA-33	2%	.30	.238	.20	.15	.113
47	TCA-47	2%	.30	.238	.20	.15	.113
68	TCA-68	2%	.30	.238	.20	.15	.113
100	TCA-100	2%	.30	.238	.20	.15	.113
10	TCL-10	.5 µµf	.30	.238	.20	.15	.113
15	TCL-15	2%	.30	.238	.20	.15	.113
22	TCL-22	2%	.30	.238	.20	.15	.113
33	TCL-33	2%	.30	.238	.20	.15	.113
47	TCL-47	2%	.30	.238	.20	.15	.113
68	TCL-68	2%	.30	.238	.20	.15	.113
100	TCL-100	2%	.30	.238	.20	.15	.113

TRANSMITTING CAPACITORS

Designed for high voltage, high frequency circuits requiring very low power factor and stable retrace characteristics. Double cup design for long leakage paths and rugged construction.

TYPE 850 AND 858—5 AND 7.5 KV

Stud type has ⅛″ long hex studs 6-32 thread. Lug type ⁹⁄₁₆″ long solder lugs with tapped 6-32 threaded hole. Size: ¹⁵⁄₁₆″ dia. x ⅝″. Tolerance: ±10% 850 type; ±20% 858 type.

Cap. µµf	CRL No.		KV DCW	Temp. Coeff.	RF Load at 30 MC†
	Stud Type	Lug Type			
25	850S-25Z	850SL-25Z	7.5	NPO	7 amps
50	850S-50Z	850SL-50Z	7.5	NPO	10 amps
50	850S-50N	850SL-50N	7.5	N750	8.8 amps
75	850S-75N	850SL-75N	7.5	N750	10 amps
100	850S-100N	850SL-100N	5	N750	9.8 amps
500	858S-500		5	HI-K	
1K	858S-1000		5	HI-K	

TYPE 853, 854, 855—5 KV

Lead type has 1½″ axial leads. Tap type has axial screw terminals tapped 2-56. Size: 853, ½″ dia. x ⁷⁄₁₆″. 854, ⅜″ dia. x ⅜″. 855, ¼″ dia. x ¹¹⁄₃₂″; A Series Add ¹⁄₁₆″ to dia. and ³⁄₆₄″ to length. Tolerance: ±10%.

Cap. µµf	CRL No.		KV DCW	Temp. Coeff.	RF Load at 30 MC†
	Lead Type	Tap Type			
3	855-3Z	855A-3Z	5	NPO	1.8 amps
5	855-5Z	855A-5Z	5	NPO	1.8 amps
10	854-10Z	854A-10Z	5	NPO	1.8 amps
10	855-10N	855A-10N	5	N750	3.2 amps
20	853-20Z	853A-20Z	5	NPO	2.8 amps
20	854-20N	854A-20N	5	N750	3.2 amps
40	853-40N	853A-40N	5	N750	5.6 amps

TYPE 857—7.5 AND 15 KV

Axial screw terminals at both ends; ¼″ deep, 10-32 NF-2 thread. Size: 1³⁄₃₂″ dia. x 1⁵⁷⁄₆₄″. Tolerance: ±10%.

Cap., µµf	CRL No.	Temp. Coeff.	RF Load at 30 MC‡	KV DCW
25	857-25Z	NPO	12 amps	15
50	857-50Z	NPO	12 amps	15
100	857-100N	N750	14.4 amps	15
200	857-200N	N750	18.2 amps	7.5

TYPE 859—15 AND 20 KV

Terminals ⁷⁄₁₆″ deep both ends, tapped 10-32. Size: 2″ dia. x 2⅞″ overall. Tolerance: ±10%.

Cap. µµf	CRL No.	Temp. Coeff.	RF Load at 30 MC†	KV DCW
50	859S-50Z	NPO	30 amps	20
100	859S-100Z	NPO	30 amps	20
250	859S-250N	N750	30 amps	20
500	859S-500N	N3300	30 amps	15

‡RF Load Rating based on 30°C rise in temperature.

TRANSMITTING CAPACITOR INDUSTRIAL NET PRICES

All Values, CRL Type	Net Each, Lots of			
	1-9	10-24	25-99	100-249
850	$2.70	$2.43	$2.14	$1.92
853, 854, or 855	1.80	1.62	1.43	1.28
857 with suffix N	7.20	6.48	5.70	5.13
857 with suffix Z	8.40	7.56	6.65	5.99
858	2.70	2.43	2.14	1.92

All Values, CRL Type	Net Each, Lots of			
	1-4	5-9	10-99	100-249
859	$54.00	$48.60	$45.00	$40.50

TERMINAL HI-VO-KAPS®

ATTACHABLE TERMINAL TYPE

Type TV-20—20,000 v. DC working ceramic capacitors; 35,000 v. DC test. Capacity 500 µµf. Terminals will not pull out or break off. Five different type terminals available as listed below.

ATTACHABLE TERMINALS

CRL No.	Type	Thread	CRL No.	Type	Thread
TX-1	Slotted Rod		TX-4	Short Male	8-32
TX-2	Female Tap	6-32	TX-5	Long Male	8-32
TX-3	Male Thread	6-32			

FIXED TERMINAL HI-VO-KAPS®

Type TV1-503, TV8-503—Similar to TV-20, with fixed terminals. Rated 30 kv working, 45 kv test. TV1-503: 2-rod type. TV8-503: Two 8-32 male terminals.

HI-VO-KAPS® INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of	
	1-24	25-99
TV-20	$1.11	$0.878
TX-Terminals	.06	.048
TV1-503	1.98	1.568
TV8-503	1.98	1.568

TYPE DD16 HI-KAP® BUFFERS

Compact, easy to install. Long life, low cost. Able to withstand high heat, moisture, and vibration. Size: ⅞″ dia., ¹¹⁄₆₄″ thick. Tolerance: GMV. Rated 1600 WVDC.

Cap. µµf	CRL Number	Net Each, Lots of				
		1-24	25-99	100-249	250-499	500-999
.003	DD16-302	$0.27	$0.20	$0.18	$0.14	$0.10
.004	DD16-402	.27	.20	.18	.14	.10
.005	DD16-502	.27	.20	.18	.14	.10
.006	DD16-602	.27	.20	.18	.14	.10
.007	DD16-702	.27	.20	.18	.14	.10
.0075	DD16-752	.27	.20	.18	.14	.10
.008	DD16-802	.27	.20	.18	.14	.10
.01	DD16-103	.27	.20	.18	.14	.10
.015	DD16-153*	.48	.38	.32	.24	.18

*¼″ thick; tolerance, —20, +80%.

TYPE CI AC LINE DISC HI-KAPS® (1000 WVDC)

U/L Approved per Underwriters Laboratories' Examination Service #E32296, dated 12-6-60. Suitable for continuous operation at 220 v. AC, rms, 60 cycles. Recommended for AC by-pass application or where a steady or intermittent higher voltage may occur. Tol., ±20%.

Cap., µµf	CRL No.	Max. Dia.	Net Each, Lots of				
			1-24	25-99	100-249	250-499	500-999
470	CI-471	.400″	18c	14.3c	12c	9c	6.8c
680	CI-681	.400″	18c	14.3c	12c	9c	6.8c
1,000	CI-102	.600″	21c	16.6c	14c	10.5c	7.9c
2,200	CI-222	.600″	18c	14.3c	12c	9c	6.8c
5,000	CI-502	.850″	18c	14.3c	12c	9c	6.8c
10,000	CI-103	.850″	24c	19c	16c	12c	9c

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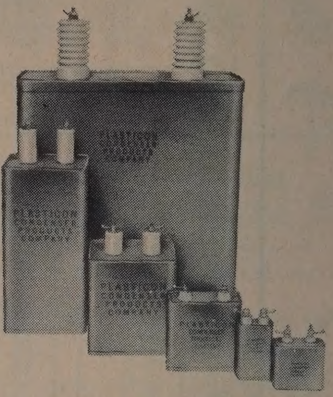
PLASTICON DC RECTANGULARS

Mineral oil impregnated and filled. Hermetically sealed. Can be operated in any position, continuously at 10% over rated voltage up to +40° C. Tolerance 10%. Ambient temperature range —40° C. to 105° C. Insulators: Two ceramic type bushings for standard temperature range. Two soldered-in metallized ceramic insulators for extended temperature range. All DC rectangulars have 8-32 screw and hex nut terminals with removable hot-tinned solder lugs. Case: Rectangular base, lead coated steel with heavy finish of grey organic lacquer.



Mfr's. No.	Cap. Mfd.	Volts DC	Dimensions - Inches Height	Width	Depth	Term. Height	Dist. Bet. Ter.	List Price
AOC6C1	1.0	600	2⅛	1¾	1	⅝	13/16	$ 4.12
AOC6C2	2.0	600	2¾	1¾	1	⅝	13/16	5.14
AOC6C4	4.0	600	3½	2½	1 3/16	⅝	1⅛	6.39
AOC6C8	8.0	600	4	3¾	1¼	⅝	2	9.65
AOC6C10	10.0	600	4	3¾	1¾	⅝	2	11.68
AOC1M1	1.0	1000	2⅜	1¾	1	⅝	13/16	4.27
AOC1M2	2.0	1000	3	2½	1 13/16	¾	1⅛	5.50
AOC1M4	4.0	1000	4⅝	2½	1 3/16	¾	1⅛	6.71
AOC1M8	8.0	1000	4⅝	3¾	1¾	⅝	2	9.48
AOC1M10	10.0	1000	4⅝	3¾	2¼	⅝	2	10.94
AOC2M05	0.5	2000	2¾	1¾	1	⅝	13/16	4.71
AOC2M1	1.0	2000	4½	1¾	1	⅝	13/16	5.72
AOC2M2	2.0	2000	3¼	3¾	1¼	¾	2	6.62
AOC2M4	4.0	2000	4¼	3¾	2¼	¾	2	8.98
AOC3M1	1.0	3000	4	2½	1 3/16	1⅛	1⅛	11.70
AOC3M2	2.0	3000	4⅝	3¾	1¼	1 1/16	2	14.97
AOC3M4	4.0	3000	4⅝	3¾	2¼	1	2	20.70
AOC4M1	1.0	4000	4	3¾	1¼	1¼	2	14.40
AOC4M2	2.0	4000	4	3¾	1¾	1¼	2	21.60
AOC4M4	4.0	4000	4	3¾	4 9/16	1 1/16	2	35.46
AOC5M1	1.0	5000	4	3¾	1¾	2¼	2	17.01
AOC5M2	2.0	5000	3½	3¾	4 9/16	1⅛	2	27.00
AOC10M1	1.0	10000	4⅝	3¾	4 9/16	2¼	2	59.40

PLASTICON TEFLON CAPACITORS

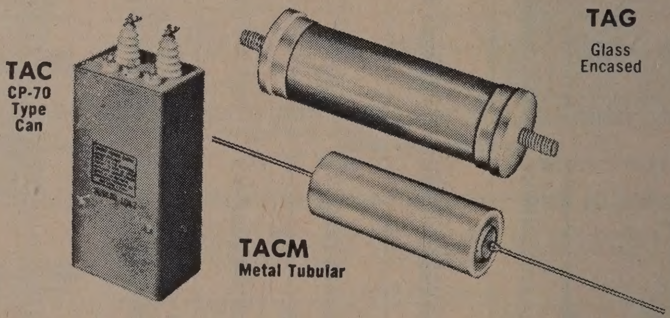
POWER FACTOR .... @ 25°C .... .05%
@ 165°C .... .07%

TEMPERATURE COEFFICIENT .... —70°C to 165°C .... —200 ppm/°C.

INSULATION RESISTANCE ...... @25°C ...... 500,000 meg x mfd.
But need not exceed .... 10,000,000 megohms

@ 165°C .... 7,000 meg. x mfd.
But need not exceed .... 50,000 megohms

DIELECTRIC ABSORPTION .... @25°C .... .02%



VOLTAGE RANGE .... 200 to 1,000 vdc.

CAPACITANCE RANGE .... TAG, TACM — .001 to 1.0 mfd
TAC — 1 mfd and above.

Condenser Products Company

MANUFACTURERS: Glassmikes • Plasticon Capacitors • HiVolt Power Supplies • Pulse Forming Networks

See Sect. 4000 for Plasticon Power Supplies

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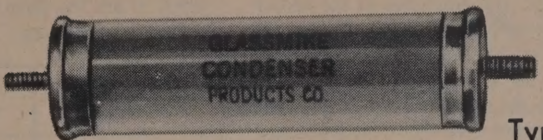
"Glassmike" Plasticon Capacitors



Type LSG

Type ASG

Type ASG are Plasticon A dielectric-silicone fluid impregnated capacitor elements in hermetically sealed glass tubes. Standard range —60°C to +85°C, extended range —60°C to +125°C with proper derating. The smallest and lightest high voltage capacitors made. Type ASG are ideal for DC and low frequency AC applications.

LSG type capacitors have Plasticon L film-silicone fluid impregnant. Designed to compete with mica capacitors, the LSG capacitors are more applicable for Radio Frequency. Special beneficial features include greater safety factor, lower RF loss, more conveniently mounted, utilizes less chassis space, impervious to moisture, and smaller in overall volume.

All 19/32 diameter Glassmikes are supplied with pigtail leads.

Cat. No.	Cap. Mfd.	Volts D.C.	Dimensions Dia. & Length	List Price
ASG502-1M	.005	1000	19/32x1 3/16	$ 2.85
ASG103-1M	.01	1000	19/32x1 3/16	2.85
ASG203-1M	.02	1000	19/32x1 3/16	2.85
ASG503-1M	.05	1000	¾x1 ¾	3.08
ASG104-1M	.1	1000	¾x2 ¼	3.10
ASG254-1M	.25	1000	29/32x2 ¾	3.35
ASG504-1M	.5	1000	1 ⅛x2 ¼	3.55
ASG102-3M	.001	3000	19/32x1 3/16	3.26
ASG202-3M	.002	3000	19/32x1 3/16	3.26
ASG502-3M	.005	3000	19/32x1 3/16	3.26
ASG103-3M	.01	3000	19/32x1 9/16	3.40
ASG203-3M	.02	3000	¾x1 ¾	3.96
ASG503-3M	.05	3000	29/32x2 ¼	4.36
ASG104-3M	.1	3000	29/32x2 ¼	4.80
ASG254-3M	.25	3000	1 ⅜x2	5.28
ASG102-5M	.001	5000	19/32x1 3/16	5.04
ASG202-5M	.002	5000	19/32x1 3/16	5.12
ASG502-5M	.005	5000	19/32x1 ⅝	5.20
ASG103-5M	.01	5000	¾x1 ¾	5.44
ASG203-5M	.02	5000	¾x2 ¼	5.76
ASG503-5M	.05	5000	29/32x2 ¼	6.08
ASG104-5M	.1	5000	1 ⅜x2 ¼	6.80
ASG501-8M	.0005	8000	19/32x1 9/16	5.20
ASG102-8M	.001	8000	19/32x1 9/16	5.20
ASG202-8M	.002	8000	19/32x1 9/16	5.44
ASG502-8M	.005	8000	¾x1 ¾	5.60
ASG103-8M	.01	8000	¾x2 ¼	6.00
ASG203-8M	.02	8000	29/32x2 ¾	6.88
ASG503-8M	.05	8000	1 ⅜x2 ¾	8.80
ASG501-10M	.0005	10,000	19/32x1 ⅝	5.60
ASG102-10M	.001	10,000	19/32x1 ⅝	5.76
ASG202-10M	.002	10,000	19/32x1 ⅝	5.92
ASG502-10M	.005	10,000	13/16x1 ¾	6.80
ASG103-10M	.01	10,000	29/32x2 ¼	7.36
ASG203-10M	.02	10,000	1 ⅛x2 ¾	9.12
ASG303-10M	.03	10,000	1 ⅜x2 ¾	11.00
ASG603-10M	.06	10,000	1 ⅜x4 ¼	12.40
ASG501-15M	.0005	15,000	19/32x2 ¼	10.80
ASG102-15M	.001	15,000	¾x2 ¼	11.04
ASG202-15M	.002	15,000	¾x2 ¼	11.68
ASG502-15M	.005	15,000	1 ⅛x2 ¾	13.60
ASG103-15M	.01	15,000	1 ⅛x3 ¾	16.00
ASG203-15M	.02	15,000	1 ⅜x4 ½	17.60
ASG501-20M	.0005	20,000	19/32x3 ½	14.40
ASG102-20M	.001	20,000	¾x3 ½	15.20
ASG202-20M	.002	20,000	13/16x3 ½	16.80
ASG502-20M	.005	20,000	1 ⅛x3 ½	18.00
ASG103-20M	.01	20,000	1 ⅜x4 ½	19.20
ASG501-30M	.0005	30,000	19/32x4 9/16	16.80
ASG102-30M	.001	30,000	¾x5	18.80
ASG202-30M	.002	30,000	1 ⅜x4 ¼	20.80
ASG502-30M	.005	30,000	1 ⅜x5	22.40
ASG501-40M	.0005	40,000	¾x6 ½	18.00
ASG102-40M	.001	40,000	13/16x6 ½	20.80
ASG202-40M	.002	40,000	1 ⅛x6 ½	22.40
ASG501-50M	.0005	50,000	¾x8 ¼	19.60
ASG102-50M	.001	50.000	13/16x8 ¼	22.40
ASG202-50M	.002	50,000	1 ⅛x8 ¼	25.20
ASG502-50M	.005	50,000	1 ⅝x10 ¼	28.80
ASG501-60M	.0005	60,000	¾x11	22.80
ASG102-60M	.001	60,000	29/32x11	27.20

Part No.	Size	Cap	Volts D.C.	List Price
LSG303-1M	13/16x1 ½	.03	1000	$ 6.17
LSG403-1M	29/32x1 ½	.04	1000	6.85
LSG503-1M	1 ⅛x1 ½	.05	1000	7.33
LSG603-1M	1 ⅛x1 ½	.06	1000	7.33
LSG753-1M	1 ⅛x1 ½	.075	1000	7.33
LSG104-1M	1 ⅛x2	0.1	1000	8.00
LSG154-1M	1 ⅜x2	0.15	1000	9.50
LSG204-1M	1 ⅜x2 ½	0.2	1000	10.80
LSG254-1M	1 ⅝x2 ½	0.25	1000	11.00
LSG304-1M	1 ⅝x3	0.3	1000	11.70
LSG404-1M	1 ⅝x3 ½	0.4	1000	12.70
LSG752-25C	29/32x1	.0075	2500	6.17
LSG103-25C	1 ⅛x1	.01	2500	6.50
LSG203-25C	1 ⅛x1 ½	.02	2500	7.18
LSG253-25C	1 ⅛x1 ½	.025	2500	7.18
LSG303-25C	1 ⅛x1 ½	.03	2500	7.18
LSG403-25C	1 ⅛x2	.04	2500	8.00
LSG503-25C	1 ⅜x2	.05	2500	8.68
LSG603-25C	1 ¾x2	.06	2500	8.68
LSG753-25C	1 ⅝x2	.075	2500	10.40
LSG104-25C	1 ⅝x2 ½	0.1	2500	11.70
LSG154-25C	1 ⅝x3 ½	0.15	2500	12.70
LSG402-35C	29/32x1	.004	3500	7.00
LSG502-35C	1 ⅛x1	.005	3500	7.50
LSG602-35C	1 ⅛x1	.006	3500	7.50
LSG752-35C	1 ⅜x1	.0075	3500	7.85
LSG103-35C	1 ⅝x1	.01	3500	8.18
LSG203-35C	1 ⅝x1 ½	.02	3500	8.50
LSG253-35C	1 ⅝x1 ½	.025	3500	8.67
LSG303-35C	1 ⅝x2	.03	3500	10.80
LSG403-35C	1 ⅝x2	.04	3500	10.80
LSG503-35C	1 ⅝x2 ½	.05	3500	11.65
LSG603-35C	1 ⅝x3	.06	3500	12.35
LSG753-35C	1 ⅝x3	.075	3500	12.35
LSG104-35C	1 ⅝x4	0.1	3500	13.65
LSG252-5M	13/16x2	.0025	5000	9.65
LSG302-5M	13/16x2	.003	5000	9.65
LSG402-5M	1 ⅛x2	.004	5000	10.50
LSG502-5M	1 ⅛x2	.005	5000	10.50
LSG602-5M	1 ⅛x2	.006	5000	10.50
LSG752-5M	1 ⅜x2	.0075	5000	11.50
LSG103-5M	1 ⅜x2	.01	5000	11.50
LSG203-5M	1 ⅜x3	.02	5000	13.15
LSG253-5M	1 ⅜x3	.025	5000	13.80
LSG303-5M	1 ⅜x4	.03	5000	15.00
LSG403-5M	1 ⅝x4	.04	5000	16.70
LSG503-5M	1 ⅜x6	.05	5000	18.70
LSG603-5M	1 ⅝x6	.06	5000	20.70
LSG753-5M	1 ⅜x8	.075	5000	22.70
LSG104-5M	1 ⅝x8	0.1	5000	24.70
LSG751-7M	¾x2	.00075	7000	9.00
LSG102-7M	¾x2	.001	7000	9.00
LSG202-7M	29/32x2	.002	7000	10.00
LSG252-7M	1 ⅛x2	.0025	7000	10.66
LSG302-7M	1 ⅛x2	.003	7000	10.66
LSG402-7M	1 ⅜x2	.004	7000	12.35
LSG502-7M	1 ⅝x2	.005	7000	14.35
LSG602-7M	1 ⅝x2	.006	7000	14.35
LSG752-7M	1 ⅛x4	.0075	7000	17.00
LSG103-7M	1 ⅛x4	.01	7000	17.00
LSG203-7M	1 ⅝x4	.02	7000	18.65
LSG253-7M	1 ⅜x6	.025	7000	19.30
LSG303-7M	1 ⅝x6	.03	7000	19.30
LSG403-7M	1 ⅜x8	.04	7000	20.70
LSG503-7M	1 ⅝x8	.05	7000	20.70
LSG102-10M	29/32x3	.001	10 KV	12.35
LSG202-10M	1 ⅛x3	.002	10 KV	13.65
LSG252-10M	1 ⅜x3	.0025	10 KV	15.35
LSG302-10M	1 ⅜x3	.003	10 KV	15.35
LSG402-10M	1 ⅝x3	.004	10 KV	17.65
LSG502-10M	1 ⅛x6	.005	10 KV	21.30
LSG602-10M	1 ⅛x6	.006	10 KV	21.30
LSG752-10M	1 ⅜x6	.0075	10 KV	24.00
LSG103-10M	1 ⅜x6	.01	10 KV	24.00
LSG203-10M	1 ⅝x9	.02	10 KV	27.70
LSG253-10M	1 ⅝x9	.025	10 KV	27.70
LSG101-14M	19/32x4	.0001	14 KV	12.00
LSG201-14M	¾x4	.0002	14 KV	12.85
LSG251-14M	¾x4	.00025	14 KV	12.85

OTHER VALUES READILY AVAILABLE

See Sect. 4000 for Plasticon Power Supplies

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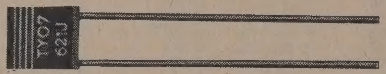
Trade Discount Applies To List Prices Only

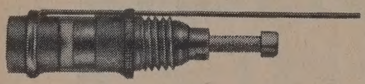
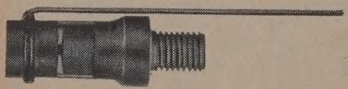
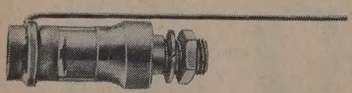
CORNING FIXED GLASS CAPACITORS

For coupling, decoupling, filtering, timing, switching, or computer circuits, CORNING capacitors give you ultrastable electrical performance. This stability is inherent in their fused glass and foil capacitive elements, as exemplified in the CORNING CYFR capacitor made for the Minuteman. The properties of the capacitor are entirely those of the closely controlled dielectric. and can't be changed by assembly methods or subsequent treatment. Typical properties: at 1 Kc and 25°C. dissipation factor is less than 0.001; at any given temperature, TC will not deviate from the curve by more than 5 PPM. Standard values from 0.5 to 10,000 pf are the same as standard decade values in applicable military specifications.

	TYPE AND MIL SPEC	MODEL	CAPACITANCE RANGE (Pf)	VOLTAGE	NOMINAL DIMENSIONS Size in inches	WEIGHT IN GRAMS
CYFM	Fusion-sealed environment-proof performance at cost savings. Electrically and environmentally interchangeable with CYFR. MIL-C-11272B.	CYFM10	0.5 to 200 220 to 300	500 300	11/32 x 11/64 x 5/64	0.25 - 0.50
		CYFM15	220 to 510 560 to 1200	500 300	15/32 x 17/64 x 7/64	0.75 - 1.25
		CYFM20	560 to 3500 3600 to 5100	500 300	47/64 x 27/64 x 9/64	2.50 - 4.00
		CYFM30	3600 to 6200 6800 to 10000	500 300	49/64 x 3/4 x 9/64	5.00 - 7.00
TYO	New printed circuit capacitor provides glass stability in a uniformly symmetric case. Eliminates shorting. Lead spacing: TY0-6—0.2″, TY0-7—0.2″, TY0-8—0.4″, TY0-9—0.8″.	TY0-6	1 to 560	300	.300 x .200 x .115	.3 - .4
		TY0-7	561 to 1000	300	.300 x .300 x .115	.4 - .5
		TY0-8	1001 to 2700	300	.500 x .300 x .115	.7 - .8
		TY0-9	2701 to 10000	300	.900 x .700 x .195	4.9 - 5.4

TRIMMER CAPACITORS

For amplifiers, communications equipment, oscillators, and computers, the special glass, special metallizing, and special hardware in CORNING trimmers give you guaranteed Q of 500 at 50 Mc, no derating to 125°C., temperature coefficient under ±100 PPM/°C., high dielectric strength, high insulation resistance —10^6 megohms or higher, and top corrosion resistance. Unique direct traverse design in DT and Mini-Trimmer types moves the tuning core smoothly without rotating, provides top precision and excellent shock and vibration resistance. In addition to types detailed below, Sealed Mini-Trimmers for severe environments are available in panel mount and printed circuit models in the same values as Mini-Trimmers, but at 500 volts and in somewhat larger sizes.

TYPE	MODEL	CODE	RANGE Pf		TC AT 1 MC IN PPM/°C.	DC VOLTS	DIMENSIONS (INCHES)	
			MIN.	MAX.			Behind-panel±1/32	Front-of-panel
PRECISION DT TRIMMERS Direct traverse in units designed for use where behind-panel length is critical.	PC36J050	682081	.8	5.0	± 50	750	11/32	5/8
	PC36J100	682082	.7	10.0	± 50		17/32	47/64
	PC36H140	682083	.7	14.0	± 75		23/32	25/32
	PC36H200	682084	1.0	20.0	±100		1 1/64	15/16
	PC36H330	682085	1.0	33.0	±100		1 19/32	1 7/32
MINI-TRIMMERS Direct traverse design in minimum size—panel mount and two printed circuit types.	PC40J050	682106	1.0	5.0	+25 ±50	750	.400	1/32
	PC40J100	682107	1.0	10.0	+25 ±50		.600	3/32
	PC40H140	682108	1.0	14.0	+25 ±50		.780	5/32
	PC40H190	682109	1.0	19.0	+25 ±75		1.000	3/16
	PC41J050	682101	1.0	5.0	+25 ±50	750	.400	1/4
	PC41J100	682102	1.0	10.0	+25 ±50		.600	7/16
	PC41H140	682103	1.0	14.0	+25 ±50		.780	5/8
	PC41H190	682104	1.0	19.0	+25 ±75		1.045	7/8
SEALED MINI-TRIMMERS Direct traverse and size advantages of the Mini-Trimmers in hermetically sealed units for severe environments.	PC44H050	682186	1.0	5.0	+25 ±50	500	.500	1/4
	PC44H100	682187	1.0	10.0	+25 ±50		.650	7/16
	PC44H140	682188	1.0	14.0	+25 ±50		.840	5/8
	PC44H190	682189	1.0	19.0	+25 ±75		1.100	7/8
	PC45H	682181	1.0	5.0	+25 ±50	500	.500	1/16
	PC45H	682182	1.0	10.0	+25 ±50		.650	1/8
	PC45H	682183	1.0	14.0	+25 ±50		.840	5/32
	PC45H	682184	1.0	19.0	+25 ±75		1.062	1/4

See our full line of glass/metal oxide film resistors in Section 4700. For more technical data or for fast delivery on top-reliability CORNING trimmer capacitors, call your CORNING distributor, or contact us directly.

CORNING
ELECTRONICS

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RALEIGH, N. C.

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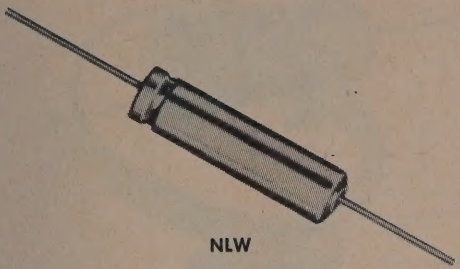
CORNELL-DUBILIER ELECTRONICS

"ELECTOMITE" Metal-Cased Electrolytics

CDE



NLW

Type **NLW** is an aluminum foil capacitor, hermetically sealed into an ultra-small tubular aluminum can which is tightly fitted with an outer transparent plastic sleeve to insure freedom from "shorts" with adjacent components commonly found in compact assemblies. All terminal connections are securely *welded*. Despite their extremely small size, "Electomites" exhibit excellent electrical characteristics as well as rugged physical construction. Ideal for by-pass, filter and coupling applications in low-voltage, compact, miniaturized equipment.

TEMPERATURE RANGE: —40°C. to +85°C.

TOLERANCE: —10%, +150%

NOMINAL LEAD LENGTH: 1½" — #22 AWG

NLW Cat. No.	Cap. Mfd.	WVDC	Can Size—Inches Diam. x Length	List Price	Net Price
NLW 10-3	10	3	³⁄₁₆ x ½	$1.25	$.75
NLW 25-3	25	3	¼ x ½	1.25	.75
NLW 35-3	35	3	¼ x ⅝	1.25	.75
NLW 40-3	40	3	¼ x ⅝	1.25	.75
NLW 50-3	50	3	¼ x ¾	1.25	.75
NLW 75-3	75	3	⁵⁄₁₆ x ¾	1.40	.85
NLW 100-3	100	3	⅜ x ⅝	1.40	.84
NLW 125-3	125	3	⅜ x ⅝	1.40	.84
NLW 150-3	150	3	⅜ x ¾	1.45	.87
NLW 175-3	175	3	⅜ x ¾	1.50	.90
NLW 200-3	200	3	⅜ x ⅞	1.50	.90
NLW 250-3	250	3	⅜ x 1	1.60	.96
NLW 300-3	300	3	⅜ x 1	1.65	.99
NLW 350-3	350	3	⅜ x 1	1.65	.99
NLW 400-3	400	3	⅜ x 1¼	1.70	1.02
NLW 450-3	450	3	⅜ x 1½	1.75	1.05
NLW 1-6	1	6	³⁄₁₆ x ½	1.25	.75
NLW 10-6	10	6	³⁄₁₆ x ½	1.35	.81
NLW 15-6	15	6	¼ x ½	1.35	.81
NLW 20-6	20	6	¼ x ½	1.35	.81
NLW 30-6	30	6	¼ x ⅝	1.40	.84
NLW 40-6	40	6	⁵⁄₁₆ x ⅝	1.40	.84
NLW 50-6	50	6	⁵⁄₁₆ x ¾	1.40	.84
NLW 125-6	125	6	⅜ x ¾	1.50	.90
NLW 150-6	150	6	⅜ x ⅞	1.55	.93
NLW 175-6	175	6	⅜ x 1	1.55	.93
NLW 250-6	250	6	⅜ x 1¼	1.70	1.02
NLW 300-6	300	6	⅜ x 1½	1.80	1.08
NLW 8-10	8	10	³⁄₁₆ x ½	1.35	.81
NLW 25-10	25	10	¼ x ⅝	1.45	.87
NLW 40-10	40	10	⁵⁄₁₆ x ¾	1.45	.87
NLW 50-10	50	10	⁵⁄₁₆ x ¾	1.55	.93
NLW 75-10	75	10	⅜ x ⅝	1.65	.99
NLW 125-10	125	10	⅜ x ⅞	1.85	1.11
NLW 150-10	150	10	⅜ x 1	1.90	1.14
NLW 225-10	225	10	⅜ x 1¼	2.10	1.26
NLW 15-12	15	12	¼ x ½	1.40	.84
NLW 35-12	35	12	⁵⁄₁₆ x ⅝	1.45	.87
NLW 100-12	100	12	⅜ x ¾	1.75	1.05
NLW 200-12	200	12	⅜ x 1¼	2.05	1.23
NLW 250-12	250	12	⅜ x 1½	2.20	1.32

NLW (cont'd)

NLW Cat. No.	Cap. Mfd.	WVDC	Can Size—Inches Diam. x Length	List Price	Net Price
NLW 3-15	3	15	³⁄₁₆ x ½	$1.25	$.75
NLW 4-15	4	15	³⁄₁₆ x ½	1.30	.78
NLW 5-15	5	15	³⁄₁₆ x ½	1.40	.84
NLW 6-15	6	15	³⁄₁₆ x ½	1.40	.84
NLW 10-15	10	15	¼ x ½	1.40	.84
NLW 15-15	15	15	¼ x ⅝	1.45	.87
NLW 20-15	20	15	¼ x ⅝	1.45	.87
NLW 25-15	25	15	⁵⁄₁₆ x ⅝	1.45	.87
NLW 30-15	30	15	⁵⁄₁₆ x ⅝	1.50	.90
NLW 35-15	35	15	⅜ x ⅝	1.55	.93
NLW 40-15	40	15	⅜ x ⅝	1.55	.93
NLW 50-15	50	15	⅜ x ⅝	1.60	.96
NLW 75-15	75	15	⅜ x ¾	1.70	1.02
NLW 100-15	100	15	⅜ x ⅞	1.80	1.08
NLW 125-15	125	15	⅜ x 1	1.85	1.11
NLW 150-15	150	15	⅜ x 1¼	1.95	1.17
NLW 175-15	175	15	⅜ x 1¼	2.00	1.20
NLW 200-15	200	15	⅜ x 1½	2.10	1.26
NLW 3-25	3	25	³⁄₁₆ x ½	1.30	.78
NLW 6-25	6	25	¼ x ½	1.40	.84
NLW 8-25	8	25	¼ x ½	1.45	.87
NLW 10-25	10	25	¼ x ⅝	1.45	.87
NLW 15-25	15	25	⁵⁄₁₆ x ⅝	1.45	.87
NLW 20-25	20	25	⅜ x ⅝	1.50	.90
NLW 25-25	25	25	⅜ x ⅝	1.55	.93
NLW 30-25	30	25	⅜ x ⅝	1.60	.96
NLW 35-25	35	25	⅜ x ¾	1.60	.96
NLW 40-25	40	25	⅜ x ¾	1.70	1.02
NLW 50-25	50	25	⅜ x ⅞	1.80	1.08
NLW 75-25	75	25	⅜ x 1¼	1.95	1.17
NLW 100-25	100	25	⅜ x 1½	2.10	1.26
NLW 1-50	1	50	³⁄₁₆ x ½	1.30	.78
NLW 2-50	2	50	³⁄₁₆ x ½	1.35	.81
NLW 3-50	3	50	¼ x ½	1.35	.81
NLW 4-50	4	50	¼ x ½	1.35	.81
NLW 5-50	5	50	¼ x ½	1.45	.87
NLW 6-50	6	50	¼ x ⅝	1.45	.87
NLW 8-50	8	50	⁵⁄₁₆ x ½	1.50	.90
NLW 10-50	10	50	⁵⁄₁₆ x ⅝	1.50	.90
NLW 15-50	15	50	⅜ x ⅝	1.50	.90
NLW 20-50	20	50	⅜ x ⅝	1.50	.90
NLW 25-50	25	50	⅜ x ¾	1.55	.93
NLW 30-50	30	50	⅜ x ¾	1.60	.96
NLW 35-50	35	50	⅜ x ⅞	1.70	1.02
NLW 40-50	40	50	⅜ x 1	1.75	1.05
NLW 50-50	50	50	⅜ x 1¼	1.85	1.11
NLW 75-50	75	50	⅜ x 1½	2.00	1.20
NLW 2-100	2	100	¼ x ⅝	1.40	.84
NLW 3-100	3	100	⁵⁄₁₆ x ⅝	1.40	.84
NLW 6-100	6	100	⅜ x ⅝	1.50	.90
NLW 8-100	8	100	⅜ x ¾	1.55	.93
NLW 10-100	10	100	⅜ x ⅞	1.55	.93
NLW 15-100	15	100	⅜ x 1¼	1.55	.93
NLW 20-100	20	100	⅜ x 1½	1.60	.96
NLW 1-150	1	150	¼ x ½	1.40	.84
NLW 2-150	2	150	⁵⁄₁₆ x ⅝	1.45	.87
NLW 3-150	3	150	⅜ x ⅝	1.45	.87
NLW 4-150	4	150	⅜ x ⅝	1.45	.87
NLW 5-150	5	150	⅜ x ⅝	1.55	.93
NLW 6-150	6	150	⅜ x ¾	1.55	.93
NLW 8-150	8	150	⅜ x ⅞	1.60	.96
NLW 10-150	10	150	⅜ x 1	1.60	.96
NLW 12-150	12	150	⅜ x 1¼	1.60	.96
NLW 15-150	15	150	⅜ x 1¼	1.60	.96
NLW 18-150	18	150	⅜ x 1½	1.60	.96

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CLASS 201.26 "BLUE BEAVER" Tubular Electrolytics

BR

Type BR is the compact unit in *aluminum can with cardboard outer sleeve*. Fits neatly into cramped quarters, self-supported by rigid tinned copper leads. Larger sizes may be further supported by a metal strap. NEGATIVE TERMINAL IS GROUNDED TO CAN.

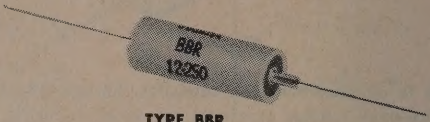
TYPE BR

BBR

Type BBR "BLUE BEAVERS," miniature versions of the BR, are especially popular for cramped space installations in television receivers, hearing aids, miniature radios and other small assemblies. They are hermetically sealed *in tubular aluminum containers with cardboard sleeve* and ideally suited to meet requirements in low voltage circuits. NEGATIVE TERMINAL IS GROUNDED TO CAN.

The anodes AND cathodes of all BBR and BR units up to and including 150 volt ratings are ETCHED. This feature recommends these types for use with JUNCTION RECTIFIERS.

TEMPERATURE RANGE: to +85°C except 500 V. D.C., to +65°C.



TYPE BBR

Lead Lengths: BBR — 2⅜" ± ⅛" — #20 AWG

Lead Lengths: BR — 3⅜" ± ⅛" — #18 AWG

BBR/BR Cat. No.	Cap. Mfd.	V.D.C.W.	*Can Size Dia. x Length	List Price	Net Price
BBR 25-3	25	3	⅜ x 1¹⁄₁₆	$ .85	**$ .51**
BBR 50-3	50	3	⅜ x 1¹⁄₁₆	.95	**.57**
BBR 5-6	5	6	⅜ x 1¹⁄₁₆	.80	**.48**
BBR 25-6	25	6	⅜ x 1¹⁄₁₆	.85	**.51**
BBR 50-6	50	6	⅜ x 1¹⁄₁₆	.95	**.57**
BR 100-6	100	6	½ x 1¹⁄₁₆	1.20	**.72**
BR 250-6	250	6	½ x 1¹⁄₁₆	1.35	**.81**
BR 500-6	500	6	½ x 1⁷⁄₁₆	1.55	**.93**
BR 1000-6	1000	6	⅝ x 1¹¹⁄₁₆	1.90	**1.14**
BR 2000-6	2000	6	¾ x 2	2.30	**1.38**
BR 3000-6	3000	6	⅞ x 2	2.50	**1.50**
BR 4000-6	4000	6	1 x 2³⁄₁₆	2.75	**1.65**
BR 100-12	100	12	½ x 1¹⁄₁₆	1.20	**.72**
BR 250-12	250	12	½ x 1¹⁄₁₆	1.45	**.87**
BR 500-12	500	12	½ x 1⁷⁄₁₆	1.70	**1.02**
BR 1000-12	1000	12	⅝ x 1¹¹⁄₁₆	2.25	**1.35**
BR 2000-12	2000	12	¾ x 2	2.65	**1.59**
BR 100-15	100	15	½ x 1¹⁄₁₆	1.25	**.75**
BR 250-15	250	15	½ x 1¹⁄₁₆	1.55	**.93**
BR 500-15	500	15	½ x 1⁷⁄₁₆	1.75	**1.05**
BR 1000-15	1000	15	⅝ x 1¹¹⁄₁₆	2.30	**1.38**
BR 2000-15	2000	15	¾ x 2	3.20	**1.92**
BR 3000-15	3000	15	⅞ x 2³⁄₁₆	3.30	**1.98**
BR 4000-15	4000	15	⅞ x 2¾	3.55	**2.13**
BR 5000-15	5000	15	1 x 3	4.45	**2.67**
BBR 10-25	10	25	⅜ x 1¹⁄₁₆	1.00	**.60**
BBR 20-25	20	25	⅜ x 1¹⁄₁₆	1.00	**.60**
BBR 25-25	25	25	⅜ x 1¹⁄₁₆	1.00	**.60**
BR 50-25	50	25	½ x 1¹⁄₁₆	1.10	**.66**
BR 100-25	100	25	½ x 1¹⁄₁₆	1.35	**.81**
BR 250-25	250	25	½ x 1⁷⁄₁₆	1.70	**1.02**
BR 500-25	500	25	⅝ x 1¹¹⁄₁₆	2.30	**1.38**
BR 1000-25	1000	25	¾ x 2	3.30	**1.98**
BR 2000-25	2000	25	⅞ x 2½	3.55	**2.13**
BBR 1-50	1	50	⅜ x 1¹⁄₁₆	.90	**.54**
BBR 2-50	2	50	⅜ x 1¹⁄₁₆	.90	**.54**
BBR 4-50	4	50	⅜ x 1¹⁄₁₆	1.00	**.60**
BBR 5-50	5	50	⅜ x 1¹⁄₁₆	1.00	**.60**
BBR 10-50	10	50	⅜ x 1¹⁄₁₆	1.00	**.60**
BBR 25-50	25	50	½ x 1¹⁄₁₆	1.05	**.63**
BR 50-50	50	50	½ x 1¹⁄₁₆	1.20	**.72**
BR 100-50	100	50	½ x 1⁷⁄₁₆	1.40	**.84**
BR 150-50	150	50	⅝ x 1⁷⁄₁₆	1.55	**.93**
BR 250-50	250	50	¾ x 1⁷⁄₁₆	1.75	**1.05**
BR 500-50	500	50	⅞ x 1¹¹⁄₁₆	2.40	**1.44**
BR 1000-50	1000	50	1 x 2¹¹⁄₁₆	2.70	**1.62**
BBR 10-90	10	90	½ x 1¹⁄₁₆	1.10	**.66**
BBR 16-90	16	90	½ x 1⁷⁄₁₆	1.10	**.66**
BBR 4-150	4	150	⅜ x 1¹⁄₁₆	1.00	**.60**
BBR 8-150	8	150	½ x 1¹⁄₁₆	1.05	**.63**
BBR 10-150	10	150	½ x 1¹⁄₁₆	1.05	**.63**
BBR 12-150	12	150	½ x 1¹⁄₁₆	1.10	**.66**
BBR 16-150	16	150	½ x 1⁷⁄₁₆	1.15	**.69**
BBR 20-150	20	150	½ x 1⁷⁄₁₆	1.20	**.72**
BR 25-150	25	150	¾ x 1⁷⁄₁₆	1.25	**.75**
BR30-150	30	150	¾ x 1⁷⁄₁₆	1.30	**.78**
BR 40-150	40	150	¾ x 1¹¹⁄₁₆	1.35	**.81**
BR 50-150	50	150	¾ x 1¹¹⁄₁₆	1.40	**.84**
BR 60-150	60	150	⅞ x 1¹¹⁄₁₆	1.50	**.90**
BR 80-150	80	150	⅞ x 1¹¹⁄₁₆	1.60	**.96**
BR 100-150	100	150	⅞ x 2	1.75	**1.05**
BR 150-150	150	150	1 x 2³⁄₁₆	1.90	**1.14**
BR 200-150	200	150	1 x 3	2.20	**1.32**
BR 250-150	250	150	1 x 3³⁄₁₆	2.55	**1.53**
BR 300-150	300	150	1 x 3¹³⁄₁₆	2.55	**1.53**

BBR/BR Cat. No.	Cap. Mfd.	V.D.C.W.	*Can Size Dia. x Length	List Price	Net Price
BBR 4-250	4	250	½ x 1¹⁄₁₆	1.00	**.60**
BBR 8-250	8	250	½ x 1⁷⁄₁₆	1.15	**.69**
BBR 12-250	12	250	½ x 1⁷⁄₁₆	1.25	**.75**
BR 16-250	16	250	¾ x 1⁷⁄₁₆	1.30	**.78**
BR 20-250	20	250	¾ x 1⁷⁄₁₆	1.35	**.81**
BR 30-250	30	250	¾ x 1¹¹⁄₁₆	1.45	**.87**
BR 40-250	40	250	¾ x 2	1.55	**.93**
BR 50-250	50	250	⅞ x 1¹¹⁄₁₆	1.70	**1.02**
BR 60-250	60	250	1 x 1¹¹⁄₁₆	1.80	**1.08**
BR 100-250	100	250	1 x 2³⁄₁₆	2.45	**1.47**
BR 150-250	150	250	1⅛ x 3	3.15	**1.89**
BR 200-250	200	250	1⅜ x 3⅛	3.50	**2.10**
BR 4-350	4	350	⅝ x 1¹⁄₁₆	1.05	**.63**
BR 8-350	8	350	⅝ x 1⁷⁄₁₆	1.20	**.72**
BR 12-350	12	350	¾ x 1⁷⁄₁₆	1.30	**.78**
BR 16-350	16	350	¾ x 1⁷⁄₁₆	1.40	**.84**
BR 20-350	20	350	¾ x 1⁷⁄₁₆	1.45	**.87**
BR 30-350	30	350	¾ x 2	1.65	**.99**
BR 40-350	40	350	⅞ x 2	1.75	**1.05**
BR 50-350	50	350	1 x 2	1.85	**1.11**
BR 60-350	60	350	1 x 2	1.95	**1.17**
BR 80-350	80	350	1 x 3	2.10	**1.26**
BR 100-350	100	350	1 x 3	2.30	**1.38**
BR 150-350	150	350	1⅜ x 3	3.95	**2.37**
BR 200-350	200	350	1⅜ x 4⅛	4.50	**2.70**
BR 1-450	1	450	⅝ x 1¹⁄₁₆	1.10	**.66**
BR 2-450	2	450	⅝ x 1¹⁄₁₆	1.10	**.66**
BR 4-450	4	450	⅝ x 1¹⁄₁₆	1.15	**.69**
BR 8-450	8	450	¾ x 1⁷⁄₁₆	1.25	**.75**
BR 10-450	10	450	¾ x 1⁷⁄₁₅	1.30	**.78**
BR 12-450	12	450	¾ x 1⁷⁄₁₆	1.35	**.81**
BR 16-450	16	450	¾ x 1¹¹⁄₁₆	1.40	**.84**
BR 20-450	20	450	⅞ x 1¹¹⁄₁₆	1.55	**.93**
BR 30-450	30	450	1 x 2	1.70	**1.02**
BR 40-450	40	450	1 x 2³⁄₁₆	1.80	**1.08**
BR 50-450	50	450	1 x 2¹¹⁄₁₆	2.10	**1.26**
BR 60-450	60	450	1 x 3	2.35	**1.41**
BR 80-450	80	450	1 x 3³⁄₁₆	2.80	**1.68**
BR 100-450	100	450	1 x 3¹³⁄₁₆	3.20	**1.92**
BR 150-450	150	450	1⅜ x 3⅝	4.75	**2.85**
BR 200-450	200	450	1⅜ x 4⅛	5.00	**3.00**
BR 4-500	4	500	⅝ x 1⁷⁄₁₆	1.20	**.72**
BR 8-500	8	500	¾ x 1⁷⁄₁₆	1.30	**.78**
BR 12-500	12	500	¾ x 1¹¹⁄₁₆	1.40	**.84**
BR 16-500	16	500	⅞ x 1¹¹⁄₁₆	1.50	**.90**
BR 20-500	20	500	⅞ x 2	1.60	**.96**
BR 30-500	30	500	1 x 2	1.75	**1.05**

BR Cat. No.	Cap. Mfd.	V.D.C.W.	Overall Size Diam. x Length	List Price	Net Price
BR 4-600	4	600	¹³⁄₁₆ x 2⁷⁄₁₆	1.95	**1.17**
BR 8-600	8	600	¹³⁄₁₆ x 3³⁄₁₆	2.10	**1.26**
BR 10-600	10	600	¹⁵⁄₁₆ x 3³⁄₁₆	2.20	**1.32**
BR 12-600	12	600	1¹⁄₁₆ x 3³⁄₁₆	2.40	**1.44**
BR 16-600	16	600	1¹⁄₁₆ x 3³⁄₁₆	2.55	**1.53**
BR 20-600	20	600	1¹⁄₁₆ x 3¹¹⁄₁₆	2.70	**1.62**
BR 8-700	8	700	¹⁵⁄₁₆ x 3³⁄₁₆	2.20	**1.32**
BR 10-700	10	700	1¹⁄₁₆ x 3³⁄₁₆	2.35	**1.41**
BR 12-700	12	700	1¹⁄₁₆ x 3¹¹⁄₁₆	2.45	**1.47**
BR 16-700	16	700	1¹⁄₁₆ x 4⁵⁄₁₆	2.65	**1.59**

*For Overall BBR Size add ¹⁄₁₆" to Diam. and ⁵⁄₃₂" to Length. For Overall BR Size add ¹⁄₁₆" to Diam. and ³⁄₁₆" to Length.

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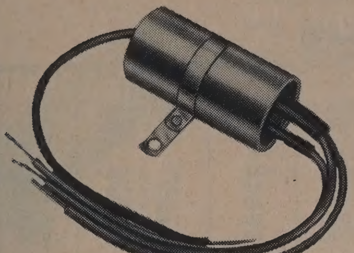
Multi-Section Tubular Electrolytics



BBRT

A series of compact, tubular METAL-CASED CARDBOARD SLEEVED electrolytics—specially sealed against heat and humidity.

Featuring—

- Direct-to-terminal internal lead construction reduces possibility of shorts. (Pure aluminum wires crimped securely together with outer leads within aluminum stud terminals.)
- New high-insulation vinylite covered leads — generous 7 inches long.
- Sections sealed in aluminum tube for protection against moisture getting in, or electrolyte drying out.
- Wax impregnated cardboard outer insulation sleeve.
- Rubber diaphragm-type vent insures ideal vent action under all conditions.
- **IDEAL FOR OPERATION AT TEMPERATURES UP TO 85° C.**

BBRD — Dual Common Negative

BBRD Cat. No.	Cap. Mfd.	D.C.W. Volts	Can† Size—Inches Dia. x Lgth.	List Price	Net Price
BBRD 2202	20-20	25	3/4 x 1 1/16	$1.40	$ .84
BBRD 115	10-10	50	3/4 x 1 1/16	1.40	.84
BBRD 2115	20-10	150	3/4 x 1 7/16	1.55	.93
BBRD 2215	20-20	150	3/4 x 1 11/16	1.65	.99
BBRD 3215	30-20	150	7/8 x 1 11/16	1.70	1.02
BBRD 3315	30-30	150	7/8 x 1 11/16	1.80	1.08
BBRD 4215	40-20	150	7/8 x 1 11/16	1.75	1.05
BBRD 4315	40-30	150	7/8 x 2	1.80	1.08
BBRD 4415	40-40	150	7/8 x 2	1.85	1.11
BBRD 5315	50-30	150	7/8 x 2	1.95	1.17
BBRD 5515	50-50	150	1 x 2	2.10	1.26
BBRD 8415	80-40	150	1 x 2 3/16	2.25	1.35
BBRD 8515	80-50	150	1 x 2 1/2	2.30	1.38
*BBRD 0183.7	100-50	150	1 x 3	3.00	1.80
*BBRD 101015	100-100	150	1 x 3	3.20	1.92
*BBRD 0196	200-5	200	1 x 4 1/16	3.50	2.10
BBRD 8D25	8-8	250	3/4 x 1 7/16	1.60	.96
BBRD 16825	16-8	250	3/4 x 2	1.70	1.02
BBRD 16D25	16-16	250	7/8 x 2	1.80	1.08
BBRD 2225	20-20	250	1 x 1 11/16	1.85	1.11
BBRD 3325	30-30	250	1 x 2 3/16	2.25	1.35
*BBRD 7V225	75-20	250	1 x 3	2.60	1.56
*BBRD 0242	80-10	250	1 x 3	2.55	1.53
*BBRD 0246	120-80	250	1 3/8 x 3 1/16	4.00	2.40
*BBRD 0286	150-100	300	1 3/8 x 4 3/16	5.25	3.15
*BBRD 0334	140-5	350	1 1/8 x 4 1/16	4.15	2.49
BBRD 8D45	8-8	450	7/8 x 1 11/16	1.70	1.02
BBRD 1145	10-10	450	7/8 x 2	1.95	1.17
BBRD 16845	16-8	450	1 x 2 3/16	2.00	1.20
BBRD 16D45	16-16	450	1 x 2 1/2	2.25	1.35
*BBRD 2245	20-20	450	1 x 3	2.50	1.50
*BBRD 3345	30-30	450	1 1/8 x 3 9/16	3.00	1.80
*BBRD 4445	40-40	450	1 x 4 1/16	3.40	2.04
*BBRD 0576	60, 125	200, 50	1 x 3	3.25	1.95
BBRD 0646	20, 100	450, 25	1 x 2 1/2	2.20	1.32
*BBRD 0652	40, 50	450, 50	1 x 3 9/16	3.00	1.80
*BBRD 0722	80, 100	450, 50	1 3/8 x 3 9/16	3.75	2.25
*BBRD 0707	30, 50	450, 200	1 1/8 x 2 1/2	2.85	1.71

BBRT — Triple-Common Negative

BBRT Cat. No.	Cap. Mfd.	D.C.W. Volts	Can† Size—Inches Dia. x Lgth.	List Price	Net Price
BBRT 22215	20-20-20	150	7/8 x 1 11/16	$2.20	$1.32
BBRT 32V215	30-25-20	150	7/8 x 2	2.25	1.35
BBRT 33315	30-30-30	150	1 x 2	2.35	1.41
BBRT 42215	40-20-20	150	1 x 1 11/16	2.25	1.35
BBRT 43215	40-30-20	150	1 x 2	2.35	1.41
BBRT 44215	40-40-20	150	1 x 2	2.35	1.41
BBRT 44415	40-40-40	150	1 x 2 3/16	2.45	1.47
BBRT 53215	50-30-20	150	1 x 2	2.45	1.47
*BBRT 84215	80-40-20	150	1 x 3	2.75	1.65
*BBRT 0126.5	150-150-150	150	1 3/8 x 4 3/16	4.75	2.85
BBRT 0129	250-200-10	150	1 3/8 x 4 3/16	5.65	3.39
*BBRT 7V4125	75-40-10	250	1 1/8 x 3	3.45	2.07
*BBRT 0185	40-40-40	300	1 1/8 x 3	4.60	2.76
*BBRT 0196	120-40-10	300	1 3/8 x 3 1/16	4.85	2.91
*BBRT 0235	60-60-5	350	1 3/8 x 3 1/16	4.25	2.55
*BBRT 11145	10-10-10	450	1 x 2 1/2	2.45	1.47
*BBRT 16T45	16-16-16	450	1 1/8 x 3	3.10	1.86
BBRT 4415X25	40-40, 250	150, 10	1 x 2 3/16	2.60	1.56
BBRT 5315X20	50-30, 200	150, 10	1 x 2 3/16	2.55	1.53
BBRT 5315C	50-30, 20	150, 25	1 x 1 11/16	2.35	1.41
BBRT 5515C	50-50, 20	150, 25	1 x 2 3/16	2.50	1.50
BBRT 8415C	80-40, 20	150, 25	1 x 2 1/2	2.65	1.59
BBRT 3215C10	30-20, 100	150, 25	1 x 2	2.35	1.41
BBRT 2215C	20-20, 20	150, 25	7/8 x 1 11/16	2.05	1.23
BBRT 3315C	30-30, 20	150, 25	7/8 x 2	2.20	1.32
BBRT 4215C	40-20, 20	150, 25	1 x 1 11/16	2.15	1.29
BBRT 4315C	40-30, 20	150, 25	1 x 1 11/16	2.20	1.32
BBRT 4415C	40-40, 20	150, 25	1 x 1 11/16	2.25	1.35
BBRT 5315C10	50-30, 100	150, 25	1 x 2 3/16	2.45	1.47
*BBRT 5315C25	50-30, 250	150, 25	1 x 3	3.10	1.86
BBRT 8215C10	80-20, 100	150, 25	1 x 2 1/2	2.75	1.65
BBRT 2225C	20-20, 20	250, 25	1 x 2	2.25	1.35
BBRT 4225C	40-20, 20	250, 25	1 x 2 3/16	2.55	1.53
BBRT 4425C	40-40, 20	250, 25	1 x 2 11/16	2.90	1.74
*BBRT 0733	80-10, 100	300, 50	1 3/8 x 3 1/16	4.05	2.43
*BBRT 0878	140-5, 200	350, 200	1 1/2 x 4 3/16	6.70	4.02
*BBRT 2245C	20-20, 20	450, 25	1 x 3	2.90	1.74
BBRT 0925	10-10, 100	450, 50	1 x 3	3.30	1.90
*BBRT 1238	5, 80-40	450, 400	1 3/8 x 3 9/16	4.55	2.73
*BBRT 1411	30, 50, 100	450, 150, 25	1 1/8 x 3	3.70	2.22

BBRQ — Quadruple-Common Negative

BBRQ Cat. No.	Cap. Mfd.	D.C.W. Volts	Can† Size—Inches Dia. x Lgth.	List Price	Net Price
*BBRQ 111145	10-10-10-10	450	1 x 3	$3.20	$1.92
*BBRQ 222245	20-20-20-20	450	1 1/8 x 4 1/16	4.50	2.70
*BBRQ 0125	20-20-20-10	450	1 3/8 x 3 1/16	4.25	2.55
*BBRQ 0170.5	40-20-20-10	450	1 3/8 x 3 9/16	4.70	2.82
*BBRQ 0174	40-40-20-20	450	1 3/8 x 4 3/16	5.45	3.27
BBRQ 33215C	30-30-20, 20	150, 25	1 x 2	2.90	1.74
BBRQ 42215C	40-20-20, 20	150, 25	1 x 2	2.85	1.71
BBRQ 44315C	40-40-30, 20	150, 25	1 x 2 1/2	3.00	1.80
BBRQ 53215C	50-30-20, 20	150, 25	1 x 2 1/2	3.05	1.83
*BBRQ 55515C	50-50-50, 20	150, 25	1 x 3	3.45	2.07
*BBRQ 0789.4	140-5, 200-30	300, 150	1 1/2 x 4 3/16	5.15	3.09
*BBRQ 0385	120-40-40, 10	300, 250	1 3/8 x 3 9/16	6.20	3.72
*BBRQ 22245C	20-20-20, 20	450, 25	1 1/8 x 3 9/16	4.05	2.43
BBRQ 0500	10-10-10, 150	450, 50	1 1/8 x 3	4.60	2.76
*BBRQ 0695.3	10, 20-20-10	450, 350	1 1/8 x 3	3.50	2.10
*BBRQ 0789.5	80-60, 40, 20	350, 300, 150	1 3/8 x 3 9/16	5.90	3.54
*BBRQ 0925	140, 5, 200-30	350, 300, 200	1 1/2 x 4 3/16	7.65	4.59
*BBRQ 0805	80-10, 40, 100	400, 300, 50	1 3/8 x 3 9/16	5.45	3.27
*BBRQ 0926.5	10, 80, 40-40	450, 300, 250	1 3/8 x 3 9/16	4.95	2.97
*BBRQ 0954	10, 80, 40, 100	450, 300, 250, 50	1 3/8 x 3 9/16	4.80	2.88
BBRQ 0954.5	20, 120, 40, 100	450, 300, 250, 50	1 3/8 x 4 3/16	6.15	3.69

†For OVERALL size add 1/16" to Diam. and 3/16" to Length.
All above Packed—5 Units per Carton, except those marked (*) which are individual Carton Packed.

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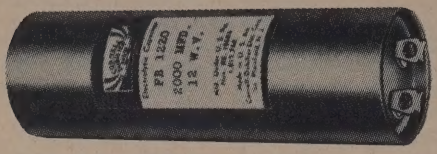
Trade Discount Applies to List Prices Only

CLASS

201.42 High-Capacity Low-Voltage Electrolytics

Photoflash Electrolytics



TYPE FB ★

Type FB capacitors in round cardboard sleeved aluminum cans are designed for high-capacity, low-voltage applications, and are especially popular as replacements in motion picture sound equipment, and other low-voltage circuits.

TEMPERATURE RANGE: to +85°C.

FB Cat. No.	Cap. Mfd.	D.C.W. Volts	Can†† Size—Inches Dia. x Lgth.	List Price	Net Price
FB 1005	500	10	1⅜ x 2⅜	$3.10	**$1.86**
FB 1010	1000	10	1⅜ x 2⅜	3.55	**2.13**
FB 1015	1500	10	1⅜ x 2⅜	3.75	**2.25**
FB 1020	2000	10	1⅜ x 2⅝	3.95	**2.37**
FB 1030	3000	10	1⅜ x 3⅛	4.35	**2.61**
FB 1040	4000	10	1⅜ x 4⅛	4.75	**2.85**
FB 1050	5000	10	1½ x 4⅛	5.15	**3.09**
FB 1060	6000	10	1¾ x 4⅛	7.50	**4.50**
FB 1205	500	12	1⅜ x 2⅜	3.20	**1.92**
FB 1210	1000	12	1⅜ x 2⅜	3.75	**2.25**
FB 1215	1500	12	1⅜ x 2⅝	3.95	**2.37**
FB 1220	2000	12	1⅜ x 3⅛	4.15	**2.49**
FB 1225	2500	12	1⅜ x 3⅛	4.85	**2.91**
FB 1230	3000	12	1⅜ x 4⅛	5.05	**3.03**
FB 1240	4000	12	1½ x 4⅛	5.25	**3.15**
FB 1260	6000	12	2 x 4⅛	9.35	**5.61**
FB 1505	500	15	1⅜ x 2⅜	3.25	**1.95**
FB 1510	1000	15	1⅜ x 2⅜	3.80	**2.28**
FB 1515	1500	15	1⅜ x 2⅝	4.00	**2.40**
FB 1520	2000	15	1⅜ x 3⅛	4.70	**2.82**
FB 1530	3000	15	1⅜ x 4⅛	5.15	**3.09**
FB 1540	4000	15	1½ x 4⅛	8.10	**4.86**
FB 1560	6000	15	2 x 4⅛	10.00	**6.00**
FB 1805	500	18	1⅜ x 2⅜	3.00	**1.80**
FB 1810	1000	18	1⅜ x 2⅜	3.90	**2.34**
FB 1820	2000	18	1⅜ x 3⅛	4.90	**2.94**
FB 1840	4000	18	1½ x 4⅛	8.45	**5.07**
FB 2005	500	20	1⅜ x 2⅜	3.40	**2.04**
FB 2010	1000	20	1⅜ x 3⅛	4.10	**2.46**
FB 2020	2000	20	1⅜ x 4⅛	5.20	**3.12**
FB 2040	4000	20	2 x 4⅛	8.75	**5.25**
FB 2505	500	25	1⅜ x 2⅜	3.55	**2.13**
FB 2510	1000	25	1⅜ x 3⅛	4.80	**2.88**
FB 2520	2000	25	1⅜ x 4⅛	5.75	**3.45**
FB 2530	3000	25	1¾ x 4⅛	8.00	**4.80**
FB 2540	4000	25	2 x 4⅛	9.50	**5.70**
FB 2550	5000	25	2½ x 4⅛	11.00	**6.60**
FB 3005	500	30	1⅜ x 3⅛	3.60	**2.16**
FB 3010	1000	30	1⅜ x 4⅛	4.90	**2.94**
FB 3020	2000	30	1¾ x 4⅛	7.40	**4.44**
FB 3030	3000	30	2 x 4⅛	8.95	**5.37**
FB 3040	4000	30	2½ x 4⅛	10.50	**6.30**
FB 3505	500	35	1⅜ x 3⅛	3.70	**2.22**
FB 3510	1000	35	1⅜ x 4⅛	5.00	**3.00**
FB 3520	2000	35	1¾ x 4⅛	8.00	**4.80**

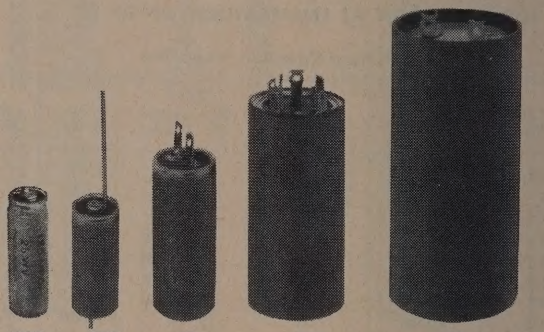
TYPE FB — (Cont'd)

FB Cat. No.	Cap. Mfd.	D.C.W. Volts	Can†† Size—Inches Dia. x Lgth.	List Price	Net Price
FB 3530	3000	35	2 x 4⅛	$ 9.50	**$5.70**
FB 3540	4000	35	2½ x 4⅛	11.00	**6.60**
FB 4005	500	40	1⅜ x 3⅛	3.80	**2.28**
FB 4010	1000	40	1⅜ x 4⅛	6.50	**3.90**
FB 4020	2000	40	1¾ x 4⅛	9.00	**5.40**
FB 4030	3000	40	2 x 4⅛	10.50	**6.30**
FB 4040	4000	40	2½ x 4⅛	11.50	**6.90**
FB 5005	500	50	1⅜ x 3⅛	3.90	**2.34**
FB 5010	1000	50	1⅜ x 4⅛	7.00	**4.20**
FB 5020	2000	50	1¾ x 4⅛	9.10	**5.46**
FB 5030	3000	50	2 x 4⅛	11.50	**6.90**
FB 5040	4000	50	2½ x 4⅛	12.50	**7.50**

††For Overall Size add 1/16" to Diam. and ⅜" to Length.

★ When MIL-C-62A units must be supplied, order according to specific CE type designations.

HIGH VOLTAGE PHOTOFLASH



Cat. No.	Cap. Mfd.	D.C.W. Volts	OVERALL Size—Inches Dia. x Length	Watt Seconds	List Price	Net Price
XBO 455◆	100	450	1 ⅜ x 3	10	$3.85	**$2.31**
FB 10063*	200	450	2 1/16 x 4½	20	6.85	**4.11**
FW 10005‡	200	500	2 1/16 x 4⅜	25	10.50	**6.30**
FW 10007‡	300	450	2 1/16 x 4⅜	30	10.50	**6.30**
FWS 10005†	300	450	2 1/16 x 4⅜	30	11.50	**6.90**
FA 10300*	400	450	2 1/16 x 4½	40	17.95	**10.77**
FWSN 10001†	525	450	2 1/16 x 4⅜	53	22.60	**13.56**

LOW VOLTAGE PHOTOFLASH

Cat. No.	Cap. Mfd.	D.C.W. Volts	OVERALL Size—Inches Dia. x Length	List Price	Net Price
BRE 10001◆	40	150	¾ x 1 7/16	$1.35	**$ .81**
FB 10077◆	100	30	1 x 2 11/16	3.35	**2.01**
BRH 10062◆	125	25	⅝ x 1 15/16	1.35	**.81**
BRH 10067◆	150	50	¾ x 1 11/16	1.35	**.81**
BR 250-25S	250	25	15/16 x 1⅞	1.70	**1.02**

*Aluminum can with cardboard sleeve. †Bakelite Case—Screw Terminals.

◆Aluminum can—no sleeve. ‡Bakelite Case—Solder Lug Terminals.

Trade Discount Applies to List Prices Only

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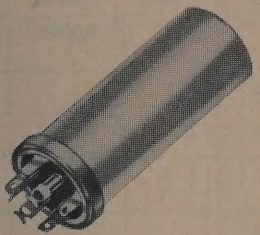
CORNELL-DUBILIER ELECTRONICS

CLASS

Twist-Prong Electrolytics

201.43

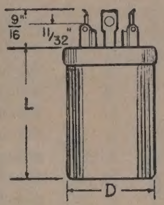
CDE



Innumerable ratings of Twist Prong mounting units have been supplied. Ratings listed are the most popular and, with tolerance considered, fill all but a few application requirements.

All units meet or exceed RS-154 Revised Standards and carry a temperature rating of +85°C.

Stock numbers preceded by X are for selenium rectifier applications.



CASE SIZE

Case	D. x L.
A	¾ x 2
B	1 x 1½
BB	1 x 1¾
C	1 x 2
D	1 x 2½
E	1 x 3
F	1 x 3½
G	1 x 3⅝
J	1⅜ x 2
K	1⅜ x 2½
L	1⅜ x 3
N	1⅜ x 3⅝
P	1⅜ x 4
R	1⅜ x 4⅛
S	1⅜ x 5

SINGLE UNITS

1 Cap @ 1 Voltage	Case Size	CDE Stock No.	List Price	Net Price
1000/15	D	AO060	$2.55	$1.53
2000/15	J	AO070	3.45	2.07
3000/15	L	AO080	4.50	2.43
500/25	C	AO120	2.55	1.53
500/50	J	AO160	2.65	1.59
1500/50	R	AO174	4.40	2.64
50/150	C	AO200	1.65	.99
100/150	D	XAO241	2.00	1.20
150/150	E	XAO261	2.15	1.29
300/150	L	XAO263	2.80	1.68
100/300	L	AO340	2.90	1.74
100/300	G	AO350	2.90	1.74
50/350	E	AO390	2.10	1.26
80/350	K	XAO401	2.80	1.68
150/350	N	XAO415	3.95	2.37
50/450	E	AO490	2.35	1.41
80/450	K	AO510	3.05	1.83
100/450	L	AO512	3.45	2.07
125/450	P	AO514	3.95	2.37
10/500	C	AO520	1.60	.96
20/500	D	AO530	1.85	1.11
40/500	F	AO550	2.50	1.50
80/500	L	AO560	3.60	2.16

DUAL UNITS

2 Caps @ 1 Voltage				
1000-1000/15	D	BO044	4.40	2.64
500-100/20	C	BO045	3.15	1.89
100-100/50	C	BO085	2.10	1.26
40-40/150	B	XBO141	2.00	1.20
50-30/150	B	BO150	2.00	1.20
80-40/150	BB	XBO181	2.30	1.38
200-5/150	K	BO186	3.40	2.04
200-200/150	K	XBO189	4.00	2.40
60-60/200	J	BO190	2.55	1.53
40-40/250	BB	XBO241	2.50	1.50
80-40/250	K	XBO243	3.75	2.25
200-200/250	R	XBO252	6.10	3.66
80-80/300	L	BO270	4.05	2.43
200-80/300	N	BO286	5.25	3.15
20-20/350	C	BO300	2.90	1.74
30-30/350	E	BO310	2.90	1.74
80-40/350	L	BO326	3.95	2.37
100-100/350	R	BO332	6.15	3.69
160-10/350	N	BO334	4.30	2.58
80-80/400	R	BO356	4.95	2.97
20-10/450	D	BO390	2.25	1.35
20-20/450	D	BO400	2.55	1.53
30-10/450	E	BO410	2.50	1.50
30-30/450	K	BO430	3.05	1.83
40-20/450	K	BO440	3.00	1.80
50-50/450	L	XBO455*	3.85	2.31
80-10/450	L	BO470	3.60	2.16
80-20/450	N	BO473	3.90	2.34
80-40/450	N	BO480	4.35	2.61
100-40/450	R	BO483	4.85	2.91
80-50/475	R	BO489	5.20	3.12
10-10/500	C	BO490	2.35	1.41
20-20/500	K	BO500	2.85	1.71
40-40/500	L	BO530	4.40	2.64
60-40/500	N	BO540	4.60	2.76
2 Caps @ 2 Voltages				
150/300 100/150	N	BO608	4.50	2.70
100/400 30/50	L	BO626	3.90	2.34

*For Photoflash Use Only.

TRIPLE UNITS

3 Caps @ 1 Voltage	Case Size	CDE Stock No.	List Price	Net Price
40-40-40/150	BB	CO090	$2.60	$1.56
50-50-50/150	E	XCO105	3.00	1.80
60-40-20/150	B	CO110	2.75	1.65
80-40-20/150	E	CO120	2.90	1.74
200-100-60/150	N	XCO127	4.55	2.73
200-150-150/150	R	XCO128	7.50	4.50
250-200-10/150	R	XCO129	5.60	3.36
20-20-10/250	C	CO130	3.75	2.25
40-20-20/250	E	CO160	2.90	1.74
120-50-40/300	R	CO200	5.65	3.39
10-10-10/350	C	CO210	2.40	1.44
30-20-10/350	E	CO225	3.25	1.95
60-40-20/350	L	CO230	4.25	2.55
80-60-60/350	R	CO236	5.55	3.33
90-40-20/350	N	CO237	5.25	3.15
100-100-10/350	R	CO238	5.50	3.30
15-15-15/450	E	CO254	3.10	1.86
40-10-10/450	L	CO320	3.35	2.01
60-40-20/450	N	CO365	5.00	3.00
80-40-20/450	R	CO370	5.40	3.24
2 Caps @ 1 High Voltage 1 Cap @ Lower Voltage				
40-40/150 20/25	B	XCO551	2.40	1.44
40-40/150 250/25	E	XCO555	3.15	1.89
50-30/150 20/25	C	CO560	2.50	1.50
80-40/150 20/25	D	CO610	2.80	1.68
60-5/200 20/50	D	CO636	2.50	1.50
140-10/300 200/150	R	CO734	5.50	3.30
20-20/350 20/25	D	CO800	2.80	1.68
30-20/350 20/25	E	CO830	3.10	1.86
100-60/350 20/250	R	CO875	5.50	3.30
100-10/400 20/50	N	CO894	4.50	2.70
100-10/400 80/350	R	CO896	6.10	3.66
10-10/450 20/25	C	CO910	2.40	1.44
20-10/450 20/25	D	CO960	2.70	1.62
20-20/450 20/25	E	CO990	3.05	1.83
40-40/450 20/25	L	C1070	3.95	2.37
40-40/450 100/50	L	C1090	4.30	2.58
40-40/450 80/350	R	C1103	5.55	3.33
80-20/450 100/50	R	C1108	4.80	2.88
1 Cap @ 1 High Voltage 1 Cap @ 1 Lower Voltage				
60/200 200-140/150	P	XC1202	4.80	2.88
100/300 200-60/150	R	XC1208	5.55	3.33

QUADRUPLE UNITS

4 Caps @ 1 Voltage				
200-200-60-30/175	R	XDO015	6.00	3.60
40-40-20-10/300	K	DO020	4.55	2.73
40-40-30-20/300	L	DO022	4.85	2.91
150-100-10-5/300	R	DO025	6.60	3.96
40-20-20-10/350	K	DO032	4.35	2.61
80-60-40-20/350	R	DO042	6.40	3.84
100-40-10-10/350	N	DO044	7.60	4.56
80-20-10-10/400	N	DO060	5.05	3.03
80-40-30-4/400	R	DO065	5.80	3.48
35-35-10-5/450	N	DO150	4.65	2.79
40-40-20-20/450	R	DO174	5.55	3.33
40-40-40-40/450	S	DO177	6.45	3.87
80-10-10-10/450	N	DO179	5.05	3.03
20-20-10-10/475	K	DO179.3	4.35	2.61
20-20-20-20/476	L	DO179.5	5.20	3.12
10-10-10-10/500	J	DO180	3.50	2.10

(Continued on next page)

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CLASS

201.43 Twist-Prong Electrolytics

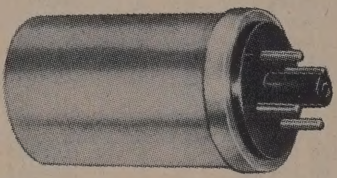
QUADRUPLE UNITS (Cont'd) — See previous page for case size table

3 Caps @ 1 High Voltage 1 Cap @ 1 Lower Voltage	Case Size	CDE Stock No.	List Price	Net Price
60-40-20/150 200/10	J	DO300	$3.50	$2.10
80-40-40/150 40/25	J	DO325	3.60	2.16
80-40-40/150 100/25	K	DO330	3.75	2.25
200-200-100/150 10/75	R	DO338	5.95	3.57
30-20-5/350 100/200	L	DO418	4.70	2.82
40-40-40/350 40/25	L	DO460	5.20	3.12
70-40-10/350 50/50	L	DO471	5.25	3.15
90-30-5/350 100/75	N	DO473	6.15	3.69
100-10-10/350 20/50	L	DO473.3	5.15	3.09
100-80-10/350 20/50	R	DO473.5	6.60	3.96
80-40-10/400 20/25	N	DO477	5.30	3.18
80-40-10/400 100/200	R	DO477.5	6.30	3.78
80-40-30/400 40/25	R	DO478	5.95	3.57
10-10-10/450 20/25	J	DO480	3.15	1.89
20-20-20/450 20/25	K	DO520	4.15	2.49
20-20-20/450 100/50	L	DO530	4.55	2.73
40-20-20/450 20/25	L	DO624	4.60	2.76
40-30-10..450 20/25	L	DO640	4.50	2.70
40-40-10/450 25/50	N	DO650	4.70	2.82
40-40-10/450 100/100	N	DO660	5.35	3.21
1 Cap @ 1 High Voltage 3 Caps @ 1 Lower Voltage				
10/300 200-140-30/150	S	DO694	5.10	3.06
160/350 60-10/4/300	R	XDO695	6.40	3.84
20/500 80-20-10/300	N	DO698	5.00	3.00

1 Cap @ 1 High Voltage 2 Caps @ 1 Int. Voltage 1 Cap @ 1 Lower Voltage	Case Size	CDE Stock No.	List Price	Net Price
10/500 100-10/300 100/25	N	DO785	$4.90	$2.94
2 Caps @ 1 High Voltage 1 Cap @ 1 Int. Voltage 1 Cap @ 1 Lower Voltage				
60-100/350 60/200 40/75	R	DO789.4	6.55	3.93
100-10/400 20/350 20/50	N	DO805	5.45	3.27
2 Caps @ 1 High Voltage 2 Caps @ 1 Lower Voltage				
100-10/300 200-30/150	S	DO866	5.90	3.54
100-10/400 30-20/50	N	DO875	5.10	3.06
1 Cap @ 1 High Voltage 1 Cap @ 1 Int. Voltage 2 Caps @ 1 Lower Voltage				
30/500 10/450 150-30/50	K	DO928	4.20	2.52
4 Caps @ 4 Voltages				
10/475 40/400 4/350 100/150	K	DO966	4.05	2.43
20/475 40/300 100/50 80/25	L	DO990	4.50	2.70

CLASS

201.51 Plug-In Electrolytics



TYPE QC

Type QC Capacitors are hermetically sealed in round aluminum containers with a four-pin octal base. Ideally suited for experimental, testing, juke box, government communication receiver uses and applications where quick capacitor changes are required. Ground lugs are furnished with all multiple-section units for cathode connection.

TEMPERATURE RANGE: to +85°C; except, +65°C at 500 V.D.C.W.

QC Cat. No.	Cap. Mfd.	D.C.W. Volts	Size—Inches Dia. x Lgth.	List Price	Net Price
SINGLES					
QC 1045	10	450	1 5/32 x 2½	$4.05	$2.43
QC 2045	20	450	1 5/32 x 2½	4.30	2.58
QC 4045	40	450	1⅜ x 2½	4.80	2.88
QC 8045	80	450	1⅜ x 3½	5.55	3.33
QC 4050	40	500	1⅜ x 2½	5.00	3.00
DUALS					
QC 2215	20–20	150	1 5/32 x 2½	4.30	2.58
QC 4415	40–40	150	1 5/32 x 2½	4.40	2.64
QC 5515	50–50	150	1 5/32 x 2½	4.65	2.79
QC 8815	80–80	150	1⅜ x 2½	5.15	3.09
QC 1145	10–10	450	1 5/32 x 2½	4.50	2.70
QC 2245	20–20	450	1⅜ x 2½	5.05	3.03
QC 3345	30–30	450	1⅜ x 3	5.55	3.33
QC 4445	40–40	450	1⅜ x 3½	5.90	3.54
QC 2250	20–20	500	1⅜ x 2½	5.30	3.18
TRIPLES					
QC 22215	20–20–20	150	1 5/32 x 2½	4.85	2.91
QC 44415	40–40–40	150	1⅜ x 2½	5.10	3.06
QC 11145	10–10–10	450	1 5/32 x 2½	5.10	3.06
QC 22245	20–20–20	450	1⅜ x 3	6.10	3.66
QC 4245C	40–20/20	450/25	1⅜ x 3	6.00	3.60
QC 11150	10–10–10	500	1⅜ x 2½	5.30	3.18
QUADRUPLES					
QC 11145C	10–10–10/20	450/25	1⅜ x 2½	5.65	3.39
QC 33145C	30–30–10/20	450/50	1⅜ x 4¼	6.85	4.11

WIDE-RANGE ELECTROLYTIC CAPACITOR

TYPE ESS-7515

A compact, versatile unit that provides an EXACT electrical replacement for 8 original standard 150 VDCW Capacitors, used principally in printed circuit home radio receivers:

50-30 Mfd.
70-30 Mfd.
75-30 Mfd.
60-40 Mfd.
80-40 Mfd.
50-50 Mfd.
70-50 Mfd.
80-50 Mfd.

In addition, the versatility of this unit makes it an ideal replacement for many combinations of capacitance within its ratings, both single and dual capacitance units.

A modest stock of ESS-7515's provides an ever-ready answer for a multitude of service replacements.

Cat. No.	Diam. x Length	List Price	Net Price
ESS-7515	1 in. x 2½ in.	$2.00	$1.20

Trade Discount Applies To List Prices Only

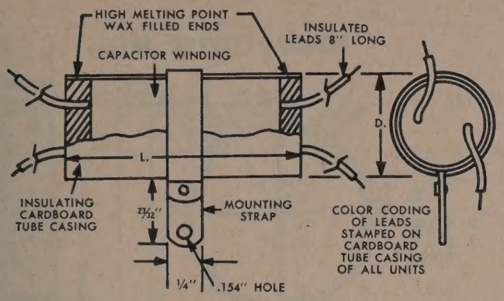
© U.C.P., Inc.

CDE

Miscellaneous Types DC Electrolytic Capacitors

CLASS 201.00

Type EDL 201.21


HIGH MELTING POINT WAX FILLED ENDS
INSULATED LEADS 8" LONG
CAPACITOR WINDING
D.
L.
INSULATING CARDBOARD TUBE CASING
23/32"
MOUNTING STRAP
COLOR CODING OF LEADS STAMPED ON CARDBOARD TUBE CASING OF ALL UNITS
1/4"
.154" HOLE

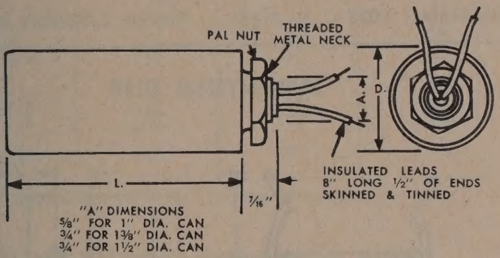
EDL — Dual Separate Section

Type EDL Capacitors are dual units in cardboard tube containers with wax-filled ends. Capacities, voltages and polarity of the leads are clearly defined by color coding stamped on the tube casing.

TEMPERATURE RANGE: to +65°C.

EDL Cat. No.	Cap. Mfd.	D.C.W. Volts	OVERALL Size—Inches Dia. x Lgth.	List Price	Net Price
EDL 2215SS	20-20	150	15/16 x 2 5/8	$1.65	**$ .99**
EDL 3315SS	30-30	150	1 x 2 5/8	1.80	**1.08**
EDL 4215SS	40-20	150	1 x 2 5/8	1.75	**1.05**
EDL 4415SS	40-40	150	1 1/16 x 2 7/8	1.85	**1.11**
EDL 5315SS	50-30	150	1 1/16 x 2 7/8	1.95	**1.17**
EDL 5515SS	50-50	150	1 1/8 x 3 1/8	2.10	**1.26**
EDL 8415SS	80-40	150	1 3/16 x 3 3/8	2.25	**1.35**

Type KR 201.46


PAL NUT
THREADED METAL NECK
A.
D.
L.
7/16"
INSULATED LEADS 8" LONG 1/2" OF ENDS SKINNED & TINNED
"A" DIMENSIONS
5/8" FOR 1" DIA. CAN
3/4" FOR 1 3/8" DIA. CAN
3/4" FOR 1 1/2" DIA. CAN

Types KR are single-hole mounting units compact etched foil type dry electrolytic capacitors furnished in round (inverted mounting) aluminum cans. Metal threaded neck.

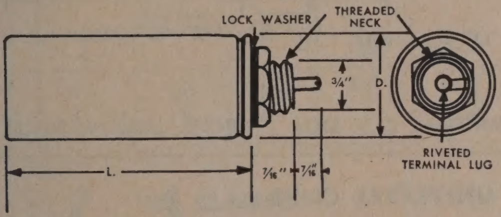
TEMPERATURE RANGE: to +65°C.

KR Cat. No.	Cap. Mfd.	D.C.W. Volts	Size—Inches Dia. x Lgth.	List Price	Net Price
KR 508	8	450	1 x 2 1/2	$2.20	**$1.32**
KR 520	20	450	1 3/8 x 2 1/2	2.75	**1.65**
KR 540	40	450	1 3/8 x 4 3/8	3.15	**1.89**
KR 604C	4	600	1 3/8 x 3 1/2	2.95	**1.77**
KR 608C	8	600	1 3/8 x 4 3/8	3.15	**1.89**
KR 616C	16	600	1 3/8 x 4 3/8	3.75	**2.25**

Dual Separate Section Units

KR 588A	8-8	450	1 3/8 x 3	3.75	**2.25**
KR 5888A	8-8-8	450	1 3/8 x 4 1/2	6.25	**3.75**

Type WR 201.47


LOCK WASHER
THREADED NECK
3/4"
D.
L.
7/16"
7/16"
RIVETED TERMINAL LUG

REPLACEMENTS FOR WET ELECTROLYTICS
TYPE WR—500-VOLT D.C.

TEMPERATURE RANGE: to +65°C.

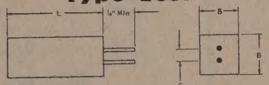
WR Cat. No.	Cap. Mfd.	Replacement for	Size—Inches Dia. x Lgth.	List Price	Net Price
WR 10	10	4 to 12 mfd.	1 3/8 x 2 1/2	$2.30	**$1.38**
WR 20	20	16 to 20 mfd.	1 3/8 x 2 1/2	2.70	**1.62**
WR 30	30	20 to 30 mfd.	1 3/8 x 3 1/4	2.95	**1.77**
WR 40	40	30 to 40 mfd.	1 3/8 x 3 1/4	3.15	**1.89**

Square Electrolytic For Transistorized and Printed Circuits 201.11

FEATURES:

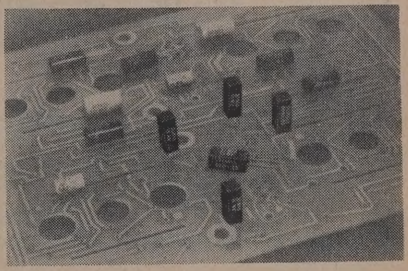
- LEAK PROOF
- MOISTURE-TIGHT
- SHOCK-RESISTANT
- OPERATES AT 3 VOLTS DCW TO 75 VOLTS DCW
- IDEAL FOR PRINTED TRANSISTORIZED CIRCUITS

Type ECSP



WIRE LEAD SIZE:
NO. 22 AWG TINNED COPPER WIRE

CASE SIZES		LEAD SPACING
B	L	C
3/8	5/8	.125
3/8	7/8	.125
1/2	1	.185



C D E is first with the square electrolytic. This unique capacitor will be a boon for printed circuit applications because of its form factor and flush mounting characteristics. It is ideal for low-voltage transistorized circuits, as well. A high-impact, preformed phenolic case, in conjunction with a section imbedded in a special cast resin, will insure a moisture-tight, heat-resistant enclosure. The tinned copper leads are welded to the anode and cathode tabs, providing minimum contact resistance. The pre-formed phenolic case will guarantee exact lead centers, as well as a highly shock resistant case.

TEMPERATURE RANGE: −20°C +65°C **TOLERANCE:** −10% +150%

Cap. Mfd.	CDE Cat. No.	Size	List Price	Net Price 1-24
		3 VDCW		
50	**ECSP 50-3**	3/8 x 3/8 x 5/8	1.15	**.69**
100	**ECSP 100-3**	3/8 x 3/8 x 7/8	1.15	**.69**
250	**ECSP 250-3**	1/2 x 1/2 x 1	1.25	**.75**
		10 VDCW		
35	**ECSP 35-10**	3/8 x 3/8 x 5/8	1.15	**.69**
50	**ECSP 50-10**	3/8 x 3/8 x 7/8	1.15	**.69**
150	**ECSP 150-10**	1/2 x 1/2 x 1	1.20	**.72**
		15 VDCW		
5	**ECSP 5-15**	3/8 x 3/8 x 5/8	1.10	**.66**
10	**ECSP 10-15**	3/8 x 3/8 x 5/8	1.10	**.66**
25	**ECSP 25-15**	3/8 x 3/8 x 5/8	1.15	**.69**
30	**ECSP 20-15**	3/8 x 3/8 x 5/8	1.15	**.69**
35	**ECSP 35-15**	3/8 x 3/8 x 7/8	1.15	**.69**
50	**ECSP 50-15**	3/8 x 3/8 x 7/8	1.15	**.69**

Cap. Mfd.	CDE Cat. No.	Size	List Price	Net Price 1-24
		15 VDCW		
100	**ECSP 100-15**	1/2 x 1/2 x 1	1.20	**.72**
125	**ECSP 125-15**	1/2 x 1/2 x 1	1.20	**.72**
		25 VDCW		
10	**ECSP 10-25**	3/8 x 3/8 x 5/8	1.15	**.69**
15	**ECSP 15-25**	3/8 x 3/8 x 5/8	1.15	**.69**
25	**ECSP 25-25**	3/8 x 3/8 x 7/8	1.15	**.69**
75	**ECSP 75-25**	1/2 x 1/2 x 1	1.20	**.72**
		50 VDCW		
10	**ECSP 10-50**	3/8 x 3/8 x 5/8	1.15	**.69**
15	**ECSP 15-50**	3/8 x 3/8 x 7/8	1.15	**.69**
20	**ECSP 20-50**	1/2 x 1/2 x 1	1.15	**.69**
30	**ECSP 30-50**	1/2 x 1/2 x 1	1.15	**.69**
50	**ECSP 50-50**	1/2 x 1/2 x 1	1.20	**.72**
		75 VDCW		
3	**ECSP 3-75**	3/8 x 3/8 x 5/8	1.10	**.66**
5	**ECSP 5-75**	3/8 x 3/8 x 7/8	1.15	**.69**
15	**ECSP 15-75**	1/2 x 1/2 x 1	1.15	**.69**

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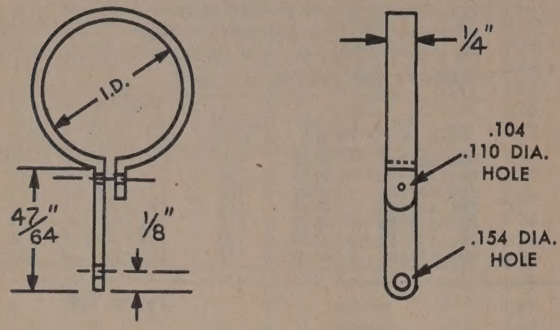
CLASS

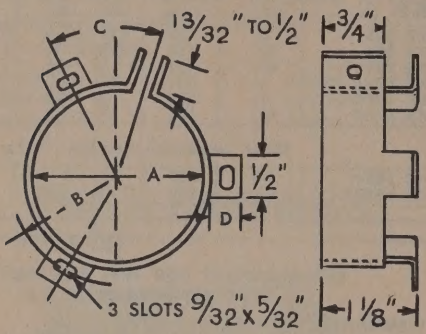
200.90 "MOUNTING" Hardware

TUBULAR STRAPS


I.D.
47/64"
1/8"
1/4"
.104
.110 DIA.
HOLE
.154 DIA.
HOLE

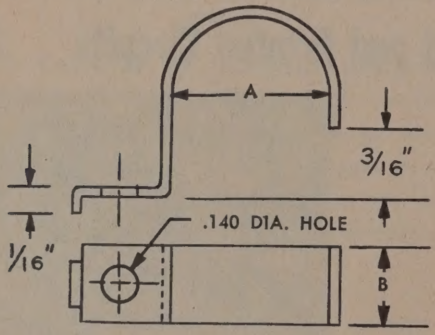
MATERIAL: .020 TINNED STEEL

THREE-FOOTED MOUNTING RING


C
13/32" TO 1/2"
3/4"
A
B
1/2"
D
3 SLOTS 9/32" x 5/32"
1 1/8"

MATERIAL: 0.032 C. R. STEEL **FINISH:** CADMIUM PLATE

"C" CLAMPS


A
3/16"
.140 DIA. HOLE
1/16"
B

MATERIAL: .020-.030 C. R. STEEL

MOUNTING PLATES

3/4" CAN

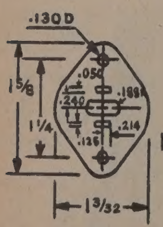

.130D
1 5/8
1 1/4
.050
.240
.188
.214
.126
1 3/32

FIG. 1

1" CAN

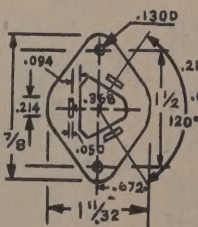

.130D
.094
.214
1 7/8
.358
.050
1 1/2
120°
.672
1 11/32

FIG. 2

1 3/8" CAN

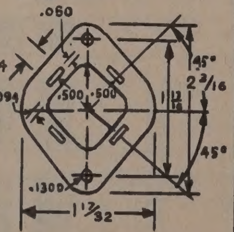
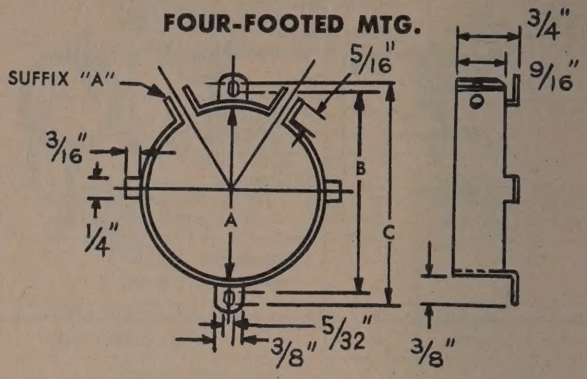

.060
.214
.094
.500
.500
1 13/16
2 3/16
45°
45°
.130D
1 17/32

FIG. 3

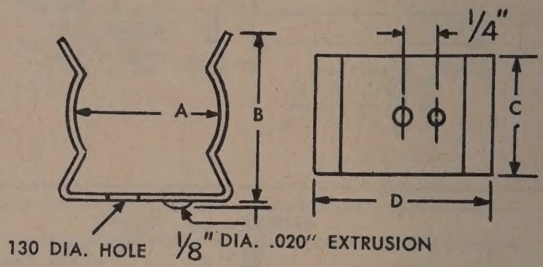
MATERIAL: 1/16" BAKELITE **FINISH:** .025 C. R. STEEL, CADMIUM PLATED (COMMERCIAL GRADE)

FOUR-FOOTED MTG.


3/4"
5/16"
9/16"
SUFFIX "A"
3/16"
1/4"
A
B
C
5/32"
3/8"
3/8"

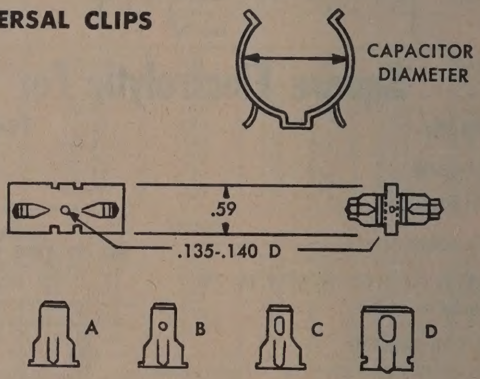
MATERIAL: 0.035 C. R. STEEL **FINISH:** CADMIUM PLATE

MOUNTING CLIP


1/4"
A
B
C
D
130 DIA. HOLE
1/8" DIA. .020" EXTRUSION

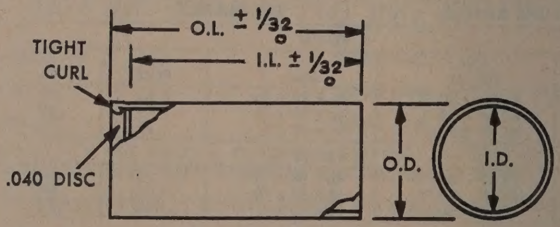
MATERIAL: C. R. STEEL **FINISH:** CADMIUM PLATE

UNIVERSAL CLIPS


CAPACITOR
DIAMETER
.59
.135-.140 D
A
B
C
D

MATERIAL: .018-.023 SPRING STEEL **FINISH:** CAD. PLATE

INSULATING SLEEVES


O.L. ± 1/32, 0
I.L. ± 1/32, 0
TIGHT
CURL
.040 DISC
O.D.
I.D.

MATERIAL: 5-PLY KRAFT, INSULATING GRADE, NON-CONDUCTIVE, WAX IMPREGNATED **FINISH:** BLACK ELECTRICAL KRAFT

© U.C.P., Inc.

CDE

“MOUNTING” Hardware

TUBULAR STRAPS

MATERIAL: .020 Tinned Steel

Part No.	I.D.	List Price	Net Price
16279	7/16	$.15	$.09
16280	½	.15	.09
17203	9/16	.15	.09
17516	⅝	.15	.09
16285	11/16	.15	.09
17517	¾	.15	.09
28207	13/16	.15	.09
27886	⅞	.20	.12
20440	15/16	.20	.12
27950	1	.20	.12
21187	1 1/16	.20	.12
21068-1	1⅛	.20	.12
28401	1 3/16	.20	.12
19033-1	1¼	.20	.12
17673-1	1⅜	.20	.12
17606	1½	.20	.12

NOTE: "I.D." means straps will fit case diameters specified above.

THREE-FOOTED MOUNTING RING

MATERIAL: 0.032 C.R. Steel

FINISH: Cadmium Plate

Part No.	Description			List Price	Net Price
	A	B	C		
34775-2	2	1¼	45°	$.30	$.18
34775	2½	1½	45°	.35	.21
34775-3	3	1¾	45°	.65	.39

"C" CLAMPS

MATERIAL: .020-.030 C.R. Steel

FINISH: Cadmium Plate

Part No.	A	B	List Price	Net Price
17920	⅝-¾	½	$.20	$.12
17921	⅞-1	½	.20	.12

MOUNTING PLATES

MATERIAL: 1/16″ Bakelite
.025 C.R. Steel, Cadmium Plated (Commercial Grade)

Part No.	Material	Figure	List Price	Net Price
19890	Metal	1	$.15	$.09
19891	Bakelite	1	.15	.09
19883	Metal	2	.15	.09
19884	Bakelite	2	.15	.09
19887	Metal	3	.15	.09
19888	Bakelite	3	.15	.09
30035	Bakelite	**	.15	.09
30036	Metal	**	.15	.09

** For mounting a 1″ dia. can over a 1⅜″ dia. hole.

TWIST-PRONG CAPACITOR ADAPTERS

For Printed Board Mounting

Part No.		List Price	Net Price
55277	Large	$.10	$.06
55278	Small	.10	.06
ADK8	Pkg.	.45	.27

FOUR-FOOTED MTG.

MATERIAL: 0.035 C.R. Steel

FINISH: Cadmium Plate

Part No.	A	B	C	List Price	Net Price
17842A	1	1⅜	1½	$.25	$.15
19213	1⅛	1 17/32	1 21/32	.30	.18
18573	1¼	1⅝	1¾	.30	.18
17843	1⅜	1 11/16	1⅞	.30	.18
17843A	1⅜	1 11/16	1⅞	.30	.18
17844	1½	1⅞	2	.30	.18
17844A	1½	1⅞	2	.30	.18
55274A	1¾	2⅛	2¼	.40	.24

UNIVERSAL CLIPS

MATERIAL: .018-.023 Spring Steel

FINISH: Cadmium Plate

Part No.	I.D.	Style	List Price	Net Price
30010-1	⅜- 7/16	A	$.20	$.12
30010-2	½- 9/16	B	.20	.12
30010-3	⅝- 11/16	C	.20	.12
30010-4	¾- 13/16	C	.25	.15
30010-5	⅞- 15/16	C	.25	.15
30010-6	1 -1 1/16	C	.25	.15
30010-7	1⅜-1 7/16	D	.25	.15

MOUNTING CLIP

MATERIAL: C.R. Steel

FINISH: Cadmium Plate

Part No.	For Can Size	Dimensions				List Price	Net Price
		A	B	C	D		
21368-1	¾	11/16	25/32	½	25/32	$.20	$.12
21368-2	1	29/32	1 3/64	19/32	1 1/16	.20	.12
21368-3	1⅜	1 7/32	1½	⅞	1 7/16	.30	.18

INSULATING SLEEVES

MATERIAL: 5-Ply Kraft, Insulating Grade, Non-Conductive, Wax Impregnated

FINISH: Black Electrical Kraft

Part No.	Can Size	O.L.	I.L.	O.D.	I.D.	List Price	Net Price
28521-1	¾ x 2	2¼	2 1/16	.930	.868	$.15	$.09
28521-4	1 x 2	2¼	2 1/16	1.188	1.128	.15	.09
28521-5	1 x 2½	2¾	2 9/16	1.188	1.128	.15	.09
28521-6	1 x 3	3¼	3 1/16	1.188	1.128	.15	.09
28521-10	1 x 3½	3 25/32	3 9/16	1.188	1.128	.15	.09
28521-22	1 x 4⅛	4¼	4 1/16	1.188	1.128	.15	.09
28521-7	1⅜ x 2	2¼	2 1/16	1.540	1.475	.15	.09
28521-23	1⅜ x 2½	2¾	2 9/16	1.540	1.475	.15	.09
28521-9	1⅜ x 3	3¼	3 1/16	1.540	1.475	.15	.09
28521-11	1⅜ x 3½	3¾	3 9/16	1.540	1.475	.15	.09
28521-21	1⅜ x 4	4¼	4 1/16	1.540	1.475	.15	.09
28521-15	1⅜ x 4⅛	4⅜	4 3/16	1.540	1.475	.15	.09
28521-17	1⅜ x 5	5¼	5 1/16	1.540	1.475	.15	.09

TWIST-PRONG MOUNTING WRENCH

Part No.	List Price	Net Price
22272	$2.48	$1.49

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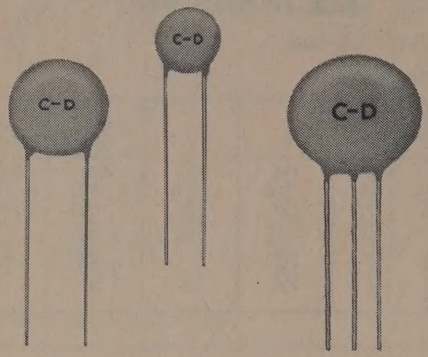
Trade Discount Applies To List Prices Only

CLASS
202.00 "TINYMIKE" Disc Ceramics



THE CERAMIC WITH THE MILLION DOLLAR BODY

- Small, space-saving and lightweight.
- Available in all popular capacities.
- Guaranteed minimum capacity tolerance.
- Adapted for wide variety of applications.
- Minimized eddy current losses due to construction.
- Low inductance, stable, dependable performance.
- Available with temperature compensating characteristics.

General Purpose DISC HIGH K

CLASS 202.14

TYPE: BYA

VOLTAGE: 1000 VDCW, except as noted.

TOLERANCE: GMC, except as noted.

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
470	**BYA10T47**	.290	.156	$.25	**$.15**
500	**BYA10T5**	.290	.156	.25	**.15**
680	**BYA10T68**	.290	.156	.25	**.15**
820	**BYA10T82**	.290	.156	.25	**.15**
1000	**BYA10D1**	.290	.156	.25	**.15**
†1000	**BYA10D1M**	.290	.156	.25	**.15**
1500	**BYA10D15**	.290	.156	.25	**.15**
2000	**BYA10D2**	.390	.156	.25	**.15**
2200	**BYA10D22**	.390	.156	.25	**.15**
2500	**BYA10D25**	.437	.156	.25	**.15**
2700	**BYA10D27**	.437	.156	.25	**.15**
3000	**BYA10D3**	.437	.156	.25	**.15**
3300	**BYA10D33**	.437	.156	.25	**.15**
4000	**BYA10D4**	.593	.156	.25	**.15**
†4700	**BYA10D47M**	.593	.156	.25	**.15**
5000	**BYA10D5**	.593	.156	.25	**.15**
†5000	**BYA10D5M**	.593	.156	.25	**.15**
6800	**BYA10D68**	.593	.156	.25	**.15**
*10000	**BYA6S1**	.660	.156	.25	**.15**
10000	**BYA10S1**	.750	.156	.30	**.18**
†10000	**BYA10S1M**	.750	.156	.30	**.18**
15000	**BYA10S15**	.840	.156	.30	**.18**
*20000	**BYA6S2**	.840	.156	.30	**.18**

*Rated at 600 VDCW.
†Tolerance ±20%.

General Purpose DISC CLOSE TOLERANCE

CLASS 202.71

TYPE: LA

VOLTAGE: 1000 VDCW

TOLERANCE: ±10%, except as noted, to 390 mmfd. incl.
±20%, 400 mmfd. and over.

TEMPERATURE RANGE: —55°C to +85°C.

MAXIMUM THICKNESS: .156 inches.

SINGLES

Cap. Mmfd.	New Cat. No.	Old Cat. No.	Max. Dia. (Inches)	List Price	Net Price
†3.3	**LA10V33-SL**	**L10V33**	.290	$.25	**$.15**
†5.0	**LA10V5-SL**	**L10V5**	.290	.25	**.15**
†6.8	**LA10V68-SL**	**L10V68**	.290	.25	**.15**
7.0	**LA10V7-SL**	**L10V7**	.290	.25	**.15**
8.0	**LA10V8-SL**	**L10V8**	.290	.25	**.15**
10	**LA10Q1-SL**	**L10Q1**	.290	.25	**.15**
12	**LA10Q12-SL**	**L10Q12**	.290	.25	**.15**
15	**LA10Q15-SL**	**L10Q15**	.290	.25	**.15**
18	**LA10Q18-SL**	**L10Q18**	.290	.25	**.15**
20	**LA10Q2-SL**	**L10Q2**	.290	.25	**.15**
22	**LA10Q22-SL**	**L10Q22**	.290	.25	**.15**
25	**LA10Q25-SL**	**L10Q25**	.290	.25	**.15**
27	**LA10Q27-SL**	**L10Q27**	.290	.25	**.15**
30	**LA10Q3-SL**	**L10Q3**	.290	.25	**.15**
33	**LA10Q33-SL**	**L10Q33**	.290	.25	**.15**
39	**LA10Q39-S3**	**L10Q39**	.290	.25	**.15**
47	**LA10Q47-S3**	**L10Q47**	.290	.25	**.15**
50	**LA10Q5-S3**	**L10Q5**	.290	.25	**.15**
56	**LA10Q56-S3**	**L10Q56**	.290	.25	**.15**
68	**LA10Q68-S3**	**L10Q68**	.290	.25	**.15**
75	**LA10Q75-S3**	**L10Q75**	.290	.25	**.15**
82	**LA10Q82-S3**	**L10Q82**	.290	.25	**.15**
91	**LA10Q91-S3**	**L10Q91**	.290	.25	**.15**
100	**LA10T1-S3**	**L10T1**	.290	.25	**.15**
120	**LA10T12-S3**	**L10T12**	.290	.25	**.15**
130	**LA10T13-S3**	**L10T13**	.290	.25	**.15**
150	**LA10T15-S3**	**L10T15**	.290	.25	**.15**
180	**LA10T18-S3**	**L10T18**	.290	.25	**.15**
200	**LA10T2-S3**	**L10T2**	.290	.25	**.15**
220	**LA10T22-S3**	**L10T22**	.290	.25	**.15**
250	**LA10T25-C4**	**L10T25**	.290	.25	**.15**
270	**LA10T27-C4**	**L10T27**	.290	.25	**.15**
300	**LA10T3-C4**	**L10T3**	.290	.25	**.15**
330	**LA10T33-C4**	**L10T33**	.290	.25	**.15**
350	**LA10T35-C4**	**L10T35**	.290	.25	**.15**
360	**LA10T36-C4**	**L10T36**	.290	.25	**.15**
390	**LA10T39-C4**	**L10T39**	.290	.25	**.15**
400	**LA10T4-C4**	**L10T4**	.290	.25	**.15**
470	**LA10T47-C4**	**L10T47**	.290	.25	**.15**
500	**LA10T5-C4**	**L10T5**	.290	.25	**.15**
560	**LA10T56-C4**	**L10T56**	.390	.25	**.15**
600	**LA10T6-C4**	**L10T6**	.390	.25	**.15**
680	**LA10T68-C4**	**L10T68**	.390	.25	**.15**
750	**LA10T75-C4**	**L10T75**	.390	.25	**.15**
800	**LA10T8-C4**	**L10T8**	.390	.25	**.15**
820	**LA10T82-C4**	**L10T82**	.390	.25	**.15**
1000	**LA10D1-C4**	**L10D1**	.437	.25	**.15**
1200	**LA10D12-C4**	**L10D12**	.437	.25	**.15**
1500	**LA10D15-C4**	**L10D15**	.593	.25	**.15**
1600	**LA10D16-C4**	**L10D16**	.593	.25	**.15**

†Tolerance ±.5 Mmfd.

CLASS
202.00

"TINYMIKE" Disc Ceramics

General Purpose DISC CLOSE TOLERANCE

CLASS 202.71 (Cont'd)

TYPE: LA

VOLTAGE: 1000 VDCW

TOLERANCE: ±10%, except as noted, to 390 mmfd. incl.
±20%, 400 mmfd. and over.

TEMPERATURE RANGE: —55°C to +85°C.

MAXIMUM THICKNESS: .156 inches.

SINGLES

Cap. Mmfd.	New Cat. No.	Old Cat. No.	Max. Dia. (Inches)	List Price	Net Price
1800	LA10D18-C4	L10D18	.593	.25	.15
2000	LA10D2-C4	L10D2	.593	.25	.15
2200	LA10D22-C4	L10D22	.593	.25	.15
2500	LA10D25-C4	L10D25	.660	.25	.15
2700	LA10D27-C4	L10D27	.660	.25	.15
3000	LA10D3-C4	L10D3	.660	.25	.15
3300	LA10D33-C4	L10D33	.660	.25	.15
3900	LA10D39-C4	L10D39	.750	.25	.15
4000	LA10D4-C4	L10D4	.750	.25	.15
4300	LA10D43-C4	L10D43	.840	.25	.15
4700	LA10D47-C4	L10D47	.840	.25	.15
5000	LA10D5-C4	L10D5	.840	.25	.15

†Tolerance ±.5 Mmfd.

Low Voltage Miniature DISC for TRANSISTOR CIRCUITRY

CLASS 202.11

TYPE: H

VOLTAGE: 50 VDCW

TOLERANCE: +100%, —0%, except as noted.

TEMPERATURE RANGE: +10°C to +85°C.

Cap. Mmfd.	New Cat. No.	Old Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
.005	H1	HO5D5	.350	1/8	$.45	$.27
.01	H2	HO5S1	.350	1/8	.65	.39
.02	H3	HO5S2	.500	1/8	.65	.39
.025	H4	HO5S25	.500	1/8	.65	.39
*.05	H5	HO5S5	.625	1/8	.70	.42
*.10	H6	HO5P1	.625	3/16	.90	.54

*Tolerance +80%, —20%.

High-Capacitance DISCS for TRANSISTOR CIRCUITRY

CLASS 202.05

TYPE: HCC

TOLERANCE: GMV on 3 VDCW Units

TEMPERATURE RANGE: —55°C to +85°C.

Cap. Mfd.	VDCW	Cat. No.	Diam. (Inches)	Thick. (Inches)	List Price	Net Price
.22	3	HCC3224P	.290	.156	$.55	$.33
.47	3	HCC3474P	.437	.156	.55	.33
1.0	3	HCC3105P	.593	.156	.75	.45
2.2	3	HCC3225P	.840	.156	.90	.54

Temperature Compensating DISC Coefficient NPO

CLASS 202.73

TYPE: C

VOLTAGE: 1000 VDCW

TOLERANCE: ±5%, except as noted.

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Present Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
†1.5	C10V15C	.290	.156	$.50	$.30
†2.2	C10V22C	.290	.156	.50	.30
†3.3	C10V33C	.290	.156	.50	.30
†4.7	C10V47C	.290	.156	.50	.30
6.8	C10V68C	.290	.156	.50	.30
10	C10Q1C	.290	.156	.50	.30
15	C10Q15C	.290	.156	.50	.30
20	C10Q2C	.390	.156	.50	.30
22	C10Q22C	.390	.156	.50	.30
25	C10Q25C	.437	.156	.50	.30
33	C10Q33C	.437	.156	.50	.30
39	C10Q39C	.593	.156	.50	.30
47	C10Q47C	.593	.156	.50	.30
50	C10Q5C	.593	.156	.50	.30
68	C10Q68C	.593	.156	.50	.30
75	C10Q75C	.660	.156	.50	.30
100	C10T1C	.660	.156	.50	.30
120	C10T12C	.750	.156	.75	.45
150	C10T15C	.840	.156	.75	.45

†Tolerance ±.5 Mmfd.

Temperature Compensating DISC Coefficient N750

CLASS 202.73 (Cont'd)

TYPE: C

VOLTAGE: 1000 VDCW

TOLERANCE: ±5%

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Present Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
5.0	C10V5U	.290	.156	$.50	$.30
6.8	C10V68U	.290	.156	.50	.30
10	C10Q1U	.290	.156	.50	.30
15	C10Q15U	.290	.156	.50	.30
20	C10Q2U	.290	.156	.50	.30
22	C10Q22U	.290	.156	.50	.30
25	C10Q25U	.290	.156	.50	.30
33	C10Q33U	.290	.156	.50	.30
39	C10Q39U	.390	.156	.50	.30
47	C10Q47U	.390	.156	.50	.30
50	C10Q5U	.390	.156	.50	.30
68	C10Q68U	.390	.156	.50	.30
75	C10Q75U	.437	.156	.50	.30
100	C10T1U	.593	.156	.75	.45
130	C10T13U	.593	.156	.75	.45
150	C10T15U	.593	.156	.75	.45
180	C10T18U	.660	.156	.75	.45
200	C10T2U	.660	.156	.75	.45
220	C10T22U	.660	.156	.75	.45
270	C10T27U	.750	.156	.75	.45
300	C10T3U	.840	.156	.75	.45
330	C10T33U	.840	.156	.75	.45
370	C10T37U	.840	.156	.75	.45

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Trade Discount Applies To List Prices Only

CLASS 202.00 "TINYMIKE" Disc Ceramics

Stabilized Capacity DISC

CLASS 202.61

TYPE: JB

VOLTAGE: 600 VDCW

TOLERANCE: ±10%

TEMPERATURE RANGE: —55°C to +125°C.

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
220	**JB6T22**	.290	.156	$.25	**$.15**
330	**JB6T33**	.290	.156	.25	**.15**
470	**JB6T47**	.290	.156	.25	**.15**
500	**JB6T5**	.290	.156	.25	**.15**
560	**JB6T56**	.390	.156	.25	**.15**
680	**JB6T68**	.390	.156	.25	**.15**
800	**JB6T8**	.390	.156	.25	**.15**
1000	**JB6D1**	.437	.156	.25	**.15**
1200	**JB6D12**	.437	.156	.25	**.15**
1800	**JB6D18**	.593	.156	.25	**.15**
2000	**JB6D2**	.593	.156	.25	**.15**
2200	**JB6D22**	.593	.156	.25	**.15**
3300	**JB6D33**	.660	.156	.25	**.15**
3900	**JB6D39**	.750	.156	.30	**.18**
4700	**JB6D47**	.840	.156	.30	**.18**
5000	**JB6D5**	.840	.156	.30	**.18**

General Purpose DISC HIGH VOLTAGE

CLASS 202.32

TYPE: HVA — HVB — HVC

VOLTAGE: 1600 & 2000 VDCW

TEMPERATURE RANGE: —55°C to +85°C.

TOLERANCE: 200 to 1000 mmfd. incl. ±20%.
1200 to 4700 mmfd. incl. GMC.

SINGLES

Voltage VDCW	Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
1600	220	**HVB16T22**	.390	.218	$.35	**$.21**
1600	390	**HVB16T39**	.390	.218	.35	**.21**
1600	1000	**HVB16D1**	.593	.218	.35	**.21**
1600	3300	**HVC16D33**	.593	.218	.35	**.21**
1600	4700	**HVC16D47**	.750	.218	.35	**.21**
2000	15	**HVA20Q15**	.390	.218	.35	**.21**
2000	68	**HVB20Q68**	.593	.218	.35	**.21**
2000	470	**HVB20T47**	.593	.218	.35	**.21**
2000	1000	**HVB20D1**	.750	.218	.50	**.30**
2000	2000	**HVC20D2**	.593	.218	.35	**.21**
2000	5000	**HVC20D5**	.750	.218	.50	**.30**

High Voltage DISC for BUFFER Applications

TYPE: HVE

VOLTAGE: 1600 VDCW

TOLERANCE: GMC, except as noted.

TEMPERATURE RANGE: —55°C to +85°C.

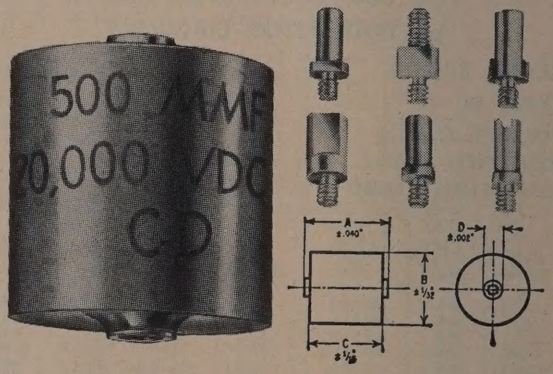
SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
3000	**HVE16D3**	.750	.218	$.35	**$.21**
4000	**HVE16D4**	.750	.218	.35	**.21**
5000	**HVE16D5**	.750	.218	.35	**.21**
6000	**HVE16D6**	.840	.218	.35	**.21**
7000	**HVE16D7**	.840	.218	.35	**.21**
7500	**HVE16D75**	.840	.218	.35	**.21**
8000	**HVE16D8**	.840	.218	.35	**.21**
10000	**HVE16S1**	.840	.218	.35	**.21**
†15000	**HVE16S15**	.840	.250	.60	**.36**

†Tolerance +80%, —20%.

UNIVERSAL HIGH VOLTAGE

CLASS 202.56



- ◆ **New, superior design and construction.**
- ◆ **Generous factor of safety permits use at FULL rated voltage.**
- ◆ **High insulation resistance, low power factor.**
- ◆ **Choice of terminal styles to meet all TV assembly requirements.**

STANDARD TOLERANCE: +50% —20%

	New Cat. No. **105TM200T5** Old Cat. No. **MMU200T5**	New Cat. No. **105TM300T5** Old Cat. No. **MMU300T5**
Cap. Mmfd.	500	500
VDCW	20,000	30,000
Flash Test	30,000	40,000
Body Size		
A	1.068"	1.381"
B	.950"	1.375"
C	.937"	1.250"
D	.250"	.250"
List Price	$2.50	$4.00
Net Price	**1.50**	**2.40**

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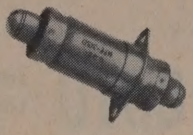
QUIETONE® Interference Suppression FILTERS

NFF and NFT types are coaxial feed-thru capacitors. Since the conductor is completely surrounded by the capacitor, these provide much more effective bypassing at frequencies encountered in Citizens Band, Amateur Radio, and other high frequency communications services. MC-8D98 is a heavy-duty bypass capacitor, specially designed for use on vehicular accessories.

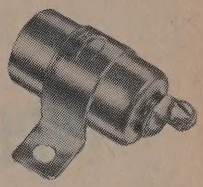
NFF-055B is designed to be used in place of the conventional condensers on the automobile generator and spark coil. NFF-315D is intended for use at the generator and battery terminals of the voltage regulator.

The A-C line on a fixed-station transmitter can be effectively filtered against TVI by using two of the Type NFF-315D as terminals on the chassis and connecting the line-cord to them with conventional insulated plate caps. (This also provides easy removal of the line-cord to prevent unauthorized use of the equipment).

NFF-055B



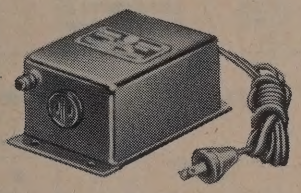
NFF-315D
NFT-1F246



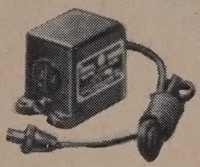
MC-8D98

Cat. No.	Mfd.	V.D.C.W.	Amp.	Dia. x Length Inches	List Price*	Net Price*
NFF-055B	0.5	50	40	1 x 1 13/16	$3.50	**$2.10**
NFF-315D	0.1	600	20	11/16 x 1 13/16	2.95	**1.77**
NFT-1F246	0.25	200	20	7/8 x 2 17/32	4.50	**2.70**
NFT-1D086	0.1	600	20	11/16 x 1 7/16	2.60	**1.56**
MC-8D98	0.1	100	—	11/16 x 1 3/8	2.38	**1.43**

*Subject to Federal Excise Tax.



IF-18



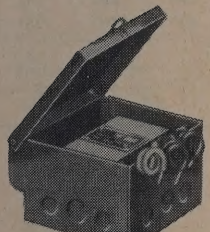
IF-19 IF-21

IF-6

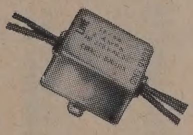
IF-4

IF-20

FOR USE ON TELEVISION, RADIOS AND HOME APPLIANCES



IF-7A



IF-54

IF-25

IF-24

FOR USE ON INDUSTRIAL AND HEAVY-DUTY ELECTRICAL EQUIPMENT

Cornell-Dubilier UNIVERSAL Quietone filters offer a practical solution for the suppression of interference from many types of household, industrial and heavy duty electrical equipment. See "Radio, TV and Appliance Quietones." A partial list of such sources is shown in the QUIETONE APPLICATION SELECTOR. Because high frequency disturbances are usually carried through the power lines, most effective interference suppression is obtained when the Quietone filter is installed on the equipment as an integral part thereof.

C-D Quietones are designed to give optimum suppression on the equipment for which they are intended and can be relied upon to render excellent service.

RADIO, TV AND APPLIANCE "QUIETONES" RATING—110 V. A.C. - D.C. — 5 AMPS

Cat. No.	Radio and Electrical Appliance Uses	List Price	Net Price
IF-4	Small radios, portables. Low intensity noise.	$ 1.50	**$ .90**
IF-5	Small electric appliances. Low intensity interference.	1.50	**.90**
IF-6	All home appliances. Low intensity interference.	2.35	**1.41**
IF-18	All radios and appliances with severe interference.	11.00	**6.60**
IF-19	All types home appliances with severe interference.	9.25	**5.55**
IF-20	Small appliances with very low interference.	$1.00	**$ .60**
IF-21	Electric barber clippers, shavers, small appliances. 1.6 amps.	5.20	**3.12**

IF SERIES INDUSTRIAL "QUIETONES"

Cat. No.	Volts AC–DC	Amps. Max.	Connections	Housing	List Price	Net Price
IF-7A	110–220	5	BX	Cutout Box	$16.50	**$9.90**
IF-24	110	....	Flex-Leads	Metal	1.50	**.90**
IF-25	110–220	....	Flex-Leads	Metal	5.95	**3.57**
IF-54	110–220	2	Flex-Leads	Metal	3.00	**1.80**

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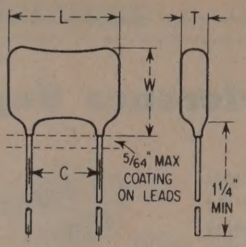
Trade Discount Applies To List Prices Only

CORNELL-DUBILIER ELECTRONICS

CLASS

203.01 DIPPED MICA DIELECTRIC CAPACITORS

Epoxy Dipped Silvered Mica Capacitors supplied in the best applicable Temperature Characteristic rated −55°C to +125°C.



STANDARD RATINGS AND DIMENSIONS

Cap. Range (mmf.)	Dimensions (Max.)			
	L	W	T	C
1–23	.360	.330	.190	9/64
24–50	.370	.340	.190	9/64
51–250	.390	.380	.220	9/64
251–300	.390	.380	.220	9/64
301–400	.390	.380	.220	9/64

Wire lead size—#26 AWG

TYPE CD10

500 VOLTS D.C.W.
1000 VOLTS TEST

Cap. Mmf.	Tol.	CDE Cat. No.	List Price	Net Price
2	±20%	**CD10C020M**	$.30	**$.18**
5	±10%	**CD10C050K**	.30	**.18**
10	± 5%	**CD10C100J**	.35	**.21**
12	± 5%	**CD10C120J**	.40	**.24**
15	± 5%	**CD10C150J**	.40	**.24**
18	± 5%	**CD10C180J**	.40	**.24**
20	± 5%	**CD10C200J**	.40	**.24**
22	± 5%	**CD10C220J**	.40	**.24**
24	± 5%	**CD10E240J**	.40	**.24**
27	± 5%	**CD10E270J**	.40	**.24**
30	± 5%	**CD10E300J**	.40	**.24**
33	± 5%	**CD10E330J**	.40	**.24**
36	± 5%	**CD10E360J**	.40	**.24**
39	± 5%	**CD10E390J**	.40	**.24**
43	± 5%	**CD10E430J**	.40	**.24**
47	± 5%	**CD10E470J**	.45	**.27**
51	± 5%	**CD10F510J**	.45	**.27**
56	± 5%	**CD10F560J**	.45	**.27**
62	± 5%	**CD10F620J**	.45	**.27**
68	± 5%	**CD10F680J**	$.45	**$.27**
75	± 5%	**CD10F750J**	.45	**.27**
82	± 5%	**CD10F820J**	.45	**.27**
91	± 5%	**CD10F910J**	.45	**.27**
100	± 5%	**CD10F101J**	.45	**.27**
110	± 5%	**CD10F111J**	.45	**.27**
120	± 5%	**CD10F120J**	.50	**.30**
130	± 5%	**CD10F131J**	.50	**.30**
150	± 5%	**CD10F151J**	.55	**.33**
160	± 5%	**CD10F161J**	.60	**.36**
180	± 5%	**CD10F181J**	.65	**.39**
200	± 5%	**CD10F201J**	.65	**.39**
220	± 5%	**CD10E221J**	.70	**.42**
240	± 5%	**CD10F241J**	.75	**.45**
270	± 5%	**CD10F271J†**	.75	**.45**
300	± 5%	**CD10F301J†**	.80	**.48**
330	± 5%	**CD10F331J★**	.80	**.48**
360	± 5%	**CD10F361J★**	.85	**.51**
390	± 5%	**CD10F391J★**	1.35	**.81**

STANDARD RATINGS AND DIMENSIONS

Cap. Range (mmf.)	Dimensions (Max.)			
	L	W	T	C
1–23	.440	.360	.180	15/64
24–50	.450	.360	.190	15/64
51–400	.470	.400	.220	15/64
401–510	.490	.400	.240	15/64

Wire lead size—#22 AWG

TYPE CD15

500 VOLTS D.C.W.
1000 VOLTS TEST

Cap. Mmf.	Tol.	CDE Cat. No.	List Price	Net Price
2	±20%	**CD15C020M**	$.25	**$.15**
5	±10%	**CD15C050K**	.25	**.15**
6	±10%	**CD15C060K**	.25	**.15**
7	±10%	**CD15C070K**	.25	**.15**
8	±10%	**CD15C080K**	.25	**.15**
10	±10%	**CD15C100K**	.25	**.15**
12	±10%	**CD15C120K**	.25	**.15**
18	±10%	**CD15C180K**	.25	**.15**
20	± 5%	**CD15E200J**	.30	**.18**
22	±10%	**CD15E220K**	.25	**.15**
22	± 5%	**CD15E220J**	.30	**.18**
24	± 5%	**CD15E240J**	.30	**.18**
27	±10%	**CD15E270K**	.25	**.15**
27	± 5%	**CD15E270J**	.30	**.18**
27	± 2%	**CD15E270G**	.35	**.21**
30	± 5%	**CD15E300J**	.30	**.18**
30	± 2%	**CD15E300G**	.35	**.21**
33	±10%	**CD15E330K**	.25	**.15**
33	± 5%	**CD15E330J**	.30	**.18**
33	± 2%	**CD15E330G**	.35	**.21**
36	± 5%	**CD15E360J**	.30	**.18**
36	± 2%	**CD15E360G**	.35	**.21**
39	±10%	**CD15E390K**	.25	**.15**
39	± 5%	**CD15E390J**	.30	**.18**
39	± 2%	**CD15E390G**	.35	**.21**
43	± 5%	**CD15E430J**	.30	**.18**
43	± 2%	**CD15E430G**	.35	**.21**
47	±10%	**CD15E470K**	.25	**.15**
47	± 5%	**CD15E470J**	.30	**.18**
47	± 2%	**CD15E470G**	.35	**.21**
51	± 5%	**CD15F510J**	.30	**.18**
51	± 2%	**CD15F510G**	.35	**.21**
56	±10%	**CD15F560K**	.25	**.15**
56	± 5%	**CD15F560J**	.30	**.18**
56	± 2%	**CD15F560G**	.35	**.21**
62	± 5%	**CD15F620J**	.30	**.18**
62	± 2%	**CD15F620G**	.35	**.21**
68	±10%	**CD15F680K**	.25	**.15**
68	± 5%	**CD15F680J**	.30	**.18**
68	± 2%	**CD15F680G**	.35	**.21**
75	± 5%	**CD15F750J**	.30	**.18**
75	± 2%	**CD15F750G**	.35	**.21**
82	±10%	**CD15F820K**	.25	**.15**
82	± 5%	**CD15F820J**	$.30	**$.18**
82	± 2%	**CD15F820G**	.35	**.21**
91	± 5%	**CD15F910J**	.30	**.18**
91	± 2%	**CD15F910G**	.35	**.21**
100	±10%	**CD15F101K**	.25	**.15**
100	± 5%	**CD15F101J**	.30	**.18**
100	± 2%	**CD15F101G**	.35	**.21**
110	± 5%	**CD15F111J**	.35	**.21**
110	± 2%	**CD15F111G**	.40	**.24**
120	±10%	**CD15F121K**	.30	**.18**
120	± 5%	**CD15F121J**	.35	**.21**
120	± 2%	**CD15F121G**	.40	**.24**
130	± 5%	**CD15F131J**	.35	**.21**
130	± 2%	**CD15F131G**	.40	**.24**
150	±10%	**CD15F151K**	.30	**.18**
150	± 5%	**CD15F151J**	.35	**.21**
150	± 2%	**CD15F151G**	.40	**.24**
160	± 5%	**CD15F161J**	.40	**.24**
160	± 2%	**CD15F161G**	.45	**.27**
180	±10%	**CD15F181K**	.35	**.21**
180	± 5%	**CD15F181J**	.40	**.24**
180	± 2%	**CD15F181G**	.45	**.27**
200	± 5%	**CD15F201J**	.40	**.24**
200	± 2%	**CD15F201G**	.45	**.27**
220	±10%	**CD15F221K**	.40	**.24**
220	± 5%	**CD15F221J**	.45	**.27**
220	± 2%	**CD15F221G**	.50	**.30**
240	± 5%	**CD15F241J**	.45	**.27**
240	± 2%	**CD15F241G**	.50	**.30**
270	±10%	**CD15F271K**	.45	**.27**
270	± 5%	**CD15F271J**	.50	**.30**
270	± 2%	**CD15F271G**	.55	**.33**
300	± 5%	**CD15F301J**	.50	**.30**
300	± 2%	**CD15F301G**	.55	**.33**
330	±10%	**CD15F331K**	.50	**.30**
330	± 5%	**CD15F331J**	.55	**.33**
330	± 2%	**CD15F331G**	.65	**.39**
360	± 5%	**CD15F361J**	.55	**.33**
360	± 2%	**CD15F361G**	.65	**.39**
390	±10%	**CD15F391K**	.55	**.33**
390	± 5%	**CD15F391J**	.60	**.36**
390	± 2%	**CD15F391G**	.70	**.42**

★ 100 Volts † 300 Volts

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CORNELL-DUBILIER ELECTRONICS

DIPPED MICA DIELECTRIC CAPACITORS

STANDARD RATINGS AND DIMENSIONS

Cap. Range (mmf.)	Dimensions (Max.)			
	L	W	T	C
51–1000	.650	.520	.220	11/32
1001–3000	.680	.550	.250	11/32
3001–4700	.700	.580	.340	11/32

Wire lead size — # 20 AWG

TYPE CD19

500 VOLTS D.C.W.
1000 VOLTS TEST

Cap. Mmf.	Tol.	CDE Cat. No.	List Price	Net Price
430	± 5%	**CD19E431J**	$.50	**$.30**
430	± 2%	**CD19F431G**	.55	**.33**
470	±10%	**CD19E471K**	.50	**.30**
470	± 5%	**CD19F471J**	.55	**.33**
470	± 2%	**CD19F471G**	.60	**.36**
510	± 5%	**CD19F511J**	.55	**.33**
510	± 2%	**CD19F511G**	.60	**.36**
560	±10%	**CD19F561K**	.55	**.33**
560	± 5%	**CD19F561J**	.60	**.36**
560	± 2%	**CD19E561G**	.65	**.39**
620	± 5%	**CD19F621J**	.60	**.36**
620	± 2%	**CD19F621G**	.65	**.39**
680	±10%	**CD19F681K**	.60	**.36**
680	± 5%	**CD19F681J**	.65	**.39**
680	± 2%	**CD19F681G**	.70	**.42**
750	± 5%	**CD19F751J**	.65	**.39**
750	± 2%	**CD19F751G**	.70	**.42**
820	±10%	**CD19F821K**	.60	**.36**
820	± 5%	**CD19F821J**	.65	**.39**
820	± 2%	**CD19F821G**	.70	**.42**
910	± 5%	**CD19F911J**	.70	**.42**
910	± 2%	**CD19F911G**	.75	**.45**
1000	±10%	**CD19F102K**	.70	**.42**
1000	± 5%	**CD19F102J**	.75	**.45**
1000	± 2%	**CD19F102G**	.80	**.48**
1100	± 5%	**CD19F112J**	.75	**.45**
1100	± 2%	**CD19F112G**	.80	**.48**
1200	± 5%	**CD19F122J**	.80	**.48**
1200	± 2%	**CD19F122G**	.90	**.54**
1300	± 5%	**CD19F132J**	$ .85	**$ .51**
1300	± 2%	**CD19F132G**	.95	**.57**
1500	± 5%	**CD19F152J**	.90	**.54**
1500	± 2%	**CD19F152G**	1.00	**.60**
1600	± 5%	**CD19F162J**	.95	**.57**
1600	± 2%	**CD19F162G**	1.05	**.63**
1800	± 5%	**CD19F182J**	1.10	**.66**
1800	± 2%	**CD19F182G**	1.20	**.72**
2000	± 5%	**CD19F202J**	1.20	**.72**
2000	± 2%	**CD19F202G**	1.30	**.78**
2200	± 5%	**CD19F222J**	1.30	**.78**
2200	± 2%	**CD19F222G**	1.40	**.84**
2400	± 5%	**CD19F242J**	1.40	**.84**
2400	± 2%	**CD19F242G**	1.55	**.93**
2700	± 5%	**CD19F272J**	1.50	**.90**
2700	± 2%	**CD19F272G**	1.65	**.99**
3000	± 5%	**CD19F302J**	1.65	**.99**
3000	± 2%	**CD19F302G**	1.80	**1.08**
3300	± 5%	**CD19F332J**	1.75	**1.05**
3300	± 2%	**CD19F332G**	1.90	**1.14**
3600	± 5%	**CD19F362J**	1.85	**1.11**
3600	± 2%	**CD19F362G**	2.00	**1.20**
3900	± 5%	**CD19F392J**	1.95	**1.17**
3900	± 2%	**CD19F392G**	2.15	**1.29**
4300	± 5%	**CD19F432J**	2.05	**1.23**
4300	± 2%	**CD19F432G**	2.25	**1.35**
4700	± 5%	**CD19F472J**	2.20	**1.32**
4700	± 2%	**CD19F472G**	2.40	**1.44**

STANDARD RATINGS AND DIMENSIONS

Cap. Range (mmf.)	Dimensions (Max.)			
	L	W	T	C
4701–10,000	.800	.890	.340	7/16
10,001–20,000	.830	.920	.440	7/16

Wire lead size — # 18 AWG

TYPE CD30

500 VOLTS D.C.W.
1000 VOLTS TEST

Cap. Mmf.	Tol.	CDE Cat. No.	List Price	Net Price
5100	± 5%	**CD30F512J**	$1.90	**$1.14**
5100	± 2%	**CD30F512G**	2.10	**1.75**
5600	± 5%	**CD30F562J**	1.95	**1.17**
5600	± 2%	**CD30F562G**	2.15	**1.29**
6200	± 5%	**CD30F622J**	2.05	**1.23**
6200	± 2%	**CD30F622G**	2.25	**1.35**
6800	± 5%	**CD30F682J**	2.30	**1.38**
6800	± 2%	**CD30F682G**	2.50	**1.50**
7500	± 5%	**CD30F752J**	2.50	**1.50**
7500	± 2%	**CD30F752G**	2.75	**1.65**
8200	± 5%	**CD30F822J**	2.75	**1.65**
8200	± 2%	**CD30F822G**	3.00	**1.80**
9100	± 5%	**CD30F912J**	2.95	**1.77**
9100	± 2%	**CD30F912G**	3.20	**1.92**
10,000	± 5%	**CD30F103J**	3.30	**1.98**
10,000	± 2%	**CD30F103G**	$3.60	**$2.16**
11,000	± 5%	**CD30F113J**	3.60	**2.16**
11,000	± 2%	**CD30F113G**	3.90	**2.34**
12,000	± 5%	**CD30F123J**	3.85	**2.31**
12,000	± 2%	**CD30F123G**	4.20	**2.52**
13,000	± 5%	**CD30F133J**	4.10	**2.46**
13,000	± 2%	**CD30F133G**	4.50	**2.70**
15,000	± 5%	**CD30F153J**	4.65	**2.79**
15,000	± 2%	**CD30F153G**	5.10	**3.06**
16,000	± 5%	**CD30F163J**	4.95	**2.97**
16,000	± 2%	**CD30F163G**	5.40	**3.24**
18,000	± 5%	**CD30F183J**	5.50	**3.30**
18,000	± 2%	**CD30F183G**	6.00	**3.60**
20,000	± 5%	**CD30F203J**	6.05	**3.63**
20,000	± 2%	**CD30F203G**	6.60	**3.96**

STANDARD RATINGS AND DIMENSIONS

Cap. Range (mmf.)	Dimensions (Max.)			
	L	W	T	C
3000–22,000	1.420	.880	.310	1 1/16
22,001–36,000	1.440	.900	.380	1 1/16
36,001–51,000	1.460	.920	.440	1 1/16
51,001–68,000	1.460	.920	.440	1 1/16

Wire lead size — # 18 AWG

TYPE CD42

500 VOLTS D.C.W.
1000 VOLTS TEST

Cap. Mmf.	Tol.	CDE Cat. No.	List Price	Net Price
22,000	± 5%	**CD42F223J**	$ 6.90	**$4.14**
22,000	± 2%	**CD42F223G**	7.90	**4.14**
24,000	± 5%	**CD42F243J**	7.50	**4.50**
24,000	± 2%	**CD42F243G**	8.60	**5.16**
27,000	± 5%	**CD42F273J**	8.40	**5.04**
27,000	± 2%	**CD42F273G**	9.65	**5.79**
30,000	± 5%	**CD42F303J**	9.30	**5.58**
30,000	± 2%	**CD42F303G**	10.70	**6.42**
33,000	± 5%	**CD42F333J**	10.20	**6.12**
33,000	± 2%	**CD42F333G**	11.70	**7.02**
36,000	± 5%	**CD42F363J**	11.10	**6.66**
36,000	± 2%	**CD42F363G**	12.75	**7.65**
39,000	± 5%	**CD42F393J**	$12.00	**$7.20**
39,000	± 2%	**CD42F393G**	13.80	**8.28**
43,000	± 5%	**CD42F433J**	13.00	**7.80**
43,000	± 2%	**CD42F433G**	14.95	**8.97**
47,000	± 5%	**CD42F473J**	14.00	**8.40**
47,000	± 2%	**CD42F473G**	16.10	**9.66**
51,000	± 5%	**CD42F513J†**	15.00	**9.00**
51,000	± 2%	**CD42F513G†**	17.25	**10.35**
56,000	± 5%	**CD42F563J†**	14.20	**8.52**
56,000	± 2%	**CD42F563G†**	16.30	**9.78**
62,000	± 5%	**CD42F623J†**	15.60	**9.36**
62,000	± 2%	**CD42F623G†**	17.90	**10.74**

† 300 Volts D.C.W.

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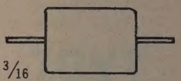
CLASS

203.23 "SILVER-MIKE" Molded Micas

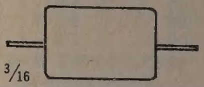
CDE SILVERED MICA dielectric capacitors are excellent for any High-Q electronic or other applications where utmost in capacity stability and in absolute minimum of leakage current is desired. All items shown are supplied to the best applicable temperature characteristic.

22R 500 VOLT SILVERED MICA 1000 Volt Test


33/64 x 19/64 x 3/16

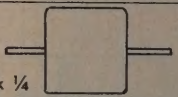
Cap. Mmfd.	Tol.	CDE Cat. No.	List Price	Net Price
2	±20	**22R5V2M**	$.40	**$.24**
5	±10	**22R5V5K**	.40	**.24**
10	±10	**22R5Q1K**	.40	**.24**
12	±10	**22R5Q12K**	.40	**.24**
15	±10	**22R5Q15K**	.40	**.24**
18	±10	**22R5Q18K**	.40	**.24**
20	±5	**22R5Q2J**	.40	**.24**
22	±10	**22R5Q22K**	.40	**.24**
22	±5	**22R5Q22J**	.40	**.24**
24	±5	**22R5Q24J**	.40	**.24**
27	±10	**22R5Q27K**	.40	**.24**
27	±5	**22R5Q27J**	.40	**.24**
30	±5	**22R5Q3J**	.40	**.24**
33	±10	**22R5Q33K**	.40	**.24**
33	±5	**22K5Q33J**	.40	**.24**
36	±5	**22R5Q36J**	.40	**.24**
39	±10	**22R5Q39K**	.40	**.24**
39	±5	**22R5Q39J**	.40	**.24**
43	±5	**22R5Q43J**	.40	**.24**
47	±10	**22R5Q47K**	.40	**.24**
47	±5	**22R5Q47J**	.40	**.24**
51	±5	**22R5Q51J**	.40	**.24**
51	±2	**22R5Q51G**	.45	**.27**
56	±10	**22R5Q56K**	.40	**.24**
56	±5	**22R5Q56J**	.40	**.24**
56	±2	**22R5Q56G**	.45	**.27**
62	±5	**22R5Q62J**	.40	**.24**
62	±2	**22R5Q62G**	.45	**.27**
68	±10	**22R5Q68K**	$.40	**$.24**
68	±5	**22R5Q68J**	.40	**.24**
68	±2	**22R5Q68G**	.45	**.27**
75	±5	**22R5Q75J**	.40	**.24**
75	±2	**22R5Q75G**	.45	**.27**
82	±10	**22R5Q82K**	.40	**.24**
82	±5	**22R5Q82J**	.45	**.27**
82	±2	**22R5Q82G**	.50	**.30**
91	±5	**22R5Q91J**	.45	**.27**
91	±2	**22R5Q91G**	.50	**.30**
100	±10	**22R5T1K**	.40	**.24**
100	±5	**22R5T1J**	.45	**.27**
100	±2	**22R5T1G**	.50	**.30**
110	±5	**22R5T11J**	.45	**.27**
110	±2	**22R5T11G**	.50	**.30**
120	±10	**22R5T12K**	.40	**.24**
120	±5	**22R5T12J**	.45	**.27**
120	±2	**22R5T12G**	.50	**.30**
130	±5	**22R5T13J**	.45	**.27**
130	±2	**22R5T13G**	.50	**.30**
150	±10	**22R5T15K**	.40	**.24**
150	±5	**22R5T15J**	.45	**.27**
150	±2	**22R5T15G**	.50	**.30**
160	±5	**22R5T16J**	.50	**.30**
160	±2	**22R5T16G**	.55	**.33**
180	±10	**22R5T18K**	.45	**.27**
180	±5	**22R5T18J**	.50	**.30**
180	±2	**22R5T18G**	.55	**.33**
200	±5	**22R5T2J**	$.50	**$.30**
200	±2	**22R5T2G**	.55	**.33**
220	±10	**22R5T22K**	.50	**.30**
220	±5	**22R5T22J**	.55	**.33**
220	±2	**22R5T22G**	.65	**.39**
240	±5	**22R5T24J**	.55	**.33**
240	±2	**22R5T24G**	.65	**.39**
270	±10	**22R5T27K**	.55	**.33**
270	±5	**22R5T27J**	.60	**.36**
270	±2	**22R5T27G**	.70	**.42**
300	±5	**22R5T3J**	.60	**.36**
300	±2	**22R5T3G**	.70	**.42**
330	±10	**22R5T33K**	.60	**.36**
330	±5	**22R5T33J**	.65	**.39**
330	±2	**22R5T33G**	.75	**.45**
360	±5	**22R5T36J**	.70	**.42**
360	±2	**22R5T36G**	.80	**.48**
390	±10	**22R5T39K**	.65	**.39**
390	±5	**22R5T39J**	.70	**.42**
390	±2	**22R5T39G**	.80	**.48**
430	±5	**22R5T43J**	.75	**.45**
430	±2	**22R5T43G**	.85	**.51**
470	±10	**22R5T47K**	.75	**.45**
470	±5	**22R5T47J**	.80	**.48**
470	±2	**22R5T47G**	.90	**.54**
510	±5	**22R5T51J**	.80	**.48**
510	±2	**22R5T51G**	.90	**.54**

5R 500 VOLT SILVERED MICA 1000 Volt Test


47/64 x 7/16 x 3/16

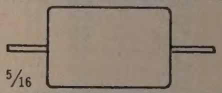
Cap. Mmfd.	Tol.	CDE Cat. No.	List Price	Net Price
560	±10	**5R5T56K**	$.70	**$.42**
560	±5	**5R5T56J**	.75	**.45**
560	±2	**5R5T56G**	.85	**.51**
620	±5	**5R5T62J**	.75	**.45**
620	±2	**5R5T62G**	.85	**.51**
680	±10	**5R5T68K**	.75	**.45**
680	±5	**5R5T68J**	$.80	**$.48**
680	±2	**5R5T68G**	.90	**.54**
750	±5	**5R5T75J**	.80	**.48**
750	±2	**5R5T75G**	.90	**.54**
820	±10	**5R5T82K**	.80	**.48**
820	±5	**5R5T82J**	.85	**.51**
820	±2	**5R5T82G**	$1.00	**$.60**
910	±5	**5R5T91J**	.85	**.51**
910	±2	**5R5T91G**	1.00	**.60**
1000	±10	**5RD1K**	.85	**.51**
1000	±5	**5R5D1J**	.90	**.54**
1000	±2	**5R5D1G**	1.05	**.63**

1R 500 VOLT SILVERED MICA 1000 Volt Test


51/64 x 51/64 x ¼

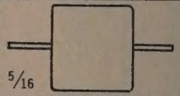
Cap. Mmfd.	Tol.	CDE Cat. No.	List Price	Net Price
560	±5	**1R5T56J**	$.75	**$.45**
560	±2	**1R5T56G**	.85	**.51**
620	±5	**1R5T62J**	.75	**.45**
620	±2	**1R5T62G**	.85	**.51**
680	±5	**1R5T68J**	.80	**.48**
680	±2	**1R5T68G**	.90	**.54**
750	±5	**1R5T75J**	.80	**.48**
750	±2	**1R5T75G**	.90	**.54**
820	±5	**1R5T82J**	.85	**.51**
820	±2	**1R5T82G**	1.00	**.60**
910	±5	**1R5T91J**	.90	**.54**
910	±2	**1R5T91G**	1.05	**.63**
1000	±5	**1R5D1J**	1.00	**.60**
1000	±2	**1R5D1G**	$1.15	**$.69**
1100	±5	**1R5D11J**	1.00	**.60**
1100	±2	**1R5D11G**	1.15	**.69**
1200	±5	**1R5D12J**	1.15	**.69**
1200	±2	**1R5D12G**	1.30	**.78**
1300	±5	**1R5D13J**	1.15	**.69**
1300	±2	**1R5D13G**	1.30	**.78**
1500	±5	**1R5D15J**	1.25	**.75**
1500	±2	**1R5D15G**	1.45	**.87**
1600	±5	**1R5D16J**	1.25	**.75**
1600	±2	**1R5D16G**	1.45	**.87**
1800	±5	**1R5D18J**	1.25	**.75**
1800	±2	**1R5D18G**	$1.45	**$.87**
2000	±5	**1R5D2J**	1.35	**.81**
2000	±2	**1R5D2G**	1.55	**.93**
2200	±5	**1R5D22J**	1.35	**.81**
2200	±2	**1R5D22G**	1.55	**.93**
2400	±5	**1R5D24J**	1.60	**.96**
2400	±2	**1R5D24G**	1.85	**1.11**
2700	±5	**1R5D27J**	1.80	**1.08**
2700	±2	**1R5D27G**	2.05	**1.23**
3000	±5	**1R5D3J**	1.90	**1.14**
3000	±2	**1R5D3G**	2.20	**1.32**
3300	±5	**1R5D33J**	1.90	**1.14**
3300	±2	**1R5D33G**	2.20	**1.32**

1DR 500 VOLT SILVERED MICA 1000 Volt Test


51/64 x 51/64 x 5/16

Cap. Mmfd.	Tol.	CDE Cat. No.	List Price	Net Price
3600	±5	**1DR5D36J**	$2.00	**$1.20**
3600	±2	**1DR5D36G**	2.30	**1.38**
3900	±5	**1DR5D39J**	2.00	**1.20**
3900	±2	**1DR5D39G**	2.30	**1.38**
4300	±5	**1D45D43J**	2.10	**1.26**
4300	±2	**1DR5D43G**	2.40	**1.44**
4700	±5	**1DR5D47J**	2.10	**1.26**
4700	±2	**1DR5D47G**	2.40	**1.44**
5100	±5	**1DR5D51J**	$2.15	**$1.29**
5100	±2	**1DR5D51G**	2.45	**1.47**
5600	±5	**1DR5D56J**	2.25	**1.35**
5600	±2	**1DR5D56G**	2.60	**1.56**
6200	±5	**1DR5D62J**	2.40	**1.44**
6200	±2	**1DR5D62G**	2.75	**1.65**
6200	±5	**1DR5D68J**	2.65	**1.59**
6800	±2	**1DR5D68G**	3.05	**1.83**
7500	±5	**1DR5D75J**	$2.80	**$1.68**
7500	±2	**1DR5D75G**	3.20	**1.92**
8200	±5	**1DR5D82J**	3.00	**1.80**
8200	±2	**1DR5D82G**	3.45	**2.07**
9100	±5	**1DR5D91J**	3.20	**1.92**
9100	±2	**1DR5D91G**	3.70	**2.22**
10000	±5	**1DR5S1J**	3.50	**2.10**
10000	±2	**1DR5S1G**	4.00	**2.40**

3R 500 VOLT SILVERED MICA 1000 Volt Test


1 1/64 x 5/8 x 5/16

Cap. Mmfd.	Tol.	CDE Cat. No.	List Price	Net Price
6800	±5	**3R5D68J**	$2.90	**$1.74**
6800	±2	**3R5D68G**	3.35	**2.01**
7500	±5	**3R5D75J**	$3.05	**$1.83**
7500	±2	**3R5D75G**	3.50	**2.10**
8200	±5	**3R5D82J**	$3.30	**$1.98**
8200	±2	**3R5D82G**	3.80	**2.28**

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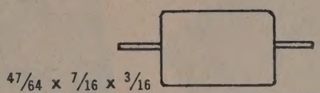
CORNELL-DUBILIER ELECTRONICS

CLASS
"HIVOMIKE" High Voltage Micas 203.24

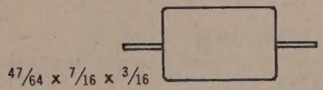
CDE "HIVOMIKE" Silvered Mica dielectric capacitors are ideal for applications where transient voltage spikes or other pulses require high voltage, low loss operation.

5RP10 1000 VOLT SILVERED MICA 2000 Volt Test ±5%



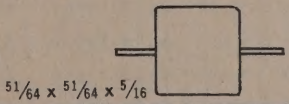
CDE Cat. No.	Cap. Mmfd.	List Price	Net Price	CDE Cat. No.	Cap. Mmfd.	List Price	Net Price
5RP10Q1J	10	$.30	$.18	5RP10T13J	130	$.35	$.21
5RP10Q12J	12	.30	.18	5RP10T15J	150	.35	.21
5RP10Q15J	15	.30	.18	5RP10T16J	160	.35	.21
5RP10Q18J	18	.30	.18	5RP10T18J	180	.35	.21
5RP10Q2J	20	.30	.18	5RP10T2J	200	.40	.24
5RP10Q22J	22	.30	.18	5RP10T22J	220	.40	.24
5RP10Q24J	24	.30	.18	5RP10T24J	240	.40	.24
5RP10Q27J	27	.30	.18	5RP10T27J	270	.40	.24
5RP10Q30J	30	.30	.18	5RP10T3J	300	.40	.24
5RP10Q33J	33	.30	.18	5RP10T33J	330	.40	.24
5RP10Q36J	36	.30	.18	5RP10T36J	360	.40	.24
5RP10Q39J	39	.30	.18	5RP10T39J	390	.45	.27
5RP10Q43J	43	.30	.18	5RP10T43J	430	.45	.27
5RP10Q47J	47	.30	.18	5RP10T47J	470	.45	.27
5RP10Q51J	51	.30	.18	5RP10T51J	510	.50	.30
5RP10Q56J	56	.30	.18	5RP10T56J	560	.50	.30
5RP10Q62J	62	.30	.18	5RP10T62J	620	.55	.33
5RP10Q68J	68	.30	.18	5RP10T68J	680	.60	.36
5RP10Q75J	75	.30	.18	5RP10T75J	750	.60	.36
5RP10Q82J	82	.30	.18	5RP10T82J	820	.65	.39
5RP10Q91J	91	.30	.18	5RP10T91J	910	.70	.42
5RP10T1J	100	.35	.21	5RP10D1J	1000	.70	.42
5RP10T11J	110	.35	.21	5RP10D11J	1100	.75	.45
5RP10T12J	120	.35	.21	5RP10D12J	1200	.80	.48

5RP20 2000 VOLT SILVERED MICA 4000 Volt Test ±5%



CDE Cat. No.	Cap. Mmfd.	List Price	Net Price	CDE Cat. No.	Cap. Mmfd.	List Price	Net Price
5RP20Q1J	10	$.30	$.18	5RP20Q75J	75	$.40	$.24
5RP20Q12J	12	.30	.18	5RP20Q82J	82	.45	.27
5RP20Q15J	15	.30	.18	5RP20Q91J	91	.45	.27
5RP20Q18J	18	.30	.18	5RP20T1J	100	.45	.27
5RP20Q2J	20	.30	.18	5RP20T11J	110	.50	.30
5RP20Q22J	22	.30	.18	5RP20T12J	120	.50	.30
5RP20Q27J	27	.35	.21	5RP20T13J	130	.55	.33
5RP20Q3J	30	.35	.21	5RP20T15J	150	.55	.33
5RP20Q33J	33	.35	.21	5RP20T18J	180	.60	.39
5RP20Q36J	36	.35	.21	5RP20T2J	200	.60	.39
5RP20Q39J	39	.35	.21	5RP20T22J	220	.65	.39
5RP20Q43J	43	.35	.21	5RP20T24J	240	.70	.42
5RP20Q51J	47	.35	.21	5RP20T27J	270	.75	.45
5RP20Q51J	51	.40	.24	5RP20T3J	300	.80	.48
5RP20Q56J	56	.40	.24	5RP20T33J	330	.90	.54
5RP20Q62J	62	.40	.24	5RP20T36J	360	.95	.57
5RP20Q68J	68	.40	.24	5RP20T39J	390	1.00	.60

1DRP20 2000 VOLT SILVERED MICA 4000 Volt Test ±5%



CDE Cat. No.	Cap. Mmfd.	List Price	Net Price	CDE Cat. No.	Cap. Mmfd.	List Price	Net Price
1DRP20T43J	430	$ .90	$.54	1DRP20T91J	910	$1.60	$.96
1DRP20T61J	510	.95	.57	1DRP20D1J	1000	1.65	.99
1DRP20T56J	560	1.05	.63	1DRP20D12J	1200	1.95	1.17
1DRP20T62J	620	1.15	.69	1DRP20D15J	1500	2.40	1.44
1DRP20T68J	680	1.25	.75	1DRP20D18J	1800	2.85	1.71
1DRP20T75J	750	1.30	.78	1DRP20D2J	2000	3.10	1.86
1DRP20T82J	820	1.40	.84				

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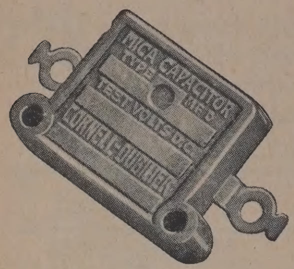
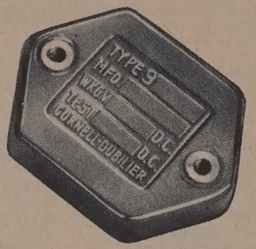
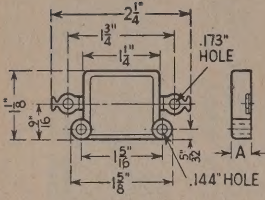
CLASS
203.40
203.42 Low-Power Molded Micas

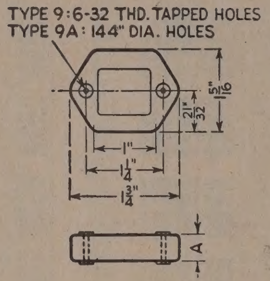


TYPE 4



TYPE 9





C-D types 4 and 9 are designed to meet applications in power amplifiers and low-power transmitters. Principally employed for grid and plate blocking and for r.f. by-pass. **Units are molded in a low-loss bakelite and have a special salt water immersion seal against humidity.**

In the type 9 the two terminals are tapped to receive mounting screws.

STANDARD TOLERANCE: ±10%.

TYPE 4				**TYPE 9**			
Cat. No.	Cap. Mfd.	List Price	Net Price	Cat. No.	Cap. Mfd.	List Price	Net Price
1200 V. D.C. Test— 600 V. D.C. Working				**1200 V. D.C. Test— 600 V. D.C. Working**			
4-14050	.00005	$1.20	**$ .72**	**9-14050**	.00005	$1.45	**$ .87**
4-13010	.0001	1.20	**.72**	**9-13010**	.0001	1.45	**.87**
4-13020	.0002	1.20	**.72**	**9-13025**	.00025	1.45	**.87**
4-13025	.00025	1.20	**.72**	**9-13050**	.0005	1.45	**.87**
4-13030	.0003	1.20	**.72**	**9-12010**	.001	1.45	**.87**
4-13040	.0004	1.20	**.72**	**9-12020**	.002	1.65	**.99**
4-13050	.0005	1.20	**.72**	**9-12025**	.0025	1.70	**1.02**
4-12010	.001	1.20	**.72**	**9-12030**	.003	1.85	**1.11**
4-12015	.0015	1.20	**.72**	**9-12040** *	.004	2.00	**1.20**
4-12020 *	.002	1.30	**.78**	**9-12050**	.005	2.10	**1.26**
4-12025	.0025	1.30	**.78**	**9-12060**	.006	2.20	**1.32**
4-12030	.003	1.45	**.87**	**9-12080**	.008	2.45	**1.47**
4-12040	.004	1.50	**.90**	**9-11010**	.01	2.80	**1.68**
4-12050	.005	1.55	**.93**	**9-11015**	.015	3.05	**1.83**
4-12060	.006	1.80	**1.08**	**9-11020**	.02	3.55	**2.13**
4-12070	.007	1.85	**1.11**	**9-11025**	.025	4.35	**2.61**
4-12080	.008	1.90	**1.14**	**9-11030**	.03	4.55	**2.73**
4-11010	.01	2.15	**1.29**	**9-11040**	.04	5.85	**3.51**
4-11015	.015	2.65	**1.59**	**9-11050** †	.05	7.10	**4.26**
4-11020	.02	3.05	**1.83**	**9-11060**	.06	8.05	**4.83**
4-11025 †	.025	3.60	**2.16**				
4-11030	.03	4.45	**2.67**				

TYPE 4				**TYPE 9**			
Cat. No.	Cap. Mfd.	List Price	Net Price	Cat. No.	Cap. Mfd.	List Price	Net Price
2500 V. D.C. Test— 1200 V. D.C. Working				**2500 V. D.C. Test— 1200 V. D.C. Working**			
4-24050	.00005	$1.60	**$ .96**	**9-24050**	.00005	$1.60	**$ .96**
4-23010	.0001	1.60	**.96**	**9-23010**	.0001	1.60	**.96**
4-23020	.0002	1.60	**.96**	**9-23025**	.00025	1.60	**.96**
4-23025	.00025	1.60	**.96**	**9-23050**	.0005	1.60	**.96**
4-23030	.0003	1.60	**.96**	**9-22010**	.001	1.90	**1.14**
4-23050 *	.0005	1.60	**.96**	**9-22020**	.002	2.50	**1.50**
4-22010	.001	1.80	**1.08**	**9-22025** *	.0025	2.80	**1.68**
4-22015	.0015	2.30	**1.38**	**9-22030**	.003	2.95	**1.77**
4-22020	.002	2.40	**1.44**	**9-22040**	.004	3.10	**1.86**
4-22025	.0025	2.80	**1.68**	**9-22050**	.005	3.30	**1.98**
4-22030	.003	3.05	**1.83**	**9-22060**	.006	3.45	**2.07**
4-22040	.004	3.05	**1.83**	**9-22080**	.008	4.10	**2.46**
4-22050	.005	3.30	**1.98**	**9-21010**	.01	4.70	**2.82**
4-22060 †	.006	3.30	**1.98**	**9-21015**	.015	5.80	**3.48**
4-22080	.008	3.85	**2.31**	**9-21020** †	.02	7.05	**4.23**
4-21010	.01	5.10	**3.06**	**9-21025**	.025	7.90	**4.74**
				9-21030	.03	8.10	**4.86**
Cat. No.	Cap. Mfd.	List Price	Net Price	Cat. No.	Cap. Mfd.	List Price	Net Price
5000 V. D.C. Test— 2500 V. D.C. Working				**5000 V. D.C. Test— 2500 V. D.C. Working**			
4-54050	.00005	$1.90	**$1.14**	**9-54050**	.00005	$1.90	**$1.14**
4-53010	.0001	1.90	**1.14**	**9-53010**	.0001	1.90	**1.14**
4-53020	.0002	1.90	**1.14**	**9-53025**	.00025	2.15	**1.29**
4-53025	.00025	2.20	**1.32**	**9-53050**	.0005	2.55	**1.53**
4-53030 *	.0003	2.25	**1.35**	**9-52010** *	.001	2.90	**1.74**
4-53050	.0005	2.50	**1.50**	**9-52020**	.002	4.25	**2.55**
4-52010	.001	2.80	**1.68**	**9-52025**	.0025	4.60	**2.76**
4-52015	.0015	3.55	**2.13**	**9-52030**	.003	5.10	**3.06**
4-52020	.002	4.15	**2.49**	**9-52040**	.004	5.65	**3.39**
4-52025	.0025	4.50	**2.70**	**9-52050**	.005	6.20	**3.72**
4-52030 †	.003	4.90	**2.94**	**9-52060**	.006	6.35	**3.81**
4-52040	.004	5.65	**3.39**	**9-52080** †	.008	6.85	**4.11**
4-52050	.005	6.40	**3.84**	**9-51010**	.01	7.30	**4.38**
				9-51015	.015	8.05	**4.83**

*Dimension "A" in diagram—for type 4—11/32"; for type 9—7/16".

†Dimension "A" in diagram—for type 4—7/16"; for type 9—47/64". Supplied as Type 4D or 9D.

"E" METER BRACKETS: For Weston Model 301 meters. Add "E" to C-D Type No., for example, 4E-52020, etc. These "E" brackets are also available separately. Specify by ordering (2) Part No. 18445 per capacitor.

Trade Discount Applies To List Prices Only

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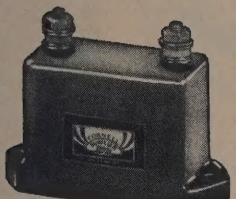
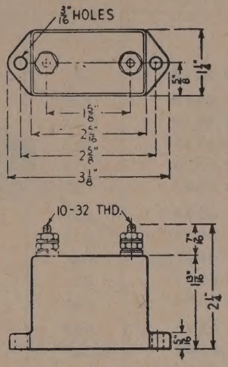
CORNELL-DUBILIER ELECTRONICS

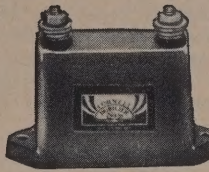
CLASS

Medium-Power Bakelite-Cased Micas 203.50

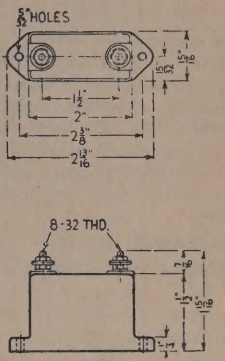


TYPE 6





TYPE 15



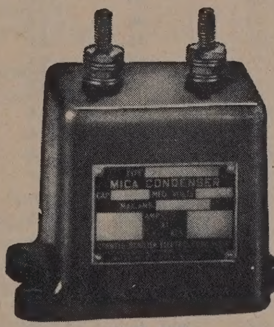
Plastic-cased capacitors designed for a wide variety of radio-frequency applications, especially where small size and minimum weight are essential such as in airborne and portable equipment. Used also in stationary medium-power transmitters, television transmitters, oscillators, and many electronic devices, in grid, plate, coupling, tank and bypass functions.

- SPECIAL C-D SERIES-SECTION MICA STACK
- STACKS PERMANENTLY HELD UNDER PRESSURE WITH NON-MAGNETIC CLAMPS
- COMPLETELY SOLDERED FOILS
- VACUUM - IMPREGNATED STACK
- NON-TURNABLE PLATED BRASS STUD TERMINALS
- SECTIONS INDIVIDUALLY TESTED FOR CAPACITY AND VOLTAGE
- SPECIAL LOW-LOSS FILLER
- FINEST INDIA RUBY MICA DIELECTRIC
- LOW-LOSS PLASTIC CASES

TYPE 6

Cat. No.	Cap. Mfd.	Test. Volt. Effective	Max. Oper. Cur. in Amps. 3000 kc.	1000 kc.	300 kc.	100 kc.	List Price	Net Price
390-6	.00005	5,000	1.5	.8	.2	.07	$17.30	**$10.38**
362-6	.0000625	5,000	1.8	.85	.3	.075	17.30	**10.38**
321-6	.0001	5,000	2.4	1.2	.47	.1	17.30	**10.38**
395-6	.00015	5,000	3.7	1.8	.68	.24	17.30	**10.38**
307-6	.0002	5,000	3.6	2.0	.82	.33	17.30	**10.38**
364-6	.00025	5,000	5.0	2.5	1.0	.45	17.30	**10.38**
294A-6	.0003	5,000	3.9	2.7	1.1	.51	17.30	**10.38**
283-6	.0004	5,000	4.3	2.7	1.3	.62	17.30	**10.38**
272-6	.0005	5,000	4.7	3.3	1.7	.8	17.30	**10.38**
266-6	.0006	5,000	5.1	3.6	1.8	.8	17.30	**10.38**
654-6	.00075	5,000	5.6	3.9	2.2	.91	17.30	**10.38**
599-6	.0008	5,000	6.0	4.0	2.3	1.0	17.30	**10.38**
246-6	.001	5,000	6.2	4.3	2.4	1.2	17.30	**10.38**
234-6	.0015	5,000	6.8	5.1	3.3	1.5	17.30	**10.38**
215-6	.002	3,000	6.0	3.0	1.5	.8	17.30	**10.38**
217-6	.002	6,000	9.0	6.2	4.0	2.0	17.30	**10.38**
473-6	.0025	5,000	9.0	6.2	4.3	2.0	17.30	**10.38**
197-6	.003	3,000	8.2	6.8	4.7	2.2	17.30	**10.38**
184-6	.004	3,000	9.1	7.5	5.6	2.7	17.30	**10.38**
173-6	.005	2,000	8.0	5.0	3.0	1.5	17.30	**10.38**
474-6	.005	3,000	9.1	8.2	6.2	3.0	17.30	**10.38**
565-6	.0075	2,000	10.0	9.1	6.8	3.9	17.30	**10.38**
476-6	.008	2,000	11.0	9.0	7.0	3.0	17.30	**10.38**
162-6	.008	3,000	10.0	10.0	7.5	3.9	17.30	**10.38**
151-6	.01	2,000	11.0	11.0	8.2	4.3	17.30	**10.38**
140-6	.015	1,500	12.0	10.0	7.0	4.0	17.30	**10.38**
784-6	.015	2,000	12.0	12.0	10.0	5.1	17.30	**10.38**
131-6	.02	2,000	13.0	13.0	11.0	6.2	17.30	**10.38**
479-6	.03	2,000	14.0	20.0	15.0	7.0	17.30	**10.38**
480-6	.04	1,500	15.0	16.0	13.0	7.5	17.30	**10.38**
118-6	.05	1,500	15.0	16.0	15.0	7.5	17.30	**10.38**
111-6	.1	500	15.0	18.0	15.0	8.2	19.20	**11.52**
406-6	.1	1,000	18.0	20.0	15.0	8.0	17.30	**10.38**
110-6	.1 x .1	250	20.0	20.0	15.0	10.0	17.30	**10.38**
105-6	.2	250	18.0	20.0	16.0	12.0	25.25	**15.15**
885-6	.25	250	18.0	20.0	16.0	12.0	27.90	**16.74**

Cat. No.	Cap. Mfd.	Test. Volt. Effective	Max. Oper. Cur. in Amps. 3000 kc.	1000 kc.	300 kc.	100 kc.	List Price	Net Price
639-15	.00005	3,000	1.3	.6	.18	.06	$12.60	**$7.56**
583A-15	.0001	3,000	1.8	.75	.33	.1	12.60	**7.56**
657-15	.00015	3,000	2.2	1.0	.47	.18	12.60	**7.56**
582A-15	.0002	3,000	2.4	1.2	.62	.24	12.60	**7.56**
805-15	.00025	3,000	3.0	2.0	.8	.3	12.60	**7.56**
640A-15	.0003	3,000	3.0	1.5	.75	.36	12.60	**7.56**
641-15	.0004	3,000	4.0	2.0	.9	.45	12.60	**7.56**
642-15	.0005	3,000	4.0	2.0	1.1	.55	12.60	**7.56**
643-15	.0006	3,000	4.5	2.4	1.2	.6	12.60	**7.56**
727-15	.0008	3,000	4.5	2.7	1.5	.7	12.60	**7.56**
581B-15	.001	3,000	4.7	3.0	1.6	.75	12.60	**7.56**
679-15	.0015	3,000	5.6	3.9	2.0	.91	12.60	**7.56**
726-15	.002	3,000	6.2	4.3	2.4	1.1	12.60	**7.56**
645-15	.003	3,000	7.5	5.0	3.0	1.5	12.60	**7.56**
699-15	.004	3,000	8.2	6.2	3.5	1.6	12.60	**7.56**
725-15	.005	3,000	8.5	6.8	4.0	2.0	12.60	**7.56**
580-15	.006	2,000	9.1	7.5	4.5	2.2	12.60	**7.56**
724-15	.008	1,500	10.0	8.2	5.0	2.3	12.60	**7.56**
677-15	.01	1,000	10,0	9.1	5.1	2.4	12.60	**7.56**
723-15	.02	1,000	11.0	11.0	7.5	3.6	14.30	**8.58**
722-15	.05	500	11.0	11.0	9.1	5.0	14.30	**8.58**
721-15	.1	250	11.0	11.0	9.1	5.6	15.10	**9.06**



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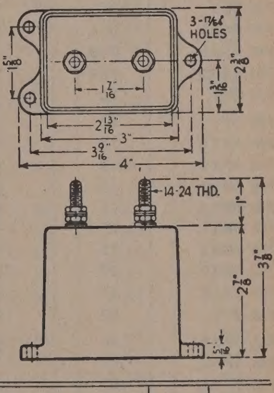

Cat. No.	Cap. Mfd.	Test. Volt. Effective	Max. Oper. Cur. in Amps. 3000 kc.	1000 kc.	300 kc.	100 kc.	List Price	Net Price
533-30B	.0001	4,000	(20 Amps. at 60 mc.)		(3 Amps. at 4 mc.)		$35.25	**$21.15**
959-30B	.0005	8,000	8.5	6	3	1	35.25	**21.15**
960-30B	.001	8,000	10	8.5	4.5	1.5	39.25	**23.55**
961-30B	.002	8,000	11	11	7.5	2.5	39.25	**23.55**
759-30B	.003	8,000	12	14	10	5	42.25	**25.35**
757-30B	.004	8,000	12	14	10	6	44.60	**26.76**
758-30B	.005	8,000	13	15	11	7	48.60	**29.16**
756-30B	.006	6,000	15	15	11	7	48.60	**29.16**
962-30B	.01	6,000	16	20	15	8	52.55	**31.53**
915-30B	.01	8,000	17	21	15	9	55.20	**33.12**
963-30B	.02	5,000	18	22	18	12	55.20	**33.12**
741-30B	.03	4,000	18	23	20	13	55.20	**33.12**
113-30B	.1	2,000	18	25	22	12	48.60	**29.16**
603-30B	.2	600	18	28	23	15	39.25	**23.55**
750-30B	.25	600	18	28	23	15	44.60	**26.76**
933-30B	.3	600	18	28	23	15	44.60	**26.76**
898-30B	1.0	600	18	28	23	15	81.85	**49.11**

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CLASS

204.13 Molded Tubular Mylars*

CDE

CORNELL DUBILIER
PM

PM

CDE type PM is a MYLAR* dielectric, high temperature, moisture resistant molded tubular capacitor. The thermoset molded case is tough and non-inflammable. The Mylar dielectric assures dependable operation under high humidity conditions, and it exhibits very high insulation resistance. Low RF impedance of these capacitors makes them ideal for all general bypass and coupling applications. High stability under changes in temperature makes these capacitors excellent replacements in tuned circuits.

TOLERANCE: ±10%.

TEMPERATURE RANGE: −55°C to +85°C with no derating.

PM Cat. No.	Cap. Mfd.	Dimensions—Inches Diameter x Length	List Price	Net Price
		200 V. D.C.W.		
PM 2S2	.02	⅜ x 1¼	$.25	**$.15**
PM 2S47	.047	⅜ x 1¼	.25	**.15**
PM 2S5	.05	⅜ x 1¼	.25	**.15**
PM 2P1	.10	7/16 x 1¼	.35	**.21**
PM 2P15	.15	½ x 1½	.35	**.21**
PM 2P22	.22	½ x 1½	.40	**.24**
PM 2P25	.25	9/16 x 1 9/16	.40	**.24**
PM 2P47	.47	⅝ x 1⅞	.60	**.36**
PM 2P5	.50	⅝ x 1⅞	.60	**.36**
PM 2W1	1.00	¾ x 2¼	1.05	**.63**
		400 V. D.C.W.		
PM 4S1	.01	5/16 x 1	.25	**.15**
PM 4S12	.012	⅜ x 1¼	.25	**.15**
PM 4S15	.015	⅜ x 1¼	.25	**.15**
PM 4S18	.018	⅜ x 1¼	.30	**.18**
PM 4S22	.022	⅜ x 1¼	.30	**.18**
PM 4S25	.025	⅜ x 1¼	.30	**.18**
PM 4S27	.027	⅜ x 1¼	.30	**.18**
PM 4S33	.033	7/16 x 1¼	.30	**.18**
PM 4S39	.039	7/16 x 1¼	.30	**.18**
PM 4S47	.047	7/16 x 1¼	.30	**.18**
PM 4S5	.05	7/16 x 1¼	.30	**.18**
PM 4S56	.056	½ x 1½	.30	**.18**
PM 4S68	.068	½ x 1½	.35	**.21**
PM 4S82	.082	½ x 1½	.35	**.21**
PM 4P1	.10	½ x 1½	.35	**.21**
PM 4P12	.12	½ x 1½	.40	**.24**
PM 4P15	.15	9/16 x 1 9/16	.40	**.24**
PM 4P18	.18	9/16 x 1 9/16	.40	**.24**
PM 4P22	.22	⅝ x 1⅞	.45	**.27**
PM 4P25	.25	⅝ x 1⅞	.50	**.30**
PM 4P27	.27	⅝ x 1⅞	.55	**.33**
PM 4P33	.33	11/16 x 1 15/16	.60	**.36**
PM 4P39	.39	11/16 x 1 15/16	.65	**.39**
PM 4P47	.47	¾ x 2¼	.75	**.45**
PM 4P5	.50	¾ x 2¼	.75	**.45**
PM 4P56	.56	¾ x 2¼	.80	**.48**
PM 4P68	.68	1 x 2⅛	.90	**.54**
PM 4P82	.82	1 x 2⅛	1.00	**.60**
PM 4W1	1.00	1 x 2⅛	1.25	**.75**
		600 V. D.C.W.		
PM 6D1	.001	5/16 x 1	.25	**.15**
PM 6D12	.0012	5/16 x 1	.25	**.15**
PM 6D15	.0015	5/16 x 1	.25	**.15**
PM 6D18	.0018	5/16 x 1	.25	**.15**
PM 6D22	.0022	5/16 x 1	.25	**.15**
PM 6D27	.0027	5/16 x 1	.25	**.15**
PM 6D33	.0033	5/16 x 1	.25	**.15**
PM 6D39	.0039	5/16 x 1	.25	**.15**
PM 6D47	.0047	5/16 x 1	.25	**.15**
PM 6D5	.005	5/16 x 1	.25	**.15**
PM 6D56	.0056	5/16 x 1	.25	**.15**
PM 6D68	.0068	5/16 x 1	.30	**.18**
PM 6D82	.0082	⅜ x 1¼	.30	**.18**
PM 6S1	.01	⅜ x 1¼	.30	**.18**
		600 V. D.C.W. (Cont'd)		
PM 6S12	.012	⅜ x 1¼	.30	**.18**
PM 6S15	.015	⅜ x 1¼	.30	**.18**
PM 6S18	.018	⅜ x 1¼	.30	**.18**
PM 6S22	.022	7/16 x 1¼	.30	**.18**
PM 6S25	.025	7/16 x 1¼	.30	**.18**
PM 6S27	.027	7/16 x 1¼	.30	**.18**
PM 6S33	.033	7/16 x 1¼	.35	**.21**
PM 6S39	.039	7/16 x 1¼	.35	**.21**
PM 6S47	.047	½ x 1½	.40	**.24**
PM 6S5	.05	½ x 1½	.40	**.24**
PM 6S56	.056	½ x 1½	.40	**.24**
PM 6S68	.068	½ x 1½	.45	**.27**
PM 6S82	.082	½ x 1½	.45	**.27**
PM 6P1	.10	9/16 x 1 9/16	.45	**.27**
PM 6P12	.12	9/16 x 1 9/16	.45	**.27**
PM 6P15	.15	⅝ x 1⅞	.50	**.30**
PM 6P18	.18	⅝ x 1⅞	.60	**.36**
PM 6P22	.22	⅝ x 1⅞	.70	**.42**
PM 6P25	.25	11/16 x 1 15/16	.75	**.45**
PM 6P27	.27	11/16 x 1 15/16	.80	**.48**
PM 6P33	.33	¾ x 2¼	.90	**.54**
PM 6P39	.39	¾ x 2¼	1.00	**.60**
PM 6P47	.47	¾ x 2¼	1.25	**.75**
PM 6P5	.50	¾ x 2¼	1.25	**.75**
PM 6P56	.56	1 x 2⅛	1.30	**.78**

*Dupont TM.

CLASS

204.33 PKM

Dual dielectric, molded tubular of Mylar* and Kraft assuring high temperature operation, exceptional resistance to moisture and high reliability.

CDE's exclusive "FIXFIL" impregnant (a solid thermosetting compound) together with a rugged molded plastic case, make PKM ideal for the most exacting and rugged services.

For operation of temperatures from −40°C to +125°C—without Derating. **TOLERANCE:** ±10%.

1000 V. D.C.

PKM Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
PKM 10D1	.001	5/16 x 1	$.50	**$.30**
PKM 10D5	.005	⅜ x 1¼	.50	**.30**
PKM 10D68	.0068	7/16 x 1¼	.50	**.30**
PKM 10S1	.01	7/16 x 1¼	.50	**.30**
PKM 10S15	.015	½ x 1½	.50	**.30**
PKM 10S22	.022	½ x 1½	.50	**.30**
PKM 10S33	.033	½ x 1½	.50	**.30**
PKM 10S47	.047	9/16 x 1 9/16	.60	**.36**
PKM 10S5	.05	9/16 x 1 9/16	.60	**.36**
PKM 10S68	.068	⅝ x 1⅞	.70	**.42**
PKM 10P1	.1	11/16 x 1 15/16	.75	**.45**
		1600 V. D.C. Working		
PKM 16D1	.001	⅜ x 1¼	$.65	**$.39**
PKM 16D15	.0015	⅜ x 1¼	.65	**.39**
PKM 16D22	.0022	⅜ x 1¼	.65	**.39**
PKM 16D33	.0033	⅜ x 1¼	.65	**.39**
PKM 16D47	.0047	⅜ x 1¼	.65	**.39**
PKM 16D5	.005	⅜ x 1¼	.65	**.39**
PKM 16D68	.0068	7/16 x 1¼	.65	**.39**
PKM 16D82	.0082	7/16 x 1¼	.65	**.39**
PKM 16S1	.01	½ x 1½	.70	**.42**
PKM 16S15	.015	½ x 1½	.70	**.42**
PKM 16S22	.022	⅝ x 1⅞	.70	**.42**
PKM 16S33	.033	⅝ x 1⅞	.70	**.42**
PKM 16S47	.047	⅝ x 1⅞	.90	**.54**
PKM 16S5	.05	⅝ x 1⅞	.90	**.54**
		6000 V. D.C. Working		
PKM 60T5	.0005	½ x 1½	1.35	**.81**
PKM 60D1	.001	9/16 x 1 9/16	1.35	**.81**
PKM 60D5	.005	11/16 x 1 15/16	1.35	**.81**
		10,000 V. D.C. Working		
PKM 100T5	.0005	½ x 1½	1.50	**.90**
		12,500 V. D.C. Working		
PKM 125T25	.00025	½ x 1½	1.70	**1.02**

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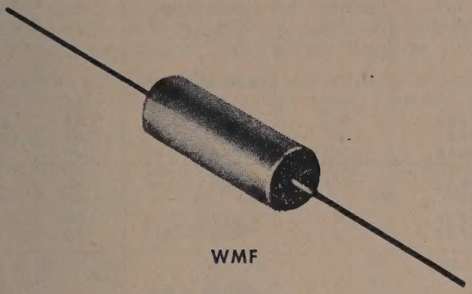
CLASS 204.23

Film-Encased Tubular Mylars*



WMF

Type WMF is an ultra-compact Mylar dielectric tubular capacitor encased in a thin, tough Mylar film wrapping and end-sealed with a high density thermosetting plastic. A most desirable unit where a metal-cased unit is not indicated. The WMF is extremely small in size, has high resistance to humidity and excellent capacitance stability with temperature and life.

TEMPERATURE RANGE: —55°C. to +125°C.
Full rated voltage at 85°C.
Derate voltage 10% at 100°C.
Derate voltage 50% at 125°C.

TOLERANCE: ±10%.

WMF Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
		100 W.V.D.C.		
WMF1D1	.001	.156 x ½	$.35	**$.21**
WMF1D15	.0015	.156 x ½	.35	**.21**
WMF1D22	.0022	.156 x ½	.35	**.21**
WMF1D33	.0033	.156 x ½	.35	**.21**
WMF1D47	.0047	.156 x ½	.35	**.21**
WMF1D68	.0068	.175 x ½	.35	**.21**
WMF1S1	.01	.200 x ½	.35	**.21**
WMF1S15	.015	.235 x ½	.35	**.21**
WMF1S22	.022	.275 x ⅝	.40	**.24**
WMF1S33	.033	.300 x ⅝	.40	**.24**
WMF1S47	.047	.265 x ¾	.45	**.27**
WMF1S68	.068	.280 x ¾	.45	**.27**
WMF1P1	.1	.290 x ⅞	.60	**.36**
WMF1P15	.15	.335 x ⅞	.60	**.36**
WMF1P22	.22	.385 x 1	.65	**.39**
WMF1P33	.33	.415 x 1⅛	.75	**.45**
WMF1P47	.47	.475 x 1¼	.85	**.51**
WMF1P68	.68	.570 x 1¼	.95	**.57**
WMF1W1	1.0	.625 x 1½	1.45	**.87**
WMF1W1P25	1.25	.690 x 1½	1.75	**1.05**
WMF1W1P5	1.5	.770 x 1¾	2.05	**1.23**
WMF1W2	2.0	.955 x 1¾	2.50	**1.50**
		200 W.V.D.C.		
WMF2D1	.001	.156 x ½	.35	**.21**
WMF2D15	.0015	.156 x ½	.35	**.21**
WMF2D22	.0022	.156 x ½	.35	**.21**
WMF2D33	.0033	.160 x ½	.35	**.21**
WMF2D47	.0047	.170 x ½	.35	**.21**
WMF2D68	.0068	.200 x ½	.35	**.21**
WMF2S1	.01	.230 x ½	.35	**.21**
WMF2S15	.015	.290 x ½	.35	**.21**
WMF2S22	.022	.275 x ⅝	.40	**.24**
WMF2S33	.033	.270 x ¾	.40	**.24**
		200 W.V.D.C. (cont'd)		
WMF2S47	.047	.320 x ¾	$.45	**$.27**
WMF2S68	.068	.350 x ¾	.45	**.27**
WMF2P1	.1	.410 x ⅞	.60	**.36**
WMF2P15	.15	.500 x ⅞	.60	**.36**
WMF2P22	.22	.500 x 1⅛	.65	**.39**
WMF2P33	.33	.550 x 1⅛	.75	**.45**
WMF2P47	.47	.600 x 1¼	.85	**.51**
WMF2P68	.68	.650 x 1⅝	.95	**.57**
WMF2W1	1.0	.750 x 1¾	1.45	**.87**
WMF2W1P25	1.25	.825 x 1¾	1.75	**1.05**
WMF2W1P5	1.5	.900 x 1¾	2.05	**1.23**
WMF2W2	2.0	.980 x 1⅞	2.50	**1.50**
		400 W.V.D.C.		
WMF4D1	.001	.156 x ⅝	.35	**.21**
WMF4D15	.0015	.156 x ⅝	.35	**.21**
WMF4D22	.0022	.156 x ⅝	.35	**.21**
WMF4D33	.0033	.190 x ⅝	.40	**.24**
WMF4D47	.0047	.200 x ⅝	.40	**.24**
WMF4D68	.0068	.250 x ⅝	.40	**.24**
WMF4S1	.01	.300 x ⅝	.45	**.27**
WMF4S15	.015	.360 x ⅝	.45	**.27**
WMF4S22	.022	.320 x ¾	.45	**.27**
WMF4S33	.033	.350 x ⅞	.45	**.27**
WMF4S47	.047	.400 x ⅞	.50	**.30**
WMF4S68	.068	.390 x 1	.55	**.33**
WMF4P1	.1	.465 x 1	.55	**.33**
WMF4P15	.15	.515 x 1¼	.60	**.36**
WMF4P22	.22	.565 x 1⅜	.70	**.42**
WMF4P33	.33	.600 x 1⅝	1.10	**.66**
WMF4P47	.47	.700 x 1⅝	1.30	**.78**
WMF4P68	.68	.790 x 1¾	1.60	**.96**
WMF4W1	1.0	.875 x 2	2.00	**1.20**
WMF4W1P25	1.25	.950 x 2	2.30	**1.38**
WMF4W1P5	1.5	.975 x 2¼	2.60	**1.56**
WMF4W2	2.0	1.250 x 2¼	3.30	**2.04**
		600 W.V.D.C.		
WMF6D1	.001	.170 x ¾	.40	**.24**
WMF6D15	.0015	.170 x ¾	.40	**.24**
WMF6D22	.0022	.187 x ¾	.40	**.24**
WMF6D33	.0033	.203 x ¾	.40	**.24**
WMF6D47	.0047	.234 x ¾	.45	**.27**
WMF6D68	.0068	.265 x ¾	.45	**.27**
WMF6S1	.01	.290 x ¾	.50	**.30**
WMF6S15	.015	.312 x ⅞	.50	**.30**
WMF6S22	.022	.325 x ⅞	.50	**.30**
WMF6S33	.033	.350 x 1	.50	**.30**
WMF6S47	.047	.415 x 1	.55	**.33**
WMF6S68	.068	.500 x 1	.60	**.36**
WMF6P1	.1	.520 x 1⅜	.70	**.42**
WMF6P15	.15	.625 x 1⅜	.75	**.45**
WMF6P22	.22	.660 x 1⅝	.85	**.51**
WMF6P33	.33	.687 x 2	1.50	**.90**
WMF6P47	.47	.855 x 2	1.90	**1.14**
WMF6P68	.68	.970 x 2	2.55	**1.53**
WMF6W1	1.0	1.165 x 2½	4.25	**2.55**
WMF6W1P25	1.25	1.340 x 2½	4.80	**2.88**
WMF6W1P5	1.5	1.275 x 3	5.80	**3.48**
WMF6W2	2.0	1.460 x 3	7.30	**4.38**

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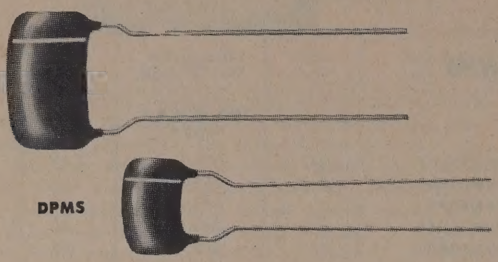
*Dupont TM.

© U.C.P., Inc.

Trade Discount Applies To List Prices Only

CLASS 204.37 Side-Lead Dipped Paper-Mylars*



Type **DPMS** is unique in that it is constructed with TWO dielectrics — Mylar* Polyester Film and a film of the very highest grade paper. The combination of the two thus provides the best features of both —

- ★ **HIGH TEMPERATURE OPERATION**
- ★ **HIGH INSULATION RESISTANCE**
- ★ **HIGH RELIABILITY**
- ★ **COMPACT — SPACE SAVING**
- ★ **IDEAL For Printed and Transistorized Circuitry**

"FIXFIL" impregnant, a C-D exclusive, assures stability of temperature characteristics. This solid thermosetting compound will not crack, soften or flow, even at maximum operating temperatures.

The **DPMS** has a "dipped" rock-hard casing which holds wire leads rigidly at fixed spacings. This tough, durable material has high humidity resistance, high dielectric strength against grounding and is unaffected by accidental contact with soldering iron. The crimped side-leads are space saving and permit uniform mounting of units parallel to the plane of the chassis or printed wiring board.

LEAD SPACING—INCHES

Case Length	Lead Spacing	Case Length	Lead Spacing	Case Length	Lead Spacing
.690	.250	1.150	.719	1.300	.844
.855	.438	1.160	.719	1.560	1.094
.870	.438	1.180	.719	1.600	1.094

TEMPERATURE RANGE: —55°C to +125°C

TOLERANCE: ±10%

DPMS Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
		200 W.V.D.C.		
DPMS 2S2	.02	.350 x .855	$.25	**$.15**
DPMS 2S47	.047	.450 x .855	.30	**.18**
DPMS 2S5	.05	.450 x .855	.30	**.18**
DPMS 2P1	.10	.470 x 1.180	.35	**.21**
DPMS 2P15	.15	.540 x 1.180	.40	**.24**
DPMS 2P22	.22	.590 x 1.300	.45	**.27**
DPMS 2P25	.25	.620 x 1.300	.45	**.27**
DPMS 2P47	.47	.730 x 1.600	.60	**.36**
DPMS 2P5	.5	.730 x 1.600	.60	**.36**
		400 W.V.D.C.		
DPMS 4S1	.01	.390 x .690	.25	**.15**
DPMS 4S15	.015	.430 x .690	.25	**.15**
DPMS 4S2	.02	.390 x .855	.30	**.18**
DPMS 4S22	.022	.400 x .855	.30	**.18**
DPMS 4S33	.033	.440 x .855	.30	**.18**
		400 W.V.D.C.		
DPMS 4S47	.047	.415 x 1.150	$.35	**$.21**
DPMS 4S5	.05	.415 x 1.150	.35	**.21**
DPMS 4S68	.068	.440 x 1.180	.40	**.24**
DPMS 4P1	.10	.520 x 1.180	.40	**.24**
DPMS 4P15	.15	.560 x 1.300	.50	**.30**
DPMS 4P22	.22	.620 x 1.560	.60	**.36**
DPMS 4P25	.25	.650 x 1.560	.60	**.36**
		600 W.V.D.C.		
DPMS 6D1	.001	.340 x .690	.25	**.15**
DPMS 6D12	.0012	.340 x .690	.25	**.15**
DPMS 6D15	.0015	.340 x .690	.25	**.15**
DPMS 6D2	.002	.340 x .690	.25	**.15**
DPMS 6D22	.0022	.340 x .690	.25	**.15**
DPMS 6D25	.0025	.350 x .690	.25	**.15**
DPMS 6D27	.0027	.370 x .690	.25	**.15**
DPMS 6D3	.003	.370 x .690	.25	**.15**
DPMS 6D33	.0033	.370 x .690	.25	**.15**
DPMS 6D39	.0039	.370 x .690	.25	**.15**
DPMS 6D4	.004	.370 x .690	.25	**.15**
DPMS 6D47	.0047	.400 x .690	.25	**.15**
DPMS 6D5	.005	.400 x .690	.25	**.15**
DPMS 6D56	.0056	.415 x .690	.25	**.15**
DPMS 6D6	.006	.415 x .690	.25	**.15**
DPMS 6D68	.0068	.430 x .690	.30	**.18**
DMPS 6D75	.0075	.370 x .870	.30	**.18**
DPMS 6D8	.008	.370 x .870	.30	**.18**
DPMS 6D82	.0082	.370 x .870	.30	**.18**
DPMS 6S1	.01	.390 x .870	.30	**.18**
DPMS 6S12	.012	.400 x .870	.30	**.18**
DPMS 6S15	.015	.415 x .870	.30	**.18**
DPMS 6S2	.02	.445 x .870	.30	**.18**
DPMS 6S22	.022	.470 x .870	.30	**.18**
DPMS 6S25	.025	.400 x 1.150	.35	**.21**
DPMS 6S27	.027	.415 x 1.150	.35	**.21**
DPMS 6S3	.03	.415 x 1.150	.35	**.21**
DPMS 6S33	.033	.430 x 1.150	.35	**.21**
DPMS 6S39	.039	.470 x 1.150	.35	**.21**
DPMS 6S4	.04	.470 x 1.150	.35	**.21**
DPMS 6S47	.047	.490 x 1.150	.35	**.21**
DPMS 6S5	.05	.490 x 1.150	.40	**.24**
DPMS 6S56	.056	.520 x 1.180	.40	**.24**
DPMS 6S6	.06	.520 x 1.180	.40	**.24**
DPMS 6S68	.068	.540 x 1.300	.45	**.27**
DPMS 6S75	.075	.570 x 1.300	.45	**.27**
DPMS 6S82	.082	.590 x 1.300	.45	**.27**
DPMS 6P1	.10	.640 x 1.300	.45	**.27**
DPMS 6P15	.15	.650 x 1.560	.55	**.33**
DPMS 6P2	.20	.730 x 1.560	.60	**.36**
DPMS 6P22	.22	.750 x 1.560	.60	**.36**
DPMS 6P25	.25	.830 x 1.560	.60	**.36**
		1600 W.V.D.C.		
DPMS 16D1	.001	.350 x .870	.35	**.21**
DPMS 16D15	.0015	.375 x .870	.35	**.21**
DPMS 16D18	.0018	.400 x .870	.35	**.21**
DPMS 16D2	.002	405 x .870	.35	**.21**
DPMS 16D22	.0022	.420 x .870	.35	**.21**
DPMS 16D25	.0025	.445 x .870	.40	**.24**
DPMS 16D3	.003	.475 x .870	.40	**.24**
DPMS 16D33	.0033	.480 x .870	.40	**.24**
DPMS 16D4	.004	.520 x .870	.40	**.24**
DPMS 16D47	.0047	.540 x .870	.40	**.24**
DPMS 16D5	.005	.565 x .870	.45	**.27**
DPMS 16D6	.006	.460 x 1.180	.45	**.27**
DPMS 16D7	.007	.485 x 1.180	.45	**.27**
DPMS 16D75	.0075	.495 x 1.180	.45	**.27**
DPMS 16D8	.008	.510 x 1.180	.50	**.30**
DPMS 16S1	.01	.525 x 1.180	.50	**.30**
DPMS 16S15	.015	.560 x 1.300	.55	**.33**
DPMS 16S2	.02	.570 x 1.600	.60	**.36**
DPMS 16S22	.022	.585 x 1.600	.70	**.42**
DPMS 16S25	.025	.620 x 1.600	.70	**.42**
DPMS 16S3	.03	.665 x 1.600	.70	**.42**
DPMS 16S33	.033	.695 x 1.600	.80	**.48**
DPMS 16S4	.04	.735 x 1.600	.80	**.48**
DPMS 16S47	.047	.785 x 1.600	.85	**.51**
DPMS 16S5	.05	.815 x 1.600	.85	**.51**

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*DUPONT-TM

CLASS

207.04 Triclad Metallized Papers

CDE

MPY4W1
1.0MFD
400V
MPY

CORNELL-DUBILIER TYPE MPY CAPACITORS are metallized paper, resin-impregnated units for operation from −55C to +125C at full rated voltage.

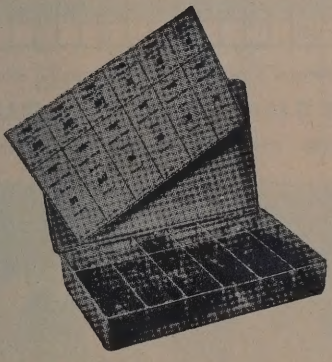
These capacitors are encased in CDE-developed Triclad tube — a laminated tube that is completely wax-free and extremely resistant to moisture. The Triclad tube consists of a resin-impregnated Kraftboard exterior bonded to a foil-film shield. In addition to being moisture-proof, it is also heat resistant. The Triclad tube is unaffected by accidental contact with a hot soldering iron.

Type MPY capacitors have the self-heating characteristics of metalized dielectric capacitors when subjected to momentary over-voltages. The resin-impregnant will remain solid throughout the entire operating temperature range and will not soften, melt or flow.

STD. TOLERANCE: ±20%.

MPY Cat. No.	Cap. Mfd.	Size (D. x L.)	List Price	Net'Price
		200VDCW		
MPY2S22	.022	¼ x ⅝	.75	$ .45
MPY2S33	.033	¼ x ⅝	.75	.45
MPY2S47	.047	¼ x ⅝	.75	.45
MPY2S68	.068	5/16 x ⅝	.80	.48
MPY2P1	.1	⅜ x ⅝	.85	.51
MPY2P15	.15	⅜ x ⅝	.95	.57
MPY2P22	.22	15/32 x ⅝	1.05	.63
MPY2P33	.33	⅜ x 1⅛	1.15	.69
MPY2P47	.47	7/16 x 1⅛	1 25	.75
MPY2P68	.68	15/32 x 1⅛	1.50	.90
MPY2W1	1.0	9/16 x 1⅛	1.80	1.08
MPY2W1P5	1.5	9/16 x 1 7/16	2.10	1.26
MPY2W2	2.0	⅝ x 1 7/16	2.45	1.47
		400VDCW		
MPY4S15	.015	¼ x ⅝	.75	.45
MPY4S22	.022	5/16 x ⅝	.75	.45
MPY4S33	.033	⅜ x ⅝	.75	.45
MPY4S47	.047	7/16 x ⅝	.80	.48
MPY4S68	.068	15/32 x ⅝	.85	.51
MPY4P1	.1	⅜ x 1⅛	.95	.57
MPY4P15	.15	7/16 x 1⅛	1.05	.63
MPY4P22	.22	½ x 1⅛	1.20	.72
		400VDCW (Cont'd.)		
MPY4P33	.33	⅝ x 1⅛	1.40	$ .84
MPY4P47	.47	⅝ x 1 7/16	1.60	.96
MPY4P68	.68	⅝ x 1 13/16	1 90	1.14
MPY4W1	1.0	11/16 x 1 13/16	2.20	1.32
MPY4W1P5	1.5	23/32 x 2⅜	2.55	1.53
MPY4W2	2.0	13/16 x 2⅜	2.90	1.74
		600VDCW		
MPY6S1	.01	¼ x ⅝	.75	.45
MPY6S15	.015	5/16 x ⅝	.80	.48
MPY6S22	.022	⅜ x ⅝	.80	.48
MPY6S33	.033	⅜ x ⅝	.85	.51
MPY6S47	.047	15/32 x ⅝	.90	.54
MPY6S68	.068	⅜ x 1⅛	.95	.57
MPY6P1	.1	⅜ x 1⅛	1.00	.60
MPY6P15	.15	15/32 x 1⅛	1 25	.75
MPY6P22	.22	9/16 x 1⅛	1.35	.81
MPY6P33	.33	⅝ x 1⅛	1.75	1.05
MPY6P47	.47	⅝ x 1 7/16	1.90	1.14
MPY6P68	.68	⅝ x 1 13/16	2.10	1.26
MPY6W1	1.0	23/32 x 1 13/16	2.40	1.44
MPY6W1P5	1.5	13/16 x 2⅜	3.00	1.80
MPY6W2	2.0	29/32 x 2⅜	3.50	2.10

The "PM"



MYLAR* Molded Tubular CAPACITOR KIT

A handy quick-select assortment of 80 of the fastest moving C-D "PM" MYLAR tubulars

IN A

crystal clear plastic . . . hinged cover . . . compartment type case (11x6½x1⅞) . . . the clean, orderly way of stocking capacitors . . . and service parts, too!

YOU GET THE CASE AND THE CAPACITORS
ALL FOR THE PRICE OF THE CAPACITORS ALONE.

"PM" KIT ....List Price $26.40 Net $15.84

CONTAINS:

10 — .001
12 — .01
12 — .05
6 — .002
10 — .02
10 — .10
10 — .005
10 — .047
All 600V

Keep a KIT in your field-service bag and one on your service-bench. They're great too — for screws, nuts and small parts.

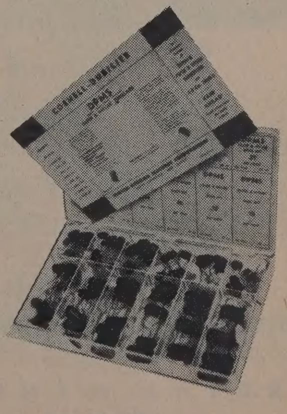
ORDER YOUR "PM" MYLAR* KITS FROM YOUR C-D DISTRIBUTOR . . . NOW!

The "DPMS" PAPER & MYLAR* TUBULAR CAPACITOR KIT

Another of the popular C-D KITS . . . this time filled with the **NEW** DPMS Dipped Paper and Mylar (Dual-Film) Tubular Capacitors. 80 units, selected in types to meet your day-to-day needs.

ALL IN A

clear, "look-through" plastic, jumbo size (11 x 6½ x 1⅞) service kit — with hinged cover and separate compartments.



THE CASE IS FREE
YOU PAY ONLY FOR THE CAPACITORS

The DPMS KIT — List Price $25.90, Special Dealer Net $15.54

Beside the FREE PLASTIC CASE you get:

10 — .001
6 — .002
10 — .005
12 — .01
10 — .02
10 — .047
12 — .05
10 — .1

ALL 600 WVDC AND ±10% QUALITY

The new C-D "DPMS" will simplify many of your service problems and you can depend on top performance.

* Dupont TM

YOUR C-D DISTRIBUTOR HAS "DPMS KITS" IN STOCK. ORDER YOURS TODAY!

© U.C.P., Inc.

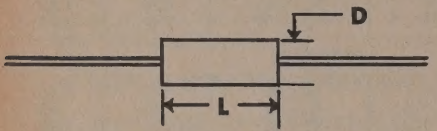
PRECISION PRODUCTS

SOLID ELECTROLYTE TANTALUM CAPACITORS

Electra Type TS Solid Electrolyte Tantalum Capacitors achieve the highest level of stability required for today's commercial and military applications. They are manufactured under close Quality Control which dictates precision processing. Type TS capacitors are especially recommended where the following operational parameters are required: long life, stable characteristics, ambient temperatures from −85°C to +125°C and large capacitance per unit volume. For complete information on Electra Tantalum Capacitors, write for engineering catalog and Tantalum Topics.

TS12C
20V
22UF

"C" CASE — ACTUAL SIZE



ELECTRA TYPE DESIGNATION

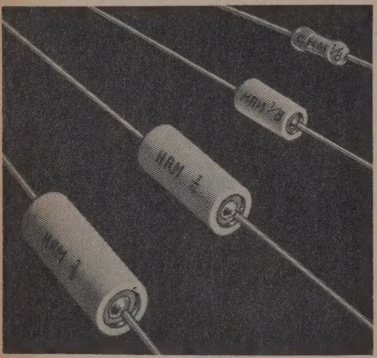
TS	12	B	6	15	10
TYPE	STYLE	CASE SIZE	WVDC	MFDS.	TOL. ±
CASE SIZE	DIMENSIONS				LEAD DIAMETER DIAM. +0.005 −0.001
	UNINSULATED		INSULATED		
	D	L	D	L	
	+0.016 −0.010	±0.031	+0.016 −0.015	±0.031	
A	0.125	0.250	0.135	0.286	0.020
B	0.175	0.438	0.185	0.474	0.020
C	0.279	0.650	0.289	0.686	0.025
D	0.341	0.750	0.351	0.786	0.025

CAPACITANCE IN MFDS.

VALUES IN SHADED AREA RELATE ONLY TO CASE SIZES IN SHADED AREA			.0047	.0056	.0068	.0082	.01	.012	.015	.018	.022	.027	.033	.039	.047	.056	.068	.082	.10	.12	.15	.18	.22	.27	.33	.39	.47	.56	.68	.82	1.0	1.2
			1.5	1.8	2.2	2.7	3.3	3.9	4.7	5.6	6.8	8.2	10	12	15	18	22	27	33	39	47	56	68	82	100	120	150	180	220	270	330	
CASE SIZES FOR TS12 (UNINSUL)—TS13 (INSUL)	6 WVDC	±10%																					A	A	A	A	A	A	A	A	A	A
			A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	
		±20%																					A		A		A		A		A	
			A		A		A		A		A		B		B		B		B		B		C		C		C		D		D	
	10 WVDC	±10%																					A	A	A	A	A	A	A	A	A	A
			A	A	A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D			
		±20%																					A		A		A		A		A	
			A		A		A		A		B		B		B		B		B		C		C		C		D		D			
	15 WVDC	±10%																					A	A	A	A	A	A	A	A	A	A
			A	A	A	A	A	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D					
		±20%																					A		A		A		A		A	
			A		A		A		B		B		B		B		B		C		C		C		D		D					
	20 WVDC	±10%	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
			A	A	A	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D	D						
		±20%	A		A		A		A		A		A		A		A		A		A		A		A		A		A		A	
			A		A		B		B		B		B		B		C		C		C		D		D							
	35 WVDC	±10%	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B
			B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	D	D	D	D											
		±20%	A		A		A		A		A		A		A		A		A		A		A		A		A		A		A	
			B		B		B		B		B		C		C		C		D		D											
	50 WVDC	±10%	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B
			B	B	B	B	B	B	B	C	C	C	C	C	C	C	D															
		±20%	A		A		A		A		A		A		A		A		A		A		A		A		A		A		A	
			B		B		B		B		C		C		C		D															

NOTE: The capacitors listed are equivalent to MIL-C-26655A, Types CS12 and CS13. When other than standard tolerance is required, contact Electra for availability and price.

HIGH RELIABILITY RESISTORS



Four Electra resistor styles have been designed to meet the highest levels of MIL-R-55182.

The HRM series is produced in the RNR57, RNR63, and RNR70 sizes of the established reliability specification.

The CHM ⅛ offers ⅛-¼ watt high reliability performance at 125/70°C, yet dimensionally it is smaller than most RNR55 or RN55 MIL styles.

H R M

HRM⅛	Res. Range	30.1Ω to 200K	30.1Ω to 301K	30.1Ω to 301K	Tolerances	1%, .5%, .25%, .1%
	Temp. Coeff.	0±25 PPM/°C	0±50 PPM/°C	0±100 PPM/°C	Leads*	24 AWG (.020 ±.002)
HRM¼	Res. Range	49.9Ω to 1 Meg.	49.9Ω to 1 Meg.		Tolerances	1%, .1%
	Temp. Coeff.	0±25 PPM/°C	0±50 PPM/°C		Leads*	20 AWG (.033 ±.002)
HRM½	Res. Range	49.9Ω to 1 Meg.	49.9Ω to 1 Meg.		Tolerances	1%, .1%
	Temp. Coeff.	0±25 PPM/°C	0±50 PPM/°C		Leads*	20 AWG (.033 ±.002)

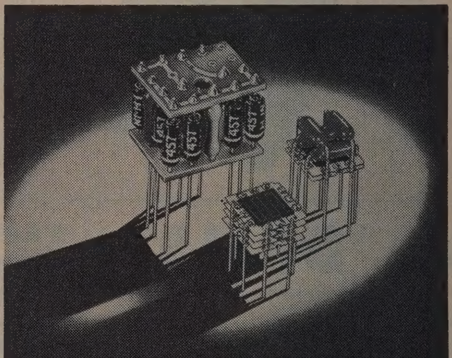
*NOTE: DUMET & GOLD PLATED 50 MICRO-INCHES THICK

C H M

CHM⅛	Res. Range	10Ω-200K	10Ω-301K	Tolerances	1%, .5%, .25%, .1%
	Temp. Coeff.	±25 PPM/°C	±50 PPM/°C	Leads*	22 AWG (.025 ±.002)

INTEGRATED CIRCUITS

...with micromodular components



Here are examples of the versatility offered in the Electra Micro-module program. Micro-module circuits by Electra utilize thin film wafer stacks, discrete elements, or combinations of both. Electra will package complete circuits to your specifications, or supply the individual components.

Both resistive and capacitive networks, or RC combinations are offered on planar ceramic substrates.

ELECTRA MANUFACTURING COMPANY **INDEPENDENCE, KANSAS**

CAT. A2.3.250
0.25MF 300VWDC
FILM CAPACITORS
INC

FILM CAPACITORS, INC.

F-C-I POLYSTYRENE CAPACITORS

F-C-I Polystyrene capacitors are characterized by a unique combination of low power factor, high insulation resistance and low dielectric absorption ("soakage") which cannot be duplicated by any other type capacitor except Teflon units. Furthermore, the capacitance stability is excellent, and the temperature coefficient of capacitance is very small. F-C-I Polystyrene capacitors are furnished as standard units in hermetically sealed metal shells; in bathtub cases with low loss steatite terminals; and in style CP70 metal cans with low loss steatite terminals. Special units, including multi-section blocks are also available to order.

TOLERANCES TO .25% AVAILABLE.

METAL SHELL POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins.	
			L	D
A4-1-10	100	.01	1	.235
A4-1-22	100	.022	1	.312
A4-1-33	100	.033	1	.312
A4-1-47	100	.047	1	.400
A4-1-68	100	.068	1	.400
A4-1-100	100	.10	1⅜	.400
A4-1-220	100	.22	1⅜	.562
A4-1-330	100	.33	1⅜	.670
A4-1-470	100	.47	1⅞	.670
A4-2-10	200	.01	1	.312
A4-2-22	200	.022	1	.400
A4-2-33	200	.033	1	.400
A4-2-47	200	.047	1⅜	.400
A4-2-68	200	.068	1⅜	.400
A4-2-100	200	.10	1⅜	.562
A4-2-220	200	.22	1⅞	.562
A4-2-330	200	.33	1⅞	.750
A4-2-470	200	.47	1⅞	1.00
A4-4-10	400	.01	1	.312
A4-4-22	400	.022	1	.400
A4-4-33	400	.033	1⅜	.400
A4-4-47	400	.047	1⅜	.400
A4-4-68	400	.068	1⅜	.562
A4-4-100	400	.10	1⅞	.562
A4-4-220	400	.22	1⅞	.750
A4-4-330	400	.33	1⅞	.750
A4-4-470	400	.47	1⅞	1.00
A4-6-10	600	.01	1	.400
A4-6-22	600	.022	1⅜	.562
A4-6-33	600	.033	1⅜	.562
A4-6-47	600	.047	1⅜	.670
A4-6-68	600	.068	1⅞	.562
A4-6-100	600	.10	1⅞	.670
A4-6-220	600	.22	1⅞	.750
A4-6-330	600	.33	2⅜	1.00
A4-6-470	600	.47	2⅜	1.00

STYLE CP70 CASED POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins.		
			L	W	H
A2-1-500	100	0.5	1¾	1	1⅝
A2-1-1000	100	1.0	1¾	1	2¼
A2-1-2000	100	2.0	2½	1³⁄₁₆	2¼
A2-1-4000	100	4.0	3¾	1¼	2½
A2-1-6000	100	6.0	3¾	1¾	2½
A2-1-8000	100	8.0	3¾	2¼	2½
A2-1-10M	100	10.0	3¾	2¼	3
A2-1-20M	100	20.0	3¾	3³⁄₁₆	3½
A2-2-250	200	0.25	1¾	1	2¼
A2-2-500	200	0.5	1¾	1	3¼
A2-2-1000	200	1.0	1¾	1	3
A2-2-2000	200	2.0	2½	1³⁄₁₆	3
A2-2-4000	200	4.0	3¾	1¼	3½
A2-2-6000	200	6.0	3¾	1¾	3½
A2-2-8000	200	8.0	3¾	2¼	3½
A2-2-10M	200	10.0	3¾	3³⁄₁₆	3½
A2-2-20M	200	20.0	4⁹⁄₁₆	3¾	4
A2-4-250	400	0.25	1¾	1	2¼
A2-4-500	400	0.5	1¾	1	2½
A2-4-1000	400	1.0	2½	1³⁄₁₆	2⅞
A2-4-2000	400	2.0	3¾	1¼	3
A2-4-4000	400	4.0	3¾	1¾	3½
A2-4-6000	400	6.0	3¾	3³⁄₁₆	3
A2-4-8000	400	8.0	3¾	3³⁄₁₆	5⅛
A2-4-10M	400	10.0	4⁹⁄₁₆	3¾	3½
A2-6-250	600	0.25	1¾	1	2¼
A2-6-500	600	0.5	1¾	1	3½
A2-6-1000	600	1.0	2½	1¼	3½
A2-6-2000	600	2.0	3¾	1¾	3
A2-6-4000	600	4.0	3¾	3³⁄₁₆	4
A2-6-5000	600	5.0	4⁹⁄₁₆	3¾	3½

BATHTUB CASED POLYSTYRENE CAPACITORS

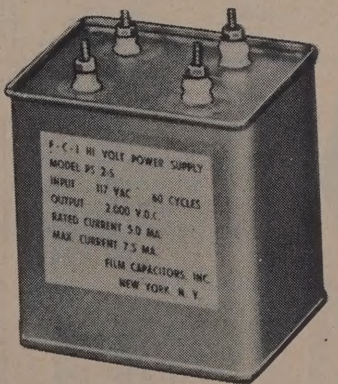
Part Number	Volts DC	Cap. MFD.	Case Size—Ins.		
			L	W	H
A3-1-50	100	.05	1⅛	1	½
A3-1-100	100	.10	1⅛	1	½
A3-1-250	100	.25	1⅛	1	1
A3-1-500	100	.50	1¾	1	¾
A3-1-1000	100	1.0	1¾	1	1
A3-2-50	200	.05	1¾	1	¾
A3-2-100	200	.10	1¾	1	¾
A3-2-250	200	.25	2	1¾	⅞
A3-2-500	200	.50	2	1¾	⅞
A3-2-1000	200	1.0	2	2	1¼
A3-4-10	400	.01	1¾	1	¾
A3-4-20	400	.02	1¾	1	¾
A3-4-50	400	.05	1¾	1	¾
A3-4-100	400	.10	1¾	1	¾
A3-4-250	400	.25	2	1¾	⅞
A3-4-500	400	.50	2	1¾	⅞
A3-4-1000	400	1.0	2	2	1¼
A3-6-10	600	.01	1¾	1	¾
A3-6-20	600	.02	1¾	1	¾
A3-6-50	600	.05	1¾	1	¾
A3-6-100	600	.10	1¾	1	1
A3-6-250	600	.25	2	1¾	⅞
A3-6-500	600	.50	2	2	1¼

"WRAP AND FILL POLYSTYRENE CAPACITORS ALSO AVAILABLE"

SOLID STATE HIGH VOLTAGE PACKAGED POWER SUPPLIES

Completely enclosed and hermetically sealed power supplies operating on 115 volt, 60 or 400 cycle, AC input. Output ranges from 2,000 vdc to 50,000 vdc. Standard sizes as follows: Non-standard supplies available upon request.

PART No.	OUTPUT VOLTAGE	RATED CURRENT OUTPUT	MAX. CURRENT OUTPUT
PS—2S	2 KVDC	5 MA	7.5 MA
PS—5S	5 KVDC	5 MA	7.5 MA
PS—10S	10 KVDC	1 MA	1.75 MA
PS—15S	15 KVDC	1 MA	1.75 MA
PS—20S	20 KVDC	1 MA	1.75 MA
PS—30S	30 KVDC	1 MA	1.75 MA
PS—50S	50 KVDC	1 MA	1.75 MA



® Du Pont Trade Mark

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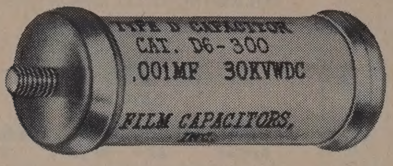
FILM CAPACITORS, INC.

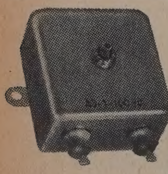
F-C-I HIGH VOLTAGE CAPACITORS

F-C-I Type D-6 capacitors employ a newly developed plastic film, plus Kraft paper dielectric which, with suitable processing, produces capacitors which are better, smaller and cheaper than could ever be produced before. F-C-I Type D-6 capacitors are suitable for practically every type of high voltage D-C application. Type D-6 is designed to operate over a temperature range of —55°C to +85°C, without derating. Type D-6H is designed to operate over a temperature range of —55°C to +125°C, with derating, and is available in the same case sizes. With these capacitors available, it is no longer necessary to stock groups of units each outstanding in only one property. F-C-I Type D-6 capacitors are furnished in steatite tubes with hermetically sealed metal end caps and either threaded studs or wire leads. Sizes not listed here can be furnished upon request. Ask for our quotation.

FURNISHED IN STEATITE CASES—NO BREAKAGE...NO LEAKAGE



Cat. No.	Cap. Mfd.	Working Volts DC	Dimensions L	Dia.
D6-10-10	.01	1000	1 3/16 x	17/32
D6-10-20	.02	1000	1 9/16 x	17/32
D6-10-50	.05	1000	1 9/16 x	17/32
D6-10-100	.10	1000	2⅜ x	11/16
D6-10-250	.25	1000	2⅜ x	⅞
D6-10-500	.50	1000	2⅜ x	1
D6-20-2	.002	2000	1 3/16 x	17/32
D6-20-5	.005	2000	1 3/16 x	17/32
D6-20-10	.01	2000	1 3/16 x	17/32
D6-20-20	.02	2000	1 9/16 x	17/32
D6-20-50	.05	2000	1⅜ x	11/16
D6-20-100	.10	2000	2⅜ x	11/16
D6-20-250	.25	2000	2⅜ x	1
D6-20-500	.50	2000	2⅜ x	1¼
D6-30-2	.002	3000	1 3/16 x	17/32
D6-30-5	.005	3000	1 3/16 x	17/32
D6-30-10	.01	3000	1 9/16 x	17/32
D6-30-20	.02	3000	1⅜ x	11/16
D6-30-50	.05	3000	2⅜ x	11/16
D6-30-100	.10	3000	2⅜ x	⅞
D6-30-250	.25	3000	2⅜ x	1¼
D6-30-500	.50	3000	2¾ x	1½
D6-50-5	.005	5 KV	1⅜ x	11/16
D6-50-10	.01	5 KV	1⅜ x	11/16
D6-50-20	.02	5 KV	2⅜ x	¾
D6-50-50	.05	5 KV	2⅜ x	⅞
D6-50-100	.10	5 KV	2⅜ x	1¼
D6-50-250	.25	5 KV	3 x	1½
D6-75-1	.001	7½ KV	1 9/16 x	17/32
D6-75-2	.002	7½ KV	1⅜ x	11/16
D6-75-5	.005	7½ KV	1⅜ x	11/16
D6-75-10	.01	7½ KV	2⅜ x	¾
D6-75-20	.02	7½ KV	2⅜ x	⅞
D6-75-50	.05	7½ KV	2⅜ x	1¼
D6-75-100	.10	7½ KV	2⅜ x	1½
D6-100-1	.001	10 KV	1⅜ x	11/16
D6-100-2	.002	10 KV	1⅜ x	11/16
D6-100-5	.005	10 KV	2⅜ x	11/16
D6-100-10	.01	10 KV	2⅜ x	⅞
D6-100-20	.02	10 KV	2⅜ x	1
D6-100-50	.05	10 KV	2⅜ x	1½
D6-100-60	.06	10 KV	3 x	1½
D6-100-100	.10	10 KV	4⅝ x	1½
D6-150-1	.001	15 KV	2⅜ x	11/16
D6-150-2	.002	15 KV	2⅜ x	¾
D6-150-5	.005	15 KV	2⅜ x	⅞
D6-150-10	.01	15 KV	2⅜ x	1¼
D6-150-20	.02	15 KV	4⅝ x	1¼
D6-150-50	.05	15 KV	4⅝ x	1½
D6-200-05	.0005	20 KV	2⅜ x	11/16
D6-200-1	.001	20 KV	2⅜ x	11/16
D6-200-2	.002	20 KV	2⅜ x	¾
D6-200-5	.005	20 KV	2⅜ x	1
D6-200-10	.01	20 KV	2⅜ x	1½
D6-200-20	.02	20 KV	4⅝ x	1½
D6-300-02	.0002	30 KV	4⅝ x	17/32
D6-300-05	.0005	30 KV	4⅝ x	17/32
D6-300-1	.001	30 KV	5 x	¾
D6-300-2	.002	30 KV	5 x	¾
D6-300-5	.005	30 KV	4⅝ x	1¼
D6-300-10	.01	30 KV	6⅝ x	1½
D6-400-01	.0001	40 KV	5¾ x	11/16
D6-400-02	.0002	40 KV	5¾ x	11/16
D6-400-05	.0005	40 KV	5¾ x	11/16
D6-400-1	.001	40 KV	6½ x	¾
D6-400-2	.002	40 KV	6½ x	1
D6-400-5	.005	40 KV	6½ x	1½
D6-400-6	.006	40 KV	8 x	1½
D6-500-01	.0001	50 KV	8¼ x	11/16
D6-500-02	.0002	50 KV	8¼ x	11/16
D6-500-05	.0005	50 KV	8¼ x	11/16
D6-500-1	.001	50 KV	8¼ x	¾
D6-500-2	.002	50 KV	8¼ x	1⅛
D6-500-5	.005	50 KV	10¾ x	1¼
D6-500-6	.006	50 KV	10¾ x	1⅜
D6-600-01	.0001	60 KV	10 x	¾
D6-600-02	.0002	60 KV	10 x	¾
D6-600-05	.0005	60 KV	10 x	¾
D6-600-1	.001	60 KV	10 x	⅞
D6-600-2	.002	60 KV	10 x	1
D6-600-5	.005	60 KV	11½ x	1½



ADJUSTABLE, SEALED POLYSTYRENE CAPACITORS

F-C-I adjustable capacitors are designed for use in ultra-precise circuits where a large capacitance of an extremely close tolerance is required, and yet cannot be predicted in advance due to second order effects in the circuitry. In order to attain the exact value of capacitance needed in such circuits, F-C-I has designed a series of polystyrene capacitors whose capacitance value may be adjusted over a range of plus or minus 1½% of nominal value. (Plus or minus 2% for values of 0.1 Mf or lower can be attained.) The windings are completely non-inductive, thus minimizing power factor and soakage.

	100 V.D.C.	
Cat. No.	Cap. Mfd.	Case Size
A3V-1-1M	1.0	2 x 2 x 1
A3V-1-680	.68	2 x 1¾ x ⅞
A3V-1-470	.47	1¾ x 1¼ x 1
A3V-1-330	.33	1¾ x 1¼ x ⅞
A3V-1-220	.22	1¾ x 1 x ¾
A3V-1-100	.1	1¾ x 1 x ¾

	200 V.D.C.	
Cat. No.	Cap. Mfd.	Case Size
A3V-2-1M	1.0	2 x 2 x 1⅛
A3V-2-680	.68	2 x 2 x 1
A3V-2-470	.47	2 x 1¾ x 1
A3V-2-330	.33	2 x 1¾ x ⅞
A3V-2-220	.22	1¾ x 1¼ x 1
A3V-2-100	.1	1¾ x 1 x ¾

	400 V.D.C.	
Cat. No.	Cap. Mfd.	Case Size
A3V-4-470	.47	2 x 2 x 1⅛
A3V-4-330	.33	2 x 1¾ x 1
A3V-4-220	.22	2 x 1¾ x ⅞
A3V-4-100	.1	1¾ x 1¼ x 1
A3V-4- 47	.047	1¾ x 1 x ¾
A3V-4- 33	.033	1¾ x 1 x ¾
A3V-4- 10	.01	1⅛ x 1 x ½

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FILM CAPACITORS, INC.

HERMETICALLY SEALED TYPE D MYLAR* CAPACITORS

● *Tolerance to 1%* ● *Hermetically Sealed* ● *High Insulation Resistance* ● *Operation up to 125° C*

F.C.I. type D capacitors employ Mylar* Film as the dielectric which offers advantages not obtainable with standard materials. Type D capacitors are ideal where space saving and extremely high insulation is required. Other electrical characteristics are low dielectic absorption, good retrace and stability. Designed to operate in the temperature range of −55°C to 125°C type D capacitors can be used where optimum performance is required.

*Trade Mark for Dupont Polyester Film

STYLE CP 70 CASED MYLAR CAPACITORS

Part No.	Cap.	L	W	H
		100V		
D2-1-2M	2.0	1¾	1	1⅝
D2-1-4M	4.0	1¾	1	2¼
D2-1-5M	5.0	1¾	1	2¾
D2-1-6M	6.0	1¾	1	2¾
D2-1-8M	8.0	1¾	1	3¼
D2-1-10M	10.0	2½	1 3/16	2⅞
D2-1-12M	12.0	2½	1 3/16	3½
D2-1-15M	15.0	2½	1 3/16	4
D2-1-20M	20.0	3¾	1¾	2½
D2-1-25M	25.0	3¾	1¾	3¼
D2-1-30M	30.0	3¾	1¾	3½
D2-1-40M	40.0	3¾	1¾	4
D2-1-50M	50.0	3¾	2¼	4
D2-1-100M	100.0	3¾	3 3/16	4¾
		200V		
D2-2-1M	1.0	1¾	1	1⅝
D2-2-2M	2.0	1¾	1	1⅝
D2-2-4M	4.0	1¾	1	2⅞
D2-2-5M	5.0	1¾	1	3¼
D2-2-6M	6.0	1¾	1	4
D2-2-8M	8.0	2½	1 3/16	2⅞
D2-2-10M	10.0	2½	1 3/16	3½
D2-2-12M	12.0	2½	1 3/16	4
D2-2-15M	15.0	3¾	1¼	3½
D2-2-20M	20.0	3¾	1¾	3¼
D2-2-25M	25.0	3¾	1¾	4
D2-2-30M	30.0	3¾	1¾	4½
D2-2-40M	40.0	3¾	2¼	4
D2-2-50M	50.0	3¾	3 3/16	3½
		400V		
D2-4-500	0.5	1¾	1	1⅝
D2-4-1M	1.0	1¾	1	2¼
D2-4-2M	2.0	1¾	1	2⅞
D2-4-4M	4.0	2½	1 3/16	3½
D2-4-5M	5.0	2½	1 3/16	4
D2-4-6M	6.0	3¾	1¼	3½
D2-4-8M	8.0	3¾	1¼	4
D2-4-10M	10.0	3¾	1¾	3½
D2-4-12M	12.0	3¾	1¾	4
D2-4-15M	15.0	3¾	2¼	4
D2-4-20M	20.0	3¾	3 3/16	4
D2-4-25M	25.0	4 9/16	3¾	3½
D2-4-30M	30.0	4 3/16	3¾	4
D2-4-40M	40.0	4 9/16	3¾	4½
D2-4-50M	50.0	4 9/16	3¾	5⅛
		600V		
D2-6-500	0.5	1¾	1	1⅝
D2-6-1M	1.0	1¾	1	2¾
D2-6-2M	2.0	1¾	1	4
D2-6-4M	4.0	2½	1 3/16	4
D2-6-5M	5.0	3¾	1¼	3½
D2-6-6M	6.0	3¾	1¼	4
D2-6-8M	8.0	3¾	1¾	4
D2-6-10M	10.0	3¾	1¾	4½
D2-6-20M	20.0	4 9/16	3¾	4½
D2-6-25M	25.0	4 9/16	3¾	4½

MOUNTING BRACKETS AVAILABLE

BATHTUB CASED MYLAR CAPACITORS

Part No.	Cap.	L	W	H
		100V		
D3-1-500	0.5	1⅛	1	13/16
D3-1-1M	1.0	1⅛	1	13/16
D3-1-2M	2.0	1¾	1	1
D3-1-4M	4.0	2	1¾	⅞
D3-1-6M	6.0	2	1¾	⅞
D3-1-8M	8.0	2	2	1⅛
D3-1-10M	10.0	2	2	1¼
D3-1-12M	12.0	2	2	1½
		200V		
D3-2-500	0.5	1⅛	1	13/16
D3-2-1M	1.0	1¾	1	¾
D3-2-2M	2.0	1¾	1¼	1
D3-2-4M	4.0	2	1¾	⅞
D3-2-5M	5.0	2	2	1
D3-2-6M	6.0	2	2	1⅛
D3-2-8M	8.0	2	2	1½
		400V		
D3-4-250	0.25	1⅛	1	13/16
D3-4-500	0.5	1¾	1	¾
D3-4-1M	1.0	1¾	1¼	1
D3-4-2M	2.0	2	1¾	⅞
D3-4-4M	4.0	2	2	1⅛
D3-4-5M	5.0	2	2	1½
		600V		
D3-6-100	0.1	1⅛	1	13/16
D3-6-250	0.25	1¾	1	¾
D3-6-500	0.5	1¾	1	1
D3-6-1M	1.0	2	1¾	⅞
D3-6-2M	2.0	2	2	1⅛

METAL SHELL MYLAR CAPACITORS

Part No.	Cap.	L	D
		200V	
D4-2-10	.01	⅞	.235
D4-2-15	.015	⅞	.235
D4-2-22	.022	⅞	.235
D4-2-33	.033	1	.235
D4-2-47	.047	1	.235
D4-2-68	.068	1	.312
D4-2-100	.10	1	.312
D4-2-150	.15	1	.400
D4-2-220	.22	1⅜	.400
D4-2-330	.33	1⅜	.400
D4-2-470	.47	1⅜	.500
D4-2-680	.68	1⅜	.562
D4-2-820	.82	1⅜	.670
D4-2-2000	2.00	1⅞	.750
		400V	
D4-4-10	.01	⅞	.235
D4-4-15	.015	⅞	.235
D4-4-22	.022	1	.312
D4-4-33	.033	1	.312
D4-4-47	.047	1	.400
D4-4-68	.068	1	.400
D4-4-100	.10	1⅜	.400
D4-4-150	.15	1⅜	.500
D4-4-220	.22	1⅜	.562
D4-4-330	.33	1⅜	.670
D4-4-470	.47	1⅞	.670
D4-4-680	.68	1⅞	.750
D4-4-820	.82	2⅜	.750
D4-4-1000	1.00	2⅜	1.00
		600V	
D4-6-10	.01	1	.235
D4-6-15	.015	1	.312
D4-6-22	.022	1	.400
D4-6-33	.033	1	.400
D4-6-47	.047	1⅜	.400
D4-6-68	.068	1⅜	.400
D4-6-100	.10	1⅜	.500
D4-6-150	.15	1⅜	.670
D4-6-220	.22	1⅞	.670
D4-6-330	.33	1⅞	.750
D4-6-470	.47	1⅞	1.00
D4-6-680	.68	2⅜	1.00
D4-6-820	.82	2⅜	1.00

Less 1/16 in length for Type D4G, one side grounded

TYPE KM-7
HIGH VOLTAGE BAKELITE CASED CAPACITORS

F-C-I Type KM-7 capacitors are designed for high voltage applications where space is at a premium. Capacitors are housed in cylindrical electrical grade Bakelite cases and are filled with a purified mineral oil. The dielectric employed is a combination of polyester film and the finest grade capacitor tissue. Easy mounting is accomplished with the ¼-20 x ⅞ bolts. Corona is held to minimum because of the elimination of all metal. These capacitors are ideal for use in high voltage power supplies, test equipment, X-Ray equipment, energy storage, etc. Suitable for operation up to 85° C.

All capacitors are constructed with extended foil windings, and all internal wiring is kept to a minimum. This eliminates most of the series inductance and produces a very high ringing frequency, an extremely desirable condition for energy storage and pulsing capacitors.

Cat. No.	Cap. Mfd.	Dimensions L	Dimensions D
	40 KVDC		
KM-7-400-10	.01	9⅛	x 1½
KM-7-400-20	.02	9⅛	x 2
KM-7-400-50	.05	11¾	x 2
KM-7-400-100	.10	17½	x 3
	50 KVDC		
KM-7-500-10	.01	11¾	x 1½
KM-7-500-20	.02	11¾	x 2
KM-7-500-50	.05	17½	x 2½
KM-7-500-100	.10	20¾	x 2½
	60 KVDC		
KM-7-600-10	.01	14⅜	x 2
KM-7-600-20	.02	14⅜	x 2½
KM-7-600-50	.05	22¼	x 2½
KM-7-600-100	.10	27¼	x 3
	80 KVDC		
KM-7-800-1	.001	12½	x 1½
KM-7-800-2	.002	12½	x 1½
KM-7-800-5	.005	12½	x 2
KM-7-800-10	.01	17½	x 2
KM-7-800-20	.02	17½	x 2½
KM-7-800-50	.05	27¼	x 3
	100 KDVC		
KM-7-100-05	.0005	18	x 1½
KM-7-1000-1	.001	18	x 1½
KM-7-1000-2	.002	18	x 2
KM-7-1000-5	.005	19⅝	x 2
KM-7-1000-10	.01	19⅝	x 3
KM-7-1000-20	.02	23¾	x 3
	120 KVDC		
KM-7-1200-05	.0005	19¼	x 1½
KM-7-1200-1	.001	19¼	x 2
KM-7-1200-2	.002	19¼	x 2
KM-7-1200-5	.005	22¼	x 2
KM-7-1200-10	.01	27¼	x 2½
KM-7-1200-20	.02	28¼	x 3
	150 KVDC		
KM-7-1500-05	.0005	23¾	x 1½
KM-7-1500-1	.001	23¾	x 2
KM-7-1500-2	.002	23¾	x 2
KM-7-1500-5	.005	27½	x 2½
KM-7-1500-10	.01	35	x 2½
KM-7-1500-20	.02	35	x 3

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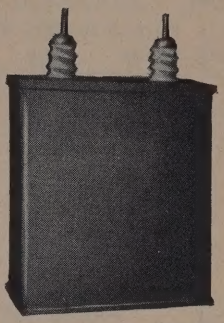
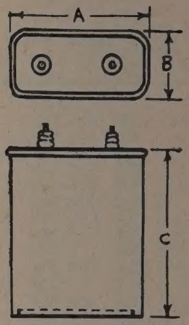
FILM CAPACITORS, INC.

HIGH VOLTAGE
TYPE KM-2 CAPACITORS—85 C OPERATION WITH SOLDER-SEAL CERAMIC BUSHINGS

F-C-I type KM-2 capacitors have been designed specifically to meet the need for smaller, more reliable capacitors that will withstand the severe operating conditions encountered in military and industrial electronic equipment. The dielectric employed is a combination of synthetic Polyester film and the finest grade capacitor tissue. Capacitor cases are of CP70 rectangular construction. Units will meet the requirements of proposed specification MIL-C-19978. Terminals are of the solder seal ceramic type with screw bolt terminations for easy connections and true hermetic sealing. Capacity tolerance is plus or minus 10% with an insulation resistance of 20,000 megohm microfarads. Specify type KMH-2 for operating temperatures up to 125°C. Case sizes for the KMH-2 and engineering data for both series are available upon request. CP07 mounting brackets are available for all sizes.





Cat. No.	µf	A	B	C
400 W. V. D. C.				
KM-2-4-500	0.5	1 13/16	1 1/16	1 5/8
KM-2-4-1M	1.0	1 13/16	1 1/16	1 5/8
KM-2-4-2M	2.0	1 13/16	1 1/16	2 1/4
KM-2-4-4M	4.0	2 1/2	1 3/16	2 7/8
KM-2-4-6M	6.0	2 1/2	1 3/16	4 3/4
KM-2-4-8M	8.0	3 3/4	1 1/4	4 1/4
KM-2-4-10M	10.0	3 3/4	1 1/4	4 3/4
KM-2-4-12M	12.0	3 3/4	1 3/4	3 7/8
KM-2-4-15M	15.0	3 3/4	1 3/4	4 3/4
600 W. V. D. C.				
KM-2-6-500	0.5	1 13/16	1 1/16	1 5/8
KM-2-6-1M	1.0	1 13/16	1 1/16	2 1/4
KM-2-6-2M	2.0	1 13/16	1 1/16	2 7/8
KM-2-6-4M	4.0	2 1/2	1 3/16	3 1/2
KM-2-6-6M	6.0	2 1/2	1 3/16	4 3/4
KM-2-6-8M	8.0	3 3/4	1 1/4	3 7/8
KM-2-6-10M	10.0	3 3/4	1 1/4	4 3/4
KM-2-6-12M	12.0	3 3/4	2 1/4	3 3/8
KM-2-6-15M	15.0	3 3/4	2 1/4	4 3/4
1000 W. V. D. C.				
KM-2-10-500	0.5	1 13/16	1 1/16	1 5/8
KM-2-10-1M	1.0	1 13/16	1 1/16	2 1/4
KM-2-10-2M	2.0	1 13/16	1 1/16	3 7/8
KM-2-10-4M	4.0	2 1/2	1 3/16	4 3/4
KM-2-10-6M	6.0	3 3/4	1 1/4	4 3/4
KM-2-10-8M	8.0	3 3/4	1 3/4	3 7/8
KM-2-10-10M	10.0	3 3/4	1 3/4	4 3/4
KM-2-10-12M	12.0	3 3/4	2 1/4	4 1/2
KM-2-10-15M	15.0	3 3/4	2 1/2	4 3/4
1500 W. V. D. C.				
KM-2-15-100	0.1	1 13/16	1 1/16	1 5/8
KM-2-15-250	0.25	1 13/16	1 1/16	1 5/8
KM-2-15-500	0.5	1 13/16	1 1/16	2 1/4
KM-2-15-1M	1.0	1 13/16	1 1/16	3 7/8
KM-2-15-2M	2.0	2 1/2	1 3/16	4 3/4
KM-2-15-4M	4.0	3 3/4	1 3/4	4 3/4
KM-2-15-6M	6.0	3 3/4	3 3/16	4 1/2
KM-2-15-8M	8.0	4 9/16	3 3/4	4 3/8
KM-2-15-10M	10.0	4 9/16	3 3/4	5 1/8
KM-2-15-12M	12.0	4 9/16	3 3/4	6
KM-2-15-15M	15.0	4 9/16	3 3/4	8 1/2
2000 W. V. D. C.				
KM-2-20-2M	2.0	3 3/4	1 1/4	4 3/4
KM-2-20-4M	4.0	3 3/4	2 1/2	4 3/4
KM-2-20-6M	6.0	3 3/4	3 3/16	5 1/8
KM-2-20-8M	8.0	4 9/16	3 3/4	4 3/8
KM-2-20-10M	10.0	4 9/16	3 3/4	5 1/2
KM-2-20-12M	12.0	4 9/16	3 3/4	6
KM-2-20-15M	15.0	4 9/16	3 3/4	9 5/8

Cat. No.	µf	A	B	C
2500 W. V. D. C.				
KM-2-25-2M	2.0	3 3/4	1 1/4	4 3/
KM-2-25-4M	4.0	3 3/4	2 1/4	5 1/
KM-2-25-6M	6.0	4 9/16	3 3/4	4 3/
KM-2-25-8M	8.0	4 9/16	3 3/4	5 1/
KM-2-25-10M	10.0	4 9/16	3 3/4	6 1/
KM-2-25-12M	12.0	4 9/16	3 3/4	9 5/
3000 W. V. D. C.				
KM-2-30-1M	1.0	3 3/4	1 3/4	3 1/
KM-2-30-2M	2.0	3 3/4	2 1/4	3 7/
KM-2-30-4M	4.0	3 3/4	3 3/16	5 1/
KM-2-30-6M	6.0	4 9/16	3 3/4	5 1/
4000 W. V. D. C.				
KM-2-40-1M	1.0	3 3/4	1 1/4	3 1/
KM-2-40-2M	2.0	3 3/4	2 1/4	5 1/
KM-2-40-4M	4.0	4 9/16	3 3/4	5 1/
5000 W. V. D. C.				
KM-2-50-100	0.1	3 3/4	1 1/4	3 1/
KM-2-50-250	0.25	3 3/4	1 1/4	3 1/
KM-2-50-500	0.5	3 3/4	1 1/4	3 1/
KM-2-50-1M	1.0	3 3/4	1 3/4	3 7/
KM-2-50-2M	2.0	3 3/4	2 1/2	5 3/
6000 W. V. D. C.				
KM-2-60-100	0.1	3 3/4	1 1/4	3 1/
KM-2-60-250	0.25	3 3/4	1 1/4	3 1/
KM-2-60-500	0.5	3 3/4	1 1/4	3 1/
KM-2-60-1M	1.0	3 3/4	2 1/4	4 3/
KM-2-60-2M	2.0	3 3/4	3 3/16	5 1/
7500 W. V. D. C.				
KM-2-75-100	0.1	3 3/4	1 1/4	3 1/
KM-2-75-250	0.25	3 3/4	1 1/4	3 7/
KM-2-75-500	0.5	3 3/4	2 1/4	4 1/
KM-2-75-1M	1.0	3 3/4	3 3/16	5 1/
KM-2-75-2M	2.0	4 9/16	3 3/4	8 1/
10,000 W. V. D. C.				
KM-2-100-100	0.1	3 3/4	1 1/4	3 1/
KM-2-100-250	0.25	3 3/4	2 1/4	3 7/
KM-2-100-500	0.5	3 3/4	2 1/2	5 3/
KM-2-100-1M	1.0	4 9/16	3 3/4	6
12,500 W. V. D. C.				
KM-2-125-100	0.1	3 3/4	2 1/4	3 3/
KM-2-125-250	0.25	3 3/4	2 1/4	4 1/
KM-2-125-500	0.5	4 9/16	3 3/4	5 1/
KM-2-125-1M	1.0	4 9/16	3 3/4	8 1/

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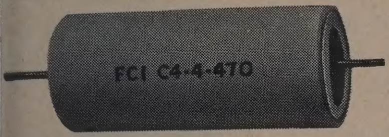
FILM CAPACITORS, INC.

HERMETIC TEFLON Capacitors, −55° to 200° C OPERATION



- **Extremely high leakage resistance**
- **Very low dielectric absorption**
- **Very low temperature coefficient**
- **High capacitance stability**
- **Very low power factor**
- **Excellent retrace**

F-C-I teflon capacitors are ideally suited for use in all types of computers, precision filters, integrating circuits, servo systems, timing circuits and laboratory standards.

F-C-I teflon capacitors are furnished as standard units in hermetically sealed metal shells, in bathtub cases and in style CP70 metal cases. Special capacitors are available in various configurations to meet application needs.

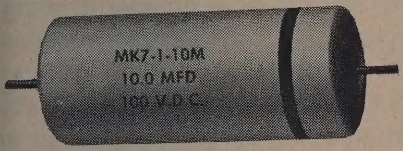
METAL SHELL TEFLON CAPACITORS

Part No.	D.C.V.	Capacity	L	D
C4-2-15	200	.0015	13/16	.235
C4-2-10	200	.01	15/16	.400
C4-2-22	200	.022	1 5/16	.400
C4-2-47	200	.047	1 1/4	.562
C4-2-100	200	.1	1 7/8	.562
C4-2-470	200	.47	2 1/8	.750

Part No.	D.C.V.	Capacity	L	D
C4-4-100	400	.1	1 7/8	.670
C4-4-150	400	.15	2 1/8	.750
C4-4-220	400	.22	1 7/8	1.000
C4-4-270	400	.27	2 3/8	1.000
C4-4-330	400	.33	2 3/8	1.000
C4-4-470	400	.47	2 5/8	1.000

Part No.	D.C.V.	Capacity	L	D
C4-6-1	600	.001	13/16	.235
C4-6-4.7	600	.0047	15/16	.400
C4-6-10	600	.01	1 3/16	.400
C4-6-22	600	.022	1 1/8	.562
C4-6-47	600	.047	1 1/2	.562
C4-6-150	600	.15	2 3/8	1.0

Specify C2 for CP70 Cases. Specify C3 for Bathtub Cases. Full Range of Capacity and Voltage Ratings available.



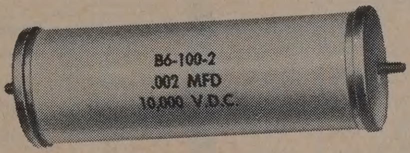
TYPE MK 7
Plastic Encased Metallized Paper Capacitors for Space Saving and Economy

Type MK 7 employs a newly developed impregnant that permits a 30% space savings over conventional units. Encased in a plastic tube with an epoxy resin end fill, this unit will surpass most commercial requirements for humidity resistance.

Cap.	100V	150V	200V	400V	600V
Mfd.	D x L	D x L	D x L	D x L	D x L
.1		.295 x 3/4	.295 x 7/8	.340 x 1 1/8	.375 x 1 1/8
.25		.312 x 1	.340 x 1	.468 x 1 1/8	.468 x 1 3/8
.5		.340 x 1 1/4	.400 x 1 1/8	.468 x 1 7/8	.575 x 1 5/8
1.0		.468 x 1 1/8	.515 x 1 1/8	.575 x 2 1/8	.750 x 1 5/8
2.0		.575 x 1 1/4	.640 x 1 5/16	.750 x 2 1/8	.875 x 2 1/8
5.0	.640 x 1 7/8		.750 x 1 7/8		
10.0	.875 x 1 7/8				
15.0	1.125 x 1 7/8				

TYPE B CAPACITORS

Low loss capacitors. Economical replacement for mica capacitors. These capacitors have been designed for applications involving low losses and high current carrying capabilities and may be operated in the megacycle range.



Cat. No.	Capacity	DC Voltage	Max. R.F. Voltage	40 K.C. Current	Max. KVAR	L x D
B6-50-2	.002	5KV	2000	1	2	2 3/8 x 1 1/4
BG-100-2	.002	10KV	4000	2	8	4 5/8 x 1 1/2
B6-30-5	.005	3KV	800	1	0.8	2 3/8 x 1
B6-50-5	.005	5KV	1600	2	3.2	2 3/8 x 1 1/4
B6-20-10	.01	2KV	400	1	0.4	2 3/8 x 3/4
B6-30-10	.01	3KV	800	2	1.6	2 3/8 x 1 1/8
B6-50-10	.01	5KV	2000	5	10.0	6 7/8 x 1 1/2
B6-10-20	.02	1KV	300	1	0.2	2 3/8 x 11/16
B6-20-20	.02	2KV	400	2	0.8	2 3/8 x 1
B6-50-20	.02	5KV	1000	5	5 0	4 5/8 x 1 1/4
B6-10-50	.05	1KV	200	1	0.12	2 3/8 x 3/4
B6-15-50	.05	1 1/2KV	300	2	0.4	2 3/8 x 1
B6-20-50	.05	2KV	400	5	2.0	2 3/8 x 1 1/2

Capacitors capable of handling several hundred KVARS are available upon request.

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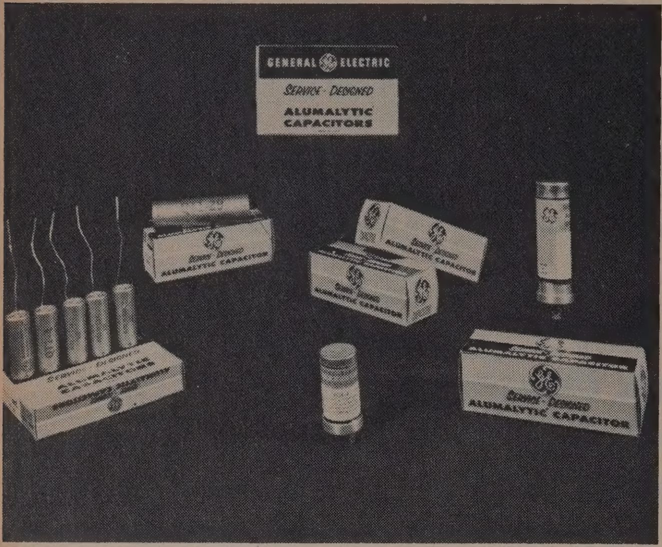
ELECTRONICS service-designed capacitors



General Electric has taken the confusion out of the capacitor business! With General Electric's new line of Service-Designed Alumalytic® Capacitors, you will now be able to make **all** your electrolytic capacitor replacements with one-fourth as many types. In fact, you'll be able to handle over 70% of your electrolytic capacitor replacement needs with just 20 G-E types!

Fewer G-E types are needed to meet your requirements because every G-E capacitor meets not just one, but a range of capacitance and voltage requirements. This extended-range approach reduces the total number of types in much the same way you are already doing it in the rectifier field when, for instance, you use a 500 ma unit to replace units rated at 500 ma or less.

As a result of the greatly reduced number of types necessary to meet your capacitor replacement needs, you can:

SIMPLIFY YOUR PURCHASING PROBLEMS. You can now replace any aluminum electrolytic capacitor used by any radio and TV manufacturer in the past ten years with one-fourth as many types. Ordering is faster and easier —because A FEW WILL DO!

MEET MOST NEEDS WITH A SMALL STOCK. If you wish, General Electric can suggest a stock list of 20 or more types which will meet 70% or more of your replacement needs. If you presently stock a large number of aluminum electrolytic capacitors, you will be able to reduce your inventory and still meet most of your needs. If you do not presently stock capacitors, you will now be able to carry a small assortment and save on single-unit ordering and pickup costs — because A FEW WILL DO!

ELECTROLYTIC TUBULARS (Type QT)

Application: General Electric Type QT electrolytic capacitors are designed for all television and other electronic applications requiring high reliability and long life. Each capacitor listed can be used as a replacement in applications requiring a capacitance value at or between the two capacitance values shown and provided the application voltage does not exceed the capacitor's rated voltage.

The larger bold type capacitance value is the absolute value or the value normally shown on ordinary capacitors.

Example: The rating of QT1-10 (15-**20** mfd up to 475 VDC) means that this is a 20 mfd capacitor which can replace capacitors rated 15, 16, 17, 18, 19 or 20 mfd at any voltage up to and including 475 VDC, and still be well within approved limitations.

SINGLE-SECTION TUBULARS

Catalog No.	Capacitance	Voltage	*Size	List Price
QT1-1	**2** mfd.	Up to 450V	½ X 1⅜	$1.15
QT1-2	3-**4** mfd.	Up to 300V	½ X 1⅜	1.25
QT1-2.1	3-**4** mfd.	Up to 450V	9/16 X 1⅝	1.15
QT1-3	3-**5** mfd.	Up to 150V	½ X 1⅜	1.00
QT1-4	5-**8** mfd.	Up to 450V	⅝ X 1⅝	1.25
QT1-5	8-**10** mfd.	Up to 150V	½ X 1⅜	1.05
QT1-6	8-**10** mfd.	Up to 450V	¾ X 1⅝	1.30
QT1-7	8-**10** mfd.	Up to 600V	1 X 2 15/16	2.25
QT1-8	12-**16** mfd.	Up to 450V	⅞ X 1⅝	1.40
QT1-8.1	12-**20** mfd.	Up to 150V	9/16 X 1 11/16	1.20
QT1-9	16-**20** mfd.	Up to 350V	⅞ X 1⅝	1.45
QT1-10	15-**20** mfd.	Up to 475V	⅞ X 1⅝	1.60
QT1-11	16-**25** mfd.	Up to 50V	9/16 X 1⅝	1.05
QT1-12	25-**30** mfd.	Up to 450V	1 X 1 13/16	1.70
QT1-13	30-**40** mfd.	Up to 150V	¾ X 1⅝	1.35
QT1-14	30-**40** mfd.	Up to 450V	1 X 2⅛	1.80
QT1-15	25-**50** mfd.	Up to 50V	⅝ X 1⅝	1.20
QT1-16	40-**50** mfd.	Up to 450V	1 X 2⅜	2.10
QT1-17	40-**60** mfd.	Up to 150V	⅞ X 1⅝	1.50
QT1-18	50-**60** mfd.	Up to 350V	1 X 2⅜	$1.95
QT1-19	50-**60** mfd.	Up to 450V	1 X 2⅝	2.35
QT1-20	60-**80** mfd.	Up to 150V	1 X 1⅝	1.60
QT1-21	60-**80** mfd.	Up to 450V	1 X 3⅛	2.80
QT1-22	50-**100** mfd.	Up to 15V	9/16 X 1⅜	1.25
QT1-23	50-**100** mfd.	Up to 50V	¾ X 1⅝	1.40
QT1-24	80-**100** mfd.	Up to 450 V	1¼ X 2 13/16	3.20
†QT1-24.1	75-**140** mfd.	Up to 300V	1¼ X 2⅜	3.15
QT1-25	100-**150** mfd.	Up to 150V	1 X 2⅛	1.90
QT1-26	100-**150** mfd.	Up to 300V	1¼ X 2⅜	3.15
QT1-27	150-**200** mfd.	Up to 200V	1¼ X 2⅜	2.90
†QT1-27.1	110-**200** mfd.	Up to 200V	1¼ X 2⅜	2.90
QT1-28	150-**250** mfd.	Up to 25V	¾ X 1⅝	1.70
QT1-29	200-**300** mfd.	Up to 150V	1 X 3⅝	2.55
QT1-30	250-**500** mfd.	Up to 15V	¾ X 1 13/16	1.75
QT1-31	250-**500** mfd.	Up to 50V	1 X 2⅜	2.40
QT1-32	500-**1000** mfd.	Up to 15V	1 X 1 13/16	2.30
QT1-33	1500-**2000** mfd.	Up to 15V	1 X 2 13/16	3.20

* Add 1/16″ to diameter and ⅛″ to length to all for insulating sleeve.

† Single ended with 5″ insulated leads and mounting bracket.

ALL PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Trade Discount Applies To List Prices Only

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†DUAL-SECTION TUBULARS

Catalog No.	Capacitance	Voltage	*Size	List Price
QT2-1	4-5 150-200	Up to 150V Up to 150V	1 X 2⅞	$2.65
QT2-1.2	3-100 5-200	250-250	1⅜ X 2 3/16	4.40
QT2-2	5-8 5-8	Up to 450V Up to 450V	⅞ X 1⅞	1.70
QT2-3	8-10 8-10	Up to 450V Up to 450V	⅞ X 1⅞	1.85
QT2-3.1	7-14 10-20	450-450	⅞ X 1 15/16	2.25
QT2-4	8-10 30-40	Up to 350V Up to 350V	⅞ X 2⅝	2.35
QT2-5	16-20 16-20	Up to 150V Up to 150V	⅞ X 1⅝	1.65
QT2-6	16-20 16-20	Up to 450V Up to 450V	⅞ X 2⅝	2.50
††QT2-6.1	14-14 20-20	450-450	1 X 3½	3.70
QT2-6.2	10-75 20-150	150-150	1 X 2 3/16	3.05
QT2-7	20-30 40-50	Up to 150V Up to 150V	⅞ X 1⅞	$1.95
QT2-8	30-40 30-40	Up to 450V Up to 450V	1 X 3⅜	3.40
QT2-9	40-50 40-50	Up to 150V Up to 150V	⅞ X 1⅞	2.10
QT2-10	40-50 60-80	Up to 150V Up to 150V	⅞ X 2⅝	2.35
QT2-10.1	40-70 80-125	250-250	1 X 3 7/16	4.30
QT2-10.2	50-75 100-125	300-350	1⅜ X 2 11/16	6.40
††QT2-11	60-120 60-120	Up to 150V Up to 150V	1¼ X 3¾	3.45

†TRIPLE-SECTION TUBULARS

Catalog No.	Capacitance	Voltage	*Size	List Price
QT3-0.1	2-30-30 4-60-60	350-350-350	1 X 3 7/16	5.20
QT3-0.2	3-70-100 5-140-200	350-350-200	1⅜ X 3 11/16	6.70
QT3-1	8-10 8-10 8-10	450V 450V 450V	1 X 1⅝	$2.80
QT3-1.1	7-7-75 10-10-150	450-450-150	1 X 1 11/16	3.85
QT3-1.2	5-100-125 10-200-250	150-150-150	1⅜ X 2 11/16	4.50
QT3-2	16-20 16-20 16-20	450V 450V 450V	1 X 2⅞	3.80
QT3-2.1	10-10-10 20-20-20	150-150-150	1 X 1 11/16	2.80
QT3-3	16-20 25-30 30-40	150V 150V 150V	1 X 1⅞	2.65
QT3-4	16-20 25-30 50-60	150V 150V 150V	1 X 2⅜	2.60
QT3-5	16-20 30-40 30-40	150V 150V 150V	1 X 1⅞	$2.70
QT3-5.1	10-30-30 20-40-40	350-450-450	1 X 3 11/16	5.40
QT3-6	16-20 30-40 60-80	150V 150V 150V	1 X 2⅜	2.90
QT3-7	16-20 40-50 40-50	150V 150V 150V	1 X 2⅜	2.70
QT3-7.1	25-40-50 50-80-100	150-150-150	1 X 2 7/16	3.60
QT3-8	30-50 30-50 30-50	150V 150V 150V	1 X 2⅜	3.15
QT3-9	25-30-125 50-60-250	150-150-25	1 X 2 7/16	3.65
QT3-10	25-60-125 50-120-250	25-150-150	1⅜ X 2 7/16	4.35
QT3-11	30-50-60 60-100-120	300-300-300	1⅜ X 2 15/16	6.50
QT3-12	35-50-70 70-75-100	25-400-400	1⅜ X 3 3/16	6.40
QT3-13	75-75-75 150-150-150	150-150-150	1⅜ X 2 11/16	5.05

† QUAD-SECTION TUBULARS

Catalog No.	Capacitance	Voltage	*Size	List Price
QT4-1	4-5 mfd. 20-30 100-140 150-200	Up to 300V Up to 200V Up to 350V Up to 200V	1⅜ X 3⅝	$6.85
QT4-1.1	7-15-15-15 10-20-20-20	450-450-450-450	1⅜ X 1 15/16	5.25
QT4-2	8-10 30-40 30-40 60-80	Up to 450V Up to 250V Up to 250V Up to 300V	1⅜ X 2⅝	4.95
QT4-2.1	7-20-40-50 10-40-80-100	450-300-400-300	1⅜ X 3 7/16	6.90
QT4-3	16-20 16-20 30-40 30-40	Up to 450V Up to 450V Up to 450V Up to 450V	1⅜ X 3⅛	$5.45
QT4-4	16-20 20-30 30-40 40-50	Up to 25V Up to 150V Up to 150V Up to 150V	1⅜ X 2	5.50
QT4-5	15-50-50-50 20-100-100-100	400-300-50-300	1⅜ X 3 15/16	6.80
QT4-6	15-20-50-100 30-40-100-200	150-150-150-150	1⅜ X 2 7/16	4.85

NON-POLARIZED TUBULARS

Catalog No.	Capacitance	Voltage	*Size	List Price
NPQT-1	3-5	30V	½ X 1⅜	$1.50
NPQT-2	4-5	350V	¾ X 1⅝	1.70
NPQT-3	8-10	400V	1 X 1⅝	2.00
NPQT-4	15-20	350V	1 X 1⅝	2.50
NPQT-5	15-30	30V	⅝ X 1⅝	$1.55
**NPQT-5.1	66.5-90	50V	⅞ X 2⅞	1.50
**NPQT-5.2	100-120	50 V NP	1 X 2⅞	2.00
NPQT-6	250-500	10V	1⅜ X 1⅝	2.00
NPQT-7	500-1000	3V	1⅜ X 1⅝	2.10

* Add 1/16" to diameter and ⅛" to length to allow for insulating sleeve.

** Replacement for antenna rotator capacitors.

† All designs have mounting bracket and insulated leads.

†† Separate sections.

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ELECTRONICS service-designed capacitors

TWIST-PRONG ELECTROLYTICS (Type XC)

Applications: General Electric Type XC electrolytic capacitors are designed for all television and other electronic applications requiring high reliability and long life.

Each capacitor listed can be used as a replacement in applications requiring a capacitance value at or between the two capacitance values shown and provided the application voltage does not exceed the capacitor's rated voltage.

The larger bold type capacitance value is the absolute value or the value normally shown on ordinary capacitors.

Example: The rating of XC1-2 (15-**20** mfd up to 500 VDC) means that this is a 20 mfd capacitor which can replace capacitors rated 15, 16, 17, 18, 19 or 20 mfd at any voltage up to and including 500 VDC, and still be well within approved limitations.

Description: The 100% use of high purity aluminum foil for anodes insures longer shelf and operation life with superior capacitance, resistance, and leakage current characteristics. These capacitors are hermetically sealed in aluminum cans and packaged with phenolic mounting wafers.

Temperature Range: —20°C to 85°C.

SINGLE-SECTION CANS

Catalog No.	Capacitance	Voltage	Size	List Price
XC1-1	7-**10** mfd.	Up to 500V	1 X 2	$1.70
XC1-2	15-**20** mfd.	Up to 500V	1 X 2	1.85
XC1-3	30-**40** mfd.	Up to 500V	1 X 2½	2.50
XC1-4	25-**50** mfd.	Up to 150V	1 X 2	1.65
XC1-5	30-**50** mfd.	Up to 350V	1 X 2	2.10
XC1-6	35-**50** mfd.	Up to 450V	1 X 2½	2.35
XC1-7	50-**80** mfd.	Up to 350V	1⅜ X 2	2.85
XC1-8	60-**80** mfd.	Up to 450V	1⅜ X 2½	3.05
XC1-9	60-**80** mfd.	Up to 500V	1⅜ X 2½	3.35
XC1-10	60-**100** mfd.	Up to 150V	1 X 2	2.00
XC1-11	60-**100** mfd.	Up to 300V	1 X 3	2.90
XC1-12	60-**100** mfd.	Up to 300V	1⅜ X 2	2.90
XC1-13	70-**100** mfd.	Up to 450V	1⅜ X 2½	3.45
XC1-14	70-**125** mfd.	Up to 200V	1 X 3	2.50
XC1-15	100-**125** mfd.	Up to 450V	1⅜ X 3	3.85
XC1-16	80-**140** mfd.	Up to 150V	1 X 2½	$2.15
*XC1-16.1	80-**150** mfd.	Up to 150V	1 X 2½	2.20
XC1-17	100-**150** mfd.	Up to 150V	1⅜ X 2	2.15
XC1-18	100-**150** mfd.	Up to 350V	1⅜ X 3½	3.60
XC1-19	100-**160** mfd.	Up to 250V	1⅜ X 2½	3.40
XC1-20	120-**200** mfd.	Up to 150V	1 X 3	2.70
XC1-21	120-**200** mfd.	Up to 300V	1⅜ X 2½	4.05
XC1-22	200-**300** mfd.	Up to 150V	1⅜ X 2½	2.80
XC1-23	250-**300** mfd.	Up to 350V	1⅜ X 4	5.55
XC1-24	250-**500** mfd.	Up to 25V	1 X 2	2.40
XC1-25	250-**500** mfd.	Up to 50V	1⅜ X 2	2.65
XC1-26	500-**1000** mfd.	Up to 16V	1 X 2	2.55
XC1-27	750-**1500** mfd.	Up to 50V	1⅜ X 3	4.40
XC1-28	1000-**2000** mfd.	Up to 16V	1⅜ X 2	3.45
XC1-29	1500-**3000** mfd.	Up to 16V	1⅜ X 2½	4.25

DUAL-SECTION CANS

Catalog No.	Capacitance	Voltage	Size	List Price
XC2-1	3-60 **4-80** mfd.	350V-450V	1 X 3½	$3.40
XC2-2	4-4 **5-5**	450V-450V	1 X 2	1.90
XC2-3	4-15 **5-20**	350V-350V	1 X 2	2.05
XC2-4	4-120 **5-200**	200V-200V	1⅜ X 2½	2.80
XC2-5	8-8 **10-10**	500V-500V	1 X 2	2.00
XC2-6	8-16 **10-20**	350V-475V	1 X 2½	2.35
XC2-7	5-20 **10-30**	50V-200V	1 X 2	2.00
XC2-8	8-25 **10-30**	500V-500V	1 X 3	2.60
XC2-9	8-30 **10-40**	300V-300V	1 X 2	2.50
XC2-10	8-30 **10-40**	450V-450V	1 X 2	2.75
XC2-11	8-40 **10-50**	300V-350V	1⅜ X 2	2.90
XC2-12	8-100 **10-160**	350V-350V	1⅜ X 3	4.30
XC2-13	15-15 **20-20**	250V-250V	1 X 2	$1.90
XC2-14	15-15 **20-20**	450V-450V	1 X 2½	2.55
XC2-15	15-15 **20-20**	500V-500V	1⅜ X 2	2.85
XC2-16	15-30 **20-40**	350V-350V	1 X 2½	2.75
XC2-17	15-30 **20-40**	450V-450V	1⅜ X 2	3.25
XC2-18	15-60 **20-80**	350V-350V	1⅜ X 2½	3.50
XC2-18.1	15-40 **20-80**	450-350	1 X 3	3.25
XC2-19	15-60 **20-80**	450V-450V	1⅜ X 2½	3.90
XC2-20	15-75 **20-100**	475V-400V	1⅜ X 3	4.50
XC2-21	20-30 **30-50**	150V-150V	1 X 2	2.00
XC2-22	20-40 **30-60**	350V-350V	1⅜ X 2	3.15
XC2-23	20-75 **30-100**	50V-400V	1⅜ X 2½	3.90
XC2-24	30-30 **40-40**	250V-250V	1 X 2½	2.50

* Can insulated.

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Dual-Section Cans (cont.)

Catalog No.	Capacitance	Voltage	Size	List Price
XC2-25	30-30 **40-40**	450V-450V	1⅜ X 2½	3.45
XC2-26	30-35 **40-45**	500V-500V	1⅜ X 2½	4.40
XC2-27	30-60 **40-80**	350V-350V	1⅜ X 2½	4.10
XC2-28	30-75 **40-100**	450V-450V	1⅜ X 3½	4.85
XC2-28.1	30-50 **40-100**	450V-50V	1 X 2½	2.80
XC2-29	30-30 **50-50**	150V-150V	1 X 2	2.15
XC2-30	30-60 **50-80**	150V-150V	1 X 2½	$2.40
XC2-31	30-60 **50-80**	475V-475V	1⅜ X 3½	5.20
XC2-32	30-100 **50-150**	50V-150V	1 X 3	2.50
XC2-32.1	25-250 **50-500**	150V-5V	1 X 2	2.45
XC2-33	40-40 **60-60**	450V-450V	1⅜ X 3	4.50
XC2-34	60-60 **80-80**	200V-400V	1⅜ X 2½	3.95

Catalog No.	Capacitance	Voltage	Size	List Price
XC2-35	60-60 **80-80**	450V-450V	1⅜ X 3½	5.40
XC2-36	60-75 **80-100**	450V-50V	1⅜ X 3	3.75
XC2-37	50-50 **100-100**	50V-50V	1 X 2	2.10
XC2-38	75-75 **100-100**	200V-300V	1⅜ X 3	3.45
XC2-39	75-75 **100-100**	400V-400V	1⅜ X 4	5.75
XC2-40	75-100 **100-150**	150V-150V	1 X 3½	3.10
XC2-41	75-100 **100-150**	150V-150V	1⅜ X 2	3.25
XC2-42	75-90 **100-120**	400V-400V	1⅜ X 4	6.20
XC2-43	100-120 **200-200**	250V-250V	1⅜ X 4	5.50
XC2-43.1	300-100 **800-250**	16-16	1 X 2	2.75
XC2-44	500-500 **1000-1000**	16V-16V	1 X 3½	3.80
XC2-45	500-500 **1000-1000**	30V-30V	1⅜ X 2½	5.35

TRIPLE-SECTION CANS

Catalog No.	Capacitance	Voltage	Size	List Price
XC3-1	4-8-15 mfd. **5-10-20**	350-400-400	1 X 2	$2.55
XC3-2	4-15-30 **5-20-40**	350-475-400	1 X 3	3.70
XC3-3	4-15-50 **5-20-60**	350-350-400	1 X 3½	3.70
XC3-4	4-30-100 **5-40-150**	350-350-350	1⅜ X 3½	5.05
XC3-5	4-40-75 **5-50-100**	450-350-350	1⅜ X 3	4.55
XC3-5.1	3-30-100 **5-60-200**	200-200-50	1 X 2½	2.90
XC3-6	4-50-75 **5-100-125**	200-75-350	1⅜ X 3	4.80
XC3-6.1	2-250-500 **5-500-1000**	32-16-16	1 X 2½	4.10
XC3-7	8-8-8 **10-10-10**	450-450-450	1 X 2	2.60
XC3-8	8-8-30 **10-10-40**	400-400-400	1 X 3	3.35
XC3-9	8-8-60 **10-10-80**	450-450-450	1⅜ X 2½	4.80
XC3-10	8-15-10 **10-20-20**	350-350-25	1 X 2	2.55
XC3-11	8-15-20 **10-20-30**	475-475-350	1 X 3	$3.40
XC3-12	8-15-60 **10-20-80**	350-450-350	1⅜ X 2½	4.25
XC3-13	8-15-75 **10-20-100**	450-350-350	1⅜ X 2½	4.55
XC3-13.1	7-15-50 **10-20-100**	450-450-50	1 X 2½	2.95
XC3-14	8-20-75 **10-30-100**	150-150-150	1 X 2½	2.85
XC3-15	8-30-30 **10-40-40**	500-500-500	1⅜ X 2½	5.05
XC3-16	8-30-75 **10-40-100**	400-400-350	1⅜ X 3	5.05
XC3-17	8-35-75 **10-45-100**	450-450-200	1⅜ X 2½	4.15

Catalog No.	Capacitance	Voltage	Size	List Price
XC3-17.1	7-40-75 **10-50-100**	500-475-450	1⅜ X 3	5.45
XC3-18	8-60-75 **10-80-100**	400-350-400	1⅜ X 3½	5.55
XC3-19	8-75-110 **10-100-150**	450-300-300	1⅜ X 3½	5.75
XC3-20	8-150-200 **10-200-250**	450-300-200	1⅜ X 4	6.85
XC3-21	12-12-15 **15-15-20**	450-450-450	1 X 3	$3.25
XC3-22	12-12-20 **15-15-40**	450-450-25	1 X 2½	2.75
XC3-22.1	10-20-75 **15-30-150**	500-500-50	1⅜ X 2½	3.70
XC3-23	15-15-15 **20-20-20**	350-350-350	1 X 2½	2.90
XC3-23.1	15-15-10 **20-20-20**	450-450-25	1 X 2	2.95
XC3-24	15-15-15 **20-20-20**	450-450-450	1⅜ X 2	3.60
XC3-25	15-10-20 **20-20-30**	350-25-350	1 X 2½	2.95
XC3-26	15-15-30 **20-20-40**	450-450-450	1⅜ X 2½	4.40
XC3-27	15-15-75 **20-20-100**	450-450-350	1⅜ X 3	4.95
XC3-28	15-20-30 **20-30-40**	150-150-150	1 X 2	2.60
XC3-28.1	10-15-20 **20-30-40**	350-350-350	1 X 3	3.00
XC3-29	15-30-30 **20-40-40**	450-450-450	1⅜ X 2½	4.45
XC3-30	15-30-50 **20-40-60**	450-450-450	1⅜ X 3	5.00
XC3-31	15-30-60 **20-40-80**	150-150-150	1 X 2½	2.90
XC3-32	15-30-60 **20-40-80**	450-450-450	1⅜ X 3	5.40

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Triple-Section Cans (cont.)

Catalog No.	Capacitance	Voltage	Size	List Price
XC3-33	15-30-60 **20-40-90**	350-350-350	1⅜ X 3	4.85
XC3-34	15-60-75 **20-80-100**	450-450-350	1⅜ X 3½	5.85
XC3-35	15-75-90 **20-100-140**	450-400-300	1⅜ X 4	6.70
XC3-35.1	10-75-75 **20-140-140**	350-350-350	1⅜ X 4	6.00
XC3-36	20-20-30 **30-30-40**	475-475-475	1⅜ X 3	$5.15
XC3-36.1	20-40-75 **30-60-100**	500-450-450	1⅜ X 3½	6.00
XC3-37	20-15-150 **30-60-200**	400-350-150	1⅜ X 3	5.00
XC3-38	30-30-30 **40-40-40**	150-150-150	1 X 2½	2.60
XC3-39	30-30-20 **40-40-40**	450-450-25	1⅜ X 2½	3.95
XC3-40	30-30-30 **40-40-40**	450-450-450	1⅜ X 3	4.90
XC3-41	30-60-90 **40-80-125**	450-400-350	1⅜ X 4	6.30
XC3-41.1	20-20-100 **40-40-250**	150-150-25	1 X 2½	3.15
XC3-41.2	30-40-50 **40-60-100**	500-500-350	1⅜ X 3½	6.10
XC3-42	30-60-300 **40-80-500**	400-400-50	1⅜ X 3½	5.80
XC3-43	30-70-70 **40-120-120**	150-150-150	1⅜ X 2½	4.05
XC3-44	30-30-30 **50-50-50**	150-150-150	1 X 2½	3.05
XC3-45	40-40-50 **60-60-80**	350-350-350	1⅜ X 3½	5.55
XC3-45.1	30-40-50 **60-80-100**	175-175-175	1 X 3	3.60
XC3-45.2	30-50-100 **60-100-200**	100-350-350	1⅜ X 4	6.25
XC3-46	40-80-125 **60-140-200**	200-150-150	1⅜ X 3	4.40
XC3-47	60-125-175 **80-200-300**	150-150-150	1⅜ X 3½	5.00
XC3-47.1	30-75-250 **100-200-700**	16-16-16	1 X 1¾	3.35
XC3-48	50-250-250 **100-500-500**	16-16-16	1 X 2	3.35
XC3-48.1	80-80-150 **250-250-500**	16-16-16	1 X 1¾	3.35

QUAD-SECTION CANS

Catalog No.	Capacitance	Voltage	Size*	List Price
XC4-1	3-8-8-10 **4-10-10-20**	300-500-300-25	2″	$3.35
XC4-2	3-8-30-100 **4-10-40-160**	350-475-400-350	4	6.30
XC4-3	3-8-40-100 **4-10-60-160**	300-300-300-350	3½	6.20
XC4-4	3-8-75-100 **4-10-100-160**	350-475-300-350	4	6.70
XC4-4.1	2-100-250-250 **4-350-750-750**	32-16-16-16	2	4.80
XC4-5	4-4-4-4 **5-5-5-5**	450-450-450-450	2	3.00
XC4-6	4-4-20-60 **5-5-25-70**	450-450-450-450	2½	5.10
XC4-7	4-8-8-60 **5-10-10-70**	450-450-450-450	2½	5.00
XC4-8	4-8-30-30 **5-10-35-40**	450-475-450-475	2½	5.00
XC4-9	4-15-40-50 **5-20-50-60**	450-350-350-400	3	5.15
XC4-10	4-25-30-60 **5-30-40-80**	400-400-400-400	3½	5.85
XC4-11	4-30-75-80 **5-40-100-110**	350-350-75-350	3	5.50
XC4-12	8-8-8-8 **10-10-10-10**	450-450-450-450	2	3.35
XC4-13	8-8-15-30 **10-10-20-40**	475-475-475-475	2½	4.85
XC4-14	8-8-15-90 **10-10-20-130**	475-350-350-350	3	$5.60
XC4-15	8-8-30-30 **10-10-35-40**	450-450-450-450	2½	4.80
XC4-16	8-8-50-50 **10-10-60-100**	450-450-200-50	2	3.85
XC4-17	8-8-75-100 **10-10-100-150**	475-400-300-300	3½	6.20
XC4-18	8-15-15-100 **10-20-20-140**	475-300-300-300	2½	5.05
XC4-19	8-10-20-75 **10-20-30-100**	400-50-50-400	2½	5.10
XC4-20	8-15-30-30 **10-20-40-40**	350-350-350-350	2½	4.40
XC4-21	8-15-30-30 **10-20-40-40**	450-25-450-450	2½	4.70
XC4-22	8-15-30-50 **10-20-40-60**	350-475-350-350	2½	4.95
XC4-23	8-15-30-90 **10-20-40-125**	475-450-450-300	3	5.80
XC4-24	8-15-30-90 **10-20-40-130**	350-350-475-350	3½	6.35
XC4-25	8-15-30-90 **10-20-50-120**	350-350-50-350	3	5.10
XC4-26	8-10-30-90 **10-20-50-120**	475-400-50-400	3	5.90
XC4-27	8-10-50-75 **10-20-60-100**	150-50-200-300	2½	$4.55
XC4-28	8-15-60-75 **10-20-80-100**	300-50-350-350	3½	5.35
XC4-29	8-15-75-100 **10-20-100-140**	450-300-300-350	4	6.60
XC4-30	8-15-100-100 **10-20-140-150**	450-300-350-300	4	6.70
XC4-31	8-15-100-150 **10-20-150-250**	250-350-300-50	3	5.55
XC4-32	8-15-30-50 **10-25-40-60**	450-25-350-350	2½	4.60
XC4-33	8-15-30-50 **10-25-40-100**	350-25-350-25	2	3.75
XC4-34	8-25-30-60 **10-30-40-80**	450-450-450-475	3½	6.65
XC4-35	8-25-30-60 **10-30-40-80**	450-300-400-400	3	5.75
XC4-36	8-25-25-75 **10-30-50-150**	475-500-50-50	2½	4.45
XC4-37	8-25-75-150 **10-30-100-200**	300-300-300-300	4	6.80
XC4-38	8-25-100-150 **10-30-140-200**	300-150-300-150	3½	5.70

* All Dia. are 1⅜″

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Quad-Section Cans (cont.)

Catalog No.	Capacitance	Voltage	Size*	List Price
XC4-39	8-25-150-150 **10-30-200-200**	300-150-200-150	3½	5.50
XC4-40	8-30-30-60 **10-40-40-80**	250-300-300-300	3	4.85
XC4-41	8-30-25-75 **10-40-50-100**	350-350-50-350	3	5.15
XC4-42	8-30-60-75 **10-40-80-100**	475-400-400-400	4	6.95
XC4-43	8-30-90-110 **10-40-120-150**	250-400-250-50	3	5.20
XC4-44	8-50-50-60 **10-60-60-80**	150-200-350-350	3	5.40
XC4-44.1	5-30-50-50 **10-60-100-100**	200-350-350-150	3	4.90
XC4-45	12-12-12-30 **15-15-15-40**	450-350-450-350	2½	4.00
XC4-46	12-15-10-10 **15-20-20-20**	450-450-25-25	2	3.45
XC4-47	12-30-30-20 **15-40-40-40**	450-450-450-50	3	5.20
XC4-48	15-15-15-10 **20-20-20-20**	450-450-450-25	2	4.15
XC4-49	15-15-15-15 **20-20-20-20**	450-450-450-450	2½	4.55
XC4-50	15-15-15-15 **20-20-20-20**	475-475-475-475	2½	4.85
XC4-51	15-15-15-50 **20-20-20-60**	450-450-450-450	3	5.50
XC4-52	15-15-15-75 **20-20-20-100**	450-450-450-300	3	5.30
XC4-53	15-15-15-150 **20-20-20-200**	300-300-300-300	3½	5.95
XC4-54	15-15-30-20 **20-20-40-40**	450-450-450-25	2½	4.65
XC4-55	15-15-30-30 **20-20-40-40**	450-450-450-450	3	5.55
XC4-56	15-15-30-75 **20-20-40-100**	350-350-350-400	3½	6.00
XC4-57	15-15-60-150 **20-20-80-200**	350-300-350-150	3½	$5.50
XC4-58	15-15-75-75 **20-20-100-100**	400-400-350-100	3½	5.50
XC4-59	15-15-75-100 **20-20-100-140**	300-300-300-350	4	5.00
XC4-60	15-20-30-75 **20-25-35-100**	200-450-450-50	2½	4.65
XC4-61	15-20-30-30 **20-25-40-40**	450-50-450-450	2½	5.05
XC4-62	10-25-30-30 **20-30-40-40**	25-350-350-350	2½	4.20

Catalog No.	Capacitance	Voltage	Size	List Price
XC4-63	15-25-30-25 **20-30-40-50**	300-300-300-25	2	4.00
XC4-64	15-25-25-150 **20-30-50-200**	350-400-50-350	4	6.75
XC4-65	15-30-50-50 **20-40-60-60**	150-350-350-200	3	4.80
XC4-66	15-30-50-60 **20-40-60-80**	400-300-450-350	3½	6.15
XC4-67	15-30-50-65 **20-40-60-90**	350-350-350-350	3½	5.90
XC4-68	15-30-50-150 **20-40-60-200**	150-150-150-10	2	3.60
XC4-69	15-50-60-50 **20-60-80-100**	350-350-150-50	2½	4.65
XC4-70	15-75-75-170 **20-100-100-240**	350-150-150-150	3½	5.95
XC4-70.1	15-60-50-80 **20-100-100-150**	450-350-50-350	4	6.75
XC4-71	15-30-60-75 **25-40-80-100**	50-400-350-200	3½	5.55
XC4-72	25-25-30-30 **30-30-40-40**	450-350-450-350	3	5.35
XC4-73	25-25-110-110 **30-30-150-150**	450-450-300-300	4	6.95
XC4-74	25-30-20-60 **30-40-40-80**	400-400-25-400	3½	5.90
XC4-75	25-30-25-100 **30-40-50-140**	350-350-50-350	3½	5.90
XC4-76	25-30-40-150 **30-40-50-200**	400-300-250-150	3	5.45
XC4-77	25-45-150-150 **30-60-200-200**	175-175-175-175	3½	6.15
XC4-78	30-30-30-30 **40-40-40-40**	150-150-150-150	2	3.60
XC4-79	30-30-30-20 **40-40-40-40**	450-450-450-25	3	5.50
XC4-80	30-30-30-30 **40-40-40-40**	450-450-450-450	3½	6.25
XC4-81	30-30-20-60 **40-40-40-80**	150-150-25-150	2	3.65
XC4-82	30-30-20-60 **40-40-40-80**	450-450-25-450	3½	6.45
XC4-83	30-30-50-100 **40-40-60-150**	350-350-350-75	3	5.25
XC4-84	30-50-50-75 **40-60-60-100**	400-400-300-400	4	6.85
XC4-85	50-60-75-50 **60-80-100-100**	400-350-200-50	3½	5.90

CAPACITOR ACCESSORIES

Catalog No.	Description
W53	Mounting wafer (phenolic) for 1 inch can
WL4	Mounting wafer (phenolic) for 1⅜ inch can
WM3	Mounting wafer (metal) for 1 inch can
WM4	Mounting wafer (metal) for 1⅜ inch can
PMA1	Printed board mounting adapter kit
1T5	Insulating sleeves for 1 x 2 inch can
1T6	Insulating sleeves for 1 x 2½ inch can

Catalog No.	Description
1T7	Insulating sleeves for 1 x 3 inch can
1T8	Insulating sleeves for 1 x 3½ inch can
1T9	Insulating sleeves for 1 x 4 inch can
1T10	Insulating sleeves for 1⅜ x 2 inch can
1T11	Insulating sleeves for 1⅜ x 2½ inch can
1T12	Insulating sleeves for 1⅜ x 3 inch can
1T13	Insulating sleeves for 1⅜ x 3½ inch can
1T14	Insulating sleeves for 1⅜ x 4 inch can

* All Dia. are 1⅜".

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ELECTRONICS service-designed capacitors

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS IN ALUMINUM CASES

Catalog No.	Capacitance	Voltage	Size*	List Price
MT1-1	1-2	50	3/16 X ½	$1.35
MT1-2	1-2	150	5/16 X ⅝	1.45
MT1-3	3-5	50	¼ X ½	1.45
MT1-4	3-5	150	⅜ X ⅝	1.55
MT1-5	6-10	25	¼ X ⅝	1.45
MT1-6	6-10	50	5/16 X ⅝	1.50
MT1-7	6-10	100	⅜ X ⅞	1.55
MT1-8	6-10	150	⅜ X 1	1.60
MT1-9	12-20	100	⅜ X 1½	1.60
MT1-10	15-25	15	5/16 X ⅝	1.45
MT1-11	15-25	25	⅜ X ⅝	1.55
MT1-12	15-25	50	⅜ X ¾	1.60
MT1-13	20-35	6	5/16 X ⅝	1.40
MT1-14	20-35	50	⅜ X ⅞	$1.70
MT1-15	25-50	6	5/16 X ¾	1.40
MT1-16	25-50	15	⅜ X ⅝	1.60
MT1-17	25-50	50	⅜ X 1¼	1.85
MT1-18	50-100	6	⅜ X ¾	1.50
MT1-19	50-100	15	⅜ X ⅞	1.80
MT1-20	50-100	25	⅜ X 1½	1.80
MT1-21	75-150	6	⅜ X ⅞	1.55
MT1-22	100-200	3	⅜ X ⅞	1.50
MT1-23	100-200	15	⅜ X 1½	2.10
MT1-24	150-300	6	⅜ X 1	1.80
MT1-25	125-250	12	⅜ X 1½	2.10
MT1-26	250-500	3	⅜ X 1½	1.75

* Dimensions are actual dimensions; add 1/64" to diameter and 3/32" to length for plastic sleeving.

PAPER-MYLAR SIDE-LEAD TUBULARS (Type MPC)

G-E Type MPC is especially designed for use in printed circuits as well as conventional wiring in television and radio. It has two dielectrics—Mylar* polyester film and highest grade paper—which provide high insulation resistance and high reliability while saving space. Type MPC capacitors have maximum stability of temperature characteristics because they are dipped in a solid thermosetting compound which will not crack, soften or flow, even at maximum temperatures.

Side leads are held rigidly at fixed spacings by a dipped, rock-hard casing with high humidity resistance and high dielectric strength against grounding. This tough, durable material is unaffected by contact with soldering iron. Crimped side leads save space and permit uniform mounting of units parallel to the plane of the chassis or printed wiring board.

Temperature Range: 55°C to +125°C. (Derate working voltage by 25% for + 125° operation)
±10%

Catalog No.	Capacitance Mfd.	Size—Inches Diam. X Length	List Price
		200 W.V.D.C.	
MPC-2S2	.02	.350 X .855	$0.25
MPC-2S47	.047	.450 X .855	.30
MPC-2S5	.05	.450 X .855	.30
MPC-2P1	.1	.470 X 1.180	.35
MPC-2P15	.15	.540 X 1.180	.40
MPC-2P25	.25	.620 X 1.300	.45
MPC-2P47	.47	.730 X 1.600	.60
MPC-2P5	.5	.730 X 1.600	.60
		400 W.V.D.C.	
MPC-4S1	.01	.390 X .690	.25
MPC-4S15	.015	.430 X .690	.25
MPC-4S2	.02	.390 X .855	.30
MPC-4S22	.022	.400 X .855	.30
MPC-4S33	.033	.440 X .855	.30
MPC-4S47	.047	.415 X 1.150	.35
MPC-4S5	.05	.415 X 1.150	.35
MPC-4S68	.068	.440 X 1.180	.35
MPC-4P1	.10	.520 X 1.180	.40
MPC-4P15	.15	.560 X 1.300	.50
MPC-4P22	.22	.620 X 1.560	.60
MPC-4P25	.25	.650 X 1.560	.60
MPC-4P47	.47	.850 X 1.600	.70
MPC-4P5	.50	.850 X 1.600	.75
		600 W.V.D.C.	
MPC-6D1	.001	.340 X .690	.25
MPC-6D15	.0015	.340 X .690	.25
MPC-6D2	.002	.340 X .690	.25
MPC-6D22	.0022	.340 X .690	.25
MPC-6D25	.0025	.350 X .690	.25
MPC-6D27	.0027	.370 X .690	.25
MPC-6D3	.003	.370 X .690	.25
MPC-6D33	.0033	.370 X .690	.25
MPC-6D39	.0039	.370 X .690	.25
MPC-6D4	.004	.370 X .690	.25
MPC-6D47	.0047	.400 X .690	.25
MPC-6D5	.005	.400 X .690	.25
MPC-6D56	.0056	.415 X .690	.25
MPC-6D6	.006	.415 X .690	.25
MPC-6D68	.0068	.430 X .690	.25
MPC-6D75	.0075	.370 X .870	.30
MPC-6D8	.008	.370 X .870	.30
MPC-6S1	.01	.390 X .870	.30
		600 W.V.D.C.	
MPC-6S12	.012	.400 X .870	$0.30
MPC-6S15	.015	.415 X .870	.30
MPC-6S2	.02	.445 X .870	.30
MPC-6S22	.022	.470 X .870	.30
MPC-6S25	.025	.400 X 1.150	.35
MPC-6S27	.027	.415 X 1.150	.35
MPC-6S3	.03	.415 X 1.150	.35
MPC-6S33	.033	.430 X 1.150	.35
MPC-6S39	.039	.470 X 1.150	.35

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PAPER-MYLAR SIDE-LEAD TUBULARS (Type MPC)

Catalog No.	Capacitance Mfd.	Dimensions—Inches Diameter X Length	List Price
MPC-6S4	.04	.470 X 1.150	.35
MPC-6S47	.047	.490 X 1.150	.40
MPC-6S5	.05	.490 X 1.150	.40
MPC-6S56	.056	.520 X 1.100	.40
MPC-6S6	.06	.520 X 1.180	.45
MPC-6S68	.068	.540 X 1.300	.45
MPC-6S75	.075	.570 X 1.300	.45
MPC-6S82	.082	.590 X 1.300	.45
MPC-6P1	.10	.640 X 1.300	.45
MPC-6P15	.15	.650 X 1.560	.55
MPC-6P2	.20	.730 X 1.560	.65
MPC-6P22	.22	.750 X 1.560	.65
		1600 W.V.D.C.	
MPC-16D1	.001	.350 X .870	.35
MPC-16D15	.0015	.375 X .870	.35
MPC-16D18	.0018	.400 X .870	.35
MPC-16D2	.002	.405 X .870	.35
MPC-16D22	.0022	.420 X .870	.35
MPC-16D3	.003	.475 X .870	.40
MPC-16D33	.0033	.480 X .870	.40
MPC-16D4	.004	.520 X .870	.40
MPC-16D47	.0047	.540 X .870	.40
MPC-16D5	.005	.565 X .870	.45
MPC-16D6	.006	.460 X 1.180	.45
MPC-16D7	.007	.485 X 1.180	.45
MPC-16D75	.0075	.495 X 1.180	.45
MPC-16D8	.008	.510 X 1.180	.50
MPC-16S1	.01	.525 X 1.180	.50
MPC-16S15	.015	.560 X 1.300	.50
MPC-16S2	.02	.570 X 1.600	.60
MPC-16S3	.03	.665 X 1.600	.70
MPC-16S33	.033	.695 X 1.600	.80
MPC-16S47	.047	.785 X 1.600	.85
MPC-16S5	.05	.815 X 1.600	.85

PAPER-MYLAR AXIAL-LEAD TUBULARS (Type MAL)

Catalog No.	Capacitance Mfd.	Dimensions—Inches Diameter X Length	List Price
		200 V.D.C.W.	
MAL-2S2	.02	⅜ X 1¼	$0.25
MAL-2S47	.047	⅜ X 1¼	.25
MAL-2S5	.05	⅜ X 1¼	.25
MAL-2P1	.10	7/16 X 1¼	.35
MAL-2P15	.15	½ X 1½	.35
MAL-2P25	.25	9/16 X 1 9/16	.45
MAL-2P47	.47	⅝ X 1⅞	.60
MAL-2P5	.50	⅝ X 1⅞	.60
		400 V.D.C.W.	
MAL-4S1	.01	5/16 X 1	.25
MAL-4S15	.015	⅜ X 1¼	.25
MAL-4S2	.02	⅜ X 1¼	.25
MAL-4S22	.022	⅜ X 1¼	.30
MAL-4S33	.033	7/16 X 1¼	.30
MAL-4S47	.047	7/16 X 1¼	.30
MAL-4S5	.05	7/16 X 1¼	.30
MAL-4S68	.068	½ X 1½	.35
MAL-4P1	.10	½ X 1½	.35
MAL-4P15	.15	9/16 X 1 9/16	.40
MAL-4P22	.22	⅝ X 1⅞	.45
MAL-4P25	.25	⅝ X 1⅞	.50
MAL-4P47	.47	¾ X 2¼	.75
MAL-4P50	.50	¾ X 2¼	.80
		600 V.D.C.W.	
MAL-6D1	.001	5/16 X 1	.25
MAL-6D15	.0015	5/16 X 1	.25
MAL-6D2	.002	5/16 X 1	.25
MAL-6D22	.0022	5/16 X 1	.25
MAL-6D3	.003	5/16 X 1	.25
MAL-6D33	.0033	5/16 X 1	.25
MAL-6D4	.004	5/16 X 1	.25
MAL-6D47	.0047	5/16 X 1	.25
MAL-6D5	.005	5/16 X 1	.25
MAL-6D6	.006	5/16 X 1	.25
MAL-6D68	.0068	5/16 X 1	.30
MAL-6S1	.01	⅜ X 1¼	.30
MAL-6S15	.015	⅜ X 1¼	.30
MAL-6S2	.02	7/16 X 1¼	.30
MAL-6S22	.022	7/16 X 1¼	.30
		600 V.D.C.W.	
MAL-6S3	.03	7/16 X 1¼	$0.35
MAL-6S33	.033	7/16 X 1¼	.35
MAL-6S4	.04	7/16 X 1¼	.35
MAL-6S47	.047	½ X 1½	.40
MAL-6S5	.05	½ X 1½	.40
MAL-6S6	.06	½ X 1½	.40
MAL-6S68	.068	½ X 1½	.45
MAL-6P1	.10	9/16 X 1 9/16	.45
MAL-6P15	.15	⅝ X 1⅞	.55
MAL-6P2	.20	⅝ X 1⅞	.65
MAL-6P22	.22	⅝ X 1⅞	.70
MAL-6P25	.25	11/16 X 1 15/16	.75
MAL-6P33	.33	¾ X 2¼	.90
MAL-6P47	.47	¾ X 2¼	1.25
MAL-6P50	.50	¾ X 2¼	1.25
		1600 V.D.C.W.	
MAL-16D1	.001	⅜ X 1¼	.65
MAL-16D15	.0015	⅜ X 1¼	.65
MAL-16D22	.0022	⅜ X 1¼	.65
MAL-16D33	.0033	⅜ X 1¼	.65
MAL-16D47	.0047	⅜ X 1¼	.65
MAL-16D5	.005	⅜ X 1¼	.65
MAL-16D68	.0068	7/16 X 1¼	.65
MAL-16D82	.0082	7/16 X 1¼	.65
MAL-16S1	.01	½ X 1½	.70
MAL-16S15	.015	½ X 1½	.70
MAL-16S22	.022	⅝ X 1⅞	.70
MAL-16S33	.033	⅝ X 1⅞	.70
MAL-16S47	.047	⅝ X 1⅞	.90
MAL-16S5	.05	⅝ X 1⅞	.90
		6000 V.D.C.W.	
MAL-60T5	.0005	½ X 1½	1.35
MAL-60D1	.001	9/16 X 1 9/16	1.35
MAL-60D5	.005	11/16 X 1 15/16	1.35
		10,000 V.D.C.W.	
MAL-100T5	.0005	½ X 1½	1.50
		12,500 V.D.C.W.	
MAL-125T25	.00025	½ X 1½	1.70

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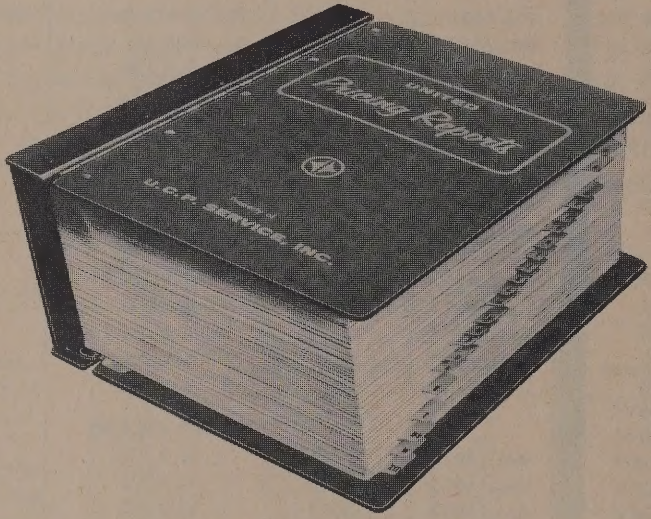

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

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MOLDED RADIAL LEAD SILVERED MICA CAPACITORS.....462, 463

TYPE TM TWIST-MOUNT ELECTROLYTICS

Designed for 85° C operation. Available in single, dual, triple and quadruple capacitor units. Assembled in aluminum containers providing protection against moisture. Easy to mount, low leakage, long shelf life. Highly dependable. For use in applications where high temperatures, voltage, surges, and ripple currents are encountered; as in radio and television receivers, amplifiers and similar equipment. Packaged in new Vu-Pak especially designed for the new General Instrument Capac-O-Mat.

Stock No. TMS	Capacity	Voltage	Diameter	Length
1020	2000	6	1⅜	2
1040	1000	15	1	2½
1050	2000	15	1⅜	2½
1060	3000	15	1⅜	3
1070	4000	15	1⅜	3½
1110	500	25	1	2
1120	1000	25	1⅜	2
1150	250	50	1	2½
1160	500	50	1⅜	2
1170	1000	50	1⅜	3½
1180	1500	50	1⅜	4
1200	30	150	1	2
1220	50	150	1	2
1230	80	150	1	2
1240	100	150	1	2
1250	120	150	1	2½
1260	120	150	1⅜	2
1270	140	150	1	3
1280	150	150	1	3
1285	150	150	1⅜	2
1290	200	150	1⅜	2½
1300	300	150	1⅜	3
1400	160	200	1⅜	2½
1430	20	250	1	2
1450	40	250	1	2
1480	150	250	1⅜	2½
1490	200	250	1⅜	3½
1540	80	300	1	3
1550	100	300	1	3
1560	125	300	1⅜	3
1570	150	300	1⅜	3
1590	250	300	1⅜	4
1610	30	350	1	2½
1620	40	350	1	2½
1630	50	350	1	3
1640	60	350	1	3
1650	80	350	1⅜	2½
1660	125	350	1⅜	3
1720	4	450	1	2
1730	10	450	1	2
1740	15	450	1	2
1750	20	450	1	2
1760	30	450	1	2½
1770	40	450	1	3
1780	50	450	1	3
1790	60	450	1⅜	2½
1800	80	450	1⅜	3
1810	100	450	1⅜	3
1820	125	450	1⅜	3½
1860	10	500	1	2
1870	20	500	1	2½
1880	30	500	1	3
1890	40	500	1	3½
1900	80	500	1⅜	3½
1910	90	500	1⅜	3½

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMD	Capacity	Voltage	Diameter	Length
2075	20-20	150-150	1	2
2085	30-30	150-150	1	2
2090	40-20	150-150	1	2
2095	40-30	150-150	1	2
2100	40-40	150-150	1	2
2105	50-30	150-150	1	2
2110	50-50	150-150	1	2
2120	60-60	150-150	1	2½
2125	70-30	150-150	1	2½
2130	75-75	150-150	1	2½
2135	80-40	150-150	1	2½
2140	80-50	150-150	1	2½
2145	80-80	150-150	1	3
2160	125-100	150-150	1⅜	2½
2165	200-5	150-150	1⅜	2½
2170	200-125	150-150	1⅜	3
2180	200-150	150-150	1⅜	3½
2185	200-200	150-150	1⅜	3
2200	60-60	200-200	1	3
2205	60-60	200-200	1⅜	2
2210	100-100	200-200	1⅜	3
2235	20-20	250-250	1	2
2250	40-40	250-250	1	3
2255	150-150	250-250	1⅜	4
2260	200-200	250-250	1⅜	4
2310	40-30	300-300	1	3
2330	80-80	300-300	1⅜	3
2350	120-20	300-300	1⅜	3
2355	120-40	300-300	1⅜	3
2370	15-15	350-350	1	2
2385	30-30	350-350	1	3
2395	50-30	350-350	1⅜	2½
2400	60-30	350-350	1⅜	2½
2405	80-20	350-350	1⅜	2½
2410	80-40	350-350	1⅜	3
2415	80-80	350-350	1⅜	3
2420	90-40	350-350	1⅜	3
2425	100-60	350-350	1⅜	4
2435	100-100	350-350	1⅜	4
2440	160-10	350-350	1⅜	3½
2455	100-30	400-50	1⅜	3
2460	80-80	400-200	1⅜	3½
2495	80-60	400-400	1⅜	3
2500	120-40	400-400	1⅜	4
2570	30-200	450-150	1⅜	3
2585	40-10	450-300	1	3
2605	5-5	450-450	1	2
2610	10-10	450-450	1	2
2615	15-15	450-450	1	2½
2620	20-10	450-450	1	2½
2630	30-10	450-450	1	3
2640	30-30	450-450	1⅜	2½
2645	40-20	450-450	1⅜	2½
2650	40-40	450-450	1⅜	3
2655	50-50	450-450	1⅜	3
2660	60-20	450-450	1⅜	3
2665	60-40	450-450	1⅜	3
2670	60-60	450-450	1⅜	3½
2675	80-10	450-450	1⅜	3
2680	80-20	450-450	1⅜	3
2685	80-30	450-450	1⅜	3½
2690	80-40	450-450	1⅜	3½
2700	100-40	450-450	1⅜	4
2710	15-15	475-475	1	2½
2715	30-10	475-475	1	3
2720	40-10	475-475	1⅜	2½
2730	80-50	500-50	1⅜	3½
2755	10-10	500-500	1	2½
2760	20-20	500-500	1⅜	2½
2765	30-10	500-500	1⅜	2½
2770	30-30	500-500	1⅜	3
2780	40-40	500-500	1⅜	3½
2785	60-40	500-500	1⅜	3½

Stock No. TMT	Capacity	Voltage	Dia-Meter	Length
3057	40-20-20	150-150-25	1	2
3078	50-30-20	150-150-25	1	2
3084	50-50-20	150-150-25	1	2½
3097	80-40-20	150-150-25	1	2½
3100	80-40-300	150-150-25	1⅜	2½
3112	20-20-20	150-150-150	1	2
3115	30-30-10	150-150150	1	2
3118	40-20-10	150-150-150	1	2
3121	40-20-20	150-150-150	1	2
3124	40-30-20	150-150-150	1	2
3127	40-40-40	150-150-150	1	2½
3130	50-40-10	150-150-150	1	2
3133	50-50-50	150-150-150	1	3
3136	60-40-20	150-150-150	1	2½
3142	70-40-40	150-150-150	1	3
3145	80-30-10	150-150-150	1	2½
3148	80-40-20	150-150-150	1	2½
3154	100-30-10	150-150-150	1	2½
3160	120-80-40	150-150-150	1⅜	3
3163	120-120-40	150-150-150	1⅜	3½
3166	200-100-60	150-150-150	1⅜	3
3169	200-150-150	150-150-150	1⅜	3½
3184	80-10-20	200-200-50	1	3
3217	20-20-10	250-250-250	1	2
3229	40-20-20	250-250-250	1	3
3232	80-10-10	250-250-250	1	3
3235	80-80-60	250-250-250	1⅜	3½
3289	10-10-15	300-300-250	1	2
3298	60-20-10	300-300-300	1⅜	2½
3304	80-40-40	300-300-300	1⅜	2½
3307	120-50-40	300-300-300	1⅜	4
3429	30-20-10	350-350-350	1⅜	2½
3435	60-40-20	350-350-350	1	3
3438	60-50-50	350-350-350	1⅜	3½
3441	80-60-60	350-350-350	1⅜	4
3444	90-40-20	350-350-350	1⅜	4
3468	20-20-20	400-400-25	1	3
3498	10-10-10	400-400-400	1	2½
3501	90-10-5	400-400-400	1⅜	3
3592	10-10-10	450-450-25	1	2
3595	10-10-20	450-450-25	1	2
3622	40-20-20	450-450-25	1⅜	2½
3712	10-10-10	450-450-450	1	2½
3718	15-15-15	450-450-450	1	3
3721	20-10-10	450-450-450	1	3
3724	20-20-20	450-450-450	1⅜	2½
3727	30-10-10	450-450-450	1⅜	2
3730	30-20-20	450-450-450	1⅜	2½
3733	30-30-30	450-450-450	1⅜	3½
3736	40-10-10	450-450-450	1⅜	3
3739	40-30-20	450-450-450	1⅜	3
3742	40-40-10	450-450-450	1⅜	3
3745	40-40-20	450-450-450	1⅜	3
3748	40-40-40	450-450-450	1⅜	3½
3751	50-40-30	450-450-450	1⅜	3½
3754	60-20-20	450-450-450	1⅜	3½
3757	60-30-10	450-450-450	1⅜	3
3760	60-40-20	450-450-450	1⅜	3½
3763	80-40-20	450-450-450	1⅜	4
3811	30-30-20	475-475-475	1⅜	3
3814	40-30-10	475-475-475	1⅜	3
3817	40-30-30	500-200-50	1⅜	2½
3856	10-10-10	500-500-500	1	3
3859	30-20-20	500-500-500	1⅜	3
3865	40-10-10	500-500-500	1⅜	3
3868	40-40-10	500-500-500	1⅜	4

Stock No. TMQ	Capacity	Voltage	Diameter	Length
4089	40-40-40-30	150-150-150-150	1⅜	2
4092	100-80-60-40	150-150-150-150	1⅜	3
4140	60-40-20-50	300-300-300-25	1⅜	3½
4155	40-20-10-10	300-300-300-300	1⅜	2
4158	40-40-20-10	300-300-300-300	1⅜	2½
4161	40-40-30-20	300-300-300-300	1⅜	3
4164	60-40-10-10	300-300-300-300	1⅜	3½
4173	200-20-20-20	300-300-300-300	1⅜	4
4295	40-20-20-10	350-350-350-350	1⅜	2½
4298	40-40-40-40	350-350-350-350	1⅜	4
4304	80-60-40-20	350-350-350-350	1⅜	4
4307	90-40-30-30	350-350-350-350	1⅜	4
4394	50-40-30-20	400-400-400-400	1⅜	4
4397	80-25-10-10	400-400-400-400	1⅜	3½
4625	30-30-20-20	450-450-450-450	1⅜	3½
4631	35-35-10-5	450-450-450-450	1⅜	3½
4634	40-10-10-10	450-450-450-450	1⅜	3
4640	40-35-10-10	450-450-450-450	1⅜	3
4646	40-40-20-20	450-450-450-450	1⅜	4
4649	40-40-30-30	450-450-450-450	1⅜	4
4652	40-40-40-40	450-450-450-450	1⅜	4
4655	60-20-20-20	450-450-450-450	1⅜	3½
4658	60-30-10-2	450-450-450-450	1⅜	3
4661	80-10-10-10	450-450-450-450	1⅜	3½
4752	20-20-10-10	475-475-475-475	1⅜	2
4755	20-20-20-20	475-475-475-475	1⅜	3
4758	40-20-10-10	475-475-475-475	1⅜	3
4776	10-10-10-10	500-500-500-500	1⅜	2
4782	40-40-8-8	500-500-500-500	1⅜	4

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TYPE BL SUBMINIATURE ELECTROLYTICS *(Bulletin EL9)*

Small, inexpensive and reliable, best describe this versatile new series of Subminiature Electrolytics. For compact transistorized circuits in conventional or printed board construction. New non-conductive plastic case. End seal compound, offer true moisture resistance. Low leakage. Long shelf life. Operating temp. −20°C to +65°C.

Cap. Mfd.	Part No.
3 V. D-C. W.V. 4 V. Surge	
6.	BL1010
8.	BL1110
10.	BL1111
12.	BL1112
15.	BL1210
20.	BL1211
25.	BL1212
30.	BL1213
40.	BL1310
50.	BL1410
60.	BL1411
65.	BL1510
75.	BL1511
100.	BL1610
125.	BL1611
150.	BL1710
175.	BL1711
200.	BL1910
250.	BL1911
300.	BL1912
350.	BL2010
400.	BL2011
450.	BL2110
500.	BL2111
600.	BL2210
750.	BL2211
1,000.	BL2310
1,200.	BL2311
1,500.	BL2410

Cap. Mfd.	Part No.
6 V. D-C. W.V. 8 V. Surge	
5.	BL1020
6.	BL1120
8.	BL1121
10.	BL1220
12.	BL1221
15.	BL1222
20.	BL1223
25.	BL1320
30.	BL1321
40.	BL1420
50.	BL1520
60.	BL1521
65.	BL1522
75.	BL1620
100.	BL1720
125.	BL1721
150.	BL1820
175.	BL1920
200.	BL1921
250.	BL2020
300.	BL2021
350.	BL2120
400.	BL2121
450.	BL2220
500.	BL2221
600.	BL2222
750.	BL2320
1,000.	BL2321
1,200.	BL2420

Cap. Mfd.	Part No.
10 V. D-C. W.V. 12 V. Surge	
4.	BL1030
5.	BL1130
6.	BL1131
8.	BL1230
10.	BL1231
12.	BL1232
15.	BL1233
20.	BL1330
25.	BL1331
30.	BL1430
40.	BL1530
50.	BL1531
60.	BL1630
65.	BL1631
75.	BL1730
100.	BL1731
125.	BL1830
150.	BL1930
175.	BL1931
200.	BL2030
250.	BL2031
300.	BL2130
350.	BL2131
400.	BL2230
450.	BL2231
500.	BL2232
600.	BL2330
750.	BL2331
1,000.	BL2430

Cap. Mfd.	Part No.
15 V. D-C. W.V. 18 V. Surge	
4.	BL1140
5.	BL1141
6.	BL1142
8.	BL1240
10.	BL1241
12.	BL1242
15.	BL1340
20.	BL1440
25.	BL1441
30.	BL1540
40.	BL1541
50.	BL1640
60.	BL1740
65.	BL1741
75.	BL1840
100.	BL1940
125.	BL1941
150.	BL2040
175.	BL2041
200.	BL2140
250.	BL2141
300.	BL2240
350.	BL2241
400.	BL2340
450.	BL2341
500.	BL2342
600.	BL2440

Cap. Mfd.	Part No.
20 V. D-C. W.V. 25 V. Surge	
2.	BL1050
4.	BL1150
5.	BL1250
6.	BL1251
8.	BL1252
10.	BL1350
12.	BL1351
15.	BL1450
20.	BL1451
25.	BL1550
30.	BL1650
40.	BL1750
50.	BL1850
60.	BL1950
65.	BL1951
75.	BL1952
100.	BL2050
125.	BL2051
150.	BL2150
175.	BL2151
200.	BL2250
250.	BL2251
300.	BL2350
350.	BL2351
400.	BL2450
450.	BL2451

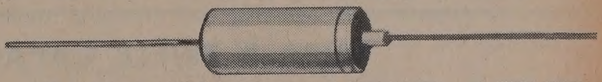
Cap. Mfd.	Part No.
25 V. D-C. W.V. 30 V. Surge	
2.	BL1160
4.	BL1260
5.	BL1261
6.	BL1262
8.	BL1360
10.	BL1460
12.	BL1461
15.	BL1560
20.	BL1561
25.	BL1660
30.	BL1760
40.	BL1860
50.	BL1861
60.	BL1960
65.	BL1961
75.	BL2060
100.	BL2160
125.	BL2161
150.	BL2260
175.	BL2261
200.	BL2360
250.	BL2361
300.	BL2362
350.	BL2460
400.	BL2461

Cap. Mfd.	Part No.
50 V. D-C. W.V. 60 V. Surge	
2.	BL1270
4.	BL1370
5.	BL1470
6.	BL1471
8.	BL1570
10.	BL1670
12.	BL1671
15.	BL1770
20.	BL1870
25.	BL1970
30.	BL2070
40.	BL2170
50.	BL2171
60.	BL2270
65.	BL2271
75.	BL2370
100.	BL2371
125.	BL2470

Case Code	Dia. ±.010	Max. Lgth.
BL10	.187	11/16
BL11	.187	13/16
BL12	.250	11/16
BL13	.250	13/16
BL14	.312	11/16
BL15	.312	13/16
BL16	.375	⅞
BL17	.375	1
BL18	.375	1⅛
BL19	.437	1⅛
BL20	.437	1¼
BL21	.500	1¼
BL22	.500	1½
BL23	.625	1½
BL24	.625	1¾

TYPE MLV HERMETICALLY-SEALED MINIATURIZED ELECTROLYTICS *(Bulletin EL5A)*

Designed for −30°C to +85°C operation. Features unit hermetically sealed with specially processed rubber. Low Leakage Current. All Welded Construction. Long Shelf and Operating Life. Units supplied with plastic insulating sleeve.



FOR −40° TO +85°C EXTENDED LIFE CAPACITORS — GI TYPE MLEV (Mil Type CE 10, 11) WRITE FOR BULLETIN EL6A.

Cat. No.	Cap. in mfd.	Dia.*	Length*
	3 Volts Working D.C.		
MLV5-3	3	3/16	11/16
MLV10-3	10	¼	11/16
MLV15-3	15	¼	11/16
MLV25-3	25	¼	11/16
MLV40-3	40	¼	11/16
MLV50-3	50	¼	11/16
MLV100-3	100	5/16	11/16
MLV150-3	150	⅜	11/16
MLV200-3	200	⅜	13/16
MLV250-3	250	⅜	15/16
MLV300-3	300	⅜	15/16
	10 Volts Working D.C.		
MLV10-10	10	¼	11/16
MLV15-10	15	¼	11/16
MLV25-10	25	¼	11/16
MLV50-10	50	⅜	11/16
MLV100-10	100	⅜	13/16
MLV200-10	200	⅜	1¼
	12 Volts Working D.C.		
MLV2-12	2	3/16	11/16
MLV5-12	5	¼	11/16
MLV10-12	10	¼	11/16
MLV15-12	15	¼	11/16
MLV20-12	20	¼	11/16
MLV25-12	25	¼	11/16
MLV40-12	40	5/16	11/16
MLV50-12	50	⅜	11/16
MLV100-12	100	⅜	13/16
MLV150-12	150	⅜	1¼
MLV200-12	200	⅜	1¼
	15 Volts Working D.C.		
MLV5-15	5	¼	11/16
MLV10-15	10	¼	11/16
MLV15-15	15	¼	11/16
MLV25-15	25	5/16	11/16
MLV35-15	35	5/16	11/16
MLV50-15	50	⅜	11/16
MLV100-15	100	⅜	15/16
MLV150-15	150	⅜	1¼
	6 Volts Working D.C.		
MLV2-6	2	3/16	11/16
MLV5-6	5	¼	11/16
MLV10-6	10	¼	11/16
MLV15-6	15	¼	11/16
MLV25-6	25	¼	11/16
MLV30-6	30	¼	11/16
MLV40-6	40	5/16	11/16
MLV50-6	50	5/16	11/16
MLV100-6	100	⅜	11/16
MLV150-6	150	⅜	15/16
MLV200-6	200	⅜	1¼
	25 Volts Working D.C.		
MLV5-25	5	¼	11/16
MLV10-25	10	¼	11/16
MLV15-25	15	5/16	11/16
MLV25-25	25	⅜	11/16
MLV50-25	50	⅜	15/16
MLV100-25	100	⅜	1½
	50 Volts Working D.C.		
MLV2-50	2	¼	11/16
MLV5-50	5	¼	11/16
MLV10-50	10	5/16	11/16
MLV15-50	15	⅜	11/16
MLV25-50	25	⅜	13/16
MLV50-50	50	⅜	1½
	100 Volts Working D.C.		
MLV2-100	2	⅜	11/16
MLV5-100	5	⅜	15/16
MLV10-100	10	⅜	15/16
MLV15-100	15	⅜	1¼
MLV25-100	25	⅜	1½
	150 Volts Working D.C.		
MLV1-150	1	⅜	15/16
MLV2-150	2	⅜	15/16
MLV5-150	5	⅜	15/16
MLV10-150	10	⅜	1¼
MLV15-150	15	⅜	1½

Sizes shown are for uninsulated cans. For plastic insulating sleeving add 1/32″ to diameter and 1/16″ to length.

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE TD TYNEE-DRY ELECTROLYTICS

Tynee-Dry single capacitor units with 3-inch bare-wire leads. Designed for 85° C operation. Each unit sealed in metal tubular case. Supplied with insulating cardboard sleeve. Low leakage. Long shelf life. Top quality in minimum space.

Catalogue No.	Capacity in UF	Dia.*	Length*
6 Volts DC Working			
TD-50-6	50	½	1⅛
TD-100-6	100	½	1⅛
TD-250-6	250	⅝	1⅝
15 Volts DC Working			
TD-100-15	100	⅝	1¼
TD-250-15	200	⅝	1⅝
TD-500-15	500	¾	2
TD-1000-15	1000	⅞	2
25 Volts DC Working			
TD-2-25	2	7/16	1⅛
TD-4-25	4	7/16	1⅛
TD-5-25	5	7/16	1⅛
TD-10-25	10	7/16	1⅛
TD-25-25	25	½	1⅛
TD-50-25	50	⅝	1¼
TD-100-25	100	⅝	1⅝
TD-250-25	250	⅞	2
TD-500-25	500	⅞	2
50 Volts DC Working			
TD-1-50	1	7/16	1⅛
TD-2-250	2	7/16	1⅛
TD-4-50	4	7/16	1⅛
TD-5-50	5	7/16	1⅛
TD-10-50	10	7/16	1⅛
TD-25-50	25	⅝	1¼
TD-50-50	50	⅝	1¼
TD-100-50	100	¾	1⅝
TD-150-50	150	¾	1⅝
TD-250-50	250	⅞	1⅝
TD-500-50	500	1	2½
150 Volts DC Working			
TD-4-150	4	7/16	1⅛
TD-8-150	8	⅝	1¼
TD-10-150	10	⅝	1¼
TD-12-150	12	⅝	1¼
TD-16-150	16	⅝	1¼
TD-20-150	20	⅝	1¼
TD-30-150	30	⅝	1⅝
TD-40-150	40	¾	1⅝
TD-50-150	50	¾	1⅝
TD-80-150	80	⅞	1⅝
TD-100-150	100	⅞	2
TD-150-150	150	1	2½
TD-200-150	200	1	3
TD-250-150	250	1	3
TD-300-150	300	1	3¾
200 Volts DC Working			
TD-100-200	100	1	3
TD-150-200	150	1	3½
TD-200-200	200	1	4
TD-300-200	300	1	4
250 Volts DC Working			
TD-4-250	4	½	1⅛
TD-8-250	8	⅝	1¼
TD-10-250	10	⅝	1¼
TD-500-6	500	⅝	1⅝
TD-1000-6	1000	¾	2
TD-1500-6	1500	¾	2
TD-2000-6	2000	1	2
TD-12-250	12	⅝	1¼
TD-16-250	16	⅝	1⅝
TD-20-250	20	⅝	1⅝
TD-30-250	30	¾	1⅝
TD-40-250	40	⅞	1⅝
TD-60-250	60	⅞	2
TD-100-250	100	1⅜	3
300 Volts DC Working			
TD-150-300	150	1	4¼
TD-200-300	200	1	4¼
350 Volts DC Working			
TD-8-350	8	⅝	1⅝
TD-12-350	12	⅝	1⅝
TD-16-350	16	¾	1⅝
TD-20-350	20	¾	1⅝
TD-30-350	30	⅞	2
TD-40-350	40	1	2
TD-60-350	60	1	2½
TD-80-350	80	1	2½
400 Volts DC Working			
TD-200-400	200	1	3½
450 Volts DC Working			
TD-2-450	2	⅝	1¼
TD-4-450	4	⅝	1¼
TD-8-450	8	⅝	1⅝
TD-10-450	10	¾	1⅝
TD-12-450	12	¾	1⅝
TD-16-450	16	¾	2
TD-20-450	20	⅞	2
TD-30-450	30	1	2
TD-40-450	40	1	2½
TD-50-450	50	1	3
TD-80-450	80	1	3½
TD-100-450	100	1	4
500 Volts DC Working			
TD-8-500	8	⅞	1⅝
TD-10-500	10	⅞	1⅝
TD-12-500	12	⅞	1⅝
TD-20-500	20	1	2
TD-30-500	30	1	2½
600 Volts DC Working			
TD-8-600	8	⅞	2¾
TD-10-600	10	⅞	2¾
TD-12-600	12	1	2¾
TD-16-600	16	1	3 9/16
TD-20-600	20	1	3 9/16
700 Volts DC Working			
TD-8-700	8	⅞	2¾
TD-10-700	10	1	2¾
TD-12-700	12	1	3 9/16
TD-16-700	16	1	3 9/16

* For sleeve add 1/16″ to diameter, 3/16″ to length.

FOR CURRENT QUANTITY PRICES
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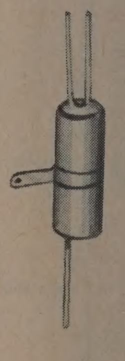
DUAL & TRIPLE CAPACITY TYPE TDL ELECTROLYTICS

Stock Number	Catalogue Number	Cap. in UF	Size in Inches Dia.	Size in Inches Length
150 Volts DC Working				
TDLD-1A	TDL-D10-150	10-10	¾	1⅝
TDLD-3	TDL-D20-150	20-20	¾	1⅝
TDLD-4	TDL-D30-150	30-30	¾	2
TDLD-5	TDL-4020-150	40-20	¾	2
TDLD-6	TDL-4030-150	40-30	¾	2
TDLD-7	TDL-D40-150	40-40	¾	2
Dual 150 Volts DC Working				
TDLD-8	TDL-5030-150	50-30	¾	2
TDLD-9	TDL-D50-150	50-50	⅞	2
TDLD-10	TDL-8030-150	80-30	⅞	2
TDLD-11	TDL-8040-150	80-40	1	2
TDLD-12	TDL-8050-150	80-50	1	2
TDLD-13	TDL-D80-150	80-80	1	2½
TDLD-14	TDL-10050-150	100-50	1	3
TDLD-15	TDL-D100-150	100-100	1	3
TDLD-16	TDL-2005-150	200-5	1	3½
Triple 150 Volts DC Working				
TDLT-1	TDL-T20-150	20-20-20	1	2
TDLT-2	TDL-T30-150	30-30-30	1	2
TDLT-3	TDL-403020-150	40-30-20	1	2
TDLT-4	TDL-404020-150	40-40-20	1	2
TDLT-5	TDL-T40-150	40-40-40	1	2
TDLT-6	TDL-503020-150	50-30-20	1	2
TDLT-7	TDL-804020-150	80-40-20	1	2
Triple 250 Volts DC Working				
TDLT-8	TDL-754010-250	75-40-10	1	3
Triple 450 Volts DS Working				
TDLT-9	TDL-T16-450	16-16-16	1	3
Dual 250 Volts DC Working				
TDLD-17	TDL-D8-250	8-8	¾	1⅝
TDLD-18	TDL-D16-250	16-16	¾	1⅝
TDLD-19	TDL-D20-250	20-20	¾	2
TDLD-20	TDL-D30-250	30-30	⅞	2
TDLD-21	TDL-4020-250	40-20	⅞	2
TDLD-22	TDL-D40-250	40-40	1	2
TDLD-23	TDL-8010-250	80-10	1	2
Dual 450 Volts DC Working				
TDLD-24	TDL-D8-450	8-8	⅞	1⅝
TDLD-25	TDL-816-450	8-16	⅞	2
TDLD-26	TDL-D10-450	10-10	⅞	2
TDLD-27	TDL-D16-450	16-16	1	2
TDLD-28	TDL-D20-450	20-20	1	2½
TDLD-29	TDL-D30-450	30-30	1	3
TDLD-30	TDL-4020-450	40-20	1	3½
TDLD-31	TDL-D40-450	40-40	1	3½
Triple Mixed Sections Diameter 1″				
TDLT-10	TDL-8332	80-30-300	150-150-10	3
TDLT-11	TDL-222	20-20-20	150-150-20	2
TDLT-12	TDL-432	40-30-20	150-150-25	2
TDLT-13	TDL-442	40-40-20	150-150-25	2
TDLT-14	TDL-4412	40-40-100	150-150-25	3½
TDLT-15	TDL-532	50-30-20	150-150-25	2
TDLT-16	TDL-5312	50-30-100	150-150-25	2½
TDLT-17	TDL-5322	50-30-200	150-150-25	2½
TDLT-18	TDL-8212	80-20-100	150-150-25	2½
TDLT-19	TDL-552	50-50-20	150-150-25	2½
TDLT-20	TDL-44225	40-40-20	250-250-25	2½
TDLT-21	TDL-22245	20-20-20	450-450-25	2½



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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

POLARIZED DRY ELECTROLYTIC CAPACITORS to Mil-C-62 (latest revision)

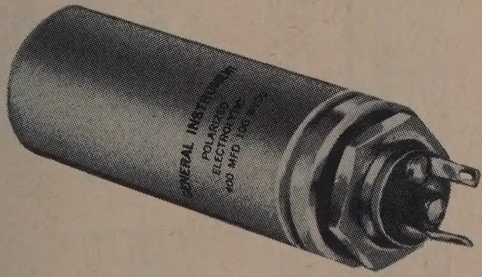
CE 10, 11 (TYPE MLE)
CE 12, 13 (TYPE TD)

Type MLE are small, axial lead units in round aluminum containers, available in capacitances from 1 mf through 250 mf and voltages of 5 V.D.C. through 150 V.D.C. Type TD is available in capacitances up to 1600 mf and voltages from 5 V.D.C. through 450 V.D.C.

GENERAL INSTRUMENT
POLARIZED
ELECTROLYTIC
100 MFD 250
BW 250100

CE 31, 32, 33 (TYPE PFB)

Type PFB General Instrument Polarized Electrolytics are available in standard round aluminum containers with convenient solder lugs. Special gasket provides maximum seal. Mounting ring optional. Available in capacitances from 7 mf thru 2000 mf and voltages of 15 V.D.C. thru 450 V.D.C. Order CE 31 in single capacity, CE 32 for dual, and CE 33 for triple capacity units.



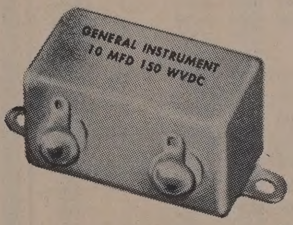
CE 41, 42 (TYPE DI)

Type DI Electrolytics are provided in chassis mounting aluminum cans. Have standard ⅞-16N-2A thread neck with lock nut. Solder lugs solidly anchored in special leak-proof gasket. Available as CE 41 in single and CE 42 in dual capacity units. Available in capacitances from 10 mf through 2000 mf and voltages of 15 V.D.C. through 450 V.D.C.

GENERAL INSTRUMENT
10-450
10-450
10-450
NEGATIVE

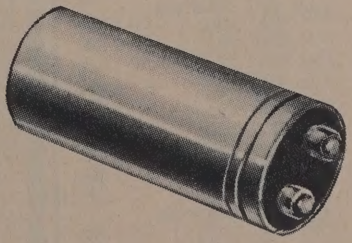
CE 51, 52, 53 (TYPE DO)

Type DO Electrolytics are available in plug mounting round aluminum containers. Have standard nickel-plated four-pin octal base. Maximum leakage seal provided by famous General Instrument design. Order CE 51 for Type DO's in single capacity, CE 52 for dual and CE 53 for triple capacity units. Available in capacitances from 10 mf through 2000 mf and voltages of 15 V.D.C. through 450 V.D.C.



CE 63, 64 (TYPE DPD)

Type DPD's are hermetically sealed in drawn, hot-tinned steel bathtub containers. Solder lug terminals are anchored to case with silicone rubber grommets. Type DPD's are single capacity units available in capacitances from 4 mf through 100 mf and voltages 15 V.D.C. through 450 V.D.C.



CE 70, 71 (TYPE CQM)

Type CQM (uninsulated case) and type CQMS (insulated case) are designd for high reliability and utilize highest purity foil in round aluminum cans with tapped terminal inserts or solder lugs. May be mounted with wrap around, footed brackets. Available in capacitances up to 65000 mfd and voltages thru 450 V.D.C.

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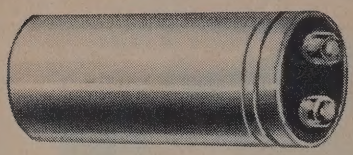
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE PQM *(Bulletin EL-10)*



To meet the growing demands of greater capacitance for use in the new power supplies in today's equipment, General Instrument has perfected the highly reliable aluminum electrolytic capacitor type PQM for superior operation from −20°C to +65°C.

Cases are of heavy gauge aluminum with leakproof seals and a new precision safety vent.

Available with tapped terminal inserts or solder lugs and with or without plastic sleeve.

Capacitance in Mfd.	Catalog Number	Dia. Length Case Size
22,000	PQM 100	1⅜ x 4⅛
38,000	PQM 101	1¾ x 4⅛
50,000	PQM 102	2 x 4⅛
70,000	PQM 103	2 x 5⅝
80,000	PQM 104	2½ x 4⅛
125,000	PQM 105	3 x 4⅛
180,000	PQM 106	3 x 5⅝
15,000	PQM 200	1⅜ x 4⅛
25,000	PQM 201	1¾ x 4⅛
33,000	PQM 202*	2 x 4⅛
50,000	PQM 203	2 x 5⅝
50,000	PQM 204	2½ x 4⅛
80,000	PQM 205	3 x 4⅛
125,000	PQM 206*	3 x 5⅝
10,000	PQM 300*	1⅜ x 4⅛
15,000	PQM 301*	1¾ x 4⅛
20,000	PQM 302*	2 x 4⅛
35,000	PQM 303*	2 x 5⅝
40,000	PQM 304	2½ x 4⅛
50,000	PQM 305	2½ x 4⅝
60,000	PQM 306*	3 x 4⅛
90,000	PQM 307*	3 x 5⅝
5,000	PQM 400*	1⅜ x 3⅛
6,000	PQM 401*	1⅜ x 4⅛
8,000	PQM 402	1⅜ x 4⅛
10,000	PQM 403*	1¾ x 4⅛
14,000	PQM 404*	1¾ x 4⅛
18,000	PQM 405*	2 x 4⅛
25,000	PQM 406*	2 x 5⅝
33,000	PQM 407*	2½ x 4⅛
40,000	PQM 408*	3 x 4⅛
45,000	PQM 409	3 x 4⅛
50,000	PQM 410*	3 x 4⅝
60,000	PQM 411	3 x 5⅝
3,000	PQM 500	1⅜ x 3⅛
5,000	PQM 501*	1⅜ x 4⅛
8,000	PQM 502	1¾ x 4⅛
10,000	PQM 503*	2 x 4⅛
15,000	PQM 504*	2 x 5⅝
20,000	PQM 505*	2½ x 4⅛
25,000	PQM 506	3 x 4⅛
40,000	PQM 507*	3 x 5⅝
1,500	PQM 600*	1⅜ x 2⅛
2,500	PQM 601*	1⅜ x 3⅛
4,000	PQM 602*	1⅜ x 4⅛
5,000	PQM 603*	1¾ x 4⅛
6,000	PQM 604	1¾ x 4⅛
8,000	PQM 605*	2 x 4⅛
9,000	PQM 606	2 x 4⅛
10,000	PQM 607*	2 x 5⅝
13,500	PQM 608	2 x 5⅝
15,000	PQM 609*	2½ x 4⅛
20,000	PQM 610*	3 x 4⅛
30,000	PQM 611*	3 x 5⅝
750	PQM 700*	1⅜ x 2⅛
1,500	PQM 701*	1⅜ x 3⅛
2,500	PQM 702*	1⅜ x 4⅛
4,000	PQM 703*	1¾ x 4⅛
5,000	PQM 704*	2 x 4⅛
8,000	PQM 705*	2 x 5⅝
10,000	PQM 706*	2½ x 4⅛
15,000	PQM 707*	3 x 4⅛
20,000	PQM 708*	3 x 5⅝
450	PQM 800	1⅜ x 2⅛
900	PQM 801	1⅜x 3⅛
1,000	PQM 802*	1⅜ x 4⅛
1,500	PQM 803	1⅜ x 4⅛
2,400	PQM 804	1¾ x 4⅛
3,000	PQM 805*	2 x 4⅛
4,500	PQM 806	2 x 5⅝
5,000	PQM 807*	2½ x 4⅛
8,000	PQM 808	3 x 4⅛
10,000	PQM 809*	3 x 5⅝
350	PQM 900	1⅜ x 2⅛
700	PQM 901	1⅜ x 3⅛
1,000	PQM 902*	1⅜ x 4⅛
1,500	PQM 903*	1¾ x 4⅛
2,300	PQM 904	2 x 4⅛
3,000	PQM 905*	2 x 5⅝
4,000	PQM 906*	2½ x 4⅛
5,000	PQM 907*	3 x 4⅛
8,500	PQM 908	3 x 5⅝
250	PQM 1000	1⅜ x 2⅛
500	PQM 1001*	1⅜ x 3⅛
750	PQM 1002*	1⅜ x 4⅛
1,000	PQM 1003*	1¾ x 4⅛
1,250	PQM 1004*	1¾ x 4⅛
1,850	PQM 1005	2 x 4⅛
2,000	PQM 1006*	2 x 4⅝
2,500	PQM 1007*	2½ x 4⅛
3,000	PQM 1008	2½ x 4⅛
4,000	PQM 1009*	3 x 4⅛
5,000	PQM 1010	3 x 4⅝
6,000	PQM 1011*	3 x 5⅝
200	PQM 1100	1⅜ x 2⅛
350	PQM 1101	1⅜ x 3⅛
500	PQM 1102*	1⅜ x 4⅛
750	PQM 1103*	1¾ x 4⅛
900	PQM 1104	1¾ x 4⅛
1,400	PQM 1105	2 x 4⅛
1,500	PQM 1106*	2 x 4⅝
2,000	PQM 1107*	2 x 5⅝
2,000	PQM 1108	2½ x 4⅛
2,500	PQM 1109*	3 x 4⅛
3,000	PQM 1110	3 x 4⅝
4,500	PQM 1111	3 x 5⅝
150	PQM 1200	1⅜ x 2⅛
250	PQM 1201	1⅜ x 3⅛
400	PQM 1202	1⅜ x 4⅛
500	PQM 1203*	1¾ x 4⅛
700	PQM 1204	1¾ x 4⅛
1,000	PQM 1205*	2 x 4⅛
1,500	PQM 1206*	2½ x 4⅛
2,500	PQM 1207	3 x 4⅛
2,800	PQM 1208	3 x 4⅝
100	PQM 1300	1⅜ x 2⅛
200	PQM 1301	1⅜ x 3⅛
275	PQM 1302*	1⅜ x 4⅛
450	PQM 1303*	1¾ x 4⅛
500	PQM 1304	1¾ x 4⅛
700	PQM 1305	2 x 4⅛
1,000	PQM 1306*	2½ x 4⅛
1,500	PQM 1307	3 x 4⅝
2,000	PQM 1308	3 x 4⅝
75	PQM 1400	1⅜ x 2⅛
150	PQM 1401*	1⅜ x 3⅛
200	PQM 1402	1⅜ x 4⅛
350	PQM 1403*	1¾ x 4⅛
500	PQM 1404	2 x 5⅝
850	PQM 1406	2½ x 4⅛
1,000	PQM 1407*	3 x 4⅛
1,250	PQM 1408	3 x 4⅛
1,500	PQM 1409	3 x 4⅝
50	PQM 1500	1⅜ x 2⅛
100	PQM 1501	1⅜ x 3⅛
150	PQM 1502	1⅜ x 4⅛
300	PQM 1503	1¾ x 4⅛
350	PQM 1504	2 x 4⅛
500	PQM 1505	2 x 5⅝
650	PQM 1506	2½ x 4⅛
1,000	PQM 1507	3 x 4⅛
1,200	PQM 1508	3 x 4⅝
50	PQM 1600	1⅜ x 2⅛
100	PQM 1601	1⅜ x 3⅛
150	PQM 1602	1⅜ x 4⅛
250	PQM 1603*	1¾ x 4⅛
300	PQM 1604*	2 x 4⅛
500	PQM 1605*	2 x 5⅝
600	PQM 1606*	2½ x 4⅛
800	PQM 1607*	3 x 4⅛
850	PQM 1608	3 x 4⅛
1,000	PQM 1609	3 x 4⅝

*Designates Preferred Values normally carried in Distributor Stock.

For units with rigid vinyl sleeving, order part number PQMS and add 1/16″ to diameter and ⅜″ to length.

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE CQM *(Bulletin EL-8A)*

Exacting performance of digital computers and related equipment demands components of the highest grade. Improved internal construction provides for low impedance at high frequencies, assures superior operation through the operating range at −20°C to +85°C.

Cases are of heavy guage aluminum. A leak proof seal is obtained by rolling the top of the case into a pliable synthetic rubber gasket. Terminals are available in two styles: tapped terminal inserts, for bus bar connections and solder lug terminals for permanent connections. The capacitors are furnished with bare case, one piece vinyl sleeve, or clear rigid plastic sleeve.

Capacitance Mfd.	Catalog Number	Dia. Length
	2.5 WVDC 3V Surge	
14,000	CQMS 100	1⅜ x 3⅛
20,000	CQMS 101	1⅜ x 4⅛
24,000	CQMS 102	1⅜ x 4⅝
33,000	CQMS 103	1¾ x 4⅛
50,000	CQMS 104	2 x 4⅛
58,000	CQMS 105	2 x 4⅝
75,000	CQMS 106	2 x 5⅝
85,000	CQMS 107	2½ x 4⅛
100,000	CQMS 108	2½ x 4⅝
125,000	CQMS 109	3 x 4⅛
145,000	CQMS 110	3 x 4⅝
185,000	CQMS 111	3 x 5⅝
	5.0 WVDC 7V Surge	
10,700	CQMS 200	1⅜ x 3⅛
16,000	CQMS 201	1⅜ x 4⅛
19,000	CQMS 202	1⅜ x 4⅝
25,000	CQMS 203	1¾ x 4⅛
37,000	CQMS 204	2 x 4⅛
43,000	CQMS 205	2 x 4⅝
55,000	CQMS 206	2 x 5⅝
65,000	CQMS 207	2½ x 4⅛
76,000	CQMS 208	2½ x 4⅝
96,000	CQMS 211	3 x 4⅛
110,000	CQMS 210	3 x 4⅝
145,000	CQMS 211	3 x 5⅝
	7.5 WVDC 10V Surge	
6,200	CQMS 300	1⅜ x 3⅛
9,300	CQMS 301	1⅜ x 4⅛
10,500	CQMS 302	1⅜ x 4⅝
15,000	CQMS 303	1¾ x 4⅛
23,000	CQMS 304	2 x 4⅛
26,000	CQMS 305	2 x 4⅝
35,000	CQMS 306	2 x 5⅝
39,000	CQMS 307	2½ x 4⅛
45,000	CQMS 308	2½ x 4⅝
58,000	CQMS 309	3 x 4⅛
67,000	CQMS 310	3 x 4⅝
87,000	CQMS 311	3 x 5⅝
	10 WVDC 15V Surge	
5,300	CQMS 400	1⅜ x 3⅛
8,000	CQMS 401	1⅜ x 4⅛
9,200	CQMS 402	1⅜ x 4⅝
13,000	CQMS 403*	1¾ x 4⅛
18,000	CQMS 404	2 x 4⅛
20,000	CQMS 405*	2 x 4⅝
25,000	CQMS 406	2 x 5⅝
33,000	CQMS 407*	2½ x 4⅛
38,000	CQMS 408	2½ x 4⅝
48,000	CQMS 409	3 x 4⅛
56,000	CQMS 410*	3 x 4⅝
79,000	CQMS 411*	3 x 5⅝
	15 WVDC 20V Surge	
4,400	CQMS 500	1⅜ x 3⅛
6,600	CQMS 501*	1⅜ x 4⅛
7,700	CQMS 502	1⅜ x 4⅝
10,700	CQMS 503*	1¾ x 4⅛
15,500	CQMS 504*	2 x 4⅛
18,000	CQMS 505	2 x 4⅝
25,000	CQMS 506*	2 x 5⅝
28,000	CQMS 507	2½ x 4⅛
33,000	CQMS 508*	2½ x 4⅝
41,500	CQMS 509	3 x 4⅛
47,500	CQMS 510*	3 x 4⅝
62,000	CQMS 511	3 x 5⅝
	20 WVDC 30V Surge	
2,900	CQMS 600	1⅜ x 3⅛
4,400	CQMS 601	1⅜ x 4⅛
5,100	CQMS 602	1⅜ x 4⅝
7,100	CQMS 603	1¾ x 4⅛
10,500	CQMS 604	2 x 4⅛
12,200	CQMS 605	2 x 4⅝
17,000	CQMS 606	2 x 5⅝
19,200	CQMS 607	2½ x 4⅛
22,400	CQMS 608	2½ x 4⅝
27,500	CQMS 609	3 x 4⅛
32,000	CQMS 610	3 x 4⅝
42,000	CQMS 611	3 x 5⅝
	25 WVDC 35V Surge	
2,750	CQMS 700*	1⅜ x 3⅛
4,200	CQMS 701*	1⅜ x 4⅛
4,800	CQMS 702*	1⅜ x 4⅝
6,600	CQMS 703	1¾ x 4⅛
9,200	CQMS 704	2 x 4⅛
10,700	CQMS 705*	2 x 4⅝
15,700	CQMS 706*	2 x 5⅝
17,000	CQMS 707	2½ x 4⅛
19,300	CQMS 708	2½ x 4⅝
25,000	CQMS 709*	3 x 4⅛
29,000	CQMS 710	3 x 4⅝
37,000	CQMS 711*	3 x 5⅝
	30 WVDC 45V Surge	
1,850	CQMS 800	1⅜ x 3⅛
2,750	CQMS 801	1⅜ x 4⅛
3,200	CQMS 802	1⅜ x 4⅝
4,500	CQMS 803	1¾ x 4⅛
6,500	CQMS 804	2 x 4⅛
7,500	CQMS 805	2 x 4⅝
10,500	CQMS 806*	2 x 5⅝
11,500	CQMS 807	2½ x 4⅛
13,300	CQMS 808	2½ x 4⅝
16,500	CQMS 809	3 x 4⅛
19,000	CQMS 810*	3 x 4⅝
25,000	CQMS 811*	3 x 5⅝
	40 WVDC 55V Surge	
1,500	CQMS 900*	1⅜ x 3⅛
2,300	CQMS 901	1⅜ x 4⅛
2,700	CQMS 902	1⅜ x 4⅝
3,700	CQMS 903	1¾ x 4⅛
5,300	CQMS 904*	2 x 4⅛
6,200	CQMS 905	2 x 4⅝
8,700	CQMS 906	2 x 5⅝
9,500	CQMS 907	2½ x 4⅛
11,000	CQMS 908	2½ x 4⅝
13,700	CQMS 909	3 x 4⅛
16,000	CQMS 910	3 x 4⅝
21,000	CQMS 911*	3 x 5⅝
	50 WVDC 75V Surge	
1,050	CQMS 1000*	1⅜ x 3⅛
1,650	CQMS 1001	1⅜ x 4⅛
1,850	CQMS 1002*	1⅜ x 4⅝
2,600	CQMS 1003*	1¾ x 4⅛
4,000	CQMS 1004*	2 x 4⅛
4,400	CQMS 1005	2 x 4⅝
6,100	CQMS 1006*	2 x 5⅝
6,700	CQMS 1007	2½ x 4⅛
7,800	CQMS 1008*	2½ x 4⅝
10,000	CQMS 1009*	3 x 4⅛
11,000	CQMS 1010	3 x 4⅝
16,000	CQMS 1011	3 x 5⅝
	75 WVDC 100V Surge	
700	CQMS 1100	1⅜ x 3⅛
1,100	CQMS 1101*	1⅜ x 4⅛
1,300	CQMS 1102	1⅜ x 4⅝
1,700	CQMS 1103	1¾ x 4⅛
2,500	CQMS 1104	2 x 4⅛
2,900	CQMS 1105	2 x 4⅝
3,750	CQMS 1106	2 x 5⅝
4,300	CQMS 1107	2½ x 4⅛
5,000	CQMS 1108*	2½ x 4⅝
6,500	CQMS 1109	3 x 4⅛
7,600	CQMS 1110	3 x 4⅝
9,800	CQMS 1111*	3 x 5⅝
	100 WVDC 150 Surge	
550	CQMS 1200	1⅜ x 3⅛
850	CQMS 1201	1⅜ x 4⅛
950	CQMS 1202*	1⅜ x 4⅝
1,350	CQMS 1203*	1¾ x 4⅛
1,800	CQMS 1204*	2 x 4⅛
2,100	CQMS 1205	2 x 4⅝
3,000	CQMS 1206*	2 x 5⅝
3,100	CQMS 1207	2½ x 4¹⁄
3,600	CQMS 1208	2½ x 4⅝
4,800	CQMS 1209*	3 x 4⅛
5,600	CQMS 1210	3 x 4⅝
8,000	CQMS 1211	3 x 5⅝
	150 WVDC 200V Surge	
375	CQMS 1300	1⅜ x 3⅛
550	CQMS 1301*	1⅜ x 4⅛
650	CQMS 1302*	1⅜ x 4⅝
900	CQMS 1303*	1¾ x 4⅛
1,300	CQMS 1304	2 x 4⅛
1,500	CQMS 1305	2 x 4⅝
2,100	CQMS 1306*	2 x 5⅝
2,100	CQMS 1307	2½ x 4⅛
2,500	CQMS 1308*	2½ x 4⅝
3,200	CQMS 1309	3 x 4⅛
3,800	CQMS 1310*	3 x 4⅝
4,800	CQMS 1311*	3 x 5⅝
	200 WVDC 250V Surge	
300	CQMS 1400	1⅜ x 3⅛
425	CQMS 1401	1⅜ x 4⅛
500	CQMS 1402*	1⅜ x 4⅝
670	CQMS 1403	1¾ x 4⅛
1,000	CQMS 1404*	2 x 4⅛
1,150	CQMS 1405	2 x 4⅝
1,500	CQMS 1406	2 x 5⅝
1,600	CQMS 1407	2½ x 4⅛
1,850	CQMS 1408*	2½ x 4⅝
2,500	CQMS 1409*	3 x 4⅛
2.800	CQMS 1410	3 x 4⅝
	250 WVDC 300V Surge	
200	CQMS 1500	1⅜ x 3⅛
300	CQMS 1501	1⅜ x 4⅛
350	CQMS 1502	1⅜ x 4⅝
450	CQMS 1503	1¾ x 4⅛
700	CQMS 1504	2 x 4⅛
800	CQMS 1505	2 x 4⅝
1,000	CQMS 1506*	2 x 5⅝
1,200	CQMS 1507	2½ x 4⅛
1,400	CQMS 1508*	2½ x 4⅝
1,850	CQMS 1509	3 x 4⅛
2,150	CQMS 1510*	3 x 4⅝
	300 WVDC 350V Surge	
160	CQMS 1600	1⅜ x 3⅛
250	CQMS 1601	1⅜ x 4⅛
290	CQMS 1602	1⅜ x 4⅝
400	CQMS 1603	1¾ x 4⅛
575	CQMS 1604	2 x 4⅛
675	CQMS 1605	2 x 4⅝
800	CQMS 1606	2 x 5⅝
975	CQMS 1607*	2½ x 4⅛
1,150	CQMS 1608	2½ x 4⅝
1,500	CQMS 1609*	3 x 4⅛
1,750	CQMS 1610	3 x 4⅝
	350 WVDC 400V Surge	
130	CQMS 1700	1⅜ x 3⅛
200	CQMS 1701	1⅜ x 4⅛
235	CQMS 1702	1⅜ x 4⅝
300	CQMS 1703	1¾ x 4⅛
475	CQMS 1704	2 x 4⅛
550	CQMS 1705	2 x 4⅝
600	CQMS 1706	2 x 5⅝
800	CQMS 1707	2½ x 4⅛
925	CQMS 1708	2½ x 4⅝
1,200	CQMS 1709*	3 x 4⅛
1,350	CQMS 1710	3 x 4⅝
	400 WVDC 475V Surge	
100	CQMS 1800	1⅜ x 3⅛
150	CQMS 1801	1⅜ x 4⅛
200	CQMS 1802	1⅜ x 4⅝
250	CQMS 1803	1¾ x 4⅛
350	CQMS 1804	2 x 4⅛
400	CQMS 1805	2 x 4⅝
525	CQMS 1806	2 x 5⅝
600	CQMS 1807	2½ x 4⅛
700	CQMS 1808	2½ x 4⅝
900	CQMS 1809	3 x 4⅛
1,000	CQMS 1810	3 x 4⅝
	450 WVDC 525V Surge	
90	CQMS 1900	1⅜ x 3⅛
125	CQMS 1901	1⅜ x 4⅛
160	CQMS 1902	1⅜ x 4⅝
200	CQMS 1903	1¾ x 4⅛
300	CQMS 1904*	2 x 4⅛
350	CQMS 1905	2 x 4⅝
500	CQMS 1906*	2 x 5⅝
500	CQMS 1907	2½ x 4⅛
600	CQMS 1908*	2½ x 4⅝
700	CQMS 1909	3 x 4⅛
800	CQMS 1910*	3 x 4⅝

Supplied with plastic sleeve and tapped terminal inserts.

*Designates Preferred Values normally carried in Distributor Stock.

For +65°C Capacitors Order Type PQMS

GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE MCS (MIL TYPES CS12 & CS13) MINIATURIZED SOLID ELECTROLYTE TANTALUMS *(Bulletin ET-7)*

True Subminiature Sizes
Solid Tantalum Electrolyte
Hermetically Sealed Metal Cases

No Electrolyte Leakage
Tolerance ±20%
Closer Tolerances on Request.

SUPPLIED WITH PLASTIC INSULATED SLEEVE

Type Designation	Capacity in MFD	Case Size
6 VOLTS		
MCS14B565*	5.6	A
MCS14B685*	6.8	A
MCS14B825	8.2	B
MCS14B106	10.0	B
MCS14B476*	47.0	B
MCS14B566*	56.0	B
MCS14B107	100.0	C
MCS14B127	120.0	C
MCS14B157*	150.0	C
MCS14B187*	180.0	C
MCS14B227	220.0	D
MCS14B337*	330.0	D
10 VOLTS		
MCS14C395*	3.9	A
MCS14C475*	4.7	A
MCS14C565	5.6	B
MCS14C685	6.8	B
MCS14C276*	27.0	B
MCS14C336*	33.0	B
MCS14C396*	39.0	B
MCS14C686	68.0	C
MCS14C107*	100.0	C
MCS14C227*	220.0	D
15 VOLTS		
MCS14D275*	2.7	A
MCS14D335*	3.3	A
MCS14D395	3.9	B
MCS14D475	4.7	B
MCS14D186*	18.0	B
MCS14D226*	22.0	B
MCS14D566*	56.0	C
MCS14D826	82.0	D
20 VOLTS		
MCS14E125*	1.2	A
MCS14E155*	1.5	A
20 VOLTS (Continued)		
MCS14E185*	1.8	A
MCS14E225*	2.2	A
MCS14E275	2.7	B
MCS14E335	3.3	B
MCS14E106*	10.0	B
MCS14E126*	12.0	B
MCS14E156*	15.0	B
MCS14E336*	33.0	C
MCS14E396*	39.0	C
MCS14E476*	47.0	C
35 VOLTS		
MCS14F472	0.0047	A
MCS14F562	0.0056	A
MCS14F682	0.0068	A
MCS14F882	0.0082	A
MCS14F103	0.01	A
MCS14F123	0.012	A
MCS14F153	0.015	A
MCS14F183	0.018	A
MCS14F223	0.022	A
MCS14F273	0.027	A
MCS14F333	0.033	A
MCS14F393	0.039	A
MCS14F473	0.047	A
MCS14F683	0.068	A
MCS14F823	0.082	A
MCS14F104	0.1	A
MCS14F124	0.12	A
MCS14F154	0.15	A
MCS14F184	0.18	A
MCS14F224	0.22	A
MCS14F274	0.27	A
MCS14F334*	0.33	A
MCS14F394*	0.39	A
MCS14F474*	0.47	A
MCS14F564*	0.56	A
MCS14F684*	0.68	A
35 VOLTS (continued)		
MCS14F824*	0.82	A
MCS14F105*	1.0	A
MCS14F125*	1.2	B
MCS14F155*	1.5	B
MCS14F185*	1.8	B
MCS14F225*	2.2	B
MCS14F275*	2.7	B
MCS14F335*	3.3	B
MCS14F395*	3.9	B
MCS14F475*	4.7	B
MCS14F565*	5.6	B
MCS14F685*	6.8	B
MCS14F825*	8.2	C
MCS14F106*	10.0	C
MCS14F126*	12.0	C
MCS14F156*	15.0	C
MCS14F186*	18.0	C
MCS14F226*	22.0	C
MCS14F276*	27.0	C
MCS14F336*	33.0	D
MCS14F476*	47.0	D
50 VDC-60 VDC SURGE		
MCS-G472-	.0047	A
MCS-G562-	.0056	A
MCS-G682-	.0068	A
MCS-G822-	.0082	A
MCS-G103-	.01	A
MCS-G123	.012	A
MCS-G153-	.015	A
MCS-G183	.018	A
MCS-G223-	.022	A
MCS-G273-	.027	A
MCS-G333-	.033	A
MCS-G393-	.039	A
MCS-G473-	.047	A
MCS-G563-	.056	A
MCS-G683-	.068	A
MCS-G823-	.082	A
50 VDC-60 VDC (Continued)		
MCS-G104-	.1	A
MCS-G124-	.12	A
MCS-G154-	.15	A
MCS-G184-	.18	A
MCS-G224-	.22	A
MCS-G274-	.27	A
MCS-G334-	.33	A
MCS-G394-	.39	A
MCS-G474-	.47	A
MCS-G564-	.56	A
MCS-G684-	.68	A
MCS-G824-	.82	A
MCS-G105-*	1.0	A
MCS-G125-*	1.2	B
MCS-G155-*	1.5	B
MCS-G185-*	1.8	B
MCS-G225-*	2.2	B
MCS-G275-*	2.7	B
MCS-G335-*	3.3	B
MCS-G395-*	3.9	B
MCS-G475-*	4.7	B
MCS-G565-*	5.6	C
MCS-G685-*	6.8	C
MCS-G825-*	8.2	C
MCS-G106-*	10	C
MCS-G126-*	12	C
MCS-G156-*	15	C
MCS-G186-*	18	C
MCS-G226-*	22	D

	Diameter	Length
Case Size A	.125 x .250	
Case Size B	.175 x .438	
Case Size C	.279 x .650	
Case Size D	.341 x .750	

GENERAL INSTRUMENT manufactures a wide range of capacity and voltages. Write for engineering bulletin for full information.

*These values are available as MIL types CS12 (uninsulated case), and CS13 (insulated case). Refer to MIL spec. for type designation.

TYPE TAK, TAK-H (MIL TYPES CL64 & CL65) MINIATURE SINTERED ANODE TANTALUMS *(Bulletin ET-8)*

Afford maximum space economy. Conventional cylindrical cases allow for various methods of mounting. Sealing method and materials used in manufacturing this capacitor assure protection against seepage and defect due to vibration. Manufactured to meet MIL-C-3965 specification, style CL-64 and CL-65 (insulated sleeve). For full details write for Engr. Bulletin ET-8.

TEMPERATURE OPERATING RANGES

TAK	**−55°C to 85°C**
TAK-H	**−55°C to 125°C**

STANDARD LISTING TO −15, +20% TOLERANCE

Mfd.	Cat. No.	Case Size
6 VOLTS		
30	TAK-30T6B	B
50	TAK-30T6B	B
68	TAK-68T6B	B
140	TAK-140T6E	E
200	TAK-200T6E	E
270	TAK-270T6F	E
330	TAK-330T6F	F
450	TAK-450T6F	F
560	TAK-560T6F	F
10 VOLTS		
20	TAK-20T10B	B
35	TAK-35T10B	B
47	TAK-47T10B	B
100	TAK-100T10E	E
150	TAK-150T10E	E
180	TAK-180T10E	E
250	TAK-250T10F	F
320	TAK-320T10F	F
390	TAK-390T10F	F
15 VOLTS		
15	TAK-15T15B	B
33	TAK-33T15B	B
40	TAK-40T15D	D
70	TAK-70T15E	E
100	TAK-100T15E	E
120	TAK-120T15E	E
170	TAK-170T15F	F
225	TAK-225T15F	F
270	TAK-270T15F	F
25 VOLTS		
10	TAK-10T25B	B
22	TAK-22T25B	B
30	TAK-30T25D	D
70	TAK-70T25E	E
100	TAK-100T25E	E
150	TAK-150T25F	F
180	TAK-180T25F	F
30 VOLTS		
8	TAK-8T30B	B
15	TAK-15T30B	B
20	TAK-25730D	D
40	TAK-40T30E	E
68	TAK-68T30E	E
100	TAK-100T30F	F
150	TAK-150T30F	F
50 VOLTS		
5	TAK-5T50B	B
10	TAK-10T50B	B
20	TAK-20T50D	D
25	TAK-25T50E	E
40	TAK-40T50E	E
47	TAK-47T50E	E
60	TAK-60T50F	F
82	TAK-82T50F	F
100	TAK-100T50F	F
75 VOLTS		
3.5	TAK-3.5T75B	B
6.8	TAK-6.8T75B	B
12	TAK-12T75D	D
15	TAK-15T75E	E
33	TAK-33T75E	E
40	TAK-40T75F	F
56	TAK-56T75F	F
70	TAK-70T75F	F
100 VOLTS		
2.5	TAK-2.5T100B	B
4.7	TAK-4.7T100B	B
8	TAK-8T100D	D
11	TAK-11T100E	E
22	TAK-22T100F	F
30	TAK-30T100F	F
43	TAK-43T100F	F

CASE SIZES

	Uninsulated Case		Insulated Case		
A.	Dia. ±0.010	Length ±0.016	Dia. ±0.031	Length ±0.031	Lead Length ±¼
A.	0.212	0.375	0.234	0.437	1½
B.	0.187	0.453	0.203	0.515	1½
C.	0.212	0.468	0.234	0.531	1½
D.	0.212	0.531	0.234	0.593	1½
E.	0.275	0.640	0.296	0.703	2¼
F.	0.375	0.765	0.390	0.828	2¼

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

Hi-VolTan® CAPACITORS *(Bulletin ET-9)*

The Hi-VolTan lends itself to applications where size, weight, stability, and reliability are prime factors. No other capacitor offers such a combination of outstanding electrical and mechanical characteristics.

OPERATING TEMPERATURE	−100°C to +125°C (For 125°C operation reduce +85°C rating by 30%)
WORKING VOLTAGE	25VDC to 125VDC depending on capacitance rating (See Chart)
TEST FREQUENCY	IKC
LIFE AND ENVIRONMENTAL TESTS	Per MIL - C - 26655
INSULATION RESISTANCE	100,000 megohms min.
DISSIPATION FACTOR	.015 max.
CAPACITANCE TOLERANCES	±10%, ±5%, ±2%
PHYSICAL SIZE	Body Diameter .065" ±.003" Body Length .183" ±.005"
WEIGHT	0.004 ounces
LEADS	Solderable leads (weldable leads available)

TYPE	CAPACITANCE RANGE in PF	WORKING VOLTAGE @ +85°C
HVT - A	400 - 3,000	125VDC
HVT - B	400 - 3,000	100VDC
HVT - C	3,100 - 5,000	50VDC
HVT - D	5,100 - 10,000	25VDC

ACTUAL SIZE

Preferred Values

HVT - A & B

Cat. #	Capacity Pf
HVT - 431	430
HVT - 471	470
HVT - 511	510
HVT - 561	560
HVT - 621	620
HVT - 681	680
HVT - 751	750
HVT - 821	820
HVT - 911	910
HVT - 102	1000
HVT - 122	1200
HVT - 132	1300
HVT - 152	1500
HVT - 162	1600
HVT - 182	1800
HVT - 202	2000
HVT - 222	2200
HVT - 272	2700
HVT - 302	3000

HVT - C

Cat. #	Capacity Pf
HVT - 332	3300
HVT - 362	3600
HVT - 392	3900
HVT - 432	4300
HVT - 472	4700

HVT - D

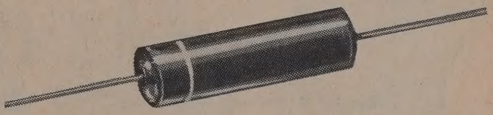
HVT - 512	5100
HVT - 562	5600
HVT - 622	6200
HVT - 682	6800
HVT - 752	7500
HVT - 822	8200
HVT - 912	9100
HVT - 103	10000

TYPE IMP MOLDED TUBULAR PAPER CAPACITORS

Noninductive extended-foil section molded in noninflammable thermosetting plastic. High insulation resistance. Excellent power factor. Withstands standard RETMA Humidity-resistance Test. Extremely rugged. Very long life.

Temperature Rating:
−40°C to + 100°C

Standard Tolerance:
.0001- .001 UF: −25% to + 60%
.0011- .009 UF: −20% to + 40%
.01 -1.0 UF: −20% to + 20%



Catalogue Number	Cap. in UF	Diameter	Length
	200 Volts DC Working		
IMP2-S2	.02	3/8	1¼
IMP2-S47	.047	3/8	1¼
IMP2-S5	.05	3/8	1¼
IMP2-P1	.1	7/16	1¼
IMP2-P15	.15	½	1½
IMP2-P25	.25	5/8	1⅞
IMP2-P47	.47	5/8	1⅞
IMP2-P5	.5	5/8	1⅞
IMP2-1	1.	¾	2¼
	400 Volts DC Working		
IMP4-S1	.01	5/16	1
IMP4-S2	.02	3/8	1¼
IMP4-S22	.022	3/8	1¼
IMP4-S25	.025	3/8	1¼
IMP4-S3	.03	3/8	1¼
IMP4-S4	.04	7/16	1¼
IMP4-S47	.047	7/16	1¼
IMP4-S5	.05	7/16	1¼
IMP4-S68	.068	½	1½
IMP4-P1	.1	½	1½
IMP4-P15	.15	5/8	1⅞
IMP4-P22	.22	5/8	1⅞
IMP4-P25	.25	5/8	1⅞
IMP4-P47	.47	¾	2¼
IMP4-P5	.5	¾	2¼
	600 Volts DC Working		
IMP6-T1	.0001	5/16	1
IMP6-T25	.00025	5/16	1
IMP6-T4	.0004	5/16	1
IMP6-T5	.0005	5/16	1
IMP6-D1	.001	5/16	1
IMP6-D15	.0015	5/16	1
IMP6-D2	.002	5/16	1
IMP6-D22	.0022	5/16	1
IMP6-D3	.003	5/16	1
IMP6-D33	.0033	5/16	1
IMP6-D4	.004	5/16	1
IMP6-D47	.0047	5/16	1
IMP6-D5	.005	5/16	1
	600 Volts DC Working (Continued)		
IMP6-D6	.006	3/8	1¼
IMP6-D68	.0068	3/8	1¼
IMP6-D8	.008	3/8	1¼
IMP6-S1	.01	3/8	1¼
IMP6-S15	.015	3/8	1¼
IMP6-S2	.02	7/16	1¼
IMP6-S22	.022	7/16	1¼
IMP6-S33	.03	7/16	1¼
IMP6-S4	.033	½	1½
IMP6-S47	.04	½	1½
IMP6-S5	.047	½	1½
IMP6-S6	.05	½	1½
IMP6-S3	.06	5/8	1⅞
IMP6-S68	.068	5/8	1⅞
IMP6-P1	.1	5/8	1⅞
IMP6-P2	.2	¾	2¼
IMP6-P22	.22	¾	2¼
IMP6-P25	.25	¾	2¼
CT6P5*	.5	15/16	2¾
	1000 Volts DC Working		
IMP10-T5	.0005	5/16	1
IMP10-D1	.001	5/16	1
IMP10-D15	.0015	5/16	1
IMP10-D2	.002	3/8	1¼
IMP10-D22	.0022	3/8	1¼
IMP10-D3	.003	3/8	1¼
IMP10-D4	.004	3/8	1¼
IMP10-D47	.0047	3/8	1¼
IMP10-D5	.005	3/8	1¼
IMP10-D68	.0068	3/8	1¼
IMP10-S1	.01	7/16	1¼
IMP10-S15	.015	½	1½
IMP10-S2	.02	½	1½
IMP10-S22	.022	½	1½
IMP10-S3	.03	5/8	1⅞
IMP10-S35	.035	5/8	1⅞
IMP10-S47	.047	5/8	1⅞
IMP10-S5	.05	5/8	1⅞
IMP10-S68	.068	5/8	1⅞
IMP10-P1	.1	¾	2¼
	1,600 Volts DC Working		
IMP16-T5	.0005	3/8	1¼
IMP16-D1	.001	3/8	1¼
IMP16-D15	.0015	3/8	1¼
IMP16-D2	.002	3/8	1¼
IMP16-D22	.0022	3/8	1¼
IMP16-D3	.003	7/16	1¼
IMP16-D33	.0033	7/16	1¼
IMP16-D4	.004	7/16	1¼
IMP16-D47	.0047	7/16	1¼
IMP16-D5	.005	7/16	1¼
IMP16-D6	.006	½	1½
IMP16-D68	.0068	½	1½
IMP16-D7	.007	½	1½
IMP16-D75	.0075	½	1½
IMP16-D8	.008	½	1½
IMP16-S1	.01	½	1½
IMP16-S15	.015	5/8	1⅞
IMP16-S2	.02	5/8	1⅞
IMP16-S22	.022	5/8	1⅞
IMP16-S3	.03	5/8	1⅞
IMP16-S4	.04	5/8	1⅞
IMP16-S5	.05	¾	2¼
*CT16-S68	.068	15/16	2⅞
*CT16-P1	.1	15/16	2⅞
	6,000 Volts DC Working		
*CT60-T5	.0005	5/8	2
*CT60-D1	.001	5/8	2
*CT60-D5	.005	13/16	2¼
	10,000 Volts DC Working		
*CT100-D1	.001	¾	2⅝
*CT100-T5	.0005	5/8	2
	12,500 Volts DC Working		
*CT125-T25	.00025	¾	2⅝
*CT125-T5	.0005	¾	2⅝

* Supplied in ceramic-case units.

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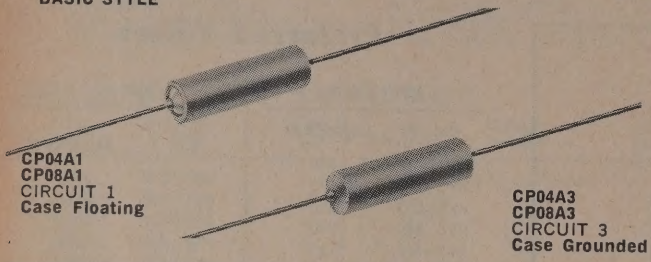
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

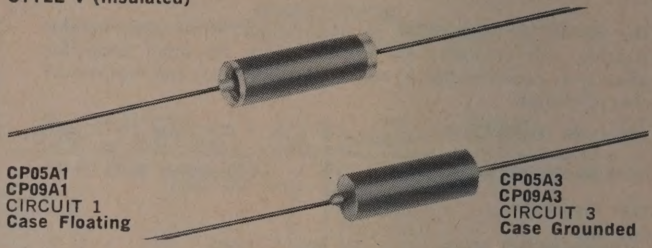
SUBMINIATURE GLASSEAL PAPER CAPACITORS
MILITARY-C-25 LATEST REVISION

BASIC STYLE


CP04A1
CP08A1
CIRCUIT 1
Case Floating

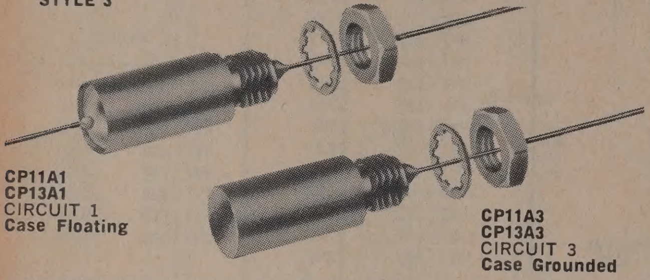
CP04A3
CP08A3
CIRCUIT 3
Case Grounded

STYLE V (Insulated)


CP05A1
CP09A1
CIRCUIT 1
Case Floating

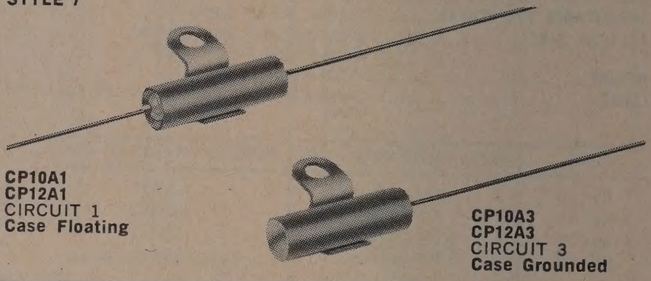
CP05A3
CP09A3
CIRCUIT 3
Case Grounded

STYLE 3


CP11A1
CP13A1
CIRCUIT 1
Case Floating

CP11A3
CP13A3
CIRCUIT 3
Case Grounded

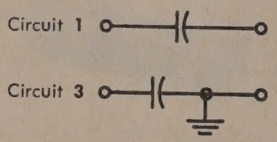
STYLE 7


CP10A1
CP12A1
CIRCUIT 1
Case Floating

CP10A3
CP12A3
CIRCUIT 3
Case Grounded

MILITARY DESIGNATION BREAKDOWN

CP	04	A	1	E	B	333	K/3
Style	Case	Terminal (Axial wire lead)	Circuit	Characteristic	Voltage	Capacitance	Tolerance



Characteristic
E = −55°C. to + 85°C.
K = −55°C. to + 125°C.

Voltage
B = 100 V.
C = 200 V.
E = 400 V.
F = 600 V.
G = 1000 V.

Tolerance
K = ± 10%
M = ± 20%

Vibration Grade*
1 10-55 cps
3 10-2000 cps

INSERTED TABS { CP04 — Uninsulated / CP05 — Insulated

Capacity	100V-	200V-	400V-	600V-	1000V-
.001				F102	
.0012				F122K/3	
.0015				F152	
.0018				F182K/3	
.0022				F222	
.0027				F272K/3	
.0033				F332	
.0039				F392K/3	
.0047				F472	
.0056				F562K/3	
.0068				F682	
.0082			E822K/3	F822K/3	
.01			E103	F103	
.012		C123K/3		F123K/3	
.015		C153		F153	G153
.018		C183K/3		F183K/3	G183K/3
.022		C223		F223	G223
.027	B273K/3		E273K/3	F273K/3	G273K/3
.033	B333		E333	F333	G333
.039		C393K/3	E393K/3	F393K/3	G393K/3
.047		C473	E473	F473	G473
.056		C563K/3	E563K/3	F563K/3	G563K/3
.068		C683	E683	F683	G683
.082	B823K/3	C823K/3	E823K/3	F823K/3	G823K/3
.1	B104	C104	E104	F104	G104
.12	B124K/3	C124K/3	E124K/3	F124K/3	G124K/3
.15	B154	C154	E154	F154	G154
.18	B184K/3	C184K/3	E184K/3	F184K/3	G184K/3
.22	B224	C224	E224	F224	G224
.27	B274K/3	C274K/3	E274K/3	F274K/3	G274K/3
.33	B334	C334	E334	F334	G334
.39	B394K/3	C394K/3	E394K/3	F394K/3	G394K/3
.47	B474	C474	E474	F474	G474
.56	B564K/3	C564K/3	E564K/3	F564K/3	
.68	B684	C684	E684	F684	
.82	B824K/3	C824K/3	E824K/3		
1.0	B105	C105	E105		

EXTENDED TABS { CP08 — Uninsulated / CP09 — Insulated

Capacity	100V-	200-	400-	600-	1000-
.001				F102	G102
.0012				F122K/3	G122K/3
.0015				F152	G152
.0018				F182K/3	G182K/3
.0022				F222	G222
.0027			E272K/3	F272K/3	G272K/3
.0033			E332	F332	G332
.0039		C392K/3		F392K/3	G392K/3
.0047		C472		F472	G472
.0056		C562K/3		F562K/3	G562K/3
.0068		C682		F682	G682
.0082	B822K/3			F822K/3	G822K/3
.04	B103			F103	G103
.012	B123K/3		E123K/3	F123K/3	G123K/3
.015	B153		E153	F153	G153
.018		C183K/3		F183K/3	G183K/3
.022		C223		F223	G223
.027		C273K/3	E273K/3	F273K/3	G273K/3
.033		C333	E333	F333	G333
.039	B393K/3	C393K/3	E393K/3	F393K/3	G393K/3
.047	B473	C473	E473	F473	G473
.056		C563K/3	E563K/3	F563K/3	G563K/3
.068		C683	E683	F683	G683
.082	B823K/3	C823K/3	E823K/3	F823K/3	G823K/3
.1	B104	C104	E104	F104	G104
.12	B124K/3	C124K/3	E124K/3	F124K/3	G124K/3
.15	B154	C154	E154	F154	G154
.18	B184K/3	C184K/3	E184K/3	F184K/3	G184K/3
.22	B224	C224	E224	F224	G224
.27	B274K/3	C274K/3	E274K/3	E274K/3	G274K/3
.33	B334	C334	E334	F334	G334
.39	B394K/3	C394K/3	E394K/3	F394K/3	G394K/3
.47	B474	C474	E474	F474	G474
.56	B564K/3	C564K/3			
.68	B684	C684			
.82	B824K/3	C824K/3			
1.0	B105	C105			

K/3 designates available per MIL-C-25C, which specifies K characteristic, K tolerance, and vibration grades 1 or 3 only.

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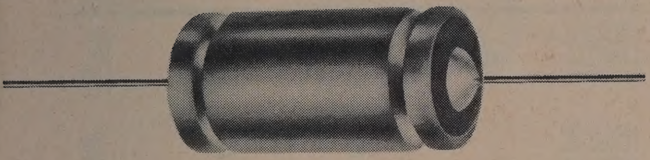
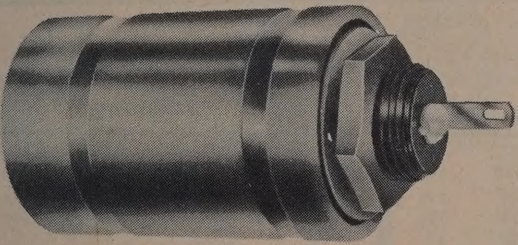
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

HERMETICALLY SEALED CAPACITORS
to Mil-C-25 *(latest revision)*



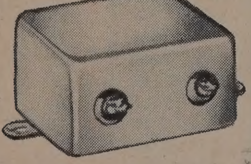
CP 25 to CP 29 (TYPE PTM)

Available in capacitances from .003 thru 0.1 mf and voltages of 1500 V.D.C.



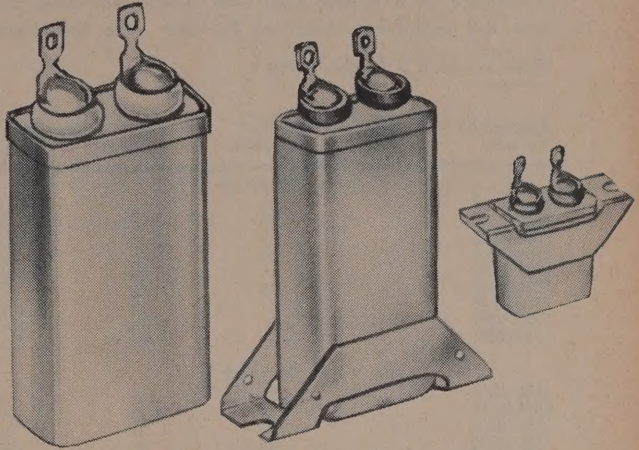
CP 40, CP 41 (TYPES PCM, PCIM)

Available in capacitances from .25 mf thru 4.0 mf and voltages of 600 V.D.C. thru 1500 V.D.C.



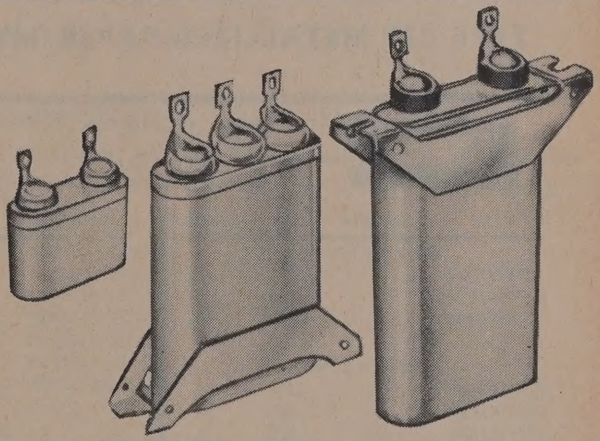
CP 53, 54, 55 (TYPE PDM)

Available in capacitances from .05 mf thru 10 mf and voltages of 100 V.D.C. thru 1000 V.D.C.



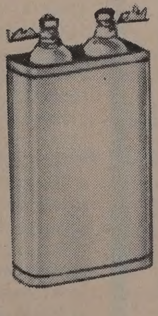
CP 63, 65 AND 90, 91 (TYPE PKM)

Available in capacitances from .01 mf thru 1.0 mf and voltages of 400 V.D.C. thru 1500 V.D.C.



CP 67, 69 (TYPE PEM)

Available in capacitances from .01 mf thru 1.0 mf and voltages of 600 V.D.C. thru 1000 V.D.C.



CP 70 SERIES (TYPE PLM)

Available in capacitances from .1 mf thru 15 mf and voltages of 400 V.D.C. thru 25,000 V.D.C. (Type PJ in higher values).

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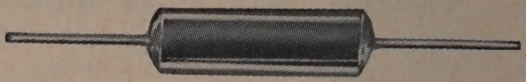
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE 155 HI-TEMP METALLIZED PAPER CAPACITORS

Assembled in a plastic tube with plastic end-seals. Self-healing. Low R-F impedance. Excellent P-F over wide temperature range.

Replaces M T R Product Line



Temperature Rating: —40°C. to +100°C.
Standard Tolerance: —20% to +30%.

Catalog Number	Cap/Mfd	Size in inches ±1/16″ Diameter	Length
	200 VOLTS		
155C103M	.01	¼	11/16
155C203M	.02	¼	11/16
155C303M	.03	5/16	11/16
155C503M	.05	5/16	11/16
155C104M	.1	⅜	11/16
155C254M	.25	½	11/16
155C504M	.5	7/16	1⅛
155C105M	1.0	9/16	1⅛
155C205M	2.0	⅝	1 9/16
	400 VOLTS		
155E103M	.01	¼	11/16
155E203M	.02	⅜	11/16
155E303M	.03	⅜	11/16
155E503M	.05	7/16	11/16
155E104M	.1	7/16	1⅛
155E254M	.25	9/16	1⅛
155E504M	.5	⅝	1 7/16
155E105M	1.0	¾	1 13/16
155E205M	2.0	⅞	2⅜
	600 VOLTS		
155F103M	.01	5/16	11/16
155F203M	.02	⅜	11/16
155F303M	.03	⅜	11/16
155F503M	.05	½	11/16
155F104M	.1	7/16	1⅛
155F254M	.25	⅝	1⅛
155F504M	.5	¾	1 7/16
155F105M	1.0	⅞	1 13/16
155F205M	2.0	1	2⅜

TYPE 227 METALLIZED-PAPER/MYLAR® GLASS-SEALED METAL TUBULARS

MADE TO MEET MIL C-18312A CHAR. N

For operation at +125°C without derating. The finest capacitor of its type available. Encased in hermetic, glass-sealed metal tubes. For complete listing write for Engineering Bulletin.

Part No.	Cap. Mfd.	Dia.	Length
	100 Volts D-C. W.V.		
227A1V305M	3	.670	1 13/16
227A1V405M	4	.750	1 11/16
227A1V605M	6	1.000	1 13/16
	200 V. D-C. W.V.		
227A1C103M	.01	.175	¾
227A1C123M	.012	.195	¾
227A1C153M	.015	.195	¾
227A1C183M	.018	.235	¾
227A1C223M	.022	.235	¾
227A1C273M	.027	.235	¾
227A1C333M	.033	.235	¾
227A1C393M	.039	.312	⅞
227A1C473M	.047	.312	⅞
227A1C563M	.056	.312	⅞
227A1C683M	.068	.312	⅞
227A1C823M	.082	.312	⅞
227A1C104M	.1	.312	⅞
227A1C124M	.12	.312	1⅛
227A1C154M	.15	.312	1⅛
227A1C184M	.18	.400	⅞
227A1C224M	.22	.400	⅞
227A1C274M	.27	.400	1⅛
227A1C334M	.33	.400	1⅛
227A1C394M	.39	.500	1⅛
227A1C474M	.47	.500	1⅛
227A1C564M	.56	.500	1⅛
227A1C684M	.68	.500	1⅛
227A1C824M	.82	.562	1⅛
227A1C105M	1.0	.562	1⅛
227A1C155M	1.5	.562	1⅝
227A1C205M	2.0	.670	1⅝
227AIC305M	3.0	.670	1⅞
227A1C405M	4.0	.750	1⅞
227A1C505M	5.0	1.000	1⅞
227A1C605M	6.0	1.000	1⅞
227A1C805M	8.0	1.000	1⅞
227A1C106M	10.0	1.000	2⅜
227A1C126M	12.0	1.000	2⅝
	400 V. D-C. W.V.		
227A1E103M	.01	.312	⅞
227A1E123M	.012	.312	⅞
227A1E153M	.015	.312	⅞
227A1E183M	.018	.312	⅞
227A1E223M	.022	.312	⅞
227A1E273M	.027	.312	1⅛
227A1E333M	.033	.312	1⅛
227A1E393M	.039	.400	1⅛
227A1E473M	.047	.400	1⅛
227A1E563M	.056	.400	1⅛
227A1E683M	.068	.400	1⅛
227A1E823M	.082	.500	1⅛
227A1E104M	.1	.500	1⅛
227A1E124M	.12	.500	1⅛
227A1E154M	.15	.500	1⅛
227A1E184M	.18	.562	1⅜
227A1E224M	.22	.562	1⅜
227A1E274M	.27	.562	1⅝
227A1E334M	.33	.562	1⅝
227A1E394M	.39	.670	1⅝
227A1E474M	.47	.670	1⅝
227A1E564M	.56	.670	1⅞
227A1E684M	.68	.670	1⅞
227A1E824M	.82	.750	1⅞
227A1E105M	1.0	.750	1⅞
227A1E155M	1.5	1.000	1⅞
227A1E205M	2.0	1.000	1⅞
227A1E305M	3.0	1.000	2⅝
	600 V. D-C. W.V.		
227A1F103M	.01	.312	⅞
227A1F123M	.012	.312	⅞
227A1F153M	.015	.312	⅞
227A1F183M	.018	.312	1⅛
227A1F223M	.022	.312	1⅛
227A1F273M	.027	.312	1⅛
227A1F333M	.033	.312	1⅛
227A1F393M	.039	.400	1⅛
227A1F473M	.047	.400	1⅛
227A1F563M	.056	.400	1⅛
227A1F683M	.068	.400	1⅛
227A1F823M	.082	.500	1⅛
227A1F104M	.1	.500	1⅛
227A1F124M	.12	.562	1⅛
227A1F154M	.15	.562	1⅛
227A1F184M	.18	.562	1⅜
227A1F224M	.22	.562	1⅜
227A1F274M	.27	.562	1⅝
227A1F334M	.33	.562	1⅝
227A1F394M	.39	.670	1⅝
227A1F474M	.47	.670	1⅝
227A1F564M	.56	.670	1⅞
227A1F684M	.68	.670	1⅞
227A1F824M	.82	1.000	1⅞
227A1F105M	1.0	1.000	1⅞
227A1F155M	1.5	1.000	1⅞
227A1F205M	2.0	1.000	2⅛
227A1F255M	2.5	1.000	2⅝

NOTE: Type 227's Are Available in All Mil Styles, Mylar and Plastic Insulating Sleeves, Tolerances, and Ratings.

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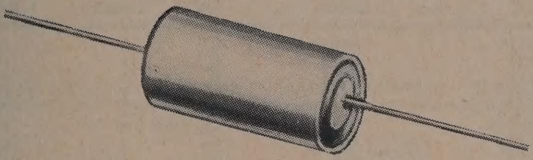
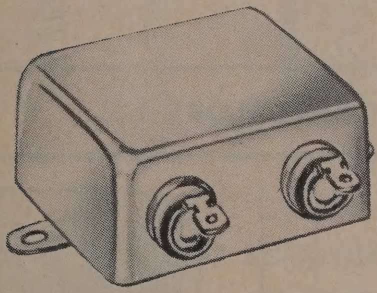
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

METALLIZED PAPER CAPACITORS
to Mil-C-18312 — latest revisions



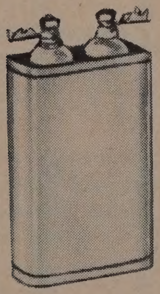
CH04, CH05, CH10 (TYPE MPG)

Available in capacitances from .01 mfd thru 6 mfd and voltages of 150 thru 600 V.D.C.



CH53, CH54, CH55 (TYPE MPD)

Available in capacitances from .1 mfd thru 12 mfd and voltages of 150 thru 600 V.D.C.



CH70 (TYPE MPLM)

Available in capacitances from 6 mfd thru 15 mfd and voltages from 150 thru 600 V.D.C.

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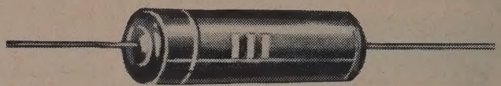
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE III "GOLD STANDARD" MOLDED MYLAR* CAPACITORS

Noninductive polyester film extended foil section, molded in a noninflammable thermosetting plastic case. Very high insulation resistance. Excellent power factor. Greatly reduced sizes. Dielectric impervious to moisture. Extremely rugged with a very long life.

Temperature Rating: —40°C to + 100°C
Standard Tolerance: ± 20%

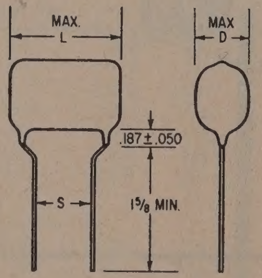


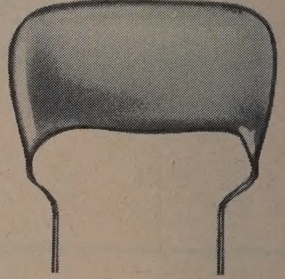
Catalog Number	Cap. in Mfd.	Size in Inches Dia.	Size in Inches Length	Dealer Net
	200 Volts DC Working			
111-2S2	.02	5/16	1	.15
111-2S47	.047	3/8	1¼	.15
111-2S5	.05	3/8	1¼	.15
111-2P1	.1	3/8	1¼	.21
111-2P15	.15	7/16	1¼	.21
111-2P22	.22	½	1½	.24
111-2P25	.25	½	1½	.27
111-2P47	.47	5/8	1⅞	.36
111-2P5	.5	5/8	1⅞	.36
111-2-1	1.0	¾	2¼	.57
	400 Volts DC Working			
111-4S1	.01	5/16	1	.15
111-4S15	.015	5/16	1	.15
111-4S2	.02	3/8	1¼	.15
111-4S22	.022	3/8	1¼	.18
111-4S333	.033	3/8	1¼	.18
111-4S47	.047	3/8	1¼	.18
111-4S5	.05	3/8	1¼	.18
111-4S68	.068	7/16	1¼	.21
111-4P1	.1	½	1½	.21
111-4P15	.15	½	1½	.24
111-4P22	.22	5/8	1⅞	.30
111-4P25	.25	5/8	1⅞	.33
111-4P33	.33	5/8	1⅞	.39
111-4P47	.47	¾	2¼	.48
111-4P5	.5	¾	2¼	.51
111-4P68	.68	¾	2¼	.69
111-6T1	.0001	5/16	1	.15
111-6T25	.00025	5/16	1	.15
111-6T4	.0004	5/16	1	.15
111-6T5	.0005	5/16	1	.15
111-6D1	.001	5/16	1	.15
111-6D15	.0015	5/16	1	.15
111-6D2	.002	5/16	1	.15
111-6D22	.0022	5/16	1	.15
111-6D3	.003	5/16	1	.15
111-6D33	.0033	5/16	1	.15
111-6D4	.004	5/16	1	.15
111-6D47	.0047	5/16	1	.15
111-6D5	.005	5/16	1	.15
111-6D6	.006	5/16	1	.15
111-6D68	.0068	5/16	1	.18
111-6S1	.01	5/16	1	.18
111-6S15	.015	3/8	1¼	.18
111-6S2	.02	3/8	1¼	.18
111-6S22	.022	3/8	1¼	.18
111-6S3	.03	7/16	1¼	.21
111-6S33	.033	7/16	1¼	.21
111-6S4	.04	7/16	1¼	.21
111-6S47	.047	7/16	1¼	.24
111-6S5	.05	7/16	1¼	.24
111-6S6	.06	7/16	1¼	.24
111-6S68	.068	17/32	1¼	.24
111-6P1	.1	5/8	1⅞	.27
111-6P15	.15	5/8	1⅞	.33
111-6P2	.2	¾	2¼	.39
111-6P22	.22	¾	2¼	.39
111-6P25	.25	¾	2¼	.45
111-6P33	.33	¾	2¼	.54

TYPE 151 GOLD-DIP MYLAR* CAPACITORS

A new Mylar Plastic Dipped Capacitor engineered for highest reliability and especially designed for printed board circuitry as well as conventional application. General Instrument Gold-Dip Capacitors Type 151 feature:

- ▲ New reliable Dipped Plastic Coating
- ▲ New Moisture Resistance
- ▲ −55°C to +100°C operation
- ▲ High insulation resistance
- ▲ 10% capacity tolerance





Catalog Number	Capacity in Mfds.	D	L	S	Dealer Net
		200 Volts DC Working			
151-2P1	.1	5/8	1¼	23/32	.21
151-2P15	.15	5/8	1¼	23/32	.21
151-2P22	.22	11/16	1 11/32	27/32	.24
151-2P25	.25	11/16	1 11/32	27/32	.27
151-2P47	.47	⅞	1 9/16	1 3/32	.36
151-2P5	.5	⅞	1 9/16	1 3/32	.36
		400 Volts DC Working			
151-4S1	.01	7/16	¾	¼	.15
151-4S15	.015	7/16	¾	¼	.15
151-4S2	.02	½	⅞	7/16	.15
151-4S22	.022	½	⅞	7/16	.18
151-2P5	.5	⅞	1 9/16	1 3/32	.36
151-4S33	.033	½	⅞	7/16	.18
151-4S47	.047	5/8	1¼	23/32	.18
151-4S5	.05	5/8	1¼	23/32	.18
151-4S68	.068	5/8	1¼	23/32	.21
151-4P1	.1	5/8	1¼	23/32	.21
151-4P15	.15	11/16	1 11/32	27/32	.24
151-4P22	.22	⅞	1 9/16	1 3/32	.30
151-4P25	.25	⅞	1 9/16	1 3/32	.33
		600 Volts DC Working			
151-6D1‡	.001	7/16	¾	¼	.15
151-6D15‡	.0015	7/16	¾	¼	.15
151-6D2‡	.002	7/16	¾	¼	.15
151-6D22‡	.0022	7/16	¾	¼	.15
151-6D3‡	.003	7/16	¾	¼	.15
151-6D33‡	.0033	7/16	¾	¼	.15
151-6D4‡	.004	7/16	¾	¼	.15
151-6D47‡	.0047	7/16	¾	¼	.15
151-6D5‡	.005	7/16	¾	¼	.15
151-6D6	.006	7/16	¾	¼	.18
151-6D68	.0068	7/16	¾	¼	.18
151-6S1	.01	½	⅞	7/16	.18
151-6S15	.015	½	⅞	7/16	.18
151-6S2	.02	½	⅞	7/16	.18
151-6S22	.022	½	⅞	7/16	.18
151-6S3	.03	5/8	1¼	23/32	.21
151-6S33	.033	5/8	1¼	23/32	.21
151-6S4	.04	5/8	1¼	23/32	.21
151-6S47	.047	5/8	1¼	23/32	.24
151-6S5	.05	5/8	1¼	23/32	.24
151-6S6	.06	11/16	1 11/32	27/32	.24
151-6S68	.068	11/16	1 11/32	27/32	.24
151-6P1	.1	11/16	1 11/32	27/32	.27
151-6P15	.15	⅞	1 9/16	1 3/32	.33
151-6P2	.2	⅞	1 9/16	1 3/32	.39
151-6P22	.22	⅞	1 9/16	1 3/32	.39
151-6P25	.25	⅞	1 9/16	1 3/32	.45

‡Indicates Tolerance of +20%

* DuPont Reg.

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE 107 WRAPPED MYLAR® CAPACITORS

Noninductive polyester film extended foil section, assembled in Mylar wrapper case. Ends filled with thermosetting Pyroset resin. Tinned leads firmly embedded in the resin and will not pull out. Sizes are greatly reduced. Very high insulation resistance, dielectric impervious to moisture.

Temperature Range:

−55°C. to +110°C.

Standard Tolerance.

.001 to .0047 Mfd. ±30%
.005 to 1.0 Mfd. ±20%

Catalog No.	Capacity	Diameter	Length
150 VDC Working			
107V103	.01	.156	½
107V153	.015	.187	½
107V223	.022	.203	⅝
107V333	.033	.218	⅝
107V473	.047	.234	¾
107V683	.068	.265	¾
107V104	.1	.281	⅞
107V154	.15	.328	⅞
107V224	.22	.328	1
107V334	.33	.375	1⅛
107V474	.47	.468	1¼
107V684	.68	.562	1¼
107V105	1.00	.593	1½
107V155	1.5	.718	1¾
107V205	2.00	.812	1¾
200 VDC Working			
107C102	.001	.156	½
107C152	.0015	.156	½
107C222	.0022	.156	½
107C332	.0033	.156	½
107C472	.0047	.156	½
107C682	.0068	.156	½
107C103	.01	.171	½
107C153	.015	.203	½
107C223	.022	.250	⅝
107C333	.033	.250	¾
107C473	.047	.296	¾
200 VDC Working			
107C683	.068	.343	¾
107C104	.1	.375	⅞
107C154	.15	.453	⅞
107C224	.22	.438	1⅛
107C334	.33	.484	1⅛
107C474	.47	.546	1¼
107C684	.68	.609	1⅝
107C105	1.	.671	1¾
107C155	1.5	.828	1¾
107C205	2.	.875	1⅞
400 VDC Working			
107E102	.001	.156	⅝
107E152	.0015	.156	⅝
107E222	.0022	.156	⅝
107E332	.0033	.156	⅝
107E472	.0047	.187	⅝
107E682	.0068	.218	⅝
107E103	.01	.250	⅝
107E153	.015	.296	⅝
107E223	.022	.312	¾
107E333	.033	.312	⅞
107E473	.047	.343	⅞
107E683	.068	.375	1
107E104	.1	.421	1
107E154	.15	.468	1¼
107E224	.22	.546	1⅜
107E334	.33	.593	1⅝
400 VDC Working			
107E474	.47	.671	1⅝
107E684	.68	.796	1⅜
107E105	1.	.812	2
107E155	1.5	.921	2¼
107E205	2.	1.093	2¼
600 VDC Working			
107F102	.001	.156	¾
107F152	.0052	.171	¾
107F222	.0022	.187	¾
107E332	.0033	.203	¾
107F472	.0047	.234	¾
107F682	.0068	.265	¾
107F103	.01	.312	¾
107F153	.015	.312	⅞
107F223	.022	.375	⅞
107F333	.033	.406	1
107F473	.047	.453	1
107F683	.068	.531	1
107F104	.1	.562	1⅜
107F154	.15	.671	1⅜
107F224	.22	.718	1⅝
107F334	.33	.756	2
107F474	.47	.859	2
107F684	.68	1.016	2
107F105	1.	1.125	2½
107F155	1.5	1.234	3
107F205	2.	1.421	3

Available ±10% tolerance (K) 107F205K 2.0 mfd. 600V ±10 ±20% tolerance (M) 107F205M 2.0 mfd. 600V ±20

TYPE 152 MICROMINIATURE MYLAR® CAPACITORS

Encased in mylar tube with epoxy end seals. Will operate at full 100 V.D.C. rating at 85°C. For 125°C operation derate 50%. Extremely high insulation resistance.

Catalog No.	Capacity	Dia. (±.0015″)	(+.063″) Length (−.031″)
152B102	.001	.081	⅜
152B152	.0015	.088	⅜
152B222	.0022	.095	⅜
152B332	.0033	.102	⅜
152B472	.0047	.109	⅜
152B682	.0068	.121	⅜
152B822	.0082	.128	⅜
152B103	.01	.139	⅜
152B153	.015	.165	⅜
152B223	.022	.198	⅜
152B333	.033	.237	⅜
152B473	.047	.278	⅜
152B563	.056	.278	½
152B683	.068	.294	½
152B823	.082	.319	½
152B104	.1	.319	9⁄16
152B124	.12	.342	9⁄16
152B154	.15	.381	9⁄16

Available ±20% (M), ±10% (K), ±5% (J). Specify tolerance by adding appropriate suffix.

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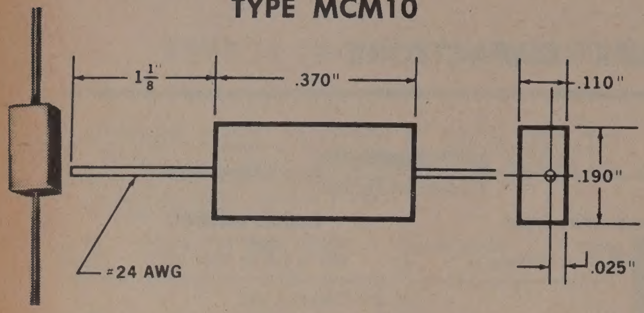
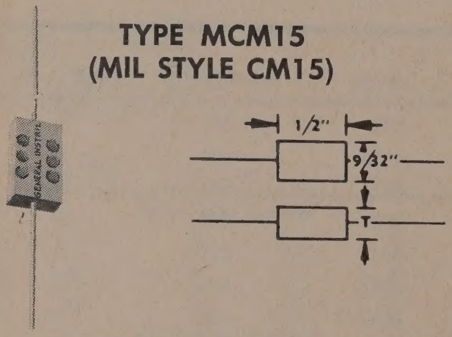
GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE MCM10



TYPE DESIGNATION	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%	M ±20%
MCM10-050	5	....			B
MCM10-100	10	....	....	....	B
MCM10-120	12	....	....	B	B
MCM10-150	15	....		B	B
MCM10-180	18	....	....	B	B
MCM10-200	20	....	BC	BC	BC
MCM10-220	22	....	BCD	BCD	BCD
MCM10-240	24	....	BCD	BCD	BCD
MCM10-270	27	....	BCD	BCD	BCD
MCM10-300	30	....	BCD	BCD	BCD
MCM10-330	33	....	BCD	BCD	BCD
MCM10-360	36	....	BCD	BCD	BCD
MCM10-390	39	....	BCD	BCD	BCD
MCM10-430	43	....	BCD	BCD	BCD
MCM10-470	47	....	BCD	BCD	BCD
MCM10-510	51	CDE	BCDE	BCDE	BCDE
MCM10-560	56	CDE	BCDE	BCDE	BCDE
MCM10-620	62	CDE	BCDE	BCDE	BCDE
MCM10-680	68	CDE	BCDE	BCDE	BCDE
MCM10-750	75	CDE	BCDE	BCDE	BCDE
MCM10-820	82	CDE	BCDE	BCDE	BCDE
MCM10-910	91	CDE	BCDE	BCDE	BCDE
MCM10-101	100	CDEF	BCDEF	BCDEF	BCDEF
MCM10-111	110	CDEF	BCDEF	BCDEF	BCDEF
MCM10-121	120	CDEF	BCDEF	BCDEF	BCDEF
MCM10-131	130	CDEF	BCDEF	BCDEF	BCDEF
MCM10-151	150	CDEF	BCDEF	BCDEF	BCDEF
MCM10-161	160	CDEF	BCDEF	BCDEF	BCDEF
MCM10-181	180	CDEF	BCDEF	BCDEF	BCDEF
MCM10-201	200	CDEF	BCDEF	BCDEF	BCDEF
MCM10-221	220	CDEF	BCDEF	BCDEF	BCDEF
MCM10-241	240	CDEF	BCDEF	BCDEF	BCDEF

TYPE MCM15
(MIL STYLE CM15)

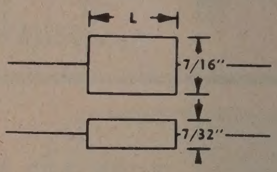


TYPE DESIGNATION	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM15 — 100 — — —	10	....	....	B
MCM15 — 120 — — —	12	....	....	B
MCM15 — 150 — — —	15	....	....	B
MCM15 — 180 — — —	18	....	....	B
MCM15 — 200 — — —	20	BCDE	BCDE	BCDE
MCM15 — 220 — — —	22	BCDE	BCDE	BCDE
MCM15 — 240 — — —	24	BCDE	BCDE	BCDE
MCM15 — 270 — — —	27	BCDE	BCDE	BCDE
MCM15 — 300 — — —	30	BCDE	BCDE	BCDE

TYPE MCM15 (Continued)

TYPE DESIGNATION	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM15 — 330 — — —	33	BCDEF	BCDEF	BCDEF
MCM15 — 360 — — —	36	BCDEF	BCDEF	BCDEF
MCM15 — 390 — — —	39	BCDEF	BCDEF	BCDEF
MCM15 — 430 — — —	43	BCDEF	BCDEF	BCDEF
MCM15 — 470 — — —	47	BCDEF	BCDEF	BCDEF
MCM15 — 510 — — —	51	BCDEF	BCDEF	BCDEF
MCM15 — 560 — — —	56	BCDEF	BCDEF	BCDEF
MCM15 — 620 — — —	62	BCDEF	BCDEF	BCDEF
MCM15 — 680 — — —	68	BCDEF	BCDEF	BCDEF
MCM15 — 750 — — —	75	BCDEF	BCDEF	BCDEF
MCM15 — 820 — — —	82	BCDEF	BCDEF	BCDEF
MCM15 — 910 — — —	91	BCDEF	BCDEF	BCDEF
MCM15 — 101 — — —	100	BCDEF	BCDEF	BCDEF
MCM15 — 111 — — —	110	BCDEF	BCDEF	BCDEF
MCM15 — 121 — — —	120	BCDEF	BCDEF	BCDEF
MCM15 — 131 — — —	130	BCDEF	BCDEF	BCDEF
MCM15 — 151 — — —	150	BCDEF	BCDEF	BCDEF
MCM15 — 161 — — —	160	BCDEF	BCDEF	BCDEF
MCM15 — 181 — — —	180	BCDEF	BCDEF	BCDEF
MCM15 — 201 — — —	200	BCDEF	BCDEF	BCDEF
MCM15 — 221 — — —	220	BCDEF	BCDEF	BCDEF
MCM15 — 241 — — —	240	BCDEF	BCDEF	BCDEF
MCM15 — 271 — — —	270	BCDEF	BCDEF	BCDEF
MCM15 — 301 — — —	300	BCDEF	BCDEF	BCDEF
MCM15 — 331 — — —	330	BCDEF	BCDEF	BCDEF
MCM15 — 361 — — —	360	BCDEF	BCDEF	BCDEF
MCM15 — 391 — — —	390	BCDEF	BCDEF	BCDEF
MCM15 — 431 — — —	430	BCDEF	BCDEF	BCDEF
MCM15 — 471 — — —	470	BCDEF	BCDEF	BCDEF
MCM15 — 511 — — —	510	BCDEF	BCDEF	BCDEF

TYPE MCM20
(MIL STYLE CM20)



TYPE DESIGNATION	CAP. PF	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM20 — 050 — — —	5	....	B	BC
MCM20 — 100 — — —	10	....	B	BC
MCM20 — 120 — — —	12	....	B	BC
MCM20 — 150 — — —	15	....	B	BC
MCM20 — 180 — — —	18	....	B	BC
MCM20 — 200 — — —	20	....	B	BC
MCM20 — 220 — — —	22	....	B	BC
MCM20 — 240 — — —	24	....	B	BC
MCM20 — 270 — — —	27	....	B	BC
MCM20 — 300 — — —	30	....	B	BC
MCM20 — 330 — — —	33	BCDE	BCDE	BCDE
MCM20 — 360 — — —	36	BCDE	BCDE	BCDE
MCM20 — 390 — — —	39	BCDE	BCDE	BCDE
MCM20 — 430 — — —	43	BCDE	BCDE	BCDE
MCM20 — 470 — — —	47	BCDE	BCDE	BCDE
MCM20 — 500 — — —	40	BCDE	BCDE	BCDE
MCM20 — 510 — — —	51	BCDE	BCDE	BCDE
MCM20 — 560 — — —	56	BCDEF	BCDEF	BCDEF
MCM20 — 620 — — —	62	BCDEF	BCDEF	BCDEF
MCM20 — 680 — — —	68	BCDEF	BCDEF	BCDEF
MCM20 — 750 — — —	75	BCDEF	BCDEF	BCDEF
MCM20 — 820 — — —	82	BCDEF	BCDEF	BCDEF
MCM20 — 910 — — —	91	BCDEF	BCDEF	BCDEF
MCM20 — 101 — — —	100	BCDEF	BCDEF	BCDEF
MCM20 — 111 — — —	110	BCDEF	BCDEF	BCDEF
MCM20 — 121 — — —	120	BCDEF	BCDEF	BCDEF
MCM20 — 131 — — —	130	BCDEF	BCDEF	BCDEF

NOTE: *1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operating temperature (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

All characteristics above are for GI Capacitors. MIL-C-5 Specifications fall within these characteristics.

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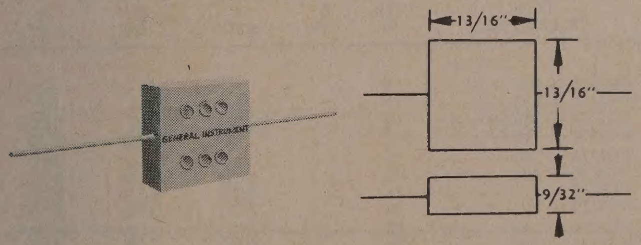
TYPE MCM20 (Continued)

		Characteristics available at capacitance tolerance		
TYPE DESIGNATION	CAP. PF	G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM20 — 151 — — —	150	BCDEF	BCDEF	BCDEF
MCM20 — 161 — — —	160	BCDEF	BCDEF	BCDEF
MCM20 — 181 — — —	180	BCDEF	BCDEF	BCDEF
MCM20 — 201 — — —	200	BCDEF	BCDEF	BCDEF
MCM20 — 221 — — —	220	BCDEF	BCDEF	BCDEF
MCM20 — 241 — — —	240	BCDEF	BCDEF	BCDEF
MCM20 — 251 — — —	250	BCDEF	BCDEF	BCDEF
MCM20 — 271 — — —	270	BCDEF	BCDEF	BCDEF
MCM29 — 301 — — —	300	BCDEF	BCDEF	BCDEF
MCM20 — 331 — — —	330	BCDEF	BCDEF	BCDEF
MCM20 — 361 — — —	360	BCDEF	BCDEF	BCDEF
MCM20 — 391 — — —	390	BCDEF	BCDEF	BCDEF
MCM20 — 431 — — —	430	BCDEF	BCDEF	BCDEF
MCM20 — 471 — — —	470	BCDEF	BCDEF	BCDEF
MCM20 — 501 — — —	500	BCDEF	BCDEF	BCDEF
MCM20 — 511 — — —	510	BCDEF	BCDEF	BCDEF
MCM20 — 561 — — —	560	BCDEF	BCDEF	BCDEF
MCM20 — 621 — — —	620	BCDEF	BCDEF	BCDEF
MCM20 — 681 — — —	680	BCDEF	BCDEF	BCDEF
MCM20 — 751 — — —	750	BCDEF	BCDEF	BCDEF
MCM20 — 821 — — —	820	BCDEF	BCDEF	BCDEF
MCM20 — 911 — — —	910	BCDEF	BCDEF	BCDEF
MCM20 — 102 — — —	1000	BCDEF	BCDEF	BCDEF
MCM20 — 112 — — —	1100	BCDEF	BCDEF	BCDEF
MCM20 — 122 — — —	1200	BCDEF	BCDEF	BCDEF
MCM20 — 132 — — —	1300	BCDEF	BCDEF	BCDEF
MCM20 — 152 — — —	1500	BCDEF	BCDEF	BCDEF
MCM20 — 162 — — —	1600	BCDEF	BCDEF	BCDEF
MCM20 — 182 — — —	1800	BCDEF	BCDEF	BCDEF
MCM20 — 202 — — —	2000	BCDEF	BCDEF	BCDEF
MCM20 — 222 — — —	2200	BCDEF	BCDEF	BCDEF
MCM20 — 242 — — —	2400	BCDEF	BCDEF	BCDEF
MCM20 — 252 — — —	2500	BCDEF	BCDEF	BCDEF
MCM20 — 272 — — —	2700	BCDEF	BCDEF	BCDEF
MCM20 — 302 — — —	3000	BCDEF	BCDEF	BCDEF
MCM20 — 332 — — —	3300	BCDEF	BCDEF	BCDEF
MCM20 — 362 — — —	3600	BCDEF	BCDEF	BCDEF
MCM20 — 392 — — —	3900	BCDEF	BCDEF	BCDEF
MCM20 — 432 — — —	4300	BCDEF	BCDEF	BCDEF
MCM20 — 472 — — —	4700	BCDEF	BCDEF	BCDEF
MCM20 — 502 — — —	5000	BCDEF	BCDEF	BCDEF
MCM20 — 512 — — —	5100	BCDEF	BCDEF	BCDEF

TYPE MCM30
(MIL STYLE CM30)

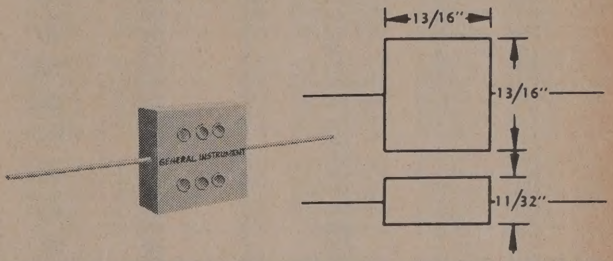


		Characteristics available at capacitance tolerance		
TYPE DESIGNATION	CAP. PF	G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM30 — 561 — — —	560	BCDEF	BCDEF	BCDEF
MCM30 — 621 — — —	620	BCDEF	BCDEF	BCDEF
MCM30 — 681 — — —	680	BCDEF	BCDEF	BCDEF
MCM30 — 751 — — —	750	BCDEF	BCDEF	BCDEF
MCM30 — 821 — — —	820	BCDEF	BCDEF	BCDEF
MCM30 — 911 — — —	910	BCDEF	BCDEF	BCDEF
MCM30 — 102 — — —	1000	BCDEF	BCDEF	BCDEF
MCM30 — 112 — — —	1100	BCDEF	BCDEF	BCDEF
MCM30 — 122 — — —	1200	BCDEF	BCDEF	BCDEF
MCM30 — 132 — — —	1300	BCDEF	BCDEF	BCDEF
MCM30 — 152 — — —	1500	BCDEF	BCDEF	BCDEF
MCM30 — 162 — — —	1600	BCDEF	BCDEF	BCDEF
MCM30 — 182 — — —	1800	BCDEF	BCDEF	BCDEF
MCM30 — 202 — — —	2000	BCDEF	BCDEF	BCDEF
MCM30 — 222 — — —	2200	BCDEF	BCDEF	BCDEF
MCM30 — 242 — — —	2400	BCDEF	BCDEF	BCDEF

TYPE MCM30 (Continued)

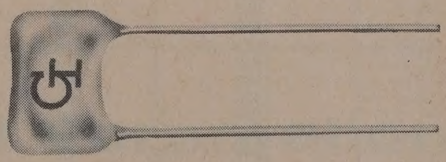
		Characteristics available at capacitance tolerance		
TYPE DESIGNATION	CAP. PF	G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM30 — 252 — — —	2500	BCDEF	BCDEF	BCDEF
MCM30 — 272 — — —	2700	BCDEF	BCDEF	BCDEF
MCM30 — 302 — — —	3000	BCDEF	BCDEF	BCDEF
MCM30 — 332 — — —	3300	BCDEF	BCDEF	BCDEF
MCM30 — 362 — — —	3600	BCDEF	BCDEF	BCDEF
MCM30 — 392 — — —	3900	BCDEF	BCDEF	BCDEF
MCM30 — 432 — — —	4300	BCDEF	BCDEF	BCDEF
MCM30 — 472 — — —	4700	BCDEF	BCDEF	BCDEF
MCM30 — 502 — — —	5000	BCDEF	BCDEF	BCDEF
MCM30 — 512 — — —	5100	BCDEF	BCDEF	BCDEF
MCM30 — 562 — — —	5600	BCDEF	BCDEF	BCDEF
MCM30 — 622 — — —	6200	BCDEF	BCDEF	BCDEF

TYPE MCM35
(MIL STYLE CM35)



		Characteristics available at capacitance tolerance		
TYPE DESIGNATION	CAP. PF.	G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
MCM35 — 362 — — —	3600	BCDEF	BCDEF	BCDEF
MCM35 — 392 — — —	3900	BCDEF	BCDEF	BCDEF
MCM35 — 432 — — —	4300	BCDEF	BCDEF	BCDEF
MCM35 — 472 — — —	4700	BCDEF	BCDEF	BCDEF
MCM35 — 512 — — —	5100	BCDEF	BCDEF	BCDEF
MCM35 — 562 — — —	5600	BCDEF	BCDEF	BCDEF
MCM35 — 622 — — —	6200	BCDEF	BCDEF	BCDEF
MCM35 — 682 — — —	6800	BCDEF	BCDEF	BCDEF
MCM35 — 752 — — —	7500	BCDEF	BCDEF	BCDEF
MCM35 — 822 — — —	8200	BCDEF	BCDEF	BCDEF
MCM35 — 912 — — —	9100	BCDEF	BCDEF	BCDEF
MCM35 — 103 — — —	10000	BCDEF	BCDEF	BCDEF

DIPPED SILVERED MICA CAPACITORS TO THE LATEST REVISION OF SPECIFICATION MIL-C-5.



TYPE RDM15
(MIL STYLE CM05)

		Characteristics available at capacitance tolerance		
TYPE DESIGNATION	CAP. PF.	G ±2%	J ±5%	K ±10%
1* 2* 3* 4*				
CM05 — 050K — — 3	5	....	....	C
CM05 — 060K — — 3	6	....	....	C
CM05 — 070K — — 3	7	....	....	C
CM05 — 080K — — 3	8	....	....	C
CM05 — 100K — — 3	10	....	....	C

NOTE: *1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).

*3 Include applicable code letter for operating temperature (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

All characteristics above are for GI Capacitors. MIL-C-5 Specifications fall within these characteristics.

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CAPACITOR DIVISION

TYPE CM05 (Continued)

TYPE DESIGNATION	CAP. PF.	G ±2%	J ±5%	K ±10%
		Characteristics available at capacitance tolerance		
1* 2* 3*				
CM05 — 120 — — 3	12	....	....	C
CM05 — 180 — — 3	18	....	....	C
CM05 — 200 — — 3	20	....	DE	....
CM05 — 220 — — 3	22	....	DE	CD
CM05 — 240 — — 3	24	....	DE	....
CM05 — 270 — — 3	27	E	DE	CD
CM05 — 300 — — 3	30	E	DE	....
CM05 — 330 — — 3	33	E	DE	CD
CM05 — 360 — — 3	36	E	DE	....
CM05 — 390 — — 3	39	E	DE	CD
CM05 — 430 — — 3	43	E	DE	....
CM05 — 470 — — 3	47	E	DE	CD
CM05 — 510 — — 3	51	E	DE	....
CM05 — 560 — — 3	56	E	DE	CD
CM05 — 620 — — 3	62	E	DE	....
CM05 — 680 — — 3	68	E	DE	CD
CM05 — 750 — — 3	75	E	DE	....
CM05 — 820 — — 3	82	E	DE	CD
CM05 — 910 — — 3	91	F	DF	....
CM05 — 101 — — 3	100	F	DF	CD
CM05 — 111 — — 3	110	F	DF	....
CM05 — 121 — — 3	120	F	DF	CD
CM05 — 131 — — 3	130	F	DF	....
CM05 — 151 — — 3	150	F	DF	CD
CM05 — 161 — — 3	160	F	DF	....
CM05 — 181 — — 3	180	F	DF	CD
CM05 — 201 — — 3	200	F	DF	....
CM05 — 221 — — 3	220	F	DF	CD
CM05 — 241 — — 3	240	F	DF	....
CM05 — 271 — — 3	270	F	DF	CD
CM05 — 301 — — 3	300	F	DF	....
CM05 — 331 — — 3	330	F	DF	CD
CM05 — 361 — — 3	360	F	DF	....
CM05 — 391 — — 3	390	F	DF	CD

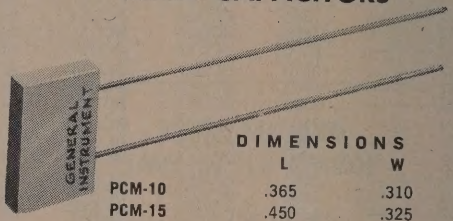
TYPE RDM20
(MIL STYLE CM06)

TYPE DESIGNATION	CAP. PF.	G ±2%	J ±5%	K ±10%
		Characteristics available at capacitance tolerance		
1* 2* 3*				
CM06 — 431 — — 3	430	F	DF	....
CM06 — 471 — — 3	470	F	DF	CD
CM06 — 511 — — 3	510	F	DF	....
CM06 — 561 — — 3	560	F	DF	CD
CM06 — 621 — — 3	620	F	DF	....
CM06 — 681 — — 3	680	F	DF	CD
CM06 — 751 — — 3	750	F	DF	....
CM06 — 821 — — 3	820	F	DF	CD
CM06 — 911 — — 3	910	F	DF	....
CM06 — 102 — — 3	1000	F	DF	CD
CM06 — 112 — — 3	1100	F	DF	....
CM06 — 122 — — 3	1200	F	DF	....
CM06 — 132 — — 3	1300	F	DF	....
CM06 — 152 — — 3	1500	F	DF	....
CM06 — 162 — — 3	1600	F	DF	....
CM06 — 182 — — 3	1800	F	DF	....
CM06 — 202 — — 3	2000	F	DF	....
CM06 — 222 — — 3	2200	F	DF	....
CM06 — 242 — — 3	2400	F	DF	....
CM06 — 272 — — 3	2700	F	DF	....
CM06 — 302 — — 3	3000	F	DF	....
CM06 — 332 — — 3	3300	F	DF	....
CM06 — 362 — — 3	3600	F	DF	....
CM06 — 392 — — 3	3900	F	DF	....
CM06 — 432 — — 3	4300	F	DF	....
CM06 — 472 — — 3	4700	F	DF	....

TYPE RDM30
(MIL STYLE CM07)

TYPE DESIGNATION	CAP. PF.	G ±2%	J ±5%	K ±10%
		Characteristics available at capacitance tolerance		
1* 2* 3*				
CM07 — 512 — — 3	5100	F	F	....
CM07 — 562 — — 3	5600	F	F	....
CM07 — 622 — — 3	6200	F	F	....
CM07 — 682 — — 3	6800	F	F	....
CM07 — 752 — — 3	7500	F	F	....
CM07 — 822 — — 3	8200	F	F	....
CM07 — 912 — — 3	9100	F	F	....
CM07 — 103 — — 3	10000	F	F	....
CM07 — 113 — — 3	11000	F	F	....
CM07 — 123 — — 3	12000	F	F	....
CM07 — 133 — — 3	13000	F	F	....
CM07 — 153 — — 3	15000	F	F	....
CM07 — 163 — — 3	16000	F	F	....
CM07 — 183 — — 3	18000	F	F	....
CM07 — 203 — — 3	20000	F	F	....

MOLDED RADIAL LEAD SILVERED MICA CAPACITORS



DIMENSIONS	L	W	T
PCM-10	.365	.310	.121
PCM-15	.450	.325	.150
PCM-20	.615	.469	.205

TYPE PCM10

TYPE DESIGNATION	CAP. PF	G ±2%	J ±5%	K ±10%	M ±20%
			Characteristics available at capacitance tolerance		
1* 2* 3* 4*					
PCM10 — 050 — — —	5	....	....	....	BC
PCM10 — 010 — — —	10	....	....	BC	BC
PCM10 — 120 — — —	12	....	....	BC	BCD
PCM10 — 150 — — —	15	....	....	BCD	BCD
PCM10 — 180 — — —	18	....	....	BCD	BCD
PCM10 — 200 — — —	20	....	BCD	BCD	BCD
PCM10 — 220 — — —	22	....	BCD	BCD	BCD
PCM10 — 240 — — —	24	....	BCD	BCD	BCD
PCM10 — 270 — — —	27	....	BCD	BCD	BCD
PCM10 — 300 — — —	30	....	BCD	BCD	BCD
PCM10 — 330 — — —	33	....	BCD	BCD	BCD
PCM10 — 360 — — —	36	....	BCD	BCD	BCD
PCM10 — 390 — — —	39	....	BCD	BCD	BCD
PCM10 — 430 — — —	43	....	BCD	BCD	BCD
PCM10 — 470 — — —	47	....	BCD	BCD	BCD
PCM10 — 510 — — —	51	CDE	BCDE	BCDE	BCDE
PCM10 — 560 — — —	56	CDE	BCDE	BCDE	BCDE
PCM10 — 620 — — —	62	CDE	BCDE	BCDE	BCDE
PCM10 — 680 — — —	68	CDE	BCDE	BCDE	BCDE
PCM10 — 750 — — —	75	CDE	BCDE	BCDE	BCDE
PCM10 — 820 — — —	82	CDE	BCDE	BCDE	BCDE
PCM10 — 910 — — —	91	CDE	BCDE	BCDE	BCDE
PCM10 — 101 — — —	100	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 111 — — —	110	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 121 — — —	120	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 131 — — —	130	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 151 — — —	150	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 161 — — —	160	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 181 — — —	180	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 201 — — —	200	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 221 — — —	220	CDEF	BCDEF	BCDEF	BCDEF
PCM10 — 241 — — —	240	CDEF	BCDEF	BCDEF	BCDEF

NOTE: *1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operating temperature (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

All characteristics above are for GI Capacitors. MIL-C-5 Specifications fall within these characteristics.

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GENERAL INSTRUMENT CORPORATION
CAPACITOR DIVISION

TYPE PCM15

TYPE DESIGNATION	CAPACITANCE (μμf)	DC WORKING VOLTAGE	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%	M ±20%
1* 2* 3* 4*						
PCM15 — 050 — — —	5	500	....	....	....	BC
PCM15 — 100 — — —	10	500	....	....	BC	BC
PCM15 — 120 — — —	12	500	....	....	BC	BCD
PCM15 — 150 — — —	15	500	....	....	BCD	BCD
PCM15 — 180 — — —	18	500	....	....	BCD	BCD
PCM15 — 200 — — —	20	500	....	BCD	BCD	BCD
PCM15 — 220 — — —	22	500	....	BCD	BCD	BCD
PCM15 — 240 — — —	24	500	....	BCD	BCD	BCD
PCM15 — 270 — — —	27	500	....	BCD	BCD	BCD
PCM15 — 300 — — —	30	500	....	BCD	BCD	BCD
PCM15 — 330 — — —	33	500	....	BCD	BCD	BCD
PCM15 — 360 — — —	36	500	....	BCD	BCD	BCD
PCM15 — 390 — — —	39	500	....	BCD	BCD	BCD
PCM15 — 430 — — —	43	500	....	BCD	BCD	BCD
PCM15 — 470 — — —	47	500	....	BCD	BCD	BCD
PCM15 — 510 — — —	51	500	CDE	BCDE	BCDE	BCDE
PCM15 — 560 — — —	56	500	CDE	BCDE	BCDE	BCDE
PCM15 — 620 — — —	62	500	CDE	BCDE	BCDE	BCDE
PCM15 — 680 — — —	68	500	CDE	BCDE	BCDE	BCDE
PCM15 — 750 — — —	75	500	CDE	BCDE	BCDE	BCDE
PCM15 — 820 — — —	82	500	CDE	BCDE	BCDE	BCDE
PCM15 — 910 — — —	91	500	CDE	BCDE	BCDE	BCDE
PCM15 — 101 — — —	100	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 111 — — —	110	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 121 — — —	120	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 131 — — —	130	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 151 — — —	150	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 161 — — —	160	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 181 — — —	180	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 201 — — —	200	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 221 — — —	220	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 241 — — —	240	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 271 — — —	270	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 301 — — —	300	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 331 — — —	330	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 361 — — —	360	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 391 — — —	390	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 431 — — —	430	300	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 471 — — —	470	300	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 511 — — —	510	300	CDEF	BCDEF	BCDEF	BCDEF

TYPE PCM20

TYPE DESIGNATION	CAPACITANCE (μμf)	DC WORKING VOLTAGE	Characteristics available at capacitance tolerance G ±2%	J ±5%	K ±10%	M ±20%
1* 2* 3* 4*						
PCM20 — 510 — — —	51	500	CDE	BCDE	BCDE	BCDE
PCM20 — 560 — — —	56	500	CDE	BCDE	BCDE	BCDE
PCM20 — 620 — — —	62	500	CDE	BCDE	BCDE	BCDE
PCM20 — 680 — — —	68	500	CDE	BCDE	BCDE	BCDE
PCM20 — 750 — — —	75	500	CDE	BCDE	BCDE	BCDE
PCM20 — 820 — — —	82	500	CDE	BCDE	BCDE	BCDE
PCM20 — 910 — — —	91	500	CDE	BCDE	BCDE	BCDE
PCM20 — 101 — — —	100	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 111 — — —	110	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 121 — — —	120	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 131 — — —	130	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 151 — — —	150	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 161 — — —	160	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 181 — — —	180	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 201 — — —	200	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 221 — — —	220	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 241 — — —	240	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 271 — — —	270	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 301 — — —	300	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 331 — — —	330	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 361 — — —	360	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 391 — — —	390	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 431 — — —	430	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 471 — — —	470	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 511 — — —	510	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 561 — — —	560	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 621 — — —	620	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 681 — — —	680	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 751 — — —	750	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 821 — — —	820	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 911 — — —	910	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 102 — — —	1000	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 112 — — —	1100	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 122 — — —	1200	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 132 — — —	1300	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 152 — — —	1500	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 162 — — —	1600	500	CDEF	BCDEF	BCDEF	BCDEF
PCM15 — 182 — — —	1800	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 202 — — —	2000	500	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 222 — — —	2200	300	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 242 — — —	2400	300	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 272 — — —	2700	300	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 302 — — —	3000	300	CDEF	BCDEF	BCDEF	BCDEF
PCM20 — 332 — — —	3300	300	CDEF	BCDEF	BCDEF	BCDEF

NOTE: *1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operating temperature (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

General Instrument Corporation
Capacitor Division
Newark 4, N. J.

Plants: Darlington, South Carolina
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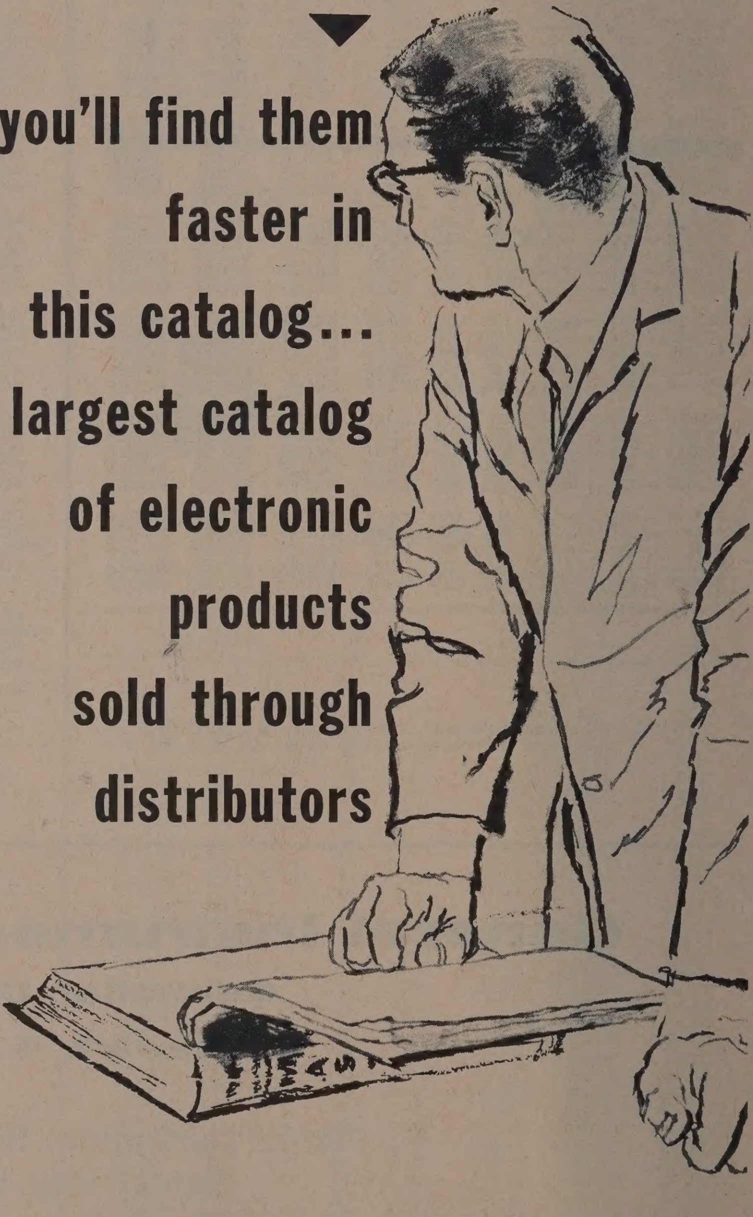

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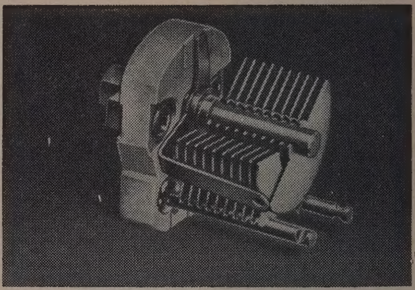
STANDARD VARIABLE CAPACITORS

"APC" CAPACITORS



FEATURES—The "APC" trimmer capacitor originated by Hammarlund over twenty years ago is still widely recognized as the standard capacitor of its type. Its use is indicated in all classes of equipment where a compact, high quality air dielectric trimmer is required. It was designed to resist effects of temperature, moisture and vibration. Silicone treated steatite insulation is used to insure high leakage resistance.

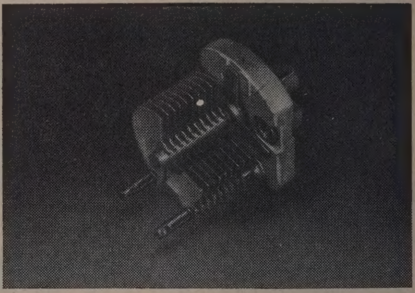
CONSTRUCTION—Brass rotor and stator plates are soldered to brass supports. Nickel-plated phosphor bronze wiper assures positive rotor contact. All metal parts are nickel-plated. Terminals are hot-tin dipped. Tapped brass mounting studs fastened to silicone treated steatite base permit mounting capacitor without grounding the rotor.

SPECIFICATIONS—Straight line capacity characteristic. Available either with hexagonal collar on slotted shaft to permit rotor adjustments to be made with wrench or screwdriver or with ½" extended shaft for knob control or shaft coupling. (Type "B") "APC-C" Lock Type now also available through distributors. Air Gap is 0.015" nominal. Tested at 600 V. R.M.S., 60 cycles.

Code	Capacity		Plates	Net Price
	Max.	Min.		
APC-15	17.	2.8	5	$1.25
APC-25	25.	3.0	7	1.35
APC-50	50.	3.9	14	1.55
APC-75	75.	4.6	20	1.70
APC-100	100.	5.5	27	1.85
APC-140	140.	6.7	37	2.15

"B" and "C" types slightly higher

"MAPC" CAPACITORS



FEATURES—The "MAPC" capacitor is representative of Hammarlund's efforts to meet the demand for smaller dependable components. It is a scaled-down version of the popular "APC" with everything reduced except the quality and performance characteristics. For example, an "MAPC" is about half the size and weight of an "APC". Lower minimum capacities and low inductance make the "MAPC" suitable for VHF use.

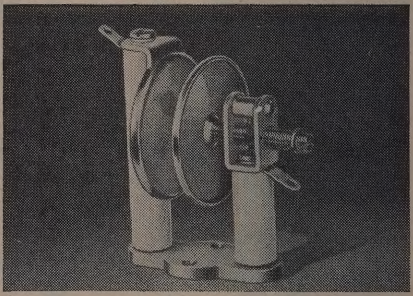
CONSTRUCTION—The standard "APC" construction is used in this capacitor. Rotors and stators are fabricated by soldering brass plates to supporting members and nickel-plating the assemblies. Nickel-plated phosphor bronze wiper assures positive rotor contact. Tapped brass mounting studs fastened to silicone treated steatite base permit mounting capacitor without grounding rotor.

SPECIFICATIONS—Straight line capacity. Available either with screwdriver or socket wrench adjustment or with 7/16" extended shaft for knob control or shaft coupling. (Type "B") "MAPC-C" Lock Type now also available through distributors. Air Gap is 0.0135" nominal. Tested at 600 V. R.M.S., 60 cycles.

Code	Capacity		Plates	Net Price
	Max.	Min.		
MAPC-15	15.	2.3	6	$1.01
MAPC-25	25.	2.6	10	1.10
MAPC-35	35.	2.9	14	1.10
MAPC-50	50.	3.2	19	1.19
MAPC-75	75.	3.9	29	1.28
MAPC-100	100.	4.5	38	1.44
MAPC-140	140.	5.5	52	1.62

"B" and "C" types slightly higher

"NZ-10" CAPACITORS

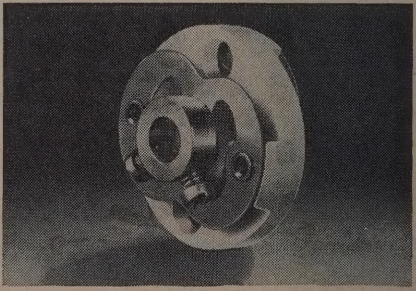


FEATURES—The "NZ-10" is a compact transmitter neutralizing capacitor designed for easy and accurate adjustment. The rotor is attached to a fine-thread lead screw which may be adjusted with smooth and precise action by a screwdriver and locked securely by a readily accessible clamping screw. A stop prevents shorting of plates at maximum capacity. Long leakage paths to ground from both rotor and stator are provided. Glazed steatite insulators and smoothly rounded aluminum plates minimize flashover.

SPECIFICATIONS—Capacity is adjustable from 2.3 to 10 mmf. Peak voltage rating is 3000 V. at maximum capacity (minimum gap) position.

Net Price $4.77

"FC" and "FNC" COUPLINGS



FEATURES—The "FC-46-S" is an insulated flexible coupling designed to provide for mechanical ganging of shafts even though angularly misaligned. The smallest dimensions have been incorporated consistent with the rugged construction necessary for general service. A high degree of electrical isolation is achieved through the use of silicone treated steatite insulation. Flashover voltage is approximately 5000 V. R.M.S. Brass hubs and spring temper phosphor bronze flexible arms are nickel plated. An exclusive and important feature of this coupling is its characteristic of uniform side-thrust through 360° of rotation. This eliminates tendency to vibrate at high speeds, minimizes bearing wear and assures accurate tracking.

The "FNC-46-S" is a non-insulated coupling for use where electrical continuity between shafts is required. The flexible arms are held securely to a nickel plated brass ring instead of an insulator.

Standard Stock Types		Net Price
CODE FC-46-S	Insulated flexible coupling	$1.10
CODE FNC-46-S	Non-insulated flexible coupling	.93

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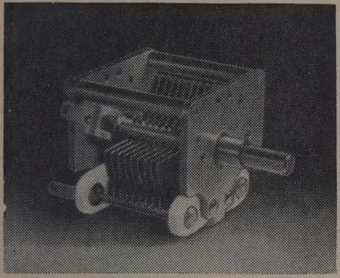
STANDARD VARIABLE CAPACITORS

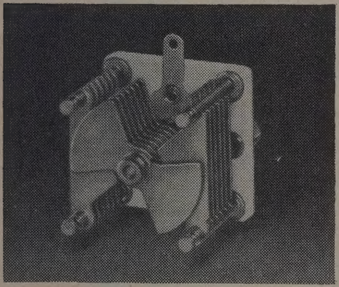


Code	Capacity		Plates	Net Price
	Max.	Min.		
RMC-50-S	50.	7.3	7	$4.14
RMC-100-S	105.	9.5	14	4.40
RMC-140-S	143.5	11.0	19	4.56
RMC-325-S	327.	17.5	43	5.15

SPECIFICATIONS—Straight line capacity. Air gap is 0.0245″ nominal. Tested at 1000 V. R.M.S., 60 cycles.

"RMC" CAPACITORS

FEATURES—The "RMC" was designed specifically for applications requiring an "MC" type tuning capacitor with very rigid construction. Its sturdy frame consists of heavy gauge aluminum end panels held together by three aluminum tie rods. It has a brass sleeve front bearing and a single ball thrust rear bearing for smooth tuning and a high degree of resetability. The rotor contact is a forked silver plated phosphor bronze spring wiping against a wide disc on the rotor. The plate shape and other constructional features are the same as on the "MC". Tapped holes in front panel and in mounting feet, as well as additional brackets for inverted mounting permit a wide variety of assembly methods. "M" type plates and ball-bearing construction can also be made available as specials.



"BFC" CAPACITORS

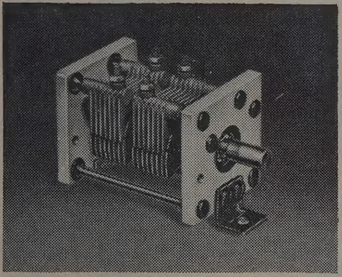
FEATURES — The "BFC" "butterfly" type capacitor has very low minimum capacity, low in inductance and isolated rotor for use in VHF applications as a series capacitor with no rotor connection. For dual split-stator capacitor use, it has a low-loss positive rotor contact. Mechanical and electrical symmetry and stator terminal locations minimize circuit inductance.

CONSTRUCTION — Brass rotors and stators are soldered and nickel-plated. The contact wiper is heavily silver plated phosphor bronze. Tapped studs on the silicone treated steatite front panel permit mounting the capacitor without grounding the rotor. The sleeve type bearing is nickel-plated brass.

SPECIFICATIONS—Straight line capacity. 90° rotation from minimum to maximum capacity position. Air gap is 0.030″ nominal. Tested at 1200 V. R.M.S., 60 cycles between rotor and each stator.

High Speed Ball-Bearing Models Also Are Available

Code	Capacity/Section		Series Capacity		Plates		Net Price
	Max.	Min.	Max.	Min.	Rotor	Ea. Stator	
BFC-12	14.5	3.4	7.6	2.2	4	3	$1.95
BFC-25	27.3	4.8	14.1	2.9	7	6	2.25
BFC-38	40.1	6.2	20.6	3.6	10	9	2.60
BFC-50	52.4	7.6	27.1	4.3	13	12	2.75



SPECIAL CALIBRATED CAPACITORS —The "VU" type capacitors can be supplied in quantity lots specially calibrated to the nominal curve with a tolerance of ±0.15 mmf or 1¼%, whichever is greater.

Dial % Rotation	Effective Series Capacity		
	VU-20	VU-30	VU-45
0	0.	0.	0.
10	.55	.8	1.15
20	1.55	2.2	3.15
30	2.75	3.85	5.45
40	4.2	5.85	8.35
50	6.0	8.4	12.0
60	8.35	11.65	16.65
70	11.2	15.7	22.4
80	14.65	20.55	29.35
90	18.6	26.05	37.2
100	22.5	31.5	45.0

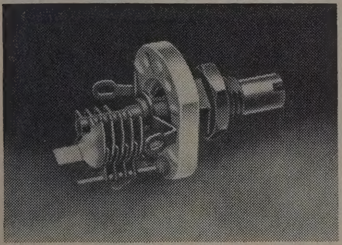
Code	Series Capacity		Plates/ Section	Net Price
	Eff.	Min.		
VU-20	22.5	3.35	11	6.72
VU-30	31.5	3.5	15	6.92
VU-45	45.0	3.8	21	7.34

"VU" CAPACITORS

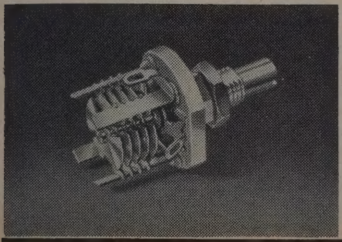
FEATURES — The "VU" is a uniquely designed UHF tuning capacitor using completely original concepts. With it, conventional "lumped constant" circuits, rather than tuned cavity techniques, can be efficiently used up to 500 megacycles. In addition to employing the capacitor sections in series to eliminate the rotor wiper, the design also utilizes Pyrex balls to form precision bearings and to completely isolate the rotor. Thus, noise generated by rubbing metal-to-metal contacts and variable resistance paths in the bearings have been totally eliminated. Circuit connections are made to threaded studs on each stator. This permits vacuum tube and inductor to be mounted adjacent to and on opposite sides of the capacitor to minimize circuit inductance. The symmetrical design is ideal for tuned circuits operating up to 500 megacycles.

CONSTRUCTION—Rotors and stators are of brass with plates soldered in precisely located grooves and then silver plated to increase the "Q" of the capacitor. The insulation is silicone treated steatite. All lengthwise frame members are of brass to minimize temperature effects. Base mounting brackets are provided.

SPECIFICATIONS—The capacity characteristic approaches a straight line frequency curve as indicated by nominal values in table at left. Air gap is .0168″ nominal. Tested at 700 V. R.M.S., 60 cycles, between rotor and each stator.



Code	Capacity		Plates	Net Price
	Max.	Min.		
MAC-5	5.4	1.3	5	$1.00
MAC-10	9.6	1.5	9	1.05
MAC-15	15.8	1.9	15	1.20
MAC-20	21.5	2.2	21	1.35
MAC-30	32.0	2.5	27	1.40



Code	Capacity/Sect.		Plates		Net Price
	Max.	Min.	Rotor	Ea. Stato	
Butterfly					
MACBF-3	3.1	1.3	3	2	$1.40
MACBF-5	5.0	1.6	5	4	1.60
MACBF-8	7.9	2.0	8	7	1.80
MACBF-11	10.8	2.4	11	10	2.00
Differential					
MAC-5-5	5.4	1.3	3	2	1.38
MAC-10-10	9.6	1.5	5	4	1.52
MAC-15-15	15.8	1.9	8	7	1.68
MAC-20-20	21.5	2.2	11	10	1.77

"MAC" and "MACBF" CAPACITORS

FEATURES—The "MAC" provides the low minimum capacity essential for use as a trimmer in the VHF range. It was engineered and designed to produce a rugged, stable, highly reliable miniature component for today's equipment.

CONSTRUCTION — Its silicone treated steatite base is only ¾″ x ⅝″. Rotor and stator are soldered assemblies and are of brass, nickel-plated. Rotor and stator terminals are positioned to permit short leads. The threaded bearing is provided with flat sides to permit single hole mounting.

SPECIFICATIONS—Straight line capacity. Screwdriver adjustment. Air gap is 0.017″ nominal and tested at 880 V. R.M.S., 60 cycles, except the MAC-30 which has an air gap of 0.0135″ nominal and is tested at 600 V. R.M.S., 60 cycles. "MACBF" is the butterfly version of the "MAC." It is designed for dual split-stator capacitor use.

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STANDARD VARIABLE CAPACITORS

"MC", "MCA" and "MCD" CAPACITORS

FEATURES—The "MC" is a versatile single section tuning capacitor designed to give the equipment engineer a choice of mountings, connections and capacity characteristics. The threaded brass front bearing and tapped aluminum end brackets permit panel or base mounting. "MC-S" capacitors have a straight line capacity characteristic. "MC-M" units have offset plates resulting in a "Midline" characteristic which more equally spaces frequencies. "MC-X" units are wide-spaced for high voltages. Hammarlund "MC" capacitors, except for "MCA" types, have silver plated phosphor bronze wiping contact, silicone-treated steatite insulation, soldered nickel-plated brass rotors and stators, rotor shaft supported on bearings at both front and rear of capacitor.

The "MCD" is a split-stator panel-mounted capacitor with all the "MC" features. Stators have terminals on both sides. Stators on single-spaced capacitors are separated by a shield. Wide-spaced units have no shield. Multi-section capacitors can be designed for special applications.

A rotor stop is available on "MC" capacitors on special order.

SPECIFICATIONS—Straight line or "Midline" capacity characteristic. Single-spaced types have 0.0245" nominal air gap and are tested at 1000 V. R.M.S., 60 cycles. Wide-spaced ("X") types have 0.0715" nominal air gap and are tested at 1750 V. R.M.S., 60 cycles.

	Capacity		Plates/	Net
Code	Max.	Min.	Section	Price
MC-20-S	20.	5.5	3	$2.27
MC-35-S	35.	6.0	5	2.31
MC-50-M	50.	6.3	7	2.46
MC-50-S	50.	6.5	7	2.48
MC-75-M	80.	7.3	11	2.57
MC-75-S	80.	8.0	11	2.55
MC-100-M	100.	7.7	14	2.72
MC-100-S	100.	8.3	14	2.69
MC-140-M	140.	9.0	19	2.88
MC-140-S	140.	10.0	19	2.85
MC-200-M	200.	10.3	27	3.27
MC-250-M	250.	12.0	34	3.41
MC-325-M	320.	13.5	43	3.90
MC-20-SX	20.	6.8	7	2.63
MC-35-MX	32.	7.8	11	2.69
MC-35-SX	32.	8.5	11	2.79
MC-50-MX	53.	10.5	19	3.02
MC-50-SX	53.	11.5	19	3.05
MC-100-SX	100.	16.5	35	3.87
MCA-20-S	17.5	3.5	3	1.70
MCA-35-S	33.0	3.9	5	1.79
MCA-50-S	47.8	4.4	7	1.91
MCA-75-S	78.0	5.2	11	2.08
MCA-100-S	99.6	5.8	14	2.16
MCA-140-S	137.5	7.0	19	2.30
MCD-50-M	50.	5.5	7	7.25
MCD-100-M	100.	6.3	14	7.74
MCD-100-S	100.	7.0	14	6.74
MCD-140-M	140.	7.8	19	8.16
MCD-35-MX	31.	6.0	11	7.44
MCD-35-SX	31.	6.8	11	6.51

M-Midline plates **S-Straightline plates**
X-Wide-Spaced

"HF" and "HFD" CAPACITORS

SINGLE SECTION CAPACITOR—The "HF" is a single section tuning capacitor employing "APC" rotor and stator design. Extra long sleeve bearing and positive contact nickel-plated phosphor bronze wiper make this unit ideally suited to high frequency applications. Silicone treated steatite insulation. Single hole or base mounting. Special spacing, capacity values, finishes and other modifications are available to manufacturers on special order.

DOUBLE SECTION CAPACITOR — The "HFD" dual capacitors, like the "HF" singles, incorporate advanced features providing for maximum efficiency at high frequency. Soldered brass plates are nickel-plated. Aluminum front and rear end panels are mounted on a heavy silicone treated steatite base. Front and rear bearings with wide individual silver plated phosphor bronze wipers for each section assure long life and maximum contact efficiency. Single hole panel mount or base mounting. Electrostatic shield between sections. Terminals are provided on both sides of each stator to permit mounting tube and inductor on opposite sides. Multi-section capacitors can also be made available to customer specifications.

SPECIFICATIONS—Straight line capacity. Single spaced types (HF and HFD) have 0.015" air gap and are tested at 600 V. R.M.S., 60 cycles. Wide spaced types (HF-X and HFD-X) have 0.045" air gap and are tested at 1400 V. R.M.S., 60 cycles.

	Capacity		Plates/	Net
Code	Max.	Min.	Section	Price
HF-15	17.5	2.8	5	$1.14
HF-35	36.	3.2	10	1.25
HF-50	52	3.7	14	1.31
HF-100	102.	5.3	27	1.49
HF-140	142.	6.3	37	1.74
HF-15-X	15.	3.6	10	1.29
HF-30-X	30.	5.2	20	1.43
HFD-25	25.	2.9	7	4.37
HFD-50	52.	3.6	14	4.55
HFD-100	102.	5.0	27	4.98
HFD-140	142.	6.0	37	5.15
HFD-15-X	16.	3.8	11	4.55
HFD-30-X	28.5	5.0	19	4.65

D—Split stator (Duals) **X**—Wide-Spaced

"HFA", "HFA DIFFERENTIAL", "HFA DUAL", and "HFBD" CAPACITORS

SINGLE SECTION CAPCITORS—The "HFA" is a single section tuning capacitor similar to the "HF" except that larger plates permit wider air-gaps for the same capacitance values. Resultant higher breakdown ratings extend the use of the capacitor into the high frequency low-power transmitter field. A threaded sleeve bearing permits single hole mounting and the bracket supplied may be used for base mounting. A lug type terminal mounted with the bearing provides an efficient rotor connection.

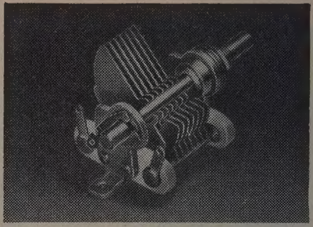
DIFFERENTIAL TYPE CAPACITORS — The "HFA" type units are now available as standard items in the differential type construction. The unit is mounted with an ungrounded rotor making it suitable for a wide field of application. In addition to the features of the "HFA" the design also incorporates the use of a spring bronze silver plated wiping contact on the rotor.

DOUBLE SECTION CAPACITORS—The "HFAD" and the "HFBD" are dual balanced rotor capacitors employing front and rear panels plus a single ball rear thrust. Both units are applicable to transmitter design. The construction features are similar to the "HFA" and the "HFA Differential" type capacitors. Additional special feature employed on the "HFBD" type incorporates the use of an insulated shaft extension on the rotor to safeguard against shock hazards with the application of high voltages.

SPECIFICATIONS—Straight line capacity. Air gaps and test voltages are as indicated in table. However, "HFBD" breakdown voltages are doubled and capacitance values approximately halved when stator sections are connected in series.

	Capacity			Plates/	Net
Code	Max.	Min.	Spacing	Section	Price
HFA-100-A	102	4.5	0.020	19	$2.13
HFA-140-A	145	6.0	0.020	27	2.39
HFA-200-A	200	8.0	0.020	38	2.76
HFA-10-B	9	2,3	0.030	3	1.62
HFA-15-B	16	2.8	0.030	5	1.71
HFA-25-B	25	3.0	0.030	7	1.74
HFA-50-B	50	4.3	0.030	14	1.92
HFA-100-B†	100	7.5	0.030	27	3.05
HFA-15-E	16	4.0	0.070	9	1.85
Differentials					
HFA-10-10B	9	2.3	0.030	3	2.00
HFA-25-25B	25	3.0	0.030	7	2.20
HFA-50-50B	50	4.3	0.030	14	2.50
HFA-Duals					
HFAD-25B	27	5.0	0.030	7	3.59
HFAD-50B	52	6.8	0.030	14	4.04
HFAD-100B	100	8.0	0.030	27	4.94
HFBD-50-C	50	9.0	0.050	11	7.85
HFBD-100-C	105	14.0	0.050	23	9.24
HFBD-35-E*	37	9.5	0.070	11	7.86
HYBD-65-E*	63	12.5	0.070	19	8.69

60 cycle test voltage:
"HFA", "A" 800 V. R.M.S. "B" 1200 V. R.M.S.
"E" 1750 V. R.M.S. "HFBD", "C" 1500 V. R.M.S.
"E*" 3000 V. R.M.S.; plates have rounded edges.
†Has front and rear supporting panels.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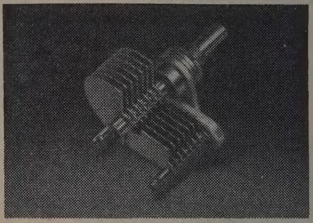
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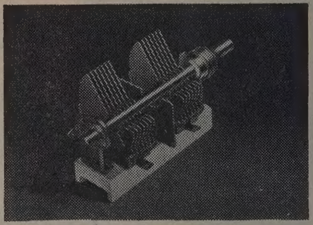
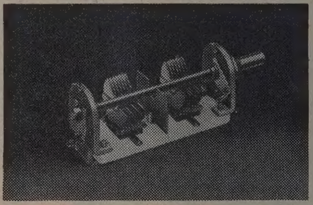

MCD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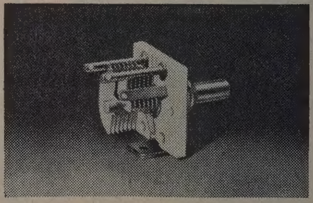
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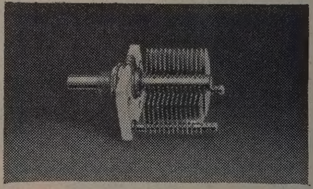
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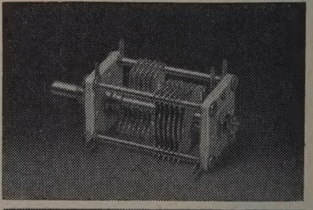
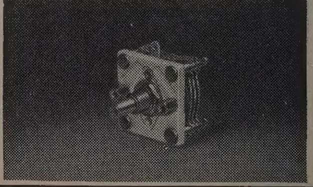

HFA DIFFER-ENTIAL


HFA DUAL

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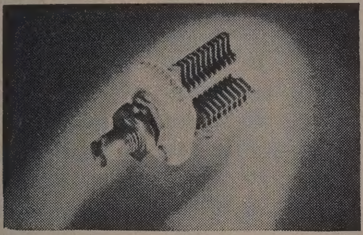
"CT" CAPACITORS MIL TYPES

FEATURES—Compact, high quality air dielectric trimmer types designed to resist the effects of temperature, moisture and vibration. Silicone treated steatite insulation insures high leakage resistance.

CONSTRUCTION—All brass parts nickel-plated. Brass rotor and stator plates soldered to brass supports. Terminals hot-tin dipped. Tapped brass mounting studs fastened to silicone treated steatite base eliminates grounding the rotor when mounting capacitor. CT06 types are bushing mounted for grounded rotor operation.

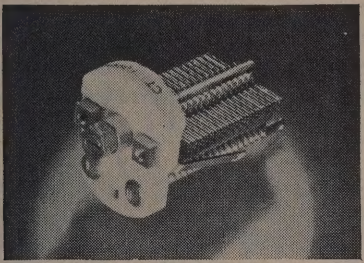
SPECIFICATIONS—CT types designed to meet military specification MIL-C-92.

TYPE CT06



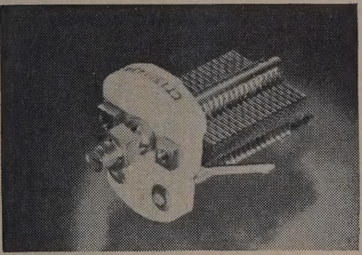
Type designation	DC working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT06E004	500	1.3	4.0	J, M	10/16
CT06E013	500	2.1	12.9	J, M	59/64
CT06E017	500	2.4	16.8	J, M	1 3/64
CT06E019	500	3.0	19.0	J, M	1 3/16

TYPE CT12



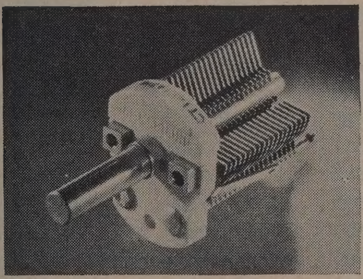
Type designation	DC working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT12E042	500	5.0	42	J, M	1 3/16
CT12E075	500	6.0	75	J, M	1 1/2
CT12E099	500	7.5	99	J, M	1 11/16
CT12E135	500	9.0	135	J, M	1 15/16
CT12E143	500	9.0	143	J, M	1 31/32
CT12F010	600	3.0	10	J, M	15/16
CT12F025	600	4.0	25	J, M	1 3/32
CT12F042	600	5.0	42	J, M	1 3/8
CT12F075	600	6.0	75	J, M	1 5/8
CT12F099	600	7.5	99	J, M	1 29/32
CT12G009	700	4.0	9	J, M	1
CT12G023	700	4.5	23	J, M	1 1/4
CT12G042	700	5.5	42	J, M	1 3/4
CT12G075	700	6.5	75	J, M	2

TYPE CT13



Type designation	DC working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT13E0442	500	5.0	42	J, M	1 3/16
CT13E075	500	6.0	75	J, M	1 1/2
CT13E099	500	7.5	99	J, M	1 11/16
CT13E135	500	9.0	135	J, M	1 15/16
CT13E143	500	9.0	143	J, M	1 31/32
CT13F010	600	3.0	10	J, M	15/16
CT13F025	600	4.0	25	J, M	1 3/32
CT13F042	600	5.0	42	J, M	1 3/8
CT13F075	600	6.0	75	J, M	1 5/8
CT13F099	600	7.5	99	J, M	1 29/32
CT13G009	700	4.0	9	J, M	1
CT13G023	700	4.5	23	J, M	1 1/4
CT13G042	700	5.5	42	J, M	1 3/4
CT13G075	700	6.5	75	J, M	2

TYPE CT15



Type designation	Dc working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT1-E042	500	5.0	42	J, M	1 3/16
CT1-E075	500	6.0	75	J, M	1 1/2
CT1-E090	500	7.5	99	J, M	1 11/16
CT1-E135	500	9.0	135	J, M	1 15/16
CT1-E143	500	9.0	143	J, M	1 31/32
CT1-F010	600	3.0	10	J, M	15/16
CT1-F025	600	4.0	25	J, M	1 3/32
CT1-F042	600	5.0	42	J, M	1 3/8
CT1-F075	600	6.0	75	J, M	1 5/8
CT1-F099	600	7.5	99	J, M	1 29/32
CT1-G009	700	4.0	9	J, M	1
CT1-G023	700	4.5	23	J, M	1 1/4
CT1-G042	700	5.5	42	J, M	1 3/4
CT1-G075	700	6.5	75	J, M	2

*J=250 cycle rotational life—M=10,000 cycle rotational life

†For dimensional drawings refer to military specifications MIL-C-92

Suffix "J" or "M" to be added to type designation.

CT14 1" shaft, CT15 1½" shaft

PRICES ON REQUEST

SPECIAL VARIABLE CAPACITORS FOR ALL NEEDS

AVAILABLE MODIFICATIONS

Hammarlund's more than 50 years experience in the development and manufacture of capacitors has resulted in an endless knowledge of techniques. Such "know-how" includes the making of special capacitors using standard techniques and/or components, or giving birth to a completely new custom product—from concept through to production.

An example of this extended knowledge is the fact that Hammarlund now manufactures over 750 different types of APC capacitors. These capacitors came into being as a result of the many modifications required by our customers for their specific applications. Any standard capacitor listed in this catalog can be modified to customer requirements. Such variations include end-panels, shaft diameter and lengths, bearings, special materials and finishes, special air gaps on most units, etc.

Custom made precision units to suit all electrcial and environmental specifications can be fabricated on special order. The combinations are endless.

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JFD THE VARIABLE TRIMMER PISTON CAPACITORS, LC TUNERS AND METALIZED INDUCTORS

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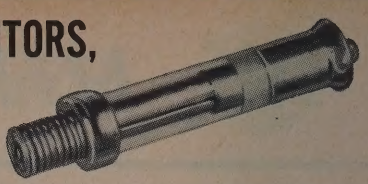

model	type mount	capacitance range mmf measured per JFD #5177 min.	max.	D.C. working volts	dielectric strength measured at max. rated cap.	Insulation resistance 500 V D C.	Q factor measured per JFD #5178	temp. coeff. of capacitance P.P.M./°C 25° to 125°C	material (dielectric-piston)	length (front of panel)
STANDARD PANEL MOUNT, GLASS AND QUARTZ										
VC1G	Panel	0.7	9.0	1500	2500 VDC	10^6 Meg. Min.	500	—60 to +10	Glass - Invar	21/32
VC4G	Panel	0.8	18.0	1000	1500 VDC	10^6 Meg. Min.	500	+350 to +450	Glass - Brass	1
VC5G	Panel	0.8	18.0	1000	1500 VDC	10^6 Meg. Min.	500	—20 to +40	Glass - Invar	1
VC11G	Panel	0.6	14.0	1000	1500 VDC	10^6 Meg. Min.	500	—30 to +40	Glass - Invar	1
VC11GRA	Panel	0.6	14.0	1000	1500 VDC	10^6 Meg. Min.	500	—40 to +50	Glass - Invar	1
VC11GRB	Panel	0.6	14.0	1000	1500 VDC	10^6 Meg. Min.	500	+450 to +600	Glass - Brass	1
VC11GRC	Panel	0.8	18.0	1000	1500 VDC	10^6 Meg. Min.	500	+20 to +100	Glass - Invar	1
VC30G	Panel	0.8	30.0	1000	1500 VDC	10^6 Meg. Min.	500	—10 to +50	Glass - Invar	1 19/32
VC2	Panel	0.7	4.5	1000	1500 VDC	10^6 Meg. Min.	2000	Approx. Zero	Quartz - Invar	7/16
VC5	Panel	0.6	6.0	1000	1500 VDC	10^6 Meg. Min.	2000	Approx. Zero	Quartz - Invar.	5/8
VC11	Panel	0.8	10.0	1000	1500 VDC	10^6 Meg. Min.	2000	Approx. Zero	Quartz - Invar	1
VC11A	Panel	1.0	10.0	1000	2000 VDC	10^6 Meg. Min.	2000	Approx. Zero	Quartz - Invar	1 1/32
VC12	Panel	9.0	21.0	1000	1500 VDC	10^6 Meg. Min.	2000	Approx. Zero	Quartz - Invar	1 19/32
VC99	Panel	0.8	10.0	3000	5000 VDC	10^6 Meg. Min.	2000	Approx. Zero	Quartz - Invar	1 7/32
SPLIT BUSHING SERIES PANEL MOUNT, PRINTED CIRCUIT, GLASS AND QUARTZ										
VC3G	Panel	0.7	9.0	1500	2500 VDC	10^6 Meg. Min.	650	+350 to +500	Glass - Brass	21/32
VC3GI	Panel	0.7	9.0	1500	2500 VDC	10^6 Meg. Min.	650	+0 to —150	Glass - Invar	21/32.
VC6GA	Panel	0.7	17.0	1000	1500 VDC	10^6 Meg. Min.	750	+400 to +600	Glass - Brass	1 1/32
VC6GC	Panel	0.8	17.0	1000	1500 VDC	10^6 Meg. Min.	650	—100 to +100	Glass - Invar	1 1/32
VC6GI	Panel	0.8	17.0	1000	1500 VDC	10^6 Meg. Min.	600	—100 to +100	Glass - Invar	1 1/32
VC7G	Panel	2.0	30.0	1000	1500 VDC	10^6 Meg. Min.	600	—100 to +100	Glass - Invar	1 5/8
VC13GA	Panel	0.8	13.0	3000	5000 VDC	10^6 Meg. Min.	500	+225 to +375	Glass - Ph. Bronze	1 1/4
VC50C	Panel	5.0	50.0	1250	2500 VDC	10^5 Meg. Min.	450	+250 to +450	Ceram Ph Bronze	1
VC801GW	Prt. Ct.	0.8	4.5	1000	1500 VDC	10^6 Meg.	500	—55 to +125	Glass - Invar	33/64
VC803GW	Prt. Ct.	0.8	8.5	1000	1500 VDC	10^6 Meg.	500	—55 to +125	Glass - Invar	25/32
VC804GW	Prt. Ct.	0.8	12.0	1000	1500 VDC	10^6 Meg.	500	—55 to +125	Glass - Invar	31/32
VC806GW	Prt. Ct.	0.8	18.0	1000	1500 VDC	10^6 Meg.	500	—55 to +125	Glass - Invar	1 7/32
VC809GW	Prt. Ct.	0.8	30.0	1000	1500 VDC	10^6 Meg.	500	—55 to +125	Glass - Invar	1 13/16
VC811QW	Prt. Ct.	0.6	1.8	1000	1500 VDC	10^6 Meg.	2000	—55 to +150	Quartz - Invar	33/64
VC813QW	Prt. Ct.	0.6	5.0	1000	1500 VDC	10^6 Meg.	2000	—55 to +150	Quartz - Invar	3/4
VC816QW	Prt. Ct.	0.6	9.5	1000	1500 VDC	10^6 Meg.	2000	—55 to +150	Quartz - Invar	1 7/32
VC819QW	Prt. Ct.	0.6	16.0	1000	1500 VDC	10^6 Meg.	2000	—55 to +150	Quartz - Invar	1 13/16
MINIATURE PANEL MOUNT, PRINTED CIRCUIT, GLASS AND QUARTZ										
VC20G * VC9G, VC9GW	Prt. Ct.	0.8	8.5	1000	1500 VDC	10^6 Meg. Min.	500	±50	Glass - Invar	9/16
VC21G* VC10G, VC10GW	Prt. Ct.	0.8	4.5	1000	1500 VDC	10^6 Meg. Min.	500	±50	Glass - Invar	5/16
VC22G*	Panel	0.7	12.0	1000	1500 VDC	10^6 Meg. Min.	500	±75	Glass - Invar	49/64
VC23G* VC32G,VC32GW	Prt. Ct.	0.8	18.0	1000	1500 VDC	10^6 Meg. Min.	500	±100	Glass - Invar	1
VC24G *	Panel	1.0	30.0	1000	1500 VDC	10^6 Meg. Min.	500	±100	Glass - Invar	1 5/8
VC31G, VC31GW	Prt. Ct.	0.8	12.0	1000	1500 VDC	10^6 Meg. Min.	500	±75	Glass - Invar	1 1/32
VC42G & VC42GW	Prt. Ct.	1.0	21.0	1000	1500 VDC	10^6 Meg. Min.	500	±100	Glass - Invar	1 1/8
VC43G, VC43GW	Prt. Ct.	0.8	30.0	1000	1500 VDC	10^6 Meg. Min.	500	±100	Glass - Invar	1 5/8
MQ101*, 111 & 121	Prt. Ct.	0.6	1.8	1000	1500 VDC	10^6 Meg. Min.	1500	Approx. Zero	Quartz - Invar	5/16
MQ103*, 113 & 123	Prt. Ct.	0.6	5.5	1000	1500 VDC	10^6 Meg. Min.	1500	Approx. Zero	Quartz - Invar	9/16
MQ106*, 116 & 126	Prt. Ct.	0.6	9.5	1000	1500 VDC	10^6 Meg. Min.	1500	Approx. Zero	Quartz - Invar	1
MQ109*, 119 & 129	Prt. Ct.	0.8	16.0	1000	1500 VDC	10^6 Meg. Min.	1500	Approx. Zero	Quartz - Invar	1 5/8

* Panel Mount

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Components Division

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FIXED AND VARIABLE DISTRIBUTED AND LUMPED CONSTANT DELAY LINES • PULSE FORMING NETWORKS

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JFD

model	type mount	capacitance range mmf measured per JFD #5177 min.	max.	D.C. working volts	dielectric strength measured at max. rated cap.	insulation resistance 500 VDC	Q factor measured per JFD #5178	temp. coeff. of capacitance P.P.M./°C 25° to 125°C	material (dielectric-piston)	length (front of panel)
SEALCAP MINIATURE PANEL MOUNT, PRINTED CIRCUIT, GLASS AND QUARTZ										
SC131*, 141 & 151	Prt. Ct.	0.8	4.5	750	1500 VDC	2x10^6 Meg.	500	±50	Glass - Invar	13/32†
SC133*, 143 & 153	Prt. Ct.	0.8	8.5	1250	2500 VDC	10x10^6 Meg.	500	±50	Glass - Invar	21/32†
SC134*	Prt. Ct.	0.7	12.0	1250	2500 VDC	10x10^6 Meg.	500	±75	Glass - Invar	7/8
SC144 & 154	Prt. Ct.	0.8	12.0	1250	2500 VDC	10x10^6 Meg.	500	±75	Glass - Invar	1.053
SC136*, 146 & 156	Prt. Ct.	0.8	18.0	1250	2500 VDC	10x10^6 Meg.	500	±100	Glass - Invar	1 3/32†
SC139*	Prt. Ct.	1.0	30.0	1250	2500 VDC	10x10^6 Meg.	500	±100	Glass - Invar	1 3/4
SC149 & 159	Prt. Ct.	0.8	30.0	1250	2500 VDC	10x10^6 Meg.	500	±100	Glass - Invar	1.928
QS171*, 181 & 191	Prt. Ct.	0.6	1.8	1000	1500 VDC	2x10^6 Meg.	1500	Approx. Zero	Quartz - Invar	13/32†
QS173*, 183 & 193	Prt. Ct.	0.6	5.5	1250	2500 VDC	10x10^6 Meg.	1500	Approx. Zero	Quartz - Invar	21/32†
QS176*, 186 & 196	Prt. Ct.	0.6	9.5	1250	2500 VDC	10x10^6 Meg.	1500	Approx. Zero	Quartz - Invar	1 3/32†
QS179*, 189 & 199	Prt. Ct.	0.8	16.0	1250	2500 VDC	10x10^6 Meg.	1500	Approx. Zero	Quartz - Invar	1 3/4†
STANDARD SPLIT-STATOR PANEL MOUNT, GLASS AND QUARTZ										
VC16G	Panel	(A) 0.5 (B) 0.8	5.0 2.5	500	1000 VDC	10^4 Meg.	700	±50	Glass - Invar	11/16
VC17G	Panel	(A) 0.6 (B) 1.1	8.5 4.5	500	1000 VDC	10^4 Meg.	700	±50	Glass - Invar	1 1/32
VC18G	Panel	(A) 0.7 (B) 1.8	14.0 7.5	500	1000 VDC	10^4 Meg.	700	±50	Glass - Invar	1 15/32
VC80	Panel	(A) 0.3 (B) 0.4	2.0 1.0	1000	1500 VDC	10^4 Meg.	1000	Approx. Zero	Quartz - Invar	17/32
VC81	Panel	(A) 0.4 (B) 0.6	3.2 1.6	1000	1500 VDC	10^4 Meg.	1000	Approx. Zero	Quartz - Invar	5/8
VC82	Panel	(A) 0.5 (B) 0.85	5.5 2.8	1000	1500 VDC	10^4 Meg.	1000	Approx. Zero	Quartz - Invar	1 1/32
VC83	Panel	(A) 4.8 (B) 3.0	11.0 6.0	1000	1500 VDC	10^4 Meg.	1000	Approx. Zero	Quartz - Invar	1 3/16
HI-LIFE NVC20G MINIATURE PANEL MOUNT SERIES (May be used to replace VC20G series)										
NVC20G*, NSC133* (Sealcap)	Panel	0.8	8.5	750	1500 VDC	10^6 Meg.	500	±50	Glass-Invar	9/16
NVC21G*, NSC131* (Sealcap)	Panel	0.8	4.5	750	1500 VDC	10^6 Meg.	500	±50	Glass-Invar	5/16
NVC22G*, NSC134* (Sealcap)	Panel	0.7	12.0	750	1500 VDC	10^6 Meg.	500	±75	Glass-Invar	49/64
NVC23G*, NSC134* (Sealcap)	Panel	0.8	18.0	750	1500 VDC	10^6 Meg.	500	±100	Glass-Invar	1
NVC24G*, NSC139* (Sealcap)	Panel	1.0	30.0	750	1500 VDC	10^6 Meg.	500	±100	Glass-Invar	1 5/8
†Other NVC, NMQ and NQS Hi-Life models are also available. All Hi-Life units can be used to replace other corresponding JFD trimmer capacitors without "N" prefix. All are fully described in JFD catalog C-63.										
MINIATURE SPLIT-STATOR SEALCAP SERIES										
SPS226G*, 236G & 246G	Prt. Ct.	(A) 0.8 (B) 0.8	4.2 2.0	750	1500 VDC	10^5 Meg.	500	±50	Glass - Invar	11/16†
SPS227G*, 237G & 247G	Prt. Ct.	(A) 0.8 (B) 1.5	9.0 4.5	750	1500 VDC	10^5 Meg.	500	±100	Glass - Invar	1 1/8†
SPS228G*, 238G & 248G	Prt. Ct.	(A) 1.0 (B) 2.0	14.0 7.0	750	1500 VDC	10^5 Meg.	500	±100	Glass - Invar	1 25/32†
SUPER MAX-C SEALCAP SERIES, STANDARD PANEL MOUNT, PRINTED CIRCUIT, GLASS AND QUARTZ**										
MCD641, MCD661**	Prt. Ct.	1.0	14.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass-Invar	11/16†
MCD643, MCD663**	Prt. Ct.	1.0	28.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass-Invar	59/64†
MCD644, MCD664**	Prt. Ct.	1.0	42.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass-Invar	1 7/64†
MCD646, MCD666**	Prt. Ct.	1.0	60.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass-Invar	1 13/32†
MCD649, MCD669**	Prt. Ct.	1.0	90.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass-Invar	1 61/64†
MINIATURE DIFERENTIAL SEALCAP SERIES										
DS441*, 451 & 461	Prt. Ct.	(1) 0.7 (2) 2.0	3.0 3.0	500	1000 VDC	10^4 Meg.	500	±100	Glass - Invar	7/16†
DS443*, 453 & 463	Prt. Ct.	(1) 0.8 (2) 2.5	8.0 8.5	500	1000 VDC	10^4 Meg.	500	±100	Glass - Invar	43/64†
DS444*, 454 & 464	Prt. Ct.	(1) 0.8 (2) 3.0	12.0 12.0	500	1000 VDC	10^4 Meg.	500	±100	Glass - Invar	7/8†
DS446*, 456 & 466	Prt. Ct.	(1) 0.9 (2) 3.0	16.0 16.0	500	1000 VDC	10^4 Meg.	500	±100	Glass - Invar	1 1/16†
DS449*, 459 & 469	Prt. Ct.	(1) 1.0 (2) 4.0	28.0 28.0	500	1000 VDC	10^4 Meg.	500	±100	Glass - Invar	1 3/16†
MAX-C SEALCAP SERIES										
MC601*, 611 & 621	Prt. Ct.	1.0	14.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass - Invar	29/64†
MC603*, 613 & 623	Prt. Ct.	1.0	28.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass - Invar	11/16†
MC604*, 614 & 624	Prt. Ct.	1.0	42.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass - Invar	29/32†
MC606*, 616 & 626	Prt. Ct.	1.0	60.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass - Invar	1 5/32†
MC609*, 619 & 629	Prt. Ct.	1.0	90.0	1000	2000 VDC	10^6 Meg.	500	±50	Glass - Invar	1 3/4†

LC TUNERS*	self-resonating frequency (MC)		nominal induct (microhenries)		nominal capacitance (MME)		Q factor	operating temperature °C	material	length (front of panel)
LC303* ,313 ,323 & 333**	400 MIN	725 MAX	.0248 MIN	.0277 MAX	.54 MIN	6.56 MAX	170-200	—55 to +125	Glass - Invar	43/64
LC304* ,314 ,324 & 334**	275 MIN	550 MAX	.0367 MIN	.0396 MAX	.85 MIN	11.66 MAX	150-175	—55 to +125	Glass - Invar	57/64
LC306* ,316 ,326 & 336**	200 MIN	500 MAX	.0507 MIN	.0544 MAX	.86 MIN	20.19 MAX	135-170	—55 to +125	Glass - Invar	1 9/64
LC309* ,319 ,329 & 339**	125 MIN	375 MAX	.048 MIN	.0798 MAX	.88 MIN	24.49 MAX	145-155	—55 to +125	Glass - Invar	1 47/64

FIXED METALIZED INDUCTORS FOR PANEL MOUNT OR PRINTED CIRCUIT MOUNT

23 values available off the shelf from 0.05µh-Q factor up to 180. High stability over wide operating temperature. Write for our catalog.

Standard panel mount   * **miniature panel mount   †Length Applicable for Panel Mount Types Only.

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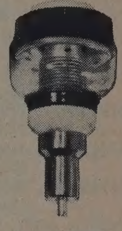
Jennings® VACUUM

Glass Vacuum Variable Capacitors

	TYPE		CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③		NOMINAL DIMENSIONS②	
	NICKEL	COPPER	PF	KILOVOLTS	NICKEL	COPPER	LENGTH	DIAMETER
2 to 5 KV		UCSL	4-250	3, 5		30	4⅛	2¼
		USL	5-250, 5-500	3, 5		40	5½	2⅜
		USLS	5-465 shorting	3, 5		40	5⅝	2⅜
		USL	10-1000	3, 5		40	5	3⅛
		UCSL	5-750, 7-1000	3, 5		42	7⅝	3⅛
		UCSL	20-2000, 50-3000	2, 3		42	8⅜	3⁹⁄₁₆
		UCSL	60-5000	2, 3		42	8¾	4⅛
7.5 to 15 KV		UCSB	5-100	7.5, 10, 15		40	4⅞	2⅜
		UCSV	8-110, 125-250	7.5, 10, 15		40	5¼	2⅞
		ATCS	10-150, 15-200	7.5, 10, 15		20	7	3⅛
		UCS	5-200, 10-300	7.5, 10, 15		42	8¾	2⅝
		UCS	10-400, 25-500	7.5, 10, 15		42	9	3⅛
		UCSF	5-250, 12-500	7.5, 10, 15		45	7¾	3⅝
		UCSX	25-700, 25-1000	7.5, 10, 15		45	9⅞	3¾
		UCSXF	12-1000, 15-1200	7.5, 10, 15		45	10	4⅜
		UCSXF	20-1500, 50-2000	7.5, 10, 12		45	10	5⅛
10 to 20 KV		ECS	2-8, 3-30	10, 15		20	4	1⅜
	T	TC	5-25	20	10.5	20	6⅝	2¼
	AT	ATC	10-50, 15-75	20, 30	10.5	20	6⅞	3⅛
	U	UC	50-250	10, 15, 20	21	60	11½	5
	UX	UXC	25-500	10, 15, 20	21	60	14	5
		UXCF	10-250, 20-500	10, 15, 20		45	9⅞	4⅜
	VMM	VMMC	50-1000, 100-2000	10, 15	35	125	15⅞	6⅛
		VMMC	100-5000	7.5, 10, 15		125	19	9¼
35 to 60 KV		UCSVH	8-35	25, 35		40	4¾	3
	UH	UHC	10-75, 75-150	35, 45, 55, 60	21	60	12	5
		UXHC	25-150	35, 45, 55	21	60	14⅝	5
		UCSXH	10-200	35, 45		45	10	4½
		UCSXHF	25-450	35, 40		60	10½	5⅛
		VMMHC	10-250, 25-450, 30-650	35, 45, 55		125	17	8⅛
		VMMHCW	25-250, 50-400	35, 45, 55		500	17	9⅝
		VMMHC	60-1000	35, 40, 45		125	19⅜	9¼
120 KV		VMMHHC	25-200	120		125	20¼	9¼

Type GCS
5-100 PF
15 kv

Type UCSL
7-1000 PF
5 kv



Type UCSXF
50-2000 PF
12 kv

Ceramic Vacuum Variable Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③	NOMINAL DIMENSIONS②	
	COPPER	PF	KILOVOLTS	COPPER	LENGTH	DIAMETER
2 to 5 kv	CVCA	75	3, 5	25	4²¹⁄₆₄	1⁵⁄₁₆
	CVCA	250	3, 5	35	4½	2⅜
	CVCA	500	3, 5	35	5⅜	2⅜
	CVCA	750	3, 5	45	5¼	3⅜
	CVCA	1000, 1500	3, 5	50	5⅜	3⅜
	CVCA	2000	3, 5	50	5⅞	3⅜
	CVCB	3000	3, 5	50	7³¹⁄₃₂	4½
7.5 to 20 kv	CVDA	20	10, 15	25	4⁵⁄₆₄	1⁵⁄₁₆
	CVDA	50	7.5, 10, 15	35	3³¹⁄₃₂	2⅜
	CVDA	100	7.5, 10, 15	45	5⁹⁄₃₂	2⅜
	CVDA	300	7.5, 10, 15	45	5¹¹⁄₁₆	3⅜
	CVDA	400	7.5, 10, 15	50	6⅛	3⅜
	CVDA	500	7.5, 10, 15	50	6⅜	3⅜
	CVDA	1000	7.5, 10, 15	50	8	4½
	CVDA	1500	7.5, 10, 15	55	8¾	5½
	CVDA	2300	7.5, 10, 15	55	9⅜	5½
	CVEA	500	10, 15, 20	125	9⅜	5½
	CVEA	1000	10, 15, 20	130	8¹⁵⁄₁₆	7
	CVEA	1500	10, 15, 20	135	9¹⁷⁄₃₂	7
	CVEA	2000	10, 15	135	10¹⁄₃₂	7
30 to 55 kv	CVFA	250	30, 35, 40	90	8¾	5½
	CVFA	450	30, 35, 40	100	9⅜	5½
	CVFA	1000	30, 35, 40	125	10¹³⁄₁₆	7
	CVHA	250	35, 45, 55	135	9²⁵⁄₃₂	7
	CVHA	450	35, 45, 55	135	10⁹⁄₃₂	7
	CVHA	650	35, 45, 55	135	10²⁵⁄₃₂	7

Type CVDA
20-400 PF
15 kv

Type CVFA
35-1000 PF
40 kv

① Current ratings can usually be increased by 50% with proper forced air cooling, and up to 400% with water cooling.

② Nominal dimensions are for the largest unit of each type.

③ Voltage and current limitations are dependent upon capacity and frequency. Specific voltage and current information at all frequencies is available upon request.

NOTE: A series of adjustable capacitors is available to cover the range of 8 to 1000 pf at 10 kv.

Jennings application engineers are available to discuss special application problems. If necessary we will run special tests in the Jennings Radio Frequency Testing Laboratory, where equipment is available with frequencies up to 600 mc, and power ratings up to 100 kw.

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CAPACITORS

Glass Vacuum Fixed Capacitors

	TYPE		CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③		NOMINAL DIMENSIONS②	
	NICKEL	COPPER	PF	KILOVOLTS	NICKEL	COPPER	LENGTH	DIAMETER
2 to 5 KV		JCSL	100, 250	3, 5		35	2⅝	1⅞
		JSLF	250, 450	3, 5		30	1¾	1⅞
		JSLF	750, 1000, 1500, 2000	3, 5		30	1⅝	3⅛
		JSLF	5000	3, 5		100	3	4⅛
		JCSL	500, 750, 1000, 1500, 2000	3, 5		42	4	2⅞
7.5 to 15 KV		JCSF	25, 40, 80, 120, 150	7.5, 10, 15		30	1⅝	1⅝
		JCS2	10, 20, 25, 50, 75, 100, 150	7.5, 10, 15		20	3⅛	1⅞
		JCS1	25, 50, 75, 100, 150	7.5, 10, 15		50	3¾	2⅛
		JCS	250, 400, 500	7.5, 10, 15		42	4	3⅛
		JCS	900, 1000	7.5, 10, 12		42	4⅝	3⅝
		MC1	500, 750, 1000	10, 15		75	4⅛	4⅛
	M	MC	500, 750, 1000	10, 15, 20	21	120	8⅜	5
	MM	MMC	1500, 2000	10, 15	35	125	9¼	6⅛
		MMC1	2000	10, 15		125	5	6⅛
		MMC	3000, 4000, 5000	10, 15		125	13	9¼
17 to 30 KV	Y		1, 2, 3, 4, 5	17	7		3¼	¾
	X		5, 10, 15, 20, 25	17	7		3¼	1⅛
	W		6, 12, 25, 50, 100	20, 25	10.5		4⅝	2¼
		VCCA	6, 12, 25, 50, 75, 100, 150	20, 30		60	4½	2⅜
	VC	VCCE	6, 12, 25, 50, 75, 100, 150	20, 30, 35	14	60	6½	2⅝
	VC	VCCE	200, 250	20, 30, 35	14	60	6½	2⅝
		JMF	50, 75, 100	20, 30		40	2¾	2⅛
		JC2	25, 50, 75, 100	20, 30		42	4	3¼
	ML	MLC	500, 750, 1000	25, 30	21	125	9¼	5
35 to 60 KV		JHC	75	50, 60		42	4	3½
		JC3	20, 40, 50, 60	35, 45, 55, 60		④140	8¼	3½
		JC4	75, 100, 125	35, 45, 55, 60		④175	9¼	5
		JC5	200	35, 45, 55, 60		④225	11¼	7
		MMHC	450	35, 45, 55		125	9¼	6⅛
		MMHC	1000	35, 40, 45		150	13	9¼

Type JCSF
150 mmfd
15 kv

Type JCSL
1500 mmfd
5 kv

Type MMC
2000 mmfd
15 kv

Ceramic Vacuum Fixed Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE③	CONTINUOUS RMS AMPERES①③	NOMINAL DIMENSIONS②	
	COPPER	PF	KILOVOLTS	COPPER	LENGTH	DIAMETER
3 to 5 KV	CFCA	250, 500	3, 5	35	1¾	2⅜
	CFCA	750	3, 5	40	1¾	2⅜
	CFCA	1000	3, 5	40	1⅞	3⅜
	CFCA	1500, 2000	3, 5	45	1⅞	3⅜
20 to 30 KV	CFEA	50	20, 25, 30	60	3¹⁄₁₆	1⁵⁄₁₆
	CFEA	75	20, 25, 30	60	3⁵⁄₁₆	2⅜
	CFEA	100, 150	20, 25, 30	75	3⁵⁄₁₆	2⅜
	CFEA	200	20, 25, 30	80	3⁵⁄₁₆	2⅜
	CFEA	300	20, 25, 30	100	3⁵⁄₁₆	3⅜
	CFEA	500, 750	10, 15, 20, 25	125	3³⁄₁₆	4½
	CFEA	1000	10, 15, 20, 25	130	3⁷⁄₁₆	4½
35 to 60 KV	CFHA	50, 60	45, 50, 60	60	4⅛	2⅜
	CFHA	80, 100	45, 50, 60	100	4¼	3⅜
	CFHA	200	45, 50, 60	150	4½	4½
	CFHA	450	35, 45, 55	150	5¹⁄₁₆	5½
	CFHA	1000	35, 45, 50	200	6½	7

Type CFCA
250

Type CFHA
450

① Current ratings can usually be increased by 50% with proper forced air cooling, and up to 400% with water cooling.

② Nominal dimensions are for the largest unit of each type.

③ Voltage and current limitations are dependent upon capacity and frequency. Specific voltage and current information at all frequencies is available upon request.

④ Forced air cooling.

High Voltage Measuring Equipment

MODEL JP 325 HIGH VOLTAGE PROBE

VOLTAGE RATINGS: 40, 50, or 60 KV peak.

VOLTAGE DIVISION RATIO: 325 to 1 to termination of 3 ft of RG-58 A U cable.

INPUT IMPEDANCE:
Resistance: above 10^{12} ohms.
Capacitance: 4 mmfd.

FREQUENCY RESPONSE: High frequency limited by that of measuring instrument. (Internal resonances are above 200 mc.) Low frequency response is 100 cps if operating into 10 megohm shunt resistance; 1000 cps if operating into 1 megohm shunt resistance.

MODEL J-1003 HIGH VOLTAGE VACUUM TUBE VOLTMETER for use in pulse, rf and 60 cycle circuits at voltages up to 100 KV.

VOLTAGE RANGES (peak volts full Scale):
Single Ended: 2.5, 5, 10, 25, 50 KV.
Double Ended: 2.5, 5, 10, 25, 50, 100 KV.
(By using Type JCD Series capacitor, these ranges can be more than doubled.)

OSCILLOSCOPE CONNECTION: 300 to 1 division ratio.

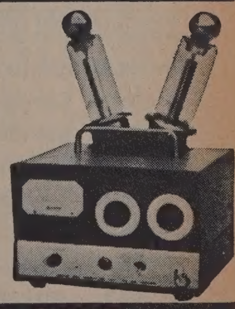
FREQUENCY RESPONSE: 10 cycles to 20 megacycles at full rated voltage and up to 50 megacycles for lower voltages with low harmonic content.

INPUT IMPEDANCE: 10^{12} ohms and 4 mmfd.

CALIBRATION ACCURACY: — 3% of full scale.

POWER SUPPLY: 117 volt, 50, 60 cy.

DIMENSIONS: 16¼″ v 11″ x 9″



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MALLORY Capacitors

P. R. MALLORY & CO. Inc.

FP-WP AND PFP-PWP METAL CAN ELECTROLYTIC CAPACITORS

FP-WP capacitors are manufactured to the most rigid quality standards. They are designed for extremely long-life service at 85° C. All are designed with "etched cathodes" for hum-free operation and feature exclusive vent and seal construction. FP-WP types have standard twist-prongs, PFP-PWP fit exactly into EIA standard printed circuit boards. FPS is special mounting used in Delco auto radios. "A" suffix indicates new reduced can size. All PFP-PWP types may be used in standard twist-prong mounting while FP-WP types may be quickly adapted to printed circuit mounting by using the FPA Adapter Kit (Net Each, **27c**). All cases are at negative potential. For circuits requiring "above ground" isolation, specify BP Bakelite# plates when ordering. See complete capacitor hardware listing on another page. ***SIZES are shown at end of listing.**
#Registered Bakelite Corp. trademark.

FP-WP AND PFP-PWP—SINGLES

Mallory No.	Cap., µf	WV DC	*	Net Each
WP510	.5Z/ 15750†	3NP	b	**$1.32**
WP540	1.0Z/ 60†	3NP	h	**2.40**
WP505	10Z/ 30†	3NP	a	**1.20**
PWP030A	750	6	o	**1.29**
PWP031A	2500	10	c	**2.84**
WP035	225	15	a	**1.05**
PWP036A	400	15	o	**1.16**
WP039A	1000	15	l	**1.53**
WP041A	2000	15	f	**2.07**
WP042A	3000	15	f	**2.10**
WP052	40	25	a	**.81**
WP055A	100	25	l	**.96**
PWP056	400	25	b	**1.44**
WP057A	500	25	l	**1.53**
WP059	1000	25	f	**2.13**
PWP060	1500	25	d	**2.57**

Mallory No.	Cap., µf	WV DC	*	Net Each
WP063	4	50	a	**$0.75**
WP064A	100	50	l	**.99**
PWP 063.9A	100	50	o	**1.04**
WP064.2A	150	50	l	**1.08**
WP065	500	50	f	**1.59**
WP066A	500	50	c	**1.59**
PWP067A	1250	50	g	**2.90**
WP068	1500	50	h	**2.31**
FP113	30	150	a	**.93**
FP115A	50	150	l	**.99**
FP116A	100	150	l	**1.20**
FP116.5A	120	150	b	**1.23**
FP116.6	120	150	f	**1.23**
PFP116.8A	140	150	b	**1.44**
FP117A	150	150	b	**1.29**
FP117.5	150	150	f	**1.29**
FP118A	200	150	f	**1.47**
FP119A	300	150	f	**1.68**

Mallory No.	Cap., µf	WV DC	*	Net Each
FP121	120	200	f	**$1.41**
FP122A	125	200	b	**1.47**
PFP122	160	200	g	**1.91**
WP123A	500	200	h	**2.19**
FP125	15	250	a	**.93**
WP125.5A	140	250	c	**1.74**
WP125.9A	150	250	c	**1.71**
FP128A	80	300	c	**1.53**
FP129.1A	100	300	c	**1.74**
WP131.5	160	300	g	**2.31**
WP132	200	300	g	**2.58**
FP135A	30	350	l	**1.14**
FP137A	50	350	b	**1.26**
FP137.2A	60	350	c	**1.32**
FP138A	80	350	f	**1.71**
FP140A	125	350	g	**2.37**
FP140.5A	140	350	g	**2.34**
FP140.6A	150	350	g	**2.55**
FP141	320	350	i	**4.05**

Mallory No.	Cap., µf	WV DC	*	Net Each
FP142	10	450	a	**$0.93**
FP143A	15	450	l	**1.02**
FP144	20	450	b	**1.08**
PFP144	20	450	b	**1.29**
FP145	30	450	c	**1.17**
FP146	40	450	c	**1.23**
FP148	60	450	g	**1.68**
FP149	80	450	g	**1.83**
FP150	100	450	h	**2.07**
FP155	125	450	j	**2.76**
FP171A	10	500	l	**.96**
FP173	20	500	b	**1.11**
FP175	30	500	c	**1.20**
FP176	40	500	f	**1.50**
FP177	40	500	d	**1.50**
PFP176.5	40	500	d	**1.74**
FP187	90	500	h	**2.10**

FP-WP AND PFP-PWP—DUALS

Mallory No.	Capacity, µf	WVDC	*	Net Each
WP204	250-1000	10-6	f	**$1.71**
WP205	.5Z-2.5Z/ 15750†-60†	12-6	i	**2.16**
WP200	1000-1000	15-15	f	**2.64**
WP200.1A	1000-1000	15-15	c	**2.64**
PWP200.13	1000-1000	16-10	c	**2.77**
WP200.23	1500-1000	16-10	f	**2.55**
WP200.6	500-500	16-16	b	**1.95**
PFP200.45	700-200	16-16	b	**2.09**
WP200.18	800-200	16-16	b	**1.68**
WP200.21A	1000-500	16-16	b	**2.28**
PWP200.3A	250-250	20-20	l	**1.69**
WP200.5A	500-100	20-20	l	**1.65**
PWP200.6	500-100	20-20	b	**1.79**
PFP200.7	500-100	20-20	b	**1.80**
WP200.7A	500-200	20-20	l	**1.80**
PWP200.4	800-250	20-20	c	**2.25**
WP200.2A	1000-2000	25-15	g	**3.87**
WP201.1A	40-40	25-25	l	**.93**
PWP201.13	400-200	25-25	b	**1.79**
PWP201.15	1000-1000	25-25	g	**3.48**
PWP201.3	1500-1500	25-25	h	**4.52**
WP201.5	1000-1000	35-35	g	**3.93**
WP202.1A	50-50	50-50	l	**1.02**
WP202.5A	100-100	50-50	l	**1.26**
WP205.6A	50-500	150-5	l	**1.41**
WP205.8	50-1000	150-8	b	**1.71**
WP206A	50-150	150-25	l	**1.32**
FP208A	20-20	150-150	l	**1.02**
FP211A	30-30	150-150	l	**1.11**
FP210A	40-20	150-150	l	**1.08**
FP212A	40-40	150-150	l	**1.14**
FP213A	50-30	150-150	l	**1.29**
PFP213.1A	50-30	150-150	l	**1.40**
FP214A	50-50	150-150	c	**1.56**
PFP214.3	70-30	150-150	b	**1.46**
FP214.5	75-75	150-150	f	**1.56**
FP214.6A	75-75	150-150	b	**1.38**
FP216.2A	80-40	150-150	m	**1.38**
PWP214.4A	80-40	150-150	b	**1.52**
WP216.24	80-50	150-150	b	**1.50**
PFP214.7A	100-50	150-150	b	**1.62**
FP215A	125-100	150-150	f	**2.04**
FP216.3A	200-150	150-150	f	**2.25**
FP216.4A	200-200	150-150	g	**2.40**
PFP216.4A	200-200	150-150	g	**2.59**

Mallory No.	Capacity, µf	WDVC	*	Net Each
PFP216.45	50-100	200-150	f	**$1.91**
PFP216.5A	40-20	200-200	l	**1.42**
FP216.6A	60-60	200-200	b	**1.53**
FP216.1A	200-5	200-200	f	**1.65**
PFP216.1A	200-5	200-200	f	**2.26**
FP217.865	100-100	200-300	k	**2.23**
FP216.8A	40-25	250-150	l	**1.29**
FP217A	20-20	250-250	l	**1.14**
FP221A	40-40	250-250	m	**1.50**
FP217.7A	150-150	250-250	g	**3.09**
FP217.74A	200-200	250-250	h	**3.60**
WP217.85A	35-500	300-6	m	**1.68**
FP217.86A	30-20	300-50	l	**1.14**
FP217.8A	20-60	300-250	b	**1.65**
PFP217.86	10-10	300-300	f	**1.57**
FP217.87	40-40	300-300	f	**1.77**
FP217.88	50-10	300-300	f	**1.53**
FP217.9A	75-75	300-300	g	**2.28**
FP218A	120-20	300-300	g	**2.40**
WP219	125-60	300-300	g	**2.70**
FP219.7	150-100	300-300	h	**3.11**
FP223A	5-75	350-150	m	**1.26**
FP225A	15-15	350-350	m	**1.35**
FP227A	20-20	350-350	b	**1.38**
FP227.3A	30-30	350-350	c	**1.74**
WP227.35	80-20	350-350	d	**2.10**
FP227.4A	80-20	350-350	f	**2.10**
FP227.5A	80-40	350-350	g	**2.16**
FP227.6A	80-80	350-350	h	**2.82**
FP227.7A	100-100	350-350	j	**3.69**
FP228.3	150-20	350-350	h	**2.73**
FP229A	35-100	400-50	c	**1.56**
FP229.2	40-4	400-350	d	**1.41**
FP229.25	80-4	400-350	e	**2.10**
FP229.3	75-75	400-400	i	**2.91**
FP229.4	80-60	400-400	i	**2.82**
FP229.5	120-40	400-400	i	**3.15**
WP229.52	120-120	400-400	i	**4.17**
FP229.53	40-50	450-50	d	**1.73**
FP229.55A	40-100	450-50	d	**1.68**
FP229.6	50-100	450-50	g	**1.80**
FP244	80-50	450-50	h	**2.10**
FP229.8	80-100	450-50	h	**2.25**
FP229.9A	30-200	450-150	g	**2.10**
FP230A	20-50	450-250	c	**1.68**
WP230.2	20-200	450-250	f	**2.73**

Mallory No.	Capacity, µf	WVDC	*	Net Each
FP230.3	40-10	450-300	d	**$1.56**
FP230.5	10-50	450-350	d	**1.71**
FP230.6	10-100	450-350	h	**2.40**
FP235	20-80	450-350	g	**2.19**
PFP217.11	2-20	450-400	b	**1.43**
WP230.9A	5-5	450-450	l	**1.02**
FP231	10-10	450-450	b	**1.14**
FP231.2	20-5	450-450	b	**1.46**
FP231.3	20-10	450-450	c	**1.32**
FP234A	20-20	450-450	c	**1.53**
FP237	30-30	450-450	g	**1.83**
FP238A	40-40	450-450	g	**2.07**
FP239	50-40	450-450	h	**2.19**
FP240‡	50-50	450-450	h	**2.31**
FP242A	60-20	450-450	g	**2.10**
FP242.5A	60-60	450-450	j	**2.70**
FP245	80-10	450-450	h	**2.16**
FP245.2	80-20	450-450	h	**2.34**
FP245.3A	80-30	450-450	j	**2.49**
FP247	100-40	450-450	i	**2.91**
FP248	100-60	450-450	i	**3.51**
FP250	40-80	475-200	g	**2.19**
FP252A	80-80	475-250	j	**2.79**
FP255A	20-100	475-300	g	**2.37**
FP256A	20-100	475-400	j	**2.70**
FP258	15-15	475-475	c	**1.41**
FP259	30-10	475-475	d	**1.56**
FP260A	40-10	475-475	g	**1.86**
FP262	40-40	475-475	h	**2.58**
FP263A	60-40	475-475	j	**2.73**
FP264.5	80-40	475-475	i	**3.03**
FP266	80-50	475-475	i	**3.12**
WP272	10-100	500-50	b	**1.38**
FP277	60-80	500-150	h	**2.25**
FP280	40-50	500-200	g	**1.98**
FP282A	10-10	500-500	b	**1.17**
FP282.5	20-20	500-500	f	**2.09**
FP283	30-10	500-500	f	**1.56**
FP284	30-30	500-500	g	**1.95**
PFP284.1A	30-30	500-500	g	**2.52**
FP288	40-40	500-500	h	**2.58**
FP290	60-40	500-500	j	**2.73**

‡Recommended for photoflash applications. Can is ungrounded. †Cycles.

FP-WP AND PFP-PWP—TRIPLES

Mallory No.	Capacity, µf	Working Volts DC	*	Net Each
WP300.15A	200-200-30	10-10-10	l	**$1.35**
WP300.6A	850-400-2.2	16-16-11.5 rms	b	**2.97**
WP300.7A	850-400-4	16-16-11.5 rms	b	**2.97**
FPS300.75	850-400-4	16-16-11.5 rms	c	**3.00**
FP300.76	850-400-8	16-16-11.5 rms	c	**2.57**
FP300.77	850-400-12	16-16-11.5 rms	c	**2.57**
FPS300.78	850-400-12	16-16-11.5 rms	c	**2.74**
WP300.88	1000-400-4	16-16-11.5 rms	c	**2.16**
WP300.89	1000-400-4	16-16-11.5 rms	f	**2.58**
WP300.9	1000-500-4	16-16-11.5 rms	c	**3.12**

Mallory No.	Capacity, µf	Working Volts DC	*	Net Each
PWP300.3A	250-250-50	16-16-16	l	**$1.87**
PWP300.4A	250-250-500	16-16-16	b	**2.34**
WP300.5	400-100-100	16-16-16	b	**1.80**
WP300.8A	500-100-100	16-16-16	m	**2.64**
WP300.85	500-500-100	16-16-16	b	**2.40**
WP300.87	700-200-100	16-16-16	b	**1.89**
WP300	1000-500-20	16-16-16	f	**2.52**
WP300.17A	500-200-5	16-16-25	m	**1.92**
WP520A	40-40-40	25-25-25	l	**1.29**
WP300.95	1000-200-200	25-25-25	f	**2.96**
WP301A	30-30-30	50-50-50	l	**1.29**
FP312A	100-50-25	150-50-25	b	**1.80**

Mallory No.	Capacity, µf	Working Volts DC	*	Net Each
WP302.1A	15-15-1200	150-150-2	m	**$1.80**
PFP302.38A	70-30-100	150-150-10	b	**1.67**
FP302.4	80-20-200	150-150-10	f	**1.71**
FP302.5A	80-60-250	150-150-10	c	**2.04**
PWP302.55A	80-60-250	150-150-10	c	**1.87**
FP302.7	80-30-300	150-150-10	f	**1.89**
PFP302.75A	90-40-400	150-150-10	c	**1.93**
FP302.8A	100-80-200	150-150-10	f	**2.16**
FP302.9	80-20-100	150-150-15	f	**1.68**
FP306A	40-20-20	150-150-25	l	**1.38**
PFP311.1A	40-20-20	150-150-25	l	**1.50**
FP307A	40-20-100	150-150-25	l	**1.50**
FP304A	40-20-200	150-150-25	m	**1.62**
FP310A	40-40-20	150-150-25	l	**1.44**
FP314A	40-40-200	150-150-25	m	**1.68**
WP308.1A	40-40-250	150-150-25	b	**1.89**

*See table of sizes on another page.

FP-WP and PFP-PWP triples continued on next page.

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FP-WP AND PFP-PWP—TRIPLES (CONTINUED)

Mallory No.	Capacity, μf	Working Volts DC	*	Net Each
FP309A	50-30-100	150-150-25	m	$1.62
FP311A	50-50-20	150-150-25	m	1.59
PFP-311.12A	70-30-20	150-150-25	b	1.63
FP311.05	80-20-200	150-150-25	b	1.76
FP311.1A	80-40-25	150-150-25	b	1.65
FP311.15A	80-40-300	150-150-25	f	2.22
FP311.2A	20-20-20	150-150-150	l	1.38
PFP311.3	30-25-20	150-150-150	b	1.52
PFP-311.63A	30-50-40	150-150-150	b	1.67
FP311.4A	40-20-20	150-150-150	l	1.44
FP311.5A	40-40-40	150-150-150	m	1.56
PFP311.51	40-60-40	150-150-150	b	1.70
FP311.55A	50-20-20	150-150-150	m	1.53
FP311.6A	50-40-10	150-150-150	m	1.53
FP311.65A	50-50-50	150-150-150	b	1.80
PFP311.53	60-60-40	150-150-150	f	2.03
FP311.66A	70-15-15	150-150-150	m	1.62
FP311.8A	70-40-40	150-150-150	b	1.74
FP311.67A	80-30-10	150-150-150	m	1.65
FP311.7	80-40-20	150-150-150	f	1.74
FP311.71	80-40-20	150-150-150	b	1.67
PWP-311.75A	80-60-20	150-150-150	c	1.78
FP311.84	120-80-20	150-150-150	c	1.90
FP311.85A	120-80-40	150-150-150	f	2.22
FP311.9A	120-120-40	150-150-150	f	2.43
FP311.95A	150-50-50	150-150-150	f	2.22
FP312.5A	200-100-60	150-150-150	g	2.73
FP312.6A	300-100-80	150-150-150	g	2.97
PWP315	80-100-40	160-160-160	d	1.42
FP312.8A	60-200-140	200-150-150	g	2.85
FP315.1	60-5-200	200-200-50	d	1.80
FP318.3A	30-20-40	200-200-150	m	1.62
FP318.5A	20-20-20	200-200-200	l	1.50
FP318.7A	30-20-20	200-200-200	m	1.62
FP318.74	40-40-20	200-200-200	f	1.77
WP318.77	60-60-40	200-200-200	f	2.16
FP318.8A	250-200-10	200-200-200	h	4.02
FP319A	80-40-50	250-150-50	f	1.98
FP360	15-20-20	250-150-150	b	1.50
WP319.6A	60-5-100	250-250-50	b	1.80
FP319.5A	90-90-20	250-250-50	f	2.76
WP319.7	60-5-50	250-250-200	f	2.13
FP319.8A	20-20-20	250-250-250	m	1.56
FP320	40-20-20	250-250-250	f	1.74
FP321A	40-20-20	250-250-250	b	1.74
FP321.5	40-40-40	250-250-250	c	1.92
FP323A	80-80-60	250-250-250	f	2.94
FP326A	100-60-20	300-150-25	f	2.52
PWP-326.16A	10-20-10	300-150-150	l	1.47
FP326.2A	20-150-80	300-150-150	f	2.37
FP326.3A	100-200-60	300-150-150	h	3.27
WP326.35A	20-100-100	300-200-50	d	1.95
FP326.4A	60-30-30	300-250-250	f	2.25
FP335A	100-60-20	300-250-250	g	2.94
FP336A	200-60-20	300-250-250	h	3.48
PFP326.4	60-10-25	300-300-25	f	2.07
FP326.5A	150-10-25	300-300-25	g	2.37
FP326.54	20-20-50	300-300-50	c	1.62
FP326.6A	100-10-60	300-300-50	f	2.43
FP326.7A	140-100-60	300-300-50	h	3.57
WP326.71A	140-100-100	300-300-50	h	3.36
FP326.74A	140-10-200	300-300-150	h	3.30
WP326.63A	30-10-20	300-300-250	b	1.71
WP326.64	60-5-20	300-300-250	c	1.83
FP326.62A	80-40-40	300-300-300	g	2.64
FP326.65A	100-60-4	300-300-300	g	2.82
FP326.67A	120-50-40	300-300-300	h	3.33
FP326.78A	140-100-20	300-300-300	j	3.45
FP326.75A	150-30-30	300-300-300	h	3.00
PWP-326.77A	150-30-100	300-300-300	j	3.55
WP326.8A	4-100-40	350-25-25	l	1.35
FP327	40-100-25	350-50-25	f	1.92
WP327.2A	20-50-100	350-100-75	c	1.98
FP327.3A	60-200-30	350-150-150	g	$2.82
FP327.35	10-150-200	350-200-75	f	2.52
FP327.4A	125-5-100	350-200-75	g	3.18
FP327.5A	10-40-40	350-200-200	b	2.58
FP327.6A	30-20-100	350-250-50	c	1.95
FP331A	30-30-20	350-300-25	c	1.89
FP327.8A	30-50-20	350-300-25	f	2.16
FP327.89A	40-40-40	350-300-300	f	2.61
WP327.896	160-120-30	350-300-300	i	3.99
PWP-327.95A	20-20-1000	350-350-15	f	2.57
FP328A	15-10-20	350-350-25	m	1.50
FP329.1A	20-4-100	350-350-25	m	1.56
FP329.5	20-20-20	350-350-25	b	1.68
FP330A	30-20-20	350-350-25	c	1.86
FP330.13A	200-10-50	350-350-25	j	3.06
FP330.15A	10-5-30	350-350-50	l	1.32
FP330.2A	10-5-150	350-350-50	m	1.62
FP330.21A	20-5-150	350-350-50	b	1.77
FP330.23	80-40-400	350-350-50	h	3.39
FP330.22A	100-20-50	350-350-50	g	2.91
FP330.244	150-4-30	350-350-50	g	2.90
FP330.25A	30-20-100	350-350-150	f	2.40
FP330.248A	70-40-50	350-350-150	g	2.64
FP330.24	125-20-20	350-350-150	h	2.85
FP330.29A	30-5-100	350-350-200	f	2.25
FP330.26A	100-60-20	350-350-200	h	3.30
FP330.27A	125-60-40	350-350-200	j	3.54
FP330.28A	100-60-100	350-350-200	j	3.36
FP330.3A	20-10-5	350-350-250	m	1.53
PFP330.4	10-10-60	350-350-300	f	2.15
FP330.5A	10-10-10	350-350-350	m	1.44
PFP300.6A	20-20-20	350-350-350	c	1.84
FP330.7A	30-20-10	350-350-350	c	1.95
PFP330.8A	40-40-40	350-350-350	g	2.64
FP330.9A	60-50-50	350-350-350	h	2.94
FP331.2	80-20-20	350-350-350	g	2.57
FP331.3A	80-60-60	350-350-350	j	3.33
FP331.6A	90-40-20	350-350-350	g	3.15
WP331.7A	100-40-5	350-350-350	g	2.82
FP331.76A	100-40-40	350-350-350	h	3.15
FP331.8A	100-60-40	350-350-350	j	3.39
FP332.4A	100-100-10	350-350-350	j	4.08
WP332.44	140-140-20	350-350-350	i	4.16
FP332.5A	40-200-60	400-200-200	j	3.33
FP332.7A	10-4-40	400-350-25	l	1.32
FP333	10-50-30	400-350-25	f	1.86
FP333.05	100-10-200	400-350-25	h	2.99
FP333.1	40-4-4	400-350-150	d	1.71
PFP333.16	40-30-20	400-350-300	g	2.44
FP333.2A	80-40-100	400-400-50	j	3.00
FP333.3A	80-40-150	400-400-50	j	3.09
FP333.15	100-20-20	400-400-50	h	2.88
FP333.5A	20-10-40	400-400-350	k	2.04
FP333.6	20-20-10	400-400-350	d	1.80
FP333.7	60-30-20	400-400-350	h	2.73
FP333.8	80-20-10	400-400-350	h	2.58
FP333.85	100-10-80	400-400-350	i	3.66
FP333.86	100-40-100	400-400-350	i	4.04
FP333.88	50-30-4	400-400-400	g	2.31
FP333.89	80-60-40	400-400-400	j	3.63
FP333.9	90-10-5	400-400-400	h	2.64
FP333.95	100-30-20	400-400-400	i	3.30
WP334.6A	20-500-500	450-25-25	g	3.21
FP342	40-40-130	450-150-50	g	2.22
FP343A	40-100-50	450-150-50	g	2.37
WP339.5A	10-50-100	450-150-75	c	1.95
FP340	20-50-100	450-150-75	f	2.04
FP341A	40-90-50	450-150-150	g	2.40
FP341.2A	10-100-200	450-200-25	k	2.04
FP341.24	10-100-100	450-200-50	d	1.94
FP341.28	10-150-100	450-200-150	g	2.55
FP341.3A	20-80-50	450-200-150	f	2.16
FP341.5A	20-60-100	450-250-25	f	2.19
FP341.6A	50-160-50	450-250-50	j	3.09
FP341.8A	10-80-80	450-250-250	g	2.61
FP342.2A	5-80-40	450-300-300	g	2.49
FP342.5	30-15-40	450-350-25	f	1.92
FP342.7	30-40-50	450-350-25	e	2.22
FP342.8	80-50-100	450-350-200	i	$3.51
FP343.1A	15-20-20	450-350-250	c	1.77
FP343.4	20-15-15	450-350-350	d	1.95
FP343.6A	20-40-10	450-350-350	f	2.10
FP343.9	10-30-150	450-400-5	d	1.80
FP344.2	60-80-20	450-400-250	i	3.27
FP344.4	4-40-40	450-400-300	g	2.22
FP344.5	10-30-40	450-400-300	g	2.19
FP345.2	10-10-20	450-450-25	b	1.44
FP345.5	15-15-40	450-450-25	c	1.65
FP345.8	20-20-20	450-450-25	c	1.83
FP345.3	40-20-20	450-450-25	g	2.10
FP346	40-40-20	450-450-25	h	2.37
FP345.4	80-10-125	450-450-25	h	2.64
FP364A	80-40-100	450-450-25	j	3.06
FP365A	10-10-40	450-450-50	b	1.47
FP366A	20-10-50	450-450-50	c	1.71
FP366.5A	30-10-150	450-450-50	f	2.10
FP367A	35-25-100	450-450-50	g	2.37
FP367.5	40-30-25	450-450-50	g	2.25
FP368A	60-40-75	450-450-50	j	2.76
FP368.3A	80-20-100	450-450-50	j	2.88
FP368.5	80-50-50	450-450-50	i	3.12
FP368.6A	30-30-125	450-450-75	g	2.70
FP368.68A	10-4-20	450-450-150	m	1.50
PFP368.9	40-30-8	450-450-150	g	2.51
FP369.1	40-40-40	450-450-150	h	2.49
FP370A	40-10-80	450-450-200	g	2.34
FP375	40-40-100	450-450-200	i	2.97
FP375.2A	15-10-120	450-450-300	h	2.70
FP375.6A	60-20-40	450-450-350	j	2.94
FP375.7	20-10-15	450-450-400	d	1.86
FP375.8	10-10-10	450-450-450	c	1.56
FP376.1	15-15-10	450-450-450	d	1.77
FP376.3	20-10-10	450-450-450	d	1.74
FP376.5	20-20-20	450-450-450	g	2.16
FP376.6	30-10-10	450-450-450	f	1.89
FP376.7	30-30-30	450-450-450	h	2.67
FP376.8	40-40-10	450-450-450	h	2.49
FP376.9	40-40-20	450-450-450	h	2.67
FP377.1	40-40-40	450-450-450	j	3.12
FP377.2A	50-40-30	450-450-450	j	2.94
FP377.4A	60-10-10	450-450-450	g	2.34
FP377.6	60-30-10	450-450-450	h	2.70
FP377.7	60-40-40	450-450-450	i	3.41
FP378	80-40-20	450-450-450	i	3.24
FP378.1	80-40-30	450-450-450	i	3.53
FP378.4	80-40-40	450-450-450	i	3.66
FP379.1A	20-50-20	450-50-25	c	1.65
FP381.1A	80-80-50	475-150-50	j	2.91
FP382.1A	40-40-100	475-250-100	g	2.46
FP384	20-20-40	475-300-25	f	1.86
FP384.12	30-100-50	475-300-50	h	2.46
FP384.14A	5-100-200	475-300-150	j	3.09
FP384.16	10-4-100	475-350-50	b	2.37
FP384.2	10-4-40	475-350-300	f	1.80
FP384.35	20-10-5	475-350-350	c	1.71
FP384.5	10-45-100	475-450-50	g	2.19
FP384.7	40-40-25	475-450-50	h	2.64
FP385A	10-40-100	475-450-200	g	2.52
FP385.5	40-80-10	475-450-450	i	3.30
FP386	10-10-5	475-475-25	c	1.47
FP387.1	10-10-150	475-475-50	d	1.80
FP388.1	25-10-20	475-475-50	d	1.77
FP389.1A	20-10-100	475-475-400	j	3.15
FP391.1A	20-20-60	475-475-450	j	2.91
FP394	10-10-10	475-475-475	d	1.62
FP396	30-30-20	475-475-475	h	2.67
FP396.2	40-10-10	475-475-475	g	2.31
FP396.1	40-20-20	475-475-475	h	2.85
FP396.12	40-30-10	475-475-475	h	2.70
FP396.14A	40-30-30	475-475-475	j	3.09
FP397	40-35-10	475-475-475	h	2.73
PFP397.5	40-40-60	500-200-50	g	2.53
PFP397.7	40-40-20	500-350-250	h	2.76
FP398	10-40-40	500-450-450	h	2.49
FP399A	20-10-100	500-500-50	d	1.95
FP399.5	40-20-20	500-500-500	h	2.85
FP399.55	40-40-20	500-500-500	j	3.42

FP-WP AND PFP-PWP—QUADS

Mallory No.	Capacity, μf	Working Volts DC	*	Net Each
WP401.5	750-600-350-4	16-16-16-11.5 rms	f	$3.24
WP401.8	750-750-350-4	16-16-16-11.5 rms	f	3.87
FP403	50-20-150-30	150-150-15-15	f	1.92
FP405	20-20-160-40	150-150-25-25	f	1.92
WP405.5	50-40-160-40	150-150-25-25	f	2.01
WP406	40-40-200-100	150-150-25-25	f	2.13
FP407	30-20-20-200	150-150-150-10	f	1.86
FP407.5	40-40-20-200	150-150-150-10	f	1.92
FP408	60-40-20-200	150-150-150-10	f	2.07
FP408.5A	80-80-10-200	150-150-150-10	f	2.34
FP408.7A	300-30-10-100	150-150-150-10	g	2.73
FP408.9	30-30-30-40	150-150-150-25	f	1.86
FP409	40-40-30-20	150-150-150-25	f	1.86
FP409.4	50-20-20-200	150-150-150-25	f	2.10
FP409.6	50-40-10-50	150-150-150-25	f	1.89
FP410A	50-50-50-20	150-150-150-25	f	2.13
FP410.3	60-40-20-20	150-150-150-25	f	1.98
FP410.7A	60-60-10-60	150-150-150-25	f	2.10
FP411A	80-40-30-100	150-150-150-25	f	2.22
FP411.3A	80-40-40-20	150-150-150-25	f	2.10
FP411.32A	80-40-40-40	150-150-150-25	f	2.16
FP411.4A	80-50-50-25	150-150-150-25	f	$2.28
FP411.5A	100-90-60-200	150-150-150-25	f	2.97
FP411.7A	125-125-40-100	150-150-150-25	f	2.91
PFP411.9A	60-60-40-10	150-150-150-150	f	2.21
FP412A	100-80-60-40	150-150-150-150	f	2.73
WP412.1A	200-200-60-30	175-175-175-175	h	3.12
WP412.15	200-200-100-10	200-200-200-200	i	3.75
FP412.2A	40-40-50-80	250-250-150-150	f	2.46
WP412.8	40-40-40-40	250-250-250-250	f	2.49
FP417A	100-40-80-20	300-50-25-25	f	2.73
FP417.2A	20-150-150-100	300-150-150-30	g	3.09
FP417.3A	10-200-140-30	300-150-150-150	g	3.06
FP417.8A	10-200-200-30	300-150-150-150	h	3.21
FP417.9A	100-60-10-20	300-200-150-50	g	2.91
FP419A	200-20-100-20	300-250-50-25	h	3.48
FP423A	40-40-40-40	300-250-250-25	f	2.64
FP419.11	60-5-50-20	300-300-50-50	f	2.16
FP418.7A	140-10-10-100	300-300-150-50	g	2.97

*See table of sizes on following page.

FP-WP and PFP-PWP Quads continued on next page.

P. R. MALLORY & CO. Inc.

MALLORY Capacitors

FP-WP AND PFP-PWP—QUADS (CONTINUED)

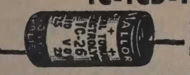
Mallory No.	Capacity, μf	WVDC	*	Net Each
FP419.4A	100-10-200-30	300-300-150-150	h	$3.54
FP419.1A	150-20-10-250	300-300-250-50	h	3.63
FP419.2A	40-30-20-50	300-300-300-25	f	2.49
FP419.7A	60-40-20-50	300-300-300-25	f	2.73
FP419.35A	60-30-10-60	300-300-300-50	f	2.52
FP419.37A	150-30-30-150	300-300-300-50	h	3.66
PFP419.42A	20-20-20-100	300-300-300-150	f	2.41
WP419.39A	80-20-20-200	300-300-300-150	h	3.12
FP419.45A	120-40-40-10	300-300-300-250	h	3.63
FP419.53A	60-40-10-10	300-300-300-300	f	2.73
FP419.55A	150-100-10-10	300-300-300-300	g	3.96
WP419.554	150-100-30-10	300-300-300-300	j	3.69
WP419.52	150-150-30-30	300-300-300-300	i	4.17
FP419.54A	200-20-20-20	300-300-300-300	j	3.87
FP419.56A	60-60-30-160	350-150-150-25	f	2.76
FP419.58A	20-60-160-40	350-200-25-25	f	2.40
FP414A	15-80-40-200	350-200-200-25	f	2.70
FP418.3A	120-20-100-20	350-250-50-25	h	3.03
WP419.585A	50-60-5-100	350-250-250-50	f	2.58
FP419.59A	160-30-30-20	350-300-300-50	j	3.54
WP419.51A	40-80-10-10	350-300-300-300	g	2.72
FP419.514	140-100-20-20	350-300-300-300	n	3.88
FP419.65A	160-60-10-4	350-300-300-300	j	3.84
FP419.6	40-10-100-25	350-350-25-25	f	2.25
FP419.62A	60-4-100-40	350-350-25-25	f	2.28
FP419.61A	100-4-50-50	350-350-50-25	g	3.03
FP419.63A	200-10-4-20	350-350-50-25	j	3.36
FP419.635A	40-40-50-50	350-350-50-50	f	2.52
FP419.64A	40-20-50-25	350-350-150-25	f	2.49
FP419.649A	40-20-100-100	350-350-200-50	f	2.70
FP419.67A	100-60-60-40	350-350-200-75	j	3.93
FP419.661	100-60-10-100	350-350-200-150	i	3.43
FP419.66A	60-40-60-20	350-350-250-150	g	3.24
FP419.68	15-15-15-15	350-350-300-25	f	2.07
FP419.8A	35-35-10-20	350-350-300-25	f	2.49
FP419.82	20-10-5-10	350-350-350-25	f	1.86
FP419.84	30-10-5-200	350-350-350-25	f	2.28
FP419.86A	40-20-5-10	350-350-350-25	f	2.28
FP419.87A	40-20-20-50	350-350-350-25	f	2.55
FP419.88A	40-30-15-30	350-350-350-25	f	2.70
FP419.3A	40-40-20-20	350-350-350-25	g	2.79
FP419.89A	100-30-10-40	350-350-350-25	g	2.94
FP419.9	15-15-15-50	350-350-350-50	f	2.25
PFP420.17A	40-20-10-100	350-350-350-50	f	2.45
FP420.15A	70-40-10-50	350-350-350-50	g	3.15
FP420.2A	50-40-40-160	350-350-350-50	h	3.45
FP420.23	100-10-10-20	350-350-350-50	h	3.09
WP420.25A	100-40-4-100	350-350-350-50	h	3.09
FP420.26A	100-40-30-50	350-350-350-50	h	3.93
FP420.273	100-100-60-100	350-350-350-50	i	4.08
FP420.276A	120-20-10-50	350-350-350-50	h	3.00
FP420.28A	140-20-10-100	350-350-350-50	h	3.63
FP420.29A	90-30-5-100	350-350-350-75	h	3.54
FP420.31A	100-80-10-20	350-350-350-150	j	3.42
FP420.32A	20-10-5-60	350-350-350-200	f	2.13
FP420.33A	30-10-5-100	350-350-350-200	f	2.64
WP420.34	40-40-40-40	350-350-350-300	h	3.00
FP420.35A	40-20-20-10	350-350-350-350	f	2.61
FP420.36A	40-40-30-20	350-350-350-350	g	2.82
FP420.38A	40-40-40-40	350-350-350-350	h	3.60
FP420.4A	80-60-40-20	350-350-350-350	j	3.84
FP420.405A	100-20-10-5	350-350-350-350	g	2.85
FP420.39A	100-40-25-25	350-350-350-350	j	4.20
FP420.41A	40-120-10-150	400-250-250-50	j	3.48
FP420.44A	30-40-50-200	400-300-250-150	j	3.60
FP420.43	80-80-100-100	400-350-25-25	i	3.78
FP420.45A	40-80-100-25	400-350-200-50	j	3.63
FP420.46A	80-40-20-20	400-350-300-300	j	3.48
FP420.47	20-50-40-80	400-350-350-50	h	3.00
FP420.5A	30-60-20-100	400-350-350-50	j	3.00
PFP420.52	40-30-20-20	400-350-350-350	h	2.80
FP420.51	20-20-50-50	400-400-15-15	f	2.04
FP420.53	20-5-20-20	400-400-25-25	f	1.83
FP420.54	80-50-25-25	400-400-25-25	h	3.21
FP420.56A	50-25-100-20	400-400-50-25	g	2.79
FP420.6A	80-40-100-20	400-400-50-25	j	3.36
FP420.7	100-10-30-20	400-400-50-50	h	3.06
FP420.8	20-10-10-25	400-400-100-25	f	1.86
WP420.9A	20-20-100-100	400-400-100-100	g	3.15
FP420.95	80-40-100-100	400-400-200-50	i	3.63
FP421A	5-5-50-80	400-400-300-250	g	2.79
FP421.2A	60-40-40-10	400-400-350-50	j	3.45
FP421.3A	100-10-20-20	400-400-350-50	j	3.27
FP421.4	30-30-15-20	400-400-400-25	h	2.58
FP421.6	80-40-30-40	400-400-400-25	i	3.57
FP421.8A	40-40-40-150	400-400-400-50	j	3.42
WP421.85	40-80-10-100	400-400-400-200	i	3.36
FP421.87	80-40-30-4	400-400-400-350	i	3.49
FP421.9A	50-40-30-20	400-400-400-400	j	3.39
WP422	60-40-40-40	400-400-400-400	i	3.78
FP422.1A	20-80-20-50	450-200-200-50	f	2.46
FP422.11	20-160-50-50	450-250-75-50	j	2.97
FP422.7A	60-80-40-20	450-250-250-150	i	3.39
FP422.8	25-100-10-60	450-300-300-50	h	3.18
FP413X	40-40-40-20	450-300-300-150	h	2.94
FP422.9	10-100-20-20	450-300-300-300	h	3.15
FP423.4	10-40-100-100	450-350-250-50	h	3.33
WP423.5	10-140-100-20	450-350-300-300	i	3.87
FP424.1	10-100-10-20	450-350-350-25	h	3.12
FP424.3A	20-80-50-100	450-350-350-50	j	3.60
FP425	30-40-40-10	450-350-350-200	h	3.09
FP425.6	40-100-20-10	450-350-350-350	i	3.84
FP425.1A	80-10-40-30	450-400-300-300	j	3.48
FP426	20-15-20-20	450-450-25-25	f	2.07
FP426.2	80-40-100-100	450-450-25-25	i	3.48
FP426.5	20-20-60-100	450-450-150-25	g	$2.55
FP426.9A	40-40-125-125	450-450-150-25	j	3.42
FP427.5A	10-10-60-100	450-450-200-50	f	2.31
FP427.6A	35-25-20-100	450-450-200-50	g	2.79
FP427.65A	40-40-100-60	450-450-200-200	j	3.63
FP427.7	10-10-10-50	450-450-300-25	f	1.89
FP427.9A	20-20-20-10	450-450-350-350	g	2.49
FP428	40-10-35-10	450-450-350-350	h	2.76
FP428.4A	40-40-30-30	450-450-350-350	j	3.54
FP424	15-15-10-20	450-450-450-25	f	2.10
FP428.9A	30-30-10-125	450-450-450-25	g	2.58
FP432A	40-10-10-250	450-450-450-25	g	2.82
FP431	40-15-10-25	450-450-450-25	g	2.46
FP430.2	40-20-20-25	450-450-450-25	h	2.76
FP436	40-20-20-40	450-450-450-25	h	2.79
FP429	40-30-10-20	450-450-450-25	h	2.70
FP429.2	40-40-30-100	450-450-450-25	j	3.21
FP430.6A	40-40-40-40	450-450-450-25	j	3.30
FP430.9	60-40-40-10	450-450-450-25	i	3.60
FP430.95A	60-50-5-20	450-450-450-25	j	3.21
FP430.97	20-20-20-20	450-450-450-50	g	2.49
FP437	20-20-20-100	450-450-450-50	g	2.73
FP431.2	40-40-10-25	450-450-450-50	h	2.82
FP431.3A	40-40-10-50	450-450-450-50	h	2.13
FP431.35	40-40-20-40	450-450-450-50	h	3.03
FP431.4A	60-40-10-25	450-450-450-50	j	3.15
FP431.7A	40-40-10-100	450-450-450-100	j	3.18
FP433	60-10-10-20	450-450-450-150	h	2.76
FP432.4A	40-40-30-10	450-450-450-200	j	3.21
FP432.8	35-35-15-25	450-450-450-250	h	2.91
FP432.9A	40-20-10-100	450-450-450-250	j	3.51
FP450.2	80-50-10-20	450-450-450-300	i	3.67
FP433.2	40-10-10-40	450-450-450-350	h	2.85
FP433.4	40-20-20-20	450-450-450-350	h	3.00
WP433.6	5-5-5-5	450-450-450-450	f	1.80
FP434	10-10-10-10	450-450-450-450	f	2.01
FP434.5	20-10-10-10	450-450-450-450	f	2.22
FP444	20-20-20-20	450-450-450-450	h	2.82
FP444.4A	30-15-15-15	450-450-450-450	g	2.67
FP444.5	30-20-20-10	450-450-450-450	h	2.76
FP444.6	30-30-15-10	450-450-450-450	h	2.82
FP444.8	30-30-20-20	450-450-450-450	h	3.12
FP444.9	30-30-30-15	450-450-450-450	i	3.18
FP444.54	40-20-20-4	450-450-450-450	h	2.79
FP444.95	40-20-20-20	450-450-450-450	h	3.06
FP445	35-35-10-5	450-450-450-450	h	2.76
FP446	40-35-10-10	450-450-450-450	h	2.88
FP447A	40-40-20-20	450-450-450-450	j	3.33
FP447.5	40-40-30-30	450-450-450-450	i	3.63
WP447.7	40-40-40-40	450-450-450-450	i	3.78
FP448A	60-20-20-20	450-450-450-450	j	3.39
FP448.5	60-30-10-2	450-450-450-450	h	3.06
FP449	70-10-10-5	450-450-450-450	h	2.85
FP450A	80-10-10-10	450-450-450-450	j	3.03
FP450.08	80-40-20-10	450-450-450-450	i	3.66
FP450.16	80-40-20-20	450-450-450-450	i	3.79
FP450.5	40-40-50-80	475-250-150-50	h	3.00
FP451A	10-100-10-100	475-300-300-25	g	2.94
FP451.3A	10-140-4-100	475-300-300-50	j	3.18
FP452	20-80-20-10	475-300-300-300	h	3.00
FP452.5	10-20-100-50	475-350-25-25	f	2.07
FP453A	20-40-80-100	475-350-200-100	h	3.27
FP453.4A	10-40-80-100	475-350-300-100	h	3.33
FP453.8A	10-30-5-80	475-350-350-50	f	2.22
FP454.4A	10-130-20-10	475-350-350-350	j	3.54
FP454.2	20-60-40-10	475-350-350-350	h	3.12
FP454.6	10-40-4-100	475-400-350-50	g	2.43
FP454.8A	10-80-40-100	475-400-400-50	j	3.48
FP455.5	25-20-20-100	475-450-300-50	g	2.73
FP456	25-20-40-100	475-450-300-50	h	2.97
FP456.5A	10-60-30-125	475-450-400-50	j	3.33
FP455	10-50-30-30	475-450-450-25	h	2.85
FP457	10-40-10-20	475-450-450-50	g	2.37
FP459	10-40-10-100	475-450-450-50	g	2.58
FP460	80-4-4-4	475-450-450-450	j	3.09
FP461A	15-15-80-40	475-475-300-50	g	2.88
FP463A	50-30-20-20	475-475-300-300	j	3.42
FP464.9	40-10-4-40	475-475-350-300	h	2.97
FP467	20-10-20-100	475-475-450-25	g	2.52
FP474	10-10-10-10	475-475-475-475	f	2.10
FP474.5	20-20-10-10	475-475-475-475	g	2.61
FP475	20-20-20-20	475-475-475-475	h	3.12
FP475.5	40-10-10-10	475-475-475-475	h	2.79
FP476	40-20-10-10	475-475-475-475	h	3.06
FP485	10-20-10-4	500-300-300-300	f	1.98
FP490	30-10-150-30	500-450-50-50	g	2.52
FP495A	40-40-8-8	500-500-500-500	j	3.42

*SIZES

Key	Diameter	Length	Key	Diameter	Length
a	¾″	2″	i	1⅜″	4″
b	1″	2″	j	1⅜″	3½″
c	1″	2½″	k	1″	3½″
d	1″	3″	l	1″	1½″
e	1″	4″	m	1″	1¾″
f	1⅜″	2″	n	1⅜″	4½″
g	1⅜″	2½″	o	¾″	1½″
h	1⅜″	3″			

P. R. MALLORY & CO. Inc. MALLORY Electrolytic Capacitors

TC-TCD-TCS AND TCT TUBULAR DRY ELECTROLYTICS



Metal tubular capacitors with insulating sleeve. TC and TCN (non-polar) are single section with 3″ bare tinned leads. TCD is dual common negative with 7″ insulated wire leads. TCS, dual separate section, has solder lugs. TCT, triple common negative, has 7″ insulated wire leads. All, but TC below 13/16″ diameter, have mounting strap. Rated +85° C, except (*) which are +65° C, EIA tolerances.

TC AND TCN SINGLE SECTION

Mallory No.	Cap., µf	WV DC	Size, In. Dia. x Lg.	Net Each
TC304	200	3	11/16 x 1¼	$0.69
TC305	500	3	11/16 x 1½	.84
TC310	1000	3	15/16 x 1¾	1.02
TC605	500	6	13/16 x 1¾	.93
TC610	1000	6	15/16 x 2	1.14
TC1502	200	15	13/16 x 1½	.84
TC1505	500	15	15/16 x 2	1.05
TC1501	1000	15	1 1/16 x 2¼	1.38
TC22	10	25	7/16 x ¾	.60
TC26	25	25	7/16 x ¾	.60
TC29	50	25	9/16 x 1½	.66
TC2501	100	25	11/16 x 1¾	.81
TC25015	150	25	11/16 x 1¾	.87
TC2505	500	25	1 1/16 x 2¼	1.38
TC31	1	50	¼ x 11/16	.54
TC302	2	50	5/16 x ¾	.54
TC30	5	50	5/16 x ⅞	.60
TC32	10	50	7/16 x ¼	.60
TC36	25	50	11/16 x 1¼	.63
TC39	50	50	13/16 x 1¼	.72
TC3501	100	50	11/16 x 1¾	.84
TC50025	250	50	15/16 x 1¾	1.05
TC50050	500	50	1 1/16 x 2¼	1.92
TC50100	1000	50	1 1/16 x 4	2.91
TC40	5	150	7/16 x ⅞	.60
TC41	8	150	7/16 x 1	.63
TC42	10	150	7/16 x 1¼	.63
TC43	12	150	7/16 x 1¼	.66
TC44	16	150	11/16 x 1½	.69
TC45	20	150	13/16 x 1½	.72
TC47	30	150	13/16 x 1½	.78
TC48	40	150	15/16 x 1¾	.81
TC49	50	150	15/16 x 1¾	.84
TC492	80	150	15/16 x 2	.96
TC493	100	150	1 1/16 x 2¼	1.05
TC495	150	150	1 1/16 x 2¼	1.14
TC496	200	150	1 1/16 x 2⅞	1.58
TC499	300	150	1 7/16 x 3	1.53
TC50X	5	250	11/16 x 1¼	.63
TC51	8	250	11/16 x 1¾	.69
TC52	10	250	11/16 x 1¾	.72
TC53	12	250	13/16 x 1¾	.75
TC54	16	250	13/16 x 1¾	.78
TC55	20	250	13/16 x 1¾	.81
TC58	40	250	1 1/16 x 1¾	.93
TC59	50	250	1 1/16 x 1¾	1.02
TC1265	100	250	1 1/16 x 2⅞	1.47
TC595	2	350	7/16 x 1½	1.26
TC60	5	350	11/16 x 1¾	.63
TC61	8	350	13/16 x 1¾	.72
TC62	10	350	13/16 x 1¾	.75
TC63	12	350	13/16 x 1¾	.78
TC64	16	350	15/16 x 1¾	.84
TC65	20	350	15/16 x 1¾	.87
TC66	40	350	15/16 x 2¼	1.44
TC68	60	350	1 1/16 x 2¼	1.17
TC69	100	350	1 1/16 x 4	1.86
TC692	150	350	1 7/16 x 3⅞	3.16
TC695	2	450	11/16 x 1½	.66
TC697	4	450	1 1/16 x 1¾	.97
TC70	5	450	11/16 x 1¾	.72
TC71	8	450	13/16 x 1¾	.75
TC72	10	450	13/16 x 1¾	.78
TC73	12	450	15/16 x 1¾	.81
TC74	16	450	15/16 x 1¾	.84
TC75	20	450	1 1/16 x 1¾	.93
TC77	30	450	1 1/16 x 2¼	1.02
TC78	40	450	1 1/16 x 2¼	1.08
TC79	50	450	1 1/16 x 2⅞	1.26
TC795	60	450	1 1/16 x 2⅞	1.38
TC80	80	450	1 1/16 x 4	1.68
TC805	100	450	1 7/16 x 3	1.92
TC81*	10	500	15/16 x 1¾	.81
TC82	10	500	1 1/16 x 3	1.62
TC83*	20	500	1 1/16 x 1¾	.96
TC84*	30	500	1 1/16 x 2¼	1.05
TC90	4	600	¾ x 2½	2.30
TC92	10	600	1 1/16 x 2⅞	1.77
TCN308	.5Z‡	3	1 1/16 x 2	1.32
TC420†	1.5Z§	4	1 1/16 x 2⅞	2.10
TC421†	1.5Z#	6	1 1/16 x 2	1.80
TCN105	5	10	11/16 x 1¼	.69
TCN106	6	10	9/16 x 1¼	.69
TCN108	8	10	11/16 x 1½	.69
TCN1025	25	10	7/16 x ⅞	.84
TCN412	500	10	15/16 x 2	1.20
TCN1550	500	15	15/16 x 2¼	1.32
TCN415	1000	15	1 1/16 x 3½	1.71
TCN2516	16	25	9/16 x 1½	.60
TCN425	100	25	13/16 x 1½	1.02
TCN502	2	50	9/16 x 1¼	.69
TCN503	3	50	9/16 x 1¼	.72
TCN504	4	50	9/16 x 1¼	.75

†Non-polar. ‡15750 cps. §60 cps. #120 cps.

Mallory No.	Cap., µf	WV DC	Size, In. Dia. x Lg.	Net Each
TCN505	5	50	9/16 x 1¼	$0.90
TCN5010	10	50	9/16 x 1¼	.75
TCN5099	100	50	15/16 x 1¾	1.29
TCN510	4	150	9/16 x 1¼	.75
TCN1512	12	150	⅝ x 1¾	1.01
TCN1540	40	150	15/16 x 1¾	1.30
TCN1551	50	150	⅞ x 2¼	1.34
TCN3520	20	350	1 1/16 x 2⅞	1.08
TCN511	10	450	1 1/16 x 2¼	.99

TCD DUAL COMMON NEGATIVE

No. TCD-	Cap., µf	WVDC	Size, In. Dia. x Lg.	Net Each
204	250-1000	10-6	1 1/16x2¼	$1.68
16	500-100	16-16	15/16x2	.78
26	25-25	25-25	13/16x1¼	.84
N201†	130-130	25-25	1 1/16x2¼	2.15
40	10-10	100-100	1 3/16x1¼	.87
43	10-30	150-150	13/16x1¾	1.62
45	20-20	150-150	13/16x1¾	.99
508	130-20	150-150	1 1/16x2⅞	2.07
47	30-30	150-150	15/16x1¾	1.08
485	40-20	150-150	15/16x1¾	1.05
475	40-30	150-150	15/16x2	1.08
48	40-40	150-150	1 1/16x2	1.11
497	50-30	150-150	15/16x2	1.17
49	50-50	150-150	1 1/16x2¼	1.26
50	60-20	150-150	15/16x1⅞	1.53
4975	80-40	150-150	1 1/16x2¼	1.32
498	80-50	150-150	1 1/16x2¼	1.41
2155	100-100	150-150	1 1/16x4	1.92
46	30-20	200-200	15/16x2	1.17
2165	30-30	200-200	1 1/16x2¼	1.32
2169	50-75	250-50	1 1/16x2¼	1.44
2174	100-150	250-50	1 1/16x4	2.16
2173	8-8	250-250	15/16x1¾	.96
52	10-10	250-250	15/16x2	.99
55	20-20	250-250	1 1/16x2	1.11
2274	40-40	300-300	1 1/16x3⅛	1.77
58	80-40	300-300	1 1/16x4	2.07
62	10-10	350-350	15/16x2	1.02
65	20-20	350-350	1 1/16x2⅜	1.35
2297	40-50	450-50	1 1/16x3⅛	1.50
2302	30-60	450-300	1 1/16x4	1.92
71	8-8	450-450	15/16x2	1.02
72	10-10	450-450	1 1/16x2	1.11
74	15-15	450-450	1 1/16x3⅛	1.32
745	20-8	450-450	1 1/16x2¼	1.26
75	20-20	450-450	1 1/16x3⅛	1.50
77	30-30	450-450	1 1/16x4	1.80
78	40-40	450-450	1 1/16x4	2.04

TCS DUAL SEPARATE SECTION

No. TCS-	Cap., µf	WV DC*	Size, In. Dia. x Lg.	Net Each
44	15-15	150	13/16 x 2⅜	$1.20
45	20-20	150	15/16 x 2⅜	1.26
47	30-30	150	1 1/16 x 2⅜	1.35
48	40-40	150	1 1/16 x 2⅞	1.41
49	120-120	150	1 1/16 x 3⅞	1.98
505	70-70	175	1 1/16 x 3⅞	2.16
52	10-10	250	15/16 x 2⅜	1.26
55	20-20	250	1 1/16 x 2⅞	1.41
61	8-8	350	15/16 x 2⅜	1.26
64	15-15	350	1 1/16 x 2⅞	1.65
71	8-8	450	1 1/16 x 2⅜	1.29
74	15-15	450	1 1/16 x 2⅞	1.65
75	20-20	450	1 1/16 x 3½	1.89

*Each section.

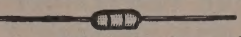
TCT TRIPLE COMMON NEGATIVE

No. TCT-	Cap., µf	Volts	Size, In. Dia.x L.	Net Each
3053	20-20-20	150-150-25	15/16x2¼	$1.23
3055	30-30-20	150-150-25	1 1/16x2¼	1.32
3094	50-30-200	150-150-25	1 1/16x2⅞	1.65
3109	20-10-10	150-150-150	15/16x1¾	1.20
3112	20-20-20	150-150-150	1 1/16x1¾	1.29
3113	30-30-30	150-150-150	1 1/16x2¼	1.41
3114	40-20-20	150-150-150	1 1/16x2¼	1.35
3105	40-30-20	150-150-150	1 1/16x1¾	1.38
3116	40-40-20	150-150-150	1 1/16x2¼	1.41
3115	40-40-40	150-150-150	1 1/16x2¼	1.47
3107	50-30-20	150-150-150	1 1/16x2¼	1.41
3110	60-30-10	150-150-150	1 1/16x2	2.22
3119	60-50-20	150-150-150	1 1/16x2⅞	1.62
3117	80-40-20	150-150-150	1 1/16x2⅞	1.65
3118	80-50-50	150-150-150	1 1/16x4	1.86
3120	80-80-20	150-150-150	15/16x3	2.47
3285	40-30-40	350-250-150	1 1/16x4	1.98
3405	30-50-100	450-150-25	1 1/16x4	1.92
3432	30-30-30	450-350-250	1 1/16x4	2.25
3764	40-20-10	450-450-450	1 1/16x4	2.25

CLIPS FOR TC CAPACITORS

Mallory No.	Spring Clip for	Size, In.	Net Each
TH-13	TC	⅜	3c
TH-15	TC	½-9/16	3c
TH-17	TC	⅝-11/16	3c
TH-19	TC and FP	¾-13/16	3c
TH-21	TC	⅞-15/16	3c
TH-23	TC and FP	1 -1 1/16	3c
TH-25	TC and FP	1⅜-1 7/16	6c

TT TINY TUBULAR ELECTROLYTIC CAPACITORS



High purity, etched aluminum plate for low leakage current limits; high ratings and small size. Conforms to EIA standards RS-154-A. Axial leads 1¾″ long. **Temperature Range:** −20°, +85° C. **Tolerance:** Up to 50 .WVDC, −10%, +150%; above 50 WVDC, −10%, +100%.

Mallory Number	Cap., µf	WV DC	Size, In.* Dia.xLgth.	Net Each
TT1X5	5	1	¼x11/16	$0.75
TT2X150	150	2	⅜x13/16	.90
TT3X10	10	3	¼x11/16	.75
TT3X25	25	3	¼x11/16	.75
TT3X40	40	3	¼x11/16	.75
TT3X50	50	3	¼x13/16	.75
TT3X110	110	3	⅜x13/16	.84
TT3X200	200	3	⅜x15/16	.90
TT3X250	250	3	⅜x1 1/16	.96
TT3X300	300	3	⅜x1 3/16	.99
TT3X400	400	3	⅜x1 7/16	1.21
TT6X2	2	6	¼x11/16	.75
TT6X3	3	6	¼x11/16	.75
TT6X4	4	6	¼x11/16	.75
TT6X5	5	6	¼x11/16	.81
TT6X8	8	6	¼x11/16	.81
TT6X10	10	6	¼x11/16	.81
TT6X15	15	6	¼x11/16	.84
TT6X25	25	6	¼x11/16	.84
TT6X30	30	6	¼x11/16	.84
TT6X40	40	6	5/16x11/16	.84
TT6X50	50	6	5/16x11/16	.84
TT6X60	60	6	⅜x11/16	.84
TT6X80	80	6	5/16x13/16	.90
TT6X100	100	6	⅜x13/16	.90
TT6X150	150	6	⅜x15/16	.93
TT6X200	200	6	⅜x1 1/16	.96
TT6X250	250	6	⅜x1 3/16	1.02
TT6X300	300	6	⅜x1 7/16	1.08
TT10X6	6	10	¼x11/16	.81
TT10X15	15	10	¼x11/16	.81
TT10X25	25	10	5/16x11/16	.81
TT10X30	30	10	5/16x11/16	.90
TT10X40	40	10	5/16x13/16	.90
TT10X50	50	10	⅜x13/16	.90
TT10X60	60	10	⅜x13/16	.90
TT12X1	1	12	¼x11/16	.75
TT12X2	2	12	¼x11/16	.75
TT12X3	3	12	¼x11/16	.75
TT12X5	5	12	¼x11/16	.81
TT12X10	10	12	¼x11/16	.81
TT12X20	20	12	¼x11/16	.84
TT12X35	35	12	5/16x11/16	.87
TT12X100	100	12	⅜x15/16	1.05
TT12X150	150	12	⅜x1 1/16	1.11
TT12X250	250	12	⅜x1 7/16	1.26
TT15X8	8	15	¼x11/16	.84
TT15X10	10	15	¼x11/16	.84
TT15X15	15	15	¼x11/16	.87
TT15X20	20	15	5/16x11/16	.87
TT15X25	25	15	¼x13/16	.87
TT15X30	30	15	5/16x11/16	.90
TT15X35	35	15	⅜x11/16	.93
TT15X40	40	15	⅜x11/16	.96
TT15X50	50	15	5/16x13/16	.96
TT15X100	100	15	⅜x1 3/16	1.05
TT15X150	150	15	⅜x1 3/16	1.14
TT15X200	200	15	⅜x1 7/16	1.20
TT25X5	5	25	¼x11/16	.84
TT25X6	6	25	¼x11/16	.84
TT25X8	8	25	¼x11/16	.87
TT25X10	10	25	¼x11/16	.87
TT25X15	15	25	5/16x11/16	.87
TT25X20	20	25	5/16x11/16	.90
TT25X25	25	25	⅜x11/16	.93
TT25X50	50	25	⅜x15/16	1.05
TT25X100	100	25	⅜x1 7/16	1.17
TT50X2	2	50	¼x11/16	.81
TT50X3	3	50	¼x11/16	.81
TT50X4	4	50	¼x11/16	.81
TT50X5	5	50	¼x13/16	.87
TT50X8	8	50	¼x13/16	.90
TT50X10	10	50	⅜x11/16	.90
TT50X15	15	50	5/16x13/16	.90
TT50X20	20	50	⅜x13/16	.90
TT50X35	35	50	⅜x1 1/16	1.02
TT50X50	50	50	⅜x1 3/16	1.11
TT80X4	4	80	¼x13/16	.84
TT100X6	6	100	5/16x13/16	.90
TT100X10	10	100	⅜x13/16	.93
TT100X15	15	100	⅜x15/16	.93
TT100X20	20	100	⅜x1 1/16	.96
TT150X1	1	150	¼x11/16	.84
TT150X2	2	150	¼x13/16	.87
TT150X3	3	150	5/16x11/16	.87
TT150X4	4	150	⅜x11/16	.87
TT150X5	5	150	⅜x13/16	.93
TT150X6	6	150	⅜x13/16	.93
TT150X8	8	150	⅜x15/16	.96
TT150X10	10	150	⅜x15/16	.96
TT150X12	12	150	⅜x1 1/16	.96
TT250X1	1	250	⅜x11/16	1.02
TT350X2	2	350	⅜x1 7/16	1.05

*With DuPont Mylar insulating sleeves.

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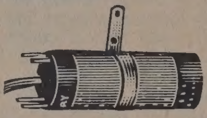
MALLORY Capacitors

HIGH TEMPERATURE WAX TUBULARS



Single-ended, wax-dipped cardboard sleeve for high capacity at high voltages and temperatures. FP construction; 5" flexible leads. **Tolerance:** Up to 50 WVDC, −10% +250%; 51 to 350 WVDC, −10% +100%; over 351 WVDC, −10% +50%. No. WQ240 is double-ended.

Mall. No.	Cap., µf at WVDC	Size, In. D. x L.	Net Each
WS342	200 at 200	1⅛x3⅜	$1.74
WS427	140 at 300	1¼x3⅜	1.89
WS560	150 at 400	1¼x4⅜	2.79
WS730	100 at 450	1 5/16x3⅜	2.76
WD210	50-30 at 150	⅞x2⅞	1.17
WD215	50-50 at 150	⅞x2⅞	1.26
WD220	70-30 at 150	⅞x2⅞	1.29
WD235	100-50 at 150	1 x3⅜	1.59
WD270	120-120 at 150	1 x4⅜	2.61
WD251	250-50 at 150	1⅜x2⅞	1.98
WD340	60-125 at 200-50	1 1/16x2⅞	1.44
WD345	5-200 at 200-200	1⅛x3⅜	2.13
WD355	250-120 at 200-200	1⅜x3⅝	2.82
WD410	200-100 at 300-50	1⅛x4⅜	2.94
WD425	150-100 at 300-300	1⅜x3⅜	2.31
WD446	100-150 at 350-300	1⅜x4⅜	3.42
WD450	5-140 at 350-350	1⅛x4⅜	2.25
WT201	60-40-250 at 150-150-15	1 x2⅞	1.95
WT240	60-60-100 at 150-150-25	1 1/16x2¾	2.73
WT312	250-120-50 at 150-150-25	1⅜x3⅞	2.61
WT217	40-40-20 at 150	1 x2⅞	1.41
WT316	150-150-150 at 150	1¼x4⅜	2.91
WT320	200-250-10 at 150	1¼x4⅜	2.73
WT430	100-60-100 at 300-300-50	1¼x4⅜	3.06
WT434	120-40-100 at 300-300-50	1¼x4⅜	3.09
WT407	70-50-30 at 300-300-250	1¼x3⅞	2.52
WT447	10-100-200 at 350-150-150	1⅜x3⅜	2.55
WT449	140-5-200 at 350-300-200	1⅜x4⅜	4.11
WT455	100-40-40 at 350-350-250	1⅛x4⅜	3.42
WT458	60-60-60 at 350-350-300	1¼x4⅜	2.85
WT460	60-60-4 at 350	1¼x3⅜	3.15
WT630	5-40-80 at 450-400-400	1 3/16x4⅜	2.73
WT700	10-10-150 at 450-450-50	1⅛x2⅞	1.65
WQ209	60-40-20-200 at 150-150-150-10	1 1/16x3	2.07
WQ215	40-20-20-100 at 150-150-150-25	1 1/16x2⅞	1.98
WQ230	40-40-20-20 at 150-150-150-25	15/16x2⅞	1.83
WQ250	60-40-40-20 at 150-150-150-25	1 1/16x2⅞	1.95
WQ240	10-10-40-200 at 150-150-150-35	1⅛x2⅜	1.95
WQ290	60-50-40-20 at 150	⅞x2⅞	2.10
WQ401	140-4-50-4 at 300-300-150-150	1⅜x3½	3.06
WQ405	120-40-40-10 at 300-300-300-250	1⅜x4¼	2.91
WQ511	140-5-200-100 at 350-300-200-150	1½x4⅜	4.92
WQ505	140-5-200-30 at 350-300-200-200	1½x4⅜	4.50
WQ349	40-20-20-100 at 350-300-250-50	1⅜x2⅞	2.70
WQ525	50-40-20-50 at 350-350-350-50	1¼x3⅜	2.97
WQ520	150-100-20-100 at 350-350-350-50	1¼x4⅜	4.77
WQ635	25-100-10-50 at 450-300-300-50	1⅜x3⅜	2.82
WQ640	10-80-40-40 at 450-300-300-300	1¼x4⅜	3.21
WQ650	10-40-80-100 at 450-300-400-50	1¼x4⅜	3.30
WQ775	10-20-20-40 at 450	1¼x3⅜	2.82
WQ795	20-20-40-40 at 450	1¼x4⅜	3.27
WV404	40-20-20-20-50 at 300-300-300-300-50	1¼x3⅜	3.21

ELECTROLYTIC CAPACITORS

Designed for antenna rotators.

ST75	70 at 50 v. AC	⅞x2⅝	$0.75
ST80	75 at 65 WVDC	¾x2⅜	.90
ST100	100-200 at 50 v. AC	1 x2¾	1.02

PRINTED CIRCUIT HIGH TEMPERATURE WAX TUBULARS

Same as W Series, except designed for printed circuit applications.

PWD SERIES

Mallory No.	Cap., µf	WV DC*	Size, In. Dia. x L.	Net Each
PWD211	50-30	150	1 x 2	$1.44
PWD221	50-50	150	1 x 2	1.56
PWD231	75-30	150	1 x 2⅜	1.62
PWD240	80-30	150	1 x 2⅜	1.56
PWD252	80-50	150	1 x 2⅜	1.77
PWD263	100-50	150	1 x 2⅜	1.98

*WVDC each section.

PWT SERIES

Mallory No.	Cap., µf	WVDC	Size, In. Dia. x L.	Net Each
PWT205	30-25-20	150*	1x1¾	$1.73
PWT225	50-30-20	150*	1x2	1.83
PWT245	60-20-5	150*	1x3	1.77
PWT260	60-80-20	150*	1x2⅜	2.01
PWT275	80-40-150	150-150-25	1x2⅜	2.03
PWT285	80-60-250	150-150-25	1⅛x2⅜	2.19
PWT360	60-120-20	200*	1⅛x2⅞	2.55

*WVDC each section.

COMPUTER GRADE CAPACITORS

Ultra-reliable, high capacity aluminum electrolytic capacitors. Pressure sensitive safety vent. Temperature range, −20° C to +85° C. **Capacity Tolerances:** (U) 3–150 WVDC, −10% +75%; (T) 151–450 WVDC, −10% +50%. Furnished with Mylar* insulating sleeve and high post (7/32") 10-32 screw terminals. *DuPont TM

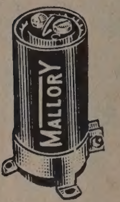
Mallory No. CG-	Cap., µf	WVDC	Size †	Net Each
363U3D1	36000	3	D	$3.79
753U3F1	75000	3	F	6.05
2752U5D1	27500	5	D	3.69
653U5F1	65000	5	F	5.99
183U10D1	18000	10	D	3.65
4352U10F1	43500	10	F	6.89
143U15D1	14000	15	D	3.70
343U15F1	34000	15	F	5.99
852U25D1	8500	25	D	3.34
24U25F1	20000	25	F	5.60
452U50D1	4500	50	D	2.97
14U50F1	10000	50	F	5.74
3451U75D1	3450	75	D	3.45
822U75F1	8200	75	F	6.40
2251U100D1	2250	100	D	3.50
532U100F1	5300	100	F	5.91
1551U150D1	1550	150	D	3.48
362U150F1	3600	150	F	6.02
13T200D1	1000	200	D	3.87
2451T200F1	2450	200	F	5.83
82T250D1	800	250	D	4.05
192T250F1	1900	250	F	6.49
72T300D1	700	300	D	4.06
1651T300F1	1650	300	F	7.17
551T350D1	550	350	D	4.31
132T350F1	1300	350	F	6.98
3250T400D1	325	400	D	3.24
241T450D1	240	450	D	3.11

†Can Size: Stock types shown above are furnished with "D" (2" x 4⅛") or "F" (3" x 4⅛") cans. **Eight other can sizes and thousands of other ratings are available on special order.** Ask for Bulletin 9-282.

FOR THE LATEST DEVELOPMENTS IN CAPACITOR ENGINEERING, ALWAYS SPECIFY

MALLORY

HC, NP, HIGH CAPACITY DRY ELECTROLYTICS



TYPE HC POLARIZED TYPE

Capacity Tolerances: Up to 150 WVDC, −10%, +100%. Above 150 WVDC, −10%, +50%.

Mallory No. HC-	Cap., µf	WV DC	Size, In. Dia. x Lgth.	Net Each
1020A	2000	10	1 7/16 x 2¾	$3.36
1040A	4000	10	1 7/16 x 3⅜	4.60
1060A*	6000	10	1½ x 4⅛	5.20
10100	10000	10	2 1/16 x 4⅜	7.82
1520A	2000	15	1 7/16 x 2¾	3.47
1540A	4000	15	1 7/16 x 4⅜	5.37
1560A	6000	15	1 13/16x 3⅜	5.62
2060	6000	20	2 1/16 x 4⅜	6.60
2060A	6000	20	1 13/16x 4⅜	6.11
20250*	25000	20	3 x 4⅛	12.88
2510A	1000	25	1 7/16 x 2¾	3.19
2520A	2000	25	1 7/16 x 3⅜	4.15
2540A	4000	25	1 13/16x 3⅜	5.58
4040	4000	40	2 1/16 x 4⅜	7.54
4040A	4000	40	1 13/16x 4⅜	6.98
5005	500	50	1 7/16 x 3⅜	3.60
5005A	500	50	1 7/16 x 2¾	3.33
5010A	1000	50	1 7/16 x 3⅜	4.25
5020A	2000	50	1 13/16x 3⅜	5.06
5040	4000	50	2 1/16 x 4⅜	7.32
15010	1000	150	2 1/16 x 4⅜	6.89
15010A	1000	150	1 13/16x 4⅜	6.44
20005	500	200	2 1/16 x 4⅜	5.97
20005A	500	200	1 13/16x 3⅜	5.53
45003	300	450	2 1/16 x 4⅜	8.47
2050-50	2x5K	20–20	2 1/16 x 4⅜	8.00

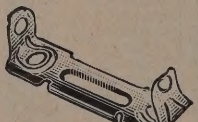
*Aluminum can with solder lug terminals.

TYPE NP NON-POLARIZED TYPE

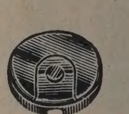
Capacity Tolerances: −25%, +25% except NP3003 is −15%, +25%.

Mallory No. NP-	Cap., µf	WV DC	Size, In. Dia. x Lgth.	Net Each
1225A	200	125	1 7/16 x 3⅜	$4.04
1235A	300	125	1 13/16x 3⅜	4.87
1255A	500	125	1 13/16x 4⅜	6.30
3003A	15	300	1 7/16 x 2¾	2.87
3008	50	300	1 7/16 x 3⅜	5.25
3014A	100	300	1 13/16x 3⅜	6.13
3025	200	300	2 1/16 x 4⅜	7.00
4505	50	450	1 13/16x 3⅜	6.30
4510	100	450	2 1/16 x 4⅜	7.70

HARDWARE FOR HC AND NP TYPES



HB

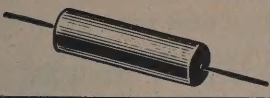


PL

Mall. No.	Description	Size In.	Net Ea.
PL-3	Plastic end cap–on motor	1 7/16	8c
PL-6	Plastic end cap–on motor	1 13/16	10c
PL-8	Plastic end cap–on motor	2 1/16	12c
PL-10	Plastic end cap–on motor	2 9/16	25c
PL-A3	Plastic end cap–off motor	1 7/16	8c
PL-A6	Plastic end cap–off motor	1 13/16	10c
PL-A8	Plastic end cap–off motor	2 1/16	12c
PL-A10	Plastic end cap–off motor	2 9/16	25c
HB-2	Horiz. bkt. (plastic cases)	3 1/64	13c
HB-4	Horiz. bkt. (plastic cases)	3 21/32	13c
HB-8	Horiz. bkt. (plastic cases)	4 21/32	15c

MALLORY Capacitors

GEM SERIES MOLDED TUBULAR CAPACITORS



Molded tubular paper capacitors sealed against moisture with epoxy resin and molded Bakelite§. Tolerance ±20% at 85°C except those marked (*), which have ±10% tolerance. Double tinned copperweld leads—20 gauge on case sizes up to ½"; 18 gauge over ½" case size. Use attached leads for mounting. TH clips available for large sizes.

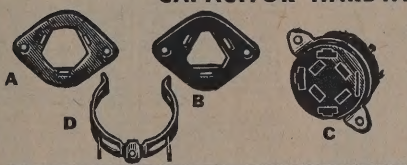
Cap. µf	200 WVDC			400 WVDC			600 WVDC			1000 WVDC		
	Mall.No. GEM-	‡	Net Each	Mall.No. GEM-	‡	Net Each	Mall.No. GEM-	‡	Net Each	Mall.No. GEM-	‡	Net Each
.001	......	...	.....	421	A	15c	621	A	15c	1021	A	30c
.0015	......	...	.....	......	...	.....	6215	A	15c	10215	A	30c
.002	......	...	.....	......	...	.....	622	A	15c	1022	B	30c
.0022	......	...	.....	......	...	.....	6222	A	15c	10222	B	30c
.0025	......	...	.....	......	...	.....	6225	A	15c	......	...	.....
.003	......	...	.....	......	...	.....	623	A	15c	1023	B	30c
.0033	......	...	.....	......	...	.....	6233	A	15c	......	...	.....
.004	......	...	.....	......	...	.....	624	A	15c	1024	B	30c
.0047	......	...	.....	......	...	.....	6247	A	15c	10247	B	30c
.005	......	...	.....	425	A	15c	625	B	15c	1025	B	30c
.006	......	...	.....	......	...	.....	626	B	15c	......	...	.....
.0068	......	...	.....	......	...	.....	6268	B	18c	10268	B	30c
.007	......	...	.....	......	...	.....	627	B	18c	......	...	.....
.008	......	...	.....	......	...	.....	628	B	18c	......	...	.....
.0082	......	...	.....	......	...	.....	6282	B	18c	......	...	.....
.01	......	...	.....	411	B	15c	611	B	18c	1011	C	30c
.012	......	...	.....	......	...	.....	6112	B	18c	......	...	.....
.015	......	...	.....	4115	B	15c	6115	B	18c	10115	D	30c
.02	......	...	.....	412	B	15c	612	C	18c	1012	D	30c
.022	......	...	.....	4122	B	18c	6122	C	18c	10122	D	30c
.025	......	...	.....	4125	C	18c	6125	C	21c	......	...	.....
.03	......	...	.....	413	C	18c	613	C	21c	1013	E	30c
.033	......	...	.....	4133	C	18c	6133	C	21c	10133	E	30c
.04	......	...	.....	414	C	18c	614	D	21c	1014	E	36c
.047	......	...	.....	4147	C	18c	6147	D	24c	10147	E	36c
.05	......	...	.....	415	C	18c	615	D	24c	1015	E	36c
.056	......	...	.....	......	...	.....	6156	D	24c	......	...	.....
.06	......	...	.....	416	D	21c	616	D	24c	......	...	.....
.068	......	...	.....	4168	D	21c	6168	D	27c	10168	E	39c
.1	201*	D	21c	401	D	21c	601	E	27c	1001*	F	45c
.15	2015*	D	21c	4015*	E	24c	6015*	E	30c	......	...	.....
.2	......	...	.....	402*	E	27c	602*	F	42c	......	...	.....
.22	2022*	E	24c	4022*	E	27c	6022*	F	42c	......	...	.....
.25	2025*	E	24c	4025*	E	27c	6025*	F	42c	......	...	.....
.27	......	...	.....	......	...	.....	6027*	F	42c	......	...	.....
.33	2033*	E	30c	4033*	F	30c	6033*	F	42c	......	...	.....
.47	2047*	F	36c	4047*	F	36c	6047*	H	48c	......	...	.....
.5	205*	F	36c	405*	F	36c	605*	H	48c	......	...	.....
.68	......	...	.....	......	...	.....	6068*	G	48c	......	...	.....
1.0	21*	F	54c	41*	H	75c	61*	G	75c	......	...	.....

GEM MOLDED TUBULAR 1600 WVDC CAPACITORS

±10% Tolerance

Cap. µf	Mall. No. GEM-	‡	Net Each	Cap. µf	Mall. No. GEM-	‡	Net Each	Cap. µf	Mall. No. GEM-	‡	Net Each
.001	1621	B	39c	.005	1625	D	39c	.01	1611	D	42c
.0015	16215	B	39c	.0056	16256	D	39c	.0125	161125	E	42c
.002	1622	B	39c	.006	1626	D	39c	.02	1612	E	36c
.0025	16225	C	45c	.0068	16268	D	39c	.022	16122	E	45c
.003	1623	C	39c	.007	1627	D	39c	.03	1613	E	42c
.0033	16233	C	39c	.0075	16275	D	39c	.04	1614	F	42c
.004	1624	C	39c	.008	1628	D	39c	.05	1615	F	42c
.0047	16247	D	39c	.0082	16282	D	39c	.06	1616	F	42c

CAPACITOR HARDWARE

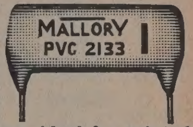


For FP or WP capacitors use MP, BP, PS and MW-100 units. For TC, FP, WP and other tubulars use VR brackets for vertical mtg. or TH spring clips for horizontal mtg.

Mallory No.	Fig.	Size, Inches	Net	Mallory No.	Fig.	Size, Inches	Net
MP-2	A‡	¾	3c	TH-13	D	⅜	3c
MP-4	A‡	1	3c	TH-15	D	½-⁹⁄₁₆	3c
MP-6	A‡	1⅜	3c	TH-17	D	⅝-¹¹⁄₁₆	3c
BP-2	B†	¾	3c	TH-19	D	¾-¹³⁄₁₆	3c
BP-4	B†	1	3c	TH-21	D	⅞-¹⁵⁄₁₆	3c
BP-4A	B†	1	3c	TH-25	D	1⅜-1⁷⁄₁₆	6c
BP-6	B†	1⅜	3c	MW-100	....	Mtg. Wrench	#
PS-4	C	1	42c	CE-1**	....	¾ x 2	6c
PS-6	C	1⅜	54c	CE-2**	....	1 x 1½	6c
PSC-4	Ret. Clamp		6c	CE-3**	....	1 x 2	6c
VR-1	....	1-1¹⁄₁₆	9c	CE-4**	....	1 x 3	6c
VR-3	....	1⅜-1⁷⁄₁₆	9c	CE-5**	....	1⅜ x 2	6c
VR-4	....	1½-1⁹⁄₁₆	12c	CE-6**	....	1⅜ x 3	6c
VR-6	....	1¾-1¹³⁄₁₆	13c	CE-7**	....	1 x 2½	6c
VR-8	....	2-2¹⁄₁₆	17c	CE-8**	....	1 x 4	9c
VR-10	....	2½	20c	CE-9**	....	1⅜ x 2½	6c
VR-12	....	3	48c	CE-10**	....	1⅜ x 4	9c

‡Metal. †Phenolic. **FP insul. sleeves, closed end type #Net **$1.05.**

PVC POLYVINYL CHLORIDE MYLAR® CAPACITORS



Moistureproof, flexible polyvinyl, chloride-coated capacitors. High purity aluminum foil used throughout. Dielectric is 100% DuPont Mylar®. Leads are solid copper radial type; ideal for printed circuitry. Flexible moisture seal at leads. Feature low capacitance drift. Temperature range, −40° C to +105° C; may be operated at 105° C at two times rated voltage with no derating. Tolerance, ±10%.

®Registered DuPont trademark.

100 WVDC UNITS

Mallory No. PVC-	Cap. µf	Net Each	Mallory No. PVC-	Cap. µf	Net Each
1118	.018	15c	1027	.27	26c
1122	.022	15c	1033	.33	28c
1133	.033	15c	104	.40	30c
114	.04	15c	1047	.47	31c
1147	.047	16c	105	.5	33c
1156	.056	16c	1056	.56	34c
1168	.068	17c	1068	.68	38c
101	.10	18c	11	1.0	46c
1015	.15	21c	11P5	1.5	58c
1022	.22	24c	12	2.0	72c
1025	.25	25c			

200 WVDC UNITS

Mallory No. PVC-	Cap. µf	Net Each	Mallory No. PVC-	Cap. µf	Net Each
211	.01	15c	2022	.22	25c
2115	.015	15c	2025	.25	25c
212	.02	16c	2027	.27	30c
2122	.022	16c	2033	.33	31c
2133	.033	16c	204	.40	35c
214	.04	16c	2047	.47	37c
2147	.047	16c	205	.5	37c
215	.05	16c	2056	.56	41c
2156	.056	17c	2068	.68	45c
2168	.068	18c	21	1.0	56c
201	.10	22c	21P5	1.5	73c
2015	.15	22c	22	2.0	95c

400 WVDC UNITS

Mallory No. PVC-	Cap. µf	Net Each	Mallory No. PVC-	Cap. µf	Net Each
4222	.0022	15c	415	.05	19c
423	.003	15c	4156	.056	22c
4233	0033	15c	4168	.068	22c
424	.004	15c	401	.10	22c
4247	.0047	15c	4015	.15	25c
4256	.0056	15c	4022	.22	28c
4268	.0068	15c	4025	.25	31c
411	.01	16c	4027	.27	34c
4115	.015	16c	4033	.33	38c
412	.02	16c	404	.40	41c
4122	.022	19c	4047	.47	45c
4133	.033	19c	405	.5	47c
414	.04	19c	4056	.56	50c
4147	.047	19c	4068	.68	56c

600 WVDC UNITS

Mallory No. PVC-	Cap. µf	Net Each	Mallory No. PVC-	Cap. µf	Net Each
621	.001	16c	6125	.025	22c
6212	.0012	16c	613	.03	22c
6215	.0015	16c	6133	.033	22c
622	.002	16c	6139	.039	22c
6222	.0022	16c	614	.04	22c
6225	.0025	16c	6147	.047	25c
623	.003	16c	615	.05	25c
6233	.0033	16c	6156	.056	25c
6239	.0039	16c	616	.06	25c
624	.004	16c	6168	.068	28c
6247	.0047	16c	6175	.075	28c
625	.005	16c	6182	.082	28c
6256	.0056	16c	601	.10	28c
626	.006	16c	6015	.15	31c
6268	.0068	19c	602	.20	40c
6275	.0075	19c	6022	.22	43c
628	.008	19c	6025	.25	46c
611	.01	19c	6027	.27	46c
6112	.012	19c	6033	.33	48c
6115	.015	19c	604	.4	55c
612	.02	19c	6047	.47	62c
6122	.022	19c			

P. R. MALLORY & CO. Inc. MALLORY Capacitors

RMC
0068
25U

For radio, TV and industrial uses in general purpose or temperature compensating applications. Heavy-duty, dual shielded, bypass, high and low voltage discs are free from failure under adverse heat, humidity and voltage overloads. Durez phenolic insulating vacuum wax.

MINIATURE 100 VOLT

Tolerance, +80%, −20%.

Cap. µf	Mallory Number	Net Each	Cap. µf	Mallory Number	Net Each
.005	TA-250*	24c	.025	TA-125†	24c
.01	TA-110*	24c	.05	TA-150‡	39c
.02	TA-120†	24c	.1	TA-010‡	57c

Dia. *11/32". †½". ‡⅝".

TYPE SM

Rated 500 WVDC. Tol., −20%, +80% except SM-210 and SM-215, GMV*.

Mallory Number	Cap., µf	Dia., In.	Net Each
SM-210	.001	¼	12c
SM-215	.0015	9/32	12c
SM-250	.005	13/32	12c
SM-110	.01	½	12c
SM-120	.02	11/16	18c

GENERAL PURPOSE

Rated 1000 WVDC except, 20K-50K values rated 600 WVDC. Tol., ±0.25 µµf, 3.3 and 5.0 µµf; ±5%, 6.8 and 8.0 µµf; ±10%, 10-2200 µµf; ±20%, 2500-40K µµf; −20%, +80%, 50K µµf.

Mall. No. GP-	Cap., µµf	Net Ea.	Mall. No. GP-	Cap., µµf	Net Ea.
533*	3.3	15c	336*	360	15c
550*	5.0	15c	339*	390	15c
568*	6.8	15c	340*	400	15c
580*	8.0	15c	347*	470	15c
410*	10	15c	350*	500	15c
412*	12	15c	356*	560	15c
415*	15	15c	360*	600	15c
418*	18	15c	368*	680	15c
420*	20	15c	375†	750	15c
422*	22	15c	382†	820	15c
425*	25	15c	210†	1000	15c
427*	27	15c	212‡	1200	15c
430*	30	15c	215‡	1500	15c
433*	33	15c	216‡	1600	15c
439*	39	15c	218‡	1800	15c
447*	47	15c	220‡	2000	15c
450*	50	15c	222‡	2200	15c
456†	56	15c	225‡	2500	15c
468†	68	15c	227‡	2700	15c
475†	75	15c	230‡	3000	15c
482†	82	15c	233‡	3300	15c
491†	91	15c	239‡	3900	15c
310†	100	15c	240‡	4000	15c
312†	120	15c	243‡	4300	15c
313†	130	15c	247‡	4700	15c
315*	150	15c	250‡	5000	18c
318*	180	15c	256#	5600	18c
320*	200	15c	268#	6800	18c
322*	220	15c	275#	7500	18c
324*	240	15c	110#	10K	18c
325*	250	15c	115#	15K	18c
327*	270	15c	120•	20K	18c
330*	300	15c	130•	30K	36c
333*	330	15c	140•	40K	39c
335*	350	15c	150•	50K	42c

Dia.: *¼". †5/16". ‡½". #⅝". •15/16".

AC LINE AND BUFFER

Rated 1400 WVDC. Tol., GMV*.

Mall. No. UAC-	Cap., µf	Net. Ea.	Mall. No. UAC-	Cap., µf	Net Ea.
210*	.001	21c	260‡	.006	21c
220†	.002	21c	270‡	.007	21c
222†	.0022	21c	275‡	.0075	21c
230†	.003	21c	280‡	.008	21c
233†	.0033	21c	110§	.01	21c
240†	.004	21c	120§	.02	24c
247‡	.0047	21c	2X110§	2x.01	27c
250‡	.005	21c			

Dia.: *⅜". †9/16". ‡13/16". §29/32".

TEMPERATURE STABILIZING

Rated 1000 WVDC. Tolerance, ±10%. Commercial equiv. to MIL-C-11015B.

Mall. No. JL-	Cap., µµf	Net Ea.	Mall. No. JL-	Cap., µµf	Net Ea.
315†	150	30c	212#	1200	30c
322†	220	30c	215#	1500	30c
333†	330	30c	218#	1800	30c
347‡	470	30c	220•	2000	30c
356‡	560	30c	222•	2200	30c
368‡	680	30c	233■	3300	30c
375‡	750	30c	239■	3900	30c
382#	820	30c	247▲	4700	33c
210#	1000	30c	250▲	5000	33c

Dia.: †9/32". ‡23/64". #17/32". •⅝". ■47/64". ▲⅞".

RMC CERAMIC DISCAPS®

TEMPERATURE COMPENSATING

Rated 1000 WVDC. Tolerance, ±5%.

Cap., µµf	"O" Temp. Comp.		N750 Negative Temp. Comp.	
	Mall. No.	Net Ea.	Mall. No.	Net Ea.
1	CNO-510*	30c	......	......
1.5	CNO-515*	30c	......	......
2.2	CNO-522*	30c	CN7-522*	30c
3.3	CNO-533*	30c	CN7-533*	30c
4.7	CNO-547*	30c	CN7-547*	30c
5	......	......	CN7-550*	30c
6.8	CNO-568*	30c	CN7-568*	30c
10	CNO-410*	30c	CN7-410*	30c
12	CNO-412*	30c	CN7-412*	30c
15	CNO-415*	30c	CN7-415*	30c
18	CNO-418†	30c	CN7-418*	30c
20	......	......	CN7-420*	30c
22	CNO-422†	30c	CN7-422*	30c
25	CNO-425†	30c	......	......
27	CNO-427†	30c	CN7-427*	30c
33	CNO-433‡	30c	CN7-433*	30c
39	CNO-439‡	30c	CN7-439*	30c
47	CNO-447‡	30c	CN7-447*	30c
50	CNO-450‡	30c	......	......
56	CNO-456‡	30c	CN7-456*	30c
68	CNO-468‡	30c	CN7-468*	30c
75	CNO-475§	30c	CN7-475‡	30c
82	CNO-482§	30c	CN7-482‡	30c
100	CNO-310#	30c	CN7-310‡	30c
120	CNO-312•	30c	CN7-312‡	30c
150	CNO-315•	33c	CN7-315‡	30c
180	CNO-318#	33c	CN7-318§	33c
200	CNO-320#	33c	CN7-320#	33c
220	CNO-322▲	33c	CN7-322#	33c
270	CNO-327▲	33c	CN7-327•	33c
330	......	......	CN7-333•	33c

Dia.: *¼". †5/16". ‡½". §⅝". #¾". •⅞". ▲15/16".

FREQUENCY STABLE 1000 WVDC

For use in oscillators and other closely controlled circuits where it is desirable to have superior frequency and temperature stability. Tolerance, ±10%.

Cap. µµf	Mallory No. JF-	Net Each	Cap. µµf	Mallory No. JF-	Net Each
150	315*	24c	1500	215‡	24c
220	322*	24c	1800	218‡	24c
330	333*	24c	2000	220‡	24c
470	347*	24c	2200	222‡	24c
500	350*	24c	3300	233§	24c
560	356*	24c	3900	239#	24c
680	368*	24c	4700	247#	24c
750	375†	24c	5000	250#	24c
820	382†	24c	6800	268•	24c
1000	210†	24c	10K	110•	24c
1200	212‡	24c			

Dia.: *19/64". †⅜". ‡35/64". §41/64". #25/32". •59/64".

HIGH VOLTAGE

Tol., GMV* except values 100-470 µµf, ±20%. Not recommended for yoke application.

2000 AND 3000 WVDC

Cap., µµf	2000 WVDC		3000 WVDC	
	Mall. No. 2HV-	Net Ea.	Mall. No. 3HV-	Net Ea.
100	310*	21c	......	......
120	312*	21c	......	......
150	315*	21c	......	......
220	322†	21c	322†	24c
270	327§	21c	327†	24c
330	333‡	21c	333†	24c
470	347‡	21c	347†	24c
560	356*	21c	356†	24c
680	368*	21c	368†	24c
750	375*	21c	375†	24c
820	382*	21c	382†	24c
1000	210*	33c	210†	24c
1200	212‡	33c	212§	24c
1500	215‡	33c	215§	24c
1800	218‡	33c	218§	24c
2200	222‡	33c	222§	24c
3300	233§	33c	233§	24c
3900	239§	33c	239§	24c
4700	247§	33c	247§	24c
6800	268§	42c	......	......
10K	110§	42c	......	......

6000 WVDC

Mall. No. 6HV-	Cap., µµf	Net Ea.	Mall. No. 6HV-	Cap., µµf	Net Ea.
310†	100	35c	347§	470	35c
312†	120	35c	356§	560	35c
315†	150	35c	368§	680	35c
322†	220	35c	375§	750	35c
327§	270	35c	382§	820	35c
333§	330	35c	210§	1K	35c

Dia.: *⅝". †¾". ‡9/16". §⅞".

***Guaranteed Minimum Value.**

DEFLECTION YOKE

Tolerance, ±10%.

2000 AND 3000 WVDC

Cap., µµf	2000 WVDC		3000 WVDC	
	Mall. No. 2DY-	Net Ea.	Mall. No. 3DY-	Net Ea.
4.7	547*	21c	547†	24c
6.8	568*	21c	568†	24c
10	410*	21c	410†	24c
12	412*	21c	412†	24c
15	415*	21c	415†	24c
22	422†	21c	422‡	24c
27	427†	21c	427‡	24c
33	433†	21c	433§	24c
39	439†	21c	439§	24c
47	447†	21c	447§	24c
56	456‡	21c	456§	24c
68	468‡	21c	468§	24c
82	482‡	21c	482§	24c
100	310§	21c	310§	24c
120	......	......	312#	24c
135	......	......	3135#	24c
150	......	......	315#	24c
180	......	......	318#	24c

6000 WVDC

Mall. No. 6DY-	Cap., µµf	Net Ea.	Mall. No. 6DY-	Cap., µµf	Net Ea.
547#	4.7	33c	433•	33	33c
568#	6.8	33c	439•	39	33c
410#	10	33c	447•	47	33c
412#	12	33c	456•	56	33c
415#	15	33c	468•	68	33c
422#	22	33c	482•	82	33c
427#	27	33c			

Dia.: *¼". †5/16". ‡½". §⅝". #¾". •⅞".

BYPASS, GENERAL PURPOSE

Heavy duty, rated 1000 WVDC. Tol., GMV* to 10K; +80%, −20%, 15K and 20K. Values to meet MIL-C-11015B available on special order.

Mall. No.	Cap., µµf	Net Ea.	Mall. No.	Cap., µµf	Net Ea.
B-315*	150	15c	B-220†	2000	15c
B-318*	180	15c	B-222†	2200	15c
B-322*	220	15c	B-227†	2700	15c
B-327*	270	15c	B-233‡	3300	15c
B-333*	330	15c	B-240‡	4000	15c
B-339*	390	15c	B-247§	4700	18c
B-347*	470	15c	B-250§	5000	18c
B-350*	500	15c	B-256§	5600	18c
B-356*	560	15c	B-260§	6000	18c
B-368*	680	15c	B-268#	6800	18c
B-382*	820	15c	B-282#	8200	18c
B-210*	1000	15c	B-110•	10K	18c
B-212*	1200	15c	B-115■	15K	18c
B-215†	1500	15c	B-120■	20K	18c
B-218†	1800	15c			

Dia.: *9/32". †⅜". ‡9/16". §19/32". #⅝". •¾". ■29/32".

SPECIAL CERAMIC CAPACITORS

UNIVERSAL HIGH VOLTAGE CERAMIC CAPACITORS

Filter high voltage power supplies in TV sets, etc. Hi-voltage, high insulation resistant ceramic. Four univ. screw-in terminals. Cap., 500 µµf. Tol., −20% +50%.

Mallory Number	WV DC	Flash Volts	Size, In. H. x Dia.	Net Ea.
HV20035U	20K	30K	1.068x.950"	$1.11
HV30035U	30K	40K	1.381x1.375"	1.80

CERAMIC TRIMMERS

Small and stable for high frequency FM and TV uses. Fired silver electrodes; ceramic rotator and base. Sealed against dust. Solder lug terminals. Two-hole screw mounting. Single or dual units available. Constant capacity change on 360° rotator. Size, 21/32" x 27/32" x ⅜". Rated 600 v. DC.

Mallory Number	Cap. Range, µµf	Temp. Coef.	Net Each
ST-5515-Z	1.5 to 7	Zero	$1.05
ST-553-Z	3 to 12	Zero	.90
ST-554-N	4 to 30	Neg. 500*	1.05
ST-557-N	7 to 45	Neg. 500*	1.05

*Parts/Million/°C.

FEED-THRU CAPACITORS

For TV bypass. Wire terminals as tie points. Body solders to chassis or mounted by hex nut. Silvered steatite trimmer.

Mallory Number	Cap., µµf	WV DC	Size, In.	Net Ea.
CT565*	.5 to 3	500	7/32x½	30c
CT551*	1 to 4	500	7/32x½	30c
CT552*	2 to 6	500	7/32x⅝	30c
CT250A†	1000	600	7/64x¾	30c
CT254A†	1000	600	17/64x13/16	30c
CT280A†	1000	600	3/16x15/16	45c
CT282A‡	1000	600	7/32x1 1/32	60c

Tol.: *±0.5 µµf. †GMV*. ‡±20%.

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P. R. MALLORY & CO. Inc.

MALLORY Tantalum Foil Capacitors

Furnished in both plain and etched foil types, polarized and non-polarized and either of two operating temperature ranges, −55° to +85° C and −55° to +125° C. All foil types except TAF non-polarized are specified by the appropriate MIL-C-3965 style number.

INDUSTRIAL PRICES

Prices shown are for units with bare case. For CL35, TAF( )1, CL31, CL33, CL25, CL21 and CL23 (with Mylar* sleeve), add **10c** to prices shown for their counterparts.

CL34 AND TAF PLAIN FOIL

Case★	Net Each, Lots of 1-9	10-24	25-49	50-99	100-499	500-999
A	$ 4.20	$ 3.33	$ 2.42	$ 1.70	$1.19	$1.03
B	6.60	4.51	3.47	2.47	1.70	1.56
C	10.40	7.17	5.51	3.92	2.68	2.47
D	14.60	10.03	7.70	5.49	3.78	3.46
E	19.60	13.44	10.30	7.34	5.06	4.63

CL30 AND CL32 PLAIN FOIL

Case★	Net Each, Lots of 1-9	10-24	25-49	50-99	100-499	500-999
A	$ 7.35	$ 5.18	$ 3.99	$ 2.84	$1.96	$1.79
B	9.80	6.89	5.32	3.78	2.59	2.38
C	14.20	9.98	7.70	5.47	3.78	3.44
D	18.30	12.87	9.93	7.07	4.85	4.45
E	23.55	16.57	12.78	9.08	6.25	5.71

CL24 ETCHED FOIL

Case★	1-9	10-24	25-49	50-99	100-499	500-999
A	$ 4.20	$ 3.33	$ 2.42	$ 1.71	$1.19	$1.03
B	7.55	4.94	3.80	2.70	1.87	1.72
C	12.60	8.65	6.65	4.73	3.27	2.98
D	20.55	14.11	10.83	7.70	5.31	4.86
E	27.35	18.76	14.44	10.26	7.10	6.47

CL20 AND CL22 ETCHED FOIL

Case★	1-9	10-24	25-49	50-99	100-499	500-999
A	$ 7.35	$ 5.18	$ 3.99	$ 2.84	$1.96	$1.79
B	10.50	7.36	5.70	4.05	2.79	2.55
C	16.15	11.40	8.79	6.26	4.29	3.93
D	24.55	17.29	13.30	9.45	6.55	5.96
E	31.75	22.37	17.24	12.24	8.46	7.71

CL24/25—POLARIZED +85° C
CL24 LISTED BELOW
(USE CL25 FOR MYLAR* SLEEVE)

Cap., µf	WVDC +85° C	Mallory Catalog No.	Case Size
15	15	CL24BE150UP3	A
60	15	CL24BE600UP3	B
200	15	CL24BE201UP3	C
400	15	CL24BE401UP3	D
580	15	CL24BE581UP3	E
10	25	CL24BG100UP3	A
40	25	CL24BG400UP3	B
120	25	CL24BG121UP3	C
250	25	CL24BG251UP3	D
350	25	CL24BG351UP3	E
8	30	CL24BH080UP3	A
32	30	CL24BH320UP3	B
110	30	CL24BH111UP3	C
220	30	CL24BH221UP3	D
300	30	CL24BH301UP3	E
4.5	50	CL24BJ4R5UP3	A
18	50	CL24BJ180UP3	B
60	50	CL24BJ600UP3	C
100	50	CL24BJ101UP3	D
150	50	CL24BJ151UP3	E
3	75	CL24BL030UP3	A
12	75	CL24BL120UP3	B
30	75	CL24BL300UP3	C
70	75	CL24BL700UP3	D
100	75	CL24BL101UP3	E
2	100	CL24BN020UP3	A
8	100	CL24BN080UP3	B
25	100	CL24BN250UP3	C
50	100	CL24BN500UP3	D
70	100	CL24BN700UP3	E
1	150	CL24BQ010UP3	A
4	150	CL24BQ040UP3	B
13	150	CL24BQ130UP3	C
25	150	CL24BQ250UP3	D
36	150	CL24BQ360UP3	E

TAF—NON-POLARIZED +85° C
(CHANGE 12th DIGIT TO "1" FOR MYLAR* SLEEVE)

Cap., µf	WVDC +85° C	Mallory Catalog No.	Case Size
5.0	6	TAF505M006N0A	A
25.0	6	TAF256M006N0B	B
85.0	6	TAF856M006N0C	C
170.0	6	TAF177M006N0D	D
250.0	6	TAF257M006N0E	E
3.0	10	TAF305M010N0A	A
16.0	10	TAF166M010N0B	B
55.0	10	TAF556M010N0C	C
110.0	10	TAF117M010N0D	D
150.0	10	TAF157M010N0E	E
2.5	15	TAF255M015N0A	A
10.0	15	TAF106M015N0B	B
35.0	15	TAF356M015N0C	C
70.0	15	TAF706M015N0D	D
100.0	15	TAF107M015N0E	E
1.5	25	TAF155M025N0A	A
6.0	25	TAF605M025N0B	B
20.0	25	TAF206M025N0C	C
40.0	25	TAF406M025N0D	D
60.0	25	TAF606M025N0E	E
1.4	30	TAF145M030N0A	A
5.5	30	TAF555M030N0B	B
18.0	30	TAF186M030N0C	C
36.0	30	TAF366M030N0D	D
45.0	30	TAF456M030N0E	E
.8	50	TAF804M050N0A	A
3.0	50	TAF305M050N0B	B
10.0	50	TAF106M050N0C	C
20.0	50	TAF206M050N0D	D
30.0	50	TAF306M050N0E	E
.6	60	TAF604M060N0A	A
2.5	60	TAF255M060N0B	B
8.5	60	TAF855M060N0C	C
17.0	60	TAF176M060N0D	D
24.0	60	TAF246M060N0E	E

TAF (CONT'D)

µf	WVDC	Mallory No.	Size
.5	75	TAF504M075N0A	A
2.0	75	TAF205M075N0B	B
7.0	75	TAF705M075N0C	C
14.0	75	TAF146M075N0D	D
20.0	75	TAF206M075N0E	E
.4	100	TAF404M100N0A	A
1.5	100	TAF155M100N0B	B
5.0	100	TAF505M100N0C	C
10.0	100	TAF106M100N0D	D
15.0	100	TAF156M100N0E	E
.25	150	TAF254M150N0A	A
1.0	150	TAF105M150N0B	B
3.5	150	TAF355M150N0C	C
7.0	150	TAF705M150N0D	D
10.0	150	TAF106M150N0E	E

CL34/35—POLARIZED +85° C
CL34 LISTED BELOW
(USE CL35 FOR MYLAR* SLEEVE)

µf	WVDC	Mallory No.	Size
10	3	CL34BA100MP3	A
50	3	CL34BA500MP3	B
8	6	CL34BB080MP3	A
30	6	CL34BB300MP3	B
100	6	CL34BB101MP3	C
200	6	CL34BB201MP3	D
300	6	CL34BB301MP3	E
6	10	CL34BD060MP3	A
25	10	CL34BD250MP3	B
80	10	CL34BD800MP3	C
160	10	CL34BD161MP3	D
220	10	CL34BD221MP3	E
4.5	15	CL34BE4R5MP3	A
10	15	CL34BE100MP3	B
18	15	CL34BE180MP3	B
55	15	CL34BE550MP3	C
110	15	CL34BE111MP3	D
160	15	CL34BE161MP3	E
2.5	30	CL34BH2R5MP3	A
30	30	CL34BH300MP3	C
60	30	CL34BH600MP3	D
85	30	CL34BH850MP3	E
1.5	50	CL34BJ1R5MP3	A
6	50	CL34BJ060MP3	B
20	50	CL34BJ200MP3	C
40	50	CL34BJ400MP3	D
55	50	CL34BJ550MP3	E
1	75	CL34BL010MP3	A
4	75	CL34BL040MP3	B
14	75	CL34BL140MP3	C
28	75	CL34BL280MP3	D
40	75	CL34BL400MP3	E
.8	100	CL34BN0R8MP3	A
3	100	CL34BN030MP3	B
10	100	CL34BN100MP3	C
20	100	CL34BN200MP3	D
30	100	CL34BN300MP3	E
.5	150	CL34BQ0R5MP3	A
2	150	CL34BQ020MP3	B
4	150	CL34BQ040MP3	C
7	150	CL34BQ070MP3	C
8	150	CL34BQ080MP3	D
12	150	CL34BQ120MP3	D
14	150	CL34BQ140MP3	D
20	150	CL34BQ200MP3	E

CL30/31 (POLARIZED) & CL32/33 (NON-POLAR.) +125° C

WVDC +125°C	Case Size	Polarized CL30† Cap., µf	Polarized CL30† Mallory Catalog No.	Non-Polarized CL32† Cap., µf	Non-Polarized CL32† Mallory Catalog No.
10	A	4.5	CL30CD4R5MP3	2.5	CL32CD2R5MN3
10	B	18	CL30CD180MP3	10	CL32CD100MN3
10	C	55	CL30CD550MP3	35	CL32CD350MN3
10	D	110	CL30CD111MP3	70	CL32CD700MN3
10	E	160	CL30CD161MP3	100	CL32CD101MN3
15	A	3	CL30CE030MP3	1.5	CL32CE1R5MN3
15	B	12	CL30CE120MP3	6	CL32CE060MN3
15	C	35	CL30CE350MP3	20	CL32CE200MN3
15	D	70	CL30CE700MP3	40	CL32CE400MN3
15	E	100	CL30CE101MP3	60	CL32CE600MN3
30	A	1.5	CL30CH1R5MP3	.8	CL32CH0R8MN3
30	B	6	CL30CH060MP3	.3	CL32CH030MN3
30	C	20	CL30CH200MP3	10	CL32CH100MN3
30	D	40	CL30CH400MP3	20	CL32CH200MN3
30	E	55	CL30CH550MP3	30	CL32CH300MN3
50	A	1	CL30CJ010MP3	.5	CL32CJ0R5MN3
50	B	4	CL30CJ040MP3	2	CL32CJ020MN3
50	C	14	CL30CJ140MP3	7	CL32CJ070MN3
50	D	28	CL30CJ280MP3	14	CL32CJ140MN3
50	E	40	CL30CJ400MP3	20	CL32CJ200MN3
60	A	.8	CL30CK0R8MP3	.4	CL32CK0R4MN3
60	B	3	CL30CK030MP3	1.5	CL32CK1R5MN3
60	C	10	CL30CK100MP3	5	CL32CK050MN3
60	D	20	CL30CK200MP3	10	CL32CK100MN3
60	E	30	CL30CK300MP3	15	CL32CK150MN3
100	A	.5	CL30CN0R5MP3	.25	CL32CNR25MN3
100	B	2	CL30CN020MP3	1	CL32CN010MN3
100	C	7	CL30CN070MP3	3.5	CL32CN3R5MN3
100	D	14	CL30CN140MP3	7	CL32CN070MN3
100	E	20	CL30CN200MP3	10	CL32CN100MN3
150	A	.35	CL30CQR35MP3	.15	CL32CQR15MN3
150	B	1.5	CL30CQ1R5MP3	.75	CL32CQR75MN3
150	C	5	CL30CQ050MP3	2.5	CL32CQ2R5MN3
150	D	10	CL30CQ100MP3	5	CL32CQ050MN3
150	E	15	CL30CQ150MP3	7.5	CL32CQ7R5MN3

†Specify CL31 and CL33 for Mylar sleeve.

CL20/21 (POLARIZED) & CL22/23 (NON-POLAR.) +125° C

WVDC +125°C	Case Size	Polarized CL20§ Cap., µf	Polarized CL20§ Mallory Catalog No.	Non-Polarized CL22§ Cap., µf	Non-Polarized CL22§ Mallory Catalog No.
10	A	15	CL20CD150UP3	10	CL22CD100UN3
10	B	60	CL20CD600UP3	40	CL22CD400UN3
10	C	200	CL20CD201UP3	120	CL22CD121UN3
10	D	400	CL20CD401UP3	250	CL22CD251UN3
10	E	580	CL20CD581UP3	350	CL22CD351UN3
15	A	10	CL20CE100UP3	5	CL22CE052UN3
15	B	40	CL20CE400UP3	20	CL22CE200UN3
15	C	120	CL20CE121UP3	70	CL22CE700UN3
15	D	250	CL20CE251UP3	140	CL22CE141UN3
15	E	350	CL20CE351UP3	200	CL22CE201UN3
30	A	4.5	CL20CH4R5TP3	2.5	CL22CH2R5TN3
30	B	18	CL20CH180TP3	10	CL22CH100TN3
30	C	60	CL20CH600TP3	30	CL22CH300TN3
30	D	100	CL20CH101TP3	60	CL22CH600TN3
30	E	150	CL20CH151TP3	80	CL22CH800TN3
50	A	3	CL20CJ030TP3	1.5	CL22CJ1R5TN3
50	B	12	CL20CJ120TP3	6	CL22CJ060TN3
50	C	30	CL20CJ300TP3	15	CL22CJ150TN3
50	D	70	CL20CJ700TP3	35	CL22CJ350TN3
50	E	100	CL20CJ101TP3	50	CL22CJ500TN3
60	A	2	CL20CK020TP3	1	CL22CK010TN3
60	B	8	CL20CK080TP3	4	CL22CK040TN3
60	C	25	CL20CK250TP3	12	CL22CK120TN3
60	D	50	CL20CK500TP3	25	CL22CK250TN3
60	E	70	CL20CK700TP3	35	CL22CK350TN3
100	A	1	CL20CN010SP3	.5	CL22CN0R5SN3
100	B	4	CL20CN040SP3	2	CL22CN020SN3
100	C	13	CL20CN130SP3	6	CL22CN060SN3
100	D	25	CL20CN250SP3	12	CL22CN120SN3
100	E	36	CL20CN360SP3	18	CL22CN180SN3

§Specify CL21 and CL23 for Mylar sleeve.

★FOIL CASE SIZE (UNINSULATED#)

Key	Dia. x L.	Key	Dia. x L.	Key	Dia. x L.
A	3/16″ x 11/16″	C	3/8″ x 1 7/16″	E	3/8″ x 2 3/4″
B	9/32″ x 7/8″	D	3/8″ x 2 1/8″		

*Reg. DuPont trademark. #Add 1/64″ dia. x 1/16″ l. for sleeve.

P.R. MALLORY & CO. Inc. MALLORY Tantalum Capacitors

CS12/13 AND TAS SOLID ELECTROLYTE TANTALUMS

−80° TO +125° C

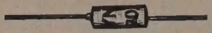
Metal case with hermetic seal; meet or exceed MIL-C-26655 requirements. CS12/13 (+65° C) and TAS (+85° C) are stock items.

INDUSTRIAL PRICES

Prices listed are for plain (uninsulated) case, as itemized in stock tables. For Mylar* sleeve, add **2c** to prices shown; and, specify CS**13** or TAS—P**1**-.

±20% TYPES CS12 AND TAS

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$1.43	$1.15	$0.98	$0.73	$0.69
C	1.52	1.22	1.03	.75	.71
F	2.50	2.00	1.69	1.24	1.19
G	4.64	3.72	3.14	2.45	2.34



±10% TYPES CS12 AND TAS

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$1.64	$1.32	$1.13	$0.84	$0.79
C	1.75	1.40	1.18	.86	.82
F	2.88	2.30	1.94	1.43	1.37
G	5.34	4.28	3.61	2.82	2.70

CS12 AND TAS CASE SIZES

For Mylar* sleeve (CS13, TAS—P1-), add .010″ to dia., and .072″ to length.

Case	Diameter	Length
A	.125″	.250″
C	.175″	.438″
F	.279″	.650″
G	.341″	.750″

TAM SOLID ELECTROLYTE

Printed circuit solid electrolyte types with parallel leads (0.175″ spacing) and plastic encapsulation. Tolerance: ±20%. Temperature Range: −55° to +85° C.

Cap., µf	WVDC +85° C	Mallory Catalog No.	Case Size†
6.8	25	TAM685M025P5C	C
10	25	TAM106M025P5C	C
15	25	TAM156M025P5C	C
22	15	TAM226M015P5C	C
33	10	TAM336M010P5C	C
39	10	TAM396M010P5C	C
56	6	TAM566M006P5C	C

†.325″ square, .175″ thick.

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
C	$1.20	$0.96	$0.82	$0.69	$0.63

±20% CS12/13 AND TAS STOCK VALUES

Cap., µf	WVDC +85° C	Mallory Catalog No.	Case Size	Military Number
.33	6	TAS334M006P0A	A	....
.47	6	TAS474M006P0A	A	....
.68	6	TAS684M006P0A	A	....
1	6	TAS105M006P0A	A	....
1.5	6	TAS155M006P0A	A	....
2.2	6	TAS225M006P0A	A	....
3.3	6	TAS335M006P0A	A	....
4.7	6	TAS475M006P0A	A	....
6.8	6	TAS685M006P0A	A	CS12AB6R8M
10	6	TAS106M006P0C	C	....
15	6	TAS156M006P0C	C	....
22	6	TAS226M006P0C	C	....
33	6	TAS336M006P0C	C	....
47	6	TAS476M006P0C	C	CS12AB470M
68	6	TAS686M006P0F	F	....
100	6	TAS107M006P0F	F	....
150	6	TAS157M006P0F	F	CS12AB151M
220	6	TAS227M006P0G	G	....
330	6	TAS337M006P0G	G	CS12AB331M
.33	10	TAS334M010P0A	A	....
.47	10	TAS474M010P0A	A	....
.68	10	TAS684M010P0A	A	....
1	10	TAS105M010P0A	A	....
1.5	10	TAS155M010P0A	A	....
2.2	10	TAS225M010P0A	A	....
3.3	10	TAS335M010P0A	A	....
4.7	10	TAS475M010P0A	A	CS12AC4R7M
6.8	10	TAS685M010P0C	C	....
10	10	TAS106M010P0C	C	....
15	10	TAS156M010P0C	C	....
22	10	TAS226M010P0C	C	....
33	10	TAS336M010P0C	C	CS12AC330M
47	10	TAS476M010P0F	F	....
68	10	TAS686M010P0F	F	....
100	10	TAS107M010P0F	F	CS12AC101M
150	10	TAS157M010P0G	G	....
220	10	TAS227M010P0G	G	CS12AC221M
.33	15	TAS334M015P0A	A	....
.47	15	TAS474M015P0A	A	....
.68	15	TAS684M015P0A	A	....
1	15	TAS105M015P0A	A	....
1.5	15	TAS155M015P0A	A	....
2.2	15	TAS225M015P0A	A	....
3.3	15	TAS335M015P0A	A	CS12AD3R3M
4.7	15	TAS475M015P0C	C	....
6.8	15	TAS685M015P0C	C	....
10	15	TAS106M015P0C	C	....
15	15	TAS156M015P0C	C	....
22	15	TAS226M015P0C	C	CS12AD220M
33	15	TAS336M015P0F	F	....
47	15	TAS476M015P0F	F	....
68	15	TAS686M015P0F	F	CS12AD680M
100	15	TAS107M015P0G	G	....
150	15	TAS157M015P0G	G	CS12AD151M
.33	20	TAS334M020P0A	A	....
.47	20	TAS474M020P0A	A	....
.68	20	TAS684M020P0A	A	....
1	20	TAS105M020P0A	A	....
1.5	20	TAS155M020P0A	A	CS12AE1R5M
2.2	20	TAS225M020P0A	A	CS12AE2R2M
3.3	20	TAS335M020P0C	C	....
4.7	20	TAS475M020P0C	C	....
6.8	20	TAS685M020P0C	C	....
10	20	TAS106M020P0C	C	CS12AE100M
15	20	TAS156M020P0C	C	CS12AE150M
22	20	TAS226M020P0F	F	....
33	20	TAS336M020P0F	F	CS12AE330M
47	20	TAS476M020P0F	F	CS12AE470M
68	20	TAS686M020P0G	G	CS12AE680M
100	20	TAS107M020P0G	G	CS12AE101M
.33	35	TAS334M035P0A	A	CS12AFR33M
.47	35	TAS474M035P0A	A	CS12AFR47M
.68	35	TAS684M035P0A	A	CS12AFR68M
1	35	TAS105M035P0A	A	CS12AF010M
1.5	35	TAS155M035P0C	C	CS12AF1R5M
2.2	35	TAS225M035P0C	C	CS12AF2R2M
3.3	35	TAS335M035P0C	C	CS12AF3R3M
4.7	35	TAS475M035P0C	C	CS12AF4R7M
6.8	35	TAS685M035P0C	C	CS12AF6R8M
10	35	TAS106M035P0F	F	CS12AF100M
15	35	TAS156M035P0F	F	CS12AF150M
22	35	TAS226M035P0F	F	CS12AF220M
33	35	TAS336M035P0G	G	CS12AF330M
47	35	TAS476M035P0G	G	CS12AF470M
68	35	TAS686M035P0G	G	....

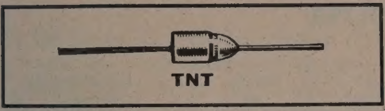
±10% CS12/13 AND TAS STOCK VALUES

5.6	6	TAS565K006P0A	A	CS12AB5R6K
6.8	6	TAS685K006P0A	A	CS12AB6R8K
47	6	TAS476K006P0C	C	CS12AB470K
56	6	TAS566K006P0C	C	CS12AB560K
150	6	TAS157K006P0F	F	CS12AB151K
180	6	TAS187K006P0F	F	CS12AB181K
270	6	TAS277K006P0G	G	CS12AB271K
330	6	TAS337K006P0G	G	CS12AB331K
3.9	10	TAS395K010P0A	A	CS12AC3R9K
4.7	10	TAS475K010P0A	A	CS12AC4R7K
27	10	TAS276K010P0C	C	CS12AC270K
33	10	TAS336K010P0C	C	CS12AC330K
39	10	TAS396K010P0C	C	CS12AC390K
82	10	TAS826K010P0F	F	CS12AC820K
100	10	TAS107K010P0F	F	CS12AC101K
120	10	TAS127K010P0F	F	CS12AC121K
180	10	TAS187K010P0G	G	CS12AC181K
220	10	TAS227K010P0G	G	CS12AC221K
2.7	15	TAS275K015P0A	A	CS12AD2R7K
3.3	15	TAS335K015P0A	A	CS12AD3R3K
18	15	TAS186K015P0C	C	CS12AD180K
22	15	TAS226K015P0C	C	CS12AD220K
56	15	TAS566K015P0F	F	CS12AD560K
68	15	TAS686K015P0F	F	CS12AD680K
120	15	TAS127K015P0G	G	CS12AD121K
150	15	TAS157K015P0G	G	CS12AD151K
1.2	20	TAS125K020P0A	A	CS12AE1R2K
1.5	20	TAS155K020P0A	A	CS12AE1R5K
1.8	20	TAS185K020P0A	A	CS12AE1R8K
2.2	20	TAS225K020P0A	A	CS12AE2R2K
8.2	20	TAS825K020P0C	C	CS12AE8R2K
10	20	TAS106K020P0C	C	CS12AE100K
12	20	TAS126K020P0C	C	CS12AE120K
15	20	TAS156K020P0C	C	CS12AE150K
27	20	TAS276K020P0F	F	CS12AE270K
33	20	TAS336K020P0F	F	CS12AE330K
39	20	TAS396K020P0F	F	CS12AE390K
47	20	TAS476K020P0F	F	CS12AE470K
56	20	TAS566K020P0G	G	CS12AE560K
68	20	TAS686K020P0G	G	CS12AE680K
82	20	TAS826K020P0G	G	CS12AE820K
100	20	TAS107K020P0G	G	CS12AE101K
.33	35	TAS334K035P0A	A	CS12AFR33K
.39	35	TAS394K035P0A	A	CS12AFR39K
.47	35	TAS474K035P0A	A	CS12AFR47K
.56	35	TAS564K035P0A	A	CS12AFR56K
.68	35	TAS684K035P0A	A	CS12AFR68K
.82	35	TAS824K035P0A	A	CS12AFR82K
1.0	35	TAS105K035P0A	A	CS12AF010K
1.2	35	TAS125K035P0C	C	CS12AF1R2K
1.5	35	TAS155K035P0C	C	CS12AF1R5K
1.8	35	TAS185K035P0C	C	CS12AF1R8K
2.2	35	TAS225K035P0C	C	CS12AF2R2K
2.7	35	TAS275K035P0C	C	CS12AF2R7K
3.3	35	TAS335K035P0C	C	CS12AF3R3K
3.9	35	TAS395K035P0C	C	CS12AF3R9K
4.7	35	TAS475K035P0C	C	CS12AF4R7K
5.6	35	TAS565K035P0C	C	CS12AF5R6K
6.8	35	TAS685K035P0C	C	CS12AF6R8K
8.2	35	TAS825K035P0F	F	CS12AF8R2K
10	35	TAS106K035P0F	F	CS12AF100K
12	35	TAS126K035P0F	F	CS12AF120K
15	35	TAS156K035P0F	F	CS12AF150K
18	35	TAS186K035P0F	F	CS12AF180K
22	35	TAS226K035P0F	F	CS12AF220K
27	35	TAS276K035P0G	G	CS12AF270K
33	35	TAS336K035P0G	G	CS12AF330K
39	35	TAS396K035P0G	G	CS12AF390K
47	35	TAS476K035P0G	G	CS12AF470K

*Registered DuPont trademark.

P. R. MALLORY & CO. Inc. MALLORY Tantalum Capacitors

TNT-TAP-TAH MINIATURE PELLET TYPES



Metal case types with axial leads and epoxy end seals. Available with Mylar* sleeve; change 12th digit to "1" and add **5c** to all prices shown. *DuPont T.M.

TNT +85° C

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
2	50	TNT205U050P0A	A
4	50	TNT405U050P0A	A
6	-35	TNT605U035P0A	A
8	50	TNT805U050P0B	B
12	15	TNT126U015P0A	A
12	35	TNT126U035P0B	B
15	30	TNT156U030P0B	B
25	6	TNT256U006P0A	A
25	15	TNT256U015P0B	B
35	12	TNT356U012P0B	B
40	3	TNT406U003P0A	A
50	6	TNT506U006P0B	B
80	3	TNT806U003P0B	B

TNT PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$1.24	$0.99	$0.84	$0.714	$0.651
B	1.46	1.17	.99	.84	.766

TNT CASE SIZES

Case	Diameter	Length
A	.165″	.350″
B	.165″	.500″

TAP +85° C

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
2	90	TAP205U090P0A	A
3.5	75	TAP355U075P0A	A
4	60	TAP405U060P0A	A
5	50	TAP505U050P0A	A
6	40	TAP605U040P0A	A
7	35	TAP705U035P0A	A
8	30	TAP805U030P0A	A
10	25	TAP106U025P0A	A
11	90	TAP116U090P0B	B
12	20	TAP126U020P0A	A
15	15	TAP156U015P0A	A
15	75	TAP156U075P0B	B
20	10	TAP206U010P0A	A
20	60	TAP206U060P0B	B
25	50	TAP256U050P0B	B
30	6	TAP306U006P0A	A
30	40	TAP306U040P0B	B
40	30	TAP406U030P0B	B
70	15	TAP706U015P0B	B
100	10	TAP107U010P0B	B
140	6	TAP147U006P0B	B

TAP PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$1.46	$1.17	$0.99	$0.84	$0.766
B	2.46	1.97	1.66	1.415	1.29

TAP AND TAH CASE SIZES

Case	Diameter	Length
A	.238″	.500″
B	.238″	.600″
C	.238″	.875″

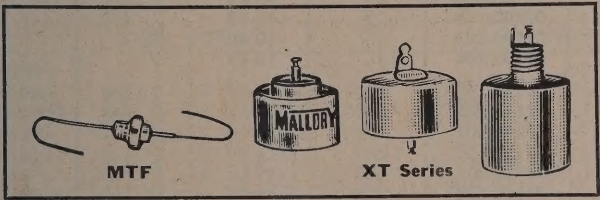
TAH +125° C

Cap. µf	WVDC +125°C	Mallory Catalog No.	Case Size
2	60	TAH205R060P0A	A
3.5	50	TAH355R050P0A	A
4	40	TAH405R040P0A	A
5	30	TAH505R030P0A	A
6	25	TAH605R025P0A	A
7	23	TAH705R023P0A	A
8	20	TAH805R020P0A	A
10	15	TAH106R015P0A	A
11	60	TAH116R060P0B	B
12	13	TAH126R013P0A	A
15	10	TAH156R010P0A	A
15	50	TAH156R050P0B	B
20	7	TAH206R007P0A	A
20	40	TAH206R040P0B	B
25	30	TAH256R030P0B	B
30	4	TAH306R004P0A	A
30	25	TAH306R025P0B	B
30	60	TAH306R060P0C	C
40	20	TAH406R020P0B	B
40	50	TAH406R050P0C	C
50	40	TAH506R040P0C	C
60	30	TAH606R030P0C	C
70	10	TAH706R010P0B	B
100	7	TAH107R007P0B	B
100	20	TAH107R020P0C	C
140	4	TAH147R004P0B	B
170	10	TAH177R010P0C	C
250	7	TAH257R007P0C	C
330	4	TAH337R004P0C	C

TAH PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$2.20	$1.75	$1.48	$1.26	$1.15
B	3.68	2.94	2.49	2.12	1.935
C	7.05	5.65	4.76	4.50	3.72

HERMETICALLY SEALED—HIGH TEMPERATURE



MTF −55° TO +150° C

Axial leads, commercial equivalent to MIL-C-3965 Style CL44.

Cap. µf	WVDC +85°C	Mallory Catalog No.	Cap. µf	WVDC +85°C	Mallory Catalog No.
11	90	MTF116T090P0H	40	30	MTF406T030P0H
15	75	MTF156T075P0H	70	15	MTF706T015P0H
20	60	MTF206T060P0H	100	10	MTF107T010P0H
25	50	MTF256T050P0H	140	6	MTF147T006P0H
30	40	MTF306T040P0H			

Any Model listed above—Net Each, Lots of 1–24, **$6.76; 25–49, $5.41;** 50–99, **$4.56;** 100-499, **$3.89.**

XTM −55° TO +175° C

Cap. µf	WVDC +85° C	Mallory Catalog No.*	Net Each, Lots of		
			1-24	25-49	50-99
4	340	XTM405T340P0A	$16.20	$15.12	$14.04
5	255	XTM505T255P0A	12.96	12.10	11.23
8	170	XTM805T170P0A	9.90	9.24	8.56
16	90	XTM166T090P0A	6.56	6.12	5.68
25	60	XTM256T060P0A	6.56	6.12	5.68
40	35	XTM406T035P0A	6.56	6.12	5.68

*Suffix letter **A** indicates MIL-C-3965/20A, style CL-10. Also available in Style C-13; change suffix letter to **D**, add **5c** to prices shown.

XTH-XTL-XTV HIGH TEMP.—HIGH CAPACITY

XTH, XTL, and XTV types are available in twelve case configurations. Only those cases which are normally stocked are shown here. All others are available on special order. Cases listed conform fully to MIL-C-3965B Styles CL10, 13, 14, 16, 17, and 18.

XTH −55° TO +200° C

Cap. µf	WVDC +85° C	Mallory Catalog No.†	Net Each, Lots of		
			1-24	25-49	50-99
7	630	XTH705U630P0C	$42.62	$39.78	$36.94
8	540	XTH805U540P0C	37.13	34.66	32.19
12	360	XTH126U360P0C	26.06	24.33	22.59
12	360	XTH126U360P0L	26.41	24.68	22.94
16	270	XTH166U270P0C	20.48	19.12	17.76
16	270	XTH166U270P0L	20.83	19.47	18.11
25	180	XTH256U180P0C	14.80	13.81	12.83
25	180	XTH256U180P0L	15.15	14.16	13.18
50	90	XTH506U090P0C	9.30	8.69	8.07
80	60	XTH806U060P0C	9.30	8.69	8.07
80	60	XTH806U060P0L	9.65	9.04	8.42
120	35	XTH127U035P0C	9.30	8.69	8.07
150	30	XTH157U030P0C	9.30	8.69	8.07
150	30	XTH157U030P0L	9.65	9.04	8.42
240	18	XTH247U018P0L	9.65	9.04	8.42

†**C**, MIL-C-3965/1D, CL-14; **L**, MIL-C-3965/1D, CL-16.

XTL −55° TO +200° C

Cap. µf	WVDC +85° C	Mallory Catalog No.	Net Each, Lots of		
			1-24	25-49	50-99
3.5	630	XTL355U630P0C*	$34.30	$32.01	$29.73
4	540	XTL405U540P0C*	29.89	27.90	25.91
5	450	XTL505U450P0C*	25.70	23.99	22.28
6	360	XTL605U360P0C*	21.16	19.75	18.34
6	360	XTL605U360P0L‡	21.50	20.10	18.69
8	270	XTL805U270P0C*	16.70	15.59	14.48
12	180	XTL126U180P0C*	12.38	11.56	10.64
12	180	XTL126U180P0L‡	12.73	11.91	11.09
25	90	XTL256U090P0C*	8.24	7.69	7.15
40	60	XTL406U060P0C*	8.24	7.69	7.15
40	60	XTL406U060P0L‡	8.59	8.04	7.50
75	30	XTL756U030P0C*	8.24	7.69	7.15
75	30	XTL756U030P0L‡	8.59	8.04	7.50
120	18	XTL127U018P0C*	8.24	7.69	7.15

*Stock Items (MIL-C-3965/1D, Style CL-14). ‡Stock Items (MIL-C-3965/1D, Style CL-16).

XTV −55° TO +200° C

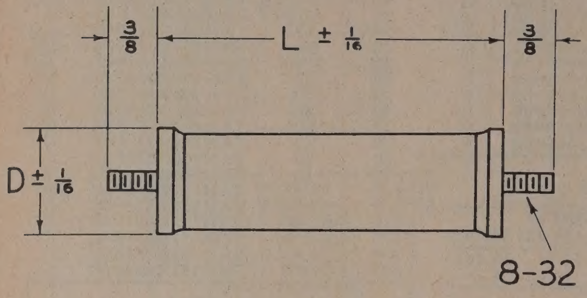
XTV listed by MIL-C-3965/19A Style CL17 ("C") and CL18 ("B") are stocked. Ten other case configurations available on special order.

Cap. µf	WVDC +85° C	Mallory Catalog No.	Net Each, Lots of		
			1-24	25-49	50-99
25	450	XTV256T450P0B	$79.55	$74.25	$68.95
40	270	XTV406T270P0B	49.55	46.25	42.95
60	180	XTV606T180P0B	35.00	32.67	30.34
120	90	XTV127T090P0B	19.55	18.25	16.95
190	40	XTV197T040P0B	13.55	12.65	11.75
200	60	XTV207T060P0B	19.55	18.25	16.95
220	75	XTV227T075P0B	30.05	28.05	26.05
290	40	XTV297T040P0B	19.55	18.25	16.95
350	60	XTV357T060P0B	30.05	28.05	26.05
450	75	XTV457T075P0B	43.55	40.65	37.75
500	40	XTV507T040P0B	30.05	28.05	26.05
700	60	XTV707T060P0B	43.55	40.65	37.75
750	60	XTV757T060P0B	43.55	40.65	37.75
1000	40	XTV108T040P0B	43.55	40.65	37.75
1300	30	XTV138T030P0B	43.55	40.65	37.75
25	450	XTV256T450P0C	79.55	74.25	68.95
40	270	XTV406T270P0C	49.55	46.25	42.95
60	180	XTV606T180P0C	35.00	32.67	30.34
120	90	XTV127T090P0C	19.55	18.25	16.95
200	60	XTV207T060P0C	19.55	18.25	16.95
220	75	XTV227T075P0C	30.05	28.05	26.05
350	60	XTV357T060P0C	30.05	28.05	26.05
290	40	XTV297T040P0C	19.55	18.25	16.95
370	30	XTV377T030P0C	19.55	18.25	16.95
450	75	XTV457T075P0C	43.55	40.65	37.75
500	40	XTV507T040P0C	30.05	28.05	26.05
650	30	XTV657T030P0C	30.05	28.05	26.05
700	60	XTV707T060P0C	43.55	40.65	37.75
750	60	XTV757T060P0C	43.55	40.65	37.75
1000	40	XTV108T040P0C	43.55	40.65	37.75
1300	30	XTV138T030P0C	43.55	40.65	37.75

HIGH VOLTAGE CAPACITORS
TYPE OF

85°C GLASS CAP — PLASTIC FILM DC FILTER

TYPE OF Capacitors are housed in glass tubes with metal-to-glass soldered ferrules. Capacitor element is an improved plastic dielectric type, impregnated with a highly purified and inhibited mineral oil.



All glass containers with 'D' dimensions of 19/32 have 2-1/2 inch long 18 tinned copper pigtail leads.

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS L	D
OF20-102	.011	2000	1 3/16	19/32
OF20-202	.002	2000	1 3/16	19/32
OF20-502	.005	2000	1 3/36	19/32
OF20-103	.01	2000	1 3/16	19/32
OF20-203	.02	2000	1 9/16	19/32
OF20-503	.05	2000	1 3/4	3/4
OF20-104	0.1	2000	2 1/4	3/4
OF20-254	0.25	2000	2 3/4	29/32
OF20-504	0.5	2000	2	1 3/8
OF30-102	.001	3000	1 3/16	19/32
OF30-202	.002	3000	1 3/16	19/32
OF30-502	.005	3000	1 3/16	19/32
OF30-103	.01	3000	1 9/16	19/32
OF30-203	.02	3000	1 3/4	3/4
OF30-503	.05	3000	2 1/4	3/4
OF30-104	0.1	3000	1 3/4	1 1/8
OF30-254	0.25	3000	2	1 3/8
OF30-504	0.5	3000	2 3/4	1 5/8
OF40-102	.001	4000	1 3/16	19/32
OF40-202	.002	4000	1 3/16	19/32
OF40-502	.005	4000	1 3/16	19/32
OF40-103	.01	4000	1 3/16	3/4
OF40-203	.02	4000	1 3/4	3/4
OF40-503	.05	4000	2	13/16
OF40-104	0.1	4000	2	1 1/8
OF40-254	0.25	4000	2 1/4	1 5/8
OF40-504	0.5	4000	3 3/4	1 5/8

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS L	D
OF50-202	.002	5000	1 3/16	19/32
OF50-502	.005	5000	1 5/8	19/32
OF50-103	.01	5000	1 3/4	3/4
OF50-203	.02	5000	2 1/4	3/4
OF50-503	.05	5000	2 1/4	29/32
OF50-104	0.1	5000	2 1/4	1 3/8
OF50-254	0.25	5000	3	1 5/8
OF50-504	0.5	5000	6	1 5/8
OF80-101	.0001	8000	1 9/16	19/32
OF80-201	.0002	8000	1 9/16	19/32
OF80-501	.0005	8000	1 9/16	19/32
OF80-102	.001	8000	1 9/16	19/32
OF80-202	.002	8000	1 3/4	19/32
OF80-502	.005	8000	1 3/4	3/4
OF80-103	.01	8000	2 1/4	3/4
OF80-203	.02	8000	2 3/4	29/32
OF80-503	.05	8000	2 3/4	1 3/8
OF80-104	0.1	8000	3 5/8	1 5/8
OF80-204	0.2	8000	7	1 5/8
OF100-101	.0001	10 KV	1 5/8	19/32
OF100-201	.0002	10 KV	1 5/8	19/32
OF100-501	.0005	10 KV	1 5 8	19/32
OF100-102	.001	10 KV	1 5/8	19/32
OF100-202	.002	10 KV	1 5/8	3/4
OF100-502	.005	10 KV	1 3/4	13/16
OF100-103	.01	10 KV	2 1/4	29/32
OF100-203	.02	10 KV	2 3/4	1 1/8
OF100-503	.05	10 KV	2 3/4	1 5/8
OF100-603	.06	10 KV	3	1 5/8
OF100-104	0.1	10 KV	5	1 5/8
OF150-101	.0001	15 KV	2 1/4	19/32
OF150-201	.0002	15 KV	2 1/4	19/32
OF150-501	.0005	15 KV	2 1/4	19/32
OF150-102	.001	15 KV	2 1/4	3/4
OF150-202	.002	15 KV	2 1/4	3/4
OF150-502	.005	15 KV	2 3/4	1 1/8
OF150-103	.01	15 KV	3 3/4	1 1/8
OF150-203	.02	15 KV	4 1/4	1 3/8
OF150-503	.05	15 KV	7	1 5/8
OF150-603	.06	15 KV	8	1 5/8
OF200-101	.0001	20 KV	3 1/2	19/32
OF200-201	.0002	20 KV	3 1/2	19/32
OF200-501	.0005	20 KV	3 1/2	19/32
OF200-102	.001	20 KV	3 1/2	3/4
OF200-202	.002	20 KV	3 1/2	13/16
OF200-502	.005	20 KV	3 1/2	1 1/8
OF200-103	.01	20 KV	4 1/2	1 1/8
OF200-203	.02	20 KV	4 1/2	1 5/8
OF200-403	.04	20 KV	7 1/4	1 5/8
OF300-101	.0001	30 KV	4 9/16	19/32
OF300-201	.0002	30 KV	4 9/16	19/32
OF300-501	.0005	30 KV	4 9/16	19/32
OF300-102	.001	30 KV	5	3/4
OF300-202	.002	30 KV	5	29/32
OF300-502	.005	30 KV	5	1 3/8
OF300-103	.01	30 KV	6 1/2	1 5/8
OF300-203	.02	30 KV	9	1 5/8

The above is a partial listing. Additional capacitance and voltage values are available. Send for complete listing.

HIGH VOLTAGE POWER PACKS
COMPACT "M" SERIES 2 TO 75 KVDC

SEE SECTION 4000, PAGE 1047

Plastic Capacitors, Inc.

CHICAGO 14, ILLINOIS
Cable Address: PLASCAPINC, Chicago

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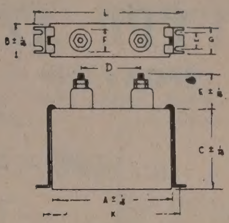
HIGH VOLTAGE CAPACITORS
TYPE LK

MYLAR★ PAPER FILTER CAPACITORS

TYPE LK Capacitors are specifically designed for filter, bypass and coupling applications in the low audio frequency range. The CP70 style container and internal construction permit operation in any position. Glazed steatite bushings are used, and in the voltage ranges of 2000 and greater, steatite is the electrical insulation in the terminal assembly. The threaded stud terminal is supplied with nut, lockwasher and/or solder lug. The whole assembly is hermetically sealed.



2000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK20-105	1.0	1 3/4	1	3 1/4
LK20-205	2	2 1/2	1 3/16	3 1/2
LK20-205Y	2	1 3/4	1	5
LK20-405	4	2 1/2	1 3/16	5 1/2
LK20-405Y	4	3 3/4	1 1/4	3 3/4
LK20-605	6	3 3/4	1 1/4	5
LK20-605Y	6	3 3/4	1 3/4	3 3/4
LK20-805	8	3 3/4	1 1/4	6 1/4
LK20-805Y	8	3 3/4	1 3/4	4 1/2
LK20-106	10	3 3/4	1 3/4	5 1/4
LK20-106Y	10	3 3/4	2 1/4	4 1/2
LK20-126	12	3 3/4	1 3/4	6 1/4
LK20-126Y	12	3 3/4	2 1/4	5
LK20-126Z	12	3 3/4	3 3/16	4
LK20-156	15	3 3/4	2 1/4	6
LK20-156Y	15	3 3/4	3 3/16	5
LK20-156Z	15	4 9/16	3 3/4	3 3/4
LK20-206	20	3 3/4	3 3/16	6
LK20-206Y	20	4 9/16	3 3/4	4 1/4
LK20-256	25	3 3/4	3 3/16	6 3/4
LK20-306	30	4 9/16	3 3/4	5 3/4

3000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK30-504	.5	1 3/4	1	3 1/4
LK30-105	1.0	1 3/4	1	5 1/4
LK30-105Y	1.0	2 1/2	1 3/16	3 1/2
LK30-205	2	2 1/2	1 3/16	5 1/2
LK30-205Y	2	3 3/4	1 1/4	3 3/4
LK30-405	4	3 3/4	1 1/4	6 1/4
LK30-405Y	4	3 3/4	1 3/4	4 3/4
LK30-405Z	4	3 3/4	2 1/4	4
LK30-605	6	3 3/4	1 3/4	6 1/4
LK30-605Y	6	3 3/4	2 1/4	5 1/4
LK30-605Z	6	3 3/4	3 3/16	4
LK30-805	8	3 3/4	2 1/4	6 1/2
LK30-805Y	8	3 3/4	3 3/16	5
LK30-805Z	8	4 9/16	3 3/4	3 3/4
LK30-106	10	3 3/4	3 3/16	5 3/4
LK30-106Y	10	4 9/16	3 3/4	4 1/2
LK30-126	12	3 3/4	3 3/16	6 3/4
LK30-126Y	12	4 9/16	3 3/4	5
LK30-156	15	4 9/16	3 3/4	6
LK30-206Y	20	4 9/16	3 3/4	7
LK30-256Y	25	4 9/16	3 3/4	10
LK30-306Z	30	4 9/16	3 3/4	11 1/2

4000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK40-254	.25	1 3/4	1	2 3/4
LK40-504	.5	1 3/4	1	4
LK40-105	1.0	2 1/2	1 3/16	4
LK40-205	2	2 1/2	1 3/16	6 3/4
LK40-205Y	2	3 3/4	1 3/4	3 3/4
LK40-405	4	3 3/4	1 3/4	6
LK40-405Y	4	3 3/4	2 1/4	4 3/4
LK40-605	6	3 3/4	2 1/4	6 1/2
LK40-605Y	6	3 3/4	3 3/16	5
LK40-605Z	6	4 9/16	3 3/4	3 3/4
LK40-805	8	3 3/4	3 3/16	6
LK40-805Y	8	4 9/16	3 3/4	4 3/4
LK40-106	10	4 9/16	3 3/4	5 1/2
LK40-126	12	4 9/16	3 3/4	6 1/2
LK40-156	15	4 9/16	3 3/4	8 1/2
LK40-206Y	20	4 9/16	3 3/4	10 1/2

5000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK50-104	.1	1 3/4	1	2 1/8
LK50-254	.25	1 3/4	1	3
LK50-504	.5	1 3/4	1	4 3/4
LK50-504Y	.5	2 1/2	1 3/16	3 1/4
LK50-105	1.0	2 1/2	1 3/16	5
LK50-105Y	1.0	3 3/4	1 1/4	3 3/4
LK50-205	2	3 3/4	1 1/4	6
LK50-205Y	2	3 3/4	1 3/4	4 1/2
LK50-205Z	2	3 3/4	2 1/4	3 3/4
LK50-405	4	3 3/4	2 1/4	4 3/4
LK50-405Y	4	3 3/4	3 3/16	4 3/4
LK50-405Z	4	4 9/16	3 3/4	3 3/4
LK50-605	6	3 3/4	3 3/16	6 1/2
LK50-605Y	6	4 9/16	3 3/4	4 3/4
LK50-805	8	4 9/16	3 3/4	6 1/4
LK50-106	10	4 9/16	3 3/4	7 1/2
LK50-126	12	4 9/16	3 3/4	9 1/2
LK50-156	15	8	4	9 1/4
LK50-206	20	8	4	11
LK50-256	25	13 1/2	4 1/8	9 1/4
LK50-306	30	13 1/2	4 1/8	9 1/4

6000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK60-104	.1	3 3/4	1 1/4	2 1/4
LK60-254	.25	3 3/4	1 1/4	2 1/2
LK60-504	.5	3 3/4	1 1/4	3 3/4
LK60-105	1.0	3 3/4	1 1/4	6 1/2
LK60-105Y	1.0	3 3/4	1 3/4	4 1/2
LK60-205	2	3 3/4	2 1/4	6 1/4
LK60-205Y	2	3 3/4	3 3/16	4 3/4
LK60-405	4	4 9/16	3 3/4	6
LK60-605	6	4 9/16	3 3/4	8 1/4
LK60-605Y	6	8	4	7
LK60-805	8	4 9/16	3 3/4	10 1/4
LK60-805Y	8	8	4	9 1/4
LK60-106	10	8	4	9 1/4
LK60-126	12	8	4	11
LK60-156	15	13 1/2	4 1/8	7
LK60-206	20	13 1/2	4 1/8	9 1/4
LK60-256	25	13 1/2	4 1/8	11
LK60-306	30	13 1/2	5 1/8	12 7/8

8000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK80-104Y	.1	2 1/2	1 3/16	3
LK80-104	.1	3 3/4	1 1/4	2 1/2
LK80-254Y	.25	2 1/2	1 3/16	5 1/4
LK80-254	.25	3 3/4	1 1/4	3 3/4
LK80-504	.5	3 3/4	1 1/4	5 3/4
LK80-504Y	.5	3 3/4	1 3/4	4 1/4
LK80-105	1.0	3 3/4	1 3/4	7
LK80-105Y	1.0	3 3/4	2 1/4	5 3/4
LK80-105Z	1.0	3 3/4	3 3/16	4 1/2
LK80-205	2	3 3/4	3 3/16	7
LK80-205Y	2	4 9/16	3 3/4	5 1/4
LK80-405	4	4 9/16	3 3/4	10
LK80-605	6	8	4	9 1/4
LK80-805	8	13 1/2	4 1/8	7
LK80-106	10	13 1/2	4 1/8	9 1/4
LK80-126	12	13 1/2	4 1/8	9 1/4
LK80-156	15	13 1/2	4 1/8	13 1/8
LK80-206	20	13 1/2	5 1/8	12 7/8

10 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK100-104	.1	3 3/4	1 3/4	3 1/4
LK100-254	.25	3 3/4	1 3/4	3 3/4
LK100-254Y	.25	3 3/4	2 1/4	3 1/4
LK100-504	.5	3 3/4	1 3/4	5 3/4
LK100-504Y	.5	3 3/4	2 1/4	4 1/2
LK100-504Z	.5	3 3/4	3 3/16	3 3/4
LK100-105	1.0	3 3/4	2 1/4	7 1/4
LK100-105Y	1.0	3 3/4	3 3/16	5 1/4
LK100-105Z	1.0	4 9/16	3 3/4	4 1/2
LK100-205	2	4 9/16	3 3/4	6 3/4
LK100-405	4	8	4	9 1/4
LK100-605	6	13 1/2	4 1/8	7
LK100-805	8	13 1/2	4 1/8	9 1/4
LK100-106	10	13 1/2	4 1/8	11

12.5 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK125-503	.05	3 3/4	1 3/4	3
LK125-104	.1	3 3/4	1 3/4	3 5/8
LK125-254	.25	3 3/4	1 3/4	5 7/8
LK125-504	.5	3 3/4	3 3/16	5 5/8
LK125-504Y	.5	4 9/16	3 3/4	4 3/8
LK125-105	1.0	4 9/16	3 3/4	6 5/8
LK125-205	2	4 9/16	3 3/4	11
LK125-205Y	2	8	4	9 1/4
LK125-405	4	13 1/2	4 1/8	9 1/4
LK125-605	6	13 1/2	4 1/8	11
LK125-805	8	13 1/2	5 1/8	12 7/8
LK125-106	10	13 1/2	5 1/8	13 3/4

15 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK150-104	.1	3 3/4	1 3/4	3 3/4
LK150-254	.25	3 3/4	1 3/4	7
LK150-254Y	.25	3 3/4	2 1/4	5
LK150-504	.5	3 3/4	3 3/16	6 1/2
LK150-504Y	.5	4 9/16	3 3/4	5
LK150-105	1.0	4 9/16	3 3/4	8 1/2
LK150-205	2	8	4	11
LK150-405	4	13 1/2	4 1/8	11

20 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK200-104	.1	3 3/4	2 1/4	4 3/4
LK200-254	.25	3 3/4	3 3/16	6
LK200-254Y	.25	4 9/16	3 3/4	4 3/4
LK200-504	.5	4 9/16	3 3/4	7 1/2
LK200-105	1.0	8	4	9 1/4
LK200-205	2	13 1/2	4 1/8	9 1/4

25 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK250-503	.05	3 3/4	3 3/16	4
LK250-104	.1	3 3/4	3 3/16	4 3/4
LK200-254	.25	4 9/16	3 3/4	6 1/2
LK250-504	.5	4 9/16	3 3/4	11 1/2
LK250-504Y	.5	8	4	9 1/4
LK250-105	1.0	13 1/2	4 1/8	9 1/4

30 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK300-503	.05	3 3/4	3 3/16	5 1/2
LK300-104	.1	3 3/4	3 3/16	8 3/4
LK300-254Y	.25	4 9/16	3 3/4	8 3/4
LK300-504	.5	13 1/2	4 1/8	7
LK300-105	1.0	13 1/2	4 1/8	13 1/8

★ DUPONT POLYESTER FILM

The above is a partial listing. Additional capacitance and voltage values are available. Send for complete listing.

Plastic Capacitors, Inc.

CHICAGO 14, ILLINOIS
Cable Address: PLASCAPINC, Chicago

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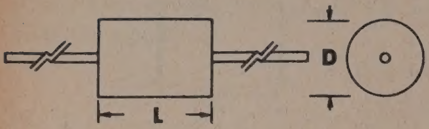
LOW VOLTAGE CAPACITORS

TYPE AZ

EPOXY DIP



TYPE AZ Capacitors are finished with a dip finish assuring operation in severe environmental conditions. **TYPE AZ** Capacitors are also available in flat oval shape.

Cap MFD	Cap Code	AZ2 D Max.	AZ2 L Max.	AZ3 D Max.	AZ3 L Max.
.01	103	.23	.38	.26	.38
.012	123	.24	.38	.23	.51
.015	153	.25	.38	.24	.51
.018	183	.23	.51	.25	.51
.022	223	.24	.51	.26	.51
.027	273	.25	.51	.28	.51
.033	333	.26	.51	.29	.51
.039	393	.27	.51	.26	.70
.047	473	.29	.51	.28	.70
.056	563	.26	.70	.29	.70
.068	683	.27	.70	.31	.70
.082	823	.29	.70	.33	.70
.1	104	.30	.70	.35	.70
.12	124	.32	.70	.37	.70
.15	154	.39	.70	.40	.70
.18	184	.39	.70	.43	.70
.22	224	.39	.70	.39	.95
.27	274	.44	.70	.42	.95
.33	334	.44	.70	.45	.95
.39	394	.47	.70	.48	.95
.47	474	.44	.95	.52	.95
.56	564	.47	.95	.55	.95
.68	684	.50	.95	.60	.95
.82	824	.50	.95	.65	.95
1.0	105	.57	.95	.64	1.13
1.5	155	.66	1.13	.75	1.13
2.0	205	.75	1.13	.85	1.13
3.0	305	.75	1.38	.84	1.63
4.0	405	.87	1.63	1.09	1.26
5.0	505	.87	1.63	1.05	1.63
8.0	805	1.07	1.63		
10.0	106	1.19	1.63		

Cap MFD	Cap Code	AZ4 D Max.	AZ4 L Max.	AZ6 D Max.	AZ6 L Max.
.001	102			.22	.38
.0022	222			.27	.38
.0033	332			.29	.38
.0047	472			.27	.51
.01	103	.23	.70	.29	.70
.012	123	.24	.70	.30	.70
.015	153	.26	.70	.28	.95
.018	183	.27	.70	.30	.95
.022	223	.28	.70	.36	.70
.027	273	.29	.70	.34	.95
.033	333	.32	.70	.36	.95
.039	393	.34	.70	.38	.95
.047	473	.37	.70	.40	.95
.056	563	.38	.70	.43	.95
.068	683	.41	.70	.47	.95
.082	823	.44	.70	.49	.95
.1	104	.37	1.13	.54	.95
.12	124	.39	1.13	.58	.95
.15	154	.42	1.13	.57	1.13
.18	184	.45	1.13	.59	1.26
.22	224	.53	1.13	.68	1.13
.27	274	.56	.95	.69	1.26
.33	334	.62	.95	.75	1.26
.39	394	.61	1.13	.71	1.63
.47	474	.67	1.13	.76	1.63
.56	564	.72	1.13	.83	1.63
.68	684	.78	1.13	.89	1.63
.82	824	.84	1.13	.97	1.63
1.0	105	.86	1.26	1.06	1.63
1.5	155	.93	1.51		
2.0	205	1.01	1.63		

TYPE AM

METALLIZED MYLAR*

TYPE AM Capacitors are hermetically sealed in brass containers with compression glass seals for a "floating" case add 1/16" to dimension L (See drawing in **TYPE AZ** column).

200 VOLTS D.C.

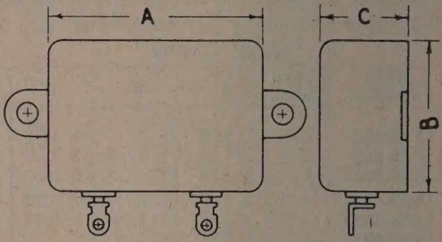
BASIC PART NO.	CAP MFD	SIZE CIRCUIT A OR F D	SIZE CIRCUIT A OR F L
AM2-103	0.01	0.174	9/16
AM2-123	.012	.174	9/16
AM2-153	.015	.174	9/16
AM2-183	.018	.174	9/16
AM2-223	.022	.187	9/16
AM2-273	.027	.187	9/16
AM2-333	.033	.235	9/16
AM2-393	.039	.235	9/16
AM2-473	.047	.235	9/16
AM2-563	.056	.235	3/4
AM2-683	.068	.235	3/4
AM2-823	.082	.235	3/4
AM2-104	0.1	.235	3/4
AM2-124	.12	.312	3/4
AM2-154	.15	.312	3/4
AM2-184	.18	.312	3/4
AM2-224	.22	.312	3/4
AM2-274	.27	.400	3/4
AM2-334	.33	.400	3/4
AM2-394	.39	.400	3/4
AM2-474	.47	.400	1 1/16
AM2-564	.56	.400	1 1/16
AM2-684	.68	.400	1 1/16
AM2-824	.82	.562	1 1/16
AM2-105	1.0	.562	1 1/16
AM2-155	1.5	.562	1 1/4
AM2-205	2.0	.670	1 1/4
AM2-305	3.0	.670	1 1/2
AM2-405	4.0	.670	1 3/4
AM2-505	5.0	.750	1 3/4
AM2-805	8.0	1.0	1 3/4
AM2-106	10.0	1.0	2 1/4

300 VOLTS D.C.

BASIC PART NO.	CAP MFD	SIZE CIRCUIT A OR F D	SIZE CIRCUIT A OR F L
AM3-393	.039	.235	3/4
AM3-473	.047	.235	3/4
AM3-563	.056	.235	3/4
AM3-683	.068	.312	3/4
AM3-823	.082	.312	3/4
AM3-104	0.10	.312	3/4
AM3-124	.12	.400	3/4
AM3-154	.15	.400	3/4
AM3-184	.18	.400	3/4
AM3-224	.22	.400	1 1/16
AM3-274	.27	.400	1 1/16
AM3-334	.33	.400	1 1/16
AM3-394	.39	.400	1 1/4
AM3-474	.47	.562	1 1/16
AM3-564	.56	.562	1 1/16
AM3-684	.68	.562	1 1/16
AM3-824	.82	.562	1 1/16
AM3-105	1.0	.562	1 1/2
AM3-155	1.5	.670	1 1/2
AM3-205	2.0	.670	1 3/4
AM3-305	3.0	1.0	1 1/4
AM3-405	4.0	1.0	1 1/2
AM3-505	5.0	1.0	2 1/4
AM3-605	6.0	1.0	2 1/4

TYPE AB

METALLIZED MYLAR*



TYPE AB Capacitors are housed in standard bathtub containers using compression type solder-seal glass insulators. **TYPE AB** provides large values of capacitance with the fine characteristics of Metallized Mylar.*

200 VOLTS D.C.

PART NUMBER	CAP. MFD.	CASE SIZE A	CASE SIZE B	CASE SIZE C
AB2-504	0.5	1 1/8	1	13/16
AB2-105	1.0	1 1/8	1	13/16
AB2-205	2.0	1 1/8	1	13/16
AB2-405	4.0	1 3/4	1	3/4
AB2-505	5.0	1 3/4	1	3/4
AB2-605	6.0	1 3/4	1 1/4	7/8
AB2-805	8.0	1 3/4	1 1/4	7/8
AB2-106	10.0	2	1 3/4	7/8
AB2-126	12.0	2	1 3/4	7/8
AB2-156	15.0	2	1 3/4	7/8
AB2-206	20.0	2	2	1 1/8
AB2-306	30.0	2	2	1 1/4

300 VOLTS D.C.

PART NUMBER	CAP. MFD.	CASE SIZE A	CASE SIZE B	CASE SIZE C
AB3-504	0.5	1 1/8	1	13/16
AB3-105	1.0	1 1/8	1	13/16
AB3-205	2.0	1 3/4	1	3/4
AB3-405	4.0	1 3/4	1 1/4	7/8
AB3-505	5.0	2	1 3/4	7/8
AB3-605	6.0	2	1 3/4	7/8
AB3-805	8.0	2	1 3/4	7/8
AB3-106	10.0	2	2	1 1/8
AB3-126	12.0	2	2	1 1/8
AB3-156	15.0	2	2	1 1/4

400 VOLTS D.C.

PART NUMBER	CAP. MFD.	CASE SIZE A	CASE SIZE B	CASE SIZE C
AB4-104	0.1	1 1/8	1	13/16
AB4-254	0.25	1 1/8	1	13/16
AB4-504	0.5	1 1/8	1	13/16
AB4-105	1.0	1 3/4	1	3/4
AB4-205	2.0	1 3/4	1 1/4	7/8
AB4-405	4.0	2	1 3/4	7/8
AB4-505	5.0	2	2	1 1/8
AB4-605	6.0	2	2	1 1/8
AB4-805	8.0	2	2	1 1/4

600 VOLTS D.C.

PART NUMBER	CAP. MFD.	CASE SIZE A	CASE SIZE B	CASE SIZE C
AB6-503	0.05	1 1/8	1	13/16
AB6-104	0.10	1 1/8	1	13/16
AB6-254	0.25	1 1/8	1	13/16
AB6-504	0.50	1 3/4	1 1/4	7/8
AB6-105	1.0	2	1 3/4	7/8
AB6-205	2.0	2	2	1 1/8

★ DUPONT POLYESTER FILM

The listing comprises a small portion of capacitors and voltage available. Send for complete information.

Plastic Capacitors, Inc.

CHICAGO 14, ILLINOIS
Cable Address: PLASCAPINC, Chicago

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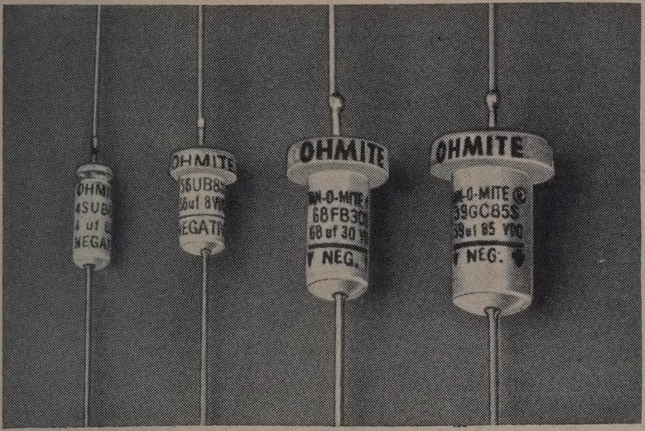
TANTALUM SLUG CAPACITORS — TAN-O-MITE® SERIES TS



1½″ Leads Com'l Size SU, MIL Size T1 — 1½″ Leads Com'l Size U, MIL Size T1 — 2¼″ Leads Com'l Size F, MIL Size T2 — 2¼″ Leads Com'l Size G, MIL Size T3

The "slug" type of tantalum capacitor utilizes a porous anode of sintered tantalum. Intended for polar applications, these capacitors offer the best characteristics of all the types described in this catalog. They exceed the vibration test of MIL-C-3965C, Grade 3.

Available from stock in two physical types—the "hat-shaped" type, 4 sizes (Y, U, F, G) and the "straight-cylindrical" type, 3 sizes (SU, SF, SG) which have the same range of capacitance and voltage as the equivalent hat-shape sizes. Hat-shape types are offered in two operating temperature ranges, −55°C to +85°C and −55°C to +125°C; the straight-cylindrical type is offered only in the 85°C range. Tolerances: See footnotes under price and stock tables. Units insulated with plastic sleeve are available at slight extra cost.

DIMENSIONS — UNINSULATED

HAT SHAPE				STRAIGHT-CYL.				
Com'l.	MIL	Dia.	Lgth.	Com'l.	MIL	Dia.	Lgth.	Leads
Y	—	13/64	19/64	—	—	—	—	1½
U	T1	5/16	15/32	SU	T1	3/16	29/64	1½
F	T2	15/32	11/16	SF	T2	9/32	41/64	2¼
G	T3	37/64	49/64	SG	T3	3/8	49/64	2¼

COMMERCIAL SLUG CAPACITOR 1-24 QTY. NET PRICES

HAT-SHAPE AND STRAIGHT-CYLINDRICAL—UNINSULATED*

Case Size		85°C Tolerance†		125°C§ Tolerance†	
Hat	Straight	M	K	M	K
U	SU	$1.98	$2.22	$2.06	$2.30
F	SF	3.02	3.38	3.16	3.52
G	SG	4.72	5.32	4.96	5.56
Y	—	1.78	2.00	—	—

*For plastic insulating sleeve add 10c for case sizes U, F, G, Y; Add 5c for sizes SU, SF, SG.
†Standard Tolerances — M = ±20%; K = ±10%. (T = −15+50%, S = −15+20% — available at same price as M tol.)
§Straight-cyl. not available 125°C temp. rating.

MIL-C-3965C SLUG CAPACITORS 1-24 QTY. NET PRICES

HAT SHAPE (CL44) AND STRAIGHT-CYLINDRICAL (CL64) UNINSULATED*

Case Size CL44*, 64*	85C° Tolerance†		125°C§ Tolerance†	
	T	S or M	T	S or M
T1	$1.98	$2.22	$2.06	$2.30
T2	3.02	3.38	3.16	3.52
T3	4.72	5.32	4.96	5.56

*For plastic insulating sleeve (MIL STYLES CL45, CL65) add 10c each.
†Tolerances — T = −15+50%; S = −15+20%; M = ±20%. (K = ±10% per C revision MIL-C-3965 — request prices).
§Straight-cyl. not available 125°C temp. rating.

STOCK HAT-SHAPE & STRAIGHT-CYLINDRICAL SLUG CAPACITORS
COMM'L CASES U, F, G, Y, SU, SF, SG — MIL STYLES CL44, CL45, CL64, CL65 — CASES T1, T2, T3

Mfd.	D.C. Volts 85°C	D.C. Volts 125°C	Commercial Case Size▶	Commercial Stock No. (Incomplete†)	MIL-C-3965C Case Size	MIL-C-3965C Type Designation (Incomplete*)
15	6		Y	**15YB6_**		
30	6		U	**30_UB6_**	T1	**CL__BB300_P3**
30	6	4	U	**30UC4_**	T1	**CL__CB300_P3§**
68‡	6		U	**68_UB6_**	T1	**CL__BB680_P3**
68‡	6	4	U	**68UC4_**	T1	**CL__CB680_P3§**
140	6		F	**140_FB6_**	T2	**CL__BB141_P3**
140	6	4	F	**140FC4_**	T2	**CL__CB141_P3§**
270‡	6		F	**270_FB6_**	T2	**CL__BB271_P3**
270‡	6	4	F	**270FC4_**	T2	**CL__CB271_P3§**
330	6		G	**330_GB6_**	T3	**CL__BB331_P3**
330	6	4	G	**330GC4_**	T3	**CL__CB331_P3§**
560‡	6		G	**560_GB6_**	T3	**CL__BB561_P3**
560‡	6	4	G	**560GC4_**	T3	**CL__CB561_P3§**
12	8		Y	**12YB8_**		
25	8		U	**25_UB8_**	T1	**CL__BC250_P3**
25	8	5	U	**25UC5_**	T1	**CL__CC250_P3§**
56‡	8		U	**56_UB8_**	T1	**CL__BC560_P3**
56‡	8	5	U	**56UC5_**	T1	**CL__CC560_P3§**
220‡	8		F	**220_FB8_**	T2	**CL__BC221_P3**
220‡	8	5	F	**220FC5_**	T2	**CL__CC221_P3§**
430‡	8		G	**430_GB8_**	T3	**CL__BC431_P3**
430‡	8	5	G	**430GC5_**	T3	**CL__CC431_P3§**
10	10		Y	**10YB10_**		
20	10		U	**20_UB10_**	T1	**CL__BD200_P3**
20	10	7	U	**20UC7_**	T1	**CL__CD200_P3§**
47‡	10		U	**47_UB10_**	T1	**CL__BD470_P3**
47‡	10	7	U	**47UC7_**	T1	**CL__CD470_P3§**
100	10		F	**100_FB10_**	T2	**CL__BD101_P3**
100	10	7	F	**100FC7_**	T2	**CL__CD101_P3§**
180‡	10		F	**180_FB10_**	T2	**CL__BD181_P3**
180‡	10	7	F	**180FC7_**	T2	**CL__CD181_P3§**
250	10		G	**250_GB10_**	T3	**CL__BD251_P3**
250	10	7	G	**250GC7_**	T3	**CL__CD251_P3§**
390‡	10		G	**390_GB10_**	T3	**CL__BD391_P3**
390‡	10	7	G	**390GC7_**	T3	**CL__CD391_P3§**
6.2	15		Y	**6R2YB15_**		
15	15		U	**15_UB15_**	T1	**CL__BE150_P3**
15	15	10	U	**15UC10_**	T1	**CL__CE150_P3§**
33‡	15		U	**33_UB15_**	T1	**CL__BE330_P3**
33‡	15	10	U	**33UC10_**	T1	**CL__CE330_P3§**
70	15		F	**70_FB15_**	T2	**CL__BE700_P3**
70	15	10	F	**70FC10_**	T2	**CL__CE700_P3§**
120‡	15		F	**120_FB15_**	T2	**CL__BE121_P3**
120‡	15	10	F	**120FC10_**	T2	**CL__CE121_P3§**

†Complete commercial stock no. as follows: If straight-cylindrical capacitor is desired, insert an "S" in the middle of the number where the underlined space is provided as in "30SUB6_." (Where a space is not provided, the capacitor is **NOT** available as a straight-cylindrical type.) If a hat-shape capacitor is desired, write this number without the space as in "30UB6_." Add K, S or M at end of number to indicate tolerance. Add "A" after tolerance letter if insulating sleeve is desired.

*Complete MIL type designation as follows: For hat-shape, uninsulated type, insert "44" after "CL__"; for insulated type insert "45" instead. For straight-cylindrical shape, uninsulated, insert "64" after "CL__"; for insulated type insert "65" instead. Note: CL64, CL65 not available in 125°C ratings ("C" char.). Insert S, T, M, or K before "P" to indicate tolerance.

‡High capacitance units.

§Not available as CL64, CL65 straight-cylindrical capacitors.

▶For hat shape; an "S" precedes the letter for straight-cyl. as in SY, SU.

Tolerances: T = −15+50%; S = −15+20%; M = ±20%; K = ±10%.

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TANTALUM SLUG AND WIRE CAPACITORS

HAT-SHAPE CONTINUED

170	15		G	170_GB15_	T3	CL__BE171_P3
170	15	10	G	170GC10_	T3	CL__CE171_P3§
270‡	15		G	270_GB15_	T3	CL__BE271_P3
270‡	15	10	G	270GC10_	T3	CL__CE271_P3§
4.3	25		Y	4R3YB25_		
10	25		U	10_UB25_	T1	CL__BG100_P3
10	25	17	U	10UC17_	T1	CL__CG100_P3§
22‡	25		U	22_UB25_	T1	CL__BG220_P3
22‡	25	17	U	22UC17_	T1	CL__CG220_P3§
100‡	25		F	100_FB25_	T2	CL__BG101_P3
100‡	25	17	F	100FC17_	T2	CL__CG101_P3§
180‡	25		G	180_GB25_	T3	CL__BG181_P3
180‡	25	17	G	180GC17_	T3	CL__CG181_P3§
3.6	30		Y	3R6YB30_		
8	30		U	8_UB30_	T1	CL__BH080_P3
8	30	20	U	8UC20_	T1	CL__CH080_P3§
15‡	30		U	15_UB30_	T1	CL__BH150_P3
15‡	30	20	U	15UC20_	T1	CL__CH150_P3§
40	30		F	40_FB30_	T2	CL__BH400_P3
40	30	20	F	40FC20_	T2	CL__CH400_P3§
68‡	30		F	68_FB30_	T2	CL__BH680_P3
68‡	30	20	F	68FC20_	T2	CL__CH680_P3§
100	30		G	100_GB30_	T3	CL__BH101_P3
100	30	20	G	100GC20_	T3	CL__CH101_P3§
150‡	30		G	150_GB30_	T3	CL__BH151_P3
150‡	30	20	G	150GC20_	T3	CL__CH151_P3§
2.2	50		Y	2R2YB50_		
5	50		U	5_UB50_	T1	CL__BJ050_P3
5	50	33	U	5UC33_	T1	CL__CJ050_P3§
10‡	50		U	10_UB50_	T1	CL__BJ100_P3
10‡	50	33	U	10UC33_	T1	CL__CJ100_P3§
25	50		F	25_FB50_	T2	CL__BJ250_P3
25	50	33	F	25FC33_	T2	CL__CJ250_P3§
47‡	50		F	47_FB50_	T2	CL__BJ470_P3
47‡	50	33	F	47FC33_	T2	CL__CJ470_P3§
60	50		G	60_GB50_	T3	CL__BJ600_P3
60	50	33	G	60GC33_	T3	CL__CJ600_P3§
82‡	50		G	82_GB50_	T3	CL__BJ820_P3
82‡	50	33	G	82GC33_	T3	CL__CJ820_P3§
1.8	60		Y	1R8YB60_		
4	60		U	4_UB60_	T1	CL__BK040_P3
4	60	40	U	4UC40_	T1	CL__CK040_P3§
8.2‡	60		U	8R2_UB60_	T1	CL__BK8R2_P3
8.2‡	60	40	U	8R2UC40_	T1	CL__CK8R2_P3§
20	60		F	20_FB60_	T2	CL__BK200_P3
20	60	40	F	20FC40_	T2	CL__CK200_P3§
39‡	60		F	39_FB60_	T2	CL__BK390_P3
39‡	60	40	F	39FC40_	T2	CL__CK390_P3§
50	60		G	50_GB60_	T3	CL__BK500_P3
50	60	40	G	50GC40_	T3	CL__CK500_P3§
68‡	60		G	68_GB60_	T3	CL__BK680_P3
68‡	60	40	G	68GC40_	T3	CL__CK680_P3§
1.5	75		Y	1R5YB75_		
3.5	75		U	3R5_UB75_	T1	CL__BL3R5_P3
3.5	75	50	U	3R5UC50_	T1	CL__CL3R5_P3§
6.8‡	75		U	6R8_UB75_	T1	CL__BL6R8_P3
6.8‡	75	50	U	6R8UC50_	T1	CL__CL6R8_P3§
15	75		F	15_FB75_	T2	CL__BL150_P3
15	75	50	F	15FC50_	T2	CL__CL150_P3§
33‡	75		F	33_FB75_	T2	CL__BL330_P3
33‡	75	50	F	33FC50_	T2	CL__CL330_P3§
40	75		G	40_GB75_	T3	CL__BL400_P3
40	75	50	G	40GC50_	T3	CL__CL400_P3§
56‡	75		G	56_GB75_	T3	CL__BL560_P3
56‡	75	50	G	56GC50_	T3	CL__CL560_P3§
1.1	100		Y	1R1YB100_		
2.5	100		U	2R5_UB100_	T1	CL__BN2R5_P3
2.5	100	70	U	2R5UC70_	T1	CL__CN2R5_P3§
4.7‡	100		U	4R7_UB100_	T1	CL__BN4R7_P3
4.7‡	100	70	U	4R7UC70_	T1	CL__CN4R7_P3§
11	100		F	11_FB100_	T2	CL__BN110_P3
11	100	70	F	11FC70_	T2	CL__CN110_P3§
22‡	100		F	22_FB100_	T2	CL__BN220_P3
22‡	100	70	F	22FC70_	T2	CL__CN220_P3§
30	100		G	30_GB100_	T3	CL__BN300_P3
30	100	70	G	30GC70_	T3	CL__CN300_P3§
43‡	100		G	43_GB100_	T3	CL__BN430_P3
43‡	100	70	G	43GC70_	T3	CL__CN430_P3§
0.91	125		Y	R91YB125_		
1.7	125		U	1R7_UB125_	T1	CL__BP1R7_P3
1.7	125	85	U	1R7UC85_	T1	CL__CP1R7_P3§
3.6‡	125		U	3R6_UB125_	T1	CL__BP3R6_P3
3.6‡	125	85	U	3R6UC85_	T1	CL__CP3R6_P3§
9	125		F	9_FB125_	T2	CL__BP090_P3
9	125	85	F	9FC85_	T2	CL__CP090_P3§
22‡	125		F	22_FB125_		
22‡	125	85	F	22FC85_		
25	125		G	25_GB125_	T3	CL__BP250_P3
25	125	85	G	25GC85_	T3	CL__CP250_P3§
39‡	125		G	39_GB125_		
39‡	125	85	G	39GC85_		

†Complete commercial stock no. as follows: If straight-cylindrical capacitor is desired, insert an "S" in the middle of the number where the underlined space is provided as in "30SUB6_." (Where a space is not provided, the capacitor is **NOT** available as a straight-cylindrical type.) If a hat-shape capacitor is desired, write this number without the space as in "30UB6_." Add K, S or M at end of number to indicate tolerance. Add "A" after tolerance letter if insulating sleeve is desired.

*Complete MIL type designation as follows: For hat-shape, uninsulated type, insert "44" after "CL__"; for insulated type insert "45" instead. For straight-cylindrical shape, uninsulated, insert "64" after "CL__"; for insulated type insert "65" instead. Note: CL64, CL65 not available in 125°C ratings ("C" char.). Insert S, T, M, or K before "P" to indicate tolerance.

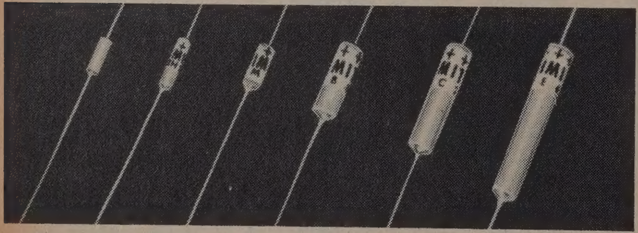
‡High capacitance units.

§Not available as CL64, CL65 straight-cylindrical capacitors.

▸For hat shape; an "S" precedes the letter for straight-cyl. as in SY, SU.

Tolerances: T = —15+50%; S = —15+20%; M = ±20%; K = ±10%.

TANTALUM WIRE CAPACITORS — SERIES TW



Size	Dia.	Lgth.	Size	Dia.	Lgth.
TK	.060	.150	M	.100	.218
TJ	.060	.190	B	.134	.375
HK	.075	.150	C	.134	.562
HJ	.075	.190	E	.134	.812
S	.080	.234			

Smallest subminiature electrolytic capacitors available. The anode is specially processed tantalum wire sealed into a silver case. Axial leads are 2" long. Units are insulated with Mylar plastic sleeve. These polar type units are used in DC circuits where capacitance can exceed nominal circuit values (standard tolerance, —0 + 100%). Wide use in hearing aids and other subminiature apparatus. Operating temperature range: —55°C to +85°C. Nine of thirteen available case sizes stocked.

Mfd.	DCWV	Stock No.*	Net 1-24
0.1	20	R1TJ20	$1.65
	60	R1M60	1.65
0.2	20	R2TK20	1.65
	150	R2E150	3.44
0.5	10	R5TK10	1.65
	16	R5TJ16	1.65
	20	R5S20	1.65
	80	R5B80	2.19
1.0	4	1TK4	1.65
	8	1HK8	1.65
	10	1HJ10	1.65
	20	1M20	1.65
	60	1B60	2.19
	80	1C80	2.56
2	1.25	2TK1R25	1.65
	4	2HJ4	1.65
	8	2S8	1.65
	40	2B40	2.19
3	1.25	3HK1R25	1.65
	80	3E80	3.44
	4	3HJ4	1.65
4	3	4HJ3	$1.65
	4	4S4	1.65
	20	4B20	1.78
5	30	5C30	2.56
	60	5E60	3.44
6	1.25	6HJ1R25	1.65
8	1.25	8S1R25	1.65
	4	8M4	1.65
10	8	10B8	1.78
	16	10C16	1.78
	30	10E30	3.44
15	1.25	15M1R25	1.65
20	2	20B2	1.78
25	6	25C6	1.78
30	10	30E10	2.89
50	2	50C2	1.78
60	4	60E4	2.89
75	2	75E2	2.89

*MIDDLE LETTERS IN STOCK NO. INDICATE PHYSICAL SIZE.

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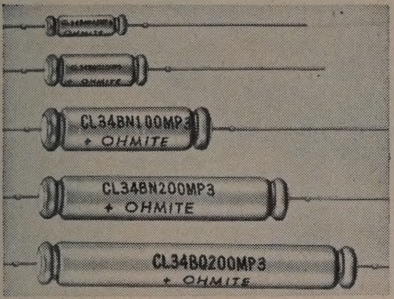
TAN-O-MITE® SERIES TF TANTALUM FOIL CAPACITORS



Plain and etched tantalum foil units stocked in polar and non-polar types. The polar unit is intended for applications in which reversals of potential do not occur but will withstand reversals up to 3.75 VDC except where the voltage rating is less. Foil types offer closer tolerance, also leakage and power factor characteristics superior to wire types. The etched foil units afford higher maximum capacitances for a given case size and have somewhat lower leakage current than the plain foil units. Operating temperature range: −55°C to +85°C. Tolerances: Plain foil, ±20% (MIL code "M"). Etched foil, less than 50 volts, −15 +75% (MIL code U); 50-99 volts, −15 +50% (T); 100-150 volts, −15 +30% (S). 1½" axial leads. Designed to meet MIL-C-3965C, Styles CL24, CL25, CL26, CL27, CL34, CL35, CL36, CL37. 5 MIL case sizes. All units meet MIL vibration rating Grade 3. Units can be furnished with plastic sleeve.

PRICES, DIMENSIONS

Case Size Com'l.	MIL Styles* CL34, CL24 CL36, CL26	Uninsulated* Dia.	Lgth.	Net 1-9 Qty. Plain Foil	Etched Foil
J	C1	3/16"	11/16"	$ 4.18	$ 4.18
K	C2	9/32"	7/8"	6.58	7.23
L	C3	3/8"	1 7/16"	10.43	12.58
N	C4	3/8"	2 1/8"	14.58	20.53
P	C5	3/8"	2 3/4"	19.58	27.33

*For plastic insulating sleeve commercial "S" suffix or MIL Styles CL35, 37; CL25, 27—add 10c extra.

STOCK — PLAIN FOIL

UNINSULATED‡

DC Volts	Mfd.	Commercial Case	Commercial Stock No.‡	MIL-C-3965C Case	MIL-C-3965C Type Designation‡
3	10	J	10J3*	C1	CL34BA100MP3
	50	K	50K3*	C2	CL34BA500MP3
3.75	10	J	10J3R75N	C1	CL36BA100MN3†
	45	K	45K3R75N	C2	CL36BA450MN3†
	140	L	140L3R75N	C3	CL36BA141MN3†
	280	N	280N3R75N	C4	CL36BA281MN3†
	400	P	400P3R75N	C5	CL36BA401MN3†
6	8	J	8J6	C1	CL34BB080MP3
	30	K	30K6	C2	CL34BB300MP3
	35	K	35K6		
	100	L	100L6	C3	CL34BB101MP3
	200	N	200N6	C4	CL34BB201MP3
	300	P	300P6	C5	CL34BB301MP3
	7	J	7J6N	C1	CL36BB070MN3
	25	K	25K6N	C2	CL36BB250MN3
	85	L	85L6N	C3	CL36BB850MN3
	170	N	175N6N	C4	CL36BB171MN3
	250	P	250P6N	C5	CL36BB251MN3
10	6	J	6J10	C1	CL34BD060MP3
	25	K	25K10	C2	CL34BD250MP3
	80	L	80L10	C3	CL34BD800MP3
	160	N	160N10	C4	CL34BD161MP3
	220	P	220P10	C5	CL34BD221MP3
	4	J	4J10N	C1	CL36BD040MN3
	16	K	16K10N	C2	CL36BD160MN3
	55	L	55L10N	C3	CL36BD550MN3
	110	N	110N10N	C4	CL36BD111MN3
	150	P	150P10N	C5	CL36BD151MN3

Numbers in ▨ are non-polar units. Non-polar units may be used as polar units.

‡For insulating sleeve add "S" to commercial stock number; on MIL designations, change "CL24" to "CL25," "CL26" to "CL27", "CL34" to "CL35" or "CL36" to "CL37".

*Regardless of polarity indicated, these low voltage units can be used as either polar or non-polar units.

†MIL-C-3965C requires only 3 volt rating—Ohmite units are rated 3.75 v.

STOCK — PLAIN FOIL (cont.)

UNINSULATED‡

STOCK — ETCHED FOIL

UNINSULATED‡

DC Volts	Plain Mfd.	Plain Commercial Case	Plain Commercial Stock No.‡	Plain MIL-C-3965C Case	Plain MIL-C-3965C Type Designation‡	Etched Mfd.	Etched Commercial Case	Etched Commercial Stock No.‡	Etched MIL-C-3965C Case	Etched MIL-C-3965C Type Designation‡
15	4.5	J	4R5J15	C1	CL34BE4R5MP3					
	10	K	10K15	C2	CL34BE100MP3	15	J	15JE15	C1	CL24BE150UP3
	18	K	18K15	C2	CL34BE180MP3	60	K	60KE15	C2	CL24BE600UP3
	55	L	55L15	C3	CL34BE550MP3	200	L	200LE15	C3	CL24BE201UP3
	110	N	110N15	C4	CL34BE111MP3	400	N	400NE15	C4	CL24BE401UP3
	160	P	160P15	C5	CL34BE161MP3	580	P	580PE15	C5	CL24BE581UP3
						10	J	10JE15N	C1	CL26BE100UN3
	2.5	J	2R5J15N	C1	CL36BE2R5MN3	40	K	40KE15N	C2	CL26BE400UN3
	10	K	10K15N	C2	CL36BE100MN3	120	L	120LE15N	C3	CL26BE121UN3
	35	L	35L15N	C3	CL36BE350MN3	125	L	125LE15N		
	70	N	70N15N	C4	CL36BE700MN3	250	N	250NE15N	C4	CL26BE251UN3
	100	P	100P15N	C5	CL36BE101MN3	350	P	350PE15N	C5	CL26BE351UN3
25						10	J	10JE25	C1	CL24BG100UP3
	3	J	3J25			40	K	40KE25	C2	CL24BG400UP3
	12	K	12K25			120	L	120LE25	C3	CL24BG121UP3
	35	L	35L25			125	L	125LE25		
	70	N	70N25			250	N	250NE25	C4	CL24BG251UP3
	100	P	100P25			350	P	350PE25	C5	CL24BG351UP3
	1.5	J	1R5J25N	C1	CL36BG1R5MN3	5	J	5JE25N	C1	CL26BG050UN3
	6	K	6K25N	C2	CL36BG060MN3	20	K	20KE25N	C2	CL26BG200UN3
	20	L	20L25N	C3	CL36BG200MN3	70	L	70LE25N	C3	CL26BG700UN3
	40	N	40N25N	C4	CL36BG400MN3	140	N	140NE25N	C4	CL26BG141UN3
	60	P	60P25N	C5	CL36BG600MN3	200	P	200PE25N	C5	CL26BG201UN3
30	2.5	J	2R5J30	C1	CL34BH2R5MP3	8	J	8JE30	C1	CL24BH080UP3
	10	K	10K30			32	K	32KE30	C2	CL24BH320UP3
	30	L	30L30	C3	CL34BH300MP3	110	L	110LE30	C3	CL24BH111UP3
	60	N	60N30	C4	CL34BH600MP3	220	N	220NE30	C4	CL24BH221UP3
	85	P	85P30	C5	CL34BH850MP3	300	P	300PE30	C5	CL24BH301UP3
	1.4	J	1R4J30N	C1	CL36BH1R4MN3	4.5	J	4R5JE30N	C1	CL26BH4R5UN3
	5.5	K	5R5K30N	C2	CL36BH5R5MN3	18	K	18KE30N	C2	CL26BH180UN3
	18	L	18L30N	C3	CL36BH180MN3	60	L	60LE30N	C3	CL26BH600UN3
	36	N	36N30N	C4	CL36BH360MN3	120	N	120NE30N	C4	CL26BH121UN3
	45	P	45P30N	C5	CL36BH450MN3	170	P	170PE30N	C5	CL26BH171UN3
50	1.5	J	1R5J50	C1	CL34BJ1R5MP3	4.5	J	4R5JE50	C1	CL24BJ4R5TP3
	6	K	6K50	C2	CL34BJ060MP3	18	K	18KE50	C2	CL24BJ180TP3
	20	L	20L50	C3	CL34BJ200MP3	60	L	60LE50	C3	CL24BJ600TP3
	40	N	40N50	C4	CL34BJ400MP3	100	N	100NE50	C4	CL24BJ101TP3
	55	P	55P50	C5	CL34BJ550MP3	150	P	150PE50	C5	CL24BJ151TP3
	0.8	J	R8J50N	C1	CL36BJ0R8MN3	2.5	J	2R5JE50N	C1	CL26BJ2R5TN3
	3	K	3K50N	C2	CL36BJ030MN3	10	K	10KE50N	C2	CL26BJ100TN3
	10	L	10L50N	C3	CL36BJ100MN3	30	L	30LE50N	C3	CL26BJ300TN3
	20	N	20N50N	C4	CL36BJ200MN3	60	N	60NE50N	C4	CL26BJ600TN3
	30	P	30P50N	C5	CL36BJ300MN3	80	P	80PE50N	C5	CL26BJ800TN3
60	1.25	J	1R25J60			4	J	4JE60		
	5	K	5K60			15	K	15KE60		
	17	L	17L60			50	L	50LE60		
	34	N	34N60			88	N	88NE60		
	48	P	48P60			125	P	125PE60		
	0.6	J	R6J60N			2	J	2JE60N		
	2.5	K	2R5K60N			7.5	K	7R5KE60N		
	8.5	L	8R5L60N			25	L	25LE60N		
	17	N	17N60N			50	N	50NE60N		
	24	P	24P60N			67	P	67PE60N		
75	1	J	1J75	C1	CL34BL010MP3	3	J	3JE75	C1	CL24BL030TP3
	4	K	4K75	C2	CL34BL040MP3	12	K	12KE75	C2	CL24BL120TP3
	14	L	14L75	C3	CL34BL140MP3	30	L	30LE75	C3	CL24BL300TP3
	28	N	28N75	C4	CL34BL280MP3	70	N	70NE75	C4	CL24BL700TP3
	40	P	40P75	C5	CL34BL400MP3	100	P	100PE75	C5	CL24BL101TP3
	0.5	J	R5J75N	C1	CL36BL0R5MN3	1.5	J	1R5JE75N	C1	CL26BL1R5TN3
	2	K	2K75N	C2	CL36BL020MN3	6	K	6KE75N	C2	CL26BL060TN3
	7	L	7L75N	C3	CL36BL070MN3	15	L	15LE75N	C3	CL26BL150TN3
	14	N	14N75N	C4	CL36BL140MN3	35	N	35NE75N	C4	CL26BL350TN3
	20	P	20P75N	C5	CL36BL200MN3	50	P	50PE75N	C5	CL26BL500TN3
100	0.8	J	R8J100	C1	CL34BN0R8MP3	2	J	2JE100	C1	CL24BN020SP3
	3	K	3K100	C2	CL34BN030MP3	8	K	8KE100	C2	CL24BN080SP3
	10	L	10L100	C3	CL34BN100MP3	25	L	25LE100	C3	CL24BN250SP3
	20	N	20N100	C4	CL34BN200MP3	50	N	50NE100	C4	CL24BN500SP3
	30	P	30P100	C5	CL34BN300MP3	70	P	70PE100	C5	CL24BN700SP3
	0.4	J	R4J100N	C1	CL36BN0R4MN3	1	J	1JE100N	C1	CL26BN010SN3
	1.5	K	1R5K100N	C2	CL36BN1R5MN3	4	K	4KE100N	C2	CL26BN040SN3
	5	L	5L100N	C3	CL36BN050MN3	12	L	12LE100N	C3	CL26BN120SN3
	10	N	10N100N	C4	CL36BN100MN3	25	N	25NE100N	C4	CL26BN250SN3
	15	P	15P100N	C5	CL36BN150MN3	35	P	35PE100N	C5	CL26BN350SN3
150	0.5	J	R5J150	C1	CL34BQ0R5MP3					
	2	K	2K150	C2	CL34BQ020MP3					
	4	L	4L150	C3	CL34BQ040MP3					
	7	L	7L150	C3	CL34BQ070MP3	1	J	1JE150	C1	CL24BQ010SP3
	8	N	8N150	C4	CL34BQ080MP3	4	K	4KE150	C2	CL24BQ040SP3
	12	N	12N150	C4	CL34BQ120MP3	13	L	13LE150	C3	CL24BQ130SP3
	14	N	14N150	C4	CL34BQ140MP3	25	N	25NE150	C4	CL24BQ250SP3
	20	P	20P150	C5	CL34BQ200MP3	36	P	36PE150	C5	CL24BQ360SP3
	0.25	J	R25J150N	C1	CL36BQR25MN3	0.5	J	R5JE150N	C1	CL26BQ0R5SN3
	1	K	1K150N	C2	CL36BQ010MN3	2	K	2KE150N	C2	CL26BQ020SN3
	3.5	L	3R5L150N	C3	CL36BQ3R5MN3	6	L	6LE150N	C3	CL26BQ060SN3
	7	N	7N150N	C4	CL36BQ070MN3	12	N	12NE150N	C4	CL26BQ120SN3
	10	P	10P150N	C5	CL36BQ100MN3	18	P	18PE150N	C5	CL26BQ180SN3

PLANET SALES CORPORATION

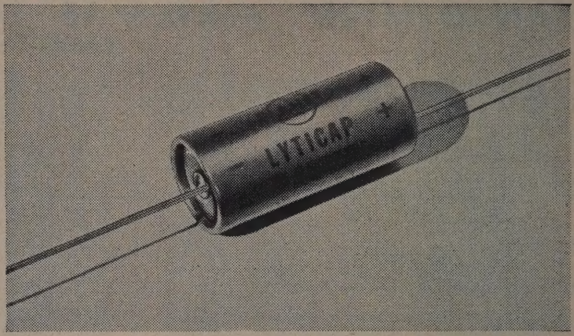
BLOOMFIELD, NEW JERSEY

Universal Replacement Type Capacitors

"LYTICAP"

Single Section Electrolytics — Type "L"

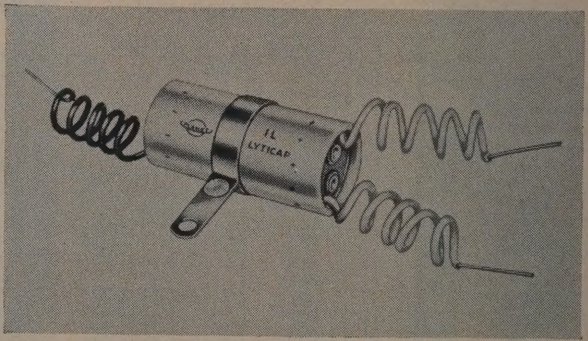
Hermetically sealed in aluminum tubes, covered with red Kraftboard insulating jackets — tinned brass leads, guaranteed for one year.



CAT. NO.	MFD.	SIZE*	LIST PRICE
		500 WVDC	
L-5-500	5	¾ x 1⅝	$1.25
L-10-500	10	⅞ x 2 1/16	1.35
L-20-500	20	1 x 2⅜	1.60
L-30-500	30	1 x 2 11/16	1.75
		450 WVDC	
L-2-450	2	⅝ x 1⅛	1.10
L-4-450	4	⅝ x 1⅝	1.15
L-8-450	8	¾ x 1⅝	1.25
L-10-450	10	¾ x 1⅝	1.30
L-12-450	12	⅞ x 1⅝	1.35
L-16-450	16	⅞ x 2 1/16	1.40
L-20-450	20	1 x 2 1/16	1.55
L-30-450	30	1 x 2⅜	1.70
L-40-450	40	1 x 2 11/16	1.80
L-50-450	50	1¼ x 2 11/16	2.10
L-60-450	60	1¼ x 2 11/16	2.40
L-80-450	80	1⅜ x 2 11/16	2.80
L-100-450	100	1⅜ x 2 11/16	3.20
		350 WVDC	
L-8-350	8	⅝ x 1⅝	1.20
L-16-350	16	⅞ x 1⅝	1.40
L-20-350	20	⅞ x 1⅝	1.45
L-30-350	30	⅞ x 2 1/16	1.65
L-40-350	40	1 x 2 1/16	1.75
		250 WVDC	
L-5-250	5	⅝ x 1⅝	1.00
L-10-250	10	⅝ x 1⅝	1.20
L-20-250	20	¾ x 1⅝	1.35
L-24-250	24	¾ x 1⅝	1.35
L-30-250	30	¾ x 1⅝	1.45
L-40-250	40	⅞ x 1¾	1.55
		150 WVDC	
L-5-150	5	⅝ x 1⅛	$1.00
L-8-150	8	½ x 1⅝	1.05
L-10-150	10	½ x 1⅝	1.05
L-16-150	16	⅝ x 1⅝	1.15
L-20-150	20	⅝ x 1⅝	1.20
L-30-150	30	¾ x 1⅝	1.30
L-40-150	40	¾ x 1⅝	1.35
		150 WVDC (Cont'd)	
L-50-150	50	¾ x 2 1/16	1.40
L-60-150	60	¾ x 2 1/16	1.50
L-80-150	80	⅞ x 2 1/16	1.60
L-100-150	100	⅞ x 2⅜	1.75
L-150-150	150	1 x 2 11/16	1.90
L-200-150	200	1 1/16 x 3 15/16	2.20
		50 WVDC	
L-1-50	1	½ x 1⅛	.90
L-2-50	2	½ x 1⅛	.90
L-3-50	3	½ x 1⅛	.90
L-5-50	5	½ x 1⅛	1.00
L-10-50	10	½ x 1⅛	1.00
L-25-50	25	½ x 1⅝	1.05
L-50-50	50	⅝ x 1⅝	1.20
L-100-50	100	¾ x 1⅝	1.40
L-150-50	150	⅞ x 1⅝	1.55
L-250-50	250	1 x 2 1/16	1.75
L-500-50	500	1 x 3	2.75
		25 WVDC	
L-10-25	10	½ x 1⅛	1.00
L-25-25	25	½ x 1⅝	1.00
L-50-25	50	⅝ x 1⅝	1.10
L-100-25	100	⅝ x 1⅝	1.35
L-250-25	250	⅞ x 2 1/16	1.70
L-500-25	500	1 x 2⅜	2.30
		15 WVDC	
L-1000-15	1000	1 x 3	2.30
		12 WVDC	
L-100-12	100	⅝ x 1 9/16	1.20
L-250-12	250	¾ x 2 1/16	1.45
L-500-12	500	⅞ x 2⅜	1.70
		6 WVDC	
L-500-6	500	¾ x 1⅝	1.55
L-1000-6	1000	⅞ x 2 1/16	1.90
L-1500-6	1500	⅞ x 2⅜	2 0
L-2000-6	2000	1 x 2⅜	2.30
		3 WVDC	
L-500-3	500	⅝ x 1⅝	1.55
L-1000-3	1000	⅞ x 2 1/16	1.80
L-1500-3	1500	⅞ x 2 1/16	2.10
L-2000-3	2000	1 x 2⅜	2.30

Dual Section Electrolytics — Type "IL"

Hermetically sealed in aluminum tubes with completely flexible leads. U/L Approved, plastic coated leads are rivetted directly to the condenser end disc, eliminating the use of rigid terminal risers, allowing capacitor to fit into smaller space and eliminating lead breakage. IL capacitors have wrap around mounting strap and are common negative, guaranteed for one year.



CAT. NO.	MFD.	SIZE*	LIST PRICE
		450 WVDC	
IL-2x8-450	8+ 8	⅞ x 2 1/16	$1.70
IL-2x20-450	20+20	1 x 2 11/16	2.50
IL-2x30-450	30+30	1¼ x 2 11/16	3.00
IL-2x40-450	40+40	1⅜ x 2 11/16	3.40
IL-2x50-450	50+50	1⅜ x 2 11/16	3.80
		150 WVDC	
IL-2x20-150	20+20	¾ x 1⅝	1.65
IL-2x30-150	30+30	⅞ x 1⅝	1.80
IL-4020-150	40+20	⅞ x 1⅝	1.75
IL-2x40-150	40+40	⅞ x 2 1/16	1.85
IL-5030-150	50+30	⅞ x 2 1/16	1.95
IL-2x50-150	50+50	1 x 2 1/16	2.10
IL-8040-150	80+40	1 x 2⅜	2.25
IL-2x120-150-SS	120+120	1 x 4¼	5.20

* Dimensions are for metal tubes. Add 1/16" to diameter and ⅛" to length for over-all dimensions over cardboard insulating tube.

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Trade Discount Applies To List Prices Only

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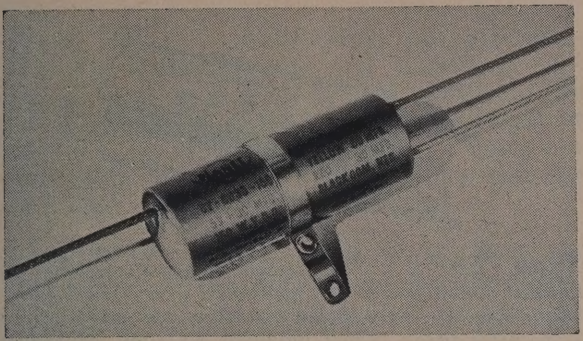


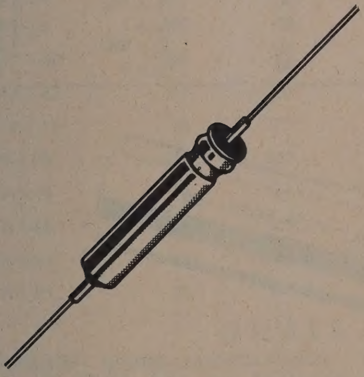
Universal Replacement Type Capacitors

Cardboard Tube Electrolytics —— Type "CT"

Constructed in strong red cardboard tubes, wax impregnated — long insulated stranded leads of U/L approved wire — high temperature wax end-fill — wrap around mounting strap. Guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
DUAL UNITS — COMMON NEGATIVE				
CT-2x20-150	20+20	150	¾ x 2½	**$1.65**
CT-2x30-150	30+30	150	⅞ x 2½	**1.80**
CT-4020-150	40+20	150	⅞ x 2½	**1.75**
CT-2x40-150	40+40	150	1 x 2½	**1.85**
CT-5030-150	50+30	150	1 x 2½	**1.95**
CT-2x50-150	50+50	150	1 x 3	**2.10**
CT-8040-150	80+40	150	1 x 3¼	**2.25**
CTC-100+50-150	100+50	150	1 x 3⅜	**2.50**
CT-2x100-150	100+100	150	1⅜ x 3⅜	**3.20**

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
TRIPLE UNITS — COMMON NEGATIVE				
CT-3x20-150	20+20+20	150	1 x 2½	**$2.20**
CT-302520-150	30+25+30	150	1 x 2½	**2.25**
CT-3x30-150	30+30+30	150	1 x 3	**2.35**
CT-402020-150	40+20+20	150	1 x 3	**2.25**
CT-403020-150	40+30+20	150	1 x 3	**2.35**
CT-404020-150	40+40+20	150	1 x 3	**2.40**
CT-3x40-150	40+40+40	150	1 x 3¼	**2.45**
CT-503020-150	50+30+20	150	1 x 3	**2.45**
CT-804020-150	80+40+20	150	1 x 3⅝	**2.75**
CT-302	30+20/20	150/25	1 x 2½	**2.10**
CT-303	40+30/20	150/25	1 x 3	**2.20**
CT-304	50+50/20	150/25	1 x 3¼	**2.50**
CT-305	50+30/20	150/25	1 x 3	**2.35**
CTC-306	100+50/30	150/25	1⅛ x 3½	**2.85**
CT-307	200+100/30	150/25	1¼ x 3¼	**3.75**



TRANSISTOR LYTICAPS
TYPE "TL"

Type "TL" . . . Sub-miniature aluminum foil capacitors . . . hermetically sealed in aluminum tubes . . . clear plastic outer insulating sleeves . . . all mechanical internal connections . . . no "cold weld" or "pressure" connections . . . **engineered for quality** for replacement in all transistorized circuits.

THE COMPACT REPLACEMENT LINE

Cat. No.	Mfg.	List
50 WVDC		
(Also use for 25, 15, 12, 10, 6 and 3 volts)		
TL-1-50	1	**$1.30**
TL-2-50	2	**1.35**
TL-3-50	3	**1.35**
TL-4-50	4	**1.35**
TL-5-50	5	**1.45**
TL-6-50	6	**1.45**
25 WVDC		
(Also use for 15, 12, 10, 6 and 3 volts)		
TL-8-25	8	**1.45**
TL-10-25	10	**1.45**
TL-12-25	12	**1.45**

Cat. No.	Mfg.	List
15 WVDC		
(Also use for 12, 10, 6 and 3 volts)		
TL-15-15	15	**$1.45**
TL-20-15	20	**1.45**
TL-25-15	25	**1.45**
12 WVDC		
(Also use for 10, 6 and 3 volts)		
TL-30-12	30	**1.40**
6 WVDC		
(Also use for 3 volts)		
TL-35-6	35	**1.40**
TL-40-6	40	**1.40**
3 WVDC		
TL-50-3	50	**1.25**

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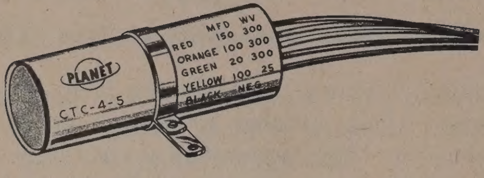
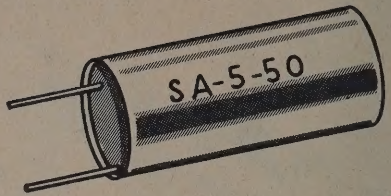


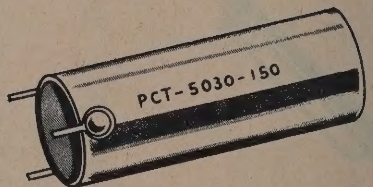
Type "CTC" . . . cardboard tube electrolytics especially designed for exact replacement in television sets . . . one end closed . . . long insulated leads out other end . . . sealed with high melting point wax . . . guaranteed for one year . . . individually packaged.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
CTC-1-5	300	150	1⅜ x 3⅞	$2.55
CTC-1-10	150	200	1½ x 3¾	3.95
CTC-1-15	200	200	1⅜ x 3⅜	2.90
CTC-1-20	140	300	1⅜ x 3½	3.15
CTC-1-25	200	300	1½ x 4	3.95
CTC-2-1	10/100	100/3	¾ x 1¾	1.90
CTC-2-5	200+5	150	1 x 3⅞	2.65
CTC-2-6	200+5	200	1⅜ x 3⅜	3.55
CTC-2-15	250+50	150	1⅜ x 3	3.25
CTC-2-20	80+120	200	1⅜ x 3	3.85
CTC-2-24	200+100	300/50	1¼ x 4½	4.30
CTC-2-25	150+100	300	1⅜ x 4½	5.35
CTC-2-30	140+5	350	1¼ x 3⅞	4.15
CTC-3-1	30/1000+1000	100/15	1⅜ x 3½	3.60
CTC-3-1.5	60+40/250	150/15	1 x 2⅞	3.25
CTC-3-2	60+60+60	300	1⅜ x 3½	4.70
CTC-3-3	250+120/50	150/25	1⅜ x 3⅞	4.40
CTC-3-4	250+200+10	150	1⅜ x 3⅝	4.60
CTC-3-5	5/80+40	450/400	1⅜ x 4⅛	4.55
CTC-3-7	50+30/250	150/10	1 x 2¾	2.75
CTC-3-22	60+60+4	350	1⅜ x 3¼	3.85
CTC-4-1	40+20+20/100	150/25	1⅛ x 3	3.05
CTC-4-5	150+100+20/100	300/25	1⅝ x 5¼	7.65
CTC-4-10	120+40+40/10	300/250	1⅜ x 4⅝	6.20
CTC-4-11	80+40/40/10	300/250/300	1⅜ x 3¼	5.15
CTC-4-15	140/5/200+30	350/300/200	1⅝ x 4⅜	7.65
CTC-4-20	80+60/40/20	350/300/150	1⅝ x 4½	5.90
CTC-4-21	140/5/200/100	350/300/200/150	1⅝ x 4⅜	8.20
CTC-4-23	40/20/20/100	350/300/250/50	1⅜ x 2⅞	4.50
CTC-4-24	80/40/100/10	400/300/50/400	1⅜ x 4	5.45
CTC-4-25	10/80/40/100	450/300/250/50	1⅜ x 4⅛	4.80
CTC-4-26	10/80+40/100	450/300/50	1⅜ x 4⅛	4.95
CTC-4-30	20/120/40/100	450/300/250/50	1½ x 4⅜	6.15
CTC-4-35	10/80/40+40	450/300/250	1⅜ x 4⅜	4.95
CTC-4-36	10/80+40+40	450/300	1⅜ x 4⅜	5.25
CTC-4-40	40+40+20+20	450	1½ x 4⅜	5.45
CTC-5-5	40+20+20+20/50	300/75	1⅜ x 3	5.00



Type "SA" . . . small single section electrolytics for printed circuit boards . . . hermetically sealed in aluminum tubes covered with red kraftboard insulating jackets . . . extra heavy tinned terminals anchored for proper spacing by a high melting point wax . . . for 85°C operation . . . individually packaged. Recommended for TV, radio and industrial applications . . . guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		SINGLES		
SA-8-3	8	3	⁹⁄₁₆ x 1⁷⁄₁₆	$1.05
SA-50-6	50	6	¹¹⁄₁₆ x 1¾	1.05
SA-100-6	100	6	⁹⁄₁₆ x 1⁷⁄₁₆	1.30
SA-5-10	5	10	⁹⁄₁₆ x 1⁷⁄₁₆	1.05
SA-25-10	25	10	⁹⁄₁₆ x 1⁷⁄₁₆	1.10
SA-10-25	10	25	⁹⁄₁₆ x 1⁷⁄₁₆	1.10
SA-50-25	50	25	¹¹⁄₁₆ x 2⅛	1.20
SA-100-25	100	25	²³⁄₃₂ x 2	1.45
SA-1-50	1	50	⁹⁄₁₆ x 1⁷⁄₁₆	1.00
SA-4-50	4	50	⁹⁄₁₆ x 1⁷⁄₁₆	1.10
SA-10-50	10	50	⁹⁄₁₆ x 1⁷⁄₁₆	1.10
SA-25-50	25	50	¹⁹⁄₃₂ x 2	1.15
SA-50-50	50	50	¹¹⁄₁₆ x 2⅛	1.30
SA-100-50	100	50	²⁷⁄₃₂ x 2	1.50



Type "PCT" . . . constructed in strong red cardboard tubes, wax impregnated, one end closed, printed circuit board terminals.

Type "PCTL" . . . has insulated lead out top providing for low voltage section.

For 65°C operation . . . recommended for table and clock radios . . . individually packaged . . . guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		DUALS		
PCT-2-5	50+30	150	1 x 2¼	1.95
PCT-2-10	50+50	150	1 x 2¼	2.10
PCT-2-15	75+30	150	1 x 3	2.20
PCT-2-20	100+50	150	1 x 3⅝	2.50
		TRIPLES		
PCTL-3-5	40+20/5	150/25	1 x 2¾	2.20
PCTL-3-10	60+20/5	150/25	1 x 3	2.40

All Prices Subject to Change Without Notice

Trade Discount Applies To List Prices Only

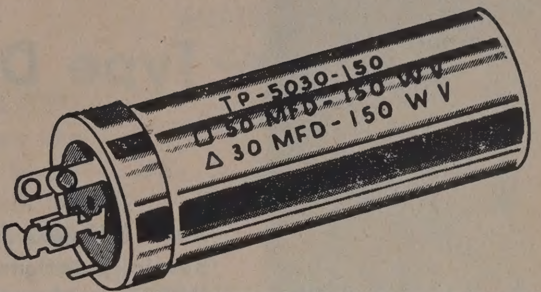
© U.C.P., Inc.

PLANET SALES CORPORATION
BLOOMFIELD, NEW JERSEY

PLANET

Type "TP" . . . twist-prong can electrolytics with mounting ring and solder lug terminals. The mounting ring is grounded by two spot welded connections to the negative tab . . . for 85°C operation . . . complete with metal grounding plate . . . individually packaged. Guaranteed for one year.

Type "PTP" . . . same as Type "TP" except made with printed circuit board terminals.



SINGLES

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
TP-1-5	2000	12	1 x 3½	$3.25
PTP-1-10	1000	15	1 x 2½	2.55
PTP-1-15	50	150	1 x 2½	1.65
TP-1-20	80	150	1 x 2	1.85
PTP-1-25	100	150	1 x 2½	2.00
TP-1-30	120	150	1 x 3	2.15
TP-1-31	120	150	1⅜ x 2½	2.15
PTP-1-35	140	150	1 x 3½	2.15
TP-1-40	150	150	1⅜ x 2½	2.15
TP-1-45	150	150	1 x 3	2.15
TP-1-50	200	150	1⅜ x 2½	2.45
TP-1-55	300	150	1⅜ x 4	2.80
PTP-1-60	150	165	1 x 3½	2.35
PTP-1-65	375	165	1⅜ x 3½	4.25
PTP-1-70	80	175	1 x 2½	1.95
TP-1-75	125	350	1⅜ x 3½	3.90
TP-1-80	10	450	1 x 2	1.55
TP-1-85	20	450	1 x 2	1.80
TP-1-90	40	450	1 x 3	2.05
TP-1-95	80	450	1⅜ x 3	3.05

DUALS

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
PTP-2-5	500+150	15	1 x 2	$3 25
PTP-2-10	250+250	16	1 x 2	2.50
TP-2-13	60+20	150	1 x 2½	2.15
PTP-2-15	70+30	150	1 x 2⅛	2.20
TP-2-20	50+50	150	1 x 2½	2.15
PTP-2-25	50+30	150	1 x 2	2.00
TP-2-30	50+30	150	1 x 2	2.00
TP-2-35	40+40	150	1 x 2	1.90
TP-2-40	20+20	150	1 x 2	1.70
TP-2-45	100+80	200	1⅜ x 2½	3.35
TP-2-50	200+5	200	1⅜ x 2½	3.40
TP-2-55	30+30	250	1 x 2½	2.75
TP-2-60	200+15	250	1⅜ x 2½	4.00
TP-2-65	30+10	300	1 x 3	2.40
TP-2-70	60/10	300/200	1 x 3	3.15
TP-2-75	125/100	350/10	1⅜ x 3½	5.20
TP-2-80	5/100	350/50	1 x 2	1.90
PTP-2-85	10/10	350/50	1 x 2	2.00
TP-2-90	100/80	350/175	1⅜ x 3½	$4.60
TP-2-95	100+50	350	1⅜ x 3½	5.80
TP-2-100	100+100	350	1⅜ x 4	6.15
TP-2-105	140+20	350	1⅜ x 4	4.30
TP-2-110	30+10	400	1 x 3	2.95
TP-2-115	10+10	450	1 x 2	1.90
TP-2-120	20+20	450	1 x 3	2.55
TP-2-125	40+40	450	1⅜ x 3	3.45

TRIPLES

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
TP-3-5	90+40/400	150/10	1 x 3½	$5.25
PTP-3-10	70+30/10	150/25	1 x 2½	2.55
TP-3-15	40+40+40	150	1 x 2½	2.60
PTP-3-20	50+25+150	150	1⅜ x 2½	3.75
TP-3-25	50+50+50	150	1 x 3	3.00
TP-3-30	40+20+20	250	1 x 3	2.90
TP-3-35	30+10/20	300/25	1 x 3	4.15
PTP-3-40	60+10/25	300/25	1⅜ x 2	4.85
PTP-3-45	30/25/100	350/25/6	1 x 2½	4.65
PTP-3-50	125/5/100	350/150/10	1⅜ x 3½	6.60
PTP-3-51	60/200+30	350/150	1⅜ x 4	5.00
TP-3-55	20+20/20	350/25	1 x 2	2.90
TP-3-60	100+100/25	350/25	1⅜ x 4½	7.00
TP-3-65	80+40/100	350/50	1⅜ x 4	6.50
TP-3-70	10/40+40	350/200	1 x 3	3.25
TP-3-75	80+40+40	350	1⅜ x 4	7.95
TP-3-80	30+10/20	400/25	1 x 3	2.85
TP-3-82	10+10+10	450	1 x 3	2.60
TP-3-85	40+40+40	450	1⅜ x 4	4.90

QUADS

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
PTP-4-5	250+30+20/100	150/10	1⅜ x 3½	$5.30
TP-4-6	100+10/200+30	300/150	1⅜ x 4	5.90
PTP-4-9	60+100/100/100	350/150/10	1⅜ x 5	8.50
PTP-4-10	100+60/60/40	350/200/75	1⅜ x 4½	8.50
TP-4-12	80+40+30/40	400/25	1⅜ x 4	5.95
TP-4-13	40+40/100+60	450/200	1⅜ x 4	6.05
TP-4-14	40+20+20/40	450/25	1⅜ x 3	4.65
TP-4-15	40+40+10/100	450/50	1⅜ x 3½	5.45
TP-4-20	20+20+20+20	450	1⅜ x 3	4.50
TP-4-25	30+30+30+30	450	1⅜ x 4	5.65
TP-4-30	40+40+40+40	450	1⅜ x 4	6.45

All Prices Subject to Change Without Notice

SANGAMO ELECTRIC COMPANY capacitors

SANGAMO ELECTRONIC COMPONENTS

SANGAMO
TYPE DCM
539-2651-01
15,000MFD
50WVDC
MADE IN USA

TYPE DCM

(Mounting Bracket Optional)

Type DCM COMPUTER GRADE FILTER AND ENERGY STORAGE ELECTROLYTIC

The SANGAMO Type DCM is a high quality, long life, electrolytic capacitor, specially designed for use as an energy storage or filter capacitor. The Type DCM is enclosed in an aluminum can and is normally furnished with a clear plastic insulating sleeve. Aluminum terminals, which are permanently molded into the top, include #10-32 machine screws. A pressure-sensitive vent is provided as a safety mechanism in each top. In the listings, the Sangamo specification number has been adopted as the catalog number. The numbers "539" in the catalog number indicate the type as DCM. The new catalog numbers reflect the change in terminal spacings as noted in the table below. A footed, wrap-around mounting bracket is available at extra cost. For more complete information write for Engineering Bulletin 2231.

New Catalog Number	Old Catalog Number	Capacitance (μf)	Working (d-c volts)	Case Size **		Net Each 1-24*
				Diameter	Length	
539-2619-01	539-1807-01	33,000	5	2- 1/16	4-1/2	$ 7.62
539-2621-01	539-1768-01	125,000	5	3- 1/16	6	16.71
539-2622-01	539-1811-01	10,000	10	1- 7/16	4-1/2	5.10
539-2736-01	539-1812-01	15,000	10	1-13/16	4-1/2	5.73
539-2623-01	539-1814-01	20,000	10	2- 1/16	4-1/2	7.77
539-2624-01	539-1769-01	35,000	10	2- 1/16	6	10.92
539-2626-01	539-1809-01	60,000	10	3- 1/16	4-1/2	15.39
539-2627-01	539-1770-01	90,000	10	3- 1/16	6	19.77
539-2628-01	539-1241-01	6,000	15	1- 7/16	4-1/2	4.23
539-2737-01	539-1291-01	10,000	15	1-13/16	4-1/2	5.34
539-2738-01	539-1825-01	14,000	15	1-13/16	4-1/2	6.96
539-2629-01	539-1826-01	18,000	15	2- 1/16	4-1/2	8.49
539-2630-01	539-1771-01	25,000	15	2- 1/16	6	10.95
539-2631-01	539-1827-01	33,000	15	2- 9/16	4-1/2	11.28
539-2632-01	539-1817-01	40,000	15	3- 1/16	4-1/2	12.48
539-2673-01	539-1740-01	50,000	15	3- 1/16	6	15.12
539-2634-01	539-1653-01	5,000	25	1- 7/16	4-1/2	4.74
539-2635-01	539-1084-01	10,000	25	2- 1/16	4-1/2	7.26
539-2636-01	539-2235-01	15,000	25	2- 1/16	6	10.20
539-2637-01	539-2423-01	20,000	25	2- 9/16	4-1/2	10.59
539-2639-01	539-2118-01	40,000	25	3- 1/16	6	17.55
539-2640-01	539-2236-01	1,500	35	1- 7/16	3-1/2	3.03
539-2641-01	539-1893-01	4,000	35	1- 7/16	4-1/2	4.50
539-2740-01	539-1889-01	5,000	35	1-13/16	4-1/2	5.31
539-2642-01	539-1892-01	8,000	35	2- 1/16	4-1/2	6.78
539-2643-01	539-1777-01	10,000	35	2- 1/16	6	8.31
539-2644-01	539-1895-01	15,000	35	2- 9/16	4-1/2	11.07
539-2645-01	539-1897-01	20,000	35	3- 1/16	4-1/2	12.12
539-2646-01	539-1778-01	30,000	35	3- 1/16	6	13.92
539-2647-01	539-1872-01	2,500	50	1- 7/16	4-1/2	4.08
539-2741-01	539-1758-01	4,000	50	1-13/16	4-1/2	5.49
539-2648-01	539-1697-01	5,000	50	2- 1/16	4-1/2	7.11
539-2649-01	539-1781-01	8,000	50	2- 1/16	6	8.79
539-2650-01	539-1832-01	10,000	50	2- 9/16	4-1/2	11.46
539-2651-01	539-1820-01	15,000	50	3- 1/16	4-1/2	13.65
539-2652-01	539-1782-01	20,000	50	3- 1/16	6	16.71
539-2653-01	539-1229-01	1,000	75	1- 7/16	4-1/2	4.02
539-2654-01	539-1836-01	3,000	75	2- 1/16	4-1/2	6.27
539-2656-01	539-1698-01	5,000	75	2- 9/16	4-1/2	10.23
539-2657-01	539-1783-01	10,000	75	3- 1/16	6	16.20
539-2658-01	539-1871-01	1,000	100	1- 7/16	4-1/2	4.41
539-2742-01	539-1859-01	1,500	100	1-13/16	4-1/2	4.86
539-2597-01	539-1792-01	3,000	100	2- 1/16	6	9.42
539-2660-01	539-1335-01	4,000	100	2- 9/16	4-1/2	$ 9.96
539-2661-01	539-1093-01	5,000	100	3- 1/16	4-1/2	10.71
539-2663-01	539-1654-01	500	150	1- 7/16	3-1/2	3.84
539-2664-01	539-1861-01	700	150	1- 7/16	4-1/2	4.32
539-2743-01	539-1864-01	1,000	150	1-13/16	4-1/2	4.83
539-2744-01	539-1862-01	1,250	150	1-13/16	4-1/2	5.22
539-2665-01	539-1763-01	2,000	150	2- 1/16	6	8.37
539-2666-01	539-1222-01	2,500	150	2- 9/16	4-1/2	9.57
539-2667-01	539-1625-01	4,000	150	3- 1/16	4-1/2	12.63
539-2668-01	539-1791-01	6,000	150	3- 1/16	6	15.18
539-2669-01	539-1847-01	500	200	1- 7/16	4-1/2	4.17
539-2745-01	539-1702-01	750	200	1-13/16	4-1/2	5.37
539-2670-01	539-1761-01	1,500	200	2- 1/16	6	7.65
539-2671-01	539-2008-01	2,000	200	2- 9/16	4-1/2	9.18
539-2672-01	539-1515-01	2,500	200	3- 1/16	4-1/2	10.80
539-2746-01	539-2259-01	500	250	1-13/16	4-1/2	4.50
539-2575-01	539-1762-01	1,000	250	2- 1/16	4-1/2	9.81
539-2874-01	539-1885-01	1,500	250	2- 9/16	4-1/2	10.83
539-2675-01	539-1949-01	275	300	1- 7/16	4-1/2	4.50
539-2747-01	539-2260-01	450	300	1-13/16	4-1/2	5.10
539-2676-01	539-1992-01	1,000	300	2- 9/16	4-1/2	11.22
539-2677-01	539-2233-01	1,500	300	3- 1/16	4-1/2	17.73
539-2584-01	539-2262-01	150	350	1- 7/16	3-1/2	4.08
539-2748-01	539-1920-01	350	350	1-13/16	4-1/2	5.49
539-2678-01	539-1251-01	1,000	350	3- 1/16	4-1/2	11.73
539-2749-01	539-2261-01	250	450	1-13/16	4-1/2	5.94
539-2683-01	539-1863-01	300	450	2- 1/16	4-1/2	6.33
539-2684-01	539-1803-01	500	450	2- 1/16	6	8.04
539-2685-01	539-1080-01	600	450	2- 9/16	4-1/2	9.90
539-2686-01	539-1167-01	800	450	3- 1/16	4-1/2	11.46

* O.E.M. prices for larger quantities are available on request.
** All dimensions in inches.

NOTE: Capacitor dimensions include insulating sleeve.
NOTE: All units are supplied with screw terminals.
NOTE: Mounting brackets are furnished at extra cost.
NOTE: New catalog numbers issued to reflect changes in terminal spacing as indicated in the table below.

	Capacitor Diameter in Inches	Net Price
MOUNTING BRACKETS FOR TYPE DCM	1-7/16	$ .24
	1-13/16	.33
	2-1/16	.36
	2-9/16	.48
	3-1/16	.60

Case Diameter	Terminal spacing center to center	
	New Catalog No.	Old Catalog No.
1-7/16	.500	.547
1-13/16	.750	.750
2-1/16	.875	.937
2-9/16	1.125	.875
3-1/16	1.25	1.375

NOTE: 1-7/16 bracket available with two feet only. All others available with two or three feet. Specify required number of feet.

© U.C.P., Inc.

SANGAMO ELECTRIC COMPANY

capacitors

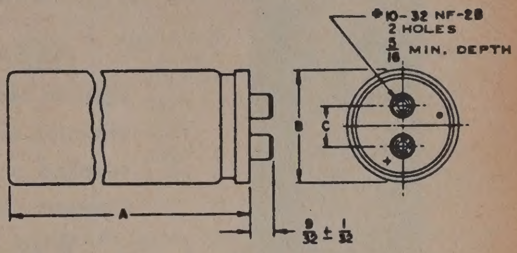
SANGAMO ELECTRONIC COMPONENTS

MIL-C-62B Types CE70 and CE71

MILITARY GRADE CAPACITORS

SANGAMO
MADE IN USA
33,000 MFD
15 VDC
CE70C333E
6-62

The Sangamo Types CE70 and CE71 are aluminum electrolytic capacitors and are designed and manufactured in accordance with Mil-C-62B. These units are designed for operation to +85°C and are available in voltage ratings from 5 to 450 d-c volts. The Type CE71 is supplied with a plastic insulating sleeve. Commercial equivalents can be supplied which meet or exceed the applicable military requirements. Complete details are given in Bulletin 2237.



1. All dimensions in inches.
2. Capacitors are mounted by means of a wrap-around, footed-type bracket. See Type DCM Brackets, page 2.

Type Designation*	Capaci-tance (μf)	Rated Voltage (d-c Volts)	Case Dimensions (inches)						CE71 Net Price
			Style CE70 (without sleeve)			Style CE71 (with sleeve)			
			Length A±1/16	Diameter B±1/64	Terminal Spacing C±1/16	A +1/16 −3/8	B +1/32 −1/16	C±1/16	1-24†
CE7-C103C	10,000	5	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	$ 4.98
CE7-C253C	25,000	5	4-1/8	2	7/8	4-1/2	2-1/16	7/8	7.62
CE7-C453C	45,000	5	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	10.38
CE7-C653C	65,000	5	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	13.56
CE7-C652D	6,500	10	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	4.68
CE7-C163D	16,000	10	4-1/8	2	7/8	4-1/2	2-1/16	7/8	6.93
CE7-C283D	28,000	10	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	11.76
CE7-C403D	40,000	10	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	13.95
CE7-C562E	5,600	15	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	4.83
CE7-C123E	12,000	15	4-1/8	2	7/8	4-1/2	2-1/16	7/8	5.85
CE7-C223E	22,000	15	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	11.34
CE7-C333E	33,000	15	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	12.96
CE7-C302F	3,000	25	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	4.26
CE7-C702F	7,000	25	4-1/8	2	7/8	4-1/2	2-1/16	7/8	6.93
CE7-C113F	11,000	25	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	8.97
CE7-C173F	17,000	25	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	12.09
CE7-C142G	1,400	50	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	4.14
CE7-C332G	3,300	50	4-1/8	2	7/8	4-1/2	2-1/16	7/8	6.12
CE7-C562G	5,600	50	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	8.88
CE7-C902G	9,000	50	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	11.73
CE7-C701H	700	100	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	4.17
CE7-C182H	1,800	100	4-1/8	2	7/8	4-1/2	2-1/16	7/8	5.94
CE7-C312H	3,100	100	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	10.89
CE7-C452H	4,500	100	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	11.88
CE7-C501J	500	150	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	4.41
CE7-C122J	1,200	150	4-1/8	2	7/8	4-1/2	2-1/16	7/8	5.94
CE7-C202J	2,000	150	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	9.63
CE7-C322J	3,200	150	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	12.63
CE7-C351K	350	200	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	4.23
CE7-C901K	900	200	4-1/8	2	7/8	4-1/2	2-1/16	7/8	7.56
CE7-C152K	1,500	200	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	8.79
CE7-C222K	2,200	200	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	11.22
CE7-C301M	300	250	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	4.65
CE7-C701M	700	250	4-1/8	2	7/8	4-1/2	2-1/16	7/8	7.41
CE7-C122M	1,200	250	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	11.46
CE7-C192M	1,900	250	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	13.26
CE7-C251N	250	300	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	5.01
CE7-C551N	550	300	4-1/8	2	7/8	4-1/2	2-1/16	7/8	6.18
CE7-C971N	970	300	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	12.03
CE7-C152N	1,500	300	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	20.04
CE7-C201P	200	350	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	5.13
CE7-C451P	450	350	4-1/8	2	7/8	4-1/2	2-1/16	7/8	7.56
CE7-C751P	750	350	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	10.62
CE7-C122P	1,200	350	4-1/8	3	1-1/4	4-1/2	3-1/16	1-1/4	15.30
CE7-C151Q	150	400	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	5.34
CE7-C351Q	350	400	4-1/8	2	7/8	4-1/2	2-1/16	7/8	7.08
CE7-C601Q	600	400	4-1/8	2-1/2	1-1/8	4-1/2	2-9/16	1-1/8	10.56
CE7-C101R	100	450	4-1/8	1-3/8	1/2	4-1/2	1-7/16	1/2	5.19

*Complete type designation will include an additional digit to complete style, i.e. CE70C103C. †Prices apply to CE71 (with sleeve) For CE70 (without sleeve) deduct $0.15.

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SANGAMO ELECTRIC COMPANY capacitors

ELECTRONIC COMPONENTS

Type 505

INSTRUMENT GRADE ELECTROLYTIC CAPACITOR

The SANGAMO Type 505 electrolytic capacitor is specifically designed for the rigorous requirements of instrument manufacturers. It has "twist-tab" terminal construction and is encased in a metal, tubular can. A plastic insulating sleeve can be supplied on request. Improved overall design has resulted in increased shelf and operating life, lower leakage current, and better temperature characteristics.

When ordering the SANGAMO Type 505 refer to the catalog number listed or give the voltage and capacitive rating required. For more complete information, write for Sangamo Bulletin 2235.

Catalog No.	Capacitance (μf)	Rated Voltage (d-c volts)	Dimensions		Net Price 1-24*
			Length (inches)	Diameter (inches)	
505-2402-01	16000	5	3.500	1.375	$8.66
505-1023-01	500	25	2.000	1.000	1.52
505-2602-01	3500	50	4.000	1.375	5.83
505-1021-01	150	150	2.000	1.000	1.43
505-1601-01	500	150	4.000	1.000	2.45
505-1024-01	50	250	2.000	1.000	1.28
505-3801-01	200	300	3.000	1.375	2.66
505-1022-01	40	350	2.000	1.000	1.35
505-2401-01	125	450	3.500	1.375	2.94
505-2601-01	150	450	4.000	1.375	3.28
505-1201-01	1000-1000	15	2.500	1.000	2.44
505-1602-01	1500-1500	25	4.000	1.000	4.28
505-3802-01	1000-1000	50	3.000	1.375	4.02
505-2603-01	500-500	150	4.000	1.375	4.33
505-1020-01	40-40	250	2.000	1.000	1.58
505-2201-01	100-100	250	2.500	1.375	2.50
505-3001-01	150-150	350	4.500	1.375	4.08
505-1202-01	20-20	450	2.500	1.000	1.68
505-3600-01	100-100	450	5.000	1.375	4.12
505-2202-01	500-500-500	50	2.500	1.375	3.50
505-2002-01	100-100-100	150	2.000	1.375	$2.41
505-2604-01	150-150-150	250	4.000	1.375	4.04
505-3803-01	60-60-60	350	3.000	1.375	3.14
505-2605-01	50-50-50	450	4.000	1.375	3.59
505-2003-01	80-80-80-80	150	2.000	1.375	2.59
505-2203-01	50-50-50-50	250	2.500	1.375	2.77
505-2403-01	50-50-50-50	350	3.500	1.375	3.47
505-3804-01	20-20-20-20	450	2.500	1.375	2.74
505-3601-01	50-50-50-50	450	5.000	1.375	4.41

*For Insulating Sleeve add $0.10, and specify "with sleeve" on order.

These listings represent only those Type 505 electrolytic capacitors considered standard or stock items. When capacitors other than those listed are required, the Sangamo Electric Company should be consulted and given complete electrical and environmental requirements.

Type 595 (CS12 and CS13)

SOLID TANTALUM CAPACITOR

The SANGAMO Type 595 solid electrolyte, tantalum capacitor is designed for filter, by-pass, coupling, blocking and other low voltage d-c applications found in telemetering devices, airborne systems, computers, missiles, and transistor circuits. It provides highest capacitance per volume in an extremely small and strong, hermetically sealed can. The units listed are rated for operation from −55 to +85°C. With voltage derating units may be operated to +125°C.

Both commercial and military units are shown in the listings below. In all instances, the commercial equivalent meets or exceeds the applicable requirements of MIL-C-26655. When ordering, give the complete Sangamo Catalog Number or military type designation for the unit required. For more complete information, write for Sangamo Bulletin 2234.

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Type 595 Solid Tantalum Capacitor—continued

Case Size	Capacitive Tolerance (%)	Prices*			
		Commercial Units		Military Units	
		Without Sleeve	With Sleeve	Without Sleeve	With Sleeve
A	(K) ±10	1.54	1.58	1.69	1.73
A	(M) ±20	1.28	1.32	1.41	1.45
B	(K) ±10	1.62	1.66	1.78	1.82
B	(M) ±20	1.35	1.39	1.48	1.52
C	(K) ±10	2.68	2.72	2.95	2.99
C	(M) ±20	2.23	2.27	2.45	2.49
D	(K) ±10	4.97	5.01	5.47	5.51
D	(M) ±20	4.14	4.18	4.55	4.59

*1-24 quantity

CASE SIZE FOR CS13 (WITH SLEEVE)*

Case Size	Max. Overall Length	Case Length	Dia.
A	0.422″	0.286″	0.135″
B	0.610″	0.474″	0.185″
C	0.822″	0.686″	0.289″
D	0.922″	0.786″	0.351″

* Deduct 0.01 inches from diameter and 0.036 from length for unsleeved unit. When ordering, specify "unsleeved" for commercial unit and change military designation to CS12.

Commercial Equivalent Catalog Number	Military Specification Designation	Capacitance µf	Case Size
6 D-C VOLTS			
595-0066-06	CS13AB5R6K	5.6	A
595-0072-07	CS13AB6R8M	6.8	A
595-0132-07	CS13AB470M	47.0	B
595-0138-06	CS13AB560K	56.0	B
595-0160-07	CS13AB151M	150.0	C
595-0164-06	CS13AB181K	180.0	C
595-0170-06	CS13AB271K	270.0	D
595-0172-07	CS13AB331M	330.0	D
10 D-C VOLTS			
595-0054-06	CS13AC3R9K	3.9	A
595-0060-07	CS13AC4R7M	4.7	A
595-0114-06	CS13AC270K	27.0	B
595-0120-07	CS13AC330M	33.0	B
595-0126-06	CS13AC390K	39.0	B
595-0148-06	CS13AC820K	82.0	C
595-0152-07	CS13AC101M	100.0	C
595-0156-06	CS13AC121K	120.0	C
595-0166-06	CS13AC181K	180.0	D
595-0168-07	CS13AC221M	220.0	D
15 D-C VOLTS			
595-0042-06	CS13AD2R7K	2.7	A
595-0048-07	CS13AD3R3M	3.3	A
595-0102-06	CS13AD180K	18.0	B
595-0108-07	CS13AD220M	22.0	B
595-0140-06	CS13AD560K	56.0	C
595-0144-07	CS13AD680M	68.0	C
595-0158-06	CS13AD121K	120.0	D
595-0162-07	CS13AD151M	150.0	D
20 D-C VOLTS			
595-0018-06	CS13AE1R2K	1.2	A
595-0024-07	CS13AE1R5M	1.5	A
595-0030-06	CS13AE1R8K	1.8	A
595-0036-07	CS13AE2R2M	2.2	A
595-0078-06	CS13AE8R2K	8.2	B
595-0084-07	CS13AE100M	10.0	B
595-0090-06	**20 D-C VOLTS (Cont'd.)**		
595-0090-06	CS13AE120K	12.0	B
595-0096-07	CS13AE150M	15.0	B
595-0116-06	CS13AE270K	27.0	C
595-0122-07	CS13AE330M	33.0	C
595-0128-06	CS13AE390K	39.0	C
595-0134-07	CS13AE470M	47.0	C
595-0142-06	CS13AE560K	56.0	D
595-0146-07	CS13AE680M	68.0	D
595-0150-06	CS13AE820K	82.0	D
595-0154-07	CS13AE101M	100.0	D
35 D-C VOLTS			
595-0202-06	....	0.22	A
595-0002-07	CS13AFR33M	0.33	A
595-0004-06	CS13AFR39K	0.39	A
595-0006-07	CS13AFR47M	0.47	A
595-0008-06	CS13AFR56K	0.56	A
595-0010-07	CS13AFR68M	0.68	A
595-0012-06	CS13AFR82K	0.82	A
595-0014-07	CS13AF010M	1.0	A
595-0020-06	CS13AF1R2K	1.2	B
595-0026-07	CS13AF1R5M	1.5	B
595-0032-06	CS13AF1R8K	1.8	B
595-0038-07	CS13AF2R2M	2.2	B
595-0044-06	CS13AF2R7K	2.7	B
595-0050-07	CS13AF3R3M	3.3	B
595-0056-06	CS13AF3R9K	3.9	B
595-0062-07	CS13AF4R7M	4.7	B
595-0068-06	CS13AF5R6K	5.6	B
595-0074-07	CS13AF6R8M	6.8	B
595-0080-06	CS13AF8R2K	8.2	C
595-0086-07	CS13AF100M	10.0	C
595-0092-06	CS13AF120K	12.0	C
595-0098-07	CS13AF150M	15.0	C
595-0104-06	CS13AF180K	18.0	C
595-0110-07	CS13AF220M	22.0	C
595-0118-06	CS13AF270K	27.0	D
595-0124-07	CS13AF330M	33.0	D
595-0130-06	CS13AF390K	39.0	D
595-0136-07	CS13AF470M	47.0	D

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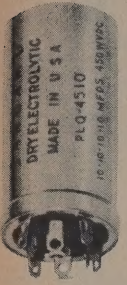
SANGAMO ELECTRIC COMPANY

capacitors

ELECTRONIC COMPONENTS

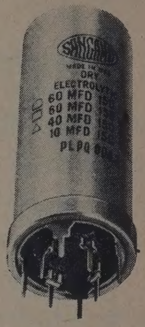
Type PL and Type PLP Electrolytics



TYPE PL
For Twist Tab
Mounting

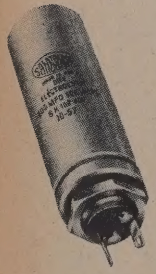
The Sangamo Types PL and PLP, "Twist Tab", electrolytic capacitors are specially designed for television and electronic applications requiring long life and dependable performance at 85°C. They are sealed in round aluminum cans with the element tabs securely clamped and staked to the terminal lugs, thus assuring permanent, low resistive connections. In all cases the aluminum can and mounting ring are grounded. All units are manufactured to satisfy conditions of high ripple currents and high surge voltages.

The Type PLP has a combination base allowing interchangeable use for mounting in printed circuit boards and also for conventional twist tab mounting. For complete listings write for Bulletin 2252.



TYPE PLP
For Printed Circuit
Mounting

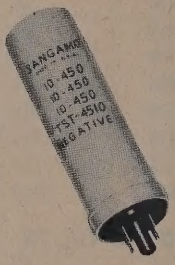
Types BK, BW, TS and BT Electrolytics



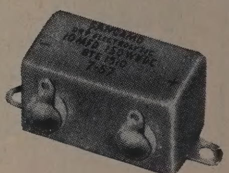
TYPE BK
with 7/8-16 threaded
neck and hex nut

TYPE BW
for bracket mounting

The Sangamo Types BK, BW, TS and BT which are furnished in aluminum containers, meet all specifications of Mil-C-62B. The Type BK corresponds to the military type CE41 & 42, the BW to CE31, 32 and 33, the TS to CE51, 52 and 53, and the BT to CE63 and 64. For complete listings and information on these types write for Bulletin 2233.



TYPE TS
with four pin octal base
for socket mounting



TYPE BT
with side or top
terminals

Type TR *TELEPHONE GRADE*

HIGH RELIABILITY ELECTROLYTIC

SANGAMO Type TR "High Reliability" electrolytic capacitors are specially designed and manufactured for applications requiring an extremely high level of reliability over long periods of time. The Type TR is ideally suited for high-frequency filtering, by-passing and coupling applications in communications equipment, electronic industrial controls, laboratory test instruments, computers and similar equipment where a high degree of reliability for a minimum of 10 years is essential to the operation of the equipment in which it is used. The SANGAMO Type TR "High Reliability" capacitors are designed to operate throughout the temperature range from -20°C to +85°C. Metal or Bakelite mounting washers are available. For more complete information write for Engineering Bulletin 2227.

Catalog Number	Capacitance (μf)	Rated Voltage (d-c volts)	Diameter (inches)	Length (inches)	Net Each 1-24*
SINGLE SECTION					
TR-620	2000	6	1-3/8	2-1/2	$3.18
TR-0110	1000	15	1	4	2.83
TR-0250	500	25	1	4	2.78
TR-0520	200	50	1	3-1/2	2.62
TR-1510	100	150	1	4	2.78
TR-2550	50	250	1	3	2.78
TR-3520	20	350	1	2-1/2	2.68
TR-3550	50	350	1	4	2.95
TR-4520	20	450	1	3	2.73
TR-4550	50	450	1-3/8	3	3.27
DUAL SECTIONS					
TRD-1550	50-50	150	1	4	$ 3.00
TRD-2520	20-20	250	1	3-1/2	3.00
TRD-4510	10-10	450	1	4	3.12
TRD-4520	20-20	450	1-3/8	3-1/2	3.60
TRD-4540	40-40	450	1-3/8	4	3.96
TRIPLE SECTIONS					
TRT-1550	50-50-50	150	1-3/8	4	$3.42
TRT-2540	40-40-40	250	1-3/8	4	3.81
TRT-3520	20-20-20	350	1-3/8	4	3.87
TRT-4520	20-20-20	450	1-3/8	4	4.02

* O.E.M. prices for larger quantities are available on request.

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SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

Types MT, MMT and MTD, Electrolytics

TYPE MT

TYPE MTD

TYPE MMT

SANGAMO Types MT, MTD and MMT are specially designed for radio and television applications and other electronic equipment operating at temperatures up to 85°C. They are encased in drawn aluminum containers with MYLAR® insulating sleeves on which polarity is clearly marked. The Type MMT, which is a miniature version of the MT, is ideally suited to meet the precise operating requirements of low voltage circuits. Because of their small physical size the MMT and MT, up to ¾'' diameter, are self-supported by means of reinforced bare tinned copper wire leads. The MT and MTD units are provided with mounting straps in 7/8'' and 1'' diameters.

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Catalog Number	Capacitance (μf)	Rated Voltage (d-c volts)	Case Size		Net Each 1-24*
			Diameter	Length	
SINGLE SECTION MT AND MMT					
MMT-325	25	3	3/8	1- 1/16	$0.53
MMT-350	50	3	3/8	1- 1/16	0.58
MT-101	200	3	1/2	1- 1/16	0.78
MT-103	500	3	5/8	1- 5/16	0.97
MT-105	1000	3	3/4	1- 9/16	1.16
MMT-605	5	6	3/8	1- 1/16	0.50
MMT-625	25	6	3/8	1- 1/16	0.51
MMT-650	50	6	3/8	1- 1/16	0.59
MMT-680	80	6	1/2	1- 1/16	0.66
MT-107	100	6	1/2	1- 1/16	0.73
MT-109	250	6	1/2	1- 5/16	0.93
MT-111	500	6	5/8	1- 5/16	1.06
MT-113	1000	6	3/4	1- 9/16	1.31
MT-115	1500	6	3/4	1-13/16	1.43
MT-117	2000	6	7/8	2- 1/16	1.62
MT-119	100	12	1/2	1- 5/16	0.75
MT-121	250	12	5/8	1- 5/16	0.99
MT-123	500	12	3/4	1- 5/16	1.15
MT-125	1000	12	7/8	2- 1/16	1.58
MT-127	100	15	1/2	1- 5/16	0.76
MT-129	250	15	5/8	1- 5/16	1.08
MT-131	500	15	3/4	1- 5/16	1.20
MT-133	1000	15	7/8	2- 1/16	1.61
MT-135	2000	15	1	2- 7/8	1.90
MMT-0210	10	25	3/8	1- 1/16	0.62
MMT-0220	20	25	3/8	1- 1/16	0.62
MT-0225	25	25	1/2	1- 1/16	0.64
MT-0250	50	25	1/2	1- 1/16	0.68
MT-02100	100	25	5/8	1- 1/16	0.84
MT-02250	250	25	3/4	1- 5/16	1.15
MT-02500	500	25	3/4	1-13/16	1.57
MT-0501	1	50	1/2	1- 1/16	0.57
MT-0502	2	50	1/2	1- 1/16	0.57
MT-0504	4	50	1/2	1- 1/16	0.60
MMT-0505	5	50	3/8	1- 1/16	0.60
MMT-0510	10	50	3/8	1- 1/16	0.60
MT-0520	20	50	1/2	1- 1/16	0.63
MT-0525	25	50	1/2	1- 1/16	0.64
MMT-0530	30	50	1/2	1- 5/16	0.69
MT-0550	50	50	5/8	1- 1/16	0.75
MT-05100	100	50	5/8	1- 9/16	0.87
MT-05150	150	50	3/4	1- 9/16	0.96
MT-05250	250	50	7/8	1- 9/16	1.25
MT-1504	4	150	1/2	1- 1/16	0.62
MMT-1505	5	150	3/8	1- 1/16	0.62
MT-1508	8	150	1/2	1- 1/16	0.65
MT-1510	10	150	1/2	1- 1/16	0.66
MT-1512	12	150	1/2	1- 5/16	0.68
MT-1516	16	150	5/8	1- 1/16	0.72
MT-1520	20	150	5/8	1- 1/16	$0.73
MT-1525	25	150	5/8	1- 5/16	0.77
MT-1530	30	150	5/8	1- 5/16	0.81
MT-1540	40	150	5/8	1- 9/16	0.85
MT-1550	50	150	3/4	1- 5/16	0.88
MT-1560	60	150	3/4	1- 9/16	0.92
MT-1580	80	150	3/4	1-13/16	1.00
MT-15100	100	150	7/8	1- 9/16	1.13
MT-15150	150	150	1	1- 9/16	1.23
MT-15200	200	150	1	2- 5/16	1.35
MT-15300	300	150	1	2- 7/8	1.46
MT-2504	4	250	1/2	1- 1/16	0.62
MT-2508	8	250	5/8	1- 1/16	0.78
MT-2510	10	250	5/8	1- 5/16	0.81
MT-2512	12	250	5/8	1- 5/16	0.83
MT-2516	16	250	5/8	1- 9/16	0.88
MT-2520	20	250	5/8	1-13/16	0.93
MT-2530	30	250	3/4	1-13/16	1.00
MT-2540	40	250	7/8	1- 9/16	1.12
MT-25100	100	250	1	2- 5/16	1.44
MMT-3003	3	300	1/2	1- 1/16	0.69
MT-3504	4	350	5/8	1- 1/16	0.71
MT-3508	8	350	5/8	1- 9/16	0.81
MT-3510	10	350	5/8	1-13/16	0.86
MT-3516	16	350	3/4	1-13/16	0.96
MT-3520	20	350	7/8	1- 9/16	1.03
MT-3530	30	350	1	1-13/16	1.17
MT-3540	40	350	1	2- 1/16	1.21
MT-3560	60	350	1	2- 7/8	1.32
MMT-4501	1	450	3/8	1- 1/16	0.74
MT-4502	2	450	1/2	1- 1/16	0.75
MMT-4503	3	450	1/2	1- 5/16	0.76
MT-4504	4	450	5/8	1- 5/16	0.77
MT-4508	8	450	3/4	1- 5/16	0.87
MT-4510	10	450	3/4	1- 9/16	0.87
MT-4512	12	450	3/4	1-13/16	0.94
MT-4516	16	450	3/4	2- 5/16	0.99
MT-4520	20	450	7/8	1-13/16	1.11
MT-4530	30	450	1	1-13/16	1.21
MT-4540	40	450	1	2- 5/16	1.26
MT-4550	50	450	1	2- 7/8	1.47
MT-4560	60	450	1	3- 3/16	1.58
MT-4580	80	450	1	3-11/16	1.79
MT-4710	10	475	3/4	1-13/16	0.93
MT-4720	20	475	7/8	2- 5/16	1.46
MT-5008	8	500	7/8	1- 9/16	0.93
MT-5010	10	500	7/8	1- 9/16	0.99
MT-5016	16	500	7/8	2- 1/16	1.07
MT-5020	20	500	1	1-13/16	1.13
DUAL SECTION MTD					
MTD-1520	20-20	150	7/8	1- 1/16	$1.17
MTD-1530	30-30	150	7/8	1- 9/16	1.21
MTD-302	40-20	150	7/8	1- 9/16	1.23
MTD-304	40-30	150	7/8	1-13/16	1.25
MTD-1540	40-40	150	7/8	1-13/16	1.29
MTD-301	50-30	150	7/8	1-13/16	1.29
MTD-1550	50-50	150	7/8	2- 1/16	1.35
MTD-303	80-40	150	7/8	2- 1/16	$1.41
MTD-2520	20-20	250	7/8	1-13/16	1.29
MTD-3520	20-20	350	1	2- 7/8	1.55
MTD-4508	8-8	450	7/8	1- 9/16	1.29
MTD-4510	10-10	450	7/8	1-13/16	1.35
MTD-4520	20-20	450	1	2- 7/8	1.76
MTD-4530	30-30	450	1	3- 3/16	2.12
MTD-4540	40-40	450	1	3-11/16	2.46

NOTE: Dimensions are for metal cases. Add 1/32'' to diameter and length for mylar insulating sleeve.

NOTE: All dimensions are in inches.

* O.E.M. prices for larger quantities are available on request.

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SANGAMO ELECTRONIC COMPONENTS

Type MJ MOTOR STARTING ELECTROLYTIC

DRY ELECTROLYTIC
MOTOR STARTING CAPACITOR
378-440 MFD 110 VAC
60 CYCLES
MIL-1131

The SANGAMO Type MJ motor starting capacitor is designed for maximum capacitance per unit volume, heavy duty applications and long life--all of which provide dependable performance under unusual environmental conditions.

These capacitors are encased in black plastic cases. A plastic end cap is available at extra cost. All Type MJR capacitors are equipped with combination lug and screw terminals adaptable for solder, quick disconnect or screw connections, making them ideal for the replacement market. Units are also available in aluminum case as the Type EM. For more complete engineering information write for Bulletin No. 2228.

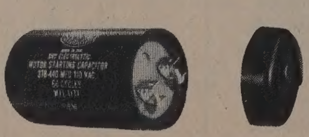
Catalog Number	Capacitance (µf)	Diameter (inches)	Length (inches)	Net Price 1-24*
110 A-C VOLTS				
MJ-11021F	21-25	1 7/16	2 3/4	$1.22
MJ-11025F	25-30	1 7/16	2 3/4	1.23
MJ-11030F	30-36	1 7/16	2 3/4	1.26
MJ-11036F	36-43	1 7/16	2 3/4	1.30
MJ-11043F	43-53	1 7/16	2 3/4	1.35
MJ-11047F	47-56	1 7/16	2 3/4	1.37
MJ-11053F	53-64	1 7/16	2 3/4	1.40
MJ-11064F	64-77	1 7/16	2 3/4	1.49
MJ-11072F	72-88	1 7/16	2 3/4	1.53
MJ-11088F	88-108	1 7/16	2 3/4	1.64
MJ-11108F	108-130	1 7/16	2 3/4	1.78
MJ-11124F	124-149	1 7/16	2 3/4	1.87
MJ-11130F	130-156	1 7/16	2 3/4	1.91
MJ-11145F	145-175	1 7/16	2 3/4	2.02
MJ-11161F	161-193	1 7/16	3 3/8	2.20
MJ-11189F	189-227	1 7/16	3 3/8	2.42
MJ-11216F	216-259	1 7/16	3 3/8	2.67
MJ-11233F	233-280	1 13/16	3 3/8	2.83
MJ-11243F	243-292	1 13/16	3 3/8	2.92
MJ-11270F	270-324	1 13/16	3 3/8	3.06
MJ-11340F	340-408	1 13/16	3 3/8	3.55
MJ-11378F	378-440	1 13/16	3 3/8	3.99
MJ-11400F	400-480	1 13/16	3 3/8	4.20
MJ-11430F	430-516	1 13/16	4 3/8	4.48
MJ-11460F	460-552	1 13/16	4 3/8	4.75
MJ-11540F	540-648	1 13/16	4 3/8	5.50
MJ-11590F	590-708	1 13/16	4 3/8	6.18
125 A-C VOLTS				
MJ-12021F	21-25	1 7/16	2 3/4	$1.27
MJ-12025F	25-30	1 7/16	2 3/4	1.29
MJ-12030F	30-36	1 7/16	2 3/4	1.32
MJ-12036 F	36-43	1 7/16	2 3/4	1.37
MJ-12043F	43-53	1 7/16	2 3/4	1.45
MJ-12047F	47-56	1 7/16	2 3/4	1.49
MJ-12053F	53-64	1 7/16	2 3/4	1.55
MJ-12064F	64-77	1 7/16	2 3/4	1.66
MJ-12072F	72-88	1 7/16	2 3/4	1.76
MJ-12088F	88-108	1 7/16	2 3/4	1.93
MJ-12108F	108-130	1 7/16	2 3/4	2.14
MJ-12124F	124-149	1 7/16	2 3/4	2.28
MJ-12130F	130-156	1 7/16	2 3/4	2.35
MJ-12145F	145-175	1-7/16	3 3/8	2.47
MJ-12161F	161-193	1 7/16	3 3/8	2.62
MJ-12189F	189-227	1 7/16	3 3/8	2.89
MJ-12216F	216-259	1 13/16	3 3/8	3.10
MJ-12233F	233-280	1 13/16	3 3/8	3.26
MJ-12243F	243-292	1 13/16	3 3/8	3.34
MJ-12270F	270-324	1 13/16	3 3/8	3.76
MJ-12340F	340-408	1 13/16	3 3/8	4.35
MJ-12378F	378-440	1 13/16	3 3/8	4.64
MJ-12400F	400-480	1 13/16	4 3/8	4.81
MJ-12430F	430-516	2 1/16	3 3/8	5.03
MJ-12460F	460-552	2 1/16	3 3/8	5.33
MJ-12540F	540-648	2 1/16	4 3/8	6.18
MJ-12590F	590-708	2-1/16	4 3/8	6.83

* O.E.M. prices for larger quantities are available on request.

Catalog Number	Capacitance (µf)	Diameter (inches)	Length (inches)	Net Price 1-24*
160 A-C VOLTS				
MJ-16021F	21-25	1-7/16	2-3/4	$1.55
MJ-16025F	25-30	1-7/16	2-3/4	1.61
MJ-16030F	30-36	1-7/16	2-3/4	1.69
MJ-16036F	36-43	1-7/16	2-3/4	1.78
MJ-16043F	43-53	1-7/16	2-3/4	1.90
MJ-16047F	47-56	1-7/16	2-3/4	1.97
MJ-16053F	53-64	1-7/16	3-3/8	2.07
MJ-16064F	64-77	1-7/16	3-3/8	2.25
MJ-16072F	72-88	1-7/16	3-3/8	2.46
MJ-16088F	88-108	1-13/16	3-3/8	2.80
MJ-16108F	108-130	1-13/16	3-3/8	3.12
MJ-16124F	124-149	1-13/16	3-3/8	3.40
MJ-16130F	130-156	1-13/16	3-3/8	3.47
MJ-16145F	145-175	1-13/16	3-3/8	3.73
MJ-16161F	161-193	1-13/16	4-3/8	4.11
MJ-16189F	189-227	1-13/16	4-3/8	4.59
MJ-16216F	216-259	1-13/16	4-3/8	4.93
MJ-16233F	233-280	1-13/16	4-3/8	5.21
MJ-16243F	243-292	1-13/16	4-3/8	5.37
MJ-16270F	270-324	2-9/16	4-3/8	6.07
220 A-C VOLTS				
MJ-22021F	21-25	1-7/16	2-3/4	$2.19
MJ-22025F	25-30	1-7/16	2-3/4	2.28
MJ-22030F	30-36	1-7/16	2-3/4	2.39
MJ-22036F	36-43	1-7/16	3-3/8	2.56
MJ-22043F	43-53	1-7/16	3-3/8	2.69
MJ-22047F	47-56	1-7/16	3-3/8	2.80
MJ-22053F	53-64	1-13/16	3-3/8	2.96
MJ-22064F	64-77	1-13/16	3-3/8	3.34
MJ-22072F	72-88	1-13/16	3-3/8	3.54
MJ-22088F	88-108	1-13/16	3-3/8	3.85
MJ-22108F	108-130	1-13/16	4-3/8	4.26
MJ-22124F	124-149	1-13/16	4-3/8	4.60
MJ-22130F	130-156	1-13/16	4-3/8	4.75
MJ-22145F	145-175	2-1/16	4-3/8	5.09
MJ-22161F	161-193	2-1/16	4-3/8	5.65
320 A-C VOLTS				
MJ-32021F	21-25	1-7/16	3-3/8	$2.89
MJ-32025F	25-30	1-13/16	3-3/8	3.24
MJ-32030F	30-36	1-13/16	3-3/8	3.43
MJ-32036F	36-43	1-13/16	3-3/8	3.73
MJ-32043F	43-53	1-13/16	4-3/8	4.04
MJ-32047F	47-56	1-13/16	4-3/8	4.24
MJ-32053F	53-64	1-13/16	4-3/8	4.54
MJ-32064F	64-77	2-1/16	4-3/8	5.13
MJ-32072F	72-88	2-1/16	4-3/8	5.59
MJ-32088F	88-108	2-9/16	4-3/8	6.44
MJ-32108F	108-130	2-9/16	4-3/8	7.64

NOTE: Type MJ capacitors are also available with lug terminal only (Type MJL) or screw terminal only, (Type MJS). The terminal designation (R, L or S) must be included in the catalog number.

NOTE: To include end cap in overall length, add 1/2 inch to capacitor length.



TYPE MJ End-Cap

Diameter in Inches	Net Price
1-7/16	$.11
1-13/16	.13
2-1/16	.15
2-9/16	.22

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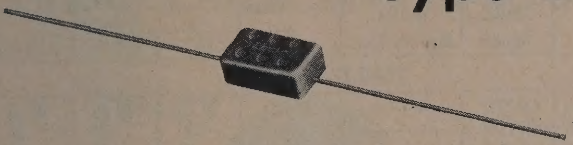
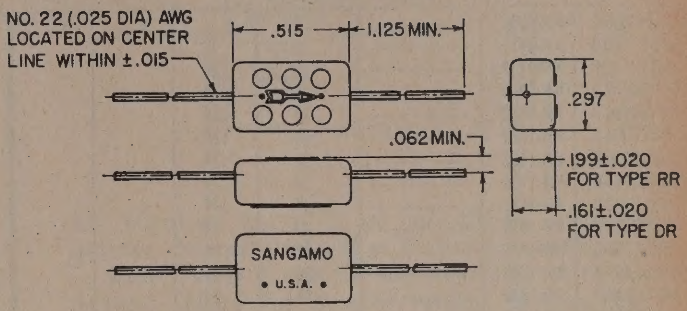
SANGAMO ELECTRONIC COMPONENTS

Type DR-RR *SILVERED MICA*



Type DR and RR capacitors are molded in red Humiditite. These units are normally supplied as ±5%, "C" characteristic 20 pf and below, and "E" characteristic above 20 pf. Units can be supplied to ±½ pf or ±½% tolerance whichever is greater. For more complete engineering information write for Bulletin 2320



TYPE DR and RR
(125°C)
500 D-C VOLTS

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pf	Net Price Tolerance 5% (J)	Net Price Tolerance 2% (G)	Net Price Tolerance 1% (F)
DR5C050-0	DR-1550	-----------------	5	$0.24	$	$
DR5C100-0	DR-1410	CM15B100-03	10	.24		
DR5C120-0	DR-1412	CM15B120-03	12	.24		
DR5C150-0	DR-1415	CM15B150-03	15	.24		
DR5C180-0	DR-1418	CM15B180-03	18	.24		
DR5E200-0	DR-1420	CM15C200-03	20	.24		
DR5E220-0	DR-1422	CM15C220-03	22	.24		
DR5E240-0	DR-1424	CM15C240-03	24	.24		
DR5E270-0	DR-1427	CM15C270-03	27	.24	.28	
DR5E300-0	DR-1430	CM15C300-03	30	.24	.28	
DR5E330-0	DR-1433	CM15C330-03	33	.24	.28	
DR5E360-0	DR-1436	CM15C360-03	36	.24	.28	
DR5E390-0	DR-1439	CM15C390-03	39	.24	.28	
DR5E430-0	DR-1443	CM15C430-03	43	.24	.28	
DR5E470-0	DR-1447	CM15C470-03	47	.24	.28	
DR5E500-0	DR-1450	-----------------	50	.24	.28	.30
DR5E510-0	DR-1451	CM15C510-03	51	.24	.28	.30
DR5E560-0	DR-1456	CM15C560-03	56	.24	.28	.30
DR5E620-0	DR-1462	CM15C620-03	62	.24	.28	.30
DR5E680-0	DR-1468	CM15C680-03	68	.24	.28	.30
DR5E750-0	DR-1475	CM15C750-03	75	.24	.28	.30
DR5E820-0	DR-1482	CM15C820-03	82	.27	.31	.34
DR5E910-0	DR-1491	CM15C910-03	91	.27	.31	34

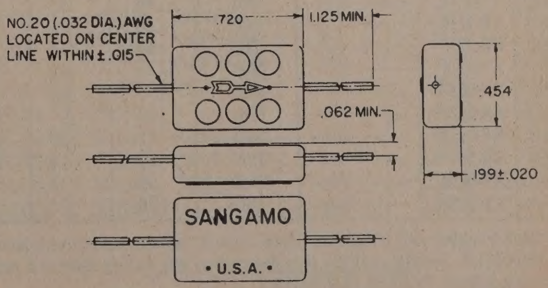
New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pf	Net Price Tolerance 5% (J)	Net Price Tolerance 2% (G)	Net Price Tolerance 1% (F)
DR5E101-0	DR-1310	CM15C101-03	100	$ .27	$ .31	$ .34
DR5E111-0	DR-1311	CM15C111-03	110	.27	.31	.34
DR5E121-0	DR-1312	CM15C121-03	120	.27	.31	.34
DR5E131-0	DR-1313	CM15C131-03	130	.27	.31	.34
DR5E151-0	DR-1315	CM15C151-03	150	.27	.31	.34
DR5E161-0	DR-1316	CM15C161-03	160	.30	.35	.38
DR5E181-0	DR-1318	CM15C181-03	180	.30	.35	.38
DR5E201-0	DR-1320	CM15D201-03	200	.30	.35	.38
DR5E221-0	DR-1322	CM15D221-03	220	.33	.38	.41
DR5E241-0	DR-1324	CM15D241-03	240	.33	.38	.41
DR5E251-0	DR-1325	-----------------	250	.33	.38	.41
DR5E271-0	DR-1327	CM15D271-03	270	.36	.41	.45
DR5E301-0	DR-1330	CM15D301-03	300	.36	.45	.49
†DR3E331-0	DR-06333	-----------------	330	.39	.45	.49
†DR3E361-0	DR-06336	-----------------	360	.42	.49	.53
†DR3E391-0	DR-06339	-----------------	390	.42	.49	.53
RR5E391-0	RR-1339	CM15D391-03	390	.42	.49	.53
RR5E431-0	RR-1343	CM15D431-03	430	.45	.55	.60
†RR5E471-0	RR-06347	-----------------	470	.48	.55	.60
†RR5E501-0	RR-06350	-----------------	500	.48	.55	.60
†RR5E511-0	RR-06351	-----------------	510	.48	.55	.60
†RR5E561-0	RR-06356	-----------------	560	.51	.55	.60

* Complete catalog number will include additional letter to designate capacitive tolerance. Example: DR5E270J0. Complete Military type designation will include additional letter for capacitive tolerance. Example: CM15C270J03.

† Voltage rating 300 d-c volts.

Type KR *MICA*

Type KR capacitors are molded in Humiditite. These capacitors are normally supplied at ±5% tolerance, "C" characteristic 20 pf and below, and "E" characteristic above 20 pf. Units can be supplied to ±1/2 pf or ±1/2% tolerance whichever is greater. For more complete engineering information write for Bulletin 2320.



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Type KR Mica - continued -

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pf	Net Price		
				Tolerance		
				±5% (J)	±2% (G)	±1% (F)
500 D-C VOLTS						
KR5C050-0	KR-1550	---------------	5	$	$	$
KR5C100-0	KR-1410	---------------	10	.24		
KR5C120-0	KR-1412	---------------	12	.24		
KR5C150-0	KR-1415	---------------	15	.24		
KR5C180-0	KR-1418	---------------	18	.24		
KR5C200-0	KR-1420	---------------	20	.24		
KR5E220-0	KR-1422	---------------	22	.24		
KR5E240-0	KR-1424	---------------	24	.24		
KR5E270-0	KR-1427	---------------	27	.24		
KR5E300-0	KR-1430	---------------	30	.24		
KR5E330-0	KR-1433	---------------	33	.24		
KR5E360-0	KR-1436	---------------	36	.24		
KR5E390-0	KR-1439	---------------	39	.24		
KR5E430-0	KR-1443	---------------	43	.24		
KR5E470-0	KR-1447	---------------	47	.24		
KR5E500-0	KR-1450	---------------	50	.24	.28	
KR5E510-0	KR-1451	---------------	51	.24	.28	
KR5E560-0	KR-1456	---------------	56	.24	.28	
KR5E620-0	KR-1462	---------------	62	.24	.28	
KR5E680-0	KR-1468	---------------	68	.24	.28	
KR5E750-0	KR-1475	---------------	75	.24	.28	
KR5E820-0	KR-1482	---------------	82	.24	.28	
KR5E910-0	KR-1491	---------------	91	.24	.28	
KR5E101-0	KR-1310	---------------	100	.24	.28	.30
KR5E111-0	KR-1311	---------------	110	.27	.31	.34
KR5E121-0	KR-1312	---------------	120	.27	.31	.34
KR5E131-0	KR-1313	---------------	130	.27	.31	.34
KR5E151-0	KR-1315	---------------	150	.27	.31	.34
KR5E161-0	KR-1316	---------------	160	.27	.31	.34
KR5E181-0	KR-1318	---------------	180	.27	.31	.34
KR5E201-0	KR-1320	---------------	200	.27	.31	.34
KR5E221-0	KR-1322	---------------	220	.27	.31	.34
KR5E241-0	KR-1324	---------------	240	.33	.38	.41
KR5E251-0	KR-1325	---------------	250	.33	.38	.41
KR5E271-0	KR-1327	---------------	270	.33	.38	.41
KR5E301-0	KR-1330	---------------	300	.33	.38	.41
KR5E331-0	KR-1333	---------------	330	.33	.38	.41
KR5E361-0	KR-1336	---------------	360	.33	.38	.41
KR5E391-0	KR-1339	---------------	390	.39	.45	.49
KR5E401-0	KR-1340	---------------	400	.39	.45	.49
KR5E431-0	KR-1343	CM20D431-03	430	.39	.45	.49
KR5E471-0	KR-1347	CM20D471-03	470	.42	.49	.53
KR5E501-0	KR-1350	---------------	500	.42	.49	.53
KR5E511-0	KR-1351	---------------	510	.42	.49	.53
KR5E561-0	KR-1356	CM20D561-03	560	.45	.52	.56
KR5E601-0	KR-1360	---------------	600	.45	.52	.56
KR5E621-0	KR-1362	CM20D621-03	620	.45	.52	.56
KR5E681-0	KR-1368	CM20D681-03	680	.48	.55	.60
KR5E701-0	KR-1370	---------------	700	.48	.55	.60
KR5E751-0	KR-1375	CM20D751-03	750	.48	.55	.60
KR5E801-0	KR-1380	---------------	800	.48	.55	.60
KR5E821-0	KR-1382	CM20D821-03	820	.51	.59	.64
KR5E901-0	KR-1390	---------------	900	.51	.59	.64
KR5E911-0	KR-1391	CM20D911-03	910	.51	.59	.64
KR5E102-0	KR-1210	CM20D102-03	1000	.54	.62	.68
KR5E112-0	KR-1211	---------------	1100	.54	.62	.68
KR5E122-0	KR-1212	---------------	1200	.60	.69	.75
KR5E132-0	KR-1213	---------------	1300	.60	.69	.75
KR5E152-0	KR-1215	---------------	1500	.66	.76	.83
KR5E162-0	KR-1216	---------------	1600	.66	.76	.83
KR5E182-0	KR-1218	---------------	1800	.72	.83	.90
†KR3E202-0	KR-06220	---------------	2000	.78	.90	.98
†KR3E222-0	KR-06222	---------------	2200	.84	.97	1.05
†KR3E242-0	KR-06224	---------------	2400	.87	1.00	1.09
†KR3E252-0	KR-06225	---------------	2500	.90	1.04	1.13
†KR3E272-0	KR-06227	---------------	2700	.96	1.10	1.20
†KR3E302-0	KR-06230	---------------	3000	1.08	1.24	1.35

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pf	Net Price		
				Tolerance		
				±5% (J)	±2% (G)	±1% (F)
1000 D-C VOLTS						
KR10E121-0	KR-2312	---------------	120	$0.30	$0.35	$0.38
KR10E131-0	KR-2313	---------------	130	.30	.35	.38
KR10E151-0	KR-2315	---------------	150	.30	.35	.38
KR10E181-0	KR-2318	---------------	180	.33	.38	.41
KR10E201-0	KR-2320	---------------	200	.33	.38	.41
KR10E221-0	KR-2322	---------------	220	.36	.41	.45
KR10E241-0	KR-2324	---------------	240	.36	.41	.45
KR10E271-0	KR-2327	---------------	270	.39	.45	.49
KR10E301-0	KR-2330	---------------	300	.42	.49	.53
KR10E331-0	KR-2333	---------------	330	.42	.49	.53
KR10E361-0	KR-2336	---------------	360	.42	.49	.53
KR10E391-0	KR-2339	---------------	390	.42	.49	.53
KR10E431-0	KR-2343	---------------	430	.45	.52	.56
KR10E451-0	KR-2345	---------------	450	.45	.52	.56
KR10E471-0	KR-2347	---------------	470	.45	.52	.56
KR10E511-0	KR-2351	---------------	510	.45	.52	.56
KR10E561-0	KR-2356	---------------	560	.48	.55	.60
KR10E621-0	KR-2362	---------------	620	.51	.59	.64
KR10E681-0	KR-2368	---------------	680	.54	.62	.68
KR10E751-0	KR-2375	---------------	750	.57	.65	.71
KR10E821-0	KR-2382	---------------	820	.60	.69	.75
KR10E921-0	KR-2392	---------------	920	.63	.73	.79
1500 D-C VOLTS						
KR15E750-0	KR-3475	---------------	75	$0.33	$0.38	$
KR15E820-0	KR-3482	---------------	82	.33	.38	
KR15E910-0	KR-3491	---------------	91	.36	.41	
KR15E101-0	KR-3310	---------------	100	.36	.41	.45
KR15E111-0	KR-3311	---------------	110	.36	.41	.45
KR15E121-0	KR-3312	---------------	120	.36	.41	.45
KR15E131-0	KR-3313	---------------	130	.36	.41	.45
KR15E151-0	KR-3315	---------------	150	.42	.49	.53
KR15E161-0	KR-3316	---------------	160	.42	.49	.53
KR15E181-0	KR-3318	---------------	180	.42	.49	.53
KR15E201-0	KR-3320	---------------	200	.48	.55	.60
KR15E221-0	KR-3322	---------------	220	.48	.55	.60
KR15E231-0	KR-3323	---------------	230	.48	.55	.60
KR15E251-0	KR-3325	---------------	250	.60	.69	.75
KR15E271-0	KR-3327	---------------	270	.60	.69	.75
KR15E301-0	KR-3330	---------------	300	.66	.76	.83
KR15E331-0	KR-3333	---------------	330	.66	.76	.83
KR15E361-0	KR-3336	---------------	360	.69	.79	.86
KR15E391-0	KR-3339	---------------	390	.69	.79	.86
	KR-3343	---------------	430	.69	.79	.86
	KR-3345		450	.75	.86	.94
2500 D-C VOLTS						
KR25C150-0	KR-5415	---------------	15	$	$	$
KR25C180-0	KR-5418	---------------	18			
KR25C200-0	KR-5420	---------------	20	.30		
KR25E220-0	KR-5422	---------------	22	.30		
KR25E240-0	KR-5424	---------------	24	.30		
KR25E270-0	KR-5427	---------------	27	.30		
KR25E300-0	KR-5430	---------------	30	.36		
KR25E330-0	KR-5433	---------------	33	.36		
KR25E360-0	KR-5436	---------------	36	.36		
KR25E390-0	KR-5439	---------------	39	.36		
KR25E430-0	KR-5443	---------------	43	.36		
KR25E470-0	KR-5447	---------------	47	.42		
KR25E500-0	KR-5450	---------------	50	.42	.49	
KR25E510-0	KR-5451	---------------	51	.42	.49	
KR25E560-0	KR-5456	---------------	56	.42	.49	
KR25E620-0	KR-5462	---------------	62	.42	.49	
KR25E680-0	KR-5468	---------------	68	.48	.55	
KR25E750-0	KR-5475	---------------	75	.54	.62	
KR25E820-0	KR-5482	---------------	82	.54	.62	
KR25E910-0	KR-5491	---------------	91	.54	.62	
KR25E101-0	KR-5310	---------------	100	.60	.69	.75
KR25E111-0	KR-5311	---------------	110	.66	.76	.83
KR25E121-0	KR-5312	---------------	120	.72	.83	.90
KR25E131-0	KR-5313	---------------	130	.72	.83	.98

* Complete catalog number must include additional letter to indicate capacitive tolerance. Example: KR5C561J0. Complete military type designation will include additional letter for capacitive tolerance. Example: CM20D561J03

† Voltage rating 300 d-c volts

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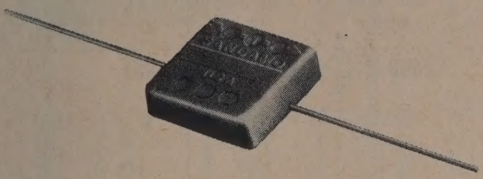
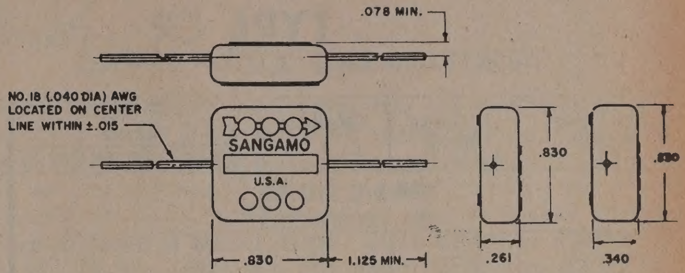
SANGAMO ELECTRIC COMPANY

capacitors

ELECTRONIC COMPONENTS

Type C-CR *MICA CAPACITOR*





Type C foil mica capacitors are molded in tan Humiditite in either 10% or 20% tolerance. These units are only supplied as "B" characteristic.

Type CR silvered mica capacitors are molded in red Humiditite. These units are normally supplied as 5% tolerance and "C" characteristic. Units can be supplied to ±1/2 pf or ±1/2% whichever is greater, as well as D, E or F characteristic.

Both Types C and CR are available in two thicknesses. Where the thicker version is required, the letter "K" should follow the type designation (for example CRK5C682-0). For additional engineering information write for Bulletin 2320.

TYPE C (Foil Mica)

(125° C)

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pf	Net Price Tolerance ±20% (M)	Net Price Tolerance ±10% (K)
500 D-C VOLTS .281" MAX. THICKNESS					
C5B471-0	C-1347	----------------	470	$0.18	$0.22
C5B501-0	C-1350	----------------	500	.18	.22
C5B511-0	C-1351	----------------	510	.18	.22
C5B561-0	C-1356	CM30B561-03	560	.18	.22
C5B621-0	C-1362	CM30B621-03	620	.18	.22
C5B681-0	C-1368	CM30B681-03	680	.18	.22
C5B751-0	C-1375	CM30B751-03	750	.18	.22
C5B801-0	C-1380	----------------	800	.18	.22
C5B821-0	C-1382	CM30B821-03	820	.18	.22
C5B901-0	C-1390	----------------	900	.18	.22
C5B911-0	C-1391	CM30B911-03	910	.18	.22
C5B102-0	C-1210	CM30B102-03	1000	.21	.23
C5B112-0	C-1211	CM30B112-03	1100	.21	.23
C5B122-0	C-1212	CM30B122-03	1200	.21	.23
C5B132-0	C-1213	CM30B132-03	1300	.21	.23
C5B152-0	C-1215	CM30B152-03	1500	.24	.26
C5B162-0	C-1216	CM30B162-03	1600	.24	.26
C5B182-0	C-1218	CM30B182-03	1800	.27	.30
C5B202-0	C-1220	CM30B202-03	2000	.27	.30
C5B222-0	C-1222	CM30B222-03	2200	.27	.30
C5B242-0	C-1224	CM30B242-03	2400	.30	.33
C5B252-0	C-1225	----------------	2500	.30	.33
C5B272-0	C-1227	CM30B272-03	2700	.30	.33
C5B302-0	C-1230	CM30B302-03	3000	.36	.40
C5B332-0	C-1233	CM30B332-03	3300	.36	.40
C5B362-0	C-1236	----------------	3600	.36	.40
C5B392-0	C-1239	----------------	3900	.39	.45
C5B402-0	C-1240	----------------	4000	.39	.45
C5B432-0	C-1243	----------------	4300	.39	.45
C5B472-0	C-1247	----------------	4700	.39	.45
C5B502-0	C-1250	----------------	5000	.42	.49
C5B512-0	C-1251	----------------	5100	.42	.49
C5B562-0	C-1256	----------------	5600	.42	.49
C5B602-0	C-1260	----------------	6000	.42	.49
C5B622-0	C-1262	----------------	6200	.54	.62
C5B682-0	C-1268	----------------	6800	.57	.63
C5B752-0	C-1275	----------------	7500	.60	.66
†C3B802-0	C-06280	----------------	8000	.60	.66
†C3B822-0	C-06282	----------------	8200	.69	.76
†C3B912-0	C-06291	----------------	9100	.69	.76
†C3B952-0	C-06295	----------------	9500	.75	.83

TYPE C (Foil Mica) (Continued)

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pf	Net Price Tolerance ±20% (M)	Net Price Tolerance ±10% (K)
.359" MAX. THICKNESS					
CK5B802-0	C-1280	----------------	8000	$0.60	$0.66
CK5B822-0	C-1282	----------------	8200	.69	.76
CK5B912-0	C-1291	----------------	9100	.69	.76
CK5B103-0	C-1110	----------------	10000	.84	.92
†CK3B123-0	C-06112	----------------	12000	.96	1.06
†CK3B133-0	C-06113	----------------	13000	1.08	1.20
†CK3B1452-0	C-061145	----------------	14500	1.20	1.32

TYPE CR (Silvered Mica)

(125° C)

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pf	Net Price Tolerance ±5% (J)	Net Price Tolerance ±2% (G)	Net Price Tolerance ±1% (F)
500 D-C VOLTS .281" MAX. THICKNESS						
CR5C471-0	CR-1347	----------------	470	$0.42	$0.49	$0.53
CR5C501-0	CR-1350	----------------	500	.42	.49	.53
CR5C511-0	CR-1351	----------------	510	.42	.49	.53
CR5C561-0	CR-1356	CM30E561-03	560	.45	.52	.56
CR5C621-0	CR-1362	CM30E621-03	620	.45	.52	.56
CR5C681-0	CR-1368	CM30E681-03	680	.48	.55	.60
CR5C751-0	CR-1375	CM30E751-03	750	.48	.55	.60
CR5C801-0	CR-1380	----------------	800	.48	.58	.62
CR5C821-0	CR-1382	CM30E821-03	820	.51	.59	.64
CR5C901-0	CR-1390	----------------	900	.54	.62	.68
CR5C911-0	CR-1391	CM30E911-03	910	.54	.62	.68
CR5C102-0	CR-1210	CM30E102-03	1000	.60	.69	.75
CR5C112-0	CR-1211	CM30E112-03	1100	.60	.69	.75
CR5C122-0	CR-1212	CM30E122-03	1200	.69	.79	.86
CR5C132-0	CR-1213	CM30E132-03	1300	.69	.79	.86
CR5C152-0	CR-1215	CM30E152-03	1500	.75	.86	.94
CR5C162-0	CR-1216	CM30E162-03	1600	.75	.86	.94
CR5C182-0	CR-1218	CM30E182-03	1800	.75	.86	.94
CR5C202-0	CR-1220	CM30E202-03	2000	.81	.93	1.01
CR5C222-0	CR-1222	CM30E222-03	2200	.81	.93	1.01
CR5C242-0	CR-1224	CM30E242-03	2400	.96	1.10	1.20
CR5C252-0	CR-1225	---------- ------	2500	.96	1.10	1.20
CR5C272-0	CR-1227	CM30E272-03	2700	1.08	1.24	1.35
CR5C302-0	CR-1230	CM30E302-03	3000	1.14	1.30	1.43
CR5C332-0	CR-1233	CM30E332-03	3300	1.14	1.30	1.43
CR5C362-0	CR-1236	----------------	3600	1.20	1.38	1.50

See notes on following page

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TYPE CR - *Silvered Mica (continued)*

New Catalog Number*	Old Catalog Number	Capacitance pf	Net Price Tolerance		
			±5% (J)	±2% (G)	±1% (F)
500 D-C VOLTS					
.281" MAX. THICKNESS					
CR5C392-0	CR-1239	3900	$1.20	$1.38	$1.50
CR5C402-0	CR-1240	4000	1.20	1.38	1.50
CR5C432-0	CR-1243	4300	1.26	1.45	1.58
CR5C472-0	CR-1247	4700	1.26	1.45	1.58
CR5C502-0	CR-1250	5000	1.29	1.48	1.61
CR5C512-0	CR-1251	5100	1.29	1.48	1.61
CR5C562-0	CR-1256	5600	1.35	1.55	1.69
CR5C602-0	CR-1260	6000	1.38	1.59	1.74
CR5C622-0	CR-1262	6200	1.44	1.66	1.80
CR5C682-0	CR-06268	6800	1.59	1.83	1.99
CR5C752-0	CR-06275	7500	1.68	1.93	2.10
CR5C802-0	CR-06280	8000	1.68	1.93	2.10
†CR3C822-0	CR-06282	8200	1.80	2.07	2.25
†CR3C902-0	CR-06290	9000	1.80	2.07	2.25
†CR3C103-0	CR-06110	10000			
.359" MAX. THICKNESS					
CRK5C682-0	CR-1268	6800	$1.59	$1.83	$1.99
CRK5C752-0	CR-1275	7500	1.68	1.93	2.10
CRK5C802-0	CR-1280	8000	1.68	1.93	2.10
CRK5C822-0	CR-1282	8200	1.80	2.07	2.25
CRK5C902-0	CR-1290	9000	1.80	2.07	2.25
CRK5C103-0	CR-1110	10000	2.10	2.42	2.63
CRK5C123-0	CR-06112	12000	2.55	2.93	3.19
†CRK3C153-0	CR-06115	15000	3.00	3.45	3.75
†CRK3C163-0	CR-06116	16000	3.00	3.45	3.75
1000 D-C VOLTS					
CR10C122-0	CR-2212	1200	$0.78	$0.90	$0.98
CR10C152-0	CR-2215	1500	.90	1.04	1.13
CR10C182-0	CR-2218	1800	.96	1.10	1.20
CR10C202-0	CR-2220	2000	1.02	1.18	1.28
CR10C222-0	CR-2222	2200	1.14	1.31	1.43
CR10C272-0	CR-2227	2700	1.26	1.45	1.58
CR10C302-0	CR-2223	3000	1.38	1.59	1.73
CR10C332-0	CR-2233	3300	1.44	1.66	1.80
CR10C362-0	CR-2236	3600	1.62	1.86	2.03
CR10C422-0	CR-2242	4200	1.80	2.07	2.25
CRK10C512-0	CR-2251	5100	2.04	2.35	2.55
CRK10C622-0	CR-2262	6200	2.58	2.97	3.23
CRK10C682-0	CR-2268	6800	2.76	3.17	3.45
CRK10C742-0	CR-2274	7400	2.94	3.38	3.68
1500 D-C VOLTS					
CR15C681-0	CR-3368	680	$0.90	$1.04	$1.31
CR15C751-0	CR-3375	750	.90	1.04	1.31
CR15C821-0	CR-3382	820	1.02	1.18	1.28
CR15C911-0	CR-3391	910	1.08	1.24	1.35
CR15C201-0	CR-3210	1000	1.08	1.24	1.35
CR15C122-0	CR-3212	1200	1.32	1.52	1.65
CR15C152-0	CR-3215	1500	1.56	1.79	1.95
CR15C182-0	CR-3218	1800	1.74	2.00	2.18
CR15C202-0	CR-3220	2000	1.92	2.21	2.40
CR15C222-0	CR-3222	2200	2.04	2.35	2.55
CR15C242-0	CR-3224	2400	2.16	2.48	2.70
CRK15C272-0	CR-3227	2700	2.40	2.76	3.00
CRK15C302-0	CR-3223	3000	2.64	3.04	3.30
CRK15C332-0	CR-3233	3300	2.76	3.17	3.45
CRK15C362-0	CR-3236	3600	2.88	3.31	3.60
CRK15C422-0	CR-3242	4200	3.00	3.45	3.75
2000 D-C VOLTS					
CR20C431-0	CR-4343	430	$0.75	$0.86	$0.94
CR20C471-0	CR-4347	470	.75	.86	.94
CR20C501-0	CR-4350	500	.81	.93	1.01
CR20C511-0	CR-4351	510	.81	.93	1.01
CR20C561-0	CR-4356	560	.86	1.00	1.08
CR20C621-0	CR-4362	620	.92	1.06	1.15
CR20C681-0	CR-4368	680	1.12	1.30	1.41
CR20C751-0	CR-4375	750	1.12	1.30	1.41
CR20C821-0	CR-4382	820	1.27	1.47	1.60
CR20C911-0	CR-4391	910	1.35	1.54	1.69

New Catalog Number*	Old Catalog Number	Capacitance pf	Net Price Tolerance		
			±5% (J)	±2% (G)	±1% (F)
2000 D-C VOLTS (Continued)					
CR20C102-0	CR-4210	1000	$1.35	$1.54	$1.69
CR20C112-0	CR-4211	1100	1.42	1.64	1.78
CR20C122-0	CR-4212	1200	1.66	1.90	2.06
CR20C132-0	CR-4213	1300	1.72	1.99	2.15
CR20C152-0	CR-4215	1500	1.95	2.24	2.44
CR20C162-0	CR-4216	1600	1.95	2.24	2.44
CR20C182-0	CR-4218	1800	2.17	2.50	2.72
CR20C202-0	CR-4220	2000	2.40	2.74	3.00
CRK20C222-0	CR-4222	2200	2.55	2.94	3.18
CRK20C242-0	CR-4224	2400	2.70	3.10	3.38
2500 D-C VOLTS					
CR25C241-0	CR-5324	240	$0.72	$0.83	$0.90
CR25C251-0	CR-5325	250	.72	.83	.90
CR25C271-0	CR-5327	270	.72	.83	.90
CR25C301-0	CR-5330	300	.78	.90	.98
CR25C331-0	CR-5333	330	.78	.90	.98
CR25C361-0	CR-5336	360	.90	1.04	1.13
CR25C391-0	CR-5339	390	.96	1.10	1.20
CR25C431-0	CR-5343	430	.96	1.10	1.20
CR25C471-0	CR-5347	470	.96	1.10	1.20
CR25C501-0	CR-5350	500	1.02	1.18	1.28
CR25C511-0	CR-5351	510	1.02	1.18	1.28
CR25C561-0	CR-5356	560	1.08	1.24	1.35
CR25C621-0	CR-5362	620	1.14	1.31	1.43
CR25C681-0	CR-5368	680	1.26	1.45	1.58
CR25C751-0	CR-5375	750	1.32	1.52	1.65
CR25C821-0	CR-5382	820	1.38	1.59	1.73
CR25C911-0	CR-5391	910	1.62	1.86	2.03
CR25C102-0	CR-5210	1000	1.68	1.93	2.10
CRK25C112-0	CR-5211	1100	1.68	1.95	2.10
CRK15C122-0	CR-5212	1200	1.80	2.07	2.25
CRK15C142-0	CR-5214	1400	1.98	2.28	2.48
CRK25C152-0	CR-5215	1500	2.22	2.52	2.78
3000 D-C VOLTS					
CR30C121-0	CR-6312	120	$0.84	$0.97	$1.03
CR30C151-0	CR-6315	150	.84	.97	1.03
CR30C161-0	CR-6316	160	.84	.97	1.03
CR30C181-0	CR-6318	180	.87	1.00	1.09
CR30C201-0	CR-6320	200	.87	1.00	1.09
CR30C241-0	CR-6324	240	.90	1.03	1.12
CR30C251-0	CR-6325	250	.90	1.03	1.12
CR30C271-0	CR-6327	270	.90	1.03	1.12
CR30C301-0	CR-6330	300	.97	1.12	1.22
CR30C331-0	CR-6333	330	.97	1.12	1.22
CR30C361-0	CR-6336	360	1.12	1.30	1.41
CR30C391-0	CR-6339	390	1.20	1.38	1.50
CR30C431-0	CR-6343	430	1.20	1.38	1.50
CR30C471-0	CR-6347	470	1.20	1.38	1.50
CR30C501-0	CR-6350	500	1.28	1.47	1.60
CR30C511-0	CR-6351	510	1.28	1.47	1.60
CR30C561-0	CR-6356	560	1.35	1.54	1.69
CR30C621-0	CR-6362	620	1.42	1.64	1.79
CR30C681-0	CR-6368	680	1.58	1.82	1.98
CR30C751-0	CR-6375	750	1.66	1.89	2.06
CRK30C821-0	CR-6382	820	1.72	1.99	2.16
CRK30C911-0	CR-6391	910	2.02	2.32	2.54
CRK30C102-0	CR-6210	1000	2.10	2.41	2.62
CRK30C112-0	CR-6211	1100	2.10	2.41	2.62
CRK30C122-0	CR-6212	1200	2.25	2.59	2.82
CRK30C132-0	CR-6213	1300	2.47	2.85	3.09
CRK30C142-0	CR-6214	1400	2.77	3.15	3.48

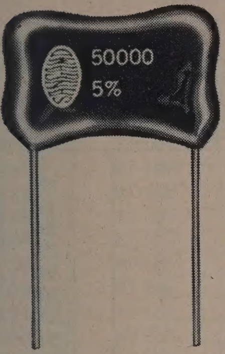
* Complete Military Type designation will include additional letter for capacitive tolerance. Example: CM30E561J03. Complete catalog number will include additional letter to indicate capacitive tolerance. Example: CR5C561J0.

† Voltage rating 300 d-c volts

SANGAMO ELECTRIC COMPANY

capacitors

ELECTRONIC COMPONENTS



Type D

DIPPED MICA CAPACITORS

Sangamo Type D dipped mica capacitors are available in four case sizes, D-15, D-19, D-30, and D-42, corresponding to the military sizes of Mil-C-5B. These units utilize silvered mica sections encased in several coatings of electrical grade phenolic and epoxy resins. Commercial units in all instances meet or exceed the applicable requirements of Mil-C-5B. All units shown in the listing are rated for 500 d-c volts and a capacitive tolerance of ±5%. Voltage ratings from 100 to 3000 d-c volts and capacitive tolerance to ½% or ½ pf whichever is greatest are also available. For more complete information, write for Sangamo Bulletin 2323.

Catalog Number †	Applicable Military Specification	Capacitance pf	Net Price ‡ ±5% (J)	Catalog Number †	Applicable Military Specification	Capacitance pf	Net Price ‡ ±5% (J)	Catalog Number †	Applicable Military Specification	Capacitance pf	Net Price ‡ ±5% (J)
D155-010-0	....	1	$0.17	D151-911-0	....	910**	$0.63	D305-472-0	....	4700	$1.21
D155-020-0	....	2	0.17	D151-102-0	....	1000**	0.66	D305-502-0	....	5000	1.26
D155-030-0	....	3	0.17	D195-101-0	....	100	0.17	D305-512-0	CM07-512-03	5100	1.26
D155-050-0	CM05-050-03	5	0.17	D195-111-0	....	110	0.20	D305-562-0	CM07-562-03	5600	1.31
D155-060-0	CM05-060-03	6	0.17	D195-121-0	....	120	0.20	D305-622-0	CM07-622-03	6200	1.37
D155-070-0	CM05-070-03	7	0.17	D195-131-0	....	130	0.20	D305-682-0	CM07-682-03	6800	1.51
D155-080-0	CM05-080-03	8	0.17	D195-151-0	....	150	0.20	D305-752-0	CM07-752-03	7500	1.66
D155-100-0	CM05-100-03	10	0.17	D195-161-0	....	160	0.20	D305-822-0	CM07-822-03	8200	1.80
D155-120-0	CM05-120-03	12	0.17	D195-181-0	....	180	0.20	D305-912-0	CM07-912-03	9100	1.94
D155-150-0	....	15	0.17	D195-201-0	....	200	0.20	D305-103-0	CM07-103-03	10000	1.98
D155-180-0	CM05-180-03	18	0.17	D195-221-0	....	220	0.20	D305-113-0	CM07-113-03	11000	2.28
D155-200-0	CM05-200-03	20	0.17	D195-241-0	....	240	0.23	D305-123-0	CM07-123-03	12000	2.41
D155-220-0	CM05-220-03	22	0.17	D195-251-0	....	250	0.23	D305-133-0	CM07-133-03	13000	2.48
D155-240-0	CM05-240-03	24	0.17	D195-271-0	....	270	0.26	D305-153-0	CM07-153-03	15000	2.80
D155-270-0	CM05-270-03	27	0.17	D195-301-0	....	300	0.26	D305-163-0	CM07-163-03	16000	2.99
D155-300-0	CM05-300-03	30	0.17	D195-331-0	....	330	0.26	D305-183-0	CM07-183-03	18000	3.30
D155-330-0	CM05-330-03	33	0.17	D195-361-0	....	360	0.30	D305-203-0	CM07-203-03	20000	3.63
D155-360-0	CM05-360-03	36	0.17	D195-391-0	....	390	0.30	D305-223-0	....	22000	3.75
D155-390-0	CM05-390-03	39	0.17	D195-431-0	CM06-431-03	430	0.31	D303-243-0	....	24000*	4.05
D155-430-0	CM05-430-03	43	0.17	D195-471-0	CM06-471-03	470	0.33	D303-253-0	....	25000*	4.22
D155-470-0	CM05-470-03	47	0.17	D195-501-0	....	500	0.33	D303-273-0	....	27000*	4.52
D155-500-0	....	50	0.17	D195-511-0	CM06-511-03	510	0.34	D303-303-0	....	30000*	4.95
D155-510-0	CM05-510-03	51	0.17	D195-561-0	CM06-561-03	560	0.37	D301-333-0	....	33000**	5.44
D155-560-0	CM05-560-03	56	0.17	D195-621-0	CM06-621-03	620	0.37	D301-363-0	....	36000**	5.94
D155-620-0	CM05-620-03	62	0.17	D195-681-0	CM06-681-03	680	0.40	D301-403-0	....	40000**	6.00
D155-680-0	CM05-680-03	68	0.17	D195-751-0	CM06-751-03	750	0.40	D425-103-0	....	10000	1.98
D155-750-0	CM05-750-03	75	0.17	D195-821-0	CM06-821-03	820	0.41	D425-123-0	....	12000	2.35
D155-820-0	CM05-820-03	82	0.17	D195-911-0	CM06-911-03	910	0.43	D425-133-0	....	13000	2.52
D155-910-0	CM05-910-03	91	0.17	D195-102-0	CM06-102-03	1000	0.46	D425-153-0	....	15000	2.88
D155-101-0	CM05-101-03	100	0.17	D195-112-0	CM06-112-03	1100	0.46	D425-163-0	....	16000	3.05
D155-111-0	CM05-111-03	110	0.21	D195-122-0	CM06-122-03	1200	0.50	D425-183-0	....	18000	3.42
D155-121-0	CM05-121-03	120	0.21	D195-132-0	CM06-132-03	1300	0.53	D425-203-0	....	20000	3.76
D155-131-0	CM05-131-03	130	0.21	D195-152-0	CM06-152-03	1500	0.56	D425-223-0	CM08-223-03	22000	4.14
D155-151-0	CM05-151-03	150	0.21	D195-162-0	CM06-162-03	1600	0.59	D425-243-0	CM08-243-03	24000	4.51
D155-161-0	CM05-161-03	160	0.23	D195-182-0	CM06-182-03	1800	0.66	D425-253-0	....	25000	4.67
D155-181-0	CM05-181-03	180	0.23	D195-202-0	CM06-202-03	2000	0.74	D425-273-0	CM08-273-03	27000	5.05
D155-201-0	CM05-201-03	200	0.23	D195-222-0	CM06-222-03	2200	0.79	D425-303-0	CM08-303-03	30000	5.58
D155-221-0	CM05-221-03	220	0.26	D195-242-0	CM06-242-03	2400	0.86	D425-333-0	CM08-333-03	33000	6.12
D155-241-0	CM05-241-03	240	0.26	D195-252-0	....	2500	0.89	D425-363-0	CM08-363-03	36000	6.69
D155-251-0	....	250	0.26	D195-272-0	CM06-272-03	2700	0.93	D425-393-0	CM08-393-03	39000	7.20
D155-271-0	CM05-271-03	270	0.30	D195-302-0	CM06-302-03	3000	0.99	D425-433-0	CM08-433-03	43000	7.81
D155-301-0	CM05-301-03	300	0.30	D195-332-0	CM06-332-02	3300	1.06	D425-473-0	CM08-473-03	47000	8.41
D155-331-0	CM05-331-03	330	0.33	D195-362-0	CM06-362-03	3600	1.12	D425-503-0	....	50000	8.82
D155-361-0	CM05-361-03	360	0.34	D195-392-0	CM06-392-03	3900	1.19	D425-513-0	....	51000	9.01
D155-391-0	CM05-391-03	390	0.37	D195-432-0	CM06-432-03	4300	1.25	D423-513-0	CM08-513-03	51000*	9.01
D155-431-0	....	430	0.37	D195-472-0	CM06-472-03	4700	1.33	D423-563-0	CM08-563-03	56000*	8.52
D155-471-0	....	470	0.40	D195-502-0	....	5000	1.39	D423-623-0	CM08-623-03	62000*	9.36
D155-501-0	....	500	0.40	D193-512-0	....	5100*	1.38	D423-683-0	....	68000*	10.15
D155-511-0	....	510	0.41	D193-562-0	....	5600*	1.45	D423-693-0	....	69000*	10.30
D153-561-0	....	560*	0.43	D193-622-0	....	6200*	1.51	D421-753-0	....	75000**	11.22
D153-621-0	....	620*	0.46	D193-682-0	....	6800*	1.52	D421-823-0	....	82000**	12.25
D153-681-0	....	680*	0.50	D191-752-0	....	7500**	1.57	D421-903-0	....	90000**	13.10
D153-751-0	....	750*	0.53	D191-822-0	....	8200**	1.65				
D153-821-0	....	820*	0.56	D305-432-0	....	4300	1.15				

* Rated for 300 d-c volts

** Rated for 100 d-c volts

† The complete catalog number or military specification will include additional symbols for characteristic (C,D,E, or F) and capacitive tolerance (K,J,G, or F). For example: D155E100JO or CM05E100J03.
Minimum capacitive tolerance available is ±1/2 pf.

‡ For ±2% (G) capacitive tolerance add 18% to above prices. For ±1% (F) add 43% to above prices.

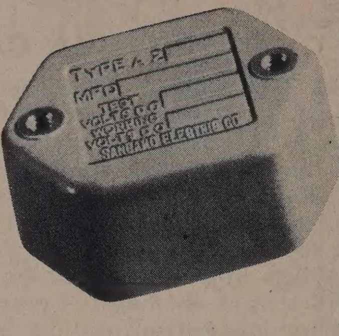
SANGAMO ELECTRIC COMPANY

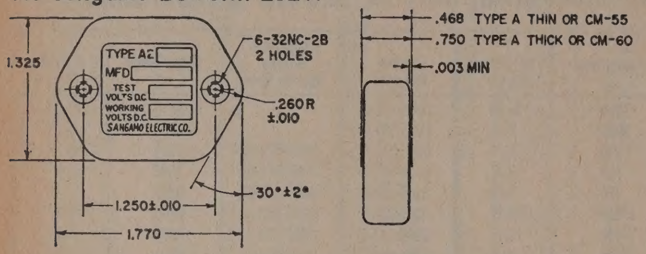
capacitors

SANGAMO ELECTRONIC COMPONENTS

Type A MICA

The Type A mica dielectric capacitor is enclosed in a molded bakelite case with threaded insert terminals. It is supplied in ±10% capacitive tolerance and "B" characteristic unless otherwise specified. For additional information write for Sangamo Bulletin 2321.


TYPE A
MFD
TEST VOLTS D.C.
WORKING VOLTS D.C.
SANGAMO ELECTRIC CO.


1.325
TYPE A
MFD
TEST VOLTS D.C.
WORKING VOLTS D.C.
SANGAMO ELECTRIC CO.
6-32NC-2B 2 HOLES
.260R ±.010
30°±2°
1.250±.010
1.770
.468 TYPE A THIN OR CM-55
.750 TYPE A THICK OR CM-60
.003 MIN

New Catalog Number	Old Catalog Number	Applicable Military Specification †	Capacitance pf	Net Price
600 W.V.D.C.				
AT6B500-N	AT-1450	----------------	50	$0.87
AT6B101-N	AT-1310	----------------	100	0.87
AT6B151-N	AT-1315	----------------	150	0.87
AT6B201-N	AT-1320	----------------	200	0.87
AT6B251-N	AT-1325	----------------	250	0.87
AT6B501-N	AT-1350	----------------	500	0.87
AT6B102-N	AT-1210	----------------	1,000	0.87
AT6B202-N	AT-1220	----------------	2,000	0.99
AT6B252-N	AT-1225	----------------	2,500	1.02
AT6B302-N	AT-1230	----------------	3,000	1.11
AT6B402-N	AT-1240	----------------	4,000	1.20
AT6B502-N	AT-1250	----------------	5,000	1.26
AT6B602-N	AT-1260	----------------	6,000	1.32
AT6B802-N	AT-1280	----------------	8,000	1.47
AT6B103-N	AT-1110	----------------	10,000	1.68
AT6B153-N	AT-1115	CM55-153-N3	15,000	1.83
AT6B203-N	AT-1120	CM55-203-N3	20,000	2.13
AT6B253-N	AT-1125	----------------	25,000	2.61
AT6B303-N	AT-1130	CM55-303-N3	30,000	2.73
AK6B403-N	AK-1140	----------------	40,000	3.51
AK6B503-N	AK-1150	----------------	50,000	4.26
AK6B603-N	AK-1160	----------------	60,000	4.83
AK6B703-N	AK-1170	----------------	70,000	5.40

New Catalog Number	Old Catalog Number	Applicable Military Specification †	Capacitance pf	Net Price
1200 W.V.D.C.				
AT12B500-N	AT-2450	----------------	50	$0.96
AT12B101-N	AT-2310	----------------	100	0.96
AT12B151-N	AT-2315	----------------	150	0.96
AT12B201-N	AT-2320	----------------	200	0.96
AT12B251-N	AT-2325	----------------	250	0.96
AT12B501-N	AT-2350	----------------	500	0.96
AT12B102-N	AT-2210	----------------	1,000	1.14
AT12B202-N	AT-2220	----------------	2,000	1.50
AT12B252-N	AT-2225	----------------	2,500	1.68
AT12B302-N	AT-2230	----------------	3,000	1.77
AT12B402-N	AT-2240	----------------	4,000	1.86
AT12B502-N	AT-2250	----------------	5,000	1.98
AT12B602-N	AT-2260	----------------	6,000	2.07
AT12B802-N	AT-2280	----------------	8,000	2.46
AT12B103-N	AT-2110	CM55-103-N3	10,000	2.82
AT12B153-N	AT-2115	----------------	15,000	3.48
AT12B183-N	AT-2118	----------------	18,000	3.90
AK12B203-N	AK-2120	CM60-203-N3	20,000	4.23
AK12B253-N	AK-2125	----------------	25,000	4.74
AK12B303-N	AK-2130	CM60-303-N3	30,000	4.86
AK12B403-N	AK-2140	----------------	40,000	5.40
2500 W.V.D.C.				
AT25B500-N	AT-5450	----------------	50	$1.14
AT25B101-N	AT-5310	CM55-101-N3	100	1.14
AT25B251-N	AT-5325	----------------	250	1.29
AT25B501-N	AT-5350	----------------	500	1.53
AT25B102-N	AT-5210	CM55-102-N3	1,000	1.74
AT25B202-N	AT-5220	CM55-202-N3	2,000	2.55
AT25B252-N	AT-5225	----------------	2,500	2.76
AT25B302-N	AT-5230	CM55-302-N3	3,000	3.06
AT25B402-N	AT-5240	----------------	4,000	3.39
AT25B502-N	AT-5250	----------------	5,000	3.72
AT25B702-N	AT-5270	----------------	7,000	3.81
AK25B802-N	AK-5280	----------------	8,000	4.11
AK25B103-N	AK-5110	CM60-103-N1	10,000	4.38
AK25B163-N	AK-5116	CM60-163-N1	16,000	4.83

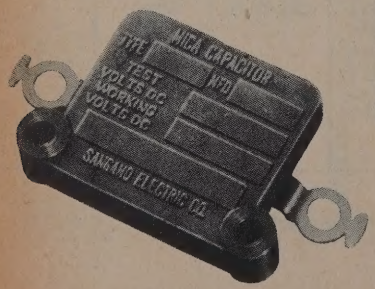
† Refer to Mil-C-5B for listings of characteristics, tolerances, temperature ranges and vibration grade.

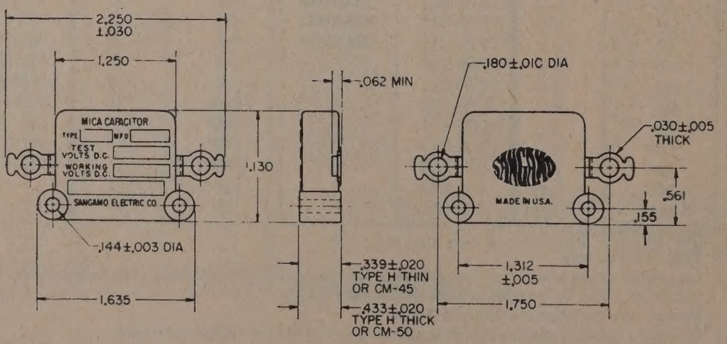
NOTE: Standard tolerance ± 10%. "B" characteristic unless otherwise specified.

NOTE: For ± 5% tolerance (J) add 10% to above prices.
For ± 2% tolerance (G) add 50% to above prices.
For "C" characteristics add 20% to above prices.
For "D" characteristics add 20% to above prices.
For "E" characteristics add 50% to above prices.

Type H MICA

The Type H mica dielectric capacitor is enclosed in a molded bakelite case with lug terminals. The capacitor can be screw mounted through untapped holes in the molded case. It is supplied in ±10% tolerance and "B" characteristic unless otherwise specified. For additional information write for Sangamo Bulletin 2321.


MICA CAPACITOR
TYPE
MFD
TEST VOLTS DC
WORKING VOLTS DC
SANGAMO ELECTRIC CO.


2.250 ±.030
1.250
MICA CAPACITOR
TYPE
MFD
TEST VOLTS D.C.
WORKING VOLTS D.C.
SANGAMO ELECTRIC CO.
1.130
.144±.003 DIA
1.635
.062 MIN
.339±.020 TYPE H THIN OR CM-45
.433±.020 TYPE H THICK OR CM-50
.180±.010 DIA
SANGAMO
MADE IN U.S.A.
.030±.005 THICK
.561
.155
1.312 ±.005
1.750

SANGAMO ELECTRIC COMPANY capacitors

SANGAMO ELECTRONIC COMPONENTS

TYPE H - Mica Capacitor (continued)

600 W.V.D.C

New Catalog Number*	Old Catalog Number	Applicable* Military Specification	Capacitance pf	Net Price
HT6B500-N	HT-1450	---------------	50	$ .72
HT6B101-N	HT-1310	---------------	100	.72
HT6B201-N	HT-1320	---------------	200	.72
HT6B251-N	HT-1325	---------------	250	.72
HT6B301-N	HT-1330	---------------	300	.72
HT6B401-N	HT-1340	---------------	400	.72
HT6B501-N	HT-1350	---------------	500	.72
HT6B102-N	HT-1210	---------------	1000	.72
HT6B152-N	HT-1215	---------------	1500	.72
HT6B202-N	HT-1220	---------------	2000	.78
HT6B252-N	HT-1225	---------------	2500	.78
HT6B302-N	HT-1230	---------------	3000	.87
HT6B402-N	HT-1240	---------------	4000	.90
HT6B502-N	HT-1250	---------------	5000	.93
HT6B602-N	HT-1260	---------------	6000	1.08
HT6B702-N	HT-1270	---------------	7000	1.11
HT6B802-N	HT-1280	---------------	8000	1.14
HT6B103-N	HT-1110	---------------	10000	1.29
HT6B163-N	HT-1116	---------------	16000	1.59
HK6B203-N	HK-1120	CM50B203-N3	20000	1.83
HK6B253-N	HK-1125	---------------	25000	2.16
HK6B303-N	HK-1130	---------------	30000	2.67

1200 W.V.D.C.

New Catalog Number*	Old Catalog Number	Applicable* Military Specification	Capacitance pf	Net Price
HT12B500-N	HT-2450	---------------	50	$ .96
HT12B101-N	HT-2310	---------------	100	.96
HT12B201-N	HT-2320	---------------	200	.96
HT12B251-N	HT-2325	---------------	250	.96
HT12B301-N	HT-2330	---------------	300	.96
HT12B401-N	HT-2340	---------------	400	.96
HT12B501-N	HT-2350	---------------	500	.96
HT12B102-N	HT-2210	---------------	1000	1.08
HT12B152-N	HT-2215	---------------	1500	1.38
HT12B202-N	HT-2220	---------------	2000	1.44
HT12B252-N	HT-2225	---------------	2500	1.68
HT12B302-N	HT-2230	---------------	3000	1.83
HT12B402-N	HT-2240	---------------	4000	1.83
HT12B502-N	HT-2250	---------------	5000	1.98
HT12B602-N	HT-2260	---------------	6000	1.98
HT12B822-N	HT-2282	---------------	8200	2.31
HK12B103-N	HK-2110	CM50B103-N3	10000	3.06
HK12B163-N	HK-2116	CM50B163-N3	16000	3.42

2500 W.V.D.C.

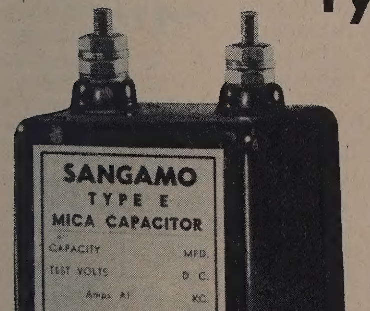
New Catalog Number*	Old Catalog Number	Applicable* Military Specification	Capacitance pf	Net Price
HT25B510-N	HT-5451	CM45B510-N3	51	$1.14
HT25B101-N	HT-5310	CM45B101-N3	100	1.14
HT25B201-N	HT-5320	CM45B201-N3	200	1.14
HT25B241-N	HT-5324	CM45B241-N3	240	1.32
HT25B301-N	HT-5330	CM45B301-N3	300	1.35
HT25B401-N	HT-5340	---------------	400	1.38
HT25B511-N	HT-5351	CM45B511-N3	510	1.44
HT25B102-N	HT-5210	CM45B102-N3	1000	1.68
HT25B152-N	HT-5215	CM45B152-N3	1500	2.13
HT25B202-N	HT-5220	---------------	2000	2.49
HT25B302-N	HT-5230	---------------	3000	2.94
HK25B432-N	HK-5243	CM50B432-N3	4300	3.39
HK25B512-N	HK-5251	CM50B512-N3	5100	3.84
HK25B552-N	HK-5255	---------------	5500	4.14

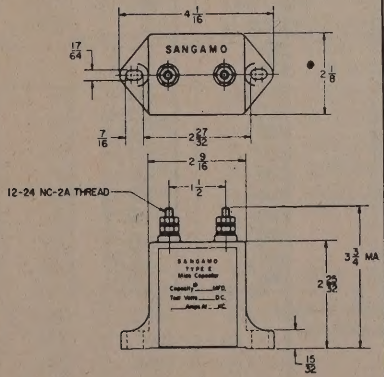
* Complete catalog number will include additional letter to indicate capacitive tolerance. Example: HT25B510JN. Complete Military type designation will include additional letter for capacitive tolerance. Example: CM45B510JN3.

NOTE: For meter mounting bracket add letter "E" to type designation. (Example: HTE-1450). Add $0.12 net each to above prices and specify case sizes.

NOTE: Standard tolerance ± 10% and "B" characteristic unless otherwise specified.
For ± 5% tolerance add 10% to above prices.
For ± 2% tolerance add 50% to above prices.

Type E MICA





Available in ±20% tolerance only. This type capacitor specifically designed for amateur use only. Not recommended for commercial applications.

Catalog Number	Capacitance pf	Rated Voltage (d-c volts)	Net Price
E-1245	50	12500	$10.80
E-1231	100	12500	10.80
E-12325	250	12500	10.80
E-1235	500	12500	10.80
E-1221	1000	12500	10.80
E-12215	1500	12500	12.60
E-1222	2000	12500	15.00
E-1022	2000	10000	15.00
E-1023	3000	10000	16.20
E-1024	4000	10000	17.40
E-1025	5000	10000	19.44
E-721	1000	7000	9.66
E-722	2000	7000	12.60
E-723	3000	7000	13.80
E-711	10000	7000	20.40
E-3524	4000	3500	12.60
E-3525	5000	3500	12.78
E-3511	10000	3500	19.44
E-3512	20000	3500	19.44
E-3515	50000	3500	22.56
E-215	50000	2000	19.32
E-201	100000	2000	22.56

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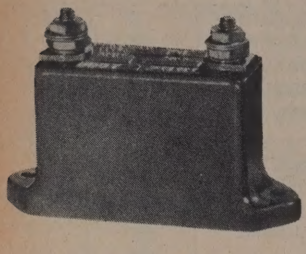
SANGAMO ELECTRIC COMPANY

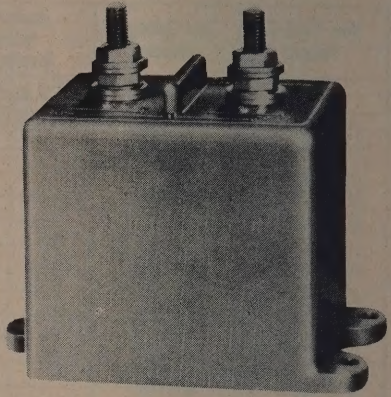
capacitors

SANGAMO ELECTRONIC COMPONENTS

Types F1-F2-F3 *MICA CAPACITORS*


Type F1–F2

Types F1, F2, and F3 capacitors, the smallest of the Sangamo line of transmitting types, possess a range of voltage and current ratings suitable for many applications. They are housed in low loss molded bakelite cases. The mica and foil sections are permanently clamped, vacuum impregnated, and installed in the case in such a manner as to provide stable characteristics and adequate moisture proofing. For additional information write for Sangamo Bulletin 2322.


Type F3

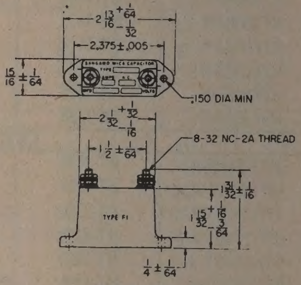
New Catalog Number*	Old Catalog Number	Applicable Military Specification	Capacitance pf	Rated Peak Voltage	Net Price
TYPE F1					
F130B101-M	F1-331	CM65B101-M1	100	3000	$ 7.56
F130B201-M	F1-332	CM65B201-M1	200	3000	7.56
F130B241-M	F1-3324	CM65B241-M1	240	3000	7.56
F130B501-M	F1-335	CM65B501-M1	500	3000	7.56
F130B102-M	F1-321	CM65B102-M1	1000	3000	7.56
F130B202-M	F1-322	CM65B202-M1	2000	3000	7.56
F120B302-M	F1-223	CM65B302-M1	3000	2000	7.56
F120B402-M	F1-224	CM65B402-M1	4000	2000	7.56
F120B512-M	F1-2251	CM65B512-M1	5100	2000	7.56
F120B602-M	F1-226	------------------	6000	2000	7.56
F115B822-M	F1-15282	CM65B822-M1	8200	1500	7.56
F110B103-M	F1-111	CM65B103-M1	10000	1000	7.56
F110B203-M	F1-112	CM65B203-M1	20000	1000	8.58
F12B104-M	F1-02151	CM65B513-M1	51000	250	8.58
F12B104-M	F1-0201	CM65B104-M1	100000	250	9.06
TYPE F2					
F250B101-M	F2-531	CM70B101-M1	100	5000	$10.38
F250B241-M	F2-5324	CM70B241-M1	240	5000	10.38
F250B511-M	F2-5351	CM70B511-M1	510	5000	10.38
F250B601-M	F2-536	------------------	600	5000	10.38
F250B102-M	F2-521	CM70B102-M1	1000	5000	10.38
F250B202-M	F2-522	CM70B202-M1	2000	5000	10.38
F250B302-M	F2-523	------------------	3000	5000	10.38
F230B512-M	F2-3251	CM70B512-M1	5100	3000	10.38
F230B602-M	F2-326	------------------	6000	3000	10.38
F220B103-M	F2-211	CM70B103-M1	10000	2000	10.38
F220B203-M	F2-212	CM70B203-M1	20000	2000	10.38
F215B513-M	F2-15151	CM70B513-M1	51000	1500	10.38
F25B104-M	F2-0501	CM70B104-M1	100000	500	11.52
F22B204-M	F2-0202	------------------	200000	250	15.15
F22B154-M	F2-02025	------------------	250000	250	16.74

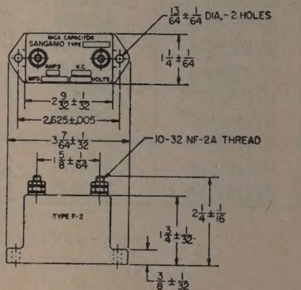
TYPE F3

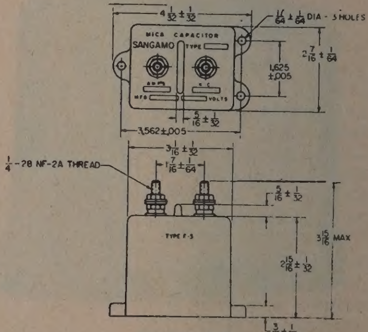
New Catalog Number*	Old Catalog Number	Capacitance pF.	Rated Peak Voltage	Net Price
F380B251-M	F3-8325	250	8000	$21.15
F380B501-M	F3-835	500	8000	21.15
F380B102-M	F3-821	1000	8000	23.55
F380B202-M	F3-822	2000	8000	23.55
F380B302-M	F3-823	3000	8000	25.02
F380B502-M	F3-825	5000	8000	29.16
F380B103-M	F3-811	10000	8000	33.12
F340B503-M	F3-415	50000	4000	37.11
F320B104-M	F3-201	100000	2000	29.16
F36B254-M	F3-06025	250000	600	26.76
F36B504-M	F3-0605	500000	600	31.53
F34B105-M	F3-0410	1000000	400	49.11

* Complete catalog number will include additional letter to indicate capacitive tolerance. Example: F130B101JM. Complete Type Military designation will include additional letter for capacitive tolerance. Example: CM65B101JM.

NOTES: Standard tolerance ±5%.
"B" characteristic only in stock.
For ±2% tolerance add 20% to above prices.


2 13/16 +1/64 −1/32
2.375±.005
15/16 ± 1/64
SANGAMO MICA CAPACITOR
TYPE
AMPS
K.C.
MFD
VOLTS
.150 DIA MIN
2 1/32 +1/32 −1/16
8-32 NC-2A THREAD
1 1/2 ± 1/64
1 31/32 ± 1/16
1 15/32 +1/16 −3/64
TYPE F1
1/4 ± 1/64
YPE F1


13/64 ± 1/64 DIA.- 2 HOLES
MICA CAPACITOR
SANGAMO TYPE
AMPS
K.C.
MFD.
VOLTS
1 1/4 ± 1/64
2 9/32 ± 1/32
2.625±.005
3 7/64 ± 1/32
10-32 NF-2A THREAD
1 5/8 ± 1/64
TYPE F-2
2 1/4 ± 1/16
1 3/4 ± 1/32
3/8 ± 1/32
TYPE F2


4 1/32 ± 1/32
17/64 ± 1/64 DIA - 3 HOLES
MICA CAPACITOR
SANGAMO
TYPE
AMPS
K.C.
MFD
VOLTS
1.625 ±.005
2 7/16 ± 1/64
5/16 ± 1/32
3.562±.005
3 1/16 ± 1/32
1/4 -28 NF-2A THREAD
1 7/16 ± 1/64
5/16 ± 1/32
TYPE F-3
3 15/16 MAX
2 15/16 ± 1/32
3/8 ± 1/32
TYPE F3

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SANGAMO ELECTRIC COMPANY capacitors

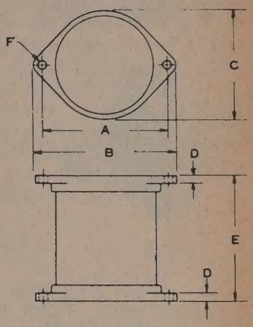
ELECTRONIC COMPONENTS

Types G1-G2-G3-G4-G5 *MICA*

Type G ceramic cased capacitors are intended for service where high voltage and R.F. current ratings are required, such as in commercial transmitting or induction heating applications. All possible steps are taken in design and manufacturing operations to insure permanence of quality. Terminal plates are designed to permit any usual connecting or mounting practices. Case sizes are in accordance with Mil-C-5B specification covering type CM75, 80, 85, 90 and 95. For additional engineering information write for Bulletin 2322.

TYPE G MICA CAPACITOR DIMENSIONS - INCHES

Type	A	B	C	D	E	F
G1	3¼	3-13/16	2-13/16	¼	2½	17/64
G2	4¼	5	3½	¼	3	.272
G3	5¾	6½	5	3/8	4	.377
G4	5¾	6½	5	3/8	5¾	.377
G5	8	9	6¾	½	10	13/32



TYPES G1, G2, G3, G4 and G5

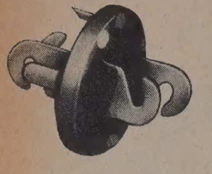
New Catalog Number	Old Catalog Number	Applicable Military Specification	Capacitance pf	Peak Working Voltage	Net Price
TYPE G1					
G160B100JM	G1-641	-----------------	10	6000	$21.27
G160B510JM	G1-6451	CM75B510JM1	51	6000	22.92
G160B101JM	G1-631	CM75B101JM1	100	6000	24.36
G160B201JM	G1-632	CM75B201JM1	200	6000	24.36
G160B401JM	G1-634	-----------------	400	6000	26.61
G160B511JM	G1-6351	CM75B511JM1	510	6000	27.99
G160B102JM	G1-621	CM75B102JM1	1000	6000	27.99
G160B152JM	G1-6215	CM75B152JM1	1500	6000	29.34
G160B202JM	G1-622	CM75B202JM1	2000	6000	29.34
G160B302JM	G1-623	CM75B302JM1	3000	6000	30.36
G160B402JM	G1-624	-----------------	4000	6000	30.36
G160B502JM	G1-625	-----------------	5000	6000	30.36
G150B602JM	G1-526	-----------------	6000	5000	30.87
G150B103JM	G1-511	-----------------	10000	5000	30.87
G140B153JM	G1-4115	-----------------	15000	4000	30.87
G130B203JM	G1-312	-----------------	20000	3000	30.87
TYPE G2					
G2100B101JM	G2-1031	CM80B101JM1	100	10000	$39.33
G2100B151JM	G2-10315	CM80B151JM 1	150	10000	39.33
G2100B201JM	G2-1032	CM80B201JM1	200	10000	39.33
G2100B241JM	G2-10324	CM80B241JM1	240	10000	39.33
G2100B501JM	G2-1035	-----------------	500	10000	39.33
G2100B102JM	G2-1021	CM80B102JM1	1000	10000	39.33
G2100B122JM	G2-10212	CM80B122JM1	1200	10000	39.33
G2100B152JM	G2-10215	CM80B152JM1	1500	10000	39.33
G2100B202JM	G2-1022	CM80B202JM1	2000	10000	39.33
G280B302JM	G2-823	CM80B302JM1	3000	8000	39.33
G280B402JM	G2-824	-----------------	4000	8000	39.33
G250B502JM	G2-525	-----------------	5000	8000	39.33
G250B622JM	G2-5262	CM80B622JM1	6200	5000	41.49
G250B103JM	G2-511	CM80B103JM1	10000	5000	41.49
G240B153JM	G2-4115	CM80B153JM1	15000	4000	41.49
G230B203JM	G2-312	CM80B203JM1	20000	3000	41.49
TYPE G3					
G3200B510JM	G3-20451	CM85B510JM1	51	20000	$66.54
G3200B101JM	G3-2031	CM85B101JM1	100	20000	72.60
G3200B201JM	G3-2032	CM85B201JM1	200	20000	78.66
G3200B241JM	G3-20324	CM85B24iJM1	240	20000	78.66
G3200B301JM	G3-2033	CM85B301JM1	300	20000	78.66
G3200B501JM	G3-2035	-----------------	500	20000	82.29
G3200B801JM	G3-2038	-----------------	800	20000	82.29
G3200B102JM	G3-2021	CM85B102JM1	1000	20000	84.69
G3150B152JM	G3-15215	CM85B152JM1	1500	15000	85.92
G3150B202JM	G3-1522	CM85B202JM1	2000	15000	85.92
G3150B302JM	G3-1523	-----------------	3000	15000	90.75
G3150B402JM	G3-1524	-----------------	4000	15000	90.75
G3100B502JM	G3-1025	-----------------	5000	10000	90.75
TYPE G3 (Continued)					
G3100B622JM	G3-10262	CM85B622JM1	6200	10000	$90.75
G3100B802JM	G3-1028	-----------------	8000	10000	90.75
G380B103JM	G3-1011	CM85B103JM1	10000	8000	90.75
G350B203JM	G3-512	CM85B203JM1	20000	5000	90.75
G330B303JM	G3-313	CM85B303JM1	30000	3000	90.75
TYPE G4					
G4300B300JM	G4-3043	-----------------	30	30000	$100.74
G4300B500JM	G4-3045	-----------------	50	30000	100.74
G4300B101JM	G4-3031	CM90B101JM1	100	30000	126.18
G4300B151JM	G4-30315	CM90B151JM1	150	30000	126.18
G4300B251JM	G4-30325	-----------------	250	30000	132.70
G4300B501JM	G4-3035	-----------------	500	30000	132.70
G4300B801JM	G4-3038	-----------------	800	30000	132.70
G4300B102JM	G4-3021	CM90B102JM1	1000	30000	137.46
G4250B152JM	G4-25215	CM90B152JM1	1500	25000	137.46
G4200B202JM	G4-2022	CM90B202JM1	2000	20000	137.46
G4200B302JM	G4-2023	CM90B302JM1	3000	20000	137.46
G4200B402JM	G4-2024	-----------------	4000	20000	140.61
G4150B502JM	G4-1525	-----------------	5000	15000	145.20
G4200B502JM	G4-2025	-----------------	5000	20000	142.80
G4150B602JM	G4-1526	-----------------	6000	15000	151.35
G4120B802JM	G4-1228	-----------------	8000	12000	156.00
G4100B103JM	G4-1011	CM90B103JM1	10000	10000	163.46
G460B203JM	G4-612	CM90B203JM1	20000	6000	163.46
G450B403JM	G4-514	-----------------	40000	5000	163.46
TYPE G5					
G5500B500JM	G5-5045	-----------------	50	50000	$265.80
G5350B101JM	G5-3531	CM95B101JM1	100	35000	278.40
G5350B251JM	G5-35325	-----------------	250	35000	302.40
G5350B401JM	G5-3534	-----------------	400	35000	302.40
G5350B501JM	G5-3535	-----------------	500	35000	326.40
G5350B102JM	G5-3521	CM95B102JM1	1000	35000	336.60
G5300B202JM	G5-3022	CM95B202JM1	2000	30000	322.80
G5300B252JM	G5-30225	-----------------	2500	30000	328.80
G5300B302JM	G5-3023	CM95B302JM1	3000	30000	340.80
G5250B502JM	G5-2525	-----------------	5000	25000	340.80
G5200B602JM	G5-2026	-----------------	6000	20000	340.80
G5150B103JM	G5-1511	CM95B103JM1	10000	15000	340.80

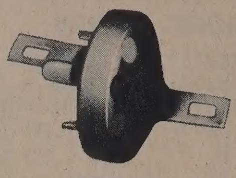
NOTE: Standard tolerance all Type G Capacitors ± 5%, B characteristic.

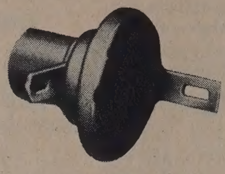
SANGAMO ELECTRIC COMPANY capacitors

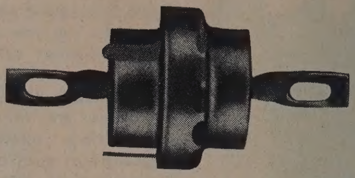
SANGAMO ELECTRONIC COMPONENTS

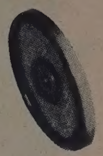
Type M BUTTON® CAPACITORS - Silvered Mica -


M63


M23


M72

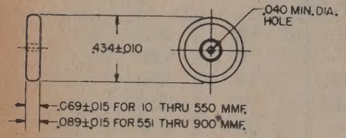

MHC519

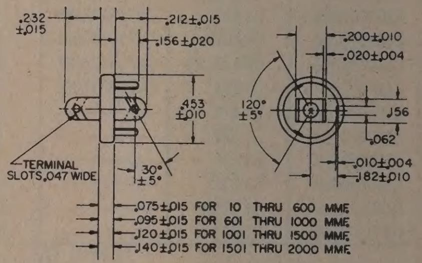

M100

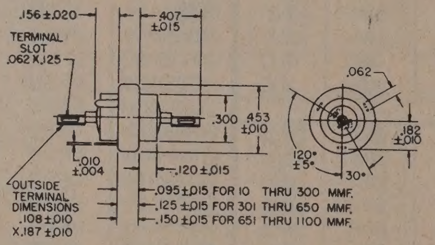
SANGAMO Type M Silvered Mica Button® Capacitors are designed particularly for application in high frequency circuits. Their high "Q" is indicative of their low loss. These units meet all requirements for V.H.F. and U.H.F. applications and are constructed to be electrically and mechanically stable.

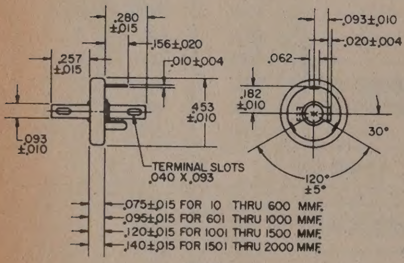
The silver-plated case design performs the dual purpose of shielding and being the low potential terminal. The high potential terminal through the center of the capacitor allows 360 degrees electrical current distribution, resulting in extremely low series inductance and more efficient performance in high frequency applications.

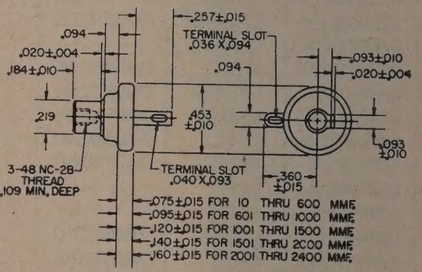
All units are normally furnished in characteristic "E" and in 500 working volts D.C. Case sizes are in accordance with Mil-C-10950B as general types CB11, CB21, CB75 and CB76. The Type MHC are hermetically sealed and will far exceed the environmental requirements of Mil-C-10950B. For more complete engineering information write for Bulletin 2311A.


.040 MIN. DIA. HOLE
.434±.010
.069±.015 FOR 10 THRU 550 MMF.
.089±.015 FOR 551 THRU 900 MMF.
M100


.232 ±.015
.212±.015
.156±.020
.453 ±.010
.200±.010
.020±.004
120° ±5°
.156
.062
TERMINAL SLOTS, .047 WIDE
30° ±5°
.010±.004
.182±.010
.075±.015 FOR 10 THRU 600 MMF.
.095±.015 FOR 601 THRU 1000 MMF.
.120±.015 FOR 1001 THRU 1500 MMF.
.140±.015 FOR 1501 THRU 2000 MMF.
M63


.156±.020
.407 ±.015
TERMINAL SLOT .062 X.125
.062
.300
.453 ±.010
.182 ±.010
.010 ±.004
.120±.015
120° ±5°
30°
OUTSIDE TERMINAL DIMENSIONS .108±.010 X.187±.010
.095±.015 FOR 10 THRU 300 MMF.
.125±.015 FOR 301 THRU 650 MMF.
.150±.015 FOR 651 THRU 1100 MMF.
MHC519


.280 ±.015
.156±.020
.257 ±.015
.010±.004
.093±.010
.020±.004
.062
.182 ±.010
.453 ±.010
.093 ±.010
30°
TERMINAL SLOTS .040 X .093
120° ±5°
.075±.015 FOR 10 THRU 600 MMF.
.095±.015 FOR 601 THRU 1000 MMF.
.120±.015 FOR 1001 THRU 1500 MMF.
.140±.015 FOR 1501 THRU 2000 MMF.
M23


.257±.015
.094
TERMINAL SLOT .036 X.094
.020±.004
.184±.010
.094
.093±.010
.020±.004
.219
.453 ±.010
.093 ±.010
3-48 NC-2B THREAD .109 MIN. DEEP
TERMINAL SLOT .040 X.093
.360 ±.015
.075±.015 FOR 10 THRU 600 MMF.
.095±.015 FOR 601 THRU 1000 MMF.
.120±.015 FOR 1001 THRU 1500 MMF.
.140±.015 FOR 1501 THRU 2000 MMF.
.160±.015 FOR 2001 THRU 2400 MMF.
M72

Catalog Number	Capacitance pf	Capacitive Tolerance	Net Price 1-49* Type Designation M23, M63 M72**	M100	MHC519
M-415K	15	± 10%	$0.86	$0.83	$3.47
M-415J	15	±5%	1.10	1.04	4.23
M-425K	25	± 10%	0.86	0.83	3.47
M-425J	25	±5%	1.10	1.04	4.23
M-450K	50	± 10%	0.86	0.83	3.47
M-450J	50	±5%	1.10	1.04	4.23
M-310K	100	± 10%	0.86	0.83	3.47
M-310J	100	±5%	1.10	1.04	3.74
M-315K	150	± 10%	0.86	0.83	3.47
M-315J	150	±5%	1.10	1.04	3.74
M-320K	200	±10%	0.86	0.83	3.47
M-320J	200	±5%	1.10	1.04	3.74
M-325K	250	± 10%	0.86	0.83	3.47
M-325J	250	±5%	1.10	1.04	3.74
M-330K	300	± 10%	0.93	0.88	3.57
M-330J	300	±5%	$1.14	$1.08	$3.86
M-340K	400	± 10%	0.96	0.91	3.68
M-340J	400	±5%	1.19	1.14	3.97
M-350K	500	± 10%	1.01	0.96	3.73
M-350J	500	±5%	1.28	1.22	4.03
M-375K	750	± 10%	1.43	1.37	4.05
M-375J	750	±5%	1.82	1.73	4.46
M-210K	1000	± 10%	1.71	1.63	4.26
M-210J	1000	±5%	2.13	2.03	4.70

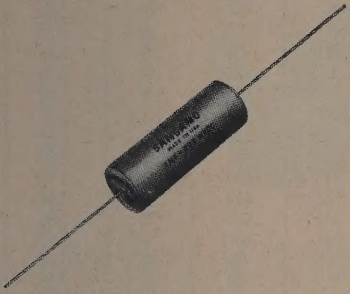
* O.E.M. prices for larger quantities are available on request.
**Prices shown for M23 & M63. M72 prices are slightly lower.
NOTE: For complete Catalog Number add Type Designation.
Example: M23-415K.

SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

Type S *Subminiature hermetically sealed metal tubular paper dielectric capacitors*



SANGAMO Type S capacitors are designed to meet the demands for a high quality, hermetically sealed paper tubular capacitor. These units are encased in brass tubular cases finished with a high tin content alloy. Hermetic sealing is accomplished using glass-to-metal, solder seal terminals. The impregnant used in the Type S is Etherm-an oil of high thermal stability and superior electrical characteristics over the temperature range of -55°C to +125°C. Styles listed below are supplied with the case floating (circuit o—| |—o). To complete catalog and military type nomenclatures insert proper designation to indicate type desired in accordance with the following cross reference table.

SANGAMO TYPE	MILITARY TYPE	Description
SBA	CP04	bare case (tab construction)
SBB	CP05	insulated case (tab construction)
SDA	CP08	bare case (Extended foil)
SDB	CP09	insulated case (Extended foil)

The Type S is also available in many other designs. Case sizes are in accordance with Mil-C-25C specification. For more detailed information write for Bulletin 2421.

Types SBA (CP04) and SBB (CP05) Inserted Tab

Catalog Number	Applicable Military Specification	Cap. µf	Rated Voltage (d-c volts)	Case Size*	Net Price 1-9**
SB-1KO1102K	-------------------	.001	100	A	$1.55
SB-1KO1152K	-------------------	.0015	100	A	1.55
SB-1KO1222K	-------------------	.0022	100	A	1.55
SB-1KO1332K	-------------------	.0033	100	A	1.55
SB-1KO1472K	-------------------	.0047	100	A	1.55
SB-1KO1682K	-------------------	.0068	100	A	1.55
SB-1KO1103K	-------------------	.01	100	A	1.58
SB-1KO1153K	-------------------	.015	100	A	1.58
SB-1KO1223K	-------------------	.022	100	A	1.58
SB-1KO1333K	CP-A1KB333K3	.033	100	A	1.63
SB-1KO1473K	-------------------	.047	100	B	1.70
SB-1KO1683K	-------------------	.068	100	B	1.70
SB-1KO1104K	CP-A1KB104K3	.1	100	B	1.76
SB-1KO1154K	CP-A1KB154K3	.15	100	C	1.85
SB-1KO1224K	CP-A1KB224K3	.22	100	D	1.85
SB-1KO1334K	CP-A1KB334K3	.33	100	E	2.11
SB-1KO1474K	CP-A1KB474K3	.47	100	F	2.24
SB-1KO1684K	CP-A1KB684K3	.68	100	G	2.33
SB-1KO1105K	CP-A1KB105K3	1.0	100	J	2.38
SB-1KO2102K	-------------------	.001	200	A	1.63
SB-1KO2152K	-------------------	.0015	200	A	1.63
SB-1KO2222K	-------------------	.0022	200	A	1.63
SB-1KO2332K	-------------------	.0033	200	A	1.63
SB-1KO2472K	-------------------	.0047	200	A	1.63
SB-1KO2682K	-------------------	.0068	200	A	1.63
SB-1KO2103K	-------------------	.01	200	A	1.67
SB-1KO2153K	CP-A1KC153K3	.015	200	A	1.67
SB-1KO2223K	CP-A1KC223K3	.022	200	A	1.67
SB-1KO2333K	-------------------	.033	200	B	1.74
SB-1KO2473K	CP-A1KC473K3	.047	200	B	1.74
SB-1KO2683K	CP-A1KC683K3	.068	200	B	1.78
SB-1KO2104K	CP-A1KC104K3	.1	200	C	1.80
SB-1KO2154K	CP-A1KC154K3	.15	200	D	1.83
SB-1KO2224K	CP-A1KC224K3	.22	200	E	2.00
SB-1KO2334K	CP-A1KC334K3	.33	200	F	2.16
SB-1KO2474K	CP-A1KC474K3	.47	200	G	2.29
SB-1KO2684K	CP-A1KC684K3	.68	200	J	2.42
SB-1KO2105K	CP-A1KC105K3	1.0	200	P	2.90
SB-1KO4102K	-------------------	.001	400	A	1.67
SB-1KO4152K	-------------------	.0015	400	A	1.67
SB-1KO4222K	-------------------	.0022	400	A	1.67
SB-1KO4332K	-------------------	.0033	400	A	1.70
SB-1KO4472K	-------------------	.0047	400	A	1.70
SB-1KO4682K	-------------------	.0068	400	A	1.70
SB-1KO4103K	CP-A1KE103K3	.01	400	A	1.72
SB-1KO4153K	-------------------	.015	400	B	1.78
SB-1KO4223K	-------------------	.022	400	B	1.78
SB-1KO4333K	CP-A1KE333K3	.033	400	B	1.78
SB-1KO4473K	CP-A1KE473K3	.047	400	C	1.85
SB-1KO4683K	CP-A1KE683K3	.068	400	D	1.89
SB-1KO4104K	CP-A1KE104K3	.1	400	E	1.94
SB-1KO4154K	CP-A1KE154K3	.15	400	F	2.11
SB-1KO4224K	CP-A1KE224K3	.22	400	G	2.24
SB-1KO4334K	CP-A1KE334K3	.33	400	J	2.29
SB-1KO4474K	CP-A1KE474K3	.47	400	L	2.73
SB-1KO4684K	CP-A1KE684K3	.68	400	M	$3.63
SB-1KO4105K	CP-A1KE105K3	1.0	400	P	3.76
SB-1KO6102K	CP-A1KF102K3	.001	600	A	1.67
SB-1KO6152K	CP-A1KF152K3	.0015	600	A	1.67
SB-1KO6222K	CP-A1KF222K3	.0022	600	A	1.67
SB-1KO6332K	CP-A1KF332K3	.0033	600	A	1.72
SB-1KO6472K	CP-A1KF472K3	.0047	600	A	1.72
SB-1KO6682K	CP-A1KF682K3	.0068	600	A	1.72
SB-1KO6103K	CP-A1KF103K3	.01	600	B	1.76
SB-1KO6153K	CP-A1KF153K3	.015	600	B	1.80
SB-1KO6223K	CP-A1KF223K3	.022	600	B	1.80
SB-1KO6333K	CP-A1KF333K3	.033	600	C	1.87
SB-1KO6473K	CP-A1KF473K3	.047	600	D	1.89
SB-1KO6683K	CP-A1KF683K3	.068	600	E	1.98
SB-1KO6104K	CP-A1KF104K3	.1	600	F	2.11
SB-1KO6154K	CP-A1KF154K3	.15	600	G	2.20
SB-1KO6224K	CP-A1KF224K3	.22	600	J	2.38
SB-1KO6334K	CP-A1KF334K3	.33	600	L	2.64
SB-1KO6474K	CP-A1KF474K3	.47	600	M	2.97
SB-1KO6684K	CP-A1KF684K3	.68	600	P	3.70

Types SDA (CP08) and SDB (CP09) Extended Foil

Catalog Number	Applicable Military Specification	Cap. µf	Rated Voltage (d-c volts)	Case Size*	Net Price 1-9**
SD-1KO1102K	-------------------	.001	100	A	$1.62
SD-1KO1152K	-------------------	.0015	100	A	1.62
SD-1KO1222K	-------------------	.0022	100	A	1.62
SD-1KO1332K	-------------------	.0033	100	A	1.63
SD-1KO1472K	-------------------	.0047	100	A	1.63
SD-1KO1682K	-------------------	.0068	100	A	1.64
SD-1KO1103K	CP-A1KB103K3	.01	100	A	1.67
SD-1KO1153K	CP-A1KB153K3	.015	100	A	1.67
SD-1KO1223K	-------------------	.022	100	B	1.75
SD-1KO1333K	-------------------	.033	100	B	1.75
SD-1KO1473K	CP-A1KB473K3	.047	100	B	1.80
SD-1KO1683K	-------------------	.068	100	C	1.81
SD-1KO1104K	CP-A1KB104K3	.1	100	C	1.85
SD-1KO1154K	CP-A1KB154K3	.15	100	D	1.85
SD-1KO1224K	CP-A1KB224K3	.22	100	E	1.98
SD-1KO1334K	CP-A1KB334K3	.33	100	F	2.20
SD-1KO1474K	CP-A1KB474K3	.47	100	G	2.29
SD-1KO1684K	CP-A1KB684K3	.68	100	H	2.46
SD-1KO1105K	CP-A1KB105K3	1.0	100	K	2.64
SD-1KO2102K	-------------------	.001	200	A	1.68
SD-1KO2152K	-------------------	.0015	200	A	1.68
SD-1KO2222K	-------------------	.0022	200	A	1.68
SD-1KO2332K	-------------------	.0033	200	A	1.69
SD-1KO2472K	CP-A1KC472K3	.0047	200	A	1.69
SD-1KO2682K	CP-A1KC682K3	.0068	200	A	1.72
SD-1KO2103K	-------------------	.01	200	B	1.79
SD-1KO2153K	-------------------	.015	200	B	1.80
SD-1KO2223K	CP-A1KC223K3	.022	200	B	1.85
SD-1KO2333K	CP-A1KC333K3	.033	200	B	1.85
SD-1KO2473K	CP-A1KC473K3	.047	200	C	1.89
SD-1KO2683K	CP-A1KC683K3	.068	200	C	1.89

See following page for notes

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SANGAMO ELECTRONIC COMPONENTS

Type S - continued -

Catalog Number	Applicable Military Specification	Cap. µf	Rated Voltage (d-c volts)	Case Size*	Net Price 1-9**
SD-1K02104K	CP-A1KC104K3	.1	200	D	$1.91
SD-1K02154K	CP-A1KC154K3	.15	200	E	1.98
SD-1K02224K	CP-A1KC224K3	.22	200	F	2.11
SD-1K02334K	CP-A1KC334K3	.33	200	G	2.24
SD-1K02474K	CP-A1KC474K3	.47	200	H	2.33
SD-1K02684K	CP-A1KC684K3	.68	200	K	2.64
SD-1K02105K	CP-A1KC105K3	1.0	200	M	2.97
SD-1K04102K	------------------	.001	400	A	1.73
SD-1K04152K	------------------	.0015	400	A	1.74
SD-1K04222K	------------------	.0022	400	A	1.74
SD-1K04332K	CP-A1KE332K3	.0033	400	A	1.76
SD-1K04472K	------------------	.0047	400	B	1.83
SD-1K04682K	------------------	.0068	400	B	1.84
SD-1K04103K	------------------	.01	400	B	1.85
SD-1K04153K	CP-A1KE153K3	.015	400	B	1.89
SD-1K04223K	------------------	.022	400	C	1.90
SD-1K04333K	CP-A1KE333K3	.033	400	C	1.94
SD-1K04473K	CP-A1KE473K3	.047	400	D	1.98
SD-1K04683K	CP-A1KE683K3	.068	400	E	1.98
SD-1K04104K	CP-A1KE104K3	.1	400	F	2.11
SD-1K04154K	CP-A1KE154K3	.15	400	G	2.20
SD-1K04224K	CP-A1KE224K3	.22	400	H	$2.33
SD-1K04334K	CP-A1KE334K3	.33	400	K	2.55
SD-1K04474K	CP-A1KE474K3	.47	400	M	2.95
SD-1K06102K	CP-A1KF102K3	.001	600	A	1.76
SD-1K06152K	CP-A1KF152K3	.0015	600	A	1.76
SD-1K06222K	CP-A1KF222K3	.0022	600	A	1.76
SD-1K06332K	CP-A1KF332K3	.0033	600	B	1.80
SD-1K06472K	CP-A1KF472K3	.0047	600	B	1.87
SD-1K06682K	CP-A1KF682K3	.0068	600	B	2.06
SD-1K06103K	CP-A1KF103K3	.01	600	B	1.91
SD-1K06153K	CP-A1KF153K3	.015	600	C	1.94
SD-1K06223K	CP-A1KF223K3	.022	600	C	1.96
SD-1K06333K	CP-A1KF333K3	.033	600	D	1.96
SD-1K06473K	CP-A1KF473K3	.047	600	E	2.02
SD-1K06683K	CP-A1KF683K3	.068	600	F	2.16
SD-1K06104K	CP-A1KF104K3	.1	600	G	2.20
SD-1K06154K	CP-A1KF154K3	.15	600	H	2.33
SD-1K06224K	CP-A1KF224K3	.22	600	K	2.64
SD-1K06334K	CP-A1KF334K3	.33	600	M	2.95
SD-1K06474K	CP-A1KF474K3	.47	600	N	3.08

** O.E.M. prices for larger quantities are available on request.

NOTE: Above prices cover ± 10% or ± 20% tolerance.

NOTE: If insulating sleeve is required, add 5% to above prices.

NOTE: Capacitance values not listed herein but included in Mil-C-25C are also available.

* Key to Case Sizes:

Letter	Diameter	Length	Letter	Diameter	Length
A	.235	3/4	H	.562	1-5/8
B	.312	7/8	J	.562	1-7/8
C	.400	7/8	K	.670	1-5/8
D	.400	1-1/8	L	.670	1-7/8
E	.400	1-3/8	M	.750	2-1/8
F	.562	1-1/8	N	.750	2-3/8
G	.562	1-3/8	P	1.0	1-7/8

Above dimensions do not include sleeve. For overall dimension of-sleeve add 3/32" to length and .064" to diameter.

Types 40-41-42-43

PAPER

Types
40
42

Types
41
43

Sangamo Types 40, 41, 42, and 43 paper dielectric capacitors are ideal for use in high voltage filter applications. Enclosed in aluminum containers, they mount to the chassis by means of a 3/4-16 threaded neck. In the Types 40 and 42, one connection is provided by an insulated terminal and the other is provided by the case and washer with a solder lug. In the Types 41 and 43, both terminals are completely insulated from the case. Each of the 4 types is provided with mounting nut and lockwasher. The Types 40 and 41 are impregnated with Diaclor to provide an F characteristic. Types 42 and 43 are impregnated with mineral oil to provide an E characteristic. All units are designed in accordance with electrical characteristics of Mil-C-25C. For more complete engineering information write for Bulletin 2423.

TYPES 40-42

Catalog Number	Capacitance µf	Rated Voltage (d-c volts)	Diameter (inches)	Length (inches)		Net Price 1-9*
				Type 40	Type 42	
4—06-1	1	600	1-1/2	1-5/8	2	$3.81
4—06-2	2	600	1-1/2	2-3/8	2-7/8	3.95
4—06-4	4	600	1-1/2	3-5/8	5-1/4	5.13
4—10-1	1	1000	1-1/2	2-3/8	2-7/8	3.54
4—10-2	2	1000	1-1/2	3-5/8	5	4.54
4—15- .25	.25	1500	1-1/2	1-5/8	2	4.18
4—15- .5	.5	1500	1-1/2	2-3/8	2-7/8	4.49
4—15-1	1	1500	1-1/2	3-3/8	4-1/2	4.95

TYPES 41-43

Catalog Number	Capacitance µf	Rated Voltage (d-c volts)	Diameter (inches)	Length (inches)		Net Price 1-9*
				Type 41	Type 43	
4—06-1	1	600	1-1/2	1-5/8	2	$3.91
4—06-2	2	600	1-1/2	2-3/8	2-7/8	4.05
4—06-4	4	600	1-1/2	3-5/8	5-1/4	5.23
4—10-1	1	1000	1-1/2	2-3/8	2-7/8	3.64
4—10-2	2	1000	1-1/2	3-5/8	5	4.64
4—15- .25	.25	1500	1-1/2	1-5/8	2	4.28
4—15- .5	.5	1500	1-1/2	2-3/8	2-7/8	4.59
4—15-1	1	1500	1-1/2	3-3/8	4-1/2	5.05

NOTE: Complete catalog number includes type designation. Example: 4206-1.

NOTE: Standard capacitive tolerance +20%, −10%.

* O.E.M. prices for larger quantities are available on request.

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SANGAMO ELECTRIC COMPANY
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ELECTRONIC COMPONENTS

Type 50

PAPER

SANGAMO
MADE IN USA
3X.5 MFD
600 WVDC
5006-3X.5RS

SANGAMO Type 50 paper dielectric capacitors are primarily intended for bypass applications. They are non-inductively wound, supplied in fractional capacitive values and will provide efficient and continuous operation in coupling and bypass circuits. These capacitors are impregnated with mineral oil and may be operated under severe humidity conditions at temperatures between -55° and 85°C. All units are designed in accordance with electrical characteristics of Mil-C-25C. For more complete engineering information write for Bulletin 2423.

Catalog Number	Applicable Military Specification	Capacitance µf	Dimensions (Inches)			Net Price 1-9**
			Length	Width	Height	
600 D-C VOLTS						
5006- .05	----------------------	.05	1-13/16	1	3/4	$1.68
5006- .1	----------------------	.1	1-13/16	1	3/4	1.80
5006- .25	CP53B1EF254K1	.25	1-13/16	1	3/4	1.83
5006- .5	CP53B1EF504K1	.5	1-13/16	1	1	1.95
5006-1.0	CP53B1EF105K1	1.0	2	1-3/4	7/8	2.31
*5006-2.0	CP53B1EF205K1	2.0	2	2	1-1/8	3.00
5006-2 x .05	CP53B4EF503V1	.05-.05	1-13/16	1	3/4	2.37
5006-2 x .1	CP53B4EF104V1	.1 -.1	1-13/16	1	3/4	2.43
5006-2 x .25	CP53B4EF254V1	.25-.25	1-13/16	1	7/8	2.46
5006-2 x .5	CP53B4EF504V1	.5 -.5	2	1-3/4	7/8	2.76
*5006-2 x 1.0	CP53B4EF105V1	1.0 -1.0	2	2	1-1/8	3.42
5006-3 x .1	CP53B5EF104V1	.1 -.1 -.1	1-13/16	1	3/4	2.73
5006-3 x .25	CP53B5EF254V1	.25-.25-.25	2	1-3/4	7/8	3.09
*5006-3 x .5	CP53B5EF504V1	.5 -.5 -.5	2	2	1-1/8	3.75
1000 D-C VOLTS						
5010- .05	CP53B1EG503K1	.05	1-13/16	1	3/4	$1.80
5010- .1	CP53B1EG104K1	.1	1-13/16	1	3/4	1.83
5010- .25	CP53B1EG254K1	.25	1-13/16	1	7/8	1.89
5010- .5	CP53B1EG504K1	.5	2	1-3/4	7/8	2.07
*5010-1.0	CP53B1EG105K1	1.0	2	2	1-1/8	2.76
5010-2 x .05	CP53B4EG503V1	.05-.05	1-13/16	1	3/4	2.49
5010-2 x .1	CP53B4EG104V1	.1 -.1	1-13/16	1	7/8	2.52
5010-2 x .25	CP53B4EG254V1	.25-.25	2	1-3/4	7/8	2.70
*5010-2 x .5	CP53B4EG504V1	.5 -.5	2	2	1-1/8	3.57
5010-3 x .1	CP53B5EG104V1	.1 -.1 -.1	2	1-3/4	7/8	3.09
*5010-3 x .25	CP53B5EG254V1	.25-.25-.25	2	2	1-1/8	3.78

* For bottom or top terminal, case size becomes 2" x 2" x 1-1/4".

** O.E.M. prices for larger quantities are available on request.

NOTE: 1. Standard capacitive tolerance: +20% −10% on catalog items.

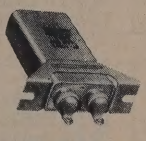
2. Units supplied with side terminals unless otherwise specified. For top terminals add the letters "RT" following the catalog number. Example: 5006-.05RT. For bottom terminals add "RB" to catalog number. Military type designation changes from "CP53---------" to "CP54" and "CP55" respectively.

Types 60-62-64-66-68 *PAPER*

Sangamo Types 60, 62, 64, 66 and 68 non-inductively wound paper capacitors are impregnated with mineral oil and hermetically sealed in drawn metal cans. The mineral oil assures dependable service between the temperature range of -55°C to +85°C. The standard capacitive tolerance is +20, -10% on catalog items. Mounting brackets are supplied as shown. All units are designed in accordance with electrical characteristics of MIL-C-25C. For more complete engineering information write for Bulletin 2423.

TYPE 60

TYPE 62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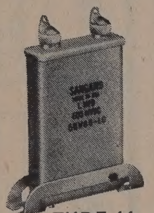

TYPE 66

TYPE 68

Catalog Number	Applicable Military Specification	Case Size*		Capacitance µf	Net Price 1-9 †		
		CP 90-63-65	CP 67-69		CP90	CP63-65	CP67-69
		Type 60-62-64	Type 66-68		Type 60	Type 62-64	Type 66-68
600 D-C VOLTS							
6-V06- .01	--------------------	A1	---	.01	$1.74	$1.90	$-----
6-V06- .05	CP-B1EF503K1	A1	B1	.05	1.86	1.94	2.27
6-V06- .1	--------------------	A2	B1	.1	1.94	2.02	2.36
6-V06- .25	CP-B1EF254K1	A3	B2	.25	2.01	2.09	2.43
6-V06- .5	CP-B1EF504K1	A4	B3	.5	2.08	2.16	2.52
6-V06-1.0	CP-B1EF105K1	A6	B5	1.0	2.34	2.42	2.78
6-V06-2.0	--------------------	F	---	2.0	2.92	3.20	-----
6-X06-2 x .05	CP-E4EF503V1	---	B1	.05-.05	-----	-----	2.77
6-X06-2 x .1	CP-B4EF104V1	---	B2	.1 -.1	-----	-----	2.85
6-X06-2 x .25	CP-B4EF254V1	---	B3	.25-.25	-----	-----	3.06
6-X06-2 x .5	CP-B4EF504V1	---	B5	.5 -.5	-----	-----	3.34
6-Y06-3 x .05	CP-B5EF503V1	---	B2	.05-.05-.05	-----	-----	3.34
6-Y06-3 x .1	CP-B5EF104V1	---	B2	.1 -.1 -.1	-----	-----	3.42
6-Y06-3 x .25	CP-B5EF254V1	---	B5	.25-.25-.25	-----	-----	3.67
1000 D-C VOLTS							
6-V10- .05	CP-B1EG503K1	A2	B1	.05	$1.93	$2.01	$2.32
6-V10- .1	CP-B1EG104K1	A2	B2	.1	2.00	2.08	2.39
6-V10- .25	CP-B1EG254K1	A4	B3	.25	2.06	2.14	2.46
6-V10- .5	CP-B1EG504K1	A6	B5	.5	2.25	2.33	2.68
6-V10-1.0	--------------------	F	---	1.0	2.55	2.63	-----
6-X10-2 x .05	CP-R4EG503V1	---	B2	.05-.05	-----	-----	2.83
6-X10-2 x .1	CP-B4EG104V1	---	B3	.1 -.1	-----	-----	2.95
6-X10-2 x .25	CP-B4EG254V1	---	B5	.25-.25	-----	-----	3.13
6-Y10-3 x .05	CP-B5EG503V1	---	B2	.05-.05-.05	-----	-----	3.40
6-Y10-3 x .1	CP-B5EG104V1	---	B4	.1 -.1 -.1	-----	-----	3.52

† O.E.M. prices for larger quantities available on request.

* Key to case sizes. (All dimensions in inches.)

Letter	Length	Width	Thickness	Letter	Length	Width	Thickness
A1	1-1/16	1-5/16	.725	B1	1-1/16	1-3/4	.580
A2	1-3/8	1-5/16	.725	B2	1-1/2	1-3/4	.580
A3	1-5/8	1-5/16	.725	B3	2	1-3/4	.580
A4	2	1-5/16	.725	B4	2-1/2	1-3/4	.580
A6	2-3/4	1-5/16	.725	B5	2-3/4	1-3/4	.580
F	2-1/4	1-3/16	1.188	Add .75" max. to length for terminals.			

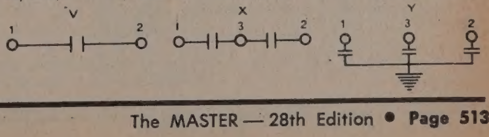
NOTE: Type 60 without bracket; Type 62 with channel bracket, 2 terminals on the top. Type 64 with channel bracket, 2 terminals at the bottom.

NOTE: Type 60 can be furnished with spade (S) or footed (F) bracket. When ordering, state type of bracket desired following Catalog Number. Add $.20 to above price.

NOTE: Type 66 with channel bracket and the terminals at the top; Type 68 with channel bracket and the terminals at the bottom.

NOTE: Overall bracket dimensions for Type 62-64; Length 2-5/16", Width .766". Mounting screw slots center-to-center 1-5/16". Overall bracket dimensions for Type 66-68; Length 2-7/16", Width .640". Mounting screw slots center-to-center 2-1/8".

NOTE: Letter V. X and Y denote electrical circuit as follows:



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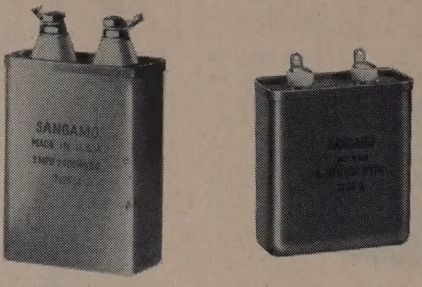
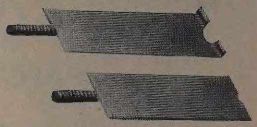
SANGAMO ELECTRIC COMPANY
capacitors

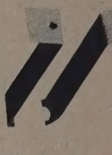
ELECTRONIC COMPONENTS

Type 71 PAPER

SANGAMO Type 71 paper dielectric capacitors are impregnated with Diaclor - a specially compounded, chemically pure, chlorinated dielectric oil, SANGAMO Diaclor is a synthetic impregnant whose characteristics can be controlled with great uniformity and possesses a high dielectric constant, high resistivity, low power factor, high dielectric strength and is non-flammable and non-explosive. The Type 71 is an excellent choice in medium and high voltage circuits where light weight per unit volume is an important factor. Each unit is finished with grey lacquer paint over a zinc chromate under coat. All units are built in accordance with applicable paragraphs of Specification Mil-C-25C. For more complete Engineering information write for catalog 2423.




TYPE A
SPADE BRACKET


TYPE B
FOOTED BRACKET

Catalog Number	Case Size*	Applicable Military Specification	Case Size**	Capacitance μf	Net Price 1-9 †
600 D-C VOLTS					
7106- .5	A1	--------------------	---	.5	$ 2.39
7106-1	S1	--------------------	---	1.0	2.54
7106-2	S3	CP70B1FF205K1	A3	2.0	3.14
7106-4	B2	CP70B1FF405K1	B3	4.0	4.39
7106-6	T4	CP70B1FF605K1	B6	6.0	4.83
7106-8	Y1	CP70B1FF805K1	C2	8.0	6.49
7106-10	C2	CP70B1FF106K1	C4	10.0	6.99
1000 D-C VOLTS					
7110- .1	A1	--------------------	---	.1	$ 2.31
7110- .25	A1	--------------------	---	.25	2.69
7110- .5	S1	--------------------	---	.5	2.78
7110-1	S2	CP70B1FG105K1	A2	1.0	2.83
7110-2	A5	CP70B1FG205K1	A5	2.0	3.60
7110-4	T5	CP70B1FG405K1	B6	4.0	4.98
7110-6	C2	CP70B1FG605K1	C4	6.0	6.19
7110-8	Y3	CP70B1FG805K1	D2	8.0	7.32
7110-10	D4	CP70B1FG106K1	D5	10.0	8.44
7110-12	E3	CP70B1FG126K1	E4	12.0	9.54
7110-15	X1	CP70B1FG156K1	F1	15.0	11.23
1500 D-C VOLTS					
7115- .1	A1	--------------------	---	.5	$ 3.31
7115-1	A4	CP70B1FH105K1	A5	1.0	3.39
7115-2	T3	CP70B1FH205K1	B5	2.0	4.40
7115-4	C3	CP70B1FH405K1	C4	4.0	6.54
7115-6	V2	CP70B1FH605K1	D5	6.0	8.45
7115-8	X1	CP70B1FH805K1	F1	8.0	10.62
7115-10	Y1	CP70B1FH106K1	G2	10.0	12.29
7115-12	G2	CP70B1FH126K1	G2	12.0	12.41
7115-15	Z1	CP70B1FH156K1	J3	15.0	17.07
2000 D-C VOLTS					
7120- .5	A2	--------------------	---	.1	$ 3.99
7120- .25	S1	--------------------	---	.25	4.18
7120- .5	A3	--------------------	---	.5	4.47
7120-1	T2	CP70E1FJ105K1	B3	1.0	5.04
7120-2	U2	CP70E1FJ205K1	C3	2.0	6.27
7120-4	W1	CP70E1FJ405K1	E3	4.0	8.68
7120-6	F1	CP70E1FJ605K1	G1	6.0	11.10
7120-8	G2	CP70E1FJ805K1	G3	8.0	12.95
7120-10	J3	CP70E1FJ106K1	J3	10.0	15.14
7120-12	J4	CP70E1FJ126K1	J5	12.0	17.61
2500 D-C VOLTS					
7125- .5	B2	CP70E1FK504K1	B3	.5	$ 5.97
7125-1	U1	CP70E1FK105K1	D1	1.0	7.10
7125-2	D5	CP70E1FK205K1	D5	2.0	9.71
7125-4	E6	--------------------	---	4.0	13.99
7125-10	J6	CP70E1FK106K1	J8	10.0	26.96
3000 D-C VOLTS					
7130- .1	S1	CP70E1FL104K1	B1	.1	$ 7.64
7130- .25	B1	CP70E1FL254K1	B2	.25	8.13
7130- .5	T4	CP70E1FL504K1	B5	.5	8.90
7130-1	C3	CP70E1FL105K1	E3	1.0	10.51
7130-2	E4	CP70E1FL205K1	G1	2.0	13.69
7130-4	Z1	CP70E1FL405K1	J3	4.0	19.38
4000 D-C VOLTS					
7140- .1	D1	--------------------	---	.1	$ 7.95
7140- .25	D1	CP70E1FM254K1	E1	.25	8.63
7140- .5	V1	CP70E1FM504K1	E3	.5	9.94
7140-1	W2	CP70E1FM105K1	E6	1.0	12.46
7140-2	G4	CP70E1FM205K1	J4	2.0	17.10
7140-4	J8	CP70E1FM405K1	J10	4.0	27.06
5000 D-C VOLTS					
7150- .1	D1	--------------------	---	.1	$ 8.17
7150- .25	D1	--------------------	---	.25	9.04
7150- .5	W2	CP70E1FN504K1	E4	.5	10.79
7150-1	Z1	CP70E1FN105K1	J2	1.0	14.90
7150-2	Z3	CP70E1FN205K1	J6	2.0	22.55
6000 D-C VOLTS					
7160- .1	D1	CP70E1FP104K1	E2	.1	$11.83
7160- .25	D4	CP70E1FP254K1	E4	.25	14.47
7160- .5	E6	CP70E1FP504K1	J2	.5	16.32
7160-1	Z2	CP70E1FP105K1	J9	1.0	21.43
7500 D-C VOLTS					
7175- .1	D2	CP70E1FR104K1	E3	.1	$14.79
7175- .25	E4	CP70E1FR254K1	J1	.25	15.58
7175- .5	Y2	CP70E1FR504K1	J4	.5	17.59

* Key to case sizes

Case Size	Base Dimensions		Can Height	Case Size	Base Dimensions		Can Height	Case Size	Base Dimensions		Can Height
	Width	Thickness			Width	Thickness			Width	Thickness	
A1	1-13/16	1-1/16	1-5/8	E3	3-3/4	2-1/4	3-7/8	S3	1-13/16	1-1/16	2-3/4
A2	1-13/16	1-1/16	2-1/4	E4	3-3/4	2-1/4	4-1/2	T1	2-1/2	1-3/16	2
A3	1-13/16	1-1/16	2-7/8	E6	3-3/4	2-1/4	5-1/8	T2	2-1/2	1-3/16	3-1/4
A4	1-13/16	1-1/16	3-1/4	F1	3-3/4	2-1/2	4-3/4	T3	2-1/2	1-3/16	3-5/8
A5	1-13/16	1-1/16	3-7/8	G1	3-3/4	3-3/16	4-1/2	T4	2-1/2	1-3/16	3-3/4
B1	2-1/2	1-3/16	2-1/2	G2	3-3/4	3-3/16	4-3/4	T5	2-1/2	1-3/16	4-1/8
B2	2-1/2	1-3/16	2-7/8	G3	3-3/4	3-3/16	5-1/8	U1	3-3/4	1-1/4	3-1/4
B3	2-1/2	1-3/16	3-1/2	G4	3-3/4	3-3/16	5-1/2	U2	3-3/4	1-1/4	3-3/4
B5	2-1/2	1-3/16	4-1/4	J1	4-9/16	3-3/4	3-7/8	U3	3-3/4	1-1/4	4-5/8
B6	2-1/2	1-3/16	4-3/4	J2	4-9/16	3-3/4	4-3/8	V1	3-3/4	1-3/4	3-1/2
C2	3-3/4	1-1/4	3-7/8	J3	4-9/16	3-3/4	4-3/4	V2	3-3/4	1-3/4	4-1/2
C3	3-3/4	1-1/4	4-1/4	J4	4-9/16	3-3/4	5-1/8	W1	3-3/4	2-1/4	3-3/4
C4	3-3/4	1-1/4	4-3/4	J5	4-9/16	3-3/4	5-1/2	W2	3-3/4	2-1/4	4-1/4
D1	3-3/4	1-3/4	3-1/4	J6	4-9/16	3-3/4	6	X1	3-3/4	2-1/2	4-5/8
D2	3-3/4	1-3/4	3-7/8	J8	4-9/16	3-3/4	7	Y1	3-3/4	3-3/16	4-1/8
D4	3-3/4	1-3/4	4-1/4	J9	4-9/16	3-3/4	7-1/2	Y2	3-3/4	3-3/16	6
D5	3-3/4	1-3/4	4-3/4	J10	4-9/16	3-3/4	8	Z1	4-9/16	3-3/4	4-1/4
E1	3-3/4	2-1/4	2-3/4	S1	1-13/16	1-1/16	2	Z2	4-9/16	3-3/4	5
E2	3-3/4	2-1/4	3-3/8	S2	1-13/16	1-1/16	2-1/8	Z3	4-9/16	3-3/4	5-3/4

NOTE: All dimensions in inches.

† O.E.M. prices for larger quantities available on request.

NOTE: Spade, footed or wrap-around brackets are available at additional cost. Designate bracket by adding type letter to catalog number. Example: 7106-.5C indicates unit with wrap-around bracket. See illustrations above.

NOTE: Above values and sizes are available in drawn seamless cans, as Type 72 (CP72). Example: 7206-.5A indicates unit in drawn can.

NOTE: All units 1500 d-c volts and below are supplied with riveted silicone rubber bushing solder terminals. All units above 1500 d-c volts are supplied with ceramic pillar terminals with removable solder lugs.

NOTE: Standard capacitive tolerance ±10%.

NOTE: Voltage ratings up to 50 KV available upon request.

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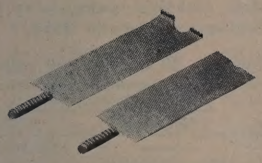
SANGAMO ELECTRIC COMPANY capacitors

ELECTRONIC COMPONENTS

Type 75 *MOTOR-RUN AND BALLAST CAPACITORS*



SPADE BRACKET

SANGAMO Type 75 paper dielectric capacitors are impregnated with Diaclor and designed for continuous A.C. duty in ambient temperatures up to 70°C. They are recommended for use in motor-run, ballast and light-duty power factor correction applications. For more complete engineering information write for Bulletin 2424.

Cat. No.	Capacitance µf	Rated Voltage (d-c volts)	Base Dimension W±1/16	Base Dimension D±1/16	Height H±1/16	Terminal Spacing ±1/16	Net Price 1–9*
7522-1	1	220	1-13/16	1-1/16	1-5/8	13/16	$ 3.80
7522-2	2	220	1-13/16	1-1/16	2-1/4	13/16	4.55
7522-3	3	220	1-13/16	1-1/16	2-7/8	13/16	4.84
7522-3.75	3.75	220	1-13/16	1-1/16	3-1/4	13/16	5.20
7522-4	4	220	1-13/16	1-1/16	3-1/4	13/16	5.32
7522-5	5	220	2-1/2	1-3/16	2-7/8	1-1/8	5.61
7522-6	6	220	2-1/2	1-3/16	3-1/2	1-1/8	6.22
7522-7.5	7.5	220	2-1/2	1-3/16	3-7/8	1-1/8	7.24
7522-8	8	220	2-1/2	1-3/16	3-7/8	1-1/8	7.44
7522-10	10	220	2-1/2	1-3/16	4-3/4	1-1/8	8.56
7522-12	12	220	3-3/4	1-1/4	3-7/8	2	9.79
7522-15	15	220	3-3/4	1-1/4	4-1/4	2	10.21
7522-20	20	220	3-3/4	1-3/4	4	2	16.01
7522-25	25	220	3-3/4	2-1/4	4-1/8	2	20.01
7533-1	1	330	1-13/16	1-1/16	2-1/8	13/16	4.00
7533-2	2	330	1-13/16	1-1/16	2-7/8	13/16	4.65
7533-3	3	330	1-13/16	1-1/16	3-7/8	13/16	5.32
7533-4	4	330	1-13/16	1-1/16	4-3/4	13/16	6.01
7533-5	5	330	2-1/2	1-3/16	3-1/2	1-1/8	6.66
7533-6	6	330	2-1/2	1-3/16	3-7/8	1-1/8	7.34
7533-7	7	330	3-3/4	1-1/4	3-1/4	2	8.01
7533-9	9	330	3-3/4	1-1/4	3-7/8	2	9.39
7533-10	10	330	3-3/4	1-1/4	3-7/8	2	10.01
7533-12	12	330	3-3/4	1-3/4	3-7/8	2	12.00
7533-15	15	330	3-3/4	1-3/4	4-1/4	2	13.33
7533-20	20	330	3-3/4	2-1/4	4-1/2	2	15.99
7533-25	25	330	3-3/4	2-1/2	4-3/4	2	20.01
7533-30	30	330	3-3/4	3-3/16	4-1/2	2	24.16

Cat. No.	Capacitance µf	Rated Voltage (d-c volts)	Base Dimension W±1/16	Base Dimension w±1/16	Height H±1/16	Terminal Spacing ±1/16	Net Price 1–9*
7544-1	1	440	1-13/16	1-1/16	2-1/4	13/16	$ 4.43
7544-2	2	440	1-13/16	1-1/16	3-1/4	13/16	5.63
7544-3	3	440	1-13/16	1-1/16	4-3/4	13/16	6.55
7544-3.75	3.75	440	2-1/2	1-3/16	3-7/8	1-1/8	6.79
7544-4	4	440	2-1/2	1-3/16	3-7/8	1-1/8	6.88
7544-5	5	440	2-1/2	1-3/16	4-3/4	1-1/8	8.01
7544-6	6	440	3-3/4	1-1/4	4-1/8	2	8.93
7544-8	8	440	3-3/4	1-1/4	4-1/4	2	10.12
7544-10	10	440	3-3/4	2-1/4	3-3/8	2	11.30
7544-12	12	440	3-3/4	2-1/4	3-7/8	2	12.49
7544-15	15	440	3-3/4	2-1/4	4-1/2	2	13.65
7544-20	20	440	3-3/4	3-3/16	4-1/8	2	16.51
7544-25	25	440	3-3/4	3-3/16	4-3/4	2	20.37
7544-30	30	440	3-3/4	3-3/16	5-1/2	2	24.39
7566-1	1	660	1-13/16	1-1/16	3-7/8	13/16	4.83
7566-2	2	660	2-1/2	1-3/16	3-7/8	1-1/8	6.07
7566-4	4	660	3-3/4	1-1/4	4-3/4	2	7.52
7566-5	5	660	3-3/4	1-3/4	4-1/4	2	8.65
7566-6	6	660	3-3/4	1-3/4	4-3/4	2	9.35
7566-8	8	660	3-3/4	2-1/4	3-7/8	2	11.30
7566-10	10	660	3-3/4	3-3/16	4-1/8	2	13.13

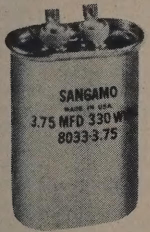
NOTE: All units supplied with riveted silicone rubber bushing terminals with solder lugs. Cup type terminal insulator available at no extra cost.

NOTE: Standard Tolerance ±10%.

NOTE: Spade type, footed or universal wrap-around bracket can be furnished at additional cost.

*O.E.M. prices for larger quantities are available on request.

Type 80 *MOTOR RUN AND BALLAST CAPACITORS*



The SANGAMO Type 80 paper dielectric capacitor is designed for continuous duty in flourescent-light ballast, heating, ventilating and air conditioning motor run applications. These units are impregnated with Diaclor and hermetically sealed in drawn oval metal containers. For more complete engineering information write for Bulletin 2424.

Catalog Number	Capacitance µf	Rated Voltage (d-c volts)	Base Dimension W±1/16	Base Dimension D±1/16	Height H±1/16	Net Price 1–9*
8022-2	2	236	2-1/16	1-1/4	2-1/4	$ 2.86
8022-3	3	236	2-1/16	1-1/4	2-1/4	2.99
8022-4	4	236	2-1/16	1-1/4	2-7/8	3.26
8022-5	5	236	2-1/16	1-1/4	2-7/8	3.65
8022-6	6	236	2-1/16	1-1/4	3-3/4	4.40
8022-7.5	7.5	236	2-13/16	2-1/8	2-17/32	6.44
8022-10	10	236	2-13/16	2-1/8	3-1/32	7.46
8022-15	15	236	2-13/16	2-1/8	4-5/32	8.09
8022-20	20	236	2-13/16	2-1/8	4-7/8	11.77
8033-2	2	330	2-1/16	1-1/4	2-1/4	3.10
8033-3	3	330	2-1/16	1-1/4	2-7/8	3.14
8033-3.75	3.75	330	2-1/16	1-1/4	3-1/8	3.25
8033-4	4	330	2-1/16	1-1/4	3-1/8	3.26
8033-5	5	330	2-1/16	1-1/4	3-3/4	4.19
8033-6	6	330	2-1/16	1-1/4	3-3/4	5.34
8033-7	7	330	2-13/16	2-1/8	3-1/32	6.38
8033-7.5	7.5	330	2-13/16	2-1/8	3-1/32	6.74
8033-8	8	330	2-13/16	2-1/8	3-3/8	7.02
8033-10	10	330	2-13/16	2-1/8	3-3/8	7.54
8033-12.5	12.5	330	2-13/16	2-1/8	4-5/32	7.95
8033-14.5	14.5	330	2-13/16	2-1/8	4-21/32	8.09
8033-15	15	330	2-13/16	2-1/8	4-21/32	9.13
8033-17.5	17.5	330	2-13/16	2-1/8	5-3/16	9.90

Catalog Number	Capacitance µf	Rated Voltage (d-c volts)	Base Dimension W±1/16	Base Dimension D±1/16	Height H±1/16	Net Price 1–9*
8033-20	20	330	2-13/16	2-1/8	5-3/16	$11.94
8044-2	2	440	2-1/16	1-1/4	2-1/4	3.80
8044-3	3	440	2-1/16	1-1/4	3-1/8	4.04
8044-4	4	440	2-1/16	1-1/4	3-3/4	4.49
8044-5	5	440	2-13/16	2-1/8	2-17/32	5.63
8044-6	6	440	2-13/16	2-1/8	2-25/32	6.63
8044-7	7	440	2-13/16	2-1/8	3-13/32	7.15
8044-7.5	7.5	440	2-13/16	2-1/8	3-13/32	7.28
8044-8	8	440	2-13/16	2-1/8	3-25/32	7.80
8044-10	10	440	2-13/16	2-1/8	4-5/32	7.92
8044-12.5	12.5	440	2-13/16	2-1/8	5-3/16	9.27
8044-15	15	440	2-13/16	2-1/8	6-1/4	11.00
8066-1	1	660	2-1/16	1-1/4	2-1/4	3.52
8066-2	2	660	2-1/16	1-1/4	3-3/4	4.98
8066-3	3	660	2-13/16	2-1/8	2-25/32	5.92
8066-4	4	660	2-13/16	2-1/8	3-3/8	7.26
8066-5	5	660	2-13/16	2-1/8	4-5/32	8.25
8066-6	6	660	2-13/16	2-1/8	4-21/32	9.57

NOTE: All units supplied with riveted silicone rubber bushing terminals with solder lugs. Cup type terminal insulator available at no extra cost.

NOTE: Standard Tolerance ±10%.

NOTE: Add 3/32" to above dimensions for lip on can.

*O.E.M. prices for larger quantities are available on request.

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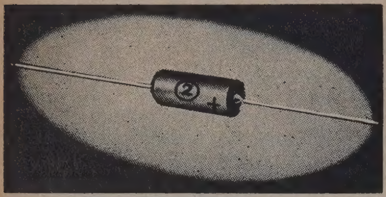
SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS



- Combine True Miniaturization with Characteristics Previously Unobtainable in Electrolytic Capacitors.
- Hermetically Sealed Metal Case.
- Solid Electrolyte Cannot Leak or Corrode, Even if Hermetic Seal is Accidentally Broken.
- Exhibit Stable Capacitance and Low Dissipation Factor over Temperature Range of —80°C to +85°C. With Appropriate Voltage Derating, May Be Operated to +125°C.
- Listed Units have Plastic Sleeves. For Bare Case, end Cat. No. in "0" instead of "2."
- For complete technical data, refer to latest issue of Engineering Bulletin 3520.
- Also available in 60 and 75 volt ratings.

µF	Size Code	Catalog Number	
		±20% Tol.	±10% Tol.
6 WVDC — 8 VDC SURGE			
.22	A	150D224X0006A2	150D224X9006A2
.27	A	———	150D274X9006A2
.33	A	150D334X0006A2	150D334X9006A2
.39	A	———	150D394X9006A2
.47	A	150D474X0006A2	150D474X9006A2
.56	A	———	150D564X9006A2
.68	A	150D684X0006A2	150D684X9006A2
.82	A	———	150D824X9006A2
1.0	A	150D105X0006A2	150D105X9006A2
1.2	A	———	150D125X9006A2
1.5	A	150D155X0006A2	150D155X9006A2
1.8	A	———	150D185X9006A2
2.2	A	150D225X0006A2	150D225X9006A2
2.7	A	———	150D275X9006A2
3.3	A	150D335X0006A2	150D335X9006A2
3.9	A	———	150D395X9006A2
4.7	A	150D475X0006A2	150D475X9006A2
5.6	A	———	150D565X9006A2
6.8	A	150D685X0006A2	150D685X9006A2
8.2	B	———	150D825X9006B2
10	B	150D106X0006B2	150D106X9006B2
12	B	———	150D126X9006B2
15	B	150D156X0006B2	150D156X9006B2
18	B	———	150D186X9006B2
22	B	150D226X0006B2	150D226X9006B2
27	B	———	150D276X9006B2
33	B	150D336X0006B2	150D336X9006B2
39	B	———	150D396X9006B2
47	B	150D476X0006B2	150D476X9006B2
56	B	———	150D566X9006B2
60	B	150D606X0006B2	150D606X9006B2
68	R	150D686X0006R2	150D686X9006R2
82	R	———	150D826X9006R2
100	R	150D107X0006R2	150D107X9006R2
120	R	150D127X0006R2	150D127X9006R2
150	R	150D157X0006R2	150D157X9006R2
180	R	150D187X0006S2	150D187X9006R2
220	S	150D227X0006S2	150D227X9006S2
270	S	———	150D227X9006S2
330	S	150D337X0006S2	150D337X9006S2
10 WVDC — 13 VDC SURGE			
.22	A	150D224X0010A2	150D224X9010A2
.27	A	———	150D274X9010A2
.33	A	150D334X0010A2	150D334X9010A2
.39	A	———	150D394X9010A2
.47	A	150D474X0010A2	150D474X9010A2
.56	A	———	150D564X9010A2
.68	A	150D684X0010A2	150D684X9010A2
.82	A	———	150D824X9010A2
1.0	A	150D105X0010A2	150D105X9010A2
1.2	A	———	150D125X9010A2
1.5	A	150D155X0010A2	150D155X9010A2
1.8	A	———	150D185X9010A2
2.2	A	150D225X0010A2	150D225X9010A2
2.7	A	———	150D275X9010A2
3.3	A	150D335X0010A2	150D335X9010A2
3.9	A	———	150D395X9010A2
4.7	A	150D475X0010A2	150D475X9010A2
5.6	B	———	150D565X9010B2
6.8	B	150D685X0010B2	150D685X9010B2
8.2	B	———	150D825X9010B2
10	B	150D106X0010B2	150D106X9010B2
12	B	———	150D126X9010B2
15	B	150D156X0010B2	150D156X9010B2
18	B	———	150D186X9010B2
22	B	150D226X0010B2	150D226X9010B2
27	B	———	150D276X9010B2
33	B	150D336X0010B2	150D336X9010B2
39	B	———	150D396X9010B2
40	B	150D406X0010B2	150D406X9010B2
47	R	150D476X0010R2	150D476X9010R2
56	R	———	150D566X9010R2
68	R	150D686X0010R2	150D686X9010R2
82	R	———	150D826X9010R2
100	R	150D107X0010R2	150D107X9010R2
120	R	150D127X0010R2	150D127X9010R2
150	S	150D157X0010S2	150D157X9010S2
180	S	———	150D187X9010S2
220	S	150D227X0010S2	150D227X9010S2
15 WVDC — 18 VDC SURGE			
.22	A	150D224X0015A2	150D224X9015A2
.27	A	———	150D274X9015A2
.33	A	150D334X0015A2	150D334X9015A2
.39	A	———	150D394X9015A2
.47	A	150D474X0015A2	150D474X9015A2
.56	A	———	150D564X9015A2
.68	A	150D684X0015A2	150D684X9015A2
.82	A	———	150D824X9015A2
1.0	A	150D105X0015A2	150D105X9015A2
1.2	A	———	150D125X9015A2
1.5	A	150D155X0015A2	150D155X9015A2
1.8	A	———	150D185X9015A2
2.2	A	150D225X0015A2	150D225X9015A2
2.7	A	———	150D275X9015A2
3.3	A	150D335X0015A2	150D335X9015A2
3.9	B	———	150D395X9015B2
4.7	B	150D475X0015B2	150D475X9015B2
5.6	B	———	150D565X9015B2
6.8	B	150D685X0015B2	150D685X9015B2
8.2	B	———	150D825X9015B2
10	B	150D106X0015B2	150D106X9015B2
12	B	———	150D126X9015B2
15	B	150D156X0015B2	150D156X9015B2
18	B	———	150D186X9015B2
22	B	150D226X0015B2	150D226X9015B2
27	B	———	150D276X9015B2
33	R	150D336X0015R2	150D336X9015R2
39	R	———	150D396X9015R2
47	R	150D476X0015R2	150D476X9015R2
56	R	———	150D566X9015R2
68	R	150D686X0015R2	150D686X9015R2
82	S	———	150D826X9015S2
100	S	150D107X0015S2	150D107X9015S2
120	S	———	150D127X9015S2
150	S	150D157X0015S2	150D157X9015S2
20 WVDC — 23 VDC SURGE			
.0047	A	150D472X0020A2	150D472X9020A2
.0056	A	———	150D562X9020A2
.0068	A	150D682X0020A2	150D682X9020A2
.0082	A	———	150D822X9020A2
.01	A	150D103X0020A2	150D103X9020A2
.012	A	———	150D123X9020A2
.015	A	150D153X0020A2	150D153X9020A2
.018	A	———	150D183X9020A2
.022	A	150D223X0020A2	150D223X9020A2
.027	A	———	150D273X9020A2
.033	A	150D333X0020A2	150D333X9020A2
.039	A	———	150D393X9020A2
.047	A	150D473X0020A2	150D473X9020A2
.056	A	———	150D563X9020A2
.068	A	150D683X0020A2	150D683X9020A2
.082	A	———	150D823X9020A2
.1	A	150D104X0020A2	150D104X9020A2
.12	A	———	150D124X9020A2
.15	A	150D154X0020A2	150D154X9020A2
.18	A	———	150D184X9020A2
.22	A	150D224X0020A2	150D224X9020A2
.27	A	———	150D274X9020A2
.33	A	150D334X0020A2	150D334X9020A2
.39	A	———	150D394X9020A2
.47	A	150D474X0020A2	150D474X9020A2
.56	A	———	150D564X9020A2
.68	A	150D684X0020A2	150D684X9020A2
.82	A	———	150D824X9020A2
1.0	A	150D105X0020A2	150D105X9020A2
1.2	A	———	150D125X9020A2
1.5	A	150D155X0020A2	150D155X9020A2
1.8	A	———	150D185X9020A2
2.2	A	150D225X0020A2	150D225X9020A2
2.7	B	———	150D275X9020B2
3.3	B	150D335X0020B2	150D335X9020B2
3.9	B	———	150D395X9020B2
4.7	B	150D475X0020B2	150D475X9020B2
5.6	B	———	150D565X9020B2
6.8	B	150D685X0020B2	150D685X9020B2
8.2	B	———	150D825X9020B2
10	B	150D106X0020B2	150D106X9020B2
12	B	———	150D126X9020B2
15	B	150D156X0020B2	150D156X9020B2
18	R	———	150D186X9020R2
22	R	150D226X0020R2	150D226X9020R2
27	R	———	150D276X9020R2
33	R	150D336X0020R2	150D336X9020R2
39	R	———	150D396X9020R2
47	R	150D476X0020R2	150D476X9020R2
56	S	———	150D566X9020S2
68	S	150D686X0020S2	150D686X9020S2
82	S	———	150D826X9020S2
100	S	150D107X0020S2	150D107X9020S2
35 WVDC — 40 VDC SURGE			
.0047	A	150D472X0035A2	150D472X9035A2
.0056	A	———	150D562X9035A2
.0068	A	150D682X0035A2	150D682X9035A2
.0082	A	———	150D822X9035A2
.01	A	150D103X0035A2	150D103X9035A2
.012	A	———	150D123X9035A2
.015	A	150D153X0035A2	150D153X9035A2
.018	A	———	150D183X9035A2
.022	A	150D223X0035A2	150D223X9035A2
.027	A	———	150D273X9035A2
.033	A	150D333X0035A2	150D333X9035A2
.039	A	———	150D393X9035A2
.047	A	150D473X0035A2	150D473X9035A2
.056	A	———	150D563X9035A2
.068	A	150D683X0035A2	150D683X9035A2
.082	A	———	150D823X9035A2
.10	A	150D104X0035A2	150D104X9035A2
.12	A	———	150D124X9035A2
.15	A	150D154X0035A2	150D154X9035A2
.18	A	———	150D184X9035A2
.22	A	150D224X0035A2	150D224X9035A2
.27	A	———	150D274X9035A2
.33	A	150D334X0035A2	150D334X9035A2
.39	A	———	150D394X9035A2
.47	A	150D474X0035A2	150D474X9035A2
.56	A	———	150D564X9035A2
.68	A	150D684X0035A2	150D684X9035A2
.82	A	———	150D824X9035A2
1.0	A	150D105X0035A2	150D105X9035A2
1.2	B	———	150D125X9035B2
1.5	B	150D155X0035B2	150D155X9035B2
1.8	B	———	150D185X9035B2
2.2	B	150D225X0035B2	150D225X9035B2
2.7	B	———	150D275X9035B2
3.3	B	150D335X0035B2	150D335X9035B2
3.9	B	———	150D395X9035B2
4.7	B	150D475X0035B2	150D475X9035B2
5.6	B	———	150D565X9035B2
6.8	B	150D685X0035B2	150D685X9035B2
8.2	R	———	150D825X9035R2
10	R	150D106X0035R2	150D106X9035R2
12	R	———	150D126X9035R2
15	R	150D156X0035R2	150D156X9035R2
18	R	———	150D186X9035R2
22	R	150D226X0035R2	150D226X9035R2
27	S	———	150D276X9035S2
33	S	150D336X0035S2	150D336X9035S2
39	S	———	150D396X9035S2
47	S	150D476X0035S2	150D476X9035S2

DIMENSIONS

Code	D. x L.
A	.104" x .312"
B	.190" x .500"
R	.285" x .759"
S	.347" x .859"

Call your Sprague Industrial Distributor for Current Quantity Prices

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REM-1-6330

Sizes subject to change without notice.

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SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS (Cont.) 50 VOLT UNITS

	Size	Catalog Number	
µF	Code	±20% Tol.	10±% Tol.
.0047	A	150D472X005A0	150D472X9050A0
.0056	A	—	150D562X9050A0
.0068	A	150D682X005A0	150D682X9050A0
.0082	A	—	150D822X9050A0
.01	A	150D103X0050A0	150D103X9050A0
.012	A	—	150D123X9050A0
.015	A	150D153X0050A0	150D153X9050A0
.018	A	—	150D183X9050A0
.022	A	150D223X0050A0	150D223X9050A0
.027	A	—	150D273X9050A0
.033	A	150D333X0050A0	150D333X9050A0
.039	A	—	150D393X9050A0
.047	A	150D473X0050A0	150D473X9050A0
.056	A	—	150D563X9050A0
.068	A	150D683X0050A0	150D683X9050A0
.082	A	—	150D823X9050A0
.1	A	150D104X0050A0	150D104X9050A0
.12	A	—	150D124X9050A0
.15	A	150D154X0050A0	150D154X9050A0
.18	A	—	150D184X9050A0
.22	A	150D224X0050A0	150D224X9050A0
.27	A	—	150D274X9050A0
.33	A	150D334X0050A0	150D334X9050A0
.39	A	—	150D394X9050A0
.47	A	150D474X0050A0	150D474X9050A0
.56	A	—	150D564X9050A0
.68	A	150D684X0050A0	150D684X9050A0
.82	A	—	150D824X9050A0
1.0	A	150D105X0050A0	150D105X9050A0
1.2	A	—	150D125X9050B0
1.5	B	150D155X0050B0	150D155X9050B0
1.8	B	—	150D185X9050B0
2.2	B	150D225X0050B0	150D225X9050B0
2.7	B	—	150D275X9050B0
3.3	B	150D335X0050B0	150D335X9050B0
3.9	B	—	150D395X9050B0
4.7	B	150D475X0050B0	150D475X9050B0
5.6	R	—	150D565X9050R0
6.8	R	150D685X0050R0	150D685X9050R0
8.2	R	—	150D825X9050R0
10	R	150D106X0050R0	150D106X9050R0
12	R	—	150D126X9050R0
15	R	150D156X0050R0	150D156X9050R0
18	R	—	150D186X9050R0
22	S	150D226X0050S0	150D226X9050S0

FOR CURRENT QUANTITY PRICES SEE YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR

TYPE 172D METAL-CLAD HERMETICALLY SEALED SOLID ELECTROLYTE TANTALEX® CAPACITORS

- Ultra-miniature Cordwood-size Tantalum Capacitors With Performance Characteristics Identical to Standard-size Sprague Type 150D Units.
- Superior High Frequency Performance, Lower Leakage Current Values and Dissipation Factor Limits.
- Glass-to-Metal Hermetic Seal, Tinned Nickel Cathode Lead, Tinned Kovar Anode Lead.
- Cordwood Size Allows Circuit Designer to Make Maximum Use of This Packaging Concept. Units Listed Have Plastic Insulating Sleeve. For Bare Can Units, Change Last Digit of Cat. No. to "O."

SIZE CODE	Bare Can	Plastic Sleeve
J	== .085 D x .250 L	.090 D x .250 L
L	== .127 D x .375 L	.138 D x .390 L

6 VOLTS D-C, 8 VDC SURGE

	Size	Catalog Number	
µF	Code	±20% Tol.	10±% Tol.
.22	J	224X0006J2	224X9006J2
.27	J	—	274X9006J2
.33	J	334X0006J2	334X9006J2
.39	J	—	394X9006J2
.47	J	474X0006J2	474X9006J2
.56	J	—	564X9006J2
.68	J	684X0006J2	684X9006J2
.82	J	—	824X9006J2
1.0	J	105X0006J2	105X9006J2
1.2	J	—	125X9006J2
1.5	J	155X0006J2	155X9006J2
1.8	L	—	185X9006L2
2.2	L	225X0006L2	225X9006L2
2.7	L	—	275X9006L2
3.3	L	335X0006L2	335X9006L2
3.9	L	—	395X9006L2
4.7	L	475X0006L2	475X9006L2
5.6	L	—	565X9006L2
6.8	L	685X0006L2	685X9006L2
8.2	L	—	825X9006L2
10	L	106X0006L2	106X9006L2
12	L	—	126X9006L2
15	L	156X0006L2	156X9006L2

10 VOLTS D-C, 13 VDC SURGE

µF	Size Code	±20% Tol.	10±% Tol.
.22	J	224X0010J2	224X9010J2
.27	J	—	274X9010J2
.33	J	334X0010J2	334X9010J2
.39	J	—	394X9010J2
.47	J	474X0010J2	474X9010J2
.56	J	—	564X9010J2
.68	J	684X0010J2	684X9010J2
.82	J	—	824X9010J2
1.0	L	105X0010L2	105X9010L2
1.2	L	—	125X9010L2
1.5	L	155X0010L2	155X9010L2
1.8	L	—	185X9010L2
2.2	L	225X0010L2	225X9010L2
2.7	L	—	275X9010L2
3.3	L	335X0010L2	335X9010L2
3.9	L	—	395X9010L2
4.7	L	475X0010L2	475X9010L2
5.6	L	—	565X9010L2
6.8	L	685X0010L2	685X9010L2
8.2	L	—	825X9010L2

15 VOLTS D-C, 20 VDC SURGE

µF	Size Code	±20% Tol.	10±% Tol.
.22	J	224X0015J2	224X9015J2
.27	J	—	274X9015J2
.33	J	334X0015J2	334X9015J2
.39	J	—	394X9015J2
.47	J	474X0015J2	474X9015J2
.56	J	—	564X9015J2
.68	L	684X0015L2	684X9015L2
.82	L	—	824X9015L2
1.0	L	105X0015L2	105X9015L2
1.2	L	—	125X9015L2
1.5	L	155X0015L2	155X9015L2
1.8	L	—	185X9015L2
2.2	L	225X0015L2	225X9015L2
2.7	L	—	275X9015L2
3.3	L	335X0015L2	335X9015L2
3.9	L	—	395X9015L2
4.7	L	475X0015L2	475X9015L2
5.6	L	—	565X9015L2

20 VOLTS D-C, 26 VDC SURGE

µF	Size Code	±20% Tol.	10±% Tol.
.047	J	473X0020J2	473X9020J2
.056	J	—	563X9020J2
.068	J	683X0020J2	683X9020J2
.082	J	—	823X9020J2
.1	J	104X0020J2	104X9020J2
.12	J	—	124X9020J2
.15	J	154X0020J2	154X9020J2
.18	J	—	184X9020J2
.22	J	224X0020J2	224X9020J2
.27	J	—	274X9020J2
.33	J	334X0020J2	334X9020J2
.39	J	—	394X9020J2
.47	L	474X0020L2	474X9020L2
.56	L	—	564X9020L2
.68	L	684X0020L2	684X9020L2
.82	L	—	824X9020L2
1.0	L	105X0020L2	105X9020L2
1.2	L	—	125X9020L2
1.5	L	155X0020L2	155X9020L2
1.8	L	—	185X9020L2
2.2	L	225X0020L2	225X9020L2
2.7	L	—	275X9020L2
3.3	L	335X0020L2	335X9020L2

35 VOLTS D-C, 46 VDC SURGE

µF	Size Code	±20% Tol.	10±% Tol.
.047	J	473X0035J2	473X9035J2
.056	J	—	563X9035J2
.068	J	683X0035J2	683X9035J2
.082	J	—	823X9035J2
.1	J	104X0035J2	104X9035J2
.12	J	—	124X9035J2
.15	J	154X0035J2	154X9035J2
.18	L	—	184X9035L2
.22	L	224X0035L2	224X9035L2
.27	L	—	274X9035L2
.33	L	334X0035L2	334X9035L2
.39	L	—	394X9035L2
.47	L	474X0035L2	474X9035L2
.56	L	—	564X9035L2
.68	L	684X0035L2	684X9035L2
.82	L	—	824X9035L2
1.0	L	105X0035L2	105X9035L2
1.2	L	—	125X9035L2
1.5	L	155X0035L2	155X9035L2

50 VOLTS D-C, 65 VDC SURGE

µF	Size Code	±20% Tol.	10±% Tol.
.047	J	473X0050J2	473X9050J2
.056	J	—	563X9050J2
.068	J	683X0050J2	683X9050J2
.082	J	—	823X9050J2
.1	J	104X0050J2	104X9050J2
.12	J	—	124X9050J2
.15	J	154X0050J2	154X9050J2
.18	L	—	184X9050L2
.22	L	224X0050L2	224X9050L2
.27	L	—	274X9050L2
.33	L	334X0050L2	334X9050L2
.39	L	—	394X9050L2
.47	L	474X0050L2	474X9050L2
.56	L	—	564X9050L2
.68	L	684X0050L2	684X9050L2
.82	L	—	824X9050L2
1.0	L	105X0050L2	105X9050L2
1.2	L	—	125X9050L2

75 VOLTS D-C, 97 VDC SURGE

µF	Size Code	±20% Tol.	10±% Tol.
.047	J	473X0075J2	473X9075J2
.056	J	—	563X9075J2
.068	J	683X0075J2	683X9075J2
.082	J	—	823X9075J2
.1	J	104X0075J2	104X9075J2
.12	L	—	124X9075L2
.15	L	154X0075L2	154X9075L2
.18	L	—	184X9075L2
.22	L	224X0075L2	224X9075L2
.27	L	—	274X9075L2
.33	L	334X0075L2	334X9075L2
.39	L	—	394X9075L2
.47	L	474X0075L2	474X9075L2
.56	L	—	564X9075L2
.68	L	684X0075L2	684X9075L2
.82	L	—	824X9075L2

FOR CURRENT QUANTITY PRICES SEE YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR

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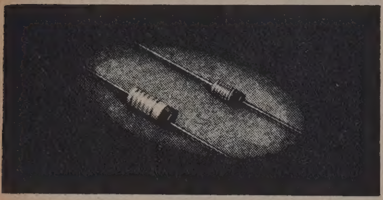
SPRAGUE CAPACITORS

TYPE 165D SOLID-ELECTROLYTE TANTALEX® CAPACITORS

IN POLYESTER FILM TUBES



- Ultra-miniature Solid-electrolyte Tantalum Cordwood Capacitors Especially Designed for use in Multiple Component Packages or Blocks.
- Housed in Polyester-film Sleeving, Sealed by Epoxy Resin. Have Tinned Nickel Leads. Intended for Use in Encapsulated Blocks or Hermetically-sealed Metal Cases.
- Hermetically-sealed Version of This Capacitor is Sprague Type 172D.
- For Complete Technical Data, see Latest Issue of Sprague Engineering Bulletin No. 3535.

DIMENSIONS	
CODE	D. x L.
J	.090" x .250"
L	.138" x .390"

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

	Size	Catalog Number	
µF	Code	±20% Tol.	±10% Tol.
6 VOLTS D-C, 8 VDC SURGE			
.22	J	165D224X0006J	165D224X9006J
.27	J	—	165D274X9006J
.33	J	165D334X0006J	165D334X9006J
.39	J	—	165D394X9006J
.47	J	165D474X0006J	165D474X9006J
.56	J	—	165D564X9006J
.68	J	165D684X0006J	165D684X9006J
.82	J	—	165D824X9006J
1.0	J	165D105X0006J	165D105X9006J
1.2	J	—	165D125X9006J
1.5	J	165D155X0006J	165D155X9006J
1.8	J	—	165D185X9006J
2.2	J	165D225X0006J	165D225X9006J
2.7	J	—	165D275X9006J
3.3	J	165D335X0006J	165D335X9006J
3.9	J	—	165D395X9006J
4.7	J	165D475X0006J	165D475X9006J
5.6	J	—	165D565X9006J
6.8	L	165D685X0006L	165D685X9006L
8.2	L	—	165D825X9006L
10	L	165D106X0006L	165D106X9006L
12	L	—	165D126X9006L
15	L	165D156X0006L	165D156X9006L
18	L	—	165D186X9006L
22	L	165D226X0006L	165D226X9006L
27	L	—	165D276X9006L
33	L	165D336X0006L	165D336X9006L
10 VOLTS D-C, 13 VDC SURGE			
.22	J	165D224X0010J	165D224X9010J
.27	J	—	165D274X9010J
.33	J	165D334X0010J	165D334X9010J
.39	J	—	165D394X9010J
.47	J	165D474X0010J	165D474X9010J
.56	J	—	165D564X9010J
.68	J	165D684X0010J	165D684X9010J
.82	J	—	165D824X9010J
1.0	J	165D105X0010J	165D105X9010J
1.2	J	—	165D125X9010J
1.5	J	165D155X0010J	165D155X9010J
1.8	J	—	165D185X9010J
2.2	J	165D225X0010J	165D225X9010J
2.7	J	—	165D275X9010J
3.3	J	165D335X0010J	165D335X9010J
3.9	L	—	165D395X9010L
4.7	L	165D475X0010L	165D475X9010L
5.6	L	—	165D565X9010L
6.8	L	165D685X0010L	165D685X9010L
8.2	L	—	165D825X9010L
10	L	165D106X0010L	165D106X9010L
12	L	—	165D126X9010L
15	L	165D156X0010L	165D156X9010L
18	L	—	165D186X9010L
15 VOLTS D-C, VDC SURGE			
.22	J	165D224X0015J	165D224X9015J
.27	J	—	165D274X9015J
.33	J	165D334X0015J	165D334X9015J
.39	J	—	165D394X9015J
.47	J	165D474X0015J	165D474X9015J
.56	J	—	165D564X9015J
.68	J	165D684X0015J	165D684X9015J
.82	J	—	165D824X9015J
1.0	J	165D105X0015J	165D105X9015J
1.2	J	—	165D125X9015J
1.5	J	165D155X0015J	165D155X9015J
1.8	J	—	165D185X9015J
2.2	L	165D225X0015L	165D225X9015L
2.7	L	—	165D275X9015L
3.3	L	165D335X0015L	165D335X9015L
3.9	L	—	165D395X9015L
4.7	L	165D475X0015L	165D475X9015L
5.6	L	—	165D565X9015L
6.8	L	165D685X0015L	165D685X9015L
8.2	L	—	165D825X9015L
10	L	165D106X0015L	165D106X9015L
20 VOLTS D-C, 26 VDC SURGE			
.0047	J	165D472X0020J	165D472X9020J
.0056	J	—	165D562X9020J
.0068	J	165D682X0020J	165D682X9020J
.0082	J	—	165D822X9020J
.01	J	165D103X0020J	165D103X9020J
.012	J	—	165D123X9020J
.015	J	165D153X0020J	165D153X9020J
.018	J	—	165D183X9020J
.022	J	165D223X0020J	165D223X9020J
.027	J	—	165D273X9020J
.033	J	165D333X0020J	165D333X9020J
.039	J	—	165D393X9020J
.047	J	165D473X0020J	165D473X9020J
.056	J	—	165D563X9020J
.068	J	165D683X0020J	165D683X9020J
.082	J	—	165D823X9020J
.1	J	165D104X0020J	165D104X9020J
.12	J	—	165D124X9020J
.15	J	165D154X0020J	165D154X9020J
.18	J	—	165D184X9020J
.22	J	165D224X0020J	165D224X9020J
.27	J	—	165D274X9020J
.33	J	165D334X0020J	165D334X9020J
.39	J	—	165D394X9020J
.47	J	165D474X0020J	165D474X9020J
.56	J	—	165D564X9020J
.68	J	165D684X0020J	165D684X9020J
.82	J	—	165D824X9020J
1.0	J	165D105X0020J	165D105X9020J
1.2	J	—	165D125X9020J
1.5	L	165D155X0020L	165D155X9020L
1.8	L	—	165D185X9020L
2.2	L	165D225X0020L	165D225X9020L
2.7	L	—	165D275X9020L
3.3	L	165D335X0020L	165D335X9020L
3.9	L	—	165D395X9020L
4.7	L	165D475X0020L	165D475X9020L
5.6	L	—	165D565X9020L
6.8	L	165D685X0020L	165D685X9020L
35 VOLTS D-C, 46 VDC SURGE			
.0047	J	165D472X0035J	165D472X9035J
.0056	J	—	165D562X9035J
.0068	J	165D682X0035J	165D682X9035J
.0082	J	—	165D822X9035J
.01	J	165D103X0035J	165D103X9035J
.012	J	—	165D123X9035J
.015	J	165D153X0035J	165D153X9035J
.018	J	—	165D183X9035J
.022	J	165D223X0035J	165D223X9035J
.027	J	—	165D273X9035J
.033	J	165D333X0035J	165D333X9035J
.039	J	—	165D393X9035J
.047	J	165D473X0035J	165D473X9035J
.056	J	—	165D563X9035J
.068	J	165D683X0035J	165D683X9035J
.082	J	—	165D823X9035J
.1	J	165D104X0035J	165D104X9035J
.12	J	—	165D124X9035J
.15	J	165D154X0035J	165D154X9035J
.18	J	—	165D184X9035J
.22	J	165D224X0035J	165D224X9035J
.27	J	—	165D274X9035J
.33	J	165D334X0035J	165D334X9035J
.39	J	—	165D394X9035J
.47	J	165D474X0035J	165D474X9035J
.56	J	—	165D564X9035J
.68	L	165D684X0035L	165D684X9035L
.82	L	—	165D824X9035L
1.0	L	165D105X0035L	165D105X9035L
1.2	L	—	165D125X9035L
1.5	L	165D155X0035L	165D155X9035L
1.8	L	—	165D185X9035L
2.2	L	165D225X0035L	165D225X9035L
2.7	L	—	165D275X9035L
3.3	L	165D335X0035L	165D335X9035L
50 VOLTS D-C, 60 VDC SURGE			
.0047	J	165D472X0050J	165D472X9050J
.0056	J	—	165D562X9050J
.0068	J	165D682X0050J	165D682X9050J
.0082	J	—	165D822X9050J
.01	J	165D103X0050J	165D103X9050J
.012	J	—	165D123X9050J
.015	J	165D153X0050J	165D153X9050J
.018	J	—	165D183X9050J
.022	J	165D223X0050J	165D223X9050J
.027	J	—	165D273X9050J
.033	J	165D333X0050J	165D333X9050J
.039	J	—	165D393X9050J
.047	J	165D473X0050J	165D473X9050J
.056	J	—	165D563X9050J
.068	J	165D683X0050J	165D683X9050J
.082	J	—	165D823X9050J
.1	J	165D104X0050J	165D104X9050J
.12	J	—	165D124X9050J
.15	J	165D154X0050J	165D154X9050J
.18	J	—	165D184X9050J
.22	J	165D224X0050J	165D224X9050J
.27	J	—	165D274X9050J
.33	J	165D334X0050J	165D334X9050J
.39	J	—	165D394X9050J
.47	J	165D474X0050J	165D474X9050J
.56	L	—	165D564X9050L
.68	L	165D684X0050L	165D684X9050L
.82	L	—	165D824X9050L
1.0	L	165D105X0050L	165D105X9050L
1.2	L	—	165D125X9050L
1.5	L	165D155X0050L	165D155X9050L
1.8	L	—	165D185X9050L
2.2	L	165D225X0050L	165D225X9050L
2.7	L	—	165D275X9050L

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REM-1B-6330

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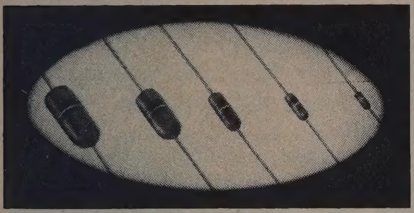
SPRAGUE CAPACITORS

TYPE 154D MOLDED SOLID-ELECTROLYTE TANTALEX® CAPACITORS



- Ultra-miniature Molded Solid Electrolyte Tantalum Capacitors in Cordwood Sized Cases. Same Performance Characteristics as Competitive Standard Metal-clad Solid Tantalum Capacitors.
- Cordwood Size Cases Permit Circuit Designer to Make Full Use of This New Packaging Concept.
- Also Suitable for Point-to-point Wiring, Printed Wiring Boards and May be Used in Automatic Insertion Machinery.
- Rounded End of Case Identifies Positive Terminal of Capacitor.
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin No. 3530.
- Call Your Sprague Industrial Distributor for Current Prices.

6 VOLTS D-C, 8 VDC SURGE

µF	Size Code	Catalog Number ±10% Tol.
.22	J	*154D224X9006J
.27	J	154D274X9006J
.33	J	*154D334X9006J
.39	J	154D394X9006J
.47	J	*154D474X9006J
.56	J	154D564X9006J
.68	J	*154D684X9006J
.82	J	154D824X9006J
1.0	J	*154D105X9006J
1.2	J	154D125X9006J
1.5	J	*154D155X9006J
1.8	J	154D185X9006J
2.2	L	*154D225X9006L
2.7	L	154D275X9006L
3.3	L	*154D335X9006L
3.9	L	154D395X9006L
4.7	L	*154D475X9006L
5.6	L	154D565X9006L
6.8	L	*154D685X9006L
8.2	L	154D825X9006L
10	L	*154D106X9006L
12	L	154D126X9006L
15	L	*154D156X9006L
18	N	154D186X9006N
22	N	*154D226X9006N
27	N	154D276X9006N
33	N	*154D336X9006N
39	N	154D396X9006N
47	N	*154D476X9006N
56	N	154D566X9006N
68	P	*154D686X9006P
82	P	154D826X9006P
100	P	*154D107X9006P
120	P	154D127X9006P
150	P	*154D157X9006P
180	P	154D187X9006P
220	T	*154D220X9006T
270	T	154D227X9006T
330	T	*154D337X9006T
360	T	154D367X9006T

10 VOLTS D-C, 13 VDC SURGE

µF	Size Code	Catalog Number ±10% Tol.
.22	J	*154D224X9010J
.27	J	154D274X9010J
.33	J	*154D334X9010J
.39	J	154D394X9010J
.47	J	*154D474X9010J
.56	J	154D564X9010J
.68	J	*154D684X9010J
.82	J	154D824X9010J
1.0	J	*154D105X9010J
1.2	L	154D125X9010L
1.5	L	*154D155X9010L
1.8	L	154D185X9010L
2.2	L	*154D225X9010L
2.7	L	154D275X9010L
3.3	L	*154D335X9010L
3.9	L	154D395X9010L
4.7	L	*154D475X9010L
5.6	L	154D565X9010L
6.8	L	*154D685X9010L
8.2	L	154D825X9010L
10	N	*154D106X9010N
12	N	154D126X9010N
15	N	*154D156X9010N
18	N	154D186X9010N
22	P	*154D226X9010P
27	P	154D276X9010P
33	P	*154D336X9010P
39	P	154D396X9010P
47	P	*154D476X9010P
56	P	154D566X9010P
68	P	*154D686X9010P
82	P	154D826X9010P
100	P	*154D107X9010P
120	P	154D127X9010P
150	T	*154D157X9010T
180	T	154D187X9010T
220	T	*154D227X9010T

15 VOLTS D-C, 20 VDC SURGE

µF	Size Code	Catalog Number ±10% Tol.
.22	J	*154D224X9015J
.27	J	154D274X9015J
.33	J	*154D334X9015J
.39	J	154D394X9015J
.47	J	*154D474X9015J
.56	J	154D564X9015J
.68	J	*154D684X9015J
.82	L	154D824X9015L
1.0	L	*154D105X9015L
1.2	L	154D125X9015L
1.5	L	*154D155X9015L
1.8	L	154D185X9015L
2.2	L	*154D225X9015L
2.7	L	154D275X9015L
3.3	L	*154D335X9015L
3.9	L	154D395X9015L
4.7	L	*154D475X9015L
5.6	L	154D565X9015L
6.8	N	*154D685X9015N
8.2	N	154D825X9015N
10	N	*154D106X9015N
12	N	154D126X9015N
15	N	*154D156X9015N
18	N	154D186X9015N
22	N	*154D226X9015N
27	P	154D276X9015P
33	P	*154D336X9015P
39	P	154D396X9015P
47	P	*154D476X9015P
56	P	154D566X9015P
68	P	*154D686X9015P
82	T	154D826X9015T
100	T	*154D107X9015T
120	T	154D127X9015T
150	T	*154D157X9015T

20 VOLTS D-C, 26 VDC SURGE

µF	Size Code	Catalog Number ±10% Tol.
.1	J	*154D104X9020J
.12	J	154D124X9020J
.15	J	*154D154X9020J
.18	J	154D184X9020J
.22	J	*154D224X9020J
.27	J	154D274X9020J
.33	J	*154D334X9020J
.39	J	154D394X9020J
.47	J	*154D474X9020J
.56	L	154D564X9020L
.68	L	*154D684X9020L
.82	L	154D824X9020L
1.0	L	*154D105X9020L
1.2	L	154D125X9020L
1.5	L	*154D155X9020L
1.8	L	154D185X9020L
2.2	L	*154D225X9020L
2.7	L	154D275X9020L
3.3	L	*154D335X9020L
3.9	N	154D395X9020N
4.7	N	*154D475X9020N
5.6	N	154D565X9020N
6.8	N	*154D685X9020N
8.2	N	154D825X9020N
10	N	*154D106X9020N
12	N	154D126X9020N
15	N	*154D156X9020N
18	P	154D186X9020P
22	P	*154D226X9020P
27	P	154D276X9020P
33	P	*154D336X9020P
39	P	154D396X9020P
47	P	*154D476X9020P
56	T	154D566X9020T
68	T	*154D686X9020T
82	T	154D826X9020T
100	T	*154D107X9020T

35 VOLTS D-C, 46 VDC SURGE

µF	Size Code	Catalog Number ±10% Tol.
.1	J	*154D104X9035J
.12	J	154D124X9035J
.15	J	*154D154X9035J
.18	J	154D184X9035J
.22	L	*154D224X9035L
.27	L	154D274X9035L
.33	L	*154D334X9035L
.39	L	154D394X9035L
.47	L	*154D474X9035L
.56	L	154D564X9035L
.68	L	*154D684X9035L
.82	L	154D824X9035L
1.0	L	*154D105X9035L
1.2	L	154D125X9035L
1.5	L	*154D155X9035L
1.8	N	154D185X9035N
2.2	N	*154D225X9035N
2.7	N	154D275X9035N
3.3	N	*154D335X9035N
3.9	N	154D395X9035N
4.7	N	*154D475X9035N
5.6	N	154D565X9035N
6.8	N	*154D685X9035N
8.2	P	154D825X9035P
10	P	*154D106X9035P
12	P	154D126X9035P
15	P	*154D156X9035P
18	P	154D186X9035P
22	P	*154D226X9035P
27	T	154D276X9035T
33	T	*154D336X9035T
39	T	154D396X9035T
47	T	*154D476X9035T

50 VOLTS D-C, 65 VDC SURGE

µF	Size Code	Catalog Number ±10% Tol.
.1	J	*154D104X9050J
.12	J	154D124X9050J
.15	J	*154D154X9050J
.18	L	154D184X9050L
.22	L	*154D224X9050L
.27	L	154D274X9050L
.33	L	*154D334X9050L
.39	L	154D394X9050L
.47	L	*154D474X9050L
.56	L	154D564X9050L
.68	L	*154D684X9050L
.82	L	154D824X9050L
1.0	L	*154D105X9050L
1.2	L	154D125X9050L
1.5	N	*154D155X9050N
1.8	N	154D185X9050N
2.2	N	*154D225X9050N
2.7	N	154D275X9050N
3.3	N	*154D335X9050N
3.9	N	154D395X9050N
4.7	N	*154D475X9050N
5.6	P	154D565X9050P
6.8	P	*154D685X9050P
8.2	P	154D825X9050P
10	P	*154D106X9050P
12	P	154D126X9050P
15	P	*154D156X9050P
18	P	154D186X9050P
22	T	*154D226X9050T

75 VOLTS D-C, 97 VDC SURGE

µF	Size Code	Catalog Number ±10% Tol.
.1	J	*154D104X9075J
.12	L	154D124X9075L
.15	L	*154D154X9075L
.18	L	154D184X9075L
.22	L	*154D224X9075L
.27	L	154D274X9075L
.33	L	*154D334X9075L
.39	L	154D394X9075L
.47	L	*154D474X9075L
.56	L	154D564X9075L
.68	L	*154D684X9075L
.82	L	154D824X9075L
1.0	N	*154D105X9075N
1.2	N	154D125X9075N
1.5	N	*154D155X9075N
1.8	N	154D185X9075N
2.2	N	*154D225X9075N
2.7	N	154D275X9075N
3.3	N	*154D335X9075N
3.9	N	154D395X9075N

DEMENSIONS

Code	D. x L.
J	.090" x .250"
L	.138" x .390"
N	.200" x .562"
P	.312" x .714"
T	.375" x .875"

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

*These ratings are also available in ±20% Tolerance. To order change the 9 following the X in the catalog number to zero.

Sizes subject to change without notice.

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REM-1C-6330

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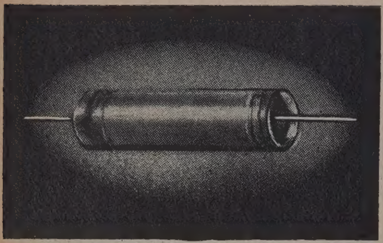
SPRAGUE CAPACITORS

85°C FOIL TANTALEX® CAPACITORS



- For applications where small physical size, stable electrical characteristics, and long service life are important.
- Type 110D and 112D also available marked to meet MIL-C-3965. Order by complete military type designation.
- High capacitance stability even at low operating temperatures, unlike aluminum-foil electrolytics.
- Extremely low leakage current.
- Standard capacitance tolerance: Types 110D and 111D. ±20%; Type 112D and 113D +75, −15%.
- Listed units have plastic wrap. For bare case, end Cat. No. in "0" instead of "1".
- For complete technical data refer to latest issue Engineering Bulletin 3601.
- **Call Your Sprague Industrial Distributor for Quantity Prices**

TYPE 110D

POLARIZED PLAIN-FOIL

3 WORKING VOLTS D-C

μF	Size Code	Catalog Number
10	D	110D106X0003D1
55	G	110D556X0003G1
160	J	110D167X0003J1
350	M	110D357X0003M1
440	P	110D447X0003P1

6 WORKING VOLTS D-C

μF	Size Code	Catalog Number
8	D	110D805X0006D1
30	G	110D306X0006G1
35	G	110D356X0006G1
100	J	110D107X0006J1
200	M	110D207X0006M1
300	P	110D307X0006P1

10 WORKING VOLTS D-C

μF	Size Code	Catalog Number
6	D	110D605X0010D1
25	G	110D256X0010G1
80	J	110D806X0010J1
160	M	110D167X0010M1
220	P	110D227X0010P1

15 WORKING VOLTS D-C

μF	Size Code	Catalog Number
4.5	D	110D455X0015D1
18	G	110D186X0015G1
55	J	110D556X0015J1
110	M	110D117X0015M1
160	P	110D167X0015P1

25 WORKING VOLTS D-C

μF	Size Code	Catalog Number
3	D	110D305X0025D1
12	G	110D126X0025G1
35	J	110D356X0025J1
70	M	110D706X0025M1
100	P	110D107X0025P1

30 WORKING VOLTS D-C

μF	Size Code	Catalog Number
2.5	D	110D255X0030D1
10	G	110D106X0030G1
30	J	110D306X0030J1
60	M	110D606X0030M1
85	P	110D856X0030P1

50 WORKING VOLTS D-C

μF	Size Code	Catalog Number
1.5	D	110D155X0050D1
6	G	110D605X0050G1
20	J	110D206X0050J1
40	M	110D406X0050M1
55	P	110D556X0050P1

60 WORKING VOLTS D-C

μF	Size Code	Catalog Number
1.2	D	110D125X0060D1
5	G	110D505X0060G1
17	J	110D176X0060J1
34	M	110D346X0060M1
48	P	110D486X0060P1

75 WORKING VOLTS D-C

μF	Size Code	Catalog Number
1	D	110D105X0075D1
4	G	110D405X0075G1
14	J	110D146X0075J1
28	M	110D286X0075M1
40	P	110D406X0075P1

100 WORKING VOLTS D-C

μF	Size Code	Catalog Number
.8	D	110D804X0100D1
3	G	110D305X0100G1
10	J	110D106X0100J1
20	M	110D206X0100M1
30	P	110D306X0100P1

150 WORKING VOLTS D-C

μF	Size Code	Catalog Number
.5	D	110D504X0150D1
1	G	110D105X0150G1
2	G	110D205X0150G1
7	J	110D705X0150J1
14	M	110D146X0150M1
20	P	110D206X0150P1

200 WORKING VOLTS D-C

μF	Size Code	Catalog Number
.35	D	110D354X8200D1
1.5	G	110D155X8200G1
5.0	J	110D505X8200J1
10.0	M	110D106X8200M1
15.0	P	110D156X8200P1

250 WORKING VOLTS D-C

μF	Size Code	Catalog Number
.3	D	110D304X8250D1
1.2	G	110D125X8250G1
4.0	J	110D405X8250J1
8.0	M	110D805X8250M1
12.0	P	110D126X8250P1

300 WORKING VOLTS D-C

μF	Size Code	Catalog Number
1	G	110D105X8300G1
3	J	110D305X8300J1
7	M	110D705X8300M1
10	P	110D106X8300P1

375 WORKING VOLTS D-C

μF	Size Code	Catalog Number
.2	D	110D204X8375D1
.8	G	110D804X8375G1
2.5	J	110D255X8375J1
5	M	110D505X8375M1
7	P	110D705X8375P1

450 WORKING VOLTS D-C

μF	Size Code	Catalog Number
.15	D	110D154X8450D1
.65	G	110D654X8450G1
2	J	110D205X8450J1
4	M	110D405X8450M1
6	P	110D605X8450P1

TYPE 111D

NON-POLARIZED PLAIN-FOIL

6 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
5	D	111D505X0006D1
25	G	111D256X0006G1
85	J	111D856X0006J1
170	M	111D177X0006M1
250	P	111D257X0006P1

10 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
3	D	111D305X0010D1
16	G	111D166X0010G1
55	J	111D556X0010J1
110	M	111D117X0010M1
150	P	111D157X0010P1

15 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
2.5	D	111D255X0015D1
10	G	111D106X0015G1
35	J	111D356X0015J1
70	M	111D706X0015M1
100	P	111D107X0015P1

25 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
1.5	D	111D155X0025D1
6	G	111D605X0025G1
20	J	111D206X0025J1
40	M	111D406X0025M1
60	P	111D606X0025P1

30 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
1.4	D	111D145X0030D1
5.5	G	111D555X0030G1
18	J	111D186X0030J1
36	M	111D366X0030M1
45	P	111D456X0030P1

50 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
.8	D	111D804X0050D1
3	G	111D305X0050G1
10	J	111D106X0050J1
20	M	111D206X0050M1
30	P	111D306X0050P1

60 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
.6	D	111D604X0060D1
2.5	G	111D255X0060G1
8.5	J	111D855X0060J1
17	M	111D176X0060M1
24	P	111D246X0060P1

75 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
.5	D	111D504X0075D1
2	G	111D205X0075G1
7	J	111D705X0075J1
14	M	111D146X0075M1
20	P	111D206X0075P1

100 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
.4	D	111D404X0100D1
1.5	G	111D155X0100G1
5	J	111D505X0100J1
10	M	111D106X0100M1
15	P	111D156X0100P1

150 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
.25	D	111D254X0150D1
1	G	111D105X0150G1
3.5	J	111D355X0150J1
7	M	111D705X0150M1
10	P	111D106X0150P1

200 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
.15	D	111D154X8200D1
.75	G	111D754X8200G1
2.5	J	111D255X8200J1
5.0	M	111D505X8200M1
7.5	P	111D755X8200P1

250 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
.15	D	111D154X8250D1
.6	G	111D604X8250G1
2.0	J	111D205X8250J1
4.0	M	111D405X8250M1
6.0	P	111D605X8250P1

300 WORKING VOLTS D-C

μF	Size Code	Catalog Number
.5	G	111D504X8300G1
1.5	J	111D155X8300J1
3.5	M	111D355X8300M1
5	P	111D505X8300P1

TYPE 112D

POLARIZED ETCHED-FOIL

15 WORKING VOLTS D-C

μF	Size Code	Catalog Number
15	D	112D156C7015D1
60	G	112D606C7015G1
200	J	112D207C7015J1
400	M	112D407C7015M1
580	P	112D587C7015P1

25 WORKING VOLTS D-C

μF	Size Code	Catalog Number
10	D	112D106C7025D1
40	G	112D406C7025G1
120	J	112D127C7025J1
250	M	112D257C7025M1
350	P	112D357C7025P1

30 WORKING VOLTS D-C

μF	Size Code	Catalog Number
8	D	112D805C7030D1
32	G	112D326C7030G1
110	J	112D117C7030J1
220	M	112D227C7030M1
300	P	112D307C7030P1

50 WORKING VOLTS D-C

μF	Size Code	Catalog Number
4.5	D	112D455C7050D1
18	G	112D186C7050G1
60	J	112D606C7050J1
100	M	112D107C7050M1
150	P	112D157C7050P1

60 WORKING VOLTS D-C

μF	Size Code	Catalog Number
4	D	112D405C7060D1

75 WORKING VOLTS D-C

μF	Size Code	Catalog Number
3	D	112D305C7075D1
12	G	112D126C7075G1
30	J	112D306C7075J1
70	M	112D706C7075M1
100	P	112D107C7075P1

100 WORKING VOLTS D-C

μF	Size Code	Catalog Number
2	D	112D205C7100D1
8	G	112D805C7100G1
25	J	112D256C7100J1
50	M	112D506C7100M1
70	P	112D706C7100P1

150 WORKING VOLTS D-C

μF	Size Code	Catalog Number
1	D	112D105C7150D1
4	G	112D405C7150G1
13	J	112D136C7150J1
25	M	112D256C7150M1
36	P	112D366C7150P1

200 WORKING VOLTS D-C

μF	Size Code	Catalog Number
3	G	112D305X0200G1
9	J	112D905X0200J1
19	M	112D196X0200M1
27	P	112D276X0200P1

250 WORKING VOLTS D-C

μF	Size Code	Catalog Number
2	G	112D205X0250G1
6	J	112D605X0250J1
13	M	112D136X0250M1
19	P	112D196X0250P1

300 WORKING VOLTS D-C

μF	Size Code	Catalog Number
1.8	G	112D185X0300G1
5	J	112D505X0300J1
11	M	112D116X0300M1
15	P	112D156X0300P1

TYPE 113D

NON-POLARIZED ETCHED-FOIL

15 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
10	D	113D106C7015D1
40	G	113D406C7015G1
120	J	113D127C7015J1
250	M	113D257C7015M1
350	P	113D357C7015P1

25 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
5	D	113D505C7025D1
20	G	113D206C7025G1
70	J	113D706C7025J1
140	M	113D147C7025M1
200	P	113D207C7025P1

30 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
4.5	D	113D455C7030D1
18	G	113D186C7030G1
60	J	113D606C7030J1
120	M	113D127C7030M1
170	P	113D177C7030P1

50 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
2.5	D	113D255C7050D1
10	G	113D106C7050G1
30	J	113D306C7050J1
60	M	113D606C7050M1
80	P	113D806C7050P1

75 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
1.5	D	113D155C7075D1
6	G	113D605C7075G1
15	J	113D156C7075J1
35	M	113D356C7075M1
50	P	113D506C7075P1

100 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
1	D	113D105C7100D1
4	G	113D405C7100G1
12	J	113D126C7100J1
25	M	113D256C7100M1
35	P	113D356C7100P1

150 WORKING VOLTS N.P.

μF	Size Code	Catalog Number
.5	D	113D504C7150D1
2	G	113D205C7150G1
6	J	113D605C7150J1
12	M	113D126C7150M1
18	P	113D186C7150P1

DIMENSIONS

D 13/64 diam. x 3/4 long
G 19/64 diam. x 15/16 long
J 25/64 diam. x 1½ long
M 25/64 diam. x 2 3/16 long
P 25/64 diam. x 2 13/16 long

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REM-3-6330

Sizes subject to change without notice.

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SPRAGUE CAPACITORS

125°C FOIL TANTALEX® CAPACITORS

- Small size, electrically stable, long life. For data, see latest Engineering Bulletin 3602.
- 120D, 122D available as MIL-C-3965 units.
- Tol., 120D, 121D, ±20%; 122D, 123D, −15, +75%.
- Listed units have plastic wrap. For bare metal case units, end Cat. No. in "0" instead of "1".

SIZE CODE (Diam. x Length)

E (13/64" x 23/32"), H (19/64" x 15/16"),
K (25/64" x 1 15/32"), N (25/64" x 2 5/32"),
Q (25/64" x 2 25/32").

TYPE 120D
POLARIZED PLAIN-FOIL

µF	Code	Catalog Number
10 WORKING VOLTS D-C		
4.5	E	120D455X0010E1
18	H	120D186X0010H1
55	K	120D556X0010K1
110	N	120D117X0010N1
160	Q	120D167X0010Q1
15 WORKING VOLTS D-C		
3	E	120D305X0015E1
12	H	120D126X0015H1
35	K	120D356X0015K1
70	N	120D706X0015N1
100	Q	120D107X0015Q1
30 WORKING VOLTS D-C		
1.5	E	120D155X0030E1
6	H	120D605X0030H1
20	K	120D206X0030K1
40	N	120D406X0030N1
55	Q	120D556X0030Q1
50 WORKING VOLTS D-C		
1	E	120D105X0050E1
4	H	120D405X0050H1
14	K	120D146X0050K1
28	N	120D286X0050N1
40	Q	120D406X0050Q1
65 WORKING VOLTS D-C		
.8	E	120D804X0065E1
3	H	120D305X0065H1
10	K	120D106X0065K1
20	N	120D206X0065N1
30	Q	120D306X0065Q1
100 WORKING VOLTS D-C		
.5	E	120D504X0100E1
2	H	120D205X0100H1
7	K	120D705X0100K1
14	N	120D146X0100N1
20	Q	120D206X0100Q1
150 WORKING VOLTS D-C		
.35	E	120D354X0150E1
1.5	H	120D155X0150H1
5	K	120D505X0150K1
10	N	120D106X0150N1
15	Q	120D156X0150Q1
200 WORKING VOLTS D-C		
1.0	H	120D105X8200H1
3.0	K	120D305X8200K1
7.0	N	120D705X8200N1
10.0	Q	120D106X8200Q1

TYPE 121D
NON-POLARIZED PLAIN-FOIL

µF	Code	Catalog Number
10 WORKING VOLTS N.P.		
2.5	E	121D255X0010E1
10	H	121D106X0010H1
35	K	121D356X0010K1
70	N	121D706X0010N1
100	Q	121D107X0010Q1
15 WORKING VOLTS N.P.		
1.5	E	121D155X0015E1
6	H	121D605X0015H1
20	K	121D206X0015K1
40	N	121D406X0015N1
60	Q	121D606X0015Q1
30 WORKING VOLTS N.P.		
.8	E	121D804X0030E1
3	H	121D305X0030H1
10	K	121D106X0030K1
20	N	121D206X0030N1
30	Q	121D306X0030Q1
50 WORKING VOLTS N.P.		
.5	E	121D504X0050E1
2	H	121D205X0050H1
7	K	121D705X0050K1
14	N	121D146X0050N1
20	Q	121D206X0050Q1
65 WORKING VOLTS N.P.		
.4	E	121D404X0065E1
1.5	H	121D155X0065H1
5	K	121D505X0065K1
10	N	121D106X0065N1
15	Q	121D156X0065Q1
100 WORKING VOLTS N.P.		
.25	E	121D254X0100E1
1.0	H	121D105X0100H1
3.5	K	121D335X0100K1
7	N	121D705X0100N1
10	Q	121D106X0100Q1
150 WORKING VOLTS N.P.		
.15	E	121D154X0150E1
.75	H	121D754X0150H1
2.5	K	121D255X0150K1
5.0	N	121D505X0150N1
7.5	Q	121D755X0150Q1
200 WORKING VOLTS N.P.		
0.5	H	121D504X8200H1
1.5	K	121D155X8200K1
3.5	N	121D355X8200N1
5.0	Q	121D505X8200Q1

TYPE 122D
POLARIZED ETCHED-FOIL

µF	Code	Catalog Number
15 WORKING VOLTS D-C		
9	E	122D905C7015E1
37	H	122D376C7015H1
120	K	122D127C7015K1
250	N	122D257C7015N1
350	Q	122D357C7015Q1
30 WORKING VOLTS D-C		
4.5	E	122D455C7030E1
18	H	122D186C7030H1
60	K	122D606C7030K1
100	N	122D107C7030N1
150	Q	122D157C7030Q1
50 WORKING VOLTS D-C		
3	E	122D305C7050E1
12	H	122D126C7050H1
30	K	122D306C7050K1
70	N	122D706C7050N1
100	Q	122D107C7050Q1
65 WORKING VOLTS D-C		
2	E	122D205C7065E1
8	H	122D805C7065H1
25	K	122D256C7065K1
50	N	122D506C7065N1
70	Q	122D706C7065Q1
100 WORKING VOLTS D-C		
1	E	122D105C7100E1
4	H	122D405C7100H1
13	K	122D136C7100K1
25	N	122D256C7100N1
36	Q	122D366C7100Q1

TYPE 123D
NON-POLARIZED
ETCHED-FOIL

µF	Code	Catalog Number
10 WORKING VOLTS N.P.		
10	E	123D106C7010E1
40	H	123D406C7010H1
120	K	123D127C7010K1
250	N	123D257C7010N1
350	Q	123D357C7010Q1
15 WORKING VOLTS N.P.		
5	E	123D505C7015E1
20	H	123D206C7015H1
70	K	123D706C7015K1
140	N	123D147C7015N1
200	Q	123D207C7015Q1
30 WORKING VOLTS N.P.		
2.5	E	123D255C7030E1
10	H	123D106C7030H1
30	K	123D306C7030K1
60	N	123D606C7030N1
80	Q	123D806C7030Q1
50 WORKING VOLTS N.P.		
1.5	E	123D155C7050E1
6	H	123D605C7050H1
15	K	123D156C7050K1
35	N	123D356C7050N1
50	Q	123D506C7050Q1
65 WORKING VOLTS N.P.		
1	E	123D105C7065E1
4	H	123D405C7065H1
12	K	123D126C7065K1
25	N	123D256C7065N1
35	Q	123D356C7065Q1
100 WORKING VOLTS N.P.		
0.5	E	123D504C7100E1
2	H	123D205C7100H1
6	K	123D605C7100K1
12	N	123D126C7100N1
18	Q	123D186C7100Q1

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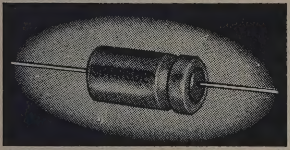
125°C SINTERED-ANODE TANTALEX® CAPACITORS



- Meets 2000 cy. MIL Vibration Requirements
- For Complete Data, See Engineering Bulletin 3701
- Listed Units Have Plastic Wrap. For bare metal cases change last digit of Cat. No. to "0".
- Call Your Sprague Industrial Distributor for Quantity Prices

SIZE CODE

C=13/64" dia. x 33/64" L.
F=19/64" dia. x 45/64" L.
T=25/64" dia. x 53/64" L.

GROUP 1: +20%, −15% and ±10% Capacitance Tolerance with plastic insulation tube

µF	WVDC	Size Code	Catalog Number +20, −15% Tol.	Catalog Number ±10% Tol.
30	4	C	130D306C2004C2	130D306X9004C2
140	4	F	130D147C2004F2	130D147X9004F2
330	4	T	130D337C2004T2	130D337X9004T2
25	5	C	130D256C2005C2	130D256X9005C2
120	5	F	130D127C2005F2	130D127X9005F2
290	5	T	130D297C2005T2	130D297X9005T2
20	7	C	130D206C2007C2	130D206X9007C2
100	7	F	130D107C2007F2	130D107X9007F2
250	7	T	130D257C2007T2	130D257X9007T2
15	10	C	130D156C2010C2	130D156X9010C2
70	10	F	130D706C2010F2	130D706X9010F2
170	10	T	130D177C2010T2	130D177X9010T2
10	15	C	130D106C2015C2	130D106X9015C2
50	15	F	130D506C2015F2	130D506X9015F2
110	15	T	130D117C2015T2	130D117X9015T2
8	20	C	130D805C2020C2	130D805X9020C2
40	20	F	130D406C2020F2	130D406X9020F2
100	20	T	130D107C2020T2	130D107X9020T2
5	30	C	130D505C2030C2	130D505X9030C2
25	30	F	130D256C2030F2	130D256X9030F2
60	30	T	130D606C2030T2	130D606X9030T2
4	40	C	130D405C2040C2	130D405X9040C2
20	40	F	130C206C2040F2	130D206X9040F2
50	40	T	130D506C2040T2	130D506X9040T2
3.5	50	C	130D355C2050C2	130D355X9050C2
15	50	F	130D156C2050F2	130D156X9050F2
40	50	T	130D406C2050T2	130D406X9050T2
2.5	70	C	130D255C2070C2	130D255X9070C2
11	70	F	130D116C2070F2	130D116X9070F2
30	70	T	130D306C2070T2	130D306X9070T2

GROUP 2: ±20% and ±10% Capacitance Tolerance with plastic insulation tube

µF	WVDC	Size Code	Catalog Number ±20%	Catalog Number ±10% Tol.
68	4	C	130D686X0004C2	130D686X9004C2
270	4	F	130D277X0004F2	130D277X9004F2
560	4	T	130D567X0004T2	130D567X9004T2
47	7	C	130D476X0007C2	130D476X9007C2
180	7	F	130D187X0007F2	130D187X9007F2
390	7	T	130D397X0007T2	130D397X9007T2
33	10	C	130D336X0010C2	130D336X9010C2
120	10	F	130D127X0010F2	130D127X9010F2
270	10	T	130D277X0010T2	130D277X9010T2
22	15	C	130D226X0015C2	130D226X9015C2
100	15	F	130D107X0015F2	130D107X9015F2
180	15	T	130D187X0015T2	130D187X9015T2
15	20	C	130D156X0020C2	130D156X9020C2
68	20	F	130D686X0020F2	130D686X9020F2
150	20	T	130D157X0020T2	130D157X9020T2
10	30	C	130D106X0030C2	130D106X9030C2
47	30	F	130D476X0030F2	130D476X9030F2
82	30	T	130D826X0030T2	130D826X9030T2
8.2	40	C	130D825X0040C2	130D825X9040C2
39	40	F	130D396X0040F2	130D396X9040F2
68	40	T	130D686X0040T2	130D686X9040T2
6.8	50	C	130D685X0050C2	130D685X9050C2
33	50	F	130D336X0050F2	130D336X6050F2
56	50	T	130D566X0050T2	130D566X9050T2
4.7	70	C	130D475X0070C2	130D475X9070C2
22	70	F	130D226X0070F2	130D226X9070F2
43	70	T	130D436X0070T2	130D436X9070T2

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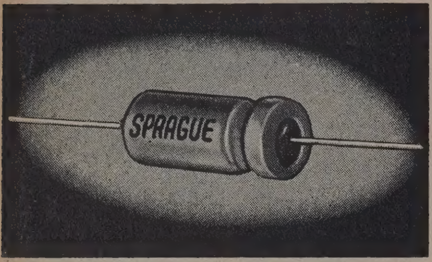
SPRAGUE CAPACITORS

TYPE 109D SINTERED-ANODE TANTALEX® CAPACITORS



DIMENSIONS

Code	D. x L.	Code	D. x L.	Code	D. x L.
C	3/16 x 29/64	F	9/32 x 41/64	T	3/8 x 49/64

- Intended for Applications Where Reliable Design in Military Equipment is Required.
- Double Spun TFE-fluorocarbon Elastomer High Temp. End Seals.
- Large Values of Capacitance in Small Physical Size.
- Listed Units Have Plastic Sleeves.
- For Bare Case, End Catalog Number in "0" instead of "2".
- May Be Operated at 85°C at Rated Voltage and to 105°C With 15% Voltage Derating.
- Will Meet 2000 Cycle Missile Vibration Requirements.
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 3700.
- Call Your Sprague Industrial Distributor For Quantity Prices.

GROUP 1: Available in Capacitance Tolerances of ±10%, +20, −15%; +75, −15%

μF	Size Code	Catalog Number		
		±10%	+20, −15%	+75, −15%
6 WORKING VOLTS D-C				
27	C	109D276X9006C2	109D276C2006C2	109D276C7006C2
30	C	109D306X9006C2	109D306C2006C2	109D306C7006C2
120	F	109D127X9006F2	109D127C2006F2	109D127C7006F2
140	F	109D147X9006F2	109D147C2006F2	109D147C7006F2
290	T	109D297X9006T2	109D297C2006T2	109D297C7006T2
330	T	109D337X9006T2	109D337C2006T2	109D337C7006T2
8 WORKING VOLTS D-C				
22	C	109D226C2008C2	109D226X9008C2	109D226C7008C2
25	C	109D256C2008C2	109D256X9008C2	109D256C7008C2
100	F	109D107X9008F2	109D107C2008F2	109D107C7008F2
120	F	109D127X9008F2	109D127C2008F2	109D127C7008F2
260	T	109D276X9008T2	109D267C2008T2	109D276C7008T2
290	T	109D297X9008T2	109D297C2008T2	109D297C7008T2
10 WORKING VOLTS D-C				
18	C	109D186X9010C2	109D186C2010C2	109D186C7010C2
20	C	109D206X9010C2	109D206C2010C2	109D206C7010C2
85	F	109D856X9010F2	109D856C2010F2	109D856C7010F2
100	F	109D107X9010F2	109D107C2010F2	109D107C7010F2
220	T	109D227X9010T2	109D227C2010T2	109D227C7010T2
250	T	109D257X9010T2	109D257C2010T2	109D257C7010T2
15 WORKING VOLTS D-C				
13	C	109D136X9015C2	109D136C2015C2	109D136C7015C2
15	C	109D156X9015C2	109D156C2015C2	109D156C7015C2
55	F	109D556X9015F2	109D556C2015F2	109D556C7015F2
70	F	109D706X9015F2	109D706C2015F2	109D706C7015F2
150	T	109D157X9015T2	109D157C2015T2	109D157C7015T2
170	T	109D177X9015T2	109D177C2015T2	109D177C7015T2
25 WORKING VOLTS D-C				
9	C	109D905X9025C2	109D905C2025C2	109D905C7025C2
10	C	109D106X9025C2	109D106C2025C2	109D106C7025C2
45	F	109D456X9025F2	109D456C2025F2	109D456C7025F2
50	F	109D506X9025F2	109D506C2025F2	109D506C7025F2
100	T	109D107X9025T2	109D107C2025T2	109D107C7025T2
110	T	109D117X9025T2	109D117C2025T2	109D117C7025T2

μF	Size Code	Catalog Number		
		±10%	+20, −15%	+75, −15%
30 WORKING VOLTS D-C				
7	C	109D705X9030C2	109D705C2030C2	109D705C7030C2
8	C	109D805X9030C2	109D805C2030C2	109D805C7030C2
35	F	109D356X9030F2	109D356C2030F2	109D356C7030F2
40	F	109D406X9030F2	109D406C2030F2	109D406C7030F2
80	T	109D806X9030T2	109D806C2030T2	109D806C7030T2
100	T	109D107X9030T2	109D107C2030T2	109D107C7030T2
50 WORKING VOLTS D-C				
4.5	C	109D455X9050C2	109D455C2050C2	109D455C7050C2
5	C	109D505X9050C2	109D505C2050C2	109D505C7050C2
22	F	109D226X9050F2	109D226C2050F2	109D226C7050F2
25	F	109D256X9050F2	109D256C2050F2	109D256C7050F2
55	T	109D556X9050T2	109D556C2050T2	109D556C7050T2
60	T	109D606X9050T2	109D606C2050T2	109D606C7050T2
60 WORKING VOLTS D-C				
3.6	C	109D365X9060C2	109D365C2060C2	109D365C7060C2
4	C	109D405X9060C2	109D405C2060C2	109D405C7060C2
18	F	109D186X9060F2	109D186C2060F2	109D186C7060F2
20	F	109D206X9060F2	109D206C2060F2	109D206C7060F2
45	T	109D456X9060T2	109D456C2060T2	109D456C7060T2
50	T	109D506X9060T2	109D506C2060T2	109D506C7060T2
75 WORKING VOLTS D-C				
3	C	109D305X9075C2	109D305C2075C2	109D305C7075C2
3.5	C	109D355X9075C2	109D355C2075C2	109D355C7075C2
13	F	109D136X9075F2	109D136C2075F2	109D136C7075F2
15	F	109D156X9075F2	109D156C2075F2	109D156C7075F2
35	T	109D356X9075T2	109D356C2075T2	109D356C7075T2
40	T	109D406X9075T2	109D406C2075T2	109D406C7075T2
100 WORKING VOLTS D-C				
2.5	C	109D255X9100C2	109D255C2100C2	109D255C7100C2
10	F	109D106X9100F2	109D106C2100F2	109D106C7100F2
11	F	109D116X9100F2	109D116C2100F2	109D116C7100F2
27	T	109D276X9100T2	109D276C2100T2	109D276C7100T2
30	T	109D306X9100T2	109D306C2100T2	109D306C7100T2

GROUP 2. Available in Capacitance Tolerances of ±20% and ± 10%

These capacitors have approximately twice the capacitance of Group I Capacitors of the same physical size at a given voltage rating.

μF	Size Code	Catalog Number	
		±20% Tol.	±10% Tol.
6 WORKING VOLTS D-C			
68	C	109D686X0006C2	109D686X9006C2
270	F	109D277X0006F2	109D277X9006F2
560	T	109D567X0006T2	109D567X9006T2
1200	W	109D128X0006W2	109D128X9006W2
8 WORKING VOLTS D-C			
56	C	109D566X0008C2	109D566X9008C2
220	F	109D227X0008F2	109D227X9008F2
430	T	109D437X0008T2	109D437X9008T2
850	W	109D857X0008W2	109D857X9008W2
10 WORKING VOLTS D-C			
47	C	109D476X0010C2	109D476X9010C2
180	F	109D187X0010F2	109D187X9010F2
390	T	109D397X0010T2	109D397X9010T2
750	W	109D757X0010W2	109D757X9010W2
15 WORKING VOLTS D-C			
33	C	109D336X0015C2	109D336X9015C2
120	F	109D127X0015F2	109D127X9015F2
270	T	109D277X0015T2	109D277X9015T2
540	W	109D547X0015W2	109D547X9015W2
25 WORKING VOLTS D-C			
22	C	109D226X0025C2	109D226X9025C2
100	F	109D107X0025F2	109D107X9025F2
180	T	109D187X0025T2	109D187X9025T2
350	W	109D357X0025W2	109D357X9025W2
30 WORKING VOLTS D-C			
15	C	109D156X0030C2	109D156X9030C2
68	F	109D686X0030F2	109D686X9030F2
150	T	109D157X0030T2	109D157X9030T2
300	W	109D307X0030W2	109D307X9030W2
50 WORKING VOLTS D-C			
10	C	109D106X0050C2	109D106X9050C2
47	F	109D476X0050F2	109D476X9050F2
82	T	109D826X0050T2	109D826X9050T2
160	W	109D167X0050W2	109D167X9050W2
60 WORKING VOLTS D-C			
8.2	C	109D825X0060C2	109D825X9060C2
39	F	109D396X0060F2	109D396X9060F2
68	T	109D686X0060T2	109D686X9060T2
140	W	109D147X0060W2	109D147X9060W2
75 WORKING VOLTS D-C			
6.8	C	109D685X0075C2	109D685X9075C2
33	F	109D336X0075F2	109D336X9075F2
56	T	109D566X0075T2	109D566X9075T2
110	W	109D117X0075W2	109D117X9075W2
100 WORKING VOLTS D-C			
4.7	C	109D475X0100C2	109D475X9100C2
22	F	109D226X0100F2	109D226X9100F2
43	T	109D436X0100T2	109D436X9100T2
86	W	109D866X0100W2	109D866X9100W2

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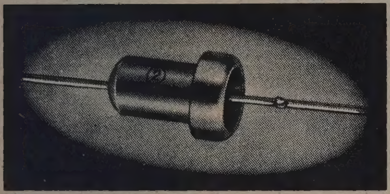
SPRAGUE CAPACITORS

"CUP STYLE" TANTALEX® CAPACITORS



Size Code	Dimensions Dia. x Length	1-24 Net Prices (Type 132D only) ±10%	
		±10%	−15, +20%
U	7/32 x 15/32	$1.96	$1.78
V	9/32 x 11/16	3.02	2.74
T	3/8 x 49/64	4.74	4.30

- −55°C to +85°C operation at full rating. 100°C operation with 15% derating.
- Stable in performance characteristics over entire temp. range.
- Large capacitance in small size.
- Extremely low leakage currents.
- 132D designed to withstand severe military vibration tests. Also available as CL44 and CL45 capacitors to meet MIL-C-3965. See MIL listings elsewhere in these pages.
- 131D for industrial electronics is similar to 132D but designed for static use in ground equipment.
- For plastic tube on units, change "0" to "4" at end of Cat. No. and add $.10 to price.
- For complete technical data refer to latest issue of Engineering Bulletins 3710 and 3711.
- Call your Sprague Industrial Distributor for prices on Types 131D and 133D.

INDUSTRIAL TYPE 131D

μF	Size Code	Catalog Number −15, +75% Tol.
6 WVDC — 7 VDC SURGE		
27	U	131D276C7006U0
30	U	131D306C7006U0
120	V	131D127C7006V0
140	V	131D147C7006V0
290	T	131D297C7006T0
320	T	131D327C7006T0
8 WVDC — 10 VDC SURGE		
22	U	131D226C7008U0
25	U	131D256C7008U0
10 WVDC — 12 VDC SURGE		
18	U	131D186C7010U0
20	U	131D206C7010U0
85	V	131D856C7010V0
100	V	131D107C7010V0
220	T	131D227C7010T0
250	T	131D257C7010T0
15 WVDC — 18 VDC SURGE		
13	U	131D136C7015U0
15	U	131D156C7015U0
55	V	131D556C7015V0
70	V	131D706C7015V0
150	T	131D157C7015T0
170	T	131D177C7015T0
25 WVDC — 30 VDC SURGE		
9	U	131D905C7025U0
10	U	131D106C7025U0
30 WVDC — 36 VDC SURGE		
7	U	131D705C7030U0
8	U	131D805C7030U0
35	V	131D356C7030V0
40	V	131D406C7030V0
80	T	131D806C7030T0
100	T	131D107C7030T0
50 WVDC — 60 VDC SURGE		
4.5	U	131D455C7050U0
5	U	131D505C7050U0
22	V	131D226C7050V0
25	V	131D256C7050V0
55	T	131D556C7050T0
60	T	131D606C7050T0
60 WVDC — 72 VDC SURGE		
3.6	U	131D365C7060U0
4	U	131D405C7060U0
18	V	131D186C7060V0
20	V	131D206C7060V0
45	T	131D456C7060T0
50	T	131D506C7060T0
75 WVDC — 87 VDC SURGE		
3.0	U	131D305C7075U0
3.5	U	131D355C7075U0
13	V	131D136C7075V0
15	V	131D156C7075V0
35	T	131D356C7075T0
40	T	131D406C7075T0
100 WVDC — 115 VDC SURGE		
1.8	U	131D185C7100U0
2	U	131D205C7100U0
10	V	131D106C7100V0
11	V	131D116C7100V0
27	T	131D276C7100T0
30	T	131D306C7100T0
125 WVDC — 140 VDC SURGE		
1.7	U	131D175C7125U0
8	V	131D805C7125V0
9	V	131D905C7125V0
20	T	131D206C7125T0
25	T	131D256C7125T0

VIBRATION-PROOF TYPE 132D

μF	Size Code	Catalog Number ±10%	Catalog Number −15, +20% Tol.
6 WVDC — 7 VDC SURGE			
30	U	132D306X9006U0	132D306C2006U0
140	V	132D147X9006V0	132D147C2006V0
320	T	132D327X9006T0	132D327C2006T0
8 WVDC — 10 VDC SURGE			
25	U	132D256X9008U0	132D256C2008U0
10 WVDC — 12 VDC SURGE			
20	U	132D206X9010U0	132D206C2010U0
100	V	132D107X9010V0	132D107C2010V0
250	T	132D257X9010T0	132D257C2010T0
15 WVDC — 18 VDC SURGE			
15	U	132D156X9015U0	132D156C2015U0
70	V	132D706X9015V0	132D706C2015V0
170	T	132D177X9015T0	132D177C2015T0
25 WVDC — 30 VDC SURGE			
10	U	132D106X9025U0	132D106C2025U0
30 WVDC — 36 VDC SURGE			
8	U	132D805X9030U0	132D805C2030U0
40	V	132D406X9030V0	132D406C2030V0
100	T	132D107X9030T0	132D107C2030T0
50 WVDC — 60 VDC SURGE			
5	U	132D505X9050U0	132D505C2050U0
25	V	132D256X9050V0	132D256C2050V0
60	T	132D606X9050T0	132D606C2050T0
60 WVDC — 72 VDC SURGE			
4	U	132D405X9060U0	132D405C2060U0
20	V	132D206X9060V0	132D206C2060V0
50	T	132D506X9060T0	132D506C2060T0
75 WVDC — 87 VDC SURGE			
3.5	U	132D355X9075U0	132D355C2075U0
15	V	132D156X9075V0	132D156C2075V0
40	T	132D406X9075T0	132D406C2075T0
100 WVDC — 115 VDC SURGE			
2	U	132D205X9100U0	132D205C2100U0
11	V	132D116X9100V0	132D116C2100V0
30	T	132D306X9100T0	132D306C2100T0
125 WVDC — 140 VDC SURGE			
1.7	U	132D175X9125U0	132D175C2125U0
9	V	132D905X9125V0	132D905C2125V0
25	T	132D256X9125T0	132D256C2125T0

VIBRATION-PROOF TYPE 133D

- −55°C to +125°C operation at full rating. May be up-rated 50% for operation at 85°C.
- Meet stringent requirements in military and missile applications.
- Sintered anode for unusual capacitance stability, large values of capacitance in small physical size.
- Non-tarnish finish to prevent discoloration during storage or use.
- For units with outer plastic insulating tube, substitute "4" for "0" at end of Catalog Number.
- Housed in miniature silver thimble.

μF	Size Code	Catalog Number −15, +20% Tol.	Catalog Number ±10%
4 WORKING VOLTS D-C			
30	U	133D306C2004U0	133D306X9004U0
140	V	133D147C2004V0	133D147X9004V0
320	T	133D327C2004T0	133D327X9004T0
5 WORKING VOLTS D-C			
25	U	133D256C2005U0	133D256X9005U0
7 WORKING VOLTS D-C			
20	U	133D206C2007U0	133D206X9007U0
100	V	133D107C2007V0	133D107X9007V0
250	T	133D257C2007T0	133D257X9007T0
10 WORKING VOLTS D-C			
15	U	133D156C2010U0	133D156X9010U0
70	V	133D706C2010V0	133D706X9010V0
170	T	133D177C2010T0	133D177X9010T0
15 WORKING VOLTS D-C			
10	U	133D106C2015U0	133D106X9015U0
20 WORKING VOLTS D-C			
8	U	133D805C2020U0	133D805X9020U0
40	V	133D406C2020V0	133D406X9020V0
100	T	133D107C2020T0	133D107X9020T0
30 WORKING VOLTS D-C			
5	U	133D505C2030U0	133D505X9030U0
25	V	133D256C2030V0	133D256X9030V0
60	T	133D606C2030T0	133D606X9030T0
40 WORKING VOLTS D-C			
4	U	133D405C2040U0	133D405X9040U0
20	V	133D206C2040V0	133D206X9040V0
50	T	133D506C2040T0	133D506X9040T0
50 WORKING VOLTS D-C			
3.5	U	133D355C2050U0	133D355X9050U0
15	V	133D156C2050V0	133D156X9050V0
40	T	133D406C2050T0	133D406X9050T0
70 WORKING VOLTS D-C			
2	U	133D205C2070U0	133D205X9070U0
11	V	133D116C2070V0	133D116X9070V0
30	T	133D306C2070T0	133D306X9070T0
85 WORKING VOLTS D-C			
1.7	U	133D175C2085U0	133D175X9085U0
9	V	133D905C2085V0	133D905X9085V0
25	T	133D256C2085T0	133D256X9085T0

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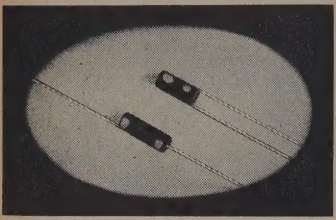
SPRAGUE CAPACITORS

TYPE 160D SOLID ELECTROLYTE TANTALEX® CAPACITORS



For Hearing Aids, Ultra-Miniature Radios, and Allied Applications

- Meet the need for a tiny, leakproof high-capacitance capacitor with long trouble-free service life.
- Solid, non-corrosive electrolyte—nothing to leak.
- Long shelf and service life.
- Completely moisture-proof—capacitor element sealed in polyester film tube with epoxy end-fill.
- Available with axial as well as single-ended leads.
- For complete technical data refer to latest issue Engineering Bulletin 3515.
- Prices available upon request.

Case Size A—.065″ D. x .150″ L.		
µF	WVDC	Cat. No.
3.0	2	160D28
2.0	4	160D27
1.5	4	160D29
1.0	8	160D25
0.8	8	160D41
0.5	15	160D30
0.4	15	160D31

Case Size A—.065″ D. x .150″ L.		
µF	WVDC	Cat. No.
0.2	15	160D32
0.15	15	160D33
0.1	15	160D34
0.05	15	160D35
0.01	15	160D42
0.02	15	160D43

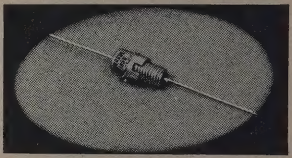
Case Size B—.065″ D. x .190″ L.		
µF	WVDC	Cat. No.
8.0	2	160D19
5.0	4	160D36
4.0	4	160D10
2.0	8	160D20
1.5	8	160D37
1.0	15	160D21
0.8	15	160D38

Case Size C—.065″ D. x .240″ L.		
µF	WVDC	Cat. No.
10.0	2	160D22
8.0	4	160D18
5.0	8	160D39
4.0	8	160D24
2.0	15	160D23
1.5	15	160D40

TYPE 180D SOLID ELECTROLYTE TANTALEX® FEED-THRU CAPACITORS

- Effectively bypasses r-f interference on low voltage d-c power circuits
- First of its kind available to designers. Positive mounting is assured with Sprague's new design.
- Large values of capacitance available in small physical size. Will carry 5 amperes d-c at 25C, 2 amperes d-c at 125C.
- Hermetically sealed in corrosion-resistant cases. Glass-to-metal solder seal terminals for maximum protection.
- Performance characteristics similar to Sprague Type 150D solid electrolyte Tantalex capacitors.
- Case measures .312 in. dia. x .689 in. long. Leads measure 1 ½ inches.

µF	WVDC	Surge VDC	Cat. No.
60	6	8	180D606X0006
39	10	13	180D396X0010
22	15	20	180D226X0015
15	20	26	180D156X0020
6.8	35	46	180D685X0035



- For complete technical data refer to latest issue Engineering Bulletin 3525.
- Prices available upon request.

TYPE CL-55 MIL-C-3965 TANTALUM ELECTROLYTIC CAPACITORS

Code	Height	Width	Thickness
A1	1 1/16	1 9/32	3/4
A2	1 3/8	1 9/32	3/4
A3	1 5/8	1 9/32	3/4
A4	2	1 9/32	3/4
A5	2 1/2	1 9/32	3/4

- For high capacitance, low voltage applications—meet difficult operating conditions. Dual rated for operation at both 85C and 125C.
- Find wide application in filtering, coupling, bypass, and time delay circuits in computer, missile, radar and fire control equipment.
- Porous anode construction offers better leakage and temperature coefficient characteristics than foil type capacitor section of comparable ratings.
- Superior to foil units at high temperatures and higher frequencies.
- For complete technical specifications refer to latest issue of specification MIL-C-3965.
- Prices available upon request.

µF	WVDC 125C	WVDC 85C	Size Code	Military Designation
960	10	15	A1	CL55CE961MP3
1200	10	15	A2	CL55CE122MP3
1400	10	15	A3	CL55CE142MP3
2100	10	15	A4	CL55CE212MP3
2400	10	15	A5	CL55CE242MP3
520	20	30	A1	CL55CH521MP3
660	20	30	A2	CL55CH661MP3
820	20	30	A3	CL55CH821MP3
1200	20	30	A4	CL55CH122MP3
1300	20	30	A5	CL55CH132MP3
1000	35	50	A5	CL55CJ102MP3
270	50	75	A1	CL55CL271MP3
330	50	75	A2	CL55CL331MP3
400	50	75	A3	CL55CL401MP3
600	50	75	A4	CL55CL601MP3
660	50	75	A5	CL55CL661MP3

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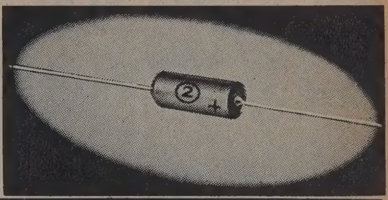
SPRAGUE CAPACITORS

MIL-C-26655A SOLID ELECTROLYTE TUBULAR TANTALUM CAPACITORS

- Military Version of Type 150D. Truly Miniature With Characteristics Previously Unobtainable in Electrolytics.
- Hermetically Sealed Case, CS-12, Bare Tube; CS13, Insulating Sleeve
- Cannot Leak or Corrode—Solid Electrolyte Will Not Seep Even if Hermetic Seal is Accidentally Broken
- Temperature Range of −80C to +85C. May Be Operated to +125C With Appropriate Voltage Derating



μF	Size Code	MILITARY DESIGNATION ±20% Tol.	MILITARY DESIGNATION ±10% Tol.
CS12—6 WVDC			
5.6	A	....	CS12AB5R6K
6.8	A	....	CS12AB6R8K
6.8	A	CS12AB6R8M	....
47	B	....	CS12AB470K
47	B	CS12AB470M	....
56	B	....	CS12AB560K
150	R	....	CS12AB151K
150	R	CS12AB151M	....
180	R	....	CS12AB181K
270	S	....	CS12AB271K
330	S	....	CS12AB331K
330	S	CS12AB331M	....
CS12—10 WVDC			
3.9	A	....	CS12AC3R9K
4.7	A	....	CS12AC4R7K
4.7	A	CS12AC4R7M	....
27	B	....	CS12AC270K
33	B	....	CS12AC330K
33	B	CS12AC330M	....
39	B	....	CS12AC390K
82	R	....	CS12AC820K
100	R	....	CS12AC101K
100	R	CS12AC101M	....
120	R	....	CS12AC121K
180	S	....	CS12AC181K
220	S	....	CS12AC221K
220	S	CS12AC221M	....
CS12—15 WVDC			
2.7	A	....	CS12AD2R7K
3.3	A	....	CS12AD3R3K
3.3	A	CS12AD3R3M	....
18	B	....	CS12AD180K
22	B	....	CS12AD220K
22	B	CS12AD220M	....
56	R	CS12AD560M	....
68	R	....	CS12AD680K
68	R	CS12AD680M	....
120	S	....	CS12AD121K
150	S	....	CS12AD151K
150	S	CS12AD151M	....
CS12—20 WVDC			
1.2	A	....	CS12AE1R2K
1.5	A	....	CS12AE1R5K
1.5	A	CS12AE1R5M	....
1.8	A	....	CS12AE1R8K
2.2	A	....	CS12AE2R2K
2.2	A	CS12AE2R2M	....
8.2	B	....	CS12AE8R2K
10	B	....	CS12AE100K
10	B	CS12AE100M	....
12	B	....	CS12AE120K
15	B	....	CS12AE150K
15	B	CS12AE150M	....
27	R	....	CS12AE270K
33	R	....	CS12AE330K
33	R	CS12AE330M	....
39	R	....	CS12AE390K
47	R	....	CS12AE470K
47	R	CS12AE470M	....
56	S	....	CS12AE560K
68	S	....	CS12AE680K
68	S	CS12AE680M	....
82	S	....	CS12AE820K
100	S	....	CS12AE101K
100	S	CS12AE101M	....
CS12—35 WVDC			
.33	A	....	CS12AFR33K
.33	A	CS12AFR33M	....
.39	A	....	CS12AFR39K
.47	A	....	CS12AFR47K
.47	A	CS12AFR47M	....
.56	A	....	CS12AFR56K
.68	A	....	CS12AFR68K
.68	A	CS12AFR68M	....
.82	A	....	CS12AFR82K
1.0	A	....	CS12AF010K
1.0	A	CS12AF010M	....
1.2	B	....	CS12AF1R2K
1.5	B	....	CS12AF1R5K
1.5	B	CS12AF1R5M	....
1.8	B	....	CS12AF1R8K
2.2	B	....	CS12AF2R2K
2.2	B	CS12AF2R2M	....
2.7	B	....	CS12AF2R7K
3.3	B	....	CS12AF3R3K
CS12—35 WVDC			
3.3	B	CS12AF3R3M	....
3.9	B	....	CS12AF3R9K
4.7	B	....	CS12AF4R7K
4.7	B	CS12AF4R7M	....
5.6	B	....	CS12AF5R6K
6.8	B	....	CS12AF6R8K
6.8	B	CS12AF6R8M	....
8.2	R	....	CS12AF8R2K
10	R	....	CS12AF100K
10	R	CS12AF100M	....
12	R	....	CS12AF120K
15	R	....	CS12AF150K
15	R	CS12AF150M	....
18	R	....	CS12AF180K
22	R	....	CS12AF220K
22	R	CS12AF220M	....
27	S	....	CS12AF270K
33	S	....	CS12AF330K
33	S	CS12AF330M	....
39	S	....	CS12AF390K
47	S	....	CS12AF470K
47	S	CS12AF470M	....
CS12—50 WVDC			
1.0	A	....	CS12AG010K
1.0	A	CS12AG010M	....
1.2	B	....	CS12AG1R2K
1.5	B	....	CS12AG1R5K
1.5	B	CS12AG1R5M	....
1.8	B	....	CS12AG1R8K
2.2	B	....	CS12AG2R2K
2.2	B	CS12AG2R2M	....
2.7	B	....	CS12AG2R7K
3.3	B	....	CS12AG3R3K
3.3	B	CS12AG3R3M	....
3.9	B	....	CS12AG3R9K
4.7	B	....	CS12AG4R7K
4.7	B	CS12AG4R7M	....
CS13—6 WVDC			
5.6	A	....	CS13AB5R6K
6.8	A	....	CS13AB6R8K
6.8	A	CS13AB6R8M	....
47	B	....	CS13AB470K
47	B	CS13AB470M	....
56	B	....	CS13AB560K
150	R	....	CS13AB151K
150	R	CS13AB151M	....
180	R	....	CS13AB181K
270	S	....	CS13AB271K
330	S	....	CS13AB331K
330	S	CS13AB331M	....
CS13—10 WVDC			
3.9	A	....	CS13AC3R9K
4.7	A	....	CS13AC4R7K
4.7	A	CS13AC4R7M	....
27	B	....	CS13AC270K
33	B	....	CS13AC330K
33	B	CS13AC330M	....
39	B	....	CS13AC390K
82	R	....	CS13AC820K
100	R	....	CS13AC101K
100	R	CS13AC101M	....
120	R	....	CS13AC121K
180	S	....	CS13AC181K
220	S	....	CS13AC221K
220	S	CS13AC221M	....
CS13—15 WVDC			
2.7	A	....	CS13AD2R7K
3.3	A	....	CS13AD3R3K
3.3	A	CS13AD3R3M	....
18	B	....	CS13AD180K
22	B	....	CS13AD220K
22	B	CS13AD220M	....
56	R	....	CS13AD560K
68	R	....	CS13AD680K
68	R	CS13AD680M	....
120	S	....	CS13AD121K
150	S	....	CS13AD151K
150	S	CS13AD151M	....
CS13—20 WVDC			
1.2	A	....	CS13AE1R2K
1.5	A	....	CS13AE1R5K
1.5	A	CS13AE1R5M	....
CS13—20 WVDC			
1.8	A	....	CS13AE1R8K
2.2	A	....	CS13AE2R2K
2.2	A	CS13AE2R2M	....
8.2	B	....	CS13AE8R2K
10	B	....	CS13AE100K
10	B	CS13AE100M	....
12	B	....	CS13AE120K
15	B	....	CS13AE150K
15	B	CS13AE150M	....
27	R	....	CS13AE270K
33	R	....	CS13AE330K
33	R	CS13AE330M	....
39	R	....	CS13AE390K
47	R	....	CS13AE470K
47	R	CS13AE470M	....
56	S	....	CS13AE560K
68	S	....	CS13AE680K
68	S	CS13AE680M	....
82	S	....	CS13AE820K
100	S	....	CS13AE101K
100	S	CS13AE101M	....
CS13—35 WVDC			
.33	A	....	CS13AFR33K
.33	A	CS13AFR33M	....
.39	A	....	CS13AFR39K
.47	A	....	CS13AFR47K
.47	A	CS13AFR47M	....
.56	A	....	CS13AFR56K
.68	A	....	CS13AFR68K
.68	A	CS13AFR68M	....
.82	A	....	CS13AFR82K
1.0	A	....	CS13AF010K
1.0	A	CS13AF010M	....
1.2	B	....	CS13AF1R2K
1.5	B	....	CS13AF1R5K
1.5	B	CS13AF1R5M	....
1.8	B	....	CS13AF1R8K
2.2	B	....	CS13AF2R2K
2.2	B	CS13AF2R2M	....
2.7	B	....	CS13AF2R7K
3.3	B	....	CS13AF3R3K
3.3	B	CS13AF3R3M	....
3.9	B	....	CS13AF3R9K
4.7	B	....	CS13AF4R7K
4.7	B	CS13AF4R7M	....
5.6	B	....	CS13AF5R6K
6.8	B	....	CS13AF6R8K
6.8	B	CS13AF6R8M	....
8.2	R	....	CS13AF8R2K
10	R	....	CS13AF100K
10	R	CS13AF100M	....
12	R	....	CS13AF120K
15	R	....	CS13AF150K
15	R	CS13AF150M	....
18	R	....	CS13AF180K
22	R	....	CS13AF220K
22	R	CS13AF220M	....
27	S	....	CS13AF270K
33	S	....	CS13AF330K
33	S	CS13AF330M	....
39	S	....	CS13AF390K
47	S	....	CS13AF470K
47	S	CS13AF470M	....
CS13—50 WVDC			
1.0	A	....	CS13AG010K
1.0	A	CS13AG010M	....
1.2	B	....	CS13AG1R2K
1.5	B	....	CS13AG1R5K
1.5	B	CS13AG1R5M	....
1.8	B	....	CS13AG1R8K
2.2	B	....	CS13AG2R2K
2.2	B	CS13AG2R2M	....
2.7	B	....	CS13AG2R7K
3.3	B	....	CS13AG3R3K
3.3	B	CS13AG3R3M	....
3.9	B	....	CS13AG3R9K
4.7	B	....	CS13AG4R7K
4.7	B	CS13AG4R7M	....

SIZE CODE

A = .104" dia. x .312" long
B = .190" dia. x .500" long
R = .285" dia. x .759" long
S = .347" dia. x .859" long

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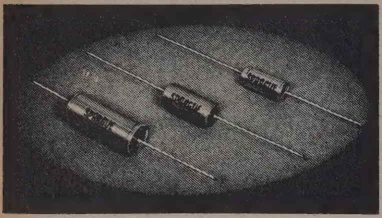
SPRAGUE CAPACITORS

MIL-C-3965 FOIL TANTALUM CAPACITORS TYPES CL24 & CL25



DIMENSIONS

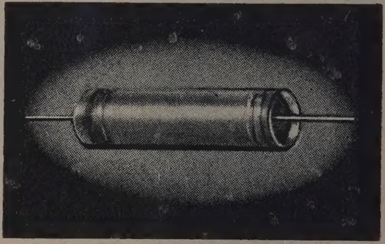
Code	D. x L.	Code	D. x L.
D	3/16 x 11/16	M	3/8 x 2 1/8
G	9/32 x 7/8	P	3/8 x 2 3/4
J	3/8 x 1 7/16		

- For −55C to +85C operation up to 150 volts in military and industrial electronic equipment.
- Low leakage current and stable temperature coefficient makes possible its use in many circuits where aluminum foil designs are undesirable.
- The electrolyte system used assures long operating and shelf life, excellent low temperature performance, chemical stability and inertness.
- MIL version of Sprague Type 112D.
- Type CL24 is a bare metal-case unit. If an outer insulating sleeve is desired, order Type CL25.
- For quantity prices see your Sprague Industrial Distributor.

μF	WVDC	Size Code	Military Designation*	
15	15	D	CL24BE150UP3	CL25BE150UP3
60	15	G	CL24BE600UP3	CL25BE600UP3
200	15	J	CL24BE201UP3	CL25BE201UP3
400	15	M	CL24BE401UP3	CL25BE401UP3
580	15	P	CL24BE581UP3	CL25BE581UP3
10	25	D	CL24BG100UP3	CL25BG100UP3
40	25	G	CL24BG400UP3	CL25BG400UP3
120	25	J	CL24BG121UP3	CL25BG121UP3
250	25	M	CL24BG251UP3	CL25BG251UP3
350	25	P	CL24BG351UP3	CL25BG351UP3
8	30	D	CL24BH080UP3	CL25BH080UP3
32	30	G	CL24BH320UP3	CL25BH320UP3
110	30	J	CL24BH111UP3	CL25BH111UP3
220	30	M	CL24BH221UP3	CL25BH221UP3
300	30	P	CL24BH301UP3	CL25BH301UP3
4.5	50	D	CL24BJ4R5UP3	CL25BJ4R5UP3
18	50	G	CL24BJ180UP3	CL25BJ180UP3
60	50	J	CL24BJ600UP3	CL25BJ600UP3
100	50	M	CL24BJ101UP3	CL25BJ101UP3
150	50	P	CL24BJ151UP3	CL25BJ151UP3
3	75	D	CL24BL030UP3	CL25BL030UP3
12	75	G	CL24BL120UP3	CL25BL120UP3
30	75	J	CL24BL300UP3	CL25BL300UP3
70	75	M	CL24BL700UP3	CL25BL700UP3
100	75	P	CL24BL101UP3	CL25BL101UP3
2	100	D	CL24BN020UP3	CL25BN020UP3
8	100	G	CL24BN080UP3	CL25BN080UP3
25	100	J	CL24BN250UP3	CL25BN250UP3
50	100	M	CL24BN500UP3	CL25BN500UP3
70	100	P	CL24BN700UP3	CL25BN700UP3
1	150	D	CL24BQ010UP3	CL25BQ010UP3
4	150	G	CL24BQ040UP3	CL25BQ040UP3
13	150	J	CL24BQ130UP3	CL25BQ130UP3
25	150	M	CL24BQ250UP3	CL25BQ250UP3
36	150	P	CL24BQ360UP3	CL25BQ360UP3

*Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

MIL-C-3965 FOIL TANTALUM CAPACITORS TYPES CL34 and CL35



- For use in military and industrial electronic equipment. Designed to operate over the temperature range of −55C to +85C up to 150 volts.
- Long operation and shelf life, excellent low temperature performance, and optimum electrical characteristics.
- For use in circuits where aluminum foil units are unsatisfactory. Low leakage current and good temperature coefficient.
- Type CL34 is a bare metal case unit. If an outer insulating sleeve is desired, order Type CL35.
- MIL version of Sprague Type 110D.
- For quantity prices see your Sprague Industrial Distributor.

DIMENSIONS

Code	D. x L.	Code	D. x L.
D	3/16 x 11/16	M	3/8 x 2 1/8
G	9/32 x 7/8	P	3/8 x 2 3/4
J	3/8 x 1 7/16		

μF	WVDC	Size Code	Military Designation*	
10	3	D	CL34BA100MP3	CL35BA100MP3
50	3	G	CL34BA500MP3	CL35BA500MP3
8	6	D	CL34BB080MP3	CL35BB080MP3
30	6	G	CL34BB300MP3	CL35BB300MP3
100	6	J	CL34BB101MP3	CL35BB101MP3
200	6	M	CL34BB201MP3	CL35BB201MP3
300	6	P	CL34BB301MP3	CL35BB301MP3
6	10	D	CL34BD060MP3	CL35BD060MP3
25	10	G	CL34BD250MP3	CL35BD250MP3
80	10	J	CL34BD800MP3	CL35BD800MP3
160	10	M	CL34BD161MP3	CL35BD161MP3
220	10	P	CL34BD221MP3	CL35BD221MP3
4.5	15	D	CL34BE4R5MP3	CL35BE4R5MP3
10	15	G	CL34BE100MP3	CL35BE100MP3
18	15	G	CL34BE180MP3	CL35BE180MP3
55	15	J	CL34BE550MP3	CL35BE550MP3
110	15	M	CL34BE111MP3	CL35BE111MP3
160	15	P	CL34BE161MP3	CL35BE161MP3
2.5	30	D	CL34BH2R5MP3	CL35BH2R2MP3
30	30	J	CL34BH300MP3	CL35BH300MP3
60	30	M	CL34BH300MP3	CL35BH600MP3
85	30	P	CL34BH850MP3	CL35BH850MP3
1.5	50	D	CL34BJ1R5MP3	CL35BJ1R5MP3
6	50	G	CL34BJ060MP3	CL35BJ060MP3
20	50	J	CL34BJ200MP3	CL35BJ200MP3
40	50	M	CL34BJ400MP3	CL35BJ400MP3
55	50	P	CL34BJ550MP3	CL35BJ550MP3
1	75	D	CL34BL010MP3	CL35BL010MP3
4	75	G	CL34BL040MP3	CL35BL040MP3
14	75	J	CL34BL140MP3	CL35BL140MP3
28	75	M	CL34BL280MP3	CL35BL280MP3
40	75	P	CL34BL400MP3	CL35BL400MP3
0.8	100	D	CL34BN0R8MP3	CL35BN0R8MP3
3	100	G	CL34BN030MP3	CL35BN030MP3
10	100	J	CL34BN100MP3	CL35BN100MP3
20	100	M	CL34BN200MP3	CL35BN200MP3
30	100	P	CL34BN300MP3	CL35BN300MP3
0.5	150	D	CL34BQ0R5MP3	CL35BQ0R5MP3
2	150	G	CL34BQ020MP3	CL35BQ020MP3
4	150	G	CL34BQ040MP3	CL35BQ040MP3
7	150	J	CL34BQ070MP3	CL35BQ070MP3
8	150	J	CL34BQ080MP3	CL35BQ080MP3
12	150	M	CL34BQ120MP3	CL35BQ120MP3
14	150	M	CL34BQ140MP3	CL35BQ140MP3
20	150	P	CL34BQ200MP3	CL35BQ200MP3

*Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

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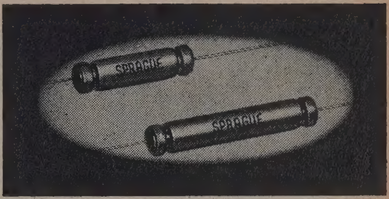
SPRAGUE CAPACITORS

MIL-C-3965 TUBULAR FOIL TANTALUM ELECTROLYTICS

- Meet Requirements of Military Specification MIL-C-3965
- Small Electrically Stable Foil Tantalums, Long, Reliable Life
- Available in Industrial Equivalents as Types 120D, 121D, 122D
- Temperature Rating 125C
- Types Marked (*) Have Insulating Sleeves. All Others are Bare Case
- Capacitance Tolerance ±20%

SIZE CODE (Diam x Length)
E (13/16″ x 23/32″). H (19/64″ x 15/16″).
K (25/64″ x 1 15/32″). N (25/64″ x 2 5/32″).
Q (25/64″ x 2 25/32″).



TYPE CL20
POLARIZED ETCHED FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
15	E	CL20CD150UP3
60	H	CL20CD600UP3
200	K	CL20CD201UP3
400	N	CL20CD401UP3
580	Q	CL20CD581UP3
15 WORKING VOLTS D-C		
10	E	CL20CE100UP3
40	H	CL20CE400UP3
120	K	CL20CE121UP3
250	N	CL20CE251UP3
350	Q	CL20CE351UP3
30 WORKING VOLTS D-C		
4.5	E	CL20CH4R5TP3
18	H	CL20CH180TP3
60	K	CL20CH600TP3
100	N	CL20CH101TP3
150	Q	CL20CH151TP3
50 WORKING VOLTS D-C		
3	E	CL20CJ030TP3
12	H	CL20CJ120TP3
30	K	CL20CJ300TP3
70	N	CL20CJ700TP3
100	Q	CL20CJ101TP3
60 WORKING VOLTS D-C		
2	E	CL20CK020TP3
8	H	CL20CK080TP3
25	K	CL20CK250TP3
30	N	CL20CK500TP3
70	Q	CL20CK700TP3
100 WORKING VOLTS D-C		
1	E	CL20CN010SP3
4	H	CL20CN040SP3
13	K	CL20CN130SP3
25	N	CL20CN250SP3
36	Q	CL20CN360SP3

TYPE CL21*
POLARIZED ETCHED FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
15	E	CL21CD150UP3
60	H	CL21CD600UP3
200	K	CL21CD201UP3
400	N	CL21CD401UP3
580	Q	CL21CD581UP3
15 WORKING VOLTS D-C		
10	E	CL21CE100UP3
40	H	CL21CE400UP3
120	K	CL21CE121UP3
250	N	CL21CE251UP3
350	Q	CL21CE351UP3
30 WORKING VOLTS D-C		
4.5	E	CL21CH4R5TP3
18	H	CL21CH180TP3
60	K	CL21CH600TP3
100	N	CL21CH101TP3
150	Q	CL21CH151TP3
50 WORKING VOLTS D-C		
3	E	CL21CJ030TP3
12	H	CL21CJ120TP3
30	K	CL21CJ300TP3
70	N	CL21CJ700TP3
100	Q	CL21CJ101TP3
60 WORKING VOLTS D-C		
2	E	CL21CK020TP3
8	H	CL21CK080TP3
25	K	CL21CK250TP3
50	N	CL21CK500TP3
70	Q	CL21CK700TP3
100 WORKING VOLTS D-C		
1	E	CL21CN010SP3
4	H	CL21CN040SP3
13	K	CL21CN130SP3
25	N	CL21CN250SP3
36	Q	CL21CN360SP3

TYPE CL30
POLARIZED PLAIN FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
4.5	E	CL30CD4R5MP3
18	H	CL30CD180MP3
55	K	CL30CD550MP3
110	N	CL30CD111MP3
160	Q	CL30CD161MP3
15 WORKING VOLTS D-C		
3	E	CL30CE030MP3
12	H	CL30CE120MP3
35	K	CL30CE350MP3
70	N	CL30CE700MP3
100	Q	CL30CE101MP3
30 WORKING VOLTS D-C		
1.5	E	CL30CH1R5MP3
6	H	CL30CH060MP3
20	K	CL30CH200MP3
40	N	CL30CH400MP3
55	Q	CL30CH550MP3
50 WORKING VOLTS D-C		
1	E	CL30CJ010MP3
4	H	CL30CJ040MP3
14	K	CL30CJ140MP3
28	N	CL30CJ280MP3
40	Q	CL30CJ400MP3
60 WORKING VOLTS D-C		
0.8	E	CL30CK0R8MP3
3	H	CL30CK030MP3
10	K	CL30CK100MP3
20	N	CL30CK200MP3
30	Q	CL30CK300MP3
100 WORKING VOLTS D-C		
0.5	E	CL30CN0R5MP3
2	H	CL30CN020MP3
7	K	CL30CN070MP3
14	N	CL30CN140MP3
20	Q	CL30CN200MP3
150 WORKING VOLTS D-C		
0.35	E	CL30CQR35MP3
1.5	H	CL30CQ1R5MP3
5	K	CL30CQ050MP3
10	N	CL30CQ100MP3
15	Q	CL30CQ150MP3

TYPE CL31*
POLARIZED PLAIN FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
4.5	E	CL31CD4R5MP3
18	H	CL31CD180MP3
55	K	CL31CD550MP3
110	N	CL31CD111MP3
160	Q	CL31CD161MP3
15 WORKING VOLTS D-C		
3	E	CL31CE030MP3
12	H	CL31CE120MP3
35	K	CL31CE350MP3
70	N	CL31CE700MP3
100	Q	CL31CE101MP3
30 WORKING VOLTS D-C		
1.5	E	CL31CH1R5MP3
6	H	CL31CH060MP3
20	K	CL31CH200MP3
40	N	CL31CH400MP3
55	Q	CL31CH550MP3
50 WORKING VOLTS D-C		
1	E	CL31CJ010MP3
4	H	CL31CJ040MP3
14	K	CL31CJ140MP3
28	N	CL31CJ280MP3
40	Q	CL31CJ400MP3
60 WORKING VOLTS D-C		
0.8	E	CL31CK0R8MP3
3	H	CL31CK030MP3
10	K	CL31CK100MP3
20	N	CL31CK200MP3
30	Q	CL31CK300MP3
100 WORKING VOLTS D-C		
0.5	E	CL31CN0R5MP3
2	H	CL31CN020MP3
7	K	CL31CN070MP3
14	N	CL31CN140MP3
20	Q	CL31CN200MP3
150 WORKING VOLTS D-C		
0.35	E	CL31CQR35MP3
1.5	H	CL31CQ1R5MP3
5	K	CL31CQ050MP3
10	N	CL31CQ100MP3
15	Q	CL31CQ150MP3

TYPE CL32
NON-POLARIZED PLAIN FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
2.5	E	CL32CD2R5MN3
10	H	CL32CD100MN3
35	K	CL32CD350MN3
70	N	CL32CD700MN3
100	Q	CL32CD101MN3
15 WORKING VOLTS D-C		
1.5	E	CL32CE1R5MN3
6	H	CL32CE060MN3
20	K	CL32CE200MN3
40	N	CL32CE400MN3
60	Q	CL32CE600MN3
30 WORKING VOLTS D-C		
0.8	E	CL32CH0R8MN3
3	H	CL32CH030MN3
10	K	CL32CH100MN3
20	N	CL32CH200MN3
30	Q	CL32CH300MN3
50 WORKING VOLTS D-C		
0.5	E	CL32CJ0R5MN3
2	H	CL32CJ020MN3
7	K	CL32CJ070MN3
14	N	CL32CJ140MN3
20	Q	CL32CJ200MN3
60 WORKING VOLTS D-C		
0.4	E	CL32CK0R4MN3
1.5	H	CL32CK1R5MN3
5	K	CL32CK050MN3
10	N	CL32CK100MN3
15	Q	CL32CK150MN3
100 WORKING VOLTS D-C		
0.25	E	CL32CNR25MN3
1	H	CL32CN010MN3
3.5	K	CL32CN3R5MN3
7	N	CL32CN070MN3
10	Q	CL32CN100MN3
150 WORKING VOLTS D-C		
0.15	E	CL32CQR15MN3
0.75	H	CL32CQR75MN3
2.5	K	CL32CQ2R5MN3
5	N	CL32CQ050MN3
7.5	Q	CL32CQ7R5MN3

TYPE CL33*
NON-POLARIZED PLAIN FOIL

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
2.5	E	CL33CD2R5MN3
10	H	CL33CD100MN3
35	K	CL33CD350MN3
70	N	CL33CD700MN3
100	Q	CL33CD101MN3
15 WORKING VOLTS D-C		
1.5	E	CL33CE1R5MN3
6	H	CL33CE060MN3
20	K	CL33CE200MN3
40	N	CL33CE400MN3
60	Q	CL33CE600MN3
30 WORKING VOLTS D-C		
0.8	E	CL33CH0R8MN3
3	H	CL33CH030MN3
10	K	CL33CH100MN3
20	N	CL33CH200MN3
30	Q	CL33CH300MN3
50 WORKING VOLTS D-C		
0.5	E	CL33CJ0R5MN3
2	H	CL33CJ020MN3
7	K	CL33CJ070MN3
14	N	CL33CJ140MN3
20	Q	CL33CJ200MN3
60 WORKING VOLTS D-C		
0.4	E	CL33CK0R4MN3
1.5	H	CL33CK1R5MN3
5	K	CL33CK050MN3
10	N	CL33CK100MN3
15	Q	CL33CK150MN3
100 WORKING VOLTS D-C		
0.25	E	CL33CNR25MN3
1	H	CL33CN010MN3
3.5	K	CL33CN3R5MN3
7	N	CL33CN070MN3
10	Q	CL33CN100MN3
150 WORKING VOLTS D-C		
0.15	E	CL33CQR15MN3
0.75	H	CL33CQR75MN3
2.5	K	CL33CQ2R5MN3
5	N	CL33CQ050MN3
7.5	Q	CL33CQ7R5MN3

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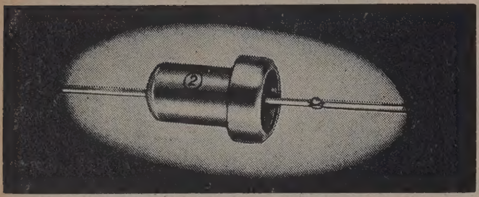
SPRAGUE CAPACITORS

MIL-C-3965 'CUP-TYPE' TANTALEX® CAPACITORS
TYPES CL44 and CL45



DIMENSIONS

Code	D. x L.	Code	D. x L.	Code	D. x L.
U	7/32 x 15/32	V	9/32 x 11/64	T	3/8 x 49/64

- Type CL44 and CL45 Tantalex capacitors are manufactured to specification MIL-3965. Also available as Sprague Industrial Type 131D and 132D.
- Large capacitance values in small physical size.
- Intended for industrial, communication and ground military electronic equipment.
- Extremely low leakage currents and virtually no shelf aging.
- CL44 is a bare metal-case unit. CL45 has outer insulating sleeve.
- Capacitance tolerance: M = +20, −20%; S = +30, −15%; T = +50, −15%.
- For quantity prices see your Sprague Industrial Distributor.

TYPE CL44 - 85C ALSO AVAILABLE IN CHARACTERISTIC C (125C)

µF	WVDC	Size Code	Type Number*
30	6	U	CL44BB300MP
30	6	U	CL44BB300SP
30	6	U	CL44BB300TP
140	6	V	CL44BB141MP
140	6	V	CL44BB141SP
140	6	V	CL44BB141TP
330	6	T	CL44BB331MP
330	6	T	CL44BB331SP
330	6	T	CL44BB331TP
25	8	U	CL44BC250MP
25	8	U	CL44BC250SP
25	8	U	CL44BC250TP
20	10	U	CL44BD200MP
20	10	U	CL44BD200SP
20	10	U	CL44BD200TP
100	10	V	CL44BD101MP
100	10	V	CL44BD101SP
100	10	V	CL44BD101TP
250	10	T	CL44BD251MP
250	10	T	CL44BD251SP
250	10	T	CL44BD251TP
15	15	U	CL44BE150MP
15	15	U	CL44BE150SP
15	15	U	CL44BE150TP
70	15	V	CL44BE700MP
70	15	V	CL44BE700SP
70	15	V	CL44BE700TP
170	15	T	CL44BE171MP
170	15	T	CL44BE171SP
170	15	T	CL44BE171TP
10	25	U	CL44BG100MP
10	25	U	CL44BG100SP
10	25	U	CL44BG100TP
8	30	U	CL44BH080MP
8	30	U	CL44BH080SP
8	30	U	CL44BH080TP
40	30	V	CL44BH400MP
40	30	V	CL44BH400SP
40	30	V	CL44BH400TP
100	30	T	CL44BH101MP
100	30	T	CL44BH101SP
100	30	T	CL44BH101TP
5	50	U	CL44BJ050MP
5	50	U	CL44BJ050SP
5	50	U	CL44BJ050TP
25	50	V	CL44BJ250MP
25	50	V	CL44BJ250SP
25	50	V	CL44BJ250TP
60	50	T	CL44BJ600MP
60	50	T	CL44BJ600SP
60	50	T	CL44BJ600TP
4	60	U	CL44BK040MP
4	60	U	CL44BK040SP
4	60	U	CL44BK040TP
20	60	V	CL44BK200MP
20	60	V	CL44BK200SP
20	60	V	CL44BK200TP
50	60	T	CL44BK500MP
50	60	T	CL44BK500SP
50	60	T	CL44BK500TP
3.5	75	U	CL44BL3R5MP
3.5	75	U	CL44BL3R5SP
3.5	75	U	CL44BL3R5TP
15	75	V	CL44BL150MP
15	75	V	CL44BL150SP
15	75	V	CL44BL150TP
40	75	T	CL44BL400MP
40	75	T	CL44BL400SP
40	75	T	CL44BL400TP
2.5	100	U	CL44BN2R5MP
2.5	100	U	CL44BN2R5SP
2.5	100	U	CL44BN2R5TP
11	100	V	CL44BN110MP
11	100	V	CL44BN110SP
11	100	V	CL44BN110TP
30	100	T	CL44BN300MP
30	100	T	CL44BN300SP
30	100	T	CL44BN300TP
1.7	125	U	CL44BP1R7MP
1.7	125	U	CL44BP1R7SP
1.7	125	U	CL44BP1R7TP
9	125	V	CL44BP090MP
9	125	V	CL44BP090SP
9	125	V	CL44BP090TP
25	125	T	CL44BP250MP
25	125	T	CL44BP250SP
25	125	T	CL44BP250TP

*For Vibration Grade 1, 2, or 3, add 1, 2, or 3 at end of Type Number.

TYPE CL45 - 85C ALSO AVAILABLE IN CHARACTERISTIC C (125C)

µF	WVDC	Size Code	Type Number*
30	6	U	CL45BB300MP
30	6	U	CL45BB300SP
30	6	U	CL45BB300TP
140	6	V	CL45BB141MP
140	6	V	CL45BB141SP
140	6	V	CL45BB141TP
330	6	T	CL45BB331MP
330	6	T	CL45BB331SP
330	6	T	CL45BB331TP
25	8	U	CL45BC250MP
25	8	U	CL45BC250SP
25	8	U	CL45BC250TP
20	10	U	CL45BD200MP
20	10	U	CL45BD200SP
20	10	U	CL45BD200TP
100	10	V	CL45BD101MP
100	10	V	CL45BD101SP
100	10	V	CL45BD101TP
250	10	T	CL45BD251MP
250	10	T	CL45BD251SP
250	10	T	CL45BD251TP
15	15	U	CL45BE150MP
15	15	U	CL45BE150SP
15	15	U	CL45BE150TP
70	15	V	CL45BE700MP
70	15	V	CL45BE700SP
70	15	V	CL45BE700TP
170	15	T	CL45BE171MP
170	15	T	CL45BE171SP
170	15	T	CL45BE171TP
10	25	U	CL45BG100MP
10	25	U	CL45BG100SP
10	25	U	CL45BG100TP
8	30	U	CL45BH080MP
8	30	U	CL45BH080SP
8	30	U	CL45BH080TP
40	30	V	CL45BH400MP
40	30	V	CL45BH400SP
40	30	V	CL45BH400TP
100	30	T	CL45BH101MP
100	30	T	CL45BH101SP
100	30	T	CL45BH101TP
5	50	U	CL45BJ050MP
5	50	U	CL45BJ050SP
5	50	U	CL45BJ050TP
25	50	V	CL45BJ250MP
25	50	V	CL45BJ250SP
25	50	V	CL45BJ250TP
60	50	T	CL45BJ600MP
60	50	T	CL45BJ600SP
60	50	T	CL45BJ600TP
4	60	U	CL45BK040MP
4	60	U	CL45BK040SP
4	60	U	CL45BK040TP
20	60	V	CL45BK200MP
20	60	V	CL45BK200SP
20	60	V	CL45BK200TP
50	60	T	CL45BK500MP
50	60	T	CL45BK500SP
50	60	T	CL45BK500TP
3.5	75	U	CL45BL3R5MP
3.5	75	U	CL45BL3R5SP
3.5	75	U	CL45BL3R5TP
15	75	V	CL45BL150MP
15	75	V	CL45BL150SP
15	75	V	CL45BL150TP
40	75	T	CL45BL400MP
40	75	T	CL45BL400SP
40	75	T	CL45BL400TP
2.5	100	U	CL45BN2R5MP
2.5	100	U	CL45BN2R5SP
2.5	100	U	CL45BN2R5TP
11	100	V	CL45BN110MP
11	100	V	CL45BN110SP
11	100	V	CL45BN110TP
30	100	T	CL45BN300MP
30	100	T	CL45BN300SP
30	100	T	CL45BN300TP
1.7	125	U	CL45BP1R7MP
1.7	125	U	CL45BP1R7SP
1.7	125	U	CL45BP1R7TP
9	125	V	CL45BP090MP
9	125	V	CL45BP090SP
9	125	V	CL45BP090TP
25	125	T	CL45BP250MP
25	125	T	CL45BP250SP
25	125	T	CL45BP250TP

*For Vibration Grade 1, 2, or 3, add 1, 2, or 3 at end of Type Number.

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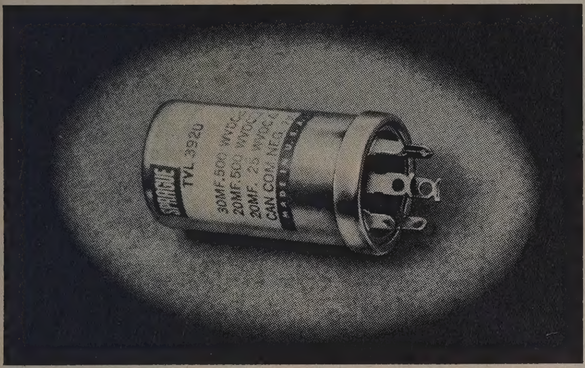
SPRAGUE CAPACITORS

TVL TWIST-LOK® ELECTROLYTICS



- Hermetically Sealed in Aluminum Cans for Long Life and Dependable Performance in TV, Radio and Hi-Fi
- Designed for 85°C (185°F) Operation
- Stand Up Under Extremely High Temperatures Often Encountered in TV, Hi-Fi, and Auto Radio Cabinets
- Withstand High Surge Voltages
- Ideal for High Ripple Selenium Rectifier Circuits
- Can Be Safely Mounted "Above Ground" Using Phenolic Mounting Plate and Insulating Tube
- Easy to Mount — Unit Locks Firmly in Place with a Twist of the Tabs
- Furnished Complete with Both Phenolic and Metal Mounting Plates

The Twist-lok Capacitors listed here include only popular ratings for industrial applications. For the complete line of more than 1700 Twist-lok Capacitors, please refer to Distributor's Guide to Replacement Electrolytic Capacitors, C-1001.

μF	WVDC	Dia. x Length	Cat. No.	Net
		SINGLE UNITS		
2000	6	1⅜ x 2	TVL-1115	$1.83
225	15	¾ x 2	TVL-1160	1.05
1000	15	1 x 2½	TVL-1165	1.53
2000	15	1⅜ x 2	TVL-1168	2.07
3000	15	1⅜ x 3	TVL-1170	2.55
4000	15	1⅜ x 3½	TVL-1173	2.25
40	25	¾ x 2	TVL-1210	.81
500	25	1 x 2	TVL-1220	1.53
1000	25	1⅜ x 2	TVL-1230	2.13
100	50	¾ x 2	TVL-1317	.99
150	50	¾ x 2½	TVL-1320	1.08
250	50	1 x 2½	TVL-1324	1.20
500	50	1⅜ x 2½	TVL-1330	1.59
1000	50	1⅜ x 3½	TVL-1338	2.25
1500	50	1⅜ x 4	TVL-1341	2.64
30	150	1 x 2	TVL-1408	.93
50	150	1 x 2	TVL-1415	.99
80	150	1 x 2½	TVL-1420	1.11
100	150	1 x 2½	TVL-1423	1.20
120	150	1 x 2½	TVL-1425	1.29
120	150	1⅜ x 2½	TVL-1426	1.29
140	150	1 x 3	TVL-1428	1.29
150	150	1 x 3	TVL-1429	1.29
150	150	1⅜ x 3	TVL-1430	1.29
200	150	1⅜ x 4	TVL-1431	1.47
300	150	1⅜ x 3½	TVL-1434	1.68
160	200	1⅜ x 3	TVL-1473	1.89
20	250	1 x 2	TVL-1509	.96
40	250	1 x 2	TVL-1519	1.08
100	250	1 x 3	TVL-1535	1.62
150	250	1⅜ x 2½	TVL-1540	1.86
200	250	1⅜ x 3½	TVL-1547	2.19
80	300	1 x 3½	TVL-1573	1.53
100	300	1 x 4	TVL-1578	1.74
125	300	1⅜ x 3½	TVL-1580	2.10
150	300	1⅜ x 3½	TVL-1584	2.10
250	300	1⅜ x 4	TVL-1590	3.33
30	350	1 x 2	TVL-1617	1.14
40	350	1 x 2	TVL-1621	1.20
50	350	1 x 2	TVL-1622	1.26
60	350	1 x 3	TVL-1624	1.32
80	350	1⅜ x 2	TVL-1630	1.71
125	350	1⅜ x 3½	TVL-1638	2.37
150	350	1⅜ x 4	TVL-1642	2.37
4	450	1 x 2	TVL-1702	.84
10	450	1 x 2	TVL-1705	$ .93
15	450	1 x 2	TVL-1709	1.02
20	450	1 x 2	TVL-1714	1.08
30	450	1 x 2½	TVL-1720	1.17
40	450	1 x 3	TVL-1725	1.23
50	450	1 x 3	TVL-1728	1.41
60	450	1⅜ x 2½	TVL-1730	1.56
80	450	1⅜ x 2½	TVL-1735	1.83
100	450	1⅜ x 3	TVL-1750	2.07
125	450	1⅜ x 4	TVL-1760	2.31
40	475	1⅜ x 2	TVL-1820	1.50
10	500	1 x 2	TVL-1940	1.02
20	500	1 x 2½	TVL-1943	1.11
30	500	1 x 3	TVL-1947	1.20
40	500	1 x 3½	TVL-1950	1.50
80	500	1⅜ x 3	TVL-1958	2.16
90	500	1⅜ x 3½	TVL-1960	2.10
		DUAL UNITS		
20-20	150-150	1 x 2	TVL-2415	$1.02
30-30	150-150	1 x 2	TVL-2422	1.11
40-20	150-150	1 x 2	TVL-2425	1.11
40-30	150-150	1 x 2	TVL-2427	1.11
40-40	150-150	1 x 2½	TVL-2428	1.14
50-30	150-150	1 x 2½	TVL-2432	1.20
50-50	150-150	1 x 2½	TVL-2435	1.29
60-60	150-150	1 x 3½	TVL-2438	1.41
70-30	150-150	1 x 2½	TVL-2439	1.32
75-75	150-150	1 x 3	TVL-2440	1.56
80-40	150-150	1⅜ x 2½	TVL-2442	1.38
80-50	150-150	1 x 2½	TVL-2442.1	1.44
80-80	150-150	1⅜ x 2	TVL-2442.4	1.59
125-100	150-150	1⅜ x 2½	TVL-2443.3	2.01
150-80	150-150	1⅜ x 2½	TVL-2443.5	1.83
200-5	150-150	1⅜ x 3	TVL-2444	1.62
200-125	150-150	1⅜ x 3½	TVL-2445	2.25
200-150	150-150	1⅜ x 4	TVL-2446	2.25
200-200	150-150	1⅜ x 4	TVL-2447	2.40
60-60	200-200	1 x 3	TVL-2461	2.04
60-60	200-200	1⅜ x 2	TVL-2462	2.04
100-100	200-200	1⅜ x 3	TVL-2464	2.10
200-5	200-200	1⅜ x 2	TVL-2470	1.83
20-20	250-250	1 x 2	TVL-2515	1.14
40-40	250-250	1 x 2	TVL-2520	1.50
150-150	250-250	1⅜ x 4	TVL-2535	3.09
200-200	250-250	1⅜ x 4	TVL-2538	3.63

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All prices and sizes subject to change without notice.

TVL TWIST-LOK ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.	Net
40-30	300-300	1 x 3	TVL-2574	$1.59
80-80	300-300	1⅜ x 3	TVL-2585	2.43
120-20	300-300	1⅜ x 3½	TVL-2588	2.40
120-40	300-300	1⅜ x 3½	TVL-2589	2.61
15-15	350-350	1 x 2	TVL-2625	1.35
30-30	350-350	1 x 3	TVL-2628	1.74
50-30	350-350	1⅜ x 2½	TVL-2630	1.89
60-30	350-350	1⅜ x 3	TVL-2631	1.89
80-20	350-350	1⅜ x 3	TVL-2633	2.10
80-40	350-350	1⅜ x 3	TVL-2634	2.46
80-80	350-350	1⅜ x 4	TVL-2635	2.82
90-40	350-350	1⅜ x 3	TVL-2637	2.58
100-60	350-350	1⅜ x 3½	TVL-2639	2.88
100-100	350-350	1⅜ x 4	TVL-2641	3.69
160-10	350-350	1⅜ x 3	TVL-2643	2.58
100-30	400-50	1⅜ x 3	TVL-2655	2.34
80-80	400-200	1⅜ x 3½	TVL-2656	2.37
80-60	400-400	1⅜ x 3	TVL-2677	2.82
120-40	400-400	1⅜ x 4	TVL-2679	3.15
30-200	450-150	1⅜ x 3	TVL-2715	2.10
40-10	450-300	1 x 3	TVL-2724	1.56
5-5	450-450	1 x 2	TVL-2748	1.02
10-10	450-450	1 x 2	TVL-2750	1.14
15-15	450-450	1 x 2½	TVL-2753	1.35
20-10	450-450	1 x 2½	TVL-2754	1.35
30-10	450-450	1 x 3	TVL-2757	1.44
30-30	450-450	1⅜ x 2½	TVL-2759	1.83
40-20	450-450	1⅜ x 3	TVL-2762	1.95
40-40	450-450	1⅜ x 3	TVL-2764	2.07
50-50	450-450	1⅜ x 3	TVL-2767	2.31
60-20	450-450	1⅜ x 3	TVL-2768	2.13
60-40	450-450	1⅜ x 3½	TVL-2770	2.37
60-60	450-450	1⅜ x 3½	TVL-2772	2.70
80-10	450-450	1⅜ x 3	TVL-2776	2.16
80-20	450-450	1⅜ x 3	TVL-2776.5	2.34
80-30	450-450	1⅜ x 4	TVL-2777	2.52
80-40	450-450	1⅜ x 3½	TVL-2778	3.03
100-40	450-450	1⅜ x 4	TVL-2780	2.91
15-15	475-475	1 x 2½	TVL-2820	1.41
30-10	475-475	1 x 3	TVL-2824	1.56
40-10	475-475	1⅜ x 2½	TVL-2827	1.86
80-50	475-475	1⅜ x 4	TVL-2851	3.12
10-10	500-500	1 x 2½	TVL-2933	1.17
20-20	500-500	1⅜ x 2½	TVL-2935	1.71
30-10	500-500	1⅜ x 3	TVL-2936	1.56
30-30	500-500	1⅜ x 3	TVL-2937	1.95
40-40	500-500	1⅜ x 3	TVL-2940	2.58
60-40	500-500	1⅜ x 3½	TVL-2944	2.76

TRIPLE UNITS

μF	WVDC	Dia. x Length	Cat. No.	Net
40-20-20	150-150-25	1 x 2½	TVL-3422	$1.38
50-30-20	150-150-25	1 x 2½	TVL-.426.7	1.50
50-50-20	150-150-25	1 x 3	TVL-3430	1.59
80-40-20	150-150-25	1 x 2½	TVL-3432	1.68
80-40-300	150-150-25	1⅜ x 2½	TVL-3432.4	2.22
20-20-20	150-150-150	1 x 2	TVL-3433	1.38
30-30-10	150-150-150	1 x 2	TVL-3435	1.71
40-20-10	150-150-150	1 x 2	TVL-3436	1.41
40-20-20	150-150-150	1 x 2½	TVL-3437	1.44
40-30-20	150-150-150	1 x 2	TVL-3438	1.50
40-40-40	150-150-150	1 x 3½	TVL-3440	1.56
50-40-10	150-150-150	1 x 2½	TVL-3441	1.53
50-50-50	150-150-150	1 x 3	TVL-3442	1.80
60-40-20	150-150-150	1 x 3	TVL-3443	1.65
70-15-15	150-150-150	1 x 2½	TVL-3443.3	1.62
70-40-40	150-150-150	1 x 3	TVL-3443.4	2.43
80-30-10	150-150-150	1 x 3	TVL-3443.8	1.65
80-40-20	150-150-150	1 x 3	TVL-3444	1.74
100-30-10	150-150-150	1 x 3	TVL-3447	1.83
120-80-40	150-150-150	1⅜ x 3½	TVL-3448	2.28
120-120-40	150-150-150	1⅜ x 3	TVL-3448.2	2.43
200-100-60	150-150-150	1⅜ x 3½	TVL-3450	2.73
200-150-150	150-150-150	1⅜ x 4	TVL-3452	4.50
80-10-20	200-200-50	1 x 3	TVL-3471	1.68
20-20-20	250-250-250	1 x 2	TVL-3532	1.56
40-20-20	250-250-250	1 x 3½	TVL-3540	1.74
80-10-10	250-250-250	1 x 3	TVL-3543	$1.92
80-80-60	250-250-250	1⅜ x 3	TVL-3545	2.94
10-10-10	300-300-300	1 x 2	TVL-3580	1.44
60-20-10	300-300-300	1⅜ x 2	TVL-3581	2.07
80-40-40	300-300-300	1⅜ x 2½	TVL-3583	2.85
120-50-40	300-300-300	1⅜ x 4	TVL-3585	3.51
140-100-20	300-300-300	1⅜ x 4½	TVL-3585.5	3.72
20-10-10	350-350-350	1 x 2	TVL-3639.6	1.62
30-20-10	350-350-350	1 x 2½	TVL-3639.8	1.95
60-40-20	350-350-350	1⅜ x 4	TVL-3640	2.55
60-50-50	350-350-350	1⅜ x 4	TVL-3641	2.94
80-60-60	350-350-350	1⅜ x 4	TVL-3642	3.33
90-40-20	350-350-350	1⅜ x 4	TVL-3645	3.15
20-20-20	400-400-25	1 x 3	TVL-3678	1.71
10-10-10	400-400-400	1 x 2½	TVL-3690	1.44
90-10-5	400-400-400	1⅜ x 3	TVL-3696	2.64
10-10-10	450-450-25	1 x 2½	TVL-3729	1.44
10-10-20	450-450-25	1 x 2	TVL-3731	1.44
40-20-20	450-450-25	1⅜ x 2½	TVL-3743.7	2.10
10-10-10	450-450-450	1 x 3	TVL-3776	1.56
15-15-15	450-450-450	1 x 3	TVL-3778.2	1.86
20-10-10	450-450-450	1 x 3	TVL-3779	1.74
20-20-20	450-450-450	1⅜ x 2½	TVL-3780	2.16
30-10-10	450-450-450	1⅜ x 2	TVL-3780.5	1.89
30-20-20	450-450-450	1⅜ x 3	TVL-3781	2.31
30-30-30	450-450-450	1⅜ x 3½	TVL-3782	2.61
40-10-10	450-450-450	1⅜ x 3	TVL-3783	2.01
40-30-20	450-450-450	1⅜ x 3	TVL-3784	2.58
40-40-10	450-450-450	1⅜ x 2½	TVL-3785	2.49
40-40-20	450-450-450	1⅜ x 3	TVL-3786	2.67
40-40-40	450-450-450	1⅜ x 3½	TVL-3787	2.94
50-40-30	450-450-450	1⅜ x 3½	TVL-3788	2.94
60-20-20	450-450-450	1⅜ x 3	TVL-3789	2.76
60-30-10	450-450-450	1⅜ x 3	TVL-3790	2.70
60-40-20	450-450-450	1⅜ x 3½	TVL-3791	3.00
80-40-20	450-450-450	1⅜ x 4	TVL-3793	3.24
30-30-20	475-475-475	1⅜ x 3	TVL-3840	2.67
40-30-10	475-475-475	1⅜ x 3	TVL-3842.6	2.70
40-30-30	475-475-475	1⅜ x 4	TVL-3843	3:09
10-10-10	500-500-500	1 x 3	TVL-3952	1.62
30-20-20	500-500-500	1⅜ x 3	TVL-3956	2.52
40-10-10	500-500-500	1⅜ x 3	TVL-3962	2.34
40-40-10	500-500-500	1⅜ x 3½	TVL-3965	3.03

QUADRUPLE UNITS

μF	WVDC	Dia. x Length	Cat. No.	Net
40-40-40-30	150-150-150-150	1⅜ x 2	TVL-4441	$1.98
100-80-60-40	150-150-150-150	1⅜ x 3	TVL-4445	2.79
200-200-60-30	175-175-175-175	1⅜ x 4⅜	TVL-4450	3.33
60-40-20-50	300-300-300-25	1⅜ x 3½	TVL-4570	2.82
40-20-10-10	300-300-300-300	1⅜ x 2	TVL-4578	2.37
40-40-20-10	300-300-300-300	1⅜ x 3½	TVL-4579	2.73
40-40-30-20	300-300-300-300	1⅜ x 3	TVL-4580	2.91
60-40-10-10	300-300-300-300	1⅜ x 2½	TVL-4583	2.73
200-20-20-20	300-300-300-300	1⅜ x 4	TVL-4590	3.75
40-20-20-10	350-350-350-350	1⅜ x 2½	TVL-4635	2.61
40-40-40-40	350-350-350-350	1⅜ x 4	TVL-4635.3	3.60
80-60-40-20	350-350-350-350	1⅜ x 4	TVL-4635.7	3.84
90-40-30-30	350-350-350-350	1⅜ x 4	TVL-4635.8	4.08
50-40-30-20	400-400-400-400	1⅜ x 4	TVL-4674	3.39
80-25-10-10	400-400-400-400	1⅜ x 4	TVL-4680	3.15
30-30-20-20	450-450-450-450	1⅜ x 3	TVL-4769.4	3.12
35-35-10-5	450-450-450-450	1⅜ x 3½	TVL-4771	2.76
40-10-10-10	450-450-450-450	1⅜ x 3	TVL-4771.3	2.46
40-35-10-10	450-450-450-450	1⅜ x 3	TVL-4771.8	2.88
40-40-20-20	450-450-450-450	1⅜ x 4	TVL-4773	3.33
40-40-30-30	450-450-450-450	1⅜ x 4	TVL-4774	3.63
40-40-40-40	450-450-450-450	1⅜ x 4	TVL-4775	3.87
60-20-20-20	450-450 450-450	1⅜ x 4	TVL-4778	3.39
60-30-10-2	450-450-450-450	1⅜ x 3	TVL-4779	3.06
80-10-10-10	450-450-450-450	1⅜ x 4	TVL-4783	3.03
20-20-10-10	475-475-475-475	1⅜ x 2½	TVL-4832	2.61
20-20-20-20	475-475-475-475	1⅜ x 3	TVL-4834	3.06
40-20-10-10	475-475-475-475	1⅜ x 3	TVL-4840	3.06
10-10-10-10	500-500-500-500	1⅜ x 2	TVL-4940	2.10
40-40-8-8	500-500-500-500	1⅜ x 4	TVL-4944	3.42

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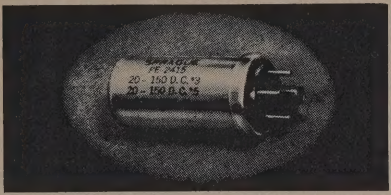
All prices and sizes subject to change without notice.

SPRAGUE CAPACITORS

PE OCTAL-BASE ELECTROLYTICS

- For Applications where Rapid Changing of Capacitors is Desired
- Will Fit Standard Octal-Base Tube Sockets
- Hermetically Sealed in Metal Cans for Long Life
- Will Stand Up Under High Temperatures, High Ripple Currents, High Surge Voltages



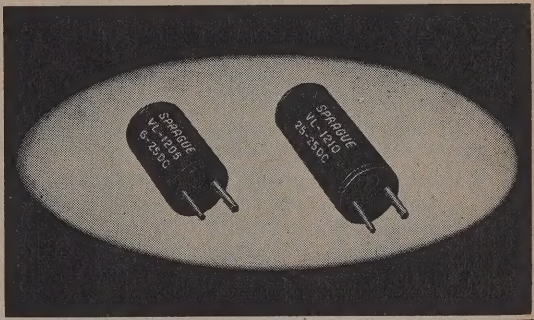
Terminal Code

Sections	−	+
Single	1	5
Dual	1	3,5
Triple	1	3,5,7
Quadruple	Gnd Lug	1,3,5,7

μF	WVDC	Diam. x Lgth.	Cat. No.	Net
100	350	1⅜ x 3	PE-1636	$3.51
10	450	1 5/32 x 2½	PE-1705	2.43
20	450	1 5/32 x 2½	PE-1714	2.58
40	450	1⅜ x 2½	PE-1725	2.73
80	450	1⅜ x 3½	PE-1730	3.33
20-20	150-150	1 5/32 x 2½	PE-2415	2.52
40-40	150-150	1 5/32 x 2½	PE-2428	2.64
10-10	450-450	1 5/32 x 2½	PE-2750	2.64
20-20	450-450	1⅜ x 2½	PE-2755	3.03
40-40	450-450	1⅜ x 3½	PE-2764	3.57
10-10-10	450-450-450	1 5/32 x 2½	PE-3776	3.06
20-20-20	450-450-450	1⅜ x 3	PE-3780	3.66
30-30-10-20	450-450-450-50	1⅜ x 3½	PE-4741	4.11

VL VERTI-LYTIC® ELECTROLYTICS

- For Replacement of Units of this Type Found on Printed Wiring Boards in Original Equipment
- Sections Housed in Sturdy, Pre-Molded Phenolic Cases
- Resin End Fill Will Not Contaminate Electrolyte — Protects Against Drying or Entrance of External Moisture
- Low Leakage Current and Long Shelf Life
- Polarity Easily Determined by Larger Diameter of Negative Lead
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 3060



μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		3 WVDC		
1	⅜ x ¾	VL-1031	89D100	$ .87
2	⅜ x ¾	VL-1032	89D101	.87
3	⅜ x ¾	VL-1033	89D102	.87
4	⅜ x ¾	VL-1034	89D103	.87
5	⅜ x ¾	VL-1035	89D104	.87
6	⅜ x ¾	VL-1036	89D105	.87
8	⅜ x ¾	VL-1037	89D106	.87
10	⅜ x ¾	VL-1038	89D107	.87
15	⅜ x ¾	VL-1039	89D108	.87
20	⅜ x ¾	VL-1040	89D109	.87
25	⅜ x ¾	VL-1041	89D110	.87
35	⅜ x ¾	VL-1043	89D111	.90
50	⅜ x ¾	VL-1045	89D112	.93
75	⅜ x ¾	VL-1048	89D113	1.02
100	⅜ x ⅞	VL-1051	89D114	1.05
150	7/16 x ⅞	VL-1055	89D115	1.05
200	7/16 x ⅞	VL-1059	89D116	1.08
250	½ x ⅞	VL-1063	89D117	1.17
290	½ x ⅞	VL-1067	89D118	1.20
		6 WVDC		
1	⅜ x ¾	VL-1080	89D119	.87
2	⅜ x ¾	VL-1081	89D120	.87
3	⅜ x ¾	VL-1082	89D121	.87
4	⅜ x ¾	VL-1083	89D122	.87
5	⅜ x ¾	VL-1084	89D123	.87
6	⅜ x ¾	VL-1085	89D124	.87
8	⅜ x ¾	VL-1086	89D125	.87
10	⅜ x ¾	VL-1087	89D126	.87
15	⅜ x ¾	VL-1088	89D127	.87
20	⅜ x ¾	VL-1089	89D128	.87
25	⅜ x ¾	VL-1090	89D129	.87
35	⅜ x ¾	VL-1092	89D130	.90
50	⅜ x ¾	VL-1094	89D131	.93
75	⅜ x ⅞	VL-1097	89D132	1.02
100	7/16 x ⅞	VL-1100	89D133	1.05
150	½ x ⅞	VL-1104	89D134	1.14
200	½ x ⅞	VL-1108	89D135	1.17
		12 WVDC		
1	⅜ x ¾	VL-1120	89D136	$ .87
2	⅜ x ¾	VL-1121	89D137	.87
3	⅜ x ¾	VL-1122	89D138	.87
4	⅜ x ¾	VL-1123	89D139	.87
5	⅜ x ¾	VL-1124	89D140	.90
6	⅜ x ¾	VL-1125	89D141	.90
8	⅜ x ¾	VL-1126	89D142	.90
10	⅜ x ¾	VL-1127	89D143	.90
15	⅜ x ¾	VL-1128	89D144	.93
20	⅜ x ¾	VL-1129	89D145	.93
25	⅜ x ¾	VL-1130	89D146	.93
35	⅜ x ¾	VL-1132	89D147	.93
50	⅜ x ⅞	VL-1134	89D148	.99
75	7/16 x ⅞	VL-1137	89D149	1.05
100	½ x ⅞	VL-1140	89D150	1.14
140	½ x ⅞	VL-1144	89D151	1.17
		15 WVDC		
1	⅜ x ¾	VL-1160	89D152	.87
2	⅜ x ¾	VL-1161	89D153	.87
3	⅜ x ¾	VL-1162	89D154	.87
4	⅜ x ¾	VL-1163	89D155	.87
5	⅜ x ¾	VL-1164	89D156	.90
6	⅜ x ¾	VL-1165	89D157	.90
8	⅜ x ¾	VL-1166	89D158	.90
10	⅜ x ¾	VL-1167	89D159	.93
15	⅜ x ¾	VL-1168	89D160	.93
20	⅜ x ¾	VL-1169	89D161	.93
25	⅜ x ¾	VL-1170	89D162	.93
35	⅜ x ⅞	VL-1172	89D163	.93
50	7/16 x ⅞	VL-1174	89D164	.99
75	½ x ⅞	VL-1177	89D165	1.08
90	½ x ⅞	VL-1180	89D166	1.17
		25 WVDC		
1	⅜ x ¾	VL-1200	89D167	.90
2	⅜ x ¾	VL-1201	89D168	.90
		25 WVDC ctd.		
3	⅜ x ¾	VL-1202	89D169	$ .93
4	⅜ x ¾	VL-1203	89D170	.99
5	⅜ x ¾	VL-1204	89D171	.99
6	⅜ x ¾	VL-1205	89D172	.99
8	⅜ x ¾	VL-1206	89D173	.99
10	⅜ x ¾	VL-1207	89D174	.99
15	⅜ x ¾	VL-1208	89D175	.99
20	⅜ x ⅞	VL-1209	89D176	.99
25	⅜ x ⅞	VL-1210	89D177	.99
35	7/16 x ⅞	VL-1212	89D178	1.05
50	½ x ⅞	VL-1215	89D179	1.05
70	½ x ⅞	VL-1218	89D180	1.17
		50 WVDC		
1	⅜ x ¾	VL-1300	89D181	.90
2	⅜ x ¾	VL-1301	89D182	.90
3	⅜ x ¾	VL-1302	89D183	.93
4	⅜ x ¾	VL-1303	89D184	.99
5	⅜ x ¾	VL-1304	89D185	.99
6	⅜ x ¾	VL-1305	89D186	.99
8	⅜ x ¾	VL-1306	89D187	.99
10	⅜ x ⅞	VL-1307	89D188	.99
15	7/16 x ⅞	VL-1308	89D189	.99
20	7/16 x ⅞	VL-1309	89D190	.99
25	½ x ⅞	VL-1310	89D191	.99
		6-6 WVDC		
100-30	7/16 x 1 3/16	VL-2150	....	1.26
		10-10 WVDC		
50-50	½ x ⅞	VL-2250	....	1.17
80-80	½ x ⅞	VL-2350	....	1.32
		8-8-8 WVDC		
100-100-60	½ x 1 7/16	VL-3320	....	2.07
		10-10-3 WVDC		
50-50-15	½ x ⅞	VL-3350	....	1.80

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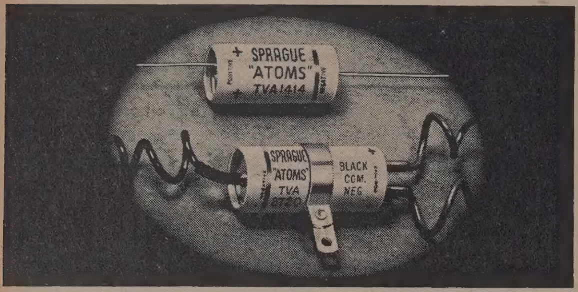
SPRAGUE CAPACITORS

ATOM® ELECTROLYTICS



- The Smallest Dependable Standard Tubular—Designed for 85°C (185°F) Operation in Voltages to 475 WVDC
- Whether For AC-DC Sets, Auto Radios, Home Radio-phono Combinations, Or TV Sets, The SPRAGUE Line Will Handle All Your Replacement Requirements—No Dual Inventory Problems
- Have Low Leakage And Long Shelf Life
- Will Withstand High Temperatures, High Ripple Currents, High Surge Voltages
- Metal Case Construction with Outer Kraftboard Insulating Case Except as Noted by † Sign

SINGLE UNITS

µF	WVDC	D. x L.	Cat. No.	Net
750	3	9/16 x 2 9/16	TVA-1097	$ .93
50	6	3/8 x 1 1/4	TVA-1100	.57
100	6	1/2 x 1 1/8	TVA-1101	.72
250	6	5/8 x 1 7/16	TVA-1102	.81
500	6	5/8 x 2 3/16	TVA-1103	.93
1000	6	3/4 x 2 3/16	TVA-1104	1.14
1500	6	13/16 x 2 11/16	TVA-1105	1.26
2000	6	13/16 x 2 15/16	TVA-1106	1.38
100	12	9/16 x 1 3/16	TVA-1130	.72
250	12	5/8 x 1 11/16	TVA-1131	.87
500	12	3/4 x 1 11/16	TVA-1132	1.02
1000	12	13/16 x 2 3/16	TVA-1133	1.35
100	15	5/8 x 1 3/16	TVA-1160	.75
250	15	5/8 x 1 11/16	TVA-1161	.93
500	15	11/16 x 2 3/16	TVA-1162	1.05
1000	15	7/8 x 2 3/16	TVA-1163	1.38
2000	15	1 x 3 11/16	TVA-1170	1.92
2	25	3/8 x 1 1/4	TVA-1201	.54
5	25	3/8 x 1 1/4	TVA-1203	.60
10	25	3/8 x 1 1/4	TVA-1204	.60
20	25	1/2 x 1 1/4	TVA-1204.5	.60
25	25	3/8 x 1 1/4	TVA-1205	.60
50	25	9/16 x 1 3/16	TVA-1206	.66
100	25	9/16 x 1 11/16	TVA-1207	.81
250	25	3/4 x 1 11/16	TVA-1208	1.02
500	25	7/8 x 2 3/16	TVA-1209	1.38
1000	25	1 x 2 11/16	TVA-1211	1.98
20	30	5/8 x 1 1/4	TVAN-1220	.60
1	50	3/8 x 1 1/4	TVA-1300	.54
2	50	3/8 x 1 1/4	TVA-1301	.54
3	50	1 3/16 x 1/2	TVA-1302	.60
4	50	5/8 x 1 5/16	TVAN-1302.5	.60
5	50	3/8 x 1 1/4	TVA-1303	.60
10	50	3/8 x 1 1/4	TVA-1304	.60
15	50	3/4 x 1 1/4	TVA-1305	.60
20	50	7/16 x 1 3/8	TVA-1305.5	.60
25	50	7/16 x 1 3/8	TVA-1306	.63
50	50	9/16 x 1 11/16	TVA-1308	.72
100	50	11/16 x 1 11/16	TVA-1310	.84
150	50	3/4 x 1 11/16	TVA-1311	.93
250	50	15/16 x 1 11/16	TVA-1312	1.05
500	50	1 x 1 15/16	TVA-1315	1.44
10	90	3/8 x 1 3/4	TVA-1320	.63
1	150	3/8 x 1 1/4	TVA-1400	.57
4	150	3/8 x 1 1/4	TVA-1402	.60
5	150	3/8 x 1 1/4	TVA-1403	.60
8	150	3/8 x 1 3/4	TVA-1405	.63
10	150	3/8 x 1 3/4	TVA-1406	.63
12	150	1/2 x 1 5/8	TVA-1407	.66
16	150	9/16 x 1 11/16	TVA-1409	.69
20	150	9/16 x 1 11/16	TVA-1410	.72
25	150	5/8 x 1 11/16	TVA-1411	.75
30	150	5/8 x 1 11/16	TVA-1412	.78
40	150	3/4 x 1 11/16	TVA-1413	.81
50	150	13/16 x 1 11/16	TVA-1414	.84
60	150	7/8 x 1 11/16	TVA-1415	.90
80	150	7/8 x 1 15/16	TVA-1418	.96
100	150	7/8 x 2 3/16	TVA-1420	$1.05
150	150	1 x 2 3/16	TVA-1422	1.14
200	150	1 x 3 13/16	TVA-1423	1.32
250	150	1 1/4 x 4 3/8	TVA-1424	1.41
300	150	1 3/8 x 3 7/8	TVA-1425†	1.53
80	175	1 x 1 7/8	TVA-1430	.99
2	200	5/8 x 1 5/8	TVAN-1435.1	.66
150	200	1 3/8 x 3 3/8	TVA-1447	1.53
100	200	1 x 2 3/16	TVA-1445	1.14
200	200	1 3/8 x 3 3/8	TVA-1480 †	1.74
4	250	7/16 x 1 5/8	TVA-1501	.60
8	250	1/2 x 1 5/8	TVA-1503	.69
10	250	9/16 x 1 11/16	TVA-1504	.72
12	250	9/16 x 1 11/16	TVA-1505	.75
16	250	5/8 x 1 11/16	TVA-1507	.78
20	250	11/16 x 1 11/16	TVA-1508	.87
30	250	11/16 x 2 3/16	TVA-1510	.81
40	250	3/4 x 2 3/16	TVA-1511	.93
50	250	3/4 x 2 3/16	TVA-1512	1.02
60	250	13/16 x 2 3/16	TVA-1513	1.08
100	250	1 x 2 7/16	TVA-1522	1.47
140	300	1 3/8 x 3 3/8	TVA-1575†	1.89
150	300	1 1/4 x 3 3/4	TVA-1576	1.95
200	300	1 1/4 x 4 1/2	TVA-1578	2.70
4	350	1/2 x 1 5/8	TVA-1601	.63
5	350	3/4 x 1 11/16	TVAN-1602	.75
8	350	5/8 x 1 11/16	TVA-1603	.72
10	350	11/16 x 1 11/16	TVA-1604	.75
12	350	11/16 x 1 11/16	TVA-1605	.78
16	350	3/4 x 1 11/16	TVA-1607	.84
20	350	13/16 x 1 11/16	TVA-1608	.87
30	350	13/16 x 2 3/16	TVA-1610	.99
40	350	7/8 x 2 7/16	TVA-1611	1.05
60	350	1 x 2 7/16	TVA-1613	1.17
100	350	1 x 3 7/16	TVA-1620	1.86
200	350	1 3/8 x 4 1/8	TVA-1624	3.12
10	400NP	1 1/16 x 2 1/16	TVAN-1650	.90
20	400NP	1 x 2 3/16	TVAN-1652	.90
1	450	7/16 x 1 1/8	TVA-1700	.66
2	450	7/16 x 1 5/8	TVA-1701	.66
4	450	9/16 x 1 11/16	TVA-1702	.69
5	450	5/8 x 1 11/16	TVA-1703	.72
8	450	11/16 x 1 11/16	TVA-1704	.75
10	450	11/16 x 1 11/16	TVA-1705	.78
12	450	3/4 x 1 11/16	TVA-1706	.81
16	450	3/4 x 2 3/16	TVA-1708	.84
20	450	3/4 x 2 3/16	TVA-1709	.93
30	450	7/8 x 2 3/16	TVA-1711	1.02
40	450	7/8 x 2 11/16	TVA-1712	1.08
50	450	7/8 x 3 3/16	TVA-1713	1.26
60	450	1 x 3 11/16	TVA-1714	1.41
80	450	1 x 3 11/16	TVA-1716	1.68
100	450	1 3/8 x 4 1/8	TVA-1718†	1.92
10	475	3/4 x 1 15/16	TVA-1802	.81
20	475	7/8 x 2 7/16	TVA-1804	.96
8	500	7/8 x 1 11/16	TVA-1902	$ .78
10	500	7/8 x 1 11/16	TVA-1903	.81
16	500	15/16 x 2 3/16	TVA-1905	.90
20	500	1 x 2 3/16	TVA-1906	.96
40	500	1 x 2 15/16	TVA-1908	1.35
8	600	1 x 3 1/16	TVA-1962	1.71
10	600	1 x 3 1/16	TVA-1963	1.77
16	600	1 x 4 1/16	TVA-1965	2.07
20	600	1 x 4 1/16	TVA-1966	2.13

DUAL UNITS (COMMON NEGATIVE—3 LEADS)

µF	WVDC	D. x L.	Cat. No.	Net
10-10	25-25	7/8 x 1 7/16	TVA-2210	$ .84
10-10	50-50	7/8 x 1 7/16	TVA-2315	.84
8-8	150-150	7/8 x 1 7/16	TVA-2415	.90
16-16	150-150	7/8 x 1 7/16	TVA-2420	1.08
20-12	150-150	7/8 x 1 7/16	TVA-2425	.96
20-20	150-150	7/8 x 1 7/16	TVA-2428	.99
30-20	150-150	7/8 x 1 11/16	TVA-2421	1.02
30-30	150-150	7/8 x 1 11/16	TVA-2434	1.08
40-20	150-150	7/8 x 1 11/16	TVA-2438	1.05
40-30	150-150	7/8 x 1 15/16	TVA-2442	1.08
40-40	150-150	7/8 x 1 15/16	TVA-2445	1.11
50-30	150-150	7/8 x 1 15/16	TVA-2450	1.17
50-50	150-150	7/8 x 2 7/16	TVA-2453	1.26
60-20	150-150	7/8 x 1 15/16	TVA-2455	1.20
80-30	150-150	7/8 x 2 7/16	TVA-2460	1.32
80-40	150-150	7/8 x 2 7/16	TVA-2461	1.32
80-50	150-150	7/8 x 2 15/16	TVA-2462	1.41
100-50	150-150	1 x 1 11/16	TVA-2463	1.59
100-100	150-150	1 3/8 x 3 3/8	TVA-2464†	1.92
150-150	150-150	1 1/4 x 4	TVA-2466	2.07
200-5	150-150	1 x 3 7/8	TVA-2467†	1.59
200-100	150-150	1 3/8 x 5 1/8	TVA-2470	2.16
250-50	150-150	1 3/8 x 3 1/8	TVA-2473	1.86
250-200	150-150	1 1/4 x 4	TVA-2475	2.52
60-125	200-50	1 1/16 x 2 3/4	TVA-2484	1.50
200-5	200-200	1 x 3 11/16	TVA-2498	2.16
20-20	250-250	7/8 x 1 15/16	TVA-2515	1.11
40-10	250-250	7/8 x 2 3/16	TVA-2520	1.23
80-10	250-250	15/16 x 3 3/16	TVA-2525	1.53
120-80	250-250	1 3/8 x 3 7/8	TVA-2535†	2.40
200-100	300-50	1 1/4 x 4 1/2	TVA-2565	2.58
150-100	300-300	1 5/16 x 4 3/4	TVA-2590	3.21
140-5	350-350	1 1/4 x 3 7/8	TVA-2640†	2.49
80-100	450-50	1 3/8 x 4 3/8	TVA-2711†	2.22
8-8	450-450	7/8 x 1 11/16	TVA-2720	1.02
10-10	450-450	7/8 x 1 15/16	TVA-2722	1.11
16-8	450-450	7/8 x 2 3/16	TVA-2725	1.20
20-20	450-450	7/8 x 2 15/16	TVA-2730	1.50
30-30	450-450	1 x 3 3/16	TVA-2735	1.80
40-40	450-450	1 x 3 15/16	TVA-2740	2.04
50-30	450-450	1 x 3 15/16	TVA-2743	2.04
20-100	475-50	1 x 2 3/8	TVA-2765	1.50

*Add 1/16" to diameter and 1/8" to length to allow for outer insulating tube on all units except those marked (†) which are of Kraftboard construction.

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REM-13-6330

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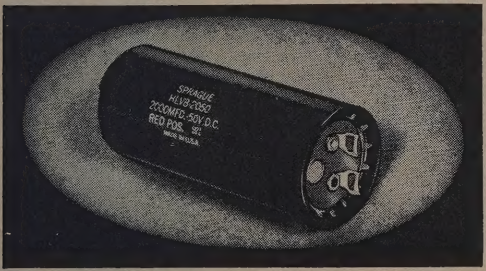
SPRAGUE CAPACITORS

ATOM ELECTROLYTICS, continued

µF	WVDC	Diam. x Length	Cat. No.	Net
DUAL UNITS (SEPERATE SECTIONS—4 LEADS)				
20-20	150-150	1 x 2 3/8	TU-220 †	$1.23
40-20	150-150	1 1/16 x 2 5/8	TU-420 †	1.32
16-16	250-250	1 x 2 7/8	TU-216 †	1.32
8-8	450-450	1 1/16 x 3 3/8	TU-88 †	1.29
16-16	450-450	1 3/8 x 3 1/8	TU-1616†	1.68
120-120	150-150	1 1/8 x 5	TU-2120	2.07
TRIPLE UNITS				
40-40-250	150-150-10	15/16 x 2 1/4	TVA-3406	1.56
30-30-100	150-150-12	7/8 x 1 15/16	TVA-3419	1.38
60-40-250	150-150-25	1 x 1 15/16	TVA-3421.5	1.86
20-20-20	150-150-25	7/8 x 1 7/16	TVA-3415	1.47
40-20-20	150-150-25	7/8 x 1 11/16	TVA-3422.9	1.53
40-30-20	150-150-25	7/8 x 1 15/16	TVA-3423	1.56
40-40-20	150-150-25	7/8 x 2 3/16	TVA-3425	1.59
40-40-100	150-150-25	7/8 x 2 7/16	TVA-3427	1.68
50-30-20	150-150-25	7/8 x 2 3/16	TVA-3430	1.59
50-30-100	150-150-25	7/8 x 2 7/16	TVA-3432	1.68
50-30-200	150-150-25	1 x 2 3/16	TVA-3433	1.65
50-50-20	150-150-25	15/16 x 2 3/16	TVA-3436	1.65
80-20-100	150-150-25	1 1/4 x 2 7/8	TVA-3437†	1.68
80-40-20	150-150-25	1 x 1 15/16	TVA-3437.1	1.68
250-120-50	150-150-25	1 1/8 x 3 7/8	TVA-3437.6	2.61
20-20-20	150-150-150	7/8 x 1 11/16	TVA-3440	1.50
30-25-20	150-150-150	7/8 x 2 3/16	TVA-3442	1.35
30-30-20	150-150-150	7/8 x 2 3/16	TVA-3443	1.38
30-30-30	150-150-150	7/8 x 2 3/16	TVA-3444	1.56
40-20-20	150-150-150	7/8 x 1 15/16	TVA-3446	1.35
40-30-20	150-150-150	7/8 x 2 3/16	TVA-3448	1.56
40-40-20	150-150-150	7/8 x 2 7/16	TVA-3450	1.41
40-40-40	150-150-150	1 x 2 7/16	TVA-3451	1.68
50-30-20	150-150-150	1 x 2 7/16	TVA-3453	1.62
80-40-20	150-150-150	1 x 2 15/16	TVA-3455	1.74
80-40-40	150-150-150	1 x 2 15/16	TVA-3456	1.71
80-60-20	150-150-150	1 x 3 1/2	TVA-3457	$1.80
250-200-10	150-150-150	1 3/8 x 3 3/8	TVA-3460	2.76
80-10-100	300-250-50	1 3/8 x 3 3/8	TVA-3556†	2.16
80-40-100	300-300-5	1 1/4 x 3 3/4	TVA-3558	2.40
100-60-100	300-300-50	1 1/4 x 3 3/4	TVA-3559	2.97
120-40-100	300-300-50	1 1/4 x 4 1/4	TVA-3560	3.06
120-40-10	300-300-250	1 1/4 x 3 1/8	TVA-3563†	2.91
80-40-40	300-300-300	1 1/4 x 3 1/2	TVA-3569	2.79
140-5-200	350-350-200	1 1/2 x 5 1/8	TVA-3620†	4.02
60-60-4	350-350-350	1 1/4 x 3 1/4	TVA-3630	2.31
10-80-60	400-250-150	1 3/8 x 3 3/8	TVA-3650	2.04
5-80-40	450-400-400	1 3/8 x 4 1/8	TVA-3712†	2.73
12-12-20	450-450-25	1 x 1 15/16	TVA-3716	1.38
20-20-20	450-450-25	1 x 2 7/16	TVA-3718	1.86
40-40-20	450-450-25	1 x 3 15/16	TVA-3720	2.28
QUADRUPLE UNITS				
40-20-20-100	150-150-150-25	1 1/4 x 2 7/8	TVA-4517	1.74
60-40-40-20	150-150-150-25	1 1/4 x 3	TVA-4929	1.98
150-100-20-100	300-300-300-25	1 1/4 x 4 1/2	TVA-4580	3.72
80-40-10-40	300-300-300-250	1 1/4 x 4	TVA-4582	3.09
120-40-40-10	300-300-300-250	1 3/8 x 4 5/8	TVA-4584†	3.72
140-5-200-30	350-300-200-150	1 1/2 x 4 7/8	TVA-4576†	3.63
140-5-200-30	350-300-200-200	1 1/2 x 5 1/8	TVA-4607†	4.59
80-60-40-20	350-350-300-150	1 1/2 x 4 5/8	TVA-4618†	3.54
80-10-40-100	400-400-300-50	1 3/8 x 4 1/8	TVA-4659†	3.27
10-80-40-100	450-300-250-50	1 3/8 x 4 1/8	TVA-4705†	2.88
20-120-40-100	450-300-250-50	1 3/8 x 4 3/8	TVA-4706†	3.69
10-80-40-40	450-300-250-250	1 3/8 x 4 3/8	TVA-4708†	2.97
10-20-20-10	450-300-300-300	1 3/8 x 3 1/8	TVA-4712†	2.10
20-20-20-10	450-450-450-450	1 3/8 x 3 5/8	TVA-4742†	2.55
40-20-20-10	450-450-450-450	1 3/8 x 4 3/8	TVA-4748†	2.82
40-40-20-20	450-450-450-450	1 1/2 x 4 1/4	TVA-4750†	3.27
QUINTUPLE UNITS				
40-20-20-20-50	300-300-300-300-50	1 3/8 x 4	TVA-5100†	3.03

*Add 1/16" to diameter and 1/8" to length to allow for outer insulating tube on all units except those marked (†) which are of cardboard construction.



TYPE HLVB HIGH-MF ELECTROLYTICS

- Designed for low-voltage filter circuits.
- Large values of capacitance in relatively small physical size.
- Molded phenolic case for physical protection and moisture resistance. Assures long and dependable service life.
- Easily and securely mounted with hardware listed below.

µF	WVDC	Diam. x Length	Cat. No.	Net
500	6	1 7/16 x 2 3/4	HLVB-56	$1.83
1000	6	1 7/16 x 2 3/4	HLVB-106	2.04
1500	6	1 7/16 x 2 3/4	HLVB-156	2.16
2000	6	1 7/16 x 2 3/4	HLVB-206	2.28
4000	10	1 7/16 x 3 3/8	HLVB-4010	2.85
6000	10	1 7/16 x 4 3/8	HLVB-6010	4.50
10000	10	1 13/16 x 4 3/8	HLVB-10010	4.95
500	12	1 7/16 x 2 3/4	HLVB-512	1.92
1000	12	1 7/16 x 2 3/4	HLVB-1012	2.25
1500	12	1 7/16 x 2 3/4	HLVB-1512	2.37
2000	12	1 7/16 x 2 3/4	HLVB-2012	2.49
500	15	1 7/16 x 2 3/4	HLVB-515	1.95
1000	15	1 7/16 x 2 3/4	HLVB-1015	2.28
1500	15	1 7/16 x 2 3/4	HLVB-1515	2.40
2000	15	1 7/16 x 2 3/4	HLVB-2015	2.82
4000	15	1 7/16 x 4 3/8	HLVB-4015	4.26
6000	15	1 13/16 x 4 3/8	HLVB-6015	4.83
6000	20	2 1/16 x 4 3/8	HLVB-6020	5.19
500	25	1 7/16 x 2 3/4	HLVB-525	2.28
1000	25	1 7/16 x 2 3/4	HLVB-1025	2.91
2000	25	1 7/16 x 4 3/8	HLVB-2025	3.45
4000	25	1 13/16 x 4 3/8	HLVB-4025	4.77
500	50	1 7/16 x 3 3/8	HLVB-550	2.55
1000	50	1 13/16 x 3 3/8	HLVB-1050	4.20
2000	50	1 13/16 x 4 3/8	HLVB-2050	5.46
3000	50	1 13/16 x 4 3/8	HLVB-3050	6.90
4000	50	2 1/16 x 4 3/8	HLVB-4050	7.50
1000	150	1 13/16 x 4 3/8	HLVB-10150	6.30
500	200	1 13/16 x 4 3/8	HLVB-5200	5.88

HLVB MOUNTING HARDWARE
HORIZONTAL "U" BRACKETS

Capacitor Size Dia. x Length	Cat. No.	Net
1 7/16 x 2 3/4	ABB-1	$.18
1 7/16 x 3 3/8 1 13/16 x 3 3/8	ABB-2	.21
1 13/16 x 4 3/8 2 1/16 x 4 3/8	ABB-3	.24

END CAPS

Cap. Diam.	Cat. No.	Net
1 7/16	ABC-2	.15
1 13/16	ABC-4	.18
2 1/16	ABC-6	.21

VERTICAL MOUNTING CLAMPS

Cap. Diam.	Cat. No.	Net
1 13/16	CMC-28A	.18
2 1/16	CMC-32	.36

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REM-14-6330

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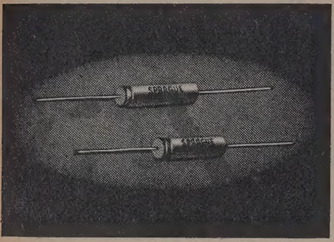
SPRAGUE CAPACITORS

TE LITTL-LYTIC® ELECTROLYTICS



- Ultra-Small — Excellent, Dependable Replacement Units for Transistorized Equipment Presently on the Market
- Reliability at Reasonable Prices
- All-Welded Construction — No Pressure Joints to Cause "Open" or Intermittent Circuits
- No Corrosion as with Competitive Units
- Extremely Low Leakage Current, Long Shelf Life
- Withstand Temperatures Up to 85°C (185°F)
- Furnished with Clear Plastic Outer Insulating Sleeves
- Packed 5 to a Handy Rigid Kleer Pak® Plastic Box

For Complete Technical Data, See Latest Sprague Engineering Bulletin 3110

μF	D. x L.*	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		1 WVDC		
5	3/16 x 1/2	TE-1010	....	$ .75
		3 WVDC		
1	3/16 x 1/2	TE-1050	30D105G003AA0	.75
2	3/16 x 1/2	TE-1051	30D205G003AA0	.75
3	3/16 x 1/2	TE-1052	30D305G003AA0	.75
4	3/16 x 1/2	TE-1052.1	30D405G003AA0	.75
5	3/16 x 1/2	TE-1052.2	30D505G003AA0	.75
6	3/16 x 1/2	TE-1052.3	30D605G003AA0	.75
8	3/16 x 1/2	TE-1052.5	30D805G003AA0	.75
10	3/16 x 1/2	TE-1053	30D106G003AA0	.75
15	1/4 x 1/2	TE-1053.5	30D156G003BA0	.75
20	1/4 x 1/2	TE-1054	30D206G003BA0	.75
25	1/4 x 1/2	TE-1055	30D256G003BA0	.75
35	1/4 x 11/16	TE-1056	30D356G003BB0	.75
40	1/4 x 11/16	TE-1057	....	.75
50	1/4 x 11/16	TE-1058	30D506G003BB0	.75
75	5/16 x 11/16	TE-1059	30D756G003CB0	.84
100	5/16 x 11/16	TE-1059.5	30D107G003CB0	.84
110	3/8 x 11/16	TE-1060	....	.84
150	3/8 x 11/16	TE-1061	30D157G003DB0	.87
200	3/8 x 13/16	TE-1064	30D207G003DC0	.90
250	3/8 x 15/16	TE-1065	30D257G003DD0	.96
300	3/8 x 15/16	TE-1066	30D307G003DD0	.99
400	3/8 x 1 1/4	TE-1067	30D407G003DF0	1.02
500	3/8 x 1 1/2	TE-1068	30D507G003DH0	1.05
		6 WVDC		
1	3/16 x 1/2	TE-1080	30D105G006AA0	.75
2	3/16 x 1/2	TE-1081	30D205G006AA0	.75
3	3/16 x 1/2	TE-1082	30D305G006AA0	.75
4	3/16 x 1/2	TE-1083	30D405G006AA0	.75
5	3/16 x 1/2	TE-1084	30D505G006AA0	.75
6	3/16 x 1/2	TE-1085	30D605G006AA0	.75
8	3/16 x 1/2	TE-1086	30D805G006AA0	.81
10	1/4 x 1/2	TE-1087	30D106G006BA0	.81
15	1/4 x 1/2	TE-1089	30D156G006BA0	.81
20	1/4 x 11/16	TE-1090	30D206G006BB0	.81
25	1/4 x 11/16	TE-1091	30D256G006BB0	.81
30	1/4 x 11/16	TE-1092	....	.84
35	1/4 x 11/16	TE-1093	30D356G006BB0	.84
40	1/4 x 11/16	TE-1095	....	.84
50	5/16 x 11/16	TE-1100	30D506G006CB0	.84
60	5/16 x 11/16	TE-1101	....	.84
75	3/8 x 11/16	TE-1101.5	30D756G006DB0	.87
100	3/8 x 11/16	TE-1102	30D107G006DB0	.90
150	3/8 x 15/16	TE-1103	30D157G006DD0	.93
200	3/8 x 1 1/4	TE-1104	30D207G006DF0	.96
250	3/8 x 1 1/4	TE-1105	30D257G006DF0	1.02
300	3/8 x 1 1/2	TE-1106	30D307G006DH0	1.08

μF	D. x L.*	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		10 WVDC		
10	1/4 x 1/2	TE-1114	....	$ .81
15	1/4 x 1/2	TE-1116	....	.81
25	1/4 x 11/16	TE-1118	....	.81
50	3/8 x 11/16	TE-1119	....	.90
100	3/8 x 13/16	TE-1119.3	....	1.02
200	3/8 x 1 1/4	TE-1119.6	....	1.20
		12 WVDC		
1	3/16 x 1/2	TE-1120	30D105G012AA0	.75
2	3/16 x 1/2	TE-1121	30D205G012AA0	.75
3	3/16 x 1/2	TE-1122	30D305G012AA0	.75
4	3/16 x 1/2	TE-1123	30D405G012AA0	.75
5	3/16 x 1/2	TE-1127	30D505G012AA0	.81
6	1/4 x 1/2	TE-1127.1	30D605G012BA0	.81
8	1/4 x 1/2	TE-1127.3	30D805G012BA0	.81
10	1/4 x 1/2	TE-1128	30D106G012BA0	.81
15	1/4 x 11/16	TE-1129	30D156G012BB0	.84
20	1/4 x 11/16	TE-1130	30D206G012BB0	.84
25	1/4 x 11/16	TE-1131	30D256G012BB0	.84
35	5/16 x 11/16	TE-1132	30D356G012CB0	.87
50	3/8 x 11/16	TE-1133	30D506G012DB0	.93
75	3/8 x 13/16	TE-1134	30D756G012DC0	.99
100	3/8 x 13/16	TE-1135	30D107G012DC0	1.05
150	3/8 x 1 1/4	TE-1136	30D157G012DF0	1.14
200	3/8 x 1 1/4	TE-1137	30D207G012DF0	1.23
250	3/8 x 1 1/2	TE-1138	30D257G012DH0	1.32
		15 WVDC		
1	3/16 x 1/2	TE-1148	30D105G015AA0	.75
2	3/16 x 1/2	TE-1149	30D205G015AA0	.75
3	3/16 x 1/2	TE-1150	30D305G015AA0	.75
4	3/16 x 1/2	TE-1151	30D405G015AA0	.78
5	1/4 x 1/2	TE-1152	30D505G015BA0	.84
6	1/4 x 1/2	TE-1153	30D605G015BA0	.84
8	1/4 x 1/2	TE-1154	30D805G015BA0	.84
10	1/4 x 1/2	TE-1155	30D106G015BA0	.84
15	1/4 x 11/16	TE-1156	30D156G015BB0	.87
20	1/4 x 11/16	TE-1157	30D206G015BB0	.87
25	5/16 x 11/16	TE-1157.1	30D256G015CB0	.87
30	5/16 x 11/16	TE-1158	....	.90
35	3/8 x 11/16	TE-1159	30D356G015DB0	.93
50	3/8 x 11/16	TE-1160	30D506G015DB0	.96
75	3/8 x 13/16	TE-1161	30D706G015DC0	1.02
100	3/8 x 15/16	TE-1162	30D107G015DD0	1.08
150	3/8 x 1 1/4	TE-1163	30D157G015DF0	1.17
200	3/8 x 1 1/2	TE-1164	30D207G015DH0	1.26

μF	D. x L.*	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		25 WVDC		
1	3/16 x 1/2	TE-1200	30D105G025AA0	$ .75
2	3/16 x 1/2	TE-1201	30D205G025AA0	.78
3	3/16 x 1/2	TE-1201.1	30D305G025BA0	.78
4	3/16 x 1/2	TE-1201.2	30D405G025BA0	.78
5	3/16 x 1/2	TE-1202	30D505G025BA0	.84
6	1/4 x 11/16	TE-1203	30D605G025BB0	.84
8	1/4 x 11/16	TE-1203.5	30D805G025BB0	.87
10	1/4 x 11/16	TE-1204	30D105G025BB0	.87
15	5/16 x 11/16	TE-1205	30D156G025CB0	.87
20	3/8 x 11/16	TE-1206	....	.90
25	3/8 x 11/16	TE-1207	30D256G025DB0	.93
35	3/8 x 13/16	TE-1208	30D356G025DC0	.99
50	3/8 x 15/16	TE-1209	30D506G025DD0	1.08
75	3/8 x 1 1/4	TE-1210	30D756G025DF0	1.17
100	3/8 x 1 1/2	TE-1211	30D107G025DH0	1.26
		50 WVDC		
1	3/16 x 1/2	TE-1300	30D105G050AA0	.78
2	1/4 x 1/2	TE-1301	30D205G050BA0	.81
3	1/4 x 1/2	TE-1302	30D305G050BA0	.81
4	1/4 x 11/16	TE-1302.1	30D405G050BB0	.81
5	1/4 x 11/16	TE-1303	30D505G050BB0	.87
6	5/16 x 11/16	TE-1303.1	30D605G050CB0	.87
8	5/16 x 11/16	TE-1303.3	30D805G050CB0	.90
10	5/16 x 11/16	TE-1304	30D106G050CB0	.90
15	3/8 x 11/16	TE-1304.2	30D156G050DB0	.90
20	3/8 x 13/16	TE-1305	30D206G050DC0	.90
35	3/8 x 1 1/4	TE-1306	30D356G050DF0	1.02
50	3/8 x 1 1/2	TE-1307	30D506G050DH0	1.11
		100 WVDC		
1	3/8 x 15/16	TE-1400	30D105G100CC0	.81
2	3/8 x 15/16	TE-1401	30D205G100CC0	.84
3	3/8 x 15/16	TE-1403	30D305G100CC0	.84
4	3/8 x 15/16	TE-1403	30D405G100DD0	.84
5	3/8 x 15/16	TE-1404	30D505G100DD0	.90
6	3/8 x 15/16	TE-1405	30D605G100DD0	.90
8	3/8 x 15/16	TE-1406	30D805G100DD0	.93
10	3/8 x 15/16	TE-1407	30D106G100DD0	.93
15	3/8 x 1 1/4	TE-1408	30D156G100DF0	.93
20	3/8 x 1 1/2	TE-1409	30D206G100DH0	.96
		150 WVDC		
1	3/8 x 15/16	TE-1500	30D105G150CC0	.84
2	3/8 x 15/16	TE-1501	30D205G150CC0	.87
3	3/8 x 15/16	TE-1502	30D305G150CC0	.87
4	3/8 x 15/16	TE-1503	30D405G150DD0	.87
5	3/8 x 15/16	TE-1504	30D505G150DD0	.93
6	3/8 x 1 1/4	TE-1505	30D605G150DF0	.93
8	3/8 x 1 1/4	TE-1506	30D805G150DF0	.96
10	3/8 x 1 1/4	TE-1507	30D106G150DF0	.96
12	3/8 x 1 1/2	TE-1508	30D126G150DH0	.96

*Add 1/16" to dimensions to allow for insulating sleeve.

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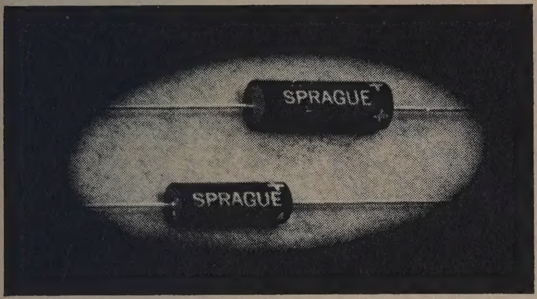
SPRAGUE CAPACITORS

TL TRANSI-LYTIC® ELECTROLYTICS



- Miniature Low-Cost Capacitors For Use in Transistorized Pocket and "Personal Portable" Radios
- Special Low-Leakage Current Construction to Meet The Requirements of Transistor Circuitry
- Sturdy Plastic Case With Thermo-setting Resin End-Seals
- Excellent Resistance to High Humidity Conditions
- Polarity Stamped on Each Unit

3 WVDC

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net.
1	3/16 x 37/64	TL-1050	31D1	$.42
2	3/16 x 37/64	TL-1051	31D2	.42
3	3/16 x 37/64	TL-1052	31D3	.42
4	3/16 x 37/64	TL-1052.1	31D4	.42
5	3/16 x 37/64	TL-1052.2	31D5	.42
6	3/16 x 37/64	TL-1052.3	31D6	.42
8	3/16 x 37/64	TL-1052.5	31D7	.42
10	3/16 x 37/64	TL-1053	31D8	.42
15	7/32 x 45/64	TL-1053.5	31D9	.42
20	7/32 x 45/64	TL-1054	31D10	.42
25	1/4 x 53/64	TL-1055	31D11	.42
35	1/4 x 53/64	TL-1056	31D12	.42
50	1/4 x 53/64	TL-1058	31D13	.42
75	5/16 x 53/64	TL-1059	31D14	.45
100	5/16 x 53/64	TL-1059.5	31D15	.45
150	3/8 x 1 5/64	TL-1061	31D16	.54
200	3/8 x 1 5/64	TL-1064	31D17	.54
250	3/8 x 1 5/64	TL-1065	31D18	.66

6 WVDC

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net.
1	3/16 x 37/64	TL-1080	31D19	$.42
2	3/16 x 37/64	TL-1081	31D20	.42
3	3/16 x 37/64	TL-1082	31D21	.42
4	3/16 x 37/64	TL-1083	31D22	.42
5	3/16 x 37/64	TL-1084	31D23	.42
6	3/16 x 37/64	TL-1085	31D24	.42
8	3/16 x 37/64	TL-1086	31D25	.42
10	7/32 x 45/64	TL-1087	31D26	.42
15	7/32 x 45/64	TL-1089	31D27	.42
20	1/4 x 53/64	TL-1090	31D28	.42
25	1/4 x 53/64	TL-1091	31D29	.42
35	1/4 x 53/64	TL-1093	31D30	.42
50	5/16 x 53/64	TL-1100	31D31	.42

6 WVDC (cont.)

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net.
75	3/8 x 1 5/64	TL-1101.5	31D32	$.45
100	3/8 x 1 5/64	TL-1102	31D33	.45
150	3/8 x 1 5/64	TL-1103	31D34	.60
175	3/8 x 1 5/64	TL-1103.5	31D35	.60

12 WVDC

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net.
1	3/16 x 37/64	TL-1120	31D36	$.42
2	3/16 x 37/64	TL-1121	31D37	.42
3	3/16 x 37/64	TL-1122	31D38	.42
4	3/16 x 37/64	TL-1123	31D39	.42
5	3/16 x 37/64	TL-1127	31D40	.42
6	7/32 x 45/64	TL-1127.1	31D41	.42
8	7/32 x 45/64	TL-1127.3	31D42	.42
10	7/32 x 45/64	TL-1128	31D43	.42
15	1/4 x 53/64	TL-1129	31D44	.42
20	1/4 x 53/64	TL-1130	31D45	.42
25	1/4 x 53/64	TL-1131	31D46	.42
35	5/16 x 53/64	TL-1132	31D47	.42
50	5/16 x 53/64	TL-1133	31D48	.42
75	3/8 x 1 5/64	TL-1134	31D49	.45
100	3/8 x 1 5/64	TL-1135	31D50	.45

16 WVDC

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net.
1	3/16 x 37/64	TL-1148	31D51	$.42
2	3/16 x 37/64	TL-1149	31D52	.42
3	3/16 x 37/64	TL-1150	31D53	.42
4	3/16 x 37/64	TL-1151	31D54	.42
5	7/32 x 45/64	TL-1152	31D55	.42
6	7/32 x 45/64	TL-1153	31D56	.42
8	7/32 x 45/64	TL-1154	31D57	.42
10	1/4 x 53/64	TL-1155	31D58	.45
15	1/4 x 53/64	TL-1156	31D59	.45
20	1/4 x 53/64	TL-1157	31D60	.45
25	1/4 x 53/64	TL-1157.1	31D61	.45

16 WVDC (cont.)

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net.
35	5/16 x 53/64	TL-1159	31D62	$.45
50	3/8 x 1 5/64	TL-1160	31D63	.45
75	3/8 x 1 5/64	TL-1161	31D64	.48
100	3/8 x 1 5/64	TL-1162	31D65	.48

20 WVDC

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net.
1	3/16 x 37/64	TL-1170	31D66	$.42
2	3/16 x 37/64	TL-1171	31D67	.42
3	3/16 x 37/64	TL-1172	31D68	.42
4	7/32 x 45/64	TL-1173	31D69	.42
5	7/32 x 45/64	TL-1174	31D70	.45
6	7/32 x 45/64	TL-1175	31D71	.45
8	1/4 x 53/64	TL-1176	31D72	.45
10	1/4 x 53/64	TL-1177	31D73	.45
15	1/4 x 53/64	TL-1178	31D74	.54
20	5/16 x 53/64	TL-1179	31D75	.54
25	5/16 x 53/64	TL-1180	31D76	.54
35	3/8 x 1 5/64	TL-1181	31D77	.54
50	3/8 x 1 5/64	TL-1182	31D78	.54
75	3/8 x 1 5/64	TL-1183	31D79	.54

25 WVDC

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net.
1	3/16 x 37/64	TL-1200	31D80	$.42
2	3/16 x 37/64	TL-1201	31D81	.42
3	7/32 x 45/64	TL-1201.1	31D82	.42
4	7/32 x 45/64	TL-1201.2	31D83	.42
5	1/4 x 53/64	TL-1202	31D84	.45
6	1/4 x 53/64	TL-1203	31D85	.45
8	1/4 x 53/64	TL-1203.5	31D86	.45
10	1/4 x 53/64	TL-1204	31D87	.45
15	5/16 x 53/64	TL-1205	31D88	.54
20	5/16 x 53/64	TL-1206	31D89	.54
25	3/8 x 1 5/64	TL-1207	31D90	.54
35	3/8 x 1 5/64	TL-1208	31D91	.54
50	3/8 x 1 5/64	TL-1209	31D92	.54

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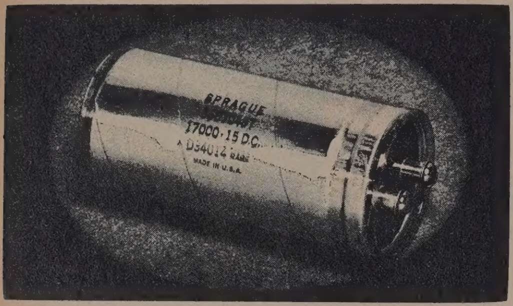
SPRAGUE CAPACITORS

TYPE 36D POWERLYTIC® ALUMINUM ELECTROLYTICS



- For Maximum Capacitance in a Given Case Size.
- Especially Suitable for Transistorized Circuitry where High Capacitance is Required.
- Maximum Space Economy at Operating Temperatures Up To 65 C.
- Low ESR and Leakage Currents. • Extremely Long Shelf Life.
- Uses Most Reliable Seal Developed by Sprague for Aluminum Electrolytic Capacitors. Pressure-type Safety Vents Employing Silicone Rubber Are Used On All Cases.
- High Screw Insert Terminal, 9/32″ high. • Plastic Outer Tube.
- Superior Electrical and Life Characteristics Are Insured By Careful Raw Material Inspection, High Quality Control Standards and Close Manufacturing Supervision. For Complete Technical Data, Consult Sprague Engineering Bulletin 3431.

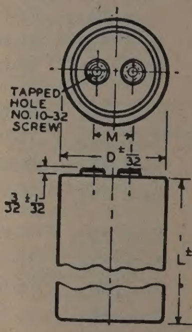
μF	Size Code	WVDC	Catalog No.
3600	A1	10	36D1026T
7300	A2	10	36D1027T
11000	A3	10	36D1029T
27000	D2	10	36D1033T
2600	A1	15	36D1039T
5300	A2	15	36D1040T
8000	A3	15	36D1042T
17000	C3	15	36D1045T
20000	D2	15	36D1046T
30000	D3	15	36D1048T
35000	D4	15	36D1049T
1500	A1	25	36D1065T
3100	A2	25	36D1066T
4700	A3	25	36D1068T
7000	C2	25	36D1070T
10000	C3	25	36D1071T
17000	D3	25	36D1074T
27000	E3	25	36D1076T
32000	E4	25	36D1077T
23000	E3	30	36D1089T
27000	E4	30	36D1090T
2000	A3	40	36D1094T
4000	C2	40	36D1096T
6000	C3	40	36D1097T
10000	D3	40	36D1100T
12000	D4	40	36D1101T
750	A1	50	36D1104T
1500	A2	50	36D1105T
2200	A3	50	36D1107T
3300	C2	50	36D1109T
5000	C3	50	36D1110T
8600	D3	50	36D1113T

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	Size Code	WVDC	Catalog No.
2000	C2	75	36D1122T
6200	D4	75	36D1127T
1000	A3	100	36D1133T
4000	D3	100	36D1139T
900	A3	150	36D1146T
1300	C2	150	36D1147T
2000	C3	150	36D1148T
3400	D3	150	36D1150T
5300	E3	150	36D1151T
400	A2	200	36D1154T
600	A3	200	36D1156T
1600	D2	200	36D1159T
530	A3	250	36D1166T
1100	C3	250	36D1168T
240	A2	300	36D1174T
190	A2	350	36D1184T
1000	D3	350	36D1190T
330	C3	450	36D1208T
860	E3	450	36D1211T

CALL YOUR SPRAGUE DISTRIBUTOR FOR QUANTITY PRICES

Size Code	Diameter	Length
A1	1 7/16	2 1/2
A2	1 7/16	3 1/2
A3	1 7/16	4 1/2
C2	2 1/16	3 1/2
C3	2 1/16	4 1/2
D2	2 9/16	3 1/2
D3	2 9/16	4 1/2
D4	2 9/16	5
E3	3 1/16	4 1/2
E4	3 1/16	5



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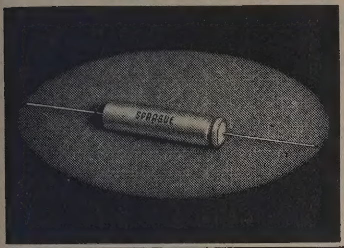
SPRAGUE CAPACITORS

TYPE 40D Miniature Extended-Life 85°C ELECTROLYTICS



- THE MOST RELIABLE TUBULAR ALUMINUM ELECTROLYTIC MANUFACTURED
- Premium quality. Service life of 10 years in actual circuit applications under typical operating conditions
- Special design and processing techniques result in ultra low leakage currents and high stability
- All critical terminations are welded to prevent open circuits even after extended service in the millivolt range
- Operating Temperature: —40°C to +85°C
- Units listed here have thermoplastic insulating sleeves; for rigid phenolic sleeve, change end of catalog number from 4 to 3; for bare metal tubes, change end of catalog number to 0.
- Capacitance tolerance: —10, +50%
- Write for Engineering Bulletin No. 3205 to compare this outstanding capacitor with any other unit on the market.
- Prices available upon request.

3 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D105F003BB4
2	5/16 x 3/4	40D205F003BB4
3	5/16 x 3/4	40D305F003BB4
4	5/16 x 3/4	40D405F003BB4
5	5/16 x 3/4	40D505F003BB4
6	5/16 x 3/4	40D605F003BB4
8	5/16 x 3/4	40D805F003BB4
10	5/16 x 3/4	40D106F003BB4
15	5/16 x 3/4	40D156F003BB4
20	5/16 x 3/4	40D206F003BB4
25	5/16 x 3/4	40D256F003BB4
35	3/8 x 3/4	40D356F003CB4
50	7/16 x 3/4	40D506F003DB4
75	7/16 x 3/4	40D756F003DB4
100	7/16 x 7/8	40D107F003DC4
150	7/16 x 1	40D157F003DD4
200	7/16 x 1 5/16	40D207F003DF4
225	7/16 x 1 5/16	40D227F003DF4
250	7/16 x 1 9/16	40D257F003DH4
300	7/16 x 1 9/16	40D307F003DH4

6 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D105F006BB4
2	5/16 x 3/4	40D205F006BB4
3	5/16 x 3/4	40D305F006BB4
4	5/16 x 3/4	40D405F006BB4
5	5/16 x 3/4	40D505F006BB4
6	5/16 x 3/4	40D605F006BB4
8	5/16 x 3/4	40D805F006BB4
10	5/16 x 3/4	40D106F006BB4
15	5/16 x 3/4	40D156F006BB4
20	3/8 x 3/4	40D206F006CB4
25	3/8 x 3/4	40D256F006CB4
35	7/16 x 3/4	40D356F006DB4
50	7/16 x 3/4	40D506F006DB4
75	7/16 x 7/8	40D756F006DC4
100	7/16 x 1	40D107F006DD4
150	7/16 x 1 5/16	40D157F006DF4
175	7/16 x 1 5/16	40D177F006DF4
200	7/16 x 1 9/16	40D207F006DH4
250	7/16 x 1 9/16	40D257F006DH4

12 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D105F012BB4
2	5/16 x 3/4	40D205F012BB4
3	5/16 x 3/4	40D305F012BB4
4	5/16 x 3/4	40D405F012BB4
5	5/16 x 3/4	40D505F012BB4
6	5/16 x 3/4	40D605F012BB4
8	5/16 x 3/4	40D805F012BB4
10	5/16 x 3/4	40D106F012BB4
15	5/16 x 3/4	40D156F012BB4
20	3/8 x 3/4	40D206F012CB4
25	3/8 x 3/4	40D256F012CB4
35	7/16 x 3/4	40D356F012DB4
50	7/16 x 7/8	40D506F012DC4
75	7/16 x 1	40D756F012DD4
100	7/16 x 1	40D107F012DD4
150	7/16 x 1 5/16	40D157F012DF4
200	7/16 x 1 9/16	40D207F012DH4

15 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D105F015BB4
2	5/16 x 3/4	40D205F015BB4
3	5/16 x 3/4	40D305F015BB4
4	5/16 x 3/4	40D405F015BB4
5	5/16 x 3/4	40D505F015BB4
6	5/16 x 3/4	40D605F015BB4
8	5/16 x 3/4	40D805F015BB4
10	5/16 x 3/4	40D106F015BB4
15	3/8 x 3/4	40D156F015CB4
20	7/16 x 3/4	40D206F015DB4
25	7/16 x 3/4	40D256F015DB4
35	7/16 x 7/8	40D356F015DC4
50	7/16 x 7/8	40D506F015DC4
75	7/16 x 1	40D756F015DD4
100	7/16 x 1 5/16	40D107F015DF4
150	7/16 x 1 9/16	40D157F015DH4

25 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D105F025BB4
2	5/16 x 3/4	40D205F025BB4
3	5/16 x 3/4	40D305F025BB4
4	5/16 x 3/4	40D405F025BB4
5	5/16 x 3/4	40D505F025BB4
6	3/8 x 3/4	40D605F025CB4
8	3/8 x 3/4	40D805F025CB4
10	7/16 x 3/4	40D106F025DB4
15	7/16 x 3/4	40D156F025DB4
20	7/16 x 7/8	40D206F025DC4
25	7/16 x 1	40D256F025DD4
35	7/16 x 1	40D356F025DD4
50	7/16 x 1 5/16	40D506F025DF4
75	7/16 x 1 9/16	40D756F025DH4

50 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D105F050BB4
2	3/8 x 3/4	40D205F050CB4
3	3/8 x 3/4	40D305F050CB4
4	7/16 x 3/4	40D405F050DB4
5	7/16 x 3/4	40D505F050DB4
6	7/16 x 3/4	40D605F050DB4
8	7/16 x 7/8	40D805F050DC4
10	7/16 x 7/8	40D106F050DC4
15	7/16 x 1	40D156F050DD4
20	7/16 x 1 5/16	40D206F050DF4
25	7/16 x 1 9/16	40D256F050DH4
30	7/16 x 1 9/16	40D306F050DH4

100 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	7/16 x 1	40D105F100DD4
2	7/16 x 1	40D205F100DD4
3	7/16 x 1	40D305F100DD4
4	7/16 x 1	40D405F100DD4
5	7/16 x 1	40D505F100DD4
6	7/16 x 1	40D605F100DD4
8	7/16 x 1	40D805F100DD4
10	7/16 x 1 5/16	40D106F100DF4
15	7/16 x 1 9/16	40D156F100DH4
18	7/16 x 1 9/16	40D186F100DH4

150 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	7/16 x 1	40D105F150DD4
2	7/16 x 1	40D205F150DD4
3	7/16 x 1	40D305F150DD4
4	7/16 x 1	40D405F150DD4
5	7/16 x 1	40D505F150DD4
6	7/16 x 1 5/16	40D605F150DF4
8	7/16 x 1 5/16	40D805F150DF4
10	7/16 x 1 9/16	40D106F150DH4

CAPACITOR HARDWARE

- Sprague Mounting Clamps and Straps Provide Quick, Dependable Means for Securing a Wide Variety of Capacitors and Resistors to a Mounting Surface
- All Clamps and Straps are Made from Plated Steel

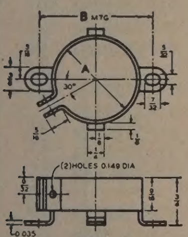


FIG. 1

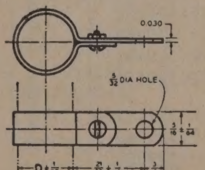


FIG. 3

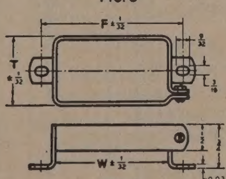


FIG. 4

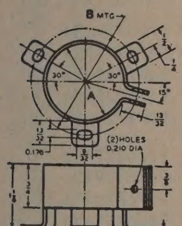


FIG. 2

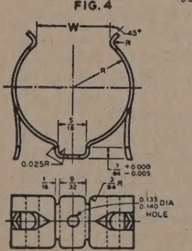


FIG. 5

VERTICAL MOUNTING CLAMPS FOR CYLINDRICAL CAPACITORS

Cat. No.	A Dia.	B Mounting	Figure No.	Net Price
CMC-16	1	1 7/16	1	$.25
CMC-20	1 1/4	1 11/16	1	.25
CMC-22	1 3/8	1 25/32	1	.25
CMC-24	1 1/2	1 15/16	1	.30
CMC-28	1 3/4	2 3/16	1	.30
CMC-28A	1 3/4	2 3/16	2	.30
CMC-32	2	2 1/2	2	$.60
CMC-33	2 1/16	2 9/16	2	.60
CMC-40	2 1/2	3	2	.60
CMC-41	2 9/16	3 1/16	2	.60
CMC-48	3	3 1/2	2	.60
CMC-49	3 1/16	3 9/16	2	.60

WRAP AROUND CLAMPS FOR RECTANGULAR CAPACITORS

Cat. No.	Dimensions T	W	F	Fig. No.	Net Price
RMC-17	1 1/16	1 13/16	2 1/4	4	$.50
RMC-19	1 3/16	2 1/2	3	4	.50
RMC-20	1 1/4	3 3/4	4 3/8	4	.50
RMC-28	1 3/4	3 3/4	4 3/8	4	.50
RMC-36	2 1/4	3 3/4	4 3/8	4	$.55
RMC-40	2 1/2	3 3/4	4 3/8	4	.55
RMC-51	3 3/16	3 3/4	4 3/8	4	.60
RMC-73	4 9/16	3 3/4	4 3/8	4	.65

MOUNTING STRAPS FOR TUBULAR CAPACITORS

Cat. No.	Tube Dia.	Fig. No.	Net Price
TMS-4	1/4	3	$.06
TMS-5	5/16	3	.06
TMS-6	3/8	3	.06
TMS-7	7/16	3	.06
TMS-8	1/2	3	.06
TMS-9	9/16	3	.06
TMS-10	5/8	3	.06
TMS-11	11/16	3	$.06
TMS-12	3/4	3	.06
TMS-13	13/16	3	.06
TMS-14	7/8	3	.06
TMS-15	15/16	3	.06
TMS-16	1	3	.10
TMS-17	1 1/16	3	.10
TMS-18	1 1/8	3	$.10
TMS-19	1 3/16	3	.10
TMS-20	1 1/4	3	.15
TMS-21	1 5/16	3	.15
TMS-22	1 3/8	3	.15

HORIZONTAL MOUNTING CLIPS FOR CYLINDRICAL CAPACITORS

Catalog No.	Capacitor Diameter	Figure No.	Net Price
UMC-6	3/8	5	$.06
UMC-8	1/2	5	.06
UMC-10	5/8	5	.06
UMC-12	3/4	5	.06
UMC-14	7/8	5	$.06
UMC-16	1	5	.10
UMC-22	1 3/8	5	.15

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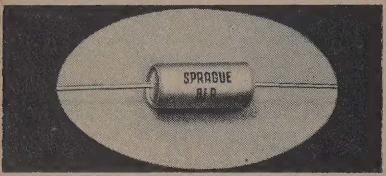
SPRAGUE CAPACITORS

VITAMIN Q® SUBMINIATURE PAPER CAPACITORS



These capacitors are the most widely used of all paper capacitors in commercial and military electronic equipment. Hermetically sealed in metal cases, they are electrically and mechanically designed to meet stringent operating requirements.

Impregnated with Vitamin Q, a substantially linear, controlled molecular weight, hydrocarbon polymer, which is exclusive with Sprague, these dependable capacitors are available for operation in two temperature ranges: −55°C to +85°C and −55°C to +125°C. Because of their Vitamin Q impregnation, these subminiature capacitors have a higher insulation resistance and longer life than comparable units with ordinary oils.

Sprague Subminiature paper capacitors exceed the performance requirements of military specification MIL-C-25A. A limited number of the ratings shown here are listed in the military specification and should be ordered by their MIL type designation where equipment specifications so require. (See page after next.)

Listed below are the most popular insulated section (ungrounded case) capacitors. For technical data on these and other types, ratings, and tolerances, as well as on wax-impregnated units for absolute minimum size, refer to the latest issue of Engineering Bulletin 2110.

Call your Sprague Industrial Distributor for Current Quantity Prices.

CHOICE OF INSERTED TAB OR EXTENDED FOIL CONSTRUCTION

In the past, inserted tab capacitors have not been recommended for low-voltage applications (e.g., below 10 volts) but recent improvements in design now make it possible to recommend them for operation at all voltages from 1 to rated, in nearly all applications.

From the application standpoint, the principal difference between the two construction types is that, at resonance, losses are likely to be lower in the extended foil type. This is because the resistive component of impedance is likely to be higher at resonance in the inserted tab type of construction. Unless unusual circuit requirements make the losses at resonance a critical factor, the inserted tab construction is recommended, primarily because of the smaller size of the capacitor roll.

TYPE 91P, INSERTED TAB CONSTRUCTION, 85°C OPERATION

µF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	100	.175 x ¾	91P10201S2	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10201S4	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10291S2	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10291S4	Call Your Sprague Industrial Distributor for Current Quantity Prices
	200	.235 x ¾	91P10202S2		91P10202S4		91P10292S2		91P10292S4	
	300	.235 x ¾	91P10203S2		91P10203S4		91P10293S2		91P10293S4	
	400	.235 x ¾	91P10204S2		91P10204S4		91P10294S2		91P10294S4	
	600	.235 x ¾	91P10206S2		91P10206S4		91P10296S2		91P10296S4	
.0015	100	.175 x ¾	91P15201S2		91P15201S4		91P15291S2		91P15291S4	
	200	.235 x ¾	91P15202S2		91P15202S4		91P15292S2		91P15292S4	
	300	.235 x ¾	91P15203S2		91P15203S4		91P15293S2		91P15293S4	
	400	.235 x ¾	91P15204S2		91P15204S4		91P15294S2		91P15294S4	
	600	.235 x ¾	91P15206S2		91P15206S4		91P15296S2		91P15296S4	
.0022	100	.175 x ¾	91P22201S2		91P22201S4		91P22291S2		91P22291S4	
	200	.235 x ¾	91P22202S2		91P22202S4		91P22292S2		91P22292S4	
	300	.235 x ¾	91P22203S2		91P22203S4		91P22293S2		91P22293S4	
	400	.235 x ¾	91P22204S2		91P22204S4		91P22294S2		91P22294S4	
	600	.235 x ¾	91P22206S2		91P22206S4		91P22296S2		91P22296S4	
.0033	100	.175 x ¾	91P33201S2		91P33201S4		91P33291S2		91P33291S4	
	200	.235 x ¾	91P33202S2		91P33202S4		91P33292S2		91P33292S4	
	300	.235 x ¾	91P33203S2		91P33203S4		91P33293S2		91P33293S4	
	400	.235 x ¾	91P33204S2		91P33204S4		91P33294S2		91P33294S4	
	600	.235 x ¾	91P33206S2		91P33206S4		91P33296S2		91P33296S4	
.0047	100	.175 x ¾	91P47201S2		91P47201S4		91P47291S2		91P47291S4	
	200	.235 x ¾	91P47202S2		91P47202S4		91P47292S2		91P47292S4	
	300	.235 x ¾	91P47203S2		91P47203S4		91P47293S2		91P47293S4	
	400	235 x ¾	91P47204S2		91P47204S4		91P47294S2		91P47294S4	
	600	.235 x ¾	91P47206S2		91P47206S4		91P47296S2		91P47296S4	
.0068	100	.175 x ¾	91P68201S2		91P68201S4		91P68291S2		91P68291S4	
	200	.235 x ¾	91P68202S2		91P68202S4		91P68292S2		91P68292S4	
	300	.235 x ¾	91P68203S2		91P68203S4		91P68293S2		91P68293S4	
	400	.235 x ¾	91P68204S2		91P68204S4		91P68294S2		91P68294S4	
	600	.235 x ¾	91P68206S2		91P68206S4		91P68296S2		91P68296S4	

*For Style 4 units add .0625″ to diameter and 1/16″ to length.

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SPRAGUE CAPACITORS

TYPE 91P, continued

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
µF	WVDC	Size D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.01	100	.175 x ¾	91P10301S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10301S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.235 x ¾	91P10302S2		91P10302S4		91P10392S2		91P10392S4	
	300	.235 x ¾	91P10303S2		91P10303S4		91P10393S2		91P10393S4	
	400	.235 x ¾	91P10304S2		91P10304S4		91P10394S2		91P10394S4	
	600	.312 x ⅞	91P10306S2		91P10306S4		91P10396S2		91P10396S4	
.015	100	.175 x ¾	91P15301S2		91P15301S4		91P15391S2		91P15391S4	
	200	.235 x ¾	91P15302S2		91P15302S4		91P15392S2		91P15392S4	
	300	.235 x ¾	91P15303S2		91P15303S4		91P15393S2		91P15393S4	
	400	.312 x ⅞	91P15304S2		91P15304S4		91P15394S2		91P15394S4	
	600	.312 x ⅞	91P15306S2		91P15306S4		91P15396S2		91P15396S4	
.022	100	.195 x ¾	91P22301S2		91P22301S4		91P22391S2		91P22391S4	
	200	.235 x ¾	91P22302S2		91P22302S4		19P22392S2		91P22392S4	
	300	.312 x ⅞	91P22303S2		91P22303S4		91P22393S2		91P22393S4	
	400	.312 x ⅞	91P22304S2		91P22304S4		91P22394S2		91P22394S4	
	600	.312 x ⅞	91P22306S2		91P22306S4		91P22396S2		91P22396S4	
.033	100	.235 x ¾	91P33301S2		91P33301S4		91P33391S2		91P33391S4	
	200	.312 x ⅞	91P33302S2		91P33302S4		91P33392S2		91P33392S4	
	300	.312 x ⅞	91P33303S2		91P33303S4		91P33393S2		91P33393S4	
	400	.312 x ⅞	91P33304S2		91P33304S4		91P33394S2		91P33394S4	
	600	.400 x ⅞	91P33306S2		91P33306S4		91P33396S2		91P33396S4	
.047	100	.312 x ⅞	91P47301S2		91P47301S4		91P47391S2		91P47391S4	
	200	.312 x ⅞	91P47302S2		91P47302S4		91P47392S2		91P47392S4	
	300	.312 x ⅞	91P47303S2		91P47303S4		91P47393S2		91P47393S4	
	400	.400 x ⅞	91P47304S2		91P47304S4		91P47394S2		91P47394S4	
	600	.400 x 1⅜	91P47306S2		91P47306S4		91P47396S2		91P47396S4	
.068	100	.312 x ⅞	91P68301S2		91P68301S4		91P68391S2		91P68391S4	
	200	.312 x ⅞	91P68302S2		91P68302S4		91P68392S2		91P68392S4	
	300	.400 x ⅞	91P68303S2		91P68303S4		91P68393S2		91P68393S4	
	400	.400 x 1⅛	91P68304S2		91P68304S4		91P68394S4		91P68394S4	
	600	.400 x 1⅛	91P68306S2		91P68306S4		91P68396S2		91P68396S4	
.1	100	.312 x ⅞	91P10401S2		91P10401S4		91P10491S2		91P10491S4	
	200	.400 x ⅞	91P10402S2		91P10402S4		91P10492S2		91P10492S4	
	300	.400 x 1⅛	91P10403S2		91P10403S4		91P10493S2		91P10493S4	
	400	.400 x 1⅛	91P10404S2		91P10404S4		91P10494S2		91P10494S4	
	600	.562 x 1⅛	91P10406S2		91P10406S4		91P10496S2		91P10496S4	
.15	100	.400 x ⅞	91P15401S2		91P15401S4		91P15491S2		91P15491S4	
	200	.400 x 1⅛	91P15402S2		91P15402S4		91P15492S2		91P15492S4	
	300	.400 x 1⅜	91P15403S2		91P15403S4		91P15493S2		91P15493S4	
	400	.562 x 1⅛	91P15404S2		91P15404S4		91P15494S2		91P15494S4	
	600	.562 x 1⅜	91P15406S2		91P15406S4		91P15496S2		91P15496S4	
22	100	.400 x 1⅛	91P22401S2		91P22401S4		91P22491S2		91P22491S4	
	200	.400 x 1⅜	91P22402S2		91P22402S4		91P22492S2		91P22492S4	
	300	.562 x 1⅛	91P22403S2		91P22403S4		91P22493S2		91P22493S4	
	400	.562 x 1⅜	91P22404S2		91P22404S4		91P22494S2		91P22494S4	
	600	.562 x 1⅞	91P22406S2		91P22406S4		91P22496S2		91P22496S4	
.33	100	.400 x 1⅜	91P33401S2		91P33401S4		91P33491S2		91P33491S4	
	200	.562 x 1⅛	91P33402S2		91P33402S4		91P33492S2		91P33492S4	
	300	.562 x 1⅜	91P33403S2		91P33403S4		91P33493S2		91P33493S4	
	400	.562 x 1⅞	91P33404S2		91P33404S4		91P33494S2		91P33494S4	
	600	.670 x 1⅞	91P33406S2		91P33406S4		91P33496S2		91P33496S4	
.47	100	.562 x 1⅛	91P47401S2		91P47401S4		91P47491S2		91P47491S4	
	200	.562 x 1⅜	91P47402S2		91P47402S4		91P47492S2		91P47492S4	
	300	.562 x 1⅞	91P47403S2		91P47403S4		91P47493S2		91P47493S4	
	400	.670 x 1⅞	91P47404S2		91P47404S4		91P47494S2		91P47494S4	
	600	.750 x 2⅛	91P47406S2		91P47406S4		91P47496S2		91P47496S4	
68	100	.562 x 1⅜	91P68401S2		91P68401S4		91P68491S2		91P68491S4	
	200	.562 x 1⅞	91P68402S2		91P68402S4		91P68492S2		91P68492S4	
	300	.670 x 1⅞	91P68403S2		91P68403S4		91P68493S2		91P68493S4	
	400	.750 x 2 1/16	91P68404S2		91P68404S4		91P68494S2		91P68494S4	
	600	1.000 x 1 13/16	91P68406S2		91P68406S4		91P68496S2		91P68496S4	
1.0	100	.562 x 1⅞	91P10501S2		91P10501S4		91P10591S2		91P10591S4	
	200	.670 x 1⅞	91P10502S2		91P10502S4		91P10592S2		91P10592S4	
	300	.750 x 2 1/16	91P10503S2		91P10503S4		91P10593S2		91P10593S4	
	400	1.000 x 1 13/16	91P10504S2		91P10504S4		91P10594S2		91P10594S4	

*For Style 4 units add .0625″ to diameter and 1/16″ to length.

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SPRAGUE CAPACITORS

TYPE 96P, INSERTED TAB CONTRUCTION, 125°C OPERATION

µF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	100	.175 x ¾	96P10201S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P10201S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P10291S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P10201S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.235 x ¾	96P10202S2		96P10202S4		96P10292S2		96P10202S4	
	300	.235 x ¾	96P10203S2		96P10203S4		96P10293S2		96P10203S4	
	400	.235 x ¾	96P10204S2		96P10204S4		96P10294S2		96P10204S4	
	600	.235 x ¾	96P10206S2		96P10206S4		96P10296S2		96P10206S4	
.0012	600	.235 x 11/16	———		———		96P12296S2		96P12296S4	
.0015	100	.175 x ¾	96P15201S2		96P15201S4		96P15291S2		96P15291S4	
	200	.235 x ¾	96P15202S2		96P15202S4		96P15292S2		96P15292S4	
	300	.235 x ¾	96P15203S2		96P15203S4		96P15293S2		96P15293S4	
	400	.235 x ¾	96P15204S2		96P15204S4		96P15294S2		96P15294S4	
	600	.235 x ¾	96P15206S2		96P15206S4		96P15296S2		96P15296S4	
.0018	600	.235 x 11/16	———		———		96P18296S2		96P18296S4	
.0022	100	.175 x ¾	96P22201S2		96P22201S4		96P22291S2		96P22201S4	
	200	.235 x ¾	96P22202S2		96P22202S4		96P22292S2		96P22202S4	
	300	.235 x ¾	96P22203S2		96P22203S4		96P22293S2		96P22203S4	
	400	.235 x ¾	96P22204S2		96P22204S4		96P22294S2		96P22204S4	
	600	.235 x ¾	96P22206S2		96P22206S4		96P22296S2		96P22026S4	
.0027	600	.235 x 11/16	———		———		96P27296S2		96P27296S4	
.0033	100	.175 x ¾	96P33201S2		96P33201S4		96P33291S2		96P33291S4	
	200	.235 x ¾	97P33202S2		96P33202S4		96P33292S2		96P33292S4	
	300	.235 x ¾	96P33203S2		96P33203S4		96P33293S2		96P33293S4	
	400	.235 x ¾	96P33204S2		96P33204S4		96P33294S2		96P33294S4	
	600	.235 x ¾	96P33206S2		96P33206S4		96P33296S2		96P33296S4	
.0039	600	.235 x 11/16	———		———		96P39296S2		96P33296S4	
.0047	100	.175 x ¾	96P47201S2		96P47201S4		96P47291S2		96P47291S4	
	200	.235 x ¾	96P47202S2		96P47202S4		96P47292S2		96P47292S4	
	300	.235 x ¾	96P47203S2		96P47203S4		96P47293S2		96P47293S4	
	400	.235 x ¾	96P47204S2		96P47204S4		96P47294S2		96P47294S4	
	600	.235 x ¾	96P47206S2		96P47206S4		96P47296S2		96P47296S4	
.0056	600	.235 x 11/16	———		———		96P56296S2		96P56296S4	
.0068	100	.175 x ¾	96P68201S2		96P68201S4		96P68291S2		96P68391S4	
	200	.235 x ¾	96P68202S2		96P68202S4		96P68292S2		96P68392S4	
	300	.235 x ¾	96P68203S2		96P68203S4		96P68293S2		96P68393S4	
	400	.235 x ¾	96P68204S2		96P68204S4		96P68294S2		96P68394S4	
	600	.235 x ¾	96P68206S2		96P68206S4		96P68296S2		96P68396S4	
.0082	400	.400 x 1 5/16	———		———		96P82294S2		96P82294S4	
	600	.562 x 1 1/16	———		———		96P82296S2		96P82296S4	
.01	100	.175 x ¾	96P10301S2		96P10301S4		96P10391S2		96P10391S4	
	200	.235 x ¾	96P10302S2		96P10302S4		96P10392S2		96P10392S4	
	300	.235 x ¾	96P10303S2		96P10303S4		97P10393S2		96P10393S4	
	400	.235 x ¾	96P10304S2		96P10304S4		96P10394S2		96P10394S4	
	600	.312 x ⅞	96P10306S2		96P10306S4		96P10396S2		96P10396S4	
.012	200	.235 x 11/16	———		———		96P12392S2		96P12392S4	
	600	.312 x 11/16	———		———		96P12396S2		96P12396S4	
.015	100	.175 x ¾	96P15301S2		96P15301S4		96P15391S2		96P15391S4	
	200	.235 x ¾	96P15302S2		96P15302S4		96P15392S2		96P15392S4	
	300	.235 x ¾	96P15303S2		96P15303S4		96P15393S2		96P15393S4	
	400	.312 x ⅞	96P15304S2		96P15304S4		96P15394S2		96P15394S4	
	600	.312 x ⅞	96P15306S2		96P15306S4		96P15396S2		96P15396S4	
	1000	.400 x 11/16	———		———		96P153910S2		96P153910S4	
.018	200	.235 x 11/16	———		———		96P18392S2		96P18392S4	
	600	.312 x 13/16	———		———		96P18396S2		96P18396S4	
	1000	.400 x 1 1/16	———		———		96P183910S2		96P183910S4	
.022	100	.195 x ¾	96P22301S2		96P22301S4		96P22391S2		96P22391S4	
	200	.235 x ¾	96P22302S2		96P22302S4		96P22392S2		96P22392S4	
	300	.312 x ⅞	96P22303S2		96P22303S4		96P22393S2		96P22393S4	
	400	.312 x ⅞	96P22304S2		96P22304S4		96P22394S2		96P22394S4	
	600	.312 x ⅞	96P22306S2		96P22306S4		96P22396S2		96P22396S4	
	1000	.400 x 1 1/16	———		———		96P223910S2		96P223910S4	
.027	100	.235 x 1 11/16	———		———		96P27391S2		96P27391S4	
	400	.312 x 13/16	———		———		96P27394S2		96P27394S4	
	600	.312 x 13/16	———		———		96P27396S2		96P27396S4	
	1000	.400 x 1 1/16	———		———		96P273910S2		96P273910S4	
.033	100	.235 x ¾	96P33301S2		96P33301S4		96P33391S2		96P33391S4	
	200	.312 x ⅞	96P33302S2		96P33302S4		96P33392S2		96P33392S4	
	300	.312 x ⅞	96P33303S2		96P33303S4		96P33393S2		96P33393S4	
	400	.312 x ⅞	96P33304S2		96P33304S4		96P33394S2		96P33394S4	
	600	.400 x ⅞	96P33306S2		96P33306S4		96P33396S2		96P33396S4	
	1000	.400 x 1 5/16	———		———		96P333910S2		96P333910S4	
.039	200	.312 x 13/16	———		———		96P39392S2		96P39392S4	
	400	.400 x 13/16	———		———		96P39394S2		96P39394S4	
	600	.400 x 1 1/16	———		———		96P39396S2		96P39396S4	
	1000	.562 x 1 1/16	———		———		96P393910S2		96P393910S4	
.047	100	.312 x ⅞	96P47301S2		96P47301S4		96P47391S2		96P47391S4	
	200	.312 x ⅞	96P47302S2		96P47302S4		96P47392S2		96P47392S4	
	300	.312 x ⅞	96P47303S2		96P47303S4		96P473932S		96P47393S4	
	400	.400 x ⅞	96P47304S2		96P47304S4		96P47394S2		96P47394S4	
	600	.400 x 1⅛	96P47306S2		96P47306S4		96P47396S2		96P47396S4	
	1000	.562 x 1 5/16	———		———		96P473910S2		96P473910S4	
.056	200	.312 x 13/16	———		———		96P56392S2		96P56392S4	
	400	.400 x 1 1/16	———		———		96P56394S2		96P56394S4	
	600	.400 x 1 5/16	———		———		96P56396S2		96P56396S4	
	1000	.562 x 1 5/16	———		———		96P563910S2		96P563910S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 96P, continued

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
µF	WVDC	Size D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.068	100	.312 x 7/8	96P68301S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P68301S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P68391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	96P68391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.312 x 7/8	96P68302S2		96P68302S4		96P68392S2		96P68392S4	
	300	.400 x 7/8	96P68303S2		96P68303S4		96P68393S2		96P68393S4	
	400	.400 x 1 1/8	96P68304S2		96P68304S4		96P68394S2		96P68394S4	
	600	.400 x 1 3/8	96P68306S2		96P68306S4		96P68396S2		96P68396S4	
	1000	.562 x 1 5/16	———		———		96P683910S2		96P683910S4	
.082	100	.312 x 13/16	———		———		96P82391S2		96P82391S4	
	200	.400 x 13/16	———		———		96P82392S2		96P82392S4	
	400	.400 x 1 5/16	———		———		96P82394S2		96P82394S4	
	600	.562 x 1 1/16	———		———		96P82396S2		96P82396S4	
	1000	.562 x 1 9/16	———		———		96P823910S2		96P823910S4	
.1	100	.312 x 7/8	96P10401S2		96P10401S4		96P10491S2		96P10491S4	
	200	.400 x 7/8	96P10402S2		96P10402S4		96P10492S2		96P10492S4	
	300	.400 x 1 1/8	96P10403S2		96P10403S4		96P10493S2		96P10493S4	
	400	.400 x 1 3/8	96P10404S2		96P10404S4		96P10494S2		96P10494S4	
	600	.562 x 1 1/8	96P10406S2		96P10406S4		96P10496S2		96P10496S4	
	1000	.562 x 1 9/16	———		———		96P104910S2		96P104910S4	
.12	100	.400 x 13/16	———		———		96P12491S2		96P12491S4	
	200	.400 x 1 1/16	———		———		96P12492S2		96P12492S4	
	400	.562 x 1 1/16	———		———		96P12494S2		96P12494S4	
	600	.562 x 1 5/16	———		———		96P12496S2		96P12496S4	
	1000	.670 x 1 9/16	———		———		96P124910S2		96P124910S4	
.15	100	.400 x 7/8	96P15491S2		96P15401S4		96P15491S2		96P15491S4	
	200	.400 x 1 1/8	96P15492S2		96P15402S4		96P15492S2		96P15492S4	
	300	.400 x 1 3/8	96P15493S2		96P15403S4		96P15493S2		96P15493S4	
	400	.562 x 1 1/8	96P15494S2		96P15404S4		96P15494S2		96P15494S4	
	600	.562 x 1 3/8	96P15496S2		96P15406S4		96P15496S2		96P15496S4	
	1000	.670 x 1 9/16	———		———		96P154910S2		96P154910S4	
.18	100	.400 x 1 1/16	———		———		96P18491S2		96P18491S4	
	200	.400 x 1 5/16	———		———		96P18492S2		96P18492S4	
	400	.562 x 1 5/16	———		———		96P18494S2		96P18494S4	
	600	.562 x 1 13/16	———		———		96P18496S2		96P18496S4	
	1000	.750 x 2 1/16	———		———		96P184910S2		96P184910S4	
.22	100	.400 x 1 1/8	96P22401S2		96P22401S4		96P22491S2		96P22491S4	
	200	.400 x 1 3/8	96P22402S2		96P22402S4		96P22492S2		96P22492S4	
	300	.562 x 1 1/8	96P22403S2		96P22403S4		96P22493S2		96P22493S4	
	400	.562 x 1 3/8	96P22404S2		96P22404S4		96P22494S2		96P22494S4	
	600	.562 x 1 7/8	96P22406S2		96P22406S4		96P22496S2		96P22496S4	
	1000	.750 x 2 1/16	———		———		96P224910S2		96P224910S4	
.27	100	.400 x 1 1/16	———		———		96P27491S2		96P27491S4	
	200	.562 x 1 5/16	———		———		96P27492S2		96P27492S4	
	400	.562 x 1 5/16	———		———		96P27494S2		96P27494S4	
	600	.562 x 1 13/16	———		———		96P27496S2		96P27496S4	
	1000	.750 x 2 1/16	———		———		96P274910S2		96P274910S4	
.33	100	.400 x 1 3/8	96P33401S2		96P33401S4		96P33491S2		96P33491S4	
	200	.562 x 1 1/8	96P33402S2		96P33402S4		96P33492S2		96P33492S4	
	300	.562 x 1 3/8	96P33403S2		96P33403S4		96P33493S2		96P33493S4	
	400	.562 x 1 7/8	96P33404S2		96P33404S4		96P33494S2		96P33494S4	
	600	.670 x 1 7/8	96P33406S2		96P33406S4		96P33496S2		96P33496S4	
	1000	.750 x 1 9/16	———		———		96P334910S2		96P334910S4	
.39	100	.562 x 1 1/16	———		———		96P39491S2		96P39491S4	
	200	.562 x 1 5/16	———		———		96P39492S2		96P39492S4	
	400	.670 x 1 13/16	———		———		96P39494S2		96P39494S4	
	600	.750 x 2 1/16	———		———		96P39496S2		96P39496S4	
	1000	1.000 x 2 1/16	———		———		96P394910S2		96P394910S4	
.47	100	.562 x 1 1/8	96P47401S2		96P47401S4		96P47491S2		96P47491S4	
	200	.562 x 1 3/8	96P47402S2		96P47402S4		96P47492S2		96P47492S4	
	300	.562 x 1 7/8	96P47403S2		96P47403S4		96P47493S2		96P47493S4	
	400	.670 x 1 7/8	96P47404S2		96P47404S4		96P47494S2		96P47494S4	
	600	.750 x 2 1/8	96P47406S2		96P47406S4		96P47496S2		96P47496S4	
	1000	1.000 x 2 1/16	———		———		96P474910S2		96P474910S4	
.56	100	.562 x 1 5/16	———		———		96P56491S2		96P56491S4	
	200	.562 x 1 13/16	———		———		96P56492S2		96P56492S4	
	400	.750 x 2 1/16	———		———		96P56494S2		96P56494S4	
	600	1.000 x 1 13/16	———		———		96P56496S2		96P56496S4	
.68	100	.562 x 1 3/8	96P68401S2		96P68401S4		96P68491S2		96P68491S4	
	200	.562 x 1 7/8	96P68402S2		96P68402S4		96P68492S2		96P68492S4	
	300	.670 x 1 7/8	96P68403S2		96P68403S4		96P68493S2		96P68493S4	
	400	.750 x 2 1/16	96P68404S2		96P68404S4		96P68494S2		96P68494S4	
	600	1.000 x 1 13/16	96P68406S2		96P68406S4		96P68496S2		96P68496S4	
.82	100	.562 x 1 13/16	———		———		96P82491S2		96P82491S4	
	200	.670 x 1 13/16	———		———		96P82492S2		96P82492S4	
	400	1.000 x 1 13/16	———		———		96P82494S2		96P82494S4	
1.0	100	.562 x 1 7/8	96P10501S2		96P10501S4		96P10591S2		96P10591S4	
	200	.670 x 1 7/8	96P10502S2		96P10502S4		96P10592S2		96P10592S4	
	300	.750 x 2 1/16	96P10503S2		96P10503S4		96P10593S2		96P10593S4	
	400	1.000 x 1 13/16	96P10504S2		96P10504S4		96P10594S2		96P10594S4	

*For Style 4 units add .0625″ to diameter and 1/16″ to length.

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SPRAGUE CAPACITORS

TYPE 191P, EXTENDED FOIL CONSTRUCTION, 85°C OPERATION

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
		Size	Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
µF	WVDC	D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	100	.175 x ¾	191P10201S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P10201S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P10291S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P10291S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.235 x ¾	191P10202S2		191P10202S4		191P10292S2		191P10292S4	
	300	.235 x ¾	191P10203S2		191P10203S4		191P10293S2		191P10293S4	
	400	.235 x ¾	191P10204S2		191P10204S4		191P10294S2		191P10294S4	
	600	.235 x ¾	191P10206S2		191P10206S4		191P10296S2		191P10296S4	
.0015	100	.175 x ¾	191P15201S2		191P15201S4		191P15291S2		191P15291S4	
	200	.235 x ¾	191P15202S2		191P15202S4		191P15292S2		191P15292S4	
	300	.235 x ¾	191P15203S2		191P15203S4		191P15293S2		191P15293S4	
	400	.235 x ¾	191P15204S2		191P15204S4		191P15294S2		191P15294S4	
	600	.235 x ¾	191P15206S2		191P15206S4		191P15296S2		191P15296S4	
.0022	100	.175 x ¾	191P22201S2		191P22201S4		191P22291S2		191P22291S4	
	200	.235 x ¾	191P22202S2		191P22202S4		191P22292S2		191P22292S4	
	300	.235 x ¾	191P22203S2		191P22203S4		191P22293S2		191P22293S4	
	400	.235 x ¾	191P22204S2		191P22204S4		191P22294S2		191P22294S4	
	600	.235 x ¾	191P22206S2		191P22206S4		191P22296S2		191P22296S4	
.0033	100	.175 x ¾	191P33201S2		191P33201S4		191P33291S2		191P33291S4	
	200	.235 x ¾	191P33202S2		191P33202S4		191P33292S2		191P33292S4	
	300	.235 x ¾	191P33203S2		191P33203S4		191P33293S2		191P33293S4	
	400	.235 x ¾	191P33204S2		191P33204S4		191P33294S2		191P33294S4	
	600	.235 x ¾	191P33206S2		191P33206S4		191P33296S2		191P33296S4	
.0047	100	.175 x ¾	191P47201S2		191P47201S4		191P47291S2		191P47291S4	
	200	.235 x ¾	191P47202S2		191P47202S4		191P47292S2		191P47292S4	
	300	.235 x ¾	191P47203S2		191P47203S4		191P47293S2		191P47293S4	
	400	.235 x ¾	191P47204S2		191P47204S4		191P47294S2		191P47294S4	
	600	.235 x ¾	191P47206S2		191P47206S4		191P47296S2		191P47296S4	
.0068	100	.175 x ¾	191P68201S2		191P68201S4		191P68291S2		191P68291S4	
	200	.235 x ¾	191P68202S2		191P68202S4		191P68292S2		191P68292S4	
	300	.235 x ¾	191P68203S2		191P68203S4		191P68293S2		191P68293S4	
	400	.235 x ¾	191P68204S2		191P68204S4		191P68294S2		191P68294S4	
	600	.235 x ¾	191P68206S2		191P68206S4		191P68296S2		191P68296S4	
.01	100	.175 x ¾	191P10301S2		191P10301S4		191P10391S2		191P10391S4	
	200	.235 x ¾	191P10302S2		191P10302S4		191P10392S2		191P10392S4	
	300	.235 x ¾	191P10303S2		191P10303S4		191P10393S2		191P10393S4	
	400	.235 x ¾	191P10304S2		191P10304S4		191P10394S2		191P10394S4	
	600	.312 x ⅞	191P10306S2		191P10306S4		191P10396S2		191P10396S4	
.015	100	.175 x ¾	191P15301S2		191P15301S4		191P15391S2		191P15391S4	
	200	.235 x ¾	191P15302S2		191P15302S4		191P15392S2		191P15392S4	
	300	.235 x ¾	191P15303S2		191P15303S4		191P15393S2		191P15393S4	
	400	.312 x ⅞	191P15304S2		191P15304S4		191P15394S2		191P15394S4	
	600	.312 x ⅞	191P15306S2		191P15306S4		191P15396S2		191P15396S4	
.022	100	.195 x ¾	191P22301S2		191P22301S4		191P22391S2		191P22391S4	
	200	.235 x ¾	191P22302S2		191P22302S4		191P22392S2		191P22392S4	
	300	.312 x ⅞	191P22303S2		191P22303S4		191P22393S2		191P22393S4	
	400	.312 x ⅞	191P22304S2		191P22304S4		191P22394S2		191P22394S4	
	600	.312 x ⅞	191P22306S2		191P22306S4		191P22396S2		191P22394S4	

*For Style 4 units add .0625" to diameter and 1/16" to length

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SPRAGUE CAPACITORS

TYPE 191P, continued

µF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.033	100	.235 x ¾	191P33301S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P33301S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P33391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P33391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.312 x ⅞	191P33302S2		191P33302S4		191P33392S2		191P33392S4	
	300	.312 x ⅞	191P33303S2		191P33303S4		191P33393S2		191P33393S4	
	400	.312 x ⅞	191P33304S2		191P33304S4		191P33394S2		191P33394S4	
	600	.400 x ⅞	191P33306S2		191P33306S4		191P33396S2		191P33396S4	
.047	100	.312 x ⅞	191P47301S2		191P47301S4		191P47391S2		191P47391S4	
	200	.312 x ⅞	191P47302S2		191P47302S4		191P47392S2		191P47392S4	
	300	.312 x ⅞	191P47303S2		191P47303S4		191P47393S2		191P47393S4	
	400	.400 x ⅞	191P47304S2		191P47304S4		191P47394S2		191P47394S4	
	600	.400 x 1⅛	191P47306S2		191P47306S4		191P47396S2		191P47396S4	
.068	100	.312 x ⅞	191P68301S2		191P68301S4		191P68391S2		191P68391S4	
	200	.312 x ⅞	191P68302S2		191P68302S4		191P68392S2		191P68392S4	
	300	.400 x ⅞	191P68303S2		191P68303S4		191P68393S2		191P68393S4	
	400	.400 x 1⅛	191P68304S2		191P68304S4		191P68394S2		191P68394S4	
	600	.400 x 1⅜	191P68306S2		191P68306S4		191P68396S2		191P68396S4	
.1	100	.312 x ⅞	191P10401S2		191P10401S4		191P10491S2		191P10491S4	
	200	.400 x ⅞	191P10402S2		191P10402S4		191P10492S2		191P10492S4	
	300	.400 x 1⅛	191P10403S2		191P10403S4		191P10493S2		191P10493S4	
	400	.400 x 1⅜	191P10404S2		191P10404S4		191P10494S2		191P10494S4	
	600	.562 x 1⅛	191P10406S2		191P10406S4		191P10496S2		191P10496S4	
.15	100	.400 x ⅞	191P15401S2		191P15401S4		191P15491S2		191P15491S4	
	200	.400 x 1⅛	191P15402S2		191P15402S4		191P15492S2		191P15492S4	
	300	.400 x 1⅜	191P15403S2		191P15403S4		191P15493S2		191P15493S4	
	400	.562 x 1⅛	191P15404S2		191P15404S4		191P15494S2		191P15494S4	
	600	.562 x 1⅜	191P15406S2		191P15406S4		191P15496S2		191P15496S4	
.22	100	.400 x 1⅛	191P22401S2		191P22401S4		191P22491S2		191P22491S4	
	200	.400 x 1⅜	191P22402S2		191P22402S4		191P22492S2		191P22492S4	
	300	.562 x 1⅛	191P22403S2		191P22403S4		191P22493S2		191P22493S4	
	400	.562 x 1⅜	191P22404S2		191P22404S4		191P22494S2		191P22494S4	
	600	.562 x 1⅞	191P22406S2		191P22406S4		191P22496S2		191P22496S4	
.33	100	.400 x 1⅜	191P33401S2		191P33401S4		191P33491S2		191P33491S4	
	200	.562 x 1⅛	191P33402S2		191P33402S4		191P33492S2		191P33492S4	
	300	.562 x 1⅜	191P33403S2		191P33403S4		191P33493S2		191P33493S4	
	400	.562 x 1⅞	191P33404S2		191P33404S4		191P33494S2		191P33494S4	
	600	.670 x 1⅞	191P33406S2		191P33406S4		191P33496S2		191P33496S4	
.47	100	.562 x 1⅛	191P47401S2		191P47401S4		191P47491S2		191P47491S4	
	200	.562 x 1⅜	191P47402S2		191P47402S4		191P47492S2		191P47492S4	
	300	.562 x 1⅞	191P47403S2		191P47403S4		191P47493S2		191P47493S4	
	400	.670 x 1⅞	191P47404S2		191P47404S4		191P47494S2		191P47494S4	
	600	.750 x 2⅛	191P47406S2		191P47406S4		191P47496S2		191P47496S4	
.68	100	.562 x 1⅜	191P68401S2		191P68401S4		191P68491S2		191P68491S4	
	200	.562 x 1⅞	191P68402S2		191P68402S4		191P68492S2		191P68492S4	
	300	.670 x 1⅞	191P68403S2		191P68403S4		191P68493S2		191P68493S4	
1.0	100	.562 x 1⅞	191P10501S2		191P10501S4		191P10591S2		191P10591S4	
	200	.670 x 1⅞	191P10502S2		191P10502S4		191P10592S2		191P10592S4	

*For Style 4 units add .0625″ to diameter and 1/16″ to length

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SPRAGUE CAPACITORS

TYPE 196P, EXTENDED FOIL CONSTRUCTION, 125°C OPERATION

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
µF	WVDC	Size D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	100	.175 x ¾	196P10201S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	196P10201S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	196P10291S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	196P10291S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.235 x ¾	196P10202S2		196P10202S4		196P10292S2		196P10292S4	
	300	.235 x ¾	196P10203S2		196P10203S4		196P10293S2		196P10293S4	
	400	.235 x ¾	196P10204S2		196P10204S4		196P10294S2		196P10294S4	
	600	.235 x ¾	196P10206S2		196P10206S4		196P10296S2		196P10296S4	
	1000	.400 x 13/16	———		———		196P102910S2		196P102910S4	
.001	600	.235 x 11/16	———		———		196P12296S2		196P12296S4	
	1000	.400 x 13/16	———		———		196P122910S2		196P122810S4	
.0015	100	.175 x ¾	196P15201S2		196P15201S4		196P15291S2		196P15291S4	
	200	.235 x ¾	196P15202S2		196P15202S4		196P15292S2		196P15292S4	
	300	.235 x ¾	196P15203S2		196P15203S4		196P15293S2		196P15293S4	
	400	.235 x ¾	196P15204S2		196P15204S4		196P15294S2		196P15294S4	
	600	.235 x ¾	196P15206S2		196P15206S4		196P15296S2		196P15296S4	
	1000	.400 x 13/16	———		———		196P152910S2		196P152910S4	
0018	600	.235 x 11/16	———		———		196P18296S2		196P18296S4	
	1000	.400 x 13/16	———		———		196P182910S2		196P182910S4	
.0022	100	.175 x ¾	196P22201S2		196P22201S4		196P22291S2		196P22291S4	
	200	.235 x ¾	196P22202S2		196P22202S4		196P22292S2		196P22292S4	
	300	.235 x ¾	196P22203S2		196P22203S4		196P22292S2		196P22293S4	
	400	.235 x ¾	196P22204S2		196P22204S4		196P22294S2		196P22294S4	
	600	.235 x ¾	196P22206S2		196P22206S4		196P22296S2		196P22296S4	
	1000	.400 x 13/16	———		———		196P222910S2		196P222910S4	
.0027	400	.312 x 13/16	———		———		196P27294S2		196P27294S4	
	600	.235 x 11/16	———		———		196P27296S2		196P27296S4	
	1000	.400 x 13/16	———		———		196P272910S2		196P272910S4	
.0033	100	.175 x ¾	196P33201S2		196P33201S4		196P33291S2		196P33291S4	
	200	.235 x ¾	196P33202S2		196P33202S4		196P33292S2		196P33292S4	
	300	.235 x ¾	196P33203S2		196P33203S4		196P33293S2		196P33293S4	
	400	.235 x ¾	196P33204S2		196P33204S4		196P33294S2		196P33294S4	
	600	.312 x ⅞	196P33206S2		196P33206S4		196P33296S2		196P33296S4	
	1000	.400 x 13/16	———		———		196P332910S2		196P332910S4	
.0039	200	.235 x 11/16	———		———		196P39292S2		196P39292S4	
	600	.235 x 11/16	———		———		196P39296S2		196P39296S4	
	1000	.400 x 13/16	———		———		196P392910S2		196P392910S4	
.0047	100	.175 x ¾	196P47201S2		196P47201S4		196P47291S2		196P47291S4	
	200	.235 x ¾	196P47202S2		196P47202S4		196P47292S2		196P47292S4	
	300	.235 x ¾	196P47203S2		196P47203S4		196P47293S2		196P47293S4	
	400	.235 x ¾	196P47204S2		196P47204S4		196P47294S2		196P47294S4	
	600	.235 x ¾	196P47206S2		196P47206S4		196P47296S2		196P47296S4	
	1000	.400 x 13/16	———		———		196P472910S2		196P472910S4	
.0056	200	.235 x 11/16	———		———		196P56292S2		196P56292S4	
	600	.235 x 11/16	———		———		196P56296S2		196P56296S4	
	1000	.400 x 13/16	———		———		196P562910S2		196P562910S4	
.0068	100	.175 x ¾	196P68201S2		196P68201S4		196P68291S2		196P68291S4	
	200	.235 x ¾	196P68202S2		196P68202S4		196P68292S2		196P68282S4	
	300	.235 x ¾	196P68203S2		196P68203S4		196P68293S2		196P68293S4	
	400	.235 x ¾	196P68204S2		196P68204S4		196P68294S2		196P68294S4	
	600	.235 x ¾	196P68206S2		196P68206S4		196P68296S2		196P68296S4	
	1000	.400 x 13/16	———		———		196P682910S2		196P682910S4	
.0082	100	.175 x 11/16	———		———		196P82291S2		196P82291S4	
	600	.312 x 13/16	———		———		196P82296S2		196P82296S4	
	1000	.400 x 13/16	———		———		196P822910S2		196P822910S4	
.01	100	.175 x ¾	196P10301S2		196P10301S4		196P10391S2		196P10391S4	
	200	.235 x ¾	196P10302S2		196P10302S4		196P10392S2		196P10392S4	
	300	.235 x ¾	196P10303S2		196P10303S4		196P10393S2		196P10393S4	
	400	.235 x ¾	196P10304S2		196P10304S4		196P10394S2		196P10394S4	
	600	.312 x ⅞	196P10306S2		196P10306S4		196P10396S2		196P10396S4	
	1000	.400 x 13/16	———		———		196P103910S2		196P103910S4	
.012	100	.175 x 11/16	———		———		196P12391S2		196P12391S4	
	400	.312 x 13/16	———		———		196P12394S2		196P12394S4	
	600	.312 x 13/16	———		———		196P12396S2		196P12396S4	
	1000	.400 x 13/16	———		———		196P123910S2		196P123910S4	
.015	100	.175 x ¾	196P15301S2		196P15301S4		196P15391S2		196P15391S4	
	200	.235 x ¾	196P15302S2		196P15302S4		196P15392S2		196P15392S4	
	300	.235 x ¾	196P15303S2		196P15303S4		196P15393S2		196P15393S4	
	400	.312 x ⅞	196P15304S2		196P15304S4		196P15394S2		196P15394S4	
	600	.312 x ⅞	196P15306S2		196P15306S4		196P15396S2		196P15396S4	
	1000	.400 x 13/16	———		———		196P153910S2		196P153910S4	
.018	200	.235 x 11/16	———		———		196P18392S2		196P18392S4	
	600	.312 x 13/16	———		———		196P18396S2		196P18396S4	
	1000	.400 x 1 1/16	———		———		196P183910S2		196P183910S4	
.022	100	.195 x ¾	196P22301S2		196P22301S4		196P22391S2		196P22391S4	
	200	.235 x ¾	196P22302S2		196P22302S4		196P22392S2		196P22392S4	
	300	.312 x ⅞	196P22303S2		196P22303S4		196P22393S2		196P22393S4	
	400	.312 x ⅞	196P22304S2		196P22304S4		196P22394S2		196P22394S4	
	600	.312 x ⅞	196P22306S2		196P22306S4		196P22396S2		196P22396S4	
	1000	.400 x 1 1/16	———		———		196P223910S2		196P223910S4	
.027	200	.312 x 13/16	———		———		196P27392S2		196P27392S4	
	400	.312 x 13/16	———		———		196P27294S2		196P27394S4	
	600	.400 x 13/16	———		———		196P27396S2		196P27396S4	
	1000	.400 x 1 5/16	———		———		196P273910S2		196P273910S4	
.033	100	.400 x 1⅜	196P33301S2		196P33301S4		196P33391S2		196P33391S4	
	200	.562 x 1⅛	196P33302S2		196P33302S4		196P33392S2		196P33392S4	
	300	.562 x 1⅜	196P33303S2		196P33303S4		196P33393S2		196P33393S4	
	400	.562 x 1⅞	196P33304S2		196P33304S4		196P33394S2		196P33394S4	
	600	.670 x 1⅞	196P33306S2		196P33306S4		196P33396S2		196P33396S4	
	1000	.400 x 1 5/16	———		———		196P333910S2		196P333910S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 196P, continued

µF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.039	100	.312 x 13/16	—	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	—	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	196P39391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	196P39391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.312 x 13/16	—		—		196P39392S2		196P39392S4	
	400	.400 x 13/16	—		—		196P39394S2		196P39394S4	
	600	.400 x 1 1/16	—		—		196P39396S2		196P39396S4	
	1000	.562 x 1 1/16	—		—		196P393910S2		196P393910S4	
.047	100	.312 x 7/8	196P47301S2		196P47301S4		196P47391S2		196P47391S4	
	200	.312 x 7/8	196P47302S2		196P47302S4		196P47392S2		196P47392S4	
	300	.312 x 7/8	196P47303S2		196P47303S4		196P47393S2		196P47393S4	
	400	.400 x 7/8	196P47304S2		196P47304S4		196P47394S2		196P47394S4	
	600	.400 x 1 1/8	196P47306S2		196P47306S4		196P47396S2		196P47396S4	
	1000	.562 x 1 1/16	—		—		196P473910S2		196P473910S4	
.056	200	.312 x 13/16	—		—		196P56392S2		196P56392S4	
	400	.400 x 1 1/16	—		—		196P56394S2		196P56394S4	
	600	.400 x 1 5/16	—		—		196P56396S2		196P56396S4	
	1000	.562 x 1 5/16	—		—		196P563910S2		196P563910S4	
.068	100	.312 x 7/8	196P68301S2		196P68301S4		196P68391S2		196P68391S4	
	200	.312 x 7/8	196P68302S2		196P68302S4		196P68392S2		196P68392S4	
	300	.400 x 7/8	196P68303S2		196P68303S4		196P68393S2		196P68393S4	
	400	.400 x 1 1/8	196P68304S2		196P68304S4		196P68394S2		196P68394S4	
	600	.400 x 1 3/8	196P68306S2		196P68306S4		196P68396S2		196P68396S4	
	1000	.562 x 1 5/16	—		—		196P683910S2		196P683910S4	
.082	100	.312 x 13/16	—		—		196P82391S2		196P82391S4	
	200	.400 x 13/16	—		—		196P82392S2		196P82392S4	
	400	.400 x 1 5/16	—		—		196P82394S2		196P82394S4	
	600	.562 x 1 1/16	—		—		196P82396S2		196P82396S4	
	1000	.562 x 1 9/16	—		—		196P823910S2		196P823910S4	
.1	100	.312 x 7/8	196P10401S2		196P10401S4		196P10491S2		196P10491S4	
	200	.400 x 7/8	196P10402S2		196P10402S4		196P10492S2		196P10492S4	
	300	.400 x 1 1/8	196P10403S2		196P10403S4		196P10493S2		196P10493S4	
	400	.400 x 1 3/8	196P10404S2		196P10404S4		196P10494S2		196P10494S4	
	600	.562 x 1 1/8	196P10406S2		196P10406S4		196P10496S2		196P10496S4	
	1000	.562 x 1 9/16	—		—		196P104910S2		196P104910S4	
.12	100	.400 x 13/16	—		—		196P12491S2		196P12491S4	
	200	.400 x 1 1/16	—		—		196P12492S2		196P12492S4	
	400	.562 x 1 1/16	—		—		196P12494S2		196P12494S4	
	600	.562 x 1 5/16	—		—		196P12496S2		196P12496S4	
	1000	.670 x 1 9/16	—		—		196P124910S2		196P124910S4	
.15	100	.400 x 7/8	196P15401S2		196P15401S4		196P15491S2		196P15491S4	
	200	.400 x 1 1/8	196P15402S2		196P15402S4		196P15492S2		196P15492S4	
	300	.400 x 1 3/8	196P15403S2		196P15403S4		196P15493S2		196P15493S4	
	400	.562 x 1 1/8	196P15404S2		196P15404S4		196P15494S2		196P15494S4	
	600	.562 x 1 3/8	196P15406S2		196P15406S4		196P15496S2		196P15496S4	
	1000	.670 x 1 9/16	—		—		196P154910S2		196P154910S4	
.18	100	.400 x 1 1/16	—		—		196P18491S2		196P18491S4	
	200	.400 x 1 5/16	—		—		196P18492S2		196P18492S4	
	400	.562 x 1 5/16	—		—		196P18494S2		196P18494S4	
	600	.562 x 1 13/16	—		—		196P18496S2		196P18496S4	
	1000	.750 x 2 1/16	—		—		196P184910S2		196P184910S4	
.22	100	.400 x 1 1/8	196P22401S2		196P22401S4		196P22491S2		196P22491S4	
	200	.400 x 1 3/8	196P22402S2		196P22402S4		196P22492S2		196P22492S4	
	300	.562 x 1 1/8	196P22403S2		196P22403S4		196P22493S2		196P22493S4	
	400	.562 x 1 3/8	196P22404S2		196P22404S4		196P22494S2		196P22494S4	
	600	.562 x 1 7/8	196P22406S2		196P22406S4		196P22496S2		196P22496S4	
	1000	.750 x 2 1/16	—		—		196P224910S2		196P224910S4	
.27	100	.400 x 1 5/16	—		—		196P27491S2		196P27491S4	
	200	.562 x 1 1/16	—		—		196P27492S2		196P27492S4	
	400	.562 x 1 13/16	—		—		196P27494S2		196P27494S4	
	600	.670 x 1 13/16	—		—		196P27496S2		196P27496S4	
	1000	.750 x 2 9/16	—		—		196P274910S2		196P274910S4	
.33	100	.400 x 1 3/8	196P33401S2		196P33401S4		196P33491S2		196P33491S4	
	200	.562 x 1 1/8	196P33402S2		196P33402S4		196P33492S2		196P33492S4	
	300	.562 x 1 3/8	196P33403S2		196P33403S4		196P33493S2		196P33493S4	
	400	.562 x 1 7/8	196P33404S2		196P33404S4		196P33494S2		196P33494S4	
	600	.670 x 1 7/8	196P33406S2		196P33406S4		196P33496S2		196P33496S4	
	1000	.750 x 2 9/16	—		—		196P334910S2		196P334910S4	
.39	100	.562 x 1 1/16	—		—		196P39491S2		196P39491S4	
	200	.562 x 1 5/16	—		—		196P39492S2		196P39492S4	
	400	.670 x 1 13/16	—		—		196P39494S2		196P39494S4	
	600	.750 x 2 1/16	—		—		196P39496S2		196P39496S4	
	1000	1.000 x 2 1/16	—		—		196P394910S2		196P394910S4	
.47	100	.562 x 1 1/8	196P47401S2		196P47401S4		196P47491S2		196P47491S4	
	200	.562 x 1 3/8	196P47402S2		196P47402S4		196P47492S2		196P47492S4	
	300	.562 x 1 7/8	196P47403S2		196P47403S4		196P47493S2		196P47493S4	
	400	.670 x 1 7/8	196P47404S2		196P47404S4		196P47494S2		196P47494S4	
	600	.750 x 2 1/8	196P47406S2		196P47406S4		196P47496S2		196P47496S4	
	1000	1.000 x 2 1/16	—		—		196P474910S2		196P474910S4	
.56	100	.562 x 1 9/16	—		—		196P56491S2		196P56491S4	
	200	.670 x 1 9/16	—		—		196P56492S2		196P56492S4	
.68	100	.562 x 1 3/8	196P68401S2		196P68401S4		196P68491S2		196P68491S4	
	200	.562 x 1 7/8	196P68402S2		196P68402S4		196P68492S2		196P68492S4	
	300	.670 x 1 7/8	196P68403S2		196P68403S4		196P68493S2		196P68493S4	
.82	100	.670 x 1 9/16	—		—		196P82491S2		196P82491S4	
	200	.750 x 2 1/16	—		—		196P82492S2		196P82492S4	
1.0	100	.562 x 1 7/8	196P10501S2		196P10501S4		196P10591S2		196P10591S4	
	200	.670 x 1 7/8	196P10502S2		196P10502S4		196P10592S2		196P10592S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

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REM-25-6330

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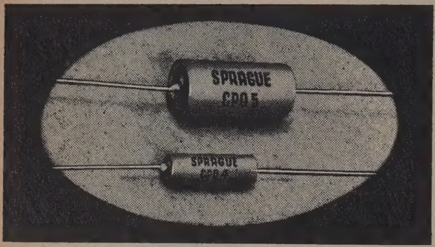
SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25A



- Impregnation wth Vitamin Q assures capacitors exceed MIL-C-25A performance requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP04 has plain metal case.
- Available in Characteristic E (−55°C to +85°C) or Characteristic K (−55°C to +125°C).
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult your Sprague Industrial Distributor.
- Call your Sprague Industrial Distributor for Quantity Prices.

			Characteristic E −55°C to +85°C				Characteristic K −55°C to +125°C			
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.	
µF	WVDC	Size D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	600	.235 x ¾	CP04A1EF102M	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP04A1EF102K	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP04A1KF102M	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP04A1KF102K	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.0015	600	.235 x ¾	CP04A1EF152M		CP04A1EF152K		CP04A1KF152M		CP04A1KF152K	
.0022	600	.235 x ¾	CP04A1EF222M		CP04A1EF222K		CP04A1KF222M		CP04A1KF222K	
.0033	600	.235 x ¾	CP04A1EF332M		CP04A1EF332K		CP04A1KF332M		CP04A1KF332K	
.0047	600	.235 x ¾	CP04A1EF472M		CP04A1EF472K		CP04A1KF472M		CP04A1KF472K	
.0068	600	.235 x ¾	CP04A1EF682M		CP04A1EF682K		CP04A1KF682M		CP04A1KF682K	
.01	400	.235 x ¾	CP04A1EE103M		CP04A1EE103K		CP04A1KE103M		CP04A1KE103K	
	600	.312 x ⅞	CP04A1EF103M		CP04A1EF103K		CP04A1KF103M		CP04A1KF103K	
.015	200	.235 x ¾	CP04A1EC153M		CP04A1EC153K		CP04A1KC153M		CP04A1KC153K	
	600	.312 x ⅞	CP04A1EF153M		CP04A1EF153K		CP04A1KF153M		CP04A1KF153K	
.022	200	.235 x ¾	CP04A1EC223M		CP04A1EC223K		CP04A1KC223M		CP04A1KC223K	
	600	.312 x ⅞	CP04A1EF223M		CP04A1EF223K		CP04A1KF223M		CP04A1KF223K	
.033	100	.235 x ¾	CP04A1EB333M		CP04A1EB333K		CP04A1KB333M		CP04A1KB333K	
	400	.312 x ⅞	CP04A1EE333M		CP04A1EE333K		CP04A1KE333M		CP04A1KE333K	
	600	.400 x ⅞	CP04A1EF333M		CP04A1EF333K		CP04A1KF333M		CP04A1KF333K	
.047	200	.312 x ⅞	CP04A1EC473M		CP04A1EC473K		CP04A1KC473M		CP04A1KC473K	
	400	.400 x ⅞	CP04A1EE473M		CP04A1EE473K		CP04A1KE473M		CP04A1KE473K	
	600	.400 x 1⅛	CP04A1EF473M		CP04A1EF473K		CP04A1KF473M		CP04A1KF473K	
.068	200	.312 x ⅞	CP04A1EC683M		CP04A1EC683K		CP04A1KC683M		CP04A1KC683K	
	400	.400 x 1⅛	CP04A1EE683M		CP04A1EE683K		CP04A1KE683M		CP04A1KE683K	
	600	.400 x 1⅜	CP04A1EF683M		CP04A1EF683K		CP04A1KF683M		CP04A1KF683K	
.1	100	.312 x ⅞	CP04A1EB104M		CP04A1EB104K		CP04A1KB104M		CP04A1KB104K	
	200	.400 x ⅞	CP04A1EC104M		CP04A1EC104K		CP04A1KC104M		CP04A1KC104K	
	400	.400 x 1⅜	CP04A1EE104M		CP04A1EE104K		CP04A1KE104M		CP04A1KE104K	
	600	.562 x 1⅛	CP04A1EF104M		CP04A1EF104K		CP04A1KF104M		CP04A1KF104K	
.15	100	.400 x ⅞	CP04A1EB154M		CP04A1EB154K		CP04A1KB154M		CP04A1KB154K	
	200	.400 x 1⅛	CP04A1EC154M		CP04A1EC154K		CP04A1KC154M		CP04A1KC154K	
	400	.562 x 1⅛	CP04A1EE154M		CP04A1EE154K		CP04A1KE154M		CP04A1KE154K	
	600	.562 x 1⅜	CP04A1EF154M		CP04A1EF154K		CP04A1KF154M		CP04A1KF154K	
.22	100	.400 x 1⅜	CP04A1EB224M		CP04A1EB224K		CP04A1KB224M		CP04A1KB224K	
	200	.400 x 1⅜	CP04A1EC224M		CP04A1EC224K		CP04A1KC224M		CP04A1KC224K	
	400	.562 x 1⅜	CP04A1EE224M		CP04A1EE224K		CP04A1KE224M		CP04A1KE224K	
	600	.562 x 1⅞	CP04A1EF224M		CP04A1EF224K		CP04A1KF224M		CP04A1KF224K	
.33	100	.400 x 1⅜	CP04A1EB334M		CP04A1EB334K		CP04A1KB334M		CP04A1KB334K	
	200	.562 x 1⅛	CP04A1EC334M		CP04A1EC334K		CP04A1KC334M		CP04A1KC334K	
	400	.562 x 1⅞	CP04A1EE334M		CP04A1EE334K		CP04A1KE334M		CP04A1KE334K	
	600	.670 x 1⅞	CP04A1EF334M		CP04A1EF334K		CP04A1KF334M		CP04A1KF334K	
.47	100	.562 x 1⅛	CP04A1EB474M		CP04A1EB474K		CP04A1KB474M		CP04A1KB474K	
	200	.562 x 1⅜	CP04A1EC474M		CP04A1EC474K		CP04A1KC474M		CP04A1KC474K	
	400	.670 x 1⅜	CP04A1EE474M		CP04A1EE474K		CP04A1KE474M		CP04A1KE474K	
	600	.750 x 2⅛	CP04A1EF474M		CP04A1EF474K		CP04A1KF474M		CP04A1KF474K	
.68	100	.562 x 1⅜	CP04A1EB684M		CP04A1EB684K		CP04A1KB684M		CP04A1KB684K	
	200	.562 x 1⅞	CP04A1EC684M		CP04A1EC684K		CP04A1KC684M		CP04A1KC684K	
	400	.750 x 2⅛	CP04A1EE684M		CP04A1EE684K		CP04A1KE684M		CP04A1KE684K	
	600	1.0 x 1⅞	CP04A1EF684M		CP04A1EF684K		CP04A1KF684M		CP04A1KF684K	
1.0	100	.562 x 1⅞	CP04A1EB105M		CP04A1EB105K		CP04A1KB105M		CP04A1KB105K	
	200	.670 x 1⅞	CP04A1EC105M		CP04A1EC105K		CP04A1KC105M		CP04A1KC105K	
	400	1.0 x 1⅞	CP04A1EE105M		CP04A1EE105K		CP04A1KE105M		CP04A1KE105K	

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SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

µF	WVDC	D. x L.	Cat. No.*
.001	600	.235 x ¾	CP04A1KF102K3
.0012	600	.235 x ¾	CP04A1KF122K3
.0015	600	.235 x ¾	CP04A1KF152K3
.0018	600	.235 x ¾	CP04A1KF182K3
.0022	600	.235 x ¾	CP04A1KF222K3
.0027	600	.235 x ¾	CP04A1KF272K3
.0033	600	.235 x ¾	CP04A1KF332K3
.0039	600	.235 x ¾	CP04A1KF392K3
.0047	600	.235 x ¾	CP04A1KF472K3
.0056	600	.235 x ¾	CP04A1KF562K3
.0068	600	.235 x ¾	CP04A1KF682K3
.0082	400	.235 x ¾	CP04A1KE822K3
	600	.312 x ⅞	CP04A1KF822K3
.01	400	.235 x ¾	CP04A1KE103K3
	600	.312 x ⅞	CP04A1KF103K3
.012	200	.235 x ¾	CP04A1KC123K3
	600	.312 x ⅞	CP04A1KF123K3
.015	200	.235 x ¾	CP04A1KC153K3
	600	.312 x ⅞	CP041AKF153K3
	1000	.400 x ⅞	CP04A1KG153K3
.018	200	.235 x ¾	CP04A1KC183K3
	600	.312 x ⅞	CP04A1KF183K3
	1000	.400 x 1⅛	CP04A1KG183K3
.022	200	.235 x ¾	CP04A1KC223K3
	600	.312 x ⅞	CP04A1KF223K3
	1000	.400 x 1⅛	CP04A1KG223K3
.027	100	.235 x ¾	CP04A1KB273K3
	400	.312 x ⅞	CP04A1KE273K3
	600	.400 x ⅞	CP04A1KF273K3
	1000	.400 x 1⅜	CP04A1KG273K3
.033	100	.235 x ¾	CP04A1KB333K3
	400	.312 x ⅞	CP04A1KE333K3
	600	.400 x ⅞	CP04A1KF333K3
	1000	.400 x 1⅜	CP04A1KG333K3
.039	200	.312 x ⅞	CP04A1KC393K3
	400	.400 x ⅞	CP04A1KE393K3
	600	.400 x 1⅛	CP04A1KF393K3
	1000	.562 x 1⅛	CP04A1KG393K3
.047	200	.312 x ⅞	CP04A1KC473K3
	400	.400 x ⅞	CP04A1KE473K3
	600	.400 x 1⅛	CP041AKF473K3
	1000	.562 x 1⅛	CP04A1KG473K3
.056	200	.312 x ⅞	CP04A1KC563K3
	400	.400 x 1⅛	CP04A1KE563K3
	600	.400 x 1⅜	CP04A1KF563K3
	1000	.562 x 1⅜	CP04A1KG563K3
.068	200	.312 x ⅞	CP04A1KC683K3
	400	.400 x 1⅛	CP04A1KE683K3
	600	.400 x 1⅜	CP04A1KF683K3
	1000	.562 x 1⅜	CP04A1KG683K3
.082	100	.312 x ⅞	CP04A1KB823K3
	200	.400 x ⅞	CP04A1KC823K3
	400	.400 x 1⅜	CP04A1KE823K3
	600	.562 x 1⅛	CP04A1KF823K3
	1000	.562 x 1⅝	CP04A1KG823K3

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µF	WVDC	D. x L.	Cat. No.*
.1	100	.312 x ⅞	CP04A1KB104K3
	200	.400 x ⅞	CP04A1KC104K3
	400	.400 x 1⅜	CP04A1KE104K3
	600	.562 x 1⅛	CP04A1KF104K3
	1000	.562 x 1⅝	CP04A1KG104K3
.12	100	.400 x ⅞	CP04A1KB124K3
	200	.400 x 1⅛	CP04A1KC124K3
	400	.562 x 1⅛	CP04A1KE124K3
	600	.562 x 1⅜	CP04A1KF124K3
	1000	.670 x 1⅝	CP04A1KG124K3
.15	100	.400 x ⅞	CP04A1KB154K3
	200	.400 x 1⅛	CP04A1KC154K3
	400	.562 x 1⅛	CP04A1KE154K3
	600	.562 x 1⅜	CP04A1KF154K3
	1000	.670 x 1⅝	CP04A1KG154K3
.18	100	.400 x 1⅛	CP04A1KB184K3
	200	.400 x 1⅜	CP04A1KC184K3
	400	.562 x 1⅜	CP04A1KE184K3
	600	.562 x 1⅞	CP04A1KF184K3
	1000	.750 x 2⅛	CP04A1KG184K3
.22	100	.400 x 1⅛	CP04A1KB224K3
	200	.400 x 1⅜	CP04A1KC224K3
	400	.562 x 1⅜	CP04A1KE224K3
	600	.562 x 1⅞	CP04A1KF224K3
	1000	.750 x 2⅛	CP04A1KG224K3
.27	100	.400 x 1⅜	CP04A1KB274K3
	200	.562 x 1⅛	CP04A1KC274K3
	400	.562 x 1⅞	CP04A1KE274K3
	600	.670 x 1⅞	CP04A1KF274K3
	1000	.750 x 2⅝	CP04A1KG274K3
.33	100	.400 x 1⅜	CP04A1KB334K3
	200	.562 x 1⅛	CP04A1KC334K3
	400	.562 x 1⅞	CP04A1KE334K3
	600	.670 x 1⅞	CP04A1KF334K3
	1000	.750 x 2⅝	CP04A1KG334K3
.39	100	.562 x 1⅛	CP04A1KB394K3
	200	.562 x 1⅜	CP04A1KC394K3
	400	.670 x 1⅞	CP05A1KE394K3
	600	.750 x 2⅛	CP04A1KF394K3
	1000	1.000 x 2⅛	CP04A1KG394K3
.47	100	.562 x 1⅛	CP04A1KB474K3
	200	.562 x 1⅜	CP04A1KC474K3
	400	.670 x 1⅞	CP04A1KE474K3
	600	.750 x 2⅛	CP04A1KF474K3
	1000	1.000 x 2⅛	CP04A1KG474K3
.56	100	.562 x 1⅜	CP04A1K5B64K3
	200	.562 x 1⅞	CP04A1KC564K3
	400	.750 x 2⅛	CP04A1KE564K3
	600	1.000 x 1⅞	CP04A1KF564K3
.68	100	.562 x 1⅜	CP04A1KB684K3
	200	.562 x 1⅞	CP04A1KC684K3
	400	.750 x 2⅛	CP04A1KE684K3
	600	1.000 x 1⅞	CP04A1KF684K3
.82	100	.562 x 1⅞	CP04A1KB824K3
	200	.670 x 1⅞	CP04A1KC824K3
	400	1.000 x 1⅞	CP04A1KE824K3
1.0	100	.562 x 1⅞	CP05A1KB105K3
	200	.670 x 1⅞	CP05A1KC105K3
	400	1.000 x 1⅞	CP04A1KE105K3

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*For Vibration Grade 1, change last digit of cat. no. to 1

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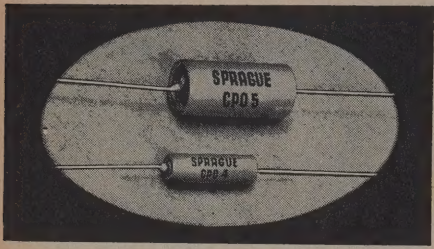
SPRAGUE CAPACITORS

TYPE CP05 CAPACITORS TO MIL-C-25C



- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP05 has insulating sleeve.
- Capacitance Tolerance ±10%. Characteristic K Temperature Range (−55°C to +125°C).
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult you Sprague Industrial Distributor.
- Call your Sprague Industrial Distributor for Quantity Prices.

µF	WVDC	D. x L.	Cat. No.*
.001	600	.298 x 13/16	CP05A1KF102K3
.0012	600	.298 x 13/16	CP05A1KF122K3
.0015	600	.298 x 13/16	CP05A1KF152K3
.0018	600	.298 x 13/16	CP05A1KF182K3
.0022	600	.298 x 13/16	CP05A1KF222K3
.0027	600	.298 x 13/16	CP05A1KF272K3
.0033	600	.298 x 13/16	CP05A1KF332K3
.0039	600	.298 x 13/16	CP05A1KF392K3
.0047	600	.298 x 13/16	CP05A1KF472K3
.0056	600	.298 x 13/16	CP05A1KF562K3
.0068	600	.298 x 13/16	CP05A1KF682K3
.0082	400	.298 x 13/16	CP05A1KE822K3
	600	.375 x 15/16	CP05A1KF822K3
.01	400	.298 x 13/16	CP05A1KE103K3
	600	.375 x 15/16	CP05A1KF103K3
.012	200	.298 x 13/16	CP05A1KC123K3
	600	.375 x 15/16	CP05A1KF123K3
.015	200	.298 x 13/16	CP05A1KC153K3
	600	.375 x 15/16	CP05A1KF153K3
	1000	.463 x 15/16	CP05A1KG153K3
.018	200	.298 x 13/16	CP05A1KC183K3
	600	.375 x 15/16	CP05A1KF183K3
	1000	.463 x 1 3/16	CP05A1KG183K3
.022	200	.298 x 13/16	CP05A1KC223K3
	600	.375 x 15/16	CP05A1KF223K3
	1000	.463 x 1 3/16	CP05A1KG223K3
.027	100	.298 x 13/16	CP05A1KB273K3
	400	.375 x 15/16	CP05A1KE273K3
	600	.463 x 15/16	CP05A1KF273K3
	1000	1.463 x 1 7/16	CP05A1KG273K3
.033	100	.298 x 13/16	CP05A1KB333K3
	400	.375 x 15/16	CP05A1KE333K3
	600	.463 x 15/16	CP05A1KF333K3
	1000	1.463 x 1 7/16	CP05A1KG333K3
.039	200	.375 x 15/16	CP05A1KC393K3
	400	.463 x 15/16	CP05A1KE393K3
	600	.463 x 1 3/16	CP05A1KF393K3
	1000	.625 x 1 3/16	CP05A1KG393K3
.047	200	.375 x 15/16	CP05A1KC473K3
	400	.463 x 15/16	CP05A1KE473K3
	600	.463 x 1 3/16	CP05A1KF473K3
	1000	.625 x 1 3/16	CP05A1KG473K3
.056	200	.375 x 15/16	CP05A1KC563K3
	400	.463 x 1 3/16	CP05A1KE563K3
	600	.463 x 1 7/16	CP05A1KF563K3
	1000	.625 x 1 7/16	CP05A1KG563K3
.068	200	.375 x 15/16	CP05A1KC683K3
	400	.463 x 1 3/16	CP05A1KE683K3
	600	.463 x 1 7/16	CP05A1KF685K3
	1000	.625 x 1 7/16	CP05A1KG683K3
.082	100	.375 x 15/16	CP05A1KB823K3
	200	.463 x 15/16	CP05A1KC823K3
	400	.463 x 1 7/16	CP05A1KE823K3
	600	.625 x 1 3/16	CP05A1KF823K3
	1000	.625 x 1 11/16	CP05A1KG823K3
.1	100	.463 x 15/16	CP05A1KB104K3
	200	.463 x 15/16	CP05A1KC104K3
	400	.463 x 1 7/16	CP05A1KE104K3
	600	.625 x 1 3/16	CP05A1KF104K3
	1000	.625 x 1 11/16	CP05A1KG104K3
.12	100	.463 x 15/16	CP05A1KB124K3
	200	.463 x 1 3/16	CP05A1KC124K3
	400	.625 x 1 3/16	CP05A1KE124K3
	600	.625 x 1 7/16	CP05A1KF124K3
	1000	.733 x 1 11/16	CP05A1KG124K3
.15	100	.463 x 15/16	CP05A1KB154K3
	200	.463 x 1 1/8	CP05A1KC154K3
	400	.625 x 1 3/16	CP05A1KE154K3
	600	.625 x 1 7/16	CP05A1KF154K3
	1000	.733 x 1 11/16	CP05A1KG154K3
.18	100	.463 x 1 3/16	CP05A1KB184K3
	200	.463 x 1 7/16	CP05A1KC184K3
	400	.625 x 1 7/16	CP05A1KE184K3
	600	.625 x 1 15/16	CP05A1KF184K3
	1000	.813 x 2 3/16	CP05A1KG184K3
.22	100	.463 x 1 3/16	CP05A1KB224K3
	200	.463 x 1 7/16	CP05A1KC224K3
	400	.625 x 1 7/16	CP05A1KE224K3
	600	.625 x 1 15/16	CP05A1KF224K3
	1000	.813 x 2 3/16	CP05A1KG224K3
.27	100	.463 x 1 7/16	CP05A1KB274K3
	200	.625 x 1 3/16	CP05A1KC274K3
	400	.625 x 1 15/16	CP05A1KE274K3
	600	.733 x 1 15/16	CP05A1KF274K3
	1000	.813 x 2 11/16	CP05A1KG274K3
.33	100	.463 x 1 7/16	CP05A1KB334K3
	200	.625 x 1 3/16	CP05A1KC334K3
	400	.625 x 1 15/16	CP05A1KE334K3
	600	.733 x 1 15/16	CP05A1KF334K3
	1000	.813 x 2 11/16	CP05A1KG334K3
.39	100	.625 x 1 3/16	CP05A1KB394K3
	200	.625 x 1 7/16	CP05A1KC394K3
	400	.733 x 1 15/16	CP05A1KE394K3
	600	.813 x 2 3/16	CP05A1KF394K3
	1000	1.063 x 2 3/16	CP05A1KG394K3
.47	100	.625 x 1 3/16	CP05A1KB474K3
	200	.625 x 1 7/16	CP05A1KC474K3
	400	.733 x 1 15/16	CP05A1KE474K3
	600	.813 x 2 3/16	CP05A1KF474K3
	1000	1.063 x 2 3/16	CP05A1KG474K3
.56	100	.625 x 1 7/16	CP05A1KB564K3
	200	.625 x 1 15/16	CP05A1KC564K3
	400	.813 x 2 3/16	CP05A1KE564K3
	600	1.063 x 1 15/16	CP05A1KF564K3
.68	100	.625 x 1 7/16	CP05A1KB684K3
	200	.625 x 1 15/16	CP05A1KC684K3
	400	.813 x 2 3/16	CP05A1KE684K3
	600	1.063 x 1 15/16	CP05A1KF684K3
.82	100	.625 x 1 13/16	CP05A1KB824K3
	200	.733 x 1 15/16	CP05A1KC824K3
	400	1.063 x 1 15/16	CP05A1KE824K3
1.0	100	.625 x 1 15/16	CP05A1KB105K3
	200	.733 x 1 15/16	CP05A1KC105K3
	400	1.063 x 1 15/16	CP05A1KE105K3

*For Vibration Grade 1, change last digit of Catalog Number to "1."

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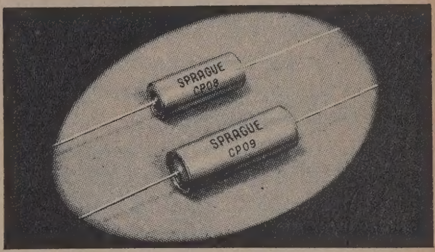
SPRAGUE CAPACITORS

TYPE CP08 CAPACITORS TO MIL-C-25C

- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Capacitance Tolerance ±10%. Characteristic K Temperature Range (−55°C to +125°C).
- Type CP08 has plain metal case.
- Extended foil (so-called non-inductive section) construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult you Sprague Industrial Distributor for information on grounded case units.
- Call your Sprague Industrial Distributor for Quantity Prices.



μF	WVDC	D. x L.	Cat. No.*
.001	600	.235 x ¾	CP08A1KF102K3
	1000	.400 x ⅞	CP08A1KG102K3
.0012	600	.235 x ¾	CP08A1KF122K3
	1000	.400 x ⅞	CP08A1KG122K3
.0015	600	.235 x ¾	CP08A1KF152K3
	1000	.400 x ⅞	CP08A1KG152K3
.0018	600	.235 x ¾	CP08A1KF182K3
	1000	.400 x ⅞	CP08A1KG182K3
.0022	600	.235 x ¾	CP08A1KF222K3
	1000	.400 x ⅞	CP08A1KG222K3
.0027	400	.235 x ¾	CP08A1KE272K3
	600	.312 x ⅞	CP08A1KF272K3
	1000	.400 x ⅞	CP08A1KG272K3
.0033	400	.235 x ¾	CP08A1KE332K3
	600	.312 x ⅞	CP08A1KF332K3
	1000	.400 x ⅞	CP08A1KG332K3
.0039	200	.235 x ¾	CP08A1KC392K3
	600	.312 x ⅞	CP08A1KF392K3
	1000	.400 x ⅞	CP08A1KG392K3
.0047	200	.235 x ¾	CP08A1KC472K3
	600	.312 x ⅞	CP08A1KF472K3
	1000	.400 x ⅞	CP08A1KG472K3
.0056	200	.235 x ¾	CP08A1KC562K3
	600	.312 x ⅞	CP08A1KF562K3
	1000	.400 x ⅞	CP08A1KG562K3
.0068	200	.235 x ¾	CP08A1KC682K3
	600	.312 x ⅞	CP08A1KF682K3
	1000	.400 x ⅞	CP08A1KG682K3
.0082	100	.235 x ¾	CP08A1KB822K3
	600	.312 x ⅞	CP08A1KF822K3
	1000	.400 x ⅞	CP08A1KG822K3
.01	100	.235 x ¾	CP08A1KB103K3
	600	.312 x ⅞	CP08A1KF103K3
	1000	.400 x ⅞	CP08A1KG103K3
.012	100	.235 x ¾	CP08A1KB123K3
	400	.312 x ⅞	CP08A1KE123K3
	600	.400 x ⅞	CP08A1KF123K3
	1000	.400 x 1⅛	CP08A1KG123K3
.015	100	.235 x ¾	CP08A1KB153K3
	400	.312 x ⅞	CP08A1KE153K3
	600	.400 x ⅞	CP08A1KF153K3
	1000	.400 x 1⅛	CP08A1KG153K3
0.18	200	.312 x ⅞	CP08A1KC183K3
	600	.400 x ⅞	CP08A1KF183K3
	1000	.400 x 1⅜	CP08A1KG183K3
.022	200	.312 x ⅞	CP08A1KC223K3
	600	.400 x ⅞	CP08A1KF223K3
	1000	.400 x 1⅜	CP08A1KG223K3
.027	200	.312 x ⅞	CP08A1KC273K3
	400	.400 x ⅞	CP08A1KE273K3
	600	.400 x 1⅛	CP08A1KF273K3
	1000	.562 x 1⅛	CP08A1KG273K3
.033	200	.312 x ⅞	CP08A1KC333K3
	400	.400 x ⅞	CP08A1KE333K3
	600	.400 x 1⅛	CP08A1KF333K3
	1000	.562 x 1⅛	CP08A1KG333K3
.039	100	.312 x ⅞	CP08A1KB393K3
	200	.400 x ⅞	CP08A1KC393K3
	400	.400 x 1⅛	CP08A1KE393K3
	600	.400 x 1⅜	CP08A1KF393K3
	1000	.562 x 1⅜	CP08A1KG393K3
.047	100	.312 x ⅞	CP08A1KB473K3
	200	.400 x ⅞	CP08A1KC473K3
	400	.400 x 1⅛	CP08A1KE473K3
	600	.400 x 1⅜	CP08A1KF473K3
	1000	.562 x 1⅜	CP08A1KG473K3
.056	200	.400 x ⅞	CP08A1KC563K3
	400	.400 x 1⅜	CP08A1KE563K3
	600	.562 x 1⅛	CP08A1KF563K3
	1000	.562 x 1⅝	CP08A1KG563K3
.068	200	.400 x ⅞	CP08A1KC683K3
	400	.400 x 1⅜	CP08A1KE683K3
	600	.562 x 1⅛	CP08A1KF683K3
	1000	.562 x 1⅝	CP08A1KG683K3
.082	100	.400 x ⅞	CP08A1KB823K3
	200	.400 x 1⅛	CP08A1KC823K3
	400	.562 x 1⅛	CP08A1KE823K3
	600	.562 x 1⅜	CP08A1KF823K3
	1000	.670 x 1⅝	CP08A1KG823K3
.1	100	.400 x ⅞	CP08A1KB104K3
	200	.400 x 1⅛	CP08A1KC104K3
	400	.562 x 1⅛	CP08A1KE104K3
	600	.562 x 1⅜	CP08A1KF104K3
	1000	.670 x 1⅝	CP08A1KG104K3
.12	100	.400 x 1⅛	CP08A1KB124K3
	200	.400 x 1⅜	CP08A1KC124K3
	400	.562 x 1⅜	CP08A1KE124K3
	600	.562 x 1⅝	CP08A1KF124K3
	1000	.670 x 1⅞	CP08A1KG124K3
.15	100	.400 x 1⅛	CP08A1KB154K3
	200	.400 x 1⅜	CP08A1KC154K3
	400	.562 x 1⅜	CP08A1KE154K3
	600	.562 x 1⅝	CP08A1KF154K3
	1000	.670 x 1⅞	CP08A1KG154K3
.18	100	.400 x 1⅜	CP08A1KB184K3
	200	.562 x 1⅛	CP08A1KC184K3
	400	.562 x 1⅝	CP08A1KE184K3
	600	.670 x 1⅝	CP08A1KF184K3
	1000	.750 x 2⅛	CP08A1KG184K3
.22	100	.400 x 1⅜	CP08A1KB224K3
	200	.562 x 1⅛	CP08A1KC224K3
	400	.562 x 1⅝	CP08A1KE224K3
	600	.670 x 1⅝	CP08A1KF224K3
	1000	.750 x 2⅛	CP08A1KG224K3
.27	100	.562 x 1⅛	CP08A1KB274K3
	200	.562 x 1⅜	CP08A1KC274K3
	400	.670 x 1⅝	CP08A1KE274K3
	600	.750 x 2⅛	CP08A1KF274K3
	1000	1.000 x 2⅛	CP08A1KG274K3

*For Vibration Grade 1, change last digit of Catalog Number to "1."

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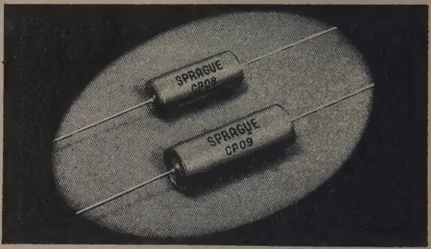
SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25A

- Vitamin Q impregnation assures performance above and beyond MIL-C-25A requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Available in Characteristic E (−55°C to +85°C) or Characteristic K (−55°C to +125°C).
- Type CP09 has insulating sleeve.
- Extended foil, non-inductive section construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult your Sprague Industrial Distributor for information on grounded case units.
- Call your Sprague Industrial Distributor for Quantity Prices.



			Characteristic E —55°C to +85°C				Characteristic K —55°C to +125°C			
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.	
µF	WVDC	Size D. x L.	Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	600	.298 x 13/16	CP09A1EF102M	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP09A1EF102K	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP09A1KF102M	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CP09A1KF102K	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.0015	600	.298 x 13/16	CP09A1EF152M		CP09A1EF152K		CP09A1KF152M		CP09A1KF152K	
.0022	600	.298 x 13/16	CP09A1EF222M		CP09A1EF222K		CP09A1KF222M		CP09A1KF222K	
.0033	400	.298 x 13/16	CP09A1EE332M		CP09A1EE332K		CP09A1KE332M		CP09A1KE332K	
	600	.375 x 15/16	CP09A1EF332M		CP09A1EF332K		CP09A1KF332M		CP09A1KF332K	
.0047	200	.298 x 13/16	CP09A1EC472M		CP09A1EC472K		CP09A1KC472M		CP09A1KC472K	
	600	.375 x 15/16	CP09A1EF472M		CP09A1EF472K		CP09A1KF472M		CP09A1KF472K	
.0068	200	.298 x 13/16	CP09A1EC682M		CP09A1EC682K		CP09A1KC682M		CP09A1KC682K	
	600	.375 x 15/16	CP09A1EF682M		CP09A1EF682K		CP09A1KF682M		CP09A1KF682K	
.01	100	.298 x 13/16	CP09A1EB103M		CP09A1EB103K		CP09A1KB103M		CP09A1KB103K	
	600	.375 x 15/16	CP09A1EF103M		CP09A1EF103K		CP09A1KF103M		CP09A1KF103K	
.015	100	.298 x 13/16	CP09A1EB153M		CP09A1EB153K		CP09A1KB153M		CP09A1KB153K	
	400	.375 x 15/16	CP09A1EE153M		CP09A1EE153K		CP09A1KE153M		CP09A1KE153K	
	600	.463 x 15/16	CP09A1EF153M		CP09A1EF153K		CP09A1KF153M		CP09A1KF153K	
.022	200	.375 x 15/16	CP09A1EC223M		CP09A1EC223K		CP09A1KC223M		CP09A1KC223K	
	600	.463 x 15/16	CP09A1EF223M		CP09A1EF223K		CP09A1KF223M		CP09A1KF223K	
.033	200	.375 x 15/16	CP09A1EC333M		CP09A1E333K		CP09A1KC333M		CP09A1KC333K	
	400	.463 x 15/16	CP09A1EE333M		CP09A1EE333K		CP09A1KE333M		CP09A1KE333K	
	600	.463 x 1 3/16	CP09A1EF333M		CP09A1EF333K		CP09A1KF333M		CP09A1KF333K	
.047	100	.375 x 15/16	CP09A1EB473M		CP09A1EB473K		CP09A1KB473M		CP09A1KB473K	
	200	.463 x 15/16	CP09A1EC473M		CP09A1EC473K		CP09A1KC473M		CP09A1KC473K	
	400	.463 x 1 3/16	CP09A1EE473M		CP09A1EE473K		CP09A1KE473M		CP09A1KE473K	
	600	.463 x 1 7/16	CP09A1EF473M		CP09A1EF473K		CP09A1KF473M		CP09A1KF473K	
.068	200	.463 x 15/16	CP09A1EC683M		CP09A1EC683K		CP09A1KC683M		CP09A1KC683K	
	400	.463 x 1 7/16	CP09A1EE683M		CP09A1EE683K		CP09A1KE683M		CP09A1KE683K	
	600	.625 x 1 3/16	CP09A1EF683M		CP09A1EF683K		CP09A1KF683M		CP09A1KF683K	
.1	100	.463 x 15/16	CP09A1EB104M		CP09A1EB104K		CP09A1KB104M		CP09A1KB104K	
	200	.463 x 1 3/16	CP09A1EC104M		CP09A1EC104K		CP09A1KC104M		CP09A1KC104K	
	400	.625 x 1 3/16	CP09A1EE104M		CP09A1EE104K		CP09A1KE104M		CP09A1KE104K	
	600	.625 x 1 7/16	CP09A1EF104M		CP09A1EF104K		CP09A1KF104M		CP09A1KF104K	
.15	100	.463 x 1 3/16	CP09A1EB154M		CP09A1EB154K		CP09A1KB154M		CP09A1KB154K	
	200	.463 x 1 7/16	CP09A1EC154M		CP09A1EC154K		CP09A1KC154M		CP09A1KC154K	
	400	.625 x 1 7/16	CP09A1EE154M		CP09A1EE154K		CP09A1KE154M		CP09A1KE154K	
	600	.625 x 1 11/16	CP09A1EF154M		CP09A1EF154K		CP09A1KF154M		CP09A1KF154K	
.22	100	.463 x 1 7/16	CP09A1EB224M		CP09A1EB224K		CP09A1KB224M		CP09A1KB224K	
	200	.625 x 1 3/16	CP09A1EC224M		CP09A1EC224K		CP09A1KC224M		CP09A1KC224K	
	400	.625 x 1 11/16	CP09A1EE224M		CP09A1EE224K		CP09A1KE224M		CP09A1KE224K	
	600	.733 x 1 11/16	CP09A1EF224M		CP09A1EF224K		CP09A1KF224M		CP09A1KF224K	
.33	100	.625 x 1 3/16	CP09A1EB334M		CP09A1EB334K		CP09A1KB334M		CP09A1KB334K	
	200	.625 x 1 7/16	CP09A1EC334M		CP09A1EC334K		CP09A1KC334M		CP09A1KC334K	
	400	.733 x 1 11/16	CP09A1EE334M		CP09A1EE334K		CP09A1KE334M		CP09A1KE334K	
	600	.813 x 2 3/16	CP09A1EF334M		CP09A1EF334K		CP09A1KF334M		CP09A1KF334K	
.47	100	.625 x 1 7/16	CP09A1EB474M		CP09A1EB474K		CP09A1KB474M		CP09A1KB474K	
	200	.625 x 1 11/16	CP09A1EC474M		CP09A1EC474K		CP09A1KC474M		CP09A1KC474K	
	400	.813 x 2 3/16	CP09A1EE474M		CP09A1EE474K		CP09A1KE474M		CP09A1KE474K	
	600	.813 x 2 7/16	CP09A1EF474M		CP09A1EF474K		CP09A1KF474M		CP09A1KF474K	
.68	100	.625 x 1 11/16	CP09A1EB684M		CP09A1EB684K		CP09A1KB684M		CP09A1KB684K	
	200	.733 x 1 11/16	CP09A1EC684M		CP09A1EC684K		CP09A1KC684M		CP09A1KC684K	
1.0	100	.733 x 1 11/16	CP09A1EB105M		CP09A1EB105K		CP09A1KB105M		CP09A1KB105K	
	200	.813 x 2 3/16	CP09A1EC105M		CP09A1EC105K		CP09A1KC105M		CP09A1KC105K	

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SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

µF	WVDC	D. x L.	Cat. No.
.001	600	.298 x 13/16	CP09A1KF102K3
	1000	.463 x 15/16	CP09A1KG102K3
.0012	600	.298 x 13/16	CP09A1KF122K3
	1000	.463 x 15/16	CP09A1KG122K3
.0015	600	.298 x 13/16	CP09A1KF152K3
	1000	.463 x 15/16	CP09A1KG152K3
.0018	600	.298 x 13/16	CP09A1KF182K3
	1000	.463 x 15/16	CP09A1KG182K3
.0022	600	.298 x 13/16	CP09A1KF222K3
	1000	.463 x 15/16	CP09A1KG222K3
.0027	400	.298 x 13/16	CP09A1KE272K3
	600	.375 x 15/16	CP09A1KF272K3
	1000	.463 x 15/16	CP09A1KG272K3
.0033	400	.298 x 13/16	CP09A1KE332K3
	600	.375 x 15/16	CP09A1KF332K3
	1000	.463 x 15/16	CP09A1KG332K3
.0039	200	.298 x 13/16	CP09A1KC392K3
	600	.375 x 15/16	CP09A1KF393K3
	1000	.463 x 15/16	CP09A1KG393K3
.0047	200	.298 x 13/16	CP09A1KC472K3
	600	.375 x 15/16	CP09A1KF472K3
	1000	.463 x 15/16	CP09A1KG472K3
.0056	200	.298 x 13/16	CP09A1KC562K3
	600	.375 x 15/16	CP09A1KF562K3
	1000	.463 x 15/16	CP09A1KG562K3
.0068	200	.298 x 13/16	CP09A1KC682K3
	600	.375 x 15/16	CP09A1KF682K3
	1000	.463 x 15/16	CP09A1KG682K3
.0082	100	.298 x 13/16	CP09A1KB822K3
	600	.375 x 15/16	CP09A1KF822K3
	1000	.463 x 15/16	CP09A1KG822K3
.01	100	.298 x 13/16	CP09A1KB103K3
	600	.375 x 15/16	CP09A1KF103K3
	1000	463 x 15/16	CP09A1KG103K3
.012	100	.298 x 13/16	CP09A1KB123K3
	400	.375 x 15/16	CP09A1KE123K3
	600	.463 x 15/16	CP09A1KF123K3
	1000	.463 x 1 3/16	CP09A1KG123K3
.015	100	.298 x 13/16	CP09A1KB153K3
	400	.375 x 15/16	CP09A1KE153K3
	600	.463 x 15/16	CP09A1KF153K3
	1000	.463 x 1 3/16	CP09A1KG153K3
.018	200	.375 x 15/16	CP09A1KC183K3
	600	.463 x 15/16	CP09A1KF183K3
	1000	.463 x 1 7/16	CP09A1KG183K3
.022	200	.375 x 15/16	CP09A1KC223K3
	600	.463 x 15/16	CP09A1KF223K3
	1000	.463 x 1 7/16	CP09A1KG223K3

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µF	WVDC	D. x L.	Cat. No.
.027	200	.375 x 15/16	CP09A1KC273K3
	400	.463 x 15/16	CP09A1KE273K3
	600	.463 x 1 3/16	CP09A1KF273K3
	1000	.625 x 1 3/16	CP09A1KG273K3
.033	200	.375 x 15/16	CP09A1KC333K3
	400	.463 x 15/16	CP09A1KE333K3
	600	.463 x 1 3/16	CP09A1KF333K3
	1000	.625 x 1 3/16	CP09A1KG333K3
.039	100	.375 x 15/16	CP09A1KB393K3
	200	.463 x 15/16	CP09A1KC393K3
	400	.463 x 1 3/16	CP09A1KE393K3
	600	.463 x 1 7/16	CP09A1KF393K3
	1000	.625 x 1 7/16	CP09A1KG393K3
.047	100	.375 x 15/16	CP09A1KB473K3
	200	.463 x 15/16	CP09A1KC473K3
	400	.463 x 1 3/16	CP09A1KE473K3
	600	.463 x 1 7/16	CP09A1KF473K3
	1000	.625 x 1 7/16	CP09A1KG473K3
.056	200	.463 x 15/16	CP09A1KC563K3
	400	.463 x 1 7/16	CP09A1KE563K3
	600	.625 x 1 3/16	CP09A1KF563K3
	1000	.625 x 1 11/16	CP09A1KG563K3
.068	200	.463 x 15/16	CP09A1KC683K3
	400	.463 x 1 7/16	CP09A1KE683K3
	600	.625 x 1 3/16	CP09A1KF683K3
	1000	.625 x 1 11/16	CP09A1KG683K3
.082	100	.463 x 15/16	CP09A1KB823K3
	200	.463 x 1 3/16	CP09A1KC823K3
	400	.625 x 1 3/16	CP09A1KE823K3
	600	.625 x 1 7/16	CP09A1KF823K3
	1000	.733 x 1 11/16	CP09A1KG823K3
.1	100	.463 x 15/16	CP09A1KB104K3
	200	.463 x 1 3/16	CP09A1KC104K3
	400	.625 x 1 3/16	CP09A1KE104K3
	600	.625 x 1 7/16	CP09A1KF104K3
	1000	.733 x 1 11/16	CP09A1KG104K3
.12	100	.463 x 1 3/16	CP09A1KB124K3
	200	.463 x 1 7/16	CP09A1KC124K3
	400	.625 x 1 7/16	CP09A1KE124K3
	600	.625 x 1 11/16	CP09A1KF124K3
	1000	.733 x 1 15/16	CP09A1KG124K3
.15	100	.463 x 1 3/16	CP09A1KB154K3
	200	.463 x 1 7/16	CP09A1KC154K3
	400	.625 x 1 7/16	CP09A1KE154K3
	600	.625 x 1 11/16	CP09A1KF154K3
	1000	.733 x 1 15/16	CP09A1KG154K3
.18	100	.463 x 1 7/16	CP09A1KB184K3
	200	.625 x 1 3/16	CP09A1KC184K3
	400	.625 x 1 11/16	CP09A1KE184K3
	600	.733 x 1 11/16	CP09A1KF184K3
	1000	.813 x 2 3/16	CP09A1KG184K3
.22	100	.463 x 1 7/16	CP09A1KB224K3
	200	.625 x 1 3/16	CP09A1KC224K3
	400	.625 x 1 11/16	CP09A1KE224K3
	600	.733 x 1 11/16	CP09A1KF224K3
	1000	.813 x 2 3/16	CP09A1KG224K3

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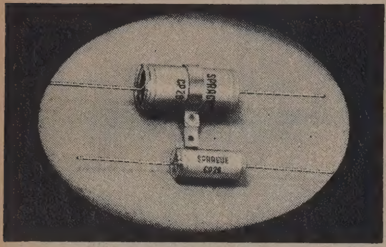
SPRAGUE CAPACITORS

MIL-C-25A CAPACITORS — TYPES CP26 and CP28



- Impregnated with specially processed mineral oil to exceed performance requirements of Specification MIL-C-25A
- Type CP26 has outer insulating sleeve — Type CP28 has insulating sleeve plus metal strap for radial mounting.
- Hermetically sealed for protection against leakage and contamination
- Meet temperature characteristic E (—55°C to +85°C operation)
- Capacitor sections are insulated from metal cases
- Call Your Sprague Distributor for Current Prices

NOTE: Capacitors listed below have a capacitance tolerance of ±10%. For ±20% units, change last letter in catalog number from K to M.

TYPE CP26 (without Mounting Bracket)

µF	Volts	Diam. x Length	Cat. No.	
.006	600	½ x 1 5/16	CP26A1EF602K	Call Your Sprague Distributor for Current Prices
.01	600	½ x 1 5/16	CP26A1EF103K	
.02	600	½ x 1 13/16	CP26A1EF203K	
.05	600	11/16 x 1 11/16	CP26A1EF503K	
.5	200	1 1/16 x 2 5/16	CP26A1EC504K	

TYPE CP28 (Radial Mounting Bracket)

µF	Volts	Diam. x Length	Cat. No.	
.1	600	11/16 x 2 1/16	CP28A1EF104K	Call Your Sprague Distributor for Current Prices
.25	600	1 1/16 x 2 5/16	CP28A1EF254K	
.5	600	1 1/16 x 2 13/16	CP28A1EF504K	

MIL-C-25A CAPACITORS — TYPES CP40 and CP41

- Designed and manufactured for service life and performance characteristics exceeding MIL requirements
- Type CP40 has screw and nut connection on positive terminal, can is negative — Type CP41 has two solder-lug terminals, with capacitor section insulated from metal case
- Impregnated with specially processed mineral oil for characteristic E operation — Will withstand wide temperature variations (—55°C to +85°C)
- Hermetically sealed in metal cases, with threaded screw necks for mounting purposes
- Call Your Sprague Distributor for Current Prices

NOTE: Capacitors listed below have a capacitance tolerance of ±10%. For ±20% units, change last letter in catalog number from K to M.

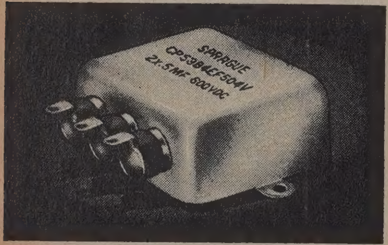
TYPE CP40 (One Terminal)

µF	Volts	Diam. x Length	Cat. No.	
2.0	600	1½ x 3⅜	CP40C2EF205K	Call Your Sprague Distributor for Prices
4.0	600	1½ x 5¼	CP40C2EF405K	

TYPE CP41 (Two Terminals)

µF	Volts	Diam. x Length	Cat. No.	
2.0	600	1½ x 3⅜	CP41B1EF205K	Call Your Sprague Distributor for Prices
4.0	600	1½ x 5¼	CP41B1EF405K	

MIL-C-25A CAPACITORS—TYPE CP53



- Impregnated with specially processed mineral oil to exceed performance requirements of MIL-C-25A
- Hermetically sealed, with silicone rubber compression terminals
- Rated for—55°C to +85°C operation
- Drawn metal cases have mounting flanges as integral part of containers
- Single and dual capacitance units have insulated sections — triple capacitance units have grounded cases
- Call Your Sprague Distributor for Current Prices

NOTE: Capacitors listed below have capacitance tolerances of +20%, —10% (V) or ±10% (K). For ±20% units, change last letter in catalog number from K to M or V to M.

µF	Volts	L. x W. x H.	Cat. No.	
Single Capacitance				Call Your Sprague Distributor for Prices
.05	600	1 13/16 x 1 x ¾	CP53B1EF503K	
.05	1000	1 13/16 x 1 x ¾	CP53B1EG503K	
.1	600	1 13/16 x 1 x ¾	CP53B1EF104K	
.1	1000	1 13/16 x 1 x ¾	CP53B1EG104K	
.25	600	1 13/16 x 1 x ¾	CP53B1EF254K	
.25	1000	1 13/16 x 1 x ⅞	CP53B1EG254K	
.5	400	1 13/16 x 1 x ⅞	CP53B1EE504K	
.5	600	1 13/16 x 1 x 1	CP53B1EF504K	
.5	1000	2 x 1¾ x ⅞	CP53B1EG504K	
1.0	600	2 x 1¾ x 1	CP53B1EF105K	
1.0	1000	2 x 2 x 1⅛	CP53B1EG105K	
2.0	100	2 x 1¾ x ⅞	CP53B1EB205K	
2.0	200	2 x 2 x 1	CP53B1EC205K	
2.0	600	2 x 2 x 1⅛	CP53B1EF205K	
4.0	100	2 x 2 x 1⅛	CP53B1EB405K	

µF	Volts	L. x W. x H.	Cat. No.	
Dual Capacitance				Call Your Sprague Distributor for Prices
.05 + .05	600	1 13/16 x 1 x ¾	CP53B4EF503V	
.05 + .05	1000	1 13/16 x 1 x ¾	CP53B4EG503V	
.1 + .1	600	1 13/16 x 1 x ¾	CP53B4EF104V	
.1 + .1	1000	1 13/16 x 1 x ⅞	CP53B4EG104V	
.25 + .25	600	1 13/16 x 1 x 1	CP53B4EF254V	
.25 + .25	1000	2 x 1¾ x ⅞	CP53B4EG254V	
.5 + .5	600	2 x 1¾ x 1	CP53B4EF504V	
.5 + .5	1000	2 x 2 x 1⅛	CP53B4EG504V	
1.0 + 1.0	600	2 x 2 x 1⅛	CP53B4EF105V	
Triple Capacitance				
.05 + .05 + .05	600	1 13/16 x 1 x ¾	CP53B5EF503V	
.1 + .1 + .1	600	1 13/16 x 1 x ⅞	CP53B5EF104V	
.5 + .5 + .5	600	2 x 2 x 1⅛	CP53B5EF504V	

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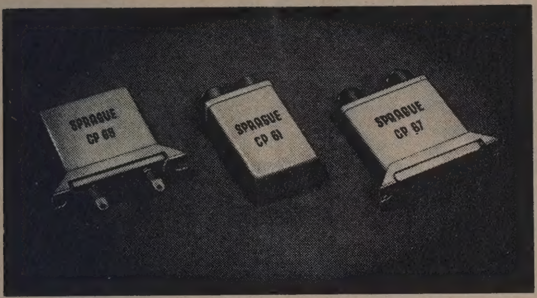
SPRAGUE CAPACITORS

TYPE CP61, CP67, CP69, CP91 CAPACITORS to MIL-C-25A



- Mineral Oil Impregnated for Minimum Capacitance Change with Temperature
- Hermetically Sealed in Drawn Metal Cases
- Have Silicone Rubber Compression Terminals for Positive Prevention Against Entrance of Moisture or Leakage of Impregnant
- Designed and Manufactured for Service Life Beyond Specification Requirements
- Units Listed are Most Popular Ratings. Complete Military Line Available from Sprague
- CP61 and CP91 require separate mounting brackets.
- CP67 and CP69 have integral channel brackets
- For quantity prices, see your Sprague Industrial Distributor.

NOTE: These units have capacitance tolerances of ±10% (K) or +20, −10% (V). For ±20% units, change the last letter in the catalog number from K to M or V to M.

µF	WVDC	CAT. NO.	SIZE	Mounting Brackets* CAT. NO.
TYPE CP61				
.05	600	CP61B1EF503K	1 5/16 x 11/16 x 1 1/16	CP06-FA1
.1	600	CP61B1EF104K	1 5/16 x 11/16 x 1 3/8	CP06-FA2
.25	600	CP61B1EF254K	1 5/16 x 11/16 x 1 5/8	CP06-FA3
.5	600	CP61B1EF504K	1 5/16 x 11/16 x 2	CP06-FA4
1.0	600	CP61B1EF105K	1 5/16 x 11/16 x 2 1/2	CP06-FA5
.1 + .1	600	CP61B6EF104K	1 5/16 x 11/16 x 1 5/8	CP06-FA3
.25 + .25	600	CP61B6EF254V	1 5/16 x 11/16 x 2	CP06-FA4
.5 + .5	600	CP61B6EF504V	1 5/16 x 11/16 x 2 3/4	CP06-FA6
TYPE CP91				
.05	600	CP91B1EF503K	1 5/16 x 5/8 x 1 1/16	CP091-FB1
.1	600	CP91B1EF104K	1 5/16 x 5/8 x 1 3/8	CP091-FB2
.25	600	CP91B1EF254K	1 5/16 x 5/8 x 1 5/8	CP091-FB3
.5	600	CP91B1EF504K	1 5/16 x 5/8 x 2	CP091-FB4
1.0	600	CP91B1EF105K	1 5/16 x 5/8 x 2 3/4	CP091-FB6
.1 + .1	600	CP91B6EF104V	1 5/16 x 5/8 x 1 5/8	CP091-FB3
.25 + .25	600	CP91B6EF254V	1 5/16 x 5/8 x 2	CP091-FB4
.5 + .5	600	CP91B6EF504V	1 5/16 x 5/8 x 2 3/4	CP091-FB6
TYPE CP67 Terminals opposite channel bracket				
.1	600	CP67B1EF104K	1 3/4 x 41/64 x 1 1/16	Integral
.25	600	CP67B1EF254K	1 3/4 x 41/64 x 1 1/2	Channel
.5	600	CP67B1EF504K	1 3/4 x 41/64 x 2	Brackets
1.0	600	CP67B1EF105K	1 3/4 x 41/64 x 2 3/4	
TYPE CP69 Terminals on same end as channel bracket				
.05	600	CP69B1EF503K	1 3/4 x 41/64 x 1 1/16	
.1	600	CP69B1EF104K	1 3/4 x 41/64 x 1 1/16	Integral
.25	600	CP69B1EF254K	1 3/4 x 41/64 x 1 1/2	Channel
.5	600	CP69B1EF504K	1 3/4 x 41/64 x 2	Brackets
1.0	600	CP69B1EF105K	1 3/4 x 41/64 x 2 3/4	

*Footed Brackets are listed: for spade type change F in Catalog No. to S

Call Your Sprague Industrial Distributor for Quantity Prices

TYPE CP70 CAPACITORS to MIL-C-25A

- Ruggedly Constructed for Exacting Heavy-Duty Applications
- Long Life and Reliable Service under High Ambient Temperatures
- Terminals have Ceramic Pillar Insulators (E) or Rubber Compression Seals (B)
- Impregnated with a Specially Processed Mineral Oil to Withstand Severe Operating Conditions
- Char. F Units Recommended Primarily for Ground Equipment Where no Low Temperatures are Encountered
- For Quantity Prices, See Your Sprague Industrial Distributor.

NOTE: These units have a capacitance tolerance of ±10%. For ±20% tolerance, change the last letter in the catalog number from K to M.

		Char. E (E Term.)		Char. F (B Term.)		Char. E (B Term.)	
µF	WVDC	Cat. No.	W x T x H	Cat. No.	W x T x H	Cat. No.	W x T x H
.1	1000	CP70E1EG104K	1 13/16 x 1 1/16 x 1 5/8	———	———	———	———
.1	2000	CP70E1EJ104K	2 1/2 x 1 3/16 x 2 1/2	———	———	———	———
.25	1000	CP70E1EG254K	1 13/16 x 1 1/16 x 2 1/4	———	———	———	———
.25	2000	CP70E1EJ254K	2 1/2 x 1 3/16 x 2 1/2	———	———	———	———
.5	600	CP70E1EF504K	1 13/16 x 1 1/16 x 2 1/4	———	———	———	———
.5	1000	CP70E1EG504K	1 13/16 x 1 1/16 x 2 1/4	———	———	CP70B1EG504K	1 13/16 x 1 1/16 x 2 1/4
.5	1500	CP70E1EH504K	1 13/16 x 1 1/16 x 2 7/8	———	———	———	———
.5	2000	CP70E1EJ504K	2 1/2 x 1 3/16 x 2 7/8	———	———	———	———
.5	2500	CP70E1EK504K	2 1/2 x 1 3/16 x 3 7/8	———	———	———	———
1.0	600	CP70E1EF105K	1 13/16 x 1 1/16 x 2 1/4	———	———	CP70B1EF105K	1 13/16 x 1 1/16 x 2 1/4
1.0	1000	CP70E1EG105K	1 13/16 x 1 1/16 x 2 7/8	———	———	CP70B1EG105K	1 13/16 x 1 1/16 x 2 7/8
1.0	1500	CP70E1EH105K	1 13/16 x 1 1/16 x 4 3/4	———	———	———	———
1.0	2000	CP70E1EJ105K	2 1/2 x 13/16 x 4 3/4	———	———	———	———
1.0	2500	CP70E1EK105K	3 3/4 x 1 3/4 x 3 7/8	———	———	———	———
2.0	600	CP70E1EF205K	1 13/16 x 1 1/16 x 3 1/4	CP70B1FF205K	1 13/16 x 1 1/16 x 2 7/8	CP70B1EF205K	1 13/16 x 1 1/16 x 3 1/4
2.0	1000	CP70E1EG205K	1 13/16 x 1 1/16 x 4 3/4	CP70B1FG205K	1 13/16 x 1 1/16 x 3 7/8	CP70B1EG205K	1 13/16 x 1 1/16 x 4 3/4
2.0	1500	CP70E1EH205K	2 1/2 x 1 3/16 x 4 3/4	———	———	CP70B1EH205K	2 1/2 x 1 3/16 x 4 3/4
2.0	2000	CP70E1EJ205K	3 3/4 x 1 1/4 x 4 3/4	———	———	———	———
2.0	2500	CP70E1EK205K	3 3/4 x 2 1/4 x 4 3/4	———	———	———	———
4.0	600	CP70E1EF405K	2 1/2 x 1 3/16 x 3 7/8	CP70B1FF405K	2 1/2 x 1 3/16 x 3 1/2	CP70B1EF405K	2 1/2 x 1 3/16 x 3 7/8
4.0	1000	CP70E1EG405K	3 3/4 x 1 1/4 x 3 7/8	CP70B1FG405K	2 1/2 x 1 3/16 x 4 3/4	CP70B1EG405K	3 3/4 x 1 1/4 x 3 7/8
4.0	1500	CP70E1EH405K	3 3/4 x 1 3/4 x 4 1/4	———	———	CP70B1EH405K	3 3/4 x 1 3/4 x 4 1/4
4.0	2000	CP70E1EJ405K	3 3/4 x 2 1/4 x 5 1/8	———	———	———	———
4.0	2500	CP70E1EK405K	4 9/16 x 3 3/4 x 4 3/8	———	———	———	———
6.0	600	CP70E1EF605K	3 3/4 x 1 1/4 x 3 7/8	CP70B1FF605K	2 1/2 x 1 3/16 x 4 3/4	CP70B1EF605K	3 3/4 x 1 1/4 x 3 7/8
6.0	1000	CP70E1EG605K	3 3/4 x 1 3/4 x 4	CP70B1FG605K	3 3/4 x 1 1/4 x 4 3/4	CP70B1EG605K	3 3/4 x 1 3/4 x 4
6.0	1500	CP70E1EH605K	3 3/4 x 2 1/4 x 4 3/4	———	———	CP70B1EH605K	3 3/4 x 2 1/4 x 4 3/4
8.0	600	CP70E1EF805K	3 3/4 x 1 1/4 x 4 1/4	CP70B1FF805K	3 3/4 x 1 1/4 x 3 7/8	CP70B1EF805K	3 3/4 x 1 1/4 x 4 1/4
8.0	1000	CP70E1EG805K	3 3/4 x 1 3/4 x 4 3/4	CP70B1FG805K	3 3/4 x 1 3/4 x 3 7/8	CP70B1EG805K	3 3/4 x 1 3/4 x 4 3/4
8.0	1500	CP70E1EH805K	3 3/4 x 2 1/2 x 5 3/4	———	———	CP70B1EH805K	3 3/4 x 2 1/2 x 5 3/4
10.0	600	CP70E1EF106K	3 3/4 x 1 3/4 x 4	CP70B1FF106K	3 3/4 x 1 1/4 x 4 3/4	CP70B1EF106K	3 3/4 x 1 3/4 x 4
10.0	1000	CP70E1EG106K	3 3/4 x 2 1/4 x 4 3/4	CP70B1FG106K	3 3/4 x 1 3/4 x 4 3/4	CP70B1EG106K	3 3/4 x 2 1/4 x 4 3/4
10.0	1500	CP70E1EH106K	3 3/4 x 3 3/16 x 5 1/2	———	———	CP70B1EH106K	3 3/4 x 3 3/16 x 5 1/2
12.0	1000	CP70E1EG126K	3 3/4 x 2 1/4 x 5 1/8	———	———	CP70B1EG126K	3 3/4 x 2 1/4 x 5 1/8
15.0	1000	CP70E1EG156K	3 3/4 x 3 3/16 x 4 3/4	———	———	———	———

Call Your Sprague Industrial Distributor for Quantity Prices

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Call Your Sprague Industrial Distributor for Quantity Prices

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SPRAGUE CAPACITORS

118P DIFILM® METALLIZED CAPACITORS

- The Best of Their Type Possible to Produce at the Present State of the Art
- Rated for Operation at 125°C WITHOUT VOLTAGE DERATING
- Unique Dual Dielectric —a Combination of Metallized Paper and of Polyester Film, Impregnated With Special High-Temperature Mineral Wax
- Subjected to Stringent Quality Control During Manufacture
- Higher Insulation Resistance Than Any Other Metallized Paper Capacitors—at 125°C, Minimum Product of Insulation Resistance and Capacitance is 10 Megohm-microfarads for 200 V Units or 40 Megohm-microfarads for 400 and 600 V Units
- Capacitor Sections are Effectively of Non-inductive Construction, Resulting in Capacitors Unmatched in Performance Quality by any Other Metallized Capacitors
- Hermetically Sealed, with Glass-to-metal Solder-seal Terminals
- Have Unusual Self-healing Characteristics, in the Rare Event of Capacitor Dielectric Breakdown
- May be Used at Extremely Low Voltages Where Metallized Paper Construction has Previously Been Unsatisfactory
- For Complete Performance Characteristics, see Latest Issue of Engineering Bulletin 2211
- For Units With Outer Plastic Insulating Sleeves, Change Last Digit of Cat. No. From "2" to "4"
- Capacitors Listed Below Are Ungrounded Case (Insulating Section) Units Without Outer Insulating Sleeves. For Information on Other Styles Consult Your Sprague Industrial Distributor
- Call your Sprague Industrial Distributor for Quantity Prices.

		±20% Tol.		±10% Tol.	
µF	D. x L.	Catalog Number		Catalog Number	
200 WVDC					
.01	.175 x 11/16	118P10302S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	118P10392S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.012	.195 x 11/16			118P12392S2	
.015	.195 x 11/16	118P15302S2		118P15392S2	
.018	.235 x 11/16			118P18392S2	
.022	.235 x 11/16	118P22302S2		118P22392S2	
.027	.235 x 11/16			118P27392S2	
.033	.235 x 11/16	118P33302S2		118P33392S2	
.039	.312 x 13/16			118P39392S2	
.047	.312 x 13/16	118P47302S2		118P47392S2	
.056	.312 x 13/16			118P56392S2	
.068	.312 x 13/16	118P68302S2		118P68392S2	
.082	.312 x 13/16			118P82392S2	
.1	.312 x 13/16	118P10402S2		118P10492S2	
.12	.312 x 1 1/16			118P12492S2	
.15	.312 x 1 1/16	118P15402S2		118P15492S2	
.18	.400 x 13/16			118P18492S2	
.22	.400 x 13/16	118P22402S2		118P22492S2	
.27	.400 x 1 1/16			118P27492S2	
.33	.400 x 1 1/16	118P33402S2		118P33492S2	
.39	.500 x 1 1/16			118P39492S2	
.47	.500 x 1 1/16	118P47402S2		118P47492S2	
.56	.500 x 1 1/16			118P56492S2	
.68	.500 x 1 1/16	118P68402S2		118P68492S2	
.82	.562 x 1 1/16			118P82492S2	
1.0	.562 x 1 1/16	118P10502S2		118P10592S2	
1.5	.562 x 1 9/16	118P15502S2		118P15592S2	
2.0	.670 x 1 9/16	118P20502S2		118P20592S2	
3.0	.670 x 1 13/16	118P30502S2		118P30592S2	
4.0	.750 x 1 13/16	118P40502S2		118P40592S2	
5.0	1.000 x 1 13/16	118P50502S2		118P50592S2	
6.0	1.000 x 1 13/16	118P60502S2		118P60592S2	
8.0	1.000 x 1 13/16	118P80502S2		118P80592S2	
10.0	1.000 x 2 5/16	118P10602S2		118P10692S2	
12.0	1.000 x 2 9/16	118P12602S2		118P12692S2	

		±20% Tol.		±10% Tol.	
µF	D. x L.	Catalog Number		Catalog Number	
400 WVDC					
.01	.312 x 13/16	118P10304S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	118P10394S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.015	.312 x 13/16	118P15304S2		118P15394S2	
.022	.312 x 13/16	118P22304S2		118P22394S2	
.033	.312 x 1 1/16	118P33304S2		118P33394S2	
.047	.400 x 1 1/16	118P47304S2		118P47394S2	
.068	.400 x 1 1/16	118P68304S2		118P68394S2	
.1	.500 x 1 1/16	118P10404S2		118P10494S2	
.15	.500 x 1 1/16	118P15404S2		118P15494S2	
.22	.562 x 1 5/16	118P22404S2		118P22494S2	
.33	.562 x 1 9/16	118P33404S2		118P33494S2	
.47	.670 x 1 9/16	118P47404S2		118P47494S2	
.68	.670 x 1 13/16	118P68404S2		118P68494S2	
1.0	.750 x 1 13/16	118P10504S2		118P10594S2	
1.5	1.000 x 1 13/16	118P15504S2		118P15594S2	
2.0	1.000 x 1 13/16	118P20504S2		118P20594S2	
3.0	1.000 x 2 9/16	118P30504S2		118P30594S2	
600 WVDC					
.01	.312 x 13/16	118P10306S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	118P10396S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.015	.312 x 13/16	118P15306S2		118P15396S2	
.022	.312 x 1 1/16	118P22306S2		118P22396S2	
.033	.312 x 1 1/16	118P33306S2		118P33396S2	
.047	.400 x 1 1/16	118P47306S2		118P47396S2	
.068	.400 x 1 1/16	118P68306S2		118P68396S2	
.1	.500 x 1 1/16	118P10406S2		118P10496S2	
.15	.562 x 1 1/16	118P15406S2		118P15496S2	
.22	.562 x 1 5/16	118P22406S2		118P22496S2	
.33	.562 x 1 9/16	118P33406S2		118P33496S2	
.47	.670 x 1 9/16	118P47406S2		118P47496S2	
.68	.670 x 1 13/16	118P68406S2		118P68496S2	
1.0	1.000 x 1 13/16	118P10506S2		118P10596S2	
1.5	1.000 x 1 13/16	118P15506S2		118P15596S2	
2.0	1.000 x 2 1/16	118P20506S2		118P20596S2	
2.5	1.000 x 2 9/16	118P25506S2		118P25596S2	

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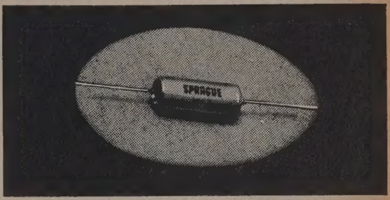
SPRAGUE CAPACITORS

121P METALLIZED PAPER CAPACITORS

- Designed to operate at 125°C WITHOUT VOLTAGE DERATING — extremely important in military and industrial equipment where higher temperatures are encountered.
- Quality of these capacitors is surpassed only by Type 118P units described on opposite page.
- High insulation resistance — at 85°C, minimum product of insulation resistance and capacitance is 20 megohm-microfarads. At 125°C, minimum product is 1.0 megohm-microfarads.
- Hermetically sealed with glass-to-metal solder-seal terminals — capacitor cases are of corrosion resistant materials — similar in appearance to Type 118P.
- May be operated at low voltages, unlike many other metallized capacitors.
- For complete performance data, see latest issue of Engineering Bulletin 2210.
- Capacitors listed below are ungrounded case (insulated section) units without outer insulating sleeves. For information on other styles consult your Sprague Industrial Distributor.
- For quantity prices call your Sprague Industrial Distributor.



- For units with outer plastic insulating sleeve, change last digit in cat. no. from 2 to 4.

µF	D. x L.	±20% Tol. Cat. No.		±10% Tol. Cat. No.	
		150 WVDC			
1.5	.562 x 1⅛	121P15501R5S2	CALL YOUR SPRAGUE DISTRIBUTOR FOR PRICES	121P15591R5S2	CALL YOUR SPRAGUE DISTRIBUTOR FOR PRICES
2.0	.562 x 1⅜	121P20501R5S2		121P20591R5S2	
2.5	.562 x 1⅝	121P25501R5S2		121P25591R5S2	
3.0	.670 x 1⅜	121P30501R5S2		121P30591R5S2	
3.5	.670 x 1⅝	121P35501R5S2		121P35591R5S2	
4.0	.670 x 1⅝	121P40501R5S2		121P40591R5S2	
5.0	.670 x 1⅞	121P50501R5S2		121P50591R5S2	
6.0	.750 x 1⅞	121P60501R5S2		121P60591R5S2	
8.0	.750 x 2⅜	121P80501R5S2		121P80591R5S2	
10	.750 x 2⅝	121P10601R5S2		121P10691R5S2	
12	1.000 x 1⅞	121P12601R5S2		121P12691R5S2	
14	1.000 x 2⅛	121P14601R5S2		121P14691R5S2	
16	1.000 x 2⅜	121P16601R5S2		121P16691R5S2	
18	1.000 x 2⅝	121P18601R5S2		121P18691R5S2	
		200 WVDC			
.047	.235 x ¾	121P47302S2	PRICES AVAILABLE UPON REQUEST	121P47392S2	PRICES AVAILABLE UPON REQUEST
.056	.312 x ⅞			121P56392S2	
.068	.312 x ⅞	121P68302S2		121P68392S2	
.082	.312 x ⅞			121P82392S2	
.1	.312 x ⅞	121P10402S2		121P10492S2	
.12	.312 x ⅞			121P12492S2	
.15	.312 x ⅞	121P15402S2		121P15492S2	
.18	.312 x 1⅛			121P18492S2	
.22	.312 x 1⅛	121P22402S2		121P22492S2	
.27	.400 x 1⅛			121P27492S2	
.33	.400 x 1⅛	121P33402S2		121P33492S2	
.39	.400 x 1⅛			121P39492S2	
.47	.400 x 1⅛	121P47402S2		121P47492S2	
.56	.500 x 1⅛			121P56492S2	
.68	.500 x 1⅛	121P68402S2		121P68492S2	
.82	.562 x 1⅛			121P82492S2	
1.0	.562 x 1⅛	121P10502S2		121P10592S2	
1.5	.562 x 1⅜	121P15502S2		121P15592S2	
2.0	.562 x 1⅞	121P20502S2		121P20592S2	
2.5	.670 x 1⅝	121P25502S2		121P25592S2	
3.0	.670 x 1⅞	121P30502S2		121P30592S2	
3.5	.750 x 1⅞	121P35502S2		121P35592S2	
4.0	.750 x 1⅞	121P40502S2		121P40592S2	
5.0	.750 x 2⅛	121P50502S2		121P50592S2	
6.0	.750 x 2⅜	121P60502S2		121P60592S2	
8.0	1.000 x 1⅞	121P80502S2		121P80592S2	
10	1.000 x 2⅛	121P10602S2		121P10692S2	
12	1.000 x 2⅝	121P12602S2		121P12692S2	
		400 WVDC			
.01	.235 x ¾	121P10304S2	PRICES AVAILABLE UPON REQUEST	121P10394S2	PRICES AVAILABLE UPON REQUEST
.012	.312 x ⅞			121P12394S2	
.015	.312 x ⅞	121P15304S2		121P15394S2	
.018	.312 x ⅞			121P18394S2	
.022	.312 x ⅞	121P22304S2		121P22394S2	
.027	.312 x ⅞			121P27394S2	
.033	.312 x ⅞	121P33304S2		121P33394S2	
.039	.312 x 1⅛			121P39394S2	
.047	.312 x 1⅛	121P47304S2		121P47394S2	
.056	.312 x 1⅛			121P56394S2	
.068	.312 x 1⅛	121P68304S2		121P68394S2	
.082	.400 x 1⅛			121P82394S2	
.1	.400 x 1⅛	121P10404S2	PRICES AVAILABLE UPON REQUEST	121P10494S2	PRICES AVAILABLE UPON REQUEST
.12	.400 x 1⅜			121P12494S2	
.15	.400 x 1⅜	121P15404S2		121P15494S2	
.18	.500 x 1⅛			121P18494S2	
.22	.500 x 1⅛	121P22404S2		121P22494S2	
.27	.562 x 1⅜			121P27494S2	
.33	.562 x 1⅜	121P33404S2		121P33494S2	
.39	.562 x 1⅝			121P39494S2	
.47	.562 x 1⅝	121P47404S2		121P47494S2	
.56	.670 x 1⅝			121P56494S2	
.68	.670 x 1⅝	121P68404S2		121P68494S2	
.82	.670 x 1⅞			121P82494S2	
1.0	.670 x 1⅞	121P10504S2		121P10594S2	
1.5	.750 x 2⅜	121P15504S2		121P15594S2	
2.0	1.000 x 1⅞	121P20504S2		121P20594S2	
2.5	1.000 x 2⅛	121P25504S2		121P25594S2	
3.0	1.000 x 2⅜	121P30504S2		121P30594S2	
3.5	1.000 x 2⅝	121P35504S2		121P35594S2	
		600 WVDC			
.001	.235 x ¾	121P10206S2	PRICES AVAILABLE UPON REQUEST	121P10296S2	PRICES AVAILABLE UPON REQUEST
.0012	.235 x ¾			121P12296S2	
.0015	.235 x ¾	121P15206S2		121P15296S2	
.0018	.235 x ¾			121P18296S2	
.0022	.235 x ¾	121P22206S2		121P22296S2	
.0027	.235 x ¾			121P27296S2	
.0033	.235 x ¾	121P33206S2		121P33296S2	
.0039	.235 x ¾			121P39296S2	
.0047	.235 x ¾	121P47206S2		121P47296S2	
.0056	.312 x ⅞			121P56296S2	
.0068	.312 x ⅞	121P68206S2		121P68296S2	
.0082	.312 x ⅞			121P82296S2	
.01	.312 x ⅞	121P10306S2		121P10396S2	
.012	.312 x ⅞			121P12396S2	
.015	.312 x ⅞	121P15306S2		121P15396S2	
.018	.312 x 1⅛			121P18396S2	
.022	.312 x 1⅛	121P22306S2		121P22396S2	
.027	.312 x 1⅛			121P27396S2	
.033	.312 x 1⅛	121P33306S2		121P33396S2	
.039	.400 x 1⅛			121P39396S2	
.047	.400 x 1⅛	121P47306S2		121P47396S2	
.056	.400 x 1⅛			121P56396S2	
.068	.400 x 1⅛	121P68306S2		121P68396S2	
.082	.500 x 1⅛			121P82396S2	
.1	.500 x 1⅛	121P10406S2		121P10496S2	
.12	.562 x 1⅛			121P12496S2	
.15	.562 x 1⅛	121P15406S2		121P15496S2	
.18	.562 x 1⅜			121P18496S2	
.22	.562 x 1⅜	121P22406S2		121P22496S2	
.27	.562 x 1⅞			121P27496S2	
.33	.562 x 1⅞	121P33406S2		121P33496S2	
.39	.670 x 1⅞			121P39496S2	
.47	.670 x 1⅞	121P47406S2		121P47496S2	
.56	.670 x 1⅞			121P56496S2	
.68	.670 x 1⅞	121P68406S2		121P68496S2	
.82	.750 x 2⅜			121P82496S2	
1.0	.750 x 2⅜	121P10506S2		121P10596S2	
1.5	1.000 x 2⅛	121P15506S2		121P15596S2	
2.0	1.000 x 2⅜	121P20506S2		121P20596S2	

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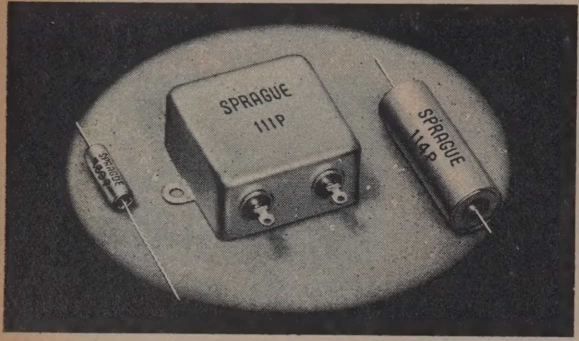
SPRAGUE CAPACITORS



METAL-CLAD FILM CAPACITORS

Polystyrene film dielectric capacitors have the lowest dielectric absorption of all film capacitors. The exceptionally high insulation resistance will generally exceed 10,000,000 megohm-microfarads. They have extremely low power factor, close capacitance tolerance, high capacitance stability with temperature change and high operating temperatures. The unusual properties of these capacitors make them particularly suitable for circuit applications demanding such characteristics. All capacitors listed here are hermetically sealed in metal cases.

114P Styracon® Polystyrene Film Tubulars

Specially processed polystyrene film dielectric ● Operating temperature range, —55°C to +85°C ● High insulation resistance ● Low dielectric absorption (under .05%) ● High capacitance stability (less than ±.2% drift) ● Extremely low power factor (high Q) ● Units listed below have capacitance tolerance of ±5%. For ±20%, change 8th digit in catalog number from 5 to 0; for ±10% change to 9; for ±2% change to 2; for ±1% change to 1 ● Units listed below have plastic insulating sleeves. For plain metal case, change last digit in catalog number from 4 to 2 ● For complete technical data, refer to latest issue of Engineering Bulletin 2510 ● Prices available upon request.

200 WVDC			400 WVDC			600 WVDC		
µF	Diam. x Length	Cat. No.	µF	Diam. x Length	Cat. No.	µF	Diam. x Length	Cat. No.
.001	.235 x ⅞	114P10252S4	.001	.235 x ⅞	114P10254S4	.001	.400 x ⅞	114P10256S4
.0015	.235 x ⅞	114P15252S4	.0015	.312 x ⅞	114P15254S4	.0015	.400 x 1⅛	114P15256S4
.0022	.235 x ⅞	114P22252S4	.0022	.312 x ⅞	114P22254S4	.0022	.400 x 1⅛	114P22256S4
.0033	.312 x ⅞	114P33252S4	.0033	.312 x ⅞	114P33254S4	.0033	.400 x 1⅛	114P33256S4
.0047	.312 x ⅞	114P47252S4	.0047	.400 x ⅞	114P47254S4	.0047	.400 x 1⅛	114P47256S4
.0068	.400 x ⅞	114P68252S4	.0068	.400 x 1⅛	114P68254S4	.0068	.400 x 1⅛	114P68256S4
.01	.400 x 1⅛	114P10352S4	.01	.400 x 1⅛	114P10354S4	.01	.400 x 1⅜	114P10356S4
.015	.400 x 1⅛	114P15352S4	.015	.400 x 1⅜	114P15354S4	.015	.400 x 1⅜	114P15356S4
.022	.400 x 1⅜	114P22352S4	.022	.562 x 1⅛	114P22354S4	.022	.562 x 1⅜	114P22356S4
.033	.562 x 1⅛	114P33352S4	.033	.562 x 1⅜	114P33354S4	.033	.562 x 1⅝	114P33356S4
.047	.562 x 1⅜	114P47352S4	.047	.562 x 1⅝	114P47354S4	.047	.670 x 1⅝	114P47356S4
.068	.562 x 1⅝	114P68352S4	.068	.670 x 1⅝	114P68354S4	.068	.750 x 2⅛	114P68356S4
.1	.670 x 1⅝	114P10452S4	.1	.750 x 2⅛	114P10454S4	.1	.750 x 2⅛	114P10456S4
.15	.750 x 2⅛	114P15452S4	.15	.750 x 2⅛	114P15454S4	.15	1.000 x 2⅛	114P15456S4
.22	.750 x 2⅛	114P22452S4	.22	1.000 x 2⅛	114P22454S4	.22	1.000 x 2⅝	114P22456S4
.33	1.000 x 2⅛	114P33452S4	.33	1.000 x 2⅛	114P33454S4			
.47	1.000 x 2⅛	114P47452S4	.47	1.000 x 2⅝	114P47454S4			

111P Styracon® Polystyrene Film Bathtubs

Same electrical characteristics as Type 114P ● Drawn metal bathtub cases ● Listed units have capacitance tolerance of ±5%. For ±20%, change last letter in catalog number from J to M; for ±10% change to K; for ±2% change to G; for ±1% change to F ● For complete technical data, refer to latest issue of Engineering Bulletin 2510 ● Prices available upon request.

µF	WVDC	L. x W. x H.	Cat. No.	µF	WVDC	L. x W. x H.	Cat. No
1.5	50	2 x 1¾ x 1	111P7J	2.0	200	2 5/16 x 2 1/16 x 2⅛	111P16J
2.0	50	2 x 2 x 1¼	111P8J	.68	400	2 x 2 x 1¼	111P17J
3.0	50	2 x 2 x 1½	111P9J	1.0	400	2 x 2 x 1½	111P18J
5.0	50	2 5/16 x 2 1/16 x 2⅛	111P10J	1.5	400	2 5/16 x 2 1/16 x 2⅛	111P19J
1.0	100	2 x 1¾ x ⅞	111P11J	.33	600	2 x 1¾ x 1	111P20J
2.0	100	2 x 2 x 1½	111P12J	.47	600	2 x 2 x 1⅛	111P21J
3.0	100	2 5/16 x 2 1/16 x 2⅛	111P13J	.68	600	2 x 2 x 1½	111P22J
.68	200	2 x 1¾ x 1	111P14J	1.0	600	2 5/16 x 2 1/16 x 2⅛	111P4J
1.0	200	2 x 2 x 1¼	111P15J				

139P Filmite 'F' Plastic Film Tubulars

For circuit applications requiring constant capacitance with varying temperatures ● Practically zero capacitance change at temperatures from —10°C to +85°C. May be operated at +125°C with not more than 2.5% capacitance change ● Operating temperature: —55°C to +125°C ● Insulation resistance and dielectric absorption characteristics approach those of polystyrene capacitors ● Listed units have capacitance tolerance of ±5%. For ±20% change 8th digit in catalog number from 5 to 0; for ±10%, change to 9; for ±2%, change to 2 ● For complete technical data, refer to latest issue of Engineering Bulletin 2560 ● Prices available upon request.

200 WVDC			400 WVDC			600 WVDC		
µF	Diam. x Length	Cat. No.	µF	Diam. x Length	Cat. No.	µF	Diam. x Length	Cat No.
.001	.235 x ¾	139P10252S4	.001	.235 x ¾	139P10254S4	.001	.235 x ¾	139P10256S4
.0015	.235 x ¾	139P15252S4	.0015	.235 x ¾	139P15254S4	.0015	.312 x ⅞	139P15256S4
.0022	.235 x ¾	139P22252S4	.0022	.312 x ⅞	139P22254S4	.0022	.312 x ⅞	139P22256S4
.0033	.312 x ⅞	139P33252S4	.0033	.312 x ⅞	139P33254S4	.0033	.312 x ⅞	139P33256S4
.0047	.312 x ⅞	139P47252S4	.0047	.312 x ⅞	139P47254S4	.0047	.312 x 1	139P47256S4
.0068	.312 x ⅞	139P68252S4	.0068	.312 x 1	139P68254S4	.0068	.400 x 1	139P68256S4
.01	.312 x 1	139P10352S4	.01	.400 x ⅞	139P10354S4	.01	.400 x 1⅛	139P10356S4
.015	.400 x ⅞	139P15352S4	.015	.400 x 1	139P15354S4	.015	.400 x 1⅜	139P15356S4
.022	.400 x 1	139P22352S4	.022	.400 x 1¼	139P22354S4	.022	.562 x 1⅛	139P22356S4
.033	.400 x 1¼	139P33352S4	.033	.562 x 1⅛	139P33354S4	.033	.562 x 1⅜	139P33356S4
.047	.500 x 1⅛	139P47352S4	.047	.562 x 1¼	139P47354S4	.047	.670 x 1⅝	139P47356S4
.068	.562 x 1⅛	139P68352S4	.068	.670 x 1⅝	139P68354S4	.068	.750 x 1⅞	139P68356S4
.1	.670 x 1⅝	139P10452S4	.1	.750 x 1⅞	139P10454S4	.1	.750 x 2⅛	139P10456S4
.15	.750 x 1⅞	139P15452S4	.15	.750 x 2⅛	139P15454S4	.15	1.000 x 1⅞	139P15456S4
.22	.750 x 2⅛	139P22452S4	.22	1.000 x 1⅞	139P22454S4	.22	1.000 x 2⅜	139P22456S4
.33	1.000 x 1⅞	139P33452S4	.33	1.000 x 2⅜	139P33454S4			
.47	1.000 x 2⅜	139P47452S4						

140P Filmite 'F' Plastic Film Bathtubs

Same electrical characteristics as Type 139P ● Drawn metal bathtub cases ● Listed units have capacitance tolerance of ±5%. For ±20%, change last letter in catalog number from J to M; for ±10% change to K; for ±2% change to G; for ±1% change to F ● For complete technical data, refer to latest issue of Engineering Bulletin 2560 ● Prices available upon request.

µF	WVDC	L. x W. x H.	Cat. No.
.68	200	2 x 2 x 1	140P1J
1.0	200	2 x 2 x 1½	140P2J
.47	400	2 x 2 x 1	140P3J
.68	400	2 x 2 x 1½	140P4J
1.0	400	2 5/16 x 2 1/16 x 1¾	140P5J
.33	600	2 x 2 x 1	140P6J
.47	600	2 x 2 x 1½	140P7J
.68	600	2 5/16 x 2 1/16 x 1¾	140P8J
1.0	600	2 5/16 x 2 1/16 x 2⅛	140P9J

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SPRAGUE CAPACITORS

FILM CAPACITORS, continued

127P Filmite 'E' Polyester Film Tubulars

Operating temperature range, —55°C to +150°C ● Even at 150°C, insulation resistance is higher than that of best paper capacitors ● These capacitors use polyester-film dielectric ● Dissipation factor will not exceed 1.3% ● Extended foil construction for low series resistance ● For complete technical data, refer to latest issue of Engineering Bulletin 2410 ● For Current quantity prices, see your Sprague Industrial Distributor ● Dimensions shown are for units with sleeves, for plain cases, subtract 1/16" from length and .032" from diameter.

µF	WVDC	Size D. x L.	±20% Cap. Tol.				±10% Cap. Tol.			
			Plain Case		w/plastic sleeve		Plain Case		w/plastic sleeve	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.0068	200	.235 x 13/16	127P68202S2	Call Your Sprague Distributor for Prices	127P68202S4	Call Your Sprague Distributor for Prices	127P68292S2	Call Your Sprague Distributor for Prices	127P68292S4	Call Your Sprague Distributor for Prices
.01	200	.235 x 13/16	127P10302S2		127P10302S4		127P10392S2		127P10392S4	
.015	200	.235 x 13/16	127P15302S2		127P15302S4		127P15392S2		127P15392S4	
.022	200	.235 x 13/16	127P22302S2		127P22302S4		127P22392S2		127P22392S4	
.033	200	.312 x 15/16	127P33302S2		127P33302S4		127P33392S2		127P33392S4	
.047	200	.312 x 15/16	127P47302S2		127P47302S4		127P47392S2		127P47392S4	
.068	200	.312 x 15/16	127P68302S2		127P68302S4		127P68392S2		127P68392S4	
.1	200	.400 x 15/16	127P10402S2		127P10402S4		127P10492S2		127P10492S4	
.15	200	.400 x 1 1/16	127P15402S2		127P15402S4		127P15492S2		127P15492S4	
.22	200	.400 x 1 5/16	127P22402S2		127P22402S4		127P22492S2		127P22492S4	
.33	200	.400 x 1 9/16	127P33402S2		127P33402S4		127P33492S2		127P33492S4	
.47	200	.562 x 1 1/8	127P47402S2		127P47402S4		127P47492S2		127P47492S4	
.68	200	.562 x 1 3/8	127P68402S2		127P68402S4		127P68492S2		127P68492S4	
1.0	200	.562 x 1 7/8	127P10502S2		127P10502S4		127P10592S2		127P10592S4	

141P Filmite 'G' Fluorocarbon Film Tubulars

TFE fluorocarbon film dielectric ● Operating temperature range, —55°C to +200°C ● Unusually high insulation resistance (in excess of 100,000 megohm-microfarads at 25°C) ● Low dielectric absorption ● Low dissipation factor (less than .02%) ● Excellent humidity resistance ● Small capacitance change with temperature ● Units listed below have capacitance tolerance of ±10%. For ±20%, change 8th digit in catalog number from 9 to 0; For ±5% change to 5; For ±2% change to 2; For ±1% change to 1 ● Units listed below have plastic insulating sleeves. For plain metal case, change last digit in catalog number from 4 to 2 ● For complete technical data, refer to latest issue of Engineering Bulletin 2610 ● Prices available upon request.

µF	Diam. x Length	Cat. No.
	200 WVDC	
.0015	.235 x 13/16	141P15292S4
.0039	.312 x 15/16	141P39292S4
.0047	.312 x 15/16	141P47292S4
.0082	.400 x 15/16	141P82292S4
.01	.400 x 15/16	141P10392S4
.012	.400 x 1 3/16	141P12392S4
.015	.400 x 1 3/16	141P15392S4
.018	.400 x 1 5/16	141P18392S4
.022	.400 x 1 3/16	141P22392S4
.027	.562 x 1 1/8	141P27392S4
.033	.562 x 1 1/8	141P33392S4
.039	.562 x 1 1/4	141P39392S4
.047	.562 x 1 1/4	141P47392S4
.056	.562 x 1 1/2	141P56392S4
.068	.562 x 1 1/2	141P68392S4
.082	.562 x 1 7/8	141P82392S4
.1	.562 x 1 7/8	141P10492S4

µF	Diam. x Length	Cat. No.
	400 WVDC	
.1	.670 x 1 7/8	141P10494S4
.12	.750 x 2 1/8	141P12494S4
.15	.750 x 2 1/8	141P15494S4
.18	1.000 x 1 7/8	141P18494S4
.22	1.000 x 1 7/8	141P22494S4
.27	1.000 x 2 3/8	141P27494S4
.33	1.000 x 2 3/8	141P33494S4
	600 WVDC	
.001	.235 x 13/16	141P10296S4
.0012	.312 x 15/16	141P12296S4
.0015	.312 x 15/16	141P15296S4
.0018	.312 x 15/16	141P18296S4
.0022	.312 x 15/16	141P22296S4
.0027	.312 x 15/16	141P27296S4
.0033	.312 x 15/16	141P33296S4
.0039	.400 x 15/16	141P39296S4

µF	Diam. x Length	Cat. No.
.0047	.400 x 15/16	141P47296S4
.0056	.400 x 15/16	141P56296S4
.0068	.400 x 15/16	141P68296S4
.0082	.400 x 1 3/16	141P82296S4
.01	.400 x 1 3/16	14.P10396S4
.012	.400 x 1 5/16	141P12396S4
.015	.400 x 1 5/16	141P15396S4
.018	.562 x 1 1/8	141P18396S4
.022	.562 x 1 1/8	141P22396S4
.027	.562 x 1 1/4	141P27396S4
.033	.562 x 1 1/4	141P33396S4
.039	.562 x 1 1/2	141P39396S4
.047	.562 x 1 1/2	141P47396S4
.056	.562 x 1 7/8	141P56396S4
.068	.562 x 1 7/8	141P68396S4
.082	1.000 x 1 7/8	141P82396S4
.1	1.000 x 1 7/8	141P10496S4
.12	1.000 x 2 3/8	141P12496S4
.15	1.000 x 2 3/8	141P15496S4

142P Filmite 'G' Fluorocarbon Film Ovals

Same electrical characteristics as Type 141P ● Drawn metal oval cases ● Listed units have capacitance tolerance of ±5%. For ±20%, change last letter in catalog number from J to M; for ±10% change to K; for ±2% change to G; for ±1% change to F ● For complete technical data, refer to latest issue of Engineering Bulletin 2610 ● Prices available upon request.

µF	WVDC	W. x T. x H.	Cat. No.
.68	200	2 5/32 x 1 5/16 x 2 1/8	142P1J
1.0	200	2 5/32 x 1 5/16 x 2 3/4	142P2J
.68	400	2 5/32 x 1 5/16 x 2 1/2	142P3J
1.0	400	2 5/32 x 1 5/16 x 3 3/8	142P4J
.33	600	2 5/32 x 1 5/16 x 2 5/8	142P5J
.47	600	2 5/32 x 1 5/16 x 3 1/2	142P6J

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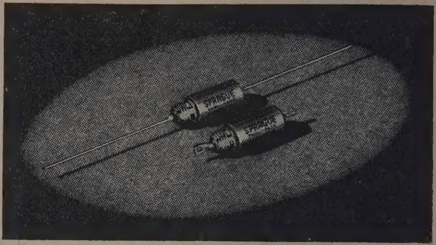
SPRAGUE CAPACITORS

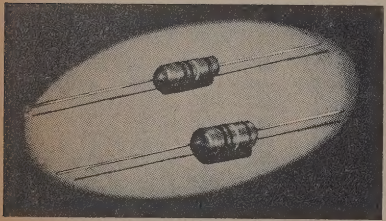
TYPE 102P, 103P 'THRU-PASS'® CAPACITORS

- Designed for Radio Interference Reduction in Radar and Communication Equipment
- Performance Closer to That of Theoretically Ideal Capacitor than Any Other Paper Capacitor Ever Made
- Three-Terminal Feed-Thru Design — Connect in a Circuit in Same Manner as Low-Pass Filter
- Hermetically Sealed, with Glass-to-Metal Solder-Seal Terminals
- Impregnated with Vitamin Q, for High Insulation Resistance and Minimum Capacitance Change with Temperature
- Type 102P is Designed for Operation from −55°C to +85°C; Type 103P for −55°C to +125°C
- Capacitors listed below have wire leads. For tab terminals, which are also available, see your Sprague Industrial Distributor.
- For complete technical data, refer to latest issue of Engineering Bulletin 8015
- Prices available upon request



μF	Size Diam. x Length	Catalog Number 85°C	125°C
	100 WVDC		
.001	.400 x ¾	102P101	103P101
.0047	.400 x ¾	102P106	103P106
.01	.400 x ¾	102P111	103P111
.047	.400 x ¾	102P116	103P116
.1	.400 x ⅞	102P121	103P121
.22	.400 x 1⅜	102P126	103P126
.33	.562 x 1⅛	102P131	103P131
.47	.562 x 1⅜	102P136	103P136
.68	.562 x 1⅞	102P141	103P141
1.0	.670 x 1⅞	102P145	103P145
	200 WVDC		
.001	.400 x ¾	102P102	103P102
.0047	.400 x ¾	102P107	103P107
.01	.400 x ¾	102P112	103P112
.047	.400 x ⅞	102P117	103P117
.1	.400 x 1⅛	102P122	103P122
.22	.562 x 1⅛	102P127	103P127
.33	.562 x 1⅝	102P132	103P132
.47	.562 x 1⅞	102P137	103P137
.68	.670 x 1⅞	102P142	103P142
1.0	.750 x 2⅛	102P146	103P146
	300 WVDC		
.001	.400 x ¾	102P103	103P103
.0047	.400 x ¾	102P108	103P108
.01	.400 x ¾	102P113	103P113
	300 WVDC (Continued)		
.047	.400 x 1⅛	102P118	103P118
.1	.400 x 1⅜	102P123	103P123
.22	.562 x 1⅜	102P128	103P128
.33	.562 x 1⅞	102P133	103P133
.47	.670 x 1⅞	102P138	103P138
.68	.750 x 2⅛	102P143	103P143
	400 WVDC		
.001	.400 x ¾	102P104	103P104
.0047	.400 x ¾	102P109	103P109
.01	.400 x ¾	102P114	103P114
.047	.400 x 1⅜	102P119	103P119
.1	.562 x 1⅛	102P124	103P124
.22	.562 x 1⅞	102P129	103P129
.33	.670 x 1⅞	102P134	103P134
.47	.750 x 2⅛	102P139	103P139
.68	.750 x 2⅜	102P144	103P144
	600 WVDC		
.001	.400 x ¾	102P105	103P105
.0047	.400 x ¾	102P110	103P110
.01	.400 x ¾	102P115	103P115
.047	.400 x 1⅜	102P120	103P120
.1	.562 x 1⅜	102P125	103P125
.22	.670 x 1⅞	102P130	103P130
.33	.750 x 2⅛	102P135	103P135
.47	.750 x 2⅜	102P140	103P140

TYPE 65P PROKAR® MOLDED TUBULARS



- For Applications Requiring Small Paper Capacitors for Continuous Operation at High Temperatures
- No Voltage Derating Required for 125°C Operation
- Impregnated with an Exclusive Sprague Organic Material which Polymerizes to Form a Solid Capacitor Section
- Sections Molded in Mineral-Filled High-Temperature Plastic — All cases are 1¹⁄₁₆″ long
- Capacitance Tolerance of these Capacitors is ±5%
- For complete technical data, refer to latest issue of Engineering Bulletin 2100.
- Call Your Sprague Industrial Distributor for Quantity Prices.

μF	WVDC	Diam.	Cat. No.
.01	200	.175	65P10352
.015	200	.195	65P15352
.02	200	.250	65P20352
.022	200	.250	65P22352
.03	200	.250	65P30352
.033	200	.250	65P33352
.039	200	.375	65P39352
.047	200	.375	65P47352
.051	200	.375	65P51352
.056	200	.375	65P56352
.062	200	.375	65P62352
.082	200	.375	65P82352

Call Your Sprague Industrial Distributor for Quantity Prices

μF	WVDC	Diam.	Cat. No.
.091	200	.375	65P91352
.1	200	.375	65P10452
.001	300	.175	65P10253
.0015	300	.175	65P15253
.002	300	.175	65P20253
.0039	300	.175	65P39253
.0047	300	.175	65P47253
.0051	300	.175	65P51253
.0056	300	.175	65P56253
.0068	300	.175	65P68253
.0082	300	.195	65P82253
.0091	300	.195	65P91253

Call Your Sprague Industrial Distributor for Quantity Prices

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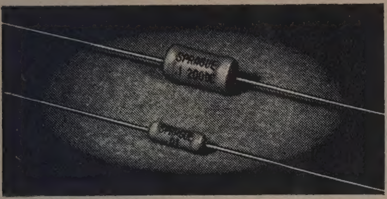
SPRAGUE CAPACITORS



TYPE 192P PACER® FILMITE® 'E' CAPACITORS

- Completely New Construction for Minimum Size. Extended Foil Film Sections Terminate in End Caps. Best Possible Non-Inductive Section. Rated for —55C to +85C.
- Controlled Dimensions—May Be Used With Automatic Insertion Equipment.
- Wound With Polyester Film Dielectric and Thin Gage Foil Under Controlled Atmospheric Conditions. Protected by Hard Durable Orange Epoxy Coating

- Also Available in Kleer-Pak® Boxes. ● Rated at 200 VDC ● See Latest Issue of Sprague Engineering Bulletin 2066.

μF	D. x L.		Cat. No.	Net. (1-24)
.001	.138	5/16	192P10292	$.27
.0012	.138	5/16	192P12292	.27
.0015	.138	5/16	192P15292	.27
.0018	.170	5/16	192P18292	.27
.0022	.170	5/16	192P22292	.27
.0027	.170	5/16	192P27292	.27
.0033	.170	5/16	192P33292	$.27
.0039	.170	7/16	192P39292	.27
.0047	.170	7/16	192P47292	.27
.0056	.170	7/16	192P56292	.27
.0068	.170	7/16	192P68292	.27
.0082	.170	1/2	192P82292	.30
.01	.170	1/2	192P10392	$.30
.012	.204	7/16	192P12392	.30
.015	.204	7/16	192P15392	.30
.018	.204	9/16	192P18392	.30
.022	.204	9/16	192P22392	.30
.027	.225	9/16	192P27392	.33
.033	.225	9/16	192P33392	$.33
.039	.290	1/2	192P39392	.36
.047	.290	1/2	192P47392	.39
.056	.290	5/8	192P56392	.39
.068	.290	5/8	192P68392	.42
.082	.318	5/8	192P82392	.45
.1	.318	5/8	192P10492	.45

DIMENSIONS

J = .090" d. x .250" l.
L = .138" d. x .390" l.

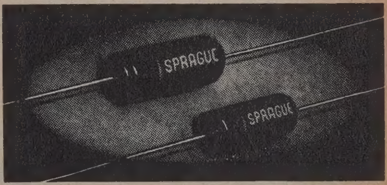
Prices Available Upon Request

TYPE 206P PACER® FILMITE® 'E' CAPACITORS

- Cordwood-sized Capacitors Supplementing 192P Series Shown Above.
- Polyester-film Dielectric. Ultra Thin-Gage Foil. Durable Orange Epoxy Coating
- 80 VDC Rating at 85C—50 VDC Rating at 105C. Tolerance ±10%
- For Complete Technical Data, See Latest Issue of Sprague Bulletin 2067.

μF	Case Code	Catalog Number
.00015	J	206P1519R8
.00018	J	206P1819R8
.00022	J	206P2219R8
.00027	J	206P2719R8
.00033	J	206P3319R8
.00039	J	206P3919R8
.00047	J	206P4719R8
.00056	J	206P5619R8
.00068	J	206P6819R8
.00082	J	206P8219R8
.001	J	206P1029R8
.0012	L	206P1229R8
.0015	L	206P1529R8
.0018	L	206P1829R8
.0022	L	206P2229R8
.0027	L	206P2729R8
.0033	L	206P3329R8
.0039	L	206P3929R8
.0047	L	206P4729R8

TYPE 155P & 156P MOLDED METALLIZED PAPER CAPACITORS



- Superior to Most Competitive Units—Withstand Twice rated Voltage Tests Giving Extra Design Safety Factor. Stand up Under High Humidity Conditions.
- Self-generated Noise Practically Non-Existent. ● Sealed With Epoxy.
- Type 155P—Molded in Case. Type 156P in Premolded Case. Available in Kleer-Pak® Boxes. Complete Technical Data in Latest Issue of Sprague Bulletin 2030.
- For Current Quantity Prices Call Your Sprague Industrial Distributor.

μF	D. x L.		Cat. No.	Net Ea. (1-24)
200 VOLTS D-C				
.01	5/16	1	155P10302	$ .42
.015	5/16	1	155P15302	.42
.02	5/16	1	155P.02-200	.42
.022	5/16	1	155P22302	.42
.03	5/16	1	155P.03-200	.45
.033	5/16	1	155P33302	.45
.047	5/16	1	155P47302	.45
.05	5/16	1	155P.05-200	.45
.068	5/16	1	155P68302	.45
.1	5/16	1	155P10402	.45
.15	3/8	1 1/4	155P15402	.45
.22	3/8	1 1/4	155P22402	.45
.25	7/16	1 1/4	155P.25-200	.66
.33	7/16	1 1/4	155P33402	.66
.47	7/16	1 1/4	155P47402	.66
.5	1/2	1 1/2	155P.5-200	.78
.68	1/2	1 1/2	155P68402	.78
1.0	1/2	1 1/2	155P10502	1.05
1.5	5/8	1 7/8	155P15502	1.20
2.0	5/8	1 7/8	155P20502	1.41
2.5	3/4	2 1/4	156P25502	1.65
3.0	3/4	2 1/4	156P30502	1.80
3.5	3/4	2 1/4	156P35502	2.10
4.0	3/4	2 1/4	156P40502	2.22
4.5	7/8	2 1/2	156P45502	2.40
5.0	7/8	2 1/2	156P50502	2.55
5.5	7/8	2 1/2	156P55502	2.70
6.0	7/8	2 1/2	156P60502	3.00
6.5	7/8	2 1/2	156P65502	3.15
200 VOLTS D-C (Cont.)				
7.0	7/8	2 1/2	156P70502	$3.33
7.5	7/8	2 1/2	156P75502	3.15
8.0	1	2 1/2	156P80502	3.75
8.5	1	2 1/2	156P85502	3.90
9.0	1	2 1/2	156P90502	4.05
9.5	1	2 1/2	156P95502	4.20
400 VOLTS D-C				
.01	5/16	1	155P10304	.42
.015	5/16	1	155P15304	.42
.02	5/16	1	155P.02-400	.42
.022	5/16	1	155P22304	.42
.025	3/8	1 1/4	155P.025-400	.42
.03	3/8	1 1/4	155P.03-400	.42
.033	3/8	1 1/4	155P33304	.42
.04	3/8	1 1/4	155P.04-400	.42
.047	3/8	1 1/4	155P47304	.42
.05	3/8	1 1/4	155P.05-400	.45
.068	7/16	1 1/4	155P68304	.45
.1	7/16	1 1/4	155P10404	.51
.15	1/2	1 1/2	155P15404	.66
.2	1/2	1 1/2	155P.2-400	.69
.22	1/2	1 1/2	155P22404	.69
.25	5/8	1 7/8	155P.25-400	.72
.33	5/8	1 7/8	155P33404	.72
.47	5/8	1 7/8	155P47404	.90
.5	3/4	2 1/4	155P.5-400	.93
.68	3/4	2 1/4	156P68404	1.05
400 VOLTS D-C (Cont.)				
1.0	3/4	2 1/4	156P10504	$1.29
1.5	7/8	2 1/2	156P15504	1.59
2.0	7/8	2 1/2	156P20504	1.80
2.5	1	2 1/2	156P25504	2.25
600 VOLTS D-C				
.01	5/16	1	155P10306	.45
.015	3/8	1 1/4	155P15306	.45
.02	3/8	1 1/4	155P.02-600	.45
.022	3/8	1 1/4	155P22306	.45
.03	3/8	1 1/4	155P.03-600	.48
.033	3/8	1 1/4	155P33306	.48
.04	3/8	1 1/4	155P.04-600	.51
.047	3/8	1 1/4	155P47306	.51
.05	7/16	1 1/4	155P.05-600	.51
.06	7/16	1 1/4	155P.06-600	.51
.068	7/16	1 1/4	155P68306	.51
.1	1/2	1 1/2	155P10406	.57
.15	1/2	1 1/2	155P15406	.72
.2	5/8	1 7/8	155P.2-600	.90
.22	5/8	1 7/8	155P22406	.90
.25	5/8	1 7/8	155P.25-600	.90
.33	5/8	1 7/8	155P33406	.93
.47	3/4	2 1/4	156P47406	1.14
.5	3/4	2 1/4	156P.5-600	1.14
.68	3/4	2 1/4	156P68406	1.14
1.0	7/8	2 1/2	156P10506	1.38
1.5	1	2 1/2	156P15506	1.89

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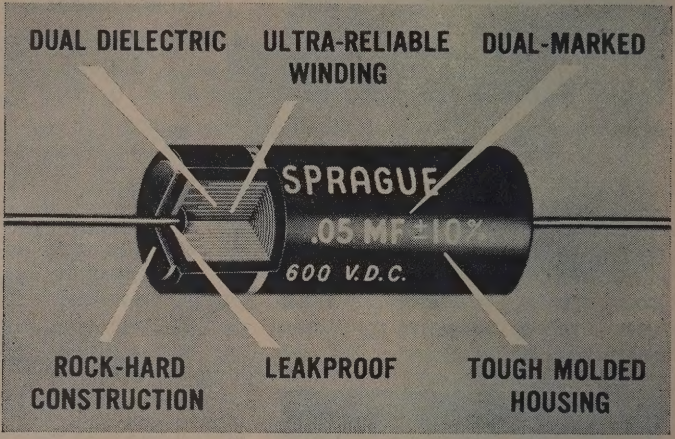
SPRAGUE CAPACITORS

DIFILM® BLACK BEAUTY® MOLDED TUBULARS

SPRAGUE
4TM-P22



- Developed Especially for Long Life Under High Humidity and Temperature Operating Conditions
- Dual Dielectric (film and paper) Combines Best Features of Both Polyester Film and Paper Capacitors
- Exclusive HCX® Solid Impregnant Construction Results in Rock-hard Capacitor Section
- Won't Leak or Drip

LOOK FOR THE RED MARKINGS
ON THE BLACK CASE

- No Derating for 105°C Operation
- Mica-filled, Non-flammable Molded Case. Won't Crack when Dropped; Soldering won't Harm it
- Every Capacitor Marked Twice. No Twisting the Case to Read Ratings
- Also Available in Handy Sprague Kleer-Pak®
- **Capacitance Tolerance: ±10%** from .001 µF up
  Except 2TM-M1 ±20%

For Complete Technical Data, See Latest Sprague Engineering Bulletin 2025

The World's Best Molded Tubular at No Extra Cost!

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
200 WVDC				
.01	5/16 x 1	2TM-S10	160P10392	$.15
.02	3/8 x 1 1/4	2TM-S20	....	.15
.022	3/8 x 1 1/4	2TM-S22	160P22392	.15
.047	7/16 x 1 1/4	2TM-S47	160P47392	.15
.05	7/16 x 1 1/4	2TM-S50	....	.15
.1	1/2 x 1 1/2	2TM-P10	160P10492	.21
.15	1/2 x 1 1/2	2TM-P15	160P15492	.21
.22	5/8 x 1 7/8	2TM-P22	160P22492	.24
.25	5/8 x 1 7/8	2TM-P25	....	.24
.47	3/4 x 2 1/4	2TM-P47	160P47492	.36
.5	3/4 x 2 1/4	2TM-P50	....	.36
1.0	3/4 x 2 1/4	2TM-M1	160P10502	.63
400 WVDC				
.001	5/16 x 1	4TM-D10	160P10294	.15
.005	5/16 x 1	4TM-D50	....	.15
.01	3/8 x 1 1/4	4TM-S10	160P10394	.15
.015	3/8 x 1 1/4	4TM-S15	160P15394	.15
.02	3/8 x 1 1/4	4TM-S20	....	.15
.022	3/8 x 1 1/4	4TM-S22	160P22394	.18
.025	7/16 x 1 1/4	4TM-S25	....	.18
.03	7/16 x 1 1/4	4TM-S30	....	.18
400 WVDC (Cont.)				
.04	7/16 x 1 1/4	4TM-S40	....	$.18
.047	7/16 x 1 1/4	4TM-S47	160P47394	.18
.05	7/16 x 1 1/4	4TM-S50	....	.18
.068	1/2 x 1 1/2	4TM-S68	160P68394	.21
.1	1/2 x 1 1/2	4TM-P10	160P10494	.21
.15	5/8 x 1 7/8	4TM-P15	160P15494	.24
.2	5/8 x 1 7/8	4TM-P20	....	.27
.22	5/8 x 1 7/8	4TM-P22	160P22494	.27
.25	3/4 x 2 1/4	4TM-P25	....	.30
.47	3/4 x 2 1/4	4TM-P47	160P47494	.45
.5	3/4 x 2 1/4	4TM-P50	....	.45
1.0	1 x 2 1/2	4TM-M1	160P10594	.75
600 WVDC				
.0001	5/16 x 1	6TM-T10	....	.15
.00025	5/16 x 1	6TM-T25	....	.15
.0004	5/16 x 1	6TM-T40	....	.15
.0005	5/16 x 1	6TM-T50	....	.15
.001	5/16 x 1	6TM-D10	160P10296	.15
.0015	5/16 x 1	6TM-D15	160P15296	.15
.002	5/16 x 1	6TM-D20	....	.15
600 WVDC (Cont.)				
.0022	5/16 x 1	6TM-D22	160P22296	$.15
.0025	5/16 x 1	6TM-D25	....	.15
.003	5/16 x 1	6TM-D30	....	.15
.0033	5/16 x 1	6TM-D33	160P33296	.15
.004	3/8 x 1 1/4	6TM-D40	....	.15
.0047	3/8 x 1 1/4	6TM-D47	160P47296	.15
.005	3/8 x 1 1/4	6TM-D50	....	.15
.006	3/8 x 1 1/4	6TM-D60	....	.15
.0068	3/8 x 1 1/4	6TM-D68	160P68296	.18
.008	3/8 x 1 1/4	6TM-D80	....	.18
.01	3/8 x 1 1/4	6TM-S10	160P10396	.18
.015	3/8 x 1 1/4	6TM-S15	160P15396	.18
.02	7/16 x 1 1/4	6TM-S20	....	.18
.022	7/16 x 1 1/4	6TM-S22	160P22396	.18
.025	7/16 x 1 1/4	6TM-S25	....	.18
.03	7/16 x 1 1/4	6TM-S30	....	.21
.033	7/16 x 1 1/4	6TM-S33	160P33396	.21
.035	7/16 x 1 1/4	6TM-S35	....	.21
.04	1/2 x 1 1/2	6TM-S40	....	.21
.047	1/2 x 1 1/2	6TM-S47	160P47396	.24

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SPRAGUE CAPACITORS

DIFILM BLACK BEAUTY® MOLDED TUBULARS, continued

600 WVDC (Cont.)

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.05	½ x 1½	6TM-S50	....	$ .24
.06	½ x 1½	6TM-S60	....	.24
.068	½ x 1½	6TM-S68	160P68396	.27
.1	⅝ x 1⅞	6TM-P10	160P10496	.27
.15	⅝ x 1⅞	6TM-P15	160P15496	.30
.2	¾ x 2¼	6TM-P20	....	.39
.22	¾ x 2¼	6TM-P22	160P22496	.42
.25	¾ x 2¼	6TM-P25	....	.45
.47	1 x 2½	6TM-P47	160P47496	.75
.5	1 x 2½	6TM-P50	....	.75
1.0	1 x 2½	6TM-M1	....	1.05

1000 WVDC

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.0005	5/16 x 1	10TM-T50	....	$.30
.001	5/16 x 1	10TM-D10	160P102910	.30
.0015	5/16 x 1	10TM-D15	160P152910	.30
.002	⅜ x 1¼	10TM-D20	....	.30
.0022	⅜ x 1¼	10TM-D22	160P222910	.30
.003	⅜ x 1¼	10TM-D30	....	.30
.004	⅜ x 1¼	10TM-D40	....	.30
.0047	⅜ x 1¼	10TM-D47	160P472910	.30
.005	⅜ x 1¼	10TM-D50	....	.30
.0068	⅜ x 1¼	10TM-D68	160P682910	.30

1000 WVDC (cont.)

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.01	7/16 x 1¼	10TM-S10	160P103910	$.30
.015	½ x 1½	10TM-S15	160P153910	.30
.02	½ x 1½	10TM-S20	....	.30
.022	½ x 1½	10TM-S22	160P223910	.30
.03	⅝ x 1⅞	10TM-S30	....	.30
.035	⅝ x 1⅞	10TM-S35	....	.30
.047	⅝ x 1⅞	10TM-S47	160P473910	.36
.05	⅝ x 1⅞	10TM-S50	....	.36
.068	⅝ x 1⅞	10TM-S68	160P683910	.42
.1	¾ x 2¼	10TM-P10	160P104910	.45

MINERAL-OIL BLACK BEAUTY® MOLDED TUBULARS

● Kraftboard Sleeve and Epoxy End-Seal Gives Added Circuit Protection ● All Paper Dielectric, Impregnated With Mineral Oil For Best High Voltage Performance ● Maximum Operatng Temperature: 85°C

1600 WVDC (Buffer)

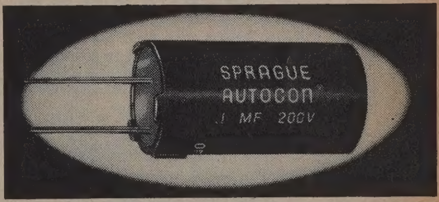
μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.0005	7/16 x 1⅝	MB-T5	....	$.39
.001	7/16 x 1⅝	MB-D1	187P102916	.39
.0015	7/16 x 1⅝	MB-D15	187P152916	.39
.002	7/16 x 1⅝	MB-D2	....	.39
.0022	7/16 x 1⅝	MB-D22	187P222916	.39
.003	½ x 1⅝	MB-D3	....	.39
.0033	½ x 1⅝	MB-D33	187P332916	.39
.004	½ x 1⅝	MB-D4	....	.39
.0047	½ x 1⅝	MB-D47	187P472916	.39
.005	½ x 1⅝	MB-D5	....	.39
.006	9/16 x 1⅞	MB-D6	....	.39

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.0068	9/16 x 1⅞	MB-D68	187P682916	$.39
.007	9/16 x 1⅞	MB-D7	....	.39
.0075	9/16 x 1⅞	MB-D75	....	.39
.008	9/16 x 1⅞	MB-D8	....	.39
.01	9/16 x 1⅞	MB-S1	187P103916	.42
.015	11/16 x 2¼	MB-S15	187P153916	.42
.02	11/16 x 2¼	MB-S2	....	.42
.022	11/16 x 2¼	MB-S22	187P223916	.42
.03	11/16 x 2¼	MB-S3	....	.42
.04	11/16 x 2¼	MB-S4	....	.42
.05	¾ x 2⅛	TR-15	....	.42

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
6000 WVDC (Buffer)				
.0005	9/16 x 1⅞	TVM-356	....	$.81
.001	9/16 x 1⅞	TVM-216	184P102060	.81
.005	11/16 x 2¼	TVM-256	....	.81
10,000 WVDC (Buffer)				
.0005	11/16 x 2¼	TVM-351	....	.90
12,500 WVDC (Buffer)				
.00025	11/16 x 2¼	12TVM-325	....	1.02

AUTOCON® MOLDED TUBULAR CAPACITORS

- Generous 1" Lead Lengths Make Autocons Universal Replacements For All Single Ended Original Equipment Types Used on Printed Wiring Boards
- Pre-molded Thermosetting Plastic Shell with Plastic Resin Endseal for Humidity Protection, Outside Foil Identified by Index Key
- Autocons Have High Insulation Resistance, Low Power Factor, and a Flat Temperature-Capacitance Curve
- Impregnated with HCX®, an Exclusive Solid Dielectric Material
- "Standoff" Feet Prevent Dust and Moisture Traps. Also Prevent Printed Wiring Board Shorts



μF	WVDC	Diam.	Length	Cat. No.	Net
.001	200	⅜	1⅜	2SE-D10	$.18
.0015	200	⅜	1⅜	2SE-D15	.18
.0022	200	⅜	1⅜	2SE-D22	.18
.0033	200	⅜	1⅜	2SE-D33	.18
.0047	200	⅜	1⅜	2SE-D47	.18
.0068	200	⅜	1⅜	2SE-D68	.18
.01	200	⅜	1⅜	2SE-S10	.18
.015	200	⅜	1⅜	2SE-S15	.18
.022	200	⅜	1⅜	2SE-S22	.21
.033	200	⅜	1⅜	2SE-S33	.21
.047	200	7/16	1⅜	2SE-S47	.21
.068	200	7/16	1⅜	2SE-S68	.21
.1	200	½	1½	2SE-P10	.24
.15	200	⅝	1⅞	2SE-P15	.27
.22	200	⅝	1⅞	2SE-P22	.30
.33	200	⅝	1⅞	2SE-P33	.33
.47	200	¾	1⅞	2SE-P47	.39
.001	400	⅜	1⅜	4SE-D10	.18
.0015	400	⅜	1⅜	4SE-D15	.18
.0022	400	⅜	1⅜	4SE-D22	.18
.0033	400	⅜	1⅜	4SE-D33	.18
.0047	400	⅜	1⅜	4SE-D47	.18
.0068	400	⅜	1⅜	4SE-D68	.18
.01	400	⅜	1⅜	4SE-S10	.18

μF	WVDC	Diam.	Length	Cat. No.	Net
.015	400	⅜	1⅜	4SE-S15	$.18
.022	400	7/16	1⅜	4SE-S22	.21
.033	400	7/16	1⅜	4SE-S33	.21
.047	400	½	1½	4SE-S47	.21
.068	400	½	1½	4SE-S68	.24
.1	400	⅝	1⅞	4SE-P10	.27
.15	400	⅝	1⅞	4SE-P15	.30
.22	400	⅝	1⅞	4SE-P22	.33
.33	400	¾	1⅞	4SE-P33	.39
.001	600	⅜	1⅜	6SE-D10	.18
.0015	600	⅜	1⅜	6SE-D15	.18
.0022	600	⅜	1⅜	6SE-D22	.18
.0033	600	⅜	1⅜	6SE-D33	.18
.0047	600	⅜	1⅜	6SE-D47	.18
.0068	600	⅜	1⅜	6SE-D68	.18
.01	600	⅜	1⅜	6SE-S10	.21
.015	600	7/16	1⅜	6SE-S15	.21
.022	600	7/16	1⅜	6SE-S22	.24
.033	600	½	1½	6SE-S33	.24
.047	600	½	1½	6SE-S47	.27
.068	600	⅝	1⅞	6SE-S68	.30
.1	600	⅝	1⅞	6SE-P10	.33
.15	600	¾	1⅞	6SE-P15	.36

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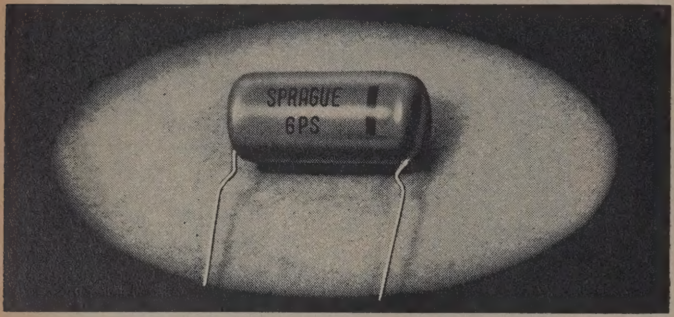
SPRAGUE CAPACITORS

DIFILM® ORANGE DROP® DIPPED TUBULARS



- Especially Made for Exact, Original Replacement
- Dual Dielectric (Film-paper) Solidly Impregnated With Exclusive HCX®—Produces Rock-Hard Capacitor Section
- Outperforms Any Other Dipped Tubular Capacitor
- Crimped Wire Leads for Correct Spacing When Mounted On Printed Wiring Boards.
- Voltage Ratings From 200 VDC to 1000 VDC
- Outside Foil on All Units Identified by Black Striping
- Double Dipped in Bright Orange Epoxy Resin—Beats Heat and Humidity
- Won't Leak or Drip
- Also Available in Handy Sprague Kleer-Pak® Boxes
- Write for Engineering Bulletin No. 2004

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		200 VOLTS D-C		
.02	3/8 x 7/8	2PS-S20	....	$.15
.022	25/64 x 7/8	2PS-S22	220P22392	.15
.047	29/64 x 7/8	2PS-S47	220P47392	.15
.05	15/32 x 7/8	2PS-S50	....	.15
.1	31/64 x 1 3/16	2PS-P10	220P10492	.21
.15	9/16 x 1 3/16	2PS-P15	220P15492	.21
.2	19/32 x 1 5/16	2PS-P20	....	.24
.22	39/64 x 1 5/16	2PS-P22	220P22492	.24
.25	5/8 x 1 5/16	2PS-P25	....	.24
.33	5/8 x 1 5/8	2PS-P33	220P33492	.30
.47	45/64 x 1 5/8	2PS-P47	220P47492	.36
.5	27/32 x 1 5/8	2PS-P50	....	.36
		400 VOLTS D-C		
.01	13/32 x 11/16	4PS-S10	220P10394	.15
.015	29/64 x 11/16	4PS-S15	220P15394	.15
.02	13/32 x 7/8	4PS-S20	....	.15
.022	27/64 x 7/8	4PS-S22	220P22394	.18
.025	7/16 x 7/8	4PS-S25	....	.18
.03	29/64 x 7/8	4PS-S30	....	.18
.033	15/32 x 7/8	4PS-S33	220P33394	.18
.04	27/64 x 1 3/16	4PS-S40	....	.18
.047	29/64 x 1 3/16	4PS-S47	220P47394	.18
.05	29/64 x 1 3/16	4PS-S50	....	.18
.056	31/64 x 1 3/16	4PS-S56	220P56394	.21
.068	33/64 x 1 3/16	4PS-S68	220P68394	.21
.075	33/64 x 1 3/16	4PS-S75	....	.21
.1	37/64 x 1 3/16	4PS-P10	220P10494	.21
.15	39/64 x 1 5/16	4PS-P15	220P15494	.24
.2	19/32 x 1 5/8	4PS-P20	....	.27
.22	39/64 x 1 5/8	4PS-P22	220P22494	.27
.25	41/64 x 1 5/8	4PS-P25	....	.30
		600 VOLTS D-C		
.001	21/64 x 11/16	6PS-D10	220P10296	.15
.0012	21/64 x 11/16	6PS-D12	220P12296	.15
.0015	21/64 x 11/16	6PS-D15	220P15296	.15
.0018	21/64 x 11/16	6PS-D18	220P18296	.15
.002	21/64 x 11/16	6PS-D20	....	.15
.0022	21/64 x 11/16	6PS-D22	220P22296	.15
.0025	21/64 x 11/16	6PS-D25	....	.15
.0027	11/32 x 11/16	6PS-D27	220P27296	.15
.003	11/32 x 11/16	6PS-D30	....	.15
.0033	23/64 x 11/16	6PS-D33	220P33296	.15
		600 VOLTS D-C (cont.)		
.0039	3/8 x 11/16	6PS-D39	220P39296	$.15
.004	3/8 x 11/16	6PS-D40	....	.15
.0047	25/64 x 11/16	6PS-D47	220P47296	.15
.005	25/64 x 11/16	6PS-D50	....	.15
.0056	25/64 x 11/16	6PS-D56	220P56296	.15
.006	13/32 x 11/16	6PS-D60	....	.15
.0068	13/32 x 11/16	6PS-D68	220P68296	.18
.0075	23/64 x 7/8	6PS-D75	....	.18
.008	23/64 x 7/8	6PS-D80	....	.18
.0082	3/8 x 7/8	6PS-D82	220P82296	.18
.01	25/64 x 7/8	6PS-S10	220P10396	.18
.012	25/64 x 7/8	6PS-S12	220P12396	.18
.015	27/64 x 7/8	6PS-S15	220P15396	.18
.02	31/64 x 7/8	6PS-S20	....	.18
.022	31/64 x 7/8	6PS-S22	220P22396	.18
.025	17/32 x 7/8	6PS-S25	....	.21
.027	7/16 x 1 3/16	6PS-S27	220P27396	.21
.03	7/16 x 1 3/16	6PS-S30	....	.21
.033	15/32 x 1 3/16	6PS-S33	220P33396	.21
.035	15/32 x 1 3/16	6PS-S35	....	.21
.039	31/64 x 1 3/16	6PS-S39	220P39396	.21
.04	1/2 x 1 3/16	6PS-S40	....	.21
.047	17/32 x 1 3/16	6PS-S47	220P47396	.24
.05	17/32 x 1 3/16	6PS-S50	....	.24
.056	35/64 x 1 3/16	6PS-S56	220P56396	.24
.06	9/16 x 1 3/16	6PS-S60	....	.24
.068	37/64 x 1 3/16	6PS-S68	220P68396	.27
.075	9/16 x 1 5/16	6PS-S75	....	.27
.082	37/64 x 1 5/16	6PS-S82	220P82396	.27
.1	5/8 x 1 5/16	6PS-P10	220P10496	.27
.15	43/64 x 1 5/8	6PS-P15	220P15496	.30
.2	3/4 x 1 5/8	6PS-P20	....	.39
.22	25/32 x 1 5/8	6PS-P22	220P22496	.42
.25	13/16 x 1 5/8	6PS-P25	....	.45
		1000 VOLTS D-C		
.001	21/64 x 11/16	10PS-D10	220P102910	.30
.0015	11/32 x 11/16	10PS-D15	220P152910	.30
.002	3/8 x 11/16	10PS-D20	....	.30
.0022	3/8 x 11/16	10PS-D22	220P222910	.30
.003	11/32 x 7/8	10PS-D30	....	.30
.004	3/8 x 7/8	10PS-D40	....	.30
.0047	13/32 x 7/8	10PS-D47	220P472910	.30
.005	13/32 x 7/8	10PS-D50	....	.30

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REM-43-6330

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SPRAGUE CAPACITORS

BF ISOFARAD® PLASTIC FILM CAPACITORS

For Applications Where the Best in Tubulars is None Too Good

SPRAGUE
ISOFARAD®

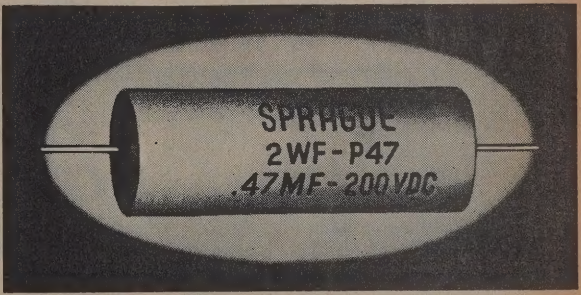
- Isofarad Quality is a Must in Color TV Synchroguide Circuits, Horizontal and Vertical Oscillators, Bridge and Parallel T Circuits and Other Tuned Circuit Applications Requiring Close Tolerance and Zero Temperature Coefficient of Capacitance
- Superior to Silvered Mica Capacitors in Most Applications, Yet Considerably Less Expensive
- Constant Capacitance—Will Not Change More Than ±0.5% from Room Temperature to +80°C at Maximum Rated Voltage Will Withstand Operating Temperatures to 85°C (185°F)
- **Capacitance Tolerance: ±5%**
- Also Available in Handy Sprague Kleer-Pak® Boxes
- For Complete Technical Data, See Latest Sprague Engineering Bulletin 2073

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		500 WVDC		
.001	3/8 x 1	5BF-D10	145P10255	$.45
.0012	3/8 x 1	5BF-D12	145P12255	.45
.0015	3/8 x 1	5BF-D15	145P15255	.45
.0018	3/8 x 1	5BF-D18	145P18255	.45
.0022	3/8 x 1	5BF-D22	145P22255	.45
.0027	3/8 x 1	5BF-D27	145P27255	.45
.0033	3/8 x 1	5BF-D33	145P33255	.45
.0039	3/8 x 1	5BF-D39	145P39255	.48
.0047	3/8 x 1	5BF-D47	145P47255	.48
.0056	3/8 x 1 1/4	5BF-D56	145P56255	.48
.0068	3/8 x 1 1/4	5BF-D68	145P68255	.48
.0082	7/16 x 1 1/4	5BF-D82	145P82255	.48
.01	7/16 x 1 1/4	5BF-S10	145P10355	.54
.012	1/2 x 1 1/4	5BF-S12	145P12355	.54
.015	1/2 x 1 1/4	5BF-S15	145P15355	.75
.018	1/2 x 1 1/2	5BF-S18	145P18355	.75

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		500 WVDC (cont.)		
.022	1/2 x 1 1/2	5BF-S22	145P22355	$.90
.027	5/8 x 1 7/8	5BF-S27	145P27355	.90
.033	5/8 x 1 7/8	5BF-S33	145P33355	1.08
.039	5/8 x 1 7/8	5BF-S39	145P39355	1.08
.047	5/8 x 1 7/8	5BF-S47	145P47355	1.26
.056	5/8 x 1 7/8	5BF-S56	145P56355	1.26
.068	5/8 x 1 7/8	5BF-S68	145P68355	1.59
.082	3/4 x 1 1/4	5BF-S82	145P82355	2.16
.1	3/4 x 2 1/4	5BF-P10	145P10455	2.16
.12	7/8 x 2 1/2	5BF-P12	145P12455	2.94
.15	7/8 x 2 1/2	5BF-P15	145P15455	2.94
.18	7/8 x 2 1/2	5BF-P18	145P18455	4.05
.22	7/8 x 2 1/2	5BF-P22	145P22455	4.05
.27	1 x 2 1/2	5BF-P27	145P27455	4.95
.33	1 x 2 1/2	5BF-P33	145P33455	4.95

WF YELLOW-JACKET® FILMITE® 'E' CAPACITORS

- Excellent for Use in Transistorized Circuits and Low-Voltage Electron Tube Circuits
- Extended Foil Type Sections, Wound from Selected, Ultra-Thin Polyester Film and Thin Gauge Foil
- Outer Plastic Film Wrap and Resin End Seals Protect Against Moisture and Humidity
- "Smaller Than Small" — These Capacitors Will Fit Anywhere
- Rated to 200 WVDC — Capacitance Tolerance: ±10%
- Designed for Operation to 85°C (185°F)
- Available in Kleer-Pak® Boxes.
- For Technical Data See Latest Issue of Sprague Bulletin 2063



μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		200 WVDC		
.01	13/64 x 11/16	2WF-S10	148P10392	$.57
.012	13/64 x 11/16	2WF-S12	148P12392	.57
.015	13/64 x 11/16	2WF-S15	148P15392	.57
.018	13/64 x 11/16	2WF-S18	148P18392	.57
.022	13/64 x 11/16	2WF-S22	148P22392	.57
.027	7/32 x 11/16	2WF-S27	148P27392	.57
.033	7/32 x 11/16	2WF-S33	148P33392	.60
.039	1/4 x 11/16	2WF-S39	148P39392	.60
.047	1/4 x 11/16	2WF-S47	148P47392	.60
.056	1/4 x 13/16	2WF-S56	148P56392	.60
.068	1/4 x 13/16	2WF-S68	148P68392	.60
.082	5/16 x 13/16	2WF-S82	148P82392	.60
.1	5/16 x 13/16	2WF-P10	148P10492	.63

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		200 WVDC (cont.)		
.12	23/64 x 13/16	2WF-P12	148P12492	$.63
.15	23/64 x 13/16	2WF-P15	148P15492	.63
.18	27/64 x 1 1/16	2WF-P18	148P18492	.66
.22	27/64 x 1 1/16	2WF-P22	148P22492	.66
.27	15/32 x 1 3/16	2WF-P27	148P27492	.66
.33	15/32 x 1 3/16	2WF-P33	148P33492	.66
.39	35/64 x 1 3/16	2WF-P39	148P39492	.72
.47	35/64 x 1 3/16	2WF-P47	148P47492	.72
.56	35/64 x 1 9/16	2WF-P56	148P56492	.90
.68	35/64 x 1 9/16	2WF-P68	148P68492	.90
.82	19/32 x 1 13/16	2WF-P82	148P82492	.90
1.0	19/32 x 1 13/16	2WF-M1	148P10592	.90

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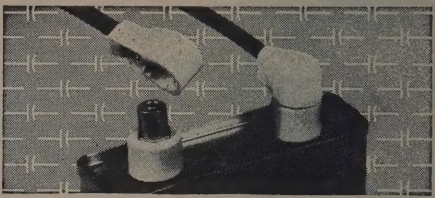
SPRAGUE CAPACITORS

SPRAGUE
CR-106
10 MF 600WVDC

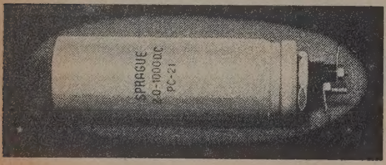
TYPE CR RECTANGULAR OILS

- Hermetically sealed in Rugged Rectangular Metal Cans
- Oil-Impregnated and Oil-Filled
- Extremely High Insulation Resistance
- Will Withstand High Surge Voltages and High Ambient Temperatures
- Widely Used in Transmitter Power Supplies and Other High-Voltage Applications
- Furnished With Adapters (as shown below) to Fit Standard Transmitting Tube Plate Caps



μF	WVDC	T. x W. x L.	Cat. No.	Net
.5	600	1⅙ x 1¹³⁄₁₆ x 2¼	CR-056	$2.82
1.0	600	1⅙ x 1¹³⁄₁₆ x 2¼	CR-16	3.48
2.0	600	1⅙ x 1¹³⁄₁₆ x 2⅞	CR-26	4.29
3.0	600	1⅙ x 1¹³⁄₁₆ x 3¼	CR-36	4.95
4.0	600	1³⁄₁₆ x 2½ x 3½	CR-46	5.46
6.0	600	1³⁄₁₆ x 2½ x 4¾	CR-66	6.78
8.0	600	1¼ x 3¾ x 3⅞	CR-86	8.10
10.0	600	1¼ x 3¾ x 4¾	CR-106	9.09
.1	1000	1⅙ x 1¹³⁄₁₆ x 1⅝	CR-011	2.49
.25	1000	1⅙ x 1¹³⁄₁₆ x 2¼	CR-0251	2.82
.5	1000	1⅙ x 1¹³⁄₁₆ x 2¼	CR-051	2.97
1.0	1000	1⅙ x 1¹³⁄₁₆ x 2¼	CR-11	3.81
2.0	1000	1⅙ x 1¹³⁄₁₆ x 3⅞	CR-21	4.95
4.0	1000	1³⁄₁₆ x 2½ x 4¾	CR-41	6.27
8.0	1000	1¼ x 3¾ x 4¾	CR-81	9.09
10.0	1000	1¾ x 3¾ x 4¾	CR-101	10.08
12.0	1000	2¼ x 3¾ x 4½	CR-121	10.89
15.0	1000	2½ x 3¾ x 4¾	CR-151	12.06
.5	1500	1⅙ x 1¹³⁄₁₆ x 2⅞	CR-0515	3.81
1.0	1500	1⅙ x 1¹³⁄₁₆ x 3⅞	CR-115	4.47
2.0	1500	1³⁄₁₆ x 2½ x 4¼	CR-215	6.12
4.0	1500	1¼ x 3¾ x 4¾	CR-415	8.43
5.0	1500	1¼ x 3¾ x 4¾	CR-515	9.09
8.0	1500	2½ x 3¾ x 4¾	CR-815	12.54
10.0	1500	3³⁄₁₆ x 3¾ x 4¾	CR-1015	15.03
.1	2000	1³⁄₁₆ x 2½ x 2½	CR-012	3.96
.25	2000	1³⁄₁₆ x 2½ x 2½	CR-0252	4.29
.5	2000	1³⁄₁₆ x 2½ x 2⅞	CR-052	4.47
1.0	2000	1³⁄₁₆ x 2½ x 3½	CR-12	5.46
2.0	2000	1¼ x 3¾ x 4¼	CR-22	6.45
3.0	2000	1¼ x 3¾ x 4¾	CR-32	$ 7.92
4.0	2000	2¼ x 3¾ x 3⅞	CR-42	9.09
6.0	2000	3³⁄₁₆ x 3¾ x 4½	CR-62	12.06
10.0	2000	4⁹⁄₁₆ x 3¾ x 4¾	CR-102	18.33
.1	2500	1³⁄₁₆ x 2½ x 2½	CR-0125	6.09
.5	2500	1¼ x 3¾ x 3¼	CR-0525	6.93
1.0	2500	1¾ x 3¾ x 3¼	CR-125	7.92
2.0	2500	1¾ x 3¾ x 4¾	CR-225	12.87
4.0	2500	4⁹⁄₁₆ x 3¾ x 4⅜	CR-425	18.00
.1	3000	1³⁄₁₆ x 2½ x 2½	CR-013	8.43
.25	3000	1³⁄₁₆ x 2½ x 2⅞	CR-0253	8.91
.5	3000	1³⁄₁₆ x 2½ x 4¼	CR-053	10.08
1.0	3000	2¼ x 3¾ x 3⅞	CR-13	12.06
2.0	3000	3³⁄₁₆ x 3¾ x 4½	CR-23	15.03
4.0	3000	4⁹⁄₁₆ x 3¾ x 4¾	CR-43	22.11
.1	4000	2¼ x 3¾ x 2¾	CR-014	10.80
.25	4000	2¼ x 3¾ x 2¾	CR-0254	12.00
.5	4000	2¼ x 3¾ x 3⅞	CR-054	13.80
1.0	4000	2¼ x 3¾ x 5⅛	CR-14	17.40
2.0	4000	4⁹⁄₁₆ x 3¾ x 5⅛	CR-24	23.40
.2	5000	1¾ x 3¾ x 3⅞	CR-025	12.00
.5	5000	2¼ x 3¾ x 4½	CR-055	15.00
1.0	5000	4⁹⁄₁₆ x 3¾ x 4⅜	CR-15	20.40
2.0	5000	4⁹⁄₁₆ x 3¾ x 6	CR-25	31.20
.1	6000	2¼ x 3¾ x 3⅜	CR-0160	16.20
.2	6000	1¾ x 3¾ x 4¼	CR-0260	18.00
1.0	6000	4⁹⁄₁₆ x 3¾ x 7½	CR-160	29.40
.1	7500	2¼ x 3¾ x 3⅞	CR-0175	17.40
.2	7500	1¾ x 3¾ x 4¾	CR-0275	19.80

SCREWBASE PC OILS

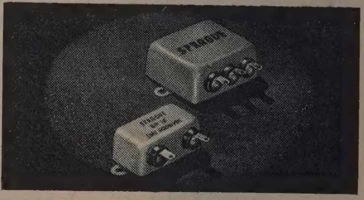


- Oil-Impregnated
- Oil-Filled
- Screwbase Can For Easy Single Hole Mounting
- Small Size — Will Fit Tight Spaces

μF	WVDC	Diam. x Lgth.	Cat. No.	Net
2	600	1½ x 2⅞	PC-26	$3.24
3	600	1½ x 3½	PC-36	3.69
4	600	1½ x 4½	PC-46	4.26
1	1000	1½ x 2⅞	PC-11	3.00
2	1000	1½ x 4½	PC-21	3.78
0.5	1500	1½ x 2⅜	PC-515	3.51
1	1500	1½ x 3⅞	PC-115	3.78

TYPE BP BATHTUB CAPACITORS

- For Applications Where Severe Operating Conditions Are Encountered
- Hermetically Sealed for Extra Protection
- Seamless Drawn Metal Can
- Oil-Filled and Oil-impregnated for Long, Dependable Service Life
- Convenient Mounting Ears are Integral Part of Metal Container



μF	L. x W. x H.	Cat. No.	Net
400 WVDC			
.1	1¹³⁄₁₆ x 1 x ¾	BP-1	$1.32
.25	1¹³⁄₁₆ x 1 x ¾	BP-25	1.50
.5	1¹³⁄₁₆ x 1 x ⅞	BP-50	1.59
1.0	2 x 1¾ x ⅞	BP-10	1.89
.1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-21	1.98
.25 + .25	1¹³⁄₁₆ x 1 x ⅞	BP-225	2.16
.5 + .5	2 x 1¾ x ⅞	BP-250	2.49
.1 + .1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-31	2.40
600 WVDC			
.05	1¹³⁄₁₆ x 1 x ¾	BP-56	1.74
.1	1¹³⁄₁₆ x 1 x ¾	BP-16	1.77
.25	1¹³⁄₁₆ x 1 x ¾	BP-256	1.86
.5	1¹³⁄₁₆ x 1 x ⅞	BP-506	1.98
1.0	2 x 1¾ x ⅞	BP-106	2.25
2.0	2 x 2 x 1⅛	BP-206	3.00
.05 + .05	1¹³⁄₁₆ x 1 x ¾	BP-2056	2.19
.1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-216	$2.22
.25 + .25	1¹³⁄₁₆ x 1 x ⅞	BP-2256	2.25
.5 + .5	2 x 1¾ x ⅞	BP-2506	2.58
1.0 + 1.0	2 x 2 x 1⅛	BP-116	3.18
.1 + .1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-316	2.52
.25 + .25 + .25	2 x 1¾ x ⅞	B2-3256	2.85
.5 + .5 + .5	2 x 2 x 1⅛	BP-356	3.45
1000 WVDC			
.05	1¹³⁄₁₆ x 1 x ¾	BP-51	1.83
.1	1¹³⁄₁₆ x 1 x ¾	BP-11	1.89
.25	1¹³⁄₁₆ x 1 x ¾	BP-251	1.95
.5	2 x 1¾ x ⅞	BP-501	2.13
1.0	2 x 2 x 1⅛	BP-101	2.64
.05 + .05	1¹³⁄₁₆ x 1 x ¾	BP-2051	2.31
.1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-211	2.40
.25 + .25	2 x 1¾ x ⅞	BP-2251	2.52
.5 + .5	2 x 2 x 1⅛	BP-2501	3.27
.1 + .1 + .1	1¹³⁄₁₆ x 1 x ⅞	BP-311	2.76
.25 + .25 + .25	2 x 2 x 1⅛	BP-3251	3.30

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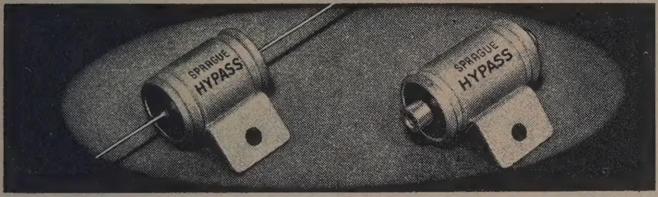
SPRAGUE FILTERS

HYPASS® CAPACITORS

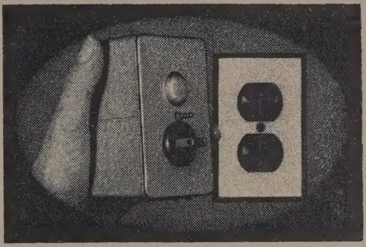


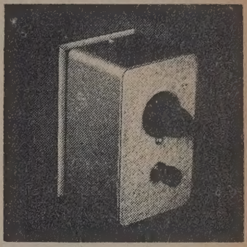
- Exclusive Sprague 3-terminal Network Feed-thru Capacitors
- Bypass V-H-F Currents Where Ordinary Capacitors are Ineffective
- Suppress TVI from Short-wave Transmitters, Diathermy Machines, Electronic Heating Apparatus, etc.
- Eliminate Interference caused by Line-conducted Radiation Between Neighboring TV Sets
- Install Leads in Series with Circuit Being Filtered and Ground the Case

μF	Amps.	WVDC	Dia. x Length	Cat. No.	Net
.5	40	50	1 x 1 13/16	*48P18	$2.28
.25	20	200	3/4 x 1 13/16	*48P10	1.56
.5	20	200	1 x 1 13/16	*48P14	1.89
.1	20	250(VAC)	11/16 x 1 13/16	*48P9	1.56
.1	20	400	11/16 x 1 13/16	*48P6	1.53
.1	20	400	11/16 x 1 13/16	†80P1	1.74
.002	15	600	1/4 x 1 3/8	46P12	1.29
.005	15	600	1/4 x 1 5/8	46P8	1.29
.01	20	600	7/16 x 1 1/4	47P6	1.41
.02	20	600	7/16 x 1 1/2	47P8	1.44
.1	20	600	11/16 x 1 13/16	*48P8	1.56
.1	20	600	11/16 x 1 13/16	*†80P3	1.77
.25	20	600	1 x 1 13/16	*48P12	1.65
.5	20	600	1 x 2 1/4	*48P16	2.10
.005	20	1000	7/16 x 1 1/4	47P12	1.44
.01	20	1000	7/16 x 1 1/2	47P13	1.56
.005	20	2500	1 x 1 9/16	47P14	1.74
.01	20	2500	1 x 1 9/16	47P15	1.86
.002	20	5000	1 x 1 9/16	47P16	1.92

*Has female screw terminals †Bulkhead mounting.

TYPE F-400 MIRACLE FILTEROL®





A LINE FILTER THAT REALLY WORKS

- Effectively Suppresses Radio Interference by Filtering Power Lines of Receivers and Appliances
- Maximum Noise Eliminating Efficiency because of Practically Zero Length of Ground Lead
- Plugs into Standard Duplex Wall Outlet — Captive Screw Fastens Filtero F-400 to Outlet for Safe, Secure Mounting
- Direct Wall-Mounting Provides Neat Installation — No Unsightly Cord — Receiver or Appliance Plugs into Standard Outlet on Face of F-400.
- Will Also Operate at Slightly Reduced Efficiency in Older Homes where Wiring is of Knob and Tube or 2-Conductor Non-Metallic Sheathed Cable Type by Using the External Grounding Post Provided for this Purpose
- Handsomely Finished in Tan Hammerloid Baked Enamel
- Rated at 5 Amperes, 125 Volts AC or DC

TYPE F-400 FILTEROL....................................$7.45 net

TYPE IF FILTERS

IF-15 IF-11 IF-21 IF-S1 IF-37

IF-15 — TRIPLE-SECTION FILTER for small motor-operated devices such as fans, drills, etc. designed to prevent shocks from discharge of filter capacitors.

IF-11 — DUAL HIGH-CAPACITY FILTER designed for use on motors over 1 hp up to 220 volts ac-dc. Also used on high-current arcing devices.

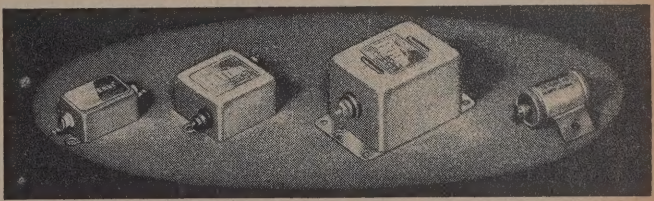
IF-21 — COMPACT DUAL FILTER for use on fractional horsepower motors with case grounded to motor frame. Also used across line terminals of motors.

IF-S1 — SINGLE SECTION 2-LEAD FILTER for use across make-and-break contacts, such as thermostats, circuit breakers, etc.

IF-37 — 3-SECTION DELTA-CONNECTED FILTER especially designed for fluorescent fixtures. Also used on governor-type motors. *UL Approved.*

Cat. No.	Volts AC or DC	Dia. x Length	Net
IF-15	220	1 x 2 3/16	$1.56
IF-11	220	1 3/8 x 5 1/4	4.68
IF-21	220	1 x 2 3/16	1.05
IF-S1	220	3/4 x 2 1/16	.69
IF-37	220	1 x 2″	1.35

FILTEROL® FILTERS



FILTEROL 1 FILTEROL 2 FILTEROL 3 FILTEROL 4

Filterol Types 1, 2, and 3 — Designed for connection in series with power supply lines to interference-producing devices . . . A 3-terminal network with the case as one terminal . . . The selected filter should have a rating higher than the continuous operating current of the offending device . . . A single Filterol connected to the high side of the line is usually sufficient . . . In severe cases a Filterol in each leg of the power line may be necessary . . . For three or four-wire systems, a Filterol in each wire is necessary.

Filterol Type 4 — A new, exclusive Sprague development incorporating a Sprague HYPASS® Capacitor . . . Provides exceptionally high attenuation at frequencies above 5 megacycles . . . Intended for small devices with continuous current ratings up to 20 amperes.

Cat. No.	Amps.	Volts AC or DC	Size	Net
Filterol 1	1	115	7/8 x 1 1/4 x 1 3/4	$ 8.10
Filterol 2	10	115	1 1/8 x 2 x 2	8.88
Filterol 3	35	115	1 7/8 x 2 7/8 x 3 1/8	16.44
Filterol 4	20	115	1″ dia. x 1 13/16″ long	1.83

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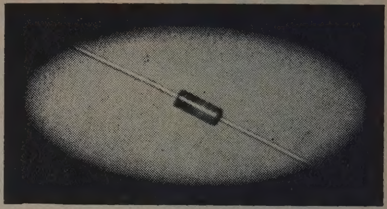
SPRAGUE CAPACITORS

TYPES 252C, 262C, 263C MOLDED CERAMIC CORDWOOD CAPACITORS

TYPE 252C MOLDED CERAMITE® CORDWOOD CAPACITORS

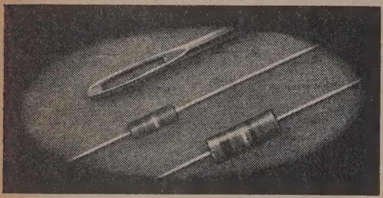


- Type 252C Capacitors Meet Basic Requirements for Modern Electronic Packaging.
- Fully Molded Construction is Rugged and Offers Excellent Humidity Protection.
- Ceramic Dielectric is Mechanically Strong and Electrically Stable.
- Cordwood Size Permits Circuit Designer to Use These Capacitors in This New Packaging Concept.
- Diameter, .094", Length, .250"
- For Complete Technical Data See Latest Issue of Sprague Engineering Bulletin 6151.

µµF	WVDC	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
5	100	—	252C0555R0X9101B	252C0555R0X0101B
8	100		252C0558R0X9101B	—
10	100	252C055100X5101B	252C055100X9101B	252C055100X0101B
15	100	252C027150X5101B	252C027150X9101B	—
18	100	252C027180X5101B	—	—
22	100	252C027220X5101B	252C027220X9101B	252C027220X0101B
27	100	252C027270X5101B	—	—
33	100	252C028330X5101B	252C028330X9101B	—
39	100	252C028390X5101B	—	—
47	100	252C028470X5101B	252C028470X9101B	252C028470X0101B
56	100	252C028560X5101B	—	—
68	100	252C028680X5101B	252C028680X9101B	—
82	100	252C016820X5101B	—	—
100	100	252C016101X5101B	252C016101X9101B	252C016101X0101B
120	100	252C064121X5101B	—	—
150	100	252C064151X5101B	252C064151X9101B	—
220	100	—	—	252C040221X0101B
330	100	—	—	252C040331X0101B
360	100	—	—	252C040361X0101B

Call Your Sprague Industrial Distributor For Prices

TYPES 262C, 263C MOLDED MONOLYTHIC® CORDWOOD CAPACITORS



- Cerod® Capacitors—Tiny, Molded Cylindrical Ceramics Now in Monolythic® Construction. True Miniaturization Without Compromise.
- Two Cordwood Sizes Available. Designers Can Make Full Use of This New Packaging Concept.
- Ceramic Elements Fully Molded in Thermosetting Resin—Assures Good Mechanical and Electrical Properties Plus Precise Dimensions.
- Three Ceramic Formulations Available Including a New Temperature-Stable Body.
- Call Your Sprague Industrial Distributor for Prices.
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 6250.

TYPE 262C—STANDARD RATINGS—100 VDC

FORMULATION N030

µµF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
6.8	—	262C0256R8X9101B	262C0256R8X0101B
8.2	—	262C0258R2X9101B	262C0258R2X0101B
10	262C025100X5101B	262C025100X9100B	262C025100X0101B
12	262C025120X5101B	262C025120X9101B	262C025120X0101B
15	262C025150X5101B	262C025150X9100B	262C025150X0101B
18	262C025180X5101B	262C025180X9101B	262C025180X0101B
22	262C025220X5101B	262C025220X9101B	262C025220X0101B
27	262C025270X5101B	262C025270X9101B	262C025270X0101B
33	262C025330X5101B	262C025330X9101B	262C025330X0101B
39	262C025390X5101B	262C025390X9101B	262C025390X0101B
47	262C025470X5101B	262C025470X9101B	262C025470X0101B
56	262C025560X5101B	262C025560X9101B	262C025560X0101B
68	262C025680X5101B	262C025680X9101B	262C025680X0101B
82	262C025820X5101B	262C025820X9101B	262C025820X0101B
100	262C025101X5101B	262C025101X9101B	262C025101X0101B
120	262C025121X5101B	262C025121X9101B	262C025121X0101B
150	262C025151X5101B	262C025151X9101B	262C025151X0101B

FORMULATION N750

µµF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
180	262C036181X5101B	262C036181X9101B	262C036181X0101B
220	262C036221X5101B	262C036221X9101B	262C036221X0101B
270	262C036271X5101B	262C036271X9101B	262C036271X0101B
330	262C036331X5101B	262C036331X9101B	262C036331X0101B

FORMULATION X5R

µµF	Catalog Number ±5% Tol.	±10% Tol.	+80%, −20% Tol.
470	262C067471X9101B	262C067471X0101B	262C067471D8101B
680	262C067681X9101B	262C067681X0101B	262C067681D8101B
1000	262C067102X9101B	262C067102X0101B	262C067102D8101B
1500	262C067152X9101B	262C067152X0101B	262C067152D8101B
2200	262C067222X9101B	262C067222X0101B	262C067222D8101B
3300	262C067332X9101B	262C067332X0101B	262C067332D8101B
4700	262C067472X9101B	262C067472X0101B	262C067472D8101B
6800	262C067682X9101B	262C067682X0101B	262C067682D8101B
10000	262C067103X9101B	262C067103X0101B	262C067103D8101B

TYPE 263C—STANDARD RATINGS—100 VDC

FORMULATION N030

µµF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
180	263C025181X5101B	263C025181X9101B	263C025181X0101B
220	263C025221X5101B	263C025221X9101B	263C025221X0101B
270	263C025271X5101B	263C025271X9101B	263C025271X0101B
330	263C025331X5101B	263C025331X9101B	263C025331X0101B
390	263C025391X5101B	263C025391X9101B	263C025391X0101B
470	263C025471X5101B	263C025471X9101B	263C025471X0101B
560	263C025561X5101B	263C025561X9101B	263C025561X0101B
680	263C025681X5101B	263C025681X9101B	263C025681X0101B

FORMULATION N750

µµF	Catalog Number ±5% Tol.	±10% Tol.	±20% Tol.
820	263C036821X5101B	263C036821X9101B	263C036821X0101B
1000	263C036102X5101B	263C036102X9101B	263C036102X0101B
1200	263C036122X5101B	263C036122X9101B	263C036122X0101B

FORMULATION X5R

µµF	Catalog Number ±5% Tol.	±10% Tol.	+80%, −20% Tol.
15000	263C067153X9101B	263C067153X0101B	263C067153D8101B
22000	263C067223X9101B	263C067223X0101B	263C067223D8101B
33000	263C067333X9101B	263C067333X0101B	263C067333D8101B

DIMENSIONS

Type	Diameter	Length
262C	.090"±.009"	.250"±.015"
263C	.138"±.010"	.390"±.015"

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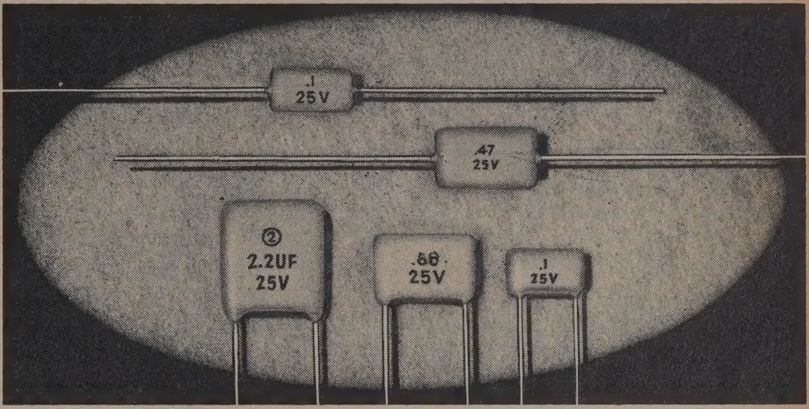
SPRAGUE CAPACITORS

MONOLYTHIC® LAYER-BUILT CERAMIC CAPACITORS



Types 3C and 4C—Formulation N030

- Temperature Compensating Units, N030 Dielectric Offers Greater Capacitance Per Unit Volume and Greater Stability Than Previously Available.
- Highly Reliable, Small in Size, Axial or Radial Leads.
- Temperature Coefficient Guaranteed Less Than ±.6% Between −55C and +125C.

Types 3C, 4C, 5C—Formulation C23

- High-K General Application—High Capacitances in Small Physical Size, Axial or Radial Leads.
- Well Suited for By-pass and Filtering Applications
- For Complete Technical Data, See Latest Sprague Engineering Bulletin 6212 (N030) or 6201 (C23)

Type 3C, 4C Monolythic Ceramic Capacitors—Formulation N030—Temperature Compensating—200 V

µF	Tol.	Cat. No.
TYPE 3C AXIAL LEADS		
51	5%	3C5105BH1
51	2%	3C5102BH1
56	10%	3C5609BH1
56	5%	3C5605BH1
56	2%	3C5602BH1
62	5%	3C6205BH1
62	2%	3C6202BH1
68	10%	3C6809BH1
68	5%	3C6805BH1
68	2%	3C6802BH1
75	5%	3C7505BH1
75	2%	3C7502BH1
82	10%	3C8209BH1
82	5%	3C8205BH1
82	2%	3C8202BH1
91	5%	3C9105BH1
91	2%	3C9102BH1
100	10%	3C1019BH1
100	5%	3C1015BH1
100	2%	3C1012BH1
110	5%	3C1115BH1
110	2%	3C1112BH1
120	10%	3C1219BH1
120	5%	3C1215BH1
120	2%	3C1212BH1
130	5%	3C1315BH1
130	2%	3C1312BH1
150	10%	3C1519BH1
150	5%	3C1515BH1
150	2%	3C1512BH1
160	5%	3C1615BH1
160	2%	3C1612BH1
180	10%	3C1819BH1
180	5%	3C1815BH1
180	2%	3C1812BH1
200	5%	3C2015BH1
200	2%	3C2012BH1
220	10%	3C2219BH1
220	5%	3C2215BH1
220	2%	3C2212BH1
240	5%	3C2415BH1
240	2%	3C2412BH1
270	10%	3C2719BH1
270	5%	3C2715BH1
270	2%	3C2712BH1
300	5%	3C3015BH1
300	2%	3C3012BH1
330	10%	3C3319BH1
330	5%	3C3315BH1
330	2%	3C3312BH1
360	5%	3C3615BH1
360	2%	3C3612BH1
390	10%	3C3919BH1
390	5%	3C3915BH1
390	2%	3C3912BH1
430	5%	3C4315BH1
430	2%	3C4312BH1
470	10%	3C4719BH1
470	5%	3C4715BH1
470	2%	3C4712BH1
510	5%	3C5115BH1
510	2%	3C5112BH1
560	10%	3C5619BH1
560	5%	3C5615BH1
560	2%	3C5612BH1
620	5%	3C6215BH1
620	2%	3C6212BH1
680	10%	3C6819BH1
680	5%	3C6815BH1
680	2%	3C6812BH1
TYPE 4C AXIAL LEADS		
750	5%	4C7515BH1
750	2%	4C7512BH1
820	10%	4C8219BH1
820	5%	4C8215BH1
820	2%	4C8212BH1
910	5%	4C9115BH1
910	2%	4C9112BH1
1000	10%	4C1029BH1
1000	5%	4C1025BH1
1000	2%	4C1022BH1
1100	5%	4C1125BH1
1100	2%	4C1122BH1
1200	10%	4C1229BH1
1200	5%	4C1225BH1
1200	2%	4C1222BH1
1300	5%	4C1325BH1
1300	2%	4C1322BH1
1500	10%	4C1529BH1
1500	5%	4C1525BH1
1500	2%	4C1522BH1
1600	5%	4C1625BH1
1600	2%	4C1622BH1
1800	10%	4C1829BH1
1800	5%	4C1825BH1
1800	2%	4C1822BH1
TYPE 3C RADIAL LEADS		
51	5%	3C5105BH3
51	2%	3C5102BH3
56	10%	3C5609BH3
56	5%	3C5605BH3
56	2%	3C5602BH3
62	5%	3C6205BH3
62	2%	3C6202BH3
68	10%	3C6809BH3
68	5%	3C6805BH3
68	2%	3C6802BH3
75	5%	3C7505BH3
75	2%	3C7502BH3
82	10%	3C8209BH3
82	5%	3C8205BH3
82	2%	3C8202BH3
91	5%	3C9105BH3
91	2%	3C9102BH3
100	10%	3C1019BH3
100	5%	3C1015BH3
100	2%	3C1012BH3
110	5%	3C1115BH3
110	2%	3C1112BH3
120	10%	3C1219BH3
120	5%	3C1215BH3
120	2%	3C1212BH3
130	5%	3C1315BH3
130	2%	3C1312BH3
150	10%	3C1519BH3
150	5%	3C1515BH3
150	2%	3C1512BH3
160	5%	3C1615BH3
160	2%	3C1612BH3
180	10%	3C1819BH3
180	5%	3C1815BH3
180	2%	3C1812BH3
200	5%	3C2015BH3
200	2%	3C2012BH3
220	10%	3C2219BH3
220	5%	3C2215BH3
220	2%	3C2212BH3
240	5%	3C2415BH3
240	2%	3C2412BH3
270	10%	3C2719BH3
270	5%	3C2715BH3
270	2%	3C2712BH3
300	5%	3C3015BH3
300	2%	3C3012BH3
330	10%	3C3319BH3
330	5%	3C3315BH3
330	2%	3C3312BH3
360	5%	3C3615BH3
360	2%	3C3612BH3
390	10%	3C3919BH3
390	5%	3C3915BH3
390	2%	3C3912BH3
430	5%	3C4315BH3
430	2%	3C4312BH3
470	10%	3C4719BH3
470	5%	3C4715BH3
470	2%	3C4712BH3
510	5%	3C5115BH3
510	2%	3C5112BH3
560	10%	3C5619BH3
560	5%	3C5615BH3
560	2%	3C5612BH3
620	5%	3C6215BH3
620	2%	3C6212BH3
680	10%	3C6819BH3
680	5%	3C6815BH3
680	2%	3C6812BH3
TYPE 4C RADIAL LEADS		
750	5%	4C7515BH3
750	2%	4C7512BH3
820	10%	4C8219BH3

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SPRAGUE CAPACITORS

MONOLYTHIC® CERAMIC CAPACITORS, TYPE 4C RADIAL LEADS (Cont.)

µµF	Tol.	Cat. No.
820	5%	4C8215BH3
820	2%	4C8212BH3
910	5%	4C9115BH3
910	2%	4C9112BH3
1000	10%	4C1029BH3
1000	5%	4C1025BH3
1000	2%	4C1022BH3
1100	5%	4C1125BH3
1100	2%	4C1122BH3
1200	10%	4C1229BH3
1200	5%	4C1225BH3
1200	2%	4C1222BH3

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µµF	Tol.	Cat. No.
1300	5%	4C1325BH3
1300	2%	4C1322BH3
1500	10%	4C1529BH3
1500	5%	4C1525BH3
1500	2%	4C1522BH3
1600	5%	4C1625BH3
1600	2%	4C1622BH3
1800	10%	4C1829BH3
1800	5%	4C1825BH3
1800	2%	4C1822BH3
2000	5%	4C2025BH3
2000	2%	4C2022BH3

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µµF	Tol.	Cat. No.
2200	10%	4C2229BH3
2200	5%	4C2225BH3
2200	2%	4C2222BH3
2400	5%	4C2425BH3
2400	2%	4C2422BH3
2700	10%	4C2729BH3
2700	5%	4C2725BH3
2700	2%	4C2722BH3
3000	5%	4C3025BH3
3000	2%	4C3022BH3
3300	10%	4C3329BH3
3300	5%	4C3325BH3

Call Your Sprague Industrial Distributor for Current Prices

µµF	Tol.	Cat. No.
3300	2%	4C3322BH3
3600	5%	4C3625BH3
3600	2%	4C3622BH3
3900	10%	4C3929BH3
3900	5%	4C3925BH3
3900	2%	4C3922BH3
4300	5%	4C4325BH3
4300	2%	4C4322BH3
4700	10%	4C4729BH3
4700	5%	4C4725BH3
4700	2%	4C4722BH3
5100	5%	4C5125BH3
5100	2%	4C5122BH3

Call Your Sprague Industrial Distributor for Current Prices

TYPE 3C, 4C, 5C Monolythic Ceramic Capacitors—High-K Formulation C23 ±20% Cap. Tol.

µF	VDC	Cat. No.
RADIAL LEADS		
.01	25	3C3
.015	25	3C6
.022	25	3C9
.033	25	3C12
.047	25	3C15
.068	25	3C18
.1	25	3C21
.15	25	4C38
.22	25	4C41
.33	25	4C44

Call Your Sprague Industrial Distributor for Current Prices

µF	VDC	Cat. No.
.47	25	4C47
.68	25	4C50
.1	25	5C7
.15	25	5C8
.22	25	5C9
.33	25	5C10
.47	25	5C11
.68	25	5C12
1.0	25	5C13
1.5	25	5C14
2.2	25	5C15
.1	50	5C50

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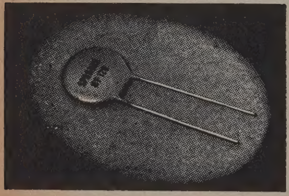
µF	VDC	Cat. No.
.15	50	5C51
.22	50	5C52
.33	50	5C53
.47	50	5C54
AXIAL LEADS		
.01	25	3C1
.015	25	3C4
.022	25	3C7

Call Your Sprague Industrial Distributor for Current Prices

µF	VDC	Cat. No.
.033	25	3C10
.047	25	3C13
.068	25	3C16
.1	25	3C19
.15	25	4C36
.22	25	4C39
.33	25	4C42

Call Your Sprague Industrial Distributor for Current Prices



HYPERCON® CERAMIC DISCS

- Superior to Electrolytic Capacitors of Similar Capacitance Values because of the Very Low Power Factor of Hypercons
- Ultra-miniature Ceramic Discs Ideal for use in Transistorized Circuitry
- Designed for By-pass and Coupling Applications but Particularly Well-suited for any Low Voltage use Where High Capacitance and Low Power Factor are Important Considerations
- Call Your Sprague Industrial Distributor for Current Prices
- Tolerance: 3 Volt Series; GMV; 12 Volt Series, +80—20%

µF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	D. x T.
3 VOLTS D-C			
.1	HY-120	54C23	1/4 x 5/32
.22	HY-125	40C322	9/32 x 5/32
.47	HY-130	20C201	22/32 x 5/32
1.0	HY-135	44C69	19/32 x 5/32
2.2	HY-150	41C171	27/32 x 5/32

µF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	D. x T.
12 VOLTS D-C			
.047	HY-310	40C235	9/32 x 5/32
.1	HY-320	20C202	13/32 x 5/32
.22	HY-325	29C365	9/16 x 5/32
.33	HY-327	33C151	21/32 x 5/32
.47	HY-330	41C172	27/32 x 5/32
25 VOLTS D-C			
.01	HY-520	40C387	9/32 x 5/32
.022	HY-525	19C383	11/32 x 5/32
.033	HY-530	20C233	13/32 x 5/32
.047	HY-535	55C60	1/2 x 5/32
.1	HY-550	33C158	21/32 x 5/32

SPECIAL APPLICATION CERA-MITE® DISC CAPACITORS

DISC CERAMICS FOR AC APPLICATIONS

- Rated at 125 VAC
- Standard Tolerance ±20%
- For AC Line Bypass Application—Unlike Standard DC Rated Discs. Type 125L Meets 1500 Volt AC Flash Test— Type 125M Meets UL 10KV Discharge Test.
- Call Your Sprague Industrial Distributor for Current Prices

µF	Sprague Products Catalog No.	Sprague O.E.M. Part No.	D. x L.
.001	125L-D10	19C251	3/8 x 7/32
.0015	125L-D15	19C252	3/8 x 7/32
.002	125L-D20	19C253	3/8 x 7/32
.0047	125L-D47	29C145	9/16 x 7/32
.005	125L-D50	29C145A	9/16 x 7/32
.01	125L-S10	36C218	3/4 x 7/32
.02	125L-S20	36C220	3/4 x 1/4
2 x .005	125L-2D50	29C147	9/16 x 1/4
2 x .01	125L-2S10	36C219	3/4 x 1/4
470µµF	125M-T47	20C235	7/16 x 1/4
.001	125M-D10	20C186	7/16 x 1/4
.0015	125M-D15	55C45	1/2 x 1/4
.002	125M-D20	29C304	9/16 x 1/4
.0047	125M-D47	33C114	11/16 x 1/4
.005	125M-D50	33C115	11/16 x 1/4
.01	125M-S10	41C157	7/8 x 1/4
.02	125M-S20	41C160	7/8 x 1/4

MINIATURIZED DISC CERAMIC CAPACITORS FOR TRANSISTORIZED CIRCUITRY

- High-K Type for Coupling and By-Pass Applications

µF	Volts	Sprague Products Catalog Number	Sprague O.E.M. Part Number	T x D
.005	50	TG-D50	40C172A5	1/8 x 9/32
.01	50	TG-S10	19C214A6	1/8 x 11/32
.02	50	TG-S20	55C21A2	1/8 x 15/32
.025	50	TG-S25	55C22A2	1/8 x 15/32
.03	50	TG-S30	29C229A	1/8 x 9/16
.05	50	TG-S50	55C23A1	1/8 x 1/2
.1	50	TG-P10	33C41A3	1/8 x 11/16
.005	200	TH-D50	19C384	5/32 x 3/8
.01	200	TH-S10	19C385	5/32 x 3/8
.02	200	TH-S20	29C371	5/32 x 9/16
.025	200	TH-S25	44C85	5/32 x 5/8
.03	200	TH-S30	33C159	5/32 x 11/16
.05	200	TH-S50	33C160	5/32 x 11/16
.1	200	TH-P10	41C208	5/32 x 7/8

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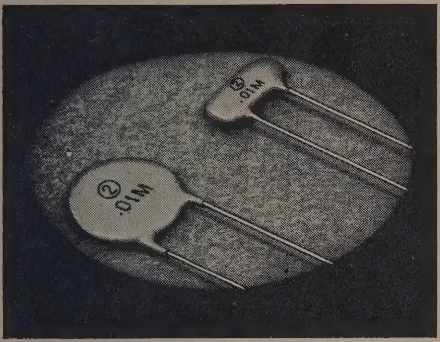
SPRAGUE CAPACITORS

CERA-MITE® CERAMIC CAPACITORS



- Tiny, Tough, Dependable In Every Application
- Low Self-Inductance Of Silvered Flat-plate Design Means Very High By-pass Efficiency In All TV Circuits
- Flat-plate Construction Permits Higher Self-resonant Frequency Than Tubular Ceramic Or Molded Mica Capacitors
- Tough Moisture-proof Coating Protects Against Short-circuiting And Assures Good Performance Under Severe Conditions Of Humidity And Vibration
- Cera-mite Capacitors Easily Fit Into Tight Spaces, Even Across Subminiature Tube Sockets
- Designed For 85°C (185°F) Continuous Operation
- **Call your Sprague Industrial Distributor for Current Quantity Prices**
- **NOTE: For a Complete Selection of Sprague PRINTED CIRCUITS, see Catalog C-615.**

GENERAL APPLICATION TYPES

- Excellent Where Temperature Coefficient Is Not Important, Such As By-pass and Coupling Applications
- Ideal For Replacing Older Types Of General Application Capacitors Such as Molded Micas, Tubular Ceramics, etc.

500 WVDC (plates) ±20% Tol.

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No	Size T. x W. x L.
470	5GAB-T47	35C11A1	5/32 x 9/32 x 11/32
.001 μF	5GAB-D10	35C35	5/32 x 9/32 x 11/32
.0022	5GAB-D22	35C34	5/32 x 9/32 x 11/32
.0047	5GAB-D47	25C166	5/32 x 9/32 x 9/16
.01	5GAB-S10	25C167	7/32 x 9/32 x 9/16
.022	5GAB-S22	38C32	5/32 x 9/16 x 13/16
.047	5GAB-S47	42C8A	5/32 x 27/32 x 1 1/8
.1	5GAB-P10	42C9A	7/32 x 27/32 x 1 1/8
.15	5GAB-P15	112C9	7/32 x 1 1/32 x 1 5/8

1000 WVDC (discs) ±20% Tol.

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
5	5GA-V50	40C32A4	5/16 x 5/32
6	5GA-V60	40C103	5/16 x 5/32
7.5	5GA-V75	40C155	5/16 x 5/32
8	5GA-V80	40C38A	5/16 x 5/32
10	5GA-Q10	40C67A	5/16 x 5/32
12	5GA-Q12	40C138	5/16 x 5/32
15	5GA-Q15	40C65A	5/16 x 5/32
18	5GA-Q18	40C132A	5/16 x 5/32
20	5GA-Q20	40C114	5/16 x 5/32
22	5GA-Q22	40C16A2	5/16 x 5/32
25	5GA-Q25	40C113A1	5/16 x 5/32
27	5GA-Q27	40C153	5/16 x 5/32
30	5GA-Q30	40C111A	5/16 x 5/32
33	5GA-Q33	40C42A	5/16 x 5/32
39	5GA-Q39	40C43A	5/16 x 5/32
47	5GA-Q47	40C44A	5/16 x 5/32
50	5GA-Q50	40C89	5/16 x 5/32
56	5GA-Q56	40C130A3	5/16 x 5/32
68	5GA-Q68	40C45A	5/16 x 5/32
75	5GA-Q75	40C46A	5/16 x 5/32
82	5GA-Q82	40C47A	5/16 x 5/32
91	5GA-Q91	40C112	5/16 x 5/32
100	5GA-T10	40C200	5/16 x 5/32
120	5GA-T12	40C91	5/16 x 5/32
130	5GA-T13	40C147	5/16 x 5/32
150	5GA-T15	40C202	5/16 x 5/32
180	5GA-T18	40C99	5/16 x 5/32
200	5GA-T20	40C102	5/16 x 5/32

1000 WVDC (discs) (cont.)

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
220	5GA-T22	40C204	5/16 x 5/32
240	5GA-T24	40C167	5/16 x 5/32
250	5GA-T25	40C101	5/16 x 5/32
270	5GA-T27	40C93	5/16 x 5/32
300	5GA-T30	40C100	5/16 x 5/32
330	5GA-T33	40C207	5/16 x 5/32
350	5GA-T35	40C146	5/16 x 5/32
360	5GA-T36	40C154	5/16 x 5/32
390	5GA-T39	40C95	5/16 x 5/32
400	5GA-T40	40C104	5/16 x 5/32
470	5GA-T47	40C209A	5/16 x 5/32
500	5GA-T50	40C232A	5/16 x 5/32
560	5GA-T56	40C233A	5/16 x 5/32
600	5GA-T60	40C305	5/16 x 5/32
680	5GA-T68	40C212A	5/16 x 5/32
750	5GA-T75	40C235A	5/16 x 5/32
800	5GA-T80	40C213A	5/16 x 5/32
820	5GA-T82	40C237A	5/16 x 5/32
.001 μF	5GA-D10	40C214A	5/16 x 5/32
.0012	5GA-D12	40C239A	5/16 x 5/32
.0013	5GA-D13	40C261	5/16 x 5/32
.0015	5GA-D15	40C215A	5/16 x 5/32
.0016	5GA-D16	19C301	3/8 x 5/32
.0018	5GA-D18	19C217A	3/8 x 5/32
.002	5GA-D20	19C203A	3/8 x 5/32
.0022	5GA-D22	19C219A	3/8 x 5/32
.0025	5GA-D25	20C179	7/16 x 5/32
.0027	5GA-D27	20C143A	7/16 x 5/32
.003	5GA-D30	20C101A1	7/16 x 5/32
.0033	5GA-D33	20C124A	7/16 x 5/32
.0039	5GA-D39	20C126A	7/16 x 5/32
.004	5GA-D40	29C192A	9/16 x 5/32
.0043	5GA-D43	29C292	9/16 x 5/32
.0047	5GA-D47	29C203A	9/16 x 5/32
.005	5GA-D50	29C204A	9/16 x 5/32
.01	5GA-S10	33C29A	11/16 x 5/32
.015	5GA-S15	36C263	3/4 x 5/32
.02	5GA-S20	41C135A1	7/8 x 5/32

500 WVDC (discs) ±20% Tol.

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
.025	5GA-S25	33C57A	11/16 x 7/32
.04	5GA-S40	33C24A	11/16 x 7/32
.05	5GA-S50	33C17A	11/16 x 7/32
.1	5GA-P10	41C92A10	7/8 x 7/32

3000 WVDC (discs) ±20% Tol.

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
1.5 μμF	30GA-V15	19C306	3/8 x 1/4
3.3	30GA-V33	19C307	3/8 x 1/4
4.7	30GA-V47	19C308	3/8 x 1/4
5.0	30GA-V50	19C309	3/8 x 1/4
6.0	30GA-V60	19C310	3/8 x 1/4
6.8	30GA-V68	19C311	3/8 x 1/4
7.5	30GA-V75	19C291	3/8 x 1/4
8.2	30GA-V82	19C290	3/8 x 1/4
10	30GA-Q10	19C312	3/8 x 1/4
12	30GA-Q12	19C313	3/8 x 1/4
15	30GA-Q15	19C314	3/8 x 1/4
18	30GA-Q18	19C292	3/8 x 1/4
20	30GA-Q20	19C315	3/8 x 1/4
22	30GA-Q22	19C316	3/8 x 1/4
25	30GA-Q25	19C317	3/8 x 1/4
27	30GA-Q27	19C318	3/8 x 1/4
30	30GA-Q30	19C319	3/8 x 1/4
33	30GA-Q33	19C320	3/8 x 1/4
39	30GA-Q39	19C321	3/8 x 1/4
47	30GA-Q47	19C322	3/8 x 1/4
50	30GA-Q50	19C323	3/8 x 1/4
56	30GA-Q56	19C324	3/8 x 1/4
60	30GA-Q60	19C325	3/8 x 1/4
62	30GA-Q62	19C326	3/8 x 1/4
68	30GA-Q68	19C327	3/8 x 1/4
75	30GA-Q75	19C328	3/8 x 1/4
82	30GA-Q82	20C184	7/16 x 1/4
100	30GA-T10	20C43	7/16 x 1/4
120	30GA-T12	20C44	7/16 x 1/4
150	30GA-T15	20C45	7/16 x 1/4
180	30GA-T18	20C46	7/16 x 1/4
200	30GA-T20	20C47	7/16 x 1/4

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SPRAGUE CAPACITORS

CERA-MITE CERAMIC CAPACITORS, continued

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
3000 WVDC (cont.)			
220	30GA-T22	20C48	7/16 x 1/4
250	30GA-T25	20C49	7/16 x 1/4
270	30GA-T27	20C50	7/16 x 1/4
300	30GA-T30	20C51	7/16 x 1/4
330	30GA-T33	20C28A	7/16 x 1/4
390	30GA-T39	20C176	7/16 x 1/4
400	30GA-T40	20C175	7/16 x 1/4
470	30GA-T47	29C289	19/32 x 1/4
500	30GA-T50	29C90	19/32 x 1/4
560	30GA-T56	29C290	19/32 x 1/4
680	30GA-T68	29C288	19/32 x 1/4
750	30GA-T75	29C298	19/32 x 1/4
820	30GA-T82	29C299	19/32 x 1/4
.001 μF	30GA-D10	29C300	19/32 x 1/4
.0012	30GA-D12	29C301	19/32 x 1/4
.0015	30GA-D15	29C302	19/32 x 1/4
.002	30GA-D20	29C303	19/32 x 1/4
.0022	30GA-D22	29C255A	19/32 x 1/4
.0025	30GA-D25	44C63	21/32 x 1/4
.0027	30GA-D27	44C65	21/32 x 1/4
.003	30GA-D30	33C31A1	11/16 x 1/4
.0033	30GA-D33	33C32A2	11/16 x 1/4
.0039	30GA-D39	36C155A	25/32 x 1/4
.004	30GA-D40	36C78A	25/32 x 1/4
.0047	30GA-D47	36C339	25/32 x 1/4
.005	30GA-D50	36C124A	25/32 x 1/4
.006	30GA-D60	41C34A	29/32 x 1/4
.0068	30GA-D68	41C153	29/32 x 1/4
.008	30GA-D80	41C151	29/32 x 1/4
.0082	30GA-D82	41C150	29/32 x 1/4
.01	30GA-S10	41C121A2	29/32 x 1/4
6000 WVDC (discs) ±20% Tol.			
1.5	60GA-V15	29C406	9/16 x 5/16
4.7	60GA-V47	29C407	9/16 x 5/16
6.8	60GA-V68	29C408	9/16 x 5/16
8.2	60GA-V82	29C409	9/16 x 5/16
10	60GA-Q10	29C410	9/16 x 5/16
12	60GA-Q12	29C411	9/16 x 5/16
15	60GA-Q15	29C412	9/16 x 5/16
18	60GA-Q18	29C413	9/16 x 5/16
20	60GA-Q20	29C414	9/16 x 5/16
22	60GA-Q22	29C415	9/16 x 5/16
25	60GA-Q25	29C416	9/16 x 5/16
27	60GA-Q27	29C417	9/16 x 5/16
30	60GA-Q30	29C418	9/16 x 5/16
33	60GA-Q33	29C419	9/16 x 5/16
39	60GA-Q39	29C420	9/16 x 5/16
47	60GA-Q47	29C421	9/16 x 5/16
50	60GA-Q50	29C422	9/16 x 5/16
56	60GA-Q56	29C423	9/16 x 5/16
60	60GA-Q60	29C424	9/16 x 5/16
68	60GA-Q68	29C425	9/16 x 5/16
75	60GA-Q75	29C426	9/16 x 5/16
82	60GA-Q82	29C427	9/16 x 5/16
100	60GA-T10	29C428	9/16 x 5/16
120	60GA-T12	29C429	9/16 x 5/16
150	60GA-T15	33C187	11/16 x 5/16
180	60GA-T18	33C188	11/16 x 5/16
200	60GA-T20	33C189	11/16 x 5/16
220	60GA-T22	33C190	11/16 x 5/16

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
6000 WVDC (cont.)			
250	60GA-T25	33C191	11/16 x 5/16
270	60GA-T27	33C192	11/16 x 5/16
300	60GA-T30	36C265	3/4 x 5/16
330	60GA-T33	36C266	3/4 x 5/16
390	60GA-T39	41C9A1	7/8 x 5/16
400	60GA-T40	41C142	7/8 x 5/16
470	60GA-T47	41C80A1	7/8 x 5/16
500	60GA-T50	33C185	11/16 x 5/16
560	60GA-T56	33C186	11/16 x 5/16
680	60GA-T68	33C107	11/16 x 5/16
750	60GA-T75	33C108	11/16 x 5/16
820	60GA-T82	33C109	11/16 x 5/16
.001 μF	60GA-D10	33C90A	11/16 x 5/16
.0012	60GA-D12	33C101	11/16 x 5/16
.0015	60GA-D15	36C253A	3/4 x 5/16
.0022	60GA-D22	41C152	7/8 x 5/16
.0025	60GA-D25	41C250	7/8 x 5/16
.0027	60GA-D27	41C251	7/8 x 5/16
.003	60GA-D30	41C252	7/8 x 5/16
.0033	60GA-D33	41C253	7/8 x 5/16
.0039	60GA-D39	41C254	7/8 x 5/16
.0047	60GA-D47	41C255	7/8 x 5/16

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
7500 WVDC (discs ±20% Tol.			
4.7	75GA-V47	29C387	9/16 x 5/16
8.2	75GA-V82	29C380	9/16 x 5/16
10	75GA-Q10	29C382	9/16 x 5/16
12	75GA-Q12	29C383	9/16 x 5/16
15	75GA-Q15	29C378	9/16 x 5/16
18	75GA-Q18	29C379	9/16 x 5/16
20	75GA-Q20	29C405	9/16 x 5/16
22	75GA-Q22	29C118A	9/16 x 5/16
30	75GA-Q30	29C418A	9/16 x 5/16
33	75GA-Q33	29C419A	9/16 x 5/16
47	75GA-Q47	29C381	9/16 x 5/16
56	75GA-Q56	29C30A	9/16 x 5/16
100	75GA-T10	33C56A2	11/16 x 5/16
220	75GA-T22	33C224	11/16 x 5/16
470	75GA-T47	33C169	11/16 x 5/16
500	75GA-T50	44C89	21/32 x 5/16
560	75GA-T56	44C90	21/32 x 5/16
680	75GA-T68	44C92	21/32 x 5/16
750	75GA-T75	33C175	11/16 x 5/16
820	75GA-T82	33C177	11/16 x 5/16
.001 μF	75GA-D10	33C178	11/16 x 5/16
.0012	75GA-D12	36C334	3/4 x 5/16
.0015	75GA-D15	41C221	7/8 x 5/16
.0018	75GA-D18	41C223	7/8 x 5/16
.002	75GA-D20	41C224	7/8 x 5/16
.0022	75GA-D22	41C225	7/8 x 5/16
.0025	75GA-D25	41C226	7/8 x 5/16

NPO TYPES

- Zero Temperature-coefficient Capacitors Used Where Capacitance Change with Temperature is Undesirable
- Superior to Silvered-mica Types in Stability, High "Q," and Insulation Resistance
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance of ±5%
- Units listed below are discs

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
1.0	10TCC-V10	40C436	5/16 x 5/32
1.2	10TCC-V12	40C437	5/16 x 5/32
1.5	10TCC-V15	40C438	5/16 x 5/32
1.8	10TCC-V18	40C439	5/16 x 5/32
2.2	10TCC-V22	40C311	5/16 x 5/32
2.7	10TCC-V27	40C309	5/16 x 5/32
3.0	10TCC-V30	40C460	5/16 x 5/32
3.3	10TCC-V33	40C478	5/16 x 5/32
3.9	10TCC-V39	40C310	5/16 x 5/32
4.7	10TCC-V47	40C298	5/16 x 5/32
5.0	10TCC-V50	40C479	5/16 x 5/32
5.6	10TCC-V56	40C297	5/16 x 5/32
6.8	10TCC-V68	40C487	5/16 x 5/32
8.2	10TCC-V82	40C492	5/16 x 5/32
10	10TCC-Q10	40C497	5/16 x 5/32
12	10TCC-Q12	40C502	5/16 x 5/32
15	10TCC-Q15	40C507	5/16 x 5/32
18	10TCC-Q18	19C407	3/8 x 5/32
20	10TCC-Q20	19C57	3/8 x 5/32
22	10TCC-Q22	19C411	3/8 x 5/32
25	10TCC-Q25	19C412	3/8 x 5/32
27	10TCC-Q27	20C257	7/16 x 5/32

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
30	10TCC-Q30	20C258	7/16 x 5/32
33	10TCC-Q33	20C263	7/16 x 5/32
39	10TCC-Q39	20C265	7/16 x 5/32
47	10TCC-Q47	29C14	9/16 x 5/32
50	10TCC-Q50	29C47	9/16 x 5/32
56	10TCC-Q56	29C437	9/16 x 5/32
68	10TCC-Q68	29C439	9/16 x 5/32
75	10TCC-Q75	29C469	9/16 x 5/32
82	10TCC-Q82	33C94	11/16 x 5/32
100	10TCC-T10	33C208	11/16 x 5/32
120	10TCC-T12	33C194	11/16 x 5/32
150	10TCC-T15	36C336	3/4 x 5/32
175	10TCC-T175	41C258	7/8 x 7/32
180	10TCC-T18	41C259	7/8 x 7/32
200	10TCC-T20	41C260	7/8 x 7/32
220	10TCC-T22	33C182	7/32 x 5/32
270	10TCC-T27	36C27A2	7/32 x 5/32
300	10TCC-T30	36C337	7/32 x 5/32
330	10TCC-T33	41C145	7/32 x 7/32
390	10TCC-T39	41C272	7/32 x 7/32

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SPRAGUE CAPACITORS

CERA-MITE CERAMIC CAPACITORS, continued

TEMPERATURE-COMPENSATING TYPES

- Eliminate oscillator drift in TV, f-m, v-h-f, and a-m receivers
- Negative Temperature Coefficient is 30 ppm/°C for N030 types, 80 ppm/°C for N080 types, 150 ppm/°C for N150 types, 220 ppm/°C for N220 types, 330 ppm/°C for N330 types, 470 ppm/°C for N470 types, and 750 ppm/°C for N750 types
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance ±5%

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
		N030	
1.0	10TCM-V10	40C440	5/16 x 5/32
1.2	10TCM-V12	40C441	5/16 x 5/32
1.5	10TCM-V15	40C442	5/16 x 5/32
1.8	10TCM-V18	40C443	5/16 x 5/32
2.2	10TCM-V22	40C444	5/16 x 5/32
2.7	10TCM-V27	40C445	5/16 x 5/32
3.0	10TCM-V30	40C446	5/16 x 5/32
3.3	10TCM-V33	40C447	5/16 x 5/32
3.9	10TCM-V39	40C448	5/16 x 5/32
4.7	10TCM-V47	40C412	5/16 x 5/32
5.0	10TCM-V50	40C413	5/16 x 5/32
5.6	10TCM-V56	40C414	5/16 x 5/32
6.8	10TCM-V68	40C415	5/16 x 5/32
8.2	10TCM-V82	40C416	5/16 x 5/32
10	10TCM-Q10	40C417	5/16 x 5/32
12	10TCM-Q12	40C418	5/16 x 5/32
15	10TCM-Q15	40C508	5/16 x 5/32
18	10TCM-Q18	19C394	3/8 x 5/32
20	10TCM-Q20	19C408	3/8 x 5/32
22	10TCM-Q22	19C395	3/8 x 5/32
25	10TCM-Q25	19C413	3/8 x 5/32
27	10TCM-Q27	20C240	7/16 x 5/32
30	10TCM-Q30	20C259	7/16 x 5/32
33	10TCM-Q33	20C241	7/16 x 5/32
39	10TCM-Q39	20C266	7/16 x 5/32
47	10TCM-Q47	29C395	9/16 x 5/32
50	10TCM-Q50	29C456	9/16 x 5/32
56	10TCM-Q56	29C396	9/16 x 5/32
68	10TCM-Q68	29C397	9/16 x 5/32
75	10TCM-Q75	29C444	9/16 x 5/32
82	10TCM-Q82	33C180	11/16 x 5/32
100	10TCM-T10	33C181	11/16 x 5/32
120	10TCM-T12	33C211	11/16 x 5/32
150	10TCM-T15	36C327	3/4 x 5/32
175	10TCM-T175	41C247	3/4 x 5/32
180	10TCM-T18	41C263	3/4 x 5/32
200	10TCM-T20	41C264	3/4 x 5/32
220	10TCM-T22	41C243	3/4 x 5/32
270	10TCM-T27	33C196	7/32 x 5/32
300	10TCM-T30	36C308	7/32 x 5/32
330	10TCM-T33	41C244	7/32 x 7/32
390	10TCM-T39	41C273	7/32 x 7/32
		N080	
2.2	10TCN-V22	40C457	5/16 x 5/32
2.7	10TCN-V27	40C459	5/16 x 5/32
3.0	10TCN-V30	40C461	5/16 x 5/32
3.3	10TCN-V33	40C464	5/16 x 5/32
3.9	10TCN-V39	40C468	5/16 x 5/32
4.7	10TCN-V47	40C404	5/16 x 5/32
5.0	10TCN-V50	40C405	5/16 x 5/32
5.6	10TCN-V56	40C406	5/16 x 5/32
6.8	10TCN-V68	40C407	5/16 x 5/32
8.2	10TCN-V82	40C408	5/16 x 5/32
10	10TCN-Q10	40C409	5/16 x 5/32
12	10TCN-Q12	40C411	5/16 x 5/32
15	10TCN-Q15	40C509	5/16 x 5/32
18	10TCN-Q18	19C391	3/8 x 5/32
20	10TCN-Q20	19C409	3/8 x 5/32
22	10TCN-Q22	19C392	3/8 x 5/32
25	10TCN-Q25	19C390	3/8 x 5/32
27	10TCN-Q27	19C416	3/8 x 5/32
		N080 (cont.)	
30	10TCN-Q30	20C261	7/16 x 5/32
33	10TCN-Q33	20C239	7/16 x 5/32
39	10TCN-Q39	20C267	7/16 x 5/32
47	10TCN-Q47	29C390	9/16 x 5/32
50	10TCN-Q50	29C457	9/16 x 5/32
56	10TCN-Q56	29C391	9/16 x 5/32
68	10TCN-Q68	29C392	9/16 x 5/32
75	10TCN-Q75	29C445	9/16 x 5/32
82	10TCN-Q82	29C393	9/16 x 5/32
100	10TCN-T10	33C179	11/16 x 5/32
120	10TCN-T12	33C212	11/16 x 5/32
150	10TCN-T15	33C195	11/16 x 5/32
175	10TCN-T175	41C242	7/8 x 7/32
180	10TCN-T18	41C239	7/8 x 7/32
200	10TCN-T20	41C265	7/8 x 7/32
220	10TCN-T22	41C240	7/8 x 7/32
270	10TCN-T27	33C219	7/32 x 5/32
300	10TCN-T30	33C197	7/32 x 5/32
330	10TCN-T33	36C325	7/32 x 5/32
390	10TCN-T39	41C274	7/32 x 7/32
470	10TCN-T47	41C222	7/32 x 7/32
		N150	
2.2	10TCP-V22	40C458	5/16 x 5/32
2.7	10TCP-V27	40C450	5/16 x 5/32
3.0	10TCP-V30	40C451	5/16 x 5/32
3.3	10TCP-V33	40C452	5/16 x 5/32
3.9	10TCP-V39	40C453	5/16 x 5/32
4.7	10TCP-V47	40C454	5/16 x 5/32
5.0	10TCP-V50	40C480	5/16 x 5/32
5.6	10TCP-V56	40C483	5/16 x 5/32
6.8	10TCP-V68	40C488	5/16 x 5/32
8.2	10TCP-V82	40C493	5/16 x 5/32
10	10TCP-Q10	40C498	5/16 x 5/32
12	10TCP-Q12	40C503	5/16 x 5/32
15	10TCP-Q15	40C510	5/16 x 5/32
18	10TCP-Q18	40C514	5/16 x 5/32
20	10TCP-Q20	19C410	3/8 x 5/32
22	10TCP-Q22	19C245A	3/8 x 5/32
25	10TCP-Q25	19C414	3/8 x 5/32
27	10TCP-Q27	19C417	3/8 x 5/32
30	10TCP-Q30	19C345	3/8 x 5/32
33	10TCP-Q33	20C264	7/16 x 5/32
39	10TCP-Q39	20C268	7/16 x 5/32
47	10TCP-Q47	20C271	7/16 x 5/32
50	10TCP-Q50	20C273	7/16 x 5/32
56	10TCP-Q56	29C438	9/16 x 5/32
68	10TCP-Q68	29C440	9/16 x 5/32
75	10TCP-Q75	29C446	9/16 x 5/32
82	10TCP-Q82	29C449	9/16 x 5/32
100	10TCP-T10	33C59A	11/16 x 5/32
120	10TCP-T12	33C213	11/16 x 5/32
150	10TCP-T15	33C215	11/16 x 5/32
175	10TCP-T175	36C322	3/4 x 5/32
180	10TCP-T18	36C314	3/4 x 5/32
200	10TCP-T20	41C266	7/8 x 7/32
220	10TCP-T22	41C229	7/8 x 7/32
270	10TCP-T27	33C220	7/32 x 5/32
300	10TCP-T30	33C221	7/32 x 5/32
330	10TCP-T33	36C315	7/32 x 5/32
390	10TCP-T39	41C231	7/32 x 7/32
470	10TCP-T47	41C275	7/32 x 7/32

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
		N220	
3	10TCR-V30	40C462	5/16 x 5/32
3.3	10TCR-V33	40C465	5/16 x 5/32
3.9	10TCR-V39	40C469	5/16 x 5/32
4.7	10TCR-V47	40C475	5/16 x 5/32
5	10TCR-V50	40C455	5/16 x 5/32
5.6	10TCR-V56	40C484	5/16 x 5/32
6.8	10TCR-V68	40C489	5/16 x 5/32
8.2	10TCR-V82	40C494	5/16 x 5/32
10	10TCR-Q10	40C499	5/16 x 5/32
12	10TCR-Q12	40C504	5/16 x 5/32
15	10TCR-Q15	40C511	5/16 x 5/32
18	10TCR-Q18	40C515	5/16 x 5/32
20	10TCR-Q20	40C449	5/16 x 5/32
22	10TCR-Q22	19C256A1	3/8 x 5/32
25	10TCR-Q25	19C393	3/8 x 5/32
27	10TCR-Q27	19C418	3/8 x 5/32
30	10TCR-Q30	19C421	3/8 x 5/32
33	10TCR-Q33	19C424	3/8 x 5/32
39	10TCR-Q39	20C269	7/16 x 5/32
47	10TCR-Q47	20C249	7/16 x 5/32
50	10TCR-Q50	20C251	7/16 x 5/32
56	10TCR-Q56	20C279	7/16 x 5/32
68	10TCR-Q68	29C441	9/16 x 5/32
75	10TCR-Q75	29C394	9/16 x 5/32
82	10TCR-Q82	29C398	9/16 x 5/32
100	10TCR-T10	29C401	9/16 x 5/32
120	10TCR-T12	33C214	11/16 x 5/32
150	10TCR-T15	33C198	11/16 x 5/32
175	10TCR-T175	36C324	3/4 x 5/32
180	10TCR-T18	36C319	3/4 x 5/32
200	10TCR-T20	36C323	3/4 x 5/32
220	10TCR-T22	41C236	7/8 x 7/32
270	10TCR-T27	41C237	7/8 x 7/32
300	10TCR-T30	41C230	7/8 x 7/32
330	10TCR-T33	33C199	7/32 x 5/32
390	10TCR-T39	36C321	7/32 x 5/32
470	10TCR-T47	41C235	7/32 x 7/32
560	10TCR-T56	41C277	7/32 x 7/32
		N330	
3.0	10TCS-V30	40C456	5/16 x 5/32
3.3	10TCS-V33	40C466	5/16 x 5/32
3.9	10TCS-V39	40C470	5/16 x 5/32
4.7	10TCS-V47	40C476	5/16 x 5/32
5.0	10TCS-V50	40C481	5/16 x 5/32
5.6	10TCS-V56	40C485	5/16 x 5/32
6.8	10TCS-V68	40C490	5/16 x 5/32
8.2	10TCS-V82	40C495	5/16 x 5/32
10	10TCS-Q10	40C500	5/16 x 5/32
12	10TCS-Q12	40C505	5/16 x 5/32
15	10TCS-Q15	40C512	5/16 x 5/32
18	10TCS-Q18	40C516	5/16 x 5/32
20	10TCS-Q20	40C518	5/16 x 5/32
22	10TCS-Q22	40C522	5/16 x 5/32
25	10TCS-Q25	19C415	3/8 x 5/32
27	10TCS-Q27	19C419	3/8 x 5/32
30	10TCS-Q30	19C422	3/8 x 5/32
33	10TCS-Q33	19C425	3/8 x 5/32
39	10TCS-Q39	20C270	7/16 x 5/32
47	10TCS-Q47	20C252	7/16 x 5/32
50	10TCS-Q50	20C274	7/16 x 5/32
56	10TCS-Q56	20C277	7/16 x 5/32
68	10TCS-Q68	29C442	9/16 x 5/32
75	10TCS-Q75	29C447	9/16 x 5/32
82	10TCS-Q82	29C450	9/16 x 5/32
100	10TCS-T10	29C451	9/16 x 5/32
120	10TCS-T12	33C92	11/16 x 5/32
150	10TCS-T15	33C201	11/16 x 5/32
175	10TCS-T175	33C217	11/16 x 5/32
180	10TCS-T18	36C316	3/4 x 5/32
200	10TCS-T20	36C326	3/4 x 5/32
220	10TCS-T22	41C233	7/8 x 7/32
270	10TCS-T27	41C234	7/8 x 7/32

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SPRAGUE CAPACITORS

CERA-MITE CERAMIC CAPACITORS, continued

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
N330 (cont.)			
300	10TCS-T30	41C261	7/8 x 7/32
330	10TCS-T33	33C241	7/32 x 5/32
390	10TCS-T39	36C318	7/32 x 5/32
470	10TCS-T47	41C276	7/32 x 7/32
560	10TCS-T56	41C278	7/32 x 7/32
N470			
3.0	10TCT-V30	40C463	5/16 x 5/32
3.3	10TCT-V33	40C467	5/16 x 5/32
3.9	10TCT-V39	40C474	5/16 x 5/32
4.7	10TCT-V47	40C419	5/16 x 5/32
5.0	10TCT-V50	40C420	5/16 x 5/32
5.6	10TCT-V56	40C421	5/16 x 5/32
6.8	10TCT-V68	40C422	5/16 x 5/32
8.2	10TCT-V82	40C423	5/16 x 5/32
10	10TCT-Q10	40C424	5/16 x 5/32
12	10TCT-Q12	40C425	5/16 x 5/32
15	10TCT-Q15	40C426	5/16 x 5/32
18	10TCT-Q18	40C427	5/16 x 5/32
20	10TCT-Q20	40C519	5/16 x 5/32
22	10TCT-Q22	40C428	5/16 x 5/32
25	10TCT-Q25	40C352	5/16 x 5/32
27	10TCT-Q27	19C420	3/8 x 5/32
30	10TCT-Q30	19C423	3/8 x 5/32
33	10TCT-Q33	19C397	3/8 x 5/32
39	10TCT-Q39	19C436	3/8 x 5/32
47	10TCT-Q47	19C437	3/8 x 5/32
50	10TCT-Q50	20C275	7/16 x 5/32
56	10TCT-Q56	20C286	7/16 x 5/32
68	10TCT-Q68	20C287	7/16 x 5/32
75	10TCT-Q75	20C288	7/16 x 5/32
82	10TCT-Q82	29C399	9/16 x 5/32
100	10TCT-T10	29C463	9/16 x 5/32
120	10TCT-T12	29C464	9/16 x 5/32
150	10TCT-T15	33C183	11/16 x 5/32
175	10TCT-T175	33C232	11/16 x 5/32
180	10TCT-T18	33C233	11/16 x 5/32
200	10TCT-T20	33C234	11/16 x 5/32
220	10TCT-T22	33C335	11/16 x 5/32
270	10TCT-T27	36C343	3/4 x 5/32
300	10TCT-T30	41C286	7/8 x 7/32
330	10TCT-T33	41C287	7/8 x 7/32
390	10TCT-T39	41C288	7/8 x 7/32
470	10TCT-T47	36C344	7/32 x 5/32
560	10TCT-T56	41C248	7/32 x 7/32
N750			
4.7	10TCU-V47	40C477	5/16 x 5/32
5.0	10TCU-V50	40C482	5/16 x 5/32
5.6	10TCU-V56	40C486	5/16 x 5/32
6.8	10TCU-V68	40C491	5/16 x 5/32
8.2	10TCU-V82	40C496	5/16 x 5/32
10	10TCU-Q10	40C501	5/16 x 5/32
12	10TCU-Q12	40C506	5/16 x 5/32
15	10TCU-Q15	40C513	5/16 x 5/32
18	10TCU-Q18	40C517	5/16 x 5/32
20	10TCU-Q20	40C520	5/16 x 5/32
22	10TCU-Q22	40C523	5/16 x 5/32
25	10TCU-Q25	40C524	5/16 x 5/32
27	10TCU-Q27	40C287	5/16 x 5/32
30	10TCU-Q30	40C533	5/16 x 5/32
33	10TCU-Q33	40C534	5/16 x 5/32
39	10TCU-Q39	19C427	3/8 x 5/32
47	10TCU-Q47	19C438	3/8 x 5/32
50	10TCU-Q50	19C39	3/8 x 5/32
56	10TCU-Q56	19C40	3/8 x 5/32
68	10TCU-Q68	20C289	7/16 x 5/32
75	10TCU-Q75	20C290	7/16 x 5/32
82	10TCU-Q82	20C291	7/16 x 5/32
100	10TCU-T10	29C454	9/16 x 5/32
120	10TCU-T12	29C455	9/16 x 5/32
150	10TCU-T15	29C465	9/16 x 5/32
175	10TCU-T175	29C466	9/16 x 5/32
N750 (cont.)			
180	10TCU-T18	33C88	11/16 x 5/32
200	10TCU-T20	33C105	11/16 x 5/32
220	10TCU-T22	33C236	11/16 x 5/32
270	10TCU-T27	33C237	11/16 x 5/32
300	10TCU-T30	33C346	11/16 x 5/32
N750 (cont.)			
330	10TCU-T33	33C347	11/16 x 5/32
390	10TCU-T39	41C289	7/8 x 7/32
470	10TCU-T47	41C290	7/8 x 7/32
560	10TCU-T56	33C238	7/32 x 5/32
680	10TCU-T68	36C348	7/32 x 5/32

TEMPERATURE-STABLE TYPES

- Used where minimum capacitance change with temperature is an important consideration
- Standard capacitance tolerance: ±10% except 10TS-S15 10TS-S20, 10TS-S30 ±15%
- Rated at **1000 WVDC**

μμF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
3.3	10TS-V33	40C300A	5/16 x 5/16
5.0	10TS-V50	40C49A1	5/16 x 5/16
6.0	10TS-V60	40C299A	5/16 x 5/16
6.8	10TS-V68	40C97A2	5/16 x 5/16
7.5	10TS-V75	40C133A	5/16 x 5/16
8.0	10TS-V80	40C38A2	5/16 x 5/16
10	10TS-Q10	40C219A3	5/16 x 5/16
12	10TS-Q12	40C252A	5/16 x 5/16
15	10TS-Q15	40C65A2	5/16 x 5/16
18	10TS-Q18	40C139A3	5/16 x 5/16
20	10TS-Q20	40C265A	5/16 x 5/16
22	10TS-Q22	40C56A	5/16 x 5/16
25	10TS-Q25	40C113A	5/16 x 5/16
27	10TS-Q27	40C287A	5/16 x 5/16
30	10TS-Q30	40C303	5/16 x 5/16
33	10TS-Q33	40C57A	5/16 x 5/16
39	10TS-Q39	40C58A	5/16 x 5/16
47	10TS-Q47	40C135A	5/16 x 5/16
50	10TS-Q50	40C157A	5/16 x 5/16
56	10TS-Q56	40C130A2	5/16 x 5/16
68	10TS-Q68	40C270A	5/16 x 5/16
75	10TS-Q75	40C46A1	5/16 x 5/16
82	10TS-Q82	40C281A	5/16 x 5/16
91	10TS-Q91	40C302	5/16 x 5/16
100	10TS-T10	40C200A	5/16 x 5/16
120	10TS-T12	40C60A	5/16 x 5/16
130	10TS-T13	40C147A	5/16 x 5/16
150	10TS-T15	40C202A	5/16 x 5/16
180	10TS-T18	40C99A1	5/16 x 5/16
200	10TS-T20	40C81A	5/16 x 5/16
220	10TS-T22	40C204A	5/16 x 5/16
240	10TS-T24	40C167A	5/16 x 5/16
250	10TS-T25	40C101A2	5/16 x 5/16
270	10TS-T27	40C301	5/16 x 5/16
300	10TS-T30	40C106A	5/16 x 5/16
330	10TS-T35	40C207A	5/16 x 5/16
350	10TS-T35	19C105A	3/8 x 5/16
360	10TS-T36	19C106A	3/8 x 5/16
390	10TS-T39	19C131A1	3/8 x 5/16
400	10TS-T40	19C294	3/8 x 5/16
470	10TS-T47	19C160A1	3/8 x 5/16
500	10TS-T50	19C161A	3/8 x 5/16
560	10TS-T56	19C231A	3/8 x 5/16
600	10TS-T60	19C108A	3/8 x 5/16
680	10TS-T68	20C133A	7/16 x 5/16
750	10TS-T75	20C135A	7/16 x 5/16
800	10TS-T80	20C137A	7/16 x 5/16
820	10TS-T82	20C139A	7/16 x 5/16
.001 μF	10TS-D10	29C151A1	9/16 x 5/16
.0012	10TS-D12	29C239A	9/16 x 5/16
.0013	10TS-D13	29C84A	9/16 x 5/16
.0015	10TS-D15	29C155A3	9/16 x 5/16
.0016	10TS-D16	29C85A	9/16 x 5/16
.0018	10TS-D18	33C45A	11/16 x 5/16
.0020	10TS-D20	33C12A2	11/16 x 5/16
.0022	10TS-D22	33C12A1	11/16 x 5/16
.0025	10TS-D25	33C98	11/16 x 5/16
.0027	10TS-D27	33C99	11/16 x 5/16
.0030	10TS-D30	36C246A	3/4 x 5/16
.0033	10TS-D33	36C143A	3/4 x 5/16
.0039	10TS-D39	41C91A	7/8 x 5/16
.0040	10TS-D40	41C56A	7/8 x 5/16
.0043	10TS-D43	41C146	7/8 x 5/16
.0047	10TS-D47	41C72A1	7/8 x 5/16
.0050	10TS-D50	41C89A1	7/8 x 5/16
.0056	10TS-D56	33C100	11/16 x 7/16
.0068	10TS-D68	36C108A	3/4 x 7/16
.0075	10TS-D75	41C148	7/8 x 7/16
.01	10TS-S10	41C121A1	7/8 x 7/16
.015	10TS-S15	41C123A1	7/8 x 5/16
.02	10TS-S20	36C340A	3/4 x 7/16
.03	10TS-S30	41C284A	7/8 x 7/16

HIGH-K TYPES

- Designed for By-Pass and Coupling Applications Where Additional Capacitance Will Not Affect Circuit Operation
- Smallest Physical Size
- 5HK-S15 thru 5HK-P10, **500 WVDC,** Capacitance Tolerance: +80 —20%
- All Other 5HK are **1000 WVDC,** Capacitance Tolerance: GMV

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
SINGLE UNITS			
.001	5HK-D10	40C214	5/16 x 5/32
.0015	5HK-D15	19C237	3/8 x 5/32
.002	5HK-D20	19C203	3/8 x 5/32
.0022	5HK-D22	20C254	7/16 x 5/32
.0025	5HK-D25	20C179A	7/16 x 5/32
.0033	5HK-D33	20C124	7/16 x 5/32
.004	5HK-D40	29C192	9/16 x 5/32
.0047	5HK-D47	29C203	9/16 x 5/32
.005	5HK-D50	29C204	9/16 x 5/32
.0068	5HK-D68	33C49	11/16 x 5/32
.01	5HK-S10	33C29	11/16 x 5/32
.015	5HK-S15	29C388A	9/16 x 5/32
.02	5HK-S20	33C60A	11/16 x 5/32
.025	5HK-S25	33C57	11/16 x 5/32
.04	5HK-S40	33C24	11/16 x 7/32
SINGLE UNITS (cont.)			
.05	5HK-S50	33C58	11/16 x 7/32
.1	5HK-P10	41C92	7/8 x 7/32
DUAL UNITS			
2 x 470μμF	5HK-2T47	19C166	3/8 x 5/32
2 x 800	5HK-2T80	19C167	3/8 x 5/32
2 x .001μF	5HK-2D10	20C253	7/16 x 5/32
2 x .0015	5HK-2D15	55C67	1/2 x 5/32
2 x .002	5HK-2D20	29C175	9/16 x 5/32
2 x .0022	5HK-2D22	29C27	9/16 x 5/32
2 x .004	5HK-2D40	33C111	11/16 x 5/32
2 x .0047	5HK-2D47	36C330	3/4 x 5/32
2 x .01	5HK-2S10	41C238	7/8 x 5/32
2 x .02	5HK-2S20	41C219	7/8 x 7/32

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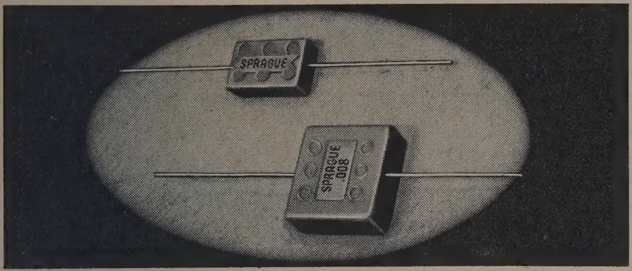
SPRAGUE CAPACITORS

MICA CAPACITORS

TYPE MS and 1FM MICAS



TYPE MS — SILVERED MICA
(Standard Capacitance Tolerance ±5%)

MF	Cat. No.	Net Ea.
500WVDC, 1000 V Test		
.000005	MS-55	$.27
.000010	MS-41	.24
.000012	MS-412	.24
.000015	MS-415	.24
.000018	MS-418	.24
.000020	MS-42	.24
.000022	MS-422	.24
.000024	MS-424	.24
.000025	MS-425	.24
.000027	MS-427	.24
.000030	MS-43	.24
.000033	MS-433	.24
.000036	MS-436	.24
.000039	MS-439	.24
.000040	MS-44	.24
.000043	MS-443	.24
.000047	MS-447	.24
.000050	MS-45	.24
.000051	MS-451	.24
.000056	MS-456	.24
.000060	MS-46	.24
.000062	MS-462	.24
.000068	MS-468	.24
.000070	MS-47	.24
.000075	MS-475	.24
.000082	MS-482	.24
.000091	MS-491	.24
.000100	MS-31	.24
.000110	MS-311	.27
.000120	MS-312	$.27
.000130	MS-313	.27
.000150	MS-315	.27
.000160	MS-316	.27
.000180	MS-318	.27
.000200	MS-32	.27
.000220	MS-322	.27
.000240	MS-324	.33
.000250	MS-325	.33
.000270	MS-327	.33
.000300	MS-33	.33
.000330	MS-333	.33
.000360	MS-336	.33
.000390	MS-339	.39
.000400	MS-34	.39
.000430	MS-343	.39
.000470	MS 347	.42
.000500	MS-35	.42
.000510	MS-351	.42
.000560	MS-356	.45
.000600	MS-36	.48
.000620	MS-362	.48
.000680	MS-368	.51
.000700	MS-37	.51
.000750	MS-375	.54
.000800	MS-38	.57
.000820	MS-382	.57
.000900	MS-39	.60
.000910	MS-391	.60
.001000	MS-21	.66
.001100	MS-211	.72
.001200	MS-212	.78
.001300	MS-213	$.75
.001500	MS-215	.81
.001600	MS-216	.81
.001800	MS-218	.81
.002000	MS-22	.81
.002200	MS-222	.90
.002400	MS-224	1.08
.002500	MS-225	1.08
.002700	MS-227	1.14
.003000	MS-23	1.23
.003300	MS-233	1.23
.003600	MS-236	1.26
.003900	MS-239	1.29
.004000	MS-24	1.29
.004300	MS-243	1.29
.004700	MS-247	1.29
.005000	MS-25	1.35
.005100	MS-251	1.35
.005600	MS-256	1.50
.006000	MS-26	1.44
.006200	MS-262	1.56
300 WVDC, 600 V Test		
.006800	MS-268	1.56
.007000	MS 27	1.56
.007500	MS-275	1.68
.008000	MS-28	1.68
.008200	MS-282	1.68
.009000	MS-29	1.86
.009100	MS-291	1.86
.010000	MS-11	2.04

TYPE 1FM
(Standard Capacitance Tolerance ±20%)

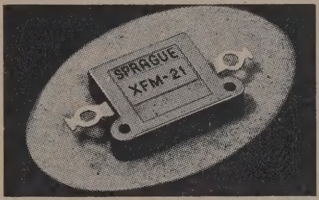
MF	Cat. No.	Net Ea.
500 WVDC, 1000 V Test		
.000010	1FM-41	$.15
.000012	1FM-412	.15
.000015	1FM-415	.15
.000018	1FM-418	.15
.000020	1FM-42	.15
.000022	1FM-422	.15
.000024	1FM-424	.15
.000027	1FM-427	.15
.000030	1FM-43	.15
.000033	1FM-433	.15
.000036	1FM-436	.15
.000039	1FM 439	.15
.000040	1FM-44	.15
.000043	1FM-443	.12
.000047	1FM-447	.12
.000050	1FM-45	.12
.000051	1FM-451	.12
.000056	1FM-456	.12
.000062	1FM 462	.12
.000068	1FM-468	.12
.000075	1FM-475	.12
.000082	1FM-482	.12
.000091	1FM-491	.12
.000100	1FM-31	.12
.000110	1FM-311	.12
.000120	1FM-312	.12
.000130	1FM-313	.12
.000150	1FM-315	$.12
.000160	1FM-316	.12
.000180	1FM-318	.12
.000200	1FM-32	.12
.000220	1FM-322	.15
.000240	1FM-324	.15
.000250	1FM-325	.15
.000270	1FM-327	.15
.000300	1FM-33	.15
.000330	1FM-333	.15
.000350	1FM-335	.15
.000360	1FM-336	.15
.000390	1FM-339	.15
.000400	1FM-34	.15
.000430	1FM-343	.15
.000470	1FM-347	.15
.000500	1FM-35	.15
.000510	1FM-351	.15
.000560	1FM-356	.15
.000620	1FM-362	.15
.000680	1FM-368	.15
.000700	1FM-37	.15
.000750	1FM-375	.18
.000820	1FM-382	.18
.000910	1FM-391	.18
.001000	1FM-21	.18
.001100	1FM 211	.18
.001200	1FM-212	.18
.001300	1FM-213	.18
.001500	1FM-215	$.18
.001600	1FM-216	.18
.001800	1FM-218	.24
.002000	1FM-22	.24
.002200	1FM-222	.24
.002400	1FM-224	.30
.002500	1FM-225	.30
.002700	1FM-227	.30
.003000	1FM-23	.30
.003300	1FM-233	.36
.003600	1FM-236	.36
.003900	1FM-239	.36
.004000	1FM-24	.33
.004300	1FM-243	.36
.004700	1FM-247	.36
.005000	1FM-25	.36
.005100	1FM-251	.36
.005600	1FM-256	.39
.006000	1FM-26	.39
.006200	1FM-262	.39
300 WVDC, 600 V Test		
.006800	1FM-268	.51
.007000	1FM-27	.51
.007500	1FM-275	.51
.008000	1FM-28	.60
.008200	1FM-282	.60
.009000	1FM-29	.60
.009100	1FM-291	.60
.010000	1FM-11	.72

MS and 1FM Dimensions

Catalog Nos.	L x W x T
MS-55 thru MS-35	51/64 x 15/32 x 7/32
MS-351 thru MS-222	53/64 x 53/64 x 9/32
MS-224	53/64 x 53/64 x 11/32
MS-225 thru MS-227	53/64 x 53/64 x 9/32
MS-23	53/64 x 53/64 x 11/32
MS-233	53/64 x 53/64 x 9/32
MS-236 thru MS-282	53/64 x 53/64 x 11/32
MS-29 thru MS-11	1 x 5/8 x 5/16
1FM-41 thru 1FM-462	51/64 x 15/32 x 7/32
1FM-468 thru 1FM-475	53/64 x 53/64 x 9/32
1FM-482 thru 1FM-356	51/64 x 15/32 x 7/32
1FM-362 thru 1FM-233	53/64 x 53/64 x 9/32
1FM-236 thru 1FM-282	53/64 x 53/64 x 11/32
1FM-29 thru 1FM-11	1 x 5/8 x 5/16

- Each Mica Capacitor Section Receives a Radio Frequency Test Before Molding
- Careful Selection and Electrical Grading of Raw Mica Assures Maximum Quality
- Section Foils on Foil Micas are Connected to Terminals through Special Low-resistance R-F Bonds
- R-F Current Tested for Peak Ratings After Impregnation and Molding

TYPES XFM, YFM and ZFM



(Standard Capacitance Tolerance ±10%)

MF	Cat. No.	Net Ea.
XFM — 600 WVDC, 1200 V TEST		
.00005	XFM-45	$ .72
.0001	XFM-31	.72
.0002	XFM-32	.72
.00025	XFM-325	.72
.0003	XFM-33	.72
.0004	XFM-34	.72
.0005	XFM-35	.72
.001	XFM-21	.72
.0015	XFM-215	.72
.002	XFM-22	.78
.0025	XFM-225	.78
.003	XFM-23	.87
.004	XFM-24	.90
.005	XFM-25	.93
.006	XFM-26	1.08
.007	XFM-27	1.11
.008	XFM-28	1.14
.01	XFM-11	1.29
.02	XFM-12	1.83
.03	XFM-13	2.67

Catalog Numbers	L x W x T
XFM-45 thru XFM-11	1⅝ x 1⅛ x 11/32
XFM-12 thru XFM-13	1⅝ x 1⅛ x 7/16

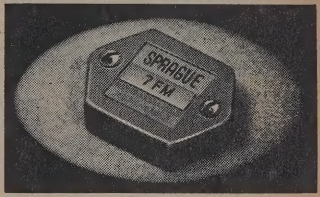
MF	Cat. No.	Net Ea.
YFM — 1200 WVDC, 2500 V TEST		
.00005	YFM-45	.96
.0001	YFM-31	.96
.0002	YFM-32	.96
.00025	YFM-325	.96
.0003	YFM-33	.96
.0004	YFM-34	.96
.0005	YFM-35	.96
.001	YFM-21	1.08
.0015	YFM-215	1.38
.002	YFM-22	1.44
.0025	YFM-225	1.68
.003	YFM-23	1.83
.004	YFM-24	1.83
.005	YFM-25	1.98
.006	YFM-26	1.98
.007	YFM-27	2.07
.008	YFM-28	2.31
.01	YFM-11	3.06

Catalog Numbers	L x W x T
YFM-45 thru YFM-24	1⅝ x 1⅛ x 11/32
YFM-25 thru YFM-11	1⅝ x 1⅛ x 7/16

MF	Cat. No.	Net Ea.
ZFM — 2500 WDVC, 5000 V TEST		
.00005	ZFM-45	1.14
.0001	ZFM-31	1.14
.0002	ZFM-32	1.14
.00025	ZFM-325	1.32
.0003	ZFM-33	1.35
.0004	ZFM-34	1.38
.0005	ZFM-35	1.44
.001	ZFM-21	1.68
.0015	ZFM-215	2.13
.002	ZFM-22	2.49
.003	ZFM-23	2.94
.004	ZFM-24	3.39
.005	ZFM-25	3.84

Catalog Numbers	L x W x T
ZFM-45 thru ZFM-22	1⅝ x 1⅛ x 11/32
ZFM-23 thru ZFM-25	1⅝ x 1⅛ x 7/16

TYPES 7FM, 8FM and 9FM



(Standard Capacitance Tolerance ±10%

MF	Cat. No.	Net Ea.
7FM — 600 WVDC, 1200 V TEST		
.00005	7FM-45	$ .87
.0001	7FM-31	.87
.00015	7FM-315	.87
.0002	7FM-32	.87
.00025	7FM-325	.87
.0005	7FM-35	.87
.001	7FM-21	.87
.002	7FM-22	.99
.0025	7FM-225	1.02
.003	7FM-23	1.11
.004	7FM-24	1.20
.005	7FM-25	1.26
.006	7FM-26	1.32
.008	7FM-28	1.47
.01	7FM-11	1.68
.015	7FM-115	1.83
.02	7FM-12	2.13
.03	7FM-13	2.73
.04	7FM-14	3.51
.05	7FM-15	4.26
.06	7FM-16	4.83

Catalog Numbers	L x W x T
7FM-45 thru 7FM-13	1¾ x 1 5/16 x 7/16
7FM-14 thru 7FM-16	1¾ x 1 5/16 x ¾

MF	Cat. No.	Net Ea.
8FM — 1200 WVDC, 2500 V TEST		
.00005	8FM-45	.96
.0001	8FM-31	.96
.00015	8FM-315	.96
.0002	8FM-32	.96
.00025	8FM-325	.96
.0005	8FM-35	.96
.001	8FM-21	1.14
.002	8FM-22	1.50
.0025	8FM-225	1.68
.003	8FM-23	1.77
.004	8FM-24	1.86
.005	8FM-25	1.98
.006	8FM-26	2.07
.008	8FM-28	2.46
.01	8FM-11	2.82
.015	8FM-115	3.48
.02	8FM-12	4.23
.025	8FM-125	4.74
.03	8FM-13	4.86

Catalog Numbers	L x W x T
8FM-45 thru 8FM-115	1¾ x 1 5/16 x 7/16
8FM-12 thru 8FM-13	1¾ x 1 5/16 x ¾

MF	Cat. No.	Net Ea.
9FM — 2500 WVDC, 5000 V TEST		
.00005	9FM-45	1.14
.0001	9FM-31	1.14
.00025	9FM-325	1.29
.0005	9FM-35	1.53
.001	9FM-21	1.74
.002	9FM-22	2.55
.0025	9FM-225	2.76
.003	9FM-23	3.06
.004	9FM-24	3.39
.005	9FM-25	3.72
.006	9FM-26	3.81
.008	9FM-28	4.11
.01	9FM-11	4.28
.015	9FM-115	4.83

Catalog Numbers	L x W x T
9FM-45 thru 9FM-26	1¾ x 1 5/16 x 7/16
9FM-28 thru 9FM-115	1¾ x 1 5/16 x ¾

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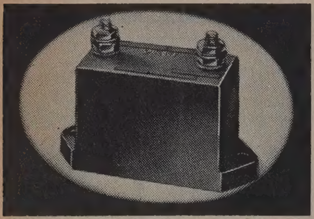
All prices and sizes subject to change without notice.

SPRAGUE CAPACITORS

MICA CAPACITORS, continued

TYPES 1MC & 2MC



(Standard Capacity Tolerance ±5%)

TYPE 1MC

Dimensions — 2″ L. x 1⁵⁄₁₆″ W. x 1¹⁹⁄₃₂″ H.

MF	VAC Peak	Cat. No.	Net
.00005	3000	1MC-45	$ 7.56
.0001	3000	1MC-31	7.56
.00015	3000	1MC-315	7.56
0002	3000	1MC-32	7.56
.00025	3000	1MC-325	7.56
.0003	3000	1MC-33	7.56
.0004	3000	1MC-34	7.56
.0005	3000	1MC-35	7.56
.0006	3000	1MC-36	7.56
.0007	3000	1MC-37	7.56
.0008	3000	1MC-38	7.56
.001	3000	1MC-21	7.56
.0015	3000	1MC-215	7.56
.002	3000	1MC-22	7.56
.003	2000	1MC-23	7.56
.004	2000	1MC-24	7.56
.005	2000	1MC-25	7.56
.006	2000	1MC-26	7.56
.007	2000	1MC-27	7.56
.00	1500	1MC-28	7.56
.01	1000	1MC-11	7.56
.015	1000	1MC-115	7.56
.02	1000	1MC-12	8.58
.03	500	1MC-13	8.58
.04	500	1MC-14	8.58
.05	250	1MC-15	8.58
.1	250	1MC-1	9.06

TYPE 2MC

Dimensions — 2¼″ L. x 1¼″ W. x 1¹³⁄₁₆″ H.

MF	VAC Peak	Cat. No.	Net
.00005	5000	2MC-45	$10.38
.0001	5000	2MC-31	10.38
.00015	5000	2MC-315	10.38
.0002	5000	2MC-32	10.38
.00025	5000	2MC-325	10.38
.0003	5000	2MC-33	10.38
.0004	5000	2MC-34	10.38
.0005	5000	2MC-35	10.38
.0006	5000	2MC-36	10.38
.0007	5000	2MC-37	10.38
.0008	5000	2MC-38	10.38
.001	5000	2MC-21	10.38
.0015	5000	2MC-215	10.38
.002	5000	2MC-22	10.38
.003	3000	2MC-23	10.38
.004	3000	2MC-24	10.38
.005	3000	2MC-25	10.38
.006	3000	2MC-26	10.38
.007	3000	2MC-27	10.38
.008	2000	2MC-28	10.38
.01	2000	2MC-11	10.38
.015	2000	2MC-115	10.38
.02	2000	2MC-12	10.38
.03	1500	2MC-13	10.38
.04	1500	2MC-14	10.38
.05	1500	2MC-15	10.38
.06	1000	2MC-16	11.16
.07	1000	2MC-17	11.16
.08	500	2MC-18	11.52
.1	500	2MC-1	11.52

TYPES 1CC, 2CC, 3CC & 4CC

(Standard Capacity Tolerance ±5%)

TYPE 1CC

Dimensions — 2¹³⁄₁₆″ D. x 2½″ H.

MF	Cat. No.	Net
	6000 VAC Peak	
.00005	1CC-45	$22.92
.000075	1CC-475	24.00
.0001	1CC-31	24.36
.00015	1CC-315	24.36
.0002	1CC-32	24.36
.00025	1CC-325	24.36
.0003	1CC-33	26.61
.0004	1CC-34	26.61
.0005	1CC-35	27.99
.0006	1CC-36	27.99
.0007	1CC-37	27.99
.0008	1CC-38	27.99
.001	1CC-21	27.99
.0015	1CC-215	29.34
.002	1CC-22	29.34
.003	1CC-23	30.36
.004	1CC-24	30.36
	4000 VAC Peak	
.005	1CC-25	30.36
.006	1CC-26	30.87
.007	1CC-27	30.37
.008	1CC-28	30.87
.01	1CC-11	30.87
	3000 VAC Peak	
.015	1CC-115	30.87
	2000 VAC Peak	
.02	1CC-12	30.87
.025	1CC-125	31.08
	1500 VAC Peak	
.03	1CC-13	33.45
.04	1CC-14	35.10
.05	1CC-15	36.45
.06	1CC-16	37.68
	1000 VAC Peak	
.07	1CC-17	38.55
.08	1CC-18	39.45
.1	1CC-1	41.10

TYPE 2CC

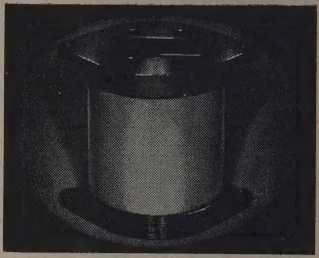
Dimensions — 3½″ D. x 3″ H.

MF	Cat. No.	Net
	10,000 VAC Peak	
.00005	2CC-45	39.33
.000075	2CC-475	39.33
.0001	2CC-31	39.33
.00015	2CC-315	39.33
.0002	2CC-32	39.33
.0003	2CC-33	39.33
.0004	2CC-34	39.33
.0005	2CC-35	39.33
.0006	2CC-36	39.33
.0007	2CC-37	29.33
.0008	2CC-38	39.33
.001	2CC-21	39.33
.0015	2CC-215	39.33
.002	2CC-22	39.33
	8000 VAC Peak	
.003	2CC-23	39.33
.004	2CC-24	39.33
	6000 VAC Peak	
.005	2CC-25	39.33
	5000 VAC Peak	
.006	2CC-26	41.49
.007	2CC-27	41.49
.008	2CC-28	41.49
.01	2CC-11	41.49
	4000 VAC Peak	
.015	2CC-115	41.49
	3000 VAC Peak	
.02	2CC-12	41.49
.025	2CC-125	43.20
	2000 VAC Peak	
.03	2CC-13	44.10
.04	2CC-14	46.68
.05	2CC-15	48.45
.06	2CC-16	49.80
	1500 VAC Peak	
.07	2CC-17	51.00
.08	2CC-18	51.90
.1	2CC-1	54.00

TYPE 3CC

Dimensions — 5″ D. x 4″ H.

MF	Cat. No.	Net
	20,000 VAC Peak	
.00005	3CC-45	66.54
.000075	3CC-475	72.60
.0001	3CC-31	72.60
.00015	3CC-315	78.66
.0002	3CC-32	78.66
.0003	3CC-33	78.66
.0004	3CC-34	82.29
.0005	3CC-35	82.29
.0006	3CC-36	82.29
.0007	3CC-37	82.29
.0008	3CC-38	82.29
.001	3CC-21	84.69
	15,000 VAC Peak	
.0015	3CC-215	85.92
.002	3CC-22	85.92
	12,000 VAC Peak	
.003	3CC-23	90.75
.004	3CC-24	90.75
	10,000 VAC Peak	
.005	3CC-25	90.75
.006	3CC-26	90.75
.007	3CC-27	90.75
.008	3CC-28	90.75
	8000 VAC Peak	
.01	3CC-11	90.75
	5000 VAC Peak	
.015	3CC-115	90.75
.02	3CC-12	90.75
	3000 VAC Peak	
.025	3CC-125	90.75
.03	3CC-13	90.75
.04	3CC-14	90.75
.05	3CC-15	90.75
.06	3CC-16	95.10
	2000 VAC Peak	
.07	3CC-17	98.40
.08	3CC-18	103.20
.1	3CC-1	109.20



TYPE 4CC

Dimensions — 5″ D. x 5¾″ H.

MF	Cat. No.	Net
	30,000 VAC Peak	
.0001	4CC-31	$126.18
.00015	4CC-315	126.18
.0002	4CC-32	132.70
.0003	4CC-33	132.70
.0004	4CC-34	132.70
.0005	4CC-35	132.70
.0006	4CC-36	132.70
.0007	4CC-37	132.70
.0008	4CC-38	132.70
.001	4CC-21	132.70
	25,000 VAC Peak	
.0015	4CC-215	137.46
	20,000 VAC Peak	
.002	4CC-22	137.46
.003	4CC-23	137.46
	15,000 VAC Peak	
.004	4CC-24	140.61
.005	4CC-25	145.20
.006	4CC-26	151.35
.007	4CC-27	156.00
	12,000 VAC Peak	
.008	4CC-28	156.00
.009	4CC-29	156.00
	10,000 VAC Peak	
.01	4CC-11	163.46
	8000 VAC Peak	
.015	4CC-115	163.46
	6000 VAC Peak	
.02	4CC-12	163.46
.03	4CC-13	163.46
	5000 VAC Peak	
.04	4CC-14	163.46
.05	4CC-15	163.46
.06	4CC-16	174.00
	4000 VAC Peak	
.07	4CC-17	180.00
	3000 VAC Peak	
.08	4CC-18	184.80
.1	4CC-1	195.60

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REM-55-6330

All prices and sizes subject to change without notice.

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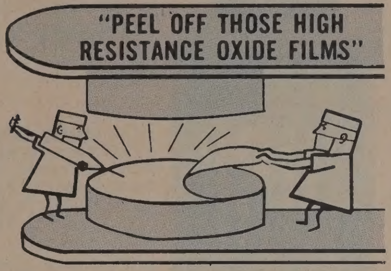
CAIG LABORATORIES INC.

New Hyde Park, L. I., N. Y.

Cramolin® products

FEATURES
- CLEANER
- LUBRICANT
- PRESERVATIVE
- ANTI-CORROSIVE


"PEEL OFF THOSE HIGH RESISTANCE OXIDE FILMS"

PRICES

DESCRIPTION	CRAMOLIN (Red Color)	CRAMOLIN-SPECIAL (Blue Color)	CRAMOLIN-PASTE
2 oz. Glass Bottle	$1.95	$2.25	
½ pint, Glass Bottle	6.75	7.50	
1 pint, Glass Bottle	13.00	14.50	
1 quart, Glass Bottle	25.50	28.00	
¼ Kg Can (½ lb.)			$2.90
6 oz. Spray	3.00	3.50	
Engineers Kit	6.75		

CRAMOLIN fluid is a combination protection and cleaning preparation. It is preferably applied on contacts already in use, or on apparatus where contact deficiency has occurred and where these contacts should be protected against oxidation. May be used on old and new contacts, and with other CRAMOLIN products.

CRAMOLIN-SPECIAL fluid is not a cleaning preparation, however, it does provide the essential protection needed. It is mainly used in the manufacture of new instruments or apparatus where the improvement of performance is desired as well as to preserve and increase the life of the apparatus. Should be used on new contacts or those contacts that have been previously cleaned with CRAMOLIN.

CRAMOLIN-PASTE is a semi-solid form and is also a combination protection and cleaning preparation. Usually used for high amperage and/or high voltage use. Can be used after applications of CRAMOLIN for good results.

Ask or write for Bulletin C-200 for complete Technical Data.

HERE ARE 14 REASONS WHY CRAMOLIN IS THE MODERN CONCEPT ON IMPROVING CONTACT PERFORMANCE

1. Reduces contact resistances to their minimum values.
2. Reduces sparking of brushes on commutators.
3. Improves performance of contacts and collector rings.
4. Protects against salt air and sulfidic atmosphere and will not absorb moisture.
5. Applied on moving parts, Cramolin will stay on. Cramolin contains a chemical compound which is strongly attracted by metal surfaces and cannot be removed completely, even by high pressure friction.
6. Fungus growth will not develop on Cramolin-films, because Cramolin contains mineral and synthetic ingredients only.
7. Cramolin is not aggressive on baked varnishes, although it may affect some nitro-cellulose lacquers.
8. Max. effective operating temperature range is —34°C to +150°C.
9. Cramolin can be safely used at a relative humidity of 95% and temperatures up to 100°C.
10. Cramolin will perform equally as well under air pressure as well as in a vacuum.
11. Insulation resistance of 10^{13} ohms between contacts at distance of 1 cm on Trolitul (phenol-formaldehyde resin).
12. Tests have indicated that no injurious secondary effects arise.
13. Cramolin may be applied on old contacts without special precautions. All non-metallic layers, dust, resin, etc., will be dissolved and removed at once by rubbing it off, or by operating the contact several times.
14. Under general operating conditions Cramolin should be reapplied after two to three years (on high frequency and low current contacts). In highly corrosive atmosphere (containing acid, sulphide, etc.) reapplication should take place after one year. If the air contains unusual quantities of ammonia, contacts should be treated with Cramolin-Special.

NEW Cramolin Spray R

$3.00
6 oz. can

FOR CONTACTS
CRAMOLIN SPRAY
R
CLEANS
LUBRICATES
PROTECTS

6" Extension Spray Tube — FREE!

Now — for those who prefer the spray can method of application. CRAMOLIN SPRAY R has same properties as CRAMOLIN FLUID. Packaged in neat spray can with automatic valve. Equipped with a whirl spray head, which will apply CRAMOLIN — breath thin — to most remote areas. The Hygrade propellant and speedy evaporating solvent leaves only a microfilm of actual CRAMOLIN on contact area.

EACH KIT CONTAINS:
- 2 OZ. CRAMOLIN
- 2 OZ. CRAMOLIN-SPECIAL
- ½ LB. CRAMOLIN-PASTE
- TECHNICAL GUIDE TO PROPERTIES & APPLICATIONS

$6.75
complete plus postage

A Technical Guide to PROPERTIES and APPLICATIONS
Cramolin products
CAIG LABORATORIES
CRAMOLIN ENGINEERS PRODUCT KIT

NEW Cramolin ENGINEERS PRODUCT KIT

The Engineers Kit provides the experimenter the opportunity to evaluate the best combination of CRAMOLIN product preservatives for his own particular contact problems.

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THE NEW MIRACLE T. V. TUNER CLEANER

CHEMICALLY ENGINEERED FOR ELECTRONIC TECHNICIANS

HUSH®

NEW
HUSH
MIRACLE
TV
TUNER CLEANER
Engineered for tuners
CHEMICAL ELECTRONIC ENGINEERING, INC.
Matawan, N. J.

"Spray It and Forget It"

Chemically engineered for that tuner and switching mechanism. Hush comes in a 6 oz. pressure can with sufficient pressure to reach all contacts to wash-a-way that dirt, leaving clean and positive contacts, protected with a lasting lubricant film and with no powder residue.

FREE 6" Plastic Extender With Every Can

6 oz. ECONOMY SPRAY CAN $2.25

Hush also available in 2 oz., 8 oz. and 32 oz. containers. Net

---

STOPS

Corrosion

Corona Loss

Short Circuits

NEW TRANSPARENT

PLASTIC SEALER

INSULATES and WATER PROOFS

with HIGH DIELECTRIC STRENGTH

NEW
TRANSPARENT
PLASTIC
SEALER
Chemically Engineered for the Professional Technician
CHEMICAL ELECTRONIC
CEE
ENGINEERING INC.

16 ounces $1.95 Net

NEW
EVER
QUIET
CLEANS
LUBRICATES
PROTECTS
TV RADIO AND ELECTRONIC CONTACTS

NEW
EVER
QUIET
CLEANS
LUBRICATES
PROTECTS
TV RADIO AND ELECTRONIC CONTACTS

A FEW DROPS DOES THE JOB

2 oz. Net 79c

(32 oz. sizes available)

SINCE 1949 THE ORIGINAL

SUPER EVER-QUIET®

VOLUME CONTROL and CONTACT RESTORER

EVER-QUIET is a free-flowing liquid that leaves no power residue. Scientifically designed to seep around the shaft and penetrate the control or potentiometer, cleaning the contacts and leaving a safe protecting film.

EVER-QUIET is harmless to metals, wire or carbon.

FREE 6" Plastic Extender With Every Can

6 oz. SPRAY CAN $1.59 Net

EVER-KLEER T.V. Picture Tubes, Protecting Glass Cleaner

CHEMICAL ELECTRONIC ENGINEERING, INC.

MATAWAN, NEW JERSEY

CHEMICALS AND KITS

GC ELECTRONICS

GC
ELECTRONICS
Radio TV
SERVICE
CEMENT
FOR SPEAKER REPAIR AND GENERAL SHOP USE
No. 30-2

GC Chemicals (Cements, Thinners, Paints, Oils, Varnishes, etc.), are available in handy 2 oz. bottles with brush-in-cap. Also supplied in larger sizes.

G-C RADIO-TELEVISION SERVICE CEMENT—This high grade cement is specially prepared for Radio, Television and Speaker Work. Unexcelled for cementing and replacing cones on dynamic speakers, repairing rattling or torn cones, cementing voice coils, spiders, etc.
Cat. No. 30-2 2-oz. Net $ .48

G-C PLASTIC CEMENT—Excellent for cementing broken plastic cabinets, cementing grille cloth in place, cementing dial and glass crystal assemblies, cementing knots in dial, cords, etc.
Cat. No. 32-2A 2-oz. Net $ .48

G-C "BAKELITE" CEMENT—This cement is especially made for cementing "BAKELITE" to "BAKELITE" and to other materials.
Cat. No. 32-2 2-oz. Net $ .80

G-C "VINYLITE" CEMENT—This new G-C Cement based upon "VINYLITE" vinyl resins, has great adhesion, high tackiness and extreme flexibility.
Cat. No. 58-2 2-oz. Net $ .48

G-C HOUSEHOLD and MODEL CEMENT—Fast-drying cement, suitable for many uses. Excellent "Household Cement"; will cement wood, paper, plastics, metal, china, crockery, ceramics, etc.
Cat. No. 45-2 2-oz. Net $ .48

G-C FABRIC AND GRILLE CLOTH CEMENT—For cementing grille cloth and fabrics to either metal, plastic or wood cabinets.
Cat. No. 22-2 2-oz. Net $ .53

G-C WOOD CABINET GLUE—This is the ordinary well-known wood glue that is used in repair of furniture, chairs, radio cabinets, etc.
Cat. No. 39-2 2-oz. Net $ .48

G-C No. 28 CEMENT THINNER— This thinner is made of same solvents as G-C Service Cement and makes the best thinner for G-C Service Cement.
Cat. No. 28-2 2-oz. Net $ .45

G-C RADIO SERVICE SOLVENT—The best solvent for loosening cement on speaker cones, frames, etc., made to dissolve all types of cements. Can also be used as a thinner for G-C Cement and other cements.
Cat. No. 31-2 2-oz. Net $ .45

G-C No. 29 LACQUER THINNER—Solvent for thinning all lacquers, lacquer enamels, telephone black and gray, touch-up lacquers.
Cat. No. 29-2 2-oz. Net $ .45

G-C No. 67 PAINT THINNER—Excellent for Ruf-Koat, Krome-Koat, B-K Cement, Insulating Varnish and Rubber Cements.
Cat. No. 67-2 2-oz. Net $ .45

G-C No. 41 Q-DOPE THINNER—Excellent solvent for Polystyrene, Q-Dope and any other Polystyrene Coil Dopes and Cements. Will soften and disolve polystyrene rous, sheets, etc. Clear water-white solvent will not change characteristics of original materials.
Cat. No. 41-2 2-oz. Net $ .45

G-C RUBBER-TO-METAL & PHONO DRIVE CEMENT Specially prepared for cementing ruber phono and dial drives to shafts and pulleys.
Cat. No. 35-2 2-oz. Net $ .53

G-C PLIOBOND CEMENT—Bonds anything to anything—iron, steel, plastic, glass, aluminum, cotton, vinyl sheets, stainless steel, etc. A truly universal cement.
Cat. No. 43-2 2-oz. Net $ .53

G-C ELECTRICAL AND RESISTOR CEMENT—Here's the heat-proof cement that hardens like porcelain, same as used on resistors, flat irons, electrical appliances, etc.
Cat. No. 27-2 2-oz. Net $ .48

G-C ACRYLIC-PLEXIGLASS CEMENT — Specially prepared for cementing Lucite, Plexiglass and other arcylic materials.
Cat. No. 40-2 2-oz. Net $ .53

G-C NE-O-PRENE CEMENT—For cementing neoprene rubber to neoprene or neoprene to other products, such as metal, wood, paper, etc.
Cat. No. 52-2 2-oz. Net $ .60

G-C VINYL PLASTIC FABRIC CEMENT—Made for cementing vinyl plastic sheets together. Ideal for vinyl insulating tubings, patching plastic rain coats, covers, etc.
Cat. No. 16-2 2-oz. Net $ .53

G-C LABEL CEMENT—Here's a label cement that will make labels stick to anything—metal, glass, wood, tin, etc.
Cat. No. 46-2 2-oz. Net $ .48

G-C TV HIGH VOLTAGE CORONA DOPE—Prevents corona shorts on high voltage circuits in Television sets.
Cat. No. 47-2 2-oz. Net $ .72

G-C RED-X TV CORONA DOPE—Prevents corona shorts in high voltage circuits in TV sets. Coat surfaces and sharp corners to stop corona effect.
Cat. No. 50-2 2-oz. Net $ .72

G-C TV TUBE KOAT—For recoating the outside of TV picture tubes that have become scratched or the surface is peeling.
Cat. No. 49-2 2-oz. Net $ .72

G-C TV LINE SEAL FOR UHF AND VHF—Outdoor special acrylic sealer for sealing TV wires, terminals, screws, antennas, junction boxes.
Cat. No. 17-2 2-oz. Net $ .53

G-C PHONO NON-SLIP COMPOUND—Prevents slippage of phono drives on changers, tape recorders, and all types of recorder drives.
Cat. No. 86-2-S 2-oz. NET $ .96

G-C RED GLYPTAL INSULATING VARNISH—Most common of all protective insulating coatings, used on all solder connections, high voltage points, anti-corona.
Cat. No. 90-2 2-oz. Net $ .57

NON-SLIP COMPOUND FOR RADIO DIALS—Powder Compound for treating friction type dial drives such as cords, cabels and belts.
Cat. No. 1210 Non-Slip, 2-oz. Net $ .45

LIQUID NON-SLIP—Penetrating and fast-drying liquid dressing. Shrinks fibres, prolongs life of cables and belts and prevents slipping.
Cat. No. 1211 ½-oz. Net $ .33

G-C DE-OX-ID—Cleans and prevents oxidation on sensitive circuit contacts. Use in Television, Radio, Telephone, Relays, Instruments, etc.
Cat. No. 19-1 1-oz. Net $ .67
19-2 2-oz. Net $ .97

G-C CONTACT AND CRYSTAL CLEANER—A fast-evaporating cleaner specially prepared for cleaning contacts and crystals. Cleans easily and will not injure delicate parts, crystals, etc.
Cat. No. 127-2 2-oz. Net $ .45

NEW G-C ELECTRONIC CONTACT CLEANER—Most popular all-purpose contact cleaner on the market. Fast drying and fast acting. Leaves a non-corrosive film on the contacts that insures long, trouble-free action.
Cat. No. 210-2 2-oz. Net $ .53

G-C DE-NOIZ ELECTRONIC TV CONTACT AND DETENT CLEANER—Stops Noise on all types of contacts, volume controls, tuners, detents, switches, relays, etc.
Cat. No. 51-2 2-oz. Net $ .97

G-C CARBON CONTROL CLEANER—Makes it easy to repair most noisy volume controls, tone controls, switches, band switches, push-buttons—in fact, most all types of moving contacts. A special chemical that both removes oxidation and minimizes future trouble by coating the contacts.
Cat. No. 212-2 2-oz. Net $ .45

G-C CARBON TETRA-CHLORIDE—100% pure Carbon Tetra-Chloride, non-explosive and non-inflammable. For cleaning electrical controls and contacts.
Sat. No. 211-2 2-oz. Net $ .45

G-C LUBE-REX—The best contact cleaner on the market. Fine for attenuators, push-button switches, all-wave switches, contacts, etc. Cleans contacts and prevents corrosion.
Cat. No. 1206 2-oz. Net $ .45

G-C GRAFOLINE—Insures proper and lasting repairs for all air-exposed contacts, switches, and wire-wound volume controls—wherever dust and dirt affect the quiet action of adjustable radio parts or controls.
Cat. No. 120-2 2-oz. Net $ .53

G-C CARBON-X—A practical method to touch up those worn and noisy spots on carbon volume controls.
Cat. No. 1205 2-oz. Net $ .80

G-C CONTACT DOPE—Ideal contact cleaner for electronic switches, controls and contacts. Specially prepared to resist corrosion and oxidation on contacts.
Cat. No. 1214 2-oz. Net $ .48

G-C NON-CORROSIVE LIQUID SOLDERING FLUX—Best quality non-corrosive flux for all types of radio and electrical soldering, for copper, brass, steel, nickel, etc.
Cat. No. 42-2 2-oz. Net $ .48

G-C Q-DOPE (COIL DOPE)—Specially prepared for coating, doping, sealing, cementing and impregnating coils and paints in "Very High" and "Ultra High" frequency ranges.
Cat. No. 37-2 2-oz. Net $ .48

G-C LIQUIDOPE—Gives coils a tough protective film that insures firmness and prevents characteristic changes due to weather.
Cat. No. 36-2 2-oz. Net $ .53

G-C INSULATING & DIPPING VARNISH—Produces a smooth, tough film that is water-proof, oil-proof and non-corrosive. Recommended for treating field coils, noisy or buzzing transformers and choke coils.
Cat. No. 56-2 2-oz. Net $ .53

G-C FUNGUS VARNISH—Used on all types of Radio, Electronics and Communication equipment to prevent moisture absorption and fungus growth, when equipment is used in hot and humid climates.
Cat. No. 57-2 2 oz. Net $ .60

G-C STRIP-X—Removes insulating enamel from wires for easy soldering. Use on magnet wire, etc.
Cat. No. 26-2 2-oz. Net $ .67

G-C RECO-STATIC CHASER—Minimize dust accumulation on records and picture tube. Reduces dust attracting static electricity.
Cat. No. 48-2 2-oz. Net $ .45

G-C MAG-NETIK RECORDING HEAD CLEANER—Cleans without injury to the recording head that gradually lose their sensitivity if oxide accumulates.
Cat. No. 53-1 1-oz. Net $ .57
53-2 2-oz. $ .97

G-C RUF-KOAT—The only finish that will air dry and give you a professional wrinkle job without baking. Colors: Black, Gray and Brown (Specify Color)).
Cat. No. 60-2 2-oz. Net $ .67

G-C No. 14-2 PRINT-KOTE SILICONE RESIN—After repairing or replacing parts in printed circuits, protect the panel joints and parts. Fast air drying.
Cat. No. 14-2 2-oz. Net $1.30

G-C No. 13-2 PRINT-KOTE SOLVENT FOR SILICONE RESIN—The only solvent for G-C 14-2 Silicone Resin. Will dissolve and remove silicone resin from printed circuits.
Cat. No. 13-2 2-oz. Net $ .37

G-C PRINT-KOTE SOLDERING FLUX—Non-corrosive liquid flux for easy soldering and repairing of printed circuits.
Cat. No. 12-2 2-oz. Net $ .50

G-C CEMENT KIT — A kit containing a complete selection for every application. Kit includes 2-oz. samples of Service, Pli-O-Bond, Acrylic, Plastic, Bakelite, Vinylite, Grille Cloth, Model, Wood, Rubber-to-Metal, Electrical and Resistor, Neoprene, Label and Vinyl Cements. Ideal for research and development.
Cat. No. 345 Net $5.97

G-C RADIO AND TELEVISION CEMENT—High grade speaker cement in a handy tube for those who prefer to use a tube. Cement can be applied directly from tube on the parts to be cemented without the use of a brush. Also used for television work, sealing nuts, bolts, etc., on antennas, rotators, etc.
Cat. No. 34-2
2-oz. tube Net $ .48

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Net

GC ELECTRONICS CHEMICALS AND KITS

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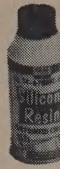
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GC
CIRCUIT COOLER
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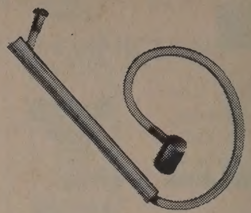
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(A) NEW REK-O-MAGIC ANTI-STATIC SPRAY—Eliminates abrasive dust that ruins records. Cleans and keeps clean. Easy to use.

Cat. No. 98-12 12 oz. Net **$1.88**

(B) DE-OX-ID—Electrical contact cleaner for silver, detent and radar contacts. Use in television, radio, telephone, relays, instruments, etc., the greatest development in electronic contact fluids.

Cat. No. 19-6 6 oz. Net **$2.33**

(C) K-27 PRINT-KOTE—T-V Silicone resin for printed circuits. This is the original clear silicone resin as used by manufacturers on all printed circuit sets. It insulates, protects and prevents shorts.

Cat. No. 14-6 6 oz. Net **$2.42**

(D) SPRA-KLEEN—Eliminates noise due to dust, dirt and corrosion on electrical contacts the easy way. Just spray onto contacts or controls.

No. 8666 6 oz. Spray Can Net **$ .99**

NEW 16 OUNCE KING SIZE THAT SPRAYS UPSIDE DOWN. A full 16 ounces that works equally well right side up or upside down for those hard to reach places.

No. 8666-16 16 oz. Spray Can Net **$1.95**

(E) ZERO-MIST SPRA KOAT—Instantly locates defective circuit components of an intermittent nature due to temperature change. Circuits cooled instantly . . . intermittent components isolated.

Cat. No. 8667 16-oz. Net **$2.42**

(F) G-C FLEX-SOL SPRA-CAN EXTENSION—The device that adapts Spra-Cans to ANY use. Now you can reach and clean controls and tuners without removing them from the chassis. Speeds up and simplifies bench work.

Cat. No. 9344-1 Net **$ .83**

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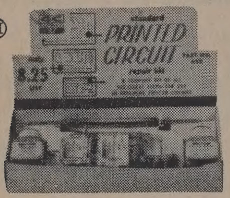

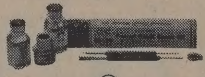
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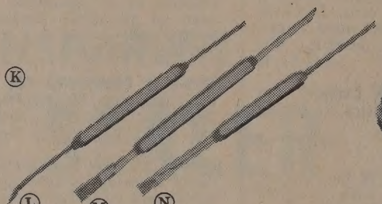
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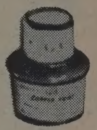
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(H) NEW G-C STANDARD PRINTED CIRCUIT KIT—Includes one box each of foil, solder washers, solder wire, one solder probe tool and brush, silicone resin lacquer and solvent, tweezers and complete instructions.

Cat. No. 682 Net **$4.95**

(1) G-C MASTER PRINTED CIRCUIT KIT—Includes all items in G-C standard kit plus one Ungar Soldering iron with one special tip and a 6-oz. spray can G-C No. 14-6 Print-Kote Silicone Resin Spray and complete instructions.

Cat. No. 683 Net **$10.17**

(J) G-C No. 680—PRINTED CIRCUIT SILICONE RESIN SERVICE KIT—Here's a complete kit with the materials you need to repair any Printed Circuits in radio and TV sets using Printed Circuits. Used by leading set manufacturers.

Cat. No. 680 Net **$5.85**

G-C No. 681—TV PRINTED CIRCUIT SILICONE RESIN SERVICE KIT—No. 681 kit is the same kit as No. 680, except the 21-1 Pure Silver Print is not included in kit.

Cat. No. 681 Net **$3.48**

(K) G-C PRINT-KOTE SILICONE RESIN SPRAY—Genuine Silicone Resin as used by leading TV set manufacturers to protect printed circuits. After repairing or replacing parts in printed circuit sets.

Cat. No. 14-6 6-oz. Net **$2.42**

(L) G-C No. 9093 PRINT-KOTE SOLDER AID PROBE—Handy, fine point probe specially designed to aid in probing and soldering printed circuits.

Cat. No. 9093 Net **$1.00**

(M) G-C No. 9094 PRINT-KOTE BRUSH AND SCRAPER—Fine stainless steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits before any repair can be made.

Cat. No. 9094 Net **$ .98**

(N) G-C HEAVY DUTY SOLDERING AID TOOL—One end has a stiff wire brush for cleaning wire and terminal strip before soldering, and the other end is machined to hold the wires while being soldered.

Cat. No. 9088 Net **$1.00**

(O) G-C PRINT-KOTE SOLDER—Special non-corrosive flux and low-melting solder combined with Pure Silver.

Cat. No. 9131 11-foot Coil Net **$ .52**

(P) G-C SILVER PRINT—Same Pure Silver compounded as used by manufacturers in printed circuit design. Repair those printed circuits, touch up circuit around eyelets, rivets, parts, etc.

Cat. No. 21-1 ½ Troy oz. Net **$3.30**
21-2 1 Troy oz. **5.75**

NEW G-C COPPERPRINT—Excellent for repairing printed circuits. A high conductive, fast drying compound to touch up printed circuits.

Cat. No. 20-2 2 oz. Net **$1.75**

(R) G-C SKRATCH STIKS—Available for Walnut, Mahogany and Light Wood. Removes scratches on all shades and colors of woods—makes them vanish like magic.

Cat. No. 909-W Net **$ .48**

(S) G-C No. 900 MASTER DELUXE CABINET REPAIR KIT—With this Master Repair Kit all repairs can be made even for the most exacting customer. All of the essentials for a really satisfactory repair job are included in this Kit. Our new spirit stains, varnishes and enamels are included in this kit (all spirit solvent).

Cat. No. 900 Master Deluxe Kit Net **$9.10**

G-C No. 901 CABINET REPAIR KIT—Here's a kit that is second to none. It is a complete kit that will meet any emergency or do any repair job. With this kit you can repair wood cabinets, as well as plastic and bakelite cabinets, knobs, etc. On dents or nicks you can use the shellac sticks and melt them in with the spatula and alcohol lamp.

Cat. No. 901 Net **$6.57**

No. 907 MASTER CABINET TOUCH-UP KIT—A high-grade, complete fast Touch-Up Kit for repairing scratches and dents on radio cabinets and furniture.

Cat. No. 907 Touch-Up Kit Net **$4.78**

(T) G-C MAGIC SCRATCH REMOVER KIT—This kit is a combination of 6 shades of Scratch Crayon fillers and Light and Dark Scratch Fluid.

Cat. No. 915 Net **$2.25**

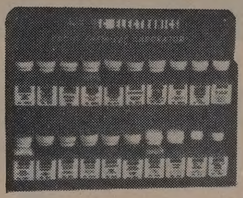
GC ELECTRONICS

CHEMICALS AND KITS

(B)

(D)

(C)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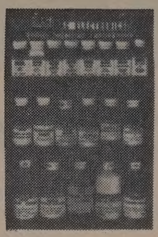
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(B) G-C E.I.A. COLOR CODING KIT—Complete kit of all standard E.I.A. colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Grey and White. Brushes furnished and E.I.A. color chart is on box.

Cat. No. 677 Color Coding Kit Net $1.47

(C) G-C DIAL AND SIGNAL LIGHT COLORING—Long-lasting coloring for signal systems, radio dials, decorative lighting, etc. Instant drying. Bright, durable colors of Red, Green, Blue, Amber, Purple and solvent.

Cat. No. 66-5 Kit of 5, no purple Net $1.23
66-6 Kit of 6 Net $1.43

(D) G-C DIAL AND APPLIANCE OIL—A fine free-running oil for lubricating dial mechanisms, loosening and freeing controls, shafts, etc. Also use on small motors, appliances, etc.

Cat. No. 1245 4-oz. Net $ .67

(E) G-C RADIO-TV CHEMICAL LAB—Twenty 2-oz. bottles in permanent rack that can be placed on your bench or hung on the wall. Every needed chemical and cement is included for all kinds of repairs, speakers, coils, contacts, dials, controls. etc.

Cat. No. 997 Net $12.75

(F) G-C DELUXE RADIO-TV CHEMICAL LAB—For service shop and industrial plant. Complete practical laboratory designed to the needs of all service men in their everyday work. Ideal for the service man, engineer, experimenter, etc.

Cat. No. 998 Net $16.17

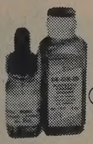
(G) G-C ROOF-SEEL COMPOUND—Eliminate call-backs on roof antenna installations by sealing all contacts or fastenings; to the roof.

Cat. No. 18-16 Pint Net $ .92

(H) G-C LUMINOUS LITE-KOAT KIT—Long-life, non-poisonous luminous coating that absorbs light in daytime and glows in the dark. Coat or stripe dials, knobs, switch plates, meter boxes, key holes, panels, instruments, hallways, staircases, etc.

Cat. No. 184-0 Net $3.23

(J)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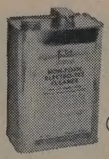
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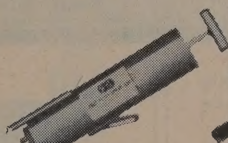
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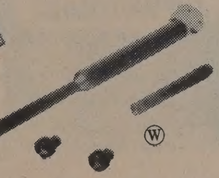
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(J) G-C ELECTRONIC CONTACT CLEANER HYPODERMIC NEEDLE INJECTOR—Here's a handy applicator made on the hypodermic principle to inject cleaners and oils into shafts, controls and tight places.

Cat. No. 8383 Net $ .48

(K) G-C DE-OX-ID KIT WITH NEEDLE INJECTOR—Kit contains 2 oz. bottle of De-Ox-Id and a hypodermic needle type injector for making it easy to apply.

Cat. No. 8460 Net $1.42

G-C CONTROL KLEENER—Cleans and lubricates Volume, Brightness, Tone and other controls. Also good for push buttons, switches, contacts and tuners.

Cat. No. 65-16 16-oz. Net $1.95

(L) G-C NON-TOXIC ELECTRO-TET CLEANER—Chlorothene, one of the least toxic of the Chlorinated Solvents. Closely parallels Carbon Tetrachloride, but much safer. Non-inflammable and fast drying.

Cat. No. 10-G 1 Gallon Net $7.08

G-C KLEEN-TEX CLEANER—A safe, slow-burning, high flash, inexpensive cleaner for motors, chassis, vacuum cleaners, etc. Removes grease, oil, wax and tars.

Cat. No. 11-G 1-Gallon Net $3.27

(M) G-C SOLDERING PASTE—New high quality, non-corrosive soldering paste for radio and electrical work.

Cat. No. 1207 2-oz. Net $ .42

(N) G-C PHONO-TURNTABLE MOTOR & GEAR LUBRICANT—A new special lubricant for phonographs. Formulated so that the lubricant clings to the surface of the parts. Eliminate trouble on phono repairs by using the best.

Cat. No. 1223 2-oz. Net $ .53

(O) TRANSISTOR Z5 SILICONE COMPOUND—G-C Silicone Compound is applied to transistor and chassis at the factory. IT MUST BE RE-APPLIED to transistor and chassis when replacing transistors.

Cat. No. 8101 1-oz. Net $2.10

(P) G-C RUF-KOAT WRINKLE VARNISH—The only finish that will air dry and give you a professional wrinkle job without baking. Colors: Black, Gray and Brown (Specify Color).

Cat. No. 60-2 2-oz. Net $ .67

(Q) RUF-KOAT SPRA-KOAT—In power spray cans.

Cat. No. 60-12 12-oz. Black Net $2.25
60-13 12-oz. Gray $2.25

(R) G-C FELT-KOAT FLOCK FINISH SPRAY KITS—The new G-C method of applying flock with the G-C patented gun. It distributes flock evenly and blows each fibre into the undercoat vertically with great power. The flock in reality "flocks to the undercoat in a heavy velvet coat."

Cat. No. 180-2 Deluxe Kit Complete Net $12.50

(T) G-C FLOCK SIZING UNDERCOAT—A neutral base undercoat. This is first applied to the surface being flocked and then the flock spread over the wet surface.

Cat. No. 180-4 4-oz. Net $ .72

(V) G-C FELT-KOAT SPECIAL FLOCK PATENTED BLOWER GUN—This gun distributes the flock evenly and blows each fibre into the undercoat vertically with great force, thereby giving a smooth, velvet finish.

Cat. No. 180-3 Flock Blower Gun Net $6.75

(W) G-C CONTROL GUN KIT—Cleans and lubricates noisy volume controls. Constructed of solid aluminum—will not rust.

Cat. No. 9285 Net $4.50

(X) CONTACT BURNISHING TOOL KIT—A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean for ideal operating conditions.

Cat. No. 9339 Complete Kit Net $ .75

FREE 400-PAGE CATALOG

shows all GC products. Ask your distributor or write direct.

ECONOMICAL! A LITTLE DOES A LOT!
6 oz. spray can **$3.50** Net
with **FREE** 5" plastic extender push button assembly

EC-44
• LUBRICATES
• CLEANS
• CONDITIONS *All* ELECTRICAL CONTACTS

electronic chemical new formula . . .

always insist on . . . PROVED BRAND NAMES

ask by name for GENUINE "NO NOISE" PRODUCTS

FREE with
"NO NOISE"
VOLUME CONTROL and CONTACT RESTORER
or
"NO NOISE"
TUNER-TONIC

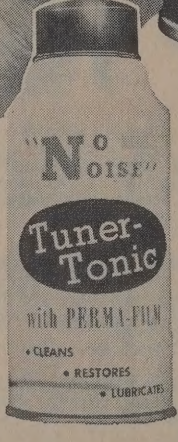
now available

FREE!

5" PLASTIC EXTENDER
with Push Button Assembly

Fastens easily and securely for the finest pin-point applications. Invaluable on all kinds of jobs. Positively won't cause shorts.

ALL "NO-NOISE" PRODUCTS SOLD WITH MONEY BACK GUARANTEE


"NO NOISE"
Tuner-Tonic
with PERMA-FILM
• CLEANS
• RESTORES
• LUBRICATES

"NO NOISE" Tuner-Tonic with Perma-Film

- Economical—a little does a lot.
- Cleans, lubricates, restores all tuners — including wafer type.
- Non-toxic, non-inflammable.
- Use for TV, radio and FM.

6 oz. Aerosol Can NET To Servicemen **$3.25**

"NO NOISE"
Volume Control and Contact Restorer
ELECTRONIC CHEMICAL

"NO NOISE" Volume Control and Contact Restorer

• CLEANS
• PROTECTS • LUBRICATES

NOT A CARBON TET SOLUTION

2 oz. Bottle **$1**
6 oz. Spray Can **$2.25**

NET To Servicemen

At Your DISTRIBUTOR Only

ELECTRONIC CHEMICAL Corp.

JERSEY CITY, NEW JERSEY

electronic chemical
• new formula **EC-44**

Economical! A little does a lot!
6 oz. spray can **$3.50** Net

LUBRICATES • CLEANS CONDITIONS
ALL ELECTRICAL CONTACTS
with **FREE** 5" plastic extender push button assembly

Net

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INJECTORALL CO.

BROOKLYN, N. Y.

AIR CONDITIONER

Aero-Kleen

Oil spray for air-conditioner filters, dripless and scented.

495 16 oz. spray can net $1.29

CEMENTS & GLUES

Grip-Well

Non-slip compound for dial cords, and slipping phono turntables.

68 2 oz. glass bottle net $ .48

Speaker Cement

Vibration proof, fast drying, forms flexible bond; brush in cap.

201 2 oz. glass bottle net $ .48

Stik-It

All purpose glue in squeeze bottle, spreads white, dries clear.

39 2 oz. squeeze bottle net $ .24

CHEMICAL SERVICE AIDS

E-Z Off Yoke Remover

Loosens frozen yokes on picture tubes; with plastic needle.

40 3 oz. spray can net $1.19

CIRCUIT COOLERS

Chill-It

A refrigerant spray, to pin-point defective electronic components.

179-6 6 oz. spray can net $1.29
179-16 16 oz. spray can net $1.79

COATINGS & INSULATORS

Clear Spray

A transparent plastic spray, waterproofs, insulates, prevents rust.

399 16 oz. spray can net $1.29

Hi-Volt

Red insulator, prevents arcing and corona in high voltage circuits.

129-6 6 oz. spray can net $1.29
129-16 16 oz. spray can net $2.28

FURNITURE POLISH

Renew

Scratch cover polish for dark finishes; with cloth.

30WC 6 oz. aerosol can net $ .90

OILS & LUBRICANTS

Spot Oil

Non-gumming, for tape-recorders and record players; with plastic needle.

10-3 3 oz. spray can net $ .90
10-16 16 oz. spray can net $1.79

Squeal-Stop

Dry lubricant, leaves no oily film, won't affect wires; with plastic needle.

50 3 oz. spray can net $ .90

CLEANERS

Contact Cleaner

Superior non-toxic spray solvent, dries quickly; with 4" steel needle.

999WN 6 oz. spray can net $1.79

Degreaser No. 3

Air drying cleaning compound, excellent for ultrasonic application.

3 1 gal. can net $6.90

Lens Kleen

Plastic cleaner, antistatic, for plastic TV windows and meters; with cleaning cloth.

20 6 oz. aerosol can net $ .99

Fidelity Record Cleaner

Antistatic spray, cleans and protects records; with record cleaning cloth.

70WC 3 oz. spray can net $ .90

Hi-Fi Control Cleaner

Cleaner and lubricant for volume controls; with plastic needle.

799-3 3 oz. spray can net $ .90

Tape Head Cleaner

Cleans tape recorder heads, removes squeal; with needle and wire cleaner.

250 3 oz. spray can net $1.19

Super 100

Tuner cleaner and lubricant, will not affect plastics; with 6" steel needle.

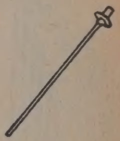
100-8 8 oz. spray can net $2.25

Tuner Cleaner

Cleaner and lubricant for TV tuners and controls, non-toxic, non-flammable.

899-3WN 3 oz. spray can with plastic needle net $ .89
899-6 6 oz. spray can only net $1.79
899WN 6 oz. spray can with 6" steel needle net $1.95
899-16 16 oz. spray can with 6" steel needle net $2.99

NEEDLES ONLY



Injectorall Steel Needle

Stainless steel tube with special fitting for INJECTORALL spray cans.

6N 6 inch needle net $ .66

PAINTS & VARNISHES

Siliconized Spray Paints

211—Transformer Black—15 oz. net $1.29
212—Appliance White—15 oz. net $1.29
213—Antenna Aluminum—15 oz. net $1.29
214—Metallic Gold—15 oz. net $1.29
215—Ham Shack Grey—15 oz. net $1.29

Anti-Fungus Varnish

Conforms to MIL 173A specifications, natural color; prevents fungus growth.

15-16 16 oz. spray can net $2.40
15G 1 gal. can net $14.95

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Net

INTERNATIONAL RESISTANCE COMPANY

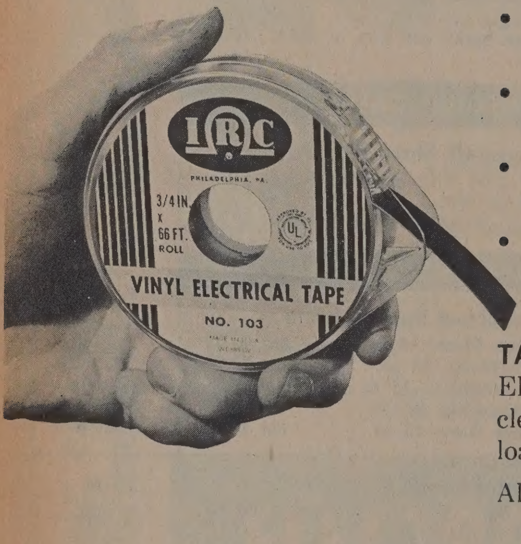
Service Accessories

IRC
Electronic Control
CLEANER
FOR
VOLUME CONTROLS
TUNERS
SWITCHES
NON-FLAMMABLE
PROVIDES LONG LASTING PROTECTION FROM CORROSION AND OXIDATION

ELECTRONIC CONTROL CLEANER. IRC's new Electronic Control Cleaner provides positive, long-lasting protection against damaging corrosion and oxidation. Sprayed on volume controls, tuners, switches and other sensitive components, it quickly removes dirt and clogging gum . . . deposits a non-drying film that lubricates contact surfaces.

VINYL ELECTRICAL TAPE for fast, safe, one-hand insulating. This new IRC Type 103 vinyl electrical tape has everything engineers, technicians, servicemen and hobbyists want in an insulating tape.

- 2 to 18 times better dielectric strength than other tapes.
- Seals and insulates in one fast tape-and-tear operation . . . saves tape and time. UL approved as a single insulation for wire splices.
- Saves space in confined areas . . . ends "twice-around" wraps with bulky tapes.
- Provides a tight insulated plastic seal . . . resistant to abrasion, water, acids, alkalies, corrosion and aging.
- Gives a neater wrap . . . adheres readily to irregular surfaces and contours.
- Makes an excellent wrap for insulating tools.


IRC
PHILADELPHIA, PA.
3/4 IN. X 66 FT. ROLL
UL
VINYL ELECTRICAL TAPE
NO. 103

TAPE-AND-TEAR DISPENSER. For fast, one-hand taping IRC Vinyl Electrical Tape comes in a sturdy tape-and-tear dispenser that keeps tape clean and prevents stretching. Cutting blade is shielded. Dispenser is loaded with 66 feet of ¾″ tape.

Also available in cellophane wrapped rolls:

¾″ wide by 20 feet long
⅜″ wide by 20 feet long
⅜″ wide by 36 yards long

INTERNATIONAL RESISTANCE CO.
Distributor Division
Philadelphia 8, Pa.

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1
KRYLON
Electronic Contact
CLEANER LUBRICANT
SPRAY
2
Dry in 20 Minutes Top Coat in 2 Hours
KRYLON
RUST MAGIC
METAL PRIMER SPRAY
STOPS RUST
KRYLON
RUST MAGIC
METAL PRIMER
STOPS RUST
3
SEMI-DRYING
KRYLON
DULLING SPRAY
4
KRYLON
All-Purpose
SILICONE SPRAY
5
KRYLON
RUST RELEASE
PENETRATING OIL SPRAY
6
PROTECT IT WITH
KRYLON
CRYSTAL CLEAR
SPRAY COATING
RADIO, TV, ELECTRONICS
7
KRYLON
GLOWING
Fluorescent
SPRAY PAINT
RED ORANGE—633
DRY IN MINUTES
KRYLON
GLOSSY WHITE
SPRAY ENAMEL
8
DRY IN MINUTES
KRYLON
HIGH-HEAT ALUMINUM
SPRAY PAINT

KRYLON SPRAYS SPEED YOUR WORK

No fuss—no muss

1. CLEANER-LUBRICANT—For tuners, volume controls, switches. Provides long-lasting protection from corrosion. Removes dirt and gummy deposits. Leaves a non-drying film lubricant. Comes with 5-in. plastic tube for hard-to-reach areas. 16 oz., only $1.95; 6 oz., 98c.

2. RUST MAGIC—Tough, penetrating primer. Stops rust, protects metal. Dry in 20 minutes . . . top coat in 2 hours. Compatible with lacquers, enamels, vinyls, acrylic latex finishes, etc. 16 oz., $1.79. Also available for brush application.

3. DULLING SPRAY—A "must" in TV and photographic studios. Reduces glare and reflections from shiny surfaces. Simplifies lighting. Use for both black & white and color work. Semi-drying, removable. 16 oz., $1.95.

4. SILICONE ALL-PURPOSE SPRAY—Stops sticking and squeaking of doors, windows, drawers, hinges. Lubricates and protects at same time. Retards rust on metals. Repels water. 16 oz., $1.95; 6 oz., 98c.

5. RUST RELEASE—Penetrating oil spray, instantly and easily frees rusted bolts and nuts that a wrench can't budge. Lubricates as it penetrates. Easy to use. 16 oz., $1.69; 6 oz., 98c.

6. CRYSTAL CLEAR—Acrylic spray coating for TV, radio, electronic use. Protects against humidity and dust. Prevents rusting and pitting. Has high dielectric strength. 16 oz., $1.95; 6 oz., 98c.

7. BEAUTIFUL COLORS—Choice of 26 regular enamel colors and 7 glowing fluorescent paints. Use for repainting, color coding, touch-up or safety. Indoors or outdoors. Enamels: 16 oz., $1.79; 6 oz., 98c. Fluorescents: 16 oz., $2.79; 6 oz., $1.19.

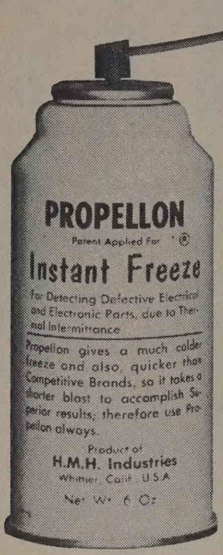
8. HIGH-HEAT ALUMINUM—Withstands temperatures up to 500°F for long periods . . . up to 1000° for intermittent periods. Exceptional film thickness. 16 oz., $2.49.

If you prize it . . . KRYLON-ize it!

Contact your radio-TV jobber or write for Krylon's new industrial products catalog

KRYLON INC., NORRISTOWN, PA.

Heeger, Inc., Los Angeles, California, as national sales administrators, present the following chemicals that have found favor with engineers, laboratory technicians and production in industry, to assist them in procuring the best proven material to enable them to arrive at the best results.


PROPELLON
Patent Applied For ®
Instant Freeze
For Detecting Defective Electrical and Electronic Parts, due to Thermal Intermittance
Propellon gives a much colder freeze and also, quicker than Competitive Brands, so it takes a shorter blast to accomplish Superior results; therefore use Propellon always.
Product of H.M.H. Industries Whittier, Calif. U.S.A.
Net Wt 6 Oz

From the laboratories of

H. M. H. INDUSTRIES

PROPELLON INSTANT FREEZE

Used by electronic engineers and technicians for detecting defective electronic and electrical parts, due to thermal intermittance. Valuable in the laboratory, field testing, service bench or field work, maintenance of equipment and in the electronic and electrical analysis of trouble. Propellon "Instant Freeze" delivers the lowest temperature practical for above uses. Odorless, non-toxic and non-flammable.

The extender facilitates in directing the spray directly onto the area tested. Also aids in getting into inaccessible places.

12 TO A CASE

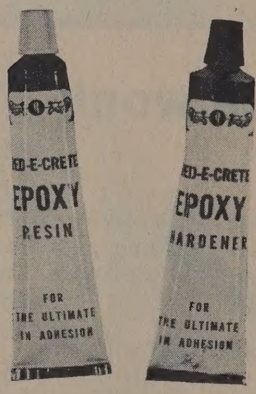
PACKED in 7 OZ. CANS AND 15 OZ. CANS — 12" EXTENDER FREE WITH EACH CAN

7 OZ. CAN, with 12" extender	**ea. $1.45**
15 OZ. CAN, with 12" extender	**ea. $2.25**

From the laboratories of

FIBER-RESIN CORPORATION

F-R EPOXY GLUE


RED-E-CRETE
EPOXY
RESIN
FOR THE ULTIMATE IN ADHESION
RED-E-CRETE
EPOXY
HARDENER
FOR THE ULTIMATE IN ADHESION

F-R EPOXY GLUE bonds loose caps to CR tubes which become loose, and bases on high-priced receiving tubes such as 6BG6G, 6CD6G, 6BQ6GT, etc., also for bonding loose grid caps. F-R EPOXY will bond any item together with a strength far exceeding any other adherent now in use. Non-conductive, does not harm insulation, is heat-resistant to 250° F, low loss at high frequency, is transparent, gasoline, chemical and waterproof. Also used for covering labels and other materials exposed to salt air. Can be used for coil dope. Industrially is applicable to many uses and encapsulating parts and units.

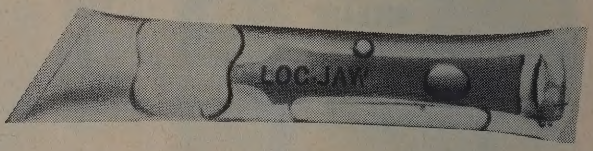
KIT of 2 tubes on card	**per card 98¢**

Also available in pint, quart, gallon and 10 gallon quantities.

From the laboratories of

HASCOL ENTERPRISES

LOC-JAW



A SCIENTIFICALLY COMPOUNDED ADHERENT FORMULA

"Loc-Jaw" is an "Epoxy" base compound for bonding metal to metal, glass to metal, glass to glass, glass to wood, wood to wood, metal to wood, etc. Properly proportioned, it hermetically seals small parts and connections. After setting, it actively resists salt water and salt air, gasoline, chemicals and solvents of all types and withstands temperatures up to 300° F. Applicable to many industrial uses. Packed in its own plastic container and applicator. Indispensable where an adherent or sealer is needed.

INDIVIDUAL PLASTIC CONTAINER	**ea. 50c**
BAG OF 10	**per bag 4.50**

From HASCOL LABORATORIES

SAL-MET

NON-CORROSIVE FLUX

SAL MET
SOLDERS ALL METALS
NON CORROSIVE
FLUX
HASCOL ENTERPRISES

- **SOLDERS COPPER TO ALUMINUM**
- **ALUMINUM TO ALUMINUM**
- **SOLDERS ALL METALS**

A scientific laboratory non-corrosive flux for soldering all metals. By using "SAL-MET," copper can be soldered to aluminum, aluminum to aluminum, copper to steel, copper to copper; in fact, any metal to metal is possible. No special preparation on material to be soldered. Use conventional solder, applied with quick heat, regular soldering iron, torch or pot.

1 oz. Tubes	**ea. .72c**
1 lb. Can	**ea. $5.65**

PRICES SUBJECT TO CHANGE

L M B • LOS ANGELES, CALIF.

Net

© U.C.P., Inc.

"QUIETROLE"... the original LUBRICANT CLEANER

TRADE MARK REG. U.S. PAT. OFF.

SPRAY IT or DROP IT...

QUIETROLE
TRADE MARK REG. U.S. PAT. OFF.
NON-INFLAMMABLE • NON-CONDUCTIVE
Spray-Pack
LUBRI-CLEANER
for
TV Tuners
AND ALL OTHER CLEANING & LUBRICATING JOBS WHERE SPRAY APPLICATION IS DESIRABLE.
manufactured by
QUIETROLE
COMPANY, Inc.
Spartanburg, South Carolina

the New QUIETROLE SPRAY-PACK

or the

QUIETROLE BOTTLE with the Eye Dropper

"QUIETROLE" is the preferred, standard product of the industry! Your guarantee for quieting noisy television and radio controls, switches and other moving parts is QUIETROLE. Here is the original, non-inflammable, most reliable lubricant-cleaner on the market today—developed through years of factual and authentic research.

There is no substitute for QUALITY . . . get QUIETROLE TODAY

A First of the Industry . . . A Sixteen Year Plus Record of Proven Superiority. Built to Meet a Demand, Not a Price

QUIETROLE BOTTLE

CAT. NO.	SIZE	MIN. ORDER	MIN. RE-ORDER	DISTR. NET RESALE PRICE
10-2	2 oz.	24	24	$1.49
10-3	4 oz.	16	8	2.54
10-4	8 oz.	8	6	5.07

QUIETROLE BOTTLE with BRUSH-N-CAP

10-3A	4 oz.	16	8	$2.64

QUIETROLE SPRAY-PACK (CAN)

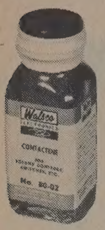
10-5	6 oz.	12	12	$2.79
10-6	3 oz.	12	12	1.79

QUIETROLE
TRADE MARK REG. U.S. PAT. OFF.
TV
AND RADIOS
LUBRICANT
& CLEANER
STOPS NOISY OPERATION OF CONTROLS & SWITCHES
WITHOUT REMOVAL FROM CHASSIS

Mfd. by

QUIETROLE COMPANY, SPARTANBURG, S. C.

Walsco ELECTRONICS CHEMICALS



Ⓐ

Ⓑ

Walsco
CHLOROTHENE
(NON-TOXIC)
No. 113-04

Ⓒ

Walsco
ELECTRONICS
RADIO CEMENT
FOR SPEAKER REPAIR AND GENERAL SHOP USE
No. 50-02

Ⓓ

Walsco
TUNERLUB

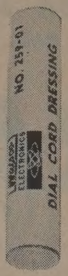
Ⓔ

Walsco
ELECTRONICS
NO-OX
ELECTRONIC CONTACT CLEANER
No. 100-02

Ⓕ

Walsco
LUBRIPLATE
ALL-PURPOSE

Ⓖ



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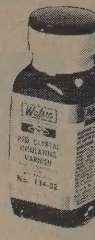


Ⓙ

Walsco
Red-X
CORONA
DOPE
No. 198-02

Ⓚ

(A) WALSCO CONTACTENE

Lubricates as it cleans; fast acting, quick drying. Eliminate volume control noise with this specially compounded electronic contact cleaner. Absolutely anti-oxidant.

Cat. No.	80-02	2-oz. bottle	Net $ .53
	80-04	4-oz. bottle	.67
	80-08	8-oz. bottle	1.13
	80-16	16-oz. can	1.50
	80-06	6-oz. spray can	.98
	80-12	16-oz. spray can	1.95

(B) CONTACTENE INJECTOR

A fine surgical-grade steel needle. Designed to be inserted into places where ordinary applicators cannot reach. Makes lubrication of most volume controls and other parts possible without unsoldering or dismantling.

Cat. No. 989 Net $ .45

(C) CHLOROTHENE (NON-TOXIC)

An amazing, new powerful solvent for all-purpose cleaning of any electronic component, switch, chassis, etc. Quickly dissolves grease, dirt, oils, tar, and waxes. Safe even indoors, under normal conditions.

Cat. No.	113-04	4-oz. bottle	Net $ .57
	113-16	16-oz. bottle	Net 1.32

(D) WALSCO RADIO CEMENT

A fast drying, elastic adhesive that will not become brittle with age. Compounded especially for speaker repair. Not affected by cold or high temperature, moisture or oil.

Cat. No.	50-01	1¾ oz. tube	Net $ .48
	50-02	2 oz. bottle	.48
	50-04	4 oz. bottle	.72
	50-08	8 oz. bottle	1.27
	50-16	1 pt. bottle	2.18

(E) WALSCOLUB-B

Electrically neutral lubricant that prevents corrosion. Walscolub-B makes for smooth, noise-free operation of electrical contacts, band switches, attenuators, push button tuners, remote control switches and other contacts.

Cat. No. 22-01 1¾ oz. tube Net $ .48

(F) WALSCO "NO-OX"

A liquid, non-gumming chemical that dissolves corrosion with amazing speed without the use of drastic solvents. Lubricates and protects slide contacts long after application.

Cat. No.	100-01	1 oz. bottle	Net $ .67
	100-02	2 oz. bottle	.97
	100-16	1 pt. bottle	7.50
	100-33	1 gal. can	38.17
	100-34	5 gal. can	177.99
	100-06	6 oz. spray can	2.33

(G) WALSCO "LUBRIPLATE"

Super lubricant, grease type, protective. Lubriplate reduces friction loss, prevents rust and corrosion. Extends bearing life 50% . . . increases mechanical efficiency 20% over ordinary lubricant.

Cat. No. 23-02 2 oz. tube Net $ .75

(H) DIAL CORD FRICTION STICK

To prevent slipping, simply rub Walsco Friction Stick on dial cord or belt. Increase grip, lengthens life of cord.

Cat. No. 259-01 Net $ .25

(J) WALSCO GLYPTAL

An outstanding insulating varnish. Resists heat, oils and acid. High arc resistance makes it essential in electrical and electronic application.

Cat. No.	134-02	2 oz. bottle	Net $ .57
	134-08	8 oz. bottle	1.65

(K) WALSCO RED CORONA DOPE

Positively stops high voltage "Corona". Protects against "shorts" in high voltage circuits of TV sets. Completely coat surfaces and sharp corners to stop dangerous corona effect.

Cat. No. 198-02 2 oz. bottle Net $ .72

Walsco
WRINKLE
VARNISH
BLACK

AIR-DRY WRINKLE VARNISH

Factory like finish without baking. Can be used on wood or metal. Gives a hard tough, durable finish. Covers in one, easy to apply coat.

Cat. No.	145-02	Black, 2 oz. jar	Net $ .67
	145-06	Black, 6 oz. jar.	1.87
	145-12	Black, 16 oz. Spray can	2.25
	145-33	Black, 1 Gallon Can	15.91
	146-02	Gray, 2 oz. jar	.67
	146-06	Gray, 6 oz. jar	1.87
	146-12	Gray, 16 oz. Spray can	2.25
	146-33	Gray, 1 Gallon Can	16.49

WALSCO SOLVENT AND THINNERS

TYPE CEMENT	USE SOLVENT	CAT. NO.	QTY.	NET
Plastic Cement Radio Cement	*Cement Solvent	201-02	2 oz.	$ .45
		201-04	4 oz.	.72
		201-08	8 oz.	.82
		201-16	16 oz.	1.32
		201-33	1 gal.	4.80
Polystyrene Cement	Polystyrene Solvent	202-02	2 oz.	.45
		202-04	4 oz.	.67
		202-33	1 gal.	3.68
Vinylite Cement Radio Cement Crystallizing Lacquer Fungus Lacquer Telephone Black & Grey Light Bulb Coloring Anti-Corona Lacquer CR-Tubecoat	Lacquer	203-02	2 oz.	.48
		203-33	1 gal.	4.95
		203-34	5 gal.	21.30
Rubber Cement Wrinkle Varnish Flock Undercoat	Thinner	204-04	4 oz.	.67
		204-33	1 gal.	3.68
Elec. & Resistor Cement Wood Glue Aluma-Flux	Water			

* Cement Solvent should be used to loosen hardened cement on speaker cones, voice coils, etc., Solvent will discolor Plastic and Radio Cements if used as a thinner; Lacquer Thinner is recommended for this purpose.

© U.C.P., Inc.

Walsco ELECTRONICS

SPRAY CHEMICALS

KLEEN-TUNE
TV
TUNER
CLEANER
40-800

KLEEN-TUNE

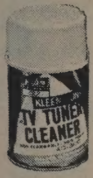
TUNER CLEANER

Completely cleans and lubricates all tuners. Kleen-Tune is a non-flammable, non-toxic cleaner . . . formulated to clean, lubricate and renew all styles of TV tuners in one simple operation.

Kleen-Tune provides a protective film against noise and oxidation and is not harmful to other components. Just apply Kleen-Tune, then work the control a few times. Kleen-Tune does the rest. Saves time and money.

Kleen-Tune is easy to apply, dries quickly and gives complete satisfaction to the serviceman and customer.

Cat. No. 40-800 Net **$1.98**
Std. Pkg.: 12



TUBE CADDY SIZE

KLEEN-TUBE

TUNER CLEANER

Same High Quality Tuner cleaner in a 3 oz. spray can that fits in tube caddies.

Cat. No. 40-300 Net **$ .98**

INSUL-VOLT
Hi-Volt
INSULATOR
40-804

INSUL-VOLT

HI-VOLTAGE INSULATOR WITH SURE SHOT CONFINED STREAM

Insul-Volt is specifically designed to meet the requirements of Military Specification MIL-V-1137-A, Grade BA, Types M & N.

Insul-Volt is positive insulation against Hi-Voltage leaks, arcing and corona shorts such as Hi-Voltage sections of TV sets, or any electrical apparatus requiring this superior protection.

Insul-Volt is formulated and recommended for application and use on transformers, electrical motors, generators and other types of electrical windings, operating at a maximum temperature of 275°F.

Insul-Volt is flexible, heat and acid resistant and impervious to oil, grease and moisture. Insul-Volt is an excellent protection for any exposed wiring or open connection requiring positive lasting insulation. Insul-Volt when applied properly will provide better than 20,000 volts and up of dielectrical strength. Follow directions carefully to insure maximum Hi-Voltage dielectric strength.

Cat. No. 40-804 8 Oz. Spray Can Net **$2.79**
Std. Pkg.: 12

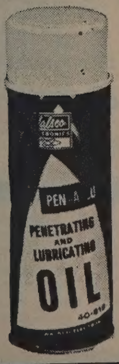
FREEZE-MIST
FAST ACTING
CIRCUIT
COOLER
40-808

FREEZE-MIST

CIRCUIT COOLER

Saves hours locating defective intermittent circuit components caused by temperature changes. Walsco Freeze-Mist cools instantly pinpointing faulty capacitors, resistors, transistors, cold solder and oxidized junctions, etc. due to temperature variances. Plus thousands of other uses in electronic field.

Cat. No. 40-808 8 oz. Spray Can Net **$1.98**
Std. Pkg.: 12



PEN-A-LUBE

VERY FINE PENETRATING & LUBRICATING OIL FROZEN YOKE REMOVER

Pen-A-Lube is a formulation of very fine penetrates and lubricants formulated for those hard to get at spots.

Pen-A-Lube is highly recommended as a lubricant for use on delicate instruments, record changes, tape recorders and stereo controls.

Pen-A-Lube's exacting formulation gives you positive action against rust and corrosion. Pen-A-Lubrication as a liquid wrench for loosening badly rusted or frozen parts such as frozen yokes or rusty control nuts and screws has been found to be highly effective.

Pen-A-Lube provides the answers to questions concerning rust, penetration, lubrication and is a very fine all purpose light machine oil.

Cat. No. 40-812 8 oz. Spray Can Net **$1.79**
Std. Pkg.: 12

OX-NOX
VOLUME
CONTROL
and CONTACT
CLEANER
40-802

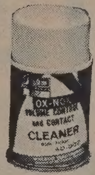
OX-NOX

VOLUME CONTROL & CONTACT CLEANER

Ox-Nox is the answer for removing oxidation and noise from volume controls and electrical contacts. Ox-Nox cleans, lubricates and restores controls and tuning condensers back to like new operating condition.

Ox-Nox is a non-inflammable and non-toxic cleaner and lubricant. Ox-Nox is blended to provide against oxidation and noise.

Cat. No. 40-802 8 Oz. Spray Can Net **$1.98**
Std. Pkg.: 12



TUBE CADDY SIZE OX-NOX

VOLUME CONTROL & CONTACT CLEANER

Same High Quality cleaner in handy 3 oz. tube caddy sized spray can.

Cat. No. 40-302 Net **$ .98**

KLEEN-UP
WATERLESS
HAND
CLEANER
WITH LANOLIN
40-810

KLEEN-UP

WATERLESS HAND CLEANER

Walsco's own waterless hand cleaner Kleen-Up is so simple to use — just press the button. Using a handful of suds, wash hands and wipe off with clean towel.

Kleen-Up is ideal for every type of hand cleaning problem whether it's grease, grime, cement or ink. Kleen-Up does not contain harsh abrasives or strong irritating chemicals.

Kleen-Up is formulated from high grade liquid detergents fortified with lanolin and germ killing trichlorphenate with an aromatic additive. Kleen-Up is considered a very fine hand and skin conditioner and regular use is not harmful.

Cat. No. 40-810 8 Oz. Spray Can Net **$1.49**
Std. Pkg.: 12

Walsco
ELECTRONICS
UNI-SOL
UNIVERSAL
SOLVENT
AND
THINNER
NON TOXIC
40-814

UNI-SOL

UNIVERSAL SOLVENT & THINNER FOR CEMENTS, LACQUERS AND LIQUID INSULATORS

Uni-Sol is the all purpose fast acting solvent to loosen and remove most cements, liquid insulators and thinners and all commercial lacquers.

Uni-Sol is a specially engineered safe solvent and thinner prepared as a loosening agent in speaker repair to remove old cones, frames, spiders and voice coils.

Walsco's Uni-Sol is highly recommended for use as a general purpose all around loosening and thinning agent.

Cat. No. 40-814 8 Oz. Can Net **$ .98**
Std. Pkg.: 12

© U.C.P., Inc.

AMPEREX HIGH RELIABILITY CIRCUIT BLOCKS

cost you less than you've ever paid before... much less than you can make them yourself

Amperex offers a line of basic, proven-reliable* logic modules, available in production quantities for immediate off-the-shelf delivery at the lowest prices in the industry. They may be ordered in any mixed assortment to achieve 1,000 lot pricing. Courtesy discounts are extended on prototype orders.

With this line of reliable circuit blocks, engineers can more readily think in terms of complete systems design instead of spending valuable time in developing and specifying individual circuit components. Purchasing, inventory and quality control become simplified. Development time and production costs go down. In every way, these circuit blocks save you time and money.

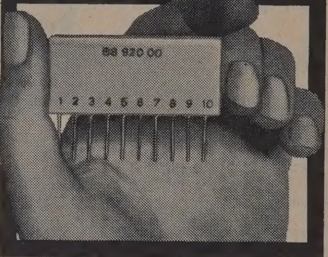
*Life tests exceeding 20,000 hours, made on samples from each week's production of all module types, have never produced a single failure.

AMPEREX® FLIP-FLOP CIRCUIT BLOCKS

Proven 100% Reliable in Life Tests Exceeding 20,000 Hours

$5.94 EACH

IN QUANTITIES OF 1000 OR MORE



SPECIFICATIONS: All Amperex Circuit Blocks

Pulse repetition rates to 100k PPS.
Ambient temperature range: -20° to +60°C.
Supply voltage: ±6 volts DC, ±10% reg.
Unit weight: 0.705 oz. approx.
Dimensions: Body: only 2.13" x .95" x .41".
Leads: 59" long x. 03" dia., on .2" centers.

TYPE NO.	DESCRIPTION	PRICE (1000* AND OVER)
B8.920.00	Flip Flop	$5.94
B8.920.01	Flip Flop	5.94
B8.930.00	Twin 3 Input Negative 'AND' Gate	2.34
B8.930.01	Twin 2 Input Negative 'AND' Gate	1.89
B8.930.02	Twin 3 Input Positive 'OR' Gate	5.31
B8.930.03	Twin 2 Input Positive 'OR' Gate	3.87
B8.930.04	Twin Pulse Logic	3.24
B8.940.00	Emitter Follower/Inverter Amplifier	4.54
B8.940.01	Twin Emitter Follower	4.36
B8.940.02	Twin Inverter Amplifier	4.77
B8.940.03	Twin Emitter Follower (2)	5.71
B8.940.05	Twin Inverter/Amplifier (2)	6.48
B8.950.00	Pulse Shaper	6.48
B8.950.01	One Shot Multivibrator	5.22

* Mixed assortment permitted for quantity discounts.
WARRANTY: 18 months (First 6 mos. unconditional, 12 months prorated.)

SOLID STATE DIGITAL SYSTEMS AND SUB-SYSTEMS

Amperex announces a sweeping expansion of service to the electronics industry in the field of logic functions. Now Amperex will supply you with completely tested and guaranteed solid state systems and sub-systems — manufactured to save you time, engineering and money — under the one plan which best suits your requirements:

1. Amperex will design and build complete digital systems;
2. Amperex will build digital systems or sub-systems to your specifications.

In this bold new expansion Amperex throws open to you its vast experience in the design of digital systems and its manufacturing skills. Write or phone today for details.

DECADE COUNTER MODULES UTILIZING BIQUINARY COUNTING

New BQDC-100 (illustrated with face-plate removed) is available in production quantities in two versions: as a complete 100 kc or 1 Mc biquinary decade counter card, including counter, driver and Amperex **Bi-Qui** numerical indicator tube; as a biquinary driver card including **Bi-Qui** numerical indicator tube and a conversion matrix to match your special requirements.

1. with built-in error detection capabilities
2. with fewer components in simpler circuits and hence:
3. with the price you have been looking for
4. with ruggedized construction
5. with high reliability

Amperex Electronic Corporation, Electronic Assemblies Division, Hicksville, Long Island, New York

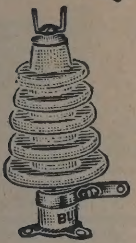
Ask Amperex

© U.C.P., Inc.

Chokes and Hardware

TRANSMITTING CHOKES

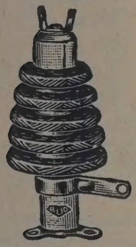
CERAMIC-COATED TYPE



Consists of five graduated pies continuously wound. Pies are not resonant on an amateur band. Distributed capacity kept at a minimum. Each choke is wound on 9/16″ diameter steatite rod, has connection lugs and a mounting foot.
All chokes have a heavy ceramic coating which prevents moisture absorption and enables them to withstand momentary overloads without collapsing between the individual pies.

Bud No.	Ind. Mh	Amp	DC Ohms	Net Each
CH-568	2.2	1.	5	$3.15
CH-569	4.3	.6	12	3.45

OPEN TYPE



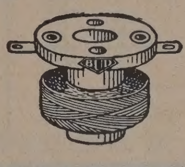
Same as above, but enamel-covered wire is used without overall ceramic coating.

Bud No.	Ind. Mh	Amp	DC Ohms	Net Each
CH-578	2.2	1200*	4.8	$2.25
CH-579	4.3	1000*	7	2.25

*In milliamperes.

LATTICE WOUND RF CHOKES

SILK-COVERED WIRE TYPE



Wound from silk covered enameled copper wire on a white ceramic bobbin. Leads terminated with two convenient soldering lugs. Will take a 6-32 screw through the center of the form. Thoroughly impregnated against moisture. Base diameter, 1 1/16″; 1⅝″ between ends of leads.

Bud No.	Induct. Mh	DC Ohms	Current Ma	Height In.	Net Each
CH-1212	2.5	28	125	15/16	$0.63
CH-1214	5.5	46	125	15/16	.83
CH-1215	8	60	125	15/16	.83
CH-1217	16	84	125	15/16	.83
CH-1218	30	190	100	15/16	.85
CH-1219	60	279	90	15/16	1.01
CH-1220	80	332	80	15/16	1.08

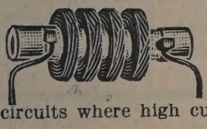
ENAMEL-COVERED WIRE TYPE

Same as above, but wire is enamel-covered type.

Bud No.	Induct. Mh	DC Ohms	Current Ma	Height In.	Net Each
CH-1222	2.5	22	200	15/16	$0.60
CH-1224	5.5	33	200	15/16	.60
CH-1225	8	40	200	15/16	.60
CH-1227	16	59	200	15/16	.60
CH-1228	30	88	190	15/16	.68
CH-1229	60	130	180	15/16	.75
CH-1230	80	160	175	15/16	.83

PIE WOUND RF CHOKES

SILK-COVERED WIRE TYPE



Continuous winding of silk covered enameled copper wire. The pies constituting this winding are wound on a ¼″ diameter ceramic core. Available with strap (**S**) and wire (**W**) leads. CH-876 is a heavy duty choke for circuits such as transmitter plate circuits where high currents are present. All are 1½″ long.

Bud Number	Induct. Mh	DC Ohms	Current Ma	Weight Lbs.	Net Each
CH-920S	2.5	45	125	¼	$0.63
CH-922S	5.5	60	125	¼	.75
CH-924S	10.0	78	100	¼	1.08
CH-876S	2.5	16	250	¼	.93
CH-920W	2.5	45	125	¼	.63
CH-922W	5.5	60	125	¼	.75
CH-924W	10.0	78	100	¼	1.08
CH-876W	2.5	16	250	¼	.93

ENAMEL-COVERED WIRE TYPE

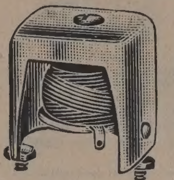
Same as above, but wire is enamel-covered type.

Bud Number	Induct. Mh	DC Ohms	Current Ma	Weight Lbs.	Net Each
CH-926S	2.5	25	200	¼	$0.60
CH-927S	5.5	32	200	¼	.60
CH-928S*	10	49	200	¼	.60
CH-929S	2.5	11	400	¼	.60
CH-926W	2.5	25	200	¼	.60
CH-927W	5.5	32	200	¼	.60
CH-928W*	10	49	200	¼	.60
CH-929W	2.5	11	400	¼	.60

*Wound with one pie only.

IRON CORE RF CHOKES

SILK-COVERED WIRE TYPE



Improves the efficiency of any circuit requiring an RF choke. Finely divided molded metallic core improves "Q"; results from DC resistance being 40–50% less for a given inductance than regular air-core types. DC voltage drop through the choke is considerably less, yet the choking action is equally as good. Windings are silk-covered enamel wire terminated on handy soldering lugs. Chokes mounted in small round shield can, 1⅜″ x 1⅜″ x 1 7/16″.

Bud Number	Induct. Mh	DC Resis. Ohms	Current Ma	Wt., Lbs.	Net Each
CH-1283	16	57	125	¼	$1.46
CH-1284	30	90	100	¼	1.50
CH-1285	60	150	100	¼	1.71
CH-1286	80	190	90	¼	1.83
CH-1287	125	340	90	¼	2.03

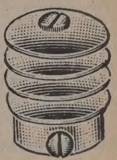
ENAMEL-COVERED WIRE TYPE

Same as above, but wire is enamel covered only.

Bud Number	Induct. Mh	DC Resis. Ohms	Current Ma	Wt., Lbs.	Net Each
CH-1293	16	38	200	¼	$1.20
CH-1294	30	62	190	¼	1.20
CH-1295	60	105	175	¼	1.20
CH-1296	90	162	150	¼	1.28
CH-1297	125	220	150	¼	1.35

Bud No. CH-294 Shield Can—For all RF chokes, above. Net Each..**30c**

HEAT RADIATING PLATE AND GRID TUBE CONNECTORS



Fit all sizes of industrial and transmitting vacuum tubes. Dual purpose design permits use in making connections to plate or grid terminals, plus provide large heat radiating surface for heat dissipation from glass seal and tube element. Eight sizes fit all grid and plate leads; provide sufficient heat radiation for any tube in 50–2000 watt range. Machined from special aluminum rods. Edges rounded to minimize corona.

Bud No. TC-	Lead Hole	For Tube Types	Size L. x O.D.	Net Each
488	.052″	3C24, 24, 24G, 25T, 27	.900″ x .615″	$0.68
487	.062″	UH50, HK24, 304B, 829B, 832A, 834	.900″ x .615″	.68
489	.072″	35T, 35GB, 75TH, HK-257B, HK254, 484, 8001, 4E27	.900″ x .615″	.68
1923	.110″	....	1.0″ x .738″	.75
1924	.125″	HK57, 152TH	1.0″ x .738″	.72
1920	.375″	4-125A, 150TH, 2-150D, 240R, 250TH, 250TL, 420A, 802, 803, 804, 807, 808 grid, 814, 815, 828, 2E24, 2E26, 3E22, 4-65A, 4-250A, 816, 6146, 1625, 4D32, 807W, 1B3GT, 6BG6G, 6CD6G	1.0″ x .738″	.68
1925	.125″	304TH, 304TL	1.0″ x .924″	.74
1921	.570″	ZB60, HF60, HF100, 111H, 211H, 230H, HF175, HF300 grid, 100R, HK375C, 450TH, 454, 750TH, 805, 806, 808, 809, 810, 811, 812, 813, 828, 833, 866, 854, 1500T, 2000T, 1054, 5331, 5332, 8000, 8003, 2005	1.0″ x .924″	.80
1926	.810″	WL468, WL463, WL460, HF200, HF201, MF300	1.0″ x 1.115″	1.05

MOUNTING BRACKETS

Permit mounting of midget condensers, controls and other components in any position. Made of ¾″ wide, cadmium plated steel. Right-angle design with short side have two mounting holes; long side with ⅜″ slot. No. AB-549 has additional ½″ dia. hole centered on ⅜″ slot.

Bud No.	Size	Wt. Per 100, Lbs.	Net Each, Lots of		
			1-99	100-199	200-299
AB-549	1⅜″ x 2″	2¼	9c	8c	7c
AB-550	1⅜″ x 2″	2	9c	8c	7c

ANGLES AND BRACKETS

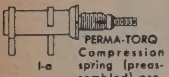
Similar to above; made of ⅜″ wide, nickel-plated brass. Right-angle design; Type 1 has single hole at end of each angle; Type 2 has two holes on long side; single hole on short side.

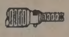
Bud No.	Size, Inches	Type	Wt. Per 100, Lbs.	Net Per 100, Lots of		
				1-99	100-199	200-299
AB-444	½ x ½	1	½	$ 3.63	$3.27	$2.90
AB-445	¾ x ¾	1	1¼	4.20	3.78	3.36
AB-446	1 x 1	1	2	5.55	5.00	4.44
AB-447	1½ x 1½	1	2½	6.75	6.48	5.76
AB-631	1 x ½	1	1¼	4.65	4.19	3.72
AB-632	1½ x ⅝	1	1½	5.70	5.13	4.56
AB-633	2 x ⅝	2	1¾	7.50	6.75	6.00
AB-634	3 x ¾	2	2½	9.25	8.33	7.40
AB-635	4 x ¾	2	3¾	10.95	9.86	8.76

CAMBRIDGE THERMIONIC CORPORATION
CAMBION®
The guaranteed electronic components

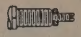
COIL FORMS

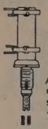
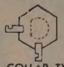
CERAMIC AND PHENOLIC COIL FORMS

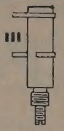

I-a PERMA-TORQ Compression spring (preassembled) provides permanent locking action.

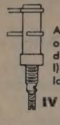

I-b SPRING LOCK Locking spring (unassembled) maintains tension against slug screw.

I-c COMPRESSION LOCK Locknut (unassembled) securely clamps split mounting stud.

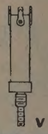

LOCKNUT I-d Conventional locknut (jam nut) (unassembled) tightens against mounting stud.

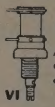

II

COLLAR TYPE Available with a, b, c or d slug-locking devices. (see Fig. I)





Available with b or d slug-locking devices (See Fig. I) and with collars (see Fig. II)





CLIP-TERMINAL TYPE Available with a or b slug-locking devices (see Fig. I)

Tuning slugs supplied assembled; mounting hardware unassembled. Available wound to specifications in any quantity. Order the following items from CHARTS I and II.

Cambion No.	Fig.	Mounting Stud L. x Thread x Base Dia.	Ht. Above Panel	Body O. D.	‡	Collar O. D.	Net 1-49*
1465*	III	¼" x ¼-28 x none	1⅛"	⅜"	#	....	$.46
1885*	V	⅜" x ¼-28 x 9/16"	2.0"	½"	#	....	.68
2024†	I-b, II-b	9/32" x ¼-28 x ½"	1 1/16"	.375"	⅝"	.545"	.64
1534†	I-a, II-a	5/16" x ¼-28 x ½" hex	1 1/16"	.375"	⅝"	.545"	.64
1533†	I-c, II-c	27/64" x ¼-28 x ½" hex	1 1/16"	.375"	⅝"	.545"	.66
2022†	I-b, II-b	9/32" x 10-32 x ⅜" hex	55/64"	.260"	15/32"	.430"	.59
1536†	I-a, II-a	5/16" x 10-32 x ⅜" hex	55/64"	.260"	15/32"	.430"	.59
1535†	I-c, II-c	13/32" x 10-32 x ⅜" hex	55/64"	.260"	15/32"	.430"	.61
2048†	I-b, II-b	5/16" x ¼-28 x ⅝" hex	1 45/64"	.500"	1 1/32"	.670"	.69
1538†	I-a, II-a	5/16" x ¼-28 x ⅝" hex	1 45/64"	.500"	1 1/32"	.670"	.69
1537†	I-c, II-c	29/64" x ¼-28 x ⅝" hex	1 45/64"	.500"	1 1/32"	.670"	.71
1996†	VI-b	9/32" x ¼-28 x ½"	23/32"	.290"	§	....	.85
2151†	VI-a	5/16" x ¼-28 x ½"	23/32"	.290"	§	....	.85
1605*	IV-d	¼" x 8-32 x 5/16"	27/32"	¼"	15/32"	.365"	.46
1540*	IV-b	¼" x 10-32 x 5/16"	27/32"	¼"	15/32"	.365"	.46
2020†	I-d, II-d	¼" x 8-32 x ¼" hex	19/32	.205"	9/32"	.326"	.54
1530†	I-b, II-b	¼" x 8-32 x ¼" hex	19/32	.205"	9/32"	.326"	.54
1532†	I-a, II-a	¼" x 8-32 x ¼" hex	19/32	.205"	9/32"	.326"	.54
1531†	I-c, II-c	21/64" x 8-32 x ¼" hex	19/32	.205"	9/32"	.326"	.56

Order the following from Chart III.

2770†	I-a, II-a	13/32" x 10-32 x ¼" hex	25/32"	.205"	9/32"	21/64"	**
2771†	I-a, II-a	35/64" x 12-28 x ⅜" hex	1 3/32"	.260"	15/32"	7/16"	**

*Body material, phenolic. †Body material, ceramic. ‡Space between collars. #Ring terminals only. §Clip terminals only. ⁑1See Chart III for prices.

CHART I		CHART II	
1st Suffix	**Frequency Range MC**	**2nd Suffix**	**†Collars/ Terminals**
-1	0.2-1.5	-1	2 ring terminals
-2	1-20	-2	2/2 ea.
-3	20-50	-3	2/1 ea.
-4	30 and up	-4	1 top/2
-5	100 and up*	-5	1 bot./2
-0	No slug		

*Brass slug; others powdered iron. †Silicone fiberglas collars, solder terminals.

Note: 1885 and 1996 are not available with collars.

CHART III

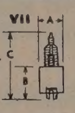
Ordering involves the use of the basic number and two suffixes. Suffix One determines the frequency range; Suffix Two determines the collar, ring and terminal combinations and the price. (i.e., 2770-1-2). **Suffix One:** -1) 0.2-1.5 mc; -2) 1-20 mc; -3) 20-50 mc; -4) 30 mc or more; -5) 100 mc or more; -6) 2-40 mc; -7) 40-300 mc.

2nd Suffix	Description	Net Each, 1-49* Cambion No. 2770-*	2771-*
-1	2 ring terminals	$.80	$1.23
-2	2 collars, 4 terminals	.94	1.39
-3	2 collars, 2 terminals	.94	1.39
-4	1 top collar, 2 terminals	.87	1.31
-5	1 bottom collar, 2 terminals	.87	1.31

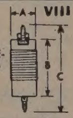
*Be sure to include both first and second suffixes when ordering.

SHIELDED COIL FORMS

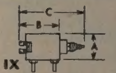
Supplied with tuning slug assembled; all other parts in bulk. Mounting hardware included. **Material:** Housing LS9, LS10, LS14, brass with nickel plate; LS11 brass with cadmium plate; all others aluminum with alodine finish. Board, Silicone-fiberglas.



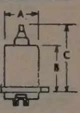
STUD-MOUNT



DOUBLE-TUNED



IX SQUARE, HORIZONTAL Also available without pins.



FLANGE-MOUNT Also available with fixed tuning
X

Part No. and Body Material															
Paper-Phenolic	**Net 1-49***	**Poly-penco**	**Net 1-49***	**Kel-F**	**Net 1-49***	**Pwd. Iron**	**Net 1-49***	**Fig.**	**Size, Inches A x B x C**	**Flange Dia., In. Max. x Min.**	**Terminals**	**Winding Area, Max. L. x O.D. (Inches)**	**Freq.**	**Tuning Tool**	**Notes**
1150	$ .90	1151	$ .96	1152	$1.01	*	*	VII	7/16 x 39/64 x 1 31/64	....	2—6	11/64 x 17/64	Chart I	2033	Mtg. stud ¼-28
1155	1.03	1156	1.17	1157	1.22	*	*	VII	⅝ x 57/64 x 2 7/64	....	2—6	13/32 x 29/64	Chart I	1971	Mtg. stud ⅜-32
1160‡	.86	1161	.98	1162	1.03	*	*	VII	11/32 x 17/32 x 1⅛	....	2—4	13/64 x 7/32	Chart I‡	2375	Mtg. stud 12-28
*	*	2400	2.50	*	*	*	*	VIII	29/64 x 1 1/16 x 1 25/32	....	4—6	23/32 x 5/16	Chart I†	2375	12-32 thread
2560	1.41	2561	1.47	2562	1.53	*	*	IX	½ sq. x ¾ x 1 27/64	....	2—6	11/64 x 17/64	Chart I	2033	Without pins
2565	1.69	2566	1.75	2567	1.82	*	*	IX	½ sq. x ¾ x 1 27/64	....	2—6	11/64 x 17/64	Chart I	2033	With pins
1170	2.00	1171	2.10	2587	2.20	*	*	X	7/16 x 35/64 x 1 5/64	27/32 x 33/64	2—6	11/64 x 17/64	Chart I	2516	Traverse tuning
1190	2.30	1191	2.40	2592	2.50	*	*	X	⅝ x 57/64 x 1 43/64	1.0 x 45/64	2—6	13/32 x 29/64	Chart I	2516	Traverse tuning
2665	1.41	2666	1.53	2667	1.58	*	*	IX	⅜ sq. x 41/64 x 1⅛	....	2—4	13/64 x 7/32	Chart I‡	2375	Without pins
2670	1.69	2671	1.82	2672	1.87	*	*	IX	⅜ sq. x 41/64 x 1⅛	....	2—4	13/64 x 7/32	Chart I‡	2375	With pins
2685	.86	2686	.91	2687	.98	2688	$ .91	X	7/16 x ⅜ x —	27/32 x 33/64	2—6	11/64 x 17/64	Chart I	....	Fixed
2690	.99	2691	1.11	2692	1.17	2693	1.05	X	⅝ x 49/64 x —	1.0 x 45/64	2—6	13/32 x 29/64	Chart I	....	Fixed
2695	.86	2696	.98	2697	1.03	2698	.91	X	11/32 x ⅜ x —	¾ x 27/64	2—4	13/64 x 7/32	Chart I‡	....	Fixed

*Not Available. See Printed Circuit Coil Form Section for No. LS12.

†Not available in 30 MC and up frequency, or with 2 or 3 terminals.

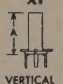
‡Not available with 5 or 6 terminals.

CHART I

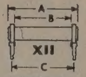
Number of Terminals 2	3	4	5	6	Freq. MC
-1-1	-1-2	-1-3	-1-4	-1-5	0.2-1.5*
-2-1	-2-2	-2-3	-2-4	-2-5	1-20*
-3-1	-3-2	-3-3	-3-4	-3-5	.20-50*
-4-1	-4-2	-4-3	-4-4	-4-5	30 & up*

*Powdered iron slug.
Specify frequency in combination with number of terminals. For example: 2562-3-1—20-50 frequency, 2 terminals.

PRINTED CIRCUIT COIL FORMS

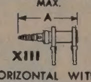


VERTICAL

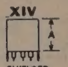


HORIZONTAL

RIGHT-END VIEW FIGS. XII, XIII



HORIZONTAL WITH PERMA-TORQ®



SHIELDED

★WRITE FOR DISCOUNTS ON LARGER QUANTITIES

No.	Fig.	A‡ In.	Body O.D.	B# In.	Terms./ Collar	C• In.	D▲ In.	Freq. Chart	Net 1-49*
2270†	XII	⅝	.260"	7/16	2	.500	.200	I	$ .74
2271†	XII	⅝	.260"	⅝	2	.700	.200	I	.74
2500†	XII§	1 21/64	.260"	1⅛	2	1.200	.200	I	.98
2501†	XI	⅝	.260"	★	5	.404■	72°	I	.29
2525†	XIII	1 21/64	.205"	21/64	2	.400	.300	II	.96
2530†	XIII	1 47/64	.260"	17/32	2	.600	.300	II	1.09
2540†	XIII	2 11/64	.375"	⅝	2	.700	.400	II	1.16
2550†	XIII	3 11/64	.500"	1 7/32	2	1.300	.400	II	1.35
2175†	XI	⅝	.260"	★	2/6	.404■	Ch. IV	III	.29
2206†	XI	13/16	.260"	★	2/6	.404■	Ch. IV	III	.29
2191*	XIV	9/16	½" sq.	**	2/6	.136♦	♦	III	.76

*Body material: Phenolic. †Body material: Ceramic. §2 tuning cores. ‡Overall length, less terminals. #Distance between collars. •Length between mtg. terminal centers. ▲Width between mtg. terminal centers. ■Mtg. dia. ♦Basic circle rad. ★1 collar. **No collar. **Note:** Figs. XI and XII: Kel-F Locking insert available (supplied unassembled). Fig. IV: Supplied with tuning slug assembled; all other parts in bulk. Mounting hardware is included.

CHART I		CHART II	
Dash No.	**Frequency Range MC**	**Dash No.**	**Frequency Range MC**
-1	0.2-1.5 pwd. iron core	-1	0.2-1.5 pwd. iron slug
-2	1-20 pwd. iron core	-2	1-20 pwd. iron slug
-3	20-50 pwd. iron core	-3	20-50 pwd. iron slug
-4	30-150 pwd. iron core	-4	30 and up, pwd. iron slug
-5	100 and up, brass core	-5	100 and up, brass slug
-0	No core	-0	No slug

CHART III		CHART IV		
1st Suffix	**Frequency Range MC**	**2nd Suffix**	**No. of Terminals**	**Spacing**
-1	0.2-1.5 pwd. iron core	-1	2	180°
-2	1-20 pwd. iron core	-2	3	90°
-3	20-50 pwd. iron core	-3	4	90°
-4	30-150 pwd. iron core	-4	5	60°
-0	No core	-5	6	60°

Specify frequency in combination with number of terminals when ordering.
For example: 2191-2-3 — 1-20 frequency, 4 terminals.
Note: 2191 not available in 30-150 MC frequency range, or without core.

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The guaranteed electronic components

COMPONENTS

SERIES 2082 CHOKES (FIG. A)

Wound on phenolic coil forms; varnish finish. Body 1/2" long. Leads 1 1/2" long.

Cambion Number	Ind., µh	Q	Max. O.D.	Net Each 1-9*
2082-1	6.8	25	5/16"	43c
2082-2	10	20	5/16"	43c
2082-3	15	15	5/16"	43c
2082-4	22	15	5/16"	43c
2082-5	33	15	3/8"	43c
2082-6	47	15	3/8"	43c
2082-7	68	12	3/8"	45c
2082-8	100	12	7/16"	45c
2082-9	150	20	7/16"	45c
2082-10	220	20	7/16"	46c
2082-11	330	20	9/16"	46c
2082-12	470	20	9/16"	46c
2082-13	680	30	9/16"	49c
2082-14	1000	35	19/32"	52c

SERIES 2950 CHOKES (FIG. B)

Equivalent to MS91189-1 thru -13 respectively. Epoxy encapsulated. Body 15/16" l. x 9/32" O.D.; leads 1 1/2" long. Color coded. Inductance, ±10% unless otherwise noted.

Cambion Number	Ind., µh	Min. Q	DC Ma	Net Each 1-9*
2950-1	1.1*	60	2800	99c
2950-2	2.2*	65	1800	91c
2950-3	3.3	50	1500	91c
2950-4	4.7	45	1100	99c
2950-5	6.8	40	800	99c
2950-6	10	40	600	99c
2950-7	15	40	500	99c
2950-8	22	30	1500	91c
2950-9	33	45	1100	91c
2950-10	47	70	700	91c
2950-11	82	85	600	91c
2950-12	100	85	500	91c
2950-13	120	85	400	91c

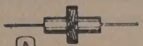
*Inductance, ±20%.

SERIES 2960 CHOKES (FIG. B)

Wound on powdered iron coil forms; varnish finish. Body 7/16" long; leads 1 7/16" long. Max. O.D. 3/16". MIL Type LT7K.

Cambion® Part No.	Inductance µH	Q Min.	DC MA	Net Each 1-9
2960- 1	.15	55	2,500	$1.16
2960- 2	.22	55	2,100	1.16
2960- 3	.33	55	2,000	1.16
2960- 4	.47	55	1,050	1.16
2960- 5	.68	40	700	1.16
2960- 6	1.00	35	600	1.16
2960- 7	1.50	30	500	1.16
2960- 8	2.20	30	350	1.16
2960- 9	2.70	30	300	1.16
2960-10	3.30	30	725	1.16

These parts conform to MS 75008-1 thru -20 per MIL-C-15305B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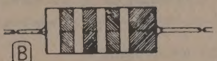
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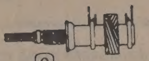
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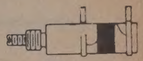
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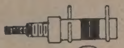
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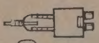
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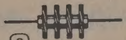
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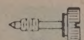
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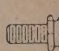
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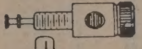
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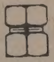
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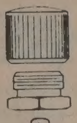
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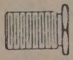
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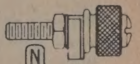
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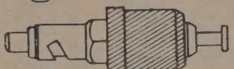
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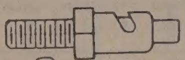
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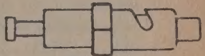
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PANEL HARDWARE

Nickel plate finish (unless otherwise noted) on brass. Dial lock and binding post supplied with mounting hardware. Binding post finished in bright alloy plate.

Cambion Number	Fig.	Description	Stud Size Suffix* -A	-B	-C	Thread	Stud Lgth.	Cap Size Dia. x H.	Body Ht.	Net 1-9*
1786•	H	Capt. screw	1/8"	3/16"#	1/4"#	1/4-20	1 1/8"	3/4" x 3/8"	5/16"	$.73
1120†	I	Thumb screw	6-32	8-32	10-32	*	13/32"	7/16" x 3/8"	......	.25
1775	J	Bindg. post	7/16"	9/16"	11/16"	10-32	*	3/8" x 3/16"	1/2"	.43
1774 •	K	Shaft lock	......	......	......	3/8-32	....	7/16"§ x 1/4"	9/16"	.25
2038 •	K	Shaft lock	......	......	......	1/4-32	....	5/16"§ x 5/32"	3/8"	.20
2142 •	L	Bush. & cvr.	......	......	......	1/2-32	....	5/8" x 1/2"	3/8"	.39
1818▲	M	Panel bush.	5/16"#	7/16"#	9/16"#	1/4-28	#	3/8"§ x 1/16"	......	.16
2117■	M	Panel bush.	5/16"	7/16"	9/16"	3/8-32	*	1/2"§ x 1/16"	......	.19
1552 ◆•	N	Dial lock	......	......	......	8-32	23/32"	1/2" x 3/8"	15/32"	.39

*Add appropriate suffix to number (example: 1120-A) to indicate stud size desired. †Available with black oxide finish, add suffix -BO. #Add suffix 1-, -2 or -3 (instead of -A, -B, or -C respectively), to indicate stud size desired. §Hex. size. •Also available with nickel plate or black oxide finish; specify by adding suffix -02 for nickel plate, -12 for black oxide to number (example: 1786-1-12). ▲1/8" shaft. ■1/4" shaft. ◆ For dials 1/8" from panel.

SPRING-LOADED DIODE CLIPS

Brass construction; stud base type has nickel plated finish; feed thru and press-mount types have bright alloy finish. Press-mount type (Fig. O) has teflon insulator; mounts in .205" dia. hole in panels 1/16" to 1/8" thick.

Cambion Number	Fig.	Size, In. H. x Base Dia.	Slot Width	Wire Gauge Min.	Wire Gauge Max.	Shank Dia. or Thread	Panel Thck.	Tooling PSP 45/	Net 1-9*
2146-1	P	11/32 x 5/32*	.040"	36	20	2-56	7/32"	....	$.24
2247	Q	11/32 x 5/32*	.040"	36	20	.116"	†	PSA-40	.24
2329-1	P	15/32 x 5/32*	.055"	22	17	2-56	7/32"	....	.35
2330	Q	15/32 x 3/16*	.055"	22	17	.116"	†	PSA-44	.35
2339-1	P	23/32 x 3/16*	.085"	19	13	3-48	5/16"	....	.43
2340	Q	23/32 x 7/32*	.085"	19	13	.116"	†	PSA-41	.43
2405-1	O	51/64 x 1/4	.085"	19	13	7/32"	1/8"	....	.67
2422-1	O	35/64 x 1/4	.055"	22	17	7/32"	1/8"	....	.53
2424-1	O	27/64 x 1/4	.040"	36	20	7/32"	1/8"	....	.48

*Hex size. †Specify by adding suffix (example: 2247-1): -1, 1/32". -2, 1/16". -3, 3/32", -4, 1/8". -5, 3/16".

SERIES 2952 AND 2953 CHOKES

Wound on phenolic choke form. Inductance tolerance, ±15%. Leads 1 1/2" long. Body 1/2" l., 2952 series; 1" l., 2953 series.

Cambion Number	Fig.	Inductance	Q	Max. Dia.	Net Ea., 1-9*
2952-1	A	1.0 µh at 7.9 mc	55 ± 10	.180"	48c
2952-2	A	10 µh at 7.9 mc	28 ± 5	.300"	53c
2952-3	A	50 µh at 2.5 mc	18 ± 4	.320"	58c
2952-4	A	100 µh at 2.5 mc	16 ± 4	.345"	64c
2952-5	A	500 µh at 790 kc	27 ± 6	.400"	69c
2952-6	A	1000 µh at 790 kc	40 ± 8	.415"	74c
2953-1	G	0.5 mh at 790 kc	17 ± 3	.535"	76c
2953-2	G	1.0 mh at 250 kc	45 ± 8	.535"	81c
2953-3	G	2.5 mh at 250 kc	55 ± 10	.550"	90c
2953-4	G	5 mh at 250 kc	60 ± 12	.515"	99c

CAMBION COILS

Varnish finish. Wound on ceramic and phenolic coil forms.

Cambion Number	Fig.	Ind. Range µh	Q Mean	Coil Form	Net Ea. 1-9*
2060-1	C	2.0-3.7	60	PLS6-2C2L/O	$1.06
2060-2	C	3.5-7.0	65	PLS6-2C2L/O	1.06
2060-3	C	6.5-10.6	70	PLS6-CB2L/E	1.16
2060-4	C	10-18	79	PLS6-CB2L/E	1.16
2060-5	C	16-28	83	PLS6-CB2L/F	1.23
2060-6	C	28-63	85	PLS6-CB2L/F	1.32
2060-7	C	61-122	80	PLS6-CB2L/F	1.42
2060-8	C	120-243	85	PLS6-CB2L/F	1.51
2060-9	C	238-450	85	PLS6-CB2L/F	1.59
2060-10	C	440-800	85	PLS6-CB2L/F	1.64
LS3-1mc	D	250-650	15	LS3/CL	1.12
LS3-3mc	D	45-95	20	LS3/BL	1.10
LS3-5mc	D	30-70	20	LS3/BL	1.07
LS3-10mc	D	5-10	20	LS3/BL	1.03
LS3-30mc	D	0.45-0.7	40	LS3/AL	1.00
LS3-60mc	D	0.098-0.1	35	LS3/AL	.93
LSM-1mc	E	725-1250	30	LSM/F	1.12
LSM-3mc	E	70-110	30	LSM/E	1.10
LSM-5mc	E	45-75	30	LSM/E	1.07
LSM-10mc	E	2-4	40	LSM/E	1.03
LSM-30mc	E	0.28-0.35	55	LSM/D	1.00
LSM-60mc	E	0.09-0.1	30	LSM/D	.93

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SERIES 1500 COILS (FIG. F)

Varnish impregnated coils. Windings and powdered iron components are complete moisture-proofed. Standard LS9, 10 and 11 mounting hardware supplied unassembled. Rated 500 v. rms dielectric strength. **Type 1505:** 1.498" h. x 0.438" O.D. Slug threaded 2-56; second section, 1/4-28. **Type 1506:** 2.146" h. x .625" O.D. Slug threaded 3-48; section, 3/8-32 threaded. **Type 1507:** 1.146" h. x .344" O.D. Slug threaded 0-80; section 12-28 threaded.

Cambion Number	Inductance Minimum µh	Minimum Freq.	Maximum µh	Maximum Freq.	Min. Q at Induct. of Min.	Max.	DC Ma	Net Each 1-9*
1505-1	.55	25mc	1.0	25mc	80	70	500	$2.30
1505-2	.9	25mc	1.75	7.9mc	75	70	250	2.30
1505-3	1.7	7.9mc	3.5	7.9mc	45	60	125	2.30
1505-4	3.2	7.9mc	8.3	7.9mc	50	75	50	2.30
1505-5	7.8	7.9mc	16	2.5mc	50	90	50	2.50
1505-6	14.5	2.5mc	33	2.5mc	55	90	50	2.50
1505-7	30	2.5mc	73	2.5mc	25	50	50	2.20
1505-8	66	2.5mc	160	790kc	20	60	50	2.20
1505-9	144	790kc	430	790kc	30	50	50	2.20
1505-10	400	790kc	1.0*	250kc	30	40	50	2.20
1506-1	1.0*	250kc	2.2*	250kc	40	50	100	2.75
1506-2	2.0*	250kc	4.7*	250kc	40	45	80	2.75
1506-3	4.5*	250kc	11*	250kc	35	35	60	3.17
1506-4	9.0*	79kc	22*	79kc	30	35	50	3.17
1506-5	20*	79kc	40*	79kc	30	35	40	3.17
1507-1	.11	25mc	.165	25mc	55	70	640	2.20
1507-2	.16	25mc	.28	25mc	60	70	640	2.20
1507-3	.27	25mc	.55	25mc	60	60	640	2.20
1507-4	.5	25mc	1.1	25mc	70	50	500	2.20
1507-5	.9	7.9mc	2.0	7.9mc	35	40	250	2.20
1507-6	1.6	7.9mc	3.6	7.9mc	45	40	150	2.20
1507-7	3.5	7.9mc	8.0	7.9mc	45	45	100	2.20

*Millihenries

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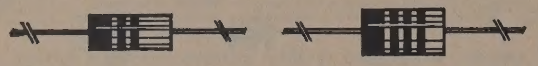
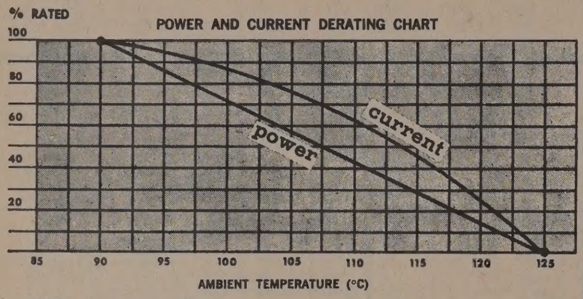
Miller

MIL-SPEC MOLDED CHOKES

MILLER MOLDED COILS CONFORM TO MIL-C-15305 C



This group of molded chokes affords the design engineer a wide range of inductance values, current ratings, and sizes which will fulfill most normal design requirements. Manufactured under strict Quality Control supervision and tested in accordance with MIL Standard 105 the user is guaranteed uniformity and reliability in every coil. This series conforms to MIL-C-15305C, Grade and Class 7.



Tabulated currents in milliamperes are maximum values based on a temperature rise not to exceed 35° C., nor wattage dissipation in excess of listed values.

"MICRO MITE" SERIES 9210

MOLDED R. F. CHOKES

Mold Size: .155 ± .010 diameter; .375 ± .010 length.
Leads: AWG # 22 TCW; 1.44 ± .125 length.
Power Rating: ½ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9210-54	36 ± 5%	50	2.5	10.5	2.50	320	IRON	$ .90
9210-56	39 ± 5%	50	2.5	10.3	2.60	315	IRON	.90
9210-58	43 ± 5%	50	2.5	10.3	2.65	310	IRON	.90
9210-60	47 ± 5%	50	2.5	10.0	2.70	305	IRON	.90
9210-62	51 ± 5%	50	2.5	9.7	2.75	300	IRON	.90
9210-64	56 ± 5%	50	2.5	9.5	2.80	295	IRON	.90
9210-66	62 ± 5%	45	2.5	9.0	2.95	290	IRON	.90
9210-68	68 ± 5%	45	2.5	8.7	3.25	285	IRON	.90
9210-70	75 ± 5%	45	2.5	8.5	3.40	275	IRON	.90
9210-72	82 ± 5%	45	2.5	8.0	3.55	270	IRON	.90
9210-74	91 ± 5%	45	2.5	7.7	3.70	265	IRON	.90
9210-76	100 ± 5%	45	2.5	7.7	4.00	260	IRON	.96
9210-78	110 ± 5%	60	.790	7.3	4.45	255	IRON	.96
9210-80	120 ± 5%	65	.790	6.7	4.65	250	IRON	.96
9210-82	130 ± 5%	65	.790	6.7	4.95	240	IRON	.96
9210-84	150 ± 5%	65	.790	6.5	5.30	235	IRON	.96
9210-86	160 ± 5%	65	.790	6.5	5.90	230	IRON	.99
9210-88	180 ± 5%	65	.790	6.3	6.20	225	IRON	.99
9210-90	200 ± 5%	65	.790	6.0	6.60	215	IRON	.99
9210-92	220 ± 5%	65	.790	5.5	7.20	210	IRON	.99
9210-94	240 ± 5%	65	.790	5.3	7.60	205	IRON	.99

"MICRO MITE" SERIES 9220

MOLDED R. F. CHOKES

MOLD SIZE	MOLD DIAMETER	MOLD LENGTH	LEAD SIZE	LEAD LENGTH	MAX. WATT AT 90° C.
A	.190 ± .010	.440 ± .010	AWG #22	1.44 ± .125	½
B	.215 ± .010	.560 ± .010	AWG #21	1.44 ± .125	½
C	.240 ± .010	.740 ± .010	AWG #20	1.44 ± .125	½

PART No.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	MOLD SIZE	CORE MTL.	NET PRICE
9220-00	270 ± 5%	65	.790	4.7	7.8	205	A	IRON	$1.05
9220-02	300 ± 5%	65	.790	4.5	8.3	200	A	IRON	1.05
9220-04	330 ± 5%	65	.790	4.5	8.7	195	A	IRON	1.05
9220-06	360 ± 5%	65	.790	4.0	9.0	190	A	IRON	1.17
9220-08	390 ± 5%	65	.790	4.0	9.5	185	A	IRON	1.17
9220-10	430 ± 5%	65	.790	4.0	10.0	180	A	IRON	1.17
9220-12	470 ± 5%	65	.790	3.7	10.5	175	A	IRON	1.17
9220-14	500 ± 5%	65	.790	3.7	11.0	170	A	IRON	1.17
9220-16	560 ± 5%	65	.790	3.3	11.5	165	A	IRON	1.20
9220-18	620 ± 5%	60	.790	3.0	12.5	160	A	IRON	1.20
9220-20	680 ± 5%	60	.790	3.0	13.0	155	A	IRON	1.20
9220-22	750 ± 5%	55	.790	3.0	14.0	150	A	IRON	1.20
9220-24	820 ± 5%	55	.790	2.8	14.5	145	A	IRON	1.26
9220-26	910 ± 5%	55	.790	2.7	15.0	140	A	IRON	1.26
9220-28	1000 ± 5%	55	.790	2.6	16.0	135	A	IRON	1.26
9220-30	1100 ± 5%	60	.250	2.7	20.0	135	B	IRON	1.35
9220-32	1200 ± 5%	60	.250	2.7	21.0	130	B	IRON	1.35
9220-34	1300 ± 5%	60	.250	2.6	21.5	130	B	IRON	1.35
9220-36	1500 ± 5%	65	.250	2.3	23.5	125	B	IRON	1.35
9220-38	1600 ± 5%	65	.250	2.2	24.5	120	B	IRON	1.35
9220-40	1800 ± 5%	65	.250	2.2	26.0	120	B	IRON	1.35
9220-42	2000 ± 5%	65	.250	2.0	27.5	115	B	IRON	1.35
9220-44	2200 ± 5%	70	.250	2.0	28.5	110	B	IRON	1.35
9220-46	2400 ± 5%	70	.250	1.9	30.0	110	B	IRON	1.35
9220-48	2700 ± 5%	70	.250	1.9	31.5	105	B	IRON	1.35
9220-50	3000 ± 5%	70	.250	1.8	33.5	100	B	IRON	1.35
9220-52	3300 ± 5%	70	.250	1.6	36.0	100	B	IRON	1.35
9220-54	3600 ± 5%	70	.250	1.5	37.5	95	B	IRON	1.35
9220-56	3900 ± 5%	80	.250	1.5	41.0	95	C	IRON	1.41
9220-58	4300 ± 5%	80	.250	1.5	43.0	90	C	IRON	1.41
9220-60	4700 ± 5%	80	.250	1.4	45.0	90	C	IRON	1.41
9220-62	5000 ± 5%	80	.250	1.3	46.0	85	C	IRON	1.41
9220-64	5600 ± 5%	80	.250	1.3	49.5	85	C	IRON	1.50
9220-66	6200 ± 5%	80	.250	1.2	51.5	80	C	IRON	1.50
9220-68	6800 ± 5%	80	.250	1.2	54.0	80	C	IRON	1.50
9220-70	7500 ± 5%	80	.250	1.2	57.0	80	C	IRON	1.50
9220-72	8200 ± 5%	80	.250	1.1	59.5	75	C	IRON	1.59
9220-74	9100 ± 5%	80	.250	1.0	64.0	75	C	IRON	1.59
9220-76	10000 ± 5%	80	.250	1.0	66.5	75	C	IRON	1.59

MILLER SERIES 9230

Mold Size: .095 ± .010 Diameter; .250 ± .010 Length.
Leads AWG #24 TCW; 1.500 ± .125 Length. Power Rating: ¼ Watt Max. at 90° C.
*Current based on (1) Temperature rise not to exceed 35° C at 90°C ambient.
(2) Overload not to exceed 1½ times rated current.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	MIN. Fo. Mc.	Rdc. MAX.	Ma.* MAX.	CORE MTL.	NET PRICE
9230-00	.15 ± 10%	38	25.0	600	.10	1750	PHENOLIC	$1.02
9230-02	.18 ± 10%	35	25.0	550	.12	1600	PHENOLIC	1.02
9230-04	.22 ± 10%	33	25.0	510	.14	1500	PHENOLIC	1.02
9230-06	.27 ± 10%	33	25.0	500	.16	1350	PHENOLIC	1.02
9230-08	.33 ± 10%	30	25.0	410	.20	1100	PHENOLIC	1.02
9230-10	.39 ± 10%	30	25.0	380	.30	950	PHENOLIC	1.02
9230-12	.47 ± 10%	30	25.0	340	.35	800	PHENOLIC	1.02
9230-14	.56 ± 10%	30	25.0	300	.50	700	PHENOLIC	1.02
9230-16	.68 ± 10%	28	25.0	275	.60	600	PHENOLIC	1.02
9230-18	.82 ± 10%	28	25.0	250	.85	500	PHENOLIC	1.02
9230-20	1.00 ± 10%	25	25.0	230	1.00	425	PHENOLIC	1.02
9230-22	1.20 ± 10%	25	7.9	150	.18	1150	IRON	1.08
9230-24	1.50 ± 10%	28	7.9	140	.22	1000	IRON	1.08
9230-26	1.80 ± 10%	30	7.9	125	.30	850	IRON	1.08
9230-28	2.20 ± 10%	30	7.9	120	.40	710	IRON	1.08
9230-30	2.70 ± 10%	37	7.9	100	.50	650	IRON	1.08
9230-32	3.30 ± 10%	45	7.9	90	.85	500	IRON	1.08
9230-34	3.90 ± 10%	45	7.9	85	1.00	475	IRON	1.08
9230-36	4.70 ± 10%	45	7.9	75	1.20	450	IRON	1.08
9230-38	5.60 ± 10%	50	7.9	70	1.80	350	IRON	1.23
9230-40	6.80 ± 10%	50	7.9	60	2.00	320	IRON	1.23
9230-42	8.20 ± 10%	55	7.9	60	2.70	280	IRON	1.23
9230-44	10.0 ± 10%	55	7.9	50	3.70	250	IRON	1.23
9230-46	12.0 ± 10%	45	2.5	40	2.70	275	IRON	1.23
9230-48	15.0 ± 10%	45	2.5	40	2.80	265	IRON	1.23
9230-50	18.0 ± 10%	50	2.5	32	3.10	260	IRON	1.23
9230-52	22.0 ± 10%	55	2.5	25	3.30	240	IRON	1.23
9230-54	27.0 ± 10%	50	2.5	22	3.50	220	IRON	1.23
9230-56	33.0 ± 10%	45	2.5	30	3.10	260	FERRITE	1.35
9230-58	39.0 ± 10%	45	2.5	27	3.40	240	FERRITE	1.35
9230-60	47.0 ± 10%	45	2.5	24	4.50	200	FERRITE	1.35
9230-62	56.0 ± 10%	45	2.5	23	5.70	180	FERRITE	1.35
9230-64	68.0 ± 10%	50	2.5	21	6.70	170	FERRITE	1.35
9230-66	82.0 ± 10%	55	2.5	15	7.30	160	FERRITE	1.35
9230-68	100.0 ± 10%	50	2.5	14	8.00	150	FERRITE	1.35

MILLER SERIES 9240

Mold Size: .157 ± .010 Dia.; .375 ± .010 Length
Leads AWG # 22 TCW; 1.500 ± .125 Length
Power Rating: .20 watts @ 90° ambient and rated current flow
*Current based on (1) Temperature rise not to exceed 35°C at 90°C ambient
(2) Overload not to exceed 1½ times rated current
**Current required to decrease inductance 5%

PART No.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	*Ma. MAX.	**Ma. APPROX.	NET PRICE
9240-770	.10uh	45	25	250	.015	3100	2400	$2.70
9240-771	.12uh	45	25	250	.020	2650	2000	2.70
9240-701	.15uh	45	25	250	.025	2400	1800	2.70
9240-772	.18uh	45	25	250	.030	2190	1650	2.70
9240-702	.22uh	45	25	250	.035	2030	1550	2.70
9240-773	.27uh	40	25	250	.045	1790	1350	2.70
9240-703	.33uh	40	25	250	.075	1380	1050	2.70
9240-774	.39uh	40	25	250	.085	1300	970	2.70
9240-704	.47uh	40	25	250	.100	1200	900	2.70
9240-705	.56uh	40	25	250	.180	890	670	2.70
9240-706	.68uh	40	25	250	.200	850	640	2.70
9240-707	.82uh	40	25	230	.280	710	525	2.70
9240-708	1.0 uh	45	25	200	.070	1430	630	2.70
9240-709	1.2 uh	45	7.9	180	.080	1340	590	2.70
9240-710	1.5 uh	45	7.9	170	.100	1200	530	2.70
9240-711	1.8 uh	45	7.9	160	.120	1090	480	2.70
9240-712	2.2 uh	45	7.9	140	.150	980	430	2.70
9240-713	2.7 uh	50	7.9	120	.220	800	350	2.70
9240-714	3.3 uh	50	7.9	110	.270	730	320	2.70
9240-715	3.9 uh	50	7.9	100	.290	700	310	2.70
9240-716	4.7 uh	55	7.9	95	.320	670	290	2.70
9240-717	5.6 uh	55	7.9	90	.560	500	220	2.70
9240-718	6.8 uh	55	7.9	80	.700	450	195	2.70
9240-719	8.2 uh	55	7.9	75	.820	410	180	2.70
9240-720	10.0 uh	50	7.9	70	.900	400	175	2.70
9240-721	12 uh	50	2.5	60	.950	380	170	2.70
9240-722	15 uh	50	2.5	55	.750	430	160	2.70
9240-723	18 uh	50	2.5	50	.850	410	150	2.70
9240-724	22 uh	50	2.5	43	.950	380	125	2.70
9240-725	27 uh	50	2.5	39	1.10	360	110	2.70
9240-726	33 uh	50	2.5	37	1.25	330	100	2.70
9240-727	39 uh	50	2.5	35	1.80	280	90	2.70
9240-728	47 uh	50	2.5	31	2.00	260	85	2.70
9240-729	56 uh	50	2.5	28	2.20	250	80	2.70
9240-730	68 uh	50	2.5	25	2.50	240	70	2.70
9240-731	82 uh	50	2.5	22	3.00	215	65	2.70
9240-732	100 uh	50	2.5	17	3.50	200	60	2.70
9240-733	120 uh	50	.79	10.1	2.00	265	55	2.97
9240-734	150 uh	45	.79	9.9	2.50	240	52	2.97
9240-735	180 uh	50	.79	9.7	3.00	215	50	2.97
9240-736	220 uh	50	.79	9.5	3.30	205	46	2.97
9240-737	270 uh	55	.79	9.0	3.50	200	40	2.97
9240-738	330 uh	55	.79	8.0	3.80	195	37	2.97
9240-739	390 uh	55	.79	7.5	4.00	190	34	2.97
9240-740	470 uh	55	.79	7.1	4.30	180	32	2.97
9240-741	560 uh	55	.79	7.0	5.50	160	30	2.97
9240-742	680 uh	55	.79	6.7	6.50	145	28	2.97
9240-743	820 uh	55	.79	6.2	7.60	135	26	2.97
9240-744	1000 uh	60	.79	6.0	8.0	130	24	2.97
9240-745	1.2 MH	40	.25	5.5	14.0	100	22	2.97
9240-746	1.5 MH	40	.25	4.0	17.5	90	18	2.97
9240-747	1.8 MH	40	.25	3.9	21.0	80	15	2.97
9240-748	2.2 MH	40	.25	3.8	23	75	14	2.97
9240-749	2.7 MH	45	.25	3.5	31	65	13	2.97
9240-750	3.3 MH	45	.25	3.2	35	60	13	2.97
9240-751	3.9 MH	45	.25	2.7	44	55	12	2.97
9240-752	4.7 MH	45	.25	2.3	58	50	11	2.97
9240-753	5.6 MH	40	.25	2.2	67	45	8.0	2.97
9240-754	6.8 MH	40	.25	2.1	80	42	7.5	2.97
9240-755	8.2 MH	40	.25	1.8	90	40	7.0	2.97
9240-756	10.0 MH	40	.25	1.7	95	38	6.0	2.97
9240-757	12.0 MH	30	.079	.34	110	36	6.2	3.30
9240-758	15.0 MH	30	.079	.32	130	33	6.0	3.30
9240-759	18.0 MH	30	.079	.28	150	31	5.5	3.30
9240-760	22.0 MH	25	.079	.23	170	29	5.0	3.30
9240-761	27.0 MH	25	.079	.22	200	26	4.5	3.30
9240-762	33.0 MH	25	.079	.20	230	25	3.7	3.30
9240-763	39.0 MH	25	.079	.19	250	24	3.3	3.30
9240-764	47.0 MH	20	.079	.18	270	23	3.2	3.30
9240-765	56.0 MH	20	.079	.17	320	21	3.0	3.30
9240-766	68.0 MH	20	.079	.16	380	19	3.0	3.30
9240-767	82.0 MH	20	.079	.15	450	17	3.0	3.30
9240-768	100.0 MH	18	.079	.14	550	16	2.5	3.30
9240-769	120.0 MH	16	.079	.12	600	15	2.2	3.30

J. W. MILLER COMPANY Los Angeles 3, Calif.

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MIL-SPEC MOLDED CHOKES

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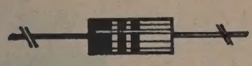
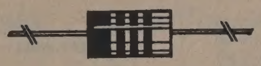




MILLER SERIES 9310

(MS 16225)

Mold Size: .155 ± .010 diameter; .375 ± .010 length.
Leads: AWG #22 TCW; 1.437 ± .125 length.
Power Rating: ¼ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9310-00	.15 ± 20%	50	25	525	.03	2630	PHENOLIC	$ .60
9310-02	.22 ± 20%	45	25	450	.05	2235	PHENOLIC	.60
9310-04	.33 ± 20%	45	25	390	.09	1490	PHENOLIC	.60
9310-06	.47 ± 20%	45	25	310	.12	1340	PHENOLIC	.60
9310-08	.68 ± 20%	55	25	250	.14	1165	PHENOLIC	.60
9310-10	.82 ± 20%	55	25	220	.22	930	PHENOLIC	.60
9310-12	1.00 ± 10%	50	25	200	.25	875	PHENOLIC	.60
9310-14	1.20 ± 10%	35	7.9	180	.42	675	PHENOLIC	.60
9310-16	1.50 ± 10%	35	7.9	160	.50	600	PHENOLIC	.60
9310-18	1.80 ± 10%	35	7.9	150	.65	500	PHENOLIC	.60
9310-20	2.20 ± 10%	35	7.9	135	.95	400	PHENOLIC	.60
9310-22	2.70 ± 10%	35	7.9	120	1.20	370	PHENOLIC	.60
9310-24	3.30 ± 10%	35	7.9	110	2.00	325	PHENOLIC	.66
9310-26	3.90 ± 10%	35	7.9	100	2.30	300	PHENOLIC	.66
9310-28	4.70 ± 10%	35	7.9	90	2.60	270	PHENOLIC	.66
9310-30	5.60 ± 10%	45	7.9	60	.32	780	IRON	.66
9310-32	6.80 ± 10%	50	7.9	55	.50	600	IRON	.66
9310-34	8.20 ± 10%	50	7.9	50	.60	540	IRON	.66
9310-36	10.0 ± 10%	55	7.9	45	.90	460	IRON	.66
9310-38	12.0 ± 10%	65	2.5	42	1.10	375	IRON	.66
9310-40	15.0 ± 10%	65	2.5	40	1.30	350	IRON	.66
9310-42	18.0 ± 10%	75	2.5	34	2.25	300	IRON	.66
9310-44	22.0 ± 10%	75	2.5	30	2.50	275	IRON	.66
9310-46	24.0 ± 5%	60	2.5	26	2.50	275	IRON	.75
9310-48	27.0 ± 5%	60	2.5	25	2.60	260	IRON	.75
9310-50	30.0 ± 5%	65	2.5	19	2.80	245	IRON	.75
9310-52	33.0 ± 5%	65	2.5	19	2.90	230	IRON	.75

MILLER SERIES 9320

(MS 16224)
(MS 75008)

Mold Size: 0.185 ± .010 diameter; 0.437 ± .010 length.
Leads: AWG #22 TCW; 1.437 ± .125 length. Power Rating: ⅓ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9320-00	.15 ± 20%	65	25	600	.03	3400	PHENOLIC	$ .60
9320-02	.22 ± 20%	60	25	470	.04	2950	PHENOLIC	.60
9320-04	.33 ± 20%	60	25	390	.05	2500	PHENOLIC	.60
9320-06	.47 ± 20%	60	25	320	.08	1875	PHENOLIC	.60
9320-08	.68 ± 20%	65	25	240	.12	1400	PHENOLIC	.60
9320-10	1.00 ± 10%	60	25	190	.25	900	PHENOLIC	.60
9320-12	1.50 ± 10%	40	7.9	150	.50	720	PHENOLIC	.60
9320-14	2.20 ± 10%	40	7.9	130	.90	460	PHENOLIC	.60
9320-16	2.70 ± 10%	40	7.9	120	1.10	450	PHENOLIC	.60
9320-18	3.30 ± 10%	35	7.9	68	.12	1300	IRON	.66
9320-20	3.90 ± 10%	35	7.9	62	.16	1130	IRON	.66
9320-22	4.70 ± 10%	40	7.9	58	.22	915	IRON	.66
9320-24	5.60 ± 10%	40	7.9	50	.30	900	IRON	.66
9320-26	6.80 ± 10%	40	7.9	45	.40	800	IRON	.66
9320-28	8.20 ± 10%	40	7.9	43	.45	770	IRON	.66
9320-30	10.0 ± 10%	40	7.9	40	.60	690	IRON	.66
9320-32	12.0 ± 10%	55	2.5	35	.85	480	IRON	.66
9320-34	15.0 ± 10%	60	2.5	30	1.20	480	IRON	.66
9320-36	22.0 ± 10%	65	2.5	24	2.00	375	IRON	.66
9320-38	27.0 ± 10%	70	2.5	22	2.80	300	IRON	.66

MILLER SERIES 9330

(MS 16222)

Mold Size: 0.215 ± .010 diameter; 0.560 ± .010 length.
Leads: AWG #22 TCW; 1.437 ± .125 length. Power Rating: ½ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9330-00	.47 ± 20%	70	25	280	06	2000	PHENOLIC	$ .66
9330-02	.68 ± 20%	70	25	240	.07	1275	PHENOLIC	.66
9330-04	1.00 ± 10%	70	25	200	.13	1180	PHENOLIC	.66
9330-06	1.50 ± 10%	45	7.9	160	.28	1080	PHENOLIC	.66
9330-08	2.20 ± 10%	45	7.9	135	.50	700	PHENOLIC	.66
9330-10	2.70 ± 10%	45	7.9	120	.65	660	PHENOLIC	.66
9330-12	3.30 ± 10%	45	7.9	105	1.00	600	PHENOLIC	.66
9330-14	3.90 ± 10%	45	7.9	100	1.20	460	PHENOLIC	.66
9330-16	4.70 ± 10%	45	7.9	90	1.80	350	PHENOLIC	.66
9330-18	5.60 ± 10%	35	7.9	55	.13	1500	IRON	.75
9330-20	6.80 ± 10%	35	7.9	50	.20	1250	IRON	.75
9330-22	8.20 ± 10%	35	7.9	44	.22	1190	IRON	.75
9330-24	10.0 ± 10%	35	7.9	42	.26	990	IRON	.75
9330-26	12.0 ± 10%	45	2.5	34	.45	800	IRON	.75
9330-28	15.0 ± 10%	45	2.5	32	.52	730	IRON	.75
9330-30	18.0 ± 10%	50	2.5	28	.70	680	IRON	.75
9330-32	22.0 ± 10%	60	2.5	24	1.00	640	IRON	.75
9330-34	27.0 ± 10%	65	2.5	22	1.30	550	IRON	.75
9330-36	33.0 ± 10%	65	2.5	20	1.50	510	IRON	.75
9330-38	39.0 ± 10%	70	2.5	18	2.00	440	IRON	.75

MILLER SERIES 9340

(MS 16221)

Mold Size: 0.280 ± .010 diameter; 0.900 ± .010 length.
Leads: AWG #21 TCW; 1.437 ± .125 length. Power Rating: 1 Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9340-00	1.2 ± 10%	60	7.9	170	.08	2800	PHENOLIC	$ .78
9340-02	1.5 ± 10%	65	7.9	160	.10	2600	PHENOLIC	.78
9340-04	2.2 ± 10%	65	7.9	125	.17	1980	PHENOLIC	.78
9340-06	2.7 ± 10%	65	7.9	115	.23	1600	PHENOLIC	.78
9340-08	3.3 ± 10%	65	7.9	100	.32	1275	PHENOLIC	.75
9340-10	3.9 ± 10%	65	7.9	95	.45	1145	PHENOLIC	.75
9340-12	4.7 ± 10%	65	7.9	90	.60	950	PHENOLIC	.75
9340-14	5.6 ± 10%	65	7.9	80	.80	860	PHENOLIC	.75
9340-16	6.8 ± 10%	65	7.9	75	1.10	775	PHENOLIC	.75
9340-18	8.2 ± 10%	65	7.9	68	1.50	590	PHENOLIC	.75
9340-20	10.0 ± 10%	65	7.9	60	2.00	510	PHENOLIC	.75
9340-22	12.0 ± 10%	40	2.5	53	2.70	425	PHENOLIC	.75
9340-24	15.0 ± 10%	40	2.5	50	3.30	410	PHENOLIC	.75
9340-26	18.0 ± 10%	40	2.5	45	4.20	350	PHENOLIC	.75
9340-28	22.0 ± 10%	50	2.5	25	.30	1330	IRON	.84
9340-30	27.0 ± 10%	50	2.5	22	.36	1240	IRON	.84
9340-32	33.0 ± 10%	60	2.5	20	.56	1060	IRON	.84
9340-34	39.0 ± 10%	60	2.5	18	.65	760	IRON	.84
9340-36	47.0 ± 10%	65	2.5	16	1.10	750	IRON	.84
9340-38	56.0 ± 10%	60	2.5	14	1.20	700	IRON	.84
9340-39	68.0 ± 10%	75	2.5	13	1.85	600	IRON	.84
9340-40	82.0 ± 10%	80	2.5	13	2.20	550	IRON	.84
9340-42	100.0 ± 10%	80	2.5	12	2.60	530	IRON	.84
9340-44	120.0 ± 10%	100	.790	10	4.00	425	IRON	.84

MILLER SERIES 9350

(MS 16223)

COIL DIMENSIONS	A	B	C	D	LEAD DIMENSIONS
DIAMETER ± .010	.250	.310	.375	.468	AWG 20, 21 ,22 TCW
LENGTH ± .010	.560	.560	.625	.687	1.437 ± .125
MAX. WATT. AT 90° C.	¾	¾	1	1⅓	

PART No.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	MOLD SIZE	CORE MTL.	NET PRICE
9350-00	47 ± 10%	18	2.5	9.5	5.9	275	A	PHENOLIC	$1.02
9350-02	56 ± 10%	18	2.5	9.0	6.4	225	A	PHENOLIC	1.02
9350-04	68 ± 10%	45	2.5	6.8	3.3	330	A	IRON	1.08
9350-06	82 ± 10%	40	2.5	6.3	3.5	310	A	IRON	1.08
9350-08	100 ± 10%	35	2.5	5.8	3.8	300	A	IRON	1.08
9350-10	120 ± 10%	60	.790	5.0	4.7	290	A	IRON	1.08
9350-12	150 ± 10%	60	.790	4.6	5.3	280	A	IRON	1.08
9350-14	180 ± 10%	60	.790	3.4	5.5	275	B	IRON	1.11
9350-16	220 ± 10%	60	.790	3.2	5.9	265	B	IRON	1.11
9350-18	270 ± 10%	60	.790	3.0	6.6	255	B	IRON	1.11
9350-20	330 ± 10%	55	.790	2.7	7.8	245	B	IRON	1.11
9350-22	390 ± 10%	55	.790	2.5	8.7	235	B	IRON	1.11
9350-24	470 ± 10%	50	.790	2.3	9.0	230	C	IRON	1.11
9350-26	560 ± 10%	45	.790	2.1	10.0	215	C	IRON	1.11
9350-28	680 ± 10%	45	.790	2.0	11.2	205	C	IRON	1.11
9350-30	820 ± 10%	40	.790	1.8	13.0	195	C	IRON	1.11
9350-32	1000 ± 10%	35	.790	1.7	14.5	185	C	IRON	1.11
9350-34	1500 ± 10%	55	.250	2.0	22.0	180	D	IRON	1.14
9350-36	2000 ± 10%	55	.250	1.7	26.0	165	D	IRON	1.14
9350-38	2500 ± 10%	55	.250	1.5	30.0	150	D	IRON	1.14
9350-40	5000 ± 10%	50	.250	1.0	65.0	105	D	IRON	1.20
9350-42	10000 ± 10%	40	.250	0.8	70.0	105	D	FERRITE	1.50

MILLER SERIES 9360

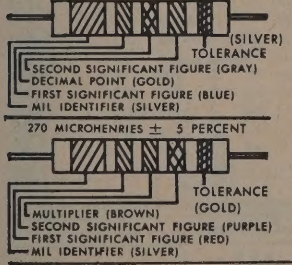
(MS 91189)

Mold Size: 0.281 ± .031 diameter; 0.937 ± .062 length.
Leads: AWG #21 TCW; 1.500 ± .125 length.
Power Rating: ½ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo (Mc) ±10%	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9360-01	1.1 ± 20%	60	10.0	200	.09	2800	PHENOLIC	$1.05
9360-02	2.2 ± 20%	65	10.0	165	.20	1800	PHENOLIC	1.05
9360-03	3.3 ± 10%	50	6.0	130	.32	1500	PHENOLIC	1.05
9360-04	4.7 ± 10%	45	5.0	100	.60	1100	PHENOLIC	1.05
9360-05	6.8 ± 10%	40	4.0	90	1.10	800	PHENOLIC	1.05
9360-06	10.0 ± 10%	40	3.5	70	1.80	600	PHENOLIC	1.05
9360-07	15.0 ± 10%	40	3.0	55	3.00	500	PHENOLIC	1.05
9360-08	22.0 ± 10%	30	2.5	27	.30	1500	IRON	1.08
9360-09	33.0 ± 10%	45	2.0	21	.60	1100	IRON	1.08
9360-10	47.0 ± 10%	70	1.5	16	1.20	700	IRON	1.08
9360-11	82.0 ± 10%	85	1.2	14	2.20	600	IRON	1.08
9360-12	100.0 ± 10%	85	1.0	14	2.80	500	IRON	1.08
9360-13	120.0 ± 10%	85	1.0	13	4.00	400	IRON	1.08

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog at your Local Parts Distributor.

FIGURE 1.
REFERENCE TO MIL-C-15305C


6.8 MICROHENRIES ± 10 PERCENT
(SILVER)
TOLERANCE
SECOND SIGNIFICANT FIGURE (GRAY)
DECIMAL POINT (GOLD)
FIRST SIGNIFICANT FIGURE (BLUE)
MIL IDENTIFIER (SILVER)
270 MICROHENRIES ± 5 PERCENT
TOLERANCE
(GOLD)
MULTIPLIER (BROWN)
SECOND SIGNIFICANT FIGURE (PURPLE)
FIRST SIGNIFICANT FIGURE (RED)
MIL IDENTIFIER (SILVER)

Color	Significant Figure	(1) Multiplier	Inductance Tolerance (Percent)
BLACK	0	1	
BROWN	1	10	
RED	2	100	
ORANGE	3	1,000	
YELLOW	4		
GREEN	5		
BLUE	6		
VIOLET	7		
GRAY	8		
WHITE	9		
NONE (2)			± 20
SILVER			± 10
GOLD	DECIMAL POINT		± 5

(1) The multiplier is the factor by which the two significant figures are multiplied to yield the nominal inductance value.
(2) Indicates body color.

Molded Choke Coils Color Coding

A MIL—identifier shall consist of a wide silver band at one end of the coil, followed by three narrow bands. When the first or second band of the three bands is gold, this represents the decimal point for values less than 10 microhenries, the two bands represent significant figures. For values of 10 microhenries or more, the first two bands represents significant figures, and the third band represents the multiplier. For small units, dots may be used instead of bands. The diameter of the MIL—identifier dot is larger than the other dots. See figure 1.

J. W. MILLER COMPANY Los Angeles 3, Calif.

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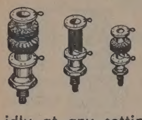
Miller

MILLER QUALITY PRODUCTS

Industrial Adjustable R.F. Coils

Ceramic Adjustable R.F. Coils



The forms used in this series feature terminal rings machined from the ceramic form material. Coils wound on these forms exhibit high Q and good stability. The adjusting core is held rigidly at any setting through the use of a newly designed tension device on the bushing.

Sub Miniature Adjustable R.F. Coils

Dimensions (form) 7/32″ dia. x 19/32″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
40A000CBI	Coil Form w/hdw. and Core		$1.14
40A107CBI	.125 uh	.091 uh	1.68
40A157CBI	.188 uh	.124 uh	1.68
40A227CBI	.275 uh	.184 uh	1.68
40A337CBI	.413 uh	.265 uh	1.68
40A477CBI	.587 uh	.327 uh	1.71
40A687CBI	.850 uh	.482 uh	1.71
40A827CBI	1.02 uh	.630 uh	1.80
40A106CBI	1.25 uh	.730 uh	1.80
40A156CBI	1.88 uh	1.06 uh	1.80
40A226CBI	2.75 uh	1.50 uh	1.83
40A336CBI	4.13 uh	2.15 uh	1.83
40A476CBI	5.87 uh	3.00 uh	1.92
40A686CBI	8.50 uh	4.40 uh	1.92
40A826CBI	10.2 uh	5.25 uh	1.92
40A105CBI	12.5 uh	8.06 uh	1.98
40A155CBI	18.8 uh	11.9 uh	1.98
40A225CBI	27.5 uh	17.1 uh	2.04
40A335CBI	41.3 uh	26.6 uh	2.04
40A475CBI	58.7 uh	39.0 uh	2.13
40A685CBI	85.0 uh	58.0 uh	2.13
40A825CBI	102 uh	69.0 uh	2.31
40A104CBI	125 uh	84.0 uh	2.31
40A000CBI	Bulk pack per 100		99.00

Miniature Adjustable R.F. Coils

Dimensions (form) ¼″ dia. x 13/16″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
41A000CBI	Coil Form w/hdw. and Core		$1.20
41A106CBI	1.25 uh	.69 uh	1.80
41A156CBI	1.87 uh	1.20 uh	1.80
41A226CBI	2.75 uh	1.42 uh	1.80
41A336CBI	4.10 uh	2.00 uh	1.83
41A476CBI	5.80 uh	2.80 uh	1.83
41A686CBI	8.50 uh	4.00 uh	1.83
41A826CBI	10.0 uh	4.50 uh	1.86
41A105CBI	12.5 uh	6.50 uh	1.86
41A155CBI	18.7 uh	10.8 uh	1.86
41A225CBI	27.5 uh	15.2 uh	1.86
41A335CBI	41.0 uh	26.0 uh	1.92
41A475CBI	58.0 uh	32.5 uh	1.92
41A685CBI	85.0 uh	48.5 uh	1.98
41A825CBI	100 uh	61.0 uh	1.98
41A104CBI	125 uh	65.0 uh	2.04
41A154CBI	187 uh	110 uh	2.04
41A224CBI	275 uh	160 uh	2.13
41A334CBI	410 uh	253 uh	2.13
41A474CBI	580 uh	390 uh	2.25
41A684CBI	850 uh	560 uh	2.31
41A824CBI	1.00 mh	670 uh	2.37
41A103CBI	1.25 mh	700 uh	2.46
41A000CBI	Bulk pack per 100		108.60

Standard Adjustable R.F. Coils

Dimensions (form) ⅜″ dia. x 1″ long

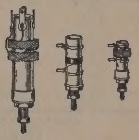
Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
42A000CBI	Coil Form w/hdw. and Core		$1.26
42A106CBI	1.25 uh	.68 uh	1.80
42A156CBI	1.87 uh	1.00 uh	1.80
42A226CBI	2.75 uh	1.35 uh	1.80
42A336CBI	4.10 uh	2.12 uh	1.83
42A476CBI	5.80 uh	2.40 uh	1.83
42A686CBI	8.50 uh	3.60 uh	1.86
42A826CBI	10.0 uh	4.45 uh	1.86
42A105CBI	12.5 uh	6.05 uh	1.98
42A155CBI	18.7 uh	9.40 uh	1.98
42A225CBI	27.5 uh	12.9 uh	2.01
42A335CBI	41.0 uh	18.8 uh	2.01
42A475CBI	58.0 uh	27.5 uh	2.16
42A685CBI	85.0 uh	37.5 uh	2.19
42A825CBI	100 uh	45.0 uh	2.25
42A104CBI	125 uh	54.0 uh	2.34
42A154CBI	187 uh	92.0 uh	2.34
42A224CBI	275 uh	123 uh	2.34
42A334CBI	410 uh	200 uh	2.37
42A474CBI	580 uh	300 uh	2.37
42A684CBI	850 uh	430 uh	2.37
42A824CBI	1.00 mh	510 uh	2.43
42A103CBI	1.25 mh	780 uh	2.43
42A153CBI	1.87 mh	1.10 mh	2.46
42A223CBI	2.90 mh	1.66 mh	2.46
42A333CBI	4.10 mh	2.40 mh	2.46
42A473CBI	5.80 mh	3.46 mh	2.52
42A683CBI	8.50 mh	5.25 mh	2.52
42A823CBI	10.0 mh	6.00 mh	2.61
42A102CBI	12.5 mh	9.20 mh	2.61
42A000CBI	Bulk pack per 100		112.20

Jumbo Adjustable R.F. Coils

Dimensions (form) ½″ dia. x 1-7/16″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
43A000CBI	Coil Form w/hdw. and Core		$1.32
43A105CBI	12.5 uh	5.70 uh	1.95
43A155CBI	18.7 uh	9.00 uh	1.95
43A225CBI	27.5 uh	12.0 uh	1.95
43A335CBI	41.0 uh	17.0 uh	1.98
43A475CBI	58.0 uh	25.0 uh	1.98
43A685CBI	85.0 uh	38.0 uh	2.25
43A825CBI	100 uh	42.0 uh	2.25
43A104CBI	125 uh	65.0 uh	2.25
43A154CBI	187 uh	95.0 uh	2.37
43A224CBI	275 uh	138 uh	2.37
43A334CBI	410 uh	205 uh	2.37
43A474CBI	580 uh	240 uh	2.40
43A684CBI	850 uh	370 uh	2.40
43A824CBI	1.00 mh	450 uh	2.40
43A103CBI	1.25 mh	600 uh	2.40
43A153CBI	1.87 mh	900 uh	2.46
43A223CBI	2.75 mh	1.30 mh	2.46
43A333CBI	4.10 mh	1.95 mh	2.49
43A473CBI	5.80 mh	2.90 mh	2.49
43A683CBI	8.50 mh	4.30 mh	2.55
43A823CBI	10.0 mh	5.10 mh	2.55
43A102CBI	12.5 mh	6.50 mh	2.58
43A152CBI	18.7 mh	9.80 mh	2.58
43A222CBI	27.5 mh	13.0 mh	2.61
43A332CBI	41.0 mh	20.0 mh	2.61
43A472CBI	58.0 mh	29.0 mh	2.64
43A682CBI	85.0 mh	42.0 mh	2.70
43A822CBI	100 mh	50.0 mh	2.76
43A101CBI	125 mh	66.0 mh	2.97
43A000CBI	Bulk pack per 100		118.80

Resinite Adjustable R.F. Coils



Resinite is a phenolic impregnated tubing which can be certified to MIL-P-79B type PBG. This material combines good mechanical and electrical characteristics along with the noncorrosive properties of cellulose acetate.

Miniature Adjustable R.F. Coils

Dimensions (form) ¼″ dia. x 13/16″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
20A000RBI	Coil Form w/hdw. and Core		$ .63
20A107RBI	.125 uh	.079 uh	.87
20A157RBI	.187 uh	.119 uh	.87
20A227RBI	.275 uh	.170 uh	.87
20A337RBI	.410 uh	.240 uh	.90
20A477RBI	.580 uh	.310 uh	.90
20A687RBI	.850 uh	.430 uh	.90
20A827RBI	1.00 uh	.580 uh	.90
20A106RBI	1.25 uh	.670 uh	.90
20A156RBI	1.87 uh	.900 uh	.90
20A226RBI	2.75 uh	1.60 uh	.90
20A336RBI	4.10 uh	2.00 uh	.90
20A476RBI	5.80 uh	2.80 uh	.93
20A686RBI	8.50 uh	3.80 uh	.93
20A826RBI	10.0 uh	4.70 uh	.93
20A105RBI	12.5 uh	6.40 uh	.93
20A155RBI	18.7 uh	9.20 uh	.93
20A225RBI	27.5 uh	12.0 uh	.93
20A335RBI	41.0 uh	19.0 uh	.93
20A475RBI	58.0 uh	27.0 uh	.93
20A685RBI	85.0 uh	37.0 uh	.93
20A825RBI	100 uh	53.0 uh	.93
20A104RBI	125 uh	65.0 uh	.93
20A154RBI	187 uh	92.0 uh	.93
20A224RBI	275 uh	140 uh	.96
20A334RBI	410 uh	215 uh	.96
20A474RBI	580 uh	310 uh	.96
20A684RBI	850 uh	450 uh	.96
20A824RBI	1.00 mh	620 uh	.96
20A103RBI	1.25 mh	830 uh	.96

Standard Adjustable R.F. Coils

Dimensions (form) ⅜″ dia. x 1⅛″ long

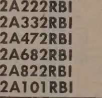
Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
21A000RBI	Coil Form w/hdw. and Core		$ .66
21A106RBI	1.25 uh	0.68 uh	.90
21A156RBI	1.87 uh	1.00 uh	.90
21A226RBI	2.75 uh	1.35 uh	.90
21A336RBI	4.10 uh	2.12 uh	.90
21A476RBI	5.80 uh	2.40 uh	.90
21A686RBI	8.50 uh	3.60 uh	.93
21A826RBI	10.0 uh	4.45 uh	.93
21A105RBI	12.5 uh	6.05 uh	.93
21A155RBI	18.7 uh	9.40 uh	.93
21A225RBI	27.5 uh	12.9 uh	.93
21A335RBI	41.0 uh	18.8 uh	.93
21A475RBI	58.0 uh	27.5 uh	.96
21A685RBI	85.0 uh	37.5 uh	.96
21A825RBI	100 uh	45.0 uh	.96
21A104RBI	125 uh	54.0 uh	.96
21A154RBI	187 uh	92.0 uh	.99
21A224RBI	275 uh	123 uh	.99
21A334RBI	410 uh	200 uh	1.02
21A474RBI	580 uh	300 uh	1.02
21A684RBI	850 uh	430 uh	1.05
21A824RBI	1.00 mh	510 uh	1.05
21A103RBI	1.25 mh	780 uh	1.08
21A153RBI	1.87 mh	1.10 mh	1.08
21A223RBI	2.75 mh	1.66 mh	1.11
21A333RBI	4.10 mh	2.40 mh	1.11
21A473RBI	5.80 mh	3.46 mh	1.23
21A683RBI	8.50 mh	5.25 mh	1.32
21A823RBI	10.0 mh	6.00 mh	1.41
21A102RBI	12.5 mh	9.20 mh	1.50

Jumbo Adjustable R.F. Coils

Dimensions (form) ½″ dia. x 1⅞″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
22A000RBI	Coil Form w/hdw. and Core		$ .81
22A105RBI	12.5 uh	5.70 uh	1.23
22A155RBI	18.7 uh	9.0 uh	1.23
22A225RBI	27.5 uh	12.0 uh	1.26
22A335RBI	41.0 uh	17.0 uh	1.26
22A475RBI	58.0 uh	24.5 uh	1.29
22A685RBI	85.0 uh	38.0 uh	1.29
22A825RBI	100 uh	41.0 uh	1.32
22A104RBI	125 uh	65.0 uh	1.32
22A154RBI	187 uh	94.0 uh	1.35
22A224RBI	275 uh	138 uh	1.35
22A334RBI	410 uh	205 uh	1.38
22A474RBI	580 uh	290 uh	1.38
22A684RBI	850 uh	430 uh	1.41
22A824RBI	1.00 mh	595 uh	1.41
22A103RBI	1.25 mh	760 uh	1.44
22A153RBI	1.87 mh	1.04 mh	1.44
22A223RBI	2.75 mh	1.56 mh	1.44
22A333RBI	4.10 mh	2.30 mh	1.47
22A473RBI	5.80 mh	3.40 mh	1.47
22A683RBI	8.50 mh	5.00 mh	1.47
22A823RBI	10.0 mh	4.20 mh	1.50
22A102RBI	12.5 mh	5.30 mh	1.50
22A152RBI	18.7 mh	8.20 mh	1.62
22A222RBI	27.5 mh	12.7 mh	1.62
22A332RBI	41.0 mh	17.8 mh	1.65
22A472RBI	58.0 mh	27.5 mh	1.68
22A682RBI	85.0 mh	42.0 mh	1.71
22A822RBI	100 mh	51.0 mh	1.80
22A101RBI	125 mh	64.0 mh	1.95

Economy Adjustable R.F. Chokes



Through the use of a recently developed Nylon molding process we are able to offer an inexpensive line of adjustable chokes. They can be adjusted from either the top or bottom. This lends a degree of flexibility to your design. Mounting is achieved by means of a metal clip in a $\frac{5}{16}$″ hole.

Dimensions: ⅜″ x 1⅜″ long.

Cat. No.	Microhenries	Price
4200	Form only	$ .60
4202	1- 2.5	.96
4203	2- 5.5	.99
4204	5- 12	1.02
4205	10- 25	1.05
4206	20- 55	1.14
4207	50-140	1.17
4208	120-330	1.20
4209	310-860	1.23

#4200 complete with hardware and core

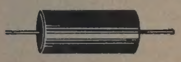
For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY Los Angeles 3, Calif.

Miller

Industrial R.F. Chokes and Filters

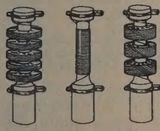
Encapsulated R.F. Chokes



The following series of R.F. chokes range in value from 0.1 uh to 50 mh. Basically identical to our standard series of axial lead R.F. chokes bearing the equivalent number, these coils are encapsulated in epoxy resin and conform to MIL-C-15305B.

Part No.	L*	R Max.	Current MA	Net Price
4580-E	0.1 uh.	.012	300	$1.26
4582-E	0.15 uh.	.015	300	1.26
4584-E	0.22 uh.	.021	300	1.26
4586-E	0.33 uh.	.023	300	1.26
4588-E	0.47 uh.	.026	300	1.26
4590-E	0.68 uh.	.036	300	1.26
4592-E	0.75 uh.	.040	300	1.26
4594-E	0.82 uh.	.042	300	1.26
4602-E	1.0 uh.	.06	300	1.26
4604-E	1.5 uh.	.096	300	1.26
4606-E	2.4 uh.	.192	300	1.26
4608-E	3.9 uh.	.6	300	1.26
4609-E	5.5 uh.	.83	300	1.26
4610-E	6.2 uh.	.90	300	1.29
4611-E	8.2 uh.	1.34	300	1.29
4612-E	10.0 uh.	1.8	200	1.29
4622-E	10.0 uh.	.072	300	1.32
4624-E	15.0 uh.	.144	300	1.32
4626-E	24.0 uh.	.336	300	1.35
4628-E	39.0 uh.	.78	300	1.35
4629-E	55.0 uh.	1.10	300	1.35
4630-E	62.0 uh.	1.2	300	1.35
4631-E	82.0 uh.	1.92	300	1.35
4632-E	100.0 uh.	2.4	200	1.35
4642-E	0.10 mh.	4.92	125	1.50
4644-E	0.15 mh.	6.84	125	1.50
4646-E	0.24 mh.	8.16	125	1.50
4648-E	0.39 mh.	12.0	125	1.56
4649-E	0.55 mh.	13.2	125	1.98
4650-E	0.62 mh.	15.1	125	1.98
4651-E	0.75 mh.	16.4	125	1.98
4652-E	1.0 mh.	19.8	125	1.98
4662-E	1.0 mh.	8.4	125	2.01
4664-E	1.5 mh.	10.8	125	2.04
4666-E	2.4 mh.	14.4	125	2.13
4668-E	3.9 mh.	20.4	125	2.19
4669-E	5.5 mh.	26.4	125	2.31
4670-E	6.2 mh.	39.6	100	2.31
4671-E	8.2 mh.	54.0	100	2.37
4672-E	10.0 mh.	56.4	50	2.70
6302-E	2.5 mh.	9.36	200	2.28
6304-E	5.0 mh.	14.9	200	2.37
6306-E	10.0 mh.	36.0	125	2.52
6308-E	25.0 mh.	83.4	75	2.70
6310-E	50.0 mh.	133	75	2.94

Ceramic Form R.F. Chokes



A series of high quality fixed coils wound on a silicone impregnated steatite form. The coils are the standoff type and are mounted by a single 6-32 screw. They find primary application in low power transmitters and associated equipment where relatively high current capacity and low distributed capacitance are important.

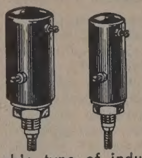
Part Number	L*	Rated Current	Net Price
4552	0.25 mh.	150 ma.	$ .75
4553	0.50 mh.	150 ma.	.75
4554	1.0 mh.	150 ma.	.81
4555	2.5 mh.	150 ma.	.93
4556	5.0 mh.	150 ma.	.96
4557	0.25 mh.	300 ma.	.81
4558	0.50 mh.	300 ma.	.81
4559	1.0 mh.	300 ma.	.99
4560	2.5 mh.	300 ma.	1.08
4561	5.0 mh.	300 ma.	1.14

Sub-Miniature R.F. Chokes

An extremely versatile series of iron core R.F. chokes designed to meet the industries' demand for high reliability, ultra-miniature components. The coils are ideally suited to network and filter design, delay lines, and computer applications. Rated at 50 milliamperes.

Part No	L*	Min. Q @ F	Net Pr.
70F106AI	1 uh	41 @ 7.9 Mc.	$ .57
70F126AI	1.2 uh	44 @ 7.9 Mc.	.57
70F156AI	1.5 uh	48 @ 7.9 Mc.	.57
70F186AI	1.8 uh	39 @ 7.9 Mc.	.57
70F226AI	2.2 uh	48 @ 7.9 Mc.	.57
70F276AI	2.7 uh	39 @ 7.9 Mc.	.57
70F336AI	3.3 uh	48 @ 7.9 Mc.	.57
70F396AI	3.9 uh	44 @ 7.9 Mc.	.57
70F476AI	4.7 uh	46 @ 7.9 Mc.	.57
70F566AI	5.6 uh	44 @ 7.9 Mc.	.57
70F686AI	6.8 uh	44 @ 7.9 Mc.	.57
70F756AI	7.5 uh	40 @ 7.9 Mc.	.57
70F826AI	8.2 uh	40 @ 7.9 Mc.	.57
70F916AI	9.1 uh	40 @ 7.9 Mc.	.57
70F105AI	10 uh	48 @ 2.5 Mc.	.66
70F125AI	12 uh	52 @ 2.5 Mc.	.66
70F155AI	15 uh	52 @ 2.5 Mc.	.66
70F185AI	18 uh	52 @ 2.5 Mc.	.66
70F225AI	22 uh	51 @ 2.5 Mc.	.66
70F255AI	25 uh	48 @ 2.5 Mc.	.66
70F275AI	27 uh	49 @ 2.5 Mc.	.66
70F335AI	33 uh	50 @ 2.5 Mc.	.66
70F395AI	39 uh	48 @ 2.5 Mc.	.66
70F475AI	47 uh	48 @ 2.5 Mc.	.66
70F565AI	56 uh	45 @ 2.5 Mc.	.66
70F685AI	68 uh	45 @ 2.5 Mc.	.66
70F755AI	75 uh	40 @ 2.5 Mc.	.66
70F825AI	82 uh	44 @ 2.5 Mc.	.66
70F915AI	91 uh	39 @ 2.5 Mc.	.66
70F104AI	100 uh	40 @ 790 Kc.	.66
70F124AI	120 uh	44 @ 790 Kc.	.66
70F154AI	150 uh	44 @ 790 Kc.	.66
70F184AI	180 uh	45 @ 790 Kc.	.66
70F204AI	200 uh	45 @ 790 Kc.	.66
70F224AI	220 uh	45 @ 790 Kc.	.66
70F254AI	250 uh	46 @ 790 Kc.	.66
70F274AI	270 uh	45 @ 790 Kc.	.66
70F304AI	300 uh	42 @ 790 Kc.	.66
70F334AI	330 uh	47 @ 790 Kc.	.66
70F354AI	350 uh	44 @ 790 Kc.	.66
70F394AI	390 uh	42 @ 790 Kc.	.75
70F474AI	470 uh	47 @ 790 Kc.	.75
70F504AI	500 uh	42 @ 790 Kc.	.75
70F564AI	560 uh	39 @ 790 Kc.	.75
70F684AI	680 uh	44 @ 790 Kc.	.75
70F754AI	750 uh	35 @ 790 Kc.	.75
70F824AI	820 uh	42 @ 790 Kc.	.75
70F914AI	910 uh	35 @ 790 Kc.	.75
70F103AI	1.00 mh	40 @ 790 Kc.	.75
70F123AI	1.20 mh	37 @ 250 Kc.	.75
70F153AI	1.50 mh	40 @ 250 Kc.	.75
70F183AI	1.80 mh	40 @ 250 Kc.	.75
70F223AI	2.20 mh	40 @ 250 Kc.	.81
70F253AI	2.50 mh	48 @ 250 Kc.	.84
70F273AI	2.70 mh	50 @ 250 Kc.	.84
70F333AI	3.30 mh	56 @ 250 Kc.	.84
70F393AI	3.90 mh	47 @ 250 Kc.	.84
70F473AI	4.70 mh	54 @ 250 Kc.	.84
70F563AI	5.60 mh	46 @ 250 Kc.	.84
70F683AI	6.80 mh	51 @ 250 Kc.	.84
70F753AI	7.50 mh	44 @ 250 Kc.	.84
70F823AI	8.20 mh	48 @ 250 Kc.	.99
70F913AI	9.10 mh	37 @ 250 Kc.	.99
70F102AI	10.0 mh	48 @ 250 Kc.	.99
70F122AI	12 mh	39 @ 79 Kc.	1.08
70F152AI	15 mh	40 @ 79 Kc.	1.08
70F182AI	18 mh	41 @ 79 Kc.	1.08
70F222AI	22 mh	42 @ 79 Kc.	1.17

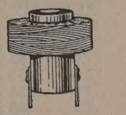
Encapsulated Adjustable R.F. Coils



This series of encapsulated coils offer the maximum possible performance from an adjustable type of inductor. The coil is wound on an epoxy form which is placed inside an epoxy cup and this area filled with epoxy resin. In this manner a complete seal against moisture is achieved and good mechanical stability is assured.

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
50A106EBI	1.25 uh	0.62 uh	$3.60
50A156EBI	1.87 uh	0.98 uh	3.60
50A226EBI	2.75 uh	1.26 uh	3.60
50A336EBI	4.10 uh	1.82 uh	3.63
50A476EBI	5.87 uh	2.56 uh	3.63
50A686EBI	8.50 uh	3.80 uh	3.63
50A826EBI	10.2 uh	4.40 uh	3.63
50A105EBI	12.5 uh	5.40 uh	3.69
50A155EBI	18.8 uh	7.80 uh	3.69
50A225EBI	27.5 uh	11.7 uh	3.78
50A335EBI	41.3 uh	18.8 uh	3.78
50A475EBI	58.7 uh	26.5 uh	3.81
50A685EBI	85.0 uh	36.0 uh	3.81
50A825EBI	102 uh	44.0 uh	3.84
50A104EBI	125 uh	63.0 uh	4.23
50A154EBI	187 uh	92.0 uh	4.26
50A224EBI	275 uh	130 uh	4.26
50A334EBI	410 uh	200 uh	4.29
50A474EBI	580 uh	280 uh	4.29
50A684EBI	850 uh	400 uh	4.32
50A824EBI	1.00 mh	540 uh	4.32
50A103EBI	1.25 mh	770 uh	4.35
50A153EBI	1.87 mh	950 uh	4.35
50A223EBI	2.75 mh	1.58 mh	4.38
50A333EBI	4.13 mh	2.40 mh	4.38
50A473EBI	5.80 mh	3.35 mh	4.44
50A683EBI	8.50 mh	5.20 mh	4.44
50A823EBI	10.00 mh	6.20 mh	4.44

Printed Circuit Air Core R.F. Chokes



The following R.F. Chokes have been designed to offer a wide range of inductance values for use in printed circuit applications. Our standard stock of these coils is impregnated with a high grade coil varnish to prevent moisture absorption. On special orders we can supply these items treated with fungus resistant material, or encapsulated in epoxy resin to meet MIL-C-15305-B.

Part No.	L*	DC R Max.	Current	Net Price
970	1.0 mh.	20.6 ohms	125 ma.	$ .57
971	1.2 mh.	23.8 ohms	125 ma.	.57
972	1.5 mh.	26.4 ohms	125 ma.	.57
973	1.8 mh.	29.6 ohms	125 ma.	.60
974	2.2 mh.	32.9 ohms	125 ma.	.60
975	2.7 mh.	37.4 ohms	125 ma.	.60
976	3.3 mh.	41.8 ohms	125 ma.	.63
977	3.9 mh.	46.7 ohms	125 ma.	.63
978	4.7 mh.	51.8 ohms	125 ma.	.63
979	5.6 mh.	57.6 ohms	125 ma.	.63
980	6.8 mh.	64.4 ohms	125 ma.	.66
981	8.2 mh.	73.0 ohms	100 ma.	.66
982	10.0 mh.	81.6 ohms	100 ma.	.72
983	12.0 mh.	92.4 ohms	100 ma.	.75
984	15.0 mh.	105 ohms	100 ma.	.78
985	18.0 mh.	117 ohms	100 ma.	.81
986	22.0 mh.	130 ohms	75 ma.	.93
987	27.0 mh.	145 ohms	75 ma.	.96
988	33.0 mh.	251 ohms	75 ma.	1.02
989	39.0 mh.	277 ohms	75 ma.	1.05
990	47.0 mh.	316 ohms	50 ma.	1.08
991	56.0 mh.	351 ohms	50 ma.	1.14
992	68.0 mh.	391 ohms	50 ma.	1.20
993	82.0 mh.	442 ohms	50 ma.	1.26
994	100.0 mh.	473 ohms	50 ma.	1.32

*TOLERANCE 0.1 TO 1.0 UH ± 20%, 1.1 TO 10 UH ± 10%, OVER 10 UH ± 5%

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J. W. MILLER COMPANY Los Angeles 3, Calif.

Miller

Radio Frequency Chokes

R.F. Chokes with Axial Leads

These chokes cover an inductance range from .1 microhenry to 10 millihenries in 5 decades with 8 coils per decade. Inductance values increase in steps of approximately 50%. Either single layer or 3-pi universal windings are used to insure low distributed capacity. Chokes are wound on low-loss molded phenolic or powdered iron core forms and are impregnated with a moisture- and fungus-resistant varnish. The type of powdered iron used allows the chokes to operate at all frequencies up into the ultra-high frequency region.

Dimensions: Phenolic form 3/16″ diameter x ¾″ long. Iron core form 7/32″ diameter x ⅞″ long. Leads are 1½″ long.

Phenolic Form
Single Layer Windings

Cat. No.	uh.*	Ohms Max.	ma	Net Pr.
4580	0.1	.012	300	$ .45
4582	0.15	.014	300	.45
4584	0.22	.024	300	.45
4586	0.33	.023	300	.45
4588	0.47	.026	300	.45
4590	0.68	.036	300	.45
4592	0.75	.039	300	.45
4594	0.82	.042	300	.45
4602	1.	.060	300	.45
4604	1.5	.096	300	.45
4606	2.4	.192	300	.45
4608	3.9	.600	300	.45
4609	5.5	.828	300	.48
4610	6.2	.900	300	.48
4611	8.2	1.34	300	.48
4612	10	1.80	200	.48

Iron Core Form
Single Layer Windings

Cat. No.	uh.*	Ohms Max.	ma	Net Pr.
4622	10	.072	300	$ .51
4624	15	.144	300	.51
4626	24	.336	300	.54
4628	39	.780	300	.54
4629	55	1.10	300	.57
4630	62	1.20	300	.57
4631	82	1.92	300	.57
4632	100	2.40	200	.57

Phenolic Form
3-Section Windings

Cat. No.	mh*	Ohms Max.	ma	Net Pr.
4642	0.1	4.92	125	$ .57
4644	0.15	6.84	125	.57
4646	0.24	8.16	125	.57
4648	0.39	12.0	125	.63
4649	0.55	13.2	125	.63
4650	0.62	15.1	125	.63
4651	0.75	16.4	125	.63
4652	1.0	19.8	125	.63

Iron Core Form
3-Section Windings

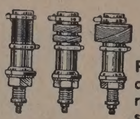
Cat. No.	mh*	Ohms Max.	ma	Net Pr.
4662	1	8.4	125	$ .66
4664	1.5	10.8	125	.69
4666	2.4	14.4	125	.75
4668	3.9	20.4	125	.81
4669	5.5	26.4	125	.93
4670	6.2	39.6	125	.93
4671	8.2	54.0	125	1.11
4672	10	56.4	50	1.29

Ferrite Core R.F. Chokes

A new series of R.F. Chokes taking advantage of the high permeability of ferrite cores. These chokes combine high inductance and low D.C. resistance with a small physical size.

Dimensions of core: ¼″ diameter x ⅞″ long. 1½″ long axial leads.

Cat. No.	mh*	Ohms Max.	ma	Net Pr.
6302	2.5	9.36	200	$ .81
6304	5	14.9	200	.93
6306	10	36.0	125	1.08
6308	25	83.4	75	1.26
6310	50	133	75	1.44



Adjustable Ceramic Forms and R.F. Coils

Permeability tuned coils wound on silicone impregnated ceramic forms. Hardware necessary for assembly is supplied.

Standard Adjustable Ceramic Form and R.F. Coils

Dimensions (form): ⅜″ diameter x 1 1/16″ long.

Cat. No.	Microhenries	Net Price
4400	Form only	$1.14
4403	0.9- 1.6	1.62
4404	1.5- 3.2	1.65
4405	3.1- 6.8	1.68
4406	6.7- 15	1.74
4407	14.8- 31	1.80
4408	30 - 69	1.83
4409	68 - 130	1.89
4410	126 - 250	1.92
4411	245 - 475	1.95
4412	450 - 800	1.98
4413	750 -1400	2.01
4414	1300 -2100	2.01

#4400 comes complete with hardware and core*

#4400 Bulk packed per 100 Net Price 99.00

Miniature Adjustable R.F. Coils

Dimensions (form): ¼″ diameter x ⅞″ long.

Cat No.	Microhenries	Net Price
4500	Form only	$1.05
4501	.4- .8	1.50
4502	1.0- 1.6	1.50
4503	1.6- 2.8	1.56
4504	2.8- 5	1.59
4505	5 - 9	1.65
4506	9 - 16	1.71
4507	16 - 24	1.77
4508	24 - 35	1.80
4509	35 - 60	1.83
4511	60 -120	1.86
4512	110 -200	1.89
4513	190 -330	1.92
4514	320 -500	1.95
4514-1	480 -800	2.01

#4500 comes complete with hardware and core*

#4500 Bulk packed per 100 Net Price 81.00

Sub-Miniature Adjustable R.F. Coils

Dimensions (form): 3/16″ diameter x ⅝″ long.

Cat No.	Microhenries	Net Price
4300	Form only	$1.05
4301	0.17- 0.27	1.50
4302	0.27- 0.41	1.50
4303	0.40- 0.65	1.56
4304	0.64- 0.95	1.59
4305	0.94- 1.55	1.65
4306	1.5 - 2.57	1.71
4307	2.5 - 4.40	1.77
4308	4.3 - 7.15	1.80
4309	7.1 - 12.5	1.83
4310	12.4 - 20.3	1.86
4311	20.1 - 32.8	1.89
4312	32.5 - 51.5	1.92
4313	51. -102.	1.95
4314	101. -180.	1.95
4315	178. -300.	1.95

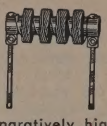
#4300 comes complete with hardware and core*

#4300 Bulk packed per 100 Net Price 81.00

Quantity orders can be wound to your specific requirements with extended inductances and Q values other than those shown. Your inquiries invited.

*When ordering forms alone, the type of core should be specified by the addition of a suffix taken from the following.

Suffix	Frequency Range of Core Material
Y	50-1000 kc.
R	1- 30 Mc.
W	30- 300 Mc.



Multiple Pi Chokes

These Multiple Pi duo-lateral chokes have a low distributed capacity of 1.2-1.3 mmf. The current carrying capacity is comparatively high for this type of choke. Inductance tol. ± 5%.

Cat. No.	Mh.	Ohms Max.	MA	Net Price
4531-0	.25	9.6	200	$ .75
4531	.5	14.4	200	.75
4531-1	1	20.4	200	.75
4532	1.5	25.2	200	.78
4537	2.5	33.6	200	.81
4538	5	50.4	125	.96
4539	7.5	98.4	125	1.08
4540	10	114	125	1.20
4541	25	192	125	1.41

#4537 Bulk packed per 100 — Net Pr. 66.00

R.F. Chokes wound to closer tolerances if required in lots of 100 pieces or more at slightly higher prices.

Unshielded Chokes

These single section R.F. Chokes are ideally suited for general purpose applications in receiver and filter circuit. Solder lug terminals and single hole mounting. Inductance tol. ± 5%.

Air Core Type

Dimensions: 1⅛″ diameter x ⅝″.

Cat. No.	Mh.	Ohms Max.	MA	Net Price
610	.25	9.6	125	$ .60
615	.5	14.4	125	.60
620	.75	19.2	125	.60
622	1.0	21.6	125	.60
630	1.5	25.2	125	.66
640	2.5	34.8	125	.75
650	5.0	52.8	125	.75
660	7.5	66.0	125	.78
670	10	81.0	125	.81
680	12.5	92.5	125	.84
690	15	102	125	.87
691	20	120	125	.96
692	30	156	100	.99
693	60	240	100	1.14
694	80	264	100	1.23

Center Tapped Types

Cat. No.	Mh.	Ohms Max.	MA	Net Price
670-T	10	80.4	125	.87
691-T	20	120	125	.99
693-T	60	240	100	1.32

Iron Core Type

These chokes are similar in construction to the No. 600 series except that they are wound on powdered iron cores. Inductance tol. ± 5%.

Cat. No.	Mh.	Ohms Max.	MA	Net Price
951	.5	8.40	125	$ .78
952	1.0	13.2	125	.84
953	2.5	22.8	125	.93
954	5.0	34.8	125	1.05
955	7.5	44.4	125	1.14
956	10.0	56.4	125	1.20
957	25.0	99.5	100	1.32
958	50.0	156	100	1.50
959	75.0	204	100	1.65
960	100.0	240	100	1.86
961	150.0	312	100	1.98

Shielded Chokes

Single section wound R.F. Chokes assembled in round aluminum shield with two spade bolts for mounting. Solder lug terminals.

Iron Core Type

Dimensions: 1¼″ dia. x 1⅛″ high

Cat. No.	Mh.	Ohms Max.	MA	Net Price
851	.5	9.60	125	$1.17
852	1.0	13.2	125	1.23
853	2.5	24.0	125	1.26
854	5.0	37.2	125	1.32
855	7.5	50.4	125	1.38
856	10.0	56.4	125	1.50
857	25.0	112	125	1.65
Dimensions: 1⅝″ dia. x 1⅛″ high				
858	50.0	192	100	1.71
859	75.0	228	100	1.89
860	100.0	384	100	2.04
861	150.0	576	100	2.31

*TOLERANCE 0.1 TO 1.0 UH ± 20%, 1.1 TO 10 UH ± 10%, OVER 10 UH ± 5%

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J. W. MILLER COMPANY Los Angeles 3, Calif.

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Miller

R.F. and I.F. Coils

Ceramic Core R.F. Chokes

Miller ceramic core radio frequency chokes are the result of careful research and design, and present advantages found in no other comparable chokes. These chokes have extremely low distributed capacity.

All chokes are impregnated with a moisture- and fungus-resistant varnish.

Dimensions: (form) ¼″ diameter by 1½″ long.

Single Layer Wound Chokes

Part No.	uh.*	Ohms Max.	ma	Net Price
4528-1	1	.036	300	$ .54
4528	2.5	.108	300	.54
4529	5	.300	300	.54
4529-10	10	1.14	300	.54

Progressive Wound Chokes

Part No.	uh.*	Ohms Max.	ma	Net Price
4515	25	1.92	300	$ .60
4517	50	2.52	300	.60
4519	100	3.60	300	.60

Frequency Selective R.F. Chokes

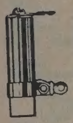


FIGURE 1

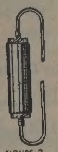


FIGURE 2

Designed for maximum efficiency and highest impedance at specific operating frequencies this group of R.F. chokes eliminates the designers task of attempting to choose the best coil for a particular application from miscellaneous and often insufficient design data. Designed to cover the major Amateur, Industrial, and Citizens bands the coils will also operate efficiently at frequencies approximating the recommended frequencies.

The RFC-3.5, RFC-7, and RFC-14 are the standoff type, mounted by a single 6-32 screw. All other coils are mounted with axial leads.

Part No.		Freq. Mc.	Fig.	Net Pr.
RFC-3.5	266 uh	1.8-5	1	$1.20
RFC-7	208 uh	3-13	1	1.04
RFC-14	84 uh	7-20	1	.69
RFC-21	38.5 uh	15-30	2	.60
RFC-28	24 uh	25-40	2	.60
RFC-50	8.2 uh	30-90	2	.60
RFC-144	1.72 uh	75-180	2	.51
RFC-220	.82 uh	160-340	2	.51
RFC-420	.22 uh	325-500	2	.51

Wide Range Adjustable Inductors

Due to the wide range of these coils they will find immediate application in many prototype designs where the exact value of the required inductance is not known.

Dimensions: Max. dia. ¾″x1¼″ long both types
Inductance measured at 1000 cycles

Untapped Inductors

Cat. No.	L Min.	L Max.	Net Price
9001	35 uh	.300 mh	$1.11
9002	.150 mh	1.00 mh	1.44
9003	.500 mh	3.50 mh	1.65
9004	1.75 mh	10.0 mh	1.65
9005	5.00 mh	20.0 mh	1.77
9006	10.0 mh	50.0 mh	1.89
9007	25.0 mh	130 mh	1.95
9008	65.0 mh	300 mh	2.07

Tapped Osc. Inductors

9011	35 uh	.300 mh	$1.29
9012	.150 mh	1.00 mh	1.59
9013	.500 mh	3.50 mh	1.80
9014	1.75 mh	10.0 mh	1.80
9015	5.00 mh	20.0 mh	1.89
9016	10.0 mh	50.0 mh	2.07
9017	25.0 mh	130 mh	2.07
9018	65.0 mh	300 mh	2.25

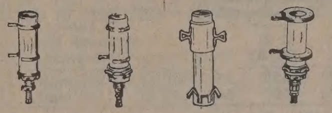
Shielded Subminiature Adjustable R.F. Coils

These compact adjustable coils offer a minimum two-to-one inductance range with relatively small changes in Q. The tuning adjustment is accessible from either the top or bottom of the coil assembly. Magnetic shielding is achieved through the use of cup cores while the metal shield offers effective electrostatic shielding. Printed circuit terminals on base and shield.

Dimensions: ½″ sq. x ⅝″ high.

Part No.	L Min.	L. Max.	Typical Dist. C (pf)	Net Price
9050	1.5 uh	3.0 uh	3.5	$1.80
9051	3.0 uh	7.0 uh	4.3	1.80
9052	7.0 uh	14.0 uh	7.6	1.85
9053	14.0 uh	28.0 uh	10.3	1.85
9054	28.0 uh	60.0 uh	11.0	1.90
9055	60.0 uh	120.0 uh	10.3	1.90
9056	120.0 uh	280.0 uh	9.0	1.90
9057	280.0 uh	650.0 uh	8.0	1.95
9058	650.0 uh	1.3 Mh	8.0	1.95
9059	1.3 Mh	3.0 Mh	16.0	1.95
9060	3.0 Mh	10.0 Mh	7.0	2.10
9061	8.0 Mh	20.0 Mh	7.0	2.10
9062	15.0 Mh	40.0 Mh	7.0	2.10
9063	20.0 Mh	60.0 Mh	10.0	2.20

Coil Forms



We have compiled a separate listing of our coil forms that have appeared for years in our catalogs as part of the R.F. Coil listings. Resinite material is a phenolic impregnated tubing that can be certified to Mil-P-79B type PBG. The ceramic material meets Jan I-10, Grade L5 and is Silicone Impregnated to reduce moisture absorption. When ordering forms the type of core should be specified by the addition of a suffix taken from the following:

Suffix	Frequency Range of Core Material
Y	50-1,000 kc.
R	1-30 Mc.
W	30-300 Mc.

R is supplied unless specified. All hardware is supplied.

Part No.	Dia.	Lgth.	Mtg. Hole	Material	Net Price
20A000RBI	¼	13/16	13/64	Resinite	$ .63
20A000RBI		Bulk Pkd. per 100 pcs			54.00
21A000RBI	⅜	1⅛	¼	Resinite	.66
21A000RBI		Bulk Pgd. Per 100 pcs			57.00
22A000RBI	½	1⅞	¼	Resinite	.81
22A000RBI		Bulk Pkd. per 100 pcs			69.00
40A000CBI	7/32	19/32	11/64	Ceramic	1.44
40A000CBI		Bulk Pkd. per 100 pcs			129.00
41A000CBI	¼	13/16	3/16	Ceramic	1.50
41A000CBI		Bulk Pkd. per 100 pcs			135.00
42A999CBI	⅜	1	¼	Ceramic	1.56
42A000CBI		Bulk Pkd. per 100 pcs			140.40
43A000CBI	½	1 7/16	¼	Ceramic	1.62
43A000CBI		Bulk Pkd. per 100 pcs			145.80
4200	.289	1⅜	5/16	Nylon	.60
4200		Bulk Pkd. per 100 pcs			51.00
4300	3/16	⅝	11/64	Ceramic	1.05
4300		Bulk Pkd. per 100 pcs			81.50
4400	⅜	1 1/16	¼	Ceramic	1.14
4400		Bulk Pkd. per 100 pcs			99.00
4500	¼	⅞	3/16	Ceramic	1.05
4500		Bulk Pkd. per 100 pcs			81.00

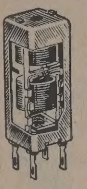
New F.M. Stereo Multiplex Inductors

For use in a newly designed circuit that eliminates the 19 kc Oscillator and resulting synchronizing problems. In conjunction with an improved low pass filter and detecting system, improved separation can be achieved.

Dimensions: ¾″ Sq. x 17/32″ High

Cat. No.	Description	Net Price
1356	38 kc. Output	$2.31
1357	19 kc. Input	2.25
1358	Low Pass Filter	2.10

Communications I.F. Transformers

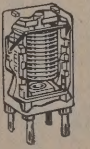


Designed for experimental use in communications equipment where selectivity and stability are important. The 100 kc. I.F. transformer and BFO coil are intended for tube application, while the 455 kc. crystal filter I.F. transformers have taps on the winding to allow for use with both tubes and transistors. The 1800 kc. I.F. transformer offers the best possible "Q" with stability to give a degree of selectivity that compares with lower frequency I.F. transformers. This transformer is for use with tubes only. Part number 1770 is a double tunel I.F. transformer having taps on both Primary and Secondary winding.

Dimensions: ¾″ by ¾″ by 2″ high.

Cat No.	Description	Net Price
1710	100 KC I.F.—3 KC Bandwidth	$2.10
1711	100 KC B.F.O.	1.95
1725	455 KC Crystal Filter I.F. Input	1.95
1726	455 KC Crystal Filter I.F. Output	1.95
1727	455 KC B.F.O.	1.80
1730	1800 KC I.F.—25 KC Bandwidth	2.10
1770	455 KC Double Tuned Transistor I.F.—30K:1K	2.34
1731	1610 KC Link Coupling Coil Unshielded	2.37

F.M. Stereo Multiplex Inductors



Basically the system involves pick-up of sound by two microphones, the left (L) and right (R). Subsequently the two audio signals are combined in such a way that L plus R frequency modulates an F-M carrier in the conventional way while L minus R amplitude modulates a 38KC stereophonic subcarrier, and the resulting double side-band AM signal (23-53KC) with suppressed carrier, likewise frequency modulates the FM carrier. A 19KC pilot sub-carrier signal also frequency modulates the FM carrier and at the receiver provides a means of controlling the frequency and phase of the 38 KC carrier for re-insertion. When broadcasting Stereo Multiplex the region of 53 to 75KC is allotted to the station for SCA signals.

In the receiver the output of the F-M detector comprises the L+R audio signal, the 19KC pilot sub-carrier, and the 23-53KC A-M modulated (L-R), suppressed carrier signal. It is then required to separate the 23-53KC signal by means of a suitable filter, generate a 38KC signal under the control of the 19KC pilot sub-carrier, re-insert the sub-carrier, and detect the resulting signal. This yields L—R. This must then be combined in a suitable matrix with the L+R signal in such a manner that the L signal appears at one output terminal and the R signal at another.

Dimensions: ¾″ Sq. x 17/32″ High.

Cat. No.	Description	Net Price
1351	Low Pass Filter	$1.95
1352	BP Filter Series Element	1.80
1353	BP Filter Shunt Element	1.80
1354	Locked Osc. 19 kc.	1.86
1355	Output Trans.38 kc.	2.25

Printed Circuit Multiplex Inductors

The following coils are electrically the same as the regular point to point wiring type listed above. The printed circuit board PCM can be adapted for use with either the regular coils or the printed circuit type.

Dimensions: ¾″ Sq. x 17/32″ High.

Cat. No.	Description	Net Price
1351-PC	Low Pass Filter	$1.95
1352-PC	BP Filter Series Element	1.80
1353-PC	BP Filter Shunt Element	1.80
1354-PC	Locked Osc. 19 kc.	1.86
1355-PC	Output Trans. 38 kc.	2.25
PCM	Printed Circuit Board	5.55

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J. W. MILLER COMPANY Los Angeles 3, Calif.

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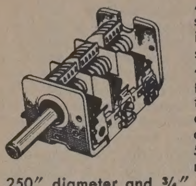
Net

Miller

Transistor Components and I.F. Transformers

Sub-Miniature Three Gang Variable Capacitor

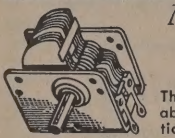


An extremely small but stable air dielectric variable capacitor. Each section is composed of 4 stator and 5 rotor plates. Trimmer capacitors are mounted on the antenna and R.F. sections only. Capacitor range: 5-20 mmfd.; Trimmer range: 1.5-8 mmfd. Shaft .250″ diameter and ¾″ long.

Dimensions: 1¹⁄₁₆″ wide x 1³⁄₁₆″ high x 2″ deep.

Cat No.	Item	Net Price
1460	3-Gang Variable Capacitor	$3.96

Midget Variable Condensers

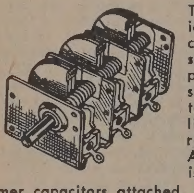


Shaft dia. ¼″ x 1″ long.

The #2110, 2-gang variable condenser antenna section has a range of 10-130 mmf. The oscillator section has a range of 10-78 mmf. The #2111, #2112 and #2113 are the standard size condensers having a range of 10-365 mmf. Mounting is provided by tapped holes in the frame of the condensers. Counterclock rotation for capacity increase.

Cat. No.	Sections	Dimensions	Net Price
2110	2	1⁵⁄₁₆″x1⅜″x1¹⁵⁄₁₆″	1.98
2111	1	1³⁄₁₆″x1⅜″1⁵⁄₁₆″	1.95
2112	2	2³⁄₁₆″x1¹³⁄₁₆″x1⅝″	2.40
2113	3	3³⁄₁₆″x1¹³⁄₁₆″x1⅝″	3.30

F.M. Variable Capacitor

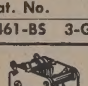


This 3-gang 7-plate variable capacitor is rigidly constructed with widely spaced (.042 Air Gap) plates to assure highest stability. The plate contour results in an almost linear frequency versus rotation characteristics. Although the capacitor is supplied with 3 trimmer capacitors attached, it is recommended that the oscillator trimmer be replaced with a small NPO adjustable ceramic. The tuning capacitor has a ¼″ diameter shaft ¹⁵⁄₁₆″ long. Capacitor range is 6.6-23 mmfd. Trimmer capacitor will add to these values.

Dimensions: 3³⁄₁₆″x1¹³⁄₁₆″x1⅝″

Cat. No.	Item	Net Price
1461-BS	3-Gang FM Tuning Capacitor	$3.60

Sub-Miniature Variable Condenser



Shaft Dia. ¼″ x ½″ Long

It was necessary to use a four point suspension for the capacitor frame to insure against the frame becoming distorted and resultant shorting of plates. R.F. Cap. (11 Plates) 5.3 mmf—122.4 mmf

Os. Cap. (9 Plates) 4.2 mmf—78.6 mmf

Effective trimmer range: 1.8—8 mmf

Cat.	Sections	Dimensions	Net
2109	2	1⅛″x1⅛″x¾″	$2.10

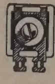
Sub-Miniature I.F. Trans.

Through the use of a Ferrite shell core material these Sub-Miniature I.F. Transformers offer the gain and bandwidth characteristics previously obtained in only larger I.F. assemblies. (For Battery or AC-DC Radios.)

Dimensions: ½″ sq. x 1½″ high.

	Item	Net Price
10-C1	455 KC Input I.F. Trans.	$1.68
10-C2	455 KC Output I.F. Trans.	1.68

Adjustable Padder Condensers



Used as adjustable oscillator padding condenser in super-het receivers to insure proper three-point tracking. They also find application as the horizontal drive control in television receivers. ¼″ single hole mounting.

Dimensions: ⅞″ x 1″ x ⅜″ thick.

Cat. No.	Capacity Range	Net Price
160-A	360-1000 mmfd.	$ .84
160-B	50-400 mmfd.	.75
160-C	200-600 mmfd.	.84
160-D	10-160 mmfd.	.66
160-E	25-280 mmfd.	.72

Standard Transistor Antenna Rod

Dimensions: ¾″ x 9″.

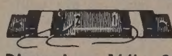
Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	Net Price
2000	450	540-1650 KC	365 mmf.	$1.95

Miniature Transistor Antenna Rods

Dimensions: ¾″ x 3¾″.

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	Net Price
2001	550	540-1650 KC	365 mmf.	$1.80
2003	500	540-1650 KC	130 mmf.	1.80

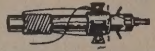
Ferrite-Strip Transistor Antenna Rods



Dimensions: ¼″ x ¾″ x 3¾″ Tuning

Cat. No.	Q @ 790 KC	Freq. Range	Cond. Max. Capacity	Net Price
2004	500	540-1650 KC	365 mmf.	$1.80
2005	450	540-1650 KC	130 mmf.	1.80

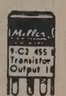
Sub-Miniature Transistor Antenna Rods



Dimensions: ½″x2½″.

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	Net Price
2002	250	540-1650 KC	250-450 mmf.	$1.11
2007	220	540-1650 KC	100-250 mmf.	1.44

Sub-Miniature Transistor I.F. Transformers & Matching Osc.

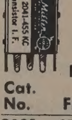


A high impedance, tapped primary winding coupled to a low impedance secondary provides optimum energy transfer.

Dimensions: ⅜″ sq. x ⅝″ high.

Cat. No.	Freq.	Impedance	Use	Net Price
9-C1	455 KC	25K— 600 Ohms	Input	$2.40
9-C2	455 KC	25K—1000 Ohms	Output	2.40
2021	Oscillator (Tuning Cap. 78 mmfd)			2.10

Miniature Transistor I.F. Transformers



Designed to have the proper impedance match when used with the transistors on our data sheets.

Dimensions: ½″ sq. x ¾″ high.

Cat. No.	Freq.	Impedance	Use	Net Price
2031	455 KC	10K— 600 Ohms	Input	$2.10
2032	455 KC	10K—1000 Ohms	Output	2.10
2041	455 KC	25K— 600 Ohms	Input	2.10
2042	455 KC	25K—1000 Ohms	Output	2.10
2043	455 KC	70K—1000 Ohms	Input	2.10
2044	455 KC	30K—4000 Ohms	Output	2.10
2045	455 KC	70K— 500 Ohms	Input	2.10
2051	455 KC	100K-1000 Ohms	Input	2.10

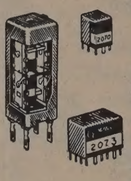
Unshielded Miniature Transistor Oscillators

The 2020 oscillator coil (Revised 5-lug) is designed for use in a converter oscillator circuit. The 2023 oscillator coil (6-lug) is for use where a separate transistor is used for the oscillator and another transistor for the mixer.

Dimensions: ⅜″ x 1″ high.

Cat. No.	Cond. Max. Capacity	I.F. Freq.	Net Price
2020	365 mmf.	455 KC	$1.65
2022	78-100 mmf	455 KC	1.65
2023	365 mmf.	455 KC	1.65

F.M. Transistor I.F. Transformers



This series of high quality I.F., Discriminator, and Ratio Detector transformers makes it possible for the first time to construct a completely self-contained battery operated F.M. receiver which compares favorably with its vacuum tube counterpart.

Dimensions: ¾″ sq. x 2″ high.

Cat.	Freq.	Use	Net Price
1601	10.7 Mc	First I.F. Input	$2.28
1602	10.7 Mc	Second I.F. Instage	2.37
1603	10.7 Mc	Third I.F. Output	2.37
1604	10.7 Mc	Discriminator	2.55
1605	10.7 Mc	Ratio Det. w/Diodes	4.80
1606	10.7 Mc	Ratio Detector	2.34

Printed Circuit Style

Dimensions: ¾″ sq. x 2⅛″ high.

Cat No.	Freq.	Use	Net Price
1601-PC	10.7 Mc	Transistor First I.F.	$2.28
1602-PC	10.7 Mc	Transistor Second I.F.	2.37
1603-PC	10.7 Mc	Transistor Third I.F.	2.37
1605-PC	10.7 Mc	Ratio Detector with Diodes	4.80

Sub-Miniature Style

I.F. Trans. Dimensions: ¹³⁄₃₂″ sq. x ½″ high
Ratio Det. Dimensions: ¹³⁄₃₂″ x ¾″ x ½″ high

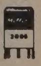
2070	10.7 Mc	First I.F.	Input	$2.25
2071	10.7 Mc	Second I.F.	Instage	2.25
2072	10.7 Mc	Third I.F.	Output	2.25
2073	10.7 Mc	Ratio Detector		2.70

Micro Miniature Transistor I.F. Trans. & Matching Oscillator

Construction is ultra small, rugged and mechanically stable. Tuning being effected by means of a sturdy threaded cup core which engages a threaded coil support. Dimensions: ⁹⁄₃₂″ sq. x ¹⁵⁄₃₂″ high

Cat. No.	Freq.	Impedance	Use	Net Price
2061	455 kc	50k - 800 ohms	Input	$2.10
2062	455 kc	30k - 500 ohms	Instage	2.10
2063	455 kc	20k - 5k ohms	Output	2.10
2060	Oscillator (Tuning cap. 78 to 100 mmfd, max.)			2.10

Mini Miniature Transistor I.F. Trans. & Matching Oscillator



Similar in style to the Micro Miniature, these transformers are a little larger in size, with built-in capacitors for higher available Q.

Dimensions ¹³⁄₃₂″ sq. x ½″ high

Cat. No.	Freq.	Impedance	Use	Net Price
2066	455 kc	50k - 800 ohms	Input	$2.10
2067	455 kc	30k - 500 ohms	Instage	2.10
2068	455 kc	20k - 5k ohms	Output	2.10
2065	Oscillator (Tuning cap. 78 to 110 mmfd, max.)			2.10

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R. F. and I. F. Transformers

Miniature Adjustable R.F. Coils

These high Q adjustable iron core coils are for general replacement use.

	Dimensions:
70-A and 70-RF	½″ dia x 1½″ long
69-Osc and 70-Osc	½″ dia x 1⅛″ long
67-Osc	⅜″ dia x 1⅝″ long
71-RF	¾″ dia x 1¾″ long

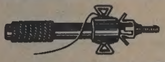
Cat No.	Item	Net Price
67-OSC	Oscillator Stage 540-1600 kc Autodyne type Oscillator	$1.29
69-OSC	Oscillator Stage 540-1600 kc Capacity coupled type	1.14
70-A	Antenna Stage 540-1600 kc	1.14
70-RF	R.F. Stage 540-1600 kc	1.14
70-OSC	Oscillator Stage 540-1600 kc	1.14
71-RF	R.F. Coil 540-1600 kc	1.80

Universal Adjustable Oscillator Coil

These adjustable iron core oscillator coils are for general replacement use.

Dimensions: ⅝″ x 1½″ high.

Cat. No.	Use	Freq. Range	Net Price
71-OSC	Oscillator Stage	R.F. 500-1800 KC (I.F. 100-550 KC)	$1.65

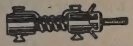


High-Q Ferrite Antenna Coil

Supplied with mounting bracket

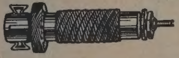
Dimensions: ⅜″ diameter x 2¼″ long.

Cat. No.	Use	Freq. Range	Net Price
6300	Antenna Stage	540-1700 KC	$ .90



Adjustable FM R.F. Coils

Dimensions: ½″ O.D. x 1⅝″ long.		Net. Pr.
1447	88-108 MC Antenna Coil	$1.20
1448	88-108 MC R.F. Coil	1.20
1449	88-108 MC Osc. Coil (10.7 MC I.F.)	1.20



Unshielded High-Q R.F. Coils

A complete line of Unshielded Permeability tuned coils for replacement use or as the front end components in new receiver design.

These #5495 series coils can be shielded in our #S-33 shields (1⅛″ sq.) with very little loss in Q. Mounting is by means of a single ¼″ hole.

Dimensions (form): ⅜″ x 2″.

Ranges shown are for use with a 365 mmfd. variable tuning condenser.

Long Wave Coils (140-420 KC)

Cat. No.	Use	Net Price
X-5495-A	Antenna Stage	$1.65
X-5495-RF	RF Stage	1.65
X-5495-C	Standard Osc. 455 KC	1.65
X-5496-C	Tapped Osc. 455 KC	1.65

Broadcast Band Coils (540-1700 KC)

A-5495-A	Antenna Stage	1.65
A-5495-RF	RF Stage	1.65
A-5495-C	Standard Osc. 455 KC	1.65
A-5496-C	Tapped Osc. 455 KC	1.65

Medium Wave Coils (1.7-5.5 MC)

B-5495-A	Antenna Stage	1.65
B-5495-RF	RF Stage	1.65
B-5495-C	Standard Osc. 455 KC	1.65
B-5496-C	Tapped Osc. 455 KC	1.65

Short Wave Broadcast Coils (5-18 MC)

C-5495-A	Antenna Stage	1.65
C-5495-RF	RF Stage	1.65
C-5495-C	Standard Osc. 455 KC	1.65
C-5496-C	Tapped Osc. 455 KC	1.65

High Frequency Coils (12-36 MC)

D-5495-A	Antenna Stage	1.65
D-5495-RF	RF Stage	1.65
D-5495-C	Standard Osc. 455 KC	1.65
D-5496-C	Tapped Osc. 455 KC	1.65

Miniature J-Tran Top Tuned I.F. Transformers

The standard J-TRAN series of miniature I.F. transformers has hollow hexagonal-hole cores and thereby, with the aid of a suitable tuning tool (#182), permits either double or single ended tuning. The transformer is mounted with a unique snap fastener which is permanently attached to the shield.

Dimensions: ¾″ by ¾″ by 2″ high.

*(With diode filter capacitors)

Cat. No.	Item		Net Price
14-H1	262 kc Input I.F.		$1.74
14-H2	262 kc Output I.F.		1.74
14-H6	262 kc Output I.F.*		1.80
14-C1	455 kc Input I.F.		1.62
14-C2	455 kc Output I.F.		1.62
14-C6	455 kc Output I.F.*		1.71
14-C7	455 kc Input I.F. Battery Radios		1.62
14-C8	455 kc Output I.F. Battery Radios		1.62
14-C9	455 kc Input I.F. AC-DC Radios		1.62
14-C10	455 kc Output I.F. AC-DC Radios		1.62
6270	4.5 Mc Input or Interstage		1.74
6271	4.5 Mc Ratio Detector		2.97
1457	10.7 MC Input or Interstage		1.95
1458	10.7 MC Discriminator		2.25
1459	10.7 MC Ratio Detector		2.34
1464-WB	10.7 MC Disc. 900 KC. P/P		2.25
1465-WB	10.7 MC Ratio Det. 800 KC. P/P		2.34
6230	TV Converter I.F.		1.65
6231	TV 44 MC First I.F.	Trap	1.65
6232	TV 42.5 MC Second I.F.	41.25 MC	1.44
6233	TV 45.5 MC Third I.F.	47.25 MC	1.74
6234	TV 44 MC Fourth I.F.		1.35

Miniature Printed Circuit Top Tuned I.F. Transformers

The printed circuit series of miniature J-TRAN I.F. transformers is similar to the standard J-TRAN shown in that both cores may be tuned from either end of the shield.

Dimensions: ¾″ by ¾″ by 2″ high.

*(With diode filter capacitors)

Cat. No.	Item		Net Price
16-PH1	262 kc Input I.F.		$1.71
16-PH2	262 kc Output I.F.		1.71
16-PH6	262 kc Output I.F.*		1.80
16-PC1	455 kc Input I.F.		1.65
16-PC2	455 kc Output I.F.		1.65
16-PC6	455 kc Output I.F.*		1.74
16-PC7	455 kc Input I.F. Battery Radios		1.65
16-PC8	455 kc Output I.F. Battery Radios		1.65
16-PC9	455 kc Input I.F. AC-DC Radios		1.65
16-PC10	455 kc Output I.F. AC-DC Radios		1.65
6270-PC	4.5 Mc Input or Interstage		1.74
6271-PC	4.5 Mc Ratio Detector		2.97
6230-PC	TV 44 MC Converter I.F. Trans.		1.86
6231-PC	TV 44 MC First I.F. Trans.	Trap	1.86
6232-PC	TV 42.5 MC Second I.F.	41.25 MC	1.68
6233-PC	TV 45.5 MC Third I.F.	47.25 MC	1.86
6234-PC	TV 44 MC Fourth I.F. Trans.		1.65

Universal I.F. Transformers

For general replacement purposes in auto receivers and many types of household and portable receivers.

Dimensions: 1¼″ square x 2½″ high.

Cat. No.	Freq.	KC Range	Use	Net Price
312-H1	262	250-275	Input	$1.89
312-H2	262	250-275	Interstage	1.89
312-H4	262	250-275	Output	1.89
312-H6	262	250-275	Output & Filter	2.13
312-C1	455	440-470	Input	1.89
312-C2	455	440-470	Interstage	1.89
312-C4	455	440-475	Output	1.89
312-C6	455	440-470	Output & Filter	2.13

Type No. 412 Iron Core Transformers

Dimensions: 1¼″ square x 2½″ high.

Cat. No.	Freq.	KC Range	Use	Net Price
412-H1	262	250-275	Input	$1.89
412-H2	262	250-275	Interstage	1.89
412-H4	262	250-275	Output	1.89
412-C1	455	440-470	Input	1.89
412-C2	455	440-470	Interstage	1.89
412-C4	455	440-470	Output	1.89

Miniature I.F. Trans.

Designed for experimental use and for general replacement in "personal" radio receivers, this series of shell core permeability tuned transformers are becoming increasingly popular. Tuning from top and bottom of the shield. Transformers are available for all standard I.F.

*(With diode filter capacitors)

Dimensions: ¾″ by ¾″ by 2″ high.

Cat. No.	Item		Net Price
12-H1	262 KC Input I.F. Trans		$1.74
12-H2	262 KC Output I.F. Trans.		1.74
12-H6	262 KC Output I.F. Trans.*		1.80
12-C1	455 KC Input	16 KC @ 6db	1.62
12-C2	455 KC Output	21 KC @ 6db	1.62
12-C6	455 KC Output I.F. Trans.		1.71
12-C7	455 KC Input I.F.	Battery	1.62
12-C8	455 KC Output I.F.	Battery	1.62
12-C9	455 KC Input I.F.	AC-DC	1.62
12-C10	455 KC Output I.F.	AC-DC	1.62
12-C12	455 KC Tapped Pri. I.F. Trans.		1.95
12-C30	455 KC Input	11.4 KC @ 6db	1.62
12-C31	455 KC Output	13.6 KC @ 6db	1.62
12-C45	455 KC Discriminator		2.37
13-W1	1500 KC Input or Interstage		1.65
13-W2	1500 KC Output I.F. Trans.		1.65
1463	10.7 MC Input or Interstage		1.95
1464	10.7 MC Discriminator		2.25
1465	10.7 MC Ratio Detector		2.34
1725	455 kc Xtal Filter I.F. Input		1.95
1726	455 kc Xtal Filter I.F. Output		1.95
6203	4.5 MC Input or Interstage		1.98
6204	4.5 MC Discriminator		2.25
6205	4.5 MC Ratio Detector		2.25
6260	21.25 MC I.F. Trans.		2.55
6261	21.25 MC Discriminator		2.43
6262	21.25 MC Radio Detector		2.43

Miniature Printed Circuit I.F. Trans.

Same as our regular miniature I.F. transformers shown above, except for terminals and mounting. Supplied in all standard frequencies.

*(With diode filter capacitors)

Dimensions: ¾″ sq. x 2″ high.		Net Price
13-PH1	262 KC Input I.F. Trans.	$1.71
13-PH2	262 KC Output I.F. Trans.	1.71
13-PH6	262 KC Output I.F. Trans. *	1.80
13-PC1	455 KC Input I.F. Trans.	1.65
13-PC2	455 KC Output I.F. Trans.	1.65
13-PC6	455 KC Output I.F. Trans. *	1.74
13-PC7	455 KC Input I.F. Trans. Battery	1.65
13-PC8	455 KC Output I.F. Trans.Battery	1.65
13-PC9	455 KC Input I.F. Trans. AC-DC	1.65
13-PC10	455 KC Output I.F. Trans.AC-DC	1.65
1463-PC	10.7 MC Input or Interstage	1.95
1464-PC	10.7 MC Discriminator Trans.	2.25
1465-PC	10.7 MC Ratio Detector Trans.	2.34
6203-PC	4.5 MC Input or Interstage	1.98
6204-PC	4.5 MC Discriminator Trans.	2.25
6205-PC	4.5 MC Ratio Detector Trans.	2.25

Sub-Miniature I.F. Trans.

Miller
10-C1
455 KC I.F.
INPUT

Through the use of a Ferrite shell core material these Sub-Miniature I.F. Transformers offer the gain and bandwidth characteristics previously obtained in only larger I.F. assemblies. (For Battery or AC-DC Radios.)

Dimensions: ½″ sq. x 1½″ high.

	Item	Net Price
10-C1	455 KC Input I.F. Trans.	$1.68
10-C2	455 KC Output I.F. Trans.	1.68

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J. W. MILLER COMPANY Los Angeles 3, Calif.

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Miller

Television Components

Single Pi R.F. Coils

These fixed inductors are wound on a mineral filled phenolic form which has axial leads. The coils are impregnated with an R.F. varnish to assure against moisture absorption.

Part No.	L*	Q Min.	Min. Fo. Mc	Net Price
72F105AP	10 uh	23	13	$ .60
72F125AP	12 uh	21	12	.60
72F155AP	15 uh	20	11	.60
72F185AP	18 uh	20	9.8	.60
72F225AP	22 uh	18	9.6	.60
72F275AP	27 uh	17	8.9	.60
72F335AP	33 uh	16	8.1	.60
72F395AP	39 uh	15	7.5	.60
72F475AP	47 uh	14	7.2	.60
72F565AP	56 uh	13	6.5	.60
72F685AP	68 uh	12	6.1	.60
72F825AP	82 uh	12	5.8	.60
72F104AP	100 uh	20	5.3	.69
72F124AP	120 uh	19	5.0	.69
72F154AP	150 uh	18	4.6	.69
72F184AP	180 uh	17	4.3	.69
72F224AP	220 uh	17	4.0	.75
72F274AP	270 uh	16	3.5	.75
72F334AP	330 uh	16	3.3	.81
72F394AP	390 uh	16	3.1	.81
72F474AP	470 uh	15	2.9	.84
72F564AP	560 uh	14	2.6	.84
72F684AP	680 uh	14	2.4	.84
72F824AP	820 uh	13	2.2	.84
72F103AP	1000 uh	28	1.9	.84

Video Peaking Coils, Filament Choke

No. 6175 Filament Choke—$\frac{9}{32}$″ dia. x 7⁄8″ long; Video Peaking Coils—3⁄16″ dia. x 3⁄8″ long.

Cat. No.	Use	—uhy	Resistor	Net Price
6175	Filament	0.8	None	$ .57
6152	Peaking	20	None	.57
6176	Peaking	36	None	.57
6110	Peaking	60	None	.57
6172	Peaking	73	None	.57
6177	Peaking	93	None	.57
6112	Peaking	100	None	.57
6178	Peaking	120	22K	.57
6153	Peaking	120	None	.57
6120	Peaking	155	None	.57
6179	Peaking	180	39K	.57
6180	Peaking	180	None	.57
6154	Peaking	200	None	.57
6173	Peaking	250	22K	.57
6181	Peaking	250	None	.57
6130	Peaking	275	None	.57
6155	Peaking	300	None	.57
6132	Peaking	330	None	.57
6134	Peaking	375	None	.57
6136	Peaking	420	None	.57
6138	Peaking	470	None	.57
6174	Peaking	500	None	.57
6144	Peaking	550	None	.57
6146	Peaking	600	None	.57
6148	Peaking	700	None	.57
6156	Peaking	800	None	.57
6157	Peaking	950	None	.57

21.25 MC Television I.F. Transformers

Miller
6187-TV
2nd PIX. TRANS.
MC IF-19.75 MC TR

Dimensions:
6185-6186-6187 7⁄8″ Sq. x 2¼″ high
6170, 6190 and 6191 7⁄8″ sq. x 2¼″ hi
6184 and 6192 1⅛″x1⅛″x2½″ high.
6261 and 6262 ¾″ sq. x 2″ high clip mtg.

	Item	Freq.	Net Pr.
6185	21.8 MC Conv. I.F. Trans.	21.25 MC	$2.04
6186	25.3 MC 1st Pix I.F. Trans.	27.25 MC	2.04
6187	22.3 MC 2nd Pix I.F. Trans.	19.75 MC	1.65
6190	1st Sound I.F. Trans.	21.25 MC	1.80
6191	2nd Sound I.F. Trans.	21.25 MC	1.80
6192	Sound Disc. Trans.	21.25 MC	2.16
6184	Sound Ratio Det. Trans.	21.25 MC	2.52
6170	Sound Disc. Trans.	21.25 MC	2.46
6261	Sound Disc. Trans.	21.25 MC	2.43
6262	Sound Ratio Det. Trans.	21.25 MC	2.43

Picture I.F. Inductors Unshielded

Dimensions: ½″ max. o.d. x 1½″ long.

Cat. No.	Description	Freq.	Net Pr.
6188	3rd Pix I.F. Trans.	25.2 MC	$ .99
6189	Video Detector I.F. Trans.	23.4 MC	.99
6193	Cathode Sound Trap	21.25 MC	1.50
6171	Tunable Choke	21-25 MC	.96
6171A	Tunable Choke	25-29 MC	.96

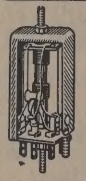
24 MC Unshielded Picture I.F. Transformers

For use as replacement units in television receivers where unshielded coils are called for and standard circuitry is employed. Mounting clip to fit $\frac{5}{16}$″ hole in chassis.

Shielded I.F. trans. are ¾″ sq. x 1⅜″ high.
Maximum Dimensions: 2½″ long.

Cat. No.	Description	Trap	Price
6245	25.5 MC First I.F.	27.25 MC	$1.86
6246	22 MC Second I.F.	21.2 MC	1.86
6247	21.25 MC Cathode Trap		1.86
6248	24.5 MC Video Det. I.F.		1.17
6249	21-25 MC Bifilar Wound I.F.		1.17
6250	25-29 MC Bifilar Wound I.F.		1.17
6251	21-25 MC Bifilar I.F. Shielded		1.65
6252	25-29 MC Bifilar I.F. Shielded		1.65
6253	21-30 MC Bifilar I.F.	20-30 MC	2.13
6254	22-32 MC Bifilar I.F.	24-29 MC	2.13

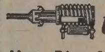
"40 MC" TV Picture I.F. Transformers



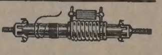
Converter transformer and 1st pix I.F. grid transformer have 75-ohm link winding.

Dimensions
6215-16-17-18 7⁄8″ Sq. x 2¼″ high
6240 1⅛″ Sq. x 2⅜″ high

	Description	Trap	Net Pr.
6215	Converter I.F. Trans.		$1.80
6216	1st Pix I.F. Grid Trans.	39.25 MC	2.16
6217	1st Pix I.F. Plate Trans.	41.25 MC	2.16
6218	2nd Pix I.F. Grid Trans.	47.25 MC	2.04
6240	Video Detector with Diode	43.7 MC	4.80



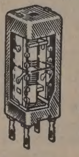
Unshielded



Max. Dim: 3/42 O.D. x 2½″ long. Mtg. hole 5⁄16″

6219	40-46 MC. 3rd, 4th, 5th I.F.		$ .99
6220	40-46 MC. Converter I.F.		.99
6221	40-46 MC. First I.F.	41.25 MC.	1.92
6222	42-48 MC. Second I.F.	47.25 MC.	1.92
6223	40-46 MC. Third I.F.	39.25 MC.	1.92
6224	39-46 MC. Fourth I.F.		1.02
6225	36-49 MC. Single winding I.F.		1.14
6226	Hi Q Trap	40-46 MC.	1.02

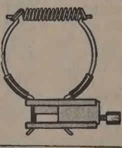
Miniature 44 MC Picture Trans.



Converter and 1st pix I.F. Grid transformer have 75 ohm link winding.
Dimensions: ¾″ Square x 2″ high.

	Description	Trap	Net Price
6230	Converter I.F.		$1.65
6231	44 MC First I.F.		1.65
6232	42.5 MC Second I.F.	41.25 MC	1.44
6233	45.5 MC Third I.F.	47.25 MC	1.74
6234	44 MC Fourth I.F.		1.35

Adjustable Ion Trap



Due to its adjustable feature, which allows the magnetic field to be varied between 32-55 gausses, this trap will, in most instances, replace the older style ion traps having a specific magnetic field.

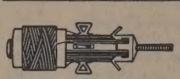
6295	Adjustable Ion Trap	$ .90

4.5 MC Intercarrier Sound Components

Dimensions 1466-67-68: 1⅛″x1⅛″ x2⅛″ high.
#1469, 1470 and 1480 Unshielded, Mounting hole $\frac{5}{16}$″
1470-A and 1481 ¾″ x ¾″ x 2″ hi
#1498 1⅜″ x 1⅜″ x 2½″high
1483-84-95-86-87 7⁄8″ Sq. x 2¼″ high

Cat. No.	Item	Freq.	Net Pr.
1466	Input or Inter. I.F. Trans.	4.5 MC	$1.98
1467	Sound Discrim. Trans.	4.5 MC	2.31
1468	Sound Ratio Det. Trans.	4.5 MC	2.46
1469	Sound Pick Off Coil	4.5 MC	.99
1470	Sound Trap Unshielded	4.5 MC	.99
1470-A	Sound Trap Shielded	4.5 MC	1.26
1480	Quadrature Coil	4.5 MC	.99
1481	Quadrature Coil Sh'l'd.	4.5 MC	1.29
1482IFT	Sound I.F. Trap	4.5 MC	1.35
1483IF	Sound I.F.	4.5 MC	1.80
1484RD	Sound Ratio Det	4.5 MC	2.10
1485RD	Sound Ratio Det	4.5 MC	2.10
1486RD	Sound Ratio Det	4.5 MC	2.10
1487RD	Sound Ratio Det	4.5 MC	2.10
1488RD	Sound Ratio Det	4.5 MC	2.25
1489RD	Sound Ratio Det	4.5 MC	2.25
1498	Sound Ratio Det. Trans.	4.5 MC	2.43

Linearity & Width Controls



Dimensions: ¾″ x 2½″ Max.
The coils will mount in either a 5⁄16″ or 7⁄16″ hole with adapter supplied.

Cat. No.	Inductance Range Millihenries	Net Price
6313	.5-5	$1.32
6314	2-18	1.23
6315	4-30	1.32
6316	4-30 (2.8-6.5 AGC)	1.80
6317	3.2-9 (.17-1.31 AGC)	1.65
6318	.3-3	1.11
6319	8-60	1.65
6320	.3-3 Tapped	1.14
6321	1-5 Tapped	1.32
6322	1.5-10	1.23
6323	.5-5 Tapped	1.14
6324	60-130 Tapped	1.65
6325	4.2-30 (.78-1.37 AGC)	1.65
6326	2.5-19 Parallel (.18-1.7 Series)	2.25
6327	4-30 Parallel (.225-2.4 Series)	2.25
6328	9-24 (.19-1.1 AGC)	1.65
6329	2.2-10 Tapped	1.50
6330	45-215	1.80
6331	4-30 Parallel (.080-.7 Series)	2.10
6195	.185-1	.99
6196	.054-.245	.84
6196-A	.054-.5 Tapped	.96
6197	.55-2.3 Tapped	.96
6198	.17-.61	.84
6199-A	1.3-4.1 Tapped	1.02
6199-B	.5-1.7	.99

Horizontal Oscillator & Sync. Control Coils

Miller
6194-TV
A.F.C.
DISC. TRANS.

Dimensions: 1$\frac{7}{16}$″x1$\frac{7}{16}$″x2½″ high. 6212 Unshielded, Mounting hole $\frac{5}{16}$″ 6211 and 6324 Unshielded, Mountinghole $\frac{7}{16}$″—6183 may be reversed in shield for top or bottom mounting. 6183-A coils reversed on form to tune Horiz. Osc. through chassis.

Cat. No.	Item	Net Price
6194	Osc. & A.F.C. Discrim. Trans.	$2.04
6182	Osc. and Sync. Control Coil	1.65
6183	Osc. and Sync. Stabilizer Coil	2.10
6210	Sync. Stabilizer Coil 16-42 mh	1.65
6211	Sync. Stabilizer tapped 16-42 mh	1.65
6212	Horiz. Osc. tapped 12-35 mh	1.65
6324	Horiz. Osc. tapped 60-130 mh	1.65
6183-A	Horiz. Osc. coil position reversed	2.10

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J. W. MILLER COMPANY Los Angeles 3, Calif.

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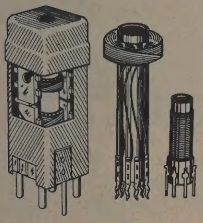
Miller

Exact Replacement Components

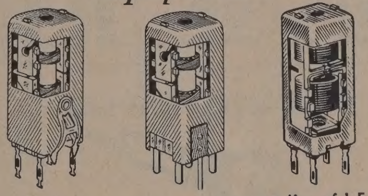
Replacement for Original T.V. and Home Radio Equipment



The following special parts have been manufactured as exact replacements for the set manufacturers shown, so as to assure top performance.

Cat. No.	O.E.M. Part No.	Net Price
Admiral		
1471-A	72B185-2	$1.95
1472-A	72C132-19	1.35
6332	94C17-4	2.01
7701	72B50, 1, 2, 3, 4, 5, 6	2.37
7116-A	72B208-1	1.95
7117-A	72B132-37	1.95
7501-A	72C132-38	2.25
7502-A	72C132-39	2.25
7503-A	72C132-31	2.10
7504-A	72C132-41	2.10
7505-A	72C132-42	2.25
7506-A	72C132-43	2.10
7507-A	72B191-3	4.05
Crosley		
7101	157856-1	$1.80
Dumont		
7103-DE	20004441	$2.25
7104-DE	20004511	2.10
Emerson		
6339-E	708275	$1.50
6340-E	716102	1.65
7112-E	708276	2.25
7514-E	720318	1.65
7515-E	720315	1.50
7516-E	720317	1.50
General Electric and Hotpoint		
12-C11	RTL-143 and 163	$1.62
12-C13	RTL-172	2.10
6206-PC	RTD-026 (WT56X38)	2.97
6207-PC	RTD-025 (WT56X37)	2.49
6208-PC	RTD-020	2.97
6209-G1	RTD-024 (WT56X36)	2.85
6334-G	RLI-365	1.29
6335-G	WT36X402	1.29
Hallicrafter		
1482 IFT	51B1996	$1.35
7101	51A1859	1.80
Muntz		
7111-M	LO-0076	$2.25
Philco		
6209-P1	32-4721	$5.70
6209-P2	32-4689-1, 2	2.85
6209-P3	32-4735-1, 2	2.85
7102-P	32-4688-10	2.10
7113-P	32-4631, 31A	2.97
7121-P	32-4644-13, 14, 19	1.50
7513-P	32-4686-2, -3, -25	1.65
RCA		
1483 IF	76437	$1.80
1484 RD	102692	2.10
1485 RD	102644	2.10
1486 RD	102253	2.10
1487 RD	100364	2.10
1488 RD	79141	2.25
1489 RD	101219	2.25
6333	103103	1.76
6336-R	107284	2.10
Westinghouse		
12-C14	235V025H-11, 2 (V157661)	$2.10
68 Osc	230V039H-01 (V15764-1)	1.65
6204-W3	V12128-1, 2, 3	4.05
6213	230V032H01	1.35
7118-W	230V030H02	1.65
7119-W	230V031H01	1.65
7120-W	235V046H01	1.62
7508-W	230V030H01	1.50
7509-W	235V005H01	4.65
7510-W	235V020H01, 03	1.62
7511-W	235V048H01, 02	2.85
7512-W	235V049H01	1.65
Olympic		
7214	CL4021	$1.35
Trav-Ler		
7122	L-167	$2.25
7123	L-154	2.10
7517	L-152	3.15
Wells Gardner		
7518	9A2436	$1.95
7519	9A2444	1.65
Zenith		
7114-Z	S-41899	$2.10
7115-Z	S-50341	2.10
7702-Z	95-1101	3.57
7703-Z	95-1102	3.57
7704-Z	95-1149/95-1350	3.57
7851-Z	95-1153	3.57
7852-Z	95-1150	3.57

Exact Replacements for Original Auto Radio Equipment



In addition to our regular replacement line of I.F. transformers we are now offering the following special replacement items, as well as the exact replacement I.F. transformers for those parts which were supplied by the original manufacturer.

Cat No.	O.E.M. Part No.	Net Price
Bendix		
6501	2090237-1	$2.25
6502	2090237-2	2.25
6503	2090237-3	2.25
6504	2090237-4	2.25
6505	2090237-5	2.25
6506	2090239-1	2.10
6507	2090239-2	2.10
6508	2090239-3	2.10
6509	2090907-2	2.10
6510	2090908-3	2.25
6511	2090907-3	2.10
6513	2090908-4	2.25
6514	2090907-5	2.10
6515	2090908-5	2.25
6516	2090907-1	2.25
6517	2090907-7	2.10
Delco		
6540	1221253	$2.10
6541	1221255	2.10
Motorola		
6550	24C485553	$2.10
6551	24C485554	1.95
6552	24C485555	1.95
6553	24D563300 (Mopar)	1.95
General Replacement		
6581	455 kc I.F. Output with Diode Filter	$1.89
6582	455 kc I.F. Input	1.80
6583	455 kc I.F. Output	1.80
6584	262 kc I.F. Input	1.92
6585	262 kc I.F. Output with Diode Filter	1.98

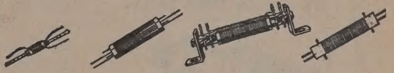
Replacement for Color T.V.

The following series of components are intended as exact replacements in the various models of color T.V. sets that R.C.A. has produced. With other manufacturers entering the field, but still depending on R.C.A. for a large number of basic components it is felt that these parts will be useful.

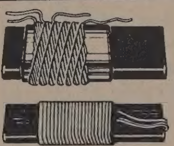
No.	Use	O.E.M. Part No.	Net Price
6021	Chroma BP Trans.	78887	$2.10
6022	Chroma BP Coil	78888	1.53
6023	Burst Trans.	78886	3.30
6024	3.58 Mc. Output	78889	2.64
6025	Sync. and Phase	100430	4.80
6026	Chroma Ref. Osc.	78891	3.30
6027	3.58 Mc. Trap	* 78892	1.65
6028	3.58 Mc. Ch. Sync.	* 78892	1.65
6029-R	First Chroma	105213	3.96
6030-R	Burst Amp.	105214	2.52
6031-R	Video I.F.	106385	1.17
6032-R	Video I.F.	106386	1.26
6033-R	Video I.F.	106387	1.26
6034-R	Video I.F.	105292	1.08
6035-R	Video I.F.	105293	1.08
6036-R	Video I.F. & Trap	105294	4.32
6337-R	Horiz. Waveform	102195	1.20
6338-R	Horiz. Linearity	105196	1.98
7105-R	4.5 Mc. Sound I.F.	105286	1.17
7106-R	4.5 Mc. Sound I.F.	105287	3.00
7107-R	4.5 Mc. Quadrature	105288	1.80
7108-R	4.5 Mc. Sound I.F.	106381	1.29
7109-R	4.5 Mc. Sound I.F.	106382	3.06
7110-R	4.5 Mc. Quadrature	106383	2.04

*Resistors and Capacitors are included.

Antenna Matching Coils (Balun)



Cat No.	O.E.M. Part No.	Net Price
7301	R.C.A. 1959 and 1960	$ .69
7302	Philco 32-4432-3	1.53
7303	Motorola 74420, Olympic, Silvertone	.60
7304	R.C.A. 1955, 1956, 1957	.69
7305	R.C.A. 1955, 1956, 1957	.69
7306	R.C.A. 1955, 1956, 1957	.69
7307	G.E. RLA-043, RLA-045, Hotpoint	1.53
7308	G.E. WT37X8, RLA-042	1.53
7309	G.E. WT37X10, RLA-044	1.56
7310	G.E. RLA-047, Hotpoint	1.53
7311	G.E. RLA-050, Hotpoint	1.29
7312	G.E. RLA-053, Hotpoint	1.59
7313	G.E. RLA-046, Westinghouse V-19024-7, -9, Truetone	.96
7314	Philco 32-4799, G.E., Standard Coil	2.16
7315	Philco 32-4725-1, -3	1.14
7316	Philco 76-11489-1, Silvertone, Sylvania, Westinghouse	1.23
6103	G.E. RLA-041	.93
6104	R.C.A. 73591, 78396, Motorola 24B720936	.69
6200	Philco 32-4725-3, -5, -6	1.35
6202	Philco 32-4432-1, -2, -3, Westinghouse V-8621-1, -2, -3, -4	1.35



Replacement Antennas

These replacement loops can be used in a large number of the imported Broadcast Band Portable Receivers.

Dimensions: #2008 ¼x¾″x2 5⁄16″
#2009 3⁄16″x½″x2⅛″

Cat No.	Freq. Range	Tuning Cap.	Net Price
2008	540-1650 kc	200-240 mmfd	$1.65
2009	540-1650 kc	120-140 mmfd	1.65

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J. W. MILLER COMPANY Los Angeles 3, Calif.

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NORTH HILLS ELECTRONICS, INC.
GLEN COVE, LONG ISLAND, NEW YORK

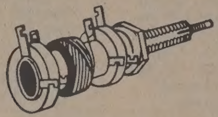
ADJUSTABLE COILS and COIL FORMS
Cover Every Frequency Range from Audio to 200mc

These high quality coils enable engineers and experimenters to save valuable development time by filling a vast number of requirements with standard components from stock. All coils have the following features:

- *All metal parts plated to MIL specifications.*
- *Built-in "perma-tune" tension for smooth "stay-put" tuning.*
- *Litz wound higher inductance ranges.*
- *Two extra terminals for tie points or additional winding.*
- *Moisture and fungus resistant impregnant per MIL-V-173-A.*
- *Color coded ranges.*

COILS ON CERAMIC FORM PER JAN-I-10

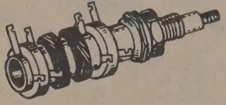
Subminiature 1100 Series



- 5/8" above mounting surface
- Mounting — 11/64" hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1100-A	0.9- 1.4	45 @ 7.9 mc
1100-B	1.4- 1.9	50 @ 7.9 mc
1100-C	1.9- 2.6	55 @ 7.9 mc
1100-D	2.6- 3.7	65 @ 7.9 mc
1100-E	3.7- 5.5	65 @ 7.9 mc
1100-F	5.5- 7.4	70 @ 7.9 mc
1100-G	7.4-12.5	64 @ 5.0 mc
1100-H	12.5-18.0	72 @ 5.0 mc
1100-I	18.0-28.0	74 @ 5.0 mc
1100-J	28.0-38.0	72 @ 5.0 mc
1100-K	38.0-55.0	75 @ 2.5 mc

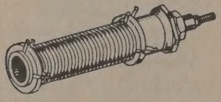
Miniature 1000 Series



- 7/8" above mounting surface
- Mounting — #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1000-A	1.0- 1.6	70 @ 7.9 mc
1000-B	1.6- 2.7	80 @ 7.9 mc
1000-C	2.7- 4.5	85 @ 7.9 mc
1000-D	4.5- 8.5	85 @ 7.9 mc
1000-E	8.5-14.5	75 @ 2.5 mc
1000-F	14.5-22	65 @ 2.5 mc
1000-G	22-29	65 @ 2.5 mc
1000-H	29-55	85 @ 2.5 mc
1000-I	55-110	80 @ 2.5 mc
1000-J	110-185	85 @ .79 mc
1000-K	185-305	85 @ .79 mc
1000-L	305-515	85 @ .79 mc
1000-M	515-820	85 @ .79 mc
1000-N	820-1100	75 @ .79 mc

Transmitter 1300 Series

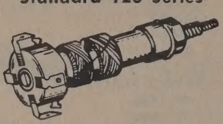


- 1¾" above mounting surface
- Mounting — ¼" hole
- For low power tansmitters and high Q receiver circuits

Part No.	Nominal Microhenries	Average Q
1300-A		For use from 90-200 mc
1300-B		For use from 40-90 mc
1300-C		For use from 20-40 mc
1300-D	0.7- 1.1	130 @ 20 mc
1300-E	1.1- 1.7	150 @ 18 mc
1300-F	1.7- 2.7	150 @ 16 mc
1300-G	2.7- 4.5	150 @ 14 mc
1300-H	4.5- 6.8	150 @ 12 mc
1300-I	6.8-10.8	150 @ 10 mc
1300-J	10.8-17.0	150 @ 7 mc
1300-K	17.0-29.0	125 @ 5 mc
1300-L	29.0-45.0	125 @ 4 mc
1300-M	45.0-75.0	125 @ 3 mc

COILS ON MICA FILLED FORMS PER MIL-P-14-D

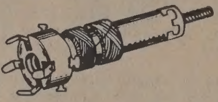
Standard 120 Series



- 1¼" above mounting surface
- Mounting #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
120-A	2-3	75 @ 7.9 mc
120-B	3-5	85 @ 7.9 mc
120-C	5-9	90 @ 7.9 mc
120-D	9-18	75 @ 7.9 mc
120-E	18-36	75 @ 2.5 mc
120-F	36-64	75 @ 2.5 mc
120-G	64-105	90 @ 2.5 mc
120-H	105-200	90 @ 2.5 mc
120-I	200-500	90 @ .79 mc
120-J	500-1000	90 @ .79 mc
120-K	1000-2000	70 @ .79 mc

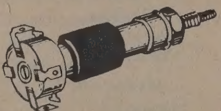
Printed Circuit P-120 Series



- Snaps into single 0.4" hole fo dip soldering
- 1¼" long

Part No.	Nominal Microhenries	Average Q
P-120-A	2-3	75 @ 7.9 mc
P-120-B	3-5	85 @ 7.9 mc
P-120-C	5-9	90 @ 7.9 mc
P-120-D	9-18	75 @ 7.9 mc
P-120-E	18-36	75 @ 2.5 mc
P-120-F	36-64	75 @ 2.5 mc
P-120-G	64-105	90 @ 2.5 mc
P-120-H	105-200	90 @ 2.5 mc
P-120-I	200-500	90 @ .79 mc
P-120-J	500-1000	90 @ .79 mc
P-120-K	1000-2000	70 @ .79 mc

Shielded, Encapsulated SE-120

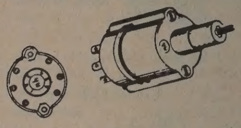


- Magnetic shielding cup
- Ruggedized construction
- 1¼" long

Part No.	Nominal Microhenries	Average Q
SE-120-A	2-3	75 @ 7.9 mc
SE-120-B	3-5	85 @ 7.9 mc
SE-120-C	5-9	90 @ 7.9 mc
SE-120-D	9-18	75 @ 7.9 mc
SE-120-E	18-36	75 @ 2.5 mc
SE-120-F	36-64	75 @ 2.5 mc
SE-120-G	64-105	90 @ 2.5 mc
SE-120-H	105-200	90 @ 2.5 mc
SE-120-I	200-500	90 @ .79 mc
SE-120-J	500-1000	90 @ .79 mc

ENCAPSULATED CUP-CORE COILS

Audio and Ultrasonic 700 Series



- 1½" above mounting surface
- Mounting Centers — Two #6 holes spaced 1¼"
- Magnetically shielded—High Q
- For standard or printed circuits

Part No.	Nominal Millihenries	Average Q
700-A	1.5-3	120 @ 200 kc
700-B	3-7	120 @ 150 kc
700-C	7-13	110 @ 100 kc
700-D	13-25	110 @ 60 kc
700-E	25-50	110 @ 40 kc
700-F	50-100	125 @ 20 kc
700-G	100-250	125 @ 20 kc
700-H	250-500	125 @ 5 kc
700-I	500-1000	125 @ 5 kc

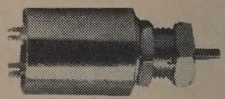
SHIELDED COILS

900 Series

- 7/16" Diameter
- Shielded and Encapsulated

Part No.	Nominal Microhenries	Average Q
900-A	0.5- 0.8	80 @ 25 mc
900-B	0.8- 1.3	70 @ 18 mc
900-C	1.3- 2.0	60 @ 15 mc
900-D	2.0- 4.0	70 @ 8 mc
900-E	4.0- 7.0	70 @ 5 mc
900-F	7.0- 12.0	70 @ 4 mc
900-G	12.0- 20.0	70 @ 3 mc
900-H	20.0- 35.0	70 @ 2.5 mc
900-I	35.0- 60.0	70 @ 2.0 mc
900-J	60.0-100.0	70 @ 1.0 mc

1500 Series



- 5/8" Diameter
- Shielded and Encapsulated

Part No.	Nominal Millihenries	Average Q
1500-A	.100- .175	80 @ 790 kc
1500-B	.175- .300	80 @ 790 kc
1500-C	.300- .500	80 @ 790 kc
1500-D	.500- .800	75 @ 790 kc
1500-E	.800-1.15	55 @ 500 kc
1500-F	1.15-1.50	55 @ 250 kc
1500-G	1.50-2.50	55 @ 250 kc
1500-H	2.50-3.50	50 @ 250 kc
1500-I	3.50-7.50	40 @ 250 kc

See SECTION 5600 for Wideband RF Transformers.

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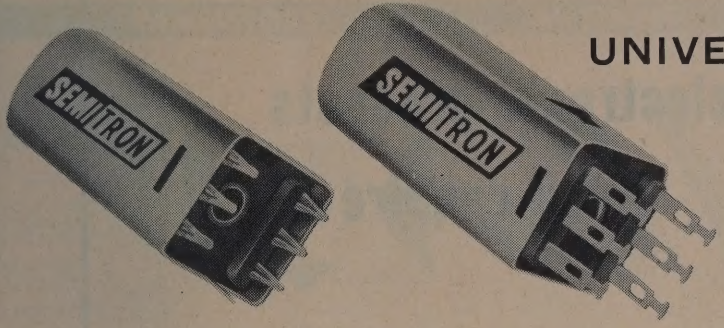
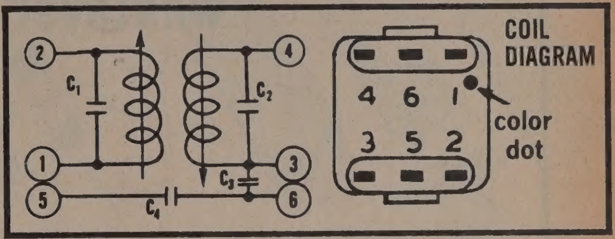
SEMITRON

SERVICE-ENGINEERED REPLACEMENTS
I. F. TRANSFORMERS
WIRED OR PRINTED CIRCUIT

UNIVERSAL I. F. TRANSFORMERS





4 Types cover 90% of all Radio I. F. Transformer replacements. **"SERVICE ENGINEERED"** for maximum efficiency and minimum stocking problem.
A Universal Replacement part for all standard EIA circuits (used by most leading manufacturers).

May be used to replace 4, 5, or 6 lug I. F. Transformers. Available in 455 KC for Home Radios and 262 KC for Auto Radios. Also available in Wired and Printed Circuit Types. These units supplement our complete line of Semitron I. F. Transformers.

USE	Dealer Net
UT455 for all 455KC Wired Circuits	$1.35
UT455P for all 455KC Printed Circuits	1.35
UT262 for all 262.2 Wired Circuits	1.35
UT262P for all 262.5 Printed Circuits	1.35

STANDARD I. F. TRANSFORMERS for tube circuits

High quality, ferrite core transformer designed for general replacement for most Radio, Television, and FM receivers. Dimensions: ¾ x ¾ x 2″ high.

Semitron Standard Wired Type	Semitron Printed Circuit Type	Frequency Range	Number Terminals	Diagram No.	USE	Dealer Net
TF44	PC44	455KC	4	L1	Input or Output	$ .96
TF45	PC45	455KC	5	L2	Output	1.02
TF45A	PC45A	455KC	5	L5	Output	1.02
TF46	PC46	455KC	6	L3	Output	1.08
TF46B	PC46B	455KC	6	L10	Output	1.08
TF143L		455KC	4	L1	GE Replacement	1.35
TF24	PC24	262KC	4	L1	Input — Auto Radio	.96
TF25	PC25	262KC	5	L2	Output — Auto Radio	1.02
TF25A	PC25A	262KC	5	L5	Output — Auto Radio	1.02
TF26	PC26	262KC	6	L3	Output — Auto Radio	1.08
TF26B	PC26B	262KC	6	L10	Output — Auto Radio	1.08
CB164	CB164P	1650KC	4	L1	Input or Interstage	1.35
SIF52		4.5MC	2	L9	Sound Takeoff	.96
SIF54		4.5MC	4	L1	Input or Interstage	1.02
RT65	RT65P	4.5MC	5	L8	Ratio Detector	1.20
DT65	DT65P	4.5MC	5	L6	Discriminator	1.20
RT107	RT107P	10.7MC	5	L8	Ratio Detector	1.20
DT107	DT107P	10.7MC	5	L6	Discriminator	1.20
TV107	TV107P	10.7MC	5	L1	Input or Interstage	1.20

I. F. TRANSFORMERS for transistorized circuits

Miniature and Sub Miniature Types designed for replacement in American and Japanese Transistor Radios.

Semitron Type	Frequency Range	Diagram No.	DIMENSIONS	USE	Dealer Net
MT54	455KC	L11	½″ sq. x ¾″ high	R.F. or 1st I.F.	.96
MT55	455KC	L11	½″ sq. x ¾″ high	1st I.F.	.96
MT56	455KC	L11	½″ sq. x ¾″ high	2nd I.F.	.96
MT34	455KC	L11	⅜″ sq. x ¾″ high	R.F. or 1st I.F.	.96
MT35	455KC	L11	⅜″ sq. x ¾″ high	1st I.F.	.96
MT36	455KC	L11	⅜″ sq. x ¾″ high	2nd I.F.	.96
MT24	455KC	L11	¼″ x ¼″ x 7/16″	R.F. or 1st I.F.	.96
MT25	455KC	L11	¼″ x ¼″ x 7/16″	1st I.F.	.96
MT26	455KC	L11	¼″ x ¼″ x 7/16″	2nd I.F.	.96
MT74	455KC	L11	¾″ sq. x 1¼″ high	1st I.F.	.96
MT75	455KC	L11	¾″ sq. x 1¼″ high	2nd I.F.	.96

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TRANSISTORS

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NORMAL GAIN
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Universal replacement in radio receiver circuits for all PNP Oscillator, Converter and Mixer transistors, including those types listed on the reverse side.
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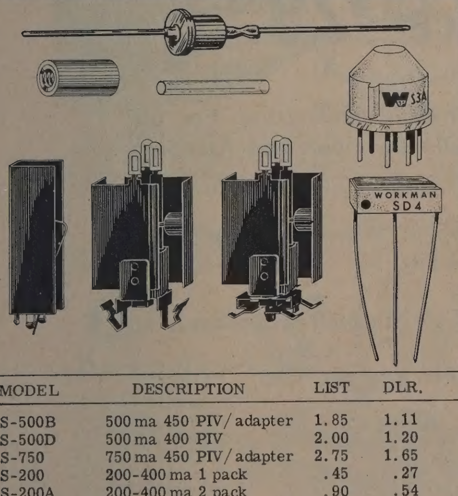
SARASOTA FLORIDA PRODUCTS INC

99 LINE
99-RK6
PNP TRANSISTOR PACK
A COMPLETE STOCK OF PNP RADIO TRANSISTORS FOR $4.25
A QUICK SERVICE PACK
WORKMAN Electronic

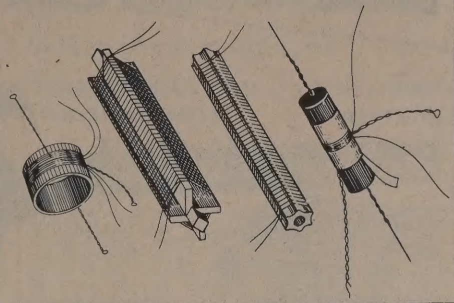
MODEL	DESCRIPTION	LIST	DLR.
99BE6	PNP conv. oscillator	1.65	.99
99BA6	PNP I. F. amplifier	1.65	.99
99AT6	PNP audio driver	1.65	.99
99B5	PNP audio output	1.65	.99
BE6	PNP conv. oscillator	2.70	1.62
BA6	PNP I. F. amplifier	2.50	1.50
AT6	PNP audio driver	2.50	1.50
B5	PNP audio output	2.50	1.50
BE6A	PNP conv. oscillator	3.35	2.01
BA6A	PNP I. F. amplifier	3.05	1.83
AT6A	PNP audio driver	3.05	1.83
B5A	PNP audio output	3.05	1.83
CK722	PNP output	1.33	.79
15V-MG	PNP 15V med. gain	1.05	.90
20V-LG	PNP 20V low gain	1.75	1.05
20V-MG	PNP 20V med. gain	2.00	1.20
20V-HG	PNP 20V high gain	2.25	1.35
30V-LG	PNP 30V low gain	2.50	1.50
30V-MG	PNP 30V med. gain	3.00	1.80
30V-HG	PNP 30V high gain	3.25	1.95
3MC	PNP max. freq. 3MC	3.00	1.80
6MC	PNP max. freq. 6MC	4.00	2.40
12MC	PNP max. freq. 12MC	6.00	3.60
20MC	PNP max. freq. 20MC	8.00	4.80
SA7	NPN conv. oscillator	3.70	2.22
SK7	NPN I. F. amplifier	3.35	2.01
SQ7	NPN gen. purpose audio	3.35	2.01
99SA7	NPN conv. osc. mixer	1.65	.99
99SK7	NPN I. F. amplifier	1.65	.99
99SQ7	NPN gen. purpose audio	1.65	.99
99L6	NPN audio output	1.65	.99
99RK6	PNP output 6 pack	—	4.45
99RK9	PNP and NPN 9 pack	—	9.95

RECTIFIERS


W S3A
WORKMAN SD4

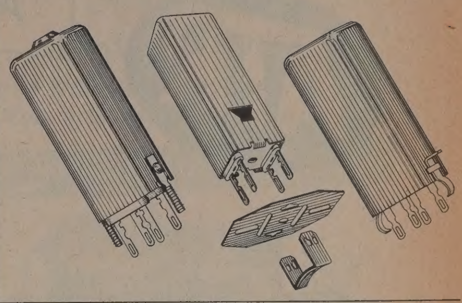
MODEL	DESCRIPTION	LIST	DLR.
S-500B	500 ma 450 PIV/adapter	1.85	1.11
S-500D	500 ma 400 PIV	2.00	1.20
S-750	750 ma 450 PIV/adapter	2.75	1.65
S-200	200-400 ma 1 pack	.45	.27
S-200A	200-400 ma 2 pack	.90	.54
S500C	500 ma 400 PIV	.90	.54
S750C	750 ma 400 PIV rectifier	1.25	.75
S10	Halfwave assembly	3.25	1.95
S11	Silicon voltage doubler	4.95	2.97
S12	Silicon voltage doubler	4.95	2.97
SA1	Polarized adapters 6 pk.	1.60	.96
SD4-3	Dual Diodes 3 pack	—	1.10
SD5-3	Dual Diodes 3 pack	—	1.10
SD6-3	Dual Diodes 3 pack	—	1.10
S3AL5	Twin Diodes	2.00	.80
S6AL5	Twin Diodes	1.80	.72

ANTENNA COILS



MODEL	DESCRIPTION	LIST	DLR.
T400-2	2 pcs. Admiral, RCA	2.00	1.20
T401-2	2 pcs. Philco	3.20	1.92
T402-2	2 pcs. Bendix, Motorola, etc	1.50	.90
T403-2	2 pcs. Motorola, Philco, etc	2.00	1.20
T404-2	2 pcs. RCA	2.00	1.20
T405-2	2 pcs. RCA	2.00	1.20
T406-2	2 pcs. RCA	2.00	1.20
T407-1	Bendix, G. E., West'hse, etc	1.55	.93
T408-1	G. E., Hotpoint	2.25	1.35
T409-1	G. E., Hotpoint	2.25	1.35
T410-1	G. E., Hotpoint, Admiral	2.60	1.56
T411-1	G. E., Hotpoint	2.25	1.35
T412-1	G. E., Hotpoint	2.15	1.29
T413-1	G. E., Hotpoint	2.65	1.55
T414-1	G. E., Hallicrafters, etc	1.60	.96
T415-2	2 pcs. Philco, RCA, etc	3.65	2.19
T416-1	Matching Trans. 72/300Ω	3.00	1.80
T417-1	Matching Trans. 52/300Ω	3.00	1.80
T418-1	Admiral, Philco, G. E.	3.20	1.92
T419-2	2 pcs. Philco	3.40	2.04
T420-2	2 pcs. Philco	4.00	2.40
T421-2	2 pcs. Philco	3.70	2.22
T422-2	2 pcs. Philco	3.70	2.22
T423-2	2 pcs. Philco	3.70	2.22
T424-1	Admiral	1.85	1.11
T425-1	Motorola	2.70	1.62
T426-1	Westinghouse	1.60	.96
T427-1	General Electric	2.65	1.59
T428-1	General Electric	1.60	.96
T429-1	General Electric	2.65	1.59
T430-1	General Electrci	2.65	1.59
T431-1	General Electric	3.25	1.95
T432-1	General Electric	2.00	1.20
T433-1	General Electric	4.00	2.40
T434-1	General Electric	1.65	.99
T435-1	General Electric	2.15	1.29
T436-1	General Electric	2.20	1.32
T437-1	General Electric	2.20	1.32
T438-1	Admiral	2.25	1.35
T439-1	Admiral	2.20	1.32
T440-1	Admiral	2.70	1.62
T441-1	Admiral	2.70	1.62
T442-1	Zenith	2.70	1.62
T443-1	G. E.. Philco	2.70	1.62
T444-1	Philco	1.65	.99
T445-1	Philco	1.80	1.08
T446-1	Admiral	2.70	1.62
T447-1	Westinghouse	2.70	1.62
T448-1	Westinghouse	2.70	1.62
T450-1	Westinghouse	2.45	1.47
T451-1	Westinghouse	2.95	1.77
T453-1	RCA	3.00	1.80
T454-1	RCA	3.00	1.80
T455-1	General Electric	2.40	1.44
T457-1	Airline	1.55	.93
T460-1	General Electric	3.70	2.22
T461-1	Magnavox	3.20	1.92
T462-1	Motorola	2.10	1.26
T466-1	RCA	3.25	1.95
T467-1	Zenith	2.70	1.62
T468-1	Westinghouse	2.00	1.20
T469-1	Westinghouse	1.70	1.02
T470-1	Westinghouse	2.00	1.20
T471-1	2 pcs. CBS	3.70	2.22
T473-1	Dumont	2.70	1.62
T474-1	Silvertone	2.85	1.71
T476-1	Zenith	1.70	1.02
T477-1	Admiral	2.00	1.20
T478-2	2 pcs. Philco	3.70	2.22
T480	Sylvania	2.58	1.55
TB501-1	RCA	1.85	1.11

I. F. TRANSFORMERS



MODEL	DESCRIPTION	LIST	DLR.
TC601-1	2nd I.F. Zenith#95-1102	4.95	2.97
TC622-1	1st I.F. Zenith#95-1101	3.85	2.31
TC623-1	2nd I.F. Zenith#95-1150	4.95	2.97
TC624-1	Output I. F. Zenith#95-1350	4.95	2.97
TC625-1	Output I. F. Zenith#95-1149	4.95	2.97
TC626-1	Disc. Zenith#95-1153	4.95	2.97
T604-2	262 KC input I. F.	4.95	2.97
T605-2	455 KC output I. F.	5.80	3.48
T606-2	262 KC output I. F./filter	5.55	3.33
T607-2	455 KC input I. F.	4.35	2.61
T607A-2	455 KC input I. F.	4.35	2.61
T608-2	455 KC output I. F.	5.80	3.48
T609-2	455 KC output I. F./filter	4.35	2.61
T610-2	455 KC input I. F. for bat.	5.80	3.48
T611-2	455 KC output I. F. for bat.	4.35	2.61
T646-2	455 KC input for AC-DC	4.95	2.97
T647-2	455 KC output I. F. for PC	5.50	3.30
T655-2	262 KC input I. F.	5.00	3.00
T656-2	262 KC output I. F./filter	4.35	2.61
T657-2	455 KC output I. F./filter	4.35	2.61
T664-2	455 KC input I. F. for bat.	4.35	2.61

FIX 'n' PATCH

HOME and SHOP REPAIR CHEMICALS

A21
PLASTIC STEEL
READY TO USE
99¢
PLASTIC STEEL
A19
LIQUID SOLDER
READY TO USE
49¢
LIQUID SOLDER
A18
PORCELAIN REPAIR
READY TO USE
79¢
PORCELAIN REPAIR
A20
PLASTIC RUBBER
READY TO USE
99¢
PLASTIC RUBBER
WORKMAN Electronic

MODEL NO.	DESCRIPTION	LIST	DLR.
A10	Plastic Aluminum	.99	.90
A11	Trim Cement	.79	.48
A12	Speaker Cement	.95	.57
A13	Plastic Lock Washer	.69	.42
A14	Window Sealer	.69	.42
A15	Rust Remover	.79	.48
A16	Plastic Rubber (black)	.99	.60
A17	Spot Putty	.99	.60
A18	Porcelain Repair	.79	.48
A19	Liquid Solder	.49	.30
A20	Plastic Rubber (white)	.99	.60
A21	Plastic Steel	.99	.60
A22	White Glue	.79	.48
A23	Plastic Mender	.69	.42
A24	Scratch Remover	.79	.48
A25	Matchwood	.99	.60
A26	3 oz. "Wissh" Cleaner	1.30	.78
A27	Fabric Mender	.69	.42
A28	Household Cement	.49	.30
A29	E-Pox-E Glue	.99	.60

COILS

Over 5000 Numbers

IN STOCK

Exact Replacements

FOR OVER 200 MANUFACTURERS

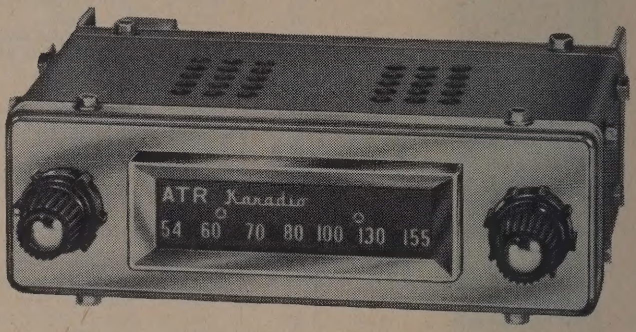
PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

FOR A COMPLETE LISTING OF EXACT REPLACEMENT COILS ASK YOUR JOBBER FOR OUR COIL CROSS REFERENCE.

ATR

ALL-TRANSISTOR

MODEL 707



. . . for those who want the finest! Check the features of this all-new, all-transistor Model 707 Karadio by ATR . . . features galore that make sales easier, keep users happier! Compare . . . and without hesitation place your order NOW for the new all-transistor ATR Karadio.

Karadio®

most versatile radio ever designed

Suggested Retail Price $29.95

- Large easy-to-read illuminated dial.
- Finger-tip tone control to adjust tone as you desire.
- 7-tuned circuits including RF stage to provide maximum sensitivity and selectivity.
- Automatic volume control to keep signals strong and steady.
- Utilizes "solid state" construction employing 7 semi-conductors (5 transistors and 2 diodes).
- Superheterodyne circuit.
- 3-Section Super "Magna-Wave" tuner.
- Hand wired. No printed circuitry.
- Has one-piece self-contained chassis for easy installation.
- "Fits-All" universal construction. For use with practically all import and American cars and trucks.
- Fits under-dash or in-dash utilizing standard trim plate kits.
- Comes complete with built-in speaker.
- External speaker jack provided.
- Available for 12-volt negative ground installations only.
- Low battery drain.

Neutral Gray-Tan baked enamel finish. Overall size approximately 5½" deep x 6½" wide x 2" high. Shipping weight, 5 lbs.

ATR® Karadio®

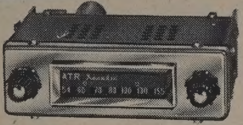
"the oldest name in auto radio"

With Excellent Tone, Sensitivity, and Volume!

- **HAND WIRED—NO PRINTED CIRCUITRY**
- **EQUIVALENT 8 TUBE PERFORMANCE**
- **FINGER-TIP TONE CONTROL**
- **AUTOMATIC VOLUME CONTROL**

TRANSISTOR-POWERED

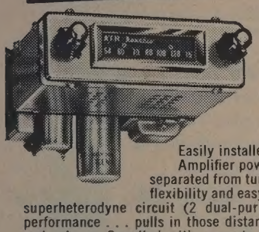
ATR UNIVERSAL Karadio MODEL 400 SERIES



Easily installed in-dash or under-dash. Superheterodyne circuit utilizing 4 tubes (two dual purpose tubes) together with two (2) transistors . . . pulls in those distant stations with good tone and volume. Supplied with separate 5″ x 7″ speaker which is installed in original automobile speaker compartment for high fidelity performance. Neutral gray-tan baked enamel finish. Overall size 6⅛″ deep x 6½″ wide x 2″ high. Shipping weight, 6 lbs.

DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
Universal 12-Volt Neg. Gnd.	401	$39.95	$29.98

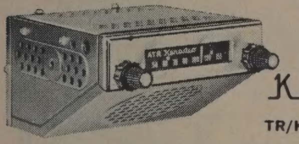
TUBE-OPERATED



ATR UNIVERSAL Karadio MODEL 600 SERIES

Easily installed in-dash or under-dash. Amplifier power-supply chassis may be separated from tuner chassis for installation flexibility and easy servicing. Utilizes 6-tube superheterodyne circuit (2 dual-purpose tubes) with 8-tube performance . . . pulls in those distant stations with good tone and volume. Supplied with separate 5″ x 7″ speaker which is installed in original automobile speaker compartment for high fidelity performance. Neutral gray-tan baked enamel finish. Overall size, 4″ deep x 6½″ wide x 2″ high, Tuner Chassis; with Amplifier Chassis, 2⅜″ deep x 6½″ wide x 3⅞″ high. Shipping weight 7 lbs. WILL OUTPERFORM MOST SETS!

DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
Universal 12-Volt Neg. or Pos.	612	$39.95	$31.96
Universal 6-Volt Neg. or Pos.	606	39.95	31.96

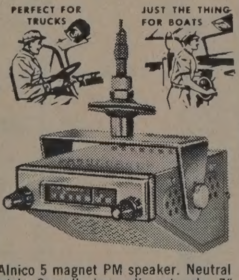


ATR UNIVERSAL Karadio MODEL TR/K-1279 SERIES

Easily installed in-dash or under-dash. Utilizes 6-tube superheterodyne circuit with 8-tube performance . . . pulls in those distant stations with good tone and volume. Has built in Alnico 5 magnet PM speaker. Neutral gray-tan baked enamel finish. Overall size 7″ deep, 4″ high, and 6½″ wide. Shipping weight, 7 lbs.

DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
Universal 12-Volt Neg. or Pos.	TR K-1279-12	$44.95	$33.57
Universal 6-Volt Neg. or Pos.	TR K-1279-6	44.95	33.57

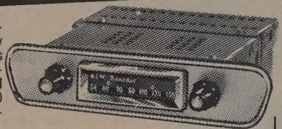
ATR TRUCK Karadio


PERFECT FOR TRUCKS
JUST THE THING FOR BOATS

Easily installed in cab of truck or boat by simply drilling one (1) hole. Overhead mounting adds extra safety to driving. Utilizes 6-tube superheterodyne circuit with 8-tube performance . . . pulls in those distant stations with good tone and volume. Has built-in Alnico 5 magnet PM speaker. Neutral gray-tan baked enamel finish. Overall size radio set only, 7″ deep, 4″ high, and 6½″ wide. Comes complete with antenna as shown. Shipping weight 10½ lbs. Perfect for all trucks.

DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
All Trucks 12-Volt	TR-1279-12A	$59.95	$41.96
All Trucks 6-Volt	TR-1279-6A	59.95	41.96

ATR CUSTOMIZED Karadio



The ATR CUSTOMIZED KARADIOS below for the American cars and Imports utilize Universal Karadio Model 600 Series, Model 400 series or Model TR/K-1279 series KARADIO, as applicable for the battery voltage system and make of car specified. In most cases, the Model 401 KARADIO will be utilized for the American cars above; whereas, for the import cars, the Model 600 Series KARADIO will be utilized for all installations requiring 6-volt negative or 12-volt positive ground. For 12-volt negative ground, the Model 401 will be used.

ATR †CUSTOMIZED KARADIOS FOR AMERICAN CARS

YEAR	DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
1963-61	Buick Special	BKS502	$45.95	$33.97
1963	Chevrolet	CT504	45.95	33.97
1960-59	Chevrolet	CT505	45.95	33.97
1958	Chevrolet	CT506	45.95	33.97
1956-55	Chevrolet	CT508	45.95	33.97
1963-60	Chev/GMC Truck	GMC511	45.95	33.97
1959-55	Chev/GMC Truck	GMC512	45.95	33.97
1963-62	Chevy II	CY514	45.95	33.97
1963-60	Comet	COT515	43.50	31.96
1963-60	Corvair	COR516	49.95	36.97
1961-60	Desoto	DES520	45.95	33.97
1959	Desoto	DES522	45.95	33.97
1963	Dodge	DGE524	45.95	33.97
1962	Dodge Dodge Dart	DGE524	45.95	33.97
1961-60	Dodge Dodge Dart	DGE526	45.95	33.97
1963	Dodge Dart	DGE527	45.95	33.97
1963	Ford Ranchero	FDR528	43.50	31.96
1963	Ford Galaxie	FDG529	45.95	33.97
1962-60	Ford	FD530	43.50	31.96
1959-57	Ford	FD532	45/95	33.97
1963-60	Falcon	FAL534	43.50	31.96
1963-62	Ford Fairlane "500"	FDF536	43.50	31.96
1962-61	Ford Econoline Truck	FET537	45.95	33.97
1963-61	International Truck	INT539	45.95	33.97
1963-61	International Scout	INT541	48.95	36.45
1963	Jeep J200 J300	JP535	46.95	35.25
1962	Lancer	LR538	45.95	33.97
1961	Lancer	LR539	45.95	33.97
1963-62	Mercury Meteor	MY540	43.50	31.96
1961	Mercury Meteor 600-800 only	MY542	43.50	31.96
1961-61	Oldsmobile F-85	OEF543	45.95	33.97
1963-62	Plymouth	PH545	45.95	33.97
1961-60	Plymouth	PH544	45.95	33.97
1959	Plymouth	PH546	45.95	33.97
1958-57	Plymouth	PH548	47.95	35.87
1963-61	Pontiac Tempest	PCT550	45.95	33.97
1963	Pontiac Catalina	PC5510	45.95	33.97
1960	Pontiac Catalina	PC5512	45.95	33.97
1960	Pontiac (Except Catalina)	PC5514	45.95	33.97
1961	Pontiac (all models except Tempest)	PC5516	47.95	35.87
1959	Pontiac	PC552	45.95	33.97
1963-61	Rambler American	RA554	45.95	33.97
1960-55	Rambler American	RA556	45.95	33.97
1963	Rambler, Amb. & Classic	RR557	45.95	33.97
1962-60	Rambler, Amb. & Classic	RR558	45.95	33.97
1958-59	Rambler, Amb & Classic	RR560	45.95	33.97
1963	Studebaker Lark	STL561	45.95	33.97
1962	Studebaker Lark	STL562	45.95	33.97
1961	Studebaker Lark	STL564	45.95	33.97
1960-59	Studebaker Lark	STL566	45.95	33.97
1963	Valiant	VAL567	45.95	33.97
1962	Valiant	VAL568	45.95	33.97
1961-60	Valiant	VAL569	45.95	33.97

ATR †CUSTOMIZED KARADIOS FOR IMPORT CARS

YEAR	DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
1960-62	Austin A-55 (12-Pos.)	AA569	$47.95	$35.87
1960-62	English Ford, Consul, Zephyr, Zodiac (12 Pos.)	EF574	47.95	35.87
1957-59	English Ford, Consul, Zephyr, Zodiac (12 Pos.)	EF575	47.95	35.87
1957-58	Hillman-Minx (12 Pos.)	HM577	47.95	35.87
1958-62	Karmen Ghia (6 Neg.)	KG579	45.95	33.97
1960-63	Mercedes Benz 220S & 190 D.C. (12 Neg.)	MB580	45.95	33.97
1958-63	Mercedes Benz 190SL (12 Neg.)	MB581	45.95	33.97
1956-63	MG or MG (A) or MG (B) (12 Pos.)	MG582	47.95	35.87
1957-62	Morris Minor (12 Pos.)	MM583	47.95	35.87
1958-59	Opel (6 Neg.)	OL584	47.95	35.87
1958-59	Peugot 403 (12 Neg.)	PT585	45.95	33.97
1957-58	Renault (6 Neg.)	RT586	47.95	35.87
1959-63	Renault (12 Neg.)	RT587	45.95	33.97
1963	Renault R8 (12 Neg.)	RT576	45.95	33.97
1959-62	SAAB Grand Turismo 707 (12 Neg.)	SAB588	45.95	33.97
1963	SAAB (12 Neg.)	SAB578	46.95	35.25
1958-63	Simca Aronde-Chatelaine-Deluxe-Super Deluxe (12 Neg.)	SA589	45.95	33.97
1959-63	Simca Elysee-Grand Large (12 Neg.)	EE590	45.95	33.97
1959-60	Simca Oceane-Plein Ceil-Vedetta, Beauliau (12 Neg.)	SA573	45.95	33.97
1960	Sunbeam Alpine (12 Pos.)	ALP572	47.95	35.87
1957-59	Sunbeam Rapier (12 Pos.)	RAP521	47.95	35.87
1958-60	Taumus (6 Neg.)	TAS570	47.95	35.87
1957-60	Toyopet (12 Neg.)	TOY569	46.95	35.25
1962	Triumph Sedan TR4 (12 Pos.)	TR591	47.95	35.87
1955-62	Triumph TR-3 (12 Pos.)	TR592	47.95	35.87
1958-60	Vauxhall (12 Pos.)	VH593	47.95	35.87
1953-57	Volkswagen (6 Neg.)	VN594	45.95	33.97
1958-63	Volkswagen (6 Neg.)	VN595	45.95	33.97
1953-62	Microbus (6 Neg.)	VB596	47.95	35.87
1959-62	Volvo 544 (6 Neg.)	VO597	47.95	35.87
1960-62	Volvo 122S (6 Neg.)	VO598	47.95	35.87
1962	Volvo Sport and P1800 (6 Neg.)	VO599	47.95	35.87

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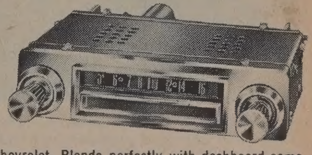
ATR FULL CUSTOM Karadio

Illustrated is ATR FULL CUSTOM Karadio utilizing model 400 Series designed specifically for 1963 Ford Galaxie Series. Blends perfectly with dashboard same as original equipment. Supplied with 6″ x 9″ speaker.



Illustrated is FULL CUSTOM Karadio utilizing model 400 series designed specifically for the 1963 Chevrolet. Blends perfectly with dashboard same as original equipment. Supplied with 6″ x 9″ speaker.

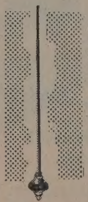
YEAR	DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
1963-61	Buick Special	BOP410	$54.95	$36.97
1963	Chevrolet	CT411	49.95	33.97
1962-61	Chevrolet	CT412	54.95	36.97
1963-60	Corvair	CR414	54.95	36.97
1963-60	Comet	COT416	54.97	36.97
1962	Dodge Dart	DED418	54.95	36.97
1963-60	Falcon	FAL420	54.95	36.97
1963	Ford Galaxie	FD421	49.95	33.97
1962-60	Ford	FD422	54.95	36.97
1962	Lancer	LR424	54.95	36.97
1962	Mercury	MY426	54.95	36.97
1963-61	Oldsmobile F-85	BOP410	54.95	36.97
1963-62	Plymouth	PH430	54.95	36.97
1963-61	Pontiac Tempest	BOP410	54.95	36.97
1962	Valiant	VT434	54.95	36.97

The FULL CUSTOM Karadios listed herein utilize the Model 400 Series, Transistor-Powered KARADIO.

ATR Karadios are built to look and fit like original equipment with sleek, modern styling and solid construction. They offer many customized features and provide highest quality fidelity—yet cost far less than comparably designed units. The ATR Customized Karadio comes complete with car speaker ready to install . . . and is the ideal way to add fun and value to your small import or American automobile!

The KARADIOS as listed for the American cars are supplied with separate external 6″ x 9″ or 5″ x 7″ speakers depending on installation requirements. The KARADIOS as listed for the imports, are supplied with separate external 5″ x 7″ to 5″ speakers depending on the installation requirements. The KARADIOS listed herein come either with neutral gray-tan baked enamel finish or natural lead coated steel finish. The choice of finish also depends on the car and installation requirements. All of the ATR KARADIO models listed herein are equipped with variable tone control, trim plate or bezel, generator condenser, distributor suppressor, hardware, and speaker as required.

†ALL CUSTOMIZED KARADIOS utilize the Universal model KARADIO together with required trim plate kits. The control centers are spaced 5⅛″ and, accordingly, drilling or filing of mounting holes will be necessary to mount radio in dash for most American car installations.



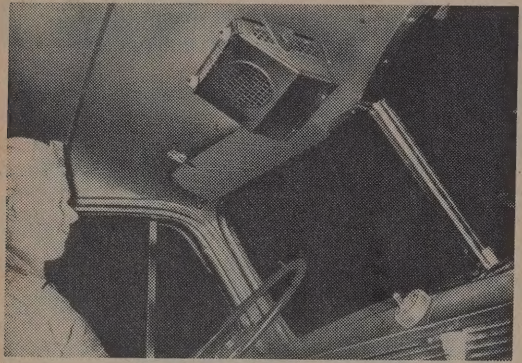
Each radio is packaged in one carton complete. Shipping weight of all of the above listed Customized KARADIOS and FULL CUSTOM KARADIOS is 8 lbs. with the exception of the KARADIO for Corvair which is 10 lbs.

Type 35 Telescopic chrome plated fender mounted antenna available for any of the above KARADIOS. Extends to 35″ complete with 48″ cable. If antenna is desired, please so specify and this will be shipped as a separate item. Additional pricing for the antenna is as follows: List price, $2.95; Dealer Price, $2.07. Shipping Weight, 1 lb. Side mounted antenna, Type 37, also available at similar prices.

All prices and specifications subject to change without notice.

ATR TRUCK Karadio

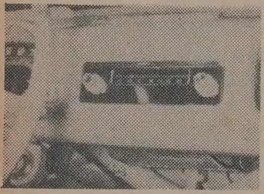
most versatile truck-auto-boat radio ever designed!



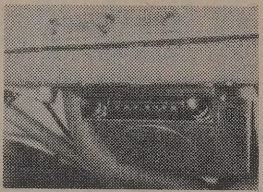
ATR TRUCK KARADIO is perfect for your truck! New self-contained, single-unit overhead airplane-style radio can be easily installed in the cab roof of any make or model truck, or if you prefer, in-dash or under-dash.

EASY TO INSTALL

1. Drill one 5/8" hole in ceiling.



2. Tighten antenna with lock-nut assembly and connect one wire.

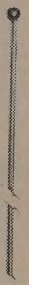


The ATR KARADIO is ideal for small import cars or compact American cars! Unit is completely self-contained—extremely compact! Can be mounted in-dash or under-dash—wherever space permits!

FEATURES

- The in-line position of the speaker in this compact 6-pound radio permits more sound to reach the listener, so that the volume need not be turned up to the point of distortion even when driving fast.
- A fixed-length antenna (optional equipment) connected to the receiver by a 12-inch lead permits proper matching of the antenna to the receiver under all conditions, thus increasing the set's sensitivity.
- Finger-tip tone control to adjust tone as you desire.
- Automatic volume control to keep signals strong and steady.
- Its powerful 6-tube circuit (actual 8-tube performance) outperforms most larger and bulkier sets!
- The life of the radio has been increased considerably due to specially designed yoke-type flat-spring-mounting and excellent ventilation.
- The ATR Karadio is simple to service—merely take off two easily accessible thumb nuts and remove the entire set.
- The unit can be installed quickly and easily—drill ONE hole . . . connect ONE wire, and the set is ready for use.
- Overhead mounting adds extra safety to driving, because the driver never has to take his eyes off the road to tune or adjust the set.
- Yoke-type tilt bracket mount permits radio to be adjusted to curvature of any cab or as desired by driver.
- Sturdy lock-nut and washers hold radio set mount securely to cab top through 5/8" hole drilled in ceiling.
- 33" stainless steel antenna bends in any direction.
- Set is peaked to maximum efficiency with given length of aerial.
- Antenna lead only 12" in length.

For performance, dependability, and economy—the ATR Karadio is the finest, most versatile truck-auto-boat radio ever designed!



SPECIFICATIONS

- Large, easy-to-read dial.
- Extra large Alnico 5 Magnet PM Speaker.
- 6-Tube Superheterodyne Circuit (utilizes 2 dual purpose tubes) with 8-Tube Performance . . . pulls in those distant stations.
- Uses tube-type rectifier for longer uninterrupted service.
- No battery polarity input problem.
- 3-Section Super "Magne-Wave" Tuner.
- Increased sensitivity assures more powerful reception at greater distances.
- 6 or 12 volt storage battery operation, low battery drain.

Neutral Gray-Tan, baked enamel finish. Overall size, 7" deep, 4" high, and 6½" wide. Net weight, radio set, 6 lbs., shipping weight, complete with antenna, 10½ pounds.

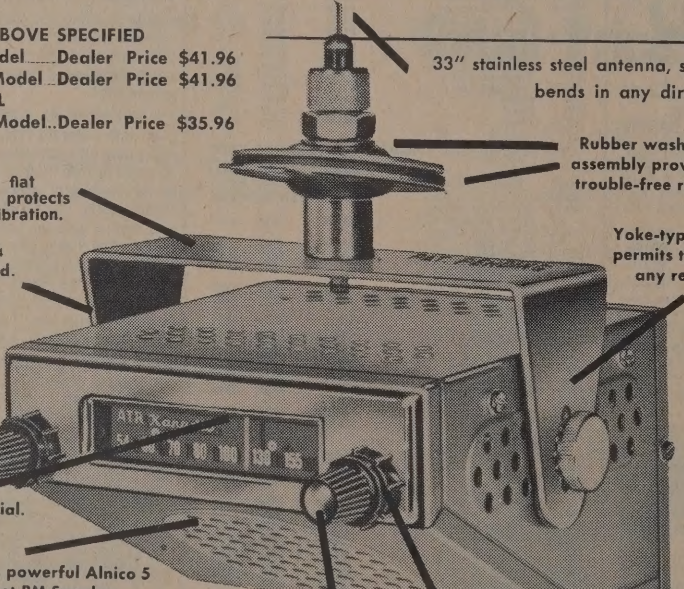
ALL-TUBE MODELS AS ABOVE SPECIFIED

TR-1279-6A, 6-Volt Model	**Dealer Price $41.96**
TR-1279-12A, 12-Volt Model	**Dealer Price $41.96**

ALL-TRANSISTOR MODEL

TR-1279-12AT, 12-Volt Model	**Dealer Price $35.96**

Negative Ground Only.


33" stainless steel antenna, spring mounted bends in any direction.
Rubber washer and lock-nut assembly provides watertight, trouble-free roof installation.
Yoke-type flat bracket-spring protects set against vibration.
Short antenna lead only ¼ the length normally required.
Yoke-type bracket-mount permits tilting of radio to any required angle.
Finger-Tip Tuning Control
Large, easy-to read dial.
Oversize, powerful Alnico 5 Magnet PM Speaker.
Volume Control
Tone control
ATR Kar
54 60 70 80 100 130 155

Hand Wired No Printed Circuitry

AVAILABLE WITH OR WITHOUT ANTENNA, AS DESIRED.

FOR 6-VOLT OR 12-VOLT BATTERY SYSTEM.

JOBBERS ATTENTION: See Page 607 in this ATR Section and Page 1019 in Section 4000 for your Catalog Needs!

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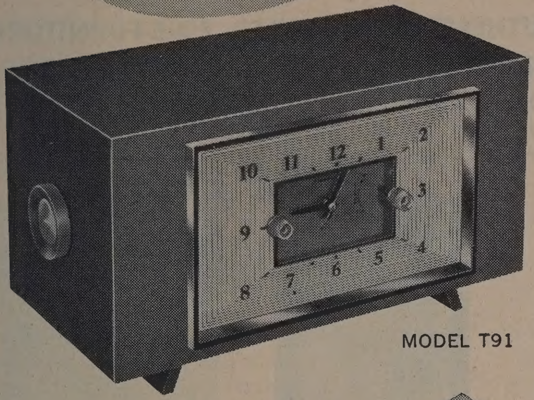
ATR *Ultra Modern* TABLE RADIOS



MODEL T91

CLOCK RADIO WITH BUILT-IN SALES APPEAL

Excitingly styled clock radio—trim, modern cabinet in ebony or ivory plastic . . . rich gold-color trim and clock numerals. Powerful 5-tubes AM radio chassis with built-in "Magna-Plate" antenna. Full-toned 4" PM speaker. Popular features include: *Musical Alarm*—radio turns on automatically at any pre-set time; *Sleep Selector*—lulls user to sleep, turns radio off automatically during 60 minute period after retiring; *Automatic Appliance Timer*—outlet on back of radio times any electric appliance automatically (up to 1100 watts). Cabinet 10½ in. wide, 5 in. high, 5⅛ in. deep. Wt. approx. 8 lbs. A WONDERFUL TONIC FOR NEW SALES . . . BIGGER PROFITS!

Model T-91 Clock Radio, Black	**Dealer Price $22.45**
Model T-91 Clock Radio, Ivory	**Dealer Price $23.15**

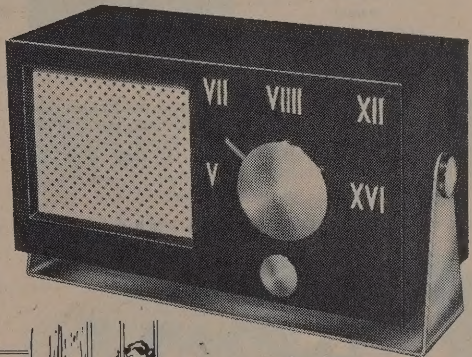
CLOCK SPECIFICATIONS ON MODEL T91 ONLY

- Genuine Telechron Movement . . . Accurate, Quiet, and Long-Lived.
- Self-Starting . . . Never Needs Winding, Oiling, or Regulating.
- Simplified Clock Controls for Radio and Sleep Switch.
- 1100 Watt Controlled Appliance Outlet.
- Automatic Buzzer Alarm Sounds Approximately 10 Minutes After Sleep-Switch Turns On Radio.
- Gold-Plated Bezel and Numerals on Large Bone-White Dial. Dial Size 4¼" x 7¼"
- UL Approved

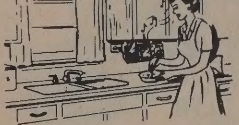
GENERAL SPECIFICATIONS PERTAINING TO ALL ATR TABLE RADIOS

- **Advanced Super-heterodyne Circuit**—Increased selectivity and sensitivity with improved tube types . . . High audio output . . . Automatic volume control . . . two gang variable condenser.
- **Sealed Alnico 5 PM Dynamic Speaker**—Full range frequency . . . Power without distortion . . . Balanced tone quality.
- **Automatic Volume Control**—Maintains uniform volume on local and long distance reception.
- **Genuine Magna-Wand Ferrite Antenna**—Magna-Wand used in conjunction with Hi-Q Iron Core IF Coils for extreme sensitivity and selectivity . . . High signal-to-noise ratio.
- **Power Line Noise Filter**—Minimum interference from household appliances, motors, etc.
- **Wave Band:** 540 to 1600 KC
- **Tubes—**
  - 12BA6—456 KC IF Amplifier
  - 12AV6—2nd detector-1st Audio
  - 50C5—Audio Power Output
  - 12BE6—Mixer
  - 35W4—Rectifier
- **Power Supply:** 115 Volts, 60 Cycles AC
- **Cabinet**—Beautiful compression molded bakelite with shadow box effect dial and complementing golden knobs and trim. Resistant to heat.

HAND WIRED — NO PRINTED CIRCUITRY ATR

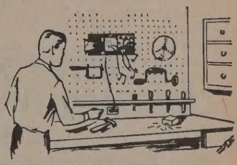


MODEL T87



for Kitchen

for Den



for Workshop

ATR "TILT-A-STAND" RADIO MOUNT ON THE WALL—UNDER A SHELF—OR SET ON A TABLE

PERFECT for every room in YOUR home

A NEW HIGH IN RADIO USEFULNESS . . . It rotates a full 360° on a beautiful golden pedestal. Pedestal is notched for screws, giving unlimited mounting possibilities. THE HANDIEST RADIO EVER! The gleaming molded bakelite cabinet is enhanced by a contrasting recessed grill and rich golden dial pointer and controls. Distinctive dial with large Roman numerals.

Excitingly new and different . . . radio is mounted on sturdy, gleaming brass-finished stand. Radio tilts up or down easily to any desired angle. Keyhole slot in stand makes this versatile performer easy to mount on wall out of way of small hands. Perfect for den, kitchen, or bedroom. Power-packed 5-tubes chassis. Built-in loop antenna. Automatic volume control. Full 4" Alnico 5 speaker Distinctive Roman numerals on dial. Size: 9½" W x 4" D x 5¾" H. AC/DC. U.L. approved. Weight 5½ lbs.

Model T-87 (Tilt-A-Stand), Black	**Dealer Price $17.47**
Model T-87 (Tilt-A-Stand), Red	**Dealer Price $18.10**

JOBBERS ATTENTION: See Page 607 in this ATR Section and Page 1019 in Section 4000 for your Catalog Needs!

FOR THOSE WHO WANT THE FINEST!

ATR TV

15 FULL-DOOR and 12 OPEN FACE DE LUXE CONSOLE TELEVISION SETS . . . to choose from!

FEATURING THE ULTIMATE IN HIGH-QUALITY, AUTHENTICALLY-STYLED, FINE-FURNITURE CABINETS AND THE FULL-TRANSFORMER SUPER-POWERED ATR No. 2600 CHASSIS.

Includes push-pull high-fidelity audio system; dual extended-range, large permanent magnet speakers; spot-light tuning; giant 265 square inches 90° aluminized 21″ picture tube; and super VHF tuner for high sensitivity fringe area reception.

The Biltmore

by ATR

Pictured: Model 26007 LD-4 in mahogany

Distinctively styled in genuine walnut, mahogany or blonde Korina. Hand rubbed to a gleaming, hard finish of lasting beauty. Features the superb No. 2600 ATR chassis. Dimensions: 24½″ wide, 36½″ high and 20″ deep. Concealed casters for mobility.

- UNSURPASSED IN BEAUTY
- UNEQUALLED IN PERFORMANCE
- UNMATCHED IN QUALITY CONSTRUCTION

Provincial by ATR

Model No. 26002 (Illustrated)

Cabinet has concealed casters for easy mobility. Available in 18th Century Mahogany, Early American Antique Maple and French Provincial in Cherrywood with Fruitwood finish. Dimensions: 24½″ wide, 36½″ high, and 20″ deep. Rich finishes are applied and hand rubbed to smooth lustrous beauty.

● ● ● ● ● ● ● ● ● ● ● ●

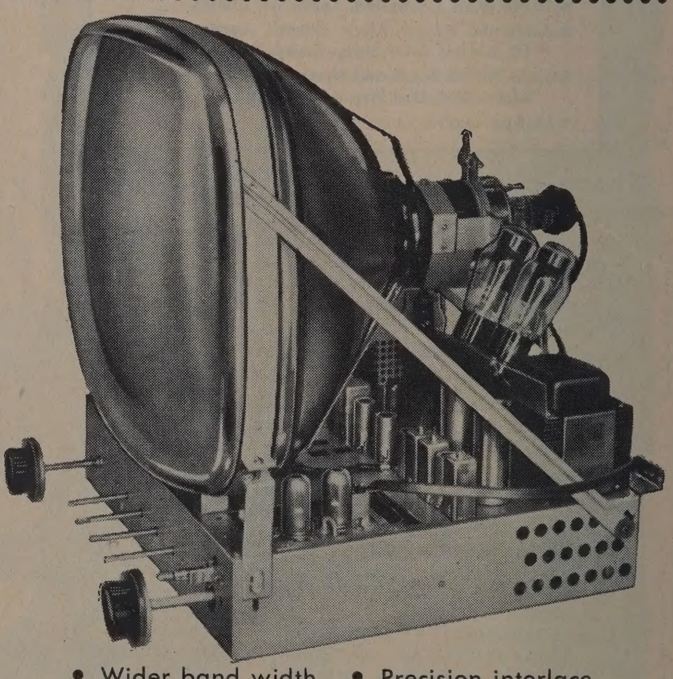
ATR TV

SUPER-POWERED ATR No. 2600 FULL-TRANSFORMER CHASSIS

For Maximum Dependability and Performance

SPECIALLY DESIGNED BY ATR FOR MOVIE-CLEAR, SHARPEST PICTURES WITH MAXIMUM PICTURE STABILITY . . . DESIGN AND CONSTRUCTION INCLUDE EXTRA VALUE FEATURES THAT MAKE FOR QUALITY PLUS . . .

- 18,000 volts of quality picture power
- Super-powered full-transformer 26 tube chassis
- Extended-range speakers of heavy duty construction
- Automatic gain control
- 4-Stage 41 MC IF amplifier
- Interference rejector
- Push-pull audio system
- Permanent-magnet focus
- Higher gain video amplifier



- Wider band width
- Precision interlace
- Highest quality components including molded capacitors
- Improved dependable long life ATR circuitry
- Front tuning of all important control functions

JOBBERS ATTENTION: See Page 607 in this ATR Section and Page 1019 in Section 4000 for your Catalog Needs!

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CADRE

solid state citizens band transceivers

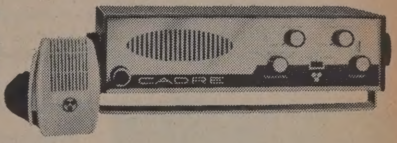
reliable • low cost • powerful 2-way radio communications

FOUR 5-WATT, 5-CHANNEL MODELS, ALL FEATURING:

- 100% transistor reliability—no heat problems, no tubes to burn out—low current drain—withstands abuse of mobile application.
- Highest power possible—widest 27mc CB transmission range, up to 20 miles over land, 30 miles over water . . . speech clipping delivers maximum power without distortion.
- Bull's-eye tuning—with 5 crystal-controlled transmit and receive channels.
- Rugged press-to-talk mike with retractable cord
- Clearest reception . . . RF stage, four IF stages, ½ μv sensitivity captures weakest signals . . . dual-conversion superheterodyne receiver has both crystal and new ceramic filters . . . automatic noise limiter cuts ignition noises . . . adjustable squelch silences speaker for noise-free standby reception.
- Light weight . . . small size . . . fits any vehicle, even compacts—without stealing leg room.
- Universal mounting bracket for use in virtually any location.
- 90-day EIA warranty on all parts.
- All U.S. parts.
- Professional appearance . . . crisp, streamlined styling, enhanced by handsome brushed aluminum and charcoal finish.

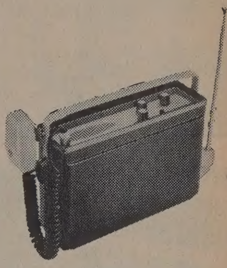
CADRE 515
AC/DC operation—for use anywhere. **$184.50** (DC cord & mounting kit included)

CADRE 510-A
AC/DC operation—for use anywhere. Also offers crystal correlated 23 channel manual tuning. **$199.95** (DC cord & mounting kit included)

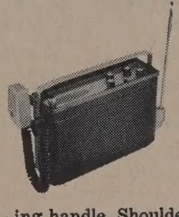


CADRE 520
DC operation only, with DC power cord and mounting kit. **$174.50**

CADRE 525
Model 520 in portable case for field use. Standard AC cord permits recharging of two built-in nickel-cadmium batteries . . . telescoping antenna . . . aluminum carrying handle. **$249.95**



ACCESSORIES FOR "500" SERIES



CADRE 500-1 PORTABLE PACK Lightweight case to hold either 2 or 4 rechargeable nickel cadmium batteries to carry and protect 510A, 515, and 520 transceivers. Ideally suited for full-power field use. Two-section, impact-resistant plastic case. High gain telescoping antenna. Built-in recharger operates on standard 110 volts AC. Aluminum carrying handle. Shoulder carrying strap optional. AC-DC standby switch for operation on either AC or batteries. 9½ pounds with trans and batteries. **$34.95.** 500-2 Batteries **$10.95** each. 500-3 Shoulder strap **$1.95.**

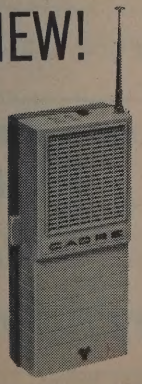
CADRE 522 POWER S-METER. Highly accurate, transistor battery-operated unit for '500' series models. **$24.95.**

CADRE 523 BANDPASS FILTER for 50 ohm transceivers (25mc-32mc). **$7.95.**

XTAL SETS Extra crystal sets **$6.00.**

AT-1 Portable CB antenna. **$5.95.**

NEW! HAND-HELD, 1.5-WATT, 2-CHANNEL TRANSCEIVER



CADRE C-75 Weighs less than 2 pounds, yet delivers clear, reliable communications up to 5 miles or more. All solid state design means extreme ruggedness—absorbs rough handling, stays on frequency. 2 crystal-controlled channels spell perfect communications contact every time. Sensitive receiver (1 μv at 10 db S/N ratio) brings in signals in poor reception areas. Powerful transmitter with one watt output to antenna. AGC, adjustable squelch for greater intelligibility, silence during standby. Operates on rechargeable nickel-cadmium batteries or penlite cell power supply. Retractable antenna built-in. Jacks for earphone, external speaker, external antenna, and base operation while recharging. Complete with leatherette carrying case, **$109.95.** Recharger and 2 nickel cadmium batteries **$31.85.**

ACCESSORIES FOR C-75 *C-75-101* Recharger base for C-75. **$9.95.** *C-75-103* Recharger adapter for 500-2 batteries. **$2.95.** *500-2* Six volt 0.5 amp nickel-cadmium battery. Two required in C-75. **$10.95.** *C-75-2* Battery holder for (9) 1.5 volt penlight cells. **$2.95.** *C-75-3* Shoulder carrying strap. **$1.95.** *C-75-6* Adapter cord for microphone. **$2.95.** *C-75-7* Antenna cable adapter. **$2.95.** *C-75-8* Battery charge indicator. **$5.95.** *C-75-9* Deluxe leather case. **$9.95.** *C-75-10* Flexible base-loaded antenna. **$9.95.** *C-75-11* Lapel microphone speaker. **$12.95.**

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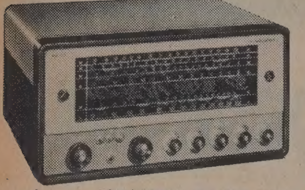
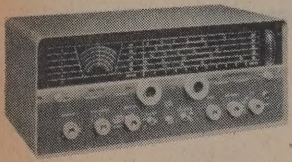
hallicrafters

Precision Built Short Wave and Special Purpose Receivers



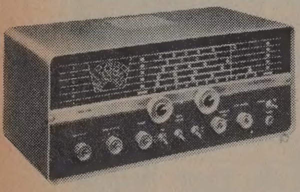
SX-62A (Less speaker)

Broadcast 550-1620 kc. three S/W bands 1.62-32 Mc, FM 27-109 Mc. Wide vision dial, one band lights at a time, temperature compensated, voltage regulated, six-position selectivity, phone jack. Fourteen tubes plus one rectifier and one voltage regulator—105/125V. 50/60 cycle AC. Satin black steel cabinet, gray and silver trim — 20″ x 10½″ x 16″. Shipping wt. 66 lbs. approx. Use R-48 speaker. (U/L approved.)..**$430.00**



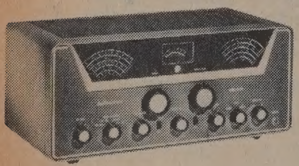
SX-110 (Less speaker)

Broadcast 540-1680 kc, three S/W bands 1680 kc-34 Mc. Slide rule bandspread dial calibrated on 10, 15, 20, 40 and 80 meter amateur bands. Antenna trimmer, "S" meter. Crystal filter. Seven tubes plus one rectifier —105/125V. 50/60 cycles AC. Gray steel cabinet, silver trim. Uses R-48 speaker, 8½″ x 18½″ x 11″. Shipping wt. 35 lbs. (U/L approved.).................................**$169.95**



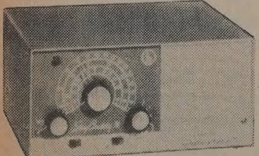
S-108

Broadcast 540-1680 kc, three S/W bands 1680 kc-34 Mc. Slide rule bandspread dial calibrated on 10, 15, 20, 40 and 80 meter amateur bands. Temp. compensated oscillator. Headphone jack. Seven tubes plus rectifier. 105/125V. 50/60 cycle. Gray steel cabinet, silver trim. 8½″ x 18½″ x 11″. Shipping wt. 35 lbs. (U/L approved.)...**$139.95**



SX-122

Deluxe general coverage receiver. Broadcast (538-1580 kc.) plus three S/W bands (1720 kc. - 34 Mc.). Dual conversion, superhetrodyne over the entire frequency range. SSB reception. Product detector for SSB/CW. Envelope detector for AM. Series noise limiter. Heavy-duty tuning capacitor with copper plates in oscillator section for maximum electro-mechanical stability. Antenna trimmer, amplified AVC. 2nd conversion oscillator crystal-controlled. Removable top and bottom. Cabinet size: 18¾″ wide, 8″ high, 9¾″ deep. Shipping wt. approx. 31 lbs. Provisions for 100 kc. crystal calibrator accessory (HA-7). UL approved.......................................**$325.00**

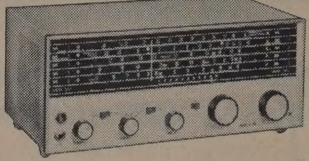


S-119

Sky Buddy II. 3 tubes, AM band plus 2.0-16.5 Mc short wave bands. Superheterodyne circuit. Built-in speaker with provision for headphones. Planetary drive for easy tuning. Transformer operated. 115V 60 cycle AC. Steel gray cabinet. 10½″ x 5″ x 7½″. Shipping wt. 9 lbs...................................**$49.95 wired**

S-119K (Kit)

Same as S-119 except in kit form..**$29.95 (KIT)**

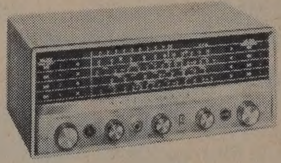


S-118

Broadcast 495-1620 kc, three S/W bands 1.6-31. Mc and low frequency band 185 to 420 kc. Slide rule dial and electrical bandspread. Ferrite loop on BC and low frequency band. Built-in speaker, B.F.O., A.N.L., head phone jack, phono input/tuner output socket, socket for external d.c. power. Five tubes plus two silicon diodes. Size 14½″ x 5 11/16″ x 8½″, 105-125 volts 50/60 AC. Shipping wt. 19 lbs...**$99.95**

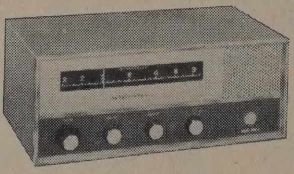
R-48

Matching 5½″ x 7½″ speaker for Hallicrafters or other receiver having a 3.2 ohm output. 3.16 oz. magnet produces a fully saturated air gap and distortion-free reproduction. A fidelity switch permits selection of full fidelity response or voice frequency for communications reception. For use with SX-62A, SX-100 and SX-110. Gray steel cabinet. 6¾″ x 13¼″ x 8¼″. Shipping wt. 9 lbs..**$19.95**



S-120

Broadcast 550-1600 kc, three S/W bands 1600 kc.—30 Mc. Three antennas ferrite loop for broadcast, adjustable whip for S/W and wire antenna. Front panel headphone jack, disconnects built-in speaker when headphones are plugged in. Four tubes plus selenium rectifier. 105/125V AC/DC. Gray steel cabinet with silver trim. 13½″ x 5⅞″ x 8¾″. Shipping wt. 11¾ lbs. (U/L approved.) **$69.95**



CRX-1

CRX-1 30-50 Mc and CRX-2 151-174 Mc receivers for split channel, narrow band FM. Triple conversion. Manual tuning and 2 crystal positions (crystals not included). Adjustable squelch. Built-in speaker with provision for external speaker. High speed and vernier tuning controls. 105/125V. 50/60 cycle AC. Mobile operation possible with external power converter. 13½″ x 6″ x 8¾″. Gray steel cabinet with silver trim. Shipping wt. 15 lbs.........**$99.95**

CRX-2

151-174 Mc Version of CRX-1...**$109.95**

CRX-3

108-135 Mc high quality AM VHF receiver. 118V 50/60 cycle AC....**$94.95**

the new ideas
in communications
are born at . . .

hallicrafters

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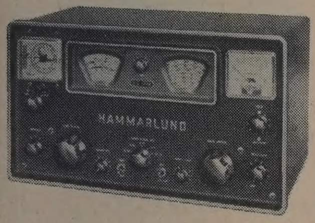
HAMMARLUND

COMMUNICATIONS EQUIPMENT

NEW HQ-100 A



A modestly priced general coverage receiver with excellent CW and SSB reception due to independently controlled continuously variable BFO and Q-multiplier. Continuous tuning from 540 KCS to 30 MCS. Outstanding sensitivity and selectivity — electrical bandspread directly calibrated. Voltage and temperature regulated. S meter. Exclusive Auto-Response. Automatic noise limiter. Ten tube superheterodyne circuit. (Single conversion).

$189.00
Amateur Net

24-hour clock timer optional .... **$10.00** Extra

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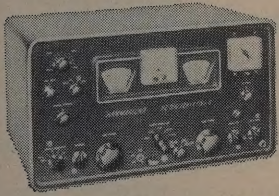
NEW HQ-145 X



General coverage receiver for SWL and hams with built-in provision for single crystal controlled channel. Tunes from 540 KCS to 30 MCS. Electrical bandspread in all ham bands in frequency range. Dual conversion from 10.0 MCS to 30.0 MCS. 60 db slot filter and six position crystal filter. Eleven tube superheterodyne with automatic noise limiter. High sensitivity. Optional 100 KC plug-in calibrator.

$279.00
Amateur Net

24-hour clock timer optional .... **$10.00** Extra

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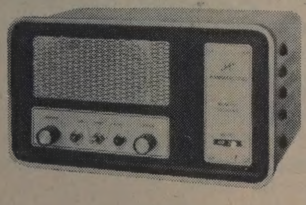
FM MONITOR RECEIVERS MR-50X MR-60X



Identical units except for frequency ranges covered. MR-50 X has range of 147-174 MC. MR-60 X — 25-54 MCS. Offers true split channel performance with optional multi-channel operation. Entirely self contained with whip antenna — provision for external antenna. Selective call option. High sensitivity. Crystal controlled to fixed, pre-determined channels for optimum reception. Ideal for civil, industrial, or commercial use.

$199.50
Net

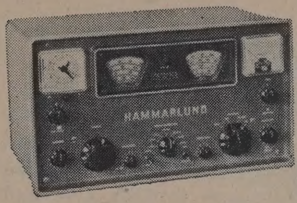
MR-51X FM MONITOR RECEIVERS MR-61X

Similar to MR-50X, MR-60X, Identical frequency ranges. Slightly less selectivity as a result of employing L/C circuitry replacing crystal lattice filter. Supplied to specific frequency with crystal.

NOTE: All monitor receivers available with 6 channels at extra cost.

$149.95
Net

NEW HQ-110A



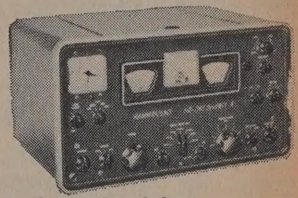
12 tube superheterodyne dual-conversion receiver covering all amateur bands from 160 to 6 meters — with optimum reception of CW and SSB signals through separate linear detector. New design includes such extras as:

- Significantly tighter mechanical and electrical stability.
- Accessory socket for pre-amp or converter application.
- Expanded dial — with 144-148 MC calibrations for use with 2 meter converters.
- Separate 6 meter coax input for rapid shift from VHF to LF operation.

$249.00
Amateur Net

24 hour clock-timer $10 optional

NEW HQ-170A



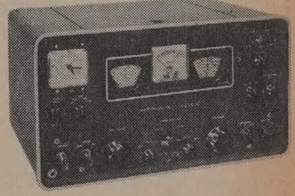
The Single Sideband Specialist. 17 tube superheterodyne design — dual and triple conversion. Tunes 6, 10, 15, 20, 40, 80 and 160 meter amateur bands plus 2 meter calibration. NEW features include:

- Significantly better electrical and mechanical stability
- Silicon rectifiers for cooler, high-efficiency operation
- 2 meter calibration for converter use
- Accessory outlet and a system socket.

$369.00
Amateur Net

24 hour clock-timer $10 optional.

NEW! HQ-180A General Coverage at its SSB Best!



The Hammarlund HQ-180A meets the most critical needs of both commercial and amateur user for a general coverage, SSB communications receiver. Modern tuning techniques yield optimum performance in the most crowded bands. The combination of bandspread and ±3 KCS vernier tuning, slot filter, selectable sideband, tuned IF, separate linear detector, extreme selectivity, and inherent Hammarlund craftsmanship creates a receiver whose qualities are unsurpassed—at any price.

New HQ-180A features include improved electrical and mechanical stability, silicon rectifiers for cooler, high efficiency operation, accessory socket, accommodation socket for a no-fuss tie with an HX-50 transmitter, 500 ohm output terminal, 115/230V. 50/60 cps. operation. Phone patch or remote, and a three position switch on the front panel for selecting off, fixed, or variable BFO.

$439.00 Amateur Net

24-hour clock timer optional $10.00 extra

HQ-180AX RECEIVER WITH 11 CRYSTAL CONTROLLED CHANNELS

The new Hammarlund "Universal" receiver HQ-180AX retains all of the outstanding features of the famous HQ-180A, but additionally provides the versatility of crystal-fixed frequency, accuracy and stability.

±3KC Vernier Tuning Control

An unusual feature of this instrument is the ability to compensate for minor frequency variations of the crystals by means of a ±3 KC vernier tuning control located on the face of the unit.

$499.00
Net

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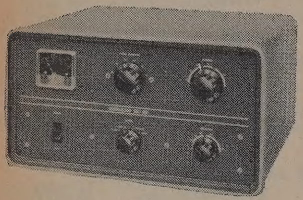
HAMMARLUND

COMMUNICATIONS EQUIPMENT

HAMMARLUND HXL-1
Linear Amplifier
1500 WATT P.E.P. INPUT



Ruggedly built to give a lifetime of service, the Hammarlund HXL-1 sets all new standards of performance in SSB, CW and AM. Here is a simply designed linear amplifier providing the kind of transmitter power you want. An unobtrusive addition to any station, the HXL-1 packs a DX wallop that will amaze every contact—near or far.

PEAK POWER PERFORMANCE . . .
to provide the hefty signal you have always wanted. **$395.00**
Amateur Net

New ZBZ

ZBZ is an accessory item for the fabulous Hammarlund HX-50 Transmitter. ZBZ, when added to the HX-50 Transmitter, permits instantaneous, foolproof, positive zero beating (Zero Beat Zero) by means of an external control such as a foot switch, knee switch or similar device, thus permitting the operator to have both hands completely free.

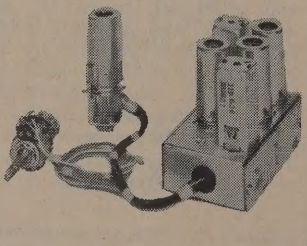
ZBZ, therefore;

☆ Provides a fast — positive means of zero beating or setting the transmitter to a desired frequency without touching any of the front panel controls;

☆ Assures that the calibrate signal will perfectly coincide with the transmitted signal regardless of upper/lower sideband selection;

☆ Permits VOX to be temporarily disabled when answering telephone, talking to the XYL, etc.:

IF—NOISE SILENCER



Essentially plug-in 3 tube circuit designed primarily for use with the Hammarlund HQ-170 and HQ-180 communication receivers. Renders receivers inoperative during short duration of any individual noise pulse. Lapse or "hole" not noticeable because of extremely short duration. Excellent where severe ignition or other pulse-type noises must be contended with.

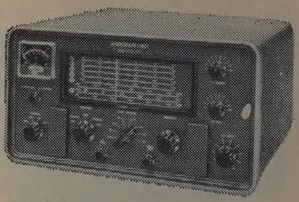
$33.50
Amateur Net

CRYSTAL CALIBRATORS

Crystal calibrators providing markers for dial calibration every 100 KCS.

XC-100 for general usage	**$15.95** Amateur Net
XC-100 for HQ-140-X, HQ-140-XA, HQ-120 and HQ-129	**$17.95** Amateur Net
HX-100 plug-in calibrator for HQ-145 and HQ-145-X	**$15.95** Amateur Net

NEW HX-50
COMPACT, FILTER-TYPE TRANSMITTER

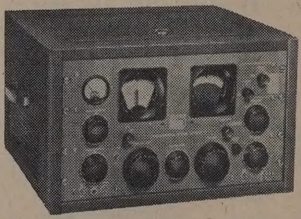


The "Fabulous-50" offers a new concept in transmitter design. Built to provide every feature you have ever wanted, this unit is conservatively rated at 130 watts Two-Tone P.E.P. and CW input. The HX-50 covers all amateur bands 160 to 10 meters. Significant overlap of internal VFO ranges is provided by crystal or external VFO operation. Slide rule dial has band-in-use indication and is calibrated every 10 KC. Readability to approximately 2 KC. Stability after warmup is less than 250 cps.

$449.50
Amateur Net

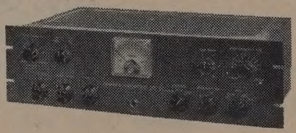
NEW INTERCONNECTING CABLE HARNESS

Hammarlund eliminates the fuss and mess of connecting the HX-50 transmitter to either the HQ-170A or HQ-180A receivers. Systems sockets at the rear of these three units, plus the interconnecting cable, automatically integrate transmitter and receiver functions.



SP-600
COMMUNICATIONS RECEIVER

A commercial/military quality receiver tuning from 540 KCS to 54 MCS in six bands. Operation on any one of 6 crystal controlled fixed frequencies. Stability .001% at 54 MCS. Extremely high image rejection. Ideal for diversity or point-to-point reception. Also available in other frequency ranges for laboratory, military, or communications reception. Price range from $1140.00 up—dependent on frequency ranges and features desired.



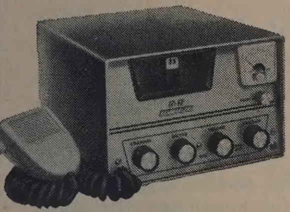
SPC-10
SSB CONVERTER

Self contained unit for conversion of any standard communications receiver having an IF frequency of 450 to 500 KCS—but especially adapted for use with the Hammarlund SP-600. Professional quality SSB and new selectivity performance on AM-MCW. Selectable 1, 2 or 3 KC bandwidth per sideband. 0.5, 2, 4 or 6 KC double sideband.

$375.00
Amateur Net

HAMMARLUND

CITIZENS BAND EQUIPMENT



CB-23

Receive or Transmit

23 CB Channels

All Crystal Controlled

The ULTIMATE in CB transceivers. The compact CB-23 features crystal controlled accuracy on all 23 Citizen Band Channels —transmit or receive. Receiver frequency *only* can be varied ±3KC by means of a vernier tuning control on the front panel. One low price includes everything needed for mobile or base station use: Every crystal — Mobile Mounting Frame — Microphone — Cables for both 115v. AC and 12v. DC Operation — Built-in S-Meter — Noise Limiter and Squelch — THERE ARE NO EXTRAS . . . all you need to be on-air is the antenna.

- **CB CHANNELS COVERED**
  23 RECEIVE } Both functions crys-
  23 TRANSMIT } tal controlled
  (All crystals supplied)
- **S-METER**—Both for transmitting and receiving indication.
- **POWER SUPPLY**—Dual—115v. 60 cy. AC, 12v DC Interchangeable. No modification required. Separate cables for each power source supplied.

RECEIVER ONLY

- **±3 KC VERNIER TUNING CONTROL**—(No effect on transmit frequencies)
- **DUAL CONVERSION** — Superheterodyne using 262 KC last IF for high selectivity.
- **BANDWIDTH**—4 KC at 6 db—16.5 KC at 40 db.
- **SENSITIVITY**—1 µv input will produce 1 watt audio output.
- **SIGNAL-TO-NOISE RATIO**—1 µv for a 10: 1 signal-to-noise ratio.
- **SQUELCH**—Adjustable.
- **NOISE LIMITER** — Highly effective self-adjusting series type.
- **AUDIO OUTPUT**—2½ watts to built-in PM speaker.
- **HEADPHONE JACK** — For personal listening.

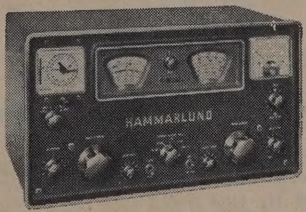
TRANSMITTER ONLY

- **POWER OUTPUT**—2½ watts minimum over complete range of 23 channels for legal input of 5 watts.
- **MODULATION**—100% assured—due to 4 watts of audio power capability.
- **MICROPHONE**—High quality ceramic push-to-talk type.

$249.50 Net

NEW HQ-105 TR

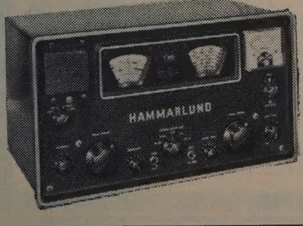
CITIZEN-HAM BAND TRANSCEIVER WITH GENERAL COVERAGE RECEIVER



Citizens band transceiver with built-in provision for ham band operation. Five watt input transmitter, 100% modulation — for CB or 10 Meter operation. Receiver continuously tunable from 540 KCS to 30 MCS. Direct dial calibrated electrical bandspread. Dial markings every 10 KCS on 80, 40, and 20 meter bands; every 20 KCS on 15 meter band; and every 50 KCS on 10 meter band. Q-multiplier. BFO. Auto-Response. Automatic noise limiter. Eleven tube transceiver design.

$219.50 Net

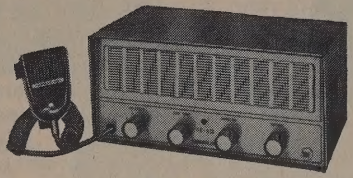
24-hour clock timer optional ....**$10.00** Extra



HQ-105 TRS

Identical to HQ-105 TR except that a speaker is installed in the area provided for the 24 hour clock timer.

$224.50 Net



ALL NEW! HAMMARLUND CB-Six

The Hammarlund CB-Six citizens band transceiver has been specifically designed for commercial and industrial citizens band communications. This dependable, built-to-last rig features six crystal controlled channels for receive and transmit, and a built-in power supply which provides 12 volt DC and 117 volt AC for both mobile and/or base station use.

- **CB CHANNELS COVERS**
  6 RECEIVE } Both functions crys-
  6 TRANSMIT } tal controlled
  (Two crystals supplied)
- **POWER SUPPLY**—Dual—115v. 60 cy. AC, 12v DC Interchangeable. No modification required. Separate cables for each power source supplied.

RECEIVER ONLY

- **±3 KC VERNIER TUNING CONTROL**—(No effect on transmit frequencies)
- **DUAL CONVERSION** — Superheterodyne using 262 KC last IF for high selectivity.
- **BANDWIDTH**—3.3 KC at 6 db—16.8 KC at 40 db.
- **SENSITIVITY**—1 µv input will produce 1.75 watts audio output.
- **SIGNAL-TO-NOISE RATIO** — 0.75 µv for a 10: 1 signal-to-noise ratio.
- **SQUELCH**—Adjustable, Positive Acting, high sensitivity.
- **NOISE LIMITER**—High effective self-adjusting series type.
- **AUDIO OUTPUT**—3 watts to built-in PM speaker.
- **HEADPHONE JACK**—For personal listening—cuts out internal speaker—may be used or a remote speaker.

TRANSMITTER ONLY

- **POWER OUTPUT**—3 watts minimum over complete range of 6 channels for legal input of 5 watts.
- **MODULATION** — 100% assured—due to 4 watts of audio power capability.
- **MICROPHONE**—High quality ceramic push-to-talk type.

- **NET WEIGHT:** 14 lbs. (including microphone and both sets of power cables)
- **DIMENSIONS:** 5¼″H, 12″W; 6¾″D.

$179.50 Net

OCT-X

8 CHANNEL PUSH BUTTON CB SELECTOR

Instantly converts HQ-105 TR transmitter to 8 crystal, 8 channel selectable frequencies. Mount-in-a-minute design permits mounting to top or either side of unit. Push button design. Completely eliminates annoyance and possible discourtesy of going through busy channels with a live transmitter. Simple plug-in construction permits instantaneous crystal replacement. Three set of gummed-back channel markers are supplied covering the entire range of CB channels.

$15.95 Less crystals

SPEAKERS

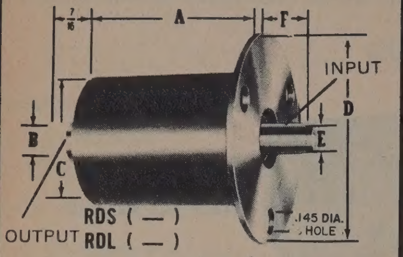
S-100 speaker for use with HQ-100A, HQ-110A, and HQ-105-TR
$14.95 Amateur Net

S-200 speaker for use with HQ-145-X, HQ-170A, HQ-180A, HQ-180AX
$19.95 Amateur Net

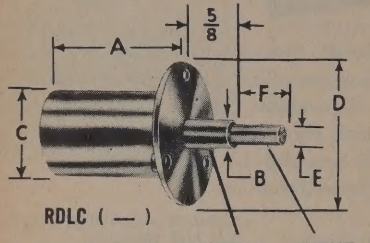
© U.C.P., Inc.

Net

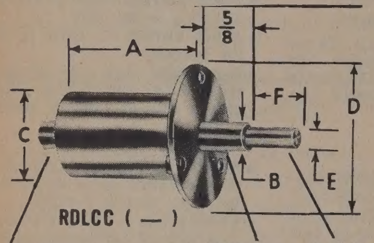
JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK



RDS (—)
RDL (—)



RDLC (—)



RDLCC (—)

RATIO DRIVES

for FINE INSTRUMENT AND MACHINE CONTROLS

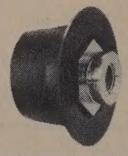
Ball Bearing Type **Compact, durable, exceptionally smooth action**

These unique ratio drives employ precision ball bearings. Used for rotary control of components in instruments, they provide unexcelled smooth motion. Ruggedly built, permanently sealed and lubricated, JAN Ratio Drives accommodate applications where miniaturization is essential.

Input and output shafts of these units operate in the SAME DIRECTION. Types "RDL" and "RDS" provide "in-line" input-output shafts. Type "RDLC" is supplied with **concentric** shafts whereby the output envelopes the input shaft. An added feature of type RDLCC is the output shaft in the rear. The front concentric can be used as a coarse tuning (1:1 ratio to the output in the rear) and the small diameter shaft in the front can be used for fine tuning.

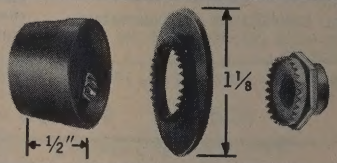
CAT. No.	RATIO	A	B O.D.	B I.D.	C	D	Input Shaft E	F	Bolt-Mtg. Dia.
RDS-1	2.70-1	3/4	—		5/8	1 5/16	1/8	—	31/32
RDS-2	7.28-1	31/32	—		5/8	1 5/16	1/8	—	31/32
RDS-3	19.65-1	1 7/32	—		5/8	1 5/16	1/8	—	31/32
RDL-1	2.66-1	1	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDL-2	7.08-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDL-3	18.80-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDLC-1	2.66-1	1	3/8	1/4	1 1/8	1 13/16	1/4	1 1/2	1 15/32
RDLC-2	7.08-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLC-3	18.80-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	23/32	1 15/32
RDLCC-1	2.66-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLCC-3	17.00-1	2 43/64	3/8	1/4	1 3/16	1 55/64	1/4	11/16	1 15/32

KNOB RATIO DRIVE
(9 to 1)
Cat. No. KRD-11
(plain gripping surface)
Cat. No. KRD-12
(knurled gripping surface)



Exploded view shows engineered miniature gear system, to permit precise, fine tuning of controls. As shown, 9 to 1 ratio. Other ratios designed to specifications.

Brass gears; black anodized aluminum knob and dial. Available with knurled or non-knurled outside knob.

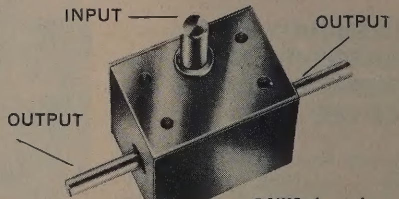


RIGHT ANGLE RATIO DRIVES

Versatile, miniaturized, right angle rotary controls.

Featuring dual output stainless steel shafts at right angles to input, these engineered drives provide an ideal type of instrument control. Available with matched bevel or worm gears covering a wide range of ratios.

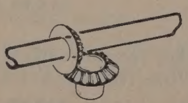
JAN'S RIGHT ANGLE DRIVES are especially useful for handling spring or gravity-loaded components since the output shaft automatically locks in any desired position yet remains free for smooth adjustment by the input shaft. Assembled in dust-proof housings, the gears are permanently pinned in place on stainless-steel shafts mounted in oilite bearings and held under constant pressure.



RAWG (—)
RABG (—)

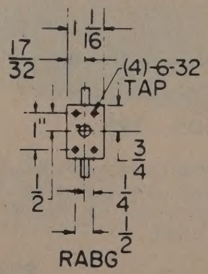
BEVEL GEAR RIGHT ANGLE DRIVES

CAT. No.	RATIO	"A"
RABG-1	1:1	7/8
RABG-2	2:1	7/8
RABG-3	3:1	7/8

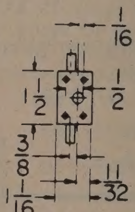


WORM GEAR RIGHT ANGLE DRIVES

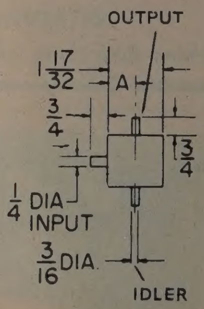
CAT. No.	RATIO	"A"
RAWG-1	5:1	3/4
RAWG-2	10:1	3/4
RAWG-22	12:1	3/4
RAWG-3	20:1	3/4



RABG



RAWG



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JAN HARDWARE MANUFACTURING COMPANY, INC.

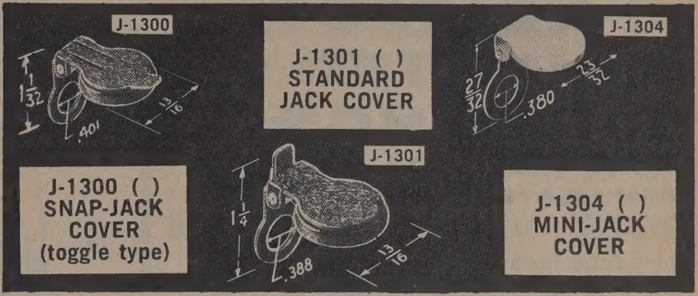
LONG ISLAND CITY 1, NEW YORK

JACK COVERS (TRIMMER COVERS)

These sturdy Jack Covers fit jack or panel bushings and are used to keep out dust and moisture as well as to prevent inadvertent disturbance of control settings. Outer surfaces are finished in standard colors of baked enamel.

NOTE: No. J-1300 (SNAP-JACK) is made with toggle action. It snaps to open or shut position and will remain open until snapped shut. No. J-1304 is a miniaturized Jack Cover similar to a No. J-1301 but without thumb lift.

To Order Colors: Specify:
(-1) Black Wrinkle; (-2) Smooth Gray; (-3) Smooth Olive; (-4) Smooth Black. Other colors on request.
Example: Jack cover, color black wrinkle, order as J-1300(-1).



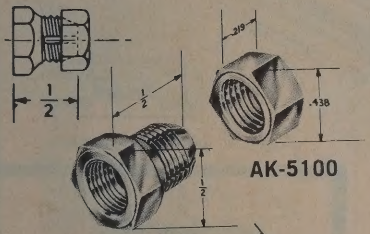
SHAFT LOCKS

Cat. No. AK-5100 thru No. AK-5107
Split-bushing, collet type locks.

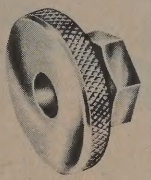
Used to securely hold the shaft of volume controls, capacitors, switches, etc. in position. Body and lock nut are brass—nickel plated. Supplied with nickel plated internal tooth lock washers, upon request.

SPLIT BUSHING TYPE For ¼″ shafts

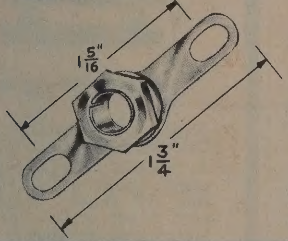
AK-5100	Standard Lock Nut
AK-5101	Panel Mount Type
AK-5106	Knurled Shaft Lock (1″ O.D. Knurl)
AK-5107	Lock Nut (Round Head)



AK-5100

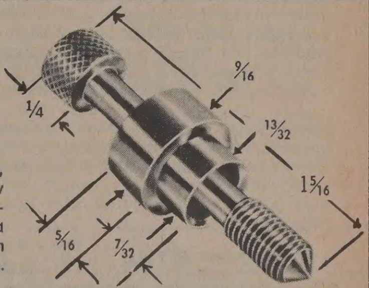


AK5106



AK5101

AK-5107



CAPTIVE SCREW & NUT ASSEMBLY

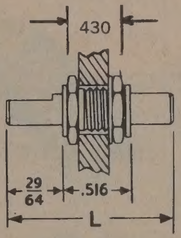
Cat. No. Ap-711

Consists of a slotted, knurled thumb screw made of corrosion resistant steel bar, and a nickle-plated (on brass) panel insert.

PANEL BEARING & SHAFT ASSEMBLIES

Cat. No. AP-15350 series

Used for rotary control of components. Passivated stainless steel shaft is ¼″ dia. with one end flattened for attaching to knob control by set screws. Supplied completely assembled with two retaining rings, jam nut with lock washer and nickel plated, brass panel bearing. Fits panels up to 3/16″ thick; mounts in 13/32″ dia. hole.

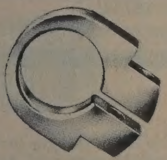


STAINLESS STEEL

AP 15350- ( )

AP 15350

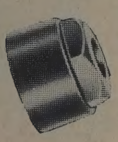
Cat. No.	Item	"L" Shaft Length
AP 15350	Panel Bearing	
AP 15350-1	Panel Bearing & Shaft Assembly	1 5/16″
AP 15350-2		3″
AP 15350-3		6″



"NO-MAR" CLAMPS

Set screw does not touch shaft.
Ideal for knob and gear applications.
Variety of sizes available.

NYLON SHAFT LOCK Cat. No. AK-1050

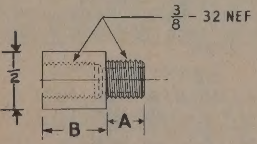


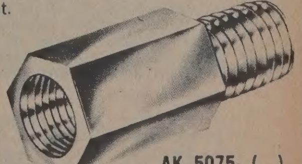
One-piece, black nylon; fits standard ⅜″-32 thread of shaft bushing. Friction grip holds ¼″ shaft to prevent accidental or vibrational disturbance of control settings. Adjustment for semi-permanent locking, provided.

BUSHING EXTENDERS Cat. No. AK-5075-1 thru No. AK-5075-11

Permit staggered mounting of components having ¼″ shafts, behind a panel. Useful in meeting problems of space economy. Supplied in nickel plated brass.

Note: Extender No. AK-5075-9 is a locking (collet) type and is supplied by JAN with lock nut.

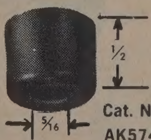




AK 5075- ( )

Cat. No.	"B"	"A"	Cat. No.	"B"	"A"
AK5075-1	5/8″	3/8″	AK5075-6	1 5/8″	1/4″
AK5075-2	5/8″	1/4″	AK5075-7	1 7/16″	3/16″
AK5075-3	5/8″	3/16″	AK5075-8	1 1/16″	1/4″
AK5075-4	3/4″	1/4″	AK5075-9	11/16″	1/2″
AK5075-5	2 1/4″	1/4″	AK5075-10	1 21/64″	7/16″
			AK5075-11	55/64″	7/16″

CHASSIS & CABINET BUMPER Cat. No. AK574 ( )



Cat. No. AK574

Durable, low-friction polyethylene. Guards against scuffing. Supplied in either black or russet brown, with recessed hole for screw or bolt usage.

To Order Colors:
Black, specify (4); Brown, specify (7). Other colors on request.

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JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

U.S. PATENT NO. 2,681,378

HI-VOLTAGE INSULATED COUPLINGS

MEETS MIL SPECS: TEMPERATURE - HUMIDITY SHOCK - VIBRATION - FUNGUS

HI-VOLTAGE INSULATED COUPLINGS
15 KV Breakdown 10 inch pounds torque
Series No. AK-5079 & No. AK-5164

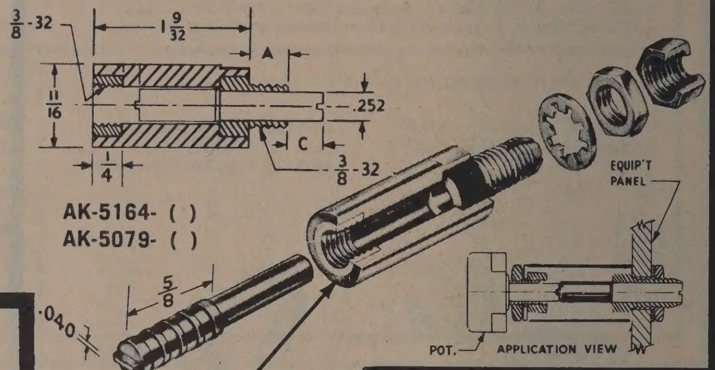
Engineered with stainless steel shaft and precision, screwdriver tip molded-integrally with Mineral-Filled-Melamine in accordance with Military Specifications. Completely shock, vibration and fungus proof, they operate with ease over an ambient temperature range of —75 to +175° C. Supplied complete with nickel plated mounting hardware.

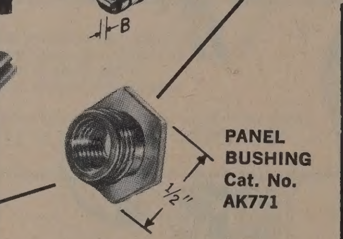
Stainless steel screw driver tip fits all standard slotted shafts (potentiometer, etc.) without need for further machining. Ideally suited to adjust high voltage controls thus protecting operating personnel against danger. They are also used to reduce ground capacitance on other types of sensitive instrument controls.

***Cat. No. 5144** **10 KV Breakdown 15 inch pounds torque**

This coupling is the same dimensionally as AK-5079, AK-5164 except that the body and insulated portion of shaft is molded in reinforced fiberglass (CYMEL) per MIL Spec. MIL-M-14E to withstand a minimum of 15 inch pounds torque. Can be used for switches, where greater torque is needed.

	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-5144-X-2	3/8″	3/16″	Slotted	15/32″
	AK-5144-B-2	3/8″	1/16″	Slotted	15/32″
	AK-5164-X-1	3/8″	3/16″	Slotted	5/16″
	AK-5164-B-1	3/8″	1/16″	Slotted	5/16″
	AK-5164-X-2	3/8″	3/16″	Slotted	15/32″
	AK-5164-B-2	3/8″	1/16″	Slotted	15/32″
	AK-5164-X-3	3/8″	3/16″	No Slot	15/16″
	AK-5164-B-3	3/8″	1/16″	No Slot	15/16″
	AK-5164-X-4	3/8″	3/16″	No Slot	1 7/16″
	AK-5164-B-4	3/8″	1/16″	No Slot	1 7/16″
	AK-5164-X-5	3/8″	3/16″	Slotted	Minus 1/16″
	AK-5164-B-5	3/8″	1/16″	Slotted	Minus 1/16″
WITH LOCKING TYPE BUSHING	AK-5079-X-1	9/16″	3/16″	Slotted	1/8″
	AK-5079-B-1	9/16″	1/16″	Slotted	1/8″
	AK-5079-X-2	9/16″	3/16″	Slotted	9/32″
	AK-5079-B-2	9/16″	1/16″	Slotted	9/32″
	AK-5069-B-2 *	9/16″	1/16″	Slotted	9/32″





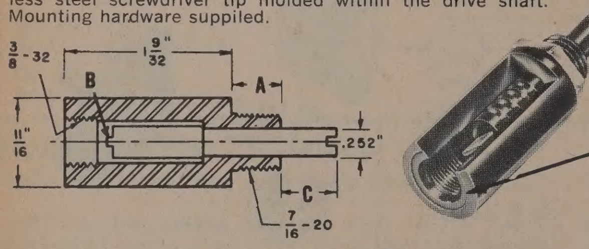
PANEL BUSHING
Cat. No. AK771

Used as an adapter with high voltage insulated couplings to accommodate miniature (1/8″ shaft) potentiometers. External thread 3/8x32. Internal thread 1/4x32.

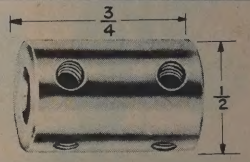
COMMERCIAL INSULATED COUPLINGS

30 KV Breakdown **Series No. AK-4160**
10 inch pounds torque **For TV and Industrial Applications**

These handy couplings, capable of withstanding 30 KV, are made of high grade Bakelite throughout except for the stainless steel screwdriver tip molded within the drive shaft. Mounting hardware suppiled.



	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-4160-X-1	3/8″	3/8″	No Slot	1/8″
	AK-4160-B-1	3/8″	3/16″	No Slot	
	AK-4160-X-2	3/8″	3/8″	Slotted	1/2″
	AK-4160-B-2	3/8″	3/16″	Slotted	

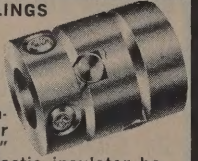


SHAFT COUPLING
Cat. No. AP-15150

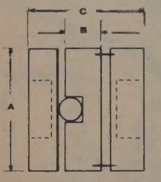
A rugged, nickel plated brass coupling for joining two 1/4″ shafts. Supplied with 4 set screws for firm attachment to shafts.

Cat. No. AP-15151
Same as above, 2 set screws.

AUTOLINEAR (INSULATED) SHAFT COUPLINGS
2.5 - 5KV BREAKDOWN
Universal, miniature, self-aligning
Cat. No. AP-1530 & AP-1538



A unique series of shaft couplers that accommodate either similar or disimilar 1/8″, 3/16″ or 1/4″ shafts. Permits offset misalignment to 1/16″ and 5° angle. Operates free of backlash. Plastic insulator between precision cast aluminum hubs. Each hub has 2 set screws for firm attachment. Alodine finish.



PART NO.		DIA. HOLE	"A"	"B"	"C"
AP-1530	-2	1/8″	1/2″	15/64″	27/32″
	-3	3/16″			
	-4	1/4″			
AP-1538	-2	1/8″	1/2″	27/64″	1 1/64″
	-3	3/16″			
	-4	1/4″			

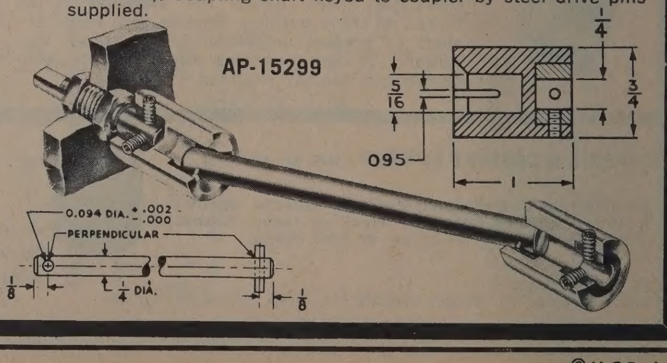
TYPICAL PART NUMBERS:
AP-1530-34
AP-1538-22

VOLTAGE RATING:
AP-1530 — 2500 VOLTS
AP-1538 — 5000 VOLTS

OFFSET-SHAFT (INSULATED) COUPLINGS
10 KV Breakdown—±30° Offset
Cat. No. AP-15299

Highly versatile, durable insulated couplings made with single-unit, molded Nylon-to-metal insert construction. Application requires two couplings—permits smooth control for two parallel shafts offset from each other up to 30 degrees at separations greater than 3 inches. Secured to component and control shafts by 2 set screws.

Note: Coupling is accomplished with a 1/4″ shaft of any length (not furnished). Coupling shaft keyed to coupler by steel drive pins supplied.



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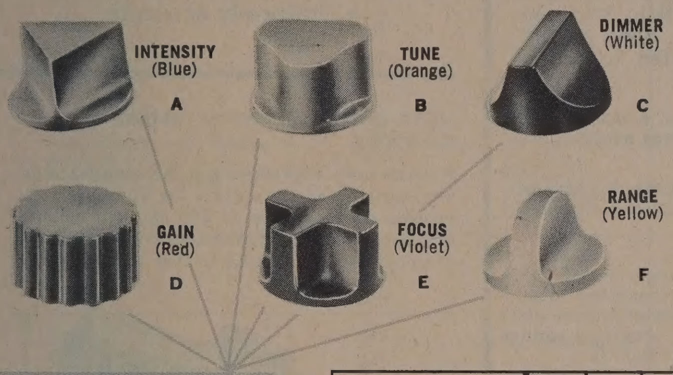
DELUXE INSTRUMENT KNOBS

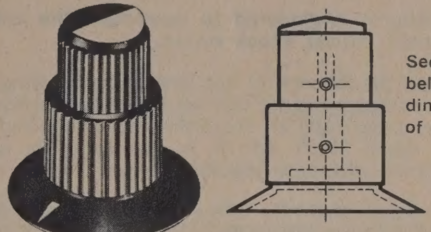
MEETS PERFORMANCE OF MIL-STD-242D (SHIPS) AND PROPOSED MS 91528C

JAN's Standard Instrument Control Knobs for use with electronic equipment. Molded of JAN's KR23 plastic, these knobs will withstand the extreme environmental conditions of MIL-E-16400. Either knob-cap or entire knob is available in a variety of colors, in MATTE (M) or GLOSSY (G) finish. Complete range of sizes . . . send for catalog.

TACTILE SHAPE CONTROL KNOBS

Expressly made for both visual and tactile function identification. Each Tactile knob is produced in the standard recognizable color identified with its configuration. Available in other colors on special order.
See column—below, for applicable tactile shape.



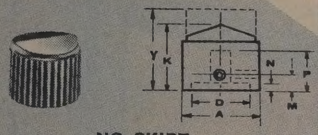


See diagrams below for dimensions of each knob.

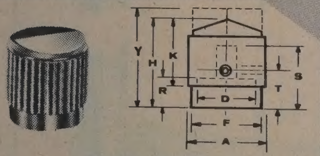
DUAL KNOBS FOR CONCENTRIC CONTROLS

APPROVED FOR USE
MIL STD 242D and MS 91528C

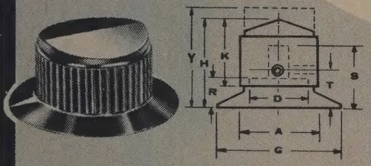
Molded of JAN's KR23 thermo-setting plastic, these "piggy-back" knobs are used with dual concentric potentiometers and in other similar applications. Meet performance of military specs above.



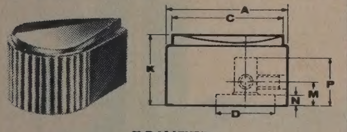
NO SKIRT



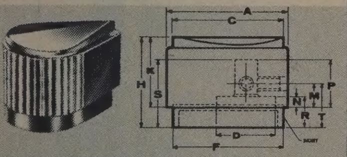
PLAIN SKIRT



DIAL SKIRT



POINTER



POINTER WITH SKIRT

DIMENSIONS

PART NO.							A	D	F	G	H	K	M	N	P	R	S	T	Y
	5	1	A				.505	.302				.509	.158	.026	.408				
	7	1	A				.708	.486				.626	.158	.026	.406				.915
	9	1	A				.911	.645				.798	.255	.114	.521				1.171
	5	1	B				.505	.302	.450		.660	.509				.181	.563	.324	
	7	1	B				.708	.486	.670		.805	.626				.188	.568	.340	1.100
	9	1	B				.911	.654	.826		1.027	.798				.323	.730	.484	1.399
	5	1	C				.505	.302		.885	.660	.509				.181	.563	.324	
	7	1	C				.708	.486		1.135	.805	.626				.188	.568	.340	1.100
	9	1	C				.911	.645		1.510	1.027	.798				.323	.730	.484	1.399
	5	2	A	SPECIFY AS REQUIRED			.750	.406				.505	.158	.026	.402				
	7	2	A				1.038	.486				.619	.187	.026	.406				
	9	2	A				1.344	.645				.796	.255	.114	.555				
	5	2	B				.750	.406	.669		.655	.505			.402	.177	.563	.324	
	7	2	B				1.038	.486	.940		.791	.619			.406	.193	.573	.364	
	9	2	B				1.344	.645	1.251		1.015	.796			.555	.328	.796	.479	

1 TOP (Color or Tactile)	2 BODY DIA.	3 BODY STYLE	4 SKIRT	5 SHAFT HOLE DIA.	6 FINISH	7 COLOR
0=NO TOP	5=.51	1=ROUND	A=NONE	2=128	M=MATTE	A=BLACK
*T=STANDARD	7=.72	2=POINTER	B=PLAIN	3=190	G=GLOSSY	B=RED
A=(INTENSITY—Blue)	9=.90		C=DIAL W/ POINTER	4=253		C=GREY
B=(TUNE—Orange)						D=GREEN
C=(DIMMER-White)						E=YELLOW
D=(GAIN—Red)						F=PURPLE
E=(FOCUS—Violet)						G=BLUE
F=(RANGE—Yellow)						H=WHITE
						J=ORANGE

TYPICAL PART NUMBERS

91C4GA=.90 Dia./Round/Dial/¼"/Glossy/Black
A71B4MA=Triangle Top Blue/.72/Round/Plain/¼"/Matte/Black
BA71B4MA=Triangle Top Red/.72/Round/Plain/¼"/Matte/Black
BT71B4HA=Standard Top Red/.72/Round/Plain/¼"/Matte/Black
071B4MA=No Top/.72/Round/Plain/¼"/Matte/Black
(Specify whether Hole is drilled thru for Dual Knob Mounting)**

***—Specify if .127, .190, .250 hole is required for dual mounting*

*NOTE: *T—Preceded by color code (BT—would mean Standard RED top)*

IF WHITE DOTS ARE REQUIRED—ADD SUFFIX WD TO CATALOG NO.
FOR SPECIAL KNOBS—GIVE FULL DESCRIPTION OR SKETCH WITH ORDER.

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JAN HARDWARE

MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

JOLTA SHOCK TEST MACHINES

For reproducible impact-shock test pulses

Four models engineered to reproduce the entire spectrum of all significant impact shock waves.

Designed for laboratory and production testing of light to medium weight components as well as complete instrumentation. Produced to meet practically all requirements of common Mil. Spec. qualification tests. Each JOLTA is electronically calibrated to certify compliance with test specifications.

JOLTA — Bench Model No. 1001 — Produced to meet JAN-S-44 & Mil-Std. 202 (202A). Standard model range-30-120G. Accessory plate springs available for test pulses to 500 G.

JOLTA — Bench Model No. M-500 — Produced to meet Mil-T-12679A (Sig. C) and Mil. T-19500A. Standard model range —200 to 1000 G at 1.0 millisecs. Alternate anvil and pad kits available to order.

JOLTA—Floor Model Nos. F-3003-C1, C2, C-3—Designed for high impact shock testing for small and moderate-sized components. Precision-machined magnesium casting utilized for higher shock amplitudes. Typical tests with these units 50 to 5000 G at .2 to 11.0 millisecs. For high impact testing, accessory springs and twin anvil combinations yield impulses of 0.2 millisecs to 5000 G.

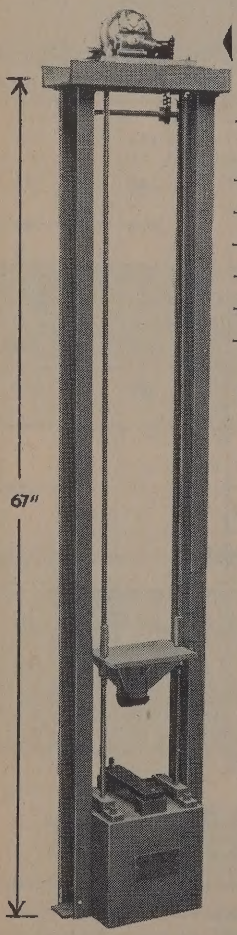
Note: New design allows for quick changeovers of accessories.

FEATURES

- Economical
- Simple to operate
- Rugged
- Uniformly accurate

JOLTA UNIVERSAL SHOCK TESTERS
No. S-200-V

A functionally engineered test machine for large components and complete instrumentation. Accepts specimens up to 200 lbs. and volume of 2 cubic feet. Standard model provides pulses of from 20 to 250 G at 3.0 to over 30.0 millisecs.

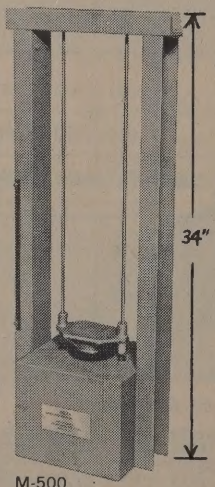


F-3003-C

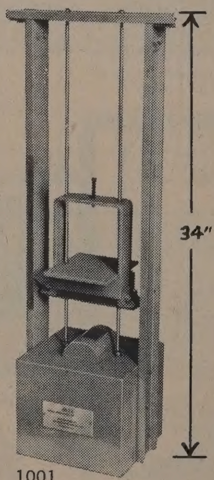
For Production Testing, JAN's Jolta Shock Test Machines can be automated for continuous operation.

SPECIFICATIONS — JOLTA SHOCK TESTERS

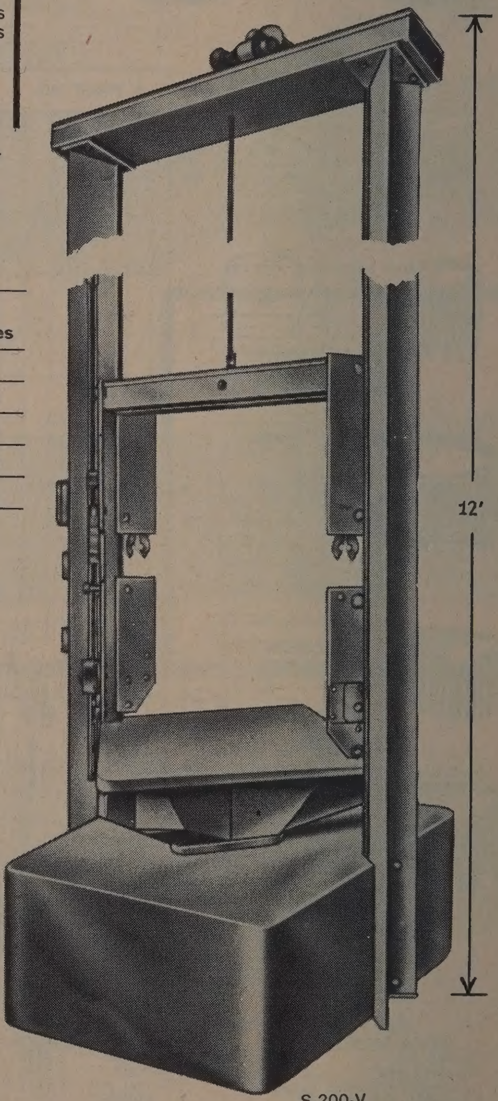
Model No.	Carriage Volume	Test Weight	"G" Ranges
1001	5" x 5" x 7"	0-12 lbs.	25-500
M-500	3" cube	0-2.0 lbs.	100-1000
F-3003-C-1	5" cube	0-12 lbs.	50-1500
F-3003-C-2	5" cube	0-4.0 lbs.	350-5000
S-200-V	2 Foot cube	0-200 lbs.	20-250



M-500



1001



S-200-V

Free engineering services available to customers where adaptation or conversion of standard machines are needed to meet Mil. Spec. changes or other special needs.

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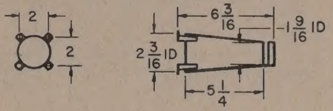
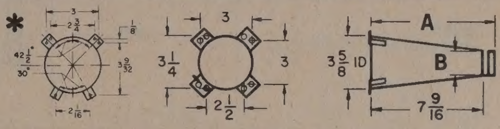
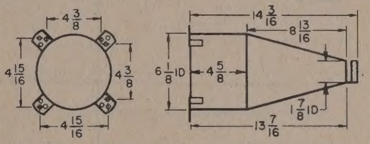
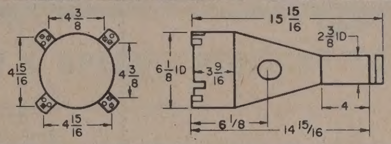
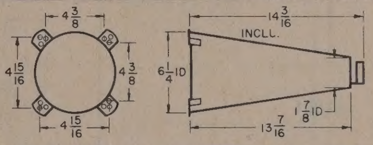
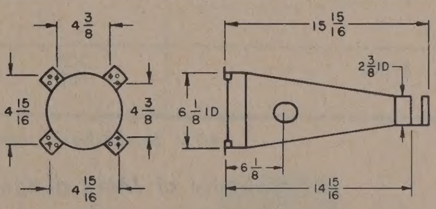
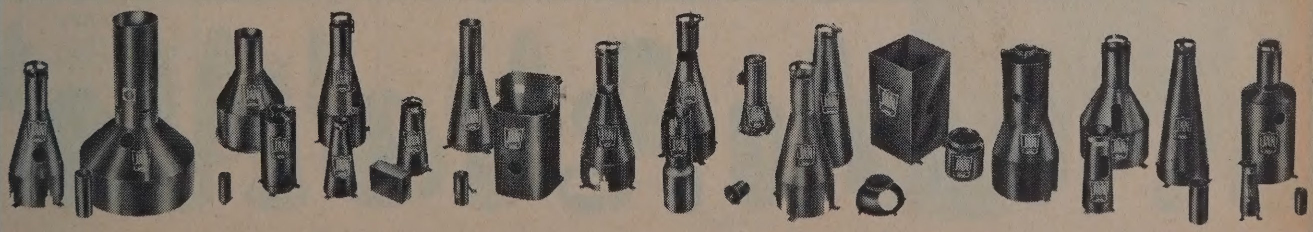
JAN'S MAGNETIC SHIELDS are made of Mu-Metal and are hydrogen annealed by a special process to assure optimum orientation of the molecular structure of the alloy for best magnetic shielding. JAN'S MAGNETIC SHIELDS prevent distortion and intensity modulation of the electron beam due to stray magnetic fields.

In addition, the use of these shields protect personnel against the dangers of accidental tube breakage. Mounting holes are tapped for No. 6-32 screws as shown. These shields are designed to fit JAN'S standard bezels as listed below. See following pages for specifications on JAN'S BEZEL ASSEMBLIES.

SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S2001 **S2001-1**	902 2AP 2BP	**CP1110P2** **CP1120P2**	 2 2 6 3/16 1 9/16 ID 2 3/16 ID 5 1/4
S3001 adaptable for edge-lighting graticule using S3010 with Bezel CP1428✱	3RP 3RPA	**CP1328-P-1** **C1427-1** **CP1429-1** **CP1328-P2** **CP1427-2** **CP1429-2** **CP3430-1** **CP3430-2**	 ✱ 3 2 3/4 1/8 42 1/2° 30° 3 9/32 2 1/16 3 3 1/4 3 2 1/2 A B 3 5/8 ID 7 9/16A=8¼ B=1⅝
S3003 **S3003-1**	3KP 908A 3AP	CP1328-P1 CP1427-1 CP1429-1	**Same type as S-3001, except** A=10⅛ B=2
S3004 adaptable for edge-lighting graticule using S3012 with Bezel CP1428 ✱	3BP 3JP 3ACP	Same as S3003 Same as S3005	**Same type as S-3001, except** A=8⅝ B=2⅜
S3005 adaptable for edge-lighting graticule using S3008 with Bezel CP1428✱	3WP	CP1328-P2 CP1427-2 CP1429-2	**Same type as S-3001, except** A=10⅝ B=1⅞
S5001	5UP	**CP1465** **CP13584-1** **CP13549-1** **CP13595-1** **CP19495-1** **CP446-11** **CP446-22**	 4 3/8 4 15/16 4 3/8 4 15/16 14 3/16 8 13/16 6 1/8 ID 4 5/8 1 7/8 ID 13 7/16
S5002 adaptable for edge-lighting	5BP 5CP 5ABP 5ADP	Same as S5001 Same as S5006	 4 3/8 4 15/16 4 3/8 4 15/16 15 15/16 2 3/8 ID 6 1/8 ID 3 9/16 4 6 1/8 14 15/16
S5003	5UP	CP1465 CP13584-1 CP13549-1 CP13595-1 CP19495-1	 4 3/8 4 15/16 4 3/8 4 15/16 14 3/16 INCLL. 6 1/4 ID 1 7/8 ID 13 7/16
S5005 adaptable for edge-lighting	5AQP 5ABP 5ADP	**CP1465-2** **CP13549-2** **CP13584-2** **CP13595-2** **CP19495-2** **CP446-11** **CP446-22**	 4 3/8 4 15/16 4 3/8 4 15/16 15 15/16 2 3/8 ID 6 1/8 ID 6 1/8 14 15/16

When ordering, be sure to specify CRT type number. Anode openings provided, where required.



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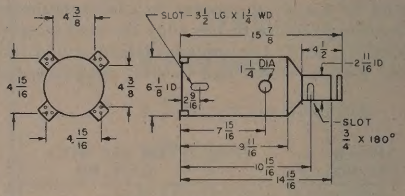
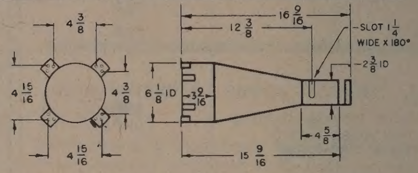
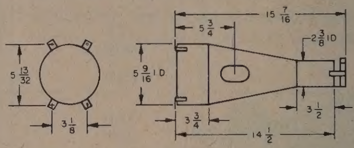
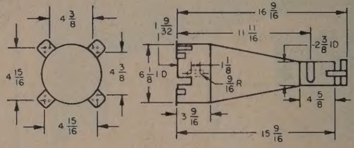
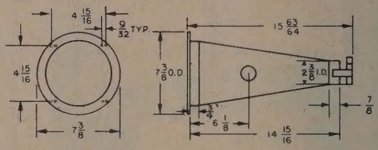
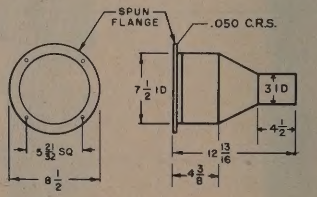
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S5006 adaptable for edge-lighting	5RPA 5 AWP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	 $4\frac{3}{8}$ $4\frac{15}{16}$ $4\frac{3}{8}$ $4\frac{15}{16}$ SLOT – $3\frac{1}{2}$ LG X $1\frac{1}{4}$ WD $15\frac{7}{8}$ $4\frac{1}{2}$ $2\frac{11}{16}$ ID $1\frac{1}{4}$ DIA $6\frac{1}{8}$ ID $2\frac{9}{16}$ SLOT $\frac{3}{4}$ X 180° $7\frac{15}{16}$ $9\frac{11}{16}$ $10\frac{15}{16}$ $14\frac{15}{16}$
S5008 adaptable for edge-lighting	5AMP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	 $4\frac{3}{8}$ $4\frac{15}{16}$ $4\frac{3}{8}$ $4\frac{15}{16}$ $16\frac{9}{16}$ $12\frac{3}{8}$ SLOT $1\frac{1}{4}$ WIDE X 180° $2\frac{3}{8}$ ID $6\frac{1}{8}$ ID $3\frac{9}{16}$ $4\frac{5}{8}$ $15\frac{9}{16}$
S5017 adaptable for edge-lighting	5ABP 5ADP	CP1465-2 CP19636-2	 $5\frac{13}{32}$ $3\frac{1}{8}$ $15\frac{7}{16}$ $5\frac{3}{4}$ $2\frac{3}{8}$ ID $5\frac{9}{16}$ I D $3\frac{1}{2}$ $3\frac{3}{4}$ $14\frac{1}{2}$
S5019	5BGP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	 $4\frac{3}{8}$ $4\frac{15}{16}$ $4\frac{3}{8}$ $4\frac{15}{16}$ $16\frac{9}{16}$ $1\frac{9}{32}$ $11\frac{11}{16}$ $2\frac{3}{8}$ ID $6\frac{1}{8}$ ID $1\frac{1}{8}$ $\frac{9}{16}$ R $4\frac{5}{8}$ $3\frac{9}{16}$ $15\frac{9}{16}$
S5021	5AQP. 5ABP 5ADP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	 $4\frac{15}{16}$ $\frac{9}{32}$ TYP. $4\frac{15}{16}$ $7\frac{3}{8}$ $15\frac{63}{64}$ $7\frac{3}{8}$ O.D. $2\frac{3}{8}$ I.D. $\frac{3}{4}$ $6\frac{1}{8}$ $14\frac{15}{16}$ $\frac{7}{8}$
S7001	7GP 7JP 7VP	CP7330 CP7375 CP7331 CP7550 CP7420	 SPUN FLANGE .050 C.R.S. $7\frac{1}{2}$ ID 3 ID $4\frac{1}{2}$ $5\frac{21}{32}$ SQ $8\frac{1}{2}$ $12\frac{13}{16}$ $4\frac{3}{8}$
S7002	7CP 7BP	Same as S7001	Same as S 7001, except anode opening provided

All 5" Shields have mounting provisions for edge lighting, except #5021

The service of JAN's design engineers is available to assist you with your Shield & Bezel requirements. We will design and manufacture special Shields & Bezels to customers specifications. Complete facilities for prototype work.

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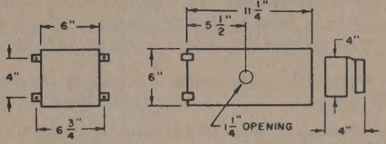
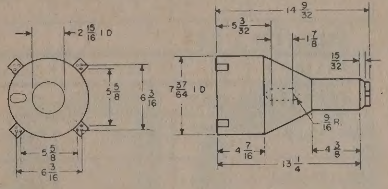
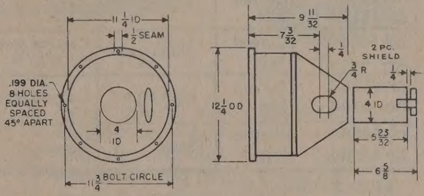
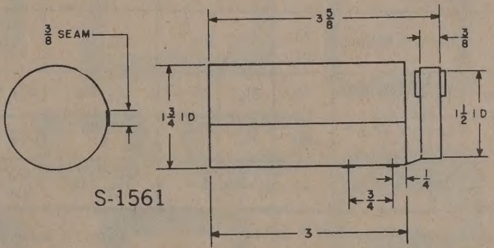
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S7003 (Shield supplied as two separate sections)	7YP3	CP-7550	 6" 4" 6 3/4" 11 1/4" 5 1/2" 6" 1 1/4" OPENING 4" 4"
S7006	7AEP	CP7330 CP7375 CP7331 CP7550 CP7420	 2 15/16 I D 5 5/8 6 3/16 5 5/8 6 3/16 14 9/32 5 3/32 1 7/8 15/32 7 37/64 I D 9/16 R. 4 7/16 4 3/8 13 1/4
S10001	10WP	CP10860	 11 1/4 I.D. 1/2 SEAM .199 DIA. 8 HOLES EQUALLY SPACED 45° APART 4 ID 11 3/4 BOLT CIRCLE 9 11/32 7 3/32 1/4 2 PC. SHIELD 3/4 R 1/4 12 1/4 O.D. 4 ID 5 23/32 6 5/8

When ordering, be sure to specify CRT type number. Anode openings provided, where required.

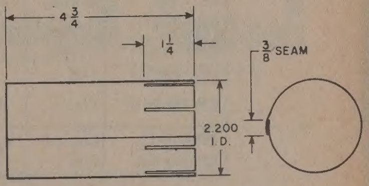
MAGNETIC SHIELDS FOR PHOTO-MULTIPLIER & SPECIAL PURPOSE TUBES

SHIELD	TUBE
S-2003	6903
S-2004	5819 6217 6292 6342 6571 6655
S-2005	6372
S-3015	1197 6363
S-5013	1112
S-5018	1198 6364
S-7009	1238 1287

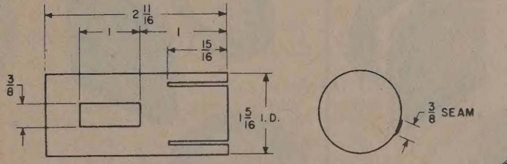
SHIELD	TUBE
S-1091	ICP1
S-1181	929 930 5581 5653 IP39 IP40
S-1500	6291
S-1561	6199 7102
S-1562	931 6323 6328 IP21 IP22 IP28
S-1563	1EP1
S-2002	6810 7264


3/8 SEAM
3 5/8
3/8
1 3/4 I D
1 1/2 I D
3/4
1/4
3

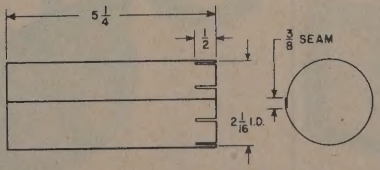
S-1561


4 3/4
1 1/4
3/8 SEAM
2.200 I.D.

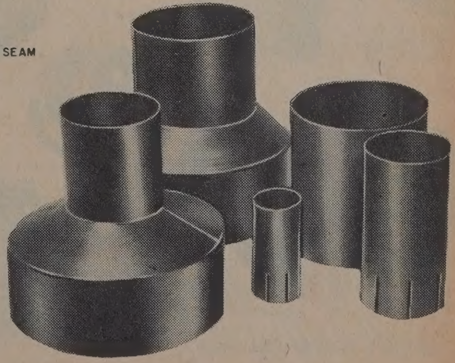
S-2004


2 11/16
1
1
15/16
3/8
1 5/16 I.D.
3/8 SEAM

S-1562


5 1/4
1/2
3/8 SEAM
2 1/16 I.D.

S-2002



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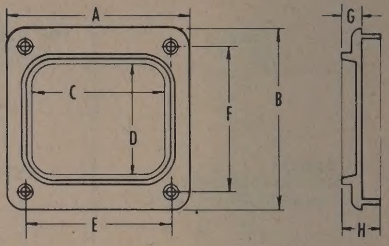
LONG ISLAND CITY 1, NEW YORK



JAN's Bezels enhance the appearance of the instruments on which they are used. These units are functionally designed to provide OPTIMUM UTILIZATION OF THE CRT SCREEN, as well as safety against tube breakage and danger to operating personnel.

JAN Bezel Assemblies are supplied with a **bezel, calibrated graticule,** (where applicable) **light filter** and **CRT cushion.** Bezels are finished in a smooth dull black non-reflecting surface. These units fit JAN Mu-Metal Shields.

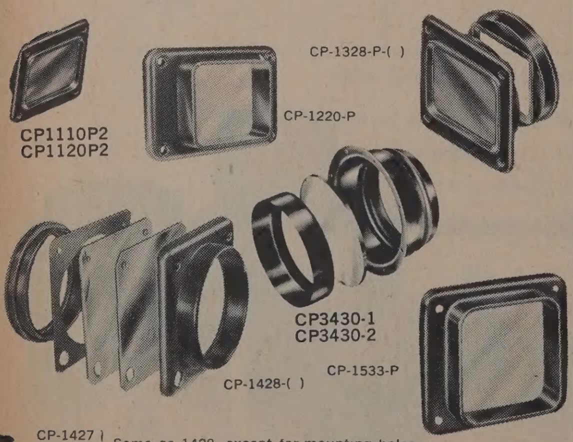
Edge-lit Bezels (E.L.B.A.)**	These Bezels are designed to provide edge lighting of the engraved scale-calibrated graticule by means of pilot lights.
Camera Mount Bezel	These units provide an integral cast mounting flange that fits all standard 3″, 5″ and 7″ CRT cameras.

Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C Visible Area (Bezel) Width	D Visible Area (Bezel) Height	E Mounting Holes Width	F Mounting Holes Height	G- Thickness (Face Only)	H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZELS FOR 2″ C.R.T.														
CP-1110-P-2	Flat	Plastic*	Standard	2 3/16″	2 5/8″	2 5/8″	1 3/4″	1 3/4″	2″	2″	5/16″	7/16″	1 3/4″	1 3/4″
BEZELS FOR 3″ C.R.T.														
CP-1220-P‡	Curved or Flat	Plastic*	Camera Mount	—	4 7/8″	3 1/4″	2 3/4″	2 1/4″	4″	2 1/2″	5/16″	1 1/16″	—	
CP-1328-P-1 CP-1328-P-2	Curved Flat	Plastic*	Standard	3 33/64″	3 3/4″	3 3/4″	2 5/8″	2 3/16″	3″	3″	3/8″	45/64″	2 1/2″	2 1/16″
CP-1427-1 CP-1427-2	Curved Flat	Aluminum	Camera Mount	3 17/64″	4″	4″	2 3/4″ Dia.		3″	3″	5/16″	27/32″	2 25/32″ Dia.	
CP-1428-1** CP-1428-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	3 17/64″	4″	4″	2 3/4″ Dia.		3″	3″	5/16″	27/32″	2 25/32″ Dia.	
CP-1429-1 CP-1429-2	Curved Flat	Aluminum	Camera Mount	3 17/64″	4″	4″	2 3/4″ Dia.		3″	3″	5/16″	27/32″	2 25/32″ Dia.	
CP-3430-1 CP-3430-2	Curved Flat	Steel	Standard	—	4 1/16″ Dia.		3 3/8″ Dia.		3 3/4″	3 3/4″	1 41/64″	1 41/64″	2 25/32″ Dia.	
BEZELS FOR 4″ C.R.T.														
CP-1533-P‡		Plastic*	Camera Mount	3 1/32″	4 3/8″	3 63/64″	3″	3″	4″		1 3/32″	1 3/32″	No Cushion	
BEZELS FOR 5″ C.R.T.														
CP-13549-1 CP-13549-2	Curved Flat	Aluminum	Standard	6.0″	6 1/4″	6 1/4″	4 7/8″	3 3/4″	4 15/16″	4 15/16″	17/32″	1 3/32″	4 1/4″	3 3/16″
CP-13584-1 CP-13584-2	Curved Flat	Aluminum	Camera Mount	6.0″	6 1/4″	6 1/4″	4 7/8″	3 3/4″	4 15/16″	4 15/16″	1 5/32″	1 23/32″	4 1/4″	3 3/16″
CP-13595-1** CP-13595-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	5 7/16″	6 1/4″	6 1/4″	4 7/8″	3 3/4″	4 15/16″	4 15/16″	17/32″	—	4 3/4″ Dia.	
CP-1465 CP-1465-2	Curved or Flat Flat	Steel	Camera Mount	5 9/16″ 5 17/32″	6 3/8″ Dia.		5 35/64″ Dia.		6″	6″	7/8″	7/8″	No Cushion 4 1/2″ Dia.	
CP-19495-1** CP-19495-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	5 7/16″	6 1/4″	6 1/4″	5 1/4″ Dia.		4 15/16″	4 15/16″	1 5/32″	—	4 3/4″ Dia.	
CP-19636-2**	Flat	Aluminum	Camera Mount E.L.B.A.**	5 5/16″	5 7/8″	5 7/8″	4 1/2″ Dia.	3″	4 7/8″	4 7/8″	1 1/4″	—	4 1/2″ Dia.	
CP-446-11 CP-446-22	Curved Flat	Steel	Camera Mount	—	6 9/16″ Dia.		5 9/16″ Dia.		6 5/32″ 6 1/8″	6 5/32″ 6 1/8″	1″	1 19/64″ 1 3/16″	—	

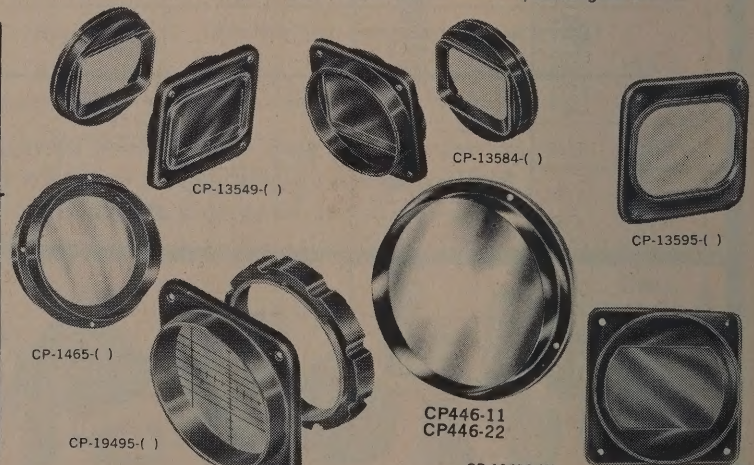
* All Plastic Bezels are furnished in shock resistant plastic, per MIL P-3414

** Edge Lit Bezel Assemblies

‡ Rectangular C.R.T.



CP-1427 }
CP-1429 { Same as 1428, except for mounting holes



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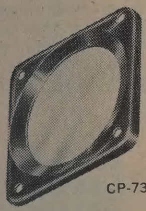
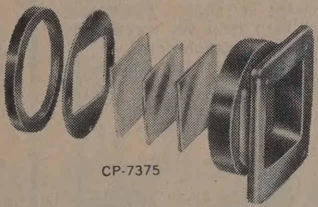
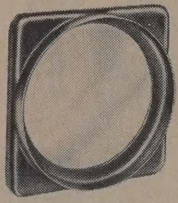
Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C Visible Area (Bezel) Width	D Visible Area (Bezel) Height	E Mounting Holes Width	F Mounting Holes Height	G- Thickness (Face Only)	H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZELS FOR 7″ C.R.T.														
CP-7330-1 CP-7331-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	7 13/32″	7 13/16″	7 13/16″	6 5/16″ Dia.		6 3/16″	6 3/16″	3/4″	3/4″	6 3/8″ Dia.	
CP-7375-1** CP-7375-2**	Curved Flat	Aluminum	E.L.B.A.**	7 13/32″	8″	8″	4 1/2″	4 1/2″	6 3/16″	6 3/16″	1 17/32″	2 29/32″	4 1/2″	4 1/2″
CP-7420-1** CP-7420-2**	Curved Flat	Aluminum	Camera Mount	7 13/32″	7 13/16″	7 13/16″	6 15/16″ Dia.		6 3/16″	6 3/16″	3/4″	1 3/8″	6 3/8″ Dia.	
CP-7550	Curved or Flat	Aluminum	Camera Mount	4 25/32″	7 3/8″	6 1/4″	4 3/4″	4 3/4″	6 1/4″	5 1/8″	1 3/16″	1 3/16″	No Cushion	

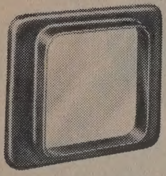
** Edge Lit Bezel Assemblies

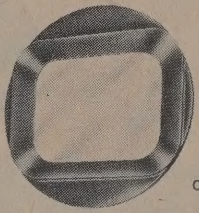
Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C Visible Area (Bezel) Width	D Visible Area (Bezel) Height	E Mounting Holes Width	F Mounting Holes Height	G- Thickness (Face Only)	H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZEL FOR 10″ C.R.T.														
CP-10860	Curved or Flat	Aluminum	Standard	11 1/32″	10 3/4″ Dia.		8 1/16″	6 1/4″	11 1/2″	11 1/2″	13/16″	1 3/16″	No Cushion	


CP-7330


CP-7375


CP-7420


CP-7550


CP-10860

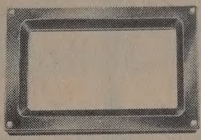
DISTINCTIVE FEATURES

- Engineered for 2″, 3″, 4″, 5″, 7″, 8″ and 10″ CRT
- Maximum display area
- Precision engraved, scale-calibrated graticules; standard or to customer's specifications
- Materials and finish to "Mil Spec"
- Heavy buna-S shock cushion
- Models for edge-lighting
- Phosphor-matched light filters
- Non-reflecting matte surfaces
- Rugged camera mounts
- Models for curved and flat-faced CRT

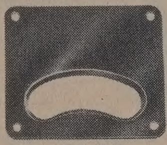
ESCUTCHEON PLATES For Elegant Framing of Panel Openings

ET-120

ET-150


ET-160

EM-310


EM-320

EM-325

ET-125

ET-165

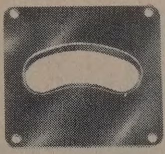
ET-140

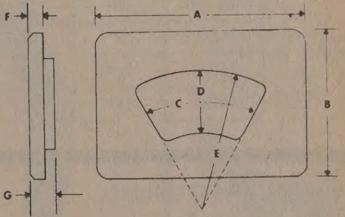
ET-155

ET-135

ET-130

ET-145


EM-315



SPECIFICATIONS — JAN ESCUTCHEONS

	Escutcheon Cat. No.	A Overall Width	B Overall Height	C Window Width	D Window Height	E Effective Outer Dial Radius	Thickness F=Face Only	Thickness G=Incl. Flange	Panel Opening Width	Panel Opening Height	Mounting Holes Width	Mounting Holes Height	Type of Dial	Material
*	ET-120	2 27/32	1 7/8	1 3/4	1″	1 27/32	3/16	3/16	2 11/32	1 3/8	2 9/16 top 2 1/16 bottom	1 9/16	Circular	Injection Molded Tenite II, Black Matte Finish
	ET-125	3 7/8	2 15/16	2 7/8	1″	3 1/4	3/16	5/16	3 1/2	1 1/2	3 1/2	1 15/16		
	ET-135	2 3/4	1 7/8	1 1/2	7/8	1 7/8	3/16	1/4	1 31/32	1 7/32	2 1/4	1 3/8		
	ET-150	3 7/8	2 5/16	2 7/8	3/4	3 1/8	3/16	5/16	3 9/32	1 7/32	3 1/2	1 15/16		
	ET-165	2 5/8	1 5/8	1 43/64	5/8	2 3/32	1/8		2 7/16	1 1/2	2 1/16	1 1/16		
	ET-130	4	1 13/16	2 1/4	13/16	—	3/16	1/4	2 13/32	1 11/32	3 1/2	1 5/16	Flexible Tape, Digital Counter, Cylinder or Drum	Injection Molded Tenite II, Black Matte Finish
	ET-140	2 1/2	1 1/2	1 1/4	5/8	—	1/8	5/16	1 17/32	1 1/32	2	1		
	ET-145	3 1/4	2 1/16	1 15/16	3/4	—	5/32	5/32	2 13/32	1 5/32	2 3/4	1 9/16		
	ET-155	2 1/2	1 3/16	1 11/16	1/2	—	5/32		2 1/32	2 9/32	2 1/4	15/16		
	ET-160	3 7/8	2 1/2	2 15/16	1 5/8	—	1/8	1/8	3	2 1/32	3 5/8	2 1/4		
	EM-310	3	3	2 1/16	1 15/16	2 9/16	1/32	1/4	3 11/32	2 1/2	2 1/2	2 1/2	Helical	Soft Aluminum with Black Matte Enamel Finish
	EM-315	3 1/4	3	2 1/4	5/8	2 1/16	1/32	1/8	2 15/32	1 5/64	2 3/4	2 5/8	Circular	
	EM-320	3 1/4	2 3/4	2 1/4	5/8	2 1/16	1/32	1/8	2 29/64	1 3/64	2 3/4	2 1/4	Circular	
	EM-325	3	3	2 1/16	1 1/2	2 5/16	1/32	1/4	2 11/32	1 61/64	2 1/2	2 1/2	Helical	

✱ **To Order** specify: (1) frame only; (2) frame with clear window; (3) frame with clear window scribed with a center line.

JAN'S molded, black, shock-resistant plastic escutcheons are available in an exceptionally wide variety of different types and sizes. They provide a pleasing window to frame dial plates mounted behind the panel.

Plastic escutcheons are available in the following ways: frame only; frame with clear windows; frame with clear window scribed with a center line.

For especially large working areas, stamped aluminum escutcheons, finished in dull black are available to meet the needs for space economy. Withstands temperature shock −65° to +85° C. NON INFLAMMABLE

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JAN HARDWARE MANUFACTURING COMPANY, INC.

LONG ISLAND CITY 1, NEW YORK

SLIP-CLUTCH, SAFETY KNOBS

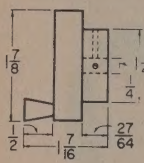
With Fixed or Retractable Spinners

Cat. Nos. K-1375 & K-1376 (For ¼" shafts)

Designed for driving devices such as variable capacitors, inductors, potentiometers, etc., these knobs are based upon the principle of the "slip-clutch";* automatically disengaging and slipping when a pre-determined torque has been exceeded. JAN'S SLIP-CLUTCH SAFETY KNOBS are fluted to aid in sensitive adjustments and are equipped with either a fixed or retractable spinner for fast turning. Insert-molded-to-Bakelite construction provide durable, backlash-free units to safeguard delicate and costly instruments against careless or inadvertent cranking beyond their normal stops.

**Normally set for 2½ - 5" lbs. Can be modified for other requirements.*

Model No. K-1376 is identical with No. K-1375 but has the additional feature of a retractable spinner. Spring loading provides positive, toggle-type action to lock spinner in either open or closed position. Model No. K-1376 is designed for use where economy of space is essential.



K1376

K1375

SPINNER KNOBS

With Fixed or Retractable Spinners

Cat. Nos. K-1275 & K-1276 (For ¼" shafts)

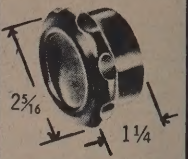
In appearance, these knobs are identical with No. K-1375 and No. K-1376 but without JAN'S Slip-Clutch mechanism. Made with single-unit, molded Bakelite-to-metal-insert construction, with two set screws for firm attachment to shafts.

MS — SIGNAL CORPS DIE CAST ALUMINUM & ZINC ALLOY KNOBS

Manufactured in accordance with applicable military specifications.

TUNING KNOB

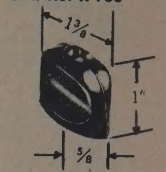
Cat. No. K-243



Die cast aluminum. Made to Fed. Spec QQ-A-591 and MIL-F-14072. Mounted with no-mar clamp.

POINTER KNOB

Cat. No. K-706

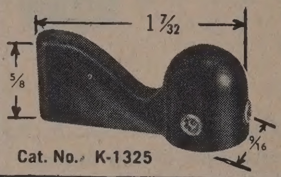


Molded thermosetting phenolic. Type CFG per MIL-P-14. Designed for square shaft, providing positive action.

BAR-KNOB

Cat. No. AK-1325

Precision cast aluminum for ¼" shafts. Furnished with twin set screws for shaft attachment. Provides a 1.0" integrally cast lever arm for heavy-load switching. Finished to specifications.

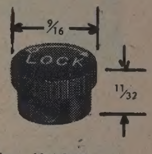


Cat. No. K-1325

KNOB LOCK

Cat. No. AK-1326

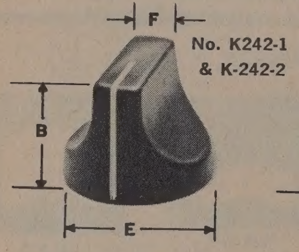
Black anodized aluminum with serrated edges for easy turning. Has twin set screws for firm attachment to ¼"-shafts. Height 5/16" x 9/16" diameter.



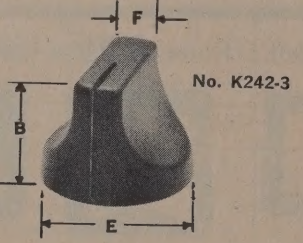
Cat. No. K-1326

MS — SIGNAL CORPS DIE CAST ALUMINUM & ZINC ALLOY KNOBS

Manufactured in accordance with applicable military specifications.



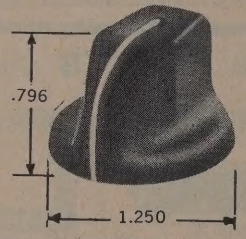
No. K242-1 & K-242-2



No. K242-3

Cat. No.	B	E	F	Marking
242-1	¾"	15/16"	5/16"	White
242-2	⅞"	1⅛"	⅜"	White
242-3	¾"	15/16"	15/16"	None

Cat. No. NAS 539-1B



TRANSILLUMINATED POINTER KNOB

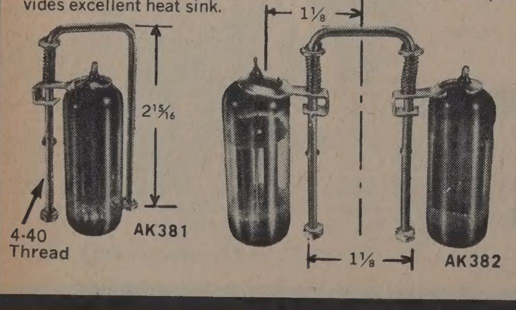
Precision-molded of JAN's transparent plastic material to NAS specs, with instrument dull black finish. Transilluminated pointer permits easy reading under subdued lighting conditions. For use on instrument panels, switchboards, electrical and electronic apparatus.

The service of JAN's design engineers is available to assist you with your Component requirements. JAN will design and manufacture special Components to customers' specifications. Complete facilities for prototype work.

TUBE BAIL ASSEMBLIES

Positive protection against vibration and shock.
Spring-loaded tube holders give positive protection that is free of strain on tube. Available as single and twin tube hold-downs.

Holds securely in any position,—can't shake loose. Also provides excellent heat sink.

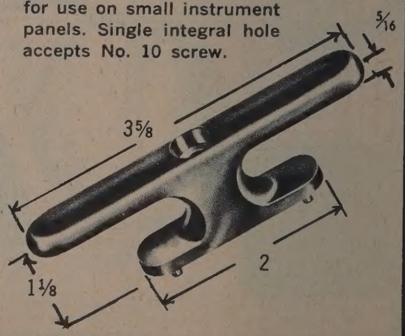


WHERE INTEGRITY COSTS NO MORE

HANDLE

Cat. No. H-692

This durable, die-cast aluminum handle is designed for use on small instrument panels. Single integral hole accepts No. 10 screw.



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JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

BARRIER STRIPS
MIL-T-55164A

ORDERING INFORMATION

37TB2	38TB2	39TB2	40TB2	41TB2	42TB2
37TB3	38TB3	39TB3	40TB3	41TB3	42TB3
37TB4	38TB4	39TB4	40TB4	41TB4	42TB4
37TB5	38TB5	39TB5	40TB5	41TB5	42TB5
37TB6	38TB6	39TB6	40TB6	41TB6	42TB6
37TB7	38TB7	39TB7	40TB7	41TB7	42TB7
37TB8	38TB8	39TB8	40TB8	41TB8	42TB8
37TB9	38TB9	39TB9	40TB9	41TB9	42TB9
37TB10	38TB10	39TB10	40TB10	41TB10	42TB10
37TB11	38TB11	39TB11	40TB11	41TB11	42TB11
37TB12	38TB12	39TB12	40TB12	41TB12	42TB12
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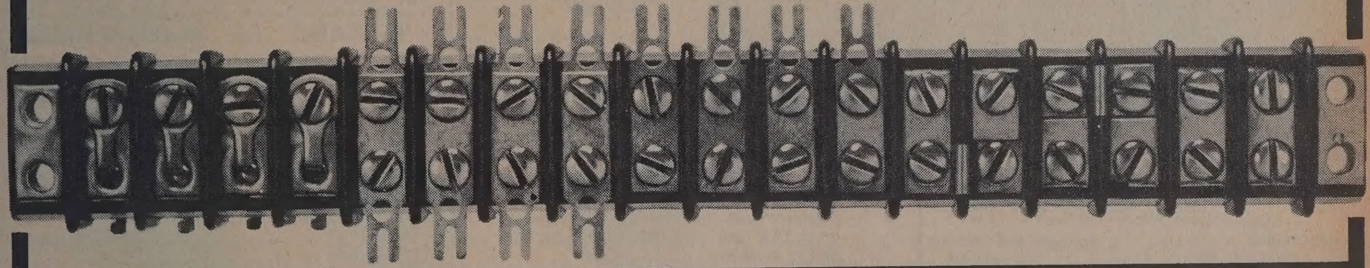
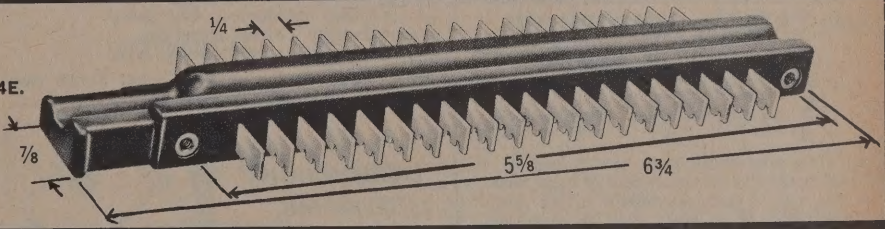
37TB22	38TB22	39TB22	40TB22	41TB22	42TB22
37TB23	38TB23	39TB23	40TB23	41TB23	42TB23
37TB24	38TB24	39TB24	40TB24	41TB24	42TB24
37TB25	38TB25	39TB25	40TB25	41TB25	42TB25

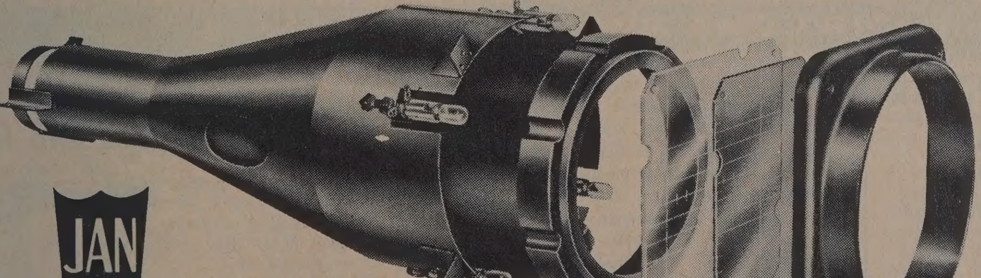


"FEED THROUGH" TERMINAL BOARDS

Cat. No. T-746
Molded of wood-filled melamine per MIL-M-14E.

Avoid expensive tooling. Design around this integrally-molded 20 feed-through terminal board. Equally-spaced terminals can be used for wrap around and/or solder connections. Voltage Breakdown 4000 Volts.



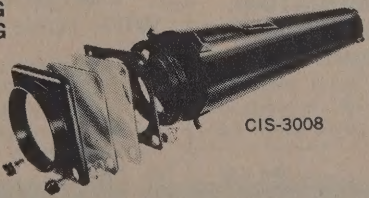


PACKAGED SHIELD-BEZEL ASSEMBLIES

SAVES TIME / MONEY **ELIMINATES** MULTIPLE PURCHASING / COMPLEX ENGINEERING

All necessary items for CRT Magnetic Shield and Bezel applications are packaged in one unit.

EACH ASSEMBLY CONTAINS: Shield, JAN Bezel, CRT Rubber Cushion, Graticule, Filter, Light Sockets, Pilot Lamps (for edge-lit bezel-shield assemblies) plus Hardware.



VIEWING HOOD
No. H-689-1 (5⅝" I.D.)
No. H-689-2 (4⅞" I.D.)

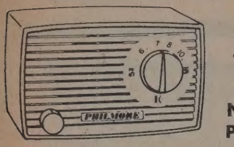
Black neoprene rubber, contour-molded, fits shape of face. Keeps out ambient light when viewing scope.

When ordering specify:
"JAN PACKAGED UNIT" giving JAN shield No., JAN bezel No. and CRT tube type with which it is to be used.

© U.C.P., Inc.

Philmore *Guaranteed* ELECTRONIC COMPONENTS

ULTRA-COMPACT 5-TUBE SUPERHET



AC-DC RADIO KIT

Model 205

Net Price $14.25

Well designed, easily assembled. Schematic, pictorial and step-by-step instructions included. Supplied with tubes: 12BE6, 12BA6, 12AV6, 50C5 and 35W4.

FEATURES:

- Extreme Sensitivity and Selectivity
- Powerful Alnico V PM Speaker
- Single Band covers: 530 Kc. to 1600 Kc.
- Dimensions: 7″ x 4½″ x 3¾″.
- Cabinet Color: Ivory.
- Weight: 2.7 lbs.
- For 117 Volts AC or DC.

TRANSISTORIZED CODE PRACTICE OSCILLATOR KIT

Has Built-In Loudspeaker—Operates With or Without Earphones!

MODEL TCO-209

In attractive brown finish miniature case, only 3¼″ x 2⅛″ x 1⅝″. Made in U.S.A.

Utilizes a stable feed-back principle designed for trouble-free performance and simple, foolproof operation. Some features:

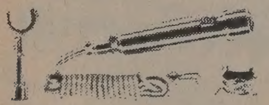
- **Battery Drain Interlock** automatically disconnects the battery when the key is unplugged.
- **Variable Tone Control** with On-Off Switch.
- **Phone Jack** for silent operation, using earphones.
- **Simple-To-Follow** step-by-step instructions. requiring no previous knowledge in kit-building.
- More than **50 Hours of Operation** on one set of batteries, eliminating the use of AC current. (Uses 3 regular penlite batteries.)

(Less battery, key & earphone)

Model TCO-209............................**Amateur Net $7.50**

Model TCO-209W Factory Wired.......................**$10.50**

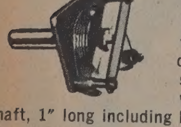
SLIM CRYSTAL MICROPHONE



Popular all-purpose microphone, can be used as a hand mike, lavalier mike, or on desk or floor stand. As lavalier mike it rests comfortably on the chest, permitting free use of hand. Lavalier cords and bracket are included. A chrome finished swivelled mike holder is supplied for desk or floor stand use, threaded ⅝″-27. Detachable 6-ft. shielded plastic cable. Built-in on-off switch. Satin chrome finish. Frequency response 100 to 9000 CPS. Output level — 52 db. High impedance. Individually packaged.

No. 100C...**Net $4.30**

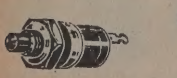
SUBMINIATURE VARIABLE CONDENSER



1 gang 365. Mmfd. Suitable for clockwise or counter-clockwise rotation. Overall 1″ square. Depth ⅝″. Supplied with standard ¼″ knob shaft, 1″ long including bushing. Panel mount, interleaved insulation prevents shorting between plates.

No. 1949G...**Net $.50**

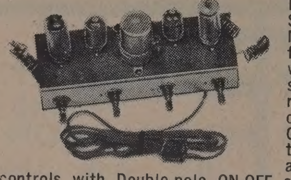
SUBMINIATURE PUSHBUTTON SWITCH



S.P.S.T. normally open momentary switch. Completely enclosed housing. Mounts in ¼″ hole, in panels up to ⅛″ thick. Supplied with red plastic button and mounting nut.

No. 2289...**Net $.22**

STEREO PHONO AMPLIFIER

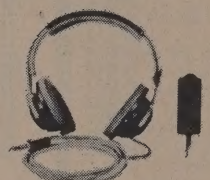


Four tube plus Silicon Rectifier. Neat, compact, fully assembled with tubes. Designed for direct mounting by control shafts. Controls include two smooth-acting volume controls with Double-pole ON-OFF switch for complete shockproofing and Auxiliary SPST switch, and two full range, smooth acting tone controls; and standard RCA type input jacks for phono cartridge. Circuit features include: Tubes: 2-50C5, 2-12AV6, 1-Silicon Rectifier. Size 6½″ long x 2⅛″ wide x 1⅜″ high. Complete with tubes and Rectifier. Factory wired.

No. PA62D..................................**Net Price $11.75 ea.**

HI-FI STEREO HEADPHONES

with JUNCTION BOX



Enjoy the thrilling realism of Hi-Fi Stereo sound in full privacy.

The internal construction of these phones is a radical departure from conventional headphones, since it actually consists of 2 miniature Hi-Fi dynamic speakers housed in special acoustic enclosures.

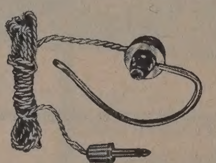
The earpieces and headband are padded with soft foam rubber cushions for comfort.

Features:

- Complete with Junction Box for overload protection and ease of attachment to Stereo Amplifier.
- 30-15000 cycle frequency response
- 8 Ohm Impedance — each phone
- Standard 3 circuit phone plug
- 5 Ft. Gray plastic covered cable

Model SP1......................Audiophile **Net $13.95 each**

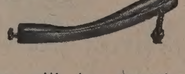
LIGHTWEIGHT DYNAMIC EARPHONES



Ideal for private listening on transistor sets, hearing aids, radio sets and TV sets. These compact earphones are equipped with slim metal ear support for completely comfortable listening. Two plastic removable earplugs are supplied (one large for adults, one small for children). A minature phone plug and 3-ft. of flexible plastic cord are included. Individually packaged in vinylite bag.

No.	Impedance	Net
P7	8 ohms	$.55
P8	15 ohms	.55
P9	1000 ohms	.60
P10	2000 ohms	.75

HI-FI TURNOVER CRYSTAL CARTRIDGE WITH TONE ARM



Contains the CX401 cartridge with two Sapphire needles, 30 to 11,000 cps., 6 Volt output. Includes arm rest and hardware. Spring counter balanced aluminum arm. Needles are very easily replaceable. Individually boxed.

No. C401...**Net $2.65**

NEW IMPROVED THREE TUBE

(Including Rectifier Tube)

TWO-BAND AC-DC RADIO KIT

Provides signal strength sufficient to drive a 3½″ PM speaker.

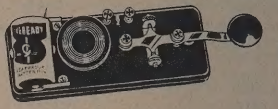
Simplified instructions, fully illustrated with pictorial and schematic diagrams, speed assembly. Chassis is completely punched and plated. Panel is attractive gray hammertone, with white silk-screened lettering and dial. Here is a professional radio kit that is perfect for the beginner in radio. When assembled, you have a TWO BAND set, covering the standard broadcast band (550-1650 KC) and SHORT WAVE band (3-13 MC).

No. 7001-CR...**Net $14.50**

(Complete with PM speaker, less tubes)

Uses 1 each: 35W4, 50C5 and 12AU6 tubes.

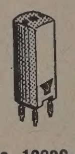
CODE PRACTICE SET



A complete code practice system, comprising our #B53 Telegraph Key and our #HF20 Buzzer, compactly mounted on a solid molded phenolic base. Terminals for earphones are provided. Requires only a single 1½-volt battery. Screw adjustment provides variable tone.

No. CP250 Less Battery...............................**Net $1.62**

"K-TRANS" I.F. TRANSFORMERS



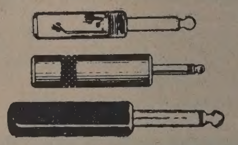
455KC. set of input and output I.F. transformers. Designed for small portable sets, and transistorized circuits. Exceptional high gain, iron core, double tuned. ¾″ square can x 1⅞″ high. Supplied with spring clip for mounting to chassis. Available with 4 lug, 5 lug and 6 lug terminal connections.

No. 1909C-4 Set of Input and output — 4 Lugs..**Net $1.40 per set**

No. 1909C-5 Set of Input and output — 5 Lugs..**Net 1.65 per set**

No. 1909C-6 Set of Input and output — 6 Lugs..**Net 1.80 per set**

LONG SLIM PHONE PLUGS



A compact plug for panel mounting space economy. Has two screw type terminals. Supplied with red or black barrel, or shielded barrel. All parts nickel plated. Fits all standard type jacks.

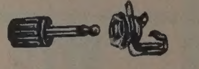
Length of barrel — 1⅝″ Diameter of barrel — ½″

Overall Length — 2⅞″

No. 523W Red or Black Plug (please specify color) **Net $.20 ea.**

No. 523WS Shielded Plug.........................**Net .31 ea.**

SUBMINIATURE PLUG AND JACK

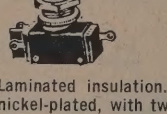


Phone plug for thin 2-conductor cable. Length of plug is 1⅛″. The single closed circuit jack mounts in ¼″ hole, into panels up to ⅛″ thick. Supplied as a set.

No. 702..**Net, per set $.16**

TOGGLE SWITCHES

Bat Handle



Manufactured by H. & H. for Philmore. Rated at 3 Amps, 125 Volts, 1 Amp, 250 Volts. Laminated insulation. Serves many uses. Furnished nickel-plated, with two mounting nuts. UL Approved.

No.	Description	Net
2206	SPST ¹⁵⁄₃₂″ Shank	$ .68
2209	SPDT ¹⁵⁄₃₂″ Shank	.86
2212	DPST ¹⁵⁄₃₂″ Shank	1.26
2215	DPDT ¹⁵⁄₃₂″ Shank	1.43

PHILMORE MFG. CO. INC. • Richmond Hill 18, N. Y.

We will be pleased to send our latest Catalog upon request.

Net

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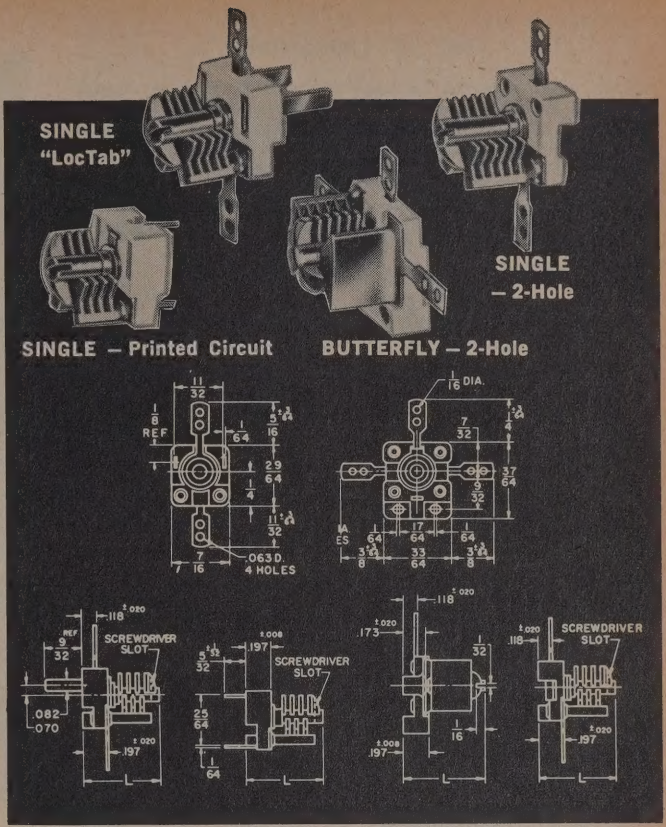
AIR VARIABLE CAPACITORS

Whatever the choice . . . sub-miniature capacitors for printed circuit use—or large, heavy duty types . . . time and again engineers specify Johnson Air Variables!

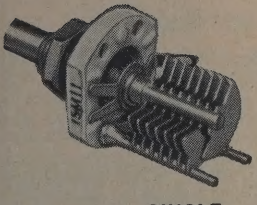
More than 11 basic capacitor types are readily available in a wide selection of single section, dual section, butterfly and differential models. Units range in size from the diminutive sub-miniature Type "U" capacitors, to large, rugged heavy duty "C" and "D" types. Standard stock capacitors in a wide range of plate spacings, capacity per section, breakdown ratings, and finishes will meet many military and commercial applications . . . specials to your specifications are also available in production quantities.



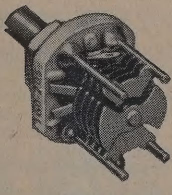
TYPE "U" AND "UB" CAPACITORS

These tiny Type "U" and "UB" sub-miniature air variable capacitors require less than 0.2 and 0.3 square inch area respectively for chassis or panel mounting. Rotors and stators are precision machined from one piece of solid brass for outstanding mechanical stability and uniformity. Unit offers high "Q" (greater than 1500 at 1 mc), high torque-to-mass ratio, and low temperature coefficient — provides absolute freedom from moisture entrapment found in trimmer capacitors of enclosed or solid dielectric type. All metal parts silver plated — ceramic steatite Grade L-4 or better. Exceptionally uniform delta C and voltage characteristics. Extra heavy end rotor plate protects against accidental damage during handling. No special tools required for installation — slotted end accommodates large screwdriver for quick adjustment. Choice of wide, double pierced or printed circuit style terminals; and "LocTab," printed circuit, or two-hole mounting styles. Specials and Two hole mounting are available only in production quantities.

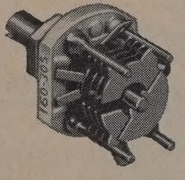
Note: When ordering "LocTab" add-1 to Cat. No.; Printed Circuit add-5 and 2-hole mounting add-7*



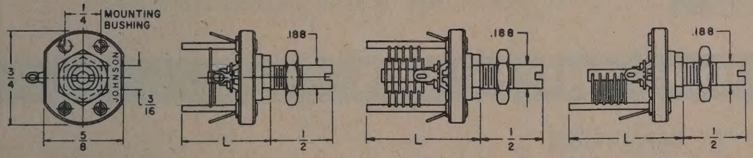
SINGLE



BUTTERFLY



DIFFERENTIAL



TYPE "M" CAPACITORS

These small Type "M" miniature air variable capacitors are excellent for use in compact equipment. Bridge type stator terminal provides an extremely low inductance path to both stator supports. Soldered plate construction, oversize bearing, and heavily anchored stator supports insure extreme rigidity. Large beryllium copper compression rotor contact provides steady torque — and rotor stays "put" where set. Rotor contact and all other metal parts are nickel plated — steatite insulator is DC-200 treated. Mounting bushing threaded with ¼-32 flats to prevent turning — mounting nut furnished. Peak voltage 1250 volts on .017" spaced units; 850 volts on 160-130 which is spaced .013". 3/16" diameter shaft* slotted for screwdriver adjustment. Available in production quantities with the following features: locking bearings; 180° stop; various shaft extensions; high torque; silver or other platings.

*Instrument type tuning knob to fit 3/16" shaft available.

SPECIFICATIONS AND PRICES

TYPE "U" AND "UB" CAPACITORS

Cat. No.	Nominal Cap. per Sec. Max.	Min.	Plates per Sec.	L	Net Price "LocTab"	Ptd. Circuit	2 Hole Mtng.
SINGLE SECTION—Air Gap .010"—850 Volt Peak Breakdown							
189-1	3.5	1.2	4	29/64"	$0.50	$0.66	$0.85*
189-2	5.4	1.3	6	1/2"	.52	.68	.87*
189-3	7.3	1.4	8	35/64"	.54	.70	.90*
189-4	9.1	1.5	10	19/32"	.56	.72	.93*
189-5	11.0	1.7	12	5/8"	.58	.74	.97*
189-6	13.0	1.8	14	43/64"	.60	.76	1.00*
SINGLE SECTION—Air Gap .016"—1300 Volt Peak Breakdown							
189-26	4.1	1.3	6	1/2"	$0.75	$1.00	$1.09*
189-27	6.7	1.6	10	5/8"	.85	1.10	1.17*
189-28	8.9	1.8	14	3/4"	.95	1.20	1.24*
BUTTERFLY—Air Gap .010"—850 Volt Peak Breakdown							
189-201	4.5	2.4	9	15/32"	Not Av.	$1.75	$1.75*
189-202	5.5	2.5	15	5/8"	Not Av.	1.85	1.85*
189-203	8.5	3.0	21	11/16"	Not Av.	2.00	2.00*

*Available only in Production Quantities.

TYPE "M" CAPACITORS

Cat. No.	Nom. Cap. per Sec. Max.	Min.	Plates per Sec.	L	Net Price
SINGLE SECTION					
160-102	5	1.5	5	45/64"	$0.90
160-104	8.7	1.8	9	13/16"	.95
160-107	14.2	2.3	15	1"	1.00
160-110	19.6	2.7	21	1 11/64"	1.10
160-130	32	3	28	1 17/64"	1.20
BUTTERFLY					
160-203	3.1	1.5	5	45/64"	$1.20
160-205	5.1	1.8	9	13/16"	1.30
160-208	8	2.2	16	1"	1.45
160-211	10.8	2.7	22	1 11/64"	1.60
DIFFERENTIAL					
160-303	5.0	1.5	5	45/64"	$1.25
160-305	8.7	1.8	9	13/16"	1.45
160-308	14.2	2.3	15	1"	1.65
160-311	19.6	2.7	21	1 11/64"	1.85

E. F. JOHNSON COMPANY
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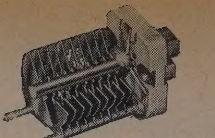
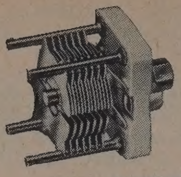
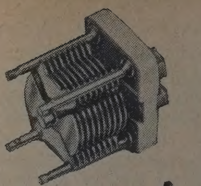
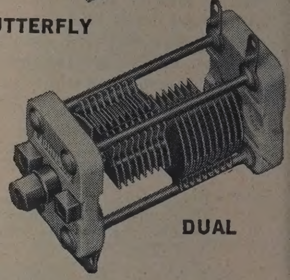
TYPE "S" CAPACITORS

Midway in physical size between the Type "M" and "K" capacitors, the Type "S" is compact in design—rugged in construction. Unit is equipped with DC-200 treated steatite insulator, and nickel-plated brass plates. The "S" capacitor has a plate spacing of .013" with a peak voltage rating of 850 volts. Other spacings; single hole mounting types; straight shaft; screwdriver shaft; or locking-type screwdriver shaft available on special order in production quantities. Available in Single Section, Butterfly, Differential and Dual Section Types.

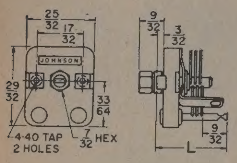

SINGLE


DIFFERENTIAL

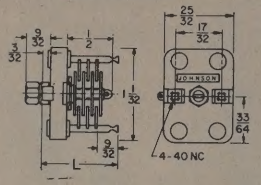

BUTTERFLY


DUAL

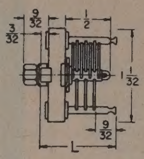
SINGLE SECTION



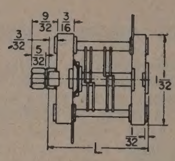
BUTTERFLY

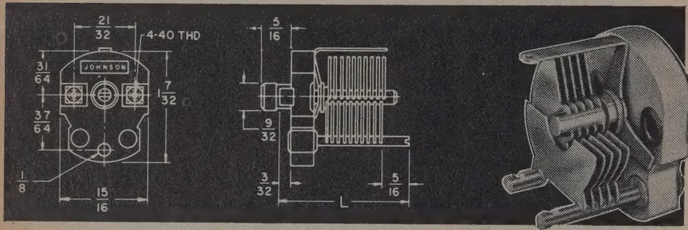


DIFFERENTIAL



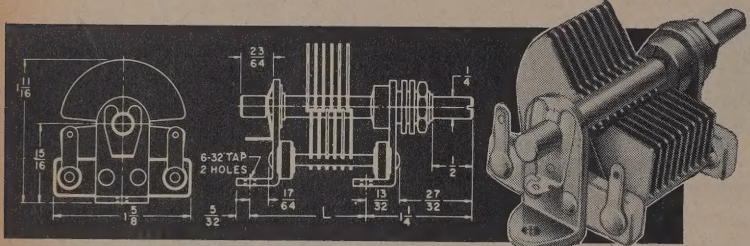
DUAL SECTION





TYPE "K" CAPACITORS

Widely used for military and many commercial applications, the Type "K" capacitor has a DC-200 impregnated steatite insulator, slotted stator contacts, and extra-rigid soldered plate construction. Peak voltage rating is 1000 volts with a plate spacing of .015"—plates are nickel-plated brass. The Type "K" capacitor is available in production quantities to meet MIL-C-92A specifications—other capacities and variations for specialized military and commercial applications are also available in production quantities. Butterfly and Differential Types will soon be available.



TYPE "R" CAPACITORS

This rugged Johnson version of a popular standardized capacitor, has extra-heavy steatite stator support insulators and soldered .023" thick brass plates. All metal parts are heavily nickel-plated for resistance to corrosion. Sturdy brass end frames offer excellent rigidity. Double bearing construction and silver-plated beryllium copper wiping contacts provide smooth, reliable performance. Peak voltage rating is 1200 volts—available with .024", .036", .050", .071", or .095" plate spacings, as well as special platings and shaft lengths in production quantities. Bearing threaded 3/8"-32. Also available without mounting feet for panel mounting applications.

SPECIFICATIONS AND PRICES

TYPE "S" CAPACITORS

Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Price
SINGLE SECTION					
148-1	15	2.3	6	53/64"	$1.00
148-2	25	2.6	10	15/16"	1.05
148-3	35	2.9	14	1 1/32"	1.10
148-4	50	3.2	19	1 9/64"	1.15
148-5	75	3.9	29	1 13/32"	1.20
148-6	100	4.5	38	1 43/64"	1.30
BUTTERFLY					
148-201	9	1.8	6	53/64"	$1.45
148-202	14	2.1	10	15/16"	1.60
148-203	20	2.4	14	1 1/32"	1.70
148-204	27	2.8	19	1 9/64"	1.95
148-205	42	3.6	29	1 13/32"	2.20
148-206	54	4.4	38	1 43/64"	2.45

Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Price
DIFFERENTIAL					
148-301	15	2.3	6	53/64"	$1.50
148-302	25	2.6	10	15/16"	1.60
148-303	35	2.9	14	1 1/32"	1.70
148-304	50	3.2	19	1 9/64"	1.80
148-305	75	3.9	29	1 13/32"	1.90
148-306	100	4.5	38	1 43/64"	2.10
DUAL SECTION					
148-503	25	2.9	10	1 25/64"	$2.25
148-504	35	3.2	14	1 19/32"	2.40
148-505	50	3.5	19	1 51/64"	2.55
148-507	100	4.8	38	2 27/32"	3.00

TYPE "K" CAPACITORS

Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Price
158-1	10	2.9	3	7/8"	$1.25
158-2	25	3.7	7	1"	1.35
158-3	50	4.6	14	1 3/16"	1.55
158-4	75	5.5	20	1 3/8"	1.70
158-5	100	6.4	27	1 5/8"	1.85

TYPE "R" CAPACITORS

Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Price
149-1	20	5	3	1 7/32"	$2.35
149-2	35	6	5	1 7/32"	2.45
149-3	50	6.5	7	1 7/32"	2.55
149-4	80	8	11	1 7/32"	2.70
149-5	102	8.5	14	1 13/32"	2.80
149-6	140	13.5	19	1 19/32"	3.00

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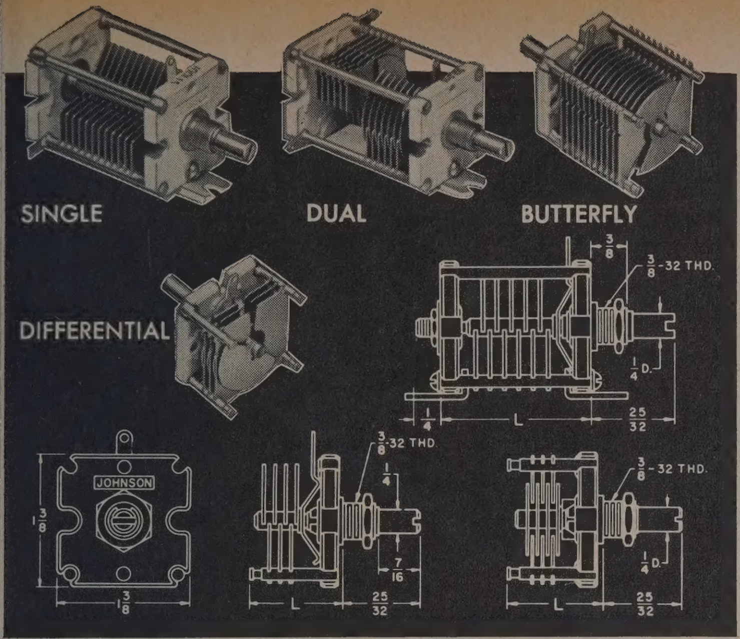


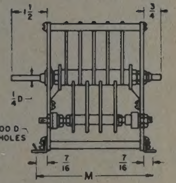
TYPE "C" AND "D" CAPACITORS

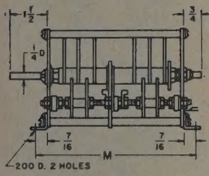
Heavy .051" aluminum plates and 5/16" diameter aluminum tie rods; large, laminated rotor brushes; ¼" cadmium-plated steel shafts; laminated phosphor bronze contact springs; and steatite insulation. Type "C" – overall width: 5½" – height: 5 13/32" – height bottom to shaft center: 3 3/32". Type "D" – overall width: 4¼" – height: 4" – height bottom to shaft center: 2 9/32". Dual types have center rotor connection for better balance. End frames tapped 8-32, 3 holes, for panel mounting – brackets furnished for chassis mounting.

TYPE "E" AND "F" CAPACITORS

Large amount of capacity per cubic inch and extremely low capacity to chassis. Heavy aluminum plates .032" thick with rounded edges and large ¼" tie rods; stainless steel shafts; sturdy phosphor bronze contact springs; and center rotor contact on dual types. End frames tapped 8-32, 3 holes for panel mounting – brackets furnished for chassis mounting.

SPECIFICATIONS AND PRICES



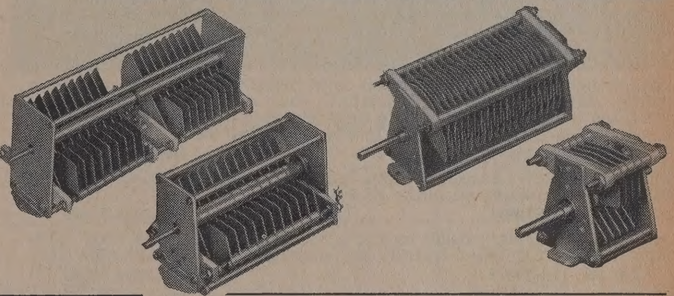


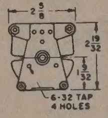
Cat. No.	Pkg. Voltage	Nom. Cap. /Sec. Max.	Nom. Cap. /Sec. Min.	Air Gap	Plates per Sec.	M	Net Price
TYPE C SINGLE SECTION							
152-1	7000	252	34	.175"	24	7 11/16"	$17.95
152-2	7000	496	56	.175"	47	13 1/16"	23.95
152-6	11000	103	30	.350"	17	9 15/32"	14.95
152-8	13000	51	24	.500"	10	8 9/16"	12.95
152-9	13000	102	42	.500"	21	14 7/32"	15.95
TYPE C DUAL SECTION							
152-501	4500	204	21	.125"	15	9 15/32"	19.95
152-502	4500	290	26	.125"	21	11 3/16"	22.95
152-503	7000	198	27	.175"	19	13 1/16"	22.75
152-504	7000	305	37	.175"	29	17 21/32"	29.95
152-505	9000	147	30	.250"	19	15 23/32"	25.45
152-507	11000	50	18	.350"	8	11 3/16"	17.25
152-509	11000	103	32	.350"	17	17 21/32"	24.50
TYPE D SINGLE SECTION							
153-6	3500	496	36	.080"	39	7 11/16"	16.95
153-8	4500	146	23	.125"	17	5 21/32"	11.75
153-11	7000	98	23	.175"	15	5 21/32"	11.50
153-12	7000	151	31	.175"	23	7 11/16"	13.70
153-13	7000	244	45	.175"	37	11 3/16"	16.95
153-15	9000	53	20	.250"	10	5 21/32"	10.60
153-16	9000	73	25	.250"	14	6 11/16"	11.50
153-17	9000	99	30	.250"	19	8 9/16"	12.95
153-18	9000	149	43	.250"	29	11 3/16"	15.50
TYPE D DUAL SECTION							
153-501	3500	95	13	.080"	8	5 21/32"	13.30
153-502	3500	147	15	.080"	12	6 11/16"	14.95
153-503	3500	202	19	.080"	16	8 9/16"	17.95
153-504	3500	291	24	.080"	23	10 11/32"	20.25
153-505	3500	496	38	.080"	39	14 7/32"	28.30
153-506	4500	155	24	.125"	17	10 11/32"	18.50
153-507	4500	198	27	.125"	23	13 1/16"	20.95
153-508	7000	52	15	.175"	8	6 11/16"	13.70
153-509	7000	72	17	.175"	11	8 9/16"	15.25
153-510	7000	97	22	.175"	15	10 11/32"	17.40
153-511	7000	151	31	.175"	23	14 7/32"	22.40
153-513	9000	52	19	.250"	19	10 11/32"	15.95
153-514	9000	97	30	.250"	19	15 23/32"	21.50

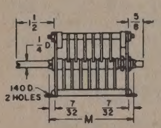
TYPE "L" CAPACITORS

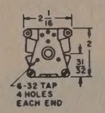
Ideal choice for applications requiring extreme stability and strength practically impervious to shock and vibration. Rotor bearings and stator support rods soldered directly to heavy 3/16" thick steatite insulator. Special split-sleeve tension bearing and silver-plated beryllium copper contact provide constant torque and smooth capacity variation. Heavy brass soldered plates and large diameter tie rods provide excellent rigidity. Removable chassis mounting brackets can be used to mount auxiliary equipment. Plating is heavy nickel – plate spacing .030". Peak voltage rating is 1500 volts. Also available with .020", .060", and .080" spacing as well as special platings, shaft lengths and stator terminal locations in production quantities. Bearings threaded ⅜-32", mounting nut provided. Models with 6-32 tapped mounting posts soldered to end frame also available on special order.

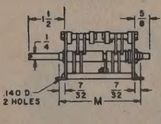
Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Price
SINGLE SECTION – Single End Plate					
167-1	11	2.8	3	¾"	$1.80
167-2	27	3.5	7	61/64"	1.90
167-3	51	4.6	13	1¼"	2.10
167-4	75	5.7	19	1 9/16"	2.30
SINGLE SECTION – Double End Plate					
167-11	99	6.8	25	2 1/32"	3.70
167-12	202	11.6	51	3 21/64"	4.70
BUTTERFLY					
167-21	10.5	2.8	5	55/64"	2.15
167-22	26	4.3	12	1¼"	2.50
167-23	51	6.8	23	1¾"	3.05
DIFFERENTIAL					
167-31	11	2.8	3	¾"	2.20
167-32	27	3.5	7	61/64"	2.40
167-33	51	4.6	13	1¼"	2.75
DUAL SECTION					
167-51	27	5.0	7	1⅝"	3.75
167-52	51	6.5	13	2 15/64"	4.15
167-53	99	9.8	25	3 7/16"	5.20











Cat. No.	Pkg. Voltage	Nom. Cap. /Sec. Max.	Nom. Cap. /Sec. Min.	Air Gap	Plates per Sec.	M	Net Price
TYPE E SINGLE SECTION							
154-1	2000	244	12	.045"	23	3 7/32"	$ 7.40
154-2	2000	353	15	.045"	33	3 31/32"	8.35
154-3	2000	488	19	.045"	45	4 29/32"	9.80
154-7	3000	100	11	.075"	15	3"	6.60
154-8	3000	154	14	.075"	23	3⅞"	7.55
154-9	3000	251	20	.075"	37	5⅜"	9.20
154-10	3000	347	25	.075"	51	6⅞"	10.95
154-11	4500	38	9	.125"	9	2¾"	6.10
154-12	4500	53	11	.125"	12	3 13/32"	6.55
154-13	4500	74	13	.125"	17	4 1/32"	7.00
154-14	4500	101	16	.125"	23	4 31/32"	7.70
154-15	4500	145	20	.125"	33	6 17/32"	8.85
154-16	4500	241	32	.125"	55	10"	11.50
TYPE E DUAL SECTION							
154-502	2000	312	13	.045"	29	7 3/32"	13.80
154-503	3000	52	8	.075"	8	4 17/32"	9.20
154-504	3000	72	8	.075"	11	4 31/32"	9.75
154-505	3000	99	10	.075"	15	5 13/16"	10.70
154-506	3000	153	13	.075"	23	7½"	12.95
154-507	3000	196	15	.075"	29	8 13/32"	14.40
154-508	4500	52	10	.125"	12	6 19/32"	9.45
154-509	4500	74	12	.125"	17	7⅞"	11.60
154-510	4500	100	15	.125"	23	9 23/32"	13.25
TYPE F SINGLE SECTION							
155-1	2000	35	7	.045"	6	1 29/32"	5.50
155-2	2000	54	8	.045"	9	2 1/16"	5.75
155-3	2000	66	8	.045"	11	2 7/32"	5.95
155-4	2000	106	10	.045"	17	2 11/16"	6.55
155-5	2000	154	12	.045"	25	3 5/16"	7.30
155-6	2000	252	17	.045"	41	4 17/32"	8.95
155-8	3000	52	9	.075"	13	2¾"	6.25
155-9	3000	67	11	.075"	17	3 5/32"	6.60
155-10	3000	99	14	.075"	25	4 1/32"	7.35
155-11	3000	148	18	.075"	37	5 5/16"	8.75
TYPE F DUAL SECTION							
155-501	2000	53	7	.045"	9	3 15/16"	9.10
155-502	2000	66	7	.045"	11	4¼"	9.70
155-503	2000	104	9	.045"	17	5 5/32"	10.95
155-504	2000	153	11	.045"	25	6 13/32"	12.95
155-505	2000	202	14	.045"	33	7⅝"	14.35
155-506	3000	51	8	.075"	13	5¼"	10.40
155-507	3000	66	10	.075"	17	6⅛"	11.50
155-508	3000	99	13	.075"	25	7⅞"	13.35

E. F. JOHNSON COMPANY
® WASECA, MINNESOTA, U.S.A.

TUBE SOCKETS—GENERAL SPECIFICATIONS

To simplify selection of sockets and to provide complete specifications for standard, industrial and military requirements, wherever applicable, Johnson tube sockets have been categorized under a socket standardization program. General specifications are listed on the following pages — detailed specifications on the complete socket line are covered in Socket Standardization Booklet 536. Should you desire a copy for Engineering Department use, please make your request on company letterhead.

Standard — Commercial grade for general requirements. Bayonet sockets have porcelain bases, glazed top and sides with .0002 cadmium-plated phosphor bronze contacts. Wafer sockets have glazed steatite bases, DC-200 treated. Contacts are plated brass with steel springs. Shells and shields are etched aluminum.

Industrial — Higher quality than Standard types. Glazed steatite bases, DC-200 treated. Contacts .0005 silver-plated — on Bayonet Sockets are phosphor bronze with beryllium copper springs . . . phosphor bronze or beryllium copper on Wafers. Shells and shields are aluminum, iridite No. 14 treated. (Except 123-206-100.) Fungus resistant cushion washers under contacts.

Military — Top quality for military requirements. Glazed grade L-4 or better steatite bases, DC-200 treated. Phosphor bronze contacts and beryllium copper springs, .001 silver-plated on Wafers — Bayonet sockets have .0005 silver-plated beryllium copper contacts. Aluminum shields on shielded Wafers are iridite treated — bayonet shells are brass .0003 nickel-plated. Threaded hardware .0002 nickel-plated, unthreaded hardware .0003. Hot tin-dipped terminals. Fungus resistant cushion washers. (Glass base melamine on Wafers.) Wafer sockets protected for 200 hour salt spray test.

SOCKETS FOR 4X150A, 4X150D, 4X250B, 4CX250B, 4X250F, 7034, 7035

For use with high power transmitting tubes. Available in many designs — with or without, low inductance screen grid by-pass capacitors. Basic socket molded of low dielectric loss-factor Kel-F plastic. Control grid contact "guide" machined for accurate alignment, tapped for 6-32 machine screw. Contacts are low-resistance silver-plated beryllium copper. Tube pin contacts heat treated to provide positive contact pressure and extended life. Annealed soldering tabs may be easily bent or formed. **Additional specifications and information available on Data Sheet 755.**

Rugged light weight basic socket with silver-plated brass mounting saddle. Cathode terminals insulated. Four elongated .140" x .234" mounting holes to accommodate mounting circle diameters from $2\frac{27}{64}$" to $2\frac{39}{64}$". Mounts below chassis in $1\frac{21}{32}$" diameter hole.

Cat. No. 124-107-1 .... **Net Price $5.65**

Same as 124-107-1 except cathode terminals grounded. Four mounting holes .136" diameter on circle of $2\frac{17}{32}$" diameter.

Cat. No. 124-108-1 .... **Net Price $5.95**

Low cost, light weight basic socket without metal mounting ring. Cathode terminals insulated. Mounts below chassis in $1\frac{21}{32}$" diameter hole.

Cat. No. 124-109-1 .... **Net Price $5.00**

Basic socket with mounting ring and low-inductance 2700 mmf. screen grid by-pass capacitor; cathode terminals insulated. Mounts above chassis through 2½" diameter hole with 3 clips drilled for 6-32 screws. Provision for mounting socket skirt directly to 1.625" O.D. outer conductor of coaxial-type line.

Cat. No. 124-110-1 .... **Net Price $11.70**

Same as 124-110-1 except cathode terminals grounded.

Cat. No. 124-112-1 .... **Net Price $12.00**

Same as 124-108-1, less metal mounting saddle. Low inductance grounding of cathode terminals No. 2, 4, 6, and 8 through integral combination grounding and mounting lugs. Mounts below chassis in $1\frac{21}{32}$" diameter hole.

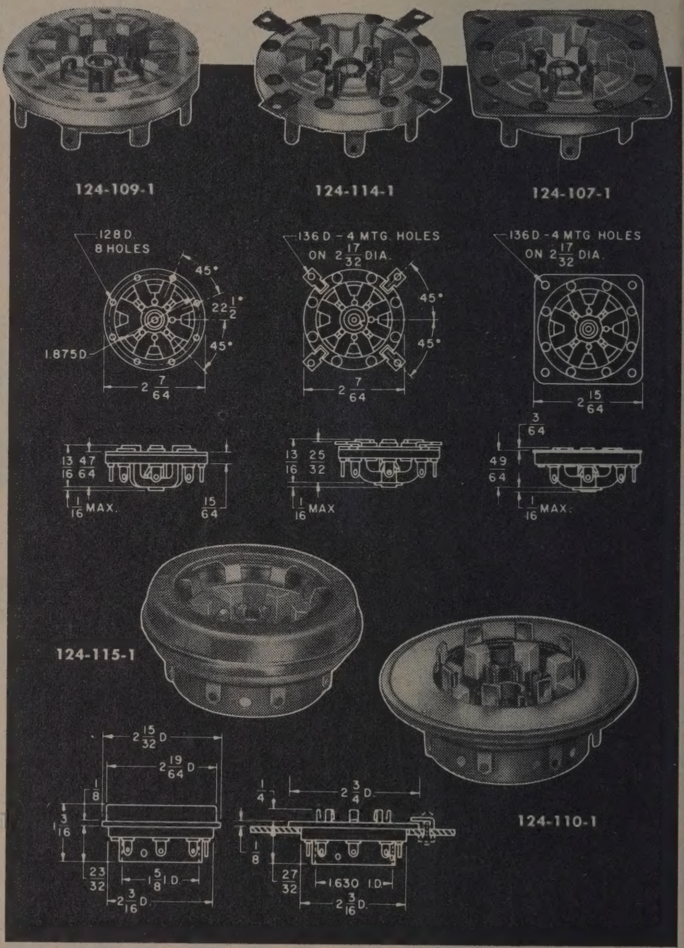
Cat. No. 124-114-1 .... **Net Price $5.65**

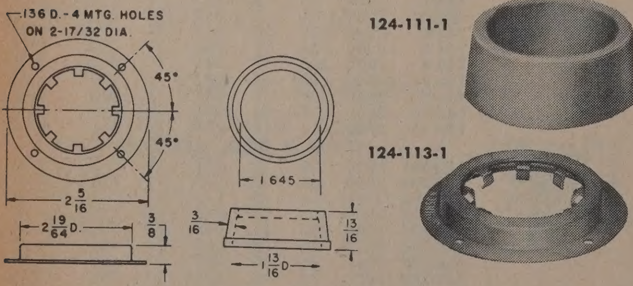
Basic socket with mounting ring and smaller low-inductance 1100 mmf. screen grid by-pass capacitor. Requires less mounting space than other screen grid by-pass type sockets. Withstands 1500 volts DC under applicable test specifications. Cathode terminals insulated. Recessed silver-plated beryllium copper screen grid contacts provide positive electrical contact and low inductance. Mounts above chassis through 2½" diameter hole with 3 clips drilled for 6-32 screws. Provision for mounting socket skirt directly to 1.625" O.D. outer conductor of coaxial-type line.

Cat. No. 124-115-1 .... **Net Price $13.00**

Same as 124-115-1, except cathode terminals grounded.

Cat. No. 124-116-1 .... **Net Price $13.50**





High quality heat resistant steatite chimney for use with 124-107-1, 124-108-1, 124-109-1, 124-110-1, 124-112-1, and 124-114-1 sockets. Tapered construction directs air flow through tube cooling fins. Maximum base diameter $2\frac{9}{32}$".

Cat. No. 124-111-1 .... **Net Price $0.45**

1450 mmf. circular silvered-mica screen grid by-pass capacitor mounted within a low-loss silicone resin sealed silver-plated drawn brass housing. Low inductance silver-plated beryllium copper screen grid contact fingers are heat treated to provide positive contact pressure as well as extended life. Capacitor dielectric strength tested at 1000 volts DC. Unique design permits replacement of screen grid by-pass capacitor by merely removing 4 mounting screws; socket rewiring unnecessary. Fully complies with MIL-C-10950A. For use with 124-107-1, 124-108-1, 124-109-1, 124-114-1, and similar sockets.

Cat. No. 124-113-1 .... **Net Price $5.00**

E. F. JOHNSON COMPANY
WASECA, MINNESOTA, U.S.A.

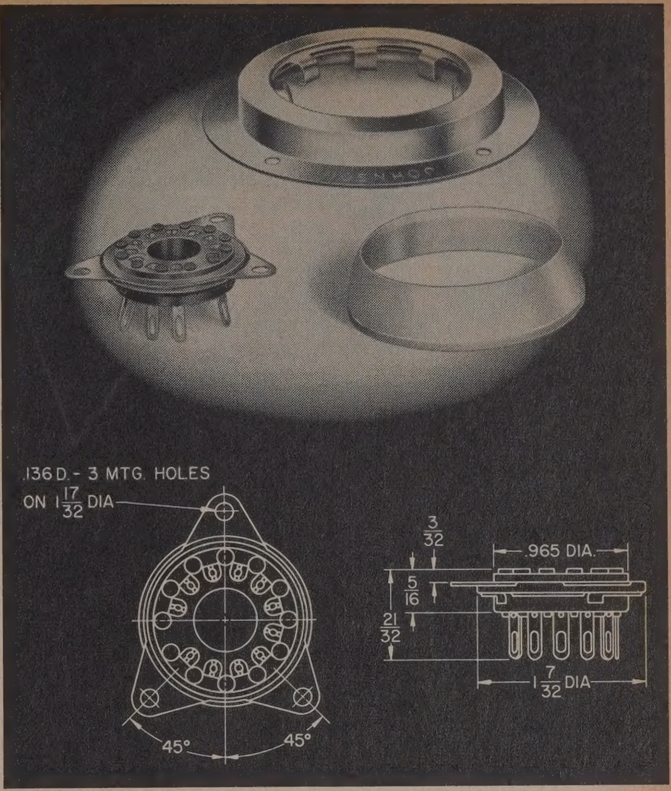
SOCKETS FOR RCA 8072, 8121, 8122, AND SIMILAR TUBES

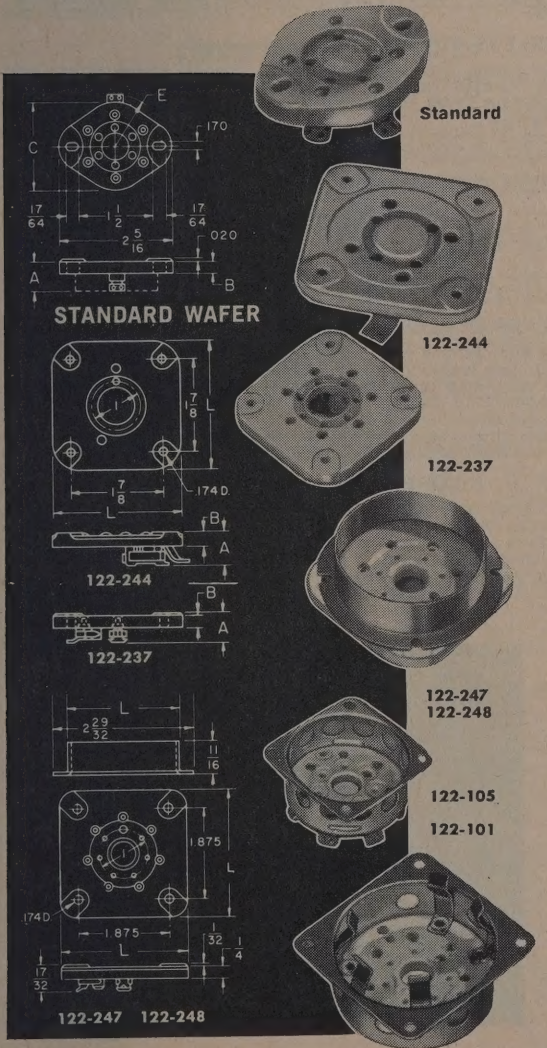
For ultra high frequency tubes such as RCA 8072, 8121 and 8122 types. Continuous heat resistance to 500° F. with low-loss glass-filled Silicone base and heat treated beryllium copper contacts. Base material has low dielectric constant which results in low pin-to-pin and shunt capacity. Elevation pads permit excellent base pin cooling. Teflon chimney for increased leakage path and higher voltage breakdown. Socket contacts grip tube pins directly at base of tube – providing minimum inductance. Barriers between terminals for increased leakage path and higher voltage breakdown. Direct cathode ground provided by tabs located at mounting points adjacent to cathode contacts. Large center hole and basic configuration results in low capacity; three point mounting provides stable mounting. With numbered terminals. Low inductance screen by-pass capacitor available for VHF and UHF operation.

Cat. No. 124-311-100......................**Net Price $1.35**

Teflon chimney for 124-311-100
Cat. No. 124-119-1......................**Net Price $ .65**

Screen by-pass capacitor for 124-311-100
Cat. No. 124-113-1......................**Net Price $5.00**





STANDARD WAFER SOCKETS

Insulated with Grade L-4 steatite, or better. Countersunk rivets and bossed mounting holes permit sub-panel mounting. Brass contacts with cadmium-plated steel springs. Locating grooves facilitate tube insertion.

Cat. No.	Type	A	B	C	E	For Tube	Net Price
122-224-1	Standard	9/16″	1/4″	1 11/16″	7/8″	4 Pin	$0.76
122-224-100	Industrial	9/16″	1/4″	1 11/16″	7/8″	4 Pin	.89
122-224-200	Military	9/16″	1/4″	1 11/16″	7/8″	4 Pin	1.05
122-225-1	Standard	9/16″	1/4″	1 11/16″	59/64″	5 Pin	.83
122-225-200	Military	9/16″	1/4″	1 11/16″	59/64″	5 Pin	1.20
122-226-1	Standard	9/16″	1/4″	1 11/16″	59/64″	6 Pin	.94
122-226-200	Military	9/16″	1/4″	1 11/16″	59/64″	6 Pin	1.30
122-227-1	Standard	9/16″	1/4″	1 13/16″	31/32″	7 Pin	1.00
122-227-200	Military	9/16″	1/4″	1 13/16″	31/32″	7 Pin	1.50
122-228-1	Standard	15/32″	3/16″	1 11/16″	57/64″	Octal	1.05
122-228-200	Military	15/32″	3/16″	1 11/16″	57/64″	Octal	1.60

SUPER JUMBO 4 PIN SOCKET

Heavy duty steatite insulated 4 pin wafer – for super jumbo base tubes such as the 8008, and many rectifier and thyratron types with E.I.A. Base Nos. A4-15, A4-16, and A4-18. Long, parallel contacts are designed to withstand high currents.

Cat. No.	Type	A	B	L	Net Price
122-244-1	Standard	11/16″	9/32″	2 5/8″	$1.75
122-244-100	Industrial	11/16″	9/32″	2 5/8″	2.00
122-244-200	Military	11/16″	9/32″	2 5/8″	2.35

GIANT 5 PIN SOCKET

Large steatite wafer socket designed for tubes such as the 4-125A, 4-250A, and RK-48 with E.I.A. Base No. A5-19. Tube seal ventilation is provided by one central and five ventilating holes located between contacts. Contacts designed to withstand heavy current.

Cat. No.	Type	Net Price
122-275-1	Standard	$2.30
122-275-100	Industrial	2.65
122-275-200	Military	3.10

GIANT 7 PIN SOCKET

A rugged wafer socket for tubes such as the 4E27, HK257, and 813 with E.I.A. Base No. A7-17. Contacts are designed with maximum surface area against tube prongs. 3/4″ ventilating hole in base provides tube seal cooling.

Cat. No.	Type	A	B	L	Net Price
122-237-1	Standard	9/16″	1/4″	2 5/8″	$1.40
122-237-100	Industrial	9/16″	1/4″	2 5/8″	1.65
122-237-200	Military	9/16″	1/4″	2 5/8″	1.85

SEPTAR SOCKETS

Designed for 7 pin tubes such as the 7094, with E.I.A. Base No. E7-2. Furnished with a separate aluminum shield ring.

Cat. No.	Type	L	Net Price
122-247-1	Standard	2 5/8″	$1.75
122-247-100	Industrial	2 5/8″	1.95
122-247-200	Military	2 5/8″	2.20
122-248-1	Standard	2 3/8″	1.60
122-248-100	Industrial	2 3/8″	1.80
122-248-200	Military	2 3/8″	2.10

VHF SEPTAR SOCKETS

Takes 1/3 less space than previously available types – permits compact design with medium button septar bases such as the 5894, 6524, and 6252 with E.I.A. Base No. E7-20. Molded contact recesses in base prevents turning. Aluminum shell submounts tube for maximum input and output shielding. 3/8″ holes provide adequate ventilation.

Cat. No.	Type	Net Price
122-105-100	Industrial	$1.60
122-105-200	Military	1.90

For tubes with medium molded flare septar base such as the 826, 832, 4D32, PL6549, PL-177A, Y-65 with E.I.A. Base No. E7-2. Industrial type has 5 and military type has 7 retainer springs. With ventilated shield. Provision for mounting button mica capacitors directly to socket. Special terminals permit direct mounting of grid coils – two holes provided for mounting of bus bar neutralizing leads.

Cat. No.	Type	Net Price
122-101-100	Industrial	$2.70
122-101-200	Military	3.20

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CONNECTORS

NOTE: Connectors are available in 13 standard colors, White as shown in pricing, plus 12 other colors. Colors should be specified by increasing 5th and 6th digits of the Catalog Number listed for White per the chart below. (Example: To order 105-801 in Yellow rather than White, increase 5th and 6th digits by 06 ending up with 105-807. To order 105-681-16 in Violet rather than White, increase 5th and 6th digits by 11, ending up with 105-692-16.)

Increase 5th and 6th Digits by:	Color	Increase 5th and 6th Digits by:	Color	Increase 5th and 6th Digits by:	Color
01	Red	05	Orange	09	Dk. Blue
02	Black	06	Yellow	10	Ivory
03	Dk. Green	07	Brown	11	Violet
04	Lt. Blue	08	Lt. Green	12	Grey

DELUXE TIP JACK

(U.S. Pat. No. 2,704,357)

Molded body with recessed silver-plated machined beryllium copper contact. Hot tin-dipped solder terminal. Current rating: 10 amps. Voltage breakdown: 11,000 volts DC. Capacity to ⅛" panel: 2.0 mmf. ¼"-32 nut furnished.

Cat. No.	Color	Net Price
105-601	White (13 colors available—see above)	$0.20

STANDARD TIP JACK

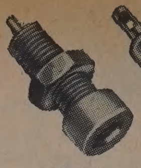
Molded body with recessed, cadmium-plated formed phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 9,000 volts DC. Capacity to ⅛" panel: 2.0 mmf. ¼"-32 nut furnished.

Cat. No.	Color	Net Price
105-801	White (13 colors available—see above)	$0.13

RAPID-MOUNT TIP JACK

Low cost – fast mounting! Snap "speed clip" into hole in .061" to .069" thick panels and insert jack. Silver-plated phosphor bronze contact. Voltage breakdown: 7,000 volts DC. Capacity to ⅛" panel: 3.8 mmf. Current rating: 10 amps.

Cat. No.	Color	Net Price
105-681-16	White (13 colors available—see above)	$0.11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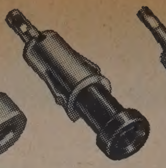
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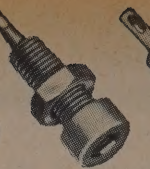
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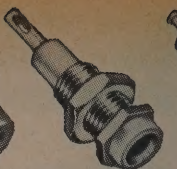
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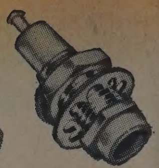
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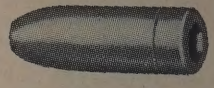
105-101-200


105-701

METAL-CLAD TIP JACKS – STANDARD

Molded body, nickel-plated machined brass jacket. Formed, silver-plated phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 7,000 volts DC. Capacity to ⅛" panel: 3.8 mmf. ¼"-32 nut and lock washer furnished.

Cat. No. 105-251-1 White (13 colors available—see above) **Net Price $0.17**

METAL-CLAD TIP JACKS – MILITARY

Complies with MS-16108 of MIL STD-242A. Heavy nickel-plated brass jacket. Silver-plated, machined beryllium copper contact. Current rating: 10 amps. Voltage breakdown: 8,000 volts DC. Capacity to ⅛" panel: 3.8 mmf. ¼"-32 nut and lock washer furnished.

Cat. No. 105-201-200 White (13 colors available—see above) **Net Price $0.26**

Economy grade, 105-101-200, same as above but lower price. Formed contact. Voltage breakdown: 5,000 volts DC.

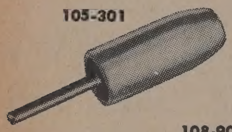
Cat. No. 105-101-200 White (13 colors available—see above) **Net Price $0.21**

JACK AND SLEEVE ASSEMBLY

Includes Deluxe Tip Jack (105-601 to 105-613), less mounting nut, with inside threaded molded sleeve. Ideal for patch cords, or insulated rear connection of panel mounted tip jack.

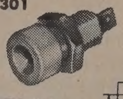
Cat. No. 105-701 White (13 colors available—see above) **Net Price $0.20**

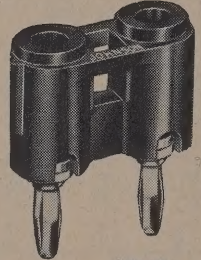
105-301



108-901

108-301




108-201

SOLDERLESS TIP PLUG (Patent Pending)

Completely insulated, molded sleeve. Recessed metal head prevents exposure of metal surfaces when engaged in any standard tip jack. All metal parts are nickel-plated brass. Designed for solderless connection of up to 16 gauge stranded wire. Fits all standard tip jacks. Current rating: 10 amps.

Cat. No. 105-301 White (13 colors available—see above) **Net Price $0.15**

SOLDERLESS BANANA PLUGS

Compact, high voltage insulated plug for a wide variety of applications. Designed for fast, solderless connection of up to 16 gauge stranded wire. Body and pin are constructed of one-piece, nickel-plated brass with high grade nickel silver springs. Sleeve is molded. Current rating: 10 amps.

Cat. No. 108-301 White (13 colors available—see above) **Net Price $0.19**

DUAL SOLDERLESS BANANA PLUG

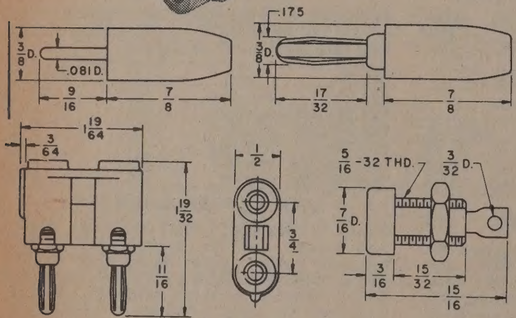
Extremely versatile solderless dual banana plug. Molded body incorporates polarity indication and strain relief hole for wire leads. Springs are high quality nickel silver – bodies are nickel-plated. Accurately machined brass studs extend the full length of pins for extra strength. Voltage breakdown: 10,000 volts DC. Capacity plug to plug: 1.3 mmf. Current carrying capacity: 15 amps.

Cat. No. 108-201 White (13 colors available—see above) **Net Price $0.60**

BANANA JACK

Completely insulated, molded body with cadmium-plated insert. Accommodates banana plugs of nominal .175" diameter. Voltage breakdown: 12,500 volts DC. Capacity to 1/16" panel: 2.4 mmf. nominal. Mounts in 21/64" diameter circular, "D," or double flat hole (¼" across flats). Single nut furnished for mounting – no other mounting hardware needed.

Cat. No. 108-901 White (13 colors available—see above) **Net Price $0.10**



"SIX-WAY" BINDING POST (U.S. Pat. No. 2,806,999)

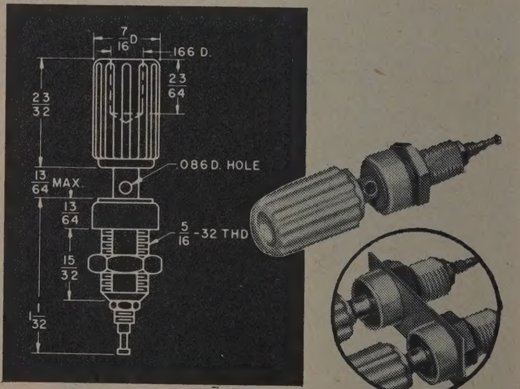
Compact, insulated, pre-assembled binding post. Molded body with silver-plated shank. Thumb nut self-captivated. Connection made at solder stud, or lug may be slipped over threaded portion and secured with a nut. Single nut furnished for mounting – no other hardware needed. Single banana plug fits hole in top of binding post. Insulation resistance greater than 200 meg. after MIL-T-5422B humidity test. Voltage breakdown: 8,000 volts DC. Capacity to ⅛" panel: 3.3 mmf. Current carrying capacity: 15 amps. Mounts in 21/64" diameter circular hole, "D," or double flat hole (¼" across flats).

Cat. No.	Color	Net Price
111-101	White (13 colors available—see above)	$0.30

MOUNTING PLATE

Pre-punched, etched aluminum mounting plate for accurate mounting of two binding posts, or banana jacks in 21/64" diameter holes on exact ¾" centers.

Cat. No. 111-20...**Net Price $0.02**



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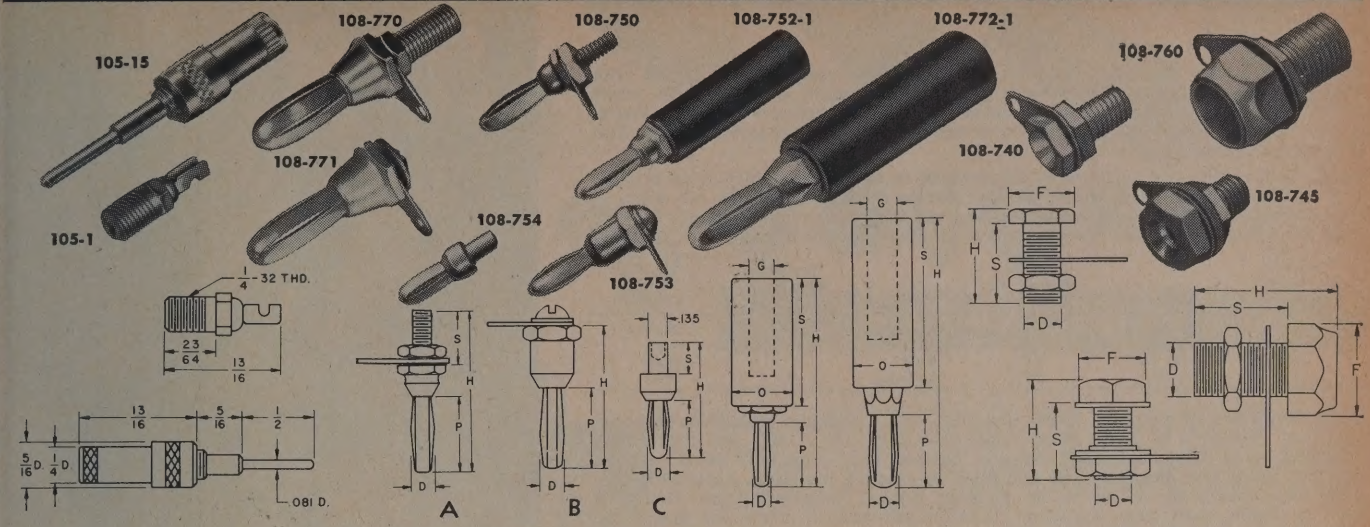
MISCELLANEOUS CONNECTORS



HEADLESS TIP JACK

Headless tip jack for insulated mounting surfaces. Hex shoulder for tightening. Beryllium copper, cadmium-plated contact.

Cat. No. 105-1..**Net Price $0.11**

SOLDERLESS PHONE TIP PLUGS

Solderless phone tip plugs with knurled nickel-plated brass body and sleeve — construction permits leads to be firmly secured without soldering. 3/16" pin . . . last 1/2" of tip .081" diameter. For use with all standard tip jacks.

Cat. No. 105-15..**Net Price $0.18**

STANDARD BANANA PLUGS

This group of standard banana plugs has accurately machined brass studs which extend the full length of the plugs, providing extra strength. Springs are nickel-silver—highly resistant to corrosion. Bodies and hardware .0001 nickel-plated. All banana plugs listed below, are available with beryllium copper springs and nickel, cadmium, or silver plating, when desired. A wide selection of miniature solder-type plugs is also available on special order — however quantities in special platings or plugs should be sufficiently large for economical production runs. Solder terminal and nut or screw furnished.

Cat. No.	Dwg.	S	P	D	H	Thread	Net Price
108-750	A	3/8"	17/32"	.175"	1 1/8"	6-32	$0.13
108-750-2	A	3/4"	17/32"	.175"	1 1/2"	6-32	.14
108-753	B	...	17/32"	.175"	15/16"	6-32	.14

This banana plug is similar to the standard types listed above, except that it is designed for riveting. Springs are beryllium copper, cadmium-plated.

108-754	C	7/32"	13/32"	.155"	13/16"	....	$0.09

Jumbo type banana plugs with accurately machined brass studs extending full length of the pins. Nickel-silver springs. Bodies and hardware .0001 nickel-plated. With solder lug and nut or screw.

108-770	A	5/8"	3/4"	.300"	1 25/32"	1/4"-28	$0.32
108-771	B	...	3/4"	.300"	1 1/8"	10-32	.34

STANDARD INSULATED BANANA PLUGS

These standard size insulated banana plugs are equipped with plastic handles, brass nickel-plated bodies, and nickel-silver springs. The 108-752-1 has a black plastic handle—the 108-752-2 has a red plastic handle.

Cat. No.	S	P	D	H	G	O	Net Price
108-752-1	1 3/8"	17/32"	.175"	2 1/8"	7/32"	7/16"	$0.30
108-752-2	1 3/8"	17/32"	.175"	2 1/8"	7/32"	7/16"	.30

JUMBO INSULATED BANANA PLUGS

These jumbo size insulated banana plugs are similar in design to the standard types listed above, but are somewhat larger in size. With brass nickel-plated bodies, and nickel-silver springs. The 108-772-1 has a black plastic handle — the 108-772-2 has a red plastic handle.

Cat. No.	S	P	D	H	G	O	Net Price
108-772-1	1 3/4"	3/4"	.300"	2 25/32"	3/8"	5/8"	$0.53
108-772-2	1 3/4"	3/4"	.300"	2 25/32"	3/8"	5/8"	.53

STANDARD BANANA JACKS

High quality machined brass banana jack. Nickel-plated. Furnished complete with solder terminal and nut.

Cat. No.	F	D	S	H	Hole Dia.	Thread	Net Price
108-740	3/8"	1/4"	17/32"	5/8"	.166"	1/4"-28	$0.12

High quality machined brass banana jacks with plastic head molded to body. Nickel-plated. Furnished complete with solder terminal and nut. The 108-745-1 is equipped with red plastic head — the 108-745-2 is equipped with black plastic head.

108-745-1	7/16"	1/4"	31/64"	21/32"	.166"	1/4"-28	$0.22
108-745-2	7/16"	1/4"	31/64"	21/32"	.166"	1/4"-28	.22

This jumbo banana jack will accommodate plugs such as the 108-770 and the 108-771 listed above. Machined brass, nickel-plated. Furnished complete with solder terminal and nut.

108-760	9/16"	3/8"	21/32"	1"	.277"	3/8"-32	$0.32

NYLON PRINTED CIRCUIT PLUGS AND JACKS

Designed for use in printed circuits. Tough, low-loss nylon construction. Horizontal and vertical tip jacks designed to accommodate .080" tip plug. **Choice of 13 colors for coded applications, see color ordering information on next page.**

HORIZONTAL JACK

Unique design accepts .080" dia. tip plug in either end, or from top or bottom! Silver-plated beryllium copper formed contact. Two terminals.

Cat. No.	Color	Net Price
105-751	White (13 colors, see preceding page)	$0.08

VERTICAL JACK

Mounts through single .052" hole, requires minimum mounting area. Silver-plated, machined beryllium copper-contact.

Cat. No.	Color	Net Price
105-851	White (13 colors, see preceding page)	$0.11

SUB-MINIATURE TIP PLUG

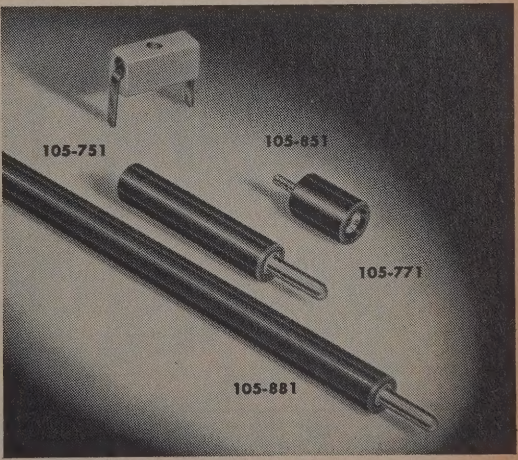
For use with miniature jack, .080" dia. tip. Nickel-plated machined brass body, solder type lead connection.

Cat. No.	Color	Net Price
105-771	White (13 colors, see preceding page)	$0.14

LONG HANDLE TIP PLUG

For use with horizontal, vertical, or standard .080" diameter tip jacks. Four-inch nylon handle for ready access to "hard to reach" test points. Nickel-plated machined brass body, solder type lead connection.

Cat. No.	Color	Net Price
105-881	White (13 colors, see preceding page)	$0.25



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Net

MATCHING PHENOLIC KNOBS AND DIALS

COLLET KNOBS

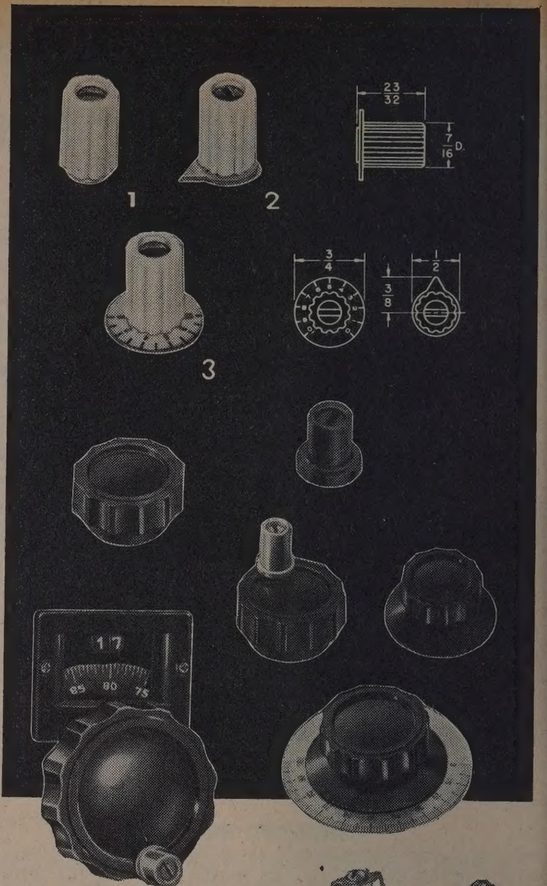
These new molded knobs and dials for ⅛" shafts offer fresh, modern styling with a tough, shock-proof high quality nylon body with accurately centered brass insert for ¼" shaft. Available in 13 bright colors – ideal for laboratory and test instruments, radio transmitters, etc. Collet and nickel-plated locking screw provide firm internal attachment.

NOTE: Collet knobs are available in 13 standard colors. White as shown in pricing, plus 12 other colors. Colors should be specified by increasing 5th and 6th digits of the Catalog Number listed for White per the chart below. (Example: To order 116-401 in Yellow rather than White, increase 5th and 6th digits by 06 ending up with 116-407.)

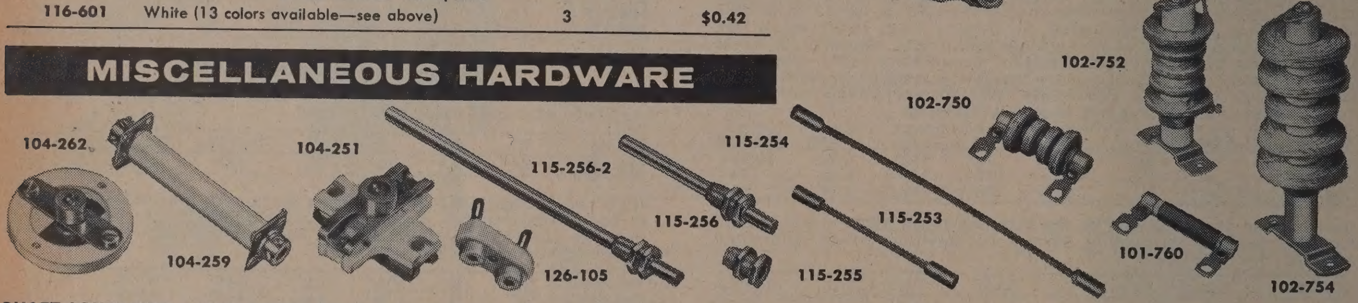
Increase 5th and 6th Digits by:	Color	Increase 5th and 6th Digits by:	Color	Increase 5th and 6th Digits by:	Color
01	Red	05	Orange	09	Dk. Blue
02	Black	06	Yellow	10	Ivory
03	Dk. Green	07	Brown	11	Violet
04	Lt. Blue	08	Lt. Green	12	Grey

A distinctive line of matching knobs and dials. Black phenolic molded parts (meet MIL-P-14). Available in three basic knob diameters, 1⅛", 1⅝", and 2⅜" – with matching black molded phenolic skirts or beveled satin aluminum skirts with an anodized finish and deeply etched and filled contrasting markings. Accurately centered brass inserts for ¼" shafts on all types, except instrument knob. Variations such as special shaft sizes, scales or indicators available in production quantities. Complete line includes: Instrument Knobs; Basic Knobs; Spinner Knobs; Skirted Knobs; a selection of Dials; Vernier Dials; and Counter Dial. Detailed specifications and prices are listed in our current Electronic Components Catalog – write today for your free copy.

Cat. No.	Color	Illustration	Net Price
BASIC KNOB			
116-401	White (13 colors available—see above)	1	$0.19
POINTER KNOB			
116-501	White (13 colors available—see above)	2	$0.24
DIAL KNOB 10-0/180°			
116-551	White (13 colors available—see above)	3	$0.42
DIAL KNOB 10-0/270°			
116-601	White (13 colors available—see above)	3	$0.42



MISCELLANEOUS HARDWARE



SHAFT COUPLINGS— High quality, low-loss insulation – all metal parts accurately machined and suitably finished. Phosphor bronze springs on -250 and -251 series provides flexibility without backlash and adjust to minor shaft misalignments. Rigid types such as the -258 and -262 series meet requirements of accurate shaft alignment and high torque. The -259 is a bar type coupling recommended for high voltages or very high frequencies – the -264 is a small bakelite insulated shaft coupling for DC or low voltage RF applications.

Cat. No.	DC Breakdown	Type	Overall Length	Max. Diameter	Couples Shafts	Net Price
104-250	4000	Flexible	1⅛"	1 11/32"	¼" to ¼"	$1.00
104-250-3	4000	Flexible	1 3/16"	1 11/32"	¼" to ⅜"	1.20
104-251	8000	Flexible	1 15/32"	2 7/32"	⅜" to ⅜"	1.55
104-251-2	8000	Flexible	1 15/32"	2 7/32"	¼" to ¼"	1.55
104-251-3	8000	Flexible	1 15/32"	2 7/32"	¼" to ⅜"	1.55
104-252	7000	Rigid	1¼"	11/16"	¼" to ¼"	.81
104-258	. . . .	Rigid	¾"	9/16"	¼" to ¼"	.37
104-259	8000	Semi-Flex.	3⅜"	1 1/32"	¼" to ¼"	2.15
104-262	5000	Semi-Flex.	⅞"	2"	¼" to ¼"	1.30
104-264	750	Semi-Flex.	¾"	1 1/32"	¼" to ¼"	.78

CRYSTAL SOCKETS – Excellent for low capacity, high voltage, and high temperature operation. Use as crystal sockets, antenna relay connectors, or VFO input connectors. Glazed steatite, Grade L-4 or better, DC-200 impregnated. For pins .051" diameter, ¼" long. Capacity between terminals with socket engaged is less than ⅕ mmf. Mounting hole also permits attachment of strain relief cord. Rated 5000 volts breakdown, 10 amp. current carrying capacity. Socket accepts type HC-6/U crystal holder.

Cat. No. 126-105 Silver-plated phosphor bronze contacts....Net Price $0.17
Cat. No. 126-105-2 Silver-plated beryllium copper contacts....Net Price .19

PANEL BEARING ASSEMBLIES – Panel bearings for ¼" shafts and rigid 3" and 6" nickel-plated brass shafts assembled in panel bearings. Shafts are ¼"; bearings are furnished complete with ⅜"-24 nut and can be mounted on panels up to ⅜" thick. Special shaft length and locking type bearing assemblies available on special order.

Cat. No.		Net Price
115-255	Panel Bearing Only	$0.19
115-256	Bearing and Shaft	.37
115-256-2	Bearing and Shaft	.50

FLEXIBLE SHAFTS – For out-of-line or up to 90° angular control. Phosphor bronze, non-rusting flexible shafts with ¼" nickel-plated brass hubs.

Cat. No. 115-253 3" Shaft....Net Price $0.57
Cat. No. 115-254 6" Shaft....Net Price $0.83

RADIO FREQUENCY CHOKES – High reactance over entire range. Coils wound with enamelled silk-covered wire on steatite cores impregnated with high grade RF lacquer. For intermittent use, current ratings listed may be increased.

Cat. No.	Frequency	Current	Induct. (1 mc.)	Ohms DC	Length	Net Price
102-750	1.7 to 30 mc	150 ma	.83 mh	15	1½"	$1.60
102-752	1.7 to 30 mc	500 ma	1.0 mh	5.2	2⅞"	2.30
102-754	1.7 to 30 mc	750 ma	1.9 mh	4	4 5/16"	3.40
101-760	VHF	250 ma	6.8 uh	.33	1½"	.72

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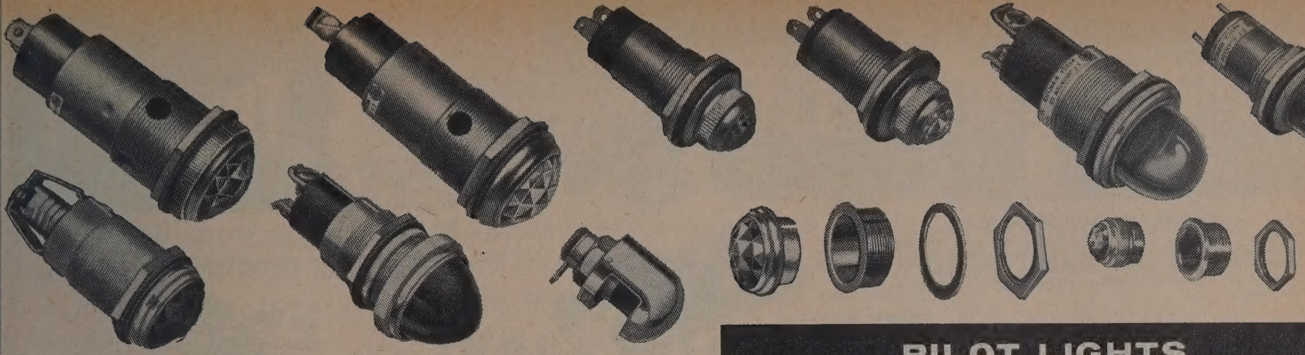
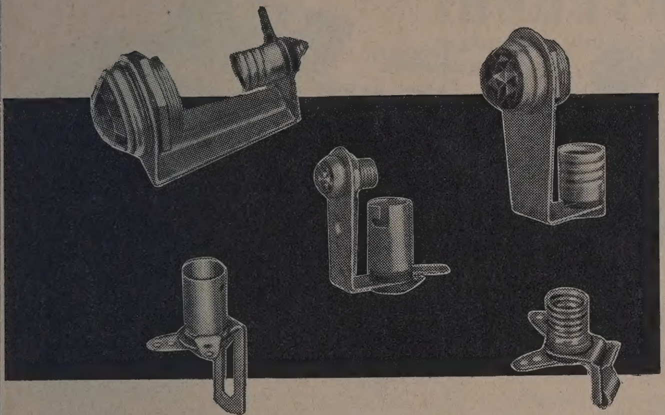




PILOT LIGHTS

Cut valuable specification time by selecting your panel indicators from Johnson's "preferred" line. This group contains more than 47 separate assemblies carefully selected from Johnson's standard line by many of the nation's top design and development personnel. Available in a wide variety of types, these "preferred" units are immediately available at parts distributors throughout the country, for original equipment or in-the-field replacement.

Available Types Include: Continuous Indication Neon Types; models for High and Low Voltage Incandescent bulbs; Standard or Wide Angle Glass and Lucite Jewels in Clear, Red, Green, Amber, Blue or Opal. Specials, including those meeting military specifications are also available in production quantities.

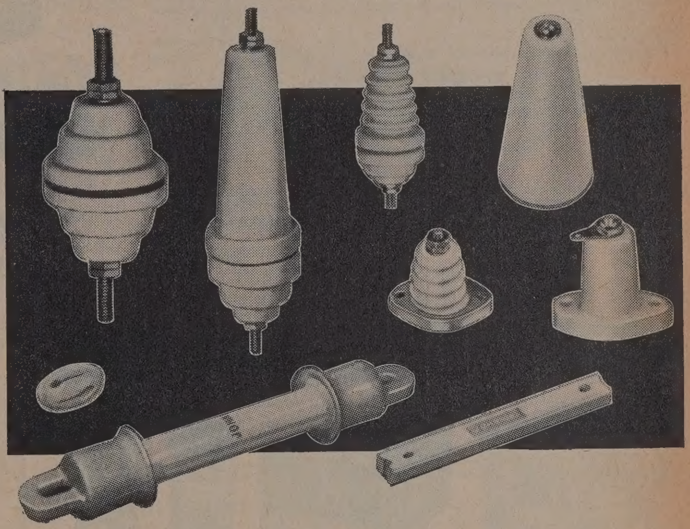
NOTE: For detailed specifications and prices on "preferred" types as well as the complete line of Johnson Pilot Lights, write for your copy of our newest Pilot Light Catalog. See how easy it is to select the "right" pilot light . . . fast!

STEATITE AND PORCELAIN INSULATORS

Available in a wide line of standard types, Johnson low-loss steatite and porcelain insulators are readily available for almost any electronic application. Fracture resistant, dense molded and glazed for low moisture absorption, Johnson stand-off and feed-thru types are designed with extended creepage paths for maximum voltage breakdown ratings — heavy integral mounting bases withstand high compression loads and considerable lateral stress. Insulators are equipped with heavily nickel-plated brass hardware — excellent for exposed applications . . . feed-thru types are available with jacks to accommodate Johnson or other standard banana plugs.

Complete Line Includes the Following: Insulated Thru-Panel Bushings; Thru-Panel Insulators; Antenna Strain Insulators; Feeder Insulators; Steatite Cone Insulators; Steatite and Porcelain Stand-off Insulators; Lead-In Bushings; and Feed-Thru Bowl Assemblies.

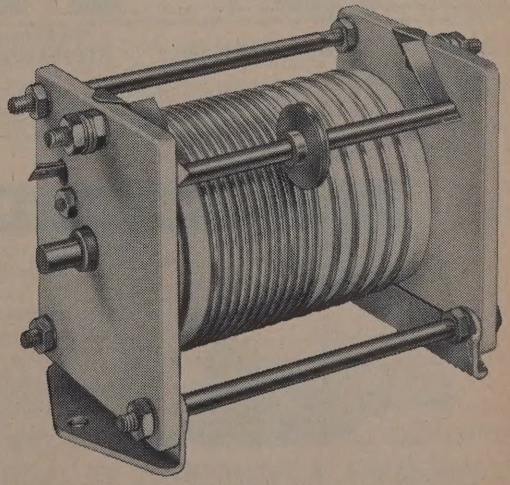
NOTE: Our current Components Catalog lists detailed specifications and prices on the complete Johnson insulator line. Write today for your free copy.



"229" WIRE-WOUND VARIABLE INDUCTORS

Steatite insulated variable inductors for amateur transmitters or low power commercial equipment. Variable pitch, tinned copper wire windings on grooved steatite forms. ¼" shafts extend ½" both ends. "L" dimension over mounting feet.

Cat. No.	Inductance	Current in Amps	Mounting Dimensions	Overall Dimensions L	W	H	Wire Size	Net Price
229-201	10 uh	3	3 15/16"	4 3/8"	2½"	2 31/32"	No. 14	$10.75
229-202	18 uh	5	5 15/32"	5 29/32"	2½"	2 31/32"	No. 12	11.75
229-203	28 uh	5	6 23/32"	7 5/32"	2½"	2 31/32"	No. 12	12.50



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Keys and Practice Sets

DELUXE SEMI-AUTOMATIC KEYS

Adjustable from lowest to highest speeds, this handsomely finished semi-automatic key has a smooth, easy action. Vibrator, posts, circuit closing switch, and all machine parts heavily chrome plated. Five adjustments with lock nuts—molded plastic paddles adjust separately to best height. Steel base 6¼" x 3½" x ½"—complete with adjustable weight and rubber feet.

Cat. No.		Amateur Net
114-500	⅛" contacts, black wrinkle base	$18.95
114-501	¼" contacts, polished chrome base	22.95

SPECIAL SEMI-AUTOMATIC KEY

Many operating features—attractively finished, black wrinkle enamel base. All hardware and vibrator heavily chrome plated. Same vibrator as on deluxe key. Easy action, adjustable from lowest to highest speeds. ⅛" coin silver contacts — circuit closing switch — rubber mounting feet.

Cat. No.		Amateur Net
114-520	Special Model, Semi-Automatic	$15.95

HEAVY DUTY KEYS

Heavy die cast base, chrome plated key arm. Well insulated for heavy duty service. Large ¼" coin silver contacts. Improved Navy-type knob. Adjustable steel bearings and spring design give light keying touch.

Cat. No.		Amateur Net
114-320	Black wrinkle enamel base	$4.70
114-321	Polished chrome plated base	5.85

STANDARD KEYS

Heavy die cast base. Smooth adjustable bearings. Provision for plugging in semi-automatic keys. ⅛" coin silver contacts. A high quality key at a low cost.

Cat. No.		Amateur Net
114-310	Black wrinkle, no switch	$3.25
114-310-3	Black wrinkle with switch	3.95
114-311	Chrome plated, no switch	5.30
114-311-3	Chrome plated with switch	6.20

HIGH SPEED STANDARD KEYS

Fully adjustable spring tension, contact spacing and bearings. Brass base and binding posts—instrument lacquer finish. .072" platinor contacts.

Cat. No.		Amateur Net
114-100	R48 Key, satin brass, no switch	$6.45
114-100-3	M100 Key, satin brass with switch	7.35

PRACTICE KEY

An inexpensive practice key—perfect in design for the average beginner. All the metal parts are nickel plated. Furnished with an adjustable key arm, spring and smooth action bearings. Contacts are of ⅛" coin silver.

Cat. No.		Amateur Net
114-300	Molded phenolic base	$2.25

PHENOLIC BASE KEYS

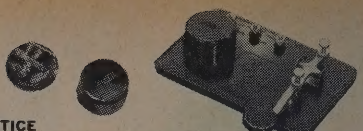
High quality key with adjustable bearings. Improved spring-pigtail connection. ⅛" coin silver contacts—nickel plated metal parts.

Cat. No.		Amateur Net
114-301	Molded phenolic base, no switch	$2.50

CORD AND WEDGE

Cord and wedge for easy attachment of semi-automatic key across circuit-closing switch of a standard hand key. Used almost universally by railroad telegraphers—ideal for amateur service where both hand key and semi-automatic are used.

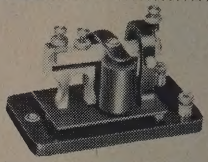
Cat. No.		Amateur Net
114-380	Cord and wedge	$1.15



PRACTICE SET

Constant frequency buzzer and key on a 4" x 6" molded bakelite base. Buzzer tone is fully adjustable. Coin silver contacts. Uses two dry cells or "C" battery. Connect singly or in pairs for code practice.

Cat. No.		Amateur Net
114-450	Practice Set	$4.95
Buzzer only as used on set above.		
114-400	Buzzer	$1.85



TELEGRAPH SOUNDER

Designed for instant response, brass sounder provides clear, resonant tone. Steel bar frame, black enamel finish. Brass bridge and adjustment screws, instrument lacquer finish. Sounder plate is black lacquered steel. Mahogany finished wood base, brass binding posts and rubber mounting feet.

Cat. No.		Amateur Net
114-112	Sounder (4 ohms)	$10.45
114-113	Sounder (20 ohms)	11.25

LEARNER SET

Telegraph practice set. Bar frame steel, brass bridge and adjustment screws. Brass lacquer finish. Brass sounding bar—black lacquered steel sounder plate. Adjustable black nickel-plated key arm. High impact polystyrene base, black matte finish, brass binding posts, rubber feet.

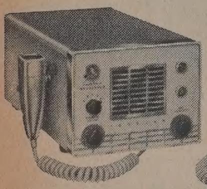
Cat. No.		Amateur Net
114-110	(4 ohms)	$14.95
114-111	(20 ohms)	15.45

PONY RELAY

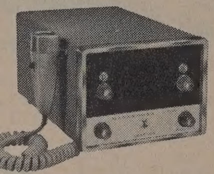
Polished, plated steel armature—all other metal parts, brass with lacquer finish. Heavy duty magnets. Mahogany finish wood sub-base—cast iron black enamel base.

Cat. No.		Amateur Net
114-105	(20 ohms)	$13.95

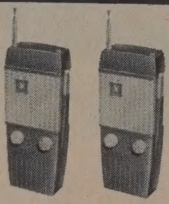
Citizens Band Equipment



"MESSENGER"



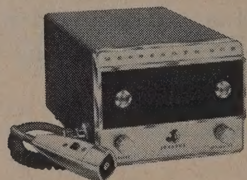
"MESSENGER TWO"



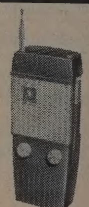
"PERSONAL MESSENGERS"

Hundreds of uses — ideal for builders, contractors or other "on the job" applications. Used by hunters, fishermen, or sportsmen. Anyone can operate . . . no examination necessary . . . license issued by the FCC on request.

Industrial Radio Equipment



"MESSENGER 202"



"PERSONAL MESSENGER"

Every feature you could want for solid, low-cost 25 to 50 mc. Industrial Radio. Plenty of range for most industrial applications. Basic design and circuit performance-proved under thousands of exacting, mobile, marine, and field conditions with outstanding results!

Amateur Radio Equipment

First choice of amateurs the world over

Amateur Radio is "adventure" — and the fortunate amateur owning Viking equipment enjoys the maximum amount of operating pleasure and performance. Since the first Viking transmitter was built, amateurs everywhere have looked to the E. F. Johnson Company for leadership in transmitter design. Today, Johnson offers the industry's most complete line of amateur transmitters and station accessories . . . a line that's "first choice of amateurs the world over!"

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Net

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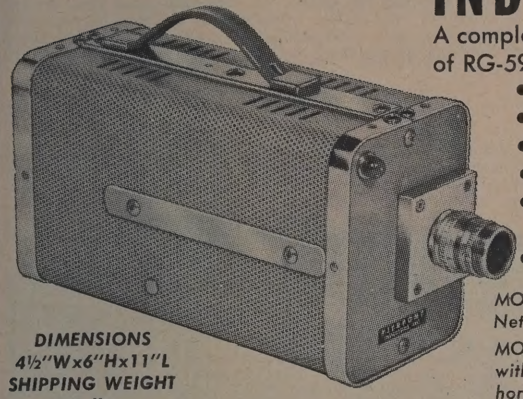
PIERPONT CLOSED CIRCUIT TELEVISION EQUIPMENT

PIERPONT closed circuit television equipment is available for a wide variety of applications in industry, business and education. All equipment is engineered to the highest standards of reliability and guaranteed. Field engineering assistance available.

INDUSTRIAL TELEVISION CAMERA



DIMENSIONS
4½"Wx6"Hx11"L
SHIPPING WEIGHT
15 lbs.

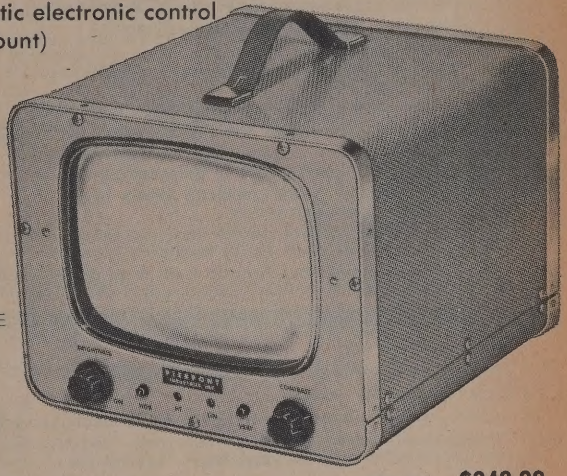
A complete video camera for operation of up to 50 monitors or receivers over 2000 feet of RG-59VU cable. Remote control of focus and picture optional.

- OUTPUT—Video 1.5V P-P, Sync. neg. 75 ohm. R.F.—100MV CH 2 to 6 tunable
- RESOLUTION—400 lines (center) 350 lines (edge)
- LIGHT CONTROL—Automatic electronic control
- LENS—Any 16 mm ("C" Mount)
- POWER REQUIREMENT 117V, 60 cycle, 50W
- CONNECTOR—SO-239

MODEL CAM-2P
Net Price **$599.00**

MODEL CAM-2PA—Same as CAM-2P with addition of crystal controlled horizontal scanning. Frequency controlled to .01%.
Net Price **$649.00**

8" INDUSTRIAL TELEVISION MONITOR



Engineered and styled as a perfect companion for Model CAM-2P camera. Simple installation and operation. Ideal for desk or shelf mounting.

- INPUT—.5 to 3V Video sync. neg.
- POWER REQUIREMENT—117V, 60 cycle, 95W.
- CONNECTORS—2-SO-239 bridged
- VIDEO BAND WIDTH—7 MC Flat (600 lines)
- HANDWIRED CHASSIS-POWER TRANSFORMER

DIMENSIONS 10¼"Wx8"Hx11"L **SHIPPING WEIGHT 22 lbs.**

MODEL TM-3P.......................................*Net Price* **$249.00**

MODEL TM-4P-17" INDUSTRIAL TV MONITOR electrically equivalent to Model TM-3P............*Net Price* **$279.00**

MODEL TM-23P-14" INDUSTRIAL TV MONITOR electrically equivalent to TM-3P...............*Net Price* **$299.00**

INDUSTRIAL TV EVALUATION KIT

A completely portable and storable kit that may be set up and operated by anyone. Invaluable as a stand-by unit, for occasional use, to supplement an installed system, and for testing and evaluating applications of ITV in your own operation. Consists of MODEL CAM-2P camera (Illus. above); TM-3P 8" monitor (Illus. above); 3 lenses including wide angle, general purpose and medium telephoto; 50 foot coaxial cable with attached connectors; tripod; A.C. extension cable. All equipment in fitted, heavy duty, black vulcanized fibre case.

DIMENSIONS 24"Wx26"Lx10"H **SHIPPING WEIGHT 50 lbs.**

MODEL EK-3A ....*Net Price* **$995.00**

CAMERA TUBE—Grade A, studio quality vidicon, Type 7038. Resistant to burn-in. Guaranteed resolution of 600 lines. Exceptionally uniform screen characteristics. Field experience indicates a life of more than 6,000 hours of continuous operation.
MODEL PV-7038 ....*Net Price* **$150.00**

3 LENS TURRET—Accommodates any 16 mm lenses in a "C" mount. Chrome plate on heavy base. Easily mounted on CAM-2P camera.
MODEL TU-2P ....*Net Price* **$39.50**

REMOTE IRIS & FOCUS CONTROL with CONTROL CABINET—Effective up to one mile. Twin motors for focus and light control. Complete with wide angle lens, general purpose lens, or telephoto lens and 4-wire (#20) black rubber covered, color coded wire.

MODEL CRIF-2P with wide angle lens.........................*Net Price* **$199.45**
general purpose lens ....*Net Price* **$158.45**
telephoto lens ....*Net Price* **$169.45**
RC-4W Wire per 1,000 ft. **$150.00**

COAXIAL CABLES with Connectors:

CA59-25 *25 ft*.......................................*Net Price* **$ 7.50**
CA59-50A *50 ft*.......................................*Net Price* **10.00**
CA59-100A *100 ft*.......................................*Net Price* **15.00**

PAN & TILT UNIT— for remote aiming of camera—complete with controls. *MODEL PT-100S* ....*Net Price* **$475.00**

ENVIRONMENTAL HOUSING—Complete with all accessories for outdoor operation of camera. *MODEL EH-2*....*Net Price* **$495.00**

A COMPLETE LINE OF ACCESSORIES FOR ALL INDUSTRIAL TV EQUIPMENT & APPLICATIONS

PIERPONT INDUSTRIES, INC.

EAST ELMHURST 69
NEW YORK, N.Y.

CITIZENS' BAND RADIO

THE RCA MARK VIII Type 17704

The RCA Mark VIII Radio-Phone is a 27 megacycle citizens' band 2-Way Radio designed to provide business and industry with a dependable short-range communications facility. Its low cost and uncomplicated operating features also make it ideal for use by sportsmen.

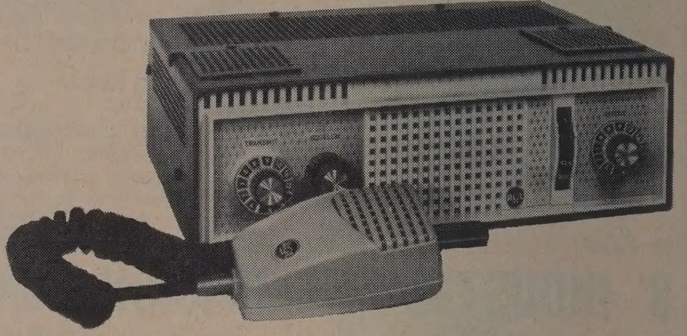
The Mark VIII may be operated for business or personal use. Although no operator's license is required, a station license is necessary and may be obtained through application to the FCC using the form supplied with the unit. This station license is granted only to citizens of the United States 18 years of age or older, but persons other than licensees, including those under 18, may operate units under the supervision of the licensee.

In many respects, the Mark VIII represents a significant departure from ordinary citizens' band radio design. Its low, slim silhouette (only 3½ inches high) facilitates installation in extremely cramped locations permitting under-the-dash mounting even in today's small cars.

One of the most important, and unique features of the new Mark VIII is the inclusion of *only* an ac power supply in the transceiver. A separate dc power supply (optional) is available for either 12-volt dc (Type 17705) or 6-volt dc (Type 17705-A) operation. This small unit may be mounted on the firewall of the vehicle as a permanent installation, and the Mark VIII can be plugged in for mobile use, or unplugged and carried into the home or office for base station operation. In addition to reducing the size of the transceiver, this arrangement results in considerably lower costs for the user who doesn't require a mobile power supply in every unit.

- 9 crystal controlled transmit and receive channels
- Tuneable receiver for reception of all 23 CB channels
- Excellent voice reproduction—high intelligibility
- Built-in ac power supply
- Separate 6 or 12-Volt dc power supply (optional) for mobile installation
- 5 Watt* transmitter—Nominal output 3 Watts or better
- Highly selective superheterodyne receiver with one rf and two if amplifiers
- Fully adjustable squelch circuit to quiet receiver
- Improved Automatic Noise Limiter to reduce effects of ignition and similar interference
- Automatic Volume Control: affords maximum gain of weak signals and limits strong ones
- Unique "message monitor" feature: Calls from nearby stations can be heard even with volume control turned all the way down
- TV1 trap eliminates interference with television sets in area
- P1 network output assures more efficient antenna coupling—insures peak output
- Electronic switching—no relay noise or chatter
- Audio Output—2½ watts
- Impact resistant plastic push-to-talk ceramic microphone with coil cord
- Rugged metal cabinet with plastic face plate—attractive midnight blue and gray scratch resistant vinyl finish

- * Maximum plate input power to final radio frequency stage as defined by FCC Regulations



Mark III Transceiver (RCA Type 17704, complete)	$149.50*
6-Volt dc power supply (RCA Type 17705A, complete)	$ 19.95*
12-Volt dc power supply (RCA Type 17705, complete)	$ 19.95*

RCA PERSONAL-COM 300

Type 17678A

With the Personal-Com 300, RCA makes available a truly practical 27 megacycle portable Transceiver. Completely transistorized, the lightweight Personal-Com 300 operates from a self-contained rechargeable battery, and is housed within a sturdy high-impact resistant plastic case attractively finished in gleaming black and silver.

Designed for one-hand operation, the VOLUME-ON-OFF switch and PUSH-TO-TALK button are so placed that they can both be operated with the thumb of one hand.

The RCA Personal-Com 300 is the ideal communications facility for business or personal use on construction sites, loading platforms, farms, camps, hunting lodges or aboard your boat.

The Personal-Com 300 (17678A) comes complete with battery, battery charger, leather carrying case with strap and telescoping antenna.

The Personal-Com 300 is furnished to operate on channel seven, but the use of plug-in crystals permits changing, in the field, to any of the channels in the 27 mc band, from 26.975 mc to 27.225 mc.

FEATURES:

- **Power input—90 milliwatts for short range, unlicensed operation**
- **Completely self-contained transceiver for operation on any single frequency in 27 megacycle band**
- **Small, compact, lightweight—ust 7⅝" high, 2⅞" wide, 1⅞" deep, weighs slightly more than one pound including battery**
- **Attractively styled, impact resistant plastic case with telescoping antenna**
- **Excellent voice reproduction—quality two-inch diameter 100 ohm speaker**
- **Provision for use of external earphone**
- **Superheterodyne receiver with tuned radio frequency amplifier**
- **Certified to comply with Part 15 of the rules and regulations of the FCC**
- **Variety of optional accessories available**

* Optional List Price **$99.50***

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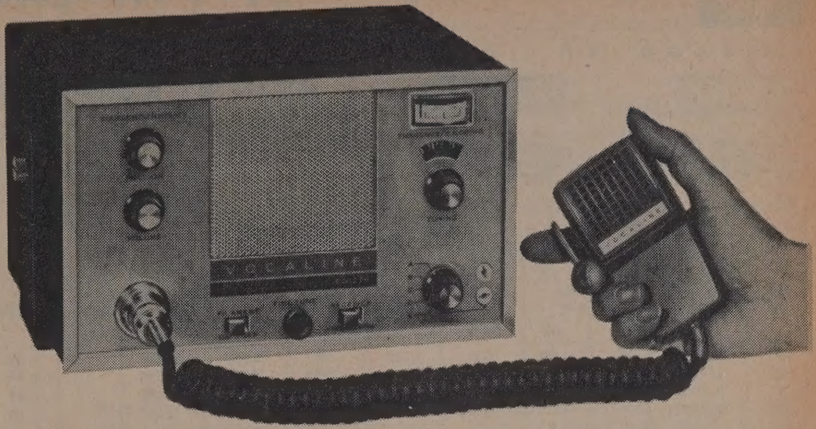
the ultimate in citizens band radio . . .

$199.50 each, list

VOCALINE commaire ED - 276



Transistorized 6-channel mobile and base transceiver

With the introduction of the new Commaire ED-276, Vocaline achieves the most advanced Citizens Band radio available anywhere today. It represents a total departure from all other units both in reliability of performance and variety of practical operating facilities. The entire unit mounts quickly for rugged mobile use or operates as a handsome free-standing base unit. Receiver is a transistorized double conversion superheterodyne unit, with high receiver selectivity achieved through use of ceramic filters. Transmitter provides a full 3 watts output, with 100% modulation.

OTHER FEATURES

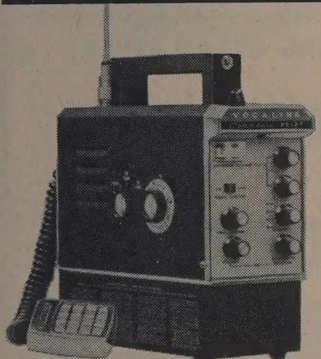
3-stage AGC, eliminates blasting and fading; harnessed assembly for easy servicing; transistorized power supply; combined "S" meter, frequency spotter and RF power indicator on front panel; 22-channel tuning; 5 fixed transmit and receive channels with 6th position on selector switch for front panel crystal; receiver fixed/tune switch; exclusive receiver fine tuning; combined squelch and sensitivity control and many more.

SPECIFICATIONS: 22 transistors — 8 diodes — 3 tubes

Receiver Sensitivity — better than 0.2 μv. for a 6 db signal plus noise/noise ratio
Selectivity — 40 db down at ± 6 kc — adjacent channel rejection 55 db down
Audio Output — 5 watts (0.15 μv signal, 30% modulated at 400 cps will provide 3 watts)
Squelch Range — 85 db (0.1 μv — 2000 μv)
A. G. C. — Input signal voltage change of 80 db will allow 1.6 db audio output voltage change.
Transmitter — Full 5 watts input — 3 watts output
Modulation — 100% capability

POWER CONSUMPTION

	117 VAC	12 VDC
No signal, filaments off	23 watts	60 ma.
Average volume on signal, filaments off	24 watts	100 ma.
No signal, filaments on	35 watts	1.05 amp.
Transmit, 100% modulation	40 watts	4.5 amp.



World's First Long-Range Portable Self-Powered, 2-Way CB Radio With AM Receiver

VOCALINE COMMAIRE PT-27

AM broadcast band . . . 4 fixed channels and tunable receiver . . . self-powered . . . portable

WEATHER! NEWS! COMMUNICATIONS! IDEAL FOR ALL SPORTSMEN!

Perfect for hunting, fishing, camping . . . can be used for business, industry, farming . . . a variety of applications.

- 100% modulation
- 18 transistors (and 5 diodes) for matchless performance
- double conversion, superheterodyne receiver
- temperature-compensated circuits
- exceptional sensitivity — 0.1 microvolt (variable)
- outstanding selectivity — 40 db down at ± 10 KC
- equal range of 5-watt high quality CB units
- lightweight — only 11½ lbs. with batteries
- compact — 9" x 4" x 11"
- superior Silent-Aire Squelch
- Built-in charger
- 10 controls for maximum flexibility
- no installation required
- carrying handle

$199.50 each, list

IDEAL FOR
HOME,
OFFICE,
PLANT

VOCATRON

CC-60 WIRELESS INTERCOM

- No wires needed—just plug in and talk
- Patented new squelch circuit—eliminates squawk
- Compact—3" x 8" x 6"
- Draws less current than a light bulb
- Distinctive and functional appearance

$99.50 pair, $49.75 each

New Multi-Channel Convenience In Citizens Band Radio Communication

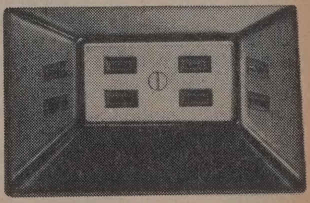
VOCALINE COMMAIRE

4-CHANNEL model ED-27M (27 MC.)

Vocaline Commaire

- Selective & Sensitive Receiver
- Patented Silent-Aire Squelch
- Single Crystal Receiver
- Transistorized Power Supply and Unmatched Audio Circuitry
- Convenience of conference-phone flexibility plus uniform performance throughout the entire 22-channel citizens band
- Ideal for business, industry, boating and sports

$159.50 each, list



4 SAFE OUTLETS IN ONE!

PERMA-PLUG

- Ends messy wiring
- Won't pull out when you pull out plugs
- U.L. Approved
- Proven seller—attractive display units provided

89¢ Brown 89¢ Ivory

VOCALINE COMPANY OF AMERICA, INC.

COMPLETE LINE OF ACCESSORIES, ANTENNAS AVAILABLE

OLD SAYBROOK, CONN.

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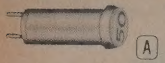
DRAKE

CHICAGO 31 ILLINOIS

BI-PIN CARTRIDGE LAMPS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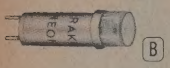
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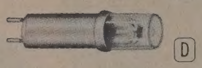
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REPLACEABLE BI-PIN CARTRIDGE LAMPS

FOR COMPUTER AND READOUT USES

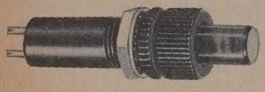
NEON LAMPS										
Fig. No.	Drake Number	Starting Volts		Design Current (MA.)	Watts	C.P. at Design Current	Average Life at Des. Cur. (Hrs.)	Resist. Req. for Des. Cur. at Norm. Circ. V.	Built-in Resistor	List Price
		AC	DC							
A	1-503	65	90	0.3	1/25	.003	25M	220K		1.44
B	1-603	"	"	0.3	1/25	.003	25M	220K		1.44
C	1-703	"	"	0.6	1/15	.006	25M	100K		1.35
D	1-803	"	"	0.6	1/15	.006	25M	100K		1.35
C	2-703	65	90	1.1	1/8	.010	10M	56K	x	1.80
D	2-803	"	"	1.1	1/8	.010	5M	56K	x	1.80
A	4-503	95	135	0.8	1/10	.012	25M	68K		1.44
B	4-603	"	"	0.8	1/10	.012	25M	68K		1.44
C	5-703	"	"	2.6	1/3	.034	10M	22K	x	1.80
D	5-803	"	"	2.6	1/3	.034	10M	22K	x	1.80

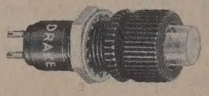
INCANDESCENT LAMPS							
Fig. No.	DRAKE NUMBER		Design Volts	Design Current (Amps.)	Average Life (Hrs.)	Candle Power (C.P.)	List Price
	Transparent Filter	Translucent Filter					
B	6-603	6-604	6	.20	500	.63	$1.74
C	6-703	6-704	6	.20	500	.63	1.74
B	11-603	11-604	28	.04	1000	.34	1.92
C	11-703	11-704	28	.04	1000	.34	1.92

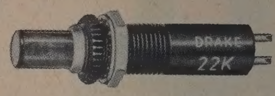
Save space on crowded panels. Wide choice of filter shapes and colors (Red, Yellow, Green, Blue, White, Colorless). Neon types with or without built-in resistors. Incandescent types available in wide range of low voltages. Selected units have low power drain, can be driven with transistors.

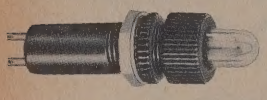
Lamps fit DRAKE or any other cartridge base lampholders. Easily replaced from front of panel. Lamps sealed into clear anodized aluminum casings. Two stainless steel terminals; Nylon insulation. Low cost printing of 1, 2 or 3 digits, letters or symbols on flat face filters, up to 12 pt. type. Legends are pin-indexed for fast installation and replacement, with automatic line-up. These and other Bi-Pin Cartridge Lamps available in single units or multiple-unit blocks. Built to withstand environmental requirements of MIL-STD-202B per MIL-L-3661A.

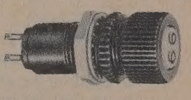
★ COMPLETE CARTRIDGE UNITS (ORDER LAMPS AND LAMPHOLDERS SEPARATELY) ★

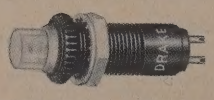


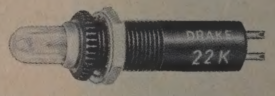


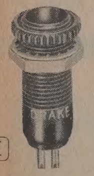












E

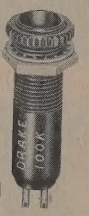
CARTRIDGE LAMPHOLDERS

Exclusive advanced design for "D" hole mounting cuts costs, saves assembly time, provides standardized legend alignment. Extra savings by using DRAKE Lampholder *without collars.*

Small size—mount in 3/8" dia. hole on 21/32" centers. Sturdy black anodized aluminum body, collar and facing nut—cadmium and Cronak plated steel lockwasher and hex nut—molded phenolic insulation—silver plated-gold flashed spring brass terminals, identified with letters A and B for DC operation with seasoned lamps. Exclusive DRAKE *E-Z-Tite* knurled facing nut (#20 wrench) for fast, secure panel installation. Both contacts insulated from mounting. Max. Amps.: 1—Max. Watts: 75—Test Voltage: 1,000 AC @ 60 cps. Available with or without built-in 1/10 watt current limiting resistor for use with neon cartridges.

DRAKE Cartridge Lampholders accept all Bi-Pin Cartridge Lamps now on the market.

G



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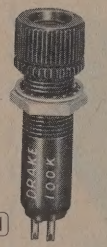

H

DRAKE NUMBER						Built-in Resistor (Ohms) ±10%	Max. Current (MA.)
Fig. No.	Without Collar	List Price	Fig. No.	With Collar	List Price		
E	4428-000	$1.74	G	4428-001	$1.95		1.0
F	4438-000	2.31	H	4438-001	2.43	22K	2.04
	4438-002	2.31		4438-003	2.43	47K	1.40
	4438-004	2.31		4438-005	2.43	56K	1.27
	4438-006	2.31		4438-007	2.43	100K	.95

PROJECTIONS FROM PANEL FACE — LAMP INSTALLED				
Filter Shape	Without Collar		With Collar	
	Front	Rear	Front	Rear
Flush	7/32"	1 5/64"	3/8"	59/64"
Short Cylindrical	3/8"	1 3/8"	17/32"	1 7/32"
Long Cylindrical	19/32"	1 3/8"	3/4"	1 7/32"
Long Macrodome	37/64"	1 3/8"	47/64"	1 7/32"

ALL ILLUSTRATIONS APPROX. 3/4 ACTUAL SIZE ★ ALWAYS SPECIFY FILTER COLORS

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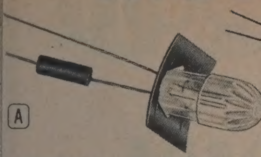
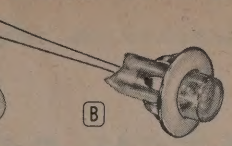
COMPUTER INDICATOR LIGHTS

DRAKE

CHICAGO 31 ILLINOIS





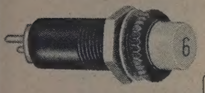
"ECONOGLO" NEON GLOW INDICATOR LIGHTS

Excellent for LOW COST 120V applications or as D. C. circuit components. Available with or without series resistors. Mount from front of panel. Equipped with 2" wire leads. Plain macrodome also available; substitute lens code 303 for 323 when ordering.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
A	R116-323 or 303	11/32"	3/8"	15/32"	100K	5/16"	1/4"	17/32"	$ .46
B	R117-604	11/32"	1/4"	5/8"	100K	1/2"	1/16"	11/16"	.57

LENS DESCRIPTION CODE (last three Drake Number digits): See Section 3900.

For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H".



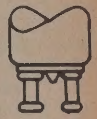
"MINEON" NEON GLOW INDICATOR LIGHTS

Similar to "ECONOGLO" types, except mounted in black anodized aluminum body with solder lugs or turret terminals. Drake E-Z-Tite facing nut, and No. 20 wrench, make assembly fast.

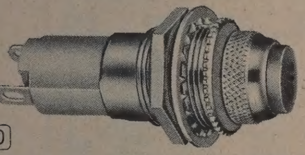
Fig. No.	DRAKE NUMBER				Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Mounting Hole Dia.	Maximum Panel Thickness	Mounting Centers
	Pin Lugs	List Price	Turret Lugs	List Price							
C	R118-644	$1.65	R119-644	$2.26	11/32"	9/32"	1 3/16"	100K	3/8"	3/8"	5/8"

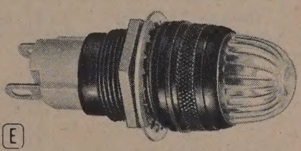
LENS DESCRIPTION CODE (last three Drake Number digits): See Section 3900.

For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H".



DRAKE
NO. 119
TURRET LUGS



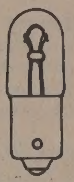


"DELUXE MOLDED" INDICATOR LIGHTS

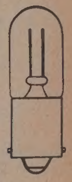
For detailed description, see DRAKE pages, Section 3900

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	List Price
D	5203-232-544		1/2"	15/32"	1 5/8"	Solder	22K	$2.46
E	5204-238-320	LH78-LC20	5/8"	27/32"	1 9/32"	Solder	27K	2.90

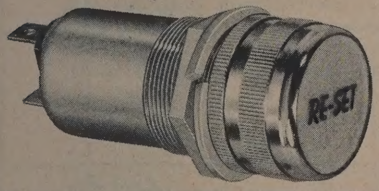
LENS DESCRIPTION CODE (last three Drake Number digits): See Section 3900.



MIN. BAY.
BULB NO. T-3¼
6.3-28V



MIN. BAY.
LAMP NO.
NE51H
125 V

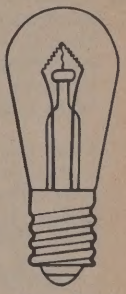


HEAVY DUTY INDICATOR LIGHTS

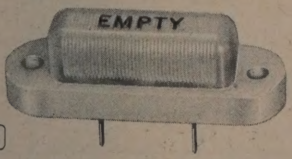
Ruggedly made for severe duty. Polished chrome plated screw-on lens holder. Pop-forward lamp easily replaced from front of panel. Mount from front or rear of panels up to 7/16" thick, in 1" dia. hole on 1⅜" centers.

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Lamp	List Price
F	B1478L-ISE-550	1"	Cand. Screw	3/4"	2 5/32"	656 or 10C7	$2.91

LENS DESCRIPTION CODE (last three Drake Number digits): See Section 3900.



Cand. Screw
LAMP NO. 656
120V



"FLUSHLITE" INDICATOR LIGHTS

A "one-of-a-kind" unit—all nylon with built-in series resistor. Exceptional appearance.

Fig. No.	Drake Number	Lens Size	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	List Price
G	110-022 (Hi-Brite)	13/32" x 1 1/4"	11/32" or 9/16"	17/32" or 5/16"	22K	Hi-Brite Neon	11/32" Rear Mtd.	9/16" or 1 7/8"	$ .83

TURN TO SECTION 3900
for detailed information about many other
DRAKE INDICATOR LIGHTS — LENSES — LAMPHOLDERS

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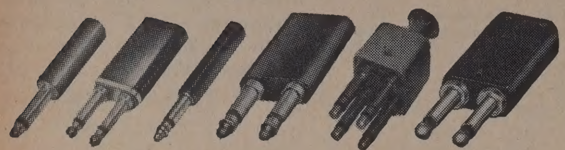
PLUGS



PJ-5 PJ-1 PJ-3 PJ-6 D7200 PJ-327

PJ-5 **Equivalent, PJ-055, WE-47,** fits ¼″ phone jacks. Black plastic shell. Screw terminals. Two conductor. **Net $.78**

PJ-1 **Equivalent WE-241,** heavy duty die cast frame. Black phenolic shell. Self aligning plug prongs on ⅝″ center for use with all standard jack panels. Two tip conductors, plus sleeve connection common to both sleeves. **Net $2.55**

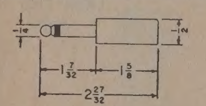
PJ-3 **Equivalent PJ-051, WE-310.** Designed for use with ¼″ tip, ring and sleeve jacks. Molded insulation, red plastic shell. Three conductor. **Net $2.40**

PJ-6 **Equivalent WE-213.** Designed for applications requiring two separate 3 conductor circuits. Popularly used with operator's intercom/monitor headsets. Black shell notched for polarity identification. Self aligning plug prongs on 11/16″ centers. **Net $9.78**

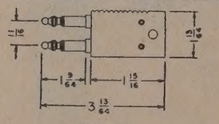
D7200 **Equivalent WE-315B.** Four prong, self aligning plug. Molded insulation. Brass shell notched for polarity is nickel plated and connected to plug stems to provide shielding for tip conductors. For use with four PJ-318 double jacks mounted on ⅝″ centers. Five conductors. **Net $14.70**

PJ-327 **Equivalent WE-327.** The PJ-327 Twin Plugs provides two electrically independent, 2 conductor plugs in a black plastic shell which is notched to indicate polarity. Self aligning plug sleeves are on ⅝″ centers. Designed and constructed in accordance with Specification MIL-P-642A. **Net $2.55**

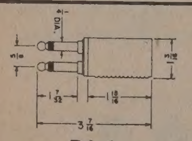
PJ-7 Twin type plug with tip, ring and sleeve conductors on ⅝″ centers for use with all standard jack panels. Designed to mate with three conductor jacks having ¼″ diameter sleeves. Molded insulation. Black phenolic shell is notched to indicate polarity. **Net $7.20**



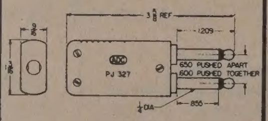
PJ-5



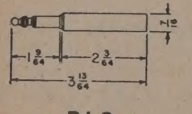
PJ-6



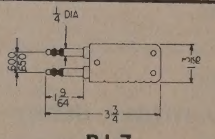
PJ-1



PJ-327

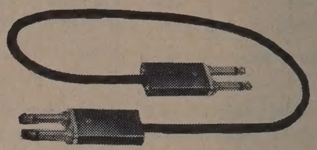


PJ-3



PJ-7

PATCH CORDS



Length	Cord With PJ-1 Plugs	Net Price	Cord With PJ-5 Plugs	Net Price	Replacement Cords Only	Net Price
6-inch	PJ-10½	$6.38	PJ-50½	$3.48	PJ-20½	$1.11
1-foot	PJ-11	6.60	PJ-51	3.63	PJ-21	1.50
2-feet	PJ-12	6.75	PJ-52	3.84	PJ-22	1.65
3-feet	PJ-13	6.90	PJ-53	4.11	PJ-23	1.74
4-feet	PJ-14	7.13	PJ-54	4.44	PJ-24	1.80
5-feet	PJ-15	7.28	PJ-55	4.77	PJ-25	1.89
6-feet	PJ-16	7.58	PJ-56	5.25	PJ-26	2.49
10-feet	PJ-10	8.10	PJ-50	5.82	PJ-20	3.15

Length	Cord With PJ-3 Plugs	Net Price	Replacement Cords Only	Net Price
2-feet	PJ-82	$8.70	PJ-62	$2.10
4-feet	PJ-84	9.30	PJ-64	2.40
6-feet	PJ-86	9.90	PJ-66	2.82

ADC patch cords have become standards in the communications industry. Unmatched in quality, these shielded cords are made of tinned copper conductor wire with a heavy braided cover reinforced at each end. These cords, as well as cord assemblies with PJ-1 double plugs, PJ-5 or PJ-3 single plugs and standard black patch cords with shields grounded both ends, are considered standard. Unshielded cords or assemblies with shields grounded one end only available on special order. Gray, red, other color cords available on special order.

Four tinsel wire conductors plus shield (shield grounded to both sleeves of PJ-7 plugs). Conductors are rubber insulated. Heavy black braided glazed cotton cover overall.

Length	Cord with PJ-7 Plugs
1 foot	PJ-171
2 feet	PJ-172
3 feet	PJ-173
4 feet	PJ-174
5 feet	PJ-175
6 feet	PJ-176

Four tinsel wire conductors, thermoplastic insulated. Slate colored Nylon braided cover overall resists wear.

Patch Cords Length	Nylon Cord With PJ-327 Plugs
1 foot	PJ-181
2 feet	PJ-182
3 feet	PJ-183
4 feet	PJ-184
5 feet	PJ-185
6 feet	PJ-186

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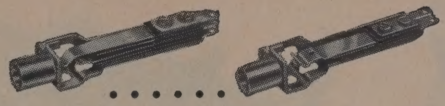
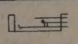
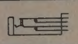
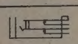
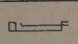
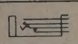
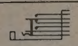
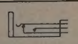
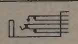
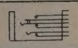
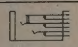
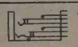
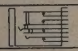
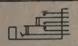
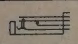
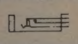
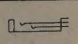
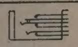
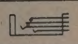
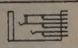
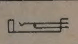
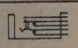
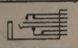
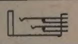
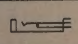
JACKS.... ......



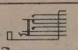
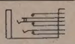
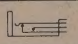
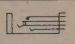
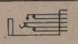
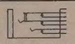
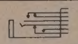
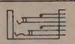
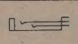
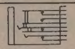
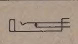
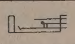
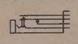
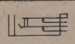
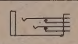
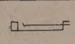
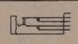
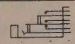
TELEPHONE TYPE

ADC is recognized as a leading supplier of long frame, telephone type jacks. As evidence of their outstanding quality, ADC jacks are used by the country's foremost manufacturers of communication equipment. The unique, ADC one piece frame is strong, dimensionally stable and readily interchangeable both mechanically and electrically with commonly used jacks. Plating withstands 50-hour salt spray tests. Coin silver contacts are welded to nickel silver springs. Lugs are hot tin dipped. Insulation is high grade phenolic.

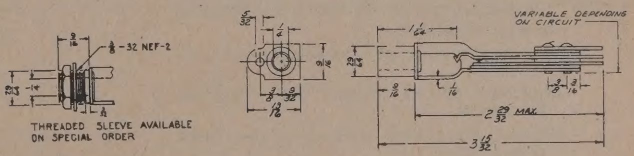
Schematic Diagram	Jacks	W. E. Equiv.	Frame Style	Net Price
	PJ-115	215-A	A	$ .90
	PJ-116	216-A	A	.90
	PJ-117	217-A	A	.90
	PJ-123	223-A	A	.60
	PJ-125	225-A	A	1.02
	PJ-202	None	C	1.02
	PJ-203	303-A	A	.78
	PJ-204	None	A	1.02
	PJ-205	240-A	A	1.32
	PJ-206	242-A	A	1.32
	PJ-207	285-A	A	1.50
	PJ-208	284-A	A	1.50
	PJ-209	411-A	A	1.02
	PJ-226	226-A	A	1.02
	PJ-237	237-A	A	.87
	PJ-238	238-A	A	.66
	PJ-240	240-C	C	1.23
	PJ-241	241-A	A	1.02
	PJ-242	242-C	C	1.23
	PJ-318	218-A	A	.66
	PJ-336	236-C	C	1.14
	PJ-338	438-C	C	1.23
	PJ-339	239-A	A	.92
	PJ-418	218-C	C	.69

MILITARY JACKS

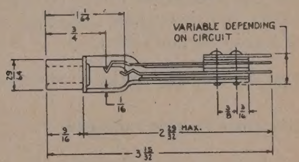
Designed to meet the rugged, exacting requirements of military applications. These ADC jacks are made in accordance with Mil-J-641B specifications. Highest quality materials and closely held tolerances on dimensions conform with military specifications.

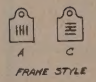
Schematic Diagram	Mil Jacks	Net Price	Schematic Diagram	Mil Jacks	Net Price
	JJ-015	1.17		JJ-073	1.50
	JJ-016	.90		JJ-074	1.17
	JJ-017	1.17		JJ-075	1.50
	JJ-019	1.41		JJ-077	1.71
	JJ-022	.75		JJ-078	1.71
	JJ-024	.75		JJ-084	1.05
	JJ-035	1.17		JJ-085	1.05
	JJ-042	1.02		JJ-086	.66
	JJ-072	1.05		JJ-087	1.17

2 Conductor Jack

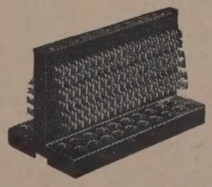

3/8-32 NEF-2
THREADED SLEEVE AVAILABLE ON SPECIAL ORDER
VARIABLE DEPENDING ON CIRCUIT
2 29/32 MAX.
3 15/32

3 Conductor Jack





TERMINAL BLOCKS



Type	No. Rows	No. Terminals	Net Price
PJ-101	1	20	$3.45
PJ-102	2	40	4.65
PJ-103	3	60	5.85
PJ-104	4	80	7.05
PJ-105	5	100	8.25
PJ-106	6	120	9.45

Molded of durable black phenolic plastic material. Terminals are .040" plated brass. Rows of terminals are graduated in length for ease of wiring, and are identified by numbering along the top row. Base 3" x 6-1/16".

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ADC PRODUCTS INC. ■ MINNEAPOLIS, MINNESOTA

A DIVISION OF MAGNETIC CONTROLS CO.

TRANSFORMERS ■ FILTERS ■ JACKS & PLUGS ■ TERMINAL BLOCKS

new!

BANTAM JACK PANELS

Bantam Jack Panels are designed to satisfy the increasing demand for more compact patchfields in modern electronic and communication equipment. Bantam Jack Panels, with miniaturized jacks, provide twice the number of jacks in a standard size panel. They require only ½ the rack space previously used by conventional panels. The new panel assemblies weigh 65% less when compared to an assembly using an equivalent number of jacks in a conventional jack panel. ■ Bantam Jack Panels are compact, lightweight, and yet provide the same dependable service as the long established telephone types. This new design offers 96 jacks (48 pairs) in a 1¾ inch x 19 inch standard sized panel. The jacks on this panel are spaced to prevent the cross patching of adjacent circuits when using double plugs.

BANTAM JACK PANEL SPECIFICATIONS

Panel: Aluminum alloy, extruded. 1¾ inches wide for standard 19 inch rack mounting.

Jack Mounting: Four molded plastic inserts, each provides for 24 jacks. Pairs of jacks on ⁵⁄₈ inch centers. Double row panel provides 96 jacks total. Blank inserts can be furnished where only single row of jacks is required.

Panel mounting: Mounting brackets are integral part of panel.

Designation Strip: Extruded clear plastic.

Panel Finish: Anodized, Black.

		NET
PJ-731	Double row panel, assembly less jacks, hold 96 jacks.	$ 19.20
PJ-737	Double row panel, with 48 pair (96 total) PJ-818 jacks.	92.40
PJ-739	Double row panel, with 48 pair (96 total) PJ-839 jacks.	116.40
PJ-724	Panel inserts, less jacks, 24 holes.	2.40
PJ-700	Panel inserts, blank (same as PJ-724 without holes).	1.20

Custom panel assemblies with up to 104 jacks are available on special order.

BANTAM JACKS

Bantam Jacks will meet the electrical, mechanical and environmental requirements of the military specification for long frame telephone jacks. Although reduced in size these jacks will provide the same reliable service equal to that expected from regular size telephone jacks. These jacks are available in a variety of two and three conductor types, with isolated circuit contacts as well as normalling contact.

SPECIFICATIONS:

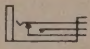
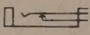
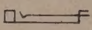
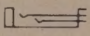
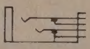
Frame: Steel, Cadmium plate with chromate conversion coating to withstand 50 hours of salt spray.

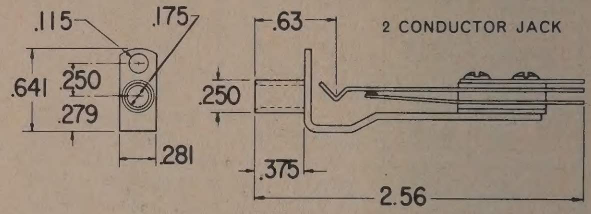
Springs: Nickel silver.

Contacts: Palladium, cross-bar contacts are welded to springs.

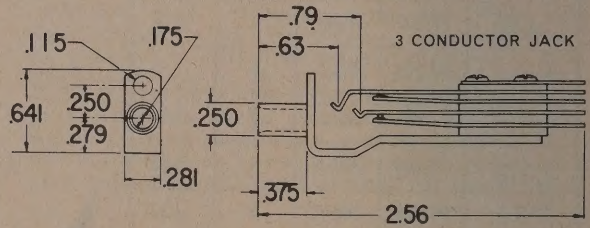
Insulation: Spacers, Phenolic Type PBE-P per Mil-P-3115B.

Bushing: Brass, silver soldered to frame. Finish same as frame.

2 conductor—tip and sleeve	PJ-803	
2 conductor—tip and sleeve	PJ-818	
2 conductor—tip and sleeve	PJ-823	
3 conductor—tip, ring and sleeve	PJ-838	
3 conductor—tip, ring and sleeve	PJ-839	



2 CONDUCTOR JACK

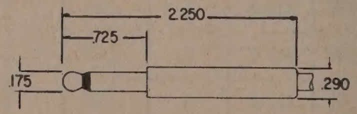


3 CONDUCTOR JACK

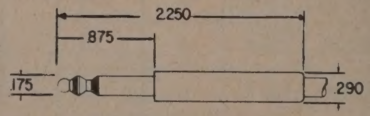
BANTAM PATCH CORDS

Bantam Patch Cords are plastic jacketed, shielded cords complete with molded-on plugs. The plugs are made with molded insulation between conductors. Bantam Patch Cords are available with single and double two conductor plugs and single three conductor plugs. A cord strain relief feature is included in the plug construction.

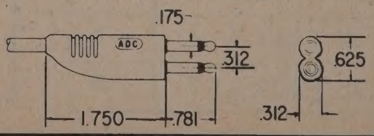
2 CONDUCTOR—SINGLE PLUG



3 CONDUCTOR—SINGLE PLUG



2 CONDUCTOR (DOUBLE)



SPECIFICATIONS:

Cord: Plastic jacketed, shielded tinned copper conductors, Jacket color, Gray.

Plugs: Conductor parts are precision machined of brass.

Plug Insulation: Molded polystyrene, black.

Internal connections: Soldered.

Plug shell: Plastic, molded to cord. Gray.

BANTAM PATCH CORDS

Length	Single (2) Conductor Plug	Net	Double (2) Conductor Plug	Net	Single (3) Conductor Plug	Net
6 inch	PJ-701	$3.30	PJ-751	$3.96	PJ-711	$3.90
12 inch	PJ-702	3.36	PJ-752	4.02	PJ-712	3.96
24 inch	PJ-704	3.42	PJ-754	4.08	PJ-714	4.02
36 inch	PJ-706	3.48	PJ-756	4.14	PJ-716	4.08
48 inch	PJ-708	3.54	PJ-758	4.20	PJ-718	4.20

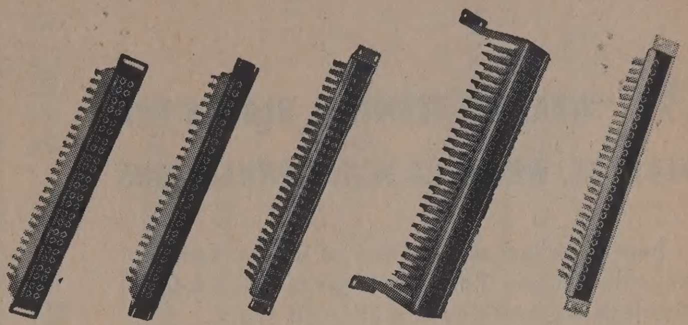
ADC PRODUCTS INC. ■ MINNEAPOLIS, MINNESOTA

A DIVISION OF MAGNETIC CONTROLS CO.

TRANSFORMERS ■ FILTERS ■ JACKS & PLUGS ■ TERMINAL BLOCKS

JACK PANELS...

ADC offers the most complete assortment of jack panels available today. ADC panels are used in television and broadcasting stations, recording studios, industrial paging systems, and communication equipment of all kinds where there is a need to efficiently switch and distribute audio signals. Molded of solid phenolic, reinforced with steel to provide maximum rigidity and strength. Jacks are spaced to permit use of any standard double plug with ⅝″ spacing. Mounting brackets and designation strips furnished with each panel. All panels designed to fit standard 19″ relay rack. Consult ADC for your standard and special jack panel requirements.

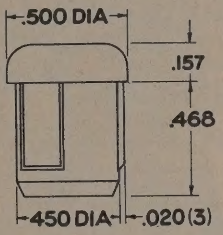


PJ-31 **PJ-341** **PJ-391**	**PJ-33** **PJ-343** **PJ-393**	**PJ-30** **PJ-340** **PJ-390**	**PJ-35** **PJ-350** **PJ-395**	**PJ-36** **PJ-360** **PJ-396**

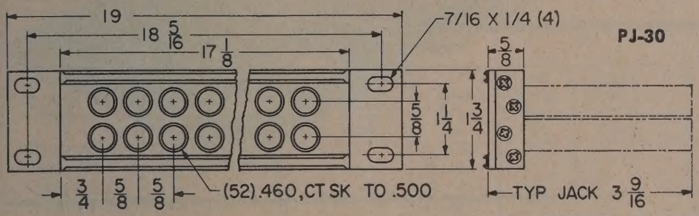
HOLE PLUG

Molded of black polyethylene plastic. Fits all ADC standard jack panels. Made to plug unused jack mounting holes in jack panels.

PJ-29 **Net $.15**


.500 DIA
.157
.468
.450 DIA
.020(3)

Panel less Jacks	Net Price	Panel with PJ-318 Jacks	Net Price	Panel with PJ-339 Jacks	Net Price
PJ-30	$12.90	PJ-340	$49.50	PJ-390	$64.80
PJ-31	9.45	PJ-341	42.75	PJ-391	57.30
PJ-33	8.52	PJ-343	25.14	PJ-393	32.40
PJ-35	15.60	PJ-350	52.50	PJ-395	67.50
PJ-36	8.70	PJ-360	27.90	PJ-396	35.10


19
18 5/16
17 1/8
7/16 X 1/4 (4)
5/8
5/8
1 1/4
1 3/4
3/4
5/8
5/8
(52) .460, CT SK TO .500
TYP JACK 3 9/16

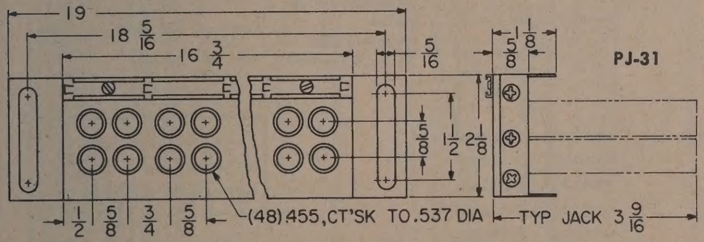
PJ-30

PJ-30

Double panel. Holds 52 jacks—requires 1¾″ panel space. Double designation strip. Brackets for flush rack mounting. All jack mounting holes on ⅝″ centers.

PJ-35

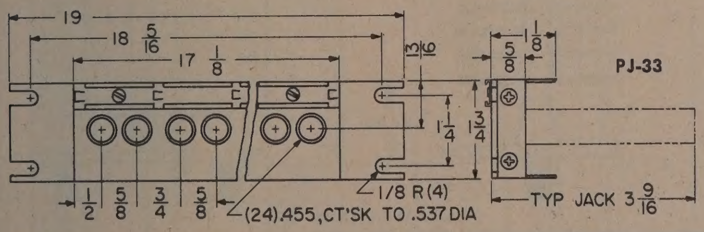
Double panel. Same as PJ-30 except with stand off brackets to hold panel 7″ in front of mounting rack.


19
18 5/16
16 3/4
5/16
1 1/8
5/8
5/8
1 1/2
2 1/8
1/2
5/8
3/4
5/8
(48) .455, CT'SK TO .537 DIA
TYP JACK 3 9/16

PJ-31

PJ-31

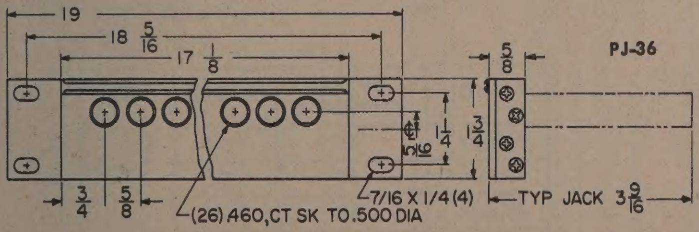
Double panel. Holds 48 jacks. Holes spaced to prevent patching adjacent circuits. Requires 2⅛″ panel space.


19
18 5/16
17 1/8
3/16
1 1/8
5/8
1 1/4
1 3/4
1/8 R (4)
1/2
5/8
3/4
5/8
(24) .455, CT'SK TO .537 DIA
TYP JACK 3 9/16

PJ-33

PJ-33

Single panel. Holds 24 jacks. Holes spaced to prevent patching adjacent circuits. Requires 1¾″ panel space.


19
18 5/16
17 1/8
5/8
5/16
1 1/4
1 3/4
3/4
5/8
7/16 X 1/4 (4)
(26) .460, CT SK TO .500 DIA
TYP JACK 3 9/16

PJ-36

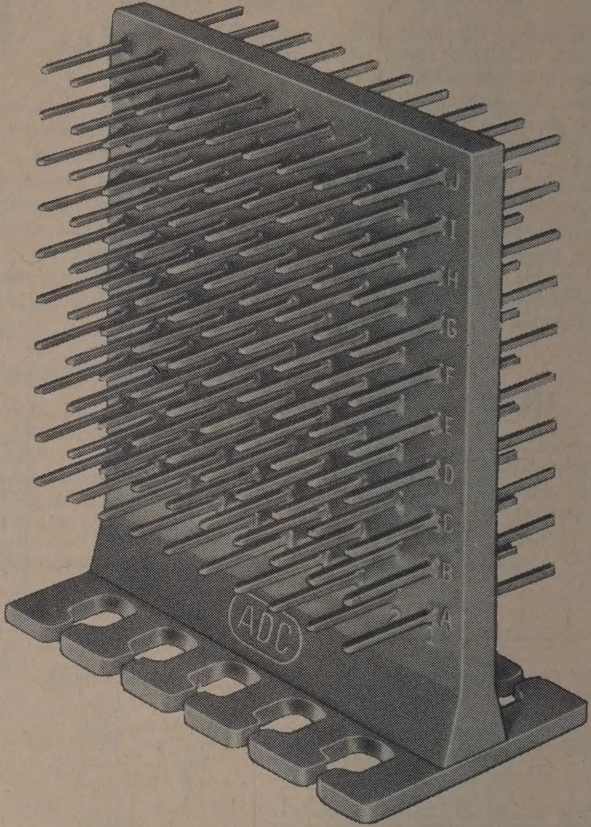
PJ-36

Single panel. Holds 26 jacks—requires 1¾″ panel space. Brackets for flush rack mounting. All jack mounting holes on ⅝″ centers.

Panels with mil jacks and other telephone type jacks also available.

ADC **ADC PRODUCTS INC.** ■ MINNEAPOLIS, MINNESOTA
A DIVISION OF MAGNETIC CONTROLS CO.
TRANSFORMERS ■ FILTERS ■ JACKS & PLUGS ■ TERMINAL BLOCKS

NEW "WRAPID" TERMINAL BLOCKS FOR SOLDERLESS, WRAPPED WIRE CONNECTIONS



Shown here in actual size is one of a new series of ADC terminal blocks. This model gives you a total of 100 solderless connections in a 2½ inch space.

It's only 3⅜ inches high, 2½ inches wide, and comes in one assembled piece that is mounted in seconds. Standard models available for 40, 60, 80 and 100 connections. Other configurations can be custom made in production quantities.

ONE CONNECTION EVERY FIVE SECONDS

These are solderless, wrapped wire connections. In less than 5 seconds the most inexperienced operator can spin-on a wire and make the most positive connection obtainable. He can make 100 connections in less than 8 minutes using any commercially available wrapping tool.

RUGGED, RELIABLE CONNECTIONS

Wrapped, solderless connections are mechanically stable and have less tendency to break due to handling and vibration than soldered connections. You get clean, metal-to-metal gas tight contact between wire and terminal with permanently low electrical resistance.

Both block and fanning strip are molded of durable, high-impact rubber modified acrylic plastic well known for its dimensional stability, strength and resistance to shock under adverse environmental conditions. Terminals are hard brass and plated for maximum conductivity.

Behind the development of these new terminal blocks is 25 years of experience in meeting rigid military specifications on a wide variety of devices. This is your assurance of top quality performance and long dependable service life.

Letters and numbers provide easy terminal identification.

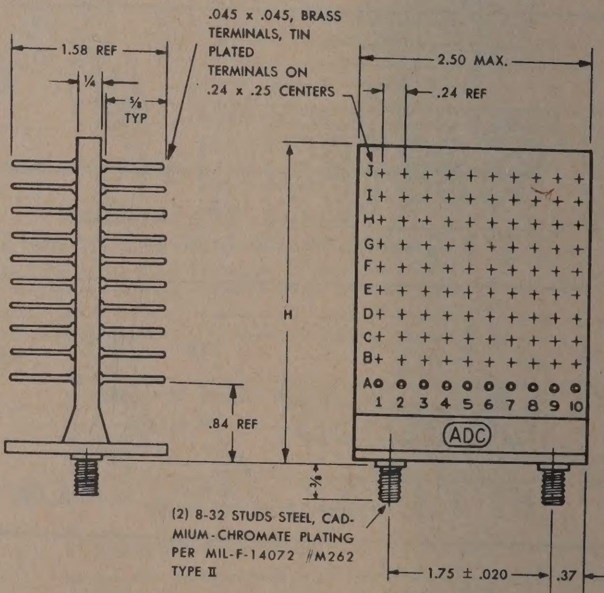
Mounting studs are steel cadmium-chromate plated to withstand 50 hours of salt-spray.

CUT COSTS MANY WAYS

Not only do these new terminal blocks save space and time, they cut production costs.

Wrapped connections depend more on the wrapping tool — less on the operator. The result: the most positive, most uniform connections obtainable — with less need for inspection. The operator makes more connections with far less fatigue.

And, you eliminate expensive solders, connectors, damaging solder splashes, clippings, and deceptive cold-soldered joints.


1.58 REF
¼
⅝ TYP
.045 x .045, BRASS TERMINALS, TIN PLATED
TERMINALS ON .24 x .25 CENTERS
2.50 MAX.
.24 REF
H
.84 REF
⅜
J I H G F E D C B A
1 2 3 4 5 6 7 8 9 10
ADC
(2) 8-32 STUDS STEEL, CADMIUM-CHROMATE PLATING PER MIL-F-14072 #M262 TYPE II
1.75 ± .020
.37

PJ NO.	NO. OF TERMINALS	H DIM.	NET
PJ 604	40	1.75	$2.64
PJ 606	60	2.25	3.24
PJ 608	80	2.75	3.84
PJ 610	100	3.25	4.44

Net

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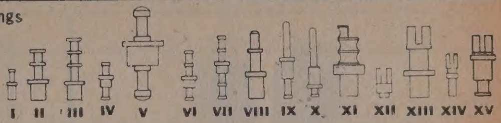
CAMBRIDGE THERMIONIC CORPORATION
CAMBION®
The guaranteed electronic components

TERMINALS

SOLDER TERMINALS

Material: Brass. **Finish:** Silver plate unless otherwise noted. Other platings available on special order.



TURRET TYPE TERMINALS

Cambion No.	Fig.	Shank x Turret x Shoulder (All In Dia., In.)	Hole Dia. Hollow Type	Height, Above Board x Below Board	Board Thickness	Net Pkg. of 100 *
1011	VIII	.090 x 3/32 x 1/8	....	19/64" x —	Chart I	$1.83
1013	VIII	.090 x 7/64 x 5/32	....	11/32" x —	Chart I	2.20
1014	VIII	.090 x 7/64 x 5/32	....	15/32" x —	Chart I	2.50
1030	IX	.072 x 3/64 x 3/32	....	1/4" x 1/8"	Chart I	3.30
1031	X	.072 x 3/64 x 3/32	....	5/64" x 1/4"	Chart I	2.44
1032	X	.062 x 3/64 x 5/64	....	5/64" x 9/64"	Chart I; a	1.50
1081	VII	.201 x .144 x 1/4	....	11/32" x 5/16"	Chart I; b	4.20
1143	V	.181 x 3/32 x 1/4	....	1/4" x 7/32"	Chart I	3.10
1245	I	.112 x .145 x 3/16	....	15/64" x —	Chart I; c	1.56
1457	I	.078 x .075 x 1/8	....	3/16" x —	Chart I; d	1.00
1463	V	.116 x .070 x 5/32	....	5/32" x 1/8"	Chart I; e	1.45
1548	II	.112 x .149 x 3/16	5/64"	5/16" x —	Chart I	1.34
1558	II	.090 x 3/32 x 1/8	....	7/32" x —	Chart I	.97
1579	VII	.202 x 9/64 x 1/4	....	11/32" x 7/64"	Chart I; f	3.10
1604	I	.062 x 1/16 x 3/32	....	3/32" x —	Chart I; g	1.25
1724	II	.112 x .145 x 3/16	....	23/64" x —	Chart I; c	1.55
1797	I	.110 x 9/64 x 3/16	.067"	3/16" x —	Chart I; h	1.60
1798	II	.135 x .110 x 3/16	.043"	5/16" x —	Chart I; i	2.30
1979	XI	.112 x .130 x 3/16	.060"	5/16" x —	Chart I	2.40
2000	VI	.090 x 1/16 x 1/8	....	7/32" x 7/64"	Chart I; h	1.59
2004	VII	.090 x 1/16 x 1/8	....	7/32" x 3/16"	Chart I; h	1.59
2027	I	.071 x .096 x 1/8	.043"	3/16" x —	Chart I; h	1.46
2034	II	.090 x 7/64 x 5/32	....	9/32" x —	Chart I	1.74
2040	VII	.072 x .050 x 3/32	....	3/16" x 11/64"	Chart I	1.79
2041	I	.072 x .050 x 3/32	....	7/64" x —	Chart I	1.04
2042	IV	.072 x .050 x 3/32	....	7/64" x 5/64"	Chart I	1.13
2043	II	.072 x .050 x 3/32	....	3/16" x —	Chart I	1.08
2044	VI	.072 x .050 x 3/32	....	3/16" x 5/64"	Chart I	1.22
2080	III	.090 x 3/32 x 1/8	....	19/64" x —	Chart I; f	1.48
2084	III	.112 x .145 x 3/16	....	31/64" x —	Chart I; c	3.00
2085	I	.047 x .040 x 1/16	....	3/32" x —	Chart I; j	.93
2100	I	.062 x 1/16 x 3/32	.023"	3/32" x —	Chart I; g	1.40
2114	II	.145 x .149 x 3/16	.062" max. .054" min.	5/16" x —	Chart I; k	4.00
2115	IV	.145 x .118 x 3/16		1/4" x 1/4"	Chart I; l	5.00
2132	II	.145 x .149 x 3/16		33/64" x —	Chart I; l	6.00
2186	I	.112 x .118 x 5/32		15/64" x —	Chart I; m	4.00

Tooling: Special tooling is required for all **Cambion** terminals. This tooling, necessary for proper swaging of terminals, is available at **$8.00** per set, including a punch and anvil.

SPADE TYPE TERMINALS

Cambion No.	Fig.	Shank Dia. x Spade W. x Slot W., In.	Hole Dia. Hollow Type	Height Above Board	Board Thickness	Net Pkg. of 100
1010	XIII	.112 x .146 x .040	.078"	5/16"	Chart I; n	$5.00
1025	XIV	.112 x .145 x 1/16	....	25/64"	Chart I; c	5.40
1019	XIV	.047 x .072 x .025	.026"	5/32"	Chart I; o	1.53
1578	XIV	.150 x .142 x 1/16	.081"	3/8"	Chart I; p	2.90
1782	XIV	.185 x 1/4 x .090	.120	11/16"	Chart I; q	6.80
1783	XIV	.135 x 7/32 x 1/16	.102"	1/2"	Chart I; t	4.30
1784	XIV	.112 x 5/32 x 1/32	.070	11/32"	Chart I; r	2.60
1785	XII	.062 x 3/32 x 1/32	.043"	5/32"	Chart I; s	1.46
1969	XII	.112 x 3/16 x .053	.079"	21/64"	Chart I; t	1.94
2086	XV	.122 x 1/8 x 1/32	.047"	5/32"	Chart I; u	2.60

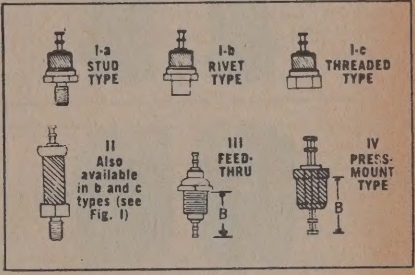
Notes: a. Except -5, -6. **b.** Except -1. **c.** Chamfer on upper edge of shoulder. **d.** Except -5, -6. Chamfer on upper edge of turret and shoulder. **e.** Except -6. Like V except no turret bases. **f.** Except -6. **g.** Except -4, -5, -6, plus -11, 1/64. **h.** Except -5, -6. **i.** Except -1, -6. **j.** Except -5, -6, plus -11, 1/64. **k.** For use with .061/in. taper pins. Takes pin from top of board. Finish copper plate and electro-tin. **l.** For use with .061/in. taper pins. Takes pin from top or bottom of board, or both. Finish copper plate and electro-tin. **m.** For use with .061/in. taper pins. Takes pin from top of board; taper not a through hole. Finish copper plate and electro-tin. **n.** Two slots at right angles. **o.** Plus -11, 1/64. **p.** Except -1, -6. Straight knurl on shank. **q.** Except -1, -2. Straight knurl on shank. Chamfer on lower edge of spade and upper edge of shoulder. **r.** Except -1, -5, -6. Straight knurl on shank. Chamfer on lower edge of spade and upper edge of shoulder. **s.** Plus -11, 1/64. **t.** Radial knurl on lower edge of shoulder. **u.** Except -6. Diameter turret below board 3/32.

CHART I

Dash No.	Board Thckns.
-1	1/32"
-2	1/16"
-3	3/32"
-4	1/8"
-5	3/16"
-6	1/4"

INSULATED TERMINALS AND FEED-THRUS

Cambion Number and Material §	Fig.	Height Above Board	Turret Dia. or Spade Width	No. of Turrets or Slot Width	Base Dia. In.	Rivet Dia. or Thread Size	Stud L., Rivet L., or Tap Depth	Voltage Breakdown at 60 cy. AC	Net Ea. 1-9 *
1580-156†	I-b	9/16"	3/32"	2	5/16 hex	.187	Chart I	4,000 rms	.21
1581-1*	I-a	9/16"	3/32"	2	5/16 hex	6-32	1/4"	4,000 rms	.19
1581-3*	I-a	9/16"	3/32"	2	5/16 hex	6-32	3/8"	4,000 rms	.19
1719-1*	I-a	1 1/16"	3/32"	2	5/16 hex	6-32	1/4"	11,000 rms	.27
1719-3*	I-a	1 1/16"	3/32"	2	5/16 hex	6-32	3/8"	11,000 rms	.27
1795-A*	III	3/8"	.052"	2 ea. end	3/8 hex	1/4-28	1/4", a	2,800 rms	.33
1795-B*	III	5/16"	.052"	2 ea. end	3/8 hex	1/4-28	1/4", b	2,800 rms	.33
3648-1†	I-c	19/32"	3/32"	2	5/16 hex	4-40	1/8"	4,000 rms	.21
3648-2†	I-c	19/32"	3/32"	2	5/16 hex	6-32	1/8"	4,000 rms	.21
1942-1†	I-a	17/32"	3/32"	2	5/16 hex	6-32	1/4"	4,000 rms	.21
1942-2†	I-a	17/32"	3/32"	2	5/16 hex	6-32	3/8"	4,000 rms	.21
3647-5†	I-b	17/32"	3/32"	2	5/16 hex	.187	Chart I	4,000 rms	.21
1945‡	I-a	37/64"	3/32"	2	5/16 hex	6-32	Chart IV; c	....	.30
1946‡	I-b	37/64"	3/32"	2	5/16 hex	.187	Chart V; c	....	.30
1980-XA†	I-a	3/8"	3/32"	1	3/16 hex	3-48	Chart II	2,500 rms	.21
1980-XB†	I-a	7/16"	3/32"	1	3/16 hex	3-48	Chart II	4,000 rms	.21
1980-XC†	I-a	1/2"	3/32"	1	3/16 hex	3-48	Chart II	5,000 rms	.21
1980-YA156†	I-b	3/8"	3/32"	1	3/16 hex	.141	Chart I	2,500 rms	.21
1980-YB156†	I-b	7/16"	3/32"	1	3/16 hex	.141	Chart I	4,000 rms	.21
1980-YC156†	I-b	1/2"	3/32"	1	3/16 hex	.141	Chart I	5,000 rms	.21
1990†	III	3/8"	1/16"	2 ea. end	3/8 hex	1/4-28	1/4"; d	2,500 rms	.45
1995-A†	I-a	35/64"	.145"	1	5/16 hex	6-32	1/4"; e	4,000 rms	.21
1995-B†	I-a	35/64"	.145"	1	5/16 hex	6-32	3/8"	4,000 rms	.21
1995-C†	I-a	43/64"	.145"	2	5/16 hex	6-32	1/4"	4,000 rms	.21
1995-D†	I-a	43/64"	.145"	2	5/16 hex	6-32	3/8"	4,000 rms	.21
3650-1†	I-c	39/64"	3/32"	2	1/4 hex	4-40	1/8"	2,500 rms	.21
3650-2†	I-c	39/64"	3/32"	2	1/4 hex	6-32	1/8"	2,500 rms	.21
2045-1†	I-a	17/32"	3/32"	2	1/4 hex	4-40	1/4"	2,500 rms	.21
2045-2†	I-a	17/32"	3/32"	2	1/4 hex	4-40	3/8"	2,500 rms	.21
3649-5†	I-b	17/32"	3/32"	2	1/4 hex	.141	Chart I	2,500 rms	.21
3482-1†	II-c	35/64"	3/32"	1	3/16 hex	3-48	1/8"; f	3,300 rms	.21
3480-1†	II-a	29/64"	3/32"	1	3/16 hex	3-48	1/4"; f	3,300 rms	.21
3481†	II-b	29/64"	3/32"	1	.211	.141	Chart V; g	3,300 rms	.21
3485-1†	II-c	1 1/32"	3/32"	2	5/16 hex	4-40	1/8"	11,000 rms	.27
3485-2†	II-c	1 1/32"	3/32"	2	5/16 hex	6-32	1/8"	11,000 rms	.27
3483-1†	II-a	31/32"	3/32"	2	5/16 hex	6-32	1/4"	11,000 rms	.27
3483-2†	II-a	31/32"	3/32"	2	5/16 hex	6-32	3/8"	11,000 rms	.27
3484†	II-b	31/32"	3/32"	2	.355	.187	Chart V	11,000 rms	.27
2255†	II-a	13/32"	5/64"	1	1/8 hex	2-56	Chart III; g	2,000 rms	.21
4115-1-0519‡	IV	19/64"	3/32"	2	1/4	.205	7/32"; c	....	.17
4114-1-0519‡	IV	19/64"	.096"	2	1/4	.205	7/32"; h	....	.17
4113-1-0519‡	IV	13/64"	.096"	1	1/4	.205	7/32"; h	....	.17
4263-1-0519‡	IV	19/64"	3/32"	2 ea. end	1/4	.205	7/32"; i	....	.21
4025-1-0519‡	IV	1/4"	5/64"	2	11/64	.136	7/64" c	....	.12
4026-1-0519‡	IV	19/64"	5/64"	2	11/64	.136	7/64" c	....	.13
4025-2-0519‡	IV	1/4"	5/64"	2	11/64	.136	1/8" c	....	.12
4026-2-0519‡	IV	19/64"	5/64"	2	11/64	.136	1/8" c	....	.13
4025-3-0519‡	IV	1/4"	5/64"	2	11/64	.136	11/64" c	....	.12
4026-3-0519‡	IV	19/64"	5/64"	2	11/64	.136	11/64" c	....	.13
4025-4-0519‡	IV	1/4"	5/64"	2	11/64	.136	1/4" c	....	.12
4026-4-0519‡	IV	19/64"	5/64"	2	11/64	.136	1/4" c	....	.13
4027-2-0519‡	IV	19/64"	5/64"	2	11/64	.136	1/8" c	....	.13
4028-2-0519‡	IV	11/32"	5/64"	2	11/64	.136	1/8" c	....	.13



§**Material:** Mounting stud, brass with cadmium plate unless otherwise noted. Terminal, brass with silver plate unless otherwise noted. Insulator (see Number column): *Phenolic; †Ceramic; ‡Teflon.

Notes: a. Mounting hardware supplied. B height, 5/8". Stud nickel-plated. **b.** Mounting hardware supplied. B height, 9/16". Stud nickel-plated. **c.** Terminal tin-lead solder plate. **d.** Mounting hardware supplied. B height, 3/4". Stud nickel-plated. **e.** Stud nickel-plated. **f.** Terminal silver plate and gold flash; Stud nickel-plate. **g.** Terminal silver plate and gold flash. Stud nickel-plate. **h.** Terminal tin-lead solder plate; .043" through-hole. **i.** Terminal tin-lead solder plate; .070" turret dia. below. B height, 13/32".

CHART I	CHART III		CHART V	
Rivet Length and Part No. Suffix	Dash No.	Stud Lgth.	Dash No.	Rivet Lgth.
.062	-1	.125"	-1	.062"
.094	-2	.188"	-2	.094"
.105	-3	.250"	-3	.105"
.125	....	....	-4	.125"
.156	....	....	-5	.156"

CHART II	CHART IV		CHART VI	
Stud Length and Part No. Suffix	Dash No.	Stud Lgth.	Dash No.	Thrd. Size
.094	-1	1/4"	-1	4-40
.125	-2	3/8"	-2	6-32
.156	....	....	....	....
.250	....	....	....	....

★WRITE FOR DISCOUNTS ON LARGER QUANTITIES

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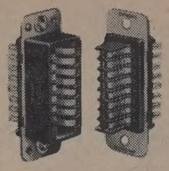
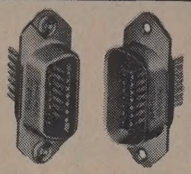
AMPHENOL RACK & PANEL CONNECTORS



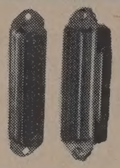
BLUE Ribbon® CONNECTORS

The Amphenol gold-plated ribbon connector provides more contact mating surface than any connector of its type. Applying the principle of the wedge, ribbon contacts exert a continuous flexing action against each other while mated, providing unusually low contact resistance. The Blue Ribbon® contact is self-wiping for reliability throughout its long life, and is available with 8 to 32 contacts. Cable to panel versions are also available.



Micro RIBBON® CONNECTORS

Amphenol's Micro Ribbon® connector is a miniature version of the Blue Ribbon. It features 14 to 50 contacts, low contact resistance, self-wiping action and miniature size.

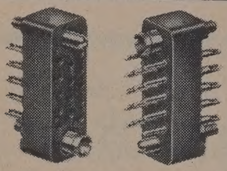


MinRac 17 CONNECTORS

Amphenol's Min-Rac 17® connector is highly suited for saving needed space for proper ventilation, component mounting, or chassis size reduction. Mounting depth is less than most "shell-less" rack-and-panel connectors. It provides up to 50 Poke-Home® terminals in half the insert space required for standard rack-and-panel connectors. Poke-Home contacts are available in either crimp or solder versions.

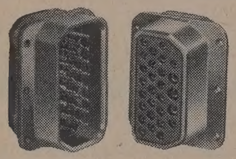
HEX-TYPE CONNECTORS

Amphenol provides a complete family of miniature rack-and-panel and cable-to-chassis connectors for interconnection in a wide range of applications. Hardware and contacts are interchangeable. Bodies are molded of diallylphthalate; gold-over-silver contacts will not tarnish or corrode and can be soldered without pre-tinning even after long storage. All hardware is nickle-plated solid brass.



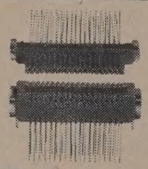
126 SERIES CONNECTORS

The 126 Series is a versatile group of connectors available in 11, 15, and 20 contacts—with or without protective can and cable clamp. Rated at 900 volts RMS, 60 CPS at sea level. Bodies are mica-filled phenolic; contacts are gold-plated.



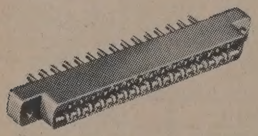
94 SERIES POKE-HOME® CONNECTORS

Amphenol's 94 Series rack-and-panel connectors feature Poke-Home contacts. Aluminum shells are cadmium plate, chromate treated. Useful for any rack-and-panel application, the 94 Series is especially valuable where circuits must be changed frequently within the connector. Poke-Home contacts can be wired and then inserted into the mounted or unmounted connectors in any desired position.



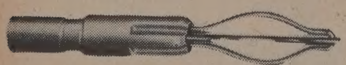
MICRO-MINIATURE CONNECTORS

Amphenol provides three additional complete series of subminiature connectors designed for modules, stick-circuitry, thin style printed circuit boards, and other micro-miniature applications. Use of the Micro-Mod®, Micro-Min® Series, and Micro-Edge® connectors is limited only by the imagination of the design engineer.



PRINTED CIRCUIT CONNECTORS

Amphenol's printed circuit connectors are available with ribbon or tuning fork contacts. The broad selection of contact tails represents the most complete line in the industry.



WIRE-FORM POKE-HOME® CONNECTORS

Unique contact design in Amphenol's Wire-Form connectors places the spring tension member in the pin contact. The Wire-Form connector combines Poke-Home contact versatility with center to center spacing as close as .075. Four complete styles are available:

Mighty-Mite®—cable-to-panel and cable-to-cable application; 7 to 61 contacts.
Tiny Tim®—module and rack-and-panel application; 5 to 33 contacts.
Micro-Rac®—rack-and-panel, cable, and module application; 52 to 104 contacts.
Wire-Form Strip—permits cutting and stacking in unlimited shapes,

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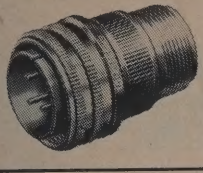
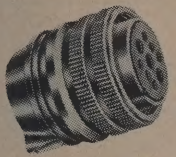
AMPHENOL POWER CONNECTORS



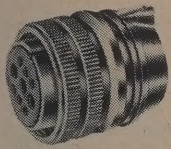
MS CONNECTORS

Amphenol builds MS connectors to the latest issue of MIL-C-5015 Specification. They are designed, manufactured, and approved under this specification for the armed forces, and are ideal for commercial and industrial applications which require the same versatility and dependability.



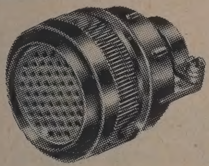
MS—E/R CONNECTORS

Amphenol's resilient dielectric MS connector meets all environmental requirements of the latest revision of MIL-C-5015. Its unitized grommet eliminates the use of bulky cable clamps, and results in a considerable reduction of length and weight in relation to standard MS connectors.



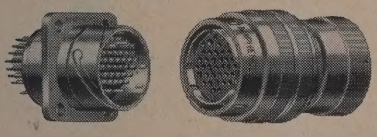
69 POKE-HOME® CONNECTORS

Amphenol Poke "R" solderless connectors provide all the lightweight environmental-resistant features of MIL-C-5015s "R" Class with two important additions: Poke-Home contacts and superior environmental performance. Incorporation of these two features make Poke "R" a highly preferred MIL-C-5015-type connector.



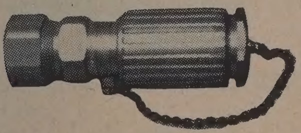
48 SERIES—MIL-C-26500 (USAF)

Meeting or exceeding all MIL-C-26500 requirements, Amphenol's 48 Series combines miniature environmentally-resistant construction and Poke-Home crimp type contacts. MIL-C-26500 connectors perform with utmost reliability in temperatures of −55° C to +260° C, with no de-rating up to 360,000 ft. Available with threaded and bayonet coupling.



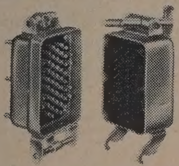
67 SERIES MINNIE® CONNECTORS

Amphenol 67 Series MinniE connectors are quick-disconnect, multi-contact, miniature bayonet types. MinniE connectors feature inclined stainless steel slots and spring loaded coupling rings. A bright orange visual indicator signals full coupling. The 67 Series has a wide variety of shell styles with environmental capability. Receptacles are available in hermetics.



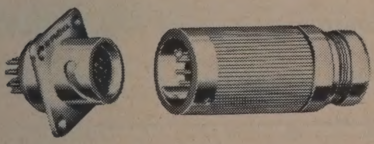
89 SERIES CONNECTORS

Rugged and completely leakproof, Amphenol 89 Series connectors provide efficient and dependable service even when entirely submerged in mud, ice, water, or mire. They are used extensively in missile ground-and-support systems, radar antenna installations, oil well and digging equipment, and other hard-service applications. Available in more than 70 insert configurations with 2 to 52 contacts.



115 SERIES CONNECTORS

Amphenol 115 Series connectors accommodate 50 or 100 No. 16 contacts and are nominally rated at 750 volts RMS, 60 CPS at sea level. They provide maximum space efficiency for all applications where a large number of circuits must be broken quickly and conveniently. The vise-action of the screw lock permits a quick-make quick-break switching action of all contacts.



MINIATURE "AN" CONNECTORS

Compact, efficient Amphenol 165 Series connectors are miniature versions of standard AN/MS types. Because of their weight and space saving design they are widely used in aircraft and miniaturized electronic equipment. 165 Series connectors use bayonet couplings, and are both pressure-proof and completely waterproof—mated or apart. Hermetically sealed, 182 Series connectors mate with connectors of the 165 Series.

172 SERIES HERMETIC CONNECTORS

Amphenol 172 Series hermetic receptacles use an improved hard-glass compression seal with high visibility "Identoseal" contact identification. Both insert faces have ceramic white marking permanently fused to the dark brown glass. Receptacles mate with MIL-C-5015 MS plugs. The 172 Series is available in round flange, square flange, hex flange, and flangeless shells.

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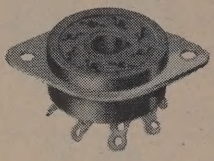
AMPHENOL

TUBE SOCKETS, AND MICROPHONE CONNECTORS

"S" TYPE TUBE SOCKETS

Amphenol "S" type tube sockets mount quickly and easily without screws or rivets by means of a patented "Retainer Ring Mounting." Sockets position to line up contacts for convenient wiring. The "S" type tube socket may be used with "Plug Caps" to make high-quality, low-cost cable connectors. Available also in mica-filled phenolic.

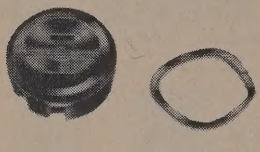


"MIP" SOCKETS

Amphenol's famous "MIP" socket (Molded-in-Plate) features Bakelite dielectric, and 4 to 20 contacts.

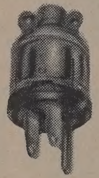
"CP" PLUGS

Amphenol "CP" plugs also mount simply through use of the patented "Retainer Ring Mounting." "CP" plugs are ideal as chassis connectors with plug-in units and are available optionally in mica-filled phenolic. They also adapt to cable applications when used with steel caps.



110/220 VOLT PLUGS & RECEPTACLES

Amphenol's 110/220 volt plugs and receptacles may be panel or cable mounted. Available with rubber grommeted or cable clamp type shields, recessed or raised mountings, two or three contacts.

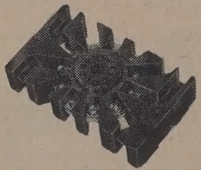


110 VOLT GROUND PLUGS & RECEPTACLES

Amphenol's 110 volt ground plugs and receptacles meet latest UL requirements. The 160 Series may be panel or cable mounted.

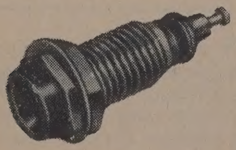
MIKE CONNECTORS

Designed for use with shielded microphone cables, Amphenol's family of microphone connectors are available in several series and include "Quik" Microphone Connectors with quick-button disconnect, 75 Series, single and double contact 80 Series, and its companion, 3 and 4 contact 91 Series.



RELAY SOCKETS

Amphenol relay sockets are available in a broad range of contact styles and sizes, with up to 20 contacts.



MILITARY TIP JACKS

Amphenol military tip jacks feature a recessed silver-plated contact for top durability and high performance. Tip jacks formerly were manufactured by the i.p.c. division.

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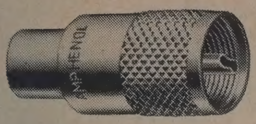
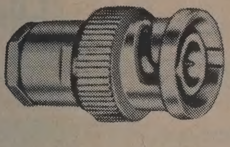
AMPHENOL/*ipc*
FXR

RF PRODUCTS



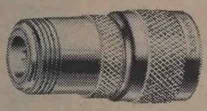
83 SERIES UHF CONNECTORS

Amphenol's UHF 83 Series consists of both small and large single and twin contact connectors. All are low-cost, general purpose connectors of non-constant impedance. They operate satisfactorily at frequencies up to 200 megacycles, can be used with caution up to 500 megacycles, and can be used at peak voltages up to 500 volts.



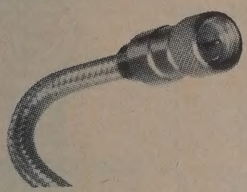
BNC SERIES CONNECTORS

Amphenol Series BNC connectors for small coaxial cables consist of non-constant impedance types and an improved constant 50 ohm impedance type. All incorporate quick-connect and disconnect bayonet-lock coupling and are weatherproof. BNC connectors are small, lightweight, and are recommended for quality, low-voltage applications, both indoors and out.



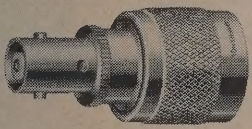
SERIES N CONNECTORS

Completely weatherproof Series N connectors are the most popular constant impedance connectors for medium size coaxial cables. They can be used throughout microwave frequencies with minimum line unbalance or increase in standing-wave ratio. Although Series N 50 ohm and 70 ohm connectors do not mate, 70 ohm cables may be used with 50 ohm Series N connectors where impedance matching is not critical.



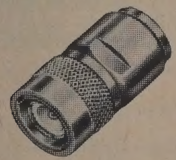
SUB*Minax*® RF CONNECTORS

Amphenol's SubMinax RF connector family provides the most complete subminiature line available from one source. The SubMinax 27 Series is gold-plated and uses a MIL-C-22557 screw-on and push-on coupling. The SubMinax 5116 is silver-plated and mates with competitive non-MIL-C-22557 screw-on, push-on coupling types. The 5116 contains only five components, saving as much as two-thirds assembly time.



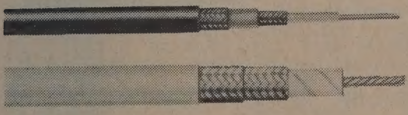
BETWEEN SERIES ADAPTERS

Amphenol can provide the most complete line available of between-series adapters.



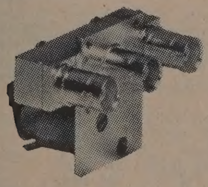
OTHER RF CONNECTORS

Types C, HN, LC, BN, TNC, LN, SKL, MB, MC, SM, TWINAX, MHV, and Terminations, as well as a variety of modifications, make up the complete Amphenol/i.p.c. line.



COAXIAL CABLE

Amphenol provides the broadest line of RG and non-RG coaxial cable available, and is generally accepted as the quality leader in this field. Dielectric includes Teflon, Polyethylene, and Polyfoam.



COAXIAL SWITCHES

Amphenol coaxial switches provide remote and manual switching up through 4000 mc. Single pole, single throw–through 12 pole. Available with a variety of terminating connectors and relay voltages.

AMPHENOL-BORG Distributor Division / Amphenol-Borg Electronics Corporation
BROADVIEW, ILLINOIS

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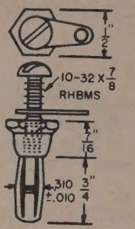
Birnbach

GIANT, STANDARD, MIDGET BANANA JACKS and PHONE TIPS

BIRNBACH

VARIATIONS OF STANDARD PLUGS AVAILABLE TO ORDER. PLATED TO GOV'T. SPECS.

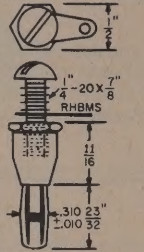
GIANT PLUG
No. 396


1/2"
10-32 x 7/8 RHBMS
7/16
.310 ±.010
3/4"

Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Rated at 25 amps.

Cat. No.	Spring	Std. Pkg.
396	Phos. Brz.	25
396B	Beryl. Cop.	25

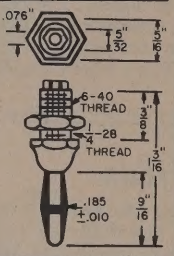
GIANT PLUG
No. 397


1/2"
1/4"-20 x 7/8" RHBMS
11/16
.310 ±.010
23/32"

Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Heavy duty, 25 amp. rating.

Cat. No.	Spring	Std. Pkg.
397	Phos. Brz.	25
397B	Beryl. Cop.	25

BANANA PLUG
No. 404S

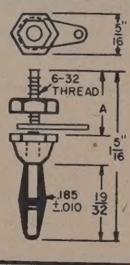

.076"
5/32
5/16"
6-40 THREAD
3/8"
1/4-28 THREAD
3/16"
.185 ±.010
9/16"

Hexed brass nickel pl. Complete with hex brass n.pl. nut. Has solderless Scrulok connection. Fits all standard banana plugs. Spring is four-leaved phosphor bronze nickel plated. Rated at 5 amps.

Cat. No.	Std. Pkg.
404S	100

Scrulok Banana Plug

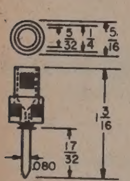
BANANA PLUG
No. 400

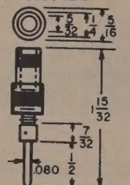

5/16"
6-32 THREAD
A
5/16"
.185 ±.010
19/32

Hexed brass nickel plated. Fits all standard banana plugs. Complete with hex brass n.pl. nut and tinned copper lug. Spring is four-leaved nickel plated. Rated at 5 amps. Stand. pkg. 100

Cat. No.	Spring	Dim. "A"
400	Phos. Bronze	1/2"
400A	Phos. Bronze	3/8"
400B	Beryl. Copper	1/2"

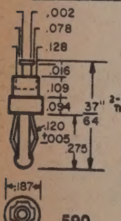
SOLDERLESS PHONE TIPS
No. 23 No. 24


5/32
1/4
5/16
3/16
17/32
.080

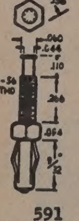

5/32
1/4
5/16
15/32
7/32
.080
1/2

Brass, nickel plated. Wire fits thru body of tip, tightened around screw with nickel plated knurled nut. Fits all standard phone tip jacks.

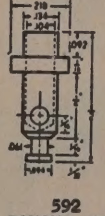
Cat. No.	Std. Pkg.
23—Junior Solderless Phone Tip..............	100
24—Senior Solderless Phone Tip	100


.002
.078
.128
.016
.109
.094
37"/64
.120 ±.005
.275
.187

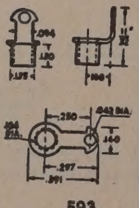
590


2-56 THD
.040
.044
.110
.064
9/32

591


.210
.134
.104
.092
1/16"
1/8"

592


.094
11/32
.250
.042 DIA.
.160
.297
.391

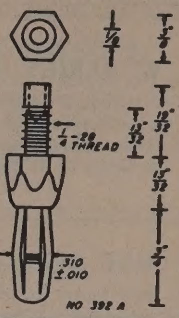
593

SUB MINIATURE BANANA PLUGS & JACKS

One piece beryllium copper springs insure positive and lasting contact. Silver plated overall.

Cat. No.	Description	Std. Pkg.
590	Rivet Type Plug	100
591	Screw Type Plug	100
592	Force Fit Jack	100
593	Rivet Type Jack	100

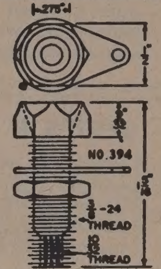
GIANT PLUG
No. 392A


1/4-28 THREAD
.310 ±.010
NO 392 A

Body is hexed brass nickel plated. Rated at 25 amps. Has large soldering well in threaded shank. Fits all Giant Banana Jacks.

Cat. No.	Spring	Std. Pkg.
392A	Phos. Brz.	25

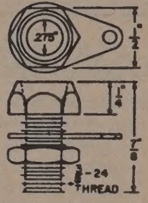
GIANT JACK
No. 394


.275"d
NO.394
3/8-24 THREAD
THREAD

Hexed brass nickel plated. Fits all Giant Banana Plugs. Mounts in 3/8" hole in panels up to 7/8" thick. Complete with n.pl. nut and tinned copper lug.

Cat. No.	Std. Pkg.
394 Giant Jack	25

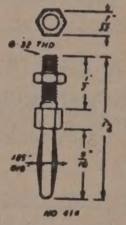
GIANT JACK
No. 395


.275"
3/8-24 THREAD

Fits all giant banana plugs. Hexed brass head nickel plated overall. Mounts in 3/8" hole. Complete with nut and tinned copper lug.

Cat. No.	Std. Pkg.
395 Giant Jack	25

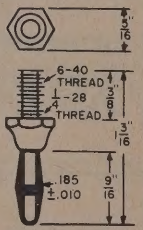
BANANA PLUG
No. 414


6-32 THD
NO 414

Hexed brass, nickel plated. One-piece construction. Four-leaved phosphor bronze spring. Complete with brass hexed nut n.pl. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring	Std. Pkg.
414	Phos. Brz.	100

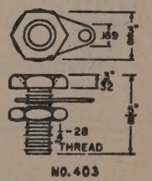
BANANA PLUG
No. 404A


5/16
6-40 THREAD
1/4-28 THREAD
3/8
3/16
.185 ±.010
9/16

Hexed brass and four-leaved phosphor bronze spring all nickel plated. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Std. Pkg.
404A Banana Plug	100

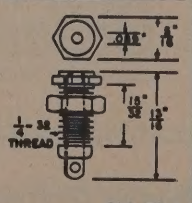
BANANA JACK
No. 403


1/4-28 THREAD
NO.403

Hexed brass n.pl., with brass n.pl. hex nut and tinned copper lug. Mounts in 1/4" hole in panels up to 3/8" thick. Fits standard plugs.

Cat. No.	Std. Pkg.
403 Banana Jack	100

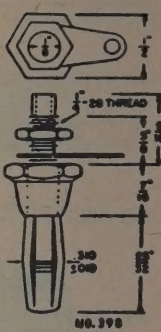
PHONE TIP JACK
No. 26


1/4-32 THREAD

Brass nickel pl. body. Double phosphor bronze springs, hot tinned. Fits standard phone tip plugs. Mounts in 1/4" hole in panels up to 3/8" thick. Complete with hex n.pl. brass nut.

Cat. No.	Std. Pkg.
26 ....Phone Tip Jack..............	100

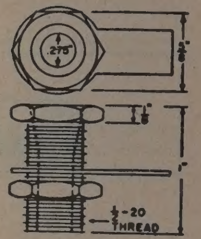
GIANT PLUG
No. 398


-28 THREAD
.310 ±.010
NO.398

Body is hexed brass, n.pl. nut and tinned copper lug. Has large soldering well in threaded shank. Used in high amperage circuits rated at 25 amps. Fits all giant banana jacks.

Cat. No.	Spring	Std. Pkg.
398	Phos. Brz.	25
398B	Beryl. Cop.	25

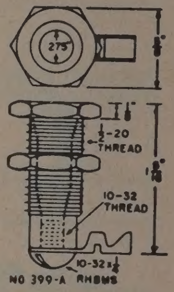
GIANT JACK
No. 399


.275
1/2-20 THREAD

Hexed brass nickel plated. Complete with hex brass n.pl. nut and tinned copper lug. Fits all giant banana plugs. Mounts in 1/2" hole in panels up to 31/32" thick.

Cat. No.	Std. Pkg.
399 Gt. Jack	25

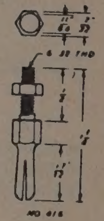
GIANT JACK
No. 399A


275
1/2-20 THREAD
10-32 THREAD
10-32 x 1/4
NO 399-A RHBMS

Hexed brass nickel plated. Mounts in 1/2" hole. Fits panels up to 3/4" thick. Tapped at end with screw and lug connection. Complete with hex brass n.pl. nut, screw and hot tinned copper lug.

Cat. No.	Std. Pkg.
399A Gt. Jack	25

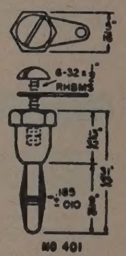
BANANA PLUG
No. 416


6-32 THD
NO 416

Hexed brass nickel plated. Cross slotted for positive contact. One-piece construction. Fits all standard banana jacks. Complete with hexed brass n.pl. nut.

Cat. No.	Std. Pkg.
416 Banana Plug	100

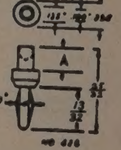
BANANA PLUG
No. 401


6-32 x RHBMS
.185 ±.010
NO 401

Hexed brass nickel plated. One-piece four-leaved spring. Complete with brass n.pl. screw and tinned copper lug. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring	Std. Pkg.
401	Phos. Brz.	100
401B	Beryl. Cop. ..	100

MIDGET BANANA PLUG
RIVET TYPE—No. 426


A
.169
13/32
NO 426

Brass silver plated body. One-piece four-leaved phosphor bronze spring silver plated. Also made to Rigid Jan specs.

Cat. No.	"A"	St. Pkg.
426	7/32"	100
426A	5/32"	100

Midget Banana Plug
Rivet Type

Additional Midget Plugs & Jacks Available.
Also Sub-Miniature Plugs & Jacks.

See Pages 1560-1565 for Birnbach Prices for Above Items

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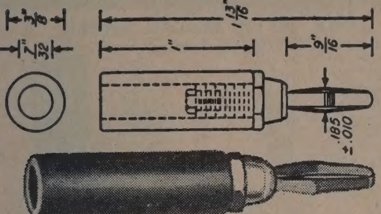
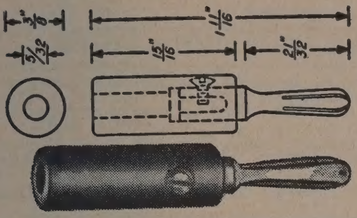
INSULATED BANANA — GIANT — PLUGS and JACKS



INSULATED BANANA PLUG

Hexed brass N. Pl. spring type. Fits standard banana jacks. Scrulok solderless connection. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

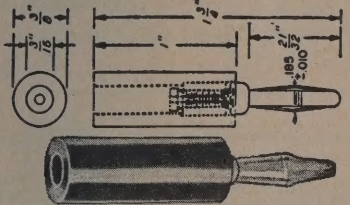
Cat. No.	Spring	Std. Pkg.
404	Phos. Brz.	50
404-CB	Beryl. Cop.	50



INSULATED BANANA PLUG

Split type plug brass n. pl. fits standard banana jacks. Set screw. Solderless connection. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

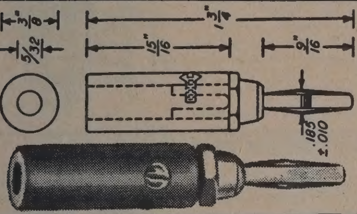
Cat. No.		Std. Pkg.
604	Banana Plug	50



INSULATED BANANA PLUG

Brass n.pl. plug. Fits standard banana jacks. Spring type. Scrulok solderless connection. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

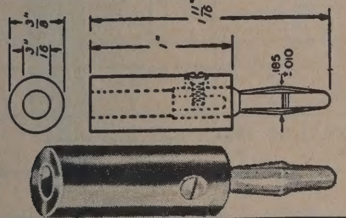
Cat. No.	Spring	Std. Pkg.
465	Phos. Brz.	50
465-B	Beryl. Cop.	50



SPRING BANANA PLUG

Hexed brass n.pl. plug. Set screw solderless connection. 404-BC Beryllium springs, highly resilient. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

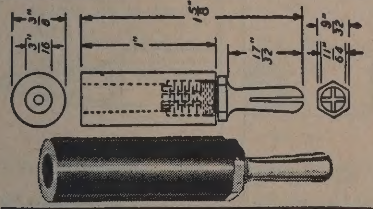
Cat. No.	Spring	Std. Pkg.
404-B	Phos. Brz.	50
404-BC	Beryl. Cop.	50



INSULATED BANANA PLUG

Plug brass n.pl. set screw solderless connection. Spring type. Fits standard banana jacks. Molded handle.
Colors: Red, Black, Yellow, Blue, Green, White.

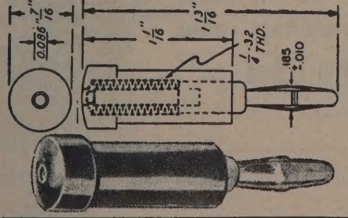
Cat. No.	Hdl.	Spring	Std. Pkg.
466	1"	Ph. Brz.	50
466A	1½"	Ph. Brz.	50



INSULATED BANANA PLUG

Split type, brass n.pl. Scrulok solderless connection. Fits standard jacks. Molded handle.
Colors: Red, Black, Yellow, Blue. Green, White.

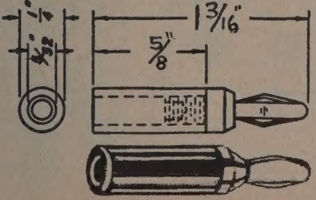
Cat. No.		Std. Pkg.
606	Banana Plug	50



TIP PLUG TO BANANA PLUG ADAPTER

Fits standard banana jacks. Adapter for phone tip to banana plug. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

Cat.No.	Spring	Std. Pkg.
467	Phos. Brz.	50
467B	Beryl. Cop.	50

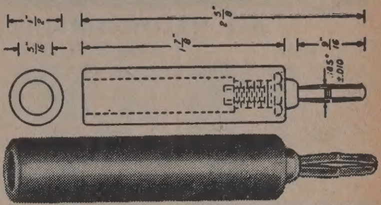


INSULATED MIDGET BANANA PLUG

Spring Type. Fits all standard Banana Jacks. Beryllium spring retains resiliency after thousands of insertions. Wire soldered directly into Plug.

Available in Red or Black only. Specify color. Std. pkg. 50.

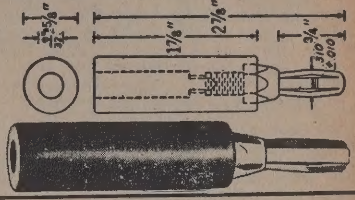
No.	Spring Material	Plating
455	Phosphor Bronze	Nickel
455BC	Beryllium Copper	Silver



INSUL. BANANA PLUG

Plug brass n.pl. Scrulok solderless connection. Spring type. Fits standard jacks. Plastic handle.
Colors: Red, Black.

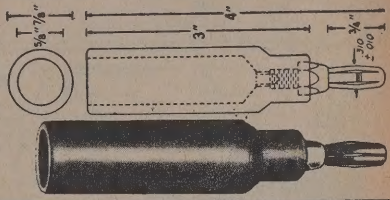
Cat. No.	Spring	Std. Pkg
341	Phos. Brz.	50
341B	Beryl. Cop.	50



INSUL. GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Plastic handle.
Colors: Red, Black.

Cat. No.	Spring	Std. Pkg.
392	Phos. Brz.	50
392B	Beryl. Cop.	50

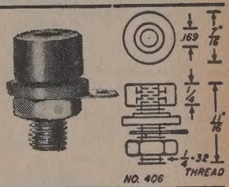


INSUL. GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Polished giant hard rubber handle.
Colors: Red, Black.

Cat. No.	Spring	Std. Pkg.
342	Phos. Brz.	50
342B	Beryl. Cop.	50

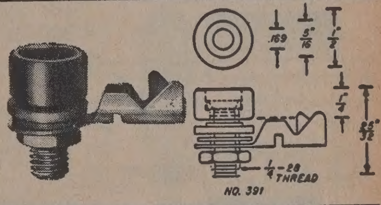
INSULATED BANANA JACK



Takes all standard banana plugs. Body is brass n.pl. Mounts in 5/16" hole in panels up to 3/8" thick. Molded head.
Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.		Std. Pkg.
406	Insulated Jack	50

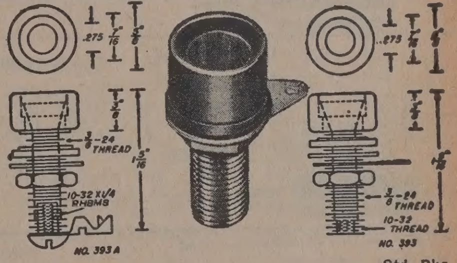
INSULATED BANANA JACK



Accommodates all standard banana plugs. Body is brass n.pl. Mounts in 5/16" hole in panels up to 3/8" thick. Complete with all hardware. Molded head.
Colors:
Red, Black, Yellow, Blue, Green, White.

Cat. No.		Std. Pkg.
391	Insulated Jack	50

INSULATED GIANT JACK

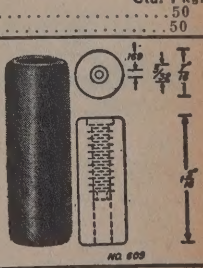


Accommodates all giant plugs. Body is brass n.pl. Mounts in ⅜" hole in panels up to ⅝" thick. Molded plastic head.

Colors:
Red, Black.

Cat. No.		Std. Pkg.
393	Insulated Giant Jack	50
393A	Insulated Giant Jack	50

INSULATED HANDLE JACK

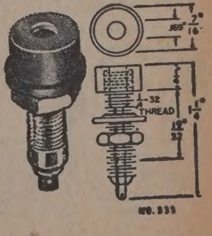


Jack brass, n.pl. Fits all standard banana plugs. Plastic handle.

Colors: Red, Black, Yellow, Blue, Green.

Cat. No.		Std. Pkg.
605	Insulated Handle Jack	50

INSULATED COMBINATION JACK



Takes standard senior phone tip or banana plugs. Body is brass n.pl. Double Phosphor Bronze spring. Mounts in 5/16" hole in panels up to ½" thick. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.		Std. Pkg.
333	Insulated Combination Jack	50

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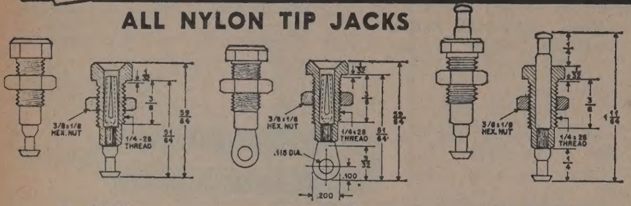
See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach INSULATED PHONE TIPS, TIP JACKS TEST PRODS

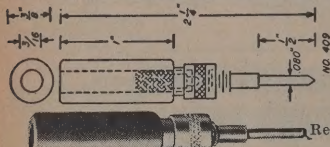
ALL NYLON TIP JACKS



No. 1180 No. 1182 No. 1184

Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼″ hole in panels up to ¼″ thick. Meets following requirements: 1. Salt Spray Test—Withstands 100 hours. 2. Rated Voltage & Current—1000 volts peak at 5 amps. max. 3. Test Voltage—9000 volts DC peak. 4. Insulation Resistance—5000 megohms. 5. Operating Temperature—55 to +150 C. 6. Nominal Capacity—2.0 mmf. 7. Matrial Spcifications—A. Body: Nylon Grade FM 10001: A. Center Contact: Numbers 1180 and 1182 Heat Treated Beryllium Copper Silver plated per Spec 72-53. Number 1184 Brass, Tin Pl.; C. Hex Nut: Brass Nickel Pl. 8. **Colors—Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.**

No.	Type	Std. Pkg.
1180	Wrap Around	25
1182	Spade Terminal	25
1184	Feed Through	25



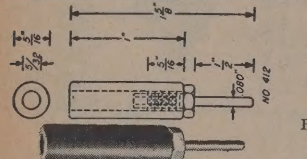
SENIOR SOLDERLESS PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Wire fastens under knurled nut. Molded handle.

Colors:
Red, Black, Yellow, Blue, Green, White.
Cat. No. 409 Sr. . .Std. Pkg. 50

JUNIOR SOLDERLESS PHONE TIP

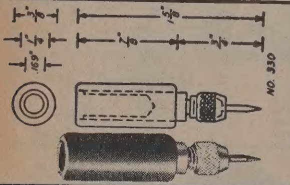
Same as above except 2″ overall length. Specify colors.
Cat No. 415 Jr. ....**Std. Pkg.** 50



SCRULOK PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Scrulok solderless connection. Molded handle.

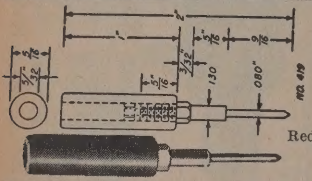
Colors:
Red, Black, Yellow, Blue, Green, White.
Cat. No. 412..........Std. Pkg. 50



NEEDLE POINT PLUG

Brass nickel plated body. Needle point tip. Accommodates standard banana plug in molded plastic handle.

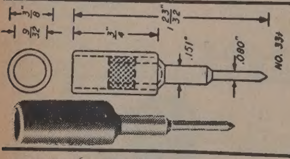
Colors: Red, Black.
Cat. No. 330..........Std. Pkg. 50



SCRULOK PHONE TIP

Fits standard phone tip jacks. Plug is brass, nickel plated. Has Scrulok solderless connection. Molded handle.

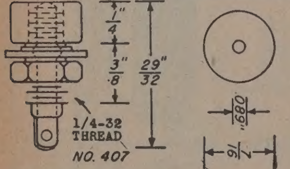
Colors:
Red, Black, Yellow, Blue, Green, White.
Cat. No. 419.......Std. Pkg. 50



PHONE TIP

Plugs into standard phone tip jacks. Brass nickel plated plug. Accommodates standard banana plug in molded plastic handle.

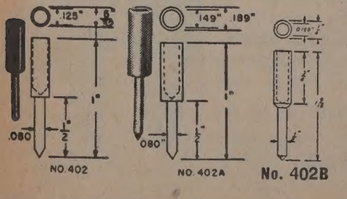
Red, Black, Yellow, Blue, Green, White.
Cat. No. 331........Std. Pkg. 50



PHONE TIP JACK

Fits all standard phone tips. Body is brass, n.pl. Double Phosphor Bronze springs. Mounts in 5/16″ hole in panels up to ⅜″ thick. Molded head.

Colors:
Red, Black, Yellow, Blue, Green, White.
Cat. No. 407..........Std. Pkg. 50



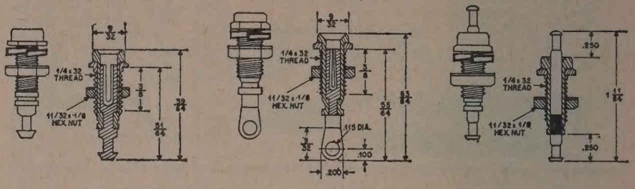
BRASS NICKEL PLATED TIPS

Fits all standard phone tip jacks.

Cat. No.		Std. Pkg.
402	—Standard Phone Tip	100
402A	— Phone Tip Larger Diam	100
402B	— Heavy Duty Phone Tip	100

NYLON TIP JACK WITH METAL SHELL

Made to Meet MS-16108 Spec.

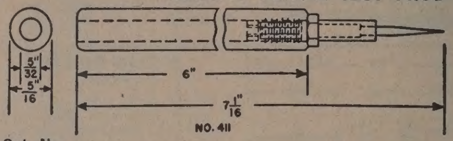


No. 1190 No. 1192 No. 1194

Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements: 1. Salt Spray Test—Withstands 100 hours. 2. Rated Voltage & Current—1000 volt peak @ 5 amps. maximum. 3. Test Voltage—2500 peak. 4. Insulation Resistance—5000 megohms. 5. Operating Conditions—A. Continuous; 23 hours on, 1 hour off; B. Elevation: Up to 15,000 feet; C. Temperature: —55 to +85 C; D. Humidity: Up to 95%.
6. Material Specifications—A. Insulator: Nylon, Grade FM 10001; B. Shell & Nut: Brass Nickel Plated Per Spec 72-53;, C. Lockwasher: Phosphor Bronze Nickel Plated Per Spec 72-53; D. Center Contact. Numbers 1190 and 1192 Heat Treated Bery. Copper Silver Plated per Spec 72-53. **Number 1194 Brass,** Tin Plated.
7. Non-Operating Conditions—A. Elevation: Up to 50,000 feet; B. Temperature: Continuous exposure for 72 hours @ +160 F and 240 hours @ —80 F; C. Humidity: Up to 100%.
8. **Colors—Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.**

No.	Type	Std. Pkg.
1190	Wrap Around	25
1192	Spade Terminal	25
1194	Feed Through	25

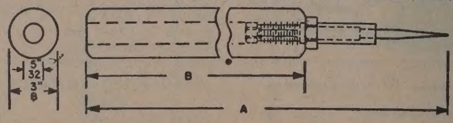
BAKELITE PENCIL TEST PROD



Body is brass nickel plated with steel n.pl. needle. Has Scrulok solderless connection. Bakelite handle. **Colors:** Red, Black.

Cat. No.		Std. Pkg.
411	Bakelite Pencil Test Prod	12

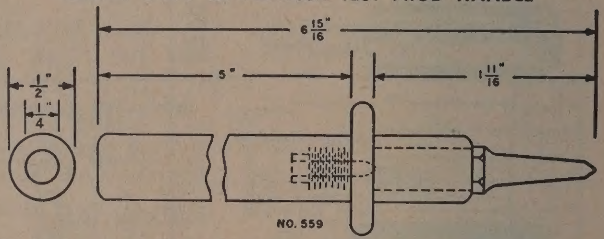
SCRULOK NEEDLEPOINT TEST PRODS



Phenolic insulated prod, has Scrulok solderless connection. Body is brass nickel plated with steel n.pl. needle. **Colors:** Red, Black.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
417	5-3/32″	4″	50
418	6-3/32″	5″	50

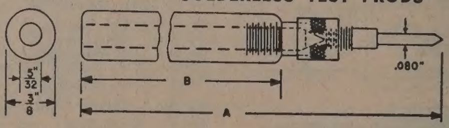
HEAVY DUTY HI-VOLTAGE TEST PROD HANDLE



Tip is heavy brass nickel plated. Bakelite finger guard. Accommodates IN-34 diode and condenser for use as RF Probe. **Colors,** Red, Black.

Cat. No.		Std. Pkg.
559	6″ H.V. Test Prod. Handles	20

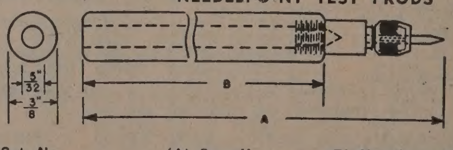
SOLDERLESS TEST PRODS



Body is brass nickel plated with solderless knurled nut connection. Heavy duty needlepoint, nickel plated. **Colors:** Red, Black.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
410	5⅛″	4″	50
343	6¼″	5″	50

NEEDLEPOINT TEST PRODS



Brass nickel plated body with steel nickel plated needle. Chuck threaded in end of handle is removable for replacing needles. Polished cast phenolic handle.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
344	4-15/16″	4″	50
345	5-15/16″	5″	50

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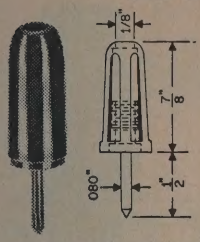
Birnbach PHONE TIPS, TIP JACKS TEST PRODS

BIRNBACH

NEW NYLON INSULATED PLUG



Molded of tough low-loss Nylon—provides high voltage insulation. Withstands extreme temperature changes without chipping or cracking. This series fits all standard Banana Jacks and standard Phone Tip Jacks.

Nylon Solderless Short Tip Plug. Molded nylon handle, recessed metal head provides flush contact without metal exposure in any standard tip jack brass nickel plated plug. Solderless wire fits thru handle.

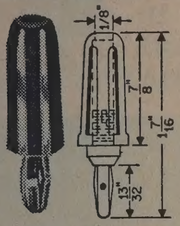
Cat. No.	NYLON PER MIL-P-20693A	Std. Pkg.
1169		100

Specify color as indicated above.

NYLON BANANA PLUG—MIDGET

NYLON PER MIL-P-20693A

Molded Nylon Handle Brass N.Pl. Wire can be soldered directly into stud. Fits all Standard Banana Jacks.



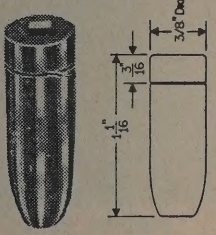
Cat. No.	Spring Material	Plating	Std. Pkg.
1172	Phospor Bronze	Nickel	100
1173	Phospor Bronze	Silver	100
1174	Berylium Copper	Nickel	100
1175	Berylium	Silver	100

Specify color as indicated in Color Code at right.

Color Code For NYLON HANDLE PLUGS
Add to Catalog Numbers

—01 White
—02 Red
—03 Black
—04 Dk. Green
—05 Lt. Blue
—06 Orange
—07 Yellow
—08 Brown
—09 Lt. Green
—10 Dk. Blue
—11 Ivory
—12 Violet (Purple)
—13 Grey

NYLON HANDLE JACK



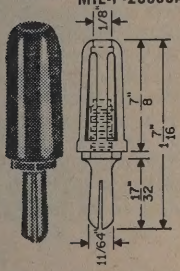
Made with our Nylon Tip Jack #1180 without mounting nut inside of threaded molded nylon insulated sleeve.

Cat. No.	Std. Pkg.
1179 Nylon Handle Jack	100

Specify color as indicated above. NYLON PER MIL-P-20693A

NYLON BANANA PLUG

NYLON PER MIL-P-20693A



Molded Nylon handle, brass N.P. plug, split type with solderless scrulock connection.

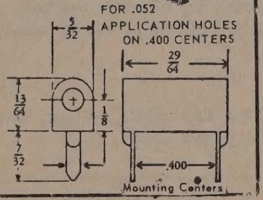
Cat. No.	Std. Pkg.
1168	100

PRINTED CIRCUIT TEST JACKS

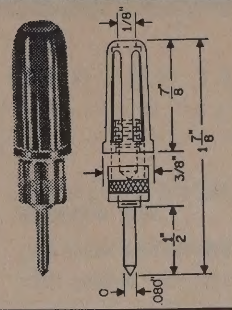
Designed for permanent, soldered assembly to printed circuit boards. Nylon bodies. Has gold over silver plated Berylium copper contacts which provide low resistance contact. Takes standard .080″ diameter test probes. Colors: Red, Black, Green, Brown, Yellow, Blue, Purple, Grey, Orange, White.

Cat. No.	Std. Pkg.
1177 Printed Circuit Jack	25

PER MIL F-14072, M301



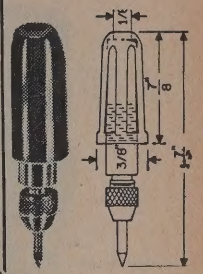
NYLON SOLDERLESS TIP PLUG



Molded Nylon handle, Brass N.Pl. Solderless plug. Wire fits thru body of tip and is wrapped around screw portion and then tightened. Fits all standard tip jacks.

Cat. No.	Std. Pkg.
1170	100

Specify color as indicated above.



PHONE NEEDLE TIP PLUG

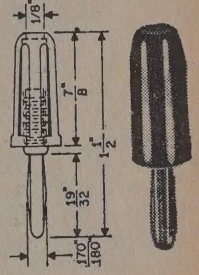
Molded Nylon Handle, Brass N.Pl. Plug. Has removable chuck for easy replacement of needles. Needle makes positive contact thru insulation or corrosion.

Cat. No.	NYLON PER MIL-P-20693A	Std. Pkg.
1171		100

Specify color as indicated above.

NYLON BANANA PLUG

Molded Nylon handle, Brass N.Pl. plug. Springs Phosphor Bronze or Berylium Copper. Nickel or Silver plated. Wire can be soldered into plug or brass stud.



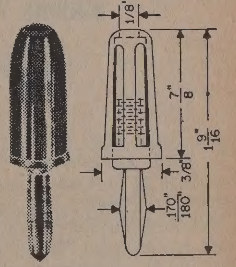
NYLON PER MIL-P-20693A

Cat. No.	Spring	Plating	Std. Pkg.
1160	Phos. Brz.	Nickel	100
1161	Phos. Brz.	Silver	100
1162	Beryl. Cop.	Nickel	100
1163	Beryl. Cop.	Silver	100

Specify color as indicated in color code above.

Same as above with Solderless Scrulock Connection.

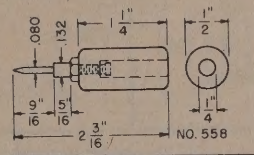
NYLON PER MIL-P-20693A



1164	Phosphor Bronze	Nickel	100
1165	Phosphor Bronze	Silver	100
1166	Berylium Copper	Nickel	100
1167	Berylium Copper	Silver	100

Specify color as indicated above.

HEAVY DUTY HIGH VOLTAGE TEST PROD HANDLES — No. 558

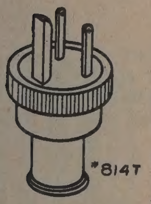


These bakelite prods are the same as used on the meter end of high voltage test leads Cat. No. 562. Tips are heavy brass with nickel plating.

Colors: Red, Black.

Cat. No.	Std. Pkge.
558—1¼″ H.V. Test Prod Handles..	20

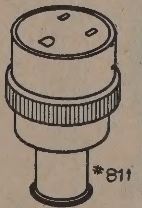
ADAPTER PLUGS



NEW TYPE 3 PRONG PLUG

NO.	LIST PRICE	STD. PKGE.
814T	.90	100

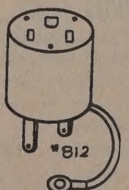
Two parallel blades plus ground pin for safe grounding of appliance.



FEMALE CONNECTOR

NO.	LIST EA.	STD. PKGE.
811	2.25	25

For new type 3 prong plug, Female mate to No. 814T.



ADAPTER FOR USING NEW TYPE 3 PRONG PLUG IN STANDARD OUTLET

NO.	LIST EA.	STD. PKGE.
812	.75	100

BIRNBACH TRANSMITTING SOCKETS

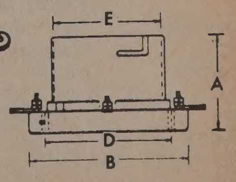
Medium 4 Pin Bayonet and Jumbo 4 Pin Bayonet

No. 434—"50 watt" socket for medium power bayonet based tubes such as 575A, 805, 810, 838, 845, 872A, 8000 and others with Retma Base No. A4-29. Has heavy phospher bronze cadmium plated double wiping filament contacts which will handle heavy currents. Terminals designed for solder or screw connections. Two mounting holes. Has polished nickel plated brass shell; white glazed porcelain base.

No. 435—"10 watt" socket for economy, has heavy phospher bronze, cadmium plated side wiping contacts; white glazed porcelain base; heavy plated brass shell. Two mounting holes, for medium 4 pin bayonet based tubes such as 3B25, 3B28, 10Y, 801A, 808, 809, 811A, 812A, 834, 836, 860, 865, 866A, 1616, 8005 with Retma Base No. A4-10.

Cat. No.	Watt Socket	A	B	D	E	Mtg. Holes	Pin	Tube Base	Std. Pkg.
434	50	2-9/32″	3¾″	2-13/16″	1.886″	2	4	Std. Jumbo	25
435	10	1⅞″	2½″	2-1/16″	1.386″	2	4	Med. Bay	25

Nos. 434-435



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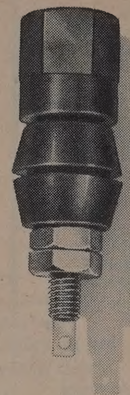
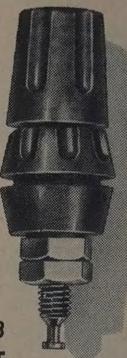
Birnbach SPADE LUGS — BINDING POSTS

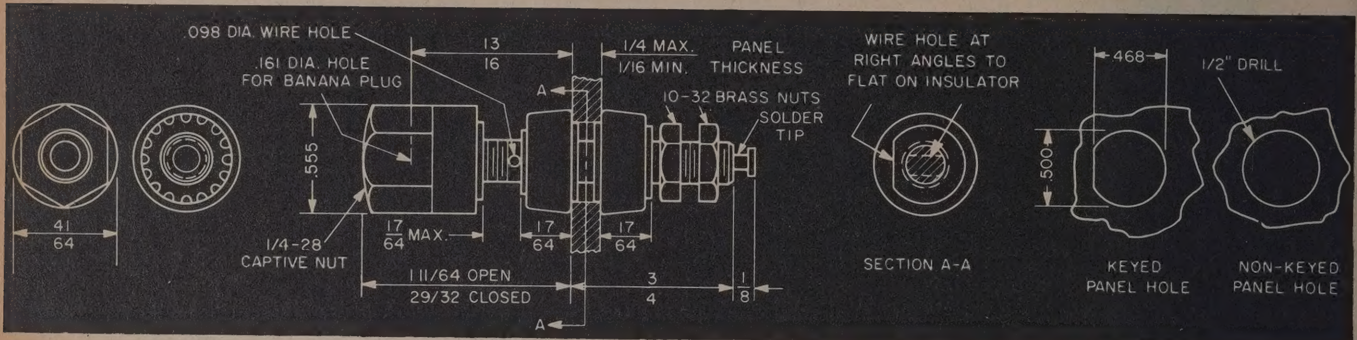
275
BINDING POST
WRAP AROUND TYPE

276
NEW! BIRNBACH
Safe-Positive-Heavy Duty
"Multi-Use" Binding Posts





273
BINDING POST
FLUTED HEAD


.098 DIA. WIRE HOLE
.161 DIA. HOLE FOR BANANA PLUG
13/16
1/4 MAX. 1/16 MIN. PANEL THICKNESS
A
10-32 BRASS NUTS
SOLDER TIP
.555
41/64
1/4-28 CAPTIVE NUT
17/64 MAX.
17/64
17/64
1 11/64 OPEN
29/32 CLOSED
3/4
1/8
A
WIRE HOLE AT RIGHT ANGLES TO FLAT ON INSULATOR
SECTION A-A
.468
1/2" DRILL
.500
KEYED PANEL HOLE
NON-KEYED PANEL HOLE

BINDING POST

30 Amp.
2000 VDC

Molded Nylon Body Banana Plug Receptacle, .161 I. D.; Head non-removable from Stud; Molded in Brass Bushing in Head; Molded in Brass Bushing in Washers; For Panels 1/16" to 1/4" thick; Drill 1/2" hole for mounting washers; Wire Hole is at right angle to Flat on Insulated Washers; Production Punch for keyed Slot for mounting Washers.

WRAP AROUND TYPE
COLORS

No.	Std. Pkg.
275—Stand. Nickel Plated Red, Black, Yellow, Green, White, Blue, Brown, Grey	100

BINDING POST

NEW! BIRNBACH "Multi-Use" Binding Posts

Safe-Positive-Heavy Duty

Rugged, versatile "Multi-Use" binding post made of molded nylon with molded-in brass inserts in head and washer for complete insulation from panel. For use on panels 1/16" to 1/4" thick. Mounting hole 1/2". Current Capacity: 30 Amps. Voltage: 2000 V.A.C. RMS Test. **No. 276 can be soldered directly to stud. Will permit six different methods of connection above panel and three below panel.**

Cat. No.	Std. Pkg.
276—Nickel Plated Red, Black, Yellow, Green, White, Blue, Brown, Grey	100

BINDING POST FLUTED HEAD

New fluted nut design is attractive and functional molded nylon body per Mil-P-20693A completely insulates panel from binding post. Makes ideal connection for electrical and electronic equipment. Brass nickel plated "Wrap Around Type" solder connection to stud rated 30 amp. 2000 VAC test capacitance 5.0 mmfd. Similar construction as our No. 275.

Cat. No.	Std. Pkg.
273—Nickel plated Specify Color: Red or Black	100

STANDARD DUTY 5-WAY BINDING POST

#278

Molded-in brass bushings for complete insulation. Useful for standard duty work. Available in Red or Black. Specify color. Body is brass nickel plated.

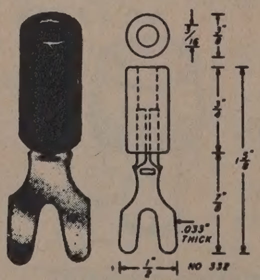
6 AMPS

Cat. No.	Description	Std. Pkg.
278	Red or Black	100
279*	Red or Black	100

*Same as above, but normally grounded. (Without bottom insulating section.)

#279

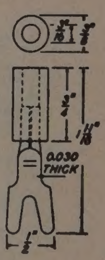
INSULATED SPADE LUG


.033" THICK
NO 332

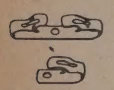
Accommodates all standard banana plugs into the rear of lug enabling same to be adapted to a spade lug. Lug is Steel Hot Tinned.

Colors: Red or Black.

Cat. No. 332
Std. Pkg. 50

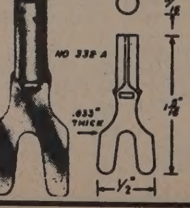


SPRING WIRE CLIPS



They will hold a wire up to No. 10 B&S Gauge in a secure contact. All clips are brass nickel plated.

Cat. No.	Length	Width	Mtg. Hole	Std. Pkg.
32A—Spring Clip	3/4"	5/16"	6	100
32 —Spring Clip	1"	3/8"	10	100
33 —Twin Clip	1 3/4"	3/8"	10	100


NO 332 A
.033" THICK
1/2"

SPADE LUG

Barrel accommodates all standard banana type plugs. Lug is Steel Hot Tinned.

Cat. No.	Std. Pkg.
332A	50

Spade Lug

See Pages 1560-1565 for Birnbach Prices for Above Items

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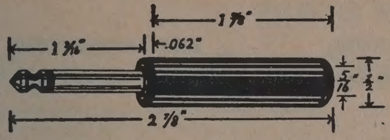
Birnbach

STANDARD AND MINIATURE TELEPHONE TYPE JACKS • PLUGS • SHAFT LOCKS • TEST LEADS

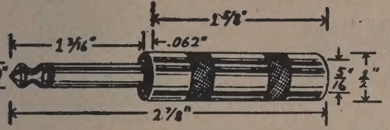
BIRNBACH

A

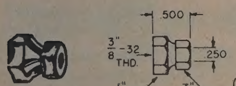

1 ⅞"
1 $\frac{3}{16}$"
.062"
.250"
$\frac{5}{16}$"
½"
2 ⅞"

No. 251

B

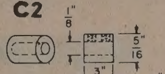

1 ⅞"
1 $\frac{3}{16}$"
.062"
.250"
$\frac{5}{16}$"
½"
2 ⅞"

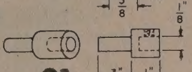
No. 252


.500
⅜"-32 THD.
.250
½" HEX.
$\frac{7}{16}$" HEX.

C

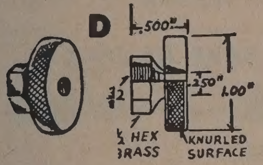
C2

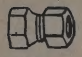




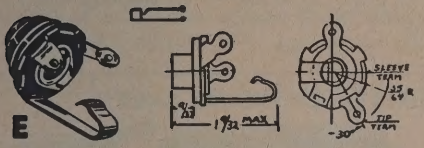
C3

D

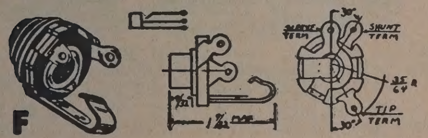

.500"
.250"
1.00"
½ HEX BRASS
KNURLED SURFACE



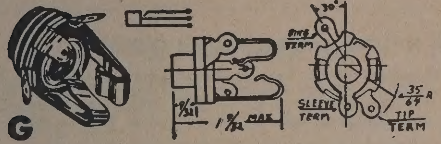
C1


SLEEVE TERM
$\frac{35}{64}$ R
1 $\frac{9}{32}$ MAX
TIP TERM
30°

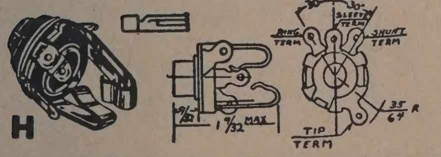
E


SLEEVE TERM
SHUNT TERM
30°
$\frac{35}{64}$ R
1 $\frac{9}{32}$ MAX
TIP TERM

F

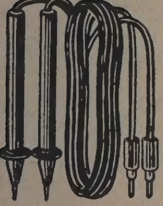

30°
RING TERM
SLEEVE TERM
$\frac{35}{64}$ R
TIP TERM
1 $\frac{9}{32}$ MAX

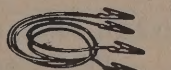
G


30°
SLEEVE TERM
RING TERM
SHUNT TERM
$\frac{35}{64}$ R
1 $\frac{9}{32}$ MAX
TIP TERM

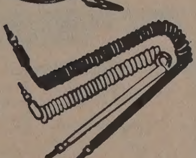
H

J



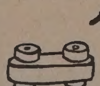


K

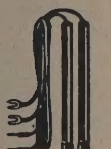


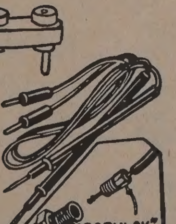
K₁

N



M





L

TELEPHONE TYPE PLUGS

This standard two conductor plug fits all standard jacks. All metal parts brass with nickel plating except for contact screw. Barrel is molded bakelite. Red or Black.

A — BAKELITE DOUBLE PHONE PLUG

Cat. No. 251 .... Std. Pkg. 25

B — SHIELDED PHONE PLUG

Cat. No. 252 .... Std. Pkg. 25

SHAFT LOCKS

C — WRENCH TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: $\frac{7}{16}$" hex brass.

Cat. No.	Std. Pkg.
546 — For ¼" Shaft	25

D — THUMB TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: 1" diam. knurled nut.

Cat. No.	Std. Pkg.
547 — For ¼" Shaft	25

MINIATURE SHAFT ACCESSORIES

Brass Nickel plated for ⅛" shafts.

C1 — MINIATURE LOCK—WRENCH TYPE

Cat. No. 546A Std. Pkg. 25

C2 — MINIATURE BRASS COUPLER

with allen head set screws

Cat. No. 531A Std. Pkg. 25

C3 — MINIATURE SHAFT EXTENDER

with allen head set screws

Cat No. 538A Std. Pkg. 25

TELEPHONE TYPE JACKS

The body is brass nickel plated. Small, rugged and they are designed for long life, with low contact resistance snap springs made specially from nickel silver alloy which is corrosion resistant. Mounts in ⅜" hole.

E — Cat. No. 257 — Open Circuit Two Conductor .... Std. Pkg. 25
F — Cat. No. 258 — Single Closed Circuit Two Conductor .... Std. Pkg. 25
G — Cat. No. 259 — Open Circuit Three Conductor .... Std. Pkg. 25
H — Cat. No. 260 — Single Closed Circuit Three Conductor .... Std. Pkg. 25

TEST LEADS

J — BIRNBACH HEAVY DUTY HIGH VOLTAGE TEST LEADS

Overall length 60". Tips are heavy solid brass nickel plated. Rugged, dependable heavy duty bakelite prods. Color coded Red and Black. Uses our Hi Volt kinkless test lead wire.

Cat. No.	Std. Pkg.
562 — Heavy Duty High Voltage Test Leads	10

L — DELUXE AND BAKELITE PENCIL TYPE TEST LEADS

No. 408 Bakelite pencil test leads, color coded, Red, Black, all with kinkless test lead wire. Overall length 60". #560 and #561 polished cast phenolic resin handles, solderless type tips. 50" long. Color coded Red, Black.

Cat. No.	Std. Pkg.
408 — Bakelite Pencil Type Test Leads, 6" handles	10
560 — DeLuxe Solderless Prod Test Leads, 5" handles	25
561 — DeLuxe Needlepoint Prod Test Leads, 5" handles	25

N — CRYSTAL SOCKET

Glazed ceramic base. Phosphor bronze silver plated contacts spaced .486". Pin diameter .051, mtg. hole .125. Std. Pkg. 25.

Cat No. 595 Crystal Socket

K — ALLIGATOR CLIP TEST LEADS

Black and Red kinkless test lead wire with Alligator Clips at each end.

Cat. No.	Wire Length	Std. Pkg.
675	12"	25
676	24"	25
677	36"	25
678	48"	25

SPECIAL ASSEMBLIES AVAILABLE TO ORDER

K₁ — STRETCH LEADS

Kink-Proof Retracted 9" Coil

No tangling or knotting of wires. Lead coil only 9", extends to 6 feet.

Cat. No. 564 Solderless phone tip, retractile wire, solderless prod. Std. Pkg. 10.

L — PUSH BUTTON KINKLESS TEST LEADS

556 Solderless phone tip one end, push button tip other end. Std. Pkg. 12
557 Solderless phone tip one end, push button banana plug other end. Std. Pkg. 12

M — BIRNBACH NEEDLEPOINT TEST LEADS

Have Red and Black 4" fibre handles. Use kinkless lead wire. Overall length 50". Good, dependable low priced leads.

Cat. No.	Std. Pkg.
420 — Needlepoint Phone Tip Test Leads	25
421 — Needlepoint Spade Lug Test Leads	25
422 — Solderlss Phone Tip Test Leads	25
423 — Solderless Spade Lug Test Leads	25

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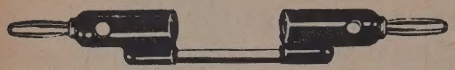
See Pages 1560-1565 for Birnbach Prices for Above Items

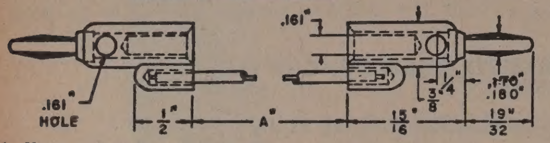
Birnbach PATCH CORDS

PHONO JACK & PLUGS - PHONO SPLICE/TIP

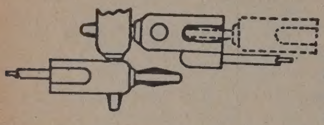
BIRNBACH

MOLDED "STACKING TYPE" PATCH CORDS



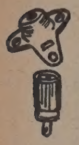


1. Never ending banana plug receptacle.
2. Interconnects unlimited amount of multiple circuits.
3. Positive and lasting contact for all standard banana plugs.
4. Four leaved heat treated beryllium copper spring.
   a. 360 degrees spring contact
   b. maintains resiliency after thousands of insertions.
5. Supplied in Red, Black, Yellow or Green. (Specify Color) (Special colors on request)
6. Handle molded to body and to wire.
7. 10,000 volt rubber covered flexible wire.
   a. 65 strands #36 insulated to an O.D. of .140.



Cat. No.	("A") Wire	Std. Pkg.
655-8	8 inches	12
655-12	12 inches	12
655-24	24 inches	12
655-36	36 inches	12

PHONO-JACKS

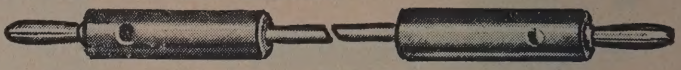


Small, compact . . . where space is at a premium.

Cat. No.	Std. Pkg.
597	50

Space Saver . . . Rivets and grounds to chassis.

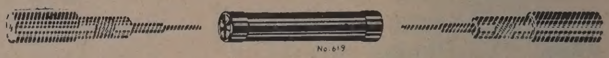
Cat. No.	Std. Pkg.
598	50



Provides a never-ending banana plug receptacle to interconnect an unlimited amount of multiple circuits. The cross hole is designed for positive contact of all standard banana plugs. Fits all standard banana jacks. Four-leaved phosphor bronze nickel plated spring. Red or Black assemblies. Specify color. Std. pkg. 10.

		Pkg.
Cat. No. 653-8	8″ Wire Length	12
Cat. No. 653-12	12″ Wire Length	12
Cat. No. 653-24	24″ Wire Length	12
Cat. No. 653-36	36″ Wire Length	12

PHONE TIP PLUG SPLICE

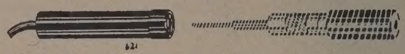


Takes all standard phone tip plugs excellent for quick connections or test, lead extensions.

Colors: Red, Black, Yellow, Green.

Cat. No. 619 — Insulated Banana Plug Splice ....**Std. pkg.** 25

IN-LINE PHONE TIP JACK

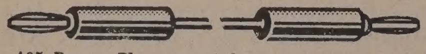


Takes all standard phone tip plugs. Can be used as lead extension.

Colors: Red, Black, Yellow, Green.

Cat. No. 621 — Insulated-In-Line Tip Jack ....**Std. pkg.** 25

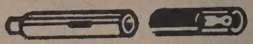
BIRNBACH PATCH CORDS



Birnbach No. 465 Banana Plugs connected to our kinkless test lead wire. Used to interconnect circuits. Fits all standard banana jacks. Specify red or black.

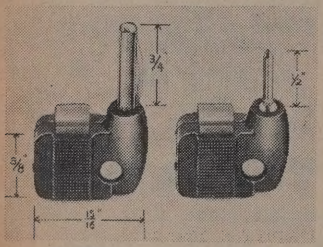
Cat. No.	Wire Length	Std. Pkg.
607	12″	25
608	24″	25
609	36″	25
610	48″	25

SHIELDED EXTENSION JACK



Cadmium plated brass shell with black bakelite insert. Length is 2-7/16″. Insulates for solder grip contact. Mates with No. 248 Phono Plug.

Cat. No.	Std. Pkg.
246—Inline Extension Jack	100



122 # 121

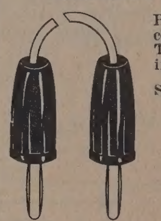
PUSH BUTTON PHONE TIP PLUGS AND BANANA PLUGS

Description: Wire is fastened easily, speedily, and securely without soldering. Simply by pressing the push buttons the bare wire can be inserted into the opening of the plug.

Cat. No.		Std. Pkg.
121	Push Button Phone Tip Plug, Red and Black	100
122	Push Button Banana Plug, Red, Black, Yellow, Green, White	100

No. 121 Phone Tip Plug will fit all Standard Phone Tip Jacks. No. 122 Banana Plug will fit all Standard Banana Jacks.

BIRNBACH NYLON HANDLE PATCH CORDS

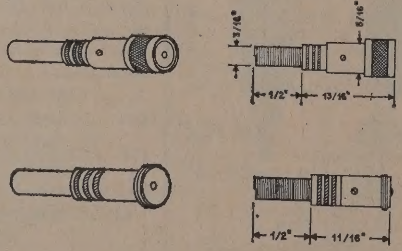


Birnbach #1162 Banana Plugs using molded nylon handles connected to our plastic kinkless test lead wire #18 65/36 TC. Suitable for 10 KV. Wire is same color as handle. For interconnecting circuits. Fits standard Banana Jacks.

Specify color: Red, Blk, Yellow, Green.

Cat No.	Wire Length	Std. Pkge.
657-8	8″	25
657-12	12″	25
657-24	24″	25
657-36	36″	25
657-48	48″	25

MINIATURE MICROPHONE CONNECTOR



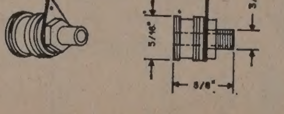
Single contact female.

	Std. pkg.
No. 134 Miniature Female Conn.	50

Single Contact Male

No. 135 Miniature Male Conn.	50

MINIATURE CHASSIS CONNECTOR

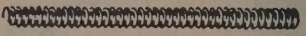


Single Contact Male

Complete with insulating washer and lug. Mounts in ¼″ hole. Mates with **No. 134.**

	Std. pkg.
No. 136 Miniature Chassis Conn.	50

BIRNBACH THREADED RODS



These brass nickel plated threaded rods are standard parts of of our insulator assemblies.

Cat. No.	Length	Thread	Std. Pkg.
16	4″	¼-20	100
17	5½″	¼-20	100
18	10″	¼-20	100
113	15″	¼-20	100
114	1⅜″	10-32	100
115	1⅝″	10-32	100
116	2¼″	10-32	100
117	8″	10-32	100
118	8″	8-32	100
119	8″	6-32	100
15	2″	6-32	100

See Pages 1560-1565 for Birnbach Prices for Above Items

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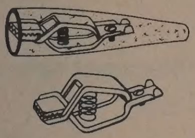
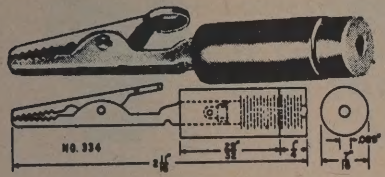
Birnbach ALLIGATOR CLIPS — TEST CLIPS

BIRNBACH TEST CLIPS

The teeth mesh correctly permitting good contact to be made. The No. 27-C is a solid copper clip with a brass screw designed for high frequency work.



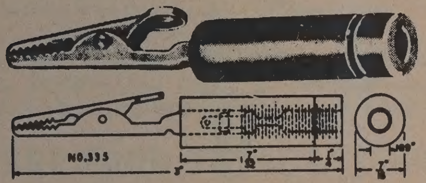
Cat. No.	Length	Jaw Spread	Capacity	Std. Pkg.
27—Pee Wee	1½″	⅜″	5 Amp.	50
28—Midget	2″	9/16″	10 Amp.	50
29—Medium	2⅞″	1″	25 Amp.	50
30—Large	4″	1¼″	50 Amp.	50
27C—Pee Wee Copper	1½″	⅜″	10 Amp.	50
27R— Vinyl Sleeve—Red or Black				50



ALLIGATOR CLIP WITH PHONE TIP JACK

Handle has our No. 31 clip and our No. 407 tip jack in rear for all standard phone tip plugs. Colors: Red, Black.

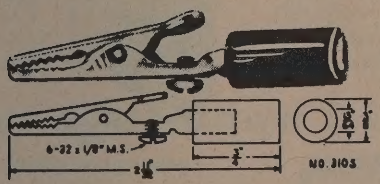
Cat. No.	Std. Pkg.
334—Alligator Clip with Phone Tip Jack	50
336—Same as above except with our #31C screw type Copper Alligator Clip	50



ALLIGATOR CLIP COMBINATION JACK

Insulated alligator clip is composed of our #31, steel, cadmium plated Alligator Clip with our #333 Combination Jack in rear allowing the adaptation of both standard senior phone tip plugs and banana plugs to Alligator Clips. Colors: Red, Black.

Cat. No.	Std. Pkg.
335—Alligator Clip Combination Jack	50
337—Same as above except with our #31C screw type Copper Alligator Clip	50



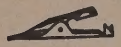
INSULATED ALLIGATOR CLIP (Screw Type)

Made of steel, cadmium plated. Accurately matching jaws for tight grip. Has screw for solderless connection. Banana plug fits into rear of clip. Insulated handle. Colors: Red, Black.

Cat. No.	Std. Pkg.
310S—Insulated Alligator Clip	50
310C—Insulated Copper Alligator Clip	50

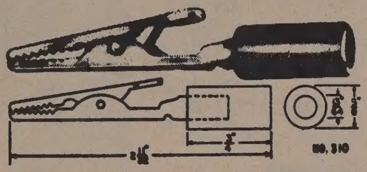
MICRO-GATOR CLIPS

The Alligator Clip With the Microscopic Tip. Use it where no other clip can go—for tight spots, printed circuits, etc. Length 1 13/32″. Jaw spread, 7/32″. Tiny tip, 1/32″ across. New extra strong "keyed in" type hinge. Solder connection with clinching ears to relieve strain on wire.



Cat. No.	Type	Std. Pkg.
31 MG/S	Steel, Cad. Plated	50
31 MG/C	Solid Copper	50
31 FB	Insulator Boots to Fit 31 MG/S or 31 MG/C	50

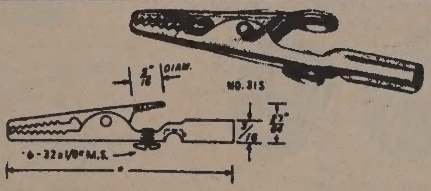
Specify color: Red, black, blue, yellow, white, green



INSULATED ALLIGATOR CLIP

Made of steel, cadmium plated. Insulated handle allows use of all banana plugs. Has small soldering lip. Colors: Red, Black.

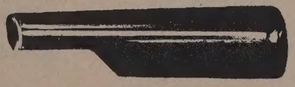
Cat. No.	Std. Pkg.
310—Insulated Alligator Clip	50
310B—1½″ Insulated handle Alligator Clip	50



ALLIGATOR CLIP (Screw Type)

Made of cadmium plated steel. The jaws match accurately, permitting them to grip all kinds of wire securely. Has screw for solderless wire connection. Banana plug fits into rear of clip.

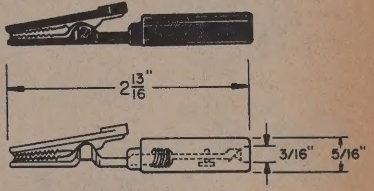
Cat. No.	Std. Pkg.
31—Alligator Clip (no screw)	50
31S—Alligator Clip with screw	50
31C—Alligator Clip (Copper) w/scr.	50



ALLIGATOR CLIP VINYL INSULATOR BOOT

Extremely flexible. Made to fit Nos. 31, 31S, 31C. Colors: White, Red, Black, Yellow, Blue, Green.

Cat. No.	Std. Pkg.
31R—Vinyl Insulator	50



ALL INSULATED ALLIGATOR CLIP

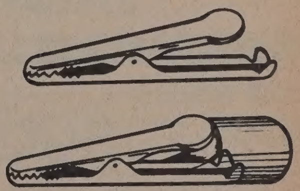
Steel Cadmium plated alligator clip. All metal parts covered with vinyl plastic insuring against shock. Solder Type connection. Red or Black. Specify color.

Cat. No. 123 Std. pkg. 50

PHONE TIP TO CLIP ADAPTER

Same as above with spring in rear of handle enabling the adapting of standard phone tip plugs to alligator clips. Red or Black. Specify color.

Cat. No. 124 Std. pkg. 50



MINIATURE ALLIGATOR CLIPS

Very small and compact. Useful where space is important. Accurately matching jaws for finger-tight grip. Length 1 13/32″. Jaws open to 3/16″. Has lip for soldering.

Cat. No.	Type	Std. Pkg.
31 MS	STEEL (Cad Plate)	50
31 MC	Solid Copper	50

31 MB INSULATOR BOOT to fit **31 MS** or **31 MC**. Specify Black, Red, Blue, Yellow, White, Green.

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See Pages 1560-1565 for Birnbach Prices for Above Items

CANNON AUDIO PLUGS for low level circuit applications

CANNON PLUGS

Cannon Audio Plugs are designed for use on audio/video and other low level circuit applications in the electronic/industrial fields where reliability, quiet operation and the elimination of mechanical interference are necessary. Some common uses are: microphones, tape recorders, medical instruments, cameras and test instrumentation computers.

XLR PLUG SERIES

The XLR incorporates the most advanced audio/electronic design concepts. Small and compact, it features resilient insulators on the socket side plus resilient ribs for shock protection and quiet operation.

Shells are zinc (receptacles), steel or zinc (plugs), with satin nickel finish. Insulators are rigid molded plastic (pin side), resilient polychloroprene (socket side). Contacts are brass, silver plated. Coupling is by the latch-lock method.

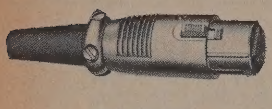
FEATURES

• QUIET OPERATION

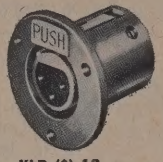
Thick zinc cross sections for shell strength, plus resilient insulators and resilient ribs on the socket side, insures elimination of mechanical interference from shock.

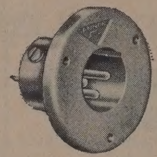
• EASY TO WORK WITH

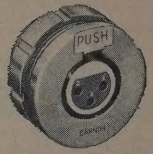
Finger grips for positive handling.
Integral cable clamp with two clamping positions for positive grip on cable sizes from 7/32 to 5/16 of an inch.
Large internal space for ease of wiring.


XLR-(*)-11C
XLR-(*)-11SC (steel shell)
SOCKET

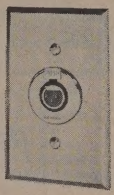
XLR-(*)-12C
XLR-(*)-12SC (steel shell)
PIN

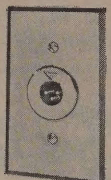

XLR-(*)-13
SOCKET

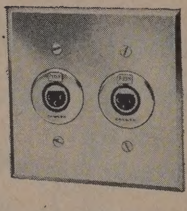

XLR-(*)-14
PIN

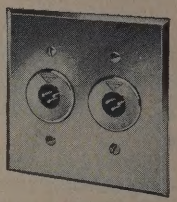

XLR-(*)-13N
SOCKET

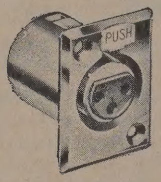
XLR-(*)-14N
PIN

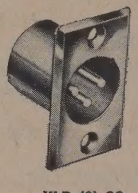

XLR-(*)-35
SOCKET


XLR-(*)-36
PIN

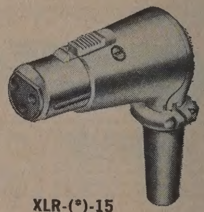

XLR-(*)-35-2G
SOCKET


XLR-(*)-36-2G
PIN

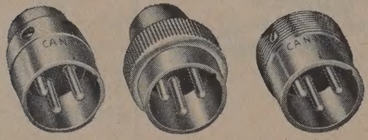

XLR-(*)-31
SOCKET


XLR-(*)-32
PIN

XLR-(*)-42
PIN

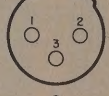

XLR-(*)-15
SOCKET

Adapter Receptacles

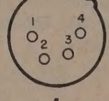

XLR(*)-50 (with plain shell)
XLRC(*)-50N (with coupling nut)
XLR(*)-50T (with threaded barrel)

INSERT ARRANGEMENTS

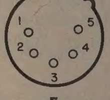
FACE VIEW OF PIN INSERTS



3
3-15 AMP
CONTACTS



4
4-10 AMP
CONTACTS



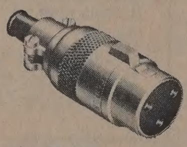
5
5-7½ AMP
CONTACTS

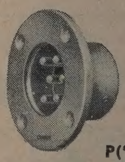
***Add insert arrangement to complete ordering number.**

P PLUG SERIES

The Cannon P is a versatile plug in terms of the wide range of insert arrangements offered. It is a proven plug, and has been the standard of quality in the audio field for many years. Socket contacts are full floating and precision-made from milled bar stock.

Shells are zinc (receptacles), steel or zinc (plugs), with satin chrome finish. Insulators are phenolic. Contacts are brass, silver plated. Coupling is by the latch-lock method.


P(*)-CG-11S
SOCKET


P(*)-14
PIN

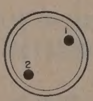
Other P Series plugs not shown.

P(*)-CG-12S Straight cord plug. (Pin)
P(*)-13 Flush panel receptacle. (Socket)
P(*)-CG-15 90° angle cord plug. (Socket)
P(*)-CG-16 90° angle cord plug. (Pin)
P(*)-17 Surface panel receptacle. (Socket)
P(*)-18 Surface panel receptacle. (Pin)
P(*)-23 Straight cord plug. (Socket)
P(*)-24 Straight cord plug. (Pin)
P(*)-35 Single gang wall receptacle. (Socket)
P(*)-36 Single gang wall receptacle. (Pin)
P(*)-35-2G Two gang wall receptacle. (Socket)
P(*)-36-2G Two gang wall receptacle. (Pin)
P(*)-41 Microphone mounting receptacle. (Socket)
P(*)-42 Microphone mounting receptacle. (Pin)

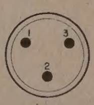
***Add insert arrangement to complete ordering number.**

INSERT ARRANGEMENTS

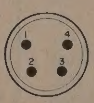
FACE VIEW OF PIN INSERTS



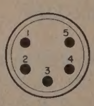
2
2-30 AMP
CONTACTS



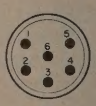
3
3-30 AMP
CONTACTS



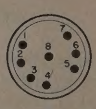
4
4-30 AMP
CONTACTS



5
5-30 AMP
CONTACTS



6
6-30 AMP
CONTACTS



8
8-15 AMP
CONTACTS

CANNON ELECTRIC COMPANY • SEE YOUR CANNON AUTHORIZED DISTRIBUTOR

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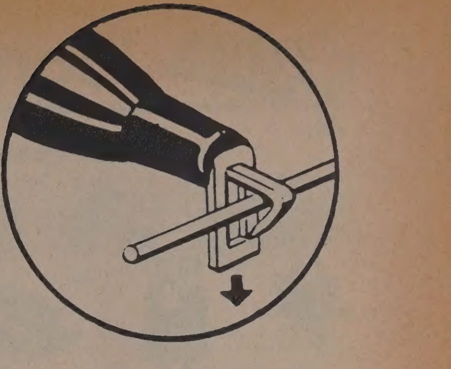
E-Z-HOOK

TEST AND PRODUCTION CONNECTORS

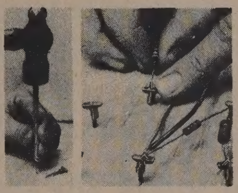
• *CLIPS* • *ADAPTERS* • *TEST LEADS* • *PROBES*



- Instantly connects anywhere — Won't cut or nick.
- Won't short or jump off — Leaves your hands free.
- Saves time and temper — Money back guarantee.

HARNESS BOARD CLIPS

- **Save Up to 30% in Board Construction Time!**
- **Speeds wiring . . . Improves Quality**



E-Z-HOOK "Nail" Clips

No need to waste valuable time drilling holes, placing screws, nuts, & washers. The "Nail" Clip drives into wood like a nail! Pulls out as easy. Make Eng. Changes in seconds. Use them to speed Processing—Save Construction & Production time.

Easy finger-tip operation speeds wire placing — makes it easier. Patented E-Z-HOOK holds firmly —won't cut nick or damage wire ends. L. 1 3-16". Made of tough Stainless Steel and Durable Nylon.

. . . Over 62,000 used by Company X . . .

No.	81-1	E-Z-HOOK "Nail" Clip (Use T-20 Tool)	24¢ ea.	10 for 1.98
No.	K8150T-1	"Nail" Clip Kit (50 Clips, Tool & Instr.)	Wt. 2 oz.	ea. 8.95
No.	T-20	E-Z-HOOK "Nail" Clip Driving Tool	Wt. 1-3 oz.	ea. .35

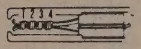
TEST PROD TIP ADAPTERS

- **For testing as you like it**
- **Sharp point to an E-Z-HOOK in seconds**

Slips Easily On—Off

Handiest, most trouble-free adapter you can get. Convenient E-Z-HOOK Tip slips easily on, or off, — in seconds! Doubles regular test prod utility, 1. as a sharp point for probing, 2. as an extra hand when needed.

Safer, too! . . . remote connections made easily while your hand stays out in the clear — safe from shock.



Trouble Eliminator
4 springs insure firm grip

A smart investment in trouble-free design. Exclusive spring chuck eliminates loose, wobbly fit on Prod . . . insures pleasant, irritation-free performance.

. . . Over 12,300 used by Company Y . . .

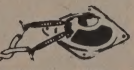
Made of rust-proof Stainless Steel, Brass, and tough Zytel Nylon in Red, Black, Blue, Green, Orange, and Yellow. Lgth. 2 1-16", O.D. 19-64", Wt. 1-8 oz.

No.	55-0	E-Z-HOOK Tip	(Needle—'060")	ea.	.69
No.	56-1	E-Z-HOOK Tip	(Standard—.080")	ea.	.69
No.	57-10	E-Z-HOOK Tip	(Tec—10-32 female thread)	ea.	.69
No.	59-4	E-Z-HOOK Tip	(Banana—Standard.)	ea.	.69

PART SUBSTITUTION CLIPS

- **Eliminate Guessing**

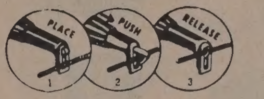
You can be sure!—when you substitute, and this E-Z-H Sub is just the thing to use . . . quick, easy, temporary connections in seconds . . . no lead twisting or solder tacking to damage parts or wiring. Speeds trouble-shooting, makes it easier . . . saves hours and dollars in valuable production time and material.



Solderless Clips
Eliminate Broken Lugs

Long-lasting Zytel Nylon and tough Stainless Steel. In colors for easy lead identification: Red, Black, Blue, Green, Orange, and Yellow. Length 2 1-2", O.D. 19-64", Weight. 1-12th oz.

No.	71-1	E-Z-HOOK Sub	ea.	.49

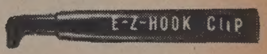


Patented hook tip connects anywhere. 1. Push to connect. 2. Push again to remove.

U.S. PATENT No. 2702892

JUMPER - METER CLIPS

- **Convert needless delays . . . to pleasant productive checks**



Let carefree E-Z-HOOK Clips help speed your checks . . . make it easier. They quickly pay for themselves in savings.

Easy slip-on design saves in assembly and maintenance . . . safe solder connection and strain relief assures longer trouble-free lead life.

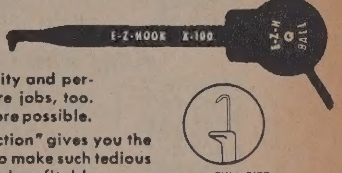
. . . Over 37,000 used by Company Z . . .

Made of tough Stainless, durable Nylon in colors for easy lead identification: Red, Black, Blue, Green, Orange, Yellow. Lgth. 2 1-8", OD 5-8", Wt. 1-13 oz.

No.	61-1	E-Z-HOOK Clip	(Standard)	ea.	.39
No.	61-2	E-Z-HOOK Clip	(Gold Plated)	ea.	.59

Miniature CLIP & LEADS

- **Make Impossible Connections . . . Easy**



FULL SIZE

Now enjoy famous E-Z-HOOK reliability and performance on your small, sub-miniature jobs, too. Easily make test connections never before possible.

Tiny E-Z-HOOK with the new "Hypo Action" gives you the small size and positive control needed to make such tedious work easier, more efficient, pleasant and profitable.

Use "Q" Balls two ways—1, as a versatile low voltage test connector, 2. as a tiny mechanical hand to handle small parts. Will save you hours of unnecessary delays and aggravation.

Durably constructed of the finest materials—Red Nylon insulation, Stainless Steel spring, & Beryllium Copper conductor to assure reliable performance.

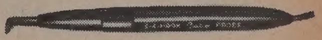
Also available on 32"—Ready-to-Plug-In—Test Leads of flexible Red and Black striped, 24 AWG (19-36) thermoplastic wire—Standard or Banana Tip.

Over all length 2 1-4". Maximum width at hook only .079". Wt. 1-6th oz.

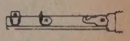
No.	X-100	E-Z-HOOK 'Q' Ball Mini-HOOK	(No lead)	ea.	.49
No.	AX-1	E-Z-HOOK 'Q' Ball Test Lead	(32"—Std. Tip)	ea.	.89
No.	BX-1	E-Z-HOOK 'Q' Ball Test Lead	(32"—Ban. Tip)	ea.	.94

SCOPE - METER PROBES

- **Now—Special Probes assembled in minutes**



Custom PROBE



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"Jones" Type Plugs, Sockets

300 SERIES CONNECTORS

Compact, polarized connectors. Insulating material is molded Bakelite. Fiber lined metal caps are black wrinkle finished. New "Monoblock" construction eliminates internal moisture traps. Snap-in contacts may be prewired or replaced. Rated Voltage: 730 volts rms. Amps: 2-12 contacts, 7.5 a.; 15-33 contacts, 4.5 a.

A

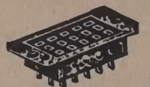
C

E

G

B

D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H

PLUGS WITH ANGLE BRACKETS (FIG. A)

Cinch No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
P-302-AB	2	$0.248	$0.198	$0.165	$0.132	$0.125
P-303-AB	3	.308	.246	.205	.164	.156
P-304-AB	4	.338	.27	.225	.18	.171
P-306-AB	6	.42	.336	.28	.224	.213
P-308-AB	8	.495	.396	.33	.264	.251
P-310-AB	10	.563	.45	.375	.30	.285
P-312-AB	12	.623	.498	.415	.332	.315

SOCKETS WITH ANGLE BRACKETS (FIG. B)

S-302-AB	2	$0.27	$0.216	$0.18	$0.144	$0.137
S-303-AB	3	.323	.258	.215	.172	.163
S-304-AB	4	.36	.288	.24	.192	.182
S-306-AB	6	.45	.36	.30	.24	.228
S-308-AB	8	.563	.45	.375	.30	.285
S-310-AB	10	.668	.534	.445	.356	.338
S-312-AB	12	.773	.618	.515	.412	.391

PLUGS WITH CABLE CLAMPS (FIG. C)

P-302-CCT	2	$0.57	$0.456	$0.38	$0.304	$0.289
P-303-CCT	3	.608	.486	.405	.324	.308
P-304-CCT	4	.668	.534	.445	.356	.338
P-306-CCT	6	.735	.588	.49	.392	.372
P-308-CCT	8	.81	.648	.54	.432	.41
P-310-CCT	10	.908	.726	.605	.484	.46
P-312-CCT	12	.99	.792	.66	.528	.502

SOCKETS WITH CABLE CLAMPS (FIG. D)

S-302-CCT	2	$0.578	$0.462	$0.385	$0.308	$0.293
S-303-CCT	3	.623	.498	.415	.332	.315
S-304-CCT	4	.675	.54	.45	.36	.342
S-306-CCT	6	.773	.618	.515	.412	.391
S-308-CCT	8	.90	.72	.60	.48	.456
S-310-CCT	10	1.005	.804	.67	.536	.509
S-312-CCT	12	1.155	.924	.77	.616	.585

PLUGS WITH SHALLOW BRACKETS (FIG. E)

P-315-SB	15	$1.223	$0.978	$0.815	$0.652	$0.619
P-318-SB	18	1.508	1.206	1.005	.804	.764
P-321-SB	21	1.778	1.422	1.185	.948	.901
P-324-SB	24	2.108	1.686	1.405	1.124	1.068
P-327-SB	27	2.37	1.896	1.58	1.264	1.201
P-330-SB	30	2.715	2.172	1.81	1.448	1.376
P-333-SB	33	2.993	2.394	1.995	1.596	1.516

SOCKETS WITH SHALLOW BRACKETS (FIG. F)

S-315-SB	15	$1.373	$1.098	$0.915	$0.732	$0.695
S-318-SB	18	1.635	1.308	1.09	.872	.828
S-321-SB	21	1.913	1.53	1.275	1.02	.969
S-324-SB	24	2.258	1.806	1.505	1.204	1.144
S-327-SB	27	2.52	2.016	1.68	1.344	1.277
S-330-SB	30	2.865	2.292	1.91	1.528	1.452
S-333-SB	33	3.135	2.508	2.09	1.672	1.588

PLUGS WITH CABLE CLAMPS (FIG. G)

P-315-CCT	15	$1.29	$1.032	$0.86	$0.688	$0.654
P-318-CCT	18	1.56	1.248	1.04	.832	.79
P-321-CCT	21	1.838	1.47	1.225	.98	.931
P-324-CCT	24	2.168	1.734	1.445	1.156	1.098
P-327-CCT	27	2.46	1.968	1.64	1.312	1.246
P-330-CCT	30	2.865	2.292	1.91	1.528	1.452
P-333-CCT	33	3.068	2.454	2.045	1.636	1.554

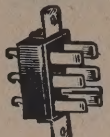
SOCKETS WITH CABLE CLAMPS (FIG. H)

S-315-CCT	15	$1.133	$0.906	$0.755	$0.604	$0.574
S-318-CCT	18	1.703	1.362	1.135	.908	.863
S-321-CCT	21	1.973	1.578	1.315	1.052	.999
S-324-CCT	24	2.325	1.86	1.55	1.24	1.178
S-327-CCT	27	2.595	2.076	1.73	1.384	1.315
S-330-CCT	30	3.00	2.40	2.00	1.60	1.52
S-333-CCT	33	3.21	2.568	2.14	1.712	1.626

400 AND 2400 SERIES CONNECTORS

400 Series are rated at 1200 volts rms at 15 amps. Polarized. Phosphor bronze "knifeswitch" socket contacts engage both sides of flat plug contacts.

2400 Series are rated at 1700 volts at 15 amps. New design provides greater contact surface, increased pressure and smoother action. Greater contact-to-contact and contact-to-ground distance. Interchangeable with the 400 Series.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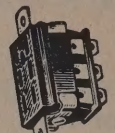
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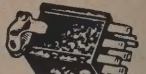
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L

400 SERIES PLUGS WITH ANGLE BRACKETS (FIG. I)

Cinch No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
P-402-AB	2	$0.623	$0.498	$0.415	$0.332	$0.315
P-404-AB	4	.758	.606	.505	.404	.384
P-406-AB	6	.915	.732	.61	.488	.464
P-408-AB	8	1.05	.84	.70	.56	.532
P-410-AB	10	1.193	.954	.795	.636	.604
P-412-AB	12	1.313	1.05	.875	.70	.665

2400 SERIES PLUGS WITH SHALLOW BRACKETS

P-2402-SB	2	$0.84	$0.672	$0.56	$0.448	$0.426
P-2404-SB	4	.99	.792	.66	.528	.502
P-2406-SB	6	1.155	.924	.77	.616	.585
P-2408-SB	8	1.305	1.044	.87	.696	.661
P-2410-SB	10	1.493	1.194	.995	.796	.756
P-2412-SB	12	1.635	1.308	1.09	.872	.828

400 SERIES SOCKETS WITH ANGLE BRACKETS (FIG. J)

S-402-AB	2	$0.705	$0.564	$0.47	$0.376	$0.357
S-404-AB	4	.915	.732	.61	.488	.464
S-406-AB	6	1.11	.888	.74	.592	.562
S-408-AB	8	1.313	1.05	.875	.70	.665
S-410-AB	10	1.538	1.23	1.025	.82	.779
S-412-AB	12	1.733	1.386	1.155	.924	.878

2400 SERIES SOCKETS WITH SHALLOW BRACKETS

S-2402-SB	2	$0.923	$0.738	$0.615	$0.492	$0.467
S-2404-SB	4	1.08	.864	.72	.576	.547
S-2406-SB	6	1.253	1.002	.835	.668	.635
S-2408-SB	8	1.425	1.14	.95	.76	.722
S-2410-SB	10	1.605	1.284	1.07	.856	.813
S-2412-SB	12	1.778	1.422	1.185	.948	.901

PLUGS WITH CABLE CLAMPS (FIG. K)

400 SERIES

P-402-CCT	2	$0.975	$0.78	$0.65	$0.52	$0.494
P-404-CCT	4	1.193	.954	.795	.636	.604
P-406-CCT	6	1.395	1.116	.93	.744	.707
P-408-CCT	8	1.59	1.272	1.06	.848	.806
P-410-CCT	10	1.793	1.434	1.195	.956	.908
P-412-CCT	12	2.003	1.602	1.335	1.068	1.015

2400 SERIES

P-2402-CCT	2	$1.185	$0.948	$0.79	$0.632	$0.60
P-2404-CCT	4	1.343	1.074	.895	.716	.68
P-2406-CCT	6	1.50	1.20	1.00	.80	.76
P-2408-CCT	8	1.643	1.314	1.095	.876	.832
P-2410-CCT	10	1.815	1.452	1.21	.968	.92
P-2412-CCT	12	2.003	1.602	1.335	1.068	1.015

SOCKETS WITH CABLE CLAMPS (FIG. L)

400 SERIES

S-402-CCT	2	$1.058	$0.846	$0.705	$0.564	$0.536
S-404-CCT	4	1.32	1.056	.88	.704	.669
S-406-CCT	6	1.605	1.284	1.07	.856	.813
S-408-CCT	8	1.883	1.506	1.255	1.004	.954
S-410-CCT	10	2.168	1.734	1.445	1.156	1.098
S-412-CCT	12	2.438	1.95	1.625	1.30	1.235

2400 SERIES

S-2402-CCT	2	$1.275	$1.02	$0.85	$0.68	$0.646
S-2404-CCT	4	1.425	1.14	.95	.76	.722
S-2406-CCT	6	1.583	1.266	1.055	.844	.802
S-2408-CCT	8	1.763	1.41	1.175	.94	.893
S-2410-CCT	10	1.943	1.554	1.295	1.036	.984
S-2412-CCT	12	2.123	1.698	1.415	1.132	1.075

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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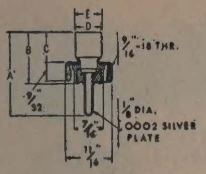
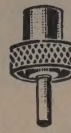
Plugs and Sockets

AUDIO PLUGS AND SOCKETS

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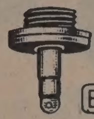
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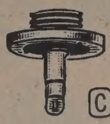
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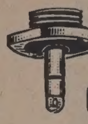
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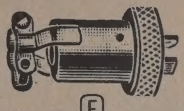
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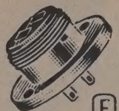
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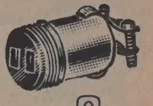
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SERIES 101 PLUGS (FIG. A)

All plugs are identical except the cable ferrule which is furnished in five sizes listed below. All metal parts are of brass. Fit 101 Series sockets. Ideal for high frequency connections.

Cinch No.	A	B	C	D	E
P-101-1/4"	1¼"	¾"	7/16"	¼"	9/32"
P-101-.290	1¼"	¾"	7/16"	.290"	.319"
P-101-5/16"	1⅜"	⅞"	9/16"	5/16"	11/32"
P-101-3/8"	1 3/16"	11/16"	⅜"	⅜"	13/32"
P-101-1/2"	1⅞"	1⅜"	1 1/16"	½"	9/16"

QUANTITY PRICES FOR 101 SERIES PLUGS

Cinch No.	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250-499
P-101-1/4"	$0.653	$0.522	$0.435	$0.348	$0.331
P-101-.290	.795	.636	.53	.424	.403
P-101-5/16"	.795	.636	.53	.424	.403
P-101-3/8"	.795	.636	.53	.424	.403
P-101-1/2"	.885	.708	.59	.472	.448

SERIES 101 SOCKETS

Brass base, bright nickel finish. Brass contact is silver plated. Insulation is of low loss natural color XXX Bakelite. Meets Navy specifications. Bakelite of No. S-101-D is recessed in the base. Two sides of base of No. S-101-D Mod are milled. Mounting Holes: No. S-101, #41 drill on 11/16" centers; all others, #30 drill on 13/16" centers.

Cinch No.	Fig.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
S-101	B	$0.578	$0.462	$0.385	$0.308	$0.293
S-101-D	C	.885	.708	.59	.472	.448
S-101-D Mod	D	.885	.708	.59	.472	.448

MODEL 201-3/8 PLUG

Same as Series 101 but is of heavier stock and larger. Made in one size only with ⅜" ferrule. All metal parts are of brass. Same finish as Series 101 and wax impregnated ceramic insulation. Length, 1 9/16", overall. Prong diameter, 5/32". Fits only Series 201 socket.

MODEL S-201 SOCKET (FIG. C)

Similar to No. S-101-D except larger. Brass base is bright nickel finish. Brass contact is silver plated. Insulation is low loss natural color XXX Bakelite. Mounting holes, #30 drill on 1" centers. Thread, ¾"-27.

QUANTITY PRICES FOR 201 SERIES PLUG AND SOCKET

Cinch No.	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250-499
P-201-3/8"	$1.02	$0.816	$0.68	$0.544	$0.517
S-201	1.095	.876	.73	.584	.555

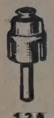
SERIES 202 PLUGS AND SOCKETS

Made in two contacts only. Brass metal parts with bright nickel finish. Molded Bakelite insulation. Phosphor bronze "knife switch" type socket contacts engage both sides of flat brass plug contacts—double contact area. Formed fiber linings in caps. Polarized. Knurled nut has ¾"-27 thread. Socket mounting holes, #30 drill on 1" centers. No. S-202-CCT-THR, when used with No. P-202-CCT, will make an ideal microphone connector.

Cinch No.	Fig.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
P-202-CCT	E	$0.81	$0.648	$0.54	$0.432	$0.41
S-202-CCT	E*	.825	.66	.55	.44	.418
P-202-FHT	E†	.653	.522	.435	.348	.331
S-202-FHT	E‡	.668	.534	.445	.356	.338
S-202-B	F	.96	.768	.64	.512	.486
P-202-B	F#	.923	.738	.615	.492	.467
S-202-CCT-THR	G	1.095	.876	.73	.584	.555

*Socket instead of plug. †Less cable clamp. ‡Socket instead of plug, less cable clamp. #Plug instead of socket.

JACKS AND PLUGS FOR RADIO, TV AND PHONOGRAPH APPLICATIONS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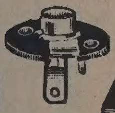
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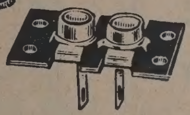
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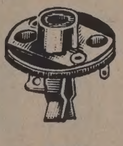
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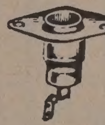
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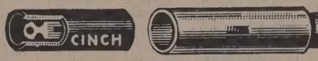

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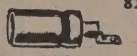
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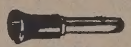
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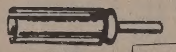
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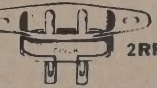
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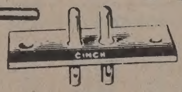

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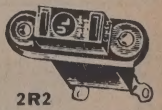
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RCA TYPE PHONO CONNECTORS

Cinch No. 13A Plug—9/16" long pin. List Price........................**13c***

Cinch No. 13E Plug—11/16" long pin. List Price........................**13.2c***

Cinch No. 81A Jack—Single jack for No. 13A. Mtg. ctrs., 11/16". List Price....**21c***

Cinch No. 81B Jack—Double jack for No. 13A. Mtg. ctrs., 1 3/16". Jacks spaced on 7/16" ctrs. Size, 1½" x 1". List Price...**37.5c***

Cinch No. 81G Jack—Normally connected; this connection breaks when plug is inserted, making plug connection. Brass mtg. plate. Mtg. holes, .136". List **69.5c***

ANTENNA CONNECTORS

Cinch No. 81F Jack—Motorola type. Shielded. Sturdy steel flange, 15/16" mtg. ctrs. with .136" dia. mtg. holes. Mounts with screws or rivets. Mates 13B plug. List Price........................**36c***

Cinch No. 81C Jack—Same as 81F less flange. May be soldered in position. Mates No. 13B. List Price................**24c***

MOTOROLA TYPE ANTENNA PLUG

Cinch No. 13B Plug—Has ⅛" pin extending 7/32" from shell whose eight cutting edges provide positive grounded connection when inserted in No. 81C or No. 81F. List Price........................**28.8c***

INSULATED PIN PLUG

Cinch No. 13C1 Plug—Pin, ⅛" brass tube, 9/16" lg. Fiber insulator, 13/32" lg. Mates Nos. 81A and 81B phono jacks. List Price........................**22.5c***

SHIELDED EXTENSION JACK

Cinch No. 81E Jack—Cadmium plated brass shell 2 7/16" lg. with black Bakelite insert providing insulation for heat treated steel, hot solder coated positive grip contact. Mates No. 13E plug. Net Each, Lots of 1-99, **29.2c**; 100-999, **14.6c**

MODEL 2FP CONNECTOR PLUG

Consists of two prongs mounted on a Bakelite board. One piece contact. Mounting plate is of 1/16" natural XP Bakelite 1⅝" lg. x ¾" w. The .135/.140" mounting holes are on 1¼" centers. An inexpensive current supply connector for TV sets.

Cinch No. 2FP—List Price......**14.4c***

MODEL 2RP-1 RECESSED PLUG

Recessed sub-panel mounting type plug. One piece contact. Perfect for current supply for TV sets. Rated at 125 v., 7 amps. Size: ⅝" w. x 1⅝" lg., overall. Body Depth: 5/16". Mounting Centers: .140/.145". U/L Approved.

Cinch No. 2RP-1—List Price....**19.7c***

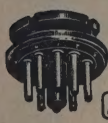
MODEL 2R2 110-250 VOLT SOCKET

Rated at 15 amps, 110 v., or 10 amps, 250 v. Accepts any standard 2-prong electric plug. Mounts in 25/64" x 25/32" hole. Ideal for radio and TV chassis. Underwriters Listed.

Cinch No. 2R2—
Net Each, Lots of 1-99, **18.9c**; 100-999, **9.5c**

***LIST PRICE ONLY. NO QUANTITY PRICING**

MOLDED CONNECTOR PLUGS AND SOCKETS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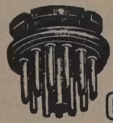
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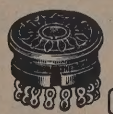
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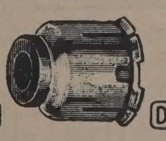
D

MODEL 8PB 8 CONTACT PLUG (FIG. A)

Molded from high dielectric black Bakelite. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on 1/16" chassis using No. 8RO retaining ring, or can be used with No. 16F cap. Will fit any standard octal socket.

Cinch No. 8PB—Net Each, Lots of 1-99, **19.5c**; 100-999, **9.8c**

MODEL 11PB 11 CONTACT PLUG (FIG. B)

Molded from high dielectric black Bakelite. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on 1/16" chassis using No. 8RO retaining ring. Can be used with No. 16F cap. Will fit No. 11RB socket.

Cinch No. 11PB—Net Each, Lots of 1-99, **27c**; 100-999, **13.5c**

MODEL 11RB 11 CONTACT SOCKET (FIG. C)

Molded from high dielectric black Bakelite. Solder coated brass contacts. Mounts on 1/16" chassis using No. 8RO retaining ring. Can be used with No. 16F cap. Mates with No. 11PB plug.

Cinch No. 11RB—Net Each, Lots of 1-99, **31.8c**; 100-999, **15.9c**

MODEL 16F PLUG CAP (FIG. D)

Cadmium plated steel plug cap for snapping on 8 or 11 prong sockets grooved for 1/16" chassis. Screwdriver slot at bottom to facilitate removal. Rubber grommet has 25/64" dia. hole.

Cinch No. 16F—List Price Only........................**92.5c**

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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Cinch Hinge Connectors & Barriers

HINGE CONNECTORS

Plug and socket bodies showing contact arrangement.

No contact damage due to insertion and extraction. Maximum contact in minimum space; engaged with normal pressure. Simple locking device insures positive contact. Spring action contacts separate units after releasing the lock. Wiping contact action for clean contacts at all times. Castings are of black Bakelite, type CFG. Contacts are of phosphor bronze, cadmium plated (.0001). Current rating is 4,5 amps. **Alternate Lock:** For more secure locking, order Alternate Lock No. 37AL separately. It has a special device to prevent accidental unlocking. **Caps:** Formed fiber liners, nickel-plated cable clamps. Designed to take the alternate lock when required. Black wrinkle finish.

PLUG WITH LOCK

Cinch No. 37-	Contacts	Mtg. Ctrs. In.	Over-all Size, In.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
M20L	20	1.375	1.750	$2.25	$1.80	$1.50	$1.20	$1.14
M30L	30	1.812	2.187	2.663	2.13	1.775	1.42	1.349
M40L	40	2.250	2.625	3.075	2.46	2.05	1.64	1.558
M50L	50	2.687	3.026	3.488	2.79	2.325	1.86	1.767
M60L	60	3.125	3.500	3.90	3.12	2.60	2.08	1.976
M70L	70	3.562	3.937	4.313	3.45	2.875	2.30	2.185
M80L	80	4.000	4.375	4.725	3.78	3.15	2.52	2.394
M90L	90	4.438	4.812	5.138	4.11	3.425	2.74	2.603
M100L	100	4.875	5.250	5.55	4.44	3.70	2.96	2.812

SOCKET WITH LOCK

Cinch No. 37-	Contacts	Mtg. Ctrs. In.	Over-all Size, In.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
F20L	20	1.375	1.750	$2.25	$1.80	$1.50	$1.20	$1.14
F30L	30	1.812	2.187	2.663	2.13	1.775	1.42	1.349
F40L	40	2.250	2.625	3.075	2.46	2.05	1.64	1.558
F50L	50	2.687	3.062	3.488	2.79	2.325	1.86	1.767
F60L	60	3.125	3.500	3.90	3.12	2.60	2.08	1.976
F70L	70	3.562	3.937	4.313	3.45	2.875	2.30	2.185
F80L	80	4.000	4.375	4.725	3.78	3.15	2.52	2.394
F90L	90	4.438	4.812	5.138	4.11	3.425	2.74	2.603
F100L	100	4.875	5.250	5.55	4.44	3.70	2.96	2.812

PLUG WITHOUT LOCK

Cinch No. 37-	Contacts	Mtg. Ctrs. In.	Over-all Size, In.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
M20	20	1.375	1.750	$2.025	$1.62	$1.35	$1.08	$1.026
M30	30	1.812	2.187	2.438	1.95	1.625	1.30	1.235
M40	40	2.250	2.625	2.85	2.28	1.90	1.52	1.444
M50	50	2.687	3.062	3.263	2.61	2.175	1.74	1.653
M60	60	3.125	3.500	3.675	2.94	2.45	1.96	1.862
M70	70	3.562	3.937	4.088	3.27	2.725	2.18	2.071
M80	80	4.000	4.375	4.50	3.60	3.00	2.40	2.28
M90	90	4.438	4.812	4.913	3.93	3.275	2.62	2.489
M100	100	4.875	5.250	5.325	4.26	3.55	2.84	2.698

SOCKET WITHOUT LOCK

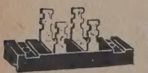
Cinch No. 37-	Contacts	Mtg. Ctrs. In.	Over-all Size, In.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
F20	20	1.375	1.750	$2.025	$1.62	$1.35	$1.08	$1.026
F30	30	1.812	2.187	2.438	1.95	1.625	1.30	1.235
F40	40	2.250	2.625	2.85	2.28	1.90	1.52	1.444
F50	50	2.687	3.062	3.263	2.61	2.175	1.74	1.653
F60	60	3.125	3.500	3.675	2.94	2.45	1.96	1.862
F70	70	3.562	3.937	4.088	3.27	2.725	2.18	2.071
F80	80	4.000	4.375	4.50	3.60	3.00	2.40	2.28
F90	90	4.438	4.812	4.913	3.93	3.275	2.62	2.489
F100	100	4.875	5.250	5.325	4.26	3.55	2.84	2.698

Cinch No. 37AL Alternate Lock—For above series. Net Each, Lots of 1–24.....**45c; **25–49.....**36c; **50–99.....**30c;** 100–249.......**24c; **250–499.......**22.8c;**

CAPS FOR PLUGS OR SOCKETS

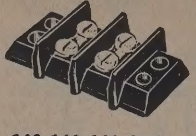
Cinch No. 37-	For Casting with No. of Contacts	Hole Size, Inches	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
C20	20	¾	$3.15	$2.52	$2.10	$1.68	$1.596
C30	30	13/16 x 1	3.188	2.55	2.125	1.70	1.615
C40	40	13/16 x 1	3.225	2.58	2.15	1.72	1.634
C50	50	13/16 x 1	3.263	2.61	2.175	1.74	1.653
C60	60	13/16 x 1½	3.30	2.64	2.20	1.76	1.672
C70	70	13/16 x 1½	3.338	2.67	2.225	1.78	1.691
C80	80	13/16 x 1½	3.375	2.70	2.25	1.80	1.71
C90	90	13/16 x 1½	3.413	2.73	2.275	1.82	1.729
C100	100	13/16 x 1½	3.45	2.76	2.30	1.84	1.748

170 SERIES SOLDER TERMINAL STRIPS

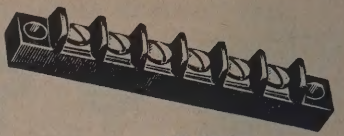


Heavy solder terminals are made of .032″ brass, hot solder coated; mounted on ⅜″ centers. Black molded Bakelite. Size, 5/16″ w. x ¼″ thick. Mounting holes, ⅜″ from center of end terminals.

Cinch No.	Terminals	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-170	1	19.5c	15.6c	13c	10.4c	9.9c
2-170	2	24.8c	19.8c	16.5c	13.2c	12.5c
3-170	3	28.5c	22.8c	19c	15.2c	14.4c
4-170	4	33.8c	27c	22.5c	18c	17.1c
5-170	5	39.8c	31.8c	26.5c	21.2c	20.1c
6-170	6	44.3c	35.4c	29.5c	23.6c	22.4c
7-170	7	48c	38.4c	32c	25.6c	24.3c
8-170	8	52.5c	42c	35c	28c	26.6c
9-170	9	58.5c	46.8c	39c	31.2c	29.6c
10-170	10	62.3c	49.8c	41.5c	33.2c	31.5c



140-141-142 Series
(2-140, 2-141, 2-142)



171 Series
(6-171)

"JONES" 140-141-142 SERIES BARRIER TERMINAL BLOCKS

Increased insulation is provided by having barriers placed between each terminal. These barriers follow around the edge of the strips and terminate at the base. They not only make a long leakage path but prevent direct shorts from frayed-wires at terminals. **Size:** 140 Series—Base, ⅞″ w. x 13/32″ h.; term. centers, ⅜″. 141 Series—Base, 1⅛″ w. x ½″ h.; term. centers, 7/16″. 142 Series—Base, 1 5/16″ w. x ⅝″ h.; term. centers, 9/16″.

140 SERIES

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-140	1	$0.113	$0.09	$0.075	$0.06	$0.057
2-140	2	.18	.144	.12	.096	.091
3-140	3	.248	.198	.165	.132	.125
4-140	4	.315	.252	.21	.168	.16
5-140	5	.383	.306	.255	.204	.194
6-140	6	.443	.354	.295	.236	.224
7-140	7	.51	.408	.34	.272	.258
8-140	8	.578	.462	.385	.308	.293
9-140	9	.645	.516	.43	.344	.327
10-140	10	.713	.57	.475	.38	.361
11-140	11	.773	.618	.515	.412	.391
12-140	12	.84	.672	.56	.448	.426
13-140	13	.908	.726	.605	.484	.46
14-140	14	.983	.786	.655	.524	.498
15-140	15	1.05	.84	.70	.56	.532
16-140	16	1.118	.894	.745	.596	.566
17-140	17	1.178	.942	.785	.628	.597
18-140	18	1.245	.996	.83	.664	.631
19-140	19	1.313	1.05	.875	.70	.665
20-140	20	1.38	1.104	.92	.736	.699
21-140	21	1.448	1.158	.965	.772	.733

141 SERIES

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-141	1	$0.150	$0.120	$0.10	$0.08	$0.076
2-141	2	.233	.186	.155	.124	.118
3-141	3	.315	.252	.21	.168	.16
4-141	4	.405	.324	.27	.216	.205
5-141	5	.488	.39	.325	.26	.247
6-141	6	.563	.45	.375	.30	.285
7-141	7	.66	.528	.44	.352	.334
8-141	8	.743	.594	.495	.396	.376
9-141	9	.825	.66	.55	.44	.418
10-141	10	.915	.732	.61	.488	.464
11-141	11	.998	.798	.665	.532	.505
12-141	12	1.08	.864	.72	.576	.547
13-141	13	1.17	.936	.78	.624	.593
14-141	14	1.253	1.002	.835	.668	.635
15-141	15	1.335	1.068	.89	.712	.676
16-141	16	1.425	1.14	.95	.76	.722
17-141	17	1.508	1.206	1.005	.804	.764
18-141	18	1.59	1.272	1.06	.848	.806
19-141	19	1.68	1.344	1.12	.896	.851
20-141	20	1.763	1.41	1.175	.94	.893

142 SERIES

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-142	1	$0.173	$0.138	$0.115	$0.092	$0.087
2-142	2	.27	.216	.18	.144	.137
3-142	3	.383	.306	.255	.204	.194
4-142	4	.488	.39	.325	.26	.247
5-142	5	.585	.468	.39	.312	.296
6-142	6	.69	.552	.46	.368	.35
7-142	7	.803	.642	.535	.428	.407
8-142	8	.90	.72	.60	.48	.456
9-142	9	1.005	.804	.67	.536	.509
10-142	10	1.118	.894	.745	.596	.566
11-142	11	1.215	.972	.81	.648	.616
12-142	12	1.32	1.056	.88	.704	.669
13-142	13	1.425	1.14	.95	.76	.722
14-142	14	1.53	1.224	1.02	.816	.775
15-142	15	1.635	1.308	1.09	.872	.828
16-142	16	1.74	1.392	1.16	.928	.882
17-142	17	1.838	1.47	1.225	.98	.931

"JONES" 171 SERIES BARRIER TERMINAL BLOCKS

Miniature barrier type terminal blocks with single screw terminals. Size: 13/32″ w. x 5/16″ h., overall. Binder head screws, 2-56 x 3/16″. Mounting holes, ⅛″ dia.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-171	2	18c	14.4c	12c	9.6c	9.1c
3-171	3	24.8c	19.8c	16.5c	13.2c	12.5c
4-171	4	31.5c	25.2c	21c	16.8c	16c
5-171	5	38.3c	30.6c	25.5c	20.4c	19.4c
6-171	6	45c	36c	30c	24c	22.8c
7-171	7	51.8c	41.4c	34.5c	27.6c	26.2c
8-171	8	58.5c	46.8c	39c	31.2c	29.6c

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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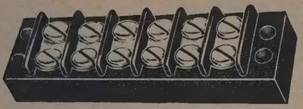
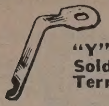
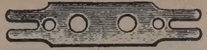
Barrier Terminal Blocks



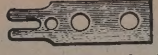
172 Series (6-172)



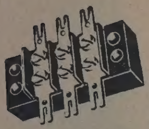
"Y" Solder Terminal



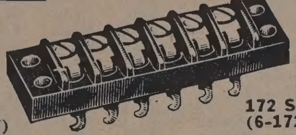
"W" Terminal



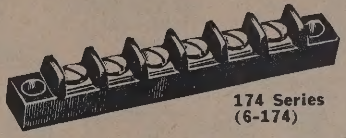
"¾ W" Terminal



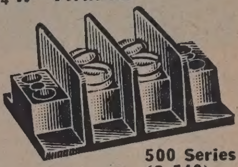
172 Series (3-172-W)



172 Series (6-172-Y)



174 Series (6-174)



500 Series (2-540)

"JONES" 172 SERIES BARRIER TERMINAL BLOCKS

WITH CONVENTIONAL TERMINALS

Double screw terminals mounted on ¼" centers with 2-56 x 3/16" binder head screws. Mounting holes, ⅛" dia.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-172	2	$0.428	$0.342	$0.285	$0.228	$0.217
3-172	3	.548	.438	.365	.292	.277
4-172	4	.668	.534	.445	.356	.338
5-172	5	.788	.63	.525	.42	.399
6-172	6	.90	.72	.60	.48	.456
7-172	7	1.02	.816	.680	.544	.517
8-172	8	1.14	.912	.76	.608	.578
9-172	9	1.26	1.008	.84	.672	.638
10-172	10	1.38	1.104	.92	.736	.699
11-172	11	1.508	1.206	1.005	.804	.764
12-172	12	1.628	1.302	1.085	.868	.825
13-172	13	1.74	1.392	1.16	.928	.882
14-172	14	1.86	1.488	1.24	.992	.942

WITH "Y", "W" OR "¾W" TERMINALS

Series 172 barrier type terminal blocks also available with "Y", "W" or "¾ W" terminals. For blocks with "W" terminals, change suffix "Y" to "W", for blocks with "¾ W" terminals, change suffix "Y" to "¾ W" (2-172-**W**, 2-172-¾ **W**, etc.); same price.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-172-Y	2	$0.48	$0.384	$0.32	$0.256	$0.243
3-172-Y	3	.63	.504	.42	.336	.319
4-172-Y	4	.78	.624	.52	.416	.395
5-172-Y	5	.93	.744	.62	.496	.471
6-172-Y	6	1.08	.864	.72	.576	.547
7-172-Y	7	1.23	.984	.820	.656	.623
8-172-Y	8	1.38	1.104	.92	.736	.699
9-172-Y	9	1.53	1.224	1.02	.816	.775
10-172-Y	10	1.68	1.344	1.12	.896	.851
11-172-Y	11	1.83	1.464	1.22	.976	.927
12-172-Y	12	1.98	1.584	1.32	1.056	1.003
13-172-Y	13	2.13	1.704	1.42	1.136	1.079
14-172-Y	14	2.28	1.824	1.52	1.216	1.155

"JONES" 174 SERIES BARRIER TERMINAL BLOCKS

Single screw terminals mounted on ⅜" centers. Size, ⅜" w. x ½" h., overall. Brass binder head screws, 4-40 x 5/16". Mounting holes, 5/32" dia.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-174	2	$0.18	$0.144	$0.12	$0.096	$0.091
3-174	3	.248	.198	.165	.132	.125
4-174	4	.315	.252	.21	.168	.16
5-174	5	.383	.306	.255	.204	.194
6-174	6	.45	.36	.30	.24	.228
7-174	7	.518	.414	.345	.276	.262
8-174	8	.585	.468	.39	.312	.296
9-174	9	.653	.522	.435	.348	.331
10-174	10	.72	.576	.48	.384	.365

"JONES" 500 SERIES BARRIER TERMINAL BLOCKS

Barrier type terminal blocks designed for applications where electrical and mechanical performance requirements are especially critical. Closed bottoms eliminate additional insulating strips. Knockouts are molded into the base so that "Y" terminals can be accommodated if desired. Heavy construction adds strength to strip minimizing warpage and shrinkage. Top-mounted marker strip available.

540 TERMINAL BLOCKS

Terminals are mounted on ⅜" centers with 5-40 binder head screws. Size, 1⅛" w. x 39/64" h. Creepage distance, ½". Rating: 2300 v. rms, 15 amps.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-540	1	$0.128	$0.102	$0.085	$0.068	$0.065
2-540	2	.195	.156	.130	.104	.099
3-540	3	.270	.216	.180	.144	.137
4-540	4	.345	.276	.230	.184	.175
5-540	5	.420	.336	.280	.224	.213
6-540	6	.488	.390	.325	.260	.247
7-540	7	.563	.450	.375	.300	.285
8-540	8	.638	.510	.425	.340	.323
9-540	9	.713	.570	.475	.380	.361
10-540	10	.788	.630	.525	.420	.399
11-540	11	.848	.678	.565	.452	.429
12-540	12	.923	.738	.615	.492	.467
13-540	13	.998	.798	.665	.532	.505
14-540	14	1.080	.864	.720	.576	.547

540 TERMINAL BLOCKS (CONT'D)

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
15-540	15	$1.155	$0.924	$0.770	$0.616	$0.585
16-540	16	1.230	.984	.820	.656	.623
17-540	17	1.298	1.038	.865	.692	.657
18-540	18	1.373	1.098	.915	.732	.695
19-540	19	1.448	1.158	.965	.772	.733
20-540	20	1.515	1.212	1.010	.808	.768
21-540	21	1.590	1.272	1.060	.848	.806
22-540	22	1.665	1.332	1.110	.888	.844
23-540	23	1.740	1.392	1.160	.928	.882
24-540	24	1.808	1.446	1.205	.964	.916
25-540	25	1.883	1.506	1.255	1.004	.954
26-540	26	1.958	1.566	1.305	1.044	.992
27-540	27	2.033	1.626	1.355	1.084	1.030
28-540	28	2.100	1.680	1.400	1.120	1.064
29-540	29	2.175	1.740	1.450	1.160	1.102
30-540	30	2.250	1.800	1.500	1.200	1.140
31-540	31	2.325	1.860	1.550	1.240	1.178

541 TERMINAL BLOCKS

Terminals are mounted on 7/16" centers with 6-32 binder head screws. Size, 1⅜" w. x 11/16" h. Creepage distance, ⅝". Rating: 2800 v. rms, 20 amps.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-541	1	$0.165	$0.132	$0.110	$0.088	$0.084
2-541	2	.255	.204	.170	.136	.129
3-541	3	.345	.276	.230	.184	.175
4-541	4	.443	.354	.295	.236	.224
5-541	5	.540	.432	.360	.288	.274
6-541	6	.623	.498	.415	.332	.315
7-541	7	.728	.582	.485	.388	.369
8-541	8	.818	.654	.545	.436	.414
9-541	9	.908	.726	.605	.484	.460
10-541	10	1.005	.804	.670	.536	.509
11-541	11	1.095	.876	.730	.584	.555
12-541	12	1.185	.948	.790	.632	.600
13-541	13	1.290	1.032	.860	.688	.654
14-541	14	1.380	1.104	.920	.736	.699
15-541	15	1.470	1.176	.980	.784	.745
16-541	16	1.568	1.254	1.045	.836	.794
17-541	17	1.658	1.326	1.105	.884	.840
18-541	18	1.748	1.398	1.165	.932	.885
19-541	19	1.845	1.476	1.230	.984	.935
20-541	20	1.943	1.554	1.295	1.036	.984
21-541	21	2.033	1.626	1.355	1.084	1.030
22-541	22	2.123	1.698	1.415	1.132	1.075
23-541	23	2.213	1.770	1.475	1.180	1.121
24-541	24	2.310	1.848	1.540	1.232	1.170
25-541	25	2.400	1.920	1.600	1.280	1.216
26-541	26	2.490	1.992	1.660	1.328	1.262
27-541	27	2.580	2.064	1.720	1.376	1.307
28-541	28	2.670	2.136	1.780	1.424	1.353
29-541	29	2.768	2.214	1.845	1.476	1.402
30-541	30	2.858	2.286	1.905	1.524	1.448

542 TERMINAL BLOCKS

Terminals are mounted on 9/16" centers with 8-32 binder head screws. Size, 1⅝" w. x ⅞" h. Creepage distance, ¾". Rating: 4000 v. rms, 30 amps.

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
1-542	1	$0.188	$0.150	$0.125	$0.100	$0.095
2-542	2	.300	.240	.200	.160	.152
3-542	3	.420	.336	.280	.224	.213
4-542	4	.540	.432	.360	.288	.274
5-542	5	.645	.516	.430	.344	.327
6-542	6	.758	.606	.505	.404	.384
7-542	7	.885	.708	.590	.472	.448
8-542	8	.990	.792	.660	.528	.502
9-542	9	1.103	.882	.735	.588	.559
10-542	10	1.230	.984	.820	.656	.623
11-542	11	1.335	1.068	.890	.712	.676
12-542	12	1.455	1.164	.970	.776	.737
13-542	13	1.568	1.254	1.045	.836	.794
14-542	14	1.680	1.344	1.120	.896	.851
15-542	15	1.800	1.440	1.200	.960	.912
16-542	16	1.913	1.530	1.275	1.020	.969
17-542	17	2.025	1.620	1.350	1.080	1.026
18-542	18	2.145	1.716	1.430	1.144	1.087
19-542	19	2.258	1.806	1.505	1.204	1.144
20-542	20	2.370	1.896	1.580	1.264	1.201
21-542	21	2.490	1.992	1.660	1.328	1.262
22-542	22	2.603	2.082	1.735	1.388	1.319
23-542	23	2.715	2.172	1.810	1.448	1.376
24-542	24	2.835	2.268	1.890	1.512	1.436
25-542	25	2.948	2.358	1.965	1.572	1.493
26-542	26	3.060	2.448	2.040	1.632	1.550

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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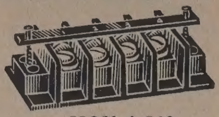
Marker and Fanning Strips

MARKER STRIPS FOR BARRIER TERMINAL BLOCKS

CINCH
1 2 3 4 5 6 7 8

MS-8-140



MSX-4-540
(Installed)

140 AND 160 SERIES MARKER STRIPS

For labelling terminal positions on barrier terminal blocks and insulating exposed portions of terminals from metallic mounting surface. Mounting holes correspond with those on appropriate barrier terminal block. Made of 1/32″ vulcanized fiber and numbered sequentially from 1 with legible white numerals.

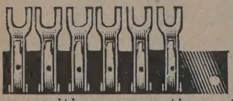
MARKER STRIPS FOR 140, 140W, 140-¾ W, 164, 164W and 164-¾ W

Cinch No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
MS-2-140	2	**6.6c**	**5.3c**	**4.4c**	**3.5c**	**3.3c**
MS-3-140	3	**7.3c**	**5.8c**	**4.9c**	**3.9c**	**3.7c**
MS-4-140	4	**8c**	**6.4c**	**5.4c**	**4.3c**	**4.1c**
MS-5-140	5	**8.7c**	**7c**	**5.8c**	**4.6c**	**4.4c**
MS-6-140	6	**9.5c**	**7.6c**	**6.3c**	**5c**	**4.8c**
MS-7-140	7	**10.1c**	**8.1c**	**6.8c**	**5.4c**	**5.1c**
MS-8-140	8	**10.9c**	**8.7c**	**7.3c**	**5.8c**	**5.5c**
MS-9-140	9	**11.6c**	**9.2c**	**7.7c**	**6.2c**	**5.9c**
MS-10-140	10	**16.1c**	**12.8c**	**10.7c**	**8.6c**	**8.1c**
MS-11-140	11	**16.7c**	**13.4c**	**11.2c**	**8.9c**	**8.5c**
MS-12-140	12	**17.5c**	**14c**	**11.7c**	**9.3c**	**8.9c**
MS-13-140	13	**18.2c**	**14.5c**	**12.1c**	**9.7c**	**9.2c**
MS-14-140	14	**18.9c**	**15.1c**	**12.6c**	**10.1c**	**9.6c**
MS-15-140	15	**19.6c**	**15.7c**	**13.1c**	**10.4c**	**9.9c**
MS-16-140	16	**24.1c**	**19.3c**	**16.1c**	**12.8c**	**12.2c**
MS-17-140	17	**24.8c**	**19.8c**	**16.5c**	**13.2c**	**12.5c**
MS-18-140	18	**25.5c**	**20.4c**	**17c**	**13.6c**	**12.9c**
MS-19-140	19	**26.2c**	**20.9c**	**17.5c**	**14c**	**13.3c**
MS-20-140	20	**30.7c**	**24.5c**	**20.5c**	**16.4c**	**15.5c**
MS-21-140	21	**31.4c**	**25.1c**	**20.9c**	**16.7c**	**15.9c**
MARKER STRIPS FOR 141, 141W AND 141-¾ W						
MS-2-141	2	**7.1c**	**5.6c**	**4.7c**	**3.8c**	**3.6c**
MS-3-141	3	**8c**	**6.4c**	**5.4c**	**4.3c**	**4.1c**
MS-4-141	4	**9c**	**7.2c**	**6c**	**4.8c**	**4.6c**
MS-5-141	5	**9.9c**	**7.9c**	**6.6c**	**5.3c**	**5c**
MS-6-141	6	**10.9c**	**8.7c**	**7.3c**	**5.8c**	**5.5c**
MS-7-141	7	**11.9c**	**9.5c**	**7.9c**	**6.3c**	**6c**
MS-8-141	8	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.5c**
MS-9-141	9	**13.7c**	**11c**	**9.2c**	**7.3c**	**7c**
MS-10-141	10	**18.4c**	**14.7c**	**12.3c**	**9.8c**	**9.3c**
MS-11-141	11	**19.4c**	**15.5c**	**12.9c**	**10.3c**	**9.8c**
MS-12-141	12	**20.3c**	**16.3c**	**13.6c**	**10.8c**	**10.3c**
MS-13-141	13	**21.2c**	**17c**	**14.2c**	**11.3c**	**10.8c**
MS-14-141	14	**22.2c**	**17.8c**	**14.8c**	**11.8c**	**11.3c**
MS-15-141	15	**26.9c**	**21.5c**	**18c**	**14.4c**	**13.6c**
MS-16-141	16	**27.8c**	**22.3c**	**18.6c**	**14.8c**	**14.1c**
MS-17-141	17	**28.8c**	**23c**	**19.2c**	**15.4c**	**14.6c**
MS-18-141	18	**29.8c**	**23.8c**	**19.9c**	**15.9c**	**15.1c**
MS-19-141	19	**34.4c**	**27.5c**	**23c**	**18.4c**	**17.4c**
MS-20-141	20	**35.4c**	**28.3c**	**23.6c**	**18.9c**	**17.9c**
MARKER STRIPS FOR 142, 142W AND 142-¾ W						
MS-2-142	2	**7.6c**	**6.1c**	**5.1c**	**4c**	**3.8c**
MS-3-142	3	**8.7c**	**7c**	**5.8c**	**4.6c**	**4.4c**
MS-4-142	4	**48.8c**	**39c**	**32.5c**	**26c**	**24.7c**
MS-5-142	5	**11.1c**	**8.9c**	**7.4c**	**5.9c**	**5.6c**
MS-6-142	6	**12.3c**	**9.8c**	**8.2c**	**6.6c**	**6.2c**
MS-7-142	7	**13.5c**	**10.8c**	**9c**	**7.2c**	**6.8c**
MS-8-142	8	**14.6c**	**11.7c**	**9.8c**	**7.8c**	**7.4c**
MS-9-142	9	**15.8c**	**12.7c**	**10.6c**	**8.4c**	**8c**
MS-10-142	10	**20.8c**	**16.6c**	**13.9c**	**11.1c**	**10.5c**
MS-11-142	11	**22c**	**17.6c**	**14.7c**	**11.7c**	**11.1c**
MS-12-142	12	**23.2c**	**18.5c**	**15.5c**	**12.4c**	**11.7c**
MS-13-142	13	**24.4c**	**19.5c**	**16.3c**	**13c**	**12.4c**
MS-14-142	14	**25.5c**	**20.4c**	**17c**	**13.6c**	**12.9c**
MS-15-142	15	**30.5c**	**24.4c**	**20.3c**	**16.2c**	**15.4c**
MS-16-142	16	**31.7c**	**25.3c**	**21.1c**	**16.9c**	**16c**
MS-17-142	17	**32.9c**	**26.3c**	**21.9c**	**17.5c**	**16.6c**

500 SERIES MARKER STRIPS

For labelling terminal positions on "500" series barrier terminal blocks. Made of 1/16″ XP Bakelite, ¼″ wide. Numbered sequentially from 1 with ⅛″ legible white numerals. Mounted on top of terminal block as illustrated. Mounting screws furnished.

SERIES 162 FANNING STRIPS FOR CONNECTING TO SERIES 142 BARRIER BLOCKS



Terminals are of .032″ brass, cadmium plated. Bakelite strips furnished with a hole in either the right or left end for fastening the cable with a clamp or lacing twine. Simplifies cable or harness wiring, assuring positive connections. Terminals mounted on 3/32″ Bakelite, ⅝″ w. and on 9/16″ ctrs. **L,** cable clamp on left, **R,** right. Fanning strips for 140, 141 series barrier blocks available.

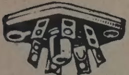
Cinch No.	Cinch No.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
2-162-L	**2-162-R**	**$0.143**	**$0.114**	**$0.095**	**$0.076**	**$0.072**
3-162-L	**3-162-R**	**.188**	**.15**	**.125**	**.10**	**.095**
4-162-L	**4-162-R**	**.24**	**.192**	**.16**	**.128**	**.122**
5-162-L	**5-162-R**	**.293**	**.234**	**.195**	**.156**	**.148**
6-162-L	**6-162-R**	**.353**	**.282**	**.235**	**.188**	**.179**
7-162-L	**7-162-R**	**$0.398**	**$0.318**	**$0.265**	**$0.212**	**$0.201**
8-162-L	**8-162-R**	**.458**	**.366**	**.305**	**.244**	**.232**
9-162-L	**9-162-R**	**.503**	**.402**	**.335**	**.268**	**.255**
10-162-L	**10-162-R**	**.563**	**.45**	**.375**	**.30**	**.285**
11-162-L	**11-162-R**	**.608**	**.486**	**.405**	**.324**	**.308**
12-162-L	**12-162-R**	**.66**	**.528**	**.44**	**.352**	**.334**
13-162-L	**13-162-R**	**.713**	**.57**	**.475**	**.38**	**.361**
14-162-L	**14-162-R**	**.773**	**.618**	**.515**	**.412**	**.391**
15-162-L	**15-162-R**	**.818**	**.654**	**.545**	**.436**	**.414**
16-162-L	**16-162-R**	**.878**	**.702**	**.585**	**.468**	**.445**
17-162-L	**17-162-R**	**.915**	**.732**	**.61**	**.488**	**.464**

MARKER STRIPS FOR 540

Cinch No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
MSX-2-540	2	**11.3c**	**9c**	**7.5c**	**6c**	**5.7c**
MSX-3-540	3	**12c**	**9.6c**	**8c**	**6.4c**	**6.1c**
MSX-4-540	4	**12c**	**9.6c**	**8c**	**6.4c**	**6.1c**
MSX-5-540	5	**12c**	**9.6c**	**8c**	**6.4c**	**6.1c**
MSX-6-540	6	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.5c**
MSX-7-540	7	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.5c**
MSX-8-540	8	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.5c**
MSX-9-540	9	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.5c**
MSX-10-540	10	**16.5c**	**13.2c**	**11c**	**8.8c**	**8.4c**
MSX-11-540	11	**17.3c**	**13.8c**	**11.5c**	**9.2c**	**8.7c**
MSX-12-540	12	**17.3c**	**13.8c**	**11.5c**	**9.2c**	**8.7c**
MSX-13-540	13	**17.3c**	**13.8c**	**11.5c**	**9.2c**	**8.7c**
MSX-14-540	14	**18.8c**	**15c**	**12.5c**	**10c**	**9.5c**
MSX-15-540	15	**22.5c**	**18c**	**15c**	**12c**	**11.4c**
MSX-16-540	16	**22.5c**	**18c**	**15c**	**12c**	**11.4c**
MSX-17-540	17	**24.8c**	**19.8c**	**16.5c**	**13.2c**	**12.5c**
MSX-18-540	18	**26.3c**	**21c**	**17.5c**	**14c**	**13.3c**
MSX-19-540	19	**26.3c**	**21c**	**17.5c**	**14c**	**13.3c**
MSX-20-540	20	**30c**	**24c**	**20c**	**16c**	**15.2c**
MSX-21-540	21	**30c**	**24c**	**20c**	**16c**	**15.2c**
MSX-22-540	22	**31.5c**	**25.2c**	**21c**	**16.8c**	**16c**
MSX-23-540	23	**31.5c**	**25.2c**	**21c**	**16.8c**	**16c**
MSX-24-540	24	**31.5c**	**25.2c**	**21c**	**16.8c**	**16c**
MSX-25-540	25	**35.3c**	**28.2c**	**23.5c**	**18.8c**	**17.9c**
MSX-26-540	26	**35.3c**	**28.2c**	**23.5c**	**18.8c**	**17.9c**
MSX-27-540	27	**35.3c**	**28.2c**	**23.5c**	**18.8c**	**17.9c**
MSX-28-540	28	**35.3c**	**28.2c**	**23.5c**	**18.8c**	**17.9c**
MSX-29-540	29	**35.3c**	**28.2c**	**23.5c**	**18.8c**	**17.9c**
MSX-30-540	30	**42c**	**33.6c**	**28c**	**22.4c**	**21.3c**
MSX-31-540	31	**42c**	**33.6c**	**28c**	**22.4c**	**21.3c**
MARKER STRIPS FOR 541						
MSX-2-541	2	**12c**	**9.6c**	**8c**	**6.4c**	**6.1c**
MSX-3-541	3	**12c**	**9.6c**	**8c**	**6.4c**	**6.1c**
MSX-4-541	4	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.5c**
MSX-5-541	5	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.5c**
MSX-6-541	6	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.5c**
MSX-7-541	7	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.5c**
MSX-8-541	8	**13.5c**	**10.8c**	**9c**	**7.2c**	**6.8c**
MSX-9-541	9	**13.5c**	**10.8c**	**9c**	**7.2c**	**6.8c**
MSX-10-541	10	**17.3c**	**13.8c**	**11.5c**	**9.2c**	**8.7c**
MSX-11-541	11	**17.3c**	**13.8c**	**11.5c**	**9.2c**	**8.7c**
MSX-12-541	12	**18.8c**	**15c**	**12.5c**	**10c**	**9.5c**
MSX-13-541	13	**18.8c**	**15c**	**12.5c**	**10c**	**9.5c**
MSX-14-541	14	**18.8c**	**15c**	**12.5c**	**10c**	**9.5c**
MSX-15-541	15	**26.3c**	**21c**	**17.5c**	**14c**	**13.3c**
MSX-16-541	16	**26.3c**	**21c**	**17.5c**	**14c**	**13.3c**
MSX-17-541	17	**26.3c**	**21c**	**17.5c**	**14c**	**13.3c**
MSX-18-541	18	**26.3c**	**21c**	**17.5c**	**14c**	**13.3c**
MSX-19-541	19	**27.8c**	**22.2c**	**18.5c**	**14.8c**	**14.1c**
MSX-20-541	20	**31.5c**	**25.2c**	**21c**	**16.8c**	**16c**
MSX-21-541	21	**31.5c**	**25.2c**	**21c**	**16.8c**	**16c**
MSX-22-541	22	**31.5c**	**25.2c**	**21c**	**16.8c**	**16c**
MSX-23-541	23	**31.5c**	**25.2c**	**21c**	**16.8c**	**16c**
MSX-24-541	24	**31.5c**	**25.2c**	**21c**	**16.8c**	**16c**
MSX-25-541	25	**35.3c**	**28.2c**	**23.5c**	**18.8c**	**17.9c**
MSX-26-541	26	**38.3c**	**30.6c**	**25.5c**	**20.4c**	**19.4c**
MSX-27-541	27	**38.3c**	**30.6c**	**25.5c**	**20.4c**	**19.4c**
MSX-28-541	28	**38.3c**	**30.6c**	**25.5c**	**20.4c**	**19.4c**
MSX-29-541	29	**38.3c**	**30.6c**	**25.5c**	**20.4c**	**19.4c**
MSX-30-541	30	**42c**	**33.6c**	**28c**	**22.4c**	**21.3c**
MARKER STRIPS FOR 542						
MSX-2-542	2	**12c**	**9.6c**	**8c**	**6.4c**	**6.1c**
MSX-3-542	3	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.1c**
MSX-4-542	4	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.1c**
MSX-5-542	5	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.1c**
MSX-6-542	6	**12.8c**	**10.2c**	**8.5c**	**6.8c**	**6.1c**
MSX-7-542	7	**13.5c**	**10.8c**	**9c**	**7.2c**	**6.8c**
MSX-8-542	8	**13.5c**	**10.8c**	**9c**	**7.2c**	**6.8c**
MSX-9-542	9	**15c**	**12c**	**10c**	**8c**	**7.6c**
MSX-10-542	10	**18.8c**	**15c**	**12.5c**	**10c**	**9.5c**
MSX-11-542	11	**18.8c**	**15c**	**12.5c**	**10c**	**9.5c**
MSX-12-542	12	**22.5c**	**18c**	**15c**	**12c**	**11.4c**
MSX-13-542	13	**22.5c**	**18c**	**15c**	**12c**	**11.4c**
MSX-14-542	14	**22.5c**	**18c**	**15c**	**12c**	**11.4c**
MSX-15-542	15	**27.8c**	**22.2c**	**18.5c**	**14.8c**	**14.1c**
MSX-16-542	16	**27.8c**	**22.2c**	**18.5c**	**14.8c**	**14.1c**
MSX-17-542	17	**27.8c**	**22.2c**	**18.5c**	**14.8c**	**14.1c**
MSX-18-542	18	**27.8c**	**22.2c**	**18.5c**	**14.8c**	**14.1c**
MSX-19-542	19	**27.8c**	**22.2c**	**18.5c**	**14.8c**	**14.1c**
MSX-20-542	20	**34.5c**	**27.6c**	**23c**	**18.4c**	**17.5c**
MSX-21-542	21	**34.5c**	**27.6c**	**23c**	**18.4c**	**17.5c**
MSX-22-542	22	**34.5c**	**27.6c**	**23c**	**18.4c**	**17.5c**
MSX-23-542	23	**34.5c**	**27.6c**	**23c**	**18.4c**	**17.5c**
MSX-24-542	24	**34.5c**	**27.6c**	**23c**	**18.4c**	**17.5c**
MSX-25-542	25	**38.3c**	**30.6c**	**25.5c**	**20.4c**	**19.4c**
MSX-26-542	26	**38.3c**	**30.6c**	**25.5c**	**20.4c**	**19.4c**

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

Tube Sockets, Accessories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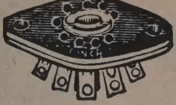
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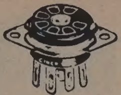
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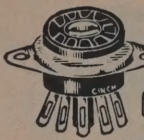
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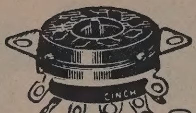
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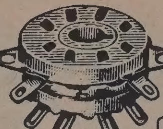
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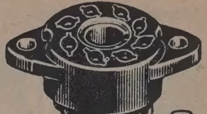
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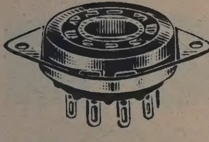
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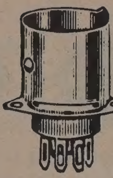
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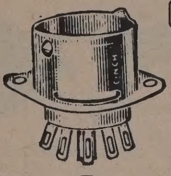
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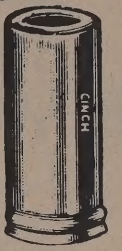
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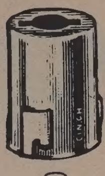
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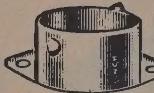
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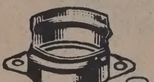
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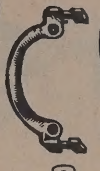
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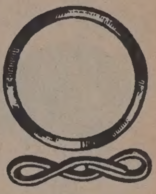
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WAFER TYPE SOCKETS

Cadmium-plated brass contacts; hot-solder-coated center shield.

Cinch No.	Fig.	Description	Mtg. Ctrs.	Net Ea., Lots 1-99	100-999
7W2A	A	7-pin miniature. Chocolate XP Bakelite laminations.	⅞″	6.8c	3.4c
7WL2	A		1″	6.8c	3.4c
7WL4	A		1⅝″	8c	4c
9W1	B	9-pin miniature	1⅛″	8.4c	4.2c
9W2	B	9-pin miniature	1 5/16″	9.3c	4.7c

SADDLE TYPE SOCKETS

Cinch No.	Fig.	Description	Mtg. Centers	Mounting	Net Each, Lots of 1-99	100-999
7EB	C	Black	⅞″	Bottom	9.4c	4.7c
7EM	C	Mica	⅞″	Bottom	11.3c	5.6c
7AB1	C	Black	⅞″	Top	9.4c	4.7c
7AM1	C	Mica	⅞″	Top	11.3c	5.6c
9EB	D	Black	1⅛″	Bottom	12.5c	6.2c
9EM	D	Mica	1⅛″	Bottom	14.5c	7.2c
9AB	D	Black	1⅛″	Top	12.5c	6.2c
9AM	D	Mica	1⅛″	Top	14.5c	7.2c
8AB	E	Black	1 5/16″	Bottom	9.9c	5c
8AM	E	Mica	1 5/16″	Bottom	12.6c	6.3c
8EB	E	Black	1½″	Bottom	10.2c	5.1c
8EM	E	Mica	1½″	Bottom	12.9c	6.5c

Cinch No. 8EC (Fig. E)—Ceramic. Mtg. ctrs., 1½″. List. . .**75c***

MIL-S-12883A SADDLE TYPE SOCKETS

MIL Type: 7-pin, TS102P03 (MFE), TS102C03 (ceramic); 9-pin, TS103P03 (MFE), TS103C03 (ceramic). Bottom mounting.

Cinch No.	Fig.	Description	Mtg. Ctrs.	Mtg. Holes	Net Each, Lots of 1-99	100-999
7JM-3	C	MFE	⅞″	.125″ dia.	20c	10c
7JC-3	C	Ceramic	⅞″	.125″ dia.	32.7c	16.3c
9JM-3	D	MFE	1⅛″	.125″ dia.	21.3c	10.6c
9JC-3	D	Ceramic	1⅛″	.125″ dia.	34.5c	17.3c

MIL MOLDED OCTAL SOCKETS (FIG. F)

Ceramic casting material for 8JC-2 and 8JCN-2; 8JM-2 and 8JMN-2 material is MFE. Silver plated phosphor bronze contacts, with heavy tinned tails. Heavy brass saddle, hot-soldered-coated, with four hot tinned ground lugs. Mounting centers, 1½″.

Cinch No.	MIL-S-12883A No.	Mtg. Hole, In.	Net Each, Lots of 1-99	100-999
8JC-2	TS101C01	.156 dia.	71.5c	35.8c
8JCN-2	TS101C02	6-32 tap	90c	45c
8JM-2	TS101P01	.156 dia.	35.4c	17.7c
8JMN-2	TS101P02	6-32 tap	54c	27c

ALL MOLDED OCTAL SOCKETS (FIG. G)

All-molded octal socket offers complete one-piece construction; the saddle and body are a single casting. The standard socket is molded of high dielectric black Bakelite. Contacts are brass, cadmium plated. No. 8XM mica filled phenolic insulation, prevents loss from leakage. The mounting hole centers for both sockets are 1 5/16″.

Cinch No. 8XM Socket—Mica.
Net Each, Lots of 1–99. . . . .**13.2c;** 100–999. . . . .**6.6c**

Cinch No. 8XB Socket—Black.
Net Each, Lots of 1–99. . . . .**8.7c;** 100–999. . . . .**4.4c**

NOVAR SOCKETS (FIG. H)

BOTTOM-MOUNTED NOVAR SOCKETS

Cinch No. 9NS-B—Molded from high dielectric black Bakelite. Cadmium plated brass contacts. Mounting centers, 1½″. List Price. **15.2c***

Cinch No. 9NS-M—Same as above except molded from mica-filled low-loss Bakelite. List Price. **18.4c***

TOP-MOUNTED NOVAR SOCKETS

Cinch No. 9NS-B1—Molded from high dielectric black Bakelite. Cadmium-plated brass contacts. Mounting centers, 1½″. List Price. **15.2c***

Cinch No. 9NS-M1—Same as above except molded from mica-filled low-loss Bakelite. List Price. **18.4c***

***List Price Only; No Quantity Pricing.**

SHIELD BASE TYPE SOCKETS

MINIATURE AND NOVAL TYPES

Miniature (Fig. I): Mtg. holes, .125″ dia. on ⅞″ mtg. ctrs. **Noval (Fig. J):** Mtg. holes, .093″ dia. on 1⅛″ mtg. ctrs.

Description	Cinch No.	Fig.	Net Ea., Lots of 1-99	100-999	Cinch No.	Fig.	Net Ea., Lots of 1-99	100-999
Black	7XB1	I	17c	8.5c	9XB	J	20.9c	10.4c
Mica	7XM1	I	19.3c	9.6c	9XM	J	*	. . . .
Ceramic	7XC	I	33c	16.5c	9XC	J	35.7c	17.9c

***List Price 37.8c; No Quantity Pricing.**

MIL-S-12883A TYPE SOCKETS

Mtg. ctrs., 7-pin, ⅞″; 9-pin, 1⅛″.

Cinch No.	Fig.	MIL-S-12883A No.	Description	Net Each, Lots of 1-99	100-999
7JC-2	I	TS102C01	Ceramic	30.8c	15.4c
7JMN-1	C	TS102P02	MFE	25c	12.5c
7JM-2	I	TS102P01	MFE	22.8c	11.4c
7JCN-1	C	TS102C02	Ceramic	32.7c	16.3c
9JM-2	J	TS103P01	MFE	24.8c	12.4c
9JMN-1	D	TS103P02	MFE	21.3c	10.6c
9JC-2	J	TS103C01	Ceramic	34.3c	17.1c
9JCN-1	D	TS103C02	Ceramic	34.5c	17.3c

"J" SLOT TYPE TUBE SHIELDS (FIG. L)

Cinch No.	Description	Length, Inches	Net Each, Lots of 1-99	100-999
7S2	Steel	1⅜	11c	5.5c
7S3	Steel	1¾	11.6c	5.8c
7S4	Steel	2¼	17.8c	8.9c
7SJ2-1	MIL*, brass	1⅜	14.3c	7.2c
7SJ3-1	MIL*, brass	1¾	16.1c	8c
7SJ4-1	MIL*, brass	2¼	17.8c	8.9c
9S1	Steel	1½	16.3c	8.2c
9S2	Steel	1 15/16	16.4c	8.2c
9S3	Steel	2⅜	29.9c	15c
9SJ1-1	MIL*, brass	1½	17.6c	8.8c
9SJ2-1	MIL*, brass	1 15/16	19.3c	9.7c
9SJ3-1	MIL*, brass	2⅜	21.1c	10.5c

*JAN-S-28A.

SNAP ON TYPE TUBE SHIELD (FIG. K)

Cinch No. 7S1—Size: 1 53/64″ h.
Net Each, Lots of 1–99. . . . .**9c;** 100–999. . . . .**4.5c**

SHIELD BASES

Cinch No.	Fig.	Dimensions, In. H.	Mtg. Hole	Mtg. Ctrs.	Material	Net Each, Lots of 1-99	100-999
7SB1	M	⅝	.125 dia.	⅞	Steel	5.4c	2.7c
7SB2	M	⅝	.125 dia.	⅞	Brass	7.2c	3.6c
7SB3	N	11/32	.098 dia.	⅞	Steel	3.5c	1.7c
9SB1	M	. . . .	⅛ dia.	1⅛	Steel	7.2c	3.6c

STRAP NUTS (FIG. O)

Cinch No. 7SN—Cadmium plated brass strap nuts for use in mounting sockets with saddles or shield bases. One strap nut takes the place of two conventional type nuts. Mounting centers: ⅞″. For 7 contact sockets.
Net Each, Lots of 1–99. . . . .**16.8c;** 100–999. . . . .**8.4c**

Cinch No. 9SN—Same as Model 7SN except mounting centers are 1⅛″ and are for 9 contact sockets.
Net Each, Lots of 1–99. . . . .**18.3c;** 100–999. . . . .**9.2c**

MODEL 8RO RETAINER RING (FIG. P)

A crimped retaining ring formed of .020″ spring steel. Will securely anchor sockets designed for ring mounting. Standard finish is cadmium.

Cinch No. 8RO—Net Each, Lots of 1–99. . **3.5c;** 100–999. . . . **1.7c**

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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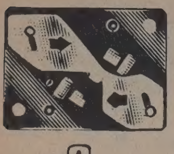
Cinch Sockets for All Purposes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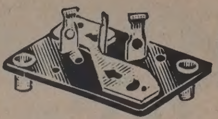
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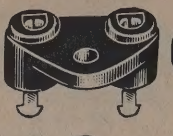
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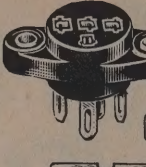
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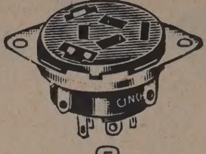
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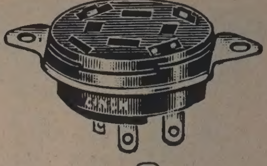
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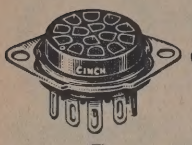
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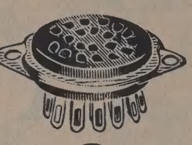
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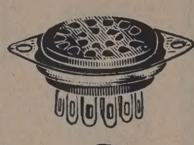
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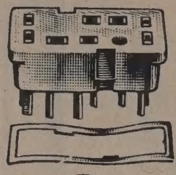
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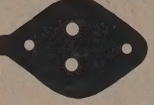
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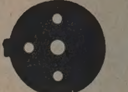
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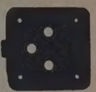
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POWER TRANSISTOR SOCKETS

LAMINATED TYPE

Cinch No. 2TS-1 (Fig. A)—Top and bottom plates are of natural XP Bakelite, vacuum wax impregnated. Contacts are of brass, cadmium plated. Formed thread for 6-20 screw. Has .104/.110" dia. hole in CR steel plate. Provides easy attachment to a heat sink.
Net Each, Lots of 1–99..........**9.8c;** 100–999............**4.9c**

Cinch No. 2TS-2 (Fig. B)—Identical with above except equipped with integral eyelets for easy assembly to chassis.
Net Each, Lots of 1–99..........**10.7c;** 100–999..........**5.4c**

MODEL 2TS-3 MOLDED TYPE (FIG. C)

Molded power transistor socket. Casting is molded of general purpose Bakelite. Contacts are phosphor bronze, cadmium plated. Mounting holes are .098" dia.; mounting centers are .425/.435".
Cinch No. 2TS-3—Net Each, Lots of 1–99, **9c;** 100–999, **4.5c**

MODEL 2TS-4 GENERAL PURPOSE (FIG. D)

This new transistor socket was originally designed for an all-transistor television set; however, its future applications are many. This socket may be used in industrial communications, test equipment, ham gear, etc. Socket has a triangular base layout with 0.2" by 0.1" (JETEC-30) contact centers, as well as three contacts in line (.048" by .192" contact centers). Casting is molded of general purpose Bakelite; contacts are phosphor bronze, cadmium plated. May be used with the following EIA base designations: E3-14, E3-15, E3-25, E3-32, E3-38, E3-39, E3-42, E3-43, E3-44, E3-51, E3-53, E4-13, E4-24, E4-31, E4-43, E4-52, ET-103-D.
Cinch No. 2TS-4—Net Each, Lots of 1–99, **16.9c;** 100–999, **8.5c**

CAPACITOR "PLUG-IN" SOCKETS

Cinch No. 2C5 (Fig. E)—Designed for use with Mallory and Magnavox 1" FP type capacitors. Molded from high dielectric black Bakelite. Sturdy steel mounting saddle has four ground lugs. Mounting centers, 1½". Three recessed center contacts for extended prongs of capacitor and two outer contacts flush with surface for short prongs of capacitor. All contacts are cadmium plated for fast, easy soldering.
Net Each, Lots of 1–99..........**43.5c;** 100–999..........**21.8c**

Cinch No. 2C7 (Fig. F)—Designed for use with Mallory and Magnavox 1⅜" FP type capacitors. Molded from high dielectric black Bakelite. Sturdy cadmium plated steel saddle has 1²⁷⁄₃₂" mounting centers. Four recessed center contacts for extended prongs of capacitor and three outer contacts flush with surface for short prongs of capacitor. All contacts are cadmium plated.
Net Each, Lots of 1-99.......**67.8;** 100–999.............**33.9c**

RELAY SOCKETS

MODEL 14RS RELAY SOCKET (FIG. G)

A 14-contact relay socket with mica-filled low-loss Bakelite casting. Contacts are of beryllium copper, silver plated with hot tinned tails. Overall length of top mount saddle is 1¹¹⁄₃₂". Mounting centers: 1⅛".
Cinch No. 14RS—Net Each, Lots of 1–99, **$0.738;** 100–999, **$0.369**

MODEL 20RS TOP MOUNTED RELAY SOCKET (FIG. H)

A 20-pin top-mounted relay socket. Contacts are of beryllium copper, silver-plated with hot tinned tails. Steel saddle, cadmium plated; 1⁵⁄₁₆" mounting centers.
Cinch No. 20RS—Net Each, Lots of 1–99, **$1.68;** 100–999, **$0.84**

BOTTOM-MOUNTED RELAY SOCKETS (FIG. I)

Cinch No. 20RS-1—A 20-contact relay socket with mica-filled low-loss Bakelite casting. Contacts are of beryllium copper, silver-plated with hot-tinned tails. Mounting centers, 1⁵⁄₁₆".
Net Each, Lots of 1–99..........**$1.68;** 100–999.........**$0.84**

Cinch No. 14RS-1—A 14-contact relay socket. Same as above except contacts 15 to 20 are omitted.
Net Each, Lots of 1–99..........**$1.32;** 100–999.........**$0.66**

Cinch No. 16RS-1—A 16-contact relay socket. Same as Model 20RS-1 except contacts 15, 17, 18 and 20 are omitted.
Net Each, Lots of 1–99..........**$1.44;** 100–999.........**$0.72**

MODEL 8RS RELAY SOCKET (FIG. J)

This relay socket is molded of mica filled phenolic and is attached to the chassis with a cold rolled steel clip that is cadmium plated. The contacts are beryllium copper, silver plated. Mounting clip 20731 furnished with each socket. This socket fits the following relays: Advance MV-2C, AEMCO 95-3274, Brubaker K110A, Filtors P.26.A1.P.6A, G.E. D200A and G-203A, Potter & Brumfield SL and Ace Relay No. 50-6-A (single contact type).
Cinch No. 8RS—Net Each, Lots of 1–99, **45c;** 100–999, **22.5c**

POWER TRANSISTOR HEAT SINKS

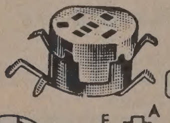
Hard anodized aluminum insulator wafers for use with power transistors. Feature high thermal conductivity, high dielectric resistance, high abrasion resistance and high corrosion resistance.

Cinch No. 2W-1 (Fig. K)—For Motorola transistors 2N179, 2N176 and 2N554.

Cinch No. 2W-2 (Fig. L)—For Delco transistor 2N174.

Cinch No. 2W-3 (Fig. M)—For Texas Instruments transistor 2N389.

Any Model Listed Above—Net Each, Lots of 1–24, **31.5c;** 25–49, **25.2c;** 50–99, **21c;** 100–249, **16.8c;** 250–499, **16c;** 500–999, **15.1c**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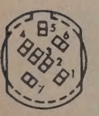
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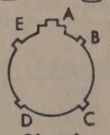
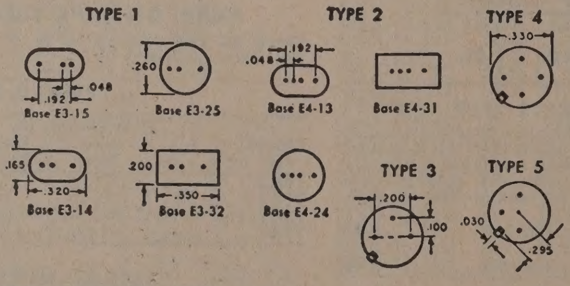
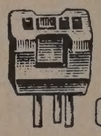


Chassis Layout

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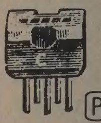
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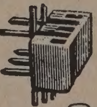
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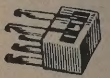
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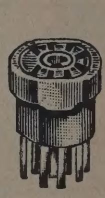
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UNIVERSAL TRANSISTOR SOCKETS (FIG. N)

Universal transistor socket that can be used with all transistor bases shown in illustration above. Casting is of mica-filled phenolic (MFE). Contacts are beryllium copper and are gold plated. Contacts may be used with either one or two-sided ¹⁄₁₆" printed circuit boards.

Cinch No.	Base Types	Tabs Used (See Diag.)	Cont. Pos. Used	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999
7UTS	All	A, B, C, D, E	1, 3, 4, 7	**67.5c**	**33.8c**
7UTS-1	1 and 3	C, D, E	1, 3, 4, 7	**45c**	**22.5c**
7UTS-3	3	C, D, E	1, 4, 7	**40.5c**	**20.25c**
7UTS-4	4	A, B, C, D, E	1, 4, 5, 6, 7	**54c**	**27c**
7UTS-5	5	B, D, E	1, 6, 7	**40.5c**	**20.25c**
7UTS-6	1 and 3	C, D, E	1, 3, 4, 7	**45c**	**22.5c**

SUBMINIATURE TUBE SOCKETS

Use extensively for hearing aids, radios and other electronic apparatus. Molded from mica-filled low loss Bakelite with silver plated beryllium copper contacts. No. 2H5 can be used for four prong tube or as a transistor socket. No. 5PC for printed circuits. No. 5WC for wired circuits.

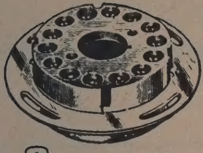
Cinch No.	Pin	Fig.	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999	Cinch No.	Pin	Fig.	Net Ea., Lots of 1-99	Net Ea., Lots of 100-999
2H3*	3	O	**20.8c**	**10.4c**	**5PC**	5	Q	**39.6c**	**19.8c**
2H5*	5	P	**22.4c**	**11.2c**	**5WC**	5	R	**37.6c**	**18.8c**
2H6*	6	...	**29.8c**	**14.9c**	**8SM***	8	S	**42c**	**21c**
2H7*	7	...	**31c**	**15.5c**	**8SM-P†**	8	...	**54c**	**27c**

*Mounting ring included. †No. 8SM with a mounting plate.

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

Sockets and Connectors

SOCKETS FOR SPECIAL PURPOSE TUBES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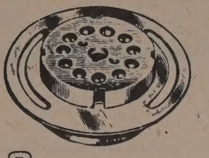
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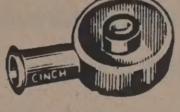
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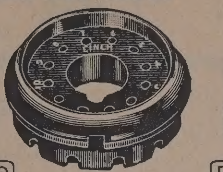
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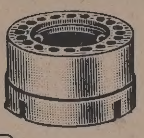
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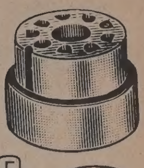
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14-PRONG DIHEPTAL (FIG. A)

Molded from high dielectric black Bakelite or mica-filled low loss Bakelite. Same features as No. 3M11. Size: 2 7/32″ w. x 1 1/8″ h.

Cinch No. 3B14—Black Bakelite diheptal socket.

Cinch No. 3M14—Mica-filled Bakelite diheptal socket.

MODEL 3M11 11-PRONG MAGNAL (FIG. B)

Molded from mica-filled low loss Bakelite. Full floating silver plated beryllium copper contacts insure easy insertion of tubes and provide excellent electrical connections. For use with 5BP1 and 2AP1 cathode ray tubes. Size: 1 23/32″ w. x 1 9/64″ h.

MOUNTING RINGS

Cinch No. 3R11—Steel mounting ring for No. 3M11.

Cinch No. 3R14—Steel mounting ring for Nos. 3B14 and 3M14.

MODEL 3A1 SECOND ANODE CONNECTOR (FIG. C)

Snap over .096″ dia. prong on side of diheptal tubes. Cadmium plated brass contact surrounded by rubber insulator. Size, 3/4″ w. x 1 3/16″ lg.

Cinch No. 3A1—List Price only........................**90c**

12-PRONG DUODECAL (FIG. D)

Slightly larger in diameter than the tube base and only slightly longer than the tube pin. Integral wire strain relief contact. For use with 10BP4, 2BP1, 5TP4, etc. type tubes. Also RCA 6199 tube.

Cinch No. 3B12—Bakelite duodecal socket.

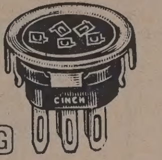
Cinch No. 3M12—Mica duodecal socket.

MODEL 20-PM PHOTO-MULTIPLIER (FIG. E)

Twenty-contact socket for RCA photo-multiplier tube Nos. 6810, C7187A, C7122 and 7265. Casting material is MAI-60 Alkyd Glass Fiber. JETEC No. is 20-102. Contacts are cadmium plated brass.

MODEL 7-VT VIDICON (FIG. F)

Seven-contact socket for RCA vidicon tube Nos. 6198 and 7038. Casting material is mica. Contacts are silver-plated phosphor bronze. JETEC No. is E8-11.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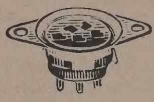
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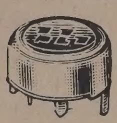
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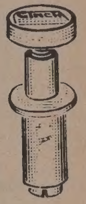
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NUVISTOR SOCKETS

Five-contact sockets. Socket body is of low-loss phenolic insulation (MFE). Cadmium-plated cold-rolled steel saddle. Contacts are of copper alloy with cadmium plating.

Cinch No. 5NS (Fig. G)—Crimp-mounting type. Fastened to chassis by two tabs.

Cinch No. 5NS-1 (Fig. H)—Conventional-mounting type. Mounts with screws, eyelets, rivets or self-tapping screws. Any #2 screw or 3/32″ dia. rivet with head dia. of up to .190″ may be used.

Cinch No. 5NS-2 (Fig. I)—Standoff type. For printed circuit applications. Has two grounding terminals.

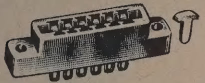
MODEL TP-1 NUVISTOR TUBE PULLER* (FIG. J)

Unique device for removing Nuvistor tubes from their sockets without scratching them. Size; Approximately 2 1/2″ h. x 1″ w.
*Patent Pending.

Cinch No. TP-1—Net Each, any quantity................**79c**

Cinch No.	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250-499
3B12	$0.60	$0.48	$0.40	$0.32	$0.304
3B14	1.05	.84	.70	.56	.532
3M11	4.50	3.60	3.00	2.40	2.280
3M12	1.80	1.44	1.20	.96	.912
3M14	1.35	1.08	.90	.72	.684
3R11	.30	.24	.20	.16	.152
3R14	.30	.24	.20	.16	.152
5NS	.138	.138	.138	.069	.069
5NS-1	.213	.213	.213	.1065	.1065
5NS-2	1.05	1.05	1.05	.525	.525
7-VT	2.10	1.68	1.40	1.12	1.064
20-PM	5.003	4.002	3.335	2.668	2.535

PRINTED CIRCUIT EDGE CONNECTORS AND SOCKETS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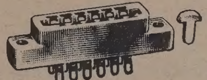
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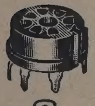
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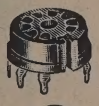
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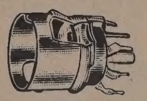
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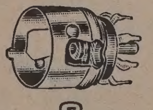
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PRINTED CIRCUIT EDGE CONNECTORS

Designed for minimum printed circuit card wear, low insertion force and positive contact with the printed circuit board. Insulation is glass-filled diallyl phthalate, type SDG-F per MIL-M-14. Contacts are of phosphor bronze with .00003″ minimum gold plated. Types 250, 251 and 252 utilize bifurcated contacts, permitting two flexing surfaces instead of one for positive contact. Bifurcated contacts are especially recommended for added contact reliability where vibration or printed circuit board irregularities would otherwise cause trouble. Connectors meet requirements of MIL-C-21097A (Ships) where applicable. One plastic polarizing key furnished unassembled. Rating: 830 v. AC rms.

TYPE 250 (Fig. A)

Bifurcated contacts, single row. Conventional wiring tails.

Cinch No.	Cont. Pos.	No. of Cont.	Net Each, Lots of				
			1-24	25-49	50-99	100-249	250-499
50-6A-20	6	6	$1.125	$0.90	$0.75	$0.60	$0.57
50-10A-20	10	10	1.50	1.20	1.00	.80	.76
50-12A-20	12	12	1.688	1.35	1.125	.90	.855
50-15A-20	15	15	1.973	1.578	1.315	1.052	.999
50-18A-20	18	18	2.25	1.80	1.50	1.20	1.14
50-22A-20	22	22	2.625	2.10	1.75	1.40	1.33

TYPE 251 (Fig. B)

Bifurcated contacts, double row. Conventional wiring tails.

50-12A-30	6	12	$1.125	$0.90	$0.75	$0.60	$0.57
50-20A-30	10	20	1.50	1.20	1.00	.80	.76
50-24A-30	12	24	1.688	1.35	1.125	.90	.855
50-30A-30	15	30	1.973	1.578	1.315	1.052	.999
50-36A-30	18	36	2.25	1.80	1.50	1.20	1.14
50-44A-30	22	44	2.625	2.10	1.75	1.40	1.33

TYPE 252

Bifurcated contacts, double-row. Contact tails designed for dip soldering, and will fit into .051″ diameter holes.

Cinch No.	Cont. Pos.	No. of Cont.	Net Each, Lots of				
			1-24	25-49	50-99	100-249	250-499
50-12B-10	6	12	$1.26	$1.008	$0.84	$0.672	$0.638
50-20B-10	10	20	1.74	1.392	1.16	.928	.882
50-24B-10	12	24	1.98	1.584	1.32	1.056	1.003
50-30B-10	15	30	2.34	1.872	1.56	1.248	1.186
50-36B-10	18	36	2.70	2.160	1.80	1.440	1.368
50-44B-10	22	44	3.18	2.544	2.12	1.696	1.611

TYPE 253

Standard contacts, double-row. Contact tails are for wire-wrapping.

50-12B-20	6	12	$1.913	$1.530	$1.275	$1.020	$0.969
50-20B-20	10	20	2.483	1.986	1.655	1.324	1.258
50-24B-20	12	24	2.768	2.214	1.845	1.476	1.402
50-30B-20	15	30	3.195	2.556	2.130	1.704	1.619
50-36B-20	18	36	3.623	2.898	2.415	1.932	1.835
50-44B-20	22	44	4.193	3.354	2.795	2.236	2.124

PRINTED CIRCUIT MINIATURE SOCKETS

Cinch No. 7PC-B (Fig. C)—Seven-pin, brass contacts with hot-solder-coated finish. General purpose black phenolic casting. Special tabs prevent tube shields from contacting the printed wire chassis. Center shields provide mechanical retention of the socket in the chassis.
Net Each, Lots of 1-99........**6.3c**; 100-999........**3.15c**

Cinch No. 7PC-B1 (Fig. C)—Same as 7PC-B but without center shield or tabs.
Net Each, Lots of 1-99.........**7.1c**; 100-999.........**3.5c**

Cinch No. 9PC-B (Fig. D)—Same as 7PC-B but 9-pin noval.
Net Each, Lots of 1-99........**8.58c**; 100-999........**4.29c**

Cinch No. 9PC-B1 (Fig. D)—Same as 7PC-B1 but 9-pin noval.
Net Each, Lots of 1-99.........**9.5c**; 100-999.........**4.7c**

PRINTED CIRCUIT SOCKETS WITH SHIELD BASES

Cinch No. 7PC-M2 (Fig. E)—Seven-pin miniature standoff socket. Has an attached bayonet type shield base with ground tab. For use with 1/16″ printed circuit boards. Castings are low-loss mica-filled phenolic (MFE). Contacts are phosphor bronze with a hot-tinned finish. Center shield and ground tab are brass, hot-tinned and base, nickel-plated brass.
Net Each, Lots of 1-99........**$0.948**; 100-999........**$0.474**

Cinch No. 9PC-M2 (Fig. F)—Same as 7PC-M2 but 9-pin noval.
Net Each, Lots of 1-99.........**$1.17**; 100-999.........**$0.585**

NOTE: The above are the factory OEM prices, FOB factory, and are subject to change without notice.

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1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

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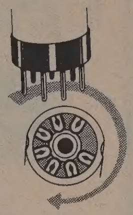
SOCKETS

ELCO'S PATENTED SOCKET FEATURE

CONFORMING TO MIL-S-12883-A, our exclusive, patented SOCKET design will be found in all our 7-Pin and 9-Pin Base-Shield and Saddle Type Sockets (except Ceramic). This ingenious design provides a positioning-key at the top of the socket which permits the tube to "find" its correct insertion position without loss of time or pin damage. And by virtue of the E-Z MATE* feature, tube locations may now be designed into "blind" or formerly inaccessible positions.



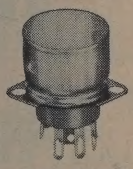
GENERAL SPECIFICATIONS
(Unless Otherwise Noted)

Current Rating—1 Ampere
Voltage Rating—
@ Sea Level—500 Volts RMS
@ 3.4 Inches/Hg.—500 Volts RMS
Contact Resistance—.03 Ohm (maximum)
Insulation Resistance (Dry)—1,000 Megohms (Minimum)

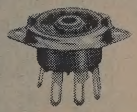
Military Sockets per MIL-S-12883-A

PHSPTD = Phosphor Bronze, Silver Plated, Tin Dipped CER = Ceramic BR = Brass, Cad. Plated BC=Beryllium Copper

MIL SOCKETS
All 7-pin, 9-pin and octal sockets available per MIL-S-12883-A Specifications. All base shield sockets fit "J" slot shields. Contacts are phosphor bronze, silver plated, tin dipped.



BASE SHIELD



TOP MOUNTED SADDLE

BOTTOM MOUNTED SADDLE WITH GROUND LUGS

7-PIN BASE SHIELD TYPE

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS102C01	04-715-03	238PHSPTD	PHSPTD	Cer	Yes	227.20	143.45	126.25
TS102P01	04-715-01	235PHSPTD	PHSPTD	Mica	Yes	157.41	99.40	87.45

7-PIN SADDLE — TOP MOUNTED

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS102C02	04-711-04	982PHSPTD	PHSPTD	Cer	Yes	214.45	135.40	119.15
TS102P02	04-711-03	983PHSPTD	PHSPTD	Mica	Yes	138.10	87.20	76.75

7-PIN SADDLE — BOTTOM MOUNTED W/GROUND LUGS

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS102C03	04-703-07	986PHSPTD	PHSPTD	Cer	Yes	214.45	135.40	119.15
TS102P03	04-703-08	987PHSPTD	PHSPTD	Mica	Yes	138.10	87.20	76.75

9-PIN BASE SHIELD TYPE

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS103C01	04-915-04	176PHSPTD	PHSPTD	Cer	Yes	253.35	159.95	140.75
TS103P01	04-915-02	169PHSPTD	PHSPTD	Mica	Yes	177.21	110.65	97.35

9-PIN SADDLE TOP MOUNTED

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS103C02	04-911-05	984PHSPTD	PHSPTD	Cer	Yes	245.35	154.90	136.30
TS103P02	04-911-04	985PHSPTD	PHSPTD	Mica	Yes	150.10	94.75	83.40

9-PIN SADDLE — BOTTOM MOUNTED W/GROUND LUGS

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS103C03	04-903-06	988PHSPTD	PHSPTD	Cer	Yes	245.35	154.90	136.30
TS103P03	04-903-07	989PHSPTD	PHSPTD	Mica	Yes	150.10	94.75	83.40

WITHOUT TAPPED BUSHING

WITH TAPPED BUSHING

OCTAL SOCKETS BOTTOM MOUNTED W/GROUND LUGS

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS101C01	04-813-04	338PHSPTD	PHSPTD	Cer	No	389.75	246.05	216.55
TS101P01	04-813-01	335PHSPTD	PHSPTD	Mica	No	274.25	173.15	152.35

OCTAL SOCKETS BOTTOM MOUNTED W/GROUND LUGS AND TAPPED BUSHINGS

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS101C02	04-813-03	337PHSPTD	PHSPTD	Cer	No	454.40	286.90	252.45
TS101P02	04-813-02	336PHSPTD	PHSPTD	Mica	No	347.70	219.50	193.50

14-PIN MILITARY RELAY SOCKET — TOP MOUNTED

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS1405P01	05-0423-02	423PHSPTD	PHSPTD	Mica	No	327.70	206.90	182.05

2-PIN MILITARY CRYSTAL SOCKET

						Per 1000		
Military No.	NEW ELCO No.	Old ELCO No.	Contact Material	Insulator Material	Center Shield	1-499	500-1499	1500-4999
TS0205C01	04-210-01	430PHSTPD	PHSPTD	Cer	No	104.94	66.25	58.30
TS0205P01	04-210-04	430-BC	BC	Cer	No	119.10	75.19	66.17

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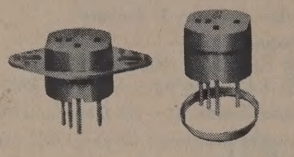
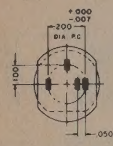
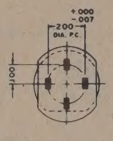
SERIES 3300 SUBMINIATURE TRANSISTOR SOCKETS



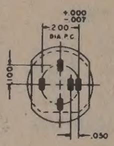
Multi-purpose for use with 3- or 4-pin inline, 3-pin circular, or 4-pin circular transistors. Low-loss mica-filled phenolic body; contacts gold flashed over silver-plated beryllium copper. Types 3324-3326 for .030" dia. pins. Others for .016" dia. pins.



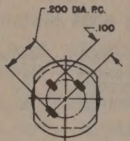
PATTERN A



PATTERN B



PATTERN C



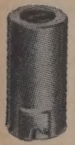
PATTERN D

NEW ELCO No.	Old ELCO No.	Pin Pattern	Mtg. Type	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
05-3301	3301	A	Saddle	176.90	111.70	98.30
05-3304	3304	A	P.C.	143.55	90.65	79.75
05-3303	3303	A	Ring	144.54	91.25	80.30
05-3305	3305	A	P.C.	144.13	91.00	80.10
05-3307	3307	B	Ring	172.44	108.90	95.80
05-3308	3308	B	P.C.	170.05	107.40	94.50
05-3313	3313	C	Ring	201.90	127.45	112.15
05-3324	3324	D	Ring	159.50	90.65	79.75
05-3326	3326	D	Saddle	263.34	166.25	146.30
55-47202	757	Mtg. Ring		19.80	11.25	9.90

SPECIFICATIONS

Current Rating—1 Ampere
Withstanding Voltage (Sea Level)—1200 Volts RMS
Withstanding Voltage (3.4 inches/Hg.)—400 Volts RMS
Contact Resistance—.03 Ohm Maximum
Insulation Resistance (Dry)—1,000 Megohms Minimum
Insulation Material—Low Loss Liner Filled Phenolic
Contact Materials—Beryllium Copper, Gold Flashed over Silver Plate
Saddle and Mounting Ring—Brass, Nickel Plated

MILITARY JAN SHIELDS



Jan shield for 7- and 9-pin sockets per JAN-S-28A. All shields have "J" slot design to fit over eight military base shield-type sockets. Brass, nickel plated. Shipping weight, 1 oz.

Military No.	NEW ELCO No.	Old ELCO No.	Ht., In.	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
TS102U01	04-791-01	121†	1-3/8	116.80	76.70	61.95
TS102U02	04-791-02	120†	1-3/4	122.75	80.60	65.10
TS102U03	04-791-03	149†	2-1/4	142.55	93.60	75.60
TS103U01	04-991-01	193††	1-1/2	134.65	88.40	71.40
TS103U02	04-991-02	191††	1-15/16	140.60	92.30	74.55
TS103U03	04-991-03	195††	2-3/8	168.30	110.50	89.25

†7-Pin, ††9-Pin

STRAP NUTS

NEW ELCO No.	Old ELCO No.	Description	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
54-26201	288	7-pin brass	58.50	36.92	32.49
54-26102	289	7-pin steel	51.72	28.90	28.73
54-26203	290	9-pin brass	61.22	38.65	34.01
54-26104	291	9-pin steel	52.95	33.43	29.41

MINIATURE SOCKETS

7- and 9-pin Sockets with saddles or shield-base. 7-pin have 7/8" mounting centers; 9-pin have 1⅛" mounting centers. Contact Material: BR = Brass Cad. Plate; PH = Phosphor Bronze; SP = Silver Plate; TD = Tin Dipped; BC = Beryllium Copper; TL = Tin Lead. Insulator Materials: GP = General Purpose Phenolic; M = Mica.

SADDLE TYPE
BOTTOM MOUNTING

SADDLE TYPE
BOTTOM MOUNTING
W/GROUND LUGS

SADDLE TYPE
TOP MOUNTING

BASE SHIELD
TYPE*

7-PIN RMA SADDLE TYPE — BOTTOM MOUNTING

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-702-01	100.125	GP	BR	Yes	.125	81.77	51.63	45.43
04-702-02	109.125	GP	BR	No	.125	71.08	44.88	39.49

7-PIN JAN SADDLE TYPE — TOP MOUNTING

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-711-01	241PH.093	Mica	PH	Yes	.093	107.91	68.13	59.95
04-711-02	243.093	Mica	BR	No	.093	68.31	43.13	37.95

7-PIN RMA SADDLE TYPE — TOP MOUNTING

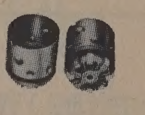
NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-701-02	117PH.125	Mica	PH	No	.125	81.87	51.69	45.48

7-PIN RMA SADDLE TYPE W/GROUND LUGS — BOTTOM MOUNTING

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-703-01	300.125	GP	BR	Yes	.125	84.55	53.38	46.97
04-703-02	305.125	Mica	BR	Yes	.125	84.15	53.15	46.75
04-703-03	309.125	GP	BR	No	.125	71.87	45.38	39.93
04-703-04	316.125	Mica	BR	No	.125	74.75	47.20	41.55
04-703-05	316PH.125	Mica	PH	No	.125	82.70	52.20	45.95
04-703-06	316BC.125	Mica	BC	No	.125	124.05	78.30	68.90

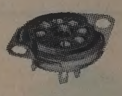
7-PIN ELCO SHIELD BASE TYPE — TOP MOUNTING

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-705-01	151PH.125	Mica	PH	Yes	.125	128.40	81.05	71.35
04-705-02	154PH.125	Mica	PH	No	.125	122.30	77.20	67.95



PRINTED CIRCUIT
W/SHIELD BASE

U.H.F. PRINTED
CIRCUIT STAND-OFF



MINIATURE
U.H.F. BOTTOM MOUNTED

7-PIN PRINTED CIRCUIT SNAP-IN W/SHIELD BASE FOR 1/16" CARD

NEW ELCO No.	Old ELCO. No.	Insulator Material	Cotnact Material	Center Shield	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-765-01	622PHSP	Mica	PHSP	No	585.00	400.00	350.00

7-PIN UHF PRINTED CIRCUIT STAND-OFF

NEW ELCO No.	Old ELCO. No.	Insulator Material	Cotnact Material	Center Shield	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-730-01	3701PHSPTD	Mica	PHSPTD	No	138.50	87.44	76.95

7-PIN SOCKET UHF MINIATURE BOTTOM MOUNTING

NEW ELCO No.	Old ELCO. No.	Insulator Material	Cotnact Material	Center Shield	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-722-02	510S-PHSPTD.125	Mica	PHSPTD	No	151.50	95.65	84.15
04-722-01	510PHSPTD.125	Mica	PHSPTD	No	156.75	98.95	87.05

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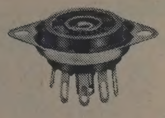
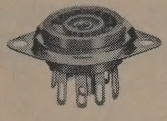
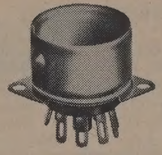
MINIATURE SOCKETS


SADDLE TYPE BOTTOM MOUNTING

SADDLE TYPE BOTTOM MOUNTING W/GROUND LUGS


SADDLE TYPE TOP MOUNTING


SHIELD BASE TYPE

9-PIN RMA SADDLE TYPE — BOTTOM MOUNTING

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-902-01	270-.125	GP	BR	Yes	.125	88.50	55.90	49.20
04-902-02	271PH-.125	Mica	PH	Yes	.125	109.40	69.05	60.80
04-902-03	276-.093	GP	BR	No	.093	75.15	47.45	41.75
04-902-04	277-.093	Mica	BR	No	.093	85.15	53.75	47.30

9-PIN RMA SADDLE TYPE — BOTTOM MOUNTED W/GROUND LUGS

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-903-01	370-.125	GP	BR	Yes	.125	89.70	56.65	49.85
04-903-02	371PH-.125	Mica	PH	Yes	.125	121.77	76.88	67.65
04-903-03	372-.093	Cer	BR	Yes	.093	229.20	144.70	127.35
04-903-04	376-.125	GP	BR	No	.125	81.00	51.15	45.00
04-903-05	378-.093	†Cer	BR	No	.093	219.00	138.25	121.65

†Not E-Z MATE

9-PIN RMA SADDLE TYPE — TOP MOUNTING

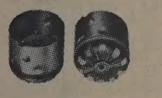
NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-901-02	274PH-.125	Mica	PH	Yes	.125	109.40	69.05	60.80
04-901-03	280PH-.125	Mica	PH	No	.125	96.60	61.00	53.70

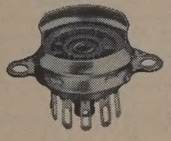
9-PIN JAN SADDLE TYPE — TOP MOUNTING

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-911-01	BRNP197PH-.125	Mica	PH	Yes	.125	115.83	73.13	64.35
04-911-02	197PH-.093	Mica	PH	Yes	.093	106.95	67.50	59.40
04-911-03	199PH-.125	Mica	PH	No	.125	92.07	58.15	51.15

9-PIN RMA SHIELD BASE TYPE — TOP MOUNTING

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-905-01	282-.125	GP	BR	Yes	.125	132.35	83.55	73.55
04-905-02	285-.125	GR	BR	No	.125	118.65	74.90	65.90
04-905-03	286PHSPTD-.125	Mica	PHSPTD	No	.125	188.75	107.25	94.40


PRINTED CIRCUIT SNAP-IN


SNAP-ON SHIELD BASE TYPE

UHF SADDLE TYPE

UHF PRINTED CIRCUIT STAND-OFF

9-PIN PRINTED CIRCUIT SNAP-IN W/SHIELD BASE FOR 1/16" CARD

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-965-01	623BC-1/16	Mica	BC	No	None	675.00	450.00	400.00

9-PIN RMA SNAP-ON SHIELD BASE TYPE

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-904-01	457PHTL-.125	Mica	PHTL	Yes	.125	115.74	73.05	64.30
04-904-02	460PHTL-.125	Mica	PHTL	No	.125	106.45	67.20	59.15

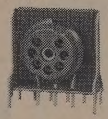
9-PIN UHF SADDLE TYPE — BOTTOM MOUNTED

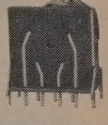
NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-922-01	512PHSPTD	DAP	PHSPTD	No	.125	204.93	129.38	113.85
04-922-02	512SPH-.125	DAP	PHCP	No	.125	191.07	120.63	106.15

9-PIN UHF PRINTED CIRCUIT STAND-OFF

NEW ELCO No.	Old ELCO No.	Insulator Material	Contact Material	Center Shield	Mtg. Hole	Per 1000 1-499	Per 1000 500-1499	Per 1000 1500-4999
04-930-01	3901PHSPTD	Mica	PHSPTD	No	None	180.87	114.19	100.49

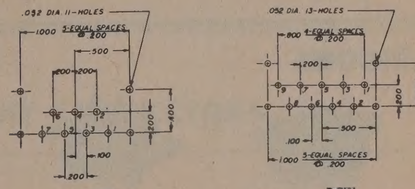
RIGHT-ANGLE PRINTED CIRCUIT CONTINUOUS CONTACT SOCKETS




REAR VIEW

Units listed are for both 1/16" and 3/32" glass filled epoxy cards. Types listed have mica insulation. Beryllium copper contacts standard.

NEW ELCO No.	Old ELCO No.	Description	Net Ea., Lots of 1-99	Net Ea., Lots of 100-499	Net Ea., Lots of 500-999
05-4006	4006-3-EG-3/32	7-Pin Mica, w/o shield base	1.96	1.22	1.04
05-4007	4007-3-EG-3/32	7-Pin Mica, w/shield base	2.52	1.57	1.34
05-4008	4008-3-EG-3/32	9-Pin Mica, w/o shield base	2.00	1.25	1.07
05-4009	4009-3-EG-3/32	9-Pin Mica, w/shield base	2.72	1.69	1.45



7-PIN

9-PIN

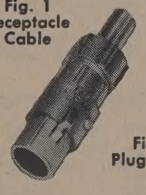
MOUNTING HOLE LAYOUT AND PIN NUMBERS

SPECIFICATIONS

Voltage Rating—500 Volts
Current Rating—1 Ampere
Withstanding Voltage (Sea Level)—2,000 Volts RMS
Withstanding Voltage (3.4 inches/Hg.)—660 Volts RMS
Contact Resistance—.03 Ohm (Max.)
Insulation Resistance (Dry)—1,000 Megohms Min.

"EL" SERIES AUDIO CONNECTORS

Fig. 1
Receptacle
Cable



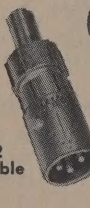


Fig. 2
Plug Cable

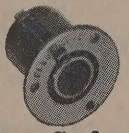


Fig. 3
Receptacle
Panel

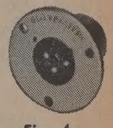


Fig. 4
Plug
Panel

Rugged, high-quality, low-priced connectors for audio and general purpose applications. Satin-finished, nickel-plated, zinc shells feature positive key and groove polarization, and push-action latchlock. Silver-plated contacts rated for 300 v. AC; 3-contact type for #14 wire, rated 16 amps; 4-contact types for #16 wire, rated 10 amps. Cable types accommodate up to 5/16" dia. wire.

NEW ELCO No.	Old ELCO No.	No. of Contacts	Fig.	Net Ea., Lots of 1-9	Net Ea., Lots of 10-24	Net Ea., Lots of 25-29	Net Ea., Lots of 100-249
00-2214-003	EL2214-3	3	1	0.93	0.84	0.78	0.62
00-2214-004	EL2214-4	4	1	1.29	1.16	1.08	.86
00-2216-003	EL2216-3	3	2	.90	.81	.75	.60
00-2216-004	EL2216-4	4	2	1.20	1.08	1.00	.80
00-2215-003	EL2215-3	3	3	.93	.84	.78	.62
00-2215-004	EL2215-4	4	3	1.29	1.16	1.08	.86
00-2213-003	EL2213-3	3	4	.72	.65	.60	.48
00-2213-004	EL2213-4	4	4	1.02	.92	.85	.68

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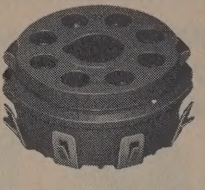
OCTAL SOCKETS



OCTAL PRINTED CIRCUIT SOCKET

NEW ELCO No.	Old ELCO No.	Insulator Material	Chassis Thickness	Contact Material	Center Shield	Per 1000 1-499	 500-1499	 1500-4999
04-860-01	612PH-1/16	Mica	1/16	PH	No	247.50	156.25	137.50
04-860-02	612PH-3/32	Mica	3/32	PH	No	247.50	156.25	137.50
04-860-03	612PH-1/4	Mica	1/4	PH	No	257.40	162.50	143.00

TRANSISTOR SOCKETS

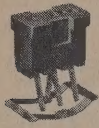


FIG. A
FLAT-IN-LINE

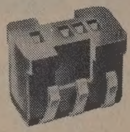


FIG. B
PRINTED CIRCUIT

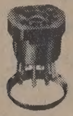


FIG. C
ROUND

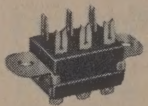
NEW ELCO No.	Old ELCO No.	No. of Contacts	Insulator Material	Type	Figure	Per 1000 1-499	 500-1499	 1500-4999
05-0799	799BC	3	Mica	1	A	103.95	68.25	63.00
05-0803	803BC	4	Mica	2	A	109.90	72.15	66.60
05-0786	786BC	3	Mica	1	B	118.80	75.00	69.00
05-0805	805BC	4	Mica	2	B	119.80	78.65	72.60
05-0788	788BC	5	Mica		B	122.76	77.50	68.20
05-0731-01	731BC-1	8	Mica		C	259.38	163.75	144.10
05-0731-02†	731BC-2	8	Mica		C	277.20	175.00	154.00
55-47202	757	Retainer for 05-0731-01 and 05-0731-02				19.80	11.25	9.90
55-47105	777	Retainer for 05-0799 and 05-0803				12.60	10.00	8.80

TYPES: 1. For Point Type and Junction Transistors.
2. For Linotetrar Type.

†With Center Shield

VARICONS

Ⓐ



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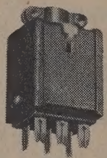

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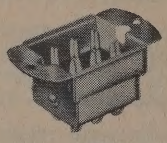

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Ⓕ

ELCO Connectors, sold under the trade-mark VARICONS, provide the most positive contact under all operating conditions. Unaffected by vibration, repeated insertions and withdrawals, or lateral and longitudinal stresses. Employ electrical and mechanical characteristics to allow their use in nearly any type of circuit, even in the most restricted areas. Polarity combinations may be varied on individual units with the same number of contacts; prevents accidental mating of dissimilar combinations. Contacts in use are always under pressure; cannot be over-stressed or strained. Both male and female contacts are free floating inside their housings. Contacts are silver-plated and cadmium-plated. Cadmium-plated hardware chromated for use in marine atmospheres. Covers are blue wrinkle finish; available in other colors on special quantity orders. Current Rating: 20 amps, 115 v., 30°C temperature rise, Voltage Rating: 1500 volts at sea level; 750 v. 3.4 in./Hg.; 1300 volts, withstanding at 3.4 in./Hg.; 4000 volts AC, withstanding at sea level. Contact Resistance: .002 ohm. Insulation Resistance: 25,000 megs. min., dry. Prefix M: Indicates male connectors. Prefix F: Indicates female connectors. Prefix R: Indicates ruggedized ends, standard 12 contacts and over.

SINGLE TIER WITH STANDARD BRACKETS (FIGS. A, B)

Available in double tier for 20, 24, 28, 32 and 36 contacts. Male type (Fig. B) mates with female type (Fig. A) and Cover Type (Fig. C); (see other listings). Female unit also mates with Cover Type (Fig. D).

NEW ELCO No.	Old ELCO No.	Contacts	Net Each 1-49	 50-99	 100-249	 250-499
01-1102-111	M10220-1	2	$0.20	$0.17	$0.14	$0.13
01-3102-111	F10220-1	2	.19	.16	.13	.12
01-1104-111	M10420-1	4	.27	.22	.18	.17
01-3104-111	F10420-1	4	.26	.21	.17	.16
01-1106-111	M10620-1	6	.34	.28	.23	.22
01-3106-111	F10620-1	6	.32	.26	.21	.20
01-1108-111	M10820-1	8	.41	.34	.27	.26
01-3108-111	F10820-1	8	.38	.32	.26	.24
01-1110-111	M11020-1	10	.50	.42	.34	.32
01-3110-111	F11020-1	10	.46	.38	.31	.29
01-2112-111	RM11220-1	12	.61	.51	.40	.38
01-4112-111	RF11220-1	12	.76	.64	.51	.48
01-2114-111	RM11420-1	14	.71	.60	.48	.45
01-4114-111	RF11420-1	14	.66	.55	.44	.42
01-2116-111	RM11620-1	16	.82	.68	.54	.52
01-4116-111	RF11620-1	16	.76	.64	.51	.48
01-2118-111	RM11820-1	18	.93	.78	.62	.59
01-4118-111	RF11820-1	18	.86	.72	.57	.54

SINGLE TIER WITH COVERS AND CLAMPS (FIGS. C, D)

Male unit (Fig. D) mates with female unit (Fig. C), plus standard bracket type (Fig. A) and recessed housing type (Fig. F). Female unit also mates with standard bracket type (Fig. B) and recessed housing type (Fig. E).

NEW ELCO No.	Old ELCO No.	Contacts	Net Each 1-49	 50-99	 100-249	 250-499
01-1104-105	M10425	4	$0.52	$0.43	$0.34	$0.33
01-3104-105	F10425	4	.50	.42	.34	.32
01-1106-104	M10624	6	.59	.49	.39	.37
01-3106-104	F10624	6	.56	.47	.38	.36
01-1108-104	M10824	8	.65	.54	.44	.41
01-3108-104	F10824	8	.63	.52	.42	.40
01-1110-104	M11024	10	.76	.63	.51	.48
01-3110-104	F11024	10	.72	.60	.48	.47
01-2112-104	RM11224	12	.92	.77	.62	.58
01-4112-104	RF11224	12	.88	.73	.59	.56
01-2114-104	RM11424	14	1.07	.89	.71	.68
01-4114-104	RF11424	14	1.01	.85	.68	.64
01-2116-104	RM11624	16	1.21	1.00	.80	.76
01-4116-104	RF11624	16	1.15	.96	.77	.73
01-2118-104	RM11824	18	1.35	1.12	.90	.85
01-4118-104	RF11824	18	1.28	1.07	.86	.81

SINGLE TIER WITH RECESSED HOUSING (FIGS. E, F)

Units available in double tier for 20, 24, 28, 32 and 36 contacts. Male unit (Fig. E) does *not* mate with female unit (Fig. F); mates with cover and clamp type (Fig. C) only. Female unit mates with cover and clamp type (Fig. D) only.

NEW ELCO No.	Old ELCO No.	Contacts	Net Each 1-49	 50-99	 100-249	 250-499
01-1104-106	M10426	4	$0.49	$0.40	$0.32	$0.31
01-3104-106	F10426	4	.47	.39	.32	.30
01-1106-106	M10626	6	.58	.48	.38	.36
01-3106-106	F10626	6	.55	.45	.36	.34
01-1108-106	M10826	8	.66	.55	.44	.42
01-3108-106	F10826	8	.64	.53	.42	.40
01-1110-106	M11026	10	.78	.65	.52	.49
01-3110-106	F11026	10	.74	.61	.49	.47
01-2112-106	RM11226	12	.94	.79	.63	.60
01-4112-106	RF11226	12	.91	.75	.60	.57
01-2114-106	RM11426	14	1.09	.91	.73	.69
01-4114-106	RF11426	14	1.04	.86	.69	.66
01-2116-106	RM11626	16	1.23	1.02	.82	.78
01-4116-106	RF11626	16	1.18	.98	.78	.74
01-2118-106	RM11826	18	1.37	1.14	.92	.87
01-4118-106	RF11826	18	1.31	1.09	.87	.83

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Connectors shown are most standard styles and readily available; request referenced Bulletins as guide to others available.

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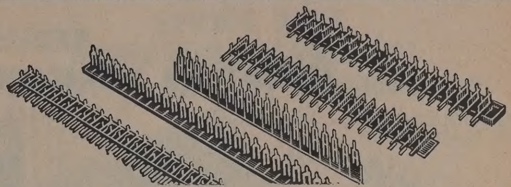
SERIES 5000 CARD-TO-CARD PRINTED CIRCUIT VARICON* CONTACT STRIPS



ELCO Contacts, sold under the trade-mark VARICONS, are supplied on disposable plastic strips at .200" spacing. One to 60 contacts to a strip may be obtained from distributors' stock. All ELCO connector distributors will cut the strip to your exact requirements. Staking of the contacts to the printed circuit card is made in accordance with modern mass-production techniques with special staking tools. Tools are available from ELCO either unmounted, for application to customer die set, or completely mounted in ELCO die set, as desired. Staking of contacts to the printed circuit card, and thereby to the printed circuit line assures a solid, low resistance contact rigidly held in place. Dip soldering the card automatically makes an additional connection between contact and card, thus creating an unsurpassed reliability for the joint. Over 65 pounds are required to tear a contact from the card if staked, and soldered, 50 pounds if staked only and 25 pounds if only soldered. For small-size modules, brackets can be supplied separately. It is recommended that larger modules be guided by integral parts of the equipment. Contacts: Phosphor Bronze. Finish: Gold flash over nickel plate. Contact Resistance: .002 ohm max. Insertion and withdrawal force: 8 oz. per contact, average. Contact Life: Unchanged after 5000 insertions and withdrawals. Request Bulletin 02-5200.

NEW ELCO No.	Old ELCO No.	Description	Component No.	Pattern††
02-???-013-5200	CS-X-Q-200	Module Card 1/16"	5001.1913	5
02-???-014-5200	CS-X-R-200	Module Card 3/32"	5001.1923	5
02-???-111-5200	CS-X-A-200	45° for 1/16" Card	5101.0613	5
02-???-112-5200	CS-X-B-200	45° for 3/32" Card	5101.0623	5
02-???-113-6200	CS-X-C-200	Stand-off 1/16" Card	5201.0213	6
02-???-114-6200	CS-X-D-200	Stand-off 3/32" Card	5201.0223	6
02-???-135-5200	CS-X-G-200	Lower Card—1/16" Card	7001.0413	5
02-???-136-5200	CS-X-I-200	Lower Card—3/32" Card	7001.0423	5
02-???-137-5200	CS-X-K-200	Upper Card—1/16" Card	7001.0513	5
02-???-138-5200	CS-X-L-200	Upper Card—3/32" Card	7001.0523	5
02-???-147-5200	CS-X-H-200	†Lower Card—1/16" Card	7001.1513	5
02-???-148-5200	CS-X-J-200	†Lower Card—3/32" Card	7001.1523	5

†Without Wire Hole

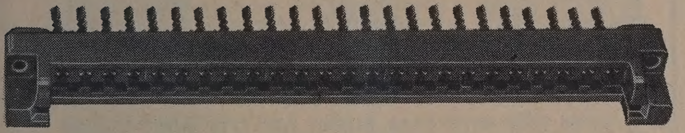
Indicate No. of Contacts required on Strip in place of ???, i.e. 02-015-013-5200

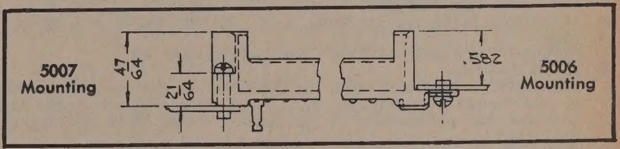
††PATTERN TYPES: Description: (Looking at Contact Legs, Plastic Down).

TYPE 5 | | | | | | | 1 Straight Row— Contacts Parallel to Each Other

TYPE 6 / / / / / / / 1 Row of Contacts Mounted at 45° Angle

SERIES 5006 & 5007 MINIATURE VARICON* PRINTED CIRCUIT CONNECTORS





SERIES 5006 & 5007 RECEPTACLE

- CONNECTOR BODY is constructed of a one-piece molding.
- GUIDES integrally molded in the end sections of the connector insure perfect mating of the printed circuit module card with the connector.
- MOUNTING is accomplished in two ways:
  Series 5006—End sections have projections for mounting in rectangular cutouts in metal panels as used in ELCO's VARIPAK* card cages. All connectors can be secured simultaneously by a common metal bar screwed to the connector panel.
  Series 5007—End sections with guides and mounting holes similar to Series 7001 for direct mounting to chassis.
- CONTACT CONFIGURATION is a single row of contacts on .200 spacing.
- ELCO CONTACTS, sold under the trade-mark VARICON, are available with terminations for .098" Base Taper Tab w/Wire Hole or Conventional Solder Termination for 3 Wires,
- POLARIZATION is accomplished simply by insertion of a polyethylene polarization insert. No loss of contact positions is incurred. Insert can be supplied loose or inserted in specified position at ELCO.

SERIES 5006 & 5007 PLUG

- SPECIFY CONTACT STRIP 02-???-013-5200
- PRINTED CIRCUIT MODULE CARD is punched or drilled and ELCO contacts staked in and soldered, forming the connector plug.
- HOLE PATTERN for the ELCO printed circuit contacts lies on a .200" grid, and should be held to ±.003" tolerance, non-accumulative, for hole locations. Hole diameter is .052 plus .000, minus .004.
- CONTACT STAKING to the printed circuit module is accomplished by using contacts embedded in a plastic strip (for handling and contact support), and ELCO staking tool T1215-1-1-4-4, or ELCO Staking Press AS-2.
- Request Bulletin 00-5006.

SPECIFICATIONS

Current Rating: 10 Amperes
Withstanding Voltage at Sea Level: 2500 Volts RMS (at 52% R.H.)
Withstanding Voltage at 3.4" Hg: 750 Volts, RMS
Contact Resistance (at rated current): 0.005 Ohm, Maximum
Insulation Resistance (dry): 25,000 Megohms, Minimum
Insulator Material: Diallyl Phthalate per MIL-M-14, Type SDG
Contact Material: Phosphor Bronze per QQ-B-750 Composition "A"

Plating:

Nickel Plate 0.000030" to 0.000150"
Gold Flash— 0.000010" to 0.000020"
} Elco Standard Plating

Military Specifications:

Applicable Portions of MIL-C-21097. Specified by MIL-E-19600 (WEP) Paragraph 3.5.5.

SERIES 5006

NEW ELCO No.	Old ELCO No.	†Contact Type	No. of Contacts
00-5006-012-163-005	5006-12-11-3-5-1	TT	12
00-5006-012-189-005	5006-12-12-3-5-1	CS	12
00-5006-015-163-005	5006-15-11-3-5-1	TT	15
00-5006-015-189-005	5006-15-12-3-5-1	CS	15
00-5006-020-163-005	5006-20-11-3-5-1	TT	20
00-5006-020-189-005	5006-20-12-3-5-1	CS	20
00-5006-023-163-005	5006-23-11-3-5-1	TT	23
00-5006-023-189-005	5006-23-12-3-5-1	CS	23
50-5006.3414	5006-3414—Polarizing Tab—1/16"		

†Contact Type: TT=.098" Taper Tab w/wire hole
CS=Conventional Solder Termination for 3 wires

SERIES 5007

NEW ELCO No.	Old ELCO No.	Contact Type	No. of Contacts
00-5007-012-163-001	5007-12-11-4-5-1	TT	12
00-5007-012-189-001	5007-12-12-4-5-1	CS	12
00-5007-019-163-001	5007-19-11-4-5-1	TT	19
00-5007-019-189-001	5007-19-12-4-5-1	CS	19
00-5007-020-163-001	5007-20-11-4-5-1	TT	20
00-5007-020-189-001	5007-20-12-4-5-1	CS	20
00-5007-024-163-001	5007-24-11-4-5-1	TT	24
00-5007-024-189-001	5007-24-12-4-5-1	CS	24

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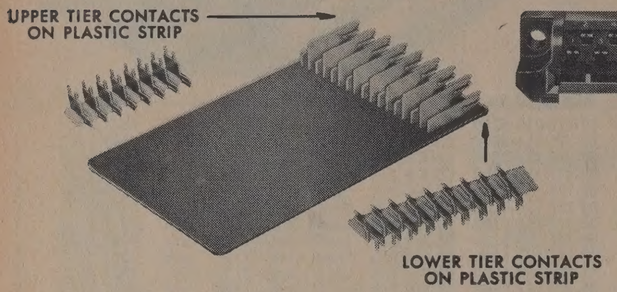
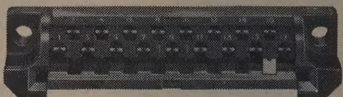
SERIES 7001 AND 7008
MINIATURE VARICON* PRINTED CIRCUIT CONNECTORS


UPPER TIER CONTACTS ON PLASTIC STRIP
LOWER TIER CONTACTS ON PLASTIC STRIP

7001


7008

- CONNECTOR BODY consists of a one-piece molding.
- GUIDES are integrally molded at each end of the connector to insure perfect mating of the printed circuit module card with the connector.
- MOUNTING of connector is accomplished with two .128″ diameter holes, one at each end of the connector. Connector can be mounted above chassis using card guides or below chassis with card guides omitted. When staked to the printed circuitry of a base card, use of the .128″ diameter mounting holes is optional.
- CONTACT CONFIGURATION is a double row of contacts, the center line of one row .125″ from the other. Contacts are on .200″ centers within each row. One row is offset .100″ from the other. The row of contacts nearest the card slot has one contact more than the adjacent row.
- ELCO Contacts, sold under the trade-mark VARICONS, are available for .078″ base taper tab or .098″ base taper tab with wire hole.
- STANDARD SIZES are available in 17, 23, 29, 35, 41 and 47 contacts.
- MODULE CARD SIZE of 1/16″ can be provided for.
- POLARIZATION:
  7001 SERIES—a tubular metal pin 7001.4012 is used for polarization at odd contact numbers; i.e., 3, 5, 7, etc. Use of the first and last positions for polarization is not recommended. Pins are factory assembled.
  7008 SERIES—A polyethylene insert is inserted into the card slot at even contact numbers; i.e., 2, 4, 6, etc. These can be factory assembled, or furnished loose for your own inserting. When ordering separately, specify part number 50-5006.3414 (1/16 card).
- NOTES:
  7001 and 7008 SERIES Connectors differ in two basic respects:
  1. Polarization (See "Polarization" above).
  2. Module card dimensions. The module card of the 7008 is .100″ wider (.050″ on each side) and .050″ longer (added to the connector end of the card).
- PRINTED CIRCUIT LOCATIONS should be held to plus or minus .003″ of true positions. Overall dimensions of a given pattern must not accumulate individual tolerances and should also be held to plus or minus .003″.
- REQUEST BULLETIN 00-7008.

SPECIFICATIONS

Current Rating: 10 Amperes.
Contact Resistance: 0.005 Ohm, Maximum.

Contact Material and Plating:
Phosphor Bronze per QQ-B-750, Composition A.
†Nickel plated, 30 to 150 Microinches, followed by gold flash, 10 to 20 Microinches.

Insulator Material:
Diallyl Phthalate, Glass Filled, per MIL-M-14F, Type SDG.

Insulation Resistance: 25,000 Megohms, minimum.
Dielectric Withstanding Voltage (at 52% Relative Humidity):
Sea Level: 2000 Volts RMS
3.4″ Hg: 675 Volts RMS
Withdrawal Force: 8 ounces per contact, average.
Military Specifications:
MIL-C-21097 (Bu. Ships)—Applicable portions.
MIL-E-19600 (Bu. Weps), Paragraph 3.5.5.

†ELCO Standard Plating shown. Other plating may be supplied at no additional cost.

SERIES 7001 WITH CARD GUIDES FOR 1/16 MODULE CARD

NEW ELCO No.	Old ELCO No.	No. of Contacts	Contact Type
00-7001-017-146-001	7001-17-5-1-1	17	A
00-7001-017-163-001	7001-17-5-1-11	17	B
00-7001-023-146-001	7001-23-5-1-1	23	A
00-7001-023-163-001	7001-23-5-1-11	23	B
00-7001-029-146-001	7001-29-5-1-1	29	A
00-7001-029-163-001	7001-29-5-1-11	29	B
00-7001-035-146-001	7001-35-5-1-1	35	A
00-7001-035-163-001	7001-35-5-1-11	35	B
00-7001-041-146-001	7001-41-5-1-1	41	A
00-7001-041-163-001	7001-41-5-1-11	41	B
00-7001-047-146-001	7001-47-5-1-1	47	A
00-7001-047-163-001	7001-47-5-1-11	47	B

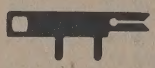
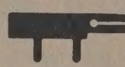
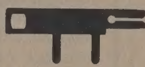
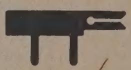
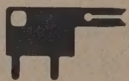
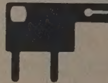
SERIES 7008 WITH CARD GUIDES FOR 1/16 MODULE CARD

NEW ELCO No.	Old ELCO No.	No. of Contacts	Contact Type
00-7008-017-146-001	7008-17-5-1-1	17	A
00-7008-017-163-001	7008-17-5-1-11	17	B
00-7008-023-146-001	7008-23-5-1-1	23	A
00-7008-023-163-001	7008-23-5-1-11	23	B
00-7008-029-146-001	7008-29-5-1-1	29	A
00-7008-029-163-001	7008-29-5-1-11	29	B
00-7008-035-146-001	7008-35-5-1-1	35	A
00-7008-035-163-001	7008-35-5-1-11	35	B
00-7008-041-146-001	7008-41-5-1-1	41	A
00-7008-041-163-001	7008-41-5-1-11	41	B
00-7008-047-146-001	7008-47-5-1-1	47	A
00-7008-047-163-001	7008-47-5-1-11	47	B

Contact Type: A—.078″ Base Taper Tab
B—.098″ Base Taper Tab w/wire hole

NEW ORDERING CODES FOR 7001 AND 7008 MODULE CARD CONTACT STRIPS

- NOTE: Two Contact Strips are required—one Lower Tier and one Upper Tier. The Lower Tier has two choices in either 1/16″ Card Size or 3/32″ Card Size. The Upper Tier has only one Contact for either Card Size.

NO. OF CONNECTOR CONTACTS	LOWER TIER				UPPER TIER	
	1/16″ CARD		3/32″ CARD		1/16″ CARD	3/32″ CARD
	 7001.043 (G)	 7001.1513 (H)	 7001.0423 (I)	 7001.1523 (J)	 7001.0513 (K)	 7001.0523 (L)
17	02-009-135-5200	02-009-147-5200	02-009-136-5200	02-009-148-5200	02-008-137-5200	02-008-138-5200
23	02-012-135-5200	02-012-147-5200	02-012-136-5200	02-012-148-5200	02-011-137-5200	02-011-138-5200
29	02-015-135-5200	02-015-147-5200	02-015-136-5200	02-015-148-5200	02-014-137-5200	02-014-138-5200
35	02-018-135-5200	02-018-147-5200	02-018-136-5200	02-018-148-5200	02-017-137-5200	02-017-138-5200
41	02-021-135-5200	02-021-147-5200	02-021-136-5200	02-021-148-5200	02-020-137-5200	02-020-138-5200
47	02-024-135-5200	02-024-147-5200	02-024-136-5200	02-024-148-5200	02-023-137-5200	02-023-138-5200

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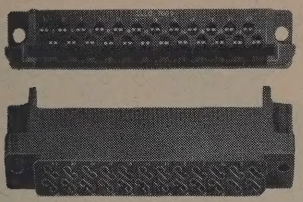
SERIES 7009 VARITWIN-PIN* PRINTED CIRCUIT CONNECTOR



RECEPTACLE

- CONNECTOR BODY is constructed of a one-piece molding.
- GUIDES integrally molded with the connector body insure perfect mating of the printed circuit module card with the connector.
- MOUNTING of the connector is accomplished by two .128'' diameter mounting holes, one at either end of the connector. Width of the connector is .580'' and permits mounting of adjacent connectors on .600'' centers.
- CONTACT CONFIGURATION is two rows of contacts on .200'' spacing, with .125'' between rows. One row is offset .100'' from the other, allowing .100'' spacing of contacts on the module card.
- ELCO Contacts, sold under the trade-mark VARITWIN-PIN, have bifurcated terminations and each will accept two series 53 taper pins. The terminal end of the contact with its dual positions, lies on a 53° angle with respect to the connector axis, and is recessed 95% into the connector body.
- SIZES AVAILABLE are in 24, 34 and 40 contacts.
- MODULE CARD SIZE is 1/16'' in thickness.
- POLARIZATION is accomplished simply by insertion of a polyethylene polarization tab. No loss of contact positions is incurred. This part can be supplied loose, or inserted at ELCO, according to customer's specifications. When ordering separately, specify part number 5006.3414.

PLUG

- PRINTED CIRCUIT MODULE CARD is punched or drilled and ELCO contacts staked and soldered in, forming the plug part of the connector.
- HOLE PATTERN for the ELCO printed circuit contact lies on a .100'' grid, and should be held to ±.003'' tolerance, non-accumulative, for hole locations. Hole diameter is .052, plus .002, minus .004.
- CONTACT STAKING to the printed circuit module is accomplished by using contacts embedded in a plastic strip (for handling and contact support), and ELCO staking tool T1215-1-1-4-4, or ELCO Staking Press AS-1.
- REQUEST BULLETIN 00-7009.

SPECIFICATIONS

Current Rating: 10 Amperes.

Withstanding Voltage at Sea Level: 1,800 Volts, AC, RMS.

Withstanding Voltage at 3.4'' Hg: 600 Volts, AC, RMS.

Contact Resistance (at rated current): 0.0003 Ohm, Max.

Insulation Resistance (dry): 1,000 Megohms, Min.

Insulator Material: Diallyl Phthalate per MIL-M-18794, Type SDG.

Contact Material and Plating: Phosphor Bronze (per QQ-P-330, Grade "A"). Nickel Plate (0.0002''). Gold Flash (0.000010'' to 0.000015'')

Military Specification: MIL-E-19600A (Wep)

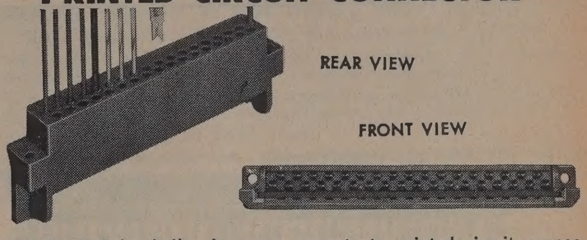
RECEPTACLE

NEW ELCO No.	Old ELCO No.	No. of Contacts	Card Guides
00-7009-024-193-001	7009-24-5-1-22	24	With
00-7009-034-193-001	7009-34-5-1-22	34	With
00-7009-034-193-002	7009-34-5-2-22	34	Without
00-7009-040-193-001	7009-40-5-1-22	40	With
00-7009-040-193-002	7009-40-5-2-22	40	Without

PLUG (WIRE HOLE TYPE CONTACTS)

NEW ELCO No.	Old ELCO No.	No. of Contacts
02-012-137-5200 02-012-135-5200	7009-CS-24-GK	24
02-017-137-5200 02-017-135-5200	7009-CS-34-GK	34
02-020-137-5200 02-020-135-5200	7009-CS-40-GK	40

SERIES 7015 MINIATURE VARILOK* PRINTED CIRCUIT CONNECTOR



- SERIES 7015 is similar in many respects to printed circuit connector SERIES 7008. The basic difference is in the contacts used in the receptacles. While SERIES 7008 accepts contacts of many different terminations, SERIES 7015 employs only ELCO crimp-and-insert Contacts, sold under the trade-mark VARILOK, pre-crimped to wires and inserted in the receptacle insulator by the user. Removal of contacts with wires attached is readily accomplished by use of a small hand tool, for the purposes of repair, or reprogramming of the connector wiring. Module cards of both SERIES 7008 and 7015 are completely interchangeable.
- CONNECTOR BODY consists of a one-piece molding.
- GUIDES are integrally molded at each end of the connector to insure perfect mating of the printed circuit module card with the connector, and may be omitted at user's option.
- MOUNTING of connector is accomplished with two .128'' diameter holes, one at each end of the connector. Connector can be mounted above chassis using card guides or below chassis with card guides omitted.
- CONTACT CONFIGURATION is a double row of contacts, the center line of one row .125'' from the other. Contacts are on .200'' centers within each row. One row is offset .100'' from the other. The row of contacts nearest the card slot has one contact more than the adjacent row.
- CONTACTS: The VARILOK* contact is used in these receptacles, and may be furnished loose, or on continuous reels for automatic crimping to the wire leads.
- STANDARD SIZES are available in 17, 23, 29, 35, 41 and 47 contacts.
- MODULE CARD SIZES 1/16'' can be provided for.
- POLARIZATION:
  Type A—A polyethylene insert is placed into the card slot at even contact numbers; i.e., 2, 4, 6, etc. These can be factory assembled, or furnished loose for your own insertion. 5006.3414.
  Type B—A polyethylene insert is used for polarization at odd contact numbers; i.e., 3, 5, 7, etc. Use of the first and last positions for polarization is not recommended. Inserts are factory assembled, or furnished loose for your own inserting. 7012.3214.
- PRINTED CIRCUIT HOLE LOCATIONS should be held to within .003'' of true positions.
- REQUEST BULLETIN 00-7015.

SPECIFICATIONS

Current Rating: 10 Amperes.

Contact Resistance: 0.005 Ohm, Maximum.

Contact Material and Plating: Phosphor Bronze per QQ-B-750, Composition A. Nickel plated, 30 to 150 Microinches, followed by gold flash, 10 to 20 Microinches.

Insulator Material: Diallyl Phthalate, Glass Filled per MIL-M-14F, Type SDG.

Insulation Resistance: 25,000 Megohms, Minimum.

Dielectric Withstanding Voltage (at 52% Relative Humidity): Sea Level: 2000 Volts RMS. 3.4'' Hg: 675 Volts RMS.

Withdrawal Force: 8 ounces per contact, average.

Military Specifications: MIL-C-21097 (Bu. Ships)—Applicable Portions. MIL-E-19600 (Bu. Weps), Paragraph 3.5.5.

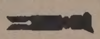
SERIES 7015 — WITH CARD GUIDES FOR 1/16'' MODULE CARD

NEW ELCO No.	Old ELCO No.	No. of Contacts
00-7015-017-000-001	7015-17-5-1-27	17
00-7015-023-000-001	7015-23-5-1-27	23
00-7015-029-000-001	7015-29-5-1-27	29
00-7015-035-000-001	7015-35-5-1-27	35
00-7015-041-000-001	7015-41-5-1-27	41
00-7015-047-000-001	7015-47-5-1-27	47

SERIES 7015—WITHOUT CARD GUIDES FOR 1/16'' MODULE CARD

NEW ELCO No.	Old ELCO No.	No. of Contacts
00-7015-017-000-002	7015-17-5-2-27	17
00-7015-023-000-002	7015-23-5-2-27	23
00-7015-029-000-002	7015-29-5-2-27	29
00-7015-035-000-002	7015-35-5-2-27	35
00-7015-041-000-002	7015-41-5-2-27	41
00-7015-047-000-002	7015-47-5-2-27	47

CONTACTS ARE ORDERED AS A SEPARATE ITEM

50-8017-0313  FOR USE WITH VARILOK* HAND CRIMPING TOOL

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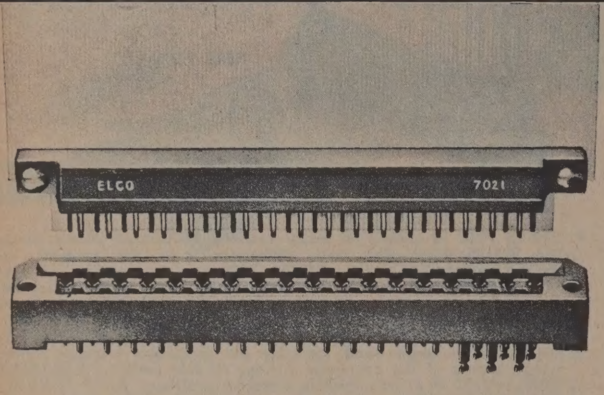
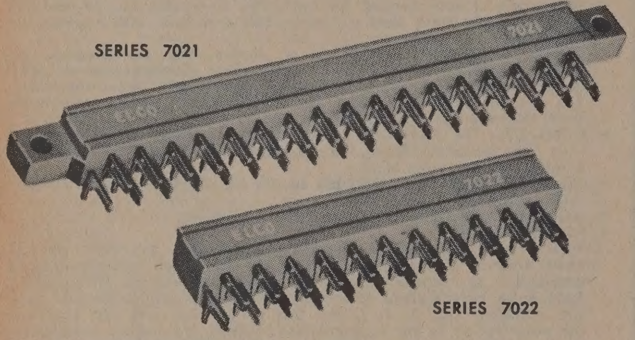
NEW SERIES 7021 AND 7022
ALL-MOLDED, DOUBLE TIER, MINIATURE VARICON* CONNECTOR PLUGS



NEW ELCO SERIES 7021 CARD-EDGE MOUNTED CONNECTOR PLUG SHOWN WITH MATING SERIES 7000 FEMALE RECEPTACLE WITHOUT MOLDED GUIDES.



- New, one-piece molded body provides full protection for lower and upper tier printed circuit module card contacts of the 7000 Series family.
- One fully assembled unit replaces lower and upper card contacts supplied on removable plastic strips. High rigidity of the all-molded body minimizes card warpage at the point of connection for perfect mating with receptacle.
- ELCO Contacts, sold under the trade-mark VARICON, are securely bonded into slots of the insulator, thereby maintaining precise spacing between contacts for perfect mating, resulting in low insertion and withdrawal values, low wear, low contact resistance and long life.
- Lower and upper tier contacts are each equipped with only one leg, instead of double legs, thereby:
  - a. Reducing cost of producing module cards, because only two rows of holes must be drilled or punched instead of four.
  - b. Simplifying the printed circuit layout with the result of larger distance between adjacent printed circuit pads.
  - c. Reducing cost of staking because lower and upper tier contacts can be staked simultaneously instead of each row individually.
- One solid unit with lower and upper tier contacts bonded in position reduces assembly cost. Connector plug can be mounted directly to printed circuit module, and at customer's option staked and soldered in place or merely dip-soldered without staking. Assembly time to remove plastic strip is omitted.
- Plugs are supplied two ways:
  1. *Type 7021* with mounting ears to be used with connectors of the 7000 Series type *without* molded guides.
  2. *Type 7022* for use with 7000 Series connectors *with* molded-on guides.
- REQUEST BULLETIN 00-7021.

SPECIFICATIONS

Current Rating: 10 Amperes

Contact Resistance: .005 Ohm (Max.)

Contact Material and Plating:
Phosphor Bronze per QQ-B-750, Comp. "A"—
Nickel plated and gold flashed

Insulator Material:
Diallyl Phthalate, Glass filled per MIL-M-14F, Type SDG

Insulation Resistance: 25,000 Megohms (Min.)

Dielectric Withstanding Voltage (At 52% Relative Humidity): Sea Level: 2000 Volts RMS
3.4 Hg: 675 Volts RMS

Withdrawal Force: 8 ounces average per contact (approximate)

Military Specifications:
MIL-C-21097 (Bu. Ships) Applicable Portions
MIL-E-19600 (Bu. Weps) Paragraph 3.5.5.

SERIES 7021 — W/MOUNTING FLANGE

FOR 1/16" MODULE CARD		FOR 3/32" MODULE CARD	
Model No.	**No. of Contacts**	**Model No.**	**No. of Contacts**
00-7021-017-000-001	17	00-7021-017-000-002	17
00-7021-023-000-001	23	00-7021-023-000-002	23
00-7021-029-000-001	29	00-7021-029-000-002	29
00-7021-034-000-001	34	00-7021-035-000-002	35
00-7021-035-000-001	35	00-7021-041-000-002	41
00-7021-040-000-001	40	00-7021-047-000-002	47
00-7021-041-000-001	41		
00-7021-047-000-001	47		

SERIES 7022 — W/O MOUNTING FLANGE

FOR 1/16" MODULE CARD		FOR 3/32" MODULE CARD	
Model No.	**No. of Contacts**	**Model No.**	**No. of Contacts**
00-7022-017-000-001	17	00-7022-017-000-002	17
00-7022-023-000-001	23	00-7022-023-000-002	23
00-7022-029-000-001	29	00-7022-029-000-002	29
00-7022-034-000-001	34	00-7022-035-000-002	35
00-7002-035-000-001	35	00-7022-041-000-002	41
00-7022-040-000-001	40	00-7022-047-000-002	47
00-7022-041-000-001	41		
00-7022-047-000-001	47		

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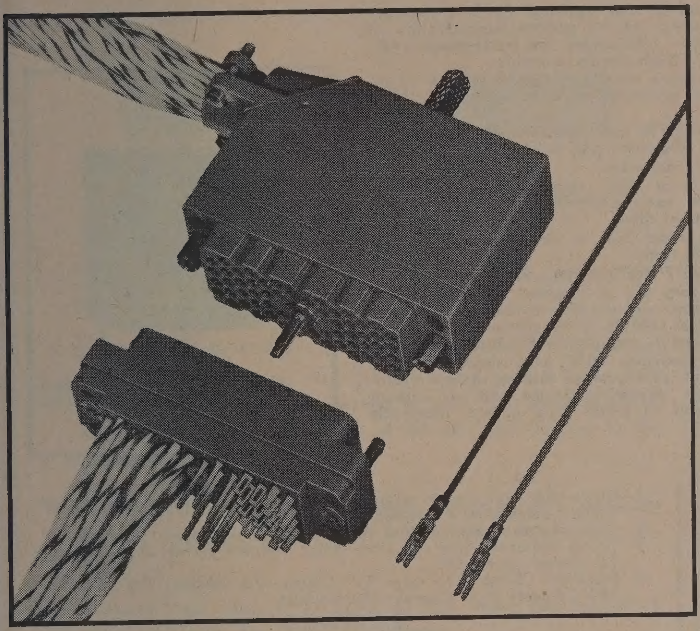
SERIES 8016 CRIMP-AND-INSERT VARILOK* RACK-AND-PANEL CONNECTOR



Most Economical of its Type Offering Proven Reliability of ELCO Connectors, Sold Under the Trade-Mark VARICON

- Offers high-contact density (more than existing types) for cable-to-cable, cable to chassis, and rack-and-panel applications!
- Sturdy polycarbonte insulator designed to accommodate pre-crimped VARILOK* Contacts, which may be inserted and removed at will!
- Available in 38 and 56 contact sizes!
- Most recent adaptation of ELCO VARICON* Contacts, offering the proven reliability and greater contact area of tuning-fork design with 4 coined mating surfaces!
- Factory-installed taper tab and wire wrap terminals also available!
- Only the purchase of required number of contacts is necessary!
- Features single center-post actuating screw, for easiest engagement and disengagement. May be factory assembled either to plug or receptacle!
- Die-cast zinc cover, with choice of side or top cable entry and cable clamp, also available!
- Polarizing guide pins and sockets also provided and may be arranged in variety of combinations!
- Contacts are on .150" honeycomb grid!
- Mounting interchangeable with several existing types (with addition of contacts)!
- REQUEST BULLETIN 00-8016.

SPECIFICATIONS

Current Rating: 10 Amperes

Dielectric Withstanding Voltages at Sea Level—1800 Volts AC, RMS at 50,000 ft. (3.44" of Hg.) —675 Volts, AC, RMS

Contact Resistance—.005 Ohms, Maximum

Insulation Resistance (dry)—25,000 Megohms, Minimum

Contact Secureness (VARILOK*)—15 lbs. Minimum after 5 Cycles of Engagement and Disengagement.

Contact Life (Insertion and Withdrawal) 1000 Cycles Minimum

38 CONTACT PLUG—VARILOK* CONTACTS†

Model Number	Cover	Position of Cable Opening	Type of Hardware
00-8016-038-000-001	None	None	Actuating Screw
00-8016-038-000-002	None	None	Fixed Nut
00-8016-038-000-003	With	Top	Actuating Screw
00-8016-038-000-004	With	Side	Actuating Screw
00-8016-038-000-005	With	Top	Fixed Nut
00-8016-038-000-006	With	Side	Fixed Nut

38 CONTACT RECEPTACLE—VARILOK* CONTACTS†

00-8016-038-000-007	None	None	Fixed Nut
00-8016-038-000-008	None	None	Actuating Screw
00-8016-038-000-009	With	Top	Actuating Screw
00-8016-038-000-010	With	Side	Actuating Screw
00-8016-038-000-011	With	Top	Fixed Nut
00-8016-038-000-012	With	Side	Fixed Nut

†VARILOK CONTACTS MUST BE ORDERED SEPARATELY 50-8017-0313

38 CONTACT PLUG—.098" TAPER TABS W/WIRE HOLE CONTACTS

00-8016-038-217-001	None	None	Actuating Screw
00-8016-038-217-002	None	None	Fixed Nut
00-8016-038-217-003††	With	Top	Actuating Screw
00-8016-038-217-004††	With	Side	Actuating Screw
00-8016-038-217-005††	With	Top	Fixed Nut
00-8016-038-217-006††	With	Side	Fixed Nut

38 CONTACT RECEPTACLE—.098" TAPER TAB W/WIRE HOLE

00-8016-038-217-007	None	None	Fixed Nut
00-8016-038-217-008	None	None	Actuating Screw
00-8016-038-217-009††	With	Top	Actuating Screw
00-8016-038-217-010††	With	Side	Actuating Screw
00-8016-038-217-011††	With	Top	Fixed Nut
00-8016-038-217-012††	With	Side	Fixed Nut

56 CONTACT PLUG—VARILOK* CONTACTS††

00-8016-056-000-001	None	None	Actuating Screw
00-8016-056-000-002	None	None	Fixed Nut
00-8016-056-000-003	With	Top	Actuating Screw
00-8016-056-000-004	With	Side	Actuating Screw
00-8016-056-000-005	With	Top	Fixed Nut
00-8016-056-000-006	With	Side	Fixed Nut

56 CONTACT RECEPTACLE—VARILOK* CONTACTS†

Model Number	Cover	Position of Cable Opening	Type of Hardware
00-8016-056-000-007	None	None	Fixed Nut
00-8016-056-000-008	None	None	Actuating Screw
00-8016-056-000-009	With	Top	Actuating Screw
00-8016-056-000-010	With	Side	Actuating Screw
00-8016-056-000-011	With	Top	Fixed Nut
00-8016-056-000-012	With	Side	Fixed Nut

†VARILOK CONTACTS MUST BE ORDERED SEPARATELY—50.8017.0313

56 CONTACT PLUG—.098" TAPER TAB W/WIRE HOLE CONTACTS

00-8016-056-217-001	None	None	Actuating Screw
00-8016-056-217-002	None	None	Fixed Nut
00-8016-056-217-003††	With	Top	Actuating Screw
00-8016-056-217-004††	With	Side	Actuating Screw
00-8016-056-217-005††	With	Top	Fixed Nut
00-8016-056-217-006††	With	Side	Fixed Nut

56 CONTACT RECEPTACLE—.098" TAPER TAB W/WIRE HOLD CONTACTS

00-8016-056-217-007	None	None	Fixed Nut
00-8016-056-217-008	None	None	Actuating Screw
00-8016-056-217-009††	With	Top	Actuating Screw
00-8016-056-217-010††	With	Side	Actuating Screw
00-8016-056-217-011†	With	Top	Fixed Nut
00-8016-056-217-012††	With	Side	Fixed Nut

OTHER CONTACT WIRING TAILS AVAILABLE—.078 TAPER TAB—SUBSTITUTE 216 IN PLACE OF 217 IN ORDERING CODE. (00-8016-038-216-007). KELLER WIRE WRAP—SUBSTITUTE 216 IN PLACE OF 217 IN ORDERING CODE.

††WHEN THESE CONTACTS ARE USED, AUXILIARY INSULATION ON EACH CONTACT TERMINATION IS REQUIRED. THE ABILITY TO APPLY THE COVER SHOULD BE DETERMINED EXPERIMENTALLY IN EACH CASE DUE TO VARIATIONS IN WIRE SIZE, INSULATION THICKNESS, NUMBER OF CONDUCTORS, ETC.

Covers—(Loose)

New Model No.	No. of Contacts	Position of Cable Opening
00-8016-038-000-100	38	Side
00-8016-038-000-101	38	Top
00-8016-056-000-100	56	Side
00-8016-056-000-101	56	Top

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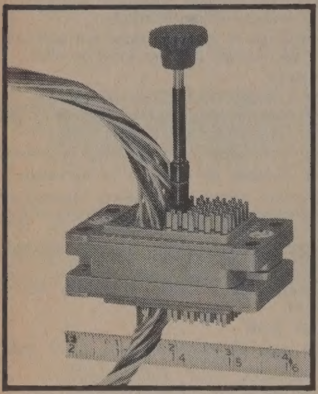
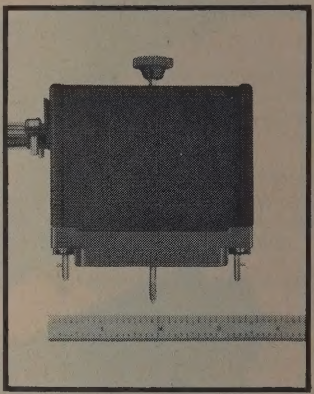
Connectors shown are most standard styles and readily available; request referenced Bulletins as guide to others available.

SERIES 8017
MINIATURE VARICON* RACK AND PANEL CABLE CONNECTORS



- SERIES 8017 adds the feature of the optional ELCO crimp-and-insert VARILOK* contact assembly to the proven dependability of factory-installed ELCO Contacts, sold under the trade-mark VARICON; and offers a number of high-density patterns.
- CONNECTOR BODY is of one-piece molded construction. Rear of insulator has been extended to accommodate extra length of VARILOK* contacts.
- GUIDE PINS AND GUIDE SOCKETS are provided at each end of the connector to insure proper alignment and to provide polarization.
- MOUNTING HOLES are .125″ in diameter.
- CONTACT CONFIGURATION is at .150″ spacing, with from 4 to 8 contacts per row. Alternate rows are offset .075″. Actual size of connector determines number of rows.
- CONTACTS, available include taper tab, in addition to VARILOK* contacts in both single and strip form.
- STANDARD SIZES for Series 8017 are 75, 100, and 130 contacts.
- POLARIZATION may be set at any one of hundreds of possible positions by interchanging guide pins and sockets provided. ELCO Polarizing Pin and Socket Tool #06-1480-05 gives customers capability of changing polarization without reshipment to factory.
- SCREW ACTUATING DEVICE provides 8017 with simple, reliable engagement and disengagement, plus positive locking against vibration and accidental separation. Actuating Device with or without cover can be factory-assembled to either plug or the receptacle section of connector.
- REQUEST BULLETIN 00-8017.



SPECIFICATIONS

Current Rating: 5 Amperes
Contact Resistance: 0.005 Ohm, Maximum
Contact Material and Plating
Phosphor Bronze per QQ-B-750, Composition A.
Nickel plated, 30 to 150 Microinches, followed by gold flash, 10 to 20 Microinches.
Insulator Material:
Diallyl Phthalate, Glass Filled, per MIL-M-14F, Type SDG.
Insulation Resistance: 25,000 Megohms, minimum.
Dielectric Withstanding Voltage (at 52% Relative Humidity):
Sea Level: 350 Volts RMS
3.4″ Hg: 600 Volts RMS
Withdrawal Force: 8 ounces per contact, average.
Military Specifications:
MIL-C-21097 (Bu. Ships)—Applicable portions.
MIL-F-19600 (Bu. Weps), Paragraph 3.5.5.

PLUGS

NEW ELCO No.	Old ELCO No.	No. of Contacts	Type Locking Device††	Cover/ Cable Outlet
00-8017-075-000-002	M8017-75-1†	75	FN	None
00-8017-075-201-002	M8017-75-6	75	FN	None
00-8017-075-000-004	MS8017-75-1-CS†	75	AS	With/Side
00-8017-075-201-004	MS8017-75-6-CS	75	AS	With/Side
00-8017-100-000-002	M8017-100-1†	100	FN	None
00-8017-100-201-002	M8017-100-6	100	FN	None
00-8017-100-000-004	MS8017-100-1-CS†	100	AS	With/Side
00-8017-100-201-004	MS8017-100-6-CS	100	AS	With/Side
00-8017-130-000-002	M8017-130-1†	130	FN	None
00-8017-130-201-002	M8017-130-6	130	FN	None
00-8017-130-000-004	MS8017-130-1-CS†	130	AS	With/Side
00-8017-130-201-004	MS8017-130-6-CS	130	AS	With/Side

1. Guide pins and sockets with polarizing feature supplied on all sizes, factory assembled in Position 1.
2. Cover Material: Steel—Black Wrinkle Finish.
3. Clamp Material: Steel or Zinc—Black Wrinkle Finish (Steel for only 75 contact connector.)
4. Standard Clamp Sizes are: 3/4″ Clamp—75 Contact; 1 1/8″ Clamp—100 Contact: 1 1/8″ Clamp—130 Contact.

RECEPTACLES

NEW ELCO No.	Old ELCO No.	No. of Contacts	Type Locking Device††	Cover/ Cable Outlet
00-8017-075-000-007	F8017-75-1†	75	FN	None
00-8017-075-201-007	F8017-75-6	75	FN	None
00-8017-075-000-012	FS8017-75-1-CS†	75	AS	With/Side
00-8017-075-201-012	FS8017-75-6-CS	75	AS	With/Side
00-8017-100-000-007	F8017-100-1†	100	FN	None
00-8017-100-201-007	F8017-100-6	100	FN	None
00-8017-100-000-012	FS8017-100-1-CS†	100	AS	With/Side
00-8017-100-201-012	FS8017-100-6-CS	100	AS	With/Side
00-8017-130-000-007	F8017-130-1†	130	FN	None
00-8017-130-201-007	F8017-130-6	130	FN	None
00-8017-130-000-012	FS8017-130-1-CS†	130	AS	With/Side
00-8017-130-201-012	FS8017-130-6-CS	130	AS	With/Side

VARILOK* TOOLS

NEW ELCO No.	Old ELCO No.	Description
06-1877-02	T1877-2	Withdrawal Tool
06-1742-02	T1742	Insertion Tool
06-1728-02	T1728-2	Crimping Tool

‡VARILOK Units—Varilok* Contacts 50-8017-0313 must be ordered separately.

††TYPE LOCKING DEVICE FN—FIXED UNIT
AS—ACTUATING SCREW

ELCO-VECTOR PLUGBORD AND RECEPTACLES

Ideal for printed circuit prototypes, plug-in test circuits and computer cards. Saves time and money. Permits circuit changes with simple hand tools. Several cards may be used in conjunction with each other by wiring connections between receptacles. CARD MATERIAL: Epoxy paper 1/16″ thick, suffix WE (example: 837WE) indicates Epoxy glass card. Pattern "G", 0.062 holes on alernate 0.1″ grid.
CONTACTS—ELCO VARICON* Contacts, phosphor bronze, .0002 nickel plated and gold flashed on both card and receptacle.
RECEPTACLE—One piece glass filled Diallyl Phthalate insulator with .078 base taper tab termination. Models R612-1 and R616-1 supplied without P. C. Card Guides, Model R635 with Guides.
USE: Graph paper 10 squares per inch, may be used for initial circuit layout. Push-in terminals are then positioned on card as designed in layout. Contacts are soldered to staked eyelets on bottom edge for terminations. Bare wire may be used for inter-component connections. REQUEST BULLETIN 02-5000.

PLUGBORD

ELCO/ Vector No.	Contacts	Size, In Width x Lgth.
812	16	4½ x 6½
812WE	16	4½ x 6½
837	12	3 x 4½
837WE	12	3 x 4½
848WE	35	4½ x 6½

RECEPTACLES

ELCO/ Vector No.	Contacts	ELCO No.
R612-1	12	5009-12-5-2-1
R616-1	16	5009-16-5-2-1
R635	35	7008-35-5-1-1

ACCESSORY HARDWARE

ELCO No.	Description
T28	Terminals
15.22	Eyelets
P.91	Pusher Tool

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Connectors shown are most standard styles and readily available; request referenced Bulletins as guide to others available.

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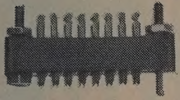
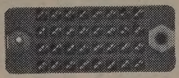
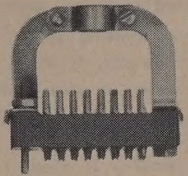
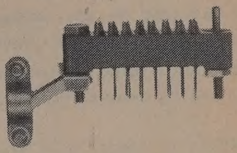
SERIES 8125
SUB-MINIATURE VARICON* CONNECTOR


00-8125-032-606-01


00-8125-032-605-002
TOP VIEW


00-8125-032-614-021


00-8125-032-616-026

- CONNECTOR BODY consists of two sections, a plug and a receptacle, each of one-piece molded construction.
- GUIDE PINS AND SOCKETS are factory assembled. One guide pin and one guide socket are mounted in different sized holes in each insulator, thereby permitting mating in only one position. Extra-thick guide pins prevent bending of the pins and damage to the contacts during disconnect.
- MOUNTING is by means of two studs, extending from the guide pin and guide socket respectively, which screw directly into the chassis.

Units Above Right Have ELCO Contacts, Sold Under the Trade-Mark VARICON, for .098″ Base Taper Tab.

- CONTACT CONFIGURATION is 4 rows of 8 contacts each, with spacing between rows of .125″.
- POLARIZATION is by means of a small locating pin which fits into a slot on one side of the guide socket. Six positions are possible for each guide pin and socket, resulting in 36 polarization possibilities. Unless otherwise specified, polarization will be factory inserted in Position 1.
- ACCESSORIES include top or side Cable Clamp, Potting Shell with or without flange, Locking Clips, and Honeycomb Insulator.
- REQUEST BULLETIN 00-8125.

SPECIFICATIONS

Current Rating: 3 Amperes.

Contact Resistance: 0.005 Ohm, Maximum.

Contact Material and Plating:
Phosphor Bronze per QQ-B-750, Composition A.
†Nickel plated, 30 to 150 Microinches, followed by gold flash, 10 to 20 Microinches.

Insulator Material:
Diallyl Phthalate, Glass Filled, per MIL-M-14F, Type SDG.

Insulation Resistance: 25,000 Megohms, minimum.

Dielectric Withstanding Voltage (at 52% Relative Humidity):
Sea Level: 1350 Volts RMS.
3.4″ Hg: 600 Volts RMS.

Withdrawal Force: 8 ounces per contact, average.

Military Specifications:
MIL-C-21097 (Bu. Ships)—Applicable portions.
MIL-E-19600 (Bu. Weps), Paragraph 3.5.5.

†ELCO Standard Plating shown. Other plating may be supplied at additional cost.

New ELCO No.	Old ELCO No.	Plug/ Receptacle	Hardware†
00-8125-032-605-001	8125-P-32-2-N-O-Y	P	O
00-8125-032-605-002	8125-R-32-2-N-O-Y	R	O
00-8125-032-605-005	8125-P-32-2-I-O-Y	P	PS
00-8125-032-605-006	8125-R-32-2-I-O-Y	R	PS
00-8125-032-605-021	8125-P-32-2-N-T-Y	P	TCC
00-8125-032-605-022	8125-R-32-2-N-T-Y	R	TCC
00-8125-032-605-025	8125-P-32-2-N-S-Y	P	SCC
00-8125-032-605-026	8125-R-32-2-N-S-Y	R	SCC

†HARDWARE: O—No Hardware PS—Potting Shell with Flange—Top Hole TCC—Top Cable Clamp SCC—Side Cable Hole

ACCESSORIES (LOOSE)

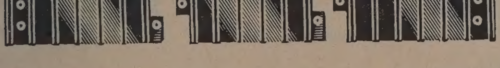
POTTING SHELL W/FLANGE

NEW ELCO No.	Old ELCO No.	Description
50-8105-3315	8105.3315	Top Cable Hole

CABLE CLAMP

NEW ELCO No.	Old ELCO No.	Description
50-8105.4011	8105.4011	Side Mounted
50-8105.4311	8105.4311-(2)	Top Mounted

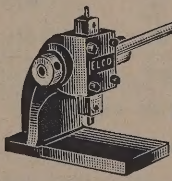
SERIES 9011, 9012 GUIDE STRIPS



Guide strips are ideal time and labor savers designed for use in printed circuit packaging. Reduce engineering and production costs. Printed circuit modules are guided smoothly and accurately when insertion is made into the unit. Guide strips are for 1/16″ boards, at .750″ spacing, and are made of glass filled Diallyl Phthalate. Series 9011 guide strips are assembled as "building blocks." Sectional arrangement allows the designer to include as many strips as the equipment may require, in increments of seven guide locations. Series 9012 guide strips are wider and longer than Series 9011, and can be utilized in a similar fashion. Request Bulletin 03-9011.

NEW ELCO No.	Old ELCO No.	Description
53-9011.3011	†9011.3011	Right Guard—2″ high
53-9011.3021	9011.3021	Center Guide—2″ high
53-9011.3031	†9011.3031	Left Guide—2″ high
53-9012.3029	9012.3029	Right Guide—3⅞″ high
53-9012.3019	9012.3019	Left Guide—3⅞″ high

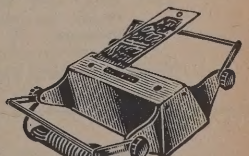
†Right hand and left hand guide may be substituted for each other.



HAND STAKER

Offers laboratory and prototype staking of ELCO printed circuit contacts, sold under the trademark VARICON. Accommodates staking of most types of contacts presently available on model shop or laboratory basis. Punches for microcon and miniature printed circuit contacts. Rating: ¼ ton. Ram Dimensions: ½″ x ½″ x 2½″. Ram Stroke: 13/16″. Height of Opening: 1⅛″. Throat Depth from Center of Ram: 1″. Working Surface: 2″ x 2⅞″.
ELCO No. 06-1856 (HS-1)
REQUEST BULLETIN 06-1856.

HEATING PLATEN



Designed for removal of plastic strips from ELCO printed circuit contacts, sold under the trademark VARICON. Supplied on plastic strips to facilitate handling and staking to printed circuit cards. Heating Platen T-1751 is designed for easy removal of the plastic strips after contact staking and soldering operations are completed. Platen is 10″ long.
ELCO No. 06-1751 (T-1751)
REQUEST BULLETIN 06-1751.

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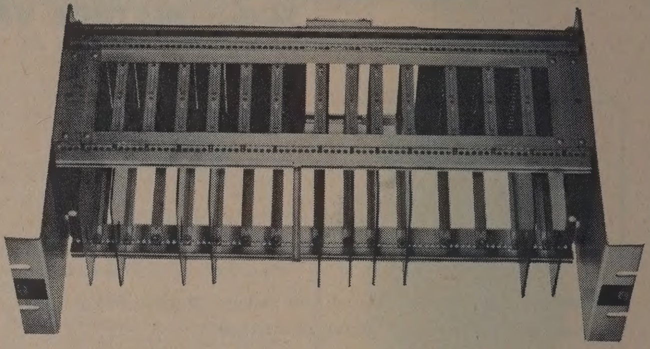
SERIES 9016 VARIPAK* PRINTED CIRCUIT CARD ENCLOSURE



VARIPAK* is our new, improved printed card enclosure, designed to be adapted to any packaging technique utilizing printed or etched circuitry, and to provide maximum density. It holds the printed circuit cards and printed circuit connectors in correct alignment; and its adaptability to any packaging program is universal.

VARIPAK* is made in 4 standard sizes, making it possible to package all 4.500 wide printed circuit cards.

VARIPAK* is made completely of aluminum. Guide Plate is extruded aluminum 6063-T6. Mounting Hanger and Connector Panel are made of No. 14 gauge aluminum 6061-T4. Guides are polycarbonate plastic with a temperature rating of 280°-300°F. A commercially approved clear anodize finish is applied to all aluminum parts.

- VARIPAK* has these additional features:
  1. Simplicity of Card Guide design offers greater strength.
  2. Guides can be easily inserted into Guide Plate and also quickly removed from any position without damage to either the Guide or the Guide Plate.
  3. Card Guides have sufficient float to allow for any tolerance accumulation between the Card Guide and connectors.
  4. Guide Plate fabrication from extruded aluminum provides a much stronger unit.
  5. Connector Panel is assembled with machine screws and nuts rather than self-tapping sheet metal screws.
- CONNECTOR PANEL—Available for two types of connector mounting—panel type and strap type. Strap type ⅛'' thick, ¾'' wide aluminum strap mounted to each Guide Plate. The Connector Panel is a precision blanked part especially designed with "Datum Center Lines" and carefully toleranced holes. The "Datum Center Lines" should be used as base lines from which the connector cutouts are dimensioned. This will insure the best alignment of Guide, printed circuit cards and connectors.
- GUIDE PLATE—Available in various sizes. Has provisions to mount VARIPAK* Guides in 82 different positions on a .200'' grid. Any equal or variable spacing may be selected to suit the space required for components of the printed circuit cards. The greatest density possible is 41 guides on a .400'' spacing.
- VARIPAK* GUIDES—Made of polycarbonate and offer excellent dilectric properties combined with high mechanical strength. Temperature rating is 280°-300°F. Designed to snap in place in any of 82 positions provided in the Guide Plate. Available in three printed circuit card thicknesses—1/16'', 1/32'' and 1/8''. Quickly removable from any position without damage to either Guide or Guide Plate.
- ACCESSORIES—The following are accessory parts supplied on request at additional cost:

  Marker Strip—An extruded flexible white polyvinyl strip provides an area upon which component identification can be imprinted.

  Front Panel—A panel of 14 gauge aluminum 6061-T4 with a commercial or military clear anodize finish. Hinge and mounting hardware can be provided to serve a decorative, protective or functional purpose.

  Brace—With material and finish the same as the front panel, the brace rigidizes the enclosure further assuring its functional operation. One brace is supplied with each standard unit. If requested, additional braces can be furnished at extra cost.
- REQUEST BULLETIN 03-9016.

Units listed on right use 4.50'' wide printed circuit cards. Height of the unit is 5.218'' and is adjustable 1'' either way. The vertical distance between mounting holes is 2¼''. Unit measures 19'' long with standard mounting slots pre-cut.

NEW ELCO No.	Old ELCO No.	Depth of Guide Plate	Depth of Unit	Inside Distance Between Guide Plate
03-9016-02-1	9016-2-P	4″	5½″	4.560″
03-9016-06-1	9016-6-P	5½″	8½″	4.560″
03-9016-10-1	9016-10-P	7″	8½″	4.560″
03-9016-14-1	9016-14-P	8″	11″	4.560″

Above units have blank connector panels. Substitute "2" in place of "1" for ¾″ wide mounting straps.

PART NUMBERS FOR VARIPAK* GUIDES

Part Number	Nominal P.C. Card Thickness	Will Fit Assemblies
53-9016.1201	1/16	02
53-9016.1202	3/32	
53-9016.1203	1/8	
53-9016.1204	1/16	06
53-9016.1205	3/32	
53-9016.1206	1/8	
53-9016.1207	1/16	10
53-9016.1208	3/32	
53-9016.1209	1/8	
53-9016.1210	1/16	14
53-9016.1211	3/32	
53-9016.1212	1/8	

Snap Rivet Supplied with Each Guide.
All guides are supplied in light grey color.

PART NUMBERS FOR VARIPAK* GUIDE PLATES†††

Part Number	Depth	Overall Length
53-9016.1301	4″	16⅞″
53-9016.1302	5½″	
53-9016.1303	7″	
53-9016.1304	8″	

†††Use this ordering code when ordering guide plates individually for use in drawer assemblies, etc.

Code	Front Panel	Marker Strip
Add this Suffix to Model Number	53-9016. 2201	53-9016. 2402
00.	No	No
01.	No	Yes
02.	Yes	No
03.	Yes	Yes

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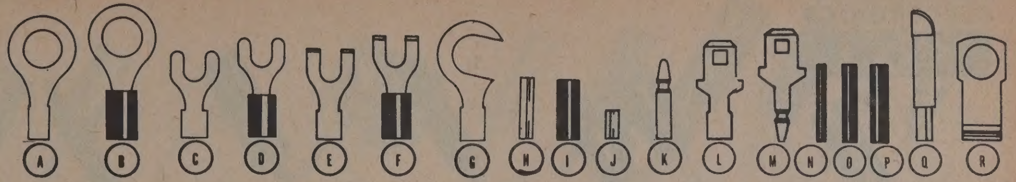
GC ELECTRONICS

SOLDERLESS TERMINALS and CONNECTORS



WIRE SIZE	STUD SIZE	LENGTH	FIG.	100 PACK PART. NO.	100 PACK NET/100	1000 PACK PART. NO.	1000 PACK NET/100
RING TONGUE — NON INSULATED							
22-16	4-6	17/32	A	13-000-C	$2.21	13-000-M	$18.90
22-16	4-6	23/32	A	13-002-C	2.21	13-002-M	18.90
22-16	8	41/64	A	13-004-C	2.21	13-004-M	18.90
22-16	8	23/32	A	13-006-C	2.48	13-006-M	21.00
22-16	8-10	23/32	A	13-008-C	2.21	13-008-M	18.90
22-16	10	57/64	A	13-010-C	1.94	13-010-M	16.60
16-14	4-6	19/32	A	13-012-C	2.23	13-012-M	19.10
16-14	4-6	45/64	A	13-014-C	2.23	13-014-M	19.10
16-14	8	45/64	A	13-016-C	2.23	13-016-M	19.10
16-14	10	45/64	A	13-018-C	2.23	13-018-M	19.10
16-14	1/4	57/64	A	13-020-C	3.11	13-020-M	26.65
12-10	4-6	3/4	A	13-022-C	3.11	13-022-M	26.65
12-10	8-10	3/4	A	13-024-C	3.11	13-024-M	26.65
12-10	1/4	1-1/32	A	13-026-C	3.87	13-026-M	33.15
16-14	5-6	3/4	A				
16-14	10	55/64	A	13-030-C	6.55	13-030-M	56.10
RING TONGUE — INSULATED							
22-16	4-6	45/64	B	13-050-C	$5.04	13-050-M	$43.20
22-16	4-6	29/32	B	13-052-C	5.04	13-052-M	43.20
22-16	8-10	29/32	B	13-054-C	5.04	13-054-M	43.20
16-14	4-6	25/32	B	13-056-C	5.04	13-056-M	43.20
16-14	4-6	57/64	B	13-058-C	5.04	13-058-M	43.20
16-14	10	57/64	B	13-060-C	5.04	13-060-M	43.20
16-14	1/4	1-5/64	B	13-062-C	5.88	13-062-M	50.40
12-10	8-10	1-3/64	B	13-064-C	5.88	13-064-M	50.40
12-10	1/4	1-21/64	B	13-066-C	6.74	13-066-M	57.60
22-16	4/6	45/64	B				
22-16	8-10	29/32	B				
16-14	5-6	25/32	B				
16-14	5-6	57/64	B				
SPADE TERMINAL — NON INSULATED							
22-16	4-6	3/4	C	13-100-C	$2.21	13-100-M	$18.90
22-16	8	3/4	C	13-102-C	1.94	13-102-M	16.60
16-14	4-6	3/4	C	13-104-C	2.21	13-104-M	18.90
16-14	10	3/4	C	13-106-C	2.21	13-106-M	18.90
SPADE TERMINAL — INSULATED							
22-16	4-6	1-3/16	D	13-108-C	$5.04	13-108-M	$43.20
16-14	4-6	1-3/16	D	13-110-C	5.04	13-110-M	43.20
16-14	10	1-3/16	D	13-112-C	5.04	13-112-M	43.20
FLANGE SPADE TERMINAL — NON INSULATED							
22-16	4-6	5/8	E	13-114-C	$2.21	13-114-M	$18.90
16-14	10	3/4	E	13-116-C	3.05	13-116-M	26.20
16-14	4-6	3/4	E	13-118-C	4.54	13-118-M	38.80
16-14	8	3/4	E	13-120-C	4.54	13-120-M	38.80
22-16	8-10	3/4	E	13-122-C	4.54	13-122-M	38.80
FLANGE SPADE TERMINAL — INSULATED							
22-16	4-6	13/16	F	13-124-C	$7.42	13-124-M	$61.70
22-16	8-10	13/16	F	13-126-C	9.17	13-126-M	76.20
16-14	4-6	13/16	F	13-128-C	7.93	13-128-M	67.80
16-14	8	13/16	F	13-130-C	9.76	13-130-M	83.50
16-14	10	13/16	F	13-132-C	9.76	13-132-M	83.50
HOOK TERMINAL							
22-16	4-6	23/32	G	13-200-C	$1.94	13-200-M	$16.60
22-16	8-10	23/32	G	13-202-C	2.25	13-202-M	19.30
BUTT CONNECTOR — NON INSULATED							
22-16	—	9/16	H	13-220-C	$2.36	13-220-M	$20.20
16-14	—	9/16	H	13-222-C	1.94	13-222-M	16.16
12-10	—	9/16	H	13-224-C	2.25	13-224-M	19.30
BUTT CONNECTOR — INSULATED							
22-16	—	1	I	13-226-C	$5.88	13-226-M	$50.40
16-14	—	1	I	13-228-C	5.17	13-228-M	44.30
12-10	—	1-1/16	I	13-230-C	6.30	13-230-M	54.00
22-16	—	1	I				
16-14	—	1	J				
PARALLEL CONNECTOR — NON INSULATED							
22-16	—	5/16	J	13-240-C	$2.38	13-240-M	$20.40
16-14	—	5/16	J	13-242-C	3.84	13-242-M	33.00
SNAP TERMINAL							
16-14	—	5/8	K	13-250-C	1.96	13-250-M	$16.78
TAB TERMINALS — NON INSULATED							
18-14	—	—	L	13-260-C	$2.31	13-260-M	$19.80
18-14	—	—	L	13-262-C	2.31	13-262-M	19.80
18-14	—	—	L	13-264-C	2.52	13-264-M	21.60
18-14	—	—	L	13-266-C	2.36	13-266-M	20.20
ADAPTER							
—	—	7/8	M	13-270-C	$4.00	13-270-M	$34.20
—	—	5/16	M	13-272-C	4.04	13-272-M	34.60
—	—	7/8	M	13-274-C	4.00	13-274-M	34.20
—	—	49/64	M	13-276-C	4.00	13-276-M	34.20
INSULATING TUBING							
22-16	—	5/8	N	13-280-C	$2.46	13-280-M	$21.10
CONNECTOR INSULATOR							
16-14	—	1-7/8	O	13-282-C	$2.46	13-282-M	$21.10
TERMINAL INSULATOR							
16-14	—	1-5/8	P	13-284-C	$2.46	13-284-M	$21.10
KNIFE DISCONNECT							
22-16	—	—	Q	13-290-C	$7.35	13-290-M	$63.00
FLAG TERMINAL							
22-16	8-10	11/16	R	13-294-C	$2.36	13-294-M	$20.20
16-14	8-10	5/8	R	13-296-C	2.21	13-296-M	18.90

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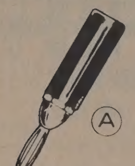
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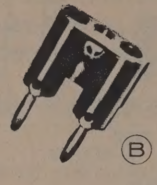
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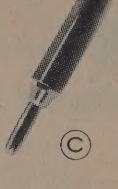
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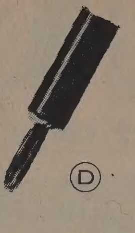
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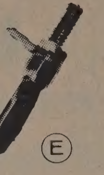
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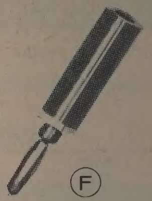
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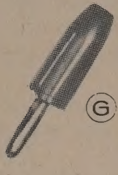
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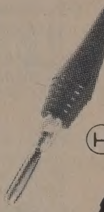
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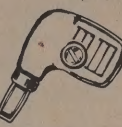
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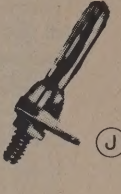
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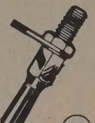
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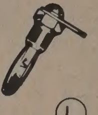
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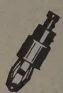
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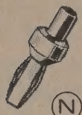
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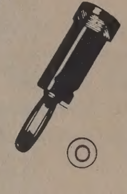
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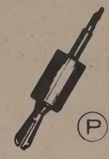
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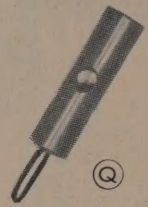
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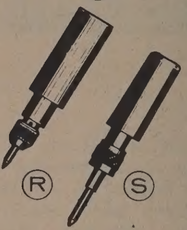
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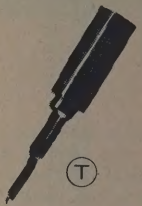
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BANANA PLUGS

Electrocraft plugs are carefully designed, accurately molded and machined of best available material and rigidly inspected. Except as otherwise noted, all Banana Plugs are made to standard industry dimensions and mate with jacks with an 0.161″ bore. Design provides for sufficient spring tension to assure good holding power and minimum contact reistance.

(A) BANANA PLUG — Four leaved, phosphor bronze, nickel plated spring; hex brass body, separate internal brass stud.

Cat. No. 33-000 Red	Net $ .25
Cat. No. 33-000-BU	Net $21.00/C
Cat. No. 33-002 Blk	Net $ .25
Cat. No. 33-002-BU	Net $21.00/C

BANANA PLUG — Four leaved, phosphor bronze, nickel plated spring; lead wire connection with set screw through plastic handle.

Cat. No. 33-006 Red	Net $ .22
Cat. No. 33-006-BU	Net $18.00/C
Cat. No. 33-008 Blk	Net $ .22
Cat. No. 33-008-BU	Net $18.00/C

(B) DUAL BANANA PLUG—Four leaved, phosphor bronze, nickel plated spring and steel, cadmium plate screw.

Cat. No. 33-010 Blk	Net $ .78/C

BANANA PLUG — Unbreakable plastic handle, cross slotted, nickel plated brass body; separate internal brass stud.

Cat. No. 33-012 Red	Net $ .22
Cat. No. 33-012-BU	Net $18.00/C
Cat. No. 33-014 Blk	Net $ .22
Cat. No. 33-014-BU	Net $18.00/C

BANANA PLUG—cross slotted, nickel plated brass body; lead wire connection with set screw through plastic handle.

Cat. No. 33-018 Red	Net $ .22
Cat. No. 33-018-BU	Net $18.00/C
Cat. No. 33-020 Blk	Net $ .22
Cat. No. 33-020-BU	Net $18.00/C

BANANA PLUG — Midget Type, unbreakable plastic handle, four leaved, nickel plated, phosphor bronze spring, lead wire connection solders to drilled body.

Cat. No. 33-024 Red	Net $ .25
Cat. No. 33-024-BU	Net $20.66/C
Cat. No. 33-026 Blk	Net $ .25
Cat. No. 33-026-BU	Net $20.66/C

(C) BANANA PLUG unbreakable plastic handle; four leaved, nickel plated, phosphor bronze spring; lead wire connection through cross drilled hole in threaded spacer for solderless connection.

Cat. No. 33-028-1 Red	Net $ .37
Cat. No. 33-028-1 BU	Net $33.00
Cat. No. 33-028-2 Blk	Net $ .37
Cat. No. 33-028-2 BU	Net $33.00

BANANA PLUGS

These Banana Plugs meet standard industry specifications, mate with jacks with 0.163″ bore.

(D) BANANA PLUG — Unbreakable plastic handle; four leaved, nickel plated phosphor bronze spring.

	Net
Cat. No. 33-032-1BU Red	$18.00/C
Cat. No. 33-032-2BU Blk	$18.00/C
Cat. No. 33-032-3BU Yel	$18.00/C
Cat. No. 33-032-4BU Grn	$18.00/C
Cat. No. 33-032-5BU Blu	$18.00/C

(E) BANANA PLUG—Threaded shank; four leaved, nickel plated phosphor bronze spring. Term. Lug & hex nut.

Cat. No. 33-034-BU	Net $15.00/C

(F) INSULATED BANANA PLUG nickel plated brass plug with 4 leaved beryllium copper, nickel plated spring—fits standard Banana Jack, bakelite handle.

Cat. No. 33-036-1 Red	Net $ .19
Cat. No. 33-036-1 BU	Net $16.00
Cat. No. 33-036-2 Blk	Net $ .19
Cat. No. 33-036-2 BU	Net $16.00

(G) INSULATED BANANA PLUG solderless connection. Nickel plated brass plug — 4 leaved beryllium copper, nickel plated spring. Fits standard Banana Jack, Nylon handle.

Cat. No. 33-037-1 Red	Net $ .19
Cat. No. 33-037-1 BU	Net $16.00
Cat. No. 33-037-2 Blk	Net $ .19
Cat. No. 33-037-2 BU	Net $16.00

BANANA PLUG—flexible handle, unbreakable—shockproof plastic. Phosphor bronze, nickel plated spring.

Cat. No. 33-040-1 Red	Net $ .26
Cat. No. 33-040-1 BU	Net $21.00
Cat. No. 33-040-2 Blk	Net $ .26
Cat. No. 33-040-2 BU	Net $21.00

(H) BANANA PLUG flexible handle, stack type, unbreakable — shockproof plastic. Phosphor bronze, nickel plated spring.

Cat. No. 33-042-1 Red	Net $ .28
Cat. No. 33-042-1 BU	Net $23.00
Cat. No. 33-042-2 Blk	Net $ .28
Cat. No. 33-042-2 BU	Net $23.00

(I) BANANA PLUG — Right angle "Gun" tip (meter plug), molded plastic handle (2 half-shells), four leaved, phosphor bronze, nickel plated springs; lead wire solders to body.

Cat. No. 33-046 Red	Net $ .42
Cat. No. 33-046-BU	Net $36.00/C
Cat. No. 33-048 Blk	Net $ .42
Cat. No. 33-048-BU	Net $36.00/C

(J) BANANA PLUG—Threaded shank; four leaved, nickel plated phosphor bronze spring. Term. lug & hex nut.

Cat. No. 33-058-BU	Net $15.00/C

(K) BANANA PLUG—Threaded shank type; slotted nickel plated brass body; supplied with terminal lug and hex nut.

Cat. No. 33-060	Net $ .18
Cat. No. 33-060-BU	Net $15.00/C

(L) BANANA PLUG—Panel mounting type; four leaved, phosphor bronze, nickel plated spring; #6-32 tapped body.

Cat. No. 33-062	Net $ .18
Cat. No. 33-062-BU	Net $15.00/C

BANANA PLUG—Threaded shank type; four leaved, phosphor bronze, nickel plated spring.

Cat. No. 33-064	Net $ .18
Cat. No. 33-064-BU	Net $15.00/C

BANANA PLUG—Panel mounting type; cross slotted, nickel plated brass body, tapped #6-32; supplied with screw and terminal lug.

Cat. No. 33-066	Net $ .18
Cat. No. 33-066-BU	Net $15.00/C

(M) BANANA PLUG — Sub-miniature type, four leaved, beryllium copper, silver plated spring; body rivets to terminal board and wire solders to turret terminal. Fits jacks with .104″ ID.

Cat. No. 33-068	Net $ .22
Cat. No. 33-068-BU	Net $18.00/C

(N) MIDGET BANANA PLUG rivet type, 4 leaved, phosphor bronze, silver plated spring. Fits all standard Banana Jack.

Cat. No. 33-069	Net $ .19
Cat. No. 33-069 BU	Net $16.00

MIDGET BANANA PLUG — designed to meet Mil-spec No. SC-C-2231. Rivet type — 4 leaved, phosphor bronze, silver plated spring. Fits all standard Banana Jack.

Cat. No. 33-070	Net $ .22
Cat. No. 33-070 BU	Net $18.00

(O) BANANA PLUG ADAPTOR—Adapts tip plug to banana plug; insulated handle, standard tip jack one end; other end four leaved banana plug.

Cat. No. 33-072 Red	Net $ .35
Cat. No. 33-072-BU	Net $30.00/C
Cat. No. 33-074 Blk	Net $ .35
Cat. No. 33-074-BU	Net $30.00/C

(P) BANANA PLUG-KLIPZON ADAPTOR—One end cross slotted; brass, nickel plated banana plug; other end "Klipzon" self holding wire piercing tip.

Cat. No. 33-076 Red	Net $ .52
Cat. No. 33-076-BU	Net $45.00/C
Cat. No. 33-078 Blk	Net $ .52
Cat. No. 33-078-BU	Net $45.00/C

ADAPTER, KLIPZON TIP TO BANANA PLUG—For connection of test leads terminated with Klipzon prods to equipment with banana jacks.

Cat. No. 33-080 Red	Net $ .42
Cat. No. 33-080-BU	Net $36.00/C
Cat. No. 33-082 Blk	Net $ .42
Cat. No. 33-082-BU	Net $36.00/C

(Q) STACK BANANA PLUG stack type, 4 leaved, phosphor bronze, nickel plated spring. 2″ long with plastic handle. Fits standard banana plugs in top and side.

Cat. No. 33-084-1 Red	Net $ .32
Cat. No. 33-084-1 BU	Net $27.00
Cat. No. 33-084-2 Blk	Net $ .32
Cat. No. 33-084-2 BU	Net $27.00

STACK BANANA PLUG — stack type, 4 leaved beryllium copper, nickel plated spring. 2″ long, with plastic handle. Fits standard banana plugs in top and side.

Cat. No. 33-086-1 Red	Net $ .35
Cat. No. 33-086-1 BU	Net $30.00
Cat. No. 33-086-2 Blk	Net $ .35
Cat. No. 33-086-2 BU	Net $30.00

TIP PLUGS

The following Tip Plugs are, unless otherwise noted, made to the standard industry specifications of .080″ pin diameter. Careful machining, close tolerances and the use of brass alloy assures good contact and serviceability.

(R) PHONO NEEDLE TIP PLUG—Insulated handle; nickel plated brass body; chuck design to hold .058 phono needle which is easily replaceable. Wire solders to body.

Cat. No. 33-100 Red	Net $ .18
Cat. No. 33-100-BU	Net $15.00/C
Cat. No. 33-102 Blk	Net $ .18
Cat. No. 33-102-BU	Net $15.00/C

(S) INSULATED TIP PLUG—Solderless type, wire tightens securely under knurled collar. Handle is unbreakable plastic and body is machined brass, nickel plated.

Cat. No. 33-106 Red	Net $ .18
Cat. No. 33-106-BU	Net $15.00/C
Cat. No. 33-108 Blk	Net $ .18
Cat. No. 33-108-BU	Net $15.00/C

TIP PLUGS

These Tip Plugs are made to standard industry specifications of .080″ diameter. Handles are unbreakable plastic.

(T) HEAVY DUTY PHONE TIP PLUG—Standard tip, large diameter for soldering heavy duty wire into nickel plated brass body.

	Net
Cat. No. 33-110-1BU Red	$15.00/C
Cat. No. 33-110-2BU Blk	$15.00/C
Cat. No. 33-110-3BU Yel	$15.00/C
Cat. No. 33-110-4BU Grn	$15.00/C
Cat. No. 33-110-5BU Blu	$15.00/C

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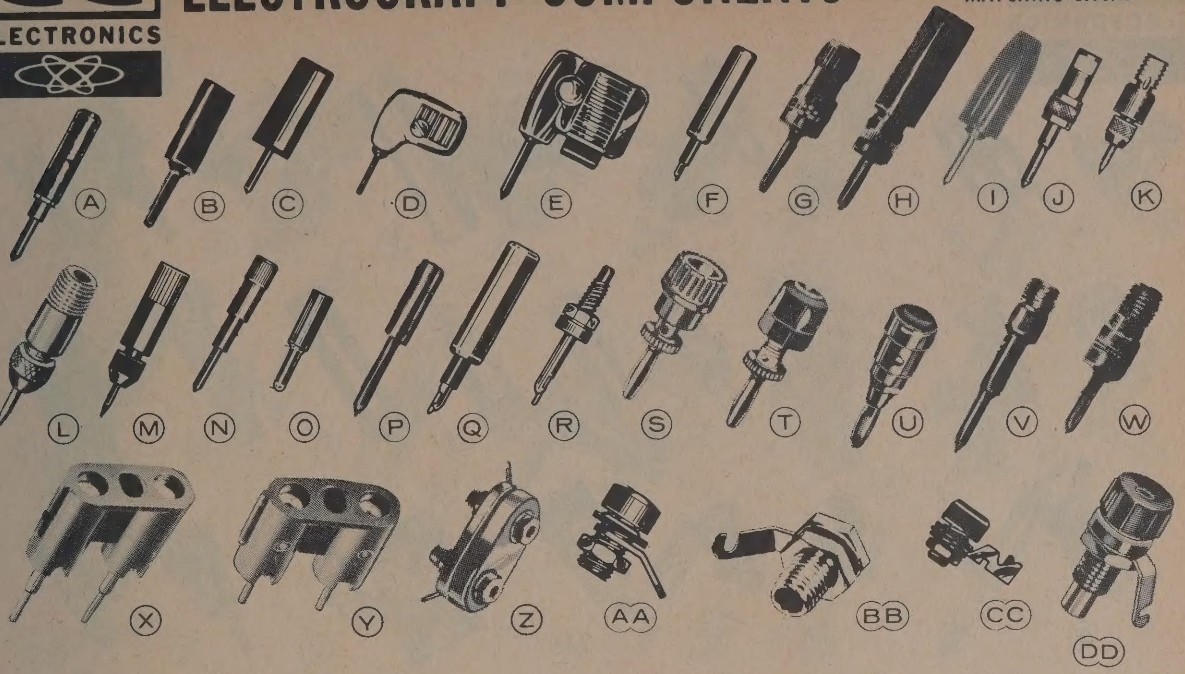
GC
ELECTRONICS

ELECTROCRAFT COMPONENTS

BANANA PLUGS • TIP PLUGS MATCHING JACKS



(A) SUB-MINIATURE PHONE TIP PLUG—Standard tip, extra-small diameter, machined bone fibre insulated handle. Wire solders to nickel plated, brass body.

Cat. No. 33-112 Red	Net $ .22
Cat. No. 33-112-BU	Net $18.00/C
Cat. No. 33-114 Blk	Net $ .22
Cat. No. 33-114-BU	Net $18.00/C

(B) INSULATED HOLLOW TIP PLUG—Drawn brass, nickel plated, solder type.

	Net
Cat. No. 33-116-1BU Red	$10.20/C
Cat. No. 33-116-2BU Blk	$10.20/C

(C) INSULATED SHORT TIP PLUG—Unbreakable plastic handle; wire solders to brass nickel plated body.

Cat. No. 33-118 Red	Net $ .15
Cat. No. 33-118-BU	Net $12.00/C
Cat. No. 33-120 Blk	Net $ .15
Cat. No. 33-120-BU	Net $12.00/C

(D) RIGHT ANGLE TIP PLUG—Two insulated plastic handle half shells assemble with one screw and nut. Maximum wire insulation 5/64"; wire solders to body.

Cat. No. 33-128 Red	Net $ .32
Cat. No. 33-128-BU	Net $27.00/C
Cat. No. 33-130 Blk	Net $ .32
Cat. No. 33-130-BU	Net $27.00/C

(E) "TRIGGER-QUIK" TIP PLUG—right angle plug, similar to 33-128 and 33-130. Spring loaded solderless wire connection, "trigger" design. 1 Red and 1 Black plug per pair.

Cat. No. 33-132 Red	Net $ .45
Cat. No. 33-132-BU	Net $39.00/C
Cat. No. 33-134 Blk	Net $ .45
Cat. No. 33-134-BU	Net $39.00/C
Cat. No. *33-136 Pkg. per. pr.	Net $ .75

*20 pair per package display.

(F) KLIPZON MINI-PROD—Insulated tip plug can be snapped securely on wires. Incorporates sharp point to pierce insulation; fits standard tip jacks; wire solders to body.

Cat. No. 33-138 Red	Net $ .42
Cat. No. 33-138-BU	Net $36.00/C
Cat. No. 33-140 Blk	Net $ .42
Cat. No. 33-140-BU	Net $36.00/C

(G) "JR." SOLDERLESS PHONE TIP—Press fit; nickel plated brass body; wire fastens under knurled collar.

Cat. No. 33-142-BU	Net $18.66/C

(H) "JR." SOLDERLESS PHONE TIP—Threaded nickel plated brass body; wire fastens under knurled collar.

	Net
Cat. No. 33-144-1BU Red	$20.83/C
Cat. No. 33-144-2BU Blk	$20.83/C
Cat. No. 33-144-3BU Yel	$20.83/C
Cat. No. 33-144-4BU Grn	$20.83/C
Cat. No. 33-144-5BU Blu	$20.83/C

(I) INSULATED TIP PLUG short tip type, nickel plated brass plug with nylon handle. Fits standard phone tip jack.

Cat. No. 33-145-1 Red	Net $ .14
Cat. No. 33-145-1 BU	Net $10.50
Cat. No. 33-145-2 Blk	Net $ .14
Cat. No. 33-145-2 BU	Net $10.50

(J) SOLDERLESS TIP PLUG — All metal. Precision machined brass, nickel plated; wire fastens under knurled collar.

Cat. No. 33-146	Net $ .13
Cat. No. 33-146-BU	Net $10.20/C

(K) PHONO NEEDLE TIP PLUG—Nickel plated brass body with ¼-20 thread; chuck design to hold phono needle.

Cat. No. 33-148	Net $ .17
Cat. No. 33-148-BU	Net $13.20/C

(L) NEEDLE TIP AND CHUCK brass nickel plated body, with steel nickel plated needle. Chuck is removable for quick replacement. Needle pierces corrosion or plating for positive reading.

Cat. No. 33-149	Net $ .17
Cat. No. 33-149-BU	Net $13.20

(M) PUSH-ON NEEDLE CHUCK—Nickel plated brass. Knurled body for press fit into Test Prod handles drilled with ¼" hole.

Cat. No. 33-150	Net $ .17
Cat. No. 33-150-BU	Net $13.20/C

(N) HEAVY DUTY PHONE TIP PLUG—Nickel plated brass; knurled shank for press fit into Test Prod handles, drilled with ¼" hole.

Cat. No. 33-152	Net $ .13
Cat. No. 33-152-BU	Net $10.20/C

(O) STANDARD HOLLOW PHONE TIP—Drawn brass, bright nickel plated.

Cat. No. 33-154	Net $ .13
Cat. No. 33-154-BU	Net $5.83/C

STANDARD SOLID PHONE TIP—Brass, bright nickel plated.

Cat. No. 33-156	Net $ .17
Cat. No. 33-156-BU	Net $4.20/C

(P) HEAVY DUTY PHONE TIP PLUG—Brass; bright nickel plated, solder type.

Cat. No. 33-158-BU	Net $4.75/C

(Q) KLIPZON MINI-PROD ADAPTOR—Converts standard Tip Plug and Test Prod to self holding Klipzon wire piercing prod.

Cat. No. 33-160 Red	Net $ .42
Cat. No. 33-160-BU	Net $36.00/C
Cat. No. 33-162 Blk	Net $ .42
Cat. No. 33-162-BU	Net $36.00/C

(R) KLIPZON PANEL MOUNTS—Wire holding patented Klipzon Test Prod with threaded shank (6-32 x ⅜") for panel mount. Designed for test setups.

Cat. No. 33-164	Net $ .52
Cat. No. 33-164-BU	Net $45.00/C

(S) COMBINATION POST-PLUG captive head, molded of Butyrate per MIL-L-P-349A, type 3, class MS. Brass, nickel plated body, with 4 leaved phosphor bronze, nickel plated spring. Used to convert any panel-mounted banana jack to 5-way binding post termination. Accepts solid or standard wire, spade lug, phone tip, banana plug or alligator clip.

Cat. No. 33-165-1 Red	Net $ .30
Cat. No. 33-165-1 BU	Net $27.00
Cat. No. 33-165-2 Blk	Net $ .30
Cat. No. 33-165-2 BU	Net $27.00

(T) COMBINATION POST-PLUG captive head, molded of nylon, per Mil-P-20693A. Brass, nickel plated insert is molded in body with 4 leaved phosphor bronze, nickel plated spring. Used to convert any panel-mounted banana jack to 5-way binding post termination. Accepts solid or stranded wire, spade lug, phone tip, banana plug or alligator clip.

Cat. No. 33-166-1 Red	Net $ .30
Cat. No. 33-166-1 BU	Net $27.00
Cat. No. 33-166-2 Blk	Net $ .30
Cat. No. 33-166-2 BU	Net $27.00

(U) COMBINATION POST-PLUG captive, brass nickel plated head with molded styrene cap per MIL-L-P416, type 1. Brass, nickel plated body with 4 leaved phosphor bronze, nickel plated spring. Used to convert any panel-mounted banana jack to a spring-loaded push post. Accepts solid or stranded wire, or standard phone tip which locks in place upon release of pressure on cap.

Cat. No. 33-167	Net $ .45
Cat. No. 33-167 BU	Net $42.00

(V) HEAVY DUTY PHONE TIP PLUG—Soldering well in nickel plated brass body large enough for standard banana plugs; threaded to fit into plastic handle.

Cat. No. 33-170-BU	Net $10.20/C

(W) "JR." SOLDERLESS PHONE TIP—Nickel plated brass body; wire fastens under knurled collar; threaded to fit into plastic handle.

Cat. No. 33-172-BU	Net $11.40/C

(X) DUAL STANDARD TIP PLUG solderless type, insulated molded black plastic body. Brass, nickel plated body with dual tip plugs on ¾" centers. Designed to mate with dual combination jack assembly 33-206. Set screws secure wires.

Cat. No. 33-174	Net $ .78
Cat. No. 33-174 BU	Net $72.00

(Y) DUAL SHORT TIP SOLDERLESS PLUG insulated molded black plastic body with brass, nickel plated tip plugs on ¾" centers. Mates with dual tip jack 33-206. Set screws secure wire without soldering.

Cat. No. 33-176	Net $ .80
Cat. No. 33-176 BU	Net $74.00

(Z) DUAL BANANA JACK insulated-molded black styrene, per Mil-LP416, type 1. Brass, nickel plated body. Mounting requires two ⅜" holes on ¾" centers in panel up to ¼" thick. Accepts standard and dual banana plugs. Dual jack comes complete with 2 hex nuts, 4 flat washers and brass tinned lugs.

Cat. No. 33-179	Net $ .53
Cat. No. 33-179 BU	Net $48.00

BANANA AND TIP PLUG JACKS

Jacks are made to standard industry specifications. On Banana Jacks, the bore is .163" which fits all standard Banana Plugs. Tip Plug Jacks have built in spring contacts and are designed for all standard tip plugs with .080" diameter.

(AA) BANANA JACK—Molded phenolic head; nickel plated brass body supplied with tinned solder lug, fibre washer and mounting nut. Mounts in 5/16" hole.

Cat. No. 33-180 Red	Net $ .17
Cat. No. 33-180-BU	Net $13.20/C
Cat. No. 33-182 Blk	Net $ .17
Cat. No. 33-182-BU	Net $13.20/C

(BB) BANANA JACK — A hex brass nickel plated body recessed head and supplied with nut and lug.

Cat. No. 33-184-BU Blk	Net $10.20/C

(CC) BANANA JACK, HEAVY DUTY—Molded phenolic head; nickel plated brass body; extruded fibre washer, lock washer, heavy duty solder lug and mounting nut.

Cat. No. 33-186 Red	Net $ .23
Cat. No. 33-186-BU	Net $20.00/C
Cat. No. 33-188 Blk	Net $ .23
Cat. No. 33-188-BU	Net $20.00/C

(DD) NYLON BANANA JACK nylon head and washer. Per MIL-P-20693A. Brass, nickel plated body. Head and washer provides insulation from panel. Supplied complete with hex nuts and brass tinned lug. Mounting requires 5/16" hole in panel up to ¼" thick. Accommodates standard Banana Plugs.

Cat. No. 33-189-1 Red	Net $ .20
Cat. No. 33-189-1 BU	Net $18.00
Cat. No. 33-189-2 Blk	Net $ .20
Cat. No. 33-189-2 BU	Net $18.00

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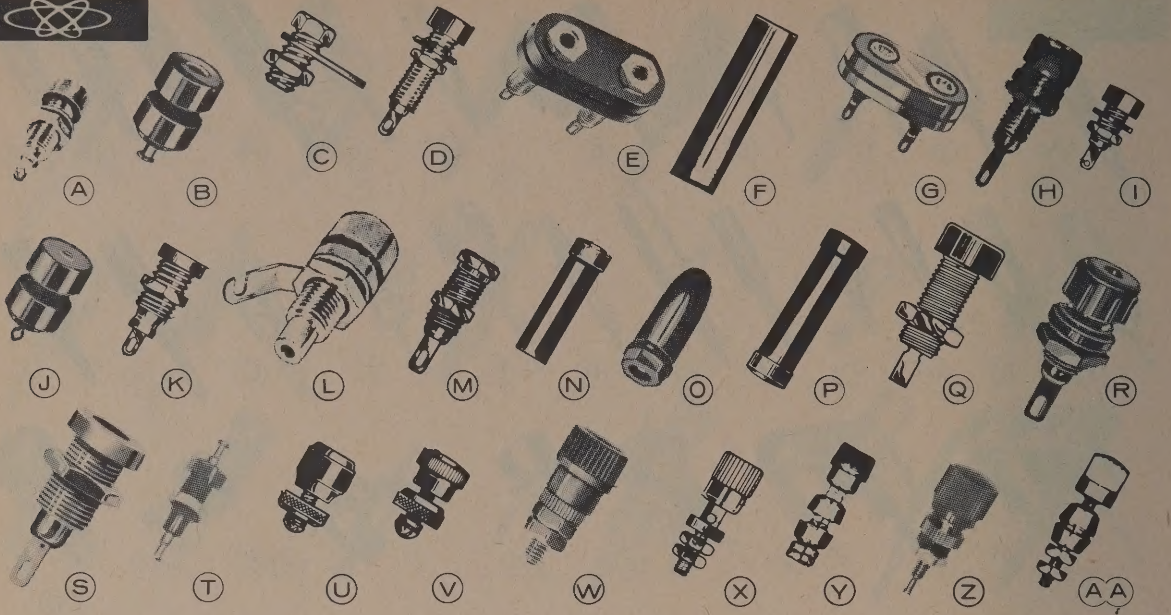
ELECTROCRAFT COMPONENTS

PHONE JACKS • PHONO PIN PLUGS
AND JACKS • CONNECTORS



(A) TIP JACK — Featuring positive hold hex lock between molded head and jack body.

	Net
Cat. No. 33-190 Red	$ .18
Cat. No. 33-190-1BU Red	$15.00/C
Cat. No. 33-190-2BU Blk	$15.00/C
Cat. No. 33-190-3BU Yel	$15.00/C
Cat. No. 33-190-4BU Grn	$15.00/C
Cat. No. 33-190-5BU Blu	$15.00/C
Cat. No, 33-190 Blk	$ .18

(B) HIGH VOLT. NYLON BANANA JACK —high voltage flashover to panel prevented by heavy molded nylon body and cup washer, made per MIL-P-20693A. Colors conform to Federal Standard 595. Hex nuts and insert shell are nickel plated brass per QQ-N-290 type V (FC). Phosphor bronze contact, silver plated per QQ-S-365, overall Gold plated. Withstands 100 hours salt spray test.

Cat. No. 33-191-1 Red	Net $ .52
Cat. No. 33-191-1 BU	Net $45.00
Cat. No. 33-191-2 Blk	Net $ .52
Cat. No. 33-191-2 BU	Net $45.00

(C) BANANA JACK—ALL METAL brass nickel plated body; supplied with solder lug and hex mounting nut. Mounts in ¼″ hole; fits panels up to ⅜″ thick.

Cat. No. 33-192	Net $ .13
Cat. No. 33-192-BU	Net $10.20/C

(D) BANANA-TIP JACK COMBINATION —Molded phenolic head; brass nickel plated body. Phosphor bronze spring. Supplied with extruded fibre washer and mounting nut.

Cat. No. 33-194 Red	Net $ .20
Cat. No. 33-194-BU	Net $16.20/C
Cat. No. 33-196 Blk	Net $ .20
Cat. No. 33-196-BU	Net $16.20/C

(E) DUAL BANANA AND STAND. TIP PLUG — insulated molded black plastic brass, nickel plated body. Mounts in two ⅜″ holes on ¾″ centers on panels up to 5/16″ thick, mates with Dual Banana Plug 33-010 and Dual Standard Tip Plug 33-174.

Cat. No. 33-197	Net $ .79
Cat. No. 33-197 BU	Net $73.00

(F) BANANA PLUG SPLICE—Insulated plastic handle, brass insert for coupling 2 standard Banana Plugs.

Cat. No. 33-200 Red	Net $ .30
Cat. No. 33-200-BU	Net $26.66/C
Cat. No. 33-202 Blk	Net $ .30
Cat. No. 33-202-BU	Net $26.66/C

(G) DUAL TIP JACK ASSEMBLY insulated molded black styrene body, per MIL-L-P416, type 1. Recessed body made of nickel plated brass with phosphor bronze contact. Mounting takes two ⅜″ holes on ¾″ centers in panels up to ¼″ thick. Accepts standard phone tip plugs. Complete with two hex nuts.

Cat. No. 33-206	Net $ .60
Cat. No. 33-206 BU	Net $54.00

(H) INSULATED TIP JACK — Molded plastic head and washer; brass, nickel plated body with hex nut. Requires 5/16″ hole; fits panels up to ¼″ thick.

	Net
Cat. No. 33-208-1BU Red	$18.00/C
Cat. No. 33-208-2BU Blk	$18.00/C
Cat. No. 33-208-3BU Yel	$18.00/C
Cat. No. 33-208-4BU Grn	$18.00/C
Cat. No. 33-208-5BU Blu	$18.00/C

(I) STANDARD TIP JACK—Molded phenolic plastic head; nickel plated brass body with phosphor bronze spring; supplied with extruded fibre washer.

Cat. No. 33-210 Red	Net $ .17
Cat. No. 33-210-BU	Net $13.20/C
Cat. No. 33-212 Blk	Net $ .17
Cat. No. 33-212-BU	Net $13.20/C

(J) HIGH VOLT. NYLON PHONE TIP JACK — high voltage flashover to panel prevented by heavy molded nylon body and cup washer, made per MIL-P-20693A. Colors conform to Federal Standard 595. Hex nuts and insert shell are nickel plated brass per QQ-N-290 type V (FC). Phosphor bronze contact, silver plated per QQ-S-365, overall Gold plated. Withstands 100 hours salt spray test.

Cat. No. 33-214-1 Red	Net $ .81
Cat. No. 33-214-1 BU	Net $75.00
Cat. No. 33-214-2 Blk	Net $ .81
Cat. No. 33-214-2 BU	Net $75.00

(K) TIP JACK, ALL-INSULATED—Head and body molded of nylon, in one piece; phosphor bronze spring; supplied with mounting nut; mounts in ⅜″ hole.

Cat. No. 33-216 Red	Net $ .22
Cat. No. 33-216-BU	Net $18.00/C
Cat. No. 33-218 Blk	Net $ .22
Cat. No. 33-218-BU	Net $18.00/C

(L) MINIATURE BANANA JACK—Molded nylon head and insulating washer provide excellent isolation from panel. Fits 5/16″ mounting hole; for panels up to ¼″ thick.

	Net
Cat. No. 33-220-1BU Red	$18.00/C
Cat. No. 33-220-2BU Blk	$18.00/C
Cat. No. 33-220-3BU Yel	$18.00/C
Cat. No. 33-220-4BU Grn	$18.00/C
Cat. No. 33-220-5BU Blu	$18.00/C

(M) TIP JACK, ALL METAL—Brass nickel plated body; phosphor bronze spring.

Cat. No. 33-226	Net $ .13
Cat. No. 33-226-BU	Net $10.20/C

(N) TIP JACK, IN-LINE STYLE—Insulated handle, brass nickel plated body; phosphor bronze spring.

Cat. No. 33-228 Red	Net $ .25
Cat. No. 33-228-BU	Net $21.00/C
Cat. No. 33-230 Blk	Net $ .25
Cat. No. 33-230-BU	Net $21.00/C

(O) NYLON IN-LINE TIP JACK insulated, molded nylon handle and body per MIL-P-20693A. Heat treated, phosphor bronze, gold plated contact. Safe, recessed contact accommodates all standard phone tip plugs—well suited for use with patch and extension cords. Also may be used for mounting on panel when wrap around terminal must be insulated in rear.

Cat. No. 33-231-1 Red	Net $ .35
Cat. No. 33-231-1 BU	Net $30.00
Cat. No. 33-231-2 Blk	Net $ .35
Cat. No. 33-231-2 BU	Net $30.00

(P) TIP PLUG SPLICE—Insulated; brass nickel plated body; phosphor bronze springs.

Cat. No. 33-232 Red	Net $ .32
Cat. No. 33-232-BU	Net $27.00/C
Cat. No. 33-234 Blk	Net $ .32
Cat. No. 33-234-BU	Net $27.00/C

(Q) NYLON TIP JACK—Nylon insulated body wtih machined beryllium copper contact, silver plated contact recessed in head, hot tin dipped solder terminal.

Cat. No. 33-240 Blk	Net $ .32
Cat. No. 33-240-BU	Net $27.00/C
Cat. No. 33-242 Red	Net $ .32
Cat. No. 33-242-BU	Net $27.00/C

(R) NYLON PHONE TIP JACK brass, nickel plated body with molded nylon head per MIL-P-20693A; phosphor bronze contact. Head and washer provide excellent insulation from panel. Complete with hex nut. Mounting requires 5/16″ hole in panels up to ¼″ thickness. Accepts standard tip plug.

Cat. No. 33-243-1 Red	Net $ .22
Cat. No. 33-243-1 BU	Net $18.00
Cat. No. 33-243-2 Blk	Net $ .22
Cat. No. 33-243-2 BU	Net $18.00

(S) NYLON TIP JACK — SPADE TERMINAL—insulated nylon molded body; brass, nickel plated hex nut. Fits all standard phone tip plugs. Mounts in ¼″ hole in panel up to ¼″ thick.

Cat. No. 33-245-1 Red	Net $ .30
Cat. No. 33-245-1 BU	Net $24.50
Cat. No. 33-245-2 Blk	Net $ .30
Cat. No. 33-245-2 BU	Net $24.50

(T) NYLON FEED-THRU JACK feed thru type. Insulated nylon molded body; brass, nickel plated hex nut. Fits all standard phone tip plugs. Mounts in ¼″ hole in panel up to ¼″ thick.

Cat. No. 33-247-1 Red	Net $ .26
Cat. No. 33-247-1 BU	Net $21.00
Cat. No. 33-247-2 Blk	Net $ .26
Cat. No. 33-247-2 BU	Net $21.00

(U) BINDING POST — Brass nickel plated body; supplied with 8-32 mounting screw and lock washer.

Cat. No. 33-250 Red	Net $ .22
Cat. No. 33-250-BU	Net $17.67/C
Cat. No. 33-252 Blk	Net $ .22
Cat. No. 33-252-BU	Net $17.67/C

(V) BINDING POST — Brass nickel plated body supplied with #8-32 mounting screw and lock washer.

Cat. No. 33 254	Net $ .18
Cat. No. 33-254-BU	Net $15.33/C

BINDING POST — head of molded bakelite; molded in brass threaded insert. Comes complete with 8-32 threaded screw — ½″ long brass, nickel plated lockwasher. Head diameter ½″.

Cat. No. 33-255 Red	Net $ .15
Cat. No. 33-255 BU	Net $11.00

(W) BINDING POST-COMBINATION TYPE—Accepts banana plug, tip plug, bare wire or spade lug. Threaded #8-32 mounting stud ½″ long; supplied with 2 hex nuts.

Cat. No. 33-256 Red	Net $ .22
Cat. No. 33-256-BU	Net $18.00/C
Cat. No. 33-258 Blk	Net $ .22
Cat. No. 33-258-BU	Net $18.00/C

(X) BINDING POST-COMBINATION —Similar in construction to 33-256/8 except with molded shoulder-type plastic washers to insulate post from chassis.

Cat. No. 33-260 Red	Net $ .28
Cat. No. 33-260-BU	Net $24.00/C
Cat. No. 33-262 Blk	Net $ .28
Cat. No. 33-262-BU	Net $24.00/C

(Y) BINDING POST-INSULATED UNIVERSAL TYPE—Non-removable, molded brass; brass nickel plated body with threaded #8-32 mounting stud.

Cat. No. 33-264 Red	Net $ .32
Cat. No. 33-264-BU	Net $27.00/C
Cat. No. 33-266 Blk	Net $ .32
Cat. No. 33-266-BU	Net $27.00/C

(Z) BINDING POST molded plastic head and brass nickel plated body. Insulating washer and 2 hex nuts supplied. Stud length 1 11/32″, 8-32 threaded. Accommodates phone tip plug, spade lug, alligator clip, banana plug or stranded wire.

Cat. No. 33-265 Red	Net $ .19
Cat. No. 33-265 BU	Net $16.00
Cat. No. 33-267 Blk	Net $ .19
Cat. No. 33-267 BU	Net $16.00

(AA) HEAVY DUTY BINDING POST—Machined brass nickel plated body; supplied with a thick molded insulating spacer; shoulder kevs into

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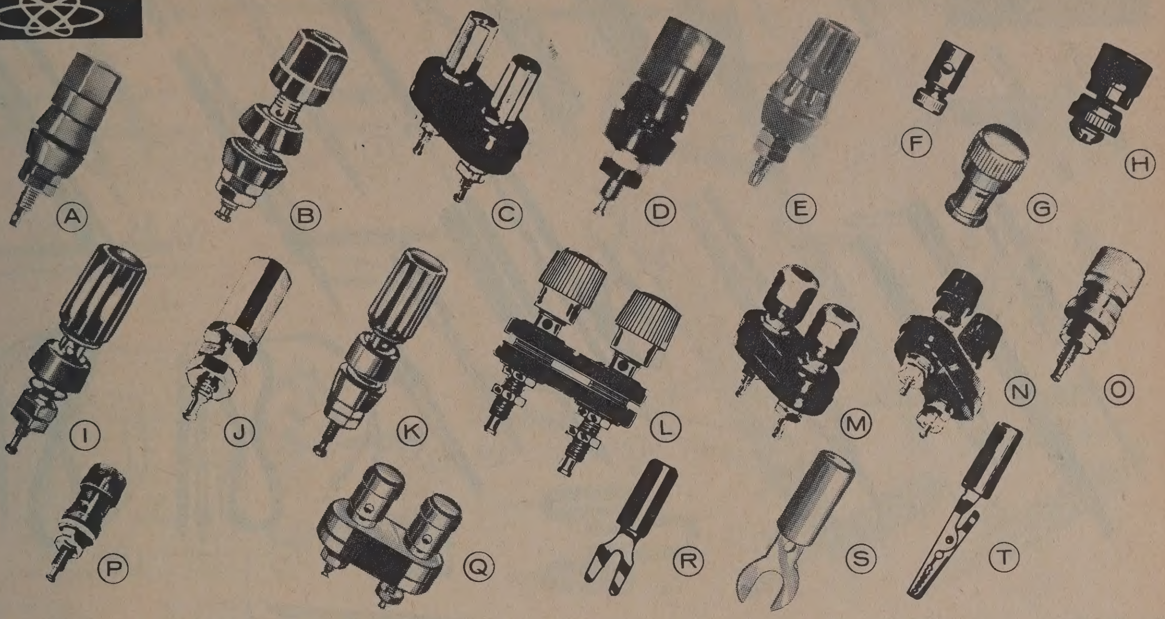
BINDING POSTS·SPADE LUGS·CLIPS



chassis mounting hole and positively prevents post from turning.
Cat. No. 33-268 Red Net $ .47
Cat. No. 33-268-BU Net $42.00/C
Cat. No. 33-270 Blk Net $ .47
Cat. No. 33-270-BU Net $42.00/C

(A) HEAVY DUTY BINDING POST Identical in design to binding post No. 33-268/270, except end of stud milled flat and drilled for solder connection.
Cat. No. 33-272 Red Net $ .47
Cat. No. 33-272-BU Net $42.00/C
Cat. No. 33-274 Blk Net $ .47
Cat. No. 33-274-BU Net $42.00/C

(B) NYLON BINDING POST molded nylon head and washer insulates post from panel. Banana plug receptacle .161″ I.D. Molded in brass bushing in head and washers. Wire hole at right angle to flat on insulated washers. Punched keyed slot for mounting washers. Head is non-removable from stud. Mounting requires ½″ hole in panels up to ¼″ thick. Direct solder connection to stud. Body and inserts are brass, gold plated overall.
Cat. No. 33-275-1 Red Net $ .47
Cat. No. 33-275-1 BU Net $42.00
Cat. No. 33-275-2 Blk Net $ .47
Cat. No. 33-275-2 BU Net $42.00

(C) DUAL BINDING POST dual binding post assembly with metal posts. Can accept standard dual banana plug and wire, etc. Mounts in two ⅜″ holes on ¾″ centers in 1/16″ to ¼″ panels. With wrap-around solder studs. Has ⅝″ x 1⅜″ rounded black base.
Cat. No. 33-276 Net $ .66
Cat. No. 33-276 BU Net $60.00

(D) HEAVY DUTY BINDING POST captive plastic head with molded in brass inserts; machined brass nickel plated body; accepts banana or tip plug, spade lug, alligator clip or bare wire; supplied with a thick molded insulating spacer; spacer has a "D" shaped shoulder; shoulder keys into chassis mounting hole and positively prevents post from turning. Maximum rating 30 amps—2000 R.M.S. volt; supplied with 2 hex nuts.
Cat. No. 33-278 Red Net $ .42
Cat. No. 33-278 BU Net $36.00
Cat. No. 33-280 Blk Net $ .42
Cat. No. 33-280 BU Net $36.00

(E) BINDING POST 5-way, nylon. Fluted style, insulated, Banana adapter type. Wrap around tips — Brass nickel plated.
Cat. No. 33-279-1 Red Net $ .49
Cat. No. 33-279-1 BU Net $42.00
Cat. No. 33-279-2 Blk Net $ .49
Cat. No. 33-279-2 BU Net $42.00

BINDING POST—5-way, nylon. Fluted style, insulated, Banana adapter type. Spade type tip—Brass nickel plated.
Cat. No. 33-281-1 Red Net $ .52
Cat. No. 33-281-1 BU Net $45.00
Cat. No. 33-281-2 Blk Net $ .52
Cat. No. 33-281-2 BU Net $45.00

(F) BINDING POST, ALL METAL—Brass nickel plated body and knurled cap; accepts banana plug, phone tip or wire.
Cat. No. 33-282 Net $ .15
Cat. No. 33-282-BU Net $12.00/C

(G) BINDING POST compression type captive brass, nickel plated head. Knurled for finger grip. Brass, nickel plated body. Screw head down to tighten wire between body and sliding contact. Threaded internally for 6-32 mounting screw. Base of post is knurled for sure grip to panel.
Cat. No. 33-283 Net $ .25
Cat. No. 33-283 BU Net $21.00

(H) BINDING POST-ALL METAL — Heavy brass nickel plated body and knurled cap; #8-32 x ½″ mounting screw and lock washer supplied.
Cat. No. 33-284 Net $ .18
Cat. No. 33-284-BU Net $15.00/C

(I) METAL BINDING POST gold plated, fluted brass, captive head. Molded black nylon washer with gold plated brass insert. Use where direct ground connection is made to panel or chassis. Complete with gold plated brass flat washer for grounding. Accepts phone tip plug, spade lug, banana plug, alligator clip or stranded wire.
Cat. No. 33-285 Net $ .32
Cat. No. 33-285 BU Net $27.00

(J) BINDING POST 5-way metal binding post. Can accept banana plug. Mounts in .171″ hole in 1/16″ to ⅜″ panels. Has wrap around solder stud. 8-32 thread.
Cat. No. 33-286 Net .25
Cat. No. 33-286 BU Net $21.60

(K) METAL BINDING POST gold plated, fluted brass, captive head. Molded black nylon washer with gold plated brass insert. Use where internal ground circuit is isolated from chassis or panel. Accepts phone tip plug, spade lug, banana plug, alligator clip or wire strand.
Cat. No. 33-287 Net $ .32
Cat. No. 33-287 BU Net $27.00

(L) DUAL BINDING POST—INSULATED dual 5-way binding post assembly with black insulated, fluted heads. Accepts dual banana plugs. Mounts in 2 ⅜″ holes. ¾″ centers on 1/16″-¼″ panels. Has solder studs, ⅝″ x 1⅜″ rounded base. Supplied with 4 hex nuts, two flat washers.
Cat. No. 33-288 Net $ .60
Cat. No. 33-288 BU Net $54.00

(M) DUAL BINDING POST insulated head, washer of molded black styrene, drilled to accept standard phone tips, forward or sideways. Brass, nickel plated body, molded nylon, hex head with brass nickel plated insert. Mounts in two ⅜″ holes on ¾″ centers in panels up to ¼″ thick. Accommodates single or dual banana plugs.
Cat. No. 33-290 Blk Net $ .72
Cat. No. 33-290 BU Net $66.00
Cat. No. 33-292 One Red Head and One Blk Head Net $ .72
Cat. No. 33-292 BU One Red Head and One Blk Head Net $66.00

(N) DUAL BINDING POST captive type nylon head with nickel plated brass insert. Molded black styrene washer, with cross slot to accommodate standard phone tip forward, back or sideways. Supplied with 4 hex nuts and 2 washers. Mounts in two ⅜″ holes on ¾″ centers on panels up to ¼″ thick.
Cat. No. 33-291 2 black heads Net $ .56
Cat. No. 33-291 BU Net $50.00
Cat. No. 33-293 2 red heads Net $ .56
Cat. No. 33-293 BU Net $50.00
Cat. No. 33-295 1 black and 1 red heads Net $ .56
Cat. No. 33-295 BU Net $50.00

(O) NYLON BINDING POST grounding type, with molded nylon, non-removable head takes direct solder connection to stud. High quality, durable binding post.
Cat. No. 33-294-1 Red Net $ .31
Cat. No. 33-294-1 BU Net $26.40
Cat. No. 33-294-2 Blk Net $ .31
Cat. No. 33-294-2 BU Net $26.40

(P) NYLON BINDING POST all metal parts are brass insulated. Molded nylon head (non-removable). Takes direct solder connection to stud. High quality.
Cat. No. 33-296-1 Red Net $ .31
Cat. No. 33-296-1 BU Net $26.40
Cat. No. 33-296-2 Blk Net $ .31
Cat. No. 33-296-2 BU Net $26.40

(Q) DUAL SPRING LOADED BIND-POST—captive brass, nickel plated head with molded black styrene insulator, cross-slotted to accept standard phone tips or wire either forward or sideways. Molded black styrene cap; nickel plated brass body. Requires 2 ⅜″ holes on ¾″ centers for mounting on panels up to ¼″ thick. Accommodates standard phone tips or wires in side holes and secures them when pressure on cap is released. Complete with 4 hex nuts and 2 flat washers.
Cat. No. 33-298 Net $ .81
Cat. No. 33-298 BU Net $75.00

DUAL BINDING POST—captive type bakelite head with nickel plated brass insert. Molded black styrene washer, with cross slot to accept standard phone tip forward, back or sideways. Supplied with 4 hex nuts and 2 washers. Mounts in two ⅜″ holes on ¾″ centers on panels up to ¼″ thick.
Cat. No. 33-299 Red Net $ .72
Cat. No. 33-299 BU Net $66.00

(R) SPADE LUG PLUG, INSULATED—Molded plastic handle; tapered "fork" fits binding posts and terminal screws up to #10 size.
Cat. No. 33-300 Red Net $ .15
Cat. No. 33-300-BU Net $10.80/C
Cat. No. 33-302 Blk Net $ .15
Cat. No. 33-302-BU Net $10.80/C

(S) INSULATED SPADE LUG molded butyrate handle with brass, nickel plated lug. Designed to fit all standard multi purpose binding posts. Wire up to #10 solders in front hole.
Cat. No. 33-304-1 Red Net $ .15
Cat. No. 33-304-1 BU Net $12.00
Cat. No. 33-304-2 Blk Net $ .15
Cat. No. 33-304-2 BU Net $12.00

(T) ALLIGATOR CLIP-INSULATED HANDLE—⅜″ jaw opening; made of cadmium plated steel with unbreakable plastic handle.
Cat. No. 33-310 Red Net $ .12
Cat. No. 33-310-BU Net $8.50/C
Cat. No. 33-312 Blk Net $ .12
Cat. No. 33-312-BU Net $8.50/C

ALLIGATOR CLIP, SCREW CONNECTION—Molded plastic handle, cadmium plated steel jaws with maximum ⅜″ opening.
Cat. No. 33-314 Red Net $ .13
Cat. No. 33-314-BU Net $9.50/C
Cat. No. 33-316 Blk Net $ .13
Cat.No. 33-316-BU Net $9.50/C

ALLIGATOR CLIP, SOLID COPPER—Identical to #33-314/16, except solid copper for higher current carrying capacity.
Cat. No. 33-318 Red Net $ .15
Cat. No. 33-318-BU Net $11.50/C
Cat. No. 33-320 Blk Net $ .15
Cat. No. 33-320-BU Net $11.50/C

ALLIGATOR CLIP—With extra long insulated handle; cadmium plated steel jaws which open to maximum ⅜″.
Cat. No. 33-322 Red Net $ .25
Cat. No. 33-322-BU Net $21.00/C
Cat. No. 33-324 Blk Net $ .25
Cat. No. 33-324-BU Net $21.00/C

INSULATED ALLIGATOR CLIP ADAPTORS—Completely insulated with black molded plastic.

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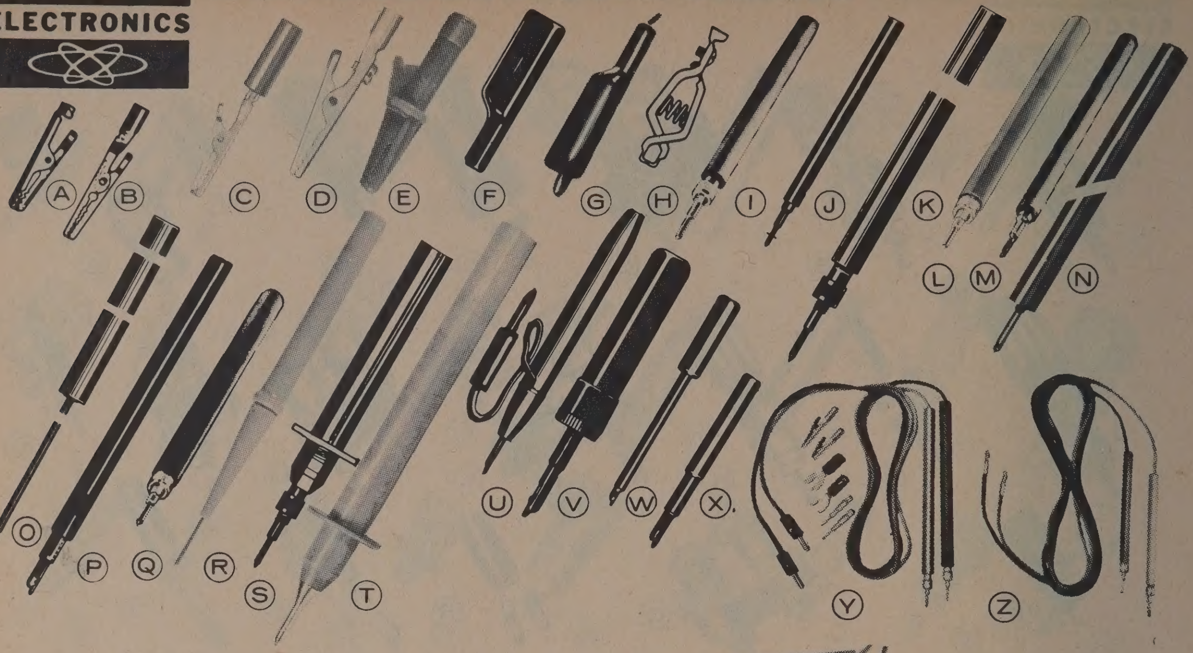

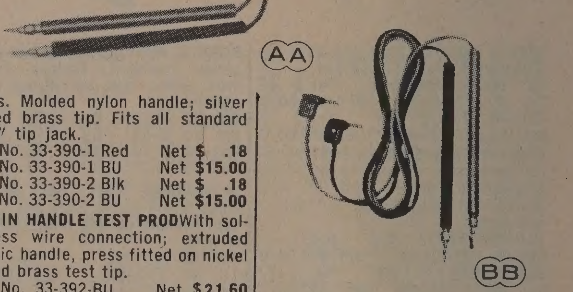

Cat. No. 33-326 Net $ .52
Cat. No. 33-326-BU Net $45.00/C
Cat. No. 33-328 Net $ .60
Cat. No. 33-328-BU Net $54.00/C

ALLIGATOR CLIP ADAPTOR—Accommodates standard tip plug or banana plug.

Cat. No. 33-330 Red• Net $ .45
Cat. No. 33-330-BU Net $39.00/C
Cat. No. 33-332 Blk Net $ .45
Cat. No. 33-332-BU Net $39.00/C

ALLIGATOR CLIP ADAPTOR—Adapts standard tip plug to alligator clip.

Cat. No. 33-334 Red Net $ .37
Cat. No. 33-334-BU Net $33.00/C
Cat. No. 33-336 Blk Net $ .37
Cat. No. 33-336-BU Net $33.00/C

ALLIGATOR-KLIPZON PROD ADAPTOR—Adapts Klipzon Mini-Prod connectors and standard tip plugs to Alligator clip.

Cat. No. 33-338 Red Net $ .42
Cat. No. 33-338-BU Net $36.00/C
Cat. No. 33-340 Blk Net $ .42
Cat. No. 33-340-BU Net $36.00/C

(A) MINI-GATOR CLIP (MUELLER)—Very small alligator clip for applications where space is a factor.

Cat. No. 33-342 Net $ .10
Cat. No. 33-342-BU Net $7.20/C
Cat. No. 33-344 Net $ .10
Cat. No. 33-344-BU Net $7.20/C

(B) ALLIGATOR CLIP-ALL METAL — Cadmium plated jaws with 3/8" opening.

Cat. No. 33-346 Net $ .08
Cat. No. 33-346-BU Net $[illegible].40/C

(C) INSUL. JUMBO ALLIGATOR CLIP—for heavy terminal use; soldered connection, plastic handle with 5/8" jaw opening.

Cat. No. 33-347-1 Red Net $ .27
Cat. No. 33-347-1 BU Net $24.00
Cat. No. 33-347-2 Blk Net $ .27
Cat. No. 33-347-2 BU Net $24.00

(D) ALLIGATOR CLIP-ALL METAL For solderless connection of wire by means of a #6-32 binding head screw.

Cat. No. 33-348 Net $ .08
Cat. No. 33-348-BU Net $6.00/C
Cat. No. 33-350 Net $ .12
Cat. No. 33-350-BU Net $9.00/C

All copper

(E) ALLIGATOR CLIP insulated with standard banana plug adapter. Molded plastic over steel jaws and clips.

Cat. No. 33-352-1 Red Net $ .48
Cat. No. 33-352-1 BU Net $41.00
Cat. No. 33-352-2 Blk Net $ .48
Cat. No. 33-352-2 BU Net $41.00

(F) ALLIGATOR CLIP INSULATOR—Flexible molded vinyl insulator fits over most standard alligator clips.

Cat. No. 33-360 Red Net $ .08
Cat. No. 33-360-BU Net $4.80/C
Cat. No. 33-362 Blk Net $ .08
Cat. No. 33-362-BU Net $4.80/C

(G) ALLIGATOR CLIP BOOT-molded vinyl plastic; allows maximum jaw opening of clip while still insulating clip. "Miniature."

Cat. No. 33-363-1 Red Net $ .06
Cat. No. 33-363-1 BU Net $ 4.00
Cat. No. 33-363-2 Blk Net $ .06
Cat. No. 33-363-2 BU Net $ 4.00

(H) BATTERY CONNECTING & TESTING CLIP—5 amp rating; steel cadmium plated jaws with 1/2" spread.

Cat. No. 33-370 Net $ .08
Cat. No. 33-370-BU Net $6.00/C

BATT:CONNECTING & TESTING CLIP—10 amp rating; steel cadmium plated jaws with 9/16" spread.

Cat. No. 33-372 Net $ .08
Cat. No. 33-372-BU Net $6.00/C

(I) SOLDERLESS FIBRE TEST PROD bone fibre handle, machined to nickel plated brass tip. Features .245" inside diameter for heavy duty wire. Overall length 5 1/4".

Cat. No. 33-376-1 Red Net $ .35
Cat. No. 33-376-1 BU Net $30.00
Cat. No. 33-376-2 Blk Net $ .35
Cat. No. 33-376-2 BU Net $30.00

(J) HEAVY DUTY TEST PROD heavy duty Test Prod. Threaded type. Extra sturdy brass, nickel plated tip with red or black molded plastic handle. Overall length 6 3/16".

Cat. No. 33-378-1 Red Net $ .38
Cat. No. 33-378-1 BU Net $33.00
Cat. No. 33-378-2 Blk Net $ .38
Cat. No. 33-378-2 BU Net $33.00

(K) DELUXE TEST PROD 5 1/4"—Solderless design; wire fits through handle and is fastened to tip with knurled collar.

Cat. No. 33-380-BU Net$33.00
Cat. No. 33-382-BU Net$33.00

(L) LONG TEST PROD, NEEDLE POINT TYPE—Extra safe design due to long unbreakable plastic handle; replaceable phono needle tip.

Cat. No. 33-384-BU Net $30.00
Cat. No. 33-386-BU Net $30.00

(M) SUBMINIATURE TEST PRODhandle bone fibre—red or black. Tip brass, nickel plated. Designed for checking all types of miniature products and equipment. Easily assembled due to threading.

Cat. No. 33-388-1 Red Net $ .27
Cat. No. 33-388-1 BU Net $24.00
Cat. No. 33-388-2 Blk Net $ .27
Cat. No. 33-388-2 BU Net $24.00

(N) SUBMIN. TIP PLUG AND TEST PROD — solderless type. Excellent for use with subminiature printed circuit tip jack. When used as prod, sharp tip pierces oxide coating or flex for positive contact. Grooved head makes positive contact with wires. Molded nylon handle; silver plated brass tip. Fits all standard .080" tip jack.

Cat. No. 33-390-1 Red Net $ .18
Cat. No. 33-390-1 BU Net $15.00
Cat. No. 33-390-2 Blk Net $ .18
Cat. No. 33-390-2 BU Net $15.00

THIN HANDLE TEST PROD With solderless wire connection; extruded plastic handle, press fitted on nickel plated brass test tip.

Cat. No. 33-392-BU Net $21.60
Cat. No. 33-394-BU Net $21.60

(O) LONG REACH TEST PROD—Has 4" very thin insulated extension beyond handle. Needle point assembly; brass nickel plated.

Cat. No. 33-396-BU Net $24.60
Cat. No. 33-398-BU Net $24.60

(P) KLIPZON TEST PROD—Klipzon tip clips on wire or chassis; sharp point, easily penetrates insulation or corrosion; thin plastic handle.

Cat. No. 33-400-BU Net $63.00
Cat. No. 33-402-BU Net $63.00

(Q) SOLDERLESS TEST PRODthreaded prod with 5" long plastic handle, 3/8" diameter. Nickel plated phone tip. Wire fits through handle, wraps around screw portion.

Cat. No. 33-404-1 Red Net $ .35
Cat. No. 33-404-1 BU Net $30.00
Cat. No. 33-404-2 Blk Net $ .35
Cat. No. 33-404-2 BU Net $30.00

(R) TEST PRODtapered slim-type. Fully insulated plastic—solder type. 5 1/2" overall nickel-plated brass tip.

Cat. No. 33-406-1 Red Net $ .81
Cat. No. 33-406-1 BU Net $75.00
Cat. No. 33-406-2 Blk Net $ .81
Cat. No. 33-406-2 BU Net $75.00

(S) HIGH VOLTAGE TEST PROD—Heavy-duty type; has guard ring to prevent accidental touching of tip; handle accepts wires up to 3/8" diameter.

Cat. No. 33-408 Red Net $ .78
Cat. No. 33-408-BU Net $72.00/C
Cat. No. 33-410 Blk Net $ .78
Cat. No. 33-410-BU Net $72.00/C

(T) R.F. TEST PRODheavily insulated fibre probe. Coax cable or IN-34 crystal for R.F. Probes may be used because of larger inside diameter. Heavy duty tip is removable.

Cat. No. 33-411-1 Red Net $ .70
Cat. No. 33-411-1 BU Net $63.00
Cat. No. 33-411-2 Blk Net $ .70
Cat. No. 33-411-2 BU Net $63.00

(U) KLIPZON CRYSTAL PROD KIT—Self-holding prod, complete with Germanium Diode and other parts to assemble low capacity crystal probe.

Cat. No. 33-412 Red Net $1.83
Cat. No. 33-414 Blk. Net $1.83

(V) KLIPZON JUMBO PROD HANDLE—Tip pierces insulation. Self-holding point clips on wires (up to .220" diameter); chassis, screws, terminals, etc.

Cat. No. 33-416-BU Net $66.00
Cat. No. 33-418-BU Net $66.00

(W) KLIPZON LONGIE ADAPTOR—Long, slender self-holding point with needle to pierce insulation.

Cat. No. 33-420-BU Net $45.00
Cat. No. 33-422-BU Net $45.00

(X) KLIPZON JUMBO ADAPTOR — Adapts regular tip plug or test prod to self holding Klipzon type.

Cat. No. 33-424-BU Net $63.00
Cat. No. 33-426-BU Net $63.00

(Y) UNIVERSAL TEST LEADS—50" flexible cable; one end 6" break-resistant plastic handle, with solderless tip plug; other end terminated in banana plug; supplied with alligator clip, spade lugs and phono tip plugs, fit the banana plug end.

Cat. No. 33-450-S Net $1.88

UNIVERSAL "NEEDLEPOINT" TEST LEADS—One end 6" break-resistant Test Prod, with phono needle type test prod; other end terminated with banana plug; furnished with spade lugs, alligator clips and phono tip plug, fit on banana plug.

Cat. No. 33-452-S Net $1.88

(Z) "THRIFTY" TEST LEADS — 50" flexible kink-proof cable; one end 4" insulated test prods with solderless wire connections; other ends terminated in standard phone tips.

Cat. No. 33-454-S Net $ .75

(AA) SOLDERLESS TIP TEST LEADS red and black 4" x 3/8" diameter plastic handle, with red and black flexible, kinkless 50" leads.

Cat. No. 33-455-S Net $ .85
Cat. No. 33-457-S Net $ .91

(BB) HEAVY DUTY TEST LEADS—50" flexible kink-proof cable; 7 1/2" long, heavy-duty unbreakable test prods,

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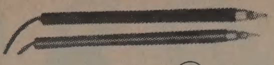
TEST LEADS · PHONE PLUGS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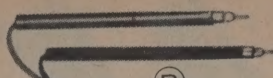
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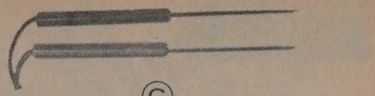
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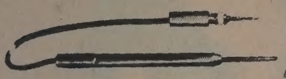
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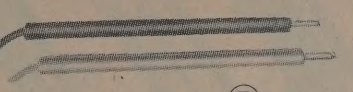
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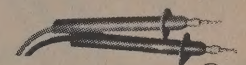
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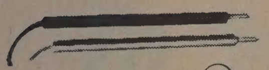
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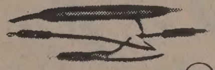
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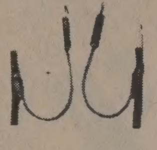
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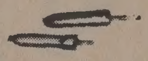
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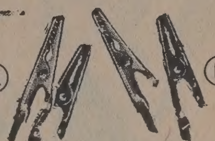

(L)

solderless wire connections.
Cat. No. 33-456-S Net **$1.27**
Cat. No. 33-458-S Net **$1.38**

(A) **PHONO NEEDLE TEST LEADS** red and black 4" x 3/8" diameter plastic handle, with red and black flexible, kinkless 50" leads. Tips are extremely sharp phonograph needles.
Cat. No. 33-459-S Net **$ .87**
Cat. No. 33-461-S Net **$ .93**

(B) **HEAVY DUTY NEEDLE TEST LEADS**—50" flexible, kink-proof cable; 7" long, heavy duty needle point prods, unbreakable plastic handle.
Cat. No. 33-460 Net **$1.33**
Cat. No. 33-462-S Net **$1.43**

(C)**LONG REACH TEST LEADS**50" flexible, kink-proof cable; one end "long reach" with 5" insulated test prod, very thin extension; other end terminated in right angle, meter-type insulated tip plug.
Cat. No. 33-464-S Net **$1.65**

(D)**RETRACTABLE TEST PROD**Electrocraft's own printed circuit test prod with the exclusive retractable tip. This exclusive feature allows complete testing of printed circuitry without shorting or shock to the user.
Cat. No. 33-465-1-S Red Net **$ 1.65**
Cat. No. 33-465-2-S Blk Net **$ 1.65**

(E) **SUBMINIATURE TEST LEADS** red and black fibre handles, O.D. only 1/4"; insulated tips. Flexible, kinkless rubber leads 50" long, and threaded phone tips. Ideal for testing in tight or cramped places.
Cat. No. 33-466-S Net **$ 1.26**

(F) **STRETCH TYPE TEST LEADS**—Kink-proof, spiral-type 9" cable; extended length 6 feet; one end 6 3/8" heavy duty test prods with solderless wire connection; other end insulated, solderless tip plug.
Cat. No. 33-470-S Net **$2.97**

(G) **HIGH VOLTAGE TEST LEADS**—48" heavy insulated high tension wire (22,000/V).

Pair of 1 red, 1 black, with tip plugs.
Cat. No. 33-472-S Net **$2.57**

Pair of 1 red, 1 black, with insulated spade lugs.
Cat. No. 33-474-S Net **$2.40**

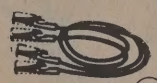
Pair of 1 red, 1 black, with alligator clips.
Cat. No. 33-476-S Net **$2.48**

(H) **KLIPZON TEST LEADS**—48" flexible, kink-proof cable; one end slim handle, self-holding and insulation piercing, other end Klipzon Tip Plugs. Klipzon prods and tips fit standard tip jacks, have sharp needle point to penetrate wire insulation, corrosion. Pair of 1 red and 1 black.
Cat. No. 33-480-S Net **$2.03**

KLIPZON TEST LEADS—Same as above, but with standard Phone Tip Plugs.
Cat. No. 33-482-S Net **$1.65**

KLIPZON TEST LEADS—Same as above, but other end insulated banana plug.
Cat. No. 33-484-S Net **$1.95**

(M)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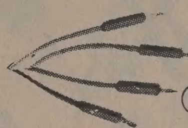
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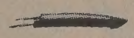
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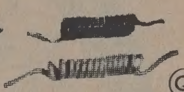
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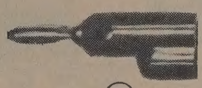
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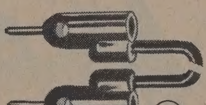
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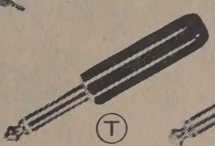
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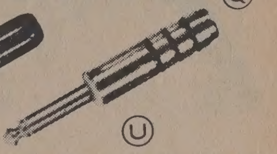
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(I) **KLIPZON CRYSTAL PROBE**—Germanium diode probe with self-holding points, for measuring high frequency voltages; flexible lead wires are terminated on meter end with Klipon tip plug.
Cat. No. 33-486-S Net **$4.35**

KLIPZON CRYSTAL PROBE — Crystal probe on one end, plus ground lead terminated on each end with tip plug.
Cat. No. 33-488-S Net **$4.35**

(J) **KLIPZON SHIELDED LOW CAPACITY**—36" low capacity, coaxial type lead, with self-holding insulation piercing, tip prods.
Cat. No. 33-490-S Net **$2.97**

(K) **HEAVY DUTY KLIPZON TEST LEADS**—48" 16-gauge, heavy insulated lead wires, terminated on one end with Klipzon Jumbo prod handles.
Cat. No. 33-492-S Net **$2.87**

(L)**ALLIGATOR CLIP TEST LEADS**cadmium plated steel alligator clips on both ends of heavy duty test lead wire. Priced per pair.
Cat. No. 33-496-S 12" Net **$ .55**
Cat. No. 33-497-S 24" Net **$ .61**
Cat. No. 33-498-S 36" Net **$ .70**
Cat. No. 33-499-S 48" Net **$ .79**

(M) **ALLIGATOR CLIP JUMPER LEADS**—Flexible, kink-proof, lead wires, terminate at each end with fully insulated steel nickel plated alligator clips.
Pair of 1 red and 1 black, 12" long.
Cat. No. 33-500-S Net **$ .92**
Pair of 1 red and 1 black, 24" long.
Cat. No. 33-502-S Net **$ .95**
Pair of 1 red and 1 black, 36" long.
Cat. No. 33-504-S Net **$1.05**
Pair of 1 red and 1 black, 48" long.
Cat. No.33-506-S Net **$1.10**

(N) **MID. ALLIGATOR CLIP TEST LEAD** — cadmium plated steel alligator clips with red vinyl plastic boots. Priced per pair.
Cat. No. 33-501-S 12" Net **$ .81**
Cat. No. 33-503-S 18" Net **$ .84**
Cat. No. 33-505-S 24" Net **$ .87**
Cat. No. 33-507-S 36" Net **$ .96**

(O) **KLIPZON JUMPER LEADS**—Flexible, kink-proof cable, with patented tips, which clip on wires and terminals, have sharp insulation and corrosion piercing points.
Cat. No. 33-510, 12" Net **$ .77**
Cat. No. 33-512, 12" Net **$ .77**
Cat. No. 33-514, 24" Net **$1.12**
Cat. No. 33-516, 24" Net **$1.12**

(P) **TEST LEAD WIRE**—Flexible, rubber-coated and kink-resistant replacement wire for test leads.
Package of two, 50" length, red & black, 6000/V insulation.
Cat. No. 33-518-S Net **$ .60**
Package of two, 48" length, red & black, 22,000/V test leads.
Cat. No. 33-520-S Net **$ .87**

(Q) **STRETCH LEAD WIRE** — Coiled wire, for all applications. Package contains 1 red and 1 black lead. 9" long—stretches to 6 Ft.
Cat. No. 33-522-S Net **$1.95**

UNIVERSAL TEST LEAD KIT — two 55" leads and 12 interchangeable testing tips and connectors. Convert test leads to many different types. Has four phone tips, two alligator clips, two needle tips, two banana plugs, two spade lugs. Plastic wallet-style kit.
Cat. No. 33-528 Net **$ 2.40**

TEST LEAD PLUG INTERCHANGE KIT

— Contains pairs of alligator clips, banana plugs, spade lugs and phone tips, (1 each in red and black) to adapt standard test leads to many different types.
Cat. No. 33-530
Net **$2.25**

(R) **MOLDED CROSS PATCH CORDS** molded butyrate plastic handles, banana plugs with 4 beryllium copper, nickel plated springs, connected to rubber covered flexible wire. Interconnects countless number of multiple circuits. Provisions for banana plug contacts top and side.
8" long with 9/16" plug spring
Cat. No. 33-540-1 Red Net **$ .99**
Cat. No. 33-540-1 BU Net **$90.00**
Cat. No. 33-540-2 Blk Net **$ .99**
Cat. No. 33-540-2 BU Net **$90.00**
12" long with 9/16" plug spring
Cat. No. 33-541-1 Red Net **$ .99**
Cat. No. 33-541-1 BU Net **$90.00**
Cat. No. 33-541-2 Blk Net **$ .99**
Cat. No. 33-541-2 BU Net **$90.00**
24" long with 9/16" plug spring
Cat. No. 33-542-1 Red Net **$ 1.06**
Cat. No. 33-542-1 BU Net **$96.00**
Cat. No. 33-542-2 Blk Net **$ 1.06**
Cat. No. 33-542-2 BU Net **$96.00**
36" long with 13/32" plug spring
Cat. No. 33-543-1 Red Net **$ 1.12**
Cat. No. 33-543-1 BU Net **$102.00**
Cat. No. 33-543-2 Blk Net **$ 1.12**
Cat. No. 33-543-2 BU Net **$102.00**
8" long with 13/32" plug spring
Cat. No. 33-544-1 Red Net **$ .99**
Cat. No. 33-544-1 BU Net **$90.00**
Cat. No. 33-544-2 Blk Net **$ .99**
Cat. No. 33-544-2 BU Net **$90.00**
12" long with 13/32" plug spring
Cat. No. 33-545-1 Red Net **$ .99**
Cat. No. 33-545-1 BU Net **$90.00**
Cat. No. 33-545-2 Blk Net **$ .99**
Cat. No. 33-545-2 BU Net **$90.00**
24" long with 13/32" plug spring
Cat. No. 33-546-1 Red Net **$ 1.06**
Cat. No. 33-546-1 BU Net **$96.00**
Cat. No. 33-546-2 Blk Net **$ 1.06**
Cat. No. 33-546-2 BU Net **$96.00**
36" long with 13/32" plug spring
Cat. No. 33-547-1 Red Net **$ 1.12**
Cat. No. 33-547-1 BU Net **$102.00**
Cat. No. 33-547-2 Blk Net **$ 1.12**
Cat. No. 33-547-2 BU Net **$102.00**

(S) **CROSS PATCH PIN TIP CORD** Molded butyrate handles with brass nickel plated body — flexible wire of 65 strands #36 copper; O.D. of .140". Interconnects countless number of multiple circuits. .080" tip plug and female jack in rear fits all standard phone tips and jacks. Standard banana plugs fit into side holes.
8" wire
Cat. No. 33-548-1 Red Net **$ .99**
Cat. No. 33-548-1 BU Net **$90.00**
Cat. No. 33-548-2 Blk Net **$ .99**
Cat. No. 33-548-2 BU Net **$90.00**
12" wire
Cat. No. 33-549-1 Red Net **$ .99**
Cat. No. 33-549-1 BU Net **$90.00**
Cat. No. 33-549-2 Blk Net **$ .99**
Cat. No. 33-549-2 BU Net **$90.00**
24" wire
Cat. No. 33-550-1 Red Net **$ 1.06**
Cat. No. 33-550-1 BU Net **$96.00**
Cat. No. 33-550-2 Blk Net **$ 1.06**
Cat. No. 33-550-2 BU Net **$96.00**
36" wire
Cat. No. 33-551-1 Red Net **$ 1.12**
Cat. No. 33-551-1 BU Net **$102.00**
Cat. No. 33-551-2 Blk Net **$ 1.12**
Cat. No. 33-551-2 BU Net **$102.00**

(T) **TWO-CONDUCTOR PHONE PLUG, SCREW TERMINALS** — Standard size plug. With black plastic handle.
Cat. No. 33-600 Blk Net **$ .52**
Cat. No. 33-600-BU Net **$44.83/C**
With red plastic handle.
Cat. No. 33-602 Red Net **$ .52**
Cat. No. 33-602-BU Net **44.83/C**
Metal (shielded) handle.
Cat. No. 33-604 Net **$ .68**
Cat. No. 33-604-BU Net **$62.89/C**

(U) **TWO-CONDUCTOR PHONE PLUG, COMB. CLAMP & SOLDER LUG TERMINALS**—Large "grounding" terminal

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Net

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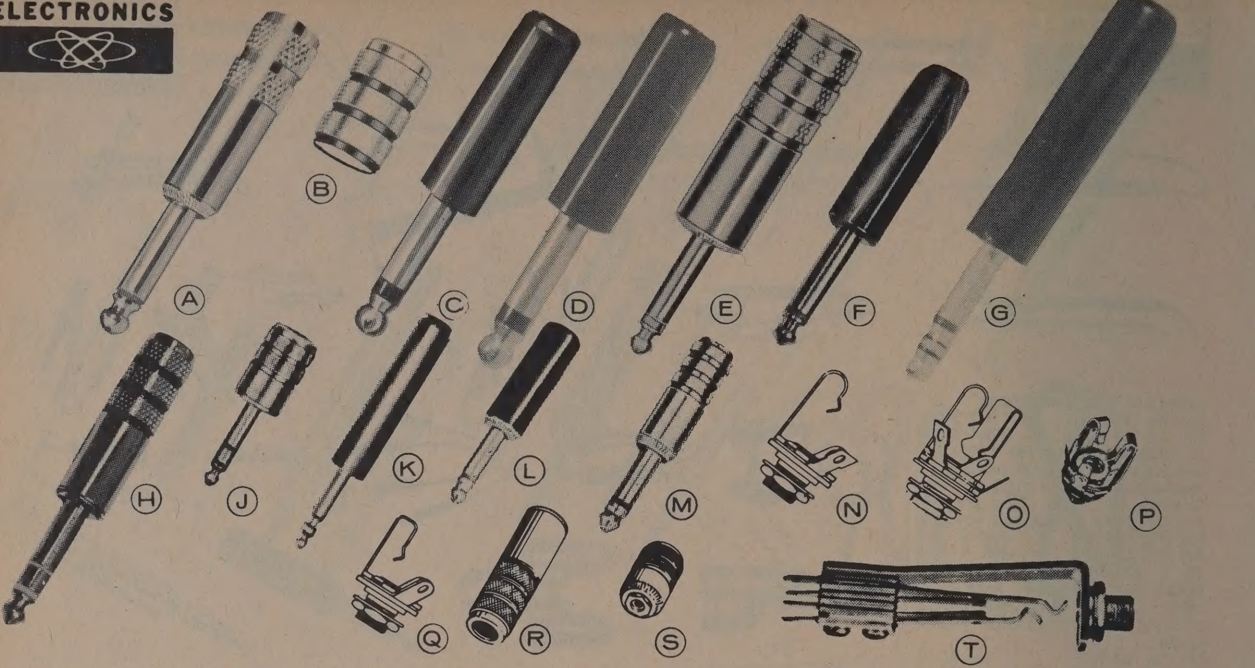
ELECTROCRAFT COMPONENTS



clamps around cable insulation or shield, and acts as strain relief.

With black plastic handle.
Cat. No. 33-606 Blk Net $ .45
Cat. No. 33-606-BU Net $39.90/C
With red plastic handle
Cat. No. 33-608 Red Net $ .45
Cat. No. 33-608-BU Net $39.90/C
Metal (shielded) handle.
Cat. No. 33-610 Net $ .63
Cat. No. 33-610-BU Net $57.50/C

(A) TWO-CONDUCT. PHONE PLUG, PLAIN SOLDER PLUGS—Standard size plug.
Cat. No. 33-612 Blk Net $ .45
Cat. No. 33-612-BU Net $39.17/C

(B) SHIELDED TWO-CONDUCTOR PHONE PLUG—Standard phone plug with special, short metal handle.
Cat. No. 33-614 Net $ .57
Cat. No. 33-614-BU Net $51.30/C

(C) STAND. SHIELDED TWO-CONDUCTOR PHONE PLUG—Regular plug with metal (shielded) handle.
Cat. No. 33-616 Net $ .63
Cat. No. 33-616-BU Net $57.00/C

(D)TWO-CONDUCT. PHONE PLUG, TYPE PJ-055B—Made in accordance with military specifications; solder terminal and screw connection.
Cat. No. 33-618 Net $ .87
Cat. No. 33-618-BU Net $80.63/C

SHORT FINGER, TWO-CONDUCTOR PHONE PLUG—Special short finger (barrel) type plug to connect microphone or telephone pickup to Revere/Wollensack tape recorders.
Cat. No. 33-620 Net $ .69
Cat. No. 33-620-BU Net $63.30/C

(E) LARGE HANDLE TWO-CONDUCT. PHONE PLUG — With black plastic handle, 1½" long.
Cat. No. 33-622 Blk Net $ .48
Cat. No. 33-622-BU Net $42.30/C
With red plastic handle, 1½" long.
Cat. No. 33-624 Red Net $ .48
Cat. No. 33-624-BU Net $42.30/C
Metal (shielded) handle, 1" long.
Cat. No. 33-626 Net $ .70
Cat. No. 33-626-BU Net $63.00/C
Metal (shielded) handle, 2⅙" long.
Cat. No. 33-628 Net $ .75
Cat. No. 33-628-BU Net $69.00/C

(F)"THIN FINGER" TWO-CONDUCT. PHONE PLUGS—"Undersize" finger (barrel) diameter of .206" for applications where polarized input is desired to distinguish between different connections.

With black plastic handle.
Cat. No. 33-630 Blk Net $ .47
Cat. No. 33-630-BU Net $41.40/C
With metal (shielded) handle.
Cat. No. 33-632 Net $ .56
Cat. No. 33-632-BU Net $51.00/C

(G) 3-CONDUCT. PHONE PLUG: COMB. CLAMP AND SOLDER LUG TERMINALS:
With black plastic handle.
Cat. No. 33-640 Blk Net $ .65
Cat. No. 33-640-BU Net $58.35/C
With metal (shielded) handle.
Cat. No. 33-642 Net $ .79
Cat. No. 33-642-BU Net $73.35/C

(H) 3-CONDUCT. PHONE PLUG, SCREW TERMINALS—
With black plastic handle.
Cat. No. 33-644 Blk Net $ .76
Cat. No. 33-644-BU Net $70.83/C
With red plastic handle.
Cat. No. 33-646 Red Net $ .80
Cat. No 33-646-BU Net $70.83/C
With metal (shielded) handle.
Cat. No. 33-648 Net $ .90
Cat. No. 33-648-BU Net $83.17/C

(J) 3-CONDUCTOR PHONE PLUG, LARGE HANDLE—Accommodate large diameter cables, with room in handle for wired-in resistors or capacitors.
Cat. No. 33-650 Net $ .78
Cat. No. 33-650-BU Net $72.00/C

(K) 3-CONDUCTOR PHONE PLUG, TYPE PJ-068—With solder terminals and screw connection.
Cat. No. 33-654 Net $2.20
Cat. No. 33-654-BU Net $209.99/C

(L) MINIATURE PHONE PLUGS: COMB. CLAMP AND SOLDER TERMINALS—Two-conductor style, tested for 500/V breakdown.
With metal (shielded) handle.
Cat. No. 33-660 Net $ .59
Cat. No. 33-660-BU Net $51.66/C
With black plastic handle.
Cat. No. 33-662 Blk Net $ .45
Cat. No. 33-662-BU Net $40.02/C
With red plastic handle.
Cat. No. 33-664 Red Net $ .45
Cat. No. 33-664-BU Net $40.02/C

(M) MINIATURE PHONE PLUGS: COMB. CLAMP AND SCREW TERMINALS—Same plugs as listed above except for different style terminals.
With metal (shielded) handle.
Cat. No. 33-666 Net $ .67
Cat. No. 33-666-BU Net $59.85/C
With black plastic handle.
Cat. No. 33-668 Blk Net $ .48
Cat. No. 33-668-BU Net $42.51/C
With red plastic handle.
Cat. No. 33-670 Red Net $ .48
Cat. No. 33-670-BU Net $42.51/C

GC Electrocraft Jacks require a minimum panel space and depth behind panel. Parts are keyed and mechanically interlocked. Springs are made of nickel silver, with phenolic spaces and brass, nickel plated mounting bushings. Panel mounting jacks furnished with nickel plated steel washers and nickel plated brass mounting nut.

PHONE JACKS

(N) PANEL MOUNTING, TWO-CONDUCTOR PHONE JACKS—Open circuit, 2-conductor.
Cat. No. 33-690 Net $ .32
Cat. No. 33-690-BU Net 27.00/C

Closed circuit, 2-conductor.
Cat. No. 33-692 Net $ .34
Cat. No. 33-692-BU Net 29.83/C

Open circuit, 2-conductor, MIL type, JJ-034.
Cat. No. 33-694 Net $ .40
Cat. No. 33-694-BU Net 34.17/C

Open circuit, 2-conductor .210" ID Sleeve fits plugs 33-630/2.
Cat. No. 33-700 Net $ .28
Cat. No. 33-700-BU Net 24.98/C
Closed circuit, 2-conductor .210" ID Sleeve—fits plugs 33-630/2.
Cat. No. 33-702 Net $ .32
Cat. No. 33-702-BU Net 26.67/C

(O) PANEL MOUNTING 3-CONDUCTOR PHONE JACKS—Open circuit, 3-conductor.
Cat. No. 33-708 Net $ .42
Cat. No. 33-708-BU Net 36.00/C

Single closed circuit, 3-conductor.
Cat. No. 33-710 Net $ .48
Cat. No. 33-710-BU Net 44.32/C

Open circuit, 3-conductor, MIL type JJ-033.
Cat. No. 33-712 Net $ .45
Cat. No. 33-712-BU Net 39.98/C

(P) STEREO TELEPHONE JACK new jack designed for switching out speakers when connecting stereo headphones and for switching three wire stereo input circuits. Normally closed dual switch contacts open both stereo circuits separately when three circuits plug is inserted.
Cat. No. 33-711 Net $ .60
Cat. No. 33-711 BU Net $54.00

(Q) MINIATURE PANEL MOUNTING JACKS—These jacks mate with plugs 33-660 through 33-670. Open circuit, 2-conductor.
Cat. No. 33-720 Net $ .27
Cat. No. 33-720-BU Net 23.32/C

Closed circuit, 2-conductor.
Cat. No. 33-722 Net $ .30
Cat. No. 33-722-BU Net 26.66/C

(R & S) CORD MOUNTED JACKS—Often referred to as "extension jacks" or "In-line jacks."

2-conductor, open circuit style, with solder lug terminals and metal (shielded) handle.
Cat. No. 33-730 Net $ .87
Cat. No. 33-730-BU Net 77.51/C

2-conductor, open circuit style, with solder lug terminals and black plastic handle.
Cat. No. 33-732 Blk Net $ .63
Cat. No. 33-732-BU Net 55.83/C

2-conductor, open circuit, screw type terminal, with metal (shielded) handle.
Cat. No. 33-734 Net $ .97
Cat. No. 33-734-BU Net 90.00/C

2-conductor, open circuit, screw type terminals, with black plastic handle.
Cat. No. 33-736 Blk Net $ .72
Cat. No. 33-736-BU Net 66.60/C

3-conductor, open circuit style, with solder lug terminals and metal (shielded) handle.
Cat. No. 33-740 Net $1.12
Cat. No. 33-740-BU Net 99.90/C

3-conductor, open circuit style, with screw type terminal and metal (shielded) handle.
Cat. No. 33-742 Net $1.20
Cat. No. 33-742-BU Net 110.01/C
Miniature type, mates with plugs #33-660 through #33-670, with solder lugs and metal (shielded) handle.
Cat. No. 33-746 Net $ .78
Cat. No. 33-746-BU Net 70.01/C

(T) LONG FRAME JACKS—2-conductor, open circuit.
Cat. No. 33-750 Net $ .48
Cat. No. 33-750-BU Net 44.16/C

3-conductor, single closed circuit.
Cat. No. 33-752 Net $ .67
Cat. No. 33-752-BU Net 61.65/C

3-conductor, single closed circuit ring grounded.
Cat. No. 33-754 Net $ .67
Cat. No. 33-754-BU Net 61.65/C

2-conductor, open circuit w/insulated break.
Cat. No. 33-756 Net $ .67
Cat. No. 33-756-BU Net 61.65/C

3-conductor, 2 closed circuit.
Cat. No. 33-758 Net $ .75
Cat. No. 33-758-BU Net 70.80/C

2-conductor, closed circuit w/insulated make.
Cat. No. 33-760 Net $ .75
Cat. No. 33-760-BU Net 70.80/C

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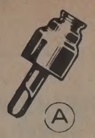
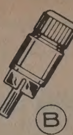
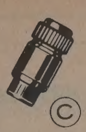
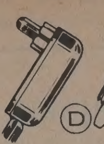
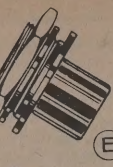
ADAPTORS

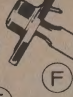


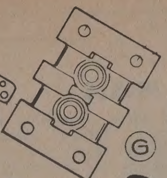


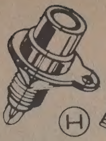


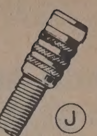


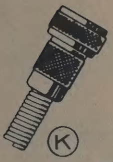


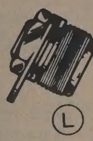


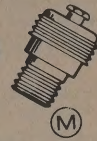


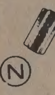


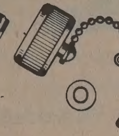


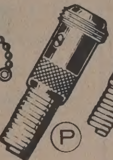


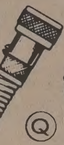


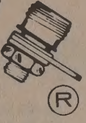


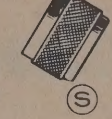


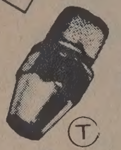


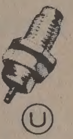


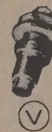


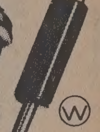


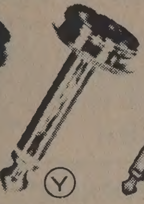


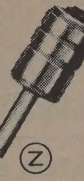


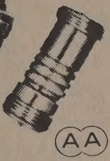


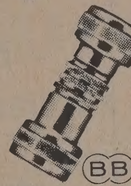


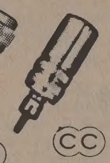


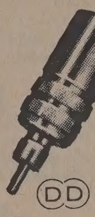


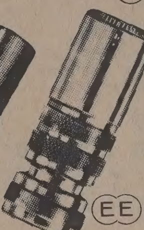


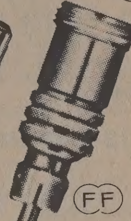


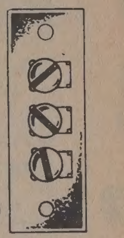


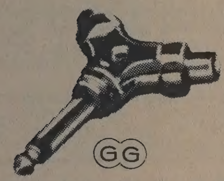


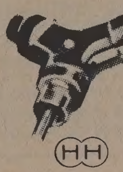


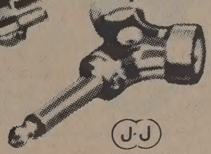


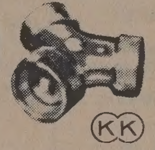


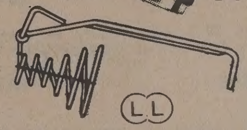












These plugs and jacks are universally used for audio connections, phonographs, pre-amplifiers and amplifiers in connection with single conductor shielded cable.

(A) PHONE PLUGS—Solder type.
Cat. No. 33-770 Net $ .08
Cat. No. 33-770-BU Net 4.80/C

(B) PHONO PLUGS — Combination clamp, solder type, with removable metal (shielded) handle.
Cat. No. 33-772 Net $ .32
Cat. No. 33-772-BU Net 28.50/C

(C) PHONO JACK, CORD MOUNTED—Combination clamp and solder, terminal; removable metal (shielded) handle.
Cat. No. 33-774 Net $ .40
Cat. No. 33-774-BU Net 34.17/C

(D) SOLDERLESS PHONO PLUGS—Positive, noise-free pressure connection. Right angle style, designed for regular shielded cable with approximately 3⁄16″ OD.
Grey plastic shell.
Cat. No. 33-776 Net $ .28
Cat. No. 33-776-BU Net 23.40/C
Black plastic shell.
Cat. No. 33-778 Net $ .28
Cat. No. 33-778-BU Net 23.40/C
Red plastic shell.
Cat. No. 33-780 Net $ .28
Cat. No. 33-780-BU Net 23.40/C
Yellow plastic shell.
Cat. No. 33-782 Net $ .28
Cat. No. 33-782-BU Net 23.40/C
Blue plastic shell.
Cat. No. 33-784 Net $ .28
Cat. No. 33-784-BU Net 23.40/C

(E) PHONO JACK, SINGLE HOLE MOUNTING—Supplied with washer and mounting nut.
Cat. No. 33-790 Net $ .25
Cat. No. 33-790-BU Net 20.67/C

(F). PHONO JACK—Fastens to chassis with 2 rivets or 2 screws.
W/oval, space saving metal mounting plate.
Cat. No. 33-792 Net $ .11
Cat. No. 33-792-BU Net 7.33/C
With regular round mounting plate.
Cat. No. 33-796 Net $ .11
Cat. No. 33-796-BU Net 7.50/C

(G) DOUBLE PHONO PIN JACK
Cat. No. 33-800 Net $ .15
Cat. No. 33-800-BU Net 12.00/C

TRIPLE PHONO PIN JACK
Cat. No. 33-802 Net $ .18
Cat. No. 33-802-BU Net 15.00/C

(H) SINGLE HOLE PANEL PHONO JACK—Mounts in 3⁄32″ hole, requires only one hole drilled. With washer, nut and solder lug for ground.
Cat. No. 33-804 Net $ .20
Cat. No. 33-804-BU Net 16.20/C

Designed for use with single conductor, shielded microphone cable. Bodies, lock nuts and mounting nuts: brass, nickel plated; contact terminals, brass, hot-tinned; insulation is high-grade phenolic.

(J) CORD MOUNTED MICROPHONE CONNECTORS—Flexible spring protects cable; center conductor solders to contact; braid is clamped securely by set screw.
Male connector.
Cat. No. 33-810 Net $ .28
Cat. No. 33-810-BU Net 24.00/C

(K) FEMALE CONNECTOR.
Cat. No. 33-812 Net $ .37
Cat. No. 33-812-BU Net 31.50/C

(L) PANEL MOUNTED MICROPHONE CONNECTORS—May be insulated with suitable fibre washers; mates with No. 33-812 connector.
Single contact connector.
Cat. No. 33-814 Net $ .23
Cat. No. 33-814-BU Net 19.38/C

(M) MICROPHONE AND CHASSIS CONNECTOR—Closed circuit type which grounds center contact when cable connector removed.
Cat. No. 33-816 Net $ .30
Cat. No. 33-816-BU Net 26.50/C

(N) COUPLING NUT—Converts #33-810 male connector to 812 female type.
Cat.No. 33-818 Net $ .12
Cat. No. 33-818-BU Net 8.33/C

(O) CAP FOR PANEL CONNECTORS—Protects unused connectors from mechanical damage and dust.
Cat. No. 33-820 Net $ .47
Cat. No. 33-820-BU Net 42.48/C

(P) MINIATURE MICROPHONE CONNECTORS—Made to the same specifications and of same materials as standard size connectors. Cord mounted male connector.
Cat. No. 33-826 Net $ .30
Cat. No. 33-826-BU Net 26.00/C

(Q) Cord mounted female connector.
Cat. No. 33-828 Net $ .37
Cat. No. 33-828-BU Net 33.15/C

(R) Panel mounted connector.
Cat. No. 33-830 Net $ .23
Cat. No. 33-830-BU Net 20.33/C

(S) COUPLING NUT—Converts male connector #33-826 to female connector #33-828.
Cat. No. 33-832 Net $ .08
Cat. No. 33-832-BU Net 5.48/C

(T) MALE COAXIAL CONNECTORS Low-cost solderless coaxial cable connector. For use with RG-8/U, RG-11/U, RG-13/U and RG-59/U. Mates with No. 33-836 receptacle or No. 33-838 female coupler. Low-loss insulation.
Cat. No. 33-834 Net $ .53
Cat. No. 33-834 BU Net $48.00

(U) FEMALE CHASSIS FITTING silver-plated, low-loss insulated coaxial cable connector. Mates with No. 33-834. 5⁄8″ threaded stem.
Cat. No. 33-836 Net $ .53
Cat. No. 33-836-BU Net $48.00

(V) FEMALE COUPLER highly conductive, silver-plated cable connector. Mates at either end with No. 33-834 connector.
Cat. No. 33-838 Net $ .65
Cat. No. 33-838 BU Net $60.00

GC Electronics Adaptors are designed for quickly interchanging various cable connectors; these handy devices are small, yet sturdy and of attractive modern design.

(W) PHONO JACK INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-850 Net $ .75
Cat. No. 33-850-BU Net $67.50/C

PHONO JACK INPUT, STANDARD PHONE PLUG OUTPUT, HEAVY DUTY METAL SHIELDED TYPE.
Cat. No. 33-852 Net $ .87
Cat. No. 33-852-BU Net $78.30/C

(X) PHONO JACK INPUT, MALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-854 Net $ .67
Cat. No. 33-854-BU Net $59.40/C

PHONO JACK INPUT, FEMALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-856 Net $ .75
Cat. No. 33-856-BU Net $67.50/C

(Y) FEMALE MICROPHONE CONNECTOR INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-858 Net $ .35
Cat. No. 33-858-BU Net $30.00/C

(Z) MINIATURE PHONE JACK INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-860 Net $ .87
Cat. No. 33-860-BU Net $78.30/C

(AA) COUPLER, CONNECTS 2 FEMALE MICROPHONE CONNECTORS.
Cat. No. 33-862 Net $ .45
Cat. No. 33-862-BU Net $40.00/C

(BB) COUPLER, CONNECTS 2 MALE MICROPHONE CONNECTORS.
Cat. No. 33-864 Net $ .50
Cat. No. 33-864-BU Net $44.17/C

(CC) MIN. PHONE JACK INPUT, STANDARD PHONO PLUG OUTPUT:
Cat. No. 33-865 Net $ .87
Cat. No. 33-865 BU Net $78.30

(DD) STANDARD PHONE JACK INPUT, PHONO PLUG OUTPUT:
Cat. No. 33-866 Net $1.10
Cat. No. 33-866-BU Net 105.84/C

(EE) STANDARD PHONE JACK INPUT, FEMALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-868 Net $1.08
Cat. No. 33-868-BU Net $99.17/C

STANDARD PHONE JACK INPUT, MALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-870 Net $ .98
Cat. No. 33-870-BU Net $89.10/C

(FF) MALE MICROPHONE CONNECTOR INPUT, PHONO PLUG OUTPUT:
Cat. No. 33-872 Net $ .75
Cat. No. 33-872-BU Net $67.50/C

(GG) "Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: phone plug.
Cat. No. 33-880 Net $1.05
Cat. No. 33-880-BU Net $94.50/C

"Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: single phono jack.
Cat. No. 33-882 Net $1.05
Cat. No. 33-882-BU Net $94.50/C

(HH) "Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: standard phono plug.
Cat. No. 33-884 Net $1.13
Cat. No. 33-884-BU Net $102.60/C

(JJ) "Y" ADAPTOR—Input: 2 male mike connectors (in parallel); output: standard phone plug.
Cat. No. 33-886 Net $1.13
Cat. No. 33-886-BU Net $102.60/C

(KK) "Y" ADAPTOR—Input: 2 male microphone connectors (in parallel); output: female microphone connector.
Cat. No. 33-888 Net $ .98
Cat. No. 33-888-B Net $89.63/C

(LL) MINIATURE SPRINGS — Guards miniature tubes and provides 2-way support. Direct axial pressure downward plus a sideways support to keep the tube upright and perpendicular to the chassis. Resilient sring maintains life and action indefinitely.

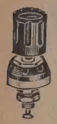
Cat. No.	Tube Size	Net
33-900-BU	for 7 pin, 2 inch long tube	$10.20/C
33-901-BU	for 1 pin, 1½ inch tube	$10.20/C
33-902-BU	for 7 pin, 1⅛ inch tube	$10.20/C
33-903-BU	for 9 pin, 1½ inch tube	$10.80/C

(MM) HEAVY DUTY TERMINAL BOARDS—Brass, cadmium plated lugs, .042 thick on ½″ centers. Numbered terminals. X. P. Bakelite Strip 7⁄8″ wide, 3⁄32″ thick. Nickel plated 8-32 x 5⁄16 brass screw.

Grayhill INC.

GRAYHILL BINDING POSTS

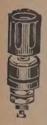
All metal parts are nickel plated brass. Insulating washers are non-turn "D" style phenolic to MIL-M-14. Integral solder stud plus two hex nuts for solder lug connections. All posts may be used on panels up to 3/16" thick and are shipped completely assembled.



29-3 SCREW TYPE

For ½" dia. mounting hole. ⅝" dia. insulating washers for use in existing equipment or where wider spacing is desirable. Available in red, black, white, yellow, blue, gray, green and brown.

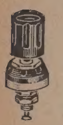
29-3 (Red or Black)	**$0.40 ea.**
29-3 (Choice of 6 colors)	**$0.45 ea.**



29-1 SCREW TYPE

For ⅜" dia. mounting hole. ½" dia. insulating washers. Allows closer spacing of posts. Available in red, white, yellow, blue, gray, green and brown.

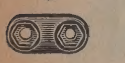
29-1 (Red or Black)	**$0.40 ea.**
29-1 (Choice of 6 colors)	**$0.45 ea.**



29-33 SPRING LOADED

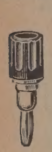
For ½" mounting hole. ⅝" dia. insulating washers. Spring loaded head gives 24 oz. of contact force. Designed for rapid connections. Available in red, black.

29-33 (Red or Black) **$0.40 ea.**



29B11 For use with 29-1 posts. Makes an assembled unit with two posts on ¾" centers. Molded phenolic to MIL-M-14.

29B11-1 (Black)-2911-2 (Red) **$0.10 ea.**



29-41

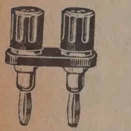
Binding Plug (screw type) conforms to same standard as the binding posts. Mounted on a standard banana plug.

2941R (Red) 2941 B (Black) **$0.50 ea.**

29-43

Binding Plug (spring loaded). Head gives 24 oz. contact force. Designed for rapid connections.

29-43R (Red) 29-43 (Black) **$0.50 ea.**



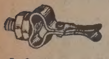
29-42

Twin Binding Plug. Two binding plugs mounted on a molded phenolic base. Banana plugs are on standard ¾" centers. Sold as a completely assembled unit with two screw type heads. **$1.25 ea.**

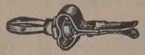
29-44 Same as 29-42 except with spring loaded heads. **$1.25 ea.**

TEST CLIPS

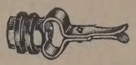
The basic clip is available in 4 types of mounting. Designed for panel mounting on test equipment to allow rapid connections without manual opening and closing of jaws. Hex nut allows for tension adjustment of each clip. Clips are nickel plated brass. Length of test clip (excluding mounting base) is 1⅛".



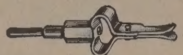
2-0 Threaded stud.
$0.20 ea.



2-1 Banana plug.
$0.35 ea.



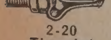
2-4 Threaded stud with insulating washers.
$0.35 ea.



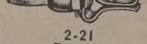
2-6 Pin plug.
$0.35 ea.

MINIATURE TEST CLIPS

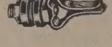
A miniature version of the standard test clip, with the same construction and design, but extends only ¾" above the mounting surface.



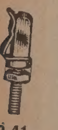
2-20 Threaded Stud
$0.25 ea.



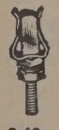
2-21 Banana Plug
$0.40 ea.



2-24 Threaded Stud with Molded Phenolic Insulating Washers
$0.40 ea.



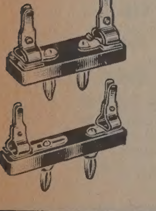
2-41 Single Clip
$0.25 ea.



2-42 Double Clip
$0.30 ea.

ULTRA-MINIATURE TEST CLIPS

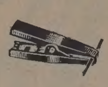
No. 2-41. For simplified, rapid testing of "pig-tail" components. Hex nut allows for tension adjustment. Nickel plated brass with nickel plated, heat treated beryllium copper spring. Panel area required, exclusive of nut; single unit, ³⁄₁₆" x ⅛"—double unit, ¼" x ⅛". Extends ⁷⁄₁₆" above mounting surface. Threaded stud, 2-56NC2 thread; stud ⅜" long.



TEST CLIP ADAPTERS

2-2 For testing resistors, capacitors and other pigtail type components. Banana plugs are on standard ¾" centers. All metal parts are nickel plated brass. Mounting board is molded phenolic to MIL-M-14. Hex nut under clip allows for tension adjustment of individual clips. Test clip extends 1⅛" above board. **$1.40 ea.**

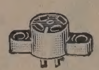
2-7 Similar to the 2-2 except that banana plugs are adjustable from ¾" to 1¼" centers. **$1.50 ea.**



INSULATED TEST CLIPS

COMPLETELY INSULATED (including hinge pin) eliminating the danger of shorting. Molded parts are phenolic to MIL-M-14. .008" thick silver overlay at point of contact. Terminal is silver plated brass. Contact resistance .0015 ohms. All units tested at 500 volts to insure complete insulation.

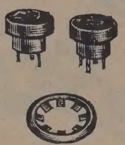
16-B (Black) 16-R (Red) **$0.85 ea.**



TRANSISTOR SOCKET 22-11

Designed for JETEC 30 packaging. Leads fit on 100 MIL grid for printed circuit. Socket fits through ⅜" drilled or punched hole and may be fastened with rivets or #2 screws. Terminal numbers are molded into bottom of socket and top face has key rib for alignment with transistor tab. Contacts are wrap around type, silver plated beryllium copper with gold flash. Base is molded mica-filled phenolic per MIL-M-14.

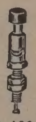
Type MFE No. 22-11 **$0.35 ea.**



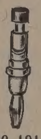
TRANSISTOR SOCKETS

No. 22-16 socket is designed for soldering directly into printed circuits, or to fit in a punched "D" hole and be fastened by a Waldes-Kohinoor Truarc ring No. 5115-31 (obtainable from Waldes-Kohinoor or their distributors). Available with either 3 or 4 terminals (specify).
Available in color and other materials on special order.

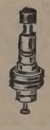
No. 22-16 (3 terminals)	**$0.30 ea.**
No. 22-16 (4 terminals)	**$0.35 ea.**



29-100 Threaded Stud



29-101 Banana Plug



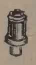
29-104 Molded phenolic washers

PUSH POST ®

No. 29-100. Designed to provide fast positive connections, this post is operated by depressing the plunger, inserting lead, and releasing plunger. Spring pressure assures firm positive contact. Only ¾" overall height above mounting surface. Nickel plated brass parts. Red or black molded button cap.

No. 29-125 same as 29-100, except without button cap and with stainless steel spring for high temps to 600° F.

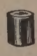
29-100 (Red or Black)	**$0.35 ea.**
29-101 (Red or Black)	**$0.50 ea.**
29-104 (Red or Black)	**$0.50 ea.**
29-125 (No button cap)	**$0.35 ea.**



SERIES 31 TEST JACKS

Designed for use on printed circuit boards as test points. Accommodates standard phone tip plugs from .081" to .0825" dia. Rivets to board like an eyelet. Rivet dia. is .114". Jack is silver plated brass with gold flash. Retaining ring is cadmium plated spring steel. Extends ¼" above circuit board.

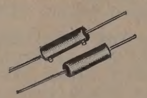
31-1 (for 1/16" board)	**$0.25 ea.**
31-2 (for 3/32" board)	**$0.25 ea.**
31-3 (for 1/8" board)	**$0.25 ea.**



PLASTIC SLEEVES FOR SERIES 31 TEST JACKS

Sleeves snap on and permanently lock in place over test jacks. Molded of thermo-setting plastic. Overall dimensions .24" dia. x .29" high. Available in black, red, green, gray, brown, blue, yellow and white.

31B—(Specify Color) **$0.10 ea.**

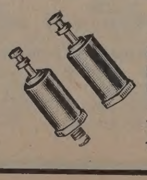


COIL FORMS

(Pat. No. 2,653,992)

MOLDED OF MICA FILLED PHENOLIC per MIL-M-14, Type MFE with leads of tinned solid copper wire. **$0.20 ea.**

PART NO.		LENGTH	DIAMETER	LEAD WIRE DIA.
(28YY1003 (With Posts)	—1	.500"	.125"	.025"
	—2	.625"	.187"	.032"
	—3	.750"	.187"	.032"
28YY1006 (Without Posts)	—4	.500"	.250"	.040"
	—5	.750"	.250"	.040"
	—6	1.000"	.250"	.040"
	—7	.500"	.156"	.032"
	—10	.375"	.107"	.025"



STAND OFF INSULATORS

Body of insulator is molded of mica filled phenolic per MIL-M-14, Type MFE. Terminals are silver plated brass. Overall length excluding mounting stud is 15/16". Diameter is 5/16".

18-1 (Female)	**$0.35 ea.**
18-2 (Male)	**$0.40 ea.**

Net

© U.C.P., Inc.

I.E.H. MFG. CO., INC.

Subsidiary of Industrial Electronic Hardware Corp.
New York N. Y.

SOCKETS PRINTED CIRCUIT

A complete line of printed circuit sockets manufactured with meticulous care to provide maximum insulation resistance and minimum frequency loss. Automatic assembly assures uniformity and quality control required for automation processes. Variations of models listed as well as other designs can be made to your special order.

LAMINATED SOCKETS

SPECIFICATIOS: **Wafers** — NEMA Spec. Grade XP Laminated Phenolic. **Contacts** — Spring Temper Brass, Cadmium Plated. **Center Shield** — Tempered Steel, Cadmium Plated. (Other grades of Material, Wax Impregnation, or Plating available on request.)

MOLDED SOCKETS

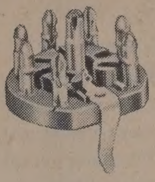
SPECIFICATIONS: **Casting** — General Purpose Phenolic or Low-Loss Mica Filled Phenolic. **Contacts** — Spring Temper Brass, Cadmium Plated. **Center Shield** — Brass, Cadmium Plated. **Ground Strap** — Tempered Steel, Cadmium Plated. (Other grades of Material, Wax Impregnation, or Plating available on request.)

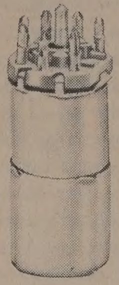
SOCKETS TRANSISTOR

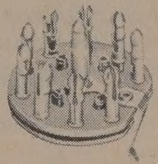
SPECIFICATIONS: **Casting** — Low Loss Mica Filled Phenolic. **Contacts** — Beryllium Copper Tin Coated. Printed Circuit Types can be heat-sealed. Triangular openings for easy insertion of Transistors. Supplied with Spring-type retaining rings of Tempered Steel, Cadmium Plated.
Note: TS-279 (Power Transistor Socket) made of NEMA Spec. Grade XP Laminated Phenolic Wafers. Other grades of material or plating available on request.

SOCKETS SUB-MINIATURE

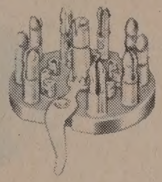
SPECIFICATIONS: **Casting** — Low Loss Mica Filled Phenolic. **Contacts** — Beryllium Copper, Tin Coated. Triangular openings for easy insertion of Tubes. Supplied with Spring-type retaining rings of Tempered Steel, Cadmium Plated. Other grades of Material or Plating available on request.

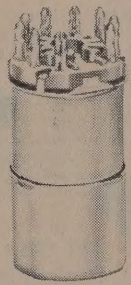

(Fig. A)
MPM 1420-1

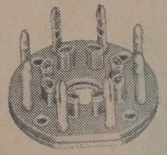

(Fig. B)
MPM 1440-1

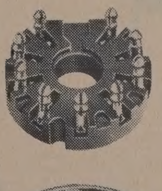

(Fig. C)
LPM 1420-1

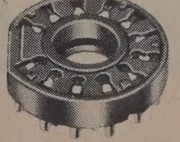
LPN 1620-1


(Fig. D)
MPN 1620-1


(Fig. E)
MPN 1640-1


(Fig. F)
LPO 2200-1


(Fig. G)
MPV 1900-1


(Fig. H)
MPC 2110-1

PRINTED CIRCUIT SOCKETS

Number	Type	Material	Center Shield	Ground Strap	Net 1-99
MPM 1400-1 (Fig. A)	7 pin molded	GPP	no	no	.10
MPM 1400-2 (Fig. A)	7 pin molded	LLP	no	no	.117
MPM 1400-3 (Fig. A)	7 pin molded	Alkyd	no	no	.137
MPM 1410-1 (Fig. A)	7 pin molded	GPP	yes	no	.107
MPM 1410-2 (Fig. A)	7 pin molded	LLP	yes	no	.126
MPM 1410-3 (Fig. A)	7 pin molded	Alkyd	yes	no	.144
MPM 1420-1 (Fig. A)	7 pin molded	GPP	yes	yes	.129
MPM 1420-2 (Fig. A)	7 pin molded	LLP	yes	yes	.148
MPM 1420-3 (Fig. A)	7 pin molded	Alkyd	yes	yes	.167
MPM 1440-1 (Fig. B)	7 pin molded w/shield	GPP	yes	no	.278
MPM 1440-2 (Fig. B)	7 pin molded w/shield	LLP	yes	no	.296
MPM 1440-3 (Fig. B)	7 pin molded w/shield	Alkyd	yes	no	.315
LPM 1400-1 (Fig. C)	7 pin laminated	XP	no	no	.085
LPM 1410-1 (Fig. C)	7 pin laminated	XP	yes	no	.09
LPM 1420-1 (Fig. C)	7 pin laminated	XP	yes	yes	.117
MPN 1600-1 (Fig. D)	9 pin molded	GPP	no	no	.121
MPN 1600-2 (Fig. D)	9 pin molded	LLP	no	no	.141
MPN 1600-3 (Fig. D)	9 pin molded	Alkyd	no	no	.159
MPN 1610-1 (Fig. D)	9 pin molded	GPP	yes	no	.141
MPN 1610-2 (Fig. D)	9 pin molded	LLP	yes	no	.159
MPN 1610-3 (Fig. D)	9 pin molded	Alkyd	yes	no	.178
MPN 1620-1 (Fig. D)	9 pin molded	GPP	yes	yes	.163
MPN 1620-2 (Fig. D)	9 pin molded	LLP	yes	yes	.181
MPN 1620-3 (Fig. D)	9 pin molded	Alkyd	yes	yes	.199
MPN 1640-1 (Fig. E)	9 pin molded w/shield	GPP	yes	no	.326
MPN 1640-2 (Fig. E)	9 pin molded w/shield	LLP	yes	no	.344
MPN 1640-3 (Fig. E)	9 pin molded w/shield	Alkyd	yes	no	.363
LPN 1600-1 (Fig. C)	9 pin laminated	XP	no	no	.108
LPN 1610-1 (Fig. C)	9 pin molded	XP	yes	no	.119
LPN 1620-1 (Fig. C)	9 pin molded	XP	yes	yes	.137
LPO 2200-1 (Fig. F)	Octal laminated	XP	no	no	.20
MPV 1900-1 (Fig. G)	Novar molded	GPP	no	no	.185
MPV 1900-2 (Fig. G)	Novar molded	LLP	no	no	.204
MPV 1900-3 (Fig. G)	Novar molded	Alkyd	no	no	.223
MPC 2100-1 (Fig. H)	Compactron molded	GPP	no	no	.223
MPC 2100-2 (Fig. H)	Compactron molded	LLP	no	no	.241
MPC 2100-3 (Fig. H)	Compactron molded	Alkyd	no	no	.259
MPC 2110-1 (Fig. H)	Compactron molded	GPP	yes	no	.241
MPC 2110-2 (Fig. H)	Compactron molded	LLP	yes	no	.259
MPC 2110-3 (Fig. H)	Compactron molded	Alkyd	yes	no	.278

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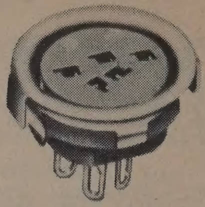
New York N. Y.

NUVISTOR, TRANSISTOR & SUB-MINIATURE SOCKETS

Number	Type	Net 1-99
MSN 0905-1	5 pin nuvistor	.155
MSN 0907-1	7 pin nuvistor	.463
MST 0603-2	Transistor socket 3 pin	.222
MST 0603-3	Transistor socket 3 pin	.222
MST 0604-2	Transistor socket 4 pin	.222
MPT 0603-1	Transistor socket 3 pin printed circuit	.196
MPT 0604-1	Transistor socket 4 pin printed circuit	.278
SMR-4	Transistor socket retaining ring	.02
LST 1502-1	Wafer power transistor socket	.075
LST 2702-1	Wafer power transistor socket	.087
MST 0503-1	3 contact sub-miniature socket	.21
MSS 0504-1	4 contact sub-miniature socket	.178
MSS 0505-1	5 contact sub-miniature socket	.189
MSS 0606-1	6 contact sub-miniature socket	.30
MSS 0707-1	7 contact sub-miniature socket	.31
MSS 1208-1	8 pin sub-miniature tube socket	.093
MSS 1208-2	8 pin sub-miniature tube socket	.105
MSS 1208-3	8 pin sub-miniature tube socket	.105
MPT 0503-1	3 contact sub-miniature socket, spring tail	.192
MPS 0505-1	5 contact sub-miniature socket, spring tail	.259
MPS 0707-1	7 contact sub-miniature socket, spring tail	.315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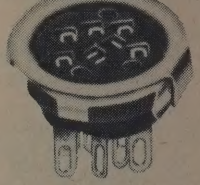
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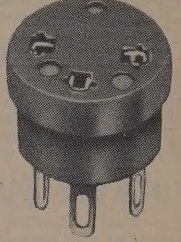
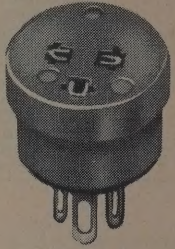
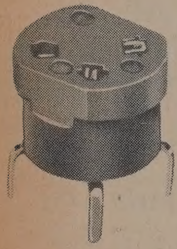
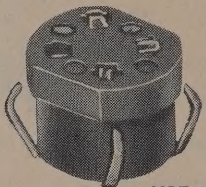

MST 0603-2


MST 0603-3


MPT 0603-1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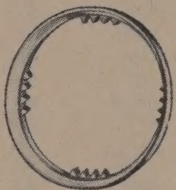
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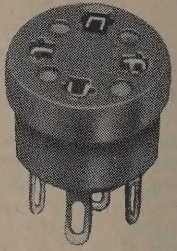
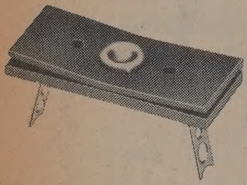
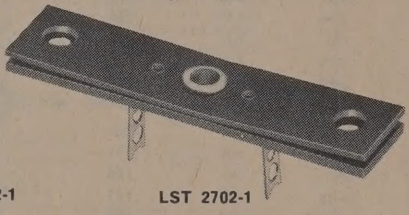

MST 0604-2


LST 1502-1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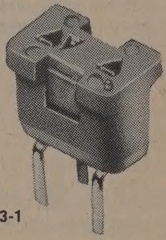
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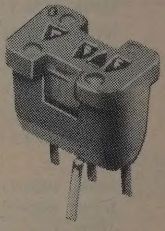
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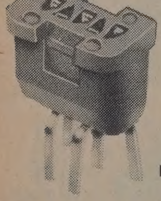
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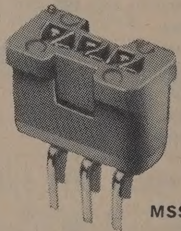
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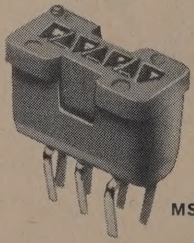
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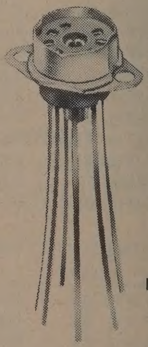
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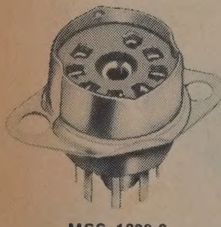
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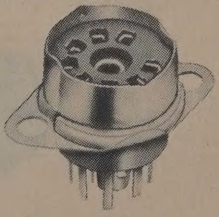
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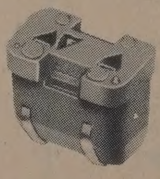
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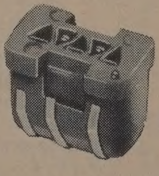
MPS 0505-1

MPS 0707-1

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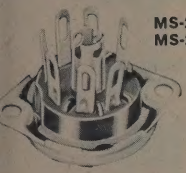
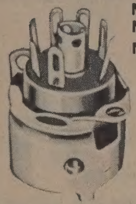
SOCKETS
MOLDED


MS-219
MS-220

MS-221
MS-221A
MS-222

MS-223
MS-224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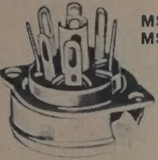
MS-226
MS-226A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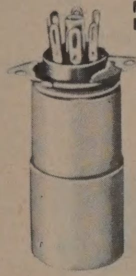
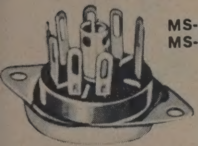
MS-228


MS-229
MS-230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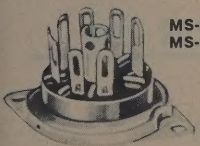
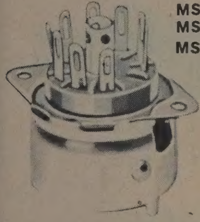
MS-232


MS-233
MS-234

MS-235
MS-236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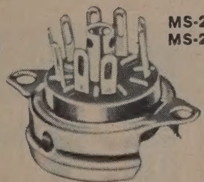
MS-238
MS-238A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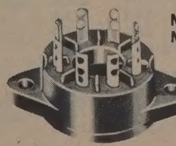
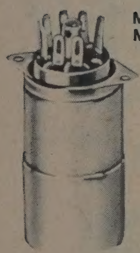

MS-243
MS-244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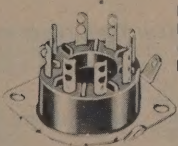
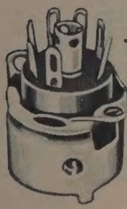
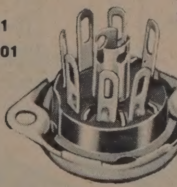
MS-242


MS-245
MS-246
MS-247
MS-248


TS-102P01
TS-103P01


TS-102P02
TS-102P03
TS-103P02
TS-103P03

STANDARD MINIATURE MOLDED SOCKETS

7-PIN MINIATURE MOLDED SOCKETS

Model Number	Material	Mount	Mounting Center	Mounting Holes	Shield Base	Center Shield	Net Each 1-99
MS-219	GPP	Top	7/8"	.095	no	yes	.09
MS-220	LLP	Top	7/8"	.095	no	yes	.11
MS-221	GPP	Bottom	7/8"	.095	no	yes	.09
MS-221A	GPP	Bottom	7/8"	.095	no	no	.09
MS-222	LLP	Bottom	7/8"	.095	no	yes	.11
MS-223	GPP	Bottom	7/8"	.095	no	yes	.10
MS-224	LLP	Bottom	7/8"	.095	no	yes	.105
MS-225	GPP	Top	7/8"	.125	J-slot	yes	.17
MS-226	LLP	Top	7/8"	.125	J-slot	yes	.19
MS-226A	LLP	Top	7/8"	.125	J-slot	no	.17
MS-227	GPP	Top	7/8"	.125	Snap-on	yes	.114
MS-228	LLP	Top	7/8"	.125	Snap-on	yes	.122
MS-229	GPP	Top	1"	.095	Collapse	yes	.25
MS-230	LLP	Top	1"	.095	Collapse	yes	.26
TR-702	GPP	Top	7/8"	.095	no	no	.11
9-PIN MINIATURE MOLDED SOCKETS							
MS-231	GPP	Top	1 1/8"	.095	no	yes	.12
MS-232	LLP	Top	1 1/8"	.095	no	yes	.138
MS-233	GPP	Bottom	1 1/8"	.095	no	yes	.12
MS-234	LLP	Bottom	1 1/8"	.095	no	yes	.138
MS-235	GPP	Bottom	1 1/8"	.095	no	yes	.109
MS-236	LLP	Bottom	1 1/8"	.095	no	yes	.138
MS-237	GPP	Top	1 1/8"	.125	J-slot	yes	.21
MS-238	LLP	Top	1 1/8"	.125	J-slot	yes	.23
MS-238A	LLP	Top	1 1/8"	.125	J-slot	no	.183
MS-239	GPP	Top	1 1/8"	.125	Snap-on	yes	.143
MS-240	LLP	Top	1 1/8"	.125	Snap-on	yes	.150
MS-241	GPP	Top	1 1/8"	.095	Collapse	yes	.26
MS-242	LLP	Top	1 1/8"	.095	Collapse	yes	.285
TR-703	GPP	Top	1 1/8"	.095	no	no	.133
OCTAL MINIATURE MOLDED SOCKETS							
MS-243	GPP	Top	1 5/16"	.140	no	no	.109
MS-244	LLP	Top	1 5/16"	.140	no	no	.134
MS-245	GPP	Top	1 5/16"	.137	no	no	.108
MS-246	LLP	Top	1 5/16"	.137	no	no	.124
MS-247	GPP w/gnd bugs	Top	1 5/16"	.137	no	no	.10
MS-248	LLP w/gnd lugs	Top	1 5/16"	.137	no	no	.13
NOVAR AND COMPACTRON SOCKETS							
NV-293	GPP	Top	1 5/16"	.136	no	no	.166
NV-289	GPP	Bottom	1 5/16"	.144	no	no	.20
NV-290	GPP	Top	1 1/2"	.136	no	no	.166
CM-292	GPP	Bottom	1 5/16"	.144	no	no	.20

GPP — General Purpose Phenolic (Bakelite)
LLP — Low Loss Phenolic (Mica filled bakelite)

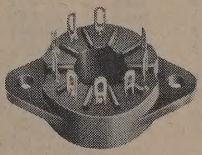
**All sockets with .098 dia. mounting holes are available with .125 dia.
When ordering, add — .125 after part number (i.e.: MS-219 — .125)
All 9-pin molded sockets available in shock mount at additional .06 ea. Add Suffix "U" after model number.**

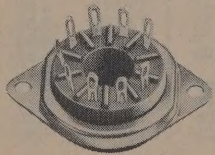
MIL SOCKETS

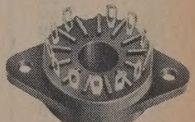
TS-102P01	Mil-S-12883-2	7 pin mica,shield base	.25
TS-102P02	Mil-S-12883-8	7 pin mica, saddle type	.20
TS-102P03	Mil-S-12883-10	7 pin mica, saddle type	.20
TS-103P01	Mil-S-12883-3	9 pin mica,shield base	.26
TS-103P02	Mil-S-12883-9	9 pin mica, saddle type	.225
TS-103P03	Mil-S-12883-11	9 pin mica, saddle type	.225

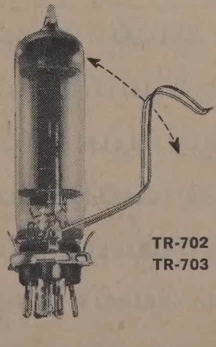
TUBE SHIELDS

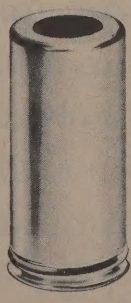
TS-7-1	Seven pin snap-on type	.065
TS-9-1	Nine pin snap-on type	.072


NOVAR NV-289


Novar NV-290
Novar NV-293


Compactron CM-292


TR-702
TR-703


TS-7-1
TS-9-1

CONTACT YOUR I.E.H. STOCKING DISTRIBUTOR FOR PRICES OF ANY ITEM IN QUANTITIES OF 100 OR MORE

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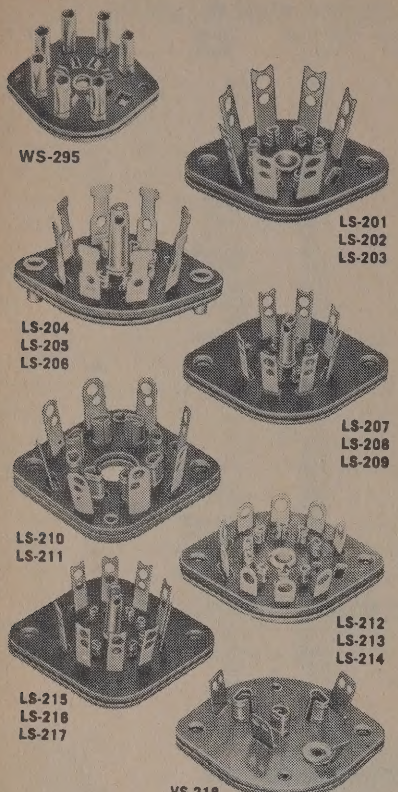
Net

I.E.H. MFG. CO., INC.

Subsidiary of Industrial Electronic Hardware Corp.
New York N. Y.


WS-295
LS-201
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LS-214
LS-215
LS-216
LS-217
VS-218

SOCKETS LAMINATED

A complete line of laminated sockets and molded sockets for all replacement or OEM purposes. The stringent "I.H." Standard of Quality is your guarantee of top performance in all applications.

MINIATURE LAMINATED WAFER SOCKETS

Tops and bottoms are made from laminated Bakelite wafers. Contacts are Spring Brass, and are Cadmium Plated for easy soldering. A sturdy, inexpensive socket with rugged, reliable performance.

Model Number	Mtg. Ctrs.	Center Shield	Ground Strap	Net Each 1-99
	7-PIN MINIATURE LAMINATED WAFER SOCKETS			
LS-201	7/8"	No	No	$ .07
LS-202	7/8"	Yes	No	.086
LS-203	7/8"	Yes	Yes	.083
LS-204	1"	No	No	.068
LS-205	1"	Yes	No	.068
LS-206	1"	Yes	Yes	.08
LS-207	1 5/16"	No	No	.091
LS-208	1 5/16"	Yes	No	.095
LS-209	1 5/16"	Yes	Yes	.104
	Standard packing: 50 per box			
	OCTAL MINIATURE LAMINATED WAFER SOCKETS			
LS-210	1 5/16"	No	No	.07
LS-211	1 1/2"	No	No	.077
	Standard packing: 50 per box			
	NOVAL MINIATURE LAMINATED WAFER SOCKETS			
LS-212	1 1/8"	No	No	.085
LS-213	1 1/8"	Yes	No	.102
LS-214	1 1/8"	Yes	Yes	.104
LS-215	1 5/16"	No	No	.085
LS-216	1 5/16"	Yes	No	.09
LS-217	1 5/16"	Yes	Yes	.117
	Standard packing: 50 per box			
	VIBRATOR SOCKETS			
VS-218	Three-prong Vibrator socket for use in most auto radios Standard packing: 25 per box			.101

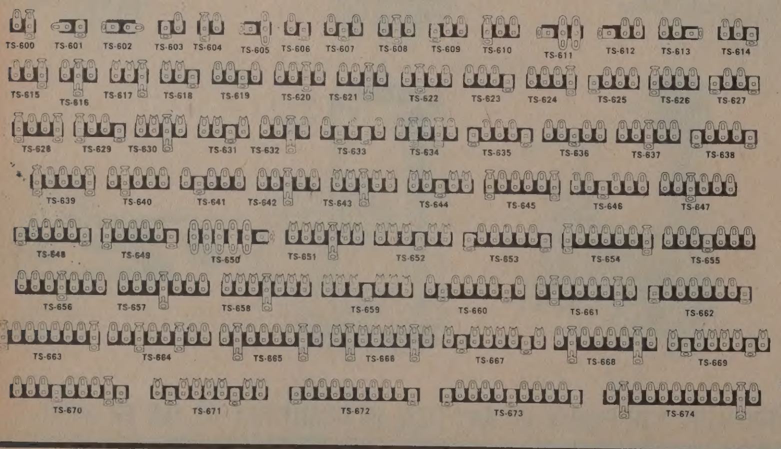
CONTACT YOUR I.E.H. STOCKING DISTRIBUTOR FOR PRICES OF ANY ITEM IN QUANTITIES OF 100 OR MORE

We are equipped to meet every Terminal Strip requirement. Some of the most popular combinations are shown here. Special combinations on request. Lugs are Cadmium-plated steel, mounted on NEMA Spec. Grade XP Laminated Phenolic strips, 3/8" wide by 1/16" thick, with 3/8" spacing. Brackets have .140 diameter mounting holes, for No. 6 screw.

Model Number	Net Price Per C	Model Number	Net Price Per C	Model Number	Net Price Per C	Model Number	Net Price Per C	Model Number	Net Price Per C	Model Number	Net Price Per C	Model Number	Net Price Per C
TS-600	1.95	TS-612	2.40	TS-624	3.00	TS-636	3.60	TS-648	4.95	TS-660	5.40	TS-672	6.90
TS-601	2.10	TS-613	2.40	TS-625	3.00	TS-637	3.60	TS-649	4.95	TS-661	5.58	TS-673	8.40
TS-602	2.40	TS-614	2.40	TS-626	3.00	TS-638	4.80	TS-650	10.20	TS-662	5.58	TS-674	8.40
TS-603	1.95	TS-615	2.70	TS-627	3.60	TS-639	4.80	TS-651	4.95	TS-663	5.58		
TS-604	1.95	TS-616	2.70	TS-628	3.60	TS-640	3.60	TS-652	4.95	TS-664	5.58		
TS-605	2.40	TS-617	2.70	TS-629	3.60	TS-641	3.60	TS-653	4.95	TS-665	5.58		
TS-606	1.80	TS-618	2.70	TS-630	3.60	TS-642	3.60	TS-654	4.95	TS-666	6.00		
TS-607	2.40	TS-619	3.00	TS-631	3.60	TS-643	3.90	TS-655	4.95	TS-667	6.00		
TS-608	2.40	TS-620	3.00	TS-632	3.60	TS-644	3.90	TS-656	4.95	TS-668	6.00		
TS-609	2.40	TS-621	3.00	TS-633	4.20	TS-645	4.50	TS-657	5.40	TS-669	6.00		
TS-610	2.40	TS-622	3.00	TS-634	4.20	TS-646	4.50	TS-658	5.40	TS-670	7.50		
TS-611	3.45	TS-623	3.00	TS-635	4.20	TS-647	4.95	TS-659	5.40	TS-671	7.50		

Standard Packing

100 per box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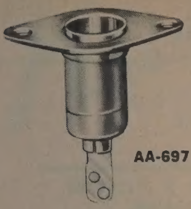
TS-673
TS-674

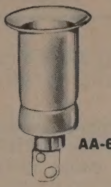
SCREW TYPE TERMINAL STRIPS

Lugs — Cadmium-Plated Steel, spaced 7/16"
Strips — XP Laminated Bakelite, 1/16" thick by 5/8" wide

Model No.	Terminals	Mtg. Ctr.	Net Price per C
ST-676	2	1 5/16"	$ 6.00
ST-677	3	1 3/4"	9.00
ST-678	4	2 3/16"	11.40
ST-679	5	2 5/8"	13.20
ST-680	6	3 1/16"	16.80
ST-681	7	3 1/2"	21.00
ST-682	8	3 15/16"	23.40
ST-683	9	4 3/8"	26.40
ST-684	10	4 13/16"	28.80
SHORTING LINK — Add "L" to number			1.80

ST-676
ST-677


AA-697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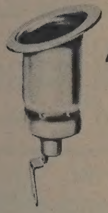
AA-697-B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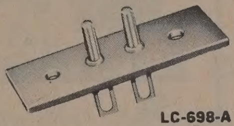
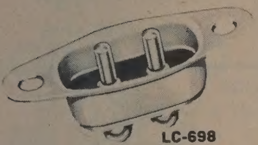
AA-697D


LC-698-A

PP 701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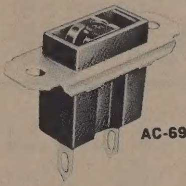
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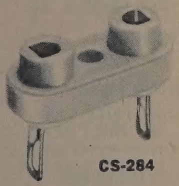
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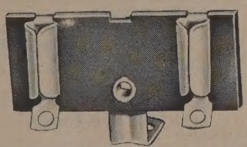
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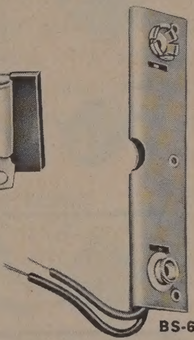
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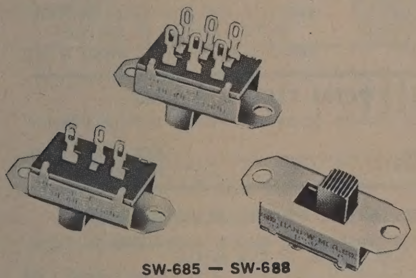
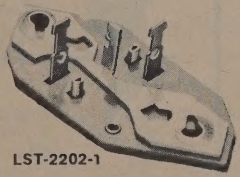

SW-685 — SW-688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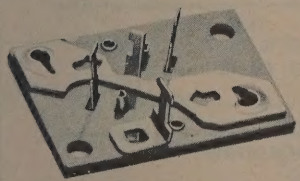
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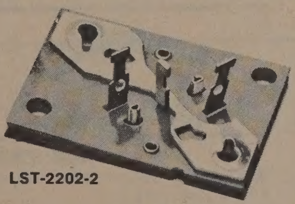

LST-2202-2

MISCELLANEOUS

Model Number		Net Each 1-99

AUTO ANTENNA CONNECTORS & PLUG

AA-697	With Saddle-type flange.	.22
AA-697-A	With flange.	.09
AA-697-B	Shell type.	.09
AA-697-C	Antenna plug	.16
AA-697-D	1963 GM Delco Connector	.09

INTERLOCK CONNECTORS

LC-698	Recessed type male Interlock connector, used on most T.V. Sets. Mates with standard T.V. power cord female connector.	.09
LC-698-A	Economical, space-conserving mate for female T.V. power supply cord. Made of Laminated Phenolic.	.06

UNIVERSAL SPEAKER CONNECTOR

SC-700	Universal 2-prong Speaker Connector, with mounting bracket.	.086

A. C. RECEPTACLE

AC-699	Space-saving A.C. receptacles, mounts on either top or bottom of panels. Middle barrier prevents shorting. U.L. approved. Mtg. Ctrs. 1⅛″.	.18

PHONO PLUGS & JACKS

PP 701	Phone Pin Plug – 9/16″	.05
PP 701-A	Phono Pin Plug – 11/16″	.052

SLIDE SWITCHES

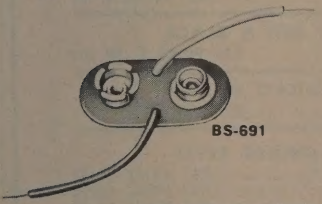
SW-685	SPST	.153
SW-686	SPDT	.153
SW-687	DPST	.195
SW-688	DPDT	.225
	U. L. Approved, .5 Amp @ 125 VDC .3 Amp @ 125 VAC	

CRYSTAL SOCKET

CS-284	.486″ centers, for No. CR-7 and BH-6 crystals. Ceramic, silver plated beryllium copper contacts with hot tinned tails.	.167

POWER TRANSISTOR SOCKETS

LST 2202-1	.108
LST 2202-2	.11
LST 2202-3	.108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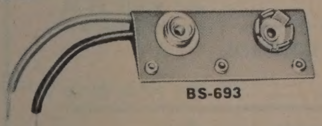
BS-693

(Use this chart for Battery Reference)

BATTERY STRAPS

Model No.	Mounting Centers	Description	EVEREADY	BURGESS	R.C.A.	Net Each 1-99
BS-691	½″	9, 67½ V	216 246 416	2U6 2N6 UX-5	VS-312 305 318	.166
BS-692	¾″	9 V	266	M-6		
BS-693	1⁵⁄₁₆″	67½, 75, 90 V	495 479 437 477	N60X P60 XX50 P45	VS-316 216 217 218	.211
BS-694	1⅜″	9 V	276	D6	VS-306	.215
BS-695	1½″	45, 67½ V	455 457 467	XX-30 K45 XX-45	VS-055 082 016	.215
BS-696	2½″	90 V	490	N-60	VS-090	.229

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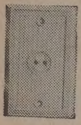
®JAVEX ELECTRONICS

REDLANDS, CALIF.
BROOKLYN, N. Y.
MONTREAL, CANADA

ALL **JAVEX** products are of highest quality and are guaranteed to SELL. Should any **JAVEX** item fail to give satisfaction in operation or quality, it may be returned for replacement, credit, or full refund.

TV, RADIO, HI-FI, STEREO, AUDIO, ELECTRICAL, ELECTRONIC COMPONENTS UL WHERE NECESSARY, **NEMA STANDARD UNILINE OR SIERRA DESIGN ON ALL WALL PLATES. IVORY OR BROWN.**

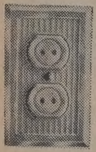


SINGLE OUTLET TV WALL PLATE

For extreme simplicity, convenience and efficiency in any TV or FM installation using 300 ohm transmission line Uniline or Sierra design wall plates to match any existing decor. Use with XP-2 or MPX plugs. All plates are complete wih mounting screws. Solderless.
Hi-Side for surface mounting, Regular for wall box installation.

WP-1	NET PRICE $ .89

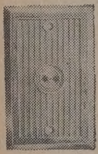
Also furnished for double outlet—WP-2, for rotators with 2 & 4 wire —WP-2-4, and in 6, 8 & 10 wire—WP-6, WP-8, WP-10, with separate plate & receptacle in double TV outlet and rotator combinations as below, and in regular ⅜″ hole phone P.P.



DUPLEX TV RECEPTACLE WITH WALL PLATE

For two 2-wire sockets or one 2-wire and one 4-wire socket. Use with XP-2 and XP-4 or MPX plugs.

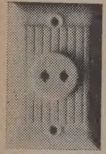
DUX-2-2	NET PRICE $1.18
DUX-2-4	NET PRICE $1.29



MULTI-SET TV ISOLATOR

MI-50 isolator on a wall plate acting as a single or double TV outlet, with mounting screws and plugs. Solderless.

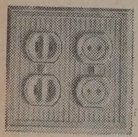
MI-TV-1 (1 outlet)	NET PRICE $1.97
MI-TV-2 (2 outlets)	NET PRICE $2.37
MI-50 (Mini-Isolator)	NET PRICE $1.77
MPX Magi-Plug separate	NET PRICE $1.29



2 OR 4 WIRE MINI-PLATES

1¾″ x 2¾″. Solderless, use with XP-2 or XP-4. Specify: Ivory only.

MWP-2	NET PRICE $ .56
MWP-4	NET PRICE $ .59
MS-2 (1¼″ x 2″)	NET PRICE $ .47



COMPLETE AC-TV WALL PLATES

One TV receptacle plus one AC receptacle of standard UL rating and a 2-gang duplex wall plate.

AC-TV-2-2 (two 2-wire TV outlets plus AC outlet)	NET PRICE $1.42
AC-TV-2-4 (one 2-wire TV outlet and one 4-wire Rotor outlet plus AC outlet).	NET PRICE $1.61

VOLUME ('L' PAD) CONTROL

For Hi-Fi and other remote multiple installations where individual loud speaker volume control is necessary 'L' pad type. 8 & 16 ohm.

CONTROL ONLY

LC-8 or LC-16	NET PRICE $1.61

WITH PLATE

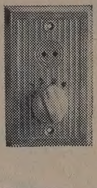
LCP-8 or LCP-16	NET PRICE $1.97
LCP-dual. 2-L pads, 8 or 16 ohms	NET PRICE $3.17

ALSO — TENNA-SHINGLES, CRYSTAL SOCKETS, AC RECEPTACLES, BAKELITE WALL BOXES AND JAVEX MINI-PLATES AND SOCKETS. WRITE FOR CATALOG. OVER 80 DEPENDABLE ITEMS.

DUPLEX OUTLET RECEPTACLE

This receptacle is supplied in two styles for TV-FM, rotors, etc. Complete with mounting screws. Solderless. Use with XP-2 and XP-4 or MPX plugs.

DU-2-2	NET PRICE $ .77
DU-2-4	NET PRICE $ .95



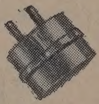
COMBINATION SWITCHING & VOLUME ('L' PAD) OUTLET PLATES

Plate with 5 pos., 2 pole switch. WPS	NET PRICE $2.14
5 pos., 2 pole switch and 2 wire outlet. WPS-1	NET PRICE $2.37
WPS-dual. 2-5 pos. 2 pole switches	NET PRICE $3.40
WLS 5 pos., 2 pole switch, plus 8 or 16 ohm L pad.	NET PRICE $3.83
WPL-1 8 or 16 ohm 'L' pad plus front outlet jack.	NET PRICE $2.37

®TENNA-TUBE THRU-WALL

Connect any VHF-UHF lead-in, regular or special twin, RG, ladder, co-axial, oval, and round leads.

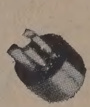
TT WITHOUT PLATE	NET PRICE $ .95
TT-2 WITH PLATE & PLUG	NET PRICE $1.67
TT-4 WITH PLATE & PLUG FOR 4 WIRE	NET PRICE $1.86



PLUGS

Acrylic resin & bakelite, ¾″ x ⅝″ high. 7 & 9 pin fit standard sockets.

XP-2 2 Wire	NET PRICE $ .18
XP-4 4 Wire	NET PRICE $ .35
XP-7 Plug	NET PRICE $ .77
XP-9 9 Wire	NET PRICE $ .95

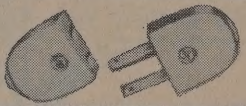


2 WIRE LINE SPLICER

S-2	NET PRICE $ .12

4 & 7 WIRE LINE CONNECTORS

LP-4 Male and Female	NET PRICE $1.01
LP-7	NET PRICE $1.01



SUPER AC CONNECTOR

BAKELITE FOR 2 WIRE AC SERVICE.
RATED 10 AMPS @ 250 VOLT

SMK-2	NET PRICE $ .41

OCTAL PLUG & SOCKET

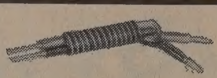
Fits Octal Sockets. Screw cap. Finest Precision Bakelite Molding.

SP-8 Plug	NET PRICE $ .56
SC-8 Socket	NET PRICE $ .56

MINIATURE PHONE PLUG & JACK

Tiniest and finest set for open or closed circuits. Screw on caps, less ⅜″ dia., 1″ long overall.

SMJ	NET PRICE $.56



TEST LEADS Red & Black Vinyl in 2 Combinations

SL-3 Pin tip and alligator clips	NET PRICE $1.02
SL-5 Alligator clips both ends	NET PRICE $1.02

4 PLUG PHONO JACK STRIP

With molded flexible covers for strain relief.

PJ-4 4 jack strip	NET PRICE $ .89
PJ-C Phono Plug covers	NET PRICE $ .23

PIN TIPS & JACKS — PT RED & BLACK

NET PRICE $ .89 set

2 POLE — 5 POSITION MICRO SWITCH

TMS	NET PRICE $1.18

CONNECTOR CABLES — PHONO STYLE

PQ Plug to stripped ends 48″	NET PRICE $1.01
PJ Plug to Jax 48″	NET PRICE $1.18
PY Plug to dual 'Y' Jax 6″	NET PRICE $1.18

MULTI-SELECTOR CONTROL

One input — 5 output, or vice versa

MC	NET PRICE $2.55

"OPEN HOLE" WALL PLATE BRACKETS

WB	NET PRICE $ .41 per set

YOU CAN ALWAYS DEPEND ON A JAVEX PRODUCT

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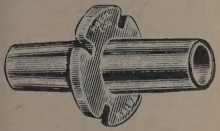
Kalpa SCIENTIFIC LABORATORIES

Manufacturers of High Voltage Components

HIGH VOLTAGE CONNECTORS

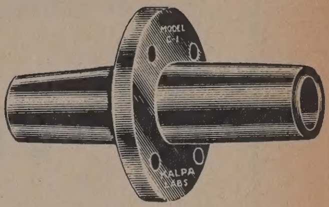
AVAILABLE IN 10 COLORS:

BLACK, BROWN, RED, ORANGE, YELLOW, GREEN, BLUE, VIOLET, GREY AND WHITE



MODEL C-O
RATED FOR
5,000 VOLTS DC

These high voltage connectors are sturdily constructed of Modified Diallyl Phthalate for superior arc resistance and low power factor. Miniature physical size is combined with extra long air paths. Sealed center conductor will handle up to 20 amperes. Neoprene gasket included for mounting on oil-filled tanks. Easily mated with any standard banana jack for quick disconnect, or 10/32 machine bolt for permanent service. Neat and attractive styling is ideal for mounting on front panels.



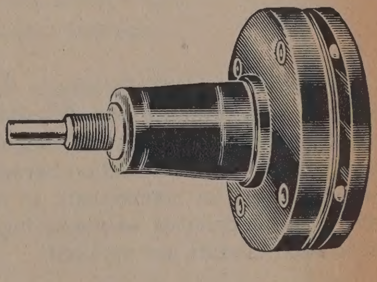
MODEL C-1
RATED FOR
25,000 VOLTS DC
MAXIMUM

	RATING	PRICE	INTRODUCTORY SAMPLE KIT OF TEN (one of each color)
Miniature Model C-0	*5,000 Volt DC service.*	*$ 5.00 each.*	*$30.00*
Standard Model C-1	*25,000 Volt DC maximum.*	*$10.00 each.*	*$60.00*

HIGH VOLTAGE SWITCH

For use in High Voltage low current circuits where complete isolation is required. Nominal rating 5,000 Volts DC or AC (peak). Model A or D switch may be used in lower duty circuits up to 10,000 Volts DC. Current rating 500 Milliamperes, steady state (when not being switched). 5 Ma. when switching. Isolated for 15,000 Volts DC test to ground. Special Modified Diallyl Phthalate used in construction. Two gang types now available permit changing several circuits simultaneously.

MODEL	TYPE	PRICE	
		Single Gange	Two Gange
A	2 Pole Reversable (for polarity reversing of power supplies)	$20.00	$35.00
B	D. P. D. T.	22.00	40.00
C	3. P. D. T.	25.00	48.00
D	4 Position	20.00	35.00
E	6 Position	22.00	40.00
F	8 Position	24.00	44.00
G	10 Position	26.00	47.00



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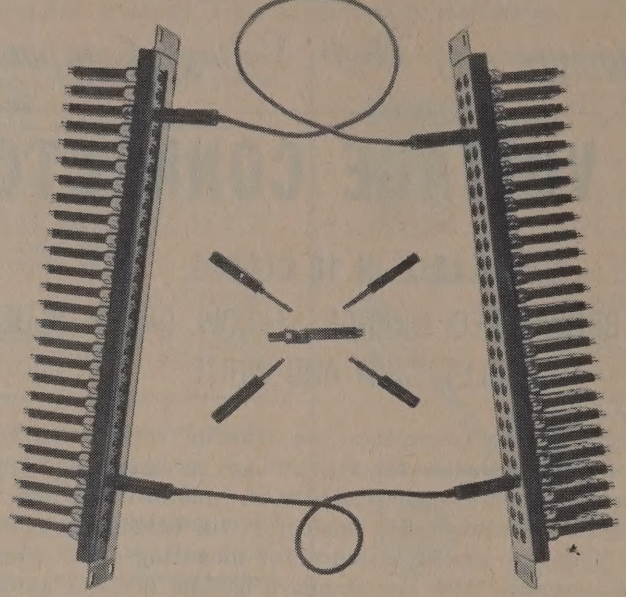
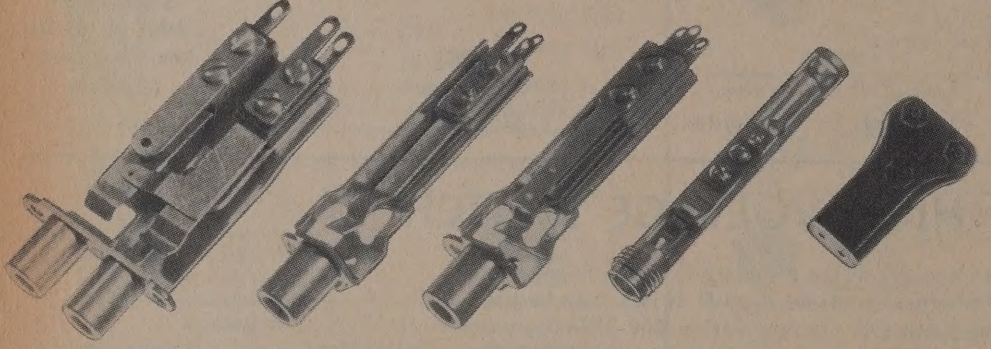
KEN-TRON

CORPORATION
LYNN, MASSACHUSETTS

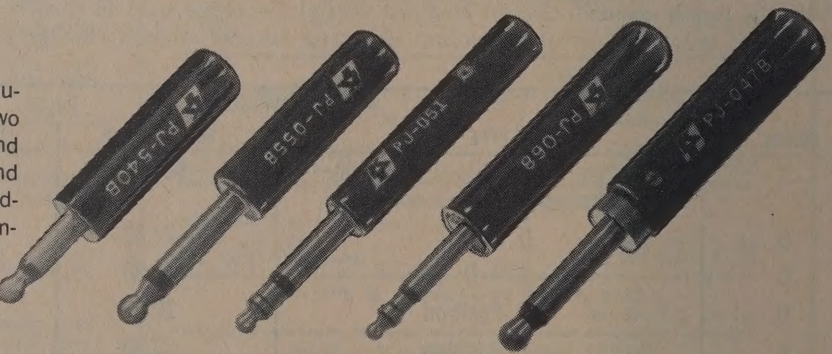


TELEPHONE PLUGS • JACKS • PANELS



Manufactured in accordance with MIL-J-641 the long frame Jacks are available in both "A" and "C" type mounting. Gold plated coin silver contacts are a standard feature in all switching circuits.

Ken-Tron military type Telephone Plugs are manufactured in accordance with MIL-P-642. These two and three conductor Plugs are integrally molded and feature one piece construction between contact and terminal. Used for connections, in headsets, handsets, and microphones whenever high quality communication circuits are required.



CONNECTORS

We manufacture the complete Connector, including all component parts, in a modern factory where "Quality Control" results in products of the highest engineering calibre. All Connectors manufactured to Government Specifications.

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PRICES

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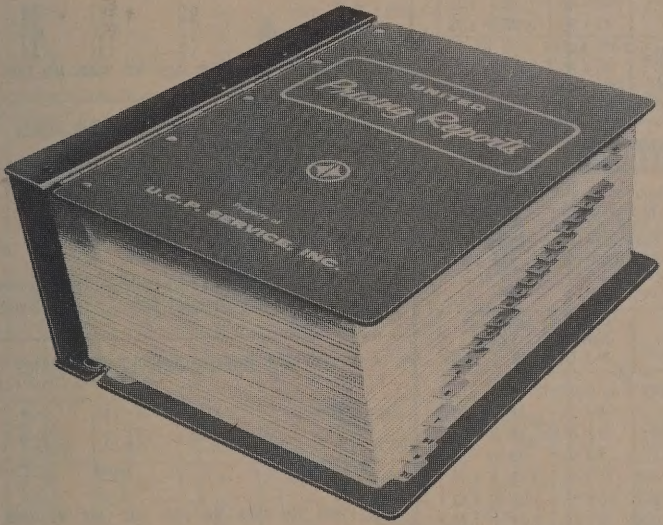

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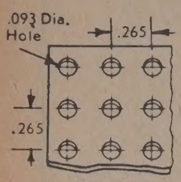
PRE-PUNCHED TERMINAL BOARDS

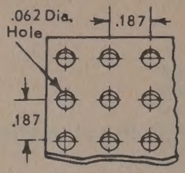
KEYSTONE ELECTRONICS CORP. NEW YORK 12, N. Y.

STANDARDIZED PERFORATED BAKELITE BOARDS

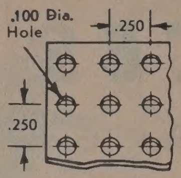
- Time Saving
- Economical
- Permits Flexibility of Circuit Design
- Six Popular Patterns for Most Applications



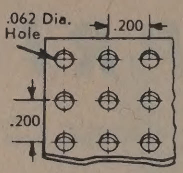
"A" PATTERN



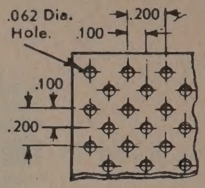
"B" PATTERN



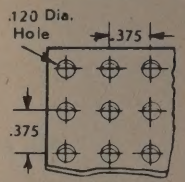
"E" PATTERN



"F" PATTERN



"G" PATTERN



"H" PATTERN

MATERIAL: Grade xxxp Natural Color Bakelite (MIL Spec 3115B) 1/16″ and 3/32″ Thick. Paper Base Epoxy available for some patterns.

"A" PATTERN

.093 Dia. holes spaced .265 x .265 C to C. Available from stock in xxxp Bakelite (MIL Spec 3115B) and Epoxy.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16″ Thick xxxp Bakelite					
1731	13/16	8½	3 x 32	.30	.27
1737	1⅞	8½	7 x 32	.46	.41
1738	2 7/16	8½	9 x 32	.48	.46
1739	4⅞	17	18 x 64	1.25	1.13
1732	8½	8½	32 x 32	1.30	1.17
1733	8½	17	32 x 64	2.13	1.92
3/32″ Thick xxxp Bakelite					
1749	1⅜	8½	4 x 32	.48	.43
1740	1⅞	8½	7 x 32	.54	.49
1741	2 7/16	8½	9 x 32	.61	.55
1756	4⅞	8½	18 x 32	.84	.76
1742	4⅞	17	18 x 64	1.60	1.44
1757	8½	17	32 x 64	2.70	2.43
3/32″ Thick P. B. Epoxy					
1758EP	1⅜	1 29/32	4 x 7	.18	.16
1760EP	1⅜	4	4 x 15	.30	.27
1759EP	1⅞	2 15/16	7 x 7	.33	.30
1740EP	1⅞	8½	7 x 32	.75	.68
1756EP	4⅞	8½	18 x 32	1.40	1.26
1742EP	4⅞	17	18 x 64	2.73	2.46
1757EP	8½	17	32 x 64	4.90	4.50

"B" PATTERN

.062 Dia. Holes spaced .187 x .187. Available from stock in 1/16″ thick xxxp Bakelite.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1761	1⅜	8½	6 x 45	.39	.35
1734	1⅞	8½	8 x 45	.46	.41
1735	2 27/32	8½	15 x 45	.53	.48
1762	5 11/16	8½	30 x 45	.84	.76
1736	5 11/16	17	30 x 90	1.62	1.46
1763	8½	17	45 x 90	2.13	1.92

"E" PATTERN

.100 Dia. holes spaced .250 x .250 C to C.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16″ Thick xxxp Bakelite					
1750	2⅛	4	8 x 16	.25	.22
1765	2⅛	8½	8 x 34	.46	.41
1766	3⅝	8½	14 x 34	.62	.56
1767	8½	8½	34 x 34	1.30	1.17
1768	8½	17	34 x 69	2.13	1.92
3/32″ Thick xxxp					
1770	2⅛	8½	8 x 34	.57	.51
1771	8½	8½	34 x 34	1.75	1.57
1772	8½	17	34 x 69	2.70	2.43

"F" PATTERN

.062 Dia. holes spaced .200 x .200. Available from stock in 1/16″ thick xxxp natural Bakelite, 1/16″ thick paper base epoxy.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16″ Thick xxxp Bakelite					
1730	1¼	8½	8 x 16	.33	.30
1773	3⅝	8½	18 x 42	.62	.56
1775	3⅝	17	18 x 85	.72	.65
1774	4⅞	8½	24 x 42	1.05	.94
1776	4⅞	17	24 x 85	1.25	1.13
1777	8½	8½	42 x 42	1.15	1.03
1778	8½	17	42 x 85	2.18	1.96
1/16″ Thick PB Epoxy					
1776EP	4⅞	17	24 x 85	2.06	1.85
1778EP	8½	17	42 x 85	3.54	3.20

"G" PATTERN

.062 Dia. holes staggered at alternate spacings of a standard .100 grid. Mounting of "top hat" type transistors to this board is possible because transistor leads are in alignment with these holes. Available from stock in 1/16″ thick xxxp natural bakelite (MIL Spec 3115B) or 1/16″ thick paper base Epoxy.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16″ Thick xxxp Bakelite					
1752	1¾	4	8 x 16	.25	.22
1753	3½	4	8 x 16	.46	.41
1754	2¼	8½	8 x 16	.55	.51
1779	4⅞	17	23 x 85	1.25	1.13
1780	8½	8½	42 x 42	1.25	1.13
1781	8½	17	42 x 85	2.13	1.92
1/16″ Thick PB Epoxy					
1752EP	1¾	4	8 x 16	.46	.41
1753EP	3½	4	8 x 16	.65	.58
1754EP	2¼	8½	8 x 16	.72	.65
1779EP	4⅞	17	23 x 85	2.06	1.85
1781EP	8½	17	42 x 85	3.54	3.20

"H" PATTERN

.120 Dia. holes spaced ⅜″ x ⅜″ C. to C. Either 1/16″ or 3/32″ thick xxxp natural bakelite (MIL Spec 3115B).

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16″ Thick xxxp Bakelite					
1743	1⅞	8¼	5 x 22	.43	.39
1744	2¼	8¼	6 x 22	.47	.42
1782	4⅛	8¼	11 x 22	.68	.62
1745	4⅛	16½	11 x 44	1.20	1.08
3/32″ Thick xxxp					
1746	1⅞	8¼	5 x 22	.55	.50
1747	2¼	8¼	6 x 22	.59	.53
1783	4⅛	8¼	11 x 22	.82	.74
1748	4⅛	16½	11 x 44	1.50	1.35

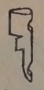
EYELETS AND TERMINALS

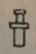
Suitable For These Boards
TERMINALS ILLUSTRATED FULL SIZE
For Boards With .062 Dia. Holes

Terminals are made of Brass (MIL Spec Q0626) and Silver Plated. When ordering terminals SPECIFY whether for use with 1/16″ or 3/32″ thick Bakelite.

Eyelets are hot tin dip finish for easy soldering.

Specify #23 Eyelet for 1/16″ thick Bakelite
Specify #24 Eyelet for 3/32″ thick Bakelite


NO. 1500 "Flea" clip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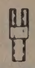
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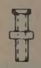
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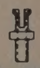
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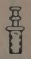
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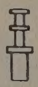
For Boards with .093 Dia. Holes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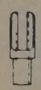
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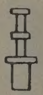
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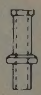
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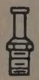
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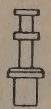
Specify #33 Eyelet for 1/16″ thick Bakelite
Specify #34 Eyelet for 3/32″ thick Bakelite

For Boards with .120 Dia. Holes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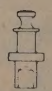
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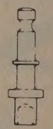
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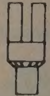
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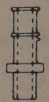
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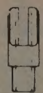
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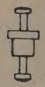
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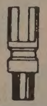
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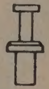
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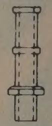
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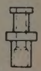
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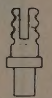
NO. 1578

Specify #43 Eyelet for 1/16″ thick Bakelite
Specify #44 Eyelet for 3/32″ thick Bakelite

Bulletin on request

TERMINALS

NET COST EACH

Cat. No.	100 Pcs	1000 Pcs	Cat. No.	100 Pcs	1000 Pcs	Cat. No.	100 Pcs	1000 Pcs
1500	1.75	15.70	1511	2.20	19.80	1553	1.75	16.25
1502	.90	8.25	1514	1.61	13.72	1562	1.23	10.00
1503	1.30	10.65	1522	1.28	11.43	1578	2.27	19.70
1504	1.30	11.70	1525	2.41	20.55	1592	1.34	12.06
1505	1.70	15.30	1526	1.34	11.43	1593	1.36	12.24
1507	1.80	14.00	1532	1.40	12.32	1595	1.80	16.20
1509	1.20	10.65	1540	2.00	18.00			
1510	1.80	15.20	1541	2.47	21.18			

KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

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STANDARDIZED TERMINAL BOARDS

KEYSTONE
ELECTRONICS CORP
NEW YORK 12 N Y

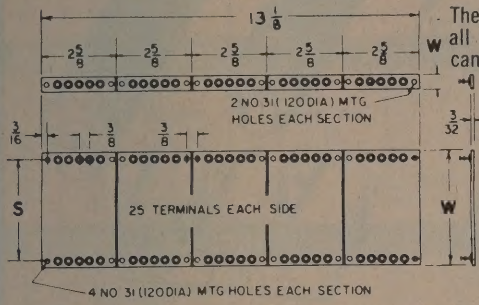
STANDARDIZED TURRET TERMINAL BOARDS

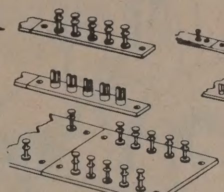
Cut your production cost by eliminating the tooling and setup charge usually applied to nonstandardized boards. Terminals are securely riveted and hot tinned for easy soldering. Material 3/32" thick natural bakelite to Gov't Spec. MIL-P-3115B—TYPE PBE. Five 2⅝" sections scored for easy separation.

CHOICE OF TERMINALS

NOTE:

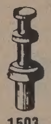
These boards **can be modified** with terminals staked in all holes. Scoring marks can be eliminated. Marking can be added.


13 1/8
2 5/8
2 5/8
2 5/8
2 5/8
2 5/8
W
2 NO 31 (.120 DIA) MTG HOLES EACH SECTION
3/16
1/8
3/8
3/8
3/32
S
25 TERMINALS EACH SIDE
W
4 NO 31 (.120DIA) MTG HOLES EACH SECTION



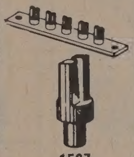
These boards are assembled with turret terminal **No. 1503 (NAS 707T3)** height above board 23/64".

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15031	½	single	25	.80	.75
15032	1½	1	50	1.68	1.50
15033	2	1½	50	1.85	1.70
15034	2½	2	50	1.90	1.77
15035	3	2½	50	2.00	1.83
15036	1½	1³⁄₁₆	50	1.82	1.74



1503 ACTUAL SIZE

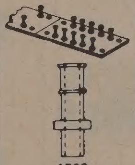
Assembled with Fork Type terminal **No. 1507** with hole thru center. Height above board 11/32".



1507 ACTUAL SIZE

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15071	½	single	25	1.20	1.10
15072	1½	1	50	2.20	2.10
15073	2	1½	50	2.35	2.20
15074	2½	2	50	2.40	2.25
15075	3	2½	50	2.60	2.40
15076	1½	1³⁄₁₆	50	2.35	2.15

Assembled with turret type terminal **No. 1509**. Hole thru center **(NAS 708T3)**. Height above board 23/64".



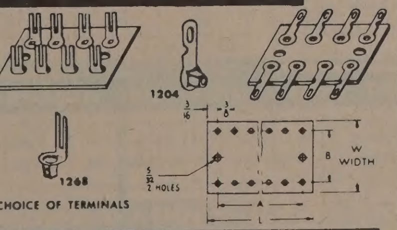
1509 ACTUAL SIZE

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15091	½	single	25	1.20	1.05
15092	1½	1	50	2.25	2.00
15093	2	1½	50	2.30	2.10
15094	2½	2	50	2.40	2.25
15095	3	2½	50	2.47	2.20
15096	1½	1³⁄₁₆	50	2.25	2.00

READI-MADE TERMINAL BOARDS

READI-MADE TERMINAL BOARDS

An inexpensive line of terminal boards for general use. Terminals are hot tinned for easy soldering, and provide a rigid mounting for resistors, condensers, etc. Material 1/16" thick Bakelite.
Mounting Holes Provided on all Boards.



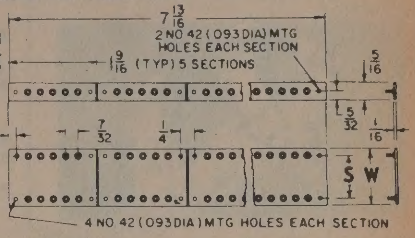
CHOICE OF TERMINALS

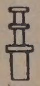
Cat. No.	Cat. No.	W Width	L Length	A Mtg. Ctr.	B Dim.	Terminal Each Side	Net Cost Each 5-19	Net Cost Each 20-99
1204-10	1268-10	1	1⅞	1½	11/16	5	.27	.22
1204-12	1268-12	1	2¼	1⅞	11/16	6	.30	.24
1204-28	1268-28	1	5¼	4⅞	11/16	14	.65	.55
1204-20	1268-20	1¾	3¾	3⅜	1 7/16	10	.50	.40
1204-22	1268-22	1¾	4⅛	3¾	1 7/16	11	.55	.44
1204-38	1268-38	1¾	7⅛	6¾	1 7/16	19	.90	.74

MINIATURE TURRET TERMINAL BOARDS

Material: 1/16" thick bakelite to Gov't Spec. MIL-3115B TYPE PBE. Five 1 9/16" sections scored for easy separation. Assembled with **1502** turret terminal. Height above board 7/32" **(NAS 705T2)**.

CHOICE OF TERMINALS

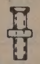

7 13/16
2 NO 42 (.093 DIA) MTG HOLES EACH SECTION
1 9/16 (TYP) 5 SECTIONS
5/16
5/32
1/16
1/8
7/32
1/4
S
W
4 NO 42 (.093DIA) MTG HOLES EACH SECTION



1502 ACTUAL SIZE

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15021	5/16	Ctr.	25	1.00	.84
15028	¾	½	50	1.85	1.68
15022	1	¾	50	1.85	1.68

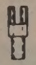
Same as above assembled with **1562** turret terminal (Hole thru center) Height above board 5/32".



1562 ACTUAL SIZE

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15023	5/16	Ctr.	25	1.00	.84
15029	¾	½	50	1.85	1.68
15024	1	¾	50	2.00	1.75

Same as above assembled with **1526** Fork Type terminal (Hole thru center) Height above board 5/32".

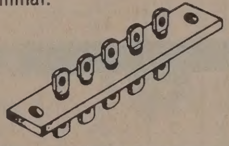


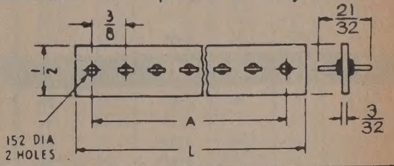
1526 ACTUAL SIZE

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15025	5/16	Ctr.	25	1.00	.84
15026	¾	½	50	1.85	1.68
15030	1	¾	50	1.85	1.68

FEED THRU TERMINAL BOARDS

Terminals made of copper, hot tinned and force fitted into 3/32" thick Bakelite. Holes pierced in terminal at each end to provide a sturdy feed thru terminal.



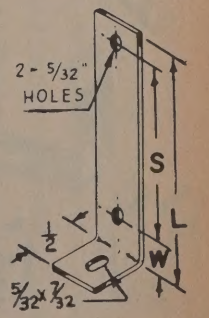


Cat. No.	No. Lugs	A Mtg. Ctr.	L Length	Net Each 5-19	Net Each 20-99
1220- 1	1	¾	1⅛	.09	7.50
1220- 2	2	1⅛	1½	.11	.09
1220- 3	3	1½	1⅞	.13	.11
1220- 4	4	1⅞	2¼	.14	:12
1220- 5	5	2¼	2⅝	.15	.14
1220- 6	6	2⅝	3	.16	.15
1220- 7	7	3	3⅜	.18	.16
1220 -8	8	3⅜	3¾	.19	.18
1220- 9	9	3¾	4⅛	.22	.20
1220-10	10	4⅛	4½	.24	.22

BRACKETS FOR STANDARDIZED BOARDS

Cat. No.	W	L	S	For Boards Cat. No.
1556	⅜	1⅝	1	15032, 15072 ,15092
1567	⅜	2⅛	1½	15033, 15073 15093
1568	⅜	2⅝	2	15034, 15074 15094
1569	⅜	3⅛	2½	15035, 15075 15095
1570	9/32	1³⁄₁₆	¾	15022, 15024 15030
1571	9/32	1⅝	1³⁄₁₆	15036, 15076 15096

FOR ANY BRACKET LISTED HERE
YOUR NET COST
$7.00 per 100
$48.00 per 1000



KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

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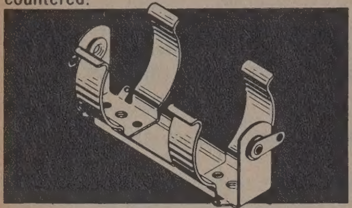
KEYSTONE ALL STEEL BATTERY HOLDERS

KEYSTONE
ELECTRONICS CORP
NEW YORK 12, N.Y.

STANDARDIZED ALL STEEL BATTERY HOLDERS

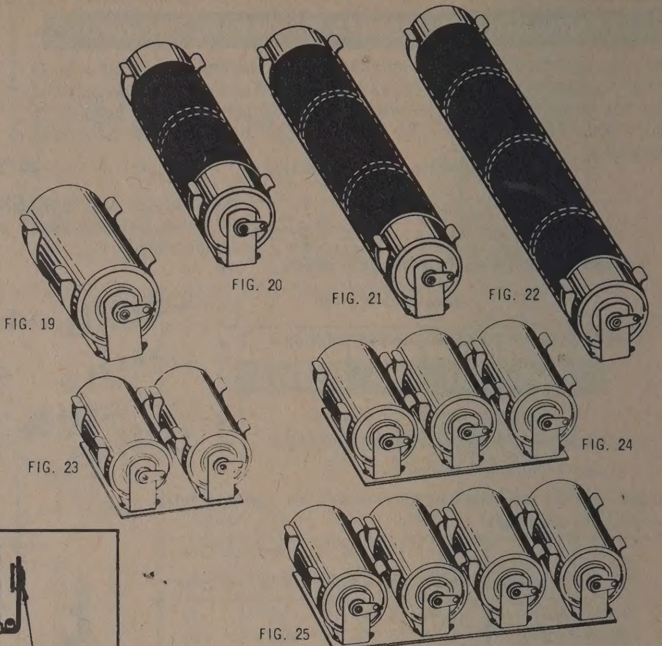
An important advance in design that has gained wide acceptance for military and commercial usage. Battery when installed is held under spring tension at a constant pressure assuring low resistance contact will hold up to 4 cells in series in sturdy insulating tube. Retainer clips available to lock battery securely. This prevents shifting or loosening of battery in holder. Recommended for use where shock or severe vibration is encountered.

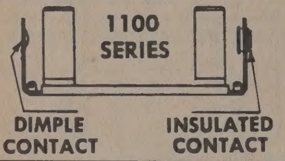


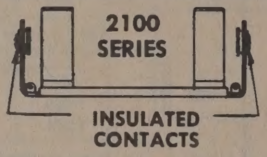
- CORROSION RESISTANT NICKEL PLATED
- STAINLESS STEEL CONTACTS
- MOISTURE PROOF INSULATING WASHERS
- IDEAL FOR NI-CAD AND ALKALINE CELLS

SPECIFICATIONS

Made of SAE 1065 Carbon Steel to MIL Spec. 17919, heat treated to spring temper and nickel plated .0002 thick. Contact assembly consists of a stainless steel eyelet, moisture proof vulcoid washers and a coated copper solder lug. Ribbed carbon steel base for added support is nickel plated and has 2 mounting holes for ease in mounting.





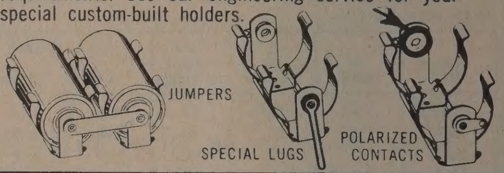


One Insulated Contact	Net Each 5-19	Net Each 20-99	All Contacts Insulated	Net Each 5-19	Net Each 20-99	Fig. No.	Holds No. of Cells	All Batteries in the Group are of Similar Size and Fit Holders Listed: Burgess	Eveready	RCA
PENCELL HOLDERS										
Cat. No.			Cat. No.							
1139	.23	.21	2139	.26	.24	19	1	Z, HG9	E9, E12	VS034A
	—	—	2140*	.38	.34	23	2	CD6, 9R	E91, E133	VS144
	—	—	2171*	.64	.54	24	3	HG12R	E502, N46	VS149
	—	—	2182*	.70	.65	25	4	H133	515, 915	VS313A
1189	.38	.31	2189	.41	.36	20	2	HG502R	1015	VS334
1191	.41	.36	2191	.45	.41	21	3	920		
1194	.48	.44	2194	.51	.47	22	4	930		
"C" CELL HOLDERS										
1173	.30	.26	2173	.41	.36	19	1	1		VS035A
	—	—	2174*	.49	.44	23	2	P6	E233	VS300
	—	—	2187*	.70	.65	24	3	120	635	VS335
	—	—	2188*	.93	.81	25	4	130	935	VS400
1185	.45	.41	2185	.48	.44	20	2	H233		
1195	.48	.44	2195	.51	.47	21	3	302599		
1198	.51	.47	2198	.57	.52	22	4			
"D" CELL HOLDERS										
1175	.30	.26	2175	.33	.29	19	1	2	E42	VS036
	—	—	2176*	.49	.44	23	2	2R	N56	VS036A
	—	—	2190*	.70	.65	24	3	CD7	E95	VS336
	—	—	2192*	.95	.85	25	4	210	D99	
1186	.48	.44	2186	.51	.47	20	2	230	A100	
1199	.51	.47	2199	.57	.53	21	3		950	
1162	.54	.49	2162	.57	.53	22	4		1050	
1179	.30	.26	2179	.34	.31	19	1		E94	

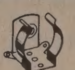
*Clips mounted on phenolic 1/16″ thick Mil Spec 3115B

MODIFICATIONS AVAILABLE

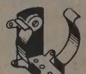
Variety of stock parts permits fast delivery on special requirements. Use our engineering service for your special custom-built holders.



SPACE SAVER BATTERY CLIPS



DIMPLE AND
INSULATED
CONTACTS



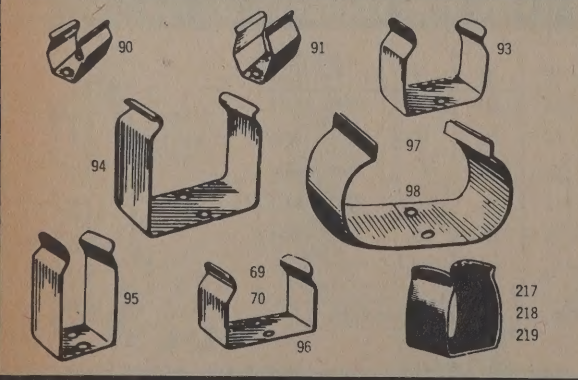
Std. Pkg. 10 Pieces

These holders are available insulated contact or with a dimple contact. Provides positive contact in either case. They are compact and economical. The "AA", "C", "D", Mercury and Ni-Cad batteries are accommodated. Made of SAE 1065 steel heat treated to spring temper and nickel plated. Insulated type has steel nickel plated eyelet and resin impregnated vulcanized fibre insulation. Snap-on washer for polarization will be supplied upon request.

Cat. No.	Battery Types	Min. to max. Diameter	Net Each 5-19	Net Each 20-99
92*	AA	.531- .660	.07	.05
99*	AA	.531- .660	.07	.05
100†	AA	.531- .660	.12	.10
86*	C	.875-1.125	.14	.11
87†	C	.875-1.125	.16	.12
88†	D	1.187-1.375	.16	.12
89*	D	1.187-1.375	.14	.11

*Non-Insulated

†Insulated



BATTERY AND COMPONENT HOLDERS

Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99	Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99
69	2U6 or (2) AA	5/8 x 1 1/8	.08	.07	96	(1) K 20	5/8 x 1 13/64	.08	.07
70	(2) RM 12	5/8 x 1 5/16	.08	.07	97	(2) "C"	(2) 1 1/64 Dia.	.12	.10
90	#7	3/8 to 29/64	.06	.04	98	(2) D	(2) 1 21/64 Dia.	.14	.12
91	(1) AA	17/32 to 21/32	.07	.05	217	1 3/8 Dia.	1 3/8 Dia.	.18	.14
93	(1) C	7/8 to 1 1/8	.08	.07	218	1 1/2 Dia.	1 1/2 Dia.	.20	.15
94	(1) D	1 3/16 to 1 3/8	.08	.07	219	2″ Dia.	2″ Dia.	.22	.16
95	(1) U-15	5/8 x 1 1/32	.08	.07					

Clips are made of Aluminum except Nos. 69, 217, 218, 219 are made of Steel.

KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

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KEYSTONE BATTERY HOLDERS

KEYSTONE ELECTRONICS CORP. NEW YORK 12, N. Y.

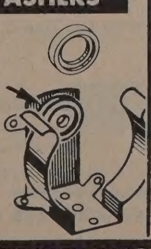
Cat. No.	NET EACH 5-19	NET EACH 20-99	Holds No. of Cells	Fig. No.	ALL BATTERIES LISTED WITHIN BOXES ARE IN THE SAME SIZE GROUP BATTERY CROSS REFERENCE		
					Burgess	Eveready	RCA
MINIATURE CELL HOLDERS							
137	.23	.21	1	1	7	912	VS074
138	.38	.34	2	2			
169	.49	.44	3	3			
170	.64	.57	4	4			
PENCELL HOLDERS							
139	.23	.21	1	1	CD6	E9, E12	VS034A
140	.38	.34	2	2	9R, Z	E91	VS144
171	.49	.44	3	3	HC9	E133	VS149
182	.64	.57	4	4	HG12R	333	VS313A
189	.45	.36	2	5	H133	E502	VS334
191	.49	.44	3	6	HG502R	515	
192	.64	.54	4	7	920	915, 1015	
193	.93	.81	6	8	930	N46	
"C" CELL HOLDERS							
173	.30	.26	1	1	1	226	VS035A
174	.38	.34	2	2	P6	E233	VS300
187	.45	.36	3	3	120	635	VS335
185	.45	.36	2	5	130	935	VS400
195	.49	.44	3	6	H233		
196	.64	.54	4	7	302599		
197	.93	.81	6	8			
"D" CELL HOLDERS							
175	.30	.26	1	1	2	E42	VS036A
176	.38	.34	2	2	2R	N56	VS036
190	.49	.44	3	3	CD7	E95	VS336
186	.46	.37	2	5	210	D99	
199	.50	.45	3	6	230	A100	
200	.65	.55	4	7		950	
201	.95	.85	6	8		1050	
205	.95	.85	6	12			
1½ VOLT CELL HOLDERS							
154	.21	.20	1	1	N	E340	VS073
155	.35	.32	2	2		E400	
156	.49	.44	3	3		E401	
160	.49	.44	1	1	21R	964	VS236
179	.30	.26	1	1		E94	
4½ VOLT CELL HOLDERS							
139	.23	.21	1	1		333	VS1149
9 VOLT CELL HOLDERS							
139A	.23	.21	1	1		206	VS327
203P	.44	.30	1	14	2U6	216	VS323
173P	.30	.26	1	1	P6M	226	VS300A
15 VOLT CELL HOLDERS							
163	.30	.26	1	11	K10	417	
161	.30	.26	1	11	U10	411	VS083
166	.30	.26	1	9			
167	.38	.34	2	10			
225	.21	.20	1	1	Y10	504	
226	.35	.32	2	2			
22½ VOLT CELL HOLDERS							
164	.30	.26	1	11	K15		
168	.30	.26	1	11		420	
177	.30	.26	1	9	U15	412	VS084
178	.38	.34	2	10			
139A	.23	.21	1	1	Y15	505	
140A	.38	.34	2	2			
171A	.49	.44	3	3			
182A	.64	.57	4	4			
30 VOLT CELL HOLDERS							
157	.30	.26	1	14	Y20	506	
165	.30	.26	1	11	K20	430	
183	.30	.26	1	9	U20	413	VS085
184	.38	.34	2	10			
134	.38	.34	1	1	Y20S	507	

INSULATED POLARIZING WASHERS

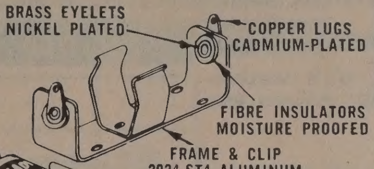
Insulated Polarizing Washers eliminate the danger of damage and short circuit to expensive transistor equipment. The washers hold securely when snapped over the eyelets used on our standardized battery holders.

Material: Precision molded of plastic.

Cat. No.	NET COST EACH 5-19	NET COST EACH 20-99
59	.04	.03



A standard line of battery holders available for immediate shipment from stock. Low cost, lightweight and sturdily constructed of quality materials. Good electrical contact, low leakage current and snap-fit clips are the outstanding features.


BRASS EYELETS NICKEL PLATED
COPPER LUGS CADMIUM-PLATED
FIBRE INSULATORS MOISTURE PROOFED
FRAME & CLIP 2024-ST4 ALUMINUM

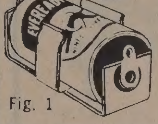


Fig. 1

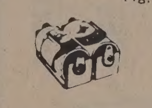


Fig. 2

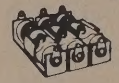


Fig. 3

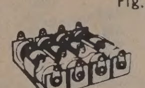


Fig. 4

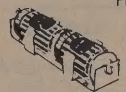


Fig. 5

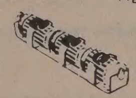


Fig. 6

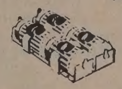


Fig. 7

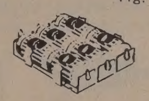


Fig. 8

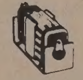


Fig. 9

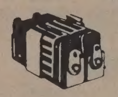


Fig. 10

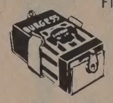


Fig. 11

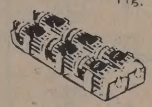


Fig. 12

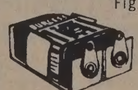
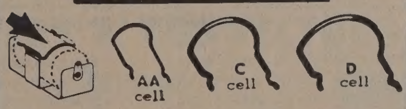


Fig. 14

RETAINER CLIPS



These retainers prevent the battery from shifting or loosening in the holder. Made of high carbon steel, heat treated to spring temper and nickel plated.

Cat. No. 61—Retainer for "A" or Mercury cells with diameters of 17/32" to 9/16" when used with Keystone #91, 92, 99 or 100 clips also clip #95 for rectangular battery.

Cat. No. 62—Retainer for C cells or other batteries with maximum diameter of 1 1/32" when used with Keystone #93, 86 or 87 clips.

Cat. No. 63—Retainer for D cells or other batteries with maximum diameter of 1 11/32" when used with Keystone #94, 88 or 89 clips.

Cat. No. 66—Retainer for mercury cells with .650 dia. when used with our #91 clips.

Any above, Net Each (5-19) .05; (20-99) .04

MERCURY BATTERY HOLDERS

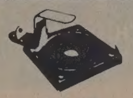


FIG. 13

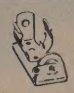


FIG. 15

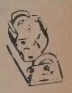


FIG. 16

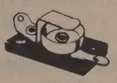


FIG 17

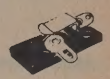


FIG 18

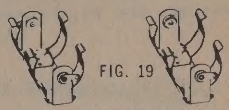


FIG. 19

Mallory Mercury Battery Listing	Aluminum and Phenolic Base Holders		All Steel Holders One Insulated Contact		All Steel Holders All Contacts Insulated	
	Cat. No.	Fig. No.	Cat. No.	Fig. No.	Cat. No.	Fig. No.
RM1R	101*	13	1101	15	2101	16
RM3R	103*	13	1103	15	2103	16
RM4R	104*	13	1104	15	2104	16
ZM9	139	1	1139	19	2139	19
RM12R	139	1	1139	19	2139	19
RM42	175	1	1175	19	2175	19
TR113			1113	15	2113	16
TR114			1114	15	2114	16
TR115	132	1	1132	15	2132	16
TR132	132	1	1132	15	2132	16
TR133	139	1	1139	19	2139	19
TR134	134	1	1134	19	2134	19
TR135	135	5	1135	19	2135	19
TR136	189	5	1189	19	2189	19
TR137	125	5	1125	19	2125	19
TR145			1145	15	2145	16
TR152	124**	1				
TR153	106**	1				
TR162			1113	15	2113	16
TR163	132	1	1132	15	2132	16
TR164	109	1	1109	19	2109	19
TR165	110	1	1110	19	2110	19
TR169	189	5	1189	19	2189	19
TR175	124**	1				
TR177			1142	19	2142	19
TR233	173	1	1173	19	2173	19
TR234	144	1	1144	19	2144	19
RM400	111*	18				
RM401	124**	1				
RM411	166**	9				
RM412	177**	9				
RM413	183**	9				
RM450	112*	17				
RM502	139	1	1139	19	2139	19
RM601			1116	15	2116	16
RM625	117*	17				
RM630	126*	18				
RM640	118*	13				
RM675	127*	18				
302351	119	1	1119	19	2119	19
302478	120	5	1120	19	2120	19
302642	121	1	1121	19	2121	19
302435	122**	1				
302437	139	1	1139	19	2139	19
302599	173	1	1173	19	2173	19

*Bakelite Base Holders
**Available Only in Aluminum

NET EACH PRICE LIST

MERCURY BATTERY HOLDERS

No.	5-19	20-99	No.	5-19	20-99	No.	5-19	20-99
101	.30	.26	173	.30	.26	1175	.30	.26
103	.30	.26	175	.30	.26	1189	.38	.34
104	.30	.26	177	.30	.26	2101	.34	.31
106	.30	.26	183	.30	.26	2103	.34	.31
109	.30	.26	189	.45	.36	2104	.34	.31
110	.38	.34	1101	.30	.26	2109	.34	.31
111	.30	.26	1103	.30	.26	2110	.34	.31
112	.30	.26	1104	.30	.26	2113	.34	.31
117	.30	.26	1109	.30	.26	2114	.34	.31
118	.30	.26	1110	.30	.26	2116	.34	.31
119	.38	.34	1113	.30	.26	2119	.34	.31
120	.38	.34	1114	.30	.26	2120	.41	.36
121	.38	.34	1116	.30	.26	2121	.41	.36
122	.38	.34	1119	.30	.26	2125	.34	.31
124	.23	.21	1120	.38	.34	2132	.34	.31
125	.30	.26	1121	.38	.34	2134	.34	.31
126	.30	.26	1125	.30	.26	2135	.38	.34
127	.30	.26	1132	.30	.26	2139	.26	.24
132	.30	.26	1134	.30	.26	2142	.26	.24
134	.38	.34	1135	.34	.31	2144	.23	.21
135	.38	.34	1139	.23	.21	2145	.34	.31
139	.23	.21	1142	.23	.21	2173	.33	.29
144	.26	.24	1144	.26	.24	2175	.33	.29
166	.30	.26	1145	.30	.26	2189	.41	.36
			1173	.30	.26			

KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

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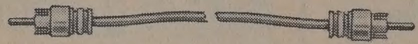
LAB-TRONICS, INC.
CHICAGO 13, ILLINOIS U.S.A.

CONNECTING CABLES with *Lenite* MOLDED PLUGS and JACKS

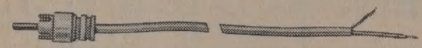
FOR HI-FI, TUNERS, AMPLIFIERS, PRE-AMPLIFIERS, RECORDERS, SPEAKERS, SPEAKER EXTENSIONS, RECORD CHANGERS, PUBLIC ADDRESS SYSTEMS, AUDIO EQUIPMENT, RADIO AND STEREOPHONIC SYSTEMS

SHIELDED

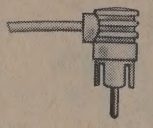
SHIELDED CONNECTING CABLES WITH MOLDED PHONO PIN PLUGS AND MOLDED PHONO PIN JACKS



			NET
Shielded cable. Molded Phono Pin Plug each end.	C101	18"	.54
	C102	36"	.63
	C103	72"	.81
	C104	120'	1.11

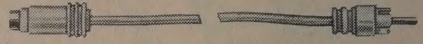


			NET
Shielded cable. Molded Phono Pin Plug; Stripped & Tinned.	C105	18"	.39
	C106	36"	.48
	C107	72"	.66
	C108	120'	.96

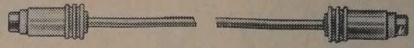


(Where a 90° right angle molded phono pin plug is desired, add "R" to stock number.)

The silver-gray cable is of high-quality, low-capacitance type for minimum loss. Used for interconnecting tuners, pre-amps, amplifiers, record changers, recorders and accessories, wherever Phono Pin Jack or Plug is used.



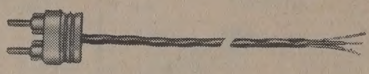
			NET
Shielded cable. Molded Phono Pin Plug; Phono Pin Jack.	C201	18"	.63
	C202	36"	.72
	C203	72"	.90
	C204	120'	1.20



			NET
Shielded cable. Molded Phono Pin Jack each end.	C401	18'	.84
	C402	36'	.93
	C403	72'	1.11
	C404	120'	1.41

MOLDED DUAL PHONO PIN PLUG FOR ALL STEREO AMPLIFIERS

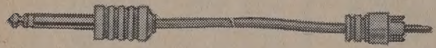
Plugs into standard ⁷⁄₁₆" Centers dual phono jacks on all stereo amplifiers. Used for interconnecting stereo record changers, amplifiers and accessories.



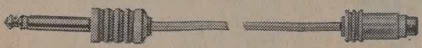
			NET
Two conductor shielded stereo cable. Molded dual phono pin plug; stripped and tinned.	SP8003	3'	1.68
	SP8006	6'	1.95
	SP8010	10'	2.31
Two conductor shielded stereo cable. Molded dual phono pin plugs each end.	SP8403	3'	2.19
	SP8406	6'	2.46
	SP8410	10'	2.82

MOLDED PHONE PLUGS

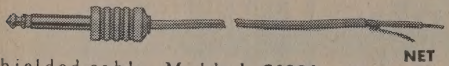
A fully SHIELDED MOLDED standard phone plug, available either straight or right angle, with gray, low-capacitance 100% shielded cable. The newly designed gray molded handle is grooved for ease in gripping, and permits easy insertion into a recessed jack.



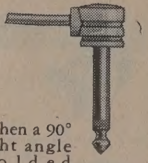
			NET
Shielded cable. Molded SHIELDED Phone Plug; Phono Pin Plug.	C4406	6'	1.11
	C4410	10'	1.35
	C4415	15'	1.65



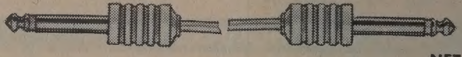
			NET
Shielded cable. Molded SHIELDED Phone Plug; Phono Pin Jack.	C4506	6'	1.17
	C4510	10'	1.41
	C4515	15'	1.71



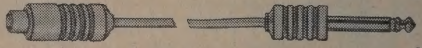
			NET
Shielded cable. Molded SHIELDED Phone Plug; Stripped and Tinned.	C4006	6'	.96
	C4010	10'	1.20
	C4015	15'	1.50



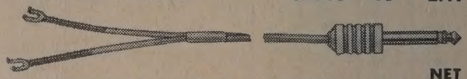
(When a 90° right angle molded phone plug is desired, add "R" to stock number.)



			NET
Shielded cable. Molded SHIELDED Phone Plug each end.	C4306	6'	1.32
	C4310	10'	1.56
	C4315	15'	1.86
	C4325	25'	2.46



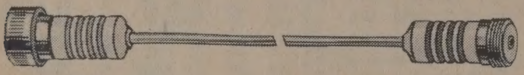
			NET
Shielded cable. Molded SHIELDED Phone Plug; Molded SHIELDED Phone Jack.	C4606	6'	1.71
	C4610	10'	1.89
	C4615	15'	2.19



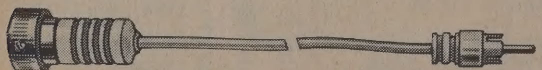
			NET
Shielded cable. Molded SHIELDED Phone Plug; Lugs.	C4106	6'	1.02
	C4110	10'	1.26
	C4115	15'	1.56

MICROPHONE CONNECTORS

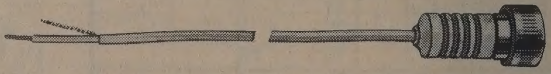
L-T has developed a new molded connector which is interchangeable with the present type now on the market. Molded grip with the cable molded directly onto the polished nickel plated brass connector. BOTH the conductor AND shield are soldered to the connector prior to molding, insuring noise-free operation. Heavy duty co-axial shielded cable, low loss, with a nominal capacitance of approximately 25 mmf/ft. For use with microphones, pre-amps, test equipment, VTVM, oscilloscopes, recorders, custom Hi-Fi installations or wherever a standard microphone connector is used. The coupling ring may be screwed back to convert connector from female to male type. Molded in gray to match the silver-gray cable.



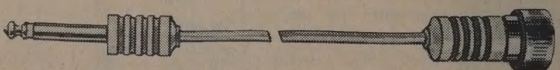
			NET
Shielded cable. Molded Male and Female Microphone Connector.	E906	6'	1.29
	E912	12'	1.71
	E925	25'	2.64



			NET
Shielded cable. Molded Microphone Connector; Molded Phono Pin Plug.	E801	1'	.74
	E803	3'	.90
	E806	6'	1.11



			NET
Shielded cable. Molded Microphone Connector; Stripped and Tinned.	E1106	6'	.99
	E1110	10'	1.29
	E1125	25'	2.40



			NET
Shielded cable. Molded Microphone Connector; Molded Phone Plug.	E1306	6'	1.29
	E1310	10'	1.59
	E1325	25'	2.76

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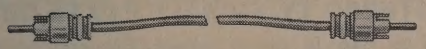
LAB-TRONICS, INC.
CHICAGO 13, ILLINOIS U.S.A.

MOLDED PLUGS and JACKS for SPEAKER EXTENSIONS with *Lenite*

FOR SPEAKER EXTENSIONS, AUDIO RECORDING, LOW IMPEDANCE PATCHING, VOICE COIL, RECORDING, SPEAKER LINES, VOLTAGE LINES, ETC.

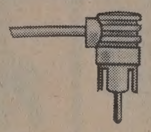
PARALLEL CABLE (Not Shielded)

Flexible cable (not shielded) with molded phono pin plug for voice coil recording, speaker extensions, audio output, low impedance lines, etc. When the right angle type is desired, add "R" to the stock number.

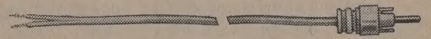


Flexible cable. Molded Phono Pin Plug each end.

		NET
P6406	**6'**	**.66**
P6410	**10'**	**.78**
P6420	**20'**	**1.08**

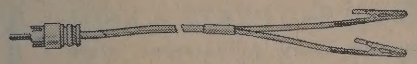


(Where a 90° right angle phono pin plug is desired, add "R" to the stock number.)



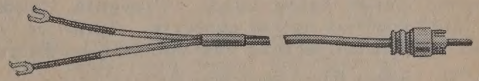
Flexible cable. Molded Phono Pin Plug; Stripped and Tinned.

		NET
P6006	**6'**	**.45**
P6010	**10'**	**.57**
P6020	**20'**	**.87**



Flexible cable. Molded Phono Pin Plug; Clips.

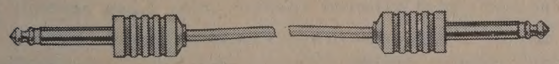
		NET
P6206	**6'**	**.75**
P6210	**10'**	**.87**
P6220	**20'**	**1.17**



Flexible cable. Molded Phono Pin Plug; Lugs.

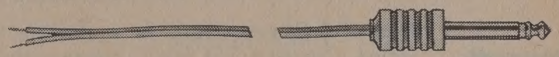
		NET
P6106	**6'**	**.51**
P6110	**10'**	**.63**
P6120	**20'**	**.93**

Molded Phone Plug, either right angle or straight, with flexible cable (unshielded) for use with radio voice coil recording, speakers, headphones, audio output, or other low impedance circuits. Silver-gray cable and plugs.



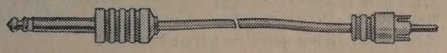
Flexible cable. Molded Phone Plug each end.

		NET
P7306	**6'**	**1.26**
P7310	**10'**	**1.38**
P7320	**20'**	**1.68**



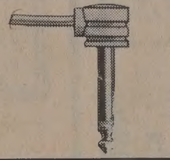
Flexible cable. Molded Phone Plug; Stripped and Tinned.

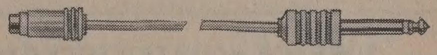
		NET
P7006	**6'**	**.75**
P7010	**10'**	**.87**
P7020	**20'**	**1.17**



Flexible cable. Molded Phone Plug; Molded Phono Pin Plug.

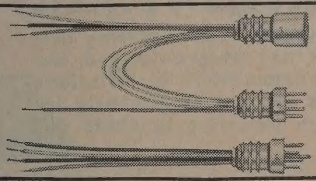
		NET
P7406	**6'**	**.96**
P7410	**10'**	**1.08**
P7420	**20'**	**1.38**





Flexible cable. Molded Phone Plug; Phono Pin Jack.

		NET
P7506	**6'**	**1.02**
P7510	**10'**	**1.14**
P7820	**20'**	**1.44**

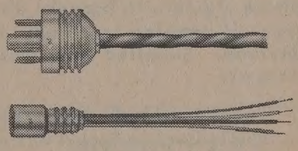


EXACT DUPLICATE CABLES for ORIGINAL EQUIPMENT REPLACEMENT

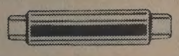
Molded Male Plugs; with Molded Female Receptacles, Molded Octal Plugs, etc. (as widely used on Record Changers and Audio and TV equipment).

Write for Exact Duplicate Replacement Catalog.

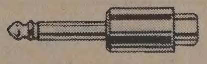
Cable Assemblies manufactured to specifications for O. E. M.



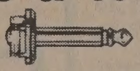
ADAPTERS & CONNECTORS



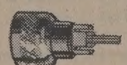
C400 Phono Pin Jack; Phono Pin Jack.
C400.........NET .60



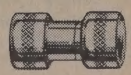
P55A Phono Pin Jack; Phone Plug.
P55A.........NET .75



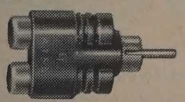
M75P Male Mic; Phone Plug.
M75P.........NET .30



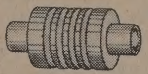
MP Mic; Phono Pin Plug.
MP...........NET .60



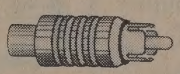
C800 Mic; Mic.
C800.........NET .60



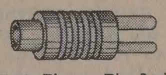
A754 Two Phono Pin Jacks; Phono Pin Plug.
A754........NET 1.20



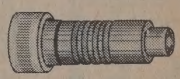
A753 PhoneJack; Phono Pin Jack.
A753........NET 1.05



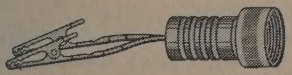
A750 PhoneJack; Phono Pin Plug.
A750........NET 1.05



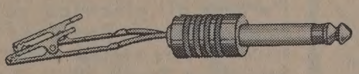
A780 Phono Pin Jack; 2 Prong Polarized Plug ¼" centers.
A780.........NET .75



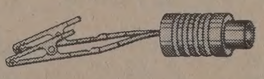
A751 Mic Connector; Phono Pin Jack.
A751.........NET .75



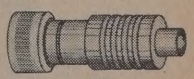
A779 Mic Connector; Clips. **NET .75**



A782 Phone Plug; Clips. **NET .75**



A778 Phono Pin Jack; Clips. **NET .75**
A781 Phone Jack; Clips. **NET 1.05**



A752 Mic Connector; Phone Jack.
A752........NET 1.05

ALL PRICES QUOTED ARE U.S.A. PRICES

FLUSH MOUNTED TV SOCKETS

Easy-to-install, attractive wall plate TV sockets for every installation requirement. Ivory or brown plates are styled to harmonize with existing electrical plates. Available in types for single, dual or triple lead-in lines and for single and dual lines plus 4-wire rotor cable. Packaged with mating plug(s), F-9 mounting brackets and full instructions.

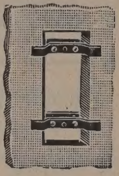
			Net
F-1PK	iv.	Single Flush Socket w/Plug and Mtg. Hdw.	$1.25
F-1PK	br.	Single Flush Socket w/Plug and Mtg. Hdw.	$1.25
F-11PK	iv.	Dual Flush Socket w/Plug and Mtg. Hdw.	$1.72
F-11PK	br.	Dual Flush Socket w/Plug and Mtg. Hdw.	$1.77
F-14PK	iv.	Single Lead-in and 4-Wire Socket / Plugs	$2.26
F-14PK	br.	Single Lead-in and 4-Wire Socket / Plugs s	$2.26
F-114PK	iv.	Dual Lead-in and 4-Wire Socket / Plugs	$2.26
F-114PK	br.	Dual Lead-in and 4-Wire Socket / Plugs	$2.32

"ANTI-STUB" TV/FM WALL PLATE OUTLETS

Similar to F-1PK, above, but with switch to disconnect system beyond outlet being used. Prevents "stub-effect". Silver plated positive action contacts. Brown or ivory polystyrene. With polarized plug and mounting hardware.

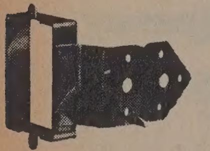
			Net,
FD-1PK	iv.	Single Flush Switching Outlet	$1.35
FD-1PK	br.	Single Flush Switching Outlet	$1.39

MOUNTING HARDWARE



Type F-9, Mounting Brackets of heavy gauge steel for installing F-Series Sockets in walls of existing buildings. Requires rectangular opening 1¾" wide by 4" long. Net,

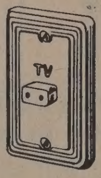
F-9 $ .24



Type F-8 Plaster Ring for installing F-Series Sockets in new construction. Mounts easily and quickly to wood studding. Adjustable for plaster thicknesses up to 1½". Heavy plated steel. Net,

F-8 $ .40

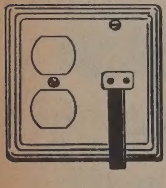
SURFACE MOUNTED SOCKETS



Surface mounted sockets resemble flush wall plate types but may be used for either concealed wiring or where TV line is brought along surface of wall. No wall opening required. In brown or ivory polystyrene. Supplied with mating plug(s) and wood screws.

			Net
SM-1PK	iv.	Single Lead-in Socket w/Plug	$1.06
SM-1PK	br.	Single Lead-in Socket w/Plug	$1.10
SM-11PK	iv.	Dual Lead-in Socket w/Plug	$1.49
SM-11PK	br.	Dual Lead-in Socket w/Plug	$1.49
SM-14PK	iv.	Single Lead-in and 4-Wire Socket w/Plugs	$2.44
SM-14PK	br.	Single Lead-in and 4-Wire Socket w/Plugs	$2.44

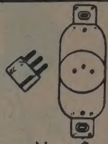
AC/TV WALL PLATE SOCKETS



Combination TV lead-in outlet and plate for double convenience outlet. Ideal for installation during new construction or remodeling. Metal barrier plate, supplied separates AC and TV services to comply with electrical codes. Install in ganged electrical boxes. Brown or ivory. With mating plug(s) and mounting screws.

			Net
AC-1PK	iv.	300 ohm Socket w/Plug	$1.27
AC-1PK	br.	300 ohm Socket w/Plug	$1.30
AC-11PK	iv.	Two 300 ohm Sockets w/Plug	$1.73
AC-11PK	br.	Two 300 ohm Sockets w/Plug	$1.73
AC-14PK	iv.	300 ohm and 4-Wire Socket w/Plugs	$2.30
AC-14PK	br.	300 ohm and 4-Wire Socket w/Plugs	$2.30

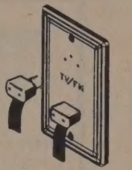
TV/FM WALL PLATE OUTLETS



Permits all electrical and TV/FM outlets to be matched. Designed to fit standard, single or double convenience outlet plates, either plastic or metal. Brown or ivory polystyrene.

FY-1	iv.	Single TV/FM Outlet w/Mtg. Hdw.	Net, $ .67
FY-1	br.	Single TV/FM Outlet w/Mtg. Hdw.	$ .67
FY-1PK	iv.	Single TV/FM Outlet w/Plug, Mtg. Hdw.	$1.06
FY-1PK	br.	Single TV/FM Outlet w/Plug, Mtg. Hdw.	$1.06
FY-14	iv.	Single TV/FM Outlet and 4-Wire Socket	$ .87
FY-14	br.	Single TV/FM Outlet and 4-Wire Socket	$ .87
FY-14PK	iv.	Single Outlet & 4-Wire Socket w/Plugs, Hdw	$1.70
FY-14PK	br.	Single Outlet & 4-Wire Socket w/Plugs, Hdw	$1.70

STEREO TV/FM WALL PLATE OUTLETS



For use in areas where FM can be received with TV antenna. Resistor-type 2 set coupler built-in to isolate TV from FM permitting simultaneous reception without interaction. Net,

WPS-11PK	iv.	TV/FM Stereo Plate	$1.46
WPS-11PK	br.	TV/FM Stereo Plate	$1.46

AUDIO PAD PLATE w/KNOB

Attractive brown or ivory polystyrene plate with satin finished anodized aluminum dial face and modern indicator knob. Use to assemble L-pad, T-pad, Fader, etc., for audio and Hi-Fi systems. Less control.

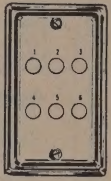
Type FAV-1 $1.09

ATTENUATOR PLATE with SPEAKER JACK

Same as Type FAV-1. Plug and jack have been supplied for additional external speaker unit. Less control.

Type FAV-2 $1.63

FLUSH SPEAKER SWITCH PLATE



High quality 6 position switch plate selects any speaker or combination of speakers in remote locations. Heavy duty push button switches on brown or ivory plate. Complete with plated machine screws and instructions.

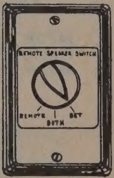
Type FAS-6 $11.43

SPEAKER WALL PLATE OUTLETS

Brown or ivory polystyrene flush mounting outlets. Speaker socket and plug polarized and solderless. Ideal for custom Hi-Fi installations where remote speakers are not permanently installed. Complete with mounting brackets and instructions.

Type FAS-1PK	Single	$1.86
Type FAS-11PK	Double	$2.03

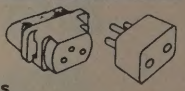
3-POSITION SPEAKER SWITCH



Three position speaker switch for Hi-Fi or Stereo Speaker Systems. Will operate single speaker system, remote system or both. Type FSS-2 is supplied with external plug and jack for additional speaker.

Type FSS-1 $2.50
Type FSS-2 $2.68

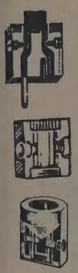
TV/FM INTERCHANGEABLE OUTLET

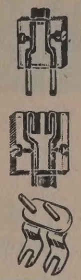


Permits all electrical and TV/FM outlets to be matched. Designed to fit interchangeable type electrical plates styles 91041 Brown, 92041 Ivory and 97011 Stainless Steel. Molded of low loss polystyrene in brown or ivory. Supplied with Mosley 303 Polarized 300 ohm Transmission Line Plug.

FG-1PK	iv.	Replaceable Outlet and Plug	$ .59
FG-1PK	br.	Replaceable Outlet and Plug	$ .59

300 OHM CONNECTORS

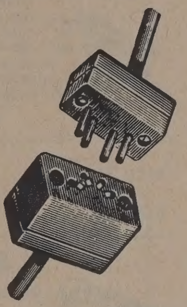




Precision molded low loss 300 ohm connectors for UHF and VHF transmission lines. Constant impedance. Solderless.

Type 301	Line Plug	Net, $ .21
Type 311	Line Socket	$ .21
Type 321	Polarized, pair	$ .40
Type 304	Input Adapter	$ .21
Type 27-S	Flat-line Splicer	$ .13
Type 29-S	Round / Flat Splicer	$ .14

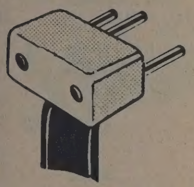
MULTI-WIRE CONNECTORS



For rotator cable connections and many other low voltage uses. No set screws in line plugs and line sockets. In brown or ivory.

Type 354	4-wire Base Socket	Net, $ .95
Type 364	4-wire Line Socket	$ .67
Type 374Iv.	4-wire Line Plug	$ .51
Type 374Br.	4-wire Line Plug	$ .52

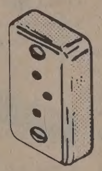
300 OHM TV PLUG



300 ohm plug, one piece construction and utilizing set screws to hold line. Supplied with 3 pins to mate with AC-TV series plates but center pin is removable to use with Mosley 2 pin sockets. Brown or ivory.

Type 303Iv.	Net, $ .21
Type 303Br.	$ .22

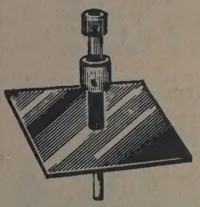
UNIVERSAL TV SOCKET



Compact, neat plug-in socket for FM or TV lead-in line. Use as line tap or terminal socket. Low loss polystyrene, constant impedance design for 300 ohm line. In brown or ivory. Complete with mating plug.

343PK iv. above w/plug	Net, $ .68
343PK br. above w/plug	$ .70

ROOF-THRU



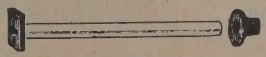
8" x 9" copper flashing with polystyrene feed through bushing permits direct weather-proof roof entrance of flat TV line and rotor cable. Easy to install.

Type 624 . . . . Net, $4.07

Type 623. Similar to Type 624 but for round or oval 300 ohm line only.

Type 623 . . . . Net, $4.07

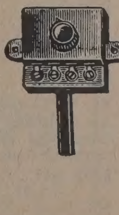
WALL-THRU



Neat, low loss wall entrance for all popular oval, round or flat transmission lines. Fits walls up to 13" thick. Type 343 TV Socket mounts on inside plate. Brown or ivory.

625 iv.	Net, $1.32
625 br.	$1.36
625Pk iv. above w/plug	$2.03
625PK br. above w/plug	$2.09

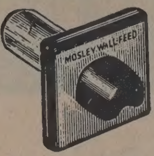
TV ANTENNA SWITCHES



Top quality rotary TV Antenna Switches for UHF and VHF. Silver-to-silver contacts and constant impedance design assures low insertion loss. Solderless. Brown or ivory.

F-20 iv.	*3-Way TV Switch*	Net, $2.53
F-20 br.	*3-Way TV Switch*	$2.61
F-40 iv.	*2-Way TV Switch*	$1.39
F-40 br.	*2-Way TV Switch*	$1.39

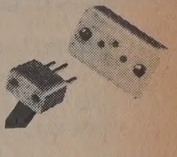
WALL FEED



Install at gable end or under roof overhang to provide weatherproof TV lead-in entrance into attic. Ideal for house trailer installations. Ivory or brown polystyrene plate with weatherhood and 2" tube. In trailer installation cut tube flush with inside wall and install Type 343 TV Socket directly over opening.

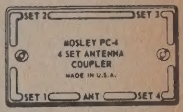
626 iv.	Net, $ .86
626 br.	$ .88
626PK iv. Wall Feed w/Socket	$1.56
626PK br. Wall Feed w/Socket	$1.61

MULTI-SET COUPLERS



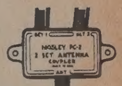
"Tiny-Mite" Multi-set Coupler and plug-in socket with plug. Resistor type tap-off unit will operate two TV sets from one antenna. Neat, compact. In brown or ivory.

912 iv.	Net, $1.22
912 br.	$1.22



4-Set Coupler. Resistor type coupler designed for metropolitan areas, the major multi-set markets. Ideal for motels, small apartment buildings, etc. Brown or ivory polystyrene case.

PC-4 iv. . . . . .Net, $3.19



A unique, compact two set coupler, designed to minimize set interaction and radiation.

PC-2 iv. . . . . Net, $1.45

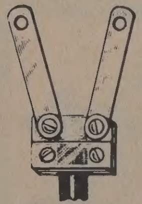
TUNABLE WAVE TRAPS

High Q series resonant wave traps for eliminating interference patterns and cross-talk on TV and FM. Use on any receiver input, 50 to 600 ohms, balanced or unbalanced. Solderless. Install on set terminal strip. Choose type with range including frequency of interfering station.

WT-7	*brown*	*For Freqs. 6.8 - 8.5 mc.*
WT-14	*brown*	*For Freqs. 13.8 - 16 mc.*
WT-21	*brown*	*For Freqs. 16 - 28 mc.*
WT-41	*brown*	*For Freqs. 27 - 55 mc.*
WT-78	*brown*	*For Freqs. 47 - 110 mc.*
WT-168	*brown*	*For Freqs. 100 - 230 mc.*

. . . . Net, $3.19

MOSLEY "Y-TY"



Solderless strain relief connector prevents transmission line from breaking at the antenna. Easy to install, fits all types line. Use Type 263-L for antennas with terminals more than 4" apart.

263-S black Y-TY(small)	Net, $ .44
263-L black Y-TY(large)	$ .44

POLYETHYLENE TV CONDUIT

Black polyethylene tubing makes ideal conduit for running TV and FM transmission lines within walls. Simplifies replacement of hidden wires. ¾" inside diameter. Flexible, easy to install. Many other applications such as intercom and other low voltage cables.

80-25	*black*	500'	*TV Conduit*	*Net, $ .22*
80-50	*black*	500'	*TV Conduit*	*$ .22*
80-100	*black*	500'	*TV Conduit*	*$ .22*
80-500	*black*	500'	*TV Conduit*	*$ .22*

See MOSLEY Antennas and other Amateur Components listed in another section of this book.

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mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co. CLEVELAND 14, OHIO

"60 SERIES" ALLIGATOR CLIPS

No. 60—CONVENTIONAL TYPE

Accurately made, slim jaws, fine meshing teeth. Convenient, round thumb grip, barrel connection for banana plug. Equipped with small soldering lip. Strong spring with a hard bite. Cadmium plated. 2" long.

EACH NET..........................$0.07 **LOTS OF 10**..........................$0.046

No. 60-S—SCREW CONNECTION

Eliminates necessity for soldering. Otherwise same as No. 60.

EACH NET......$0.08 **LOTS OF 10**....$0.052

No. 60-CS—COPPER ALLIGATOR CLIP

Solid copper version of No. 60-S. Screw connection. 2" long. 10 per box.

EACH NET..........................$0.12 **LOTS OF 10**..........................$0.08

No. 60PR-2—SPECIAL BARREL

FOR TEST PROD OR PHONE TIP

Barrel crimped to provide friction fit on standard test prod or phone tip. Holds prod on test, frees hand for other work.

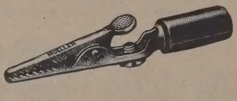
EACH NET..........................$0.10 **LOTS OF 10**..........................$0.066

No. 62 FLEXIBLE VINYL INSULATOR

Red and black insulators for Alligator Clips 60, 60-S, 60-CS, 60PR-2.

EACH NET..........................$0.05 **LOTS OF 10**..........................$0.035

No. 60-HS—STEEL ALLIGATOR CLIP WITH INSULATED HANDLE



Same as No. 60-S except equipped with red and black insulating sleeves on end. Very convenient for distinguishing leads. Has screw connection also. Cadmium plated. $2\frac{11}{32}$" long. Shipped half red, half black.

EACH NET..........................$0.11 **LOTS OF 10**..........................$0.075

No. 60-CHS—COPPER ALLIGATOR CLIP, INSULATED HANDLE

Solid copper version of No. 60-HS. Screw connection. Shipped with half red, half black insulating sleeves. 10 per box.

EACH NET..........................$0.15 **LOTS OF 10**..........................$0.10

"70 SERIES" ALLIGATOR CLIPS

U.S. Patent No. 2,762,028

A modern, streamlined version of our standard size Alligator Clips. Features simplified design, fast connection of wire with cord strain relief ears, patented hinge construction and lower cost.

Mueller's traditionally snappy spring, full jaw spread, fine meshing teeth, round thumb grip and trim shape give most wanted features for test work in close quarters.

No. 70—FOR SOLDERED CONNECTION

Steel, cadmium plated. $1\frac{11}{16}$" long.

EACH NET........$0.07 **LOTS OF 10**......$0.042

No. 70-S—SCREW CONNECTION

Otherwise same as No. 70.

EACH NET........$0.08 **LOTS OF 10**......$0.048

No. 70-CS—COPPER SCREW CONNECTION

Solid copper version of No. 70-S.

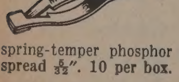
EACH NET........$0.11 **LOTS OF 10**......$0.075

No. 72— SKIN-TIGHT INSULATOR

FOR 70 SERIES ALLIGATOR CLIPS!

For the first time complete, skin-tight, one-piece insulation for a standard size Alligator Clip! Covers entire clip right down to nose. Special tip slot permits full jaw opening without exposing teeth.

EACH NET..........................$0.05 **LOTS OF 10**..........................$0.035



WEE-PEE-WEE No. 88

Entirely Non-ferrous.

An extremely small clip for fine testing in radio and electrical work. Light-Weight; thin-nosed; spring-temper phosphor bronze. Ideal for close-wound coils. $1\frac{11}{16}$" long; jaw spread $\frac{5}{32}$". 10 per box.

EACH NET..........................$0.22 **LOTS OF 10**..........................$0.15

Use No. 93 Insulator.

NEW! MICRO-GATOR CLIP

(Smallest Insulated Clip Ever Made)

U.S. Patent No. 2,762,028 Trademark Reg.

Micro-Gator

Micro-Gator with Insulator

The alligator clip with the microscopic tip! This is the alligator clip you now can use where no other clip will do . . . on printed circuits, in tight spots and on tiny terminals too crowded for anything but its microscopic tip. It offers the speed, free-handed ease and convenience associated with other Mueller alligator clips. The Micro-gator is truly small (takes 30 to weigh an ounce!) Including separate skin-tight insulator the tip is no bigger than the head of a pin! Yet the Micro-gator has ample thumb grip, and plenty of bite to stand up straight on the smallest terminals. Ample $\frac{7}{32}$" jaw spread. Solder connection. Skin-tight flexible vinyl insulator (sold separately) has "lip-action" tip slot so that jaws stay covered whether open or closed.

No. 34 (Steel, cadmium plated)

EACH NET..........................$0.06 **LOTS OF 10**..........................$0.04

No. 34-C (Solid Copper)

EACH NET..........................$0.07 **LOTS OF 10**..........................$0.05

No. 36 (Insulator for Nos. 34 and 34-C)

EACH NET..........................$0.05 **LOTS OF 10**..........................$0.03

MINI-GATOR CLIP

U.S. Patent No. 2,762,028 Trademark Reg.

Mini-gator

Mini-gator with Insulator

Indispensable for testing or incorporation into miniaturized equipment. Skin-tight flexible Vinyl insulator (sold separately) covers completely — has slotted "lip action" tip. Clip weighs 1/20th oz., has tiny $\frac{11}{64}$" O.D. nose, but ample $\frac{3}{16}$" jaw spread. Crimping ears. Solder connection. Surprisingly strong bite penetrates corrosion and coatings.

No. 30 (Steel, cadmium plated)

EACH NET..........................$0.06 **LOTS OF 10**..........................$0.04

No. 30-C (Solid Copper)

EACH NET..........................$0.07 **LOTS OF 10**..........................$0.05

No. 32 (Insulator for Nos. 30 and 30-C)

EACH NET..........................$0.05 **LOTS OF 10**..........................$0.03

COMPLETELY INSULATED ALLIGATOR CLIPS

Patent Pending

No. 63 or 63-C Clip

Sold only as a unit, with factory-applied insulators.

A radically new development that doubles the usefulness of Alligator Clips! Completely insulated right down to the nose. Flexible 2-piece skin-type vinyl insulator of high dielectric strength, with "lip action" slotted nose that permits opening of clip without exposing metal. Insulator nose is only 15/64" O.D. The tight fitting sheath preserves all the slimness of the Alligator Clip, still giving complete protection against shorts in even the tightest spots. These clips could be bunched together—touching all around—without danger of shorting. Screw connection easily made by slipping insulator forward.

No. 63—INSULATED ALLIGATOR CLIP (STEEL)

Composed of Mueller No. 60-S Alligator Clip steel, cadmium plated, screw connection, complete with 2-piece vinyl insulator. Shipped half with red insulators, half black. 10 per box.

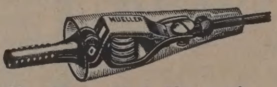
EACH NET..........................$0.19 **LOTS OF 10**..........................$0.13

No. 63-C—INSULATED ALLIGATOR CLIP (COPPER)

Composed of Mueller No. 60-CS Alligator Clip, solid copper, screw connection. Shipped half with red insulators, half black. 10 per box.

EACH NET..........................$0.22 **LOTS OF 10**..........................$0.15

CROCODILE CLIPS



No. 85 or 85-C Clip with No. 87 Insulator

No. 85-T Clip

No. 85—A very small clip with slender, elongated jaws for getting into tight places in radio or electrical test work. Screw connection. $2\frac{1}{8}$" long.

EACH NET..........................$0.09 **LOTS OF 10**..........................$0.06

No. 85-C—Same as No. 85, except solid copper. A radio frequency, entirely non-ferrous test clip. 10 per box.

EACH NET..........................$0.18 **LOTS OF 10**..........................$0.12

No. 85-T—Crocodile "Tip-Clip"—equipped with standard phone tip on one jaw, otherwise same as No. 85. Ideal for use as a prod, for ordinary clip connections and for connections to insulated binding posts having non-removable heads. $2\frac{5}{8}$" long. 10 per box.

EACH NET..........................$0.22 **LOTS OF 10**..........................$0.15

Use No. 87 Insulators for clips 85, 85-C and 85-T. Red and Black. Cover entire clip except nose. Protect against short and shock. Help to distinguish leads.

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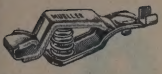
mueller clips

a complete line of
ALLIGATOR TEST & BATTERY CLIPS
Mueller Electric Co. CLEVELAND 14, OHIO

TEST CLIPS

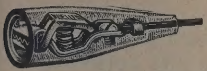
No. 45 PEE WEE



A very small test clip for radio, ignition, meter and similar work. 1½″ long. Jaw spread 5/16″. Steel, cadmium plated.

EACH NET..............................$0.07 LOTS OF 10..............................$0.05

No. 45-C
Solid Copper R.F. Test Clip



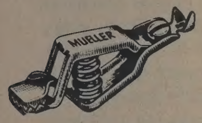
No. 45-C Clip
No. 47 Insulator

Solid copper radio frequency test clip. Phosphor bronze spring, brass screw. Will not heat up in high frequency test work, entirely non-ferrous. 1½″ long. 10 per box.

EACH NET..............................$0.14 LOTS OF 10..............................$0.095

Use No. 47 Insulator for clips 45 and 45-C.

No. 48-B



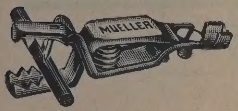
A small test and battery clip for radio use and general testing purposes. 2″ long. Jaw spread 7/16″. Steel, cadmium plated. 10 per box.

EACH NET........$0.11 LOTS OF 10....$0.074

No. 48C—Solid Copper. Same size as 48-B.

EACH NET..............................$0.15 LOTS OF 10..............................$0.11

No. 50-C Needle Clip



Solid bronze. Needle pierces insulation of wire for quick test contact. 2¼″ long. 10 per box.

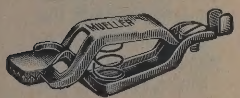
EACH NET....$0.28 LOTS OF 10....$0.20

No. 51-C—Large crocodile clip. Same as 50-C but without needle. 10 per box.

EACH NET....$0.19 LOTS OF 10....$0.13

Use No. 49 insulator for Clips 48-B, 48-C, 50-C and 51-C.

No. 27



A high grade test clip with meshing teeth on three sides of jaws. For laboratory and shop test work 2 7/16″ long. Jaw spread ⅝″. Steel, cadmium plated. 10 per box.

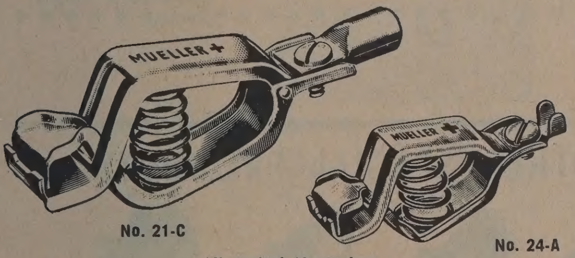
EACH NET..............................$0.13 LOTS OF 10..............................$0.09

No. 27-C—Solid copper. Same size as No. 27. 10 per box.

EACH NET..............................$0.23 LOTS OF 10..............................$0.16

Use No. 29 Insulator for clips 27 and 27-C.

LARGER SIZES OF CLIPS



No. 21-C

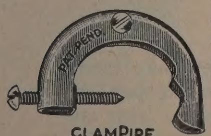
No. 24-A

All packed 10 per box.

	Each Net	Lots of 10
No. 24-A—25 Amp. Steel, lead plated, 2⅞″ long	$0.23	$0.16
No. 24-C—50 Amp. Solid Copper, 2⅞″ long	.38	.27
No. 21-A—50 Amp. Steel, lead plated, 4″ long	.40	.28
No. 21-C*—100 Amp. Solid Copper, 4½″ long	.97	.68
No. 11-A*—100 Amp. Steel, lead plated, 6″ long	1.06	.75
No. 11-C*—200 Amp. Solid Copper, 6″ long	1.81	1.27
No. 33-C*—300 Amp. Solid Copper, 7¾″ long	3.35	2.35

(*Furnished with detachable lug connection for easy securing to large cables.)

GROUND CLAMP

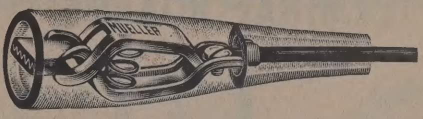


CLAMPIPE
No. 58

The ClamPipe will not spread, bend or lop over when applied. Point of large screw bites through corrosion into clean metal to insure good contact. Applicable to pipe ⅜″ to 1⅜″ O.D. The best ground clamp on the market!

EACH NET....$0.20 LOTS OF 10....$0.14

FLEXIBLE INSULATORS FOR CLIPS



A convenient protection against short circuit and electric shock. Colors help to distinguish leads. Packed half red and half black to indicate polarity. Long tail prevents breakage of wire. Constructed so that clip is held in firmly. NOW AVAILABLE also in blue, white, yellow and green at 10% above regular price are insulators marked * below.

Insulator No.	For Use with Clip No.	Each Net	Lots of 10
13*	11-A, 11-C	$0.80	$0.56
23*	21-A, 21-C	.40	.28
26*	24-A, 24-C	.21	.15
29*	27, 27-C	.13	.09
32*	30, 30-C	.05	.03
35	33-C	2.93	2.05
36*	34, 34-C	.05	.03
47*	45, 45-C	.06	.04
49*	48-B, 48-C, 50-C, 51-C	.09	.065
62*	60, 60-S, 60-CS, 60PR-2 (also 70 Series)	.05	.035
72*	70, 70-S, 70-CS	.05	.035
87*	85, 85-C, 85-T	.06	.04
93	88	.12	.08

*Also available in blue, white, yellow and green.

MUELLER *QUALITY* BATTERY BOOSTER CABLES

Highest quality cables, equipped with famous Hippo-Clips, for boosting "dead" 6 or 12-volt vehicle batteries with an external battery. Cables are pure copper, finely stranded for high flexibility and covered with rubber insulation which stays flexible in the coldest weather and resists oil, grease and acid. 413 strands of No. 30 wire in the 4-gauge cable and 259 strands of No. 30 wire in the 6-gauge cable. The many fine features of the Hippo-Clips alone are listed elsewhere on this page. The clips are both soldered to the cable and clinched around the cable insulation by means of clinching ears.

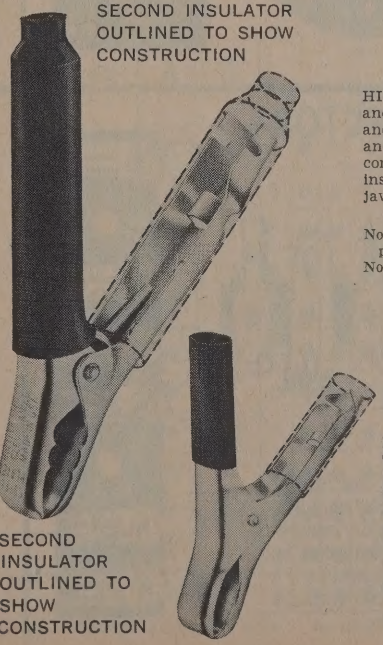
Packaged: pair of cables with clips in a bright, attractive display carton. Standard shipping container 10 cartons.

Mueller
Quality
BATTERY
BOOSTER CABLES
with famous Mueller Hippo Clips
12C4
DISPLAY CARTON

No. 8A6—8 ft., 6-gauge, with No. 41A Hippo-Clips (Steel, bright copper plated)
NET PRICE PER PAIR $4.50

No. 12A6—12 ft., 6-gauge, with No. 41A Hippo-Clips (Steel, bright copper plated)
NET PRICE PER PAIR.................$6.00

No. 12C4—12 ft., 4-gauge, with No. 41C Hippo-Clips (Solid Copper)
NET PRICE PER PAIR................$11.40



SECOND INSULATOR OUTLINED TO SHOW CONSTRUCTION

SECOND INSULATOR OUTLINED TO SHOW CONSTRUCTION

HIPPO-CLIP

HIPPO-CLIP—For battery booster cables and fast chargers. Proved higher quality and superior design. Built-in solder strap and clinching ears for fast, sure cable connection. Supplied with vinyl handle insulators in red or black. Full 1-9/16″ jaw spread. 6″ long.

	Net price ea.
No. 41-A Steel, bright copper plated, 100 amp.	$ .45
No. 41-C Solid Copper, 200 amp.	.90

NEW!
PIGMY HIPPO-CLIP

PIGMY HIPPO-CLIP—A new small plier clip for battery operated equipment and automotive test. Flat, wide handle allows positive grip. Won't "squirt away". Built-in solder strap and wire clinching ears. Supplied with vinyl handle insulators in red or black. Ample 1⅛″ jaw spread. 3″ long.

	Net price ea.
No. 46-A Steel, bright copper plated, 50 amp.	$ .15
No. 46-C Solid Copper, 75 amp.	.24

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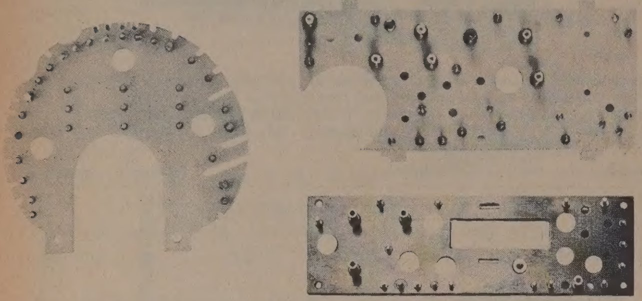
ntt NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

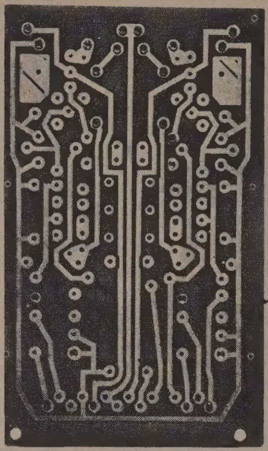
SPECIAL CUSTOM PRODUCTS

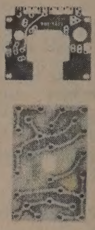
TERMINAL BOARDS



All terminal boards manufactured to rigid Commercial and Military specifications. Materials used include paper, cloth, glass or nylon laminates bonded with phenolic, silicone or melamine resins. Terminal boards can be supplied lacquered or varnished, printed, rubber stamped, silk screened, hot stamped, engraved or fungus proofed.

PRINTED CIRCUITS

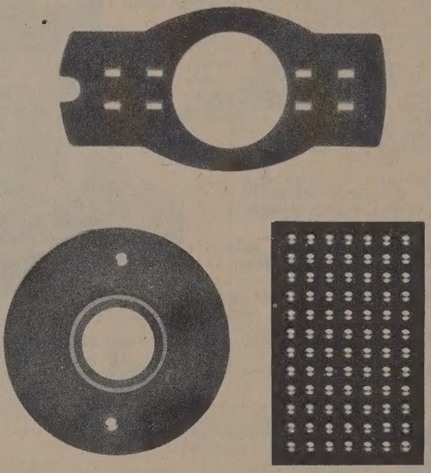




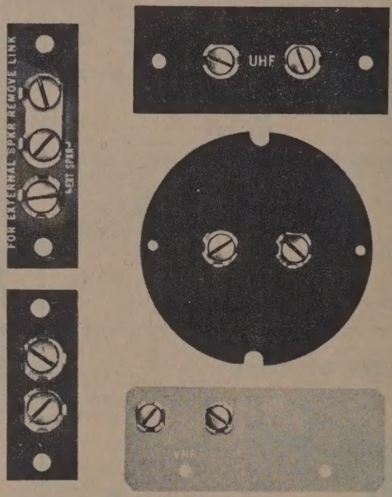
Both photograph and silk screened etched processes used on copper clad insulating laminates such as XXXP or glass epoxy with copper laminated on one or both sides. Boards can be supplied drilled or punched and with protective coatings to prevent oxidation. Various platings are also available such as gold, silver, albaloy and nickel Rhodium.

FABRICATED PARTS

National Tel-Tronics facilities include complete tool room and fabrication facilities to supply customers with all types of intricate and precisely machined or punched parts. Fabrication materials include all types of insulation materials and metals. Facilities are also available for all types of plating and lacquered, anodized or irridite finishes.

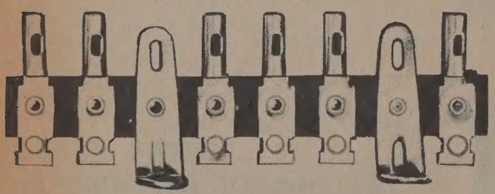


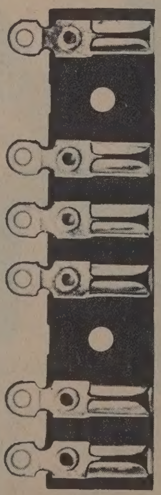
BINDING POST BOARDS



A complete line of binding post boards designed to meet the customers specifications. National Tel-Tronics facilities and engineering staff are highly qualified to assist the customer in the design and tooling of all shapes. Binding posts can be supplied marked, lacquered or fungus proofed.

CONTACT CONNECTORS

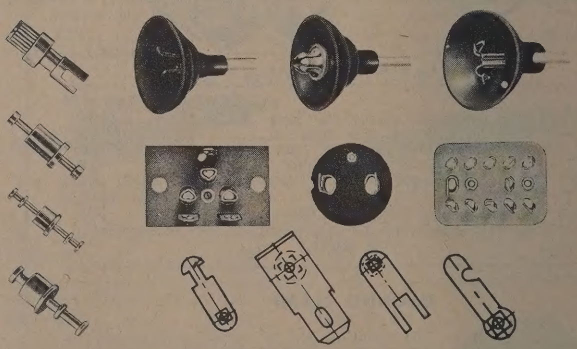




Novel low cost connectors, the line of contact strips manufactured by National Tel-Tronics will meet most connector requirements. Both male and female parts can be supplied to the customer's requirements. A wide variety of terminals and contacts are also available.

Photos shown are not to size or scale

OTHER SPECIAL PRODUCTS



National Tel-Tronics manufactures a complete line of turret terminals designed to meet Commercial and Military specifications. Anode leads, both of the button and spring types are available to specifications. Inter-chassis and in-line connectors are available to the customer's requirements and specifications.

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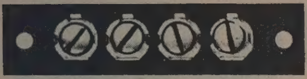
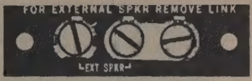
NATIONAL TEL-TRONICS CORP.

YONKERS, N. Y.

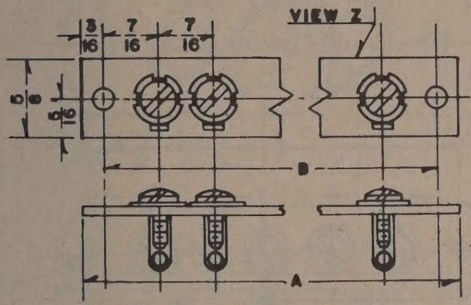


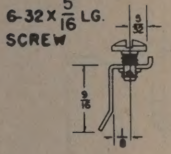

FOR EXTERNAL SPKR REMOVE LINK
EXT SPKR

BINDING POST BOARDS

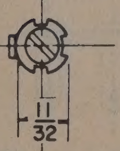
Boards—1/16″ thick XP Laminated Phenolic, other grades of insulating material when specified. **Terminals**—1/32″ thick, brass, cadmium plated. **Screws**—Steel nickel plated.

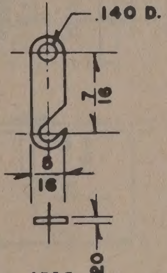
2400 SERIES


3/16
7/16
7/16
VIEW Z
5/8
5/16
B
A


6-32 X 5/16 LG. SCREW
5/32
9/16
1/8

4403



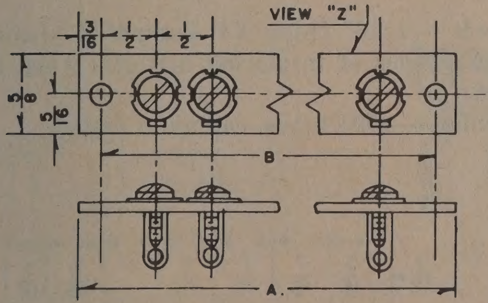

.140 D.
7/16
5/16
.020

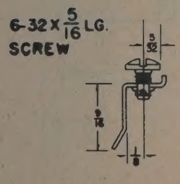
4515

PART NO.	A	B	● LUG POSITIONS (AS PER VIEW "Z")													
				1	2	3	4	5	6	7	8	9	10	11	12	
2401	1¼″	⅞″	○	●	○											
2402	1 11/16″	1 5/16″	○	●	●	○										
2403	2⅛″	1¾″	○	●	●	●	○									
2404	2 9/16″	2 3/16″	○	●	●	●	●	○								
2405	3″	2⅝″	○	●	●	●	●	●	○							
2406	3 7/16″	3 1/16″	○	●	●	●	●	●	●	○						
2407	3⅞″	3½″	○	●	●	●	●	●	●	●	○					
2408	4 5/16″	3 15/16″	○	●	●	●	●	●	●	●	●	○				
2409	4¾″	4⅜″	○	●	●	●	●	●	●	●	●	●	○			
2410	5 3/16″	4 13/16″	○	●	●	●	●	●	●	●	●	●	●	○		
2411	5⅝″	5¼″	○	●	●	●	●	●	●	●	●	●	●	●	○	
2412	6 1/16″	5 11/16″	○	●	●	●	●	●	●	●	●	●	●	●	●	○

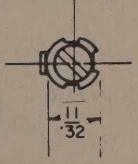
○—INDICATES MOUNTING HOLE ●—INDICATES TERMINAL

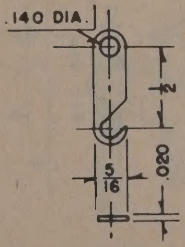
2500 SERIES


3/16
1/2
1/2
VIEW "Z"
5/8
5/16
B
A.


6-32 X 5/16 LG. SCREW
5/32
9/16
1/8

4403




.140 DIA.
1/2
5/16
.020

4516

PART NO.	A	B	● LUG POSITIONS (AS PER VIEW "Z")													
				1	2	3	4	5	6	7	8	9	10	11	12	
2501	1⅜″	1″	○	●	○											
2502	1⅞″	1½″	○	●	●	○										
2503	2⅜″	2″	○	●	●	●	○									
2504	2⅞″	2½″	○	●	●	●	●	○								
2505	3⅜″	3″	○	●	●	●	●	●	○							
2506	3⅞″	3½″	○	●	●	●	●	●	●	○						
2507	4⅜″	4″	○	●	●	●	●	●	●	●	○					
2508	4⅞″	4½″	○	●	●	●	●	●	●	●	●	○				
2509	5⅜″	5″	○	●	●	●	●	●	●	●	●	●	○			
2510	5⅞″	5½″	○	●	●	●	●	●	●	●	●	●	●	○		
2511	6⅜″	6″	○	●	●	●	●	●	●	●	●	●	●	●	○	
2512	6⅞″	6½″	○	●	●	●	●	●	●	●	●	●	●	●	●	○

○—INDICATES MOUNTING HOLE ●—INDICATES TERMINAL

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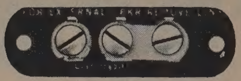
YONKERS, N. Y.

BINDING POST BOARDS

SCREW TYPE

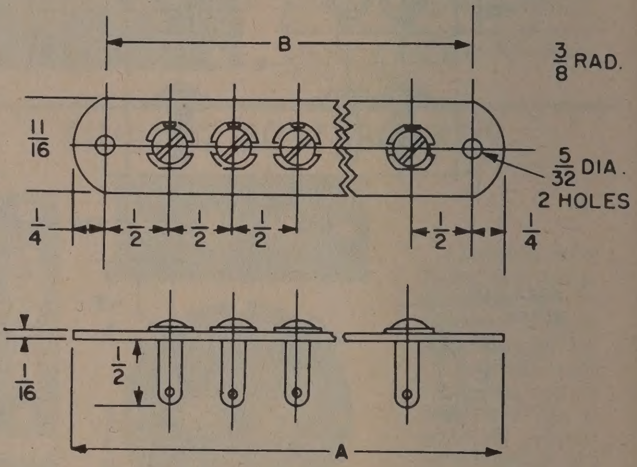


Boards—1/16″ thick XP Laminated Phenolic, other grades of insulating material when specified. **Terminals**—1/32″ thick, brass, cadmium plated. **Screws**—Steel nickel plated.

2550 SERIES

PART NO.	A	B	● TERMINAL POSITIONS													
				1	2	3	4	5	6	7	8	9	10	11	12	13
2551	1½″	1″	○	●	○											
2552	2″	1½″	○	●	●	○										
2553	2½″	2″	○	●	●	●	○									
2554	3″	2½″	○	●	●	●	●	○								
2555	3½″	3″	○	●	●	●	●	●	○							
2556	4″	3½″	○	●	●	●	●	●	●	○						
2557	4½″	4″	○	●	●	●	●	●	●	●	○					
2558	5″	4½″	○	●	●	●	●	●	●	●	●	○				
2559	5½″	5″	○	●	●	●	●	●	●	●	●	●	○			
2560	6″	5½″	○	●	●	●	●	●	●	●	●	●	●	○		
2561	6½″	6″	○	●	●	●	●	●	●	●	●	●	●	●	○	
2562	7″	6½″	○	●	●	●	●	●	●	●	●	●	●	●	●	○

●—INDICATES TERMINAL   O—INDICATES MOUNTING HOLE



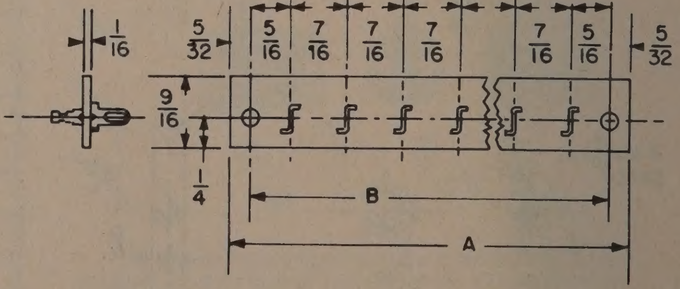
2620 SERIES (Double End)

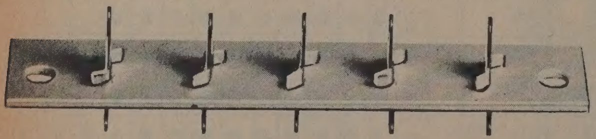
PART NO.	A	B	❙TERMINAL POSITIONS									
				1	2	3	4	5	6	7	8	9
2621	15/16″	5/8″	○	❙	○							
2622	1⅜″	1 1/16″	○	❙	❙	○						
2623	1 13/16″	1½″	○	❙	❙	❙	○					
2624	2¼″	1 15/16″	○	❙	❙	❙	❙	○				
2625	2 11/16″	2⅜″	○	❙	❙	❙	❙	❙	○			
2626	3⅛″	2 13/16″	○	❙	❙	❙	❙	❙	❙	○		
2627	3 9/16″	3¼″	○	❙	❙	❙	❙	❙	❙	❙	○	
2628	4″	3 11/16″	○	❙	❙	❙	❙	❙	❙	❙	❙	○

1—INDICATES TERMINAL POST   O—INDICATES MOUNTING HOLE

Boards — 1/16″ thick XP laminated phenolic. Other grades of insulating material when specified.

Terminals—.025 brass, cadmium plated.





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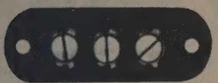
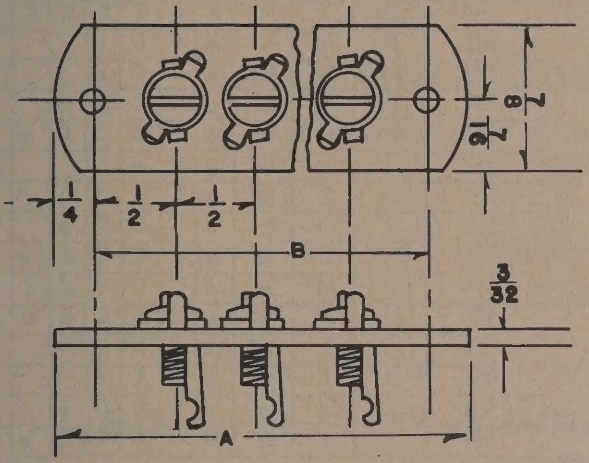


BINDING POST BOARDS

HEAVY DUTY – SCREW TYPE

STANDARD



These #2700 binding post boards are used on heavy electronic equipment by an ever-increasing number of customers.

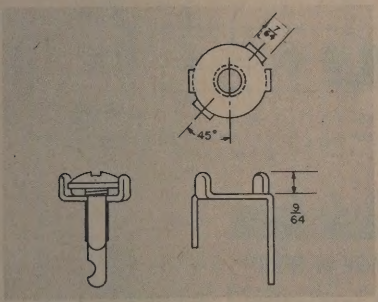
The boards are made from XP laminated phenolic sheet material 3/32″ thick. Terminal No. 4418 made from .062 thick brass with steel or brass 8/32″ x 3/8″ screws. Boards may be marked or fungus proofed as desired.

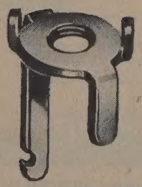
PART NO.	A	B	● POSITION OF LUGS 1	2	3	4	5	6	7	8	9	10	
2701	1½″	1″	○	●	○								
2702	2″	1½″	○	●	●	○							
2703	2½″	2″	○	●	●	●	○						
2704	3″	2½″	○	●	●	●	●	○					
2705	3½″	3″	○	●	●	●	●	●	○				
2706	4″	3½″	○	●	●	●	●	●	●	○			
2707	4½″	4″	○	●	●	●	●	●	●	●	○		
2708	5″	4½″	○	●	●	●	●	●	●	●	●	○	
2709	5½″	5″	○	●	●	●	●	●	●	●	●	●	○
2710	6″	5½″	○	●	●	●	●	●	●	●	●	●	● ○

O—INDICATES MOUNTING HOLE ●—INDICATES TERMINAL

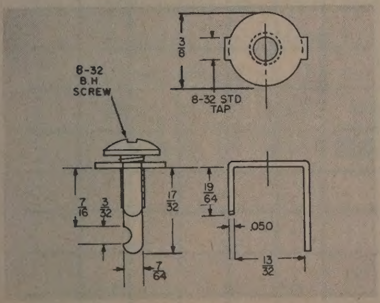
* * *

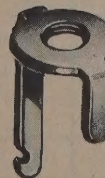
CUSTOM





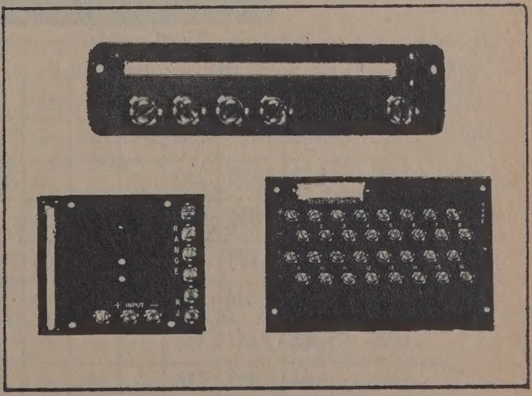
4418





4419

Photos of boards shown on this page represent several binding post boards made to our customers' specifications. Our well facilitated tool room and highly qualified engineering staff are ready to assist you with your special requirements.



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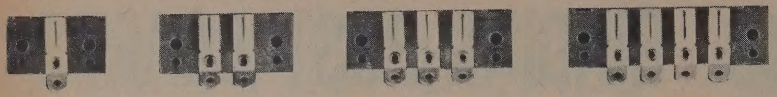
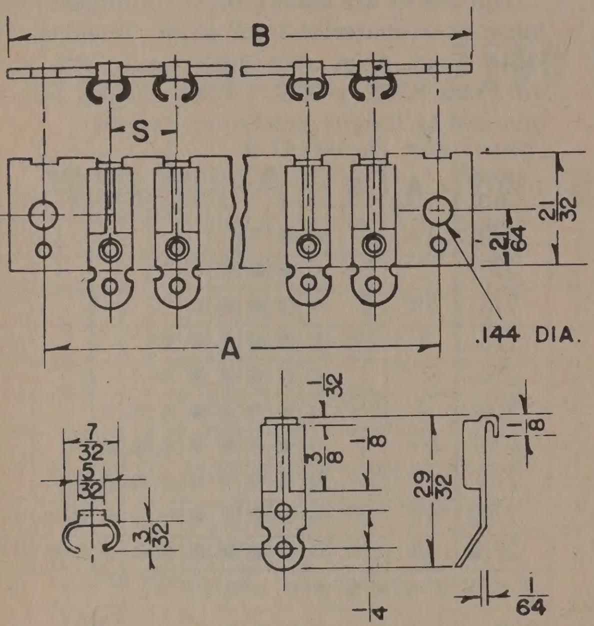


CONTACT STRIPS

500 & 550 SERIES

Contact strips are used as low cost connectors made in 3/8″ and 1/2″ spacing. Contacts will accommodate 1/8″ or 5/32″ pin plugs. Boards are furnished with .144 diameter mounting holes or may be supplied with metal brackets.



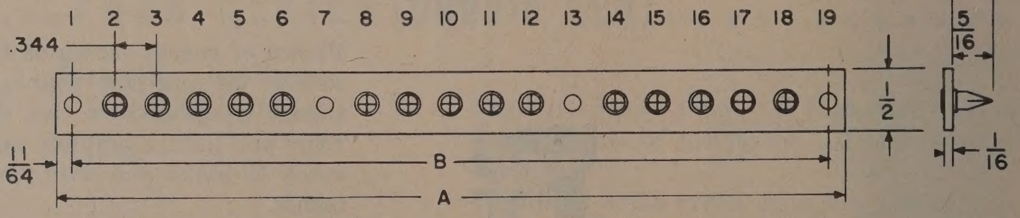
PART NO.	A	B	S	POSITIONS OF TERMINALS							
					1	2	3	4	5	6	
501	¾″	1⅛″	⅜″	o	C	o					
502	1⅛″	1½″	⅜″	o	C	C	o				
503	1½″	1⅞″	⅜″	o	C	C	C	o			
504	1⅞″	2¼″	⅜″	o	C	C	C	C	o		
505	2¼″	2½″	⅜″	o	C	C	C	C	C	o	
506	2⅝″	3″	⅜″	o	C	C	C	C	C	C	o
507	1⅛″	1½″	⅜″	o	C	D	o				
508	1⅛″	1½″	⅜″	o	D	C	o				
509	1½″	1⅞″	⅜″	o	C	C	D	o			
510	1⅞″	2¼″	⅜″	o	D	C	C	C	o		
551	1″	1½″	½″	o	C	o					
552	1½″	2″	½″	o	C	C	o				
553	2″	2½″	½″	o	C	C	C	o			
554	2½″	3″	½″	o	C	C	C	C	o		
555	3″	3½″	½″	o	C	C	C	C	C	o	
556	3½″	4″	½″	o	C	C	C	C	C	C	o
557	1½″	2″	½″	o	C	D	o				
558	1½″	2″	½″	o	D	C	o				
559	2″	2½″	½″	o	C	C	D	o			
560	2½″	3″	½″	o	D	C	C	C	o		

O—INDICATES MOUNTING HOLE

C=Contact for 1/8″ Pin—4501
D=Contact for 5/32″ Pin—4502

GRIP-TYPE CONICAL TERMINAL ASSEMBLIES

1600 SERIES



TERMINAL LUG and HOLE POSITIONS and SIZE OF STRIP

PART NO.	A	B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1601	2.06	1.72	.136	⊕	⊕	⊕	⊕	.136													
1602	1.71	1.376	.136	⊕	⊕	⊕	.136														
1603	2.41	2.063	.136	⊕	⊕	⊕	⊕	⊕	.136												
1604	4.47	4.125	.136	⊕	⊕	⊕	⊕	⊕	.136	⊕	⊕	⊕	⊕	⊕	.136						
1605	2.75	2.406	.136	⊕	⊕	⊕	⊕	⊕	⊕	.136											
1606	3.784	3.44	.136	⊕	⊕	⊕	⊕	.136	⊕	⊕	⊕	⊕	.136								
1607	3.44	3.093	.136	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	.136									
1608	6.53	6.187	.136	⊕	⊕	⊕	⊕	⊕	.136	⊕	⊕	⊕	⊕	⊕	.136	⊕	⊕	⊕	⊕	⊕	.136

Photos shown are not to size or scale

⊕ denotes grip-type terminal

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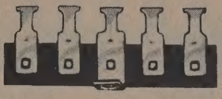
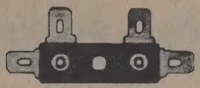
ntt

TERMINAL STRIPS


TT5TT

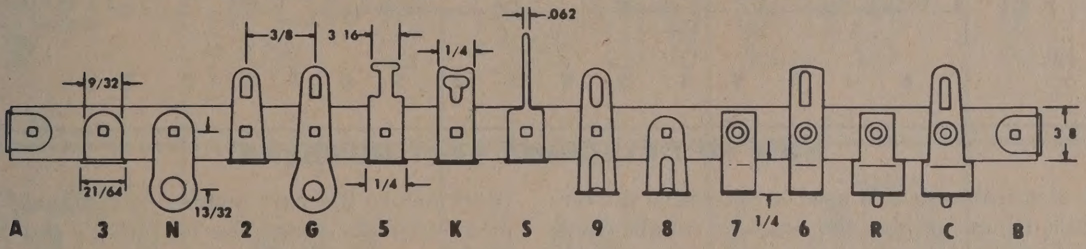

ZOL

UKUU

Custom Tie Lug Terminal Strips are fabricated to meet each customer's individual requirements. Made from NEMA grade XP laminated phenolic 1/16″ thick by 3/8″ wide. Brass or Steel lugs and mounting brackets are securely eyeletted in position at 3/8″ or 1/2″ spacing, arranged in desired sequence. Other insulation materials such as: XXP, XXXP, Canvas, Linen, Nylon, Paper Epoxy, Glass Epoxy, Glass Melamine and Silicone may be furnished on request. The insulation itself can be waxed or varnish impregnated if so specified. Lugs and brackets are cadmium plated unless otherwise specified. Hot tin, electro tin plate, cadmium over copper and tin plate over copper finishes for the lugs are available.

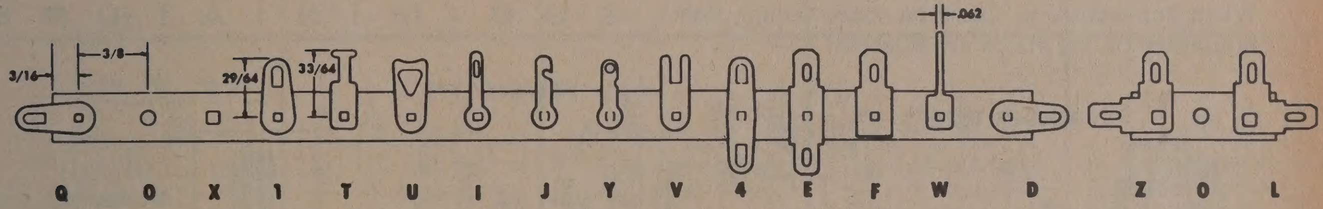
• • • • • • • • • • MOUNTING LUGS and BRACKETS • • • • • • • • • •

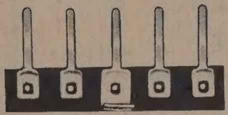
Mounting Holes .140 to .145 are standard. .170 and .199 mounting holes are available when requested.

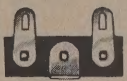


• • • • • SOLDER, WIRE-A-WRAP AND FASTON LUGS • • • • •

Lugs can be furnished BENT AT RIGHT ANGLE if desired.
X denotes square hole; no lug in that position. O denotes round hole; no lug in that position.




WWSWW


131

HOW TO DETERMINE PART NUMBERS

To arrive at the correct part number, for a Terminal Strip, refer to the drawings above and select the LETTERS or NUMBERS of the terminal, mounting lug or bracket desired; indicate them in the sequence desired, reading from left to right. May be supplied with as many as 16 lugs on a strip.

For example: In the photograph of terminal strips shown above, the first is "WWSWW." This means that the first two lugs are "W," the mounting lug is "S" and then two additional "W" lugs.

In the second strip, "131," the first lug is "1", the mounting lug is "3" and the last lug is "1".

Photos shown are not to size or scale

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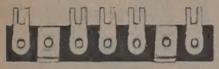
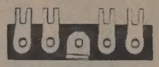
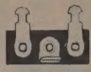
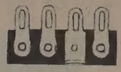

M-V7VVV7V


M-VV3VV

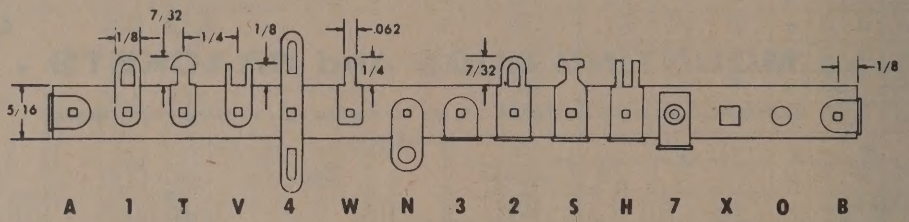

M-T3T


M-1121

TERMINAL STRIPS
MINIATURE

National Miniature Terminal Strips are recommended for all applications where space is a factor. These strips are made of the same materials as the STANDARD Terminal Strips described on the opposite page except smaller. Strips are 1/16″ by 5/16″ wide NEMA grade XP laminated phenolic with brass lugs securely eyeletted in position. Lugs are supplied in any of the finishes used on the STANDARD series with the insulation likewise available in a choice of materials and finishes.

Mounting Holes .093 are standard. .125 mounting holes are available when requested.



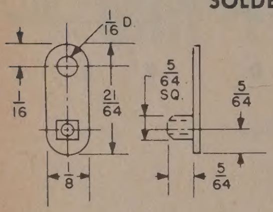
HOW TO DETERMINE PART NUMBERS

The identical system is used to determine the terminals, mounting lugs and brackets for the miniature series of terminal strips with one notable exception: in each instance the prefix "M" appears before the part number to designate miniature terminal strip. The LETTERS and NUMBERS are selected from those appearing on this page. May be supplied with 24 lugs on a strip.

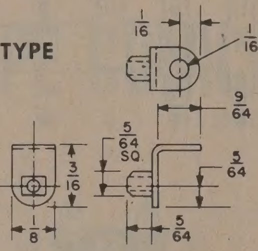
When importance is placed on space saving, Sub miniature tie lug strips are selected.

SUB-MINIATURE

SOLDER TYPE

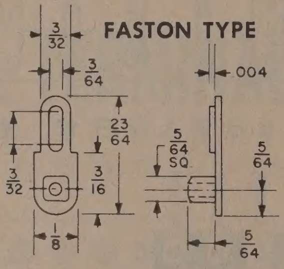


SM-1

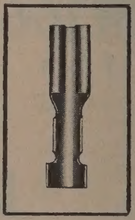


SM-3

FASTON TYPE



SM-F



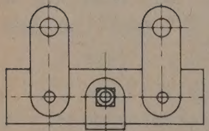
RECOMMENDED
Female Faston
Berg #T-3775
New Cumberland, Pa.

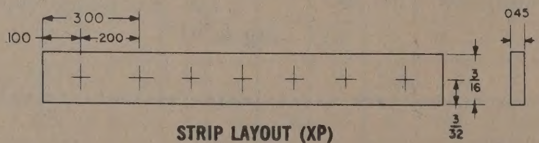
PART NO. PREFIX	TERMINAL COMBINATION				
SM	1	1	3	1	1
SM		●	●		
SM			●	●	
SM		●	●	●	
SM	●	●	●	●	
SM		●	●	●	●
SM	●	●	●	●	●

PART NO. PREFIX	TERMINAL COMBINATION				
SM	F	F	3	F	F
SM		●	●		
SM			●	●	
SM		●	●	●	
SM	●	●	●	●	
SM		●	●	●	●
SM	●	●	●	●	●

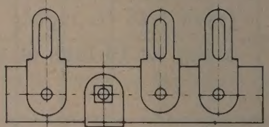
Chart indicates standard combinations

●—INDICATES TERMINAL


SM-131



STRIP LAYOUT (XP)


SM-F3FF

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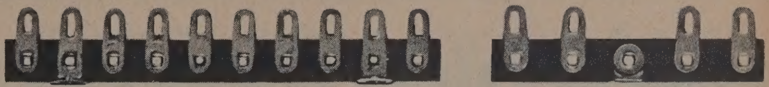
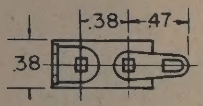
TERMINAL STRIPS



We have listed several combinations of terminal strips as Standard Stock items. For other combinations of terminals for strips, refer to pages 12 and 13 for detailed instructions. We welcome your inquiries on specials as well as standard items.



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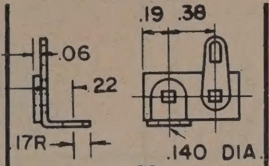
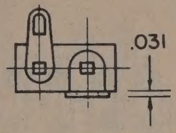

.19
.38
.06
.22
.17R
.140 DIA.

31



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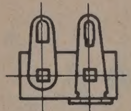

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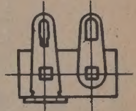

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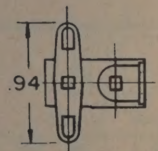

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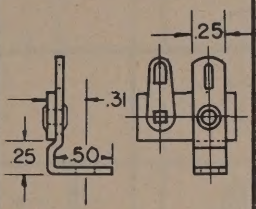

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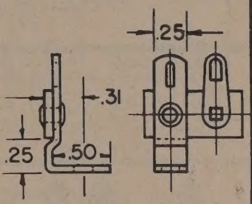

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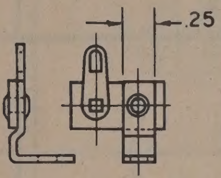

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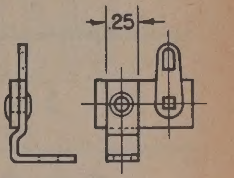

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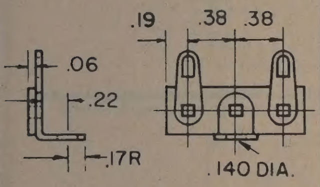
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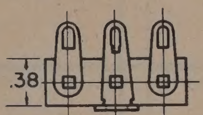
.22
.17R
.140 DIA.

131



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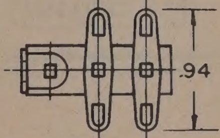

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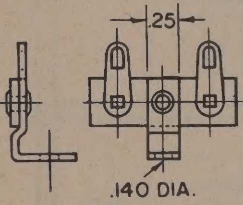

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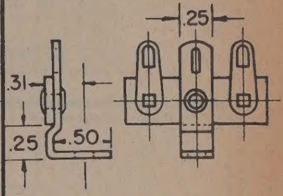

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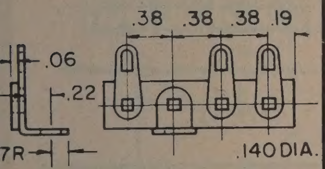
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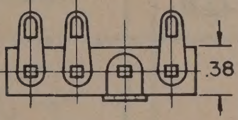

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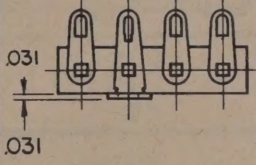

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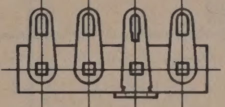

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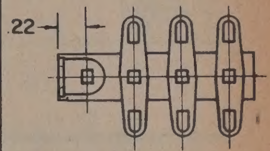

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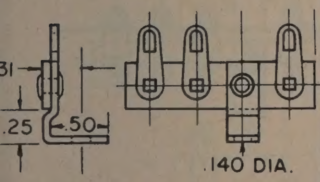
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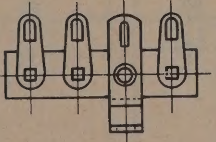

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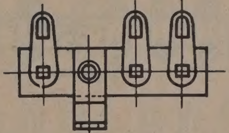

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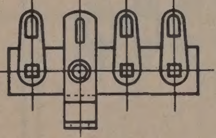

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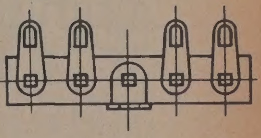

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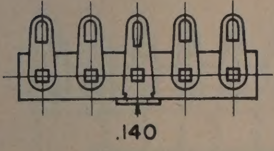

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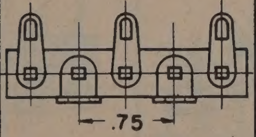

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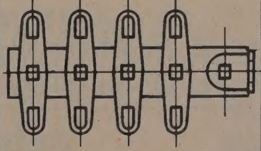

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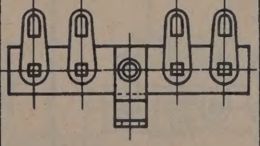

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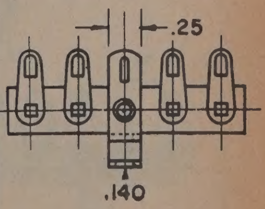

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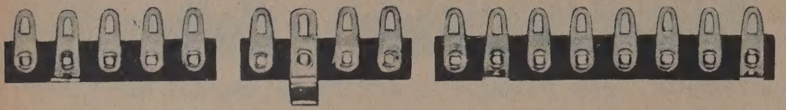
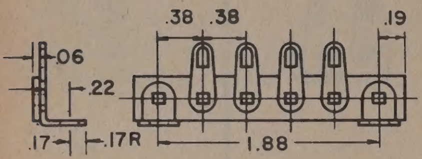
TERMINAL STRIPS

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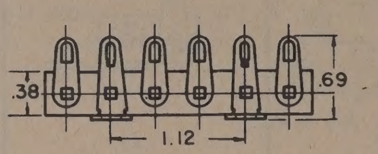
311113



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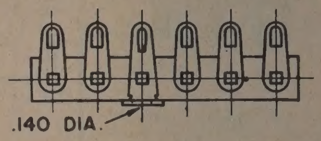

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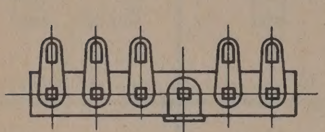

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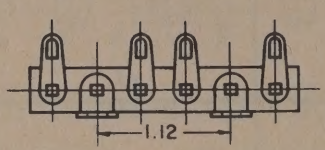

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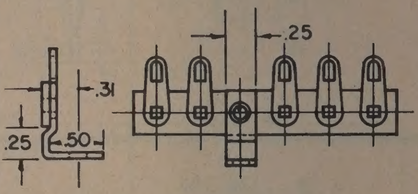

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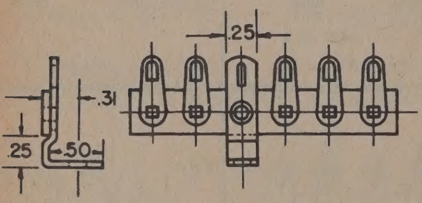

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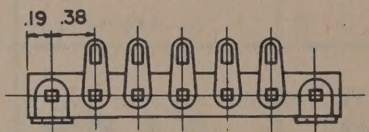

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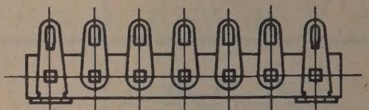

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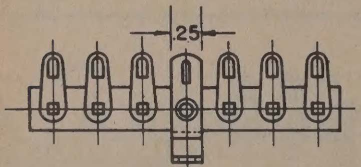

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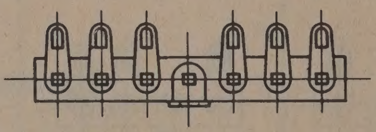

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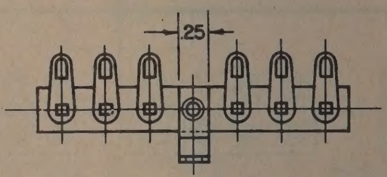

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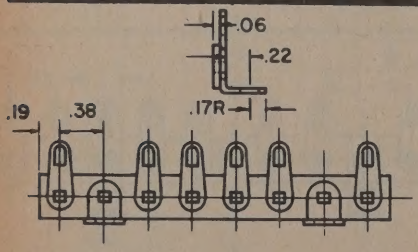
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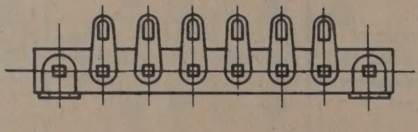

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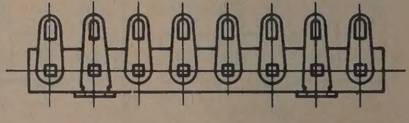

12111121

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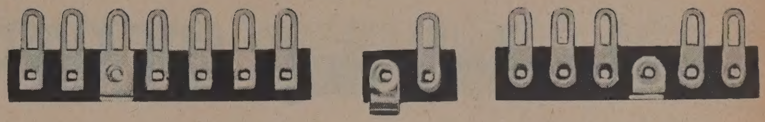
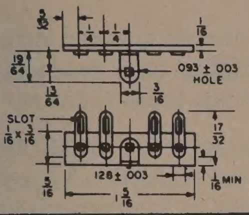
MINIATURE TERMINAL STRIPS




3/32
1/4
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1/16
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SLOT 1/16 x 3/16
17/32
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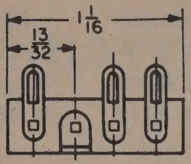
3/16
1 5/16
1/16 MIN

M-11311



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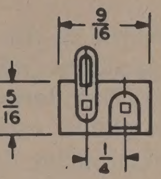

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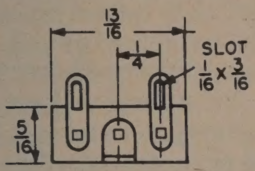
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1/4
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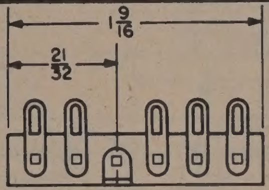
5/16

M-131



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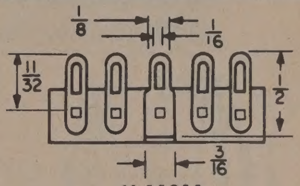
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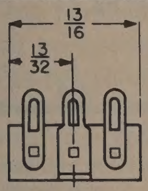

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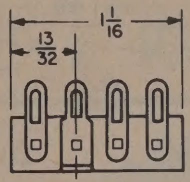

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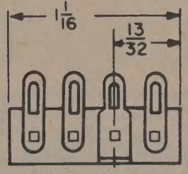

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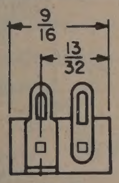

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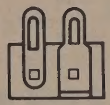

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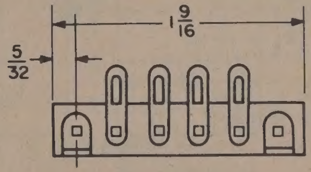

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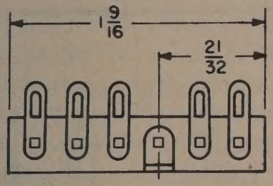

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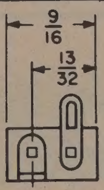
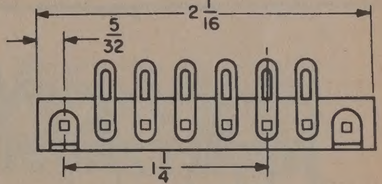
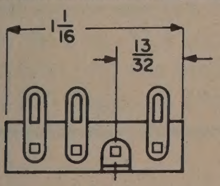


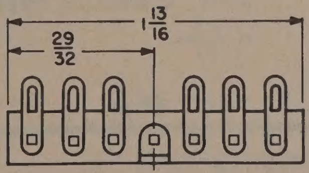
M-31


2 1/16
5/32
1 1/4

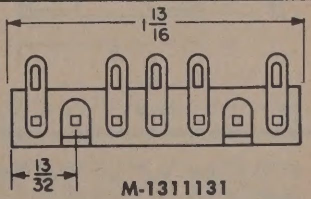
M-31111113



M-1131



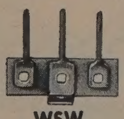
M-1113111



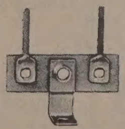
M-1311131

WIRE-A-WRAP

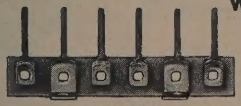
3/8" OR 1/2" SPACING—SPECIFY



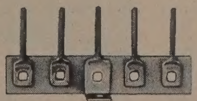
WSW



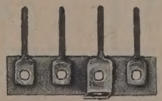
W7W



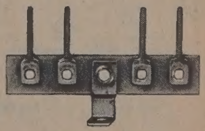
WSWWSW



WWSWW



WWSW



WW7WW

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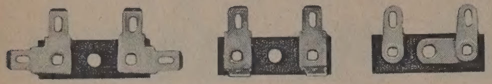
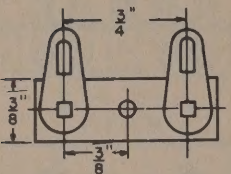


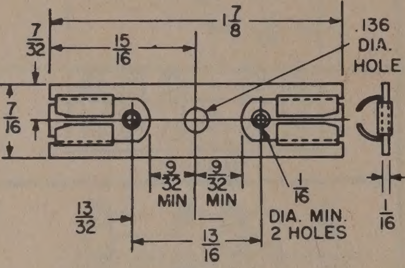
SPEAKER TERMINAL STRIPS

Strips shown on this page are most commonly used on speakers. Insulating strip made of 1/16″ vulcanized fiber, terminals made of steel or brass cadmium plated, contacts made of spring steel tempered or spring brass cadmium plated.

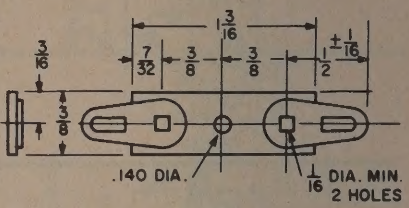
Miniature crescent shaped speaker strips used for 2″ speakers. Insulating strip made of 3/64″ vulcanized fiber, terminals brass cadmium plated or hot tinned.



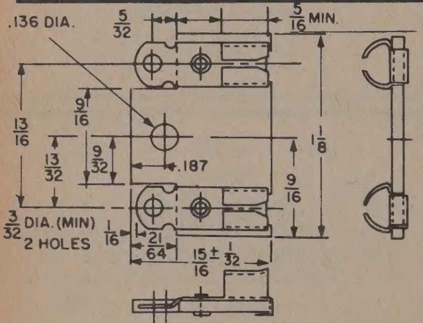
SP-1


1 7/8
7/32
15/16
.136 DIA. HOLE
7/16
9/32 MIN
9/32 MIN
1/16 DIA. MIN. 2 HOLES
1/16
13/32
13/16

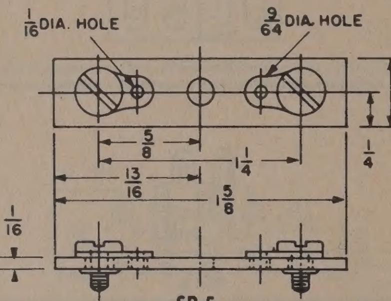
SP-2


1 3/16
3/16
7/32
3/8
3/8
1/2
± 1/16
3/8
.140 DIA.
1/16 DIA. MIN. 2 HOLES

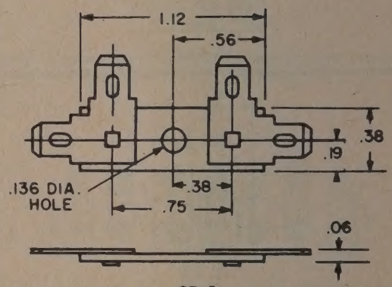
SP-3


.136 DIA.
5/32
5/16 MIN.
9/16
13/16
13/32
9/32
.187
1 1/8
9/16
3/32 DIA. (MIN) 2 HOLES
1/16
21/64
15/16 ± 1/32

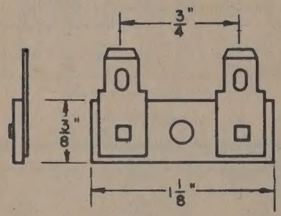
SP-4


1/16 DIA. HOLE
9/64 DIA. HOLE
1/2
5/8
1 1/4
1/4
13/16
1 5/8
1/16

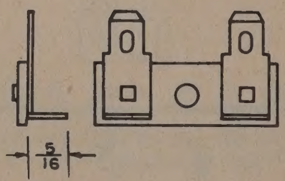
SP-5


1.12
.56
.38
.19
.136 DIA. HOLE
.38
.75
.06

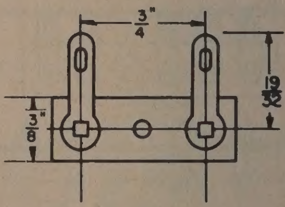
SP-8



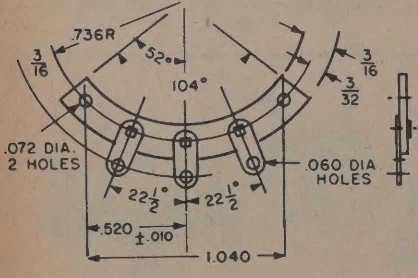
SP-9



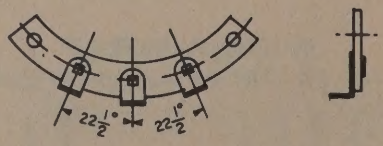
SP-10



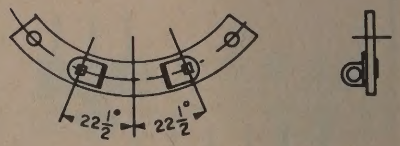
SP-13


.736R
3/16
52°
104°
3/16
3/32
.072 DIA. 2 HOLES
.060 DIA. HOLES
22 1/2°
22 1/2°
.520 ±.010
1.040

SP-15



SP-16



SP-20

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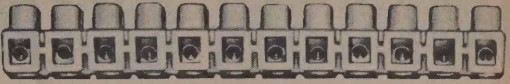
MOLDED TERMINAL BLOCKS



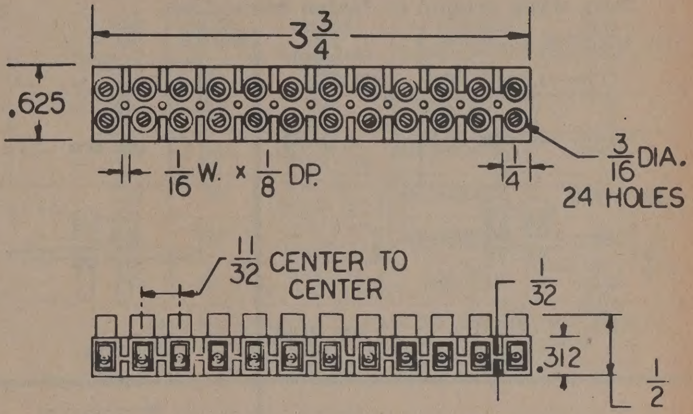
905 SERIES • FLEXIBLE

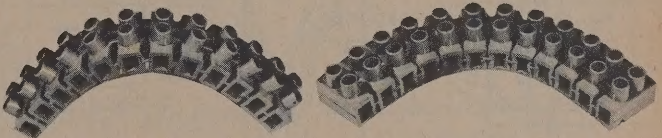
Type No. 905 Solderless Terminal Blocks are specially designed for applications where space and weight conservation are important factors. Because they are molded of flexible polyester material they may be bent in any direction to fit contours and sharp angles. Typical applications for these terminal blocks include missile guidance systems, computers, aircraft communications, underwater detecting equipment, etc.

The shortest distance between the live parts of Type No. 905 Terminal Block is 3/8″. Its brass terminals will accommodate a #10 wire as a maximum. The polyester material of which the blocks are made is rated at 25 amperes.

Connection of the conductor to the block is simple. No solder is required. Insert the conductor in block and tighten the set screw.

Flexible Terminal Block No. 905 measures 3¾″ long, 5/8″ wide, ½″ high and 11/32″ between terminal centers. It may be cut to smaller sizes as required.





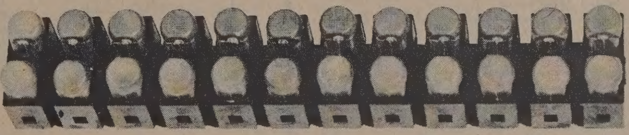
900 SERIES • PUSH BUTTON

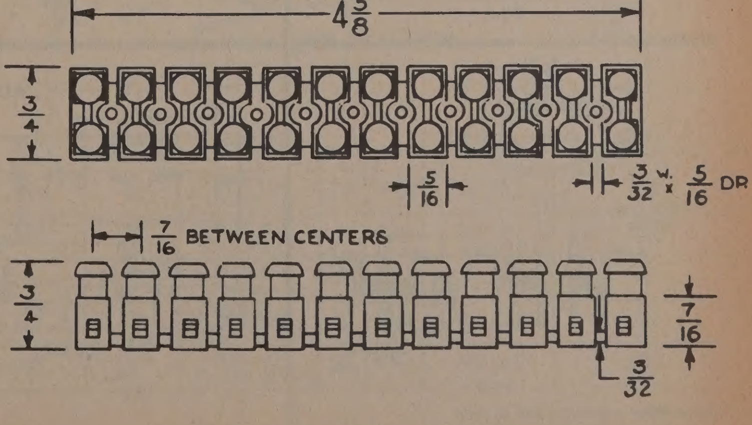
Like Type No. 905, the No. 900 Terminal Block is solderless, and is molded of black nylon plastic. The push buttons are molded of red nylon plastic.

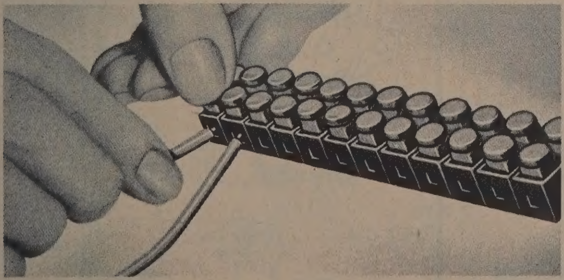
These terminal blocks have extremely high dielectric properties and are approved to resist 380 volts between terminals.

Connection of the conductor is extremely fast. Press the red button and insert the wire. Release pressure for locking. The beryllium copper contacts are molded into the block.

Type No. 900 Terminal Block is available for 12 connectors. It may be cut to smaller size if required.







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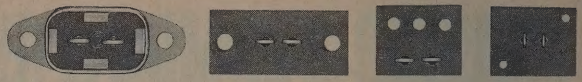
INTERLOCK RECEPTACLES



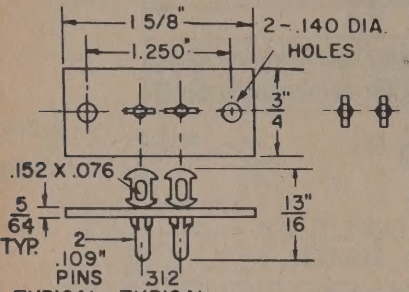
Flush type boards made from XP laminated phenolic, 5/64" and 3/32" thick.

Pins are made from ¼-hard brass wire cadmium plated. Solder ends of pins are flattened, pierced and trimmed to facilitate either a feed thru, wrap around or faston connection.

Bath tub shells made from .020 steel cadmium plated.

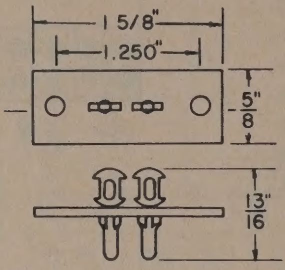
Polarized interlocks are made both in flush and bath tub styles.

All items shown are approved by underwriter laboratories.


1 5/8"
1.250"
2 - .140 DIA. HOLES
3/4"
.152 X .076
5/64 TYP.
13/16"
2 - .109" PINS TYPICAL
.312 TYPICAL

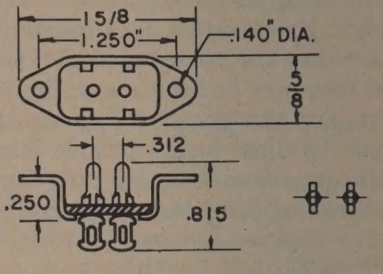
712

PINS FACING 714


1 5/8"
1.250"
5/8"
13/16"

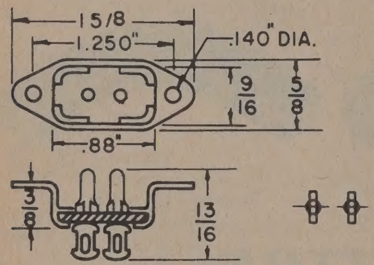
713

PINS FACING 715


1 5/8
1.250"
.140" DIA.
5/8
.312
.250
.815

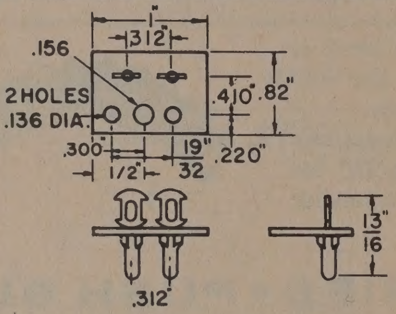
716

PINS FACING 718

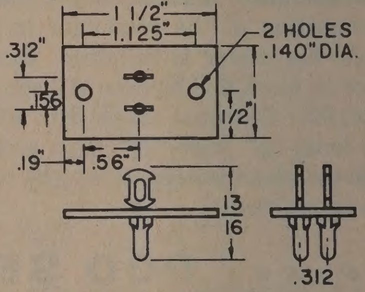

1 5/8
1.250"
.140" DIA.
9/16
5/8
.88"
3/8
13/16

717

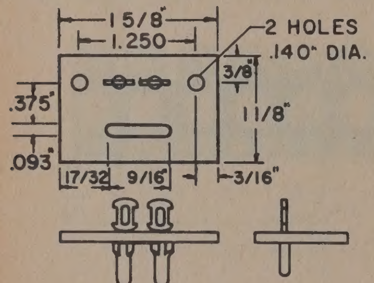
PINS FACING 719


1"
.312
.156
2 HOLES .136 DIA.
.410"
.82"
.300"
1/2"
19/32"
.220"
.312
13/16"

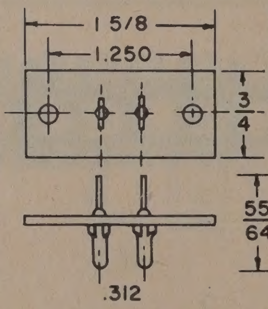
720


1 1/2"
1.125"
2 HOLES .140" DIA.
.312"
.156
1/2"
.19"
.56"
13/16
.312

721

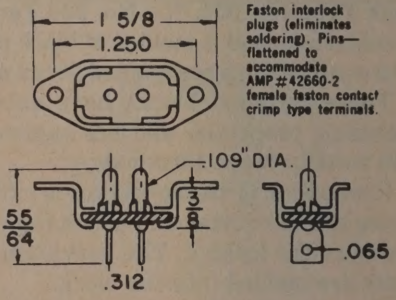

1 5/8"
1.250
2 HOLES .140" DIA.
3/8"
.375"
1 1/8"
.093"
17/32
9/16
3/16"

724


1 5/8
1.250
3/4
55/64
11/32
.312

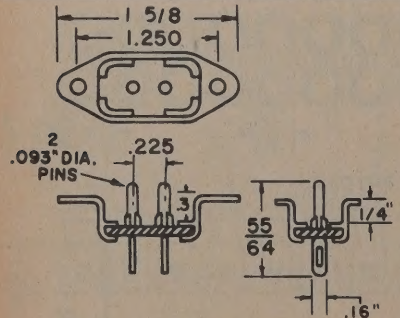
Faston interlock plugs (eliminates soldering). Pins—flattened to accommodate AMP #42660-2 female faston contact crimp type terminals.

725

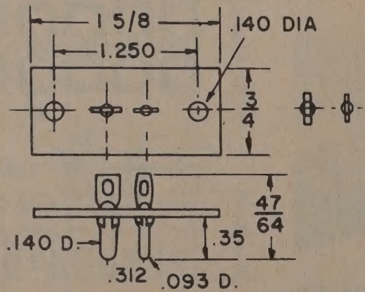

1 5/8
1.250
.109" DIA.
55/64
3/8
.065
.312

Faston interlock plugs (eliminates soldering). Pins—flattened to accommodate AMP #42660-2 female faston contact crimp type terminals.

726

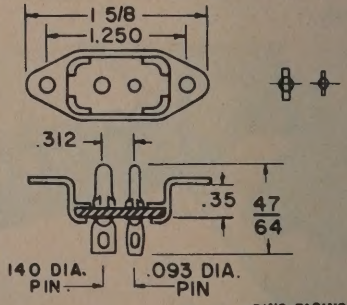

1 5/8
1.250
2 .093" DIA. PINS
.225
3/8
55/64
1/4"
.16"

729


1 5/8
1.250
.140 DIA
3/4
47/64
.35
.140 D.
.312
.093 D.

730

PINS FACING 731


1 5/8
1.250
.312
.35
47/64
140 DIA. PIN
.093 DIA. PIN

732

PINS FACING 733

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YONKERS, N. Y.
ntt

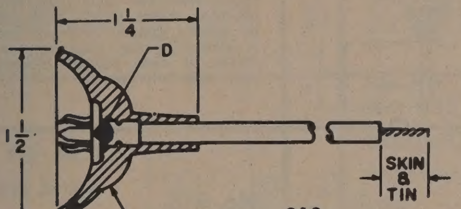
ANODE CONNECTORS

Anode Connectors are used as a connection between the High Voltage section of a T.V. set or oscilliscope and the second anode button on a cathode ray picture tube thus delivering the electric energy between those two points.

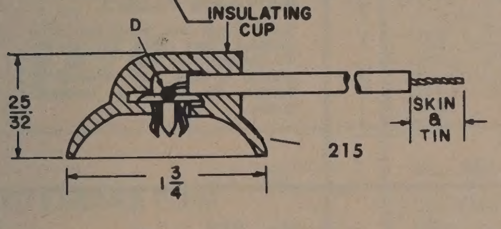
Refer to charts for type desired.

PART NO.	CONTACT POSITION	CONTACT TYPE	D ASSEMBLY METHOD	CLIP E MUSIC WIRE DIA.
212	180°	SNAP BUTTON	SOLDER	—
215	90°	SNAP BUTTON	SOLDER	—
238	90°	WIRE CLIP STRAIGHT END	MECHANICAL	.041
239	90°	WIRE CLIP LOOPED END	MECHANICAL	.041
240	180°	WIRE CLIP STRAIGHT END	MECHANICAL	.041
246	180°	WIRE CLIP ST. END SPIRAL	SOLDER	.051

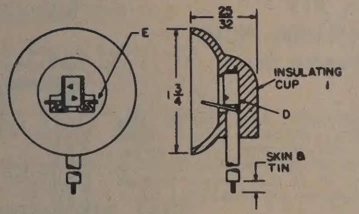
Dash No. preceded by Part No. denotes customer's specified wire length, suction cup, neoprene. Example: Part No. 246-18". Specify wire size desired.


1 1/4
D
1 1/2
SKIN & TIN

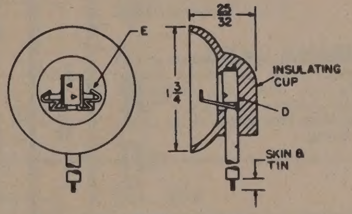
212


INSULATING CUP
D
25/32
SKIN & TIN
1 3/4

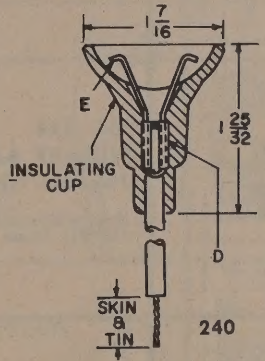
215


E
25/32
1 3/4
INSULATING CUP
D
SKIN & TIN

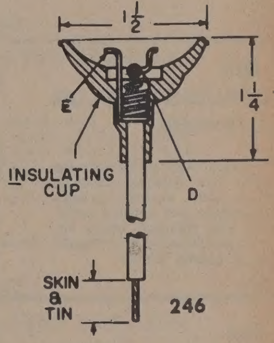
238


E
25/32
1 3/4
INSULATING CUP
D
SKIN & TIN

239


1 7/16
E
1 25/32
INSULATING CUP
D
SKIN & TIN

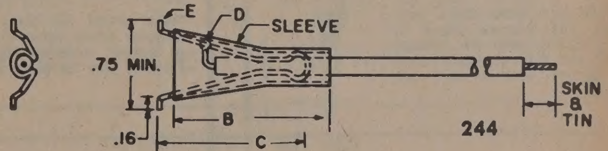
240


1 1/2
1 1/4
E
INSULATING CUP
D
SKIN & TIN

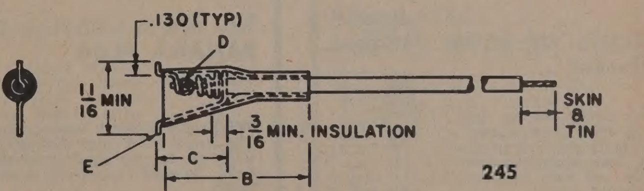
246

* * *

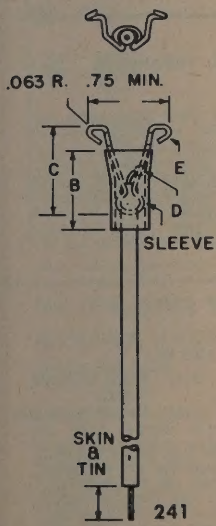
All anode connectors in this group assembled with vinyl insulating sleeves as shown in Part Nos. 241 to 245. Dash No. preceeded by Part No. denotes customer's specified wire length. Example: Part No. 245-18. Specify wire size desired.


E
D
SLEEVE
.75 MIN.
SKIN & TIN
B
.16
C

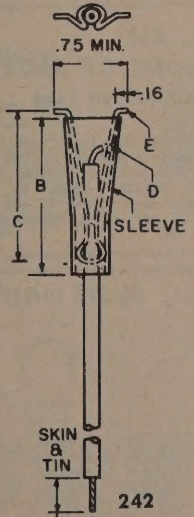
244


.130 (TYP)
D
11/16 MIN
3/16 MIN. INSULATION
SKIN & TIN
E
C
B

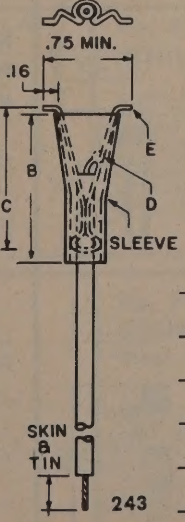
245


.063 R.
.75 MIN.
C
B
E
D
SLEEVE
SKIN & TIN

241


.75 MIN.
.16
E
B
D
C
SLEEVE
SKIN & TIN

242


.75 MIN.
.16
E
B
D
C
SLEEVE
SKIN & TIN

243

PART NO.	CONTACT POSITION	CONTACT TYPE	B	C	D ASSEMBLY METHOD	CLIP E MUSIC WIRE DIA.
241	90°	WIRE CLIP LOOPED END	1¼	31/32	SOLDER	.041
242	180°	WIRE CLIP STRAIGHT END	2	1 7/16	SOLDER	.051
243	90°	WIRE CLIP STRAIGHT END	2	1 7/16	SOLDER	.051
244	90°	WIRE CLIP STRAIGHT END	2	1 7/16	SOLDER	.051
245	180°	WIRE CLIP ST. END SPIRAL	1½	21/32	SOLDER	.051

Photos shown are not to size or scale

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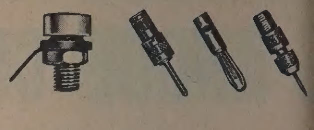
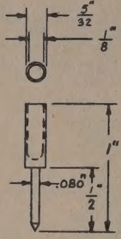
YONKERS, N. Y.

TIP PLUGS, BANANA PLUGS & JACKS



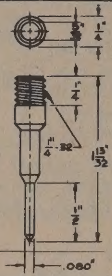
No. 801
PHONE TIPS
Solder Type

A nickel-plated brass solder type phone tip 1" long.


5/32
1/8
1"
.080"
1/2

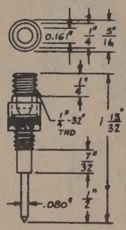
No. 802
TIP PLUG
Threaded, Heavy Duty

Nickel-plated brass with exceptionally large well for soldering. Threaded for easy assembly in plastic handle. Accepts standard phone tip jacks. Rear of plug accepts standard banana plugs.


1/4
1/4
1/4-32
1 13/32
1/2
.080"

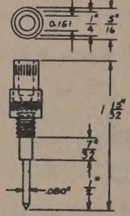
No. 805
SOLDERLESS TIP PLUG
Large, Threaded

A nickel-plated brass solderless tip plug. Wire fits through body of tip and is then wrapped around threaded portion and knurled collar tightened. Fits standard phone tip jacks and is threaded for easier assembly in plastic handle.


0.161"
1/4
5/16
1/4
1/4-32 THD
1 13/32
7/32
.080"
1/2

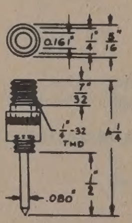
No. 806
SOLDERLESS TIP PLUG
Large, Knurled

A force-fit type nickel-plated brass tip plug. Fits standard phone tip jacks. Solderless, wire fits through tip body and then wrapped around screw portion. Knurled collar for tightening.


0.161
1/4
5/16
1 13/32
7/32
.080"
1/2

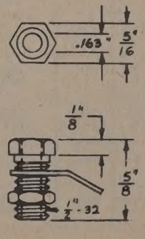
No. 807
SOLDERLESS TIP PLUG
Small, Threaded

Manufactured exactly like No. 805 Solderless Tip Plug except shorter. nickel-plated brass with wire going through tip, then wrapped around screw portion and held firmly by tightening knurled collar.


0.161"
1/4
5/16
7/32
1/4-32 THD
1 1/4
.080"
1/2

No. 813
BANANA JACK
Non-Insulated Type

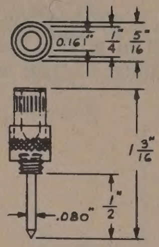
Mounting in 1/4" hole in any panel up to 3/8" thick, it will accept standard banana plug. Its body is HEX Brass, nickel-plated and is supplied with hex nut and tinned brass lug.


.163"
5/16
1/8
5/8
1/4-32

Photos shown are not to size or scale

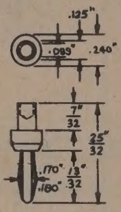
No. 808
SOLDERLESS TIP PLUG
Small, Knurled

A solderless, nickel-plated brass Tip Plug which fits standard phone tip jacks. Made exactly like No. 806 except shorter length. Wire fits through body tip, raps around screw portion and then tightened with knurled collar.


0.161"
1/4
5/16
1 3/16
1/2
.080"

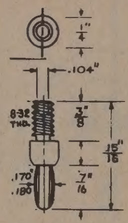
No. 809
MIDGET BANANA PLUG
Rivet Type

Nickel or silver-plated brass body with phosphor bronze spring. Fits all standard banana jacks.


.125"
.093"
.240"
7/32
25/32
.170"
.180"
13/32

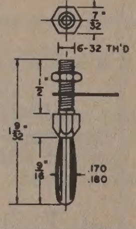
No. 814
MIDGET BANANA PLUG
Threaded Type

Nickel or silver-plated brass body with phosphor bronze spring.


1/4
.104"
8-32 THD.
3/8
15/16
.170
.180
7/16

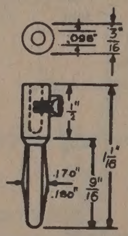
No. 811
BANANA PLUGS

Nickel plated hex brass body with phosphor bronze spring supplied with or without soldering lug and nut. Threaded stud for panel mounting.


7/32
6-32 TH'D
1/2
1 9/32
9/16
.170
.180

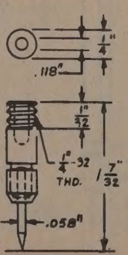
No. 812
BANANA PLUG
Solderless

Nickel-plated phosphor bronze spring. Side screw holds wire eliminating soldering. Accepts standard banana jacks. Threaded shank to fit plastic handle.


.098"
3/16
1/2
1 1/16
.170"
.180"
9/16

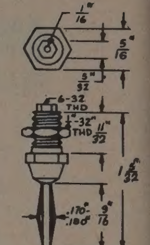
No. 866
NEEDLE TIP AND CHUCK

Nickel-plated brass body, nickel-plated steel needle. Chuck is removable for easy replacement. Needle pierces plating or corrosion for positive reading.


1/4
.118"
1/32
1/4-32 THD.
1 7/32
.058"

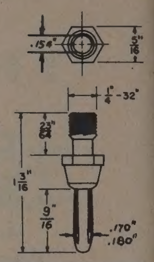
No. 815
BANANA PLUG
Phosphor Bronze

Nickel-plated hex brass body with phosphor bronze spring. Wire can be directly soldered to brass stud or directly to plug. Solderless connection is made possible because stud locks wire to plug.


1/16
5/16
5/32
6-32 THD
1/4-32 THD
11/32
1 9/32
.170
.180
9/16

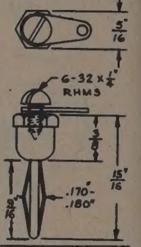
No. 816
BANANA PLUGS

Nickel plated hex brass body with phosphor bronze spring. Wire can be fed through side hole or can be soldered to brass stud. Threaded to facilitate the use of an insulated handle.


.154"
5/16
1/4-32
1 3/16
9/16
.170"
.180"

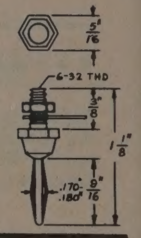
No. 819
BANANA PLUG
Threaded Hole

Nickel-plated brass banana plug fitting standard banana jacks. Four-leaf phosphor bronze spring. Threaded male enables it to be used on all size panels. Supplied with screw and tinned-brass lug.


5/16
6-32 x 1/4 RHMS
15/16
.170
.180

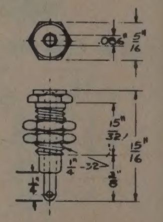
No. 821
BANANA PLUG
6-32 Thread, Lug, Nut

Nickel-plated brass banana plug which fits standard banana jack. Four-leaf, nickel-plated phosphor bronze spring. A hex nut and phosphor bronze lug are supplied. Stud is threaded for panel mounting.

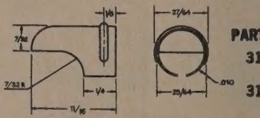

5/16
6-32 THD
3/8
1 1/8
.170
.180
9/16

No. 810
PHONE TIP JACK
Non-Insulated Type

A nickel-plated brass body with a phosphor bronze spring, this phone tip jack provides positive contact with standard phone tip plug. Mounts in 1/4" hole in any panel up to 3/8" thick. Supplied with hex nut.


.098"
5/16
15/32
1 5/16
1/4-32
1/8

PILOT LIGHT SHIELD


1/16
27/64
7/32
7/32 R
1/4
25/64
11/16
.010

PART NO.	
3110	BRASS CADMIUM PLATED
3111	BRIGHT BRASS DIP

These light shields direct the light to the desired area and prevent glare. Intended for use on radio receivers, tv receivers, meters and all electronic instruments, they are made with ribbed bottoms which hold the shields securely in position on the pilot light bulb. Made of brass, they are furnished brass, cadmium-plated or bright-dipped finish.

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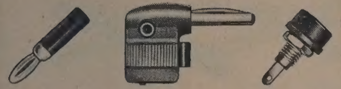
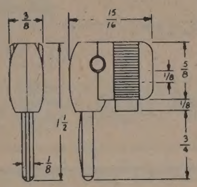
YONKERS, N. Y.

ntt



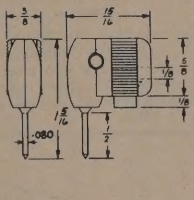
TIP PLUGS, BANANA PLUGS & JACKS

No. 836
INSULATED BANANA PLUG
Meter Type, Push Button



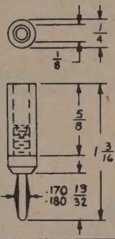
Nickel-plated brass body with nickel-phosphor bronze, slotted spring. Molded Bakelite handle in Red or Black. (Indicate color desired.) Push button, then feed conductor through hole. Release button, conductor is locked in position. Fits standard banana jacks.

No. 837
INSULATED TIP PLUG
Meter Type, Push Button



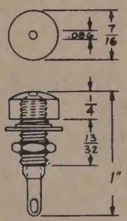
Tip is brass, nickel-plated, with Molded Bakelite in Red or Black. (Indicate color desired.) Push button, then feed conductor through hole. Release button, conductor is held firmly in position. Fits standard phone tip jacks.

No. 840
INSULATED BANANA PLUG
Miniature Type



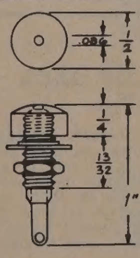
Fits standard banana jacks with wire soldered directly into stud. Machined Plastic handle in Red or Black. Indicate color desired. Nickel-plated brass plug with nickel-plated phosphor bronze spring.

No. 842
PHONE TIP JACK
7/16" Diameter Head
Insulated Type



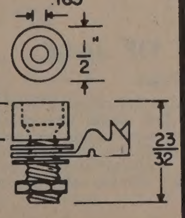
This nickel-plated brass body Phone Tip Jack has Molded Bakelite head in choice of colors: Black, Blue, Red, White, Yellow, Green. Indicate color desired. Spring of phosphor bronze. Positive contact with and acccepts standard phone tip plugs. Mounts in 5/16″ hole in any panel up to ⅜″ thick. Supplied complete with hex nut and fibre washer.

No. 843
1/2" Diameter Head



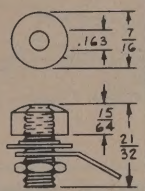
This nickel-plated brass body Phone Tip Jack has Molded Bakelite head in choice of colors: Black or Red. (Indicate color desired.) Spring of phosphor bronze. Positive contact with and accepts standard phone tip plugs. Mounts in 5/16″ hole in any panel up to ⅜″ thick. Supplied complete with hex nut and fibre washer.

No. 844
BANANA JACK
Insulated Type



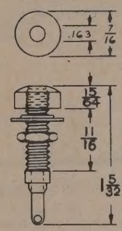
Molded Bakelite head in Red, Black and Blue. Indicate color desired. Nickel-plated brass body. Accepts standard banana plug. Mounts in any panel up to ⅜″ thick in 5/16″ hole. Supplied with hex nut, fibre washer lock washer and tinned brass lug.

No. 845
BANANA JACK
Insulated Type



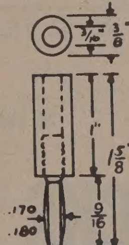
Molded Bakelite head in Red, White, Black, Blue, Green, Yellow. Indicate color desired. Nickel-plated brass body. Accepts standard banana plugs. Mounts in any panel up to ⅜″ thick, in 5/16″ hole. Supplied with hex nut, fibre washer and tinned brass lug.

No. 848
INSULATED JACK
Combination Type



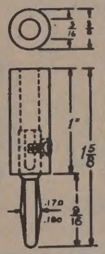
Accepts standard phone tip plugs or standard banana plugs. Molded Bakelite head in Red, Blue, Black, Yellow, Green, White. Indicate color desired. Nickel-plated brass body with phosphor bronze spring. Supplied with hex nut and fibre washer.

No. 851
INSULATED BANANA PLUG



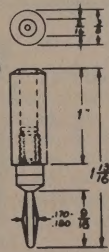
Fits all standard banana jacks. Molded bakelite handle can be furnished in Red, Black and Blue. Four-leaved spring is made of phosphor bronze and in nickel-plated.

No. 852
INSULATED BANANA PLUG
wtih Side Screw



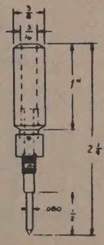
Fitting standard banana jacks, set screw holds wire without soldering. This Banana Plug has Molded Bakelite handle in Red, White, Black, Blue, Yellow or Green. Indicate color desired. Plug is nickel-plated brass with four-leaved phosphor bronze spring.

No. 853
INSULATED BANANA PLUG



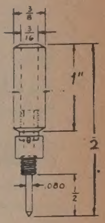
Molded Bakelite handles in Red, White, Blue, Black, Yellow, Green. Indicate desired color. Nickel-plated brass body. Knurled collar when tightened holds wire which has been passed through body tip and wrapped around screw portion. Fits standard phone tip jacks.

No. 855
SOLDERLESS TIP PLUG
Large Type



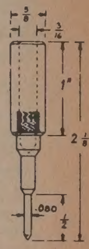
Handles of Molded Bakelite in choice of Red, Black, Yellow, White, Green, Blue. Indicate color desired. Nickel-plated brass body. Wire fits through body tip, wraps around screw portion and tightened with knurled collar. Fits standard phone tip jacks.

No. 856
SOLDERLESS TIP PLUG
Small Type



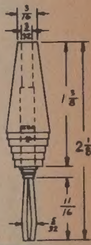
Molded Bakelite handles in Red, White, Blue, Black, Yellow, Green. Indicate desired color. Nickel-plated brass body. Knurled collar when tightened holds wire which has been passed through body tip and wrapped around screw portion. Fits standard phone tip jacks.

No. 857
TIP PLUG
Heavy Duty, Insulated



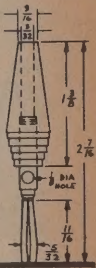
Nickel-plated brass plug with molded Bakelite handle. Large diameter well permits soldering of heavy duty wire directly into plug. Accepts standard phone tip jacks. Choice of Blue, Black, Red, Green, Yellow and White handle. Indicate color.

No. 860
INSULATED BANANA PLUG



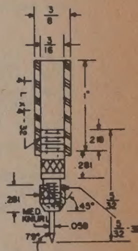
Insulated banana plug with a flexible vinyl handle. Spring is nickel-plated phosphor bronze. Set screw in side of plug permits a solderless connection. Serrations on handle facilitate grip.

No. 862
INSULATED BANANA PLUG *Stack Type*



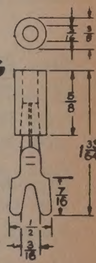
Stack type insulated banana plug with a flexible vinyl handle. Spring is phosphor bronze nickle-plated. Set screw in side of plug permits a solderless connection. Serrations on handle facilitate grip.

No. 868
INSULATED NEEDLE TIP PLUG



Molded Bakelite handles in Red, Black, Yellow, White, Green and Blue. Indicate color desired. Nickel-plated brass, body, nickel-plated steel needle. Chuck is removable for easy replacement. Needle pierces plating or corrosion for positive reading.

No. 870
INSULATED SPADE LUG



Red or Black casein handle. Indicate color desired. Hot-tinned steel lug is .030 thick. Banana plug can be inserted in spade lug through back of handle.

Photos shown are not to size or scale

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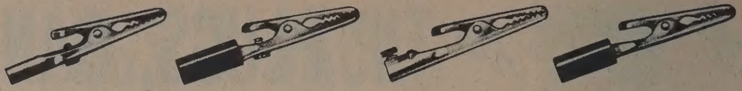
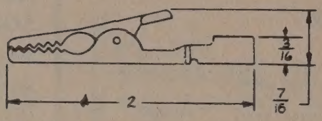
ntt NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

ALLIGATOR CLIPS

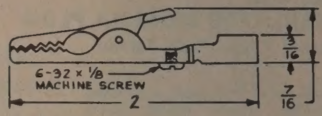


No. 740
ALLIGATOR CLIP
Solder Type



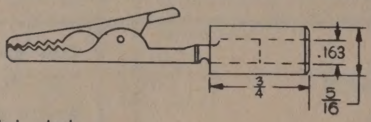
Cadmium-plated steel with 3/8″ jaw opening. Accurately matched jaws grip securely.

No. 741
ALLIGATOR CLIP
Screw Type


6-32 × 1/8 MACHINE SCREW
3/16
2
7/16

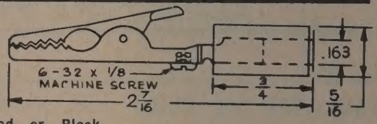
Screw supplied for solderless connection when required. Accurately matched, cadmium-plated steel jaws with 3/8″ opening, provide secure grip.

No. 742
INSULATED ALLIGATOR CLIP
Solder Type



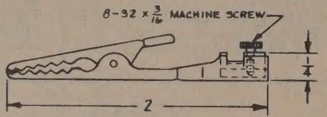
Accurately matched, cadmium-plated steel jaws, with 3/8″ opening, provide secure grip. Red or Black Molded Plastic handle. Indicate color desired. Accepts standard banana plug in back.

No. 743
INSULATED ALLIGATOR CLIP
Screw Type


6-32 × 1/8 MACHINE SCREW
.163
3/4
2 7/16
5/16

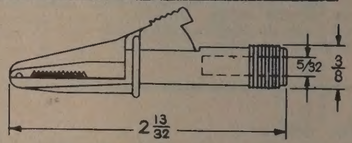
Molded Plastic handle in Red or Black. Indicate color desired. Accurately matched, cadmium-plated steel jaws opening 3/8″ provide secure grip. Supplied with screw for solderless connection when required. Accepts standard banana plug in back.

No. 744
ALLIGATOR CLIP
Special Screw Type


8-32 × 3/16 MACHINE SCREW
1/4
2

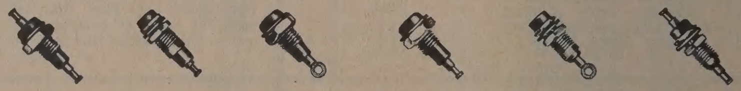
Jaws of cadmium-plated steel open to 3/8″ and grip securely. Supplied with screw for solderless connection.

No. 745
ALLIGATOR CLIP
Fully Insulated Type


5/32
3/8
2 13/32

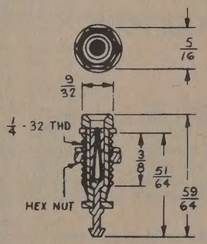
Cadmium-plated steel jaws open to 3/8″ and grip securely. Accepts standard banana plug in back. Can be supplied in Red or Black.

NYLON TIP JACKS



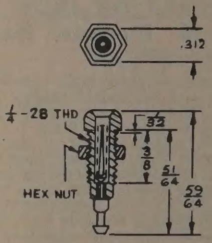
Available Colors: Red, Black, Green, Blue, White, Orange, Yellow.

No. 883
NYLON TIP JACK
Wrap Around Type with Metal Shell


5/16
9/32
1/4-32 THD
3/8
51/64
59/64
HEX NUT

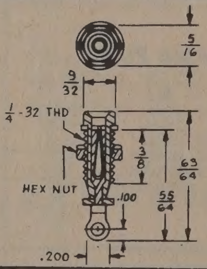
Molded nylon tip jack with metal shell eliminates the possibility of threads stripping during assembly. Indicate color desired; see above.

No. 886
ALL NYLON TIP JACK
Wrap Around Type


.312
1/4-28 THD
3/32
3/8
51/64
59/64
HEX NUT

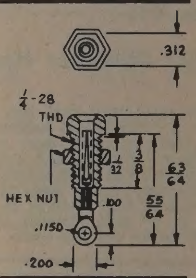
Completely molded. Accepts all standard phone tip plugs. Contact recessed in hexagon head for safe contact and for grip in tightening. Mounts in panels up to 1/4″ thick in 1/4″ hole. Nylon Grade FM 10001 is used for body. Nickel-plated brass hex nut. Indicate color desired, see above.

No. 884
NYLON TIP JACK
Spade Terminal Type with Metal Shell


5/16
9/32
1/4-32 THD
3/8
63/64
HEX NUT
.100
55/64
.200

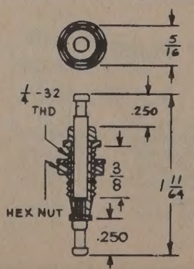
Metal shell eliminates the possibility of threads stripping during assembly. Indicate color desired; see above.

No. 887
ALL NYLON TIP JACK
Spade Terminal Type


.312
1/4-28 THD
1/32
3/8
63/64
HEX NUT
.100
55/64
.1150
.200

Completely molded. Accepts all standard phone tip plugs. Contact recessed in hexagon head for safe contact and for grip in tightening. Mounts in panels up to 1/4″ thick in 1/4″ hole. Nylon Grade FM 10001 is used for body. Center contact is heat treated silver-plated beryllium copper. Nickel-plated brass hex nut. Indicate color desired; see above.

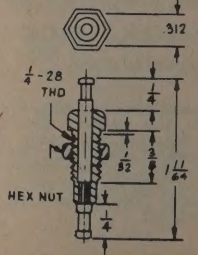
No. 885
NYLON TIP JACK
Feed-Through Type with Metal Shell


5/16
1/4-32 THD
.250
3/8
1 11/64
HEX NUT
.250

Thread stripping during assembly is eliminated with metal shell. Indicate color desired; see above.

Photos shown are not to size or scale

No. 888
ALL NYLON TIP JACK
Feed-Through Type


.312
1/4-28 THD
1/4
1/32
3/8
1 11/64
HEX NUT
1/4

Completely molded. Contact recessed in hexagon head for both safe contact and grip in tightening. Mounts in panels up to 1/4″ thick, in 1/2″ hole. Nylon Grade FM 10001 for body. Center contact is tin-plated brass. Nickel-plated brass hex nut. Indicate color desired; see above.

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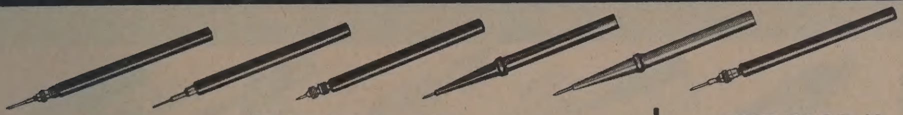
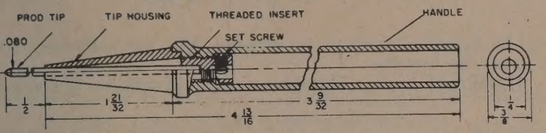
NATIONAL TEL-TRONICS CORP.

YONKERS, N. Y.



TEST PRODS

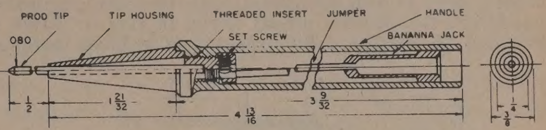
TEST PROD No. 891


PROD TIP
TIP HOUSING
THREADED INSERT
SET SCREW
HANDLE
.080
1/2
1 21/32
3 9/32
4 13/16
1/4
3/8

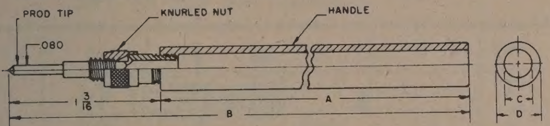
Shouldered insulated handle made of bakelite. Tip made of nickel-plated brass has set screw in side for securing conductor and thus making a solderless connection. Tip screw into handle. Available in Red and Black. Indicate color.

TEST PROD No. 892
With Banana Plug Adaptor

Same as No. 891 except with a banana plug adapter in back of handle.


PROD TIP
TIP HOUSING
THREADED INSERT
JUMPER
HANDLE
SET SCREW
BANANNA JACK
080
1/2
1 21/32
3 9/32
4 13/16
1/4
3/8

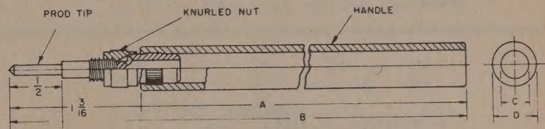
TEST PROD; SOLDERLESS THREADED TYPE


PROD TIP
KNURLED NUT
HANDLE
080
1 3/16
A
B
C
D

PART NO.	'A' HANDLE	'B' OVERALL	'C' I.D.	'D' O.D.
894	4	5¼	3/16	3/8
895	4	5¼	¼	3/8
991	5½	6⅞	3/16	3/8
992	5½	6⅞	¼	3/8

Handle; Molded Plastic, Red or Black #805 Solderless tip; nickel plated brass solderless tip plug. Wire fits through body and is then wrapped around threaded portion and knurled collar tightened. Fits standard phone tip jacks and is threaded for easier assembly into handle.

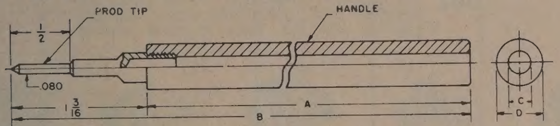
SOLDERLESS TEST PROD — *Force Fit Type*


PROD TIP
KNURLED NUT
HANDLE
1/2
1 3/16
A
B
C
D

PART NO.	'A' HANDLE	'B' OVERALL	'C' I.D.	'D' O.D.
896	4	5¼	3/16	3/8
904	4	5¼	¼	3/8
993	5½	6⅞	3/16	3/8
994	5½	6⅞	¼	3/8

Handle; molded plastic, Red or Black #806 Solderless Tip; force fit nickel plated brass tip plug. Fits standard phone tip jacks. Solderless wire fits through tip body and then wraps around screw portion. Knurled collar for tightening.

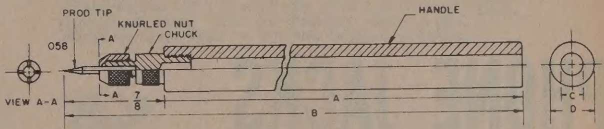
TEST PROD — HEAVY DUTY SOLDER TYPE


PROD TIP
HANDLE
1/2
.080
1 3/16
A
B
C
D

PART NO.	'A' HANDLE	'B' OVERALL	'C' I.D.	'D' O.D.
897	4	5 3/16	3/16	3/8
898	4	5 3/16	¼	3/8
995	5½	6 11/16	3/16	3/8
996	5½	6 11/16	¼	3/8

Handle; Molded Plastic, Red or Black #802 Solder tip; Heavy duty nickel plated brass with exceptionally large well for soldering, threaded for easy assembly in handle. Fits standard phone tip jack.

TEST PROD — PHONO NEEDLE TYPE


PROD TIP
KNURLED NUT
CHUCK
HANDLE
058
A
VIEW A-A
A
7/8
A
B
C
D

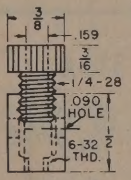
PART NO.	'A' HANDLE	'B' OVERALL	'C' I.D.	'D' O.D.
901	4	4⅞	3/16	3/8
902	4	4⅞	¼	3/8
997	5½	6⅜	3/16	3/8
998	5½	6⅜	¼	3/8

Handle; molded plastic, Red or Black #866 Tip; Phono Needle type with nickel plated brass body and nickel plated steel needle. Chuck is removable for easy replacement. Needle pierces plating or corrosion for positive reading.

BINDING POSTS

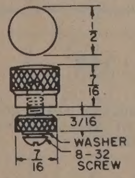
874 METAL BINDING POST

HEAD:	BRASS nickel plated.
BODY:	Brass nickel plated.
DESCR.:	Accepts standard phone tips or banana plugs.


3/8
.159
3/16
1/4-28
.090 HOLE
6-32 THD.
1/2

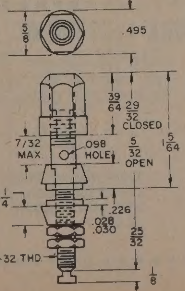
875 METAL BINDING POST

HEAD:	BRASS nickel plated.
WASHER:	Brass nickel plated.
DESCR.:	Supplied complete with screw and lockwasher.


1/2
7/16
3/16
WASHER
8-32 SCREW
7/16

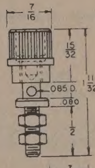
876 WRAP AROUND TYPE

Designed to accept phone tip plug, spade lug, banana plug, alligator clip and wire strand. Direct solder connection. Molded nylon head (non-removable from stud) and washer completely insulates post from panel. Mounts in ½″ or keyed hole for panels 1/16-1/4″ thick. Nickel-plated brass metal parts. Molded-in brass bushings in head and washers. Indicate color: Red, Black, Yellow, Blue, White, Green, Rated 2,000 volts a-c RMS test. 30 amp safe current-carrying capacity.


5/8
.495
39/64
29/32 CLOSED
7/32 MAX
.098 HOLE
5/32 OPEN
1 5/64
1/4
.226
.028
.030
25/32
10-32 THD.
1/8

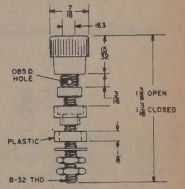
878 5-WAY GROUNDING TYPE

Designed to accept phone tip plug, banana plug, spade lug, alligator clip, wire strand. Indicate color desired of molded plastic, captive head: Red, Black. 8-32 threaded stud. Nickel-plated brass body and insert in head.


7/16
15/32
1 11/32
.085 D.
.080
1/2

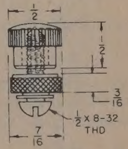
879 FULLY INSULATED TYPE

Designed to accept phone tip plug, banana plug, spade lug, alligator clip, wire strand. Molded plastic captive head in Red or Black; indicate color desired. Nickel-plated brass body. Molded plastic washers with nickel-plated brass inserts. 8-32 threaded stud. Mounts in panel with milled slot for locking in 5/16″ hole; supplied with two hex nuts.


7/16
.163
15/32
.085 D HOLE
3/16
1 3/8 OPEN
1 3/16 CLOSED
PLASTIC
1/8
8-32 THD

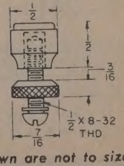
880 BINDING POST

HEAD:	MOLDED bakelite with molded-in brass threaded insert, Red or Black. SPECIFY COLOR.
WASHER:	Brass, nickel plated.
DESCR.:	Supplied complete with screw and lockwasher.


1/2
1/2
3/16
1/2 x 8-32 THD
7/16

881 BINDING POST

HEAD:	MOLDED bakelite with molded-in brass threaded insert, Red, Black. SPECIFY COLOR.
WASHER:	Brass, nickel plated.
DESCR.:	Supplied complete with screw and lockwasher.


1/2
1/2
3/16
1/2 x 8-32 THD
7/16

Photos shown are not to size or scale

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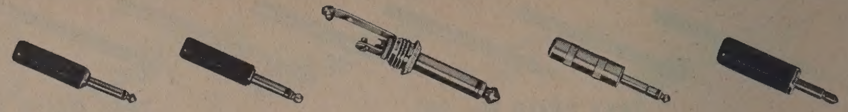
YONKERS, N. Y.

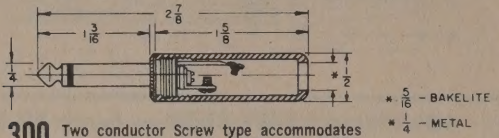
PHONE PLUGS



TWO & THREE CONDUCTORS

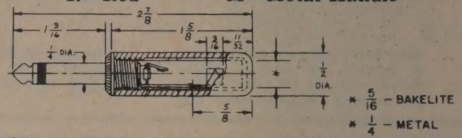
Widely used in hi-fi equipment, tape recorders, dictaphone machines, etc. Molded plastic shells in Red or Black are supplied for numbers 300, 301 and 302. These plugs can also be supplied with metal handle. Use the following code in ordering handle.

B=Black R=Red M=Metal Handle



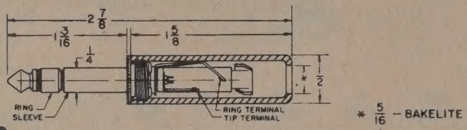
2 7/8
1 3/16
1 5/8
1/4
* 1/2
* 5/16 - BAKELITE
* 1/4 - METAL

300 Two conductor Screw type accommodates two conductor jacks #336 and #337.



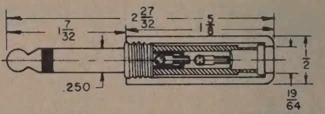
2 7/8
1 3/16
1 5/8
3/16
11/32
1/4 DIA.
1/2 DIA.
5/8
* 5/16 - BAKELITE
* 1/4 - METAL

301 Two conductor Solder type accommodates two conductor jacks #336 and #337.



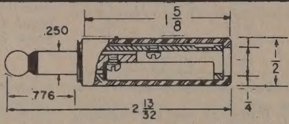
2 7/8
1 3/16
1 5/8
1/4
* 1/2
RING
SLEEVE
RING TERMINAL
TIP TERMINAL
* 5/16 - BAKELITE
* 1/4 - METAL

302 Three conductor Solder type accommodates three conductor jacks #338 and #339.



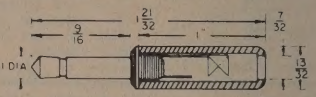
2 27/32
1 7/32
1 5/8
1/2
.250
19/64

304 Two conductor solder type made to PJ055 military specification. Solder terminals are silver plated to facilitate soldering. Supplied with Black or Red insulated handle.



.250
1 5/8
1/2
.776
2 13/32
1/4

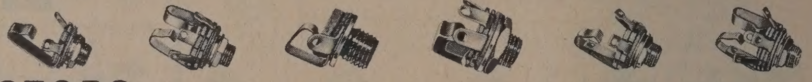
305 Two conductor solder type made to PJ054 military specification. Solder terminals are silver plated to facilitate soldering. Supplied with Red or Black Insulated Handle.



1 21/32
9/16
1"
7/32
.141 DIA.
13/32

307 Two conductor solder type. Accommodates sub miniature jacks #311 and #313 May be supplied with Red, Black or White handles.

PHONE JACKS

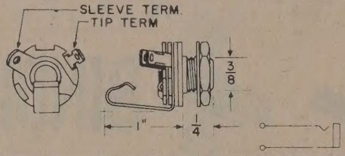


TWO & THREE CONDUCTORS

These telephone jacks are of two basic types, open circuit and closed circuit and are available as two conductor and three conductor jacks. The nickel plated special spring brass springs are designed to retain their tension throughout unlimited use. The standard size jacks mount in ⅜″ holes.

336

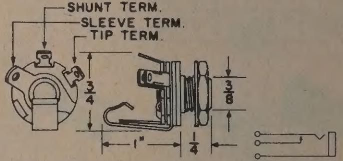
Two Conductor, open circuit; will accommodate plugs #300, 301 and 304.



SLEEVE TERM.
TIP TERM.
3/8
1"
1/4

337

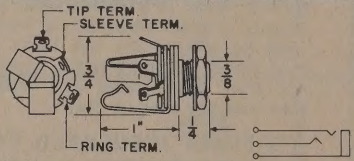
Two Conductor, closed circuit; Will accommodate plugs #300, 301 and 304.



SHUNT TERM.
SLEEVE TERM.
TIP TERM.
3/4
3/8
1"
1/4

338

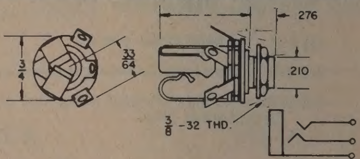
Three Conductor, open circuit; will accommodate plug #302.



TIP TERM.
SLEEVE TERM.
3/4
3/8
1"
1/4
RING TERM.

338-A

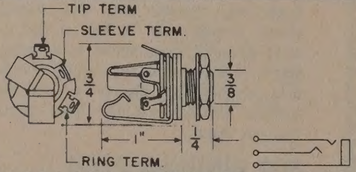
Three Conductor, open circuit with .210 I.D. Will accommodate plug #PJ068.



.276
3/4
33/64
.210
3/8 -32 THD.

338-B

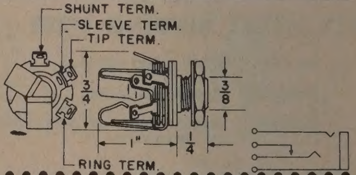
Three Conductor open circuit with Bright Brass Bushing. Will accommodate plug #302.



TIP TERM
SLEEVE TERM.
3/4
3/8
1"
1/4
RING TERM.

339

Three Conductor closed circuit; Will accommodate plug #302.



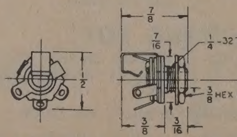
SHUNT TERM.
SLEEVE TERM.
TIP TERM.
3/4
3/8
1"
1/4
RING TERM.

SUB-MINIATURE JACKS — FOR MINIATURE ELECTRONIC APPLICATION

Tape Recorders Computing Machines Dictating Machines Miniature Radios Despite their tiny size (about one third that of standard models) these subminiature jacks are precision made and are ruggedized for all electronic applications. Mounting bushings are made of nickel plated brass and require ¼″ diameter mounting holes. Insulators are laminated phenolic and spring contacts are silverplated.

311

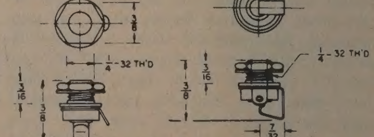
Subminiature Phone Jack two conductor closed circuit will accommodate plug #307.



7/8
7/16
1/4 -32 TH'D
1/2
3/8 HEX NUT
3/8
3/16

313

Subminiature Jacks, two conductor open circuit will accommodate plug #307.



3/8
1/4 -32 TH'D
3/16
3/8
3/16
3/8
1/4 -32 TH'D
7/32

Photos shown are not to size or scale

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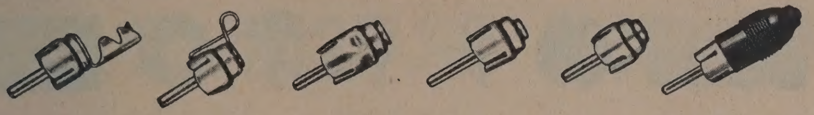
ntt



PHONO PLUGS

SHELLS—.016 Brass or Steel Cadmium Plated, designed to have a wiping action with mating part, for good ground.
PINS—Drawn brass bright nickel plated.

INSULATOR WASHER — .062 thick fibre. IF low loss material is desired for insulating washer add "L" to part #. Example #36A with low loss washer would be #36AL.

PART NO.	A	B	C	D	FIG.
36A	1/8	.175	11/16	15/16	1
36B	1/8	.175	3/8	5/8	1
36C	1/8	.175	9/16	13/16	1
37A	1/8	.145	11/16	15/16	1
37B	1/8	.145	3/8	5/8	1
37C	1/8	.145	9/16	13/16	1
38A	1/8	.125	11/16	15/16	1
38B	1/8	.125	3/8	5/8	1
38C	1/8	.125	9/16	13/16	1
39A	1/8	.125	9/16	53/64	2
39B	1/8	.145	9/16	53/64	2
39C	1/8	.175	9/16	53/64	2
40A	1/8	.125	11/16	57/64	2
40B	1/8	.145	11/16	57/64	2
40C	1/8	.175	11/16	57/64	2
41A	1/8	.125	3/8	41/64	2
41B	1/8	.145	3/8	41/64	2
41C	1/8	.175	3/8	41/64	2
42A	1/8	.145	11/16	1-3/32	3
42B	1/8	.145	3/8	25/32	3
42C	1/8	.145	9/16	31/32	3
43A	1/8	none	11/16	15/16	4
43B	1/8	none	3/8	5/8	4
43C	1/8	none	9/16	13/16	4
44A	1/8	.145	11/16	1-7/16	5
44B	1/8	.145	3/8	1-1/8	5
44C	1/8	.145	9/16	1-1/4	5
60A	1/8	.175	11/16	1-5/8	6
60B	1/8	.175	3/8	1-5/16	6
60C	1/8	.175	9/16	1-1/2	6

Photos shown are not to size or scale

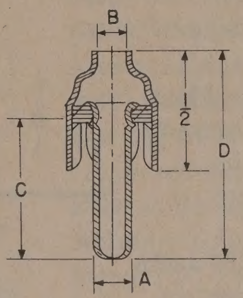


FIG. 1

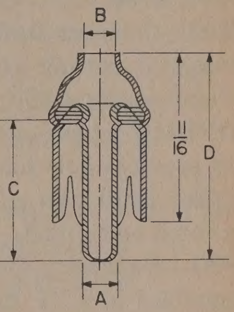


FIG. 2

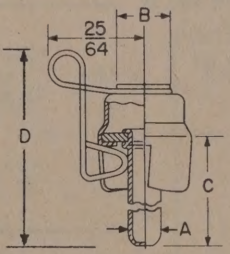


FIG. 3

Self shorting Phono Plug Steel piano wire spring is cadmium plated.

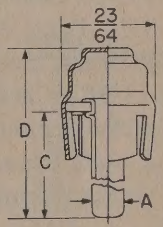


FIG. 4

Self shorting Phono Plug has no hole for a wire and is used to insure that mating jack cannot be activated accidentally. Has copper washer for complete shorting action.

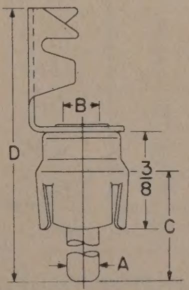


FIG. 5

Has strain relief lug to insure strong connection. Crimp type.

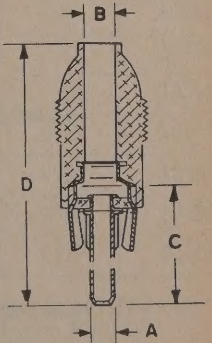


FIG. 6

Snap on Plug with handle.

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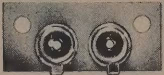
PHONO JACKS



#318, #319, #326 and #327
Single Conductor, Phono Jacks
INSULATOR DISC—XP Laminated Phenolic
INSULATOR BUSHING—Ceramic
SHELL—Steel-cadmium plated.
CONTACT—Spring brass cadmium plated.
#328—Printed Circuit Dip Solder Type Assembled to printed circuit board as shown in fig. 2.
#329—Compact Design. Assembled to chassis by curling as shown in fig. 1 accommodates #36B, #37B, #38B Plugs.
CONTACT—Lance acts as solder barrier and provides hole for soldering wire.
#330—Similar to #329 with longer terminal on contact.
#331—Connector. Consists of #330 Jacks assembled to a XP Board on ½″ centers, providing individual ground connections avoiding ground loop.
#333—Snap in Dip Solder Printed Circuit Type. Assembled as shown in fig. 3.
#340-341—Panel Mounting Jack, Shells made of Brass, nickel plated.
INSULATOR—Ceramic.
CONTACT—Spring brass.
NUT ¼″—32 Brass nickel plated.
LUG—Brass cadmium plated.

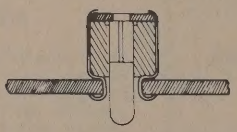


FIG. 1

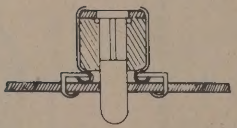


FIG. 2

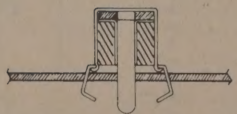
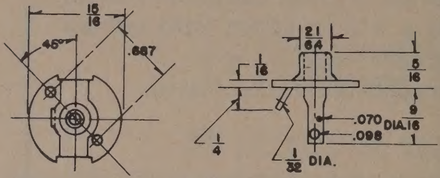
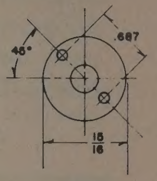


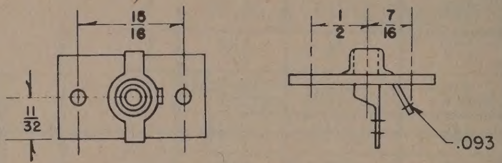
FIG. 3


15/16
45°
.687
21/64
1/16
5/16
9/16
.070 DIA.
.098
1/4
1/32 DIA.

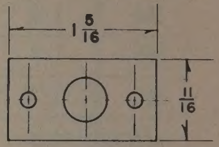
318



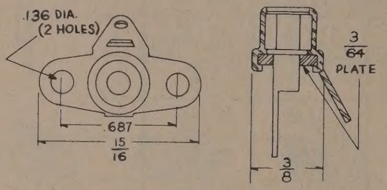
318A


15/16
11/32
1/2
7/16
.093

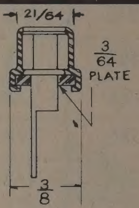
319



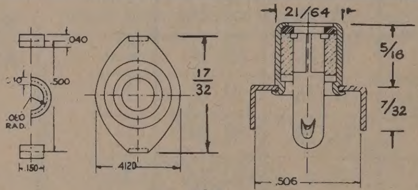
319A


.136 DIA.
(2 HOLES)
.687
15/16
3/64
PLATE
3/8

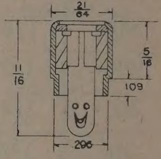
326


21/64
3/64
PLATE
3/8

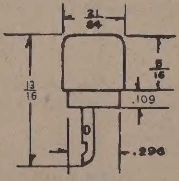
327


.040
.500
.010
.010 RAD.
.150
.4120
17/32
21/64
5/16
7/32
.506

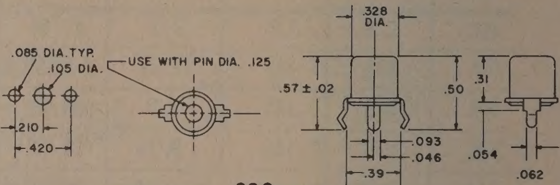
328


21/64
11/16
5/16
.109
.296

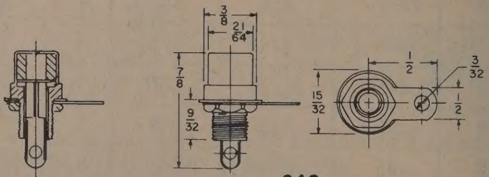
329


21/64
13/16
5/16
.109
.296

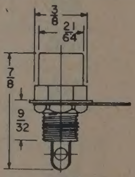
330


.085 DIA. TYP.
.105 DIA.
USE WITH PIN DIA. .125
.210
.420
.328 DIA.
.57 ± .02
.50
.31
.093
.046
.054
.39
.062

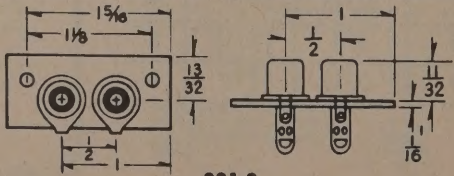
333


3/8
21/64
7/8
9/32
15/32
1/2
3/32
1/2

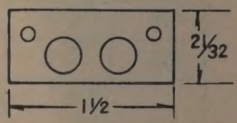
340


3/8
21/64
7/8
9/32

341


1 5/16
1 1/8
13/32
1/2
1
1/2
11/32
1/16

331-2



331-2A

Photos shown are not to size or scale

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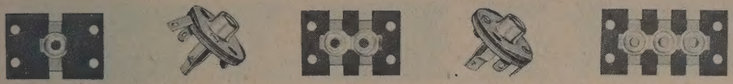
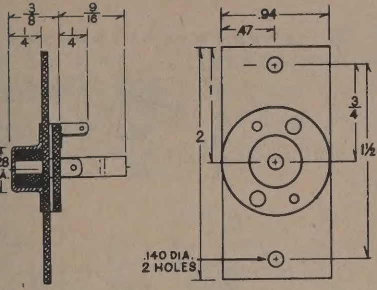
YONKERS, N. Y.



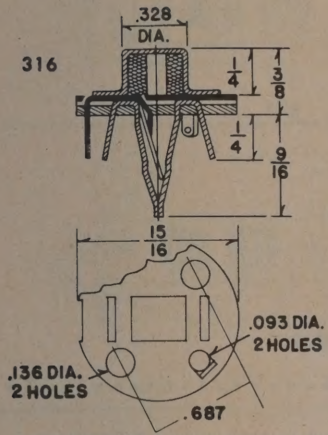
SWITCHING JACKS

RADIOS PHONOGRAPHS TELEVISION
TAPE RECORDERS HI-FI STEREO SOUND

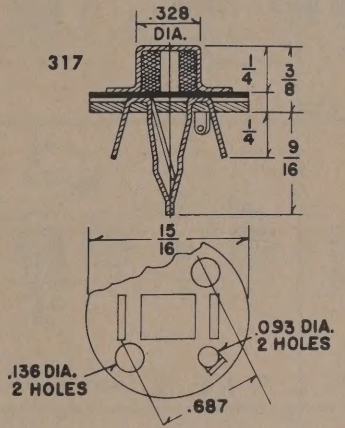
315


3/8
9/16
1/4
1/4
.328 DIA.
.94
.47
3/4
2
1½
.140 DIA. 2 HOLES

316


.328 DIA.
1/4
3/8
1/4
9/16
15/16
.093 DIA. 2 HOLES
.136 DIA. 2 HOLES
.687

317


.328 DIA.
1/4
3/8
1/4
9/16
15/16
.093 DIA. 2 HOLES
.136 DIA. 2 HOLES
.687

#315—Similar to #317 except it is made with a rectangular mounting plate as shown.

#316 Switching type jack—3—conductor.

SPRINGS—3 Phosphor bronze cad. plated.

INSULATOR BUSHING—1—ceramic.

DISCS—XP Lam. Phenolic.

GROUND SHELL—.016 Steel Cad. Plated.

GROUND LUG & EYELETS—brass cad. plated.

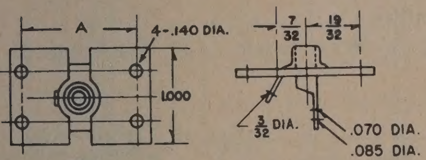
Accommodates #36A, #37A, & 38A plugs.

#317 Switching type Jack 2 conductor.

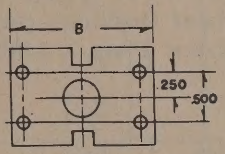
Same as #316 except it has only 2 Phos. bronze springs.

Each of the above may be supplied with Glass Melamine bottom wafer. Suffix part # with a "G". Example #317 with Glass Melamine would be #317G.

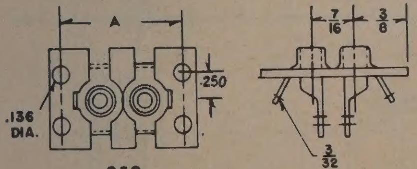
PHONO CONNECTORS


A
4-.140 DIA.
1.000
7/32
19/32
3/32 DIA.
.070 DIA.
.085 DIA.

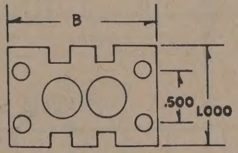
351



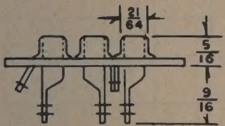
351A


A
.250
.136 DIA.
7/16
3/8
3/32

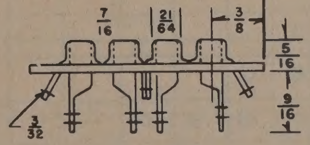
352



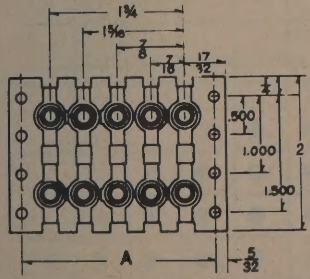
352A


21/64
5/16
9/16

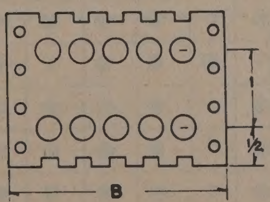
353


7/16
21/64
3/8
5/16
9/16
3/32

354


1¾
1⁹⁄₁₆
7/8
7/16
17/32
.500
1.000
1.500
2
A
5/32

2-355



2-355A

PART NO.	NO. OF JACKS	MTG. CENTERS A	OVERALL LENGTH B	INSULATOR PART NO.
351	1	1.187	1.500	351A
352	2	1.187	1.500	352A
353	3	1.625	1.937	353A
354	4	2.062	2.375	354A
355	5	2.500	2.812	355A

We can supply up to 10 Jacks in a row

DOUBLE STACK CONNECTORS

PART NO.	NO. OF JACKS	MTG. CENTERS A	OVERALL LENGTH B	INSULATOR PART NO.
2-354	8	2.062	2.375	2-354A
2-355	10	2.500	2.812	2-355A
2-356	12	2.937	3.250	2-356A
2-357	14	3.375	3.687	2-357A
2-358	16	3.812	4.125	2-358A
2-359	18	4.250	4.500	2-359A
2-360	20	4.687	4.937	2-360A

MOUNTING PLATES — 1/16" thick XP lam. Phenolic.
GROUND SHELL — .016 Steel Cadmium Plated.
CONTACTS — .013 Spring Brass, Insulator Bushings — Ceramic.
INSULATOR PLATES — 1/32" thick XP Lam Phenolic.

Photos shown are not to size or scale

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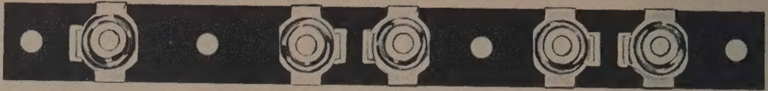
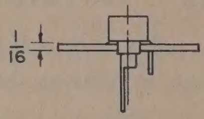
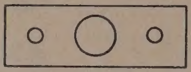
PHONO JACKS

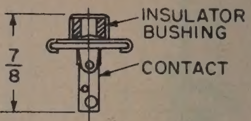


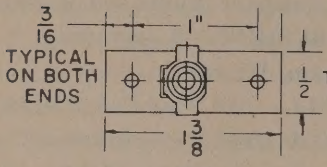
370 SERIES



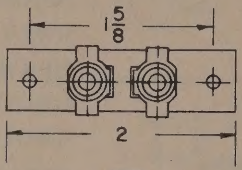


INSULATOR
371-A
TYPICAL FOR ALL PARTS

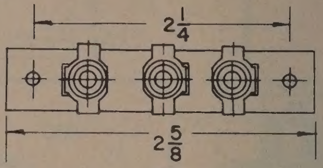

7/8
INSULATOR BUSHING
CONTACT


3/16 TYPICAL ON BOTH ENDS
1"
1/2 TYP.
1 3/8

371



372



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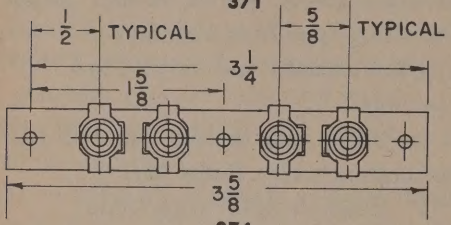
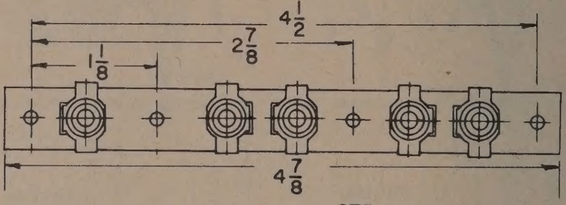

1/2 TYPICAL
5/8 TYPICAL
3 1/4
1 5/8
3 5/8

374

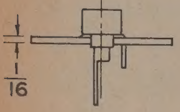

4 1/2
2 7/8
1 1/8
4 7/8

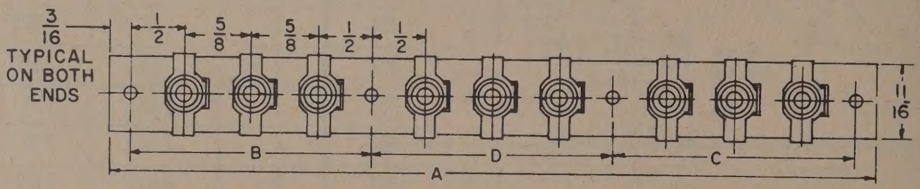
375

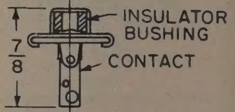
380 SERIES

Note: Mounting Plate—1/16" thick 'XP' Laminated Phenolic.
Ground Shell—.016 steel cadmium plated.

Contact—.013 spring brass.
Insulator Bushing—ceramic.
Insulator Plate—1/32" (.031) thick 'XP' Laminated.




3/16 TYPICAL ON BOTH ENDS
1/2
5/8
5/8
1/2
1/2
11/16
B
D
C
A


7/8
INSULATOR BUSHING
CONTACT

PART NO.	QUANTITY OF JACKS	A	B	C	D	PHYSICAL STACK-UP															
381	1	1⅜	1	—	—	○	●	○													
382	2	2	1⅝	—	—	○	●	●	○												
383	3	2⅝	2¼	—	—	○	●	●	●	○											
384	4	3¼	2⅞	—	—	○	●	●	●	●	○										
385	5	4¼	2¼	1⅝	—	○	●	●	●	○	●	●	○								
386	6	4⅞	2⅞	1⅝	—	○	●	●	●	●	○	●	●	○							
387	7	5½	2⅞	2¼	—	○	●	●	●	●	○	●	●	●	○						
388	8	6⅛	2⅞	2⅞	—	○	●	●	●	●	○	●	●	●	●	○					
389	9	7⅛	2¼	2¼	2¼	○	●	●	●	○	●	●	●	○	●	●	●	○			
390	10	7¾	2⅞	2¼	2¼	○	●	●	●	●	○	●	●	●	○	●	●	●	○		
391	11	8⅜	2⅞	2¼	2⅞	○	●	●	●	●	○	●	●	●	●	○	●	●	●	○	
392	12	9	2⅞	2⅞	2⅞	○	●	●	●	●	○	●	●	●	●	○	●	●	●	●	○

Photos shown are not to size or scale

●—INDICATES TERMINAL　○—INDICATES MOUNTING HOLE

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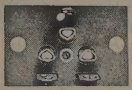
NATIONAL TEL-TRONICS CORP.

YONKERS, N. Y.

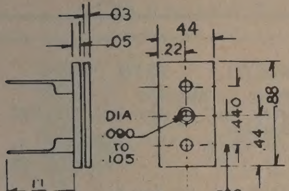
ntt



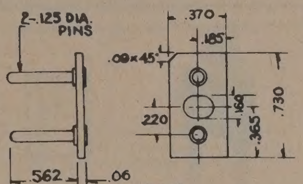
PIN PLUGS & SOCKETS

450 Series Pin Plugs and Sockets used as inter chassis and in line connectors.
WAFERS of sockets 3/64″ XP Lam. Phenolic.
CONTACTS—Spring Brass cad. plated.

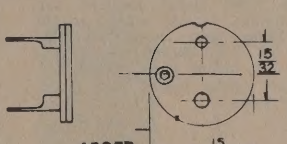
PLUG DISCS 1/16″ XP Lam. Phenolic.
PINS—Drawn brass bright nickel plated.
Many other combinations may be acquired by deleting or adding contacts.


.03
.05
.44
.22
DIA .090 TO .105
.110
.440
.44
.88
11/16
220

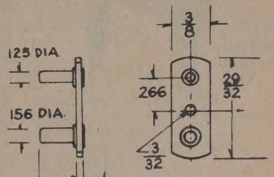
451F


2-.125 DIA. PINS
.370
.185
.09×45°
.220
.160
.365
.730
.562
.06

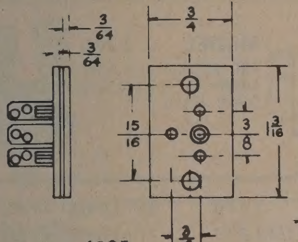
451M



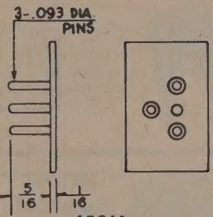
452FR


125 DIA
156 DIA
3/8
266
29/32
3/32
1/16

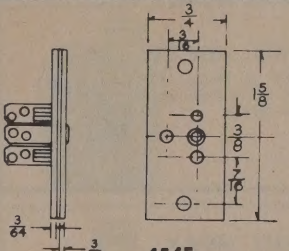
452M


3/64
3/64
3/4
15/16
3/8
1 3/16
3/16

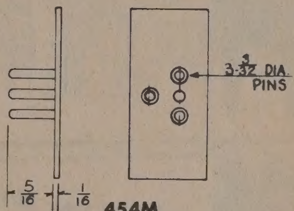
453F


3-.093 DIA. PINS
5/16
1/16

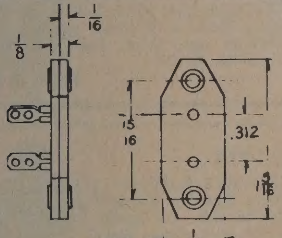
453M


3/4
3/16
1 5/8
3/8
7/16
3/64
3/64

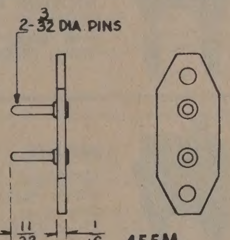
454F


3-3/32 DIA. PINS
5/16
1/16

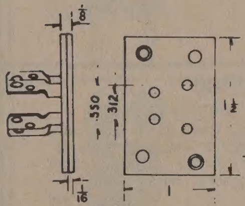
454M


1/16
1/8
15/16
.312
1 1/16
1/2

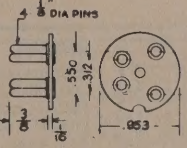
455F


2-3/32 DIA PINS
11/32
1/16

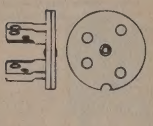
455M


1/8
.550
.312
1 1/2
1/16

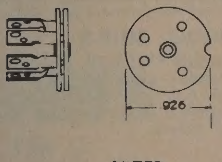
456F


4-1/8 DIA PINS
.550
.312
3/8
1/16
.853

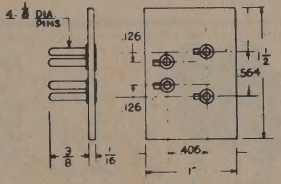
456MR



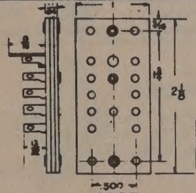
456FR



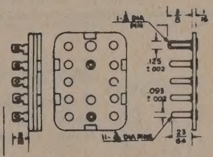
457FR


4-1/8 DIA. PINS
.126
.126
.564
1 1/2
3/8
1/16
.406
1″

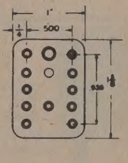
457M



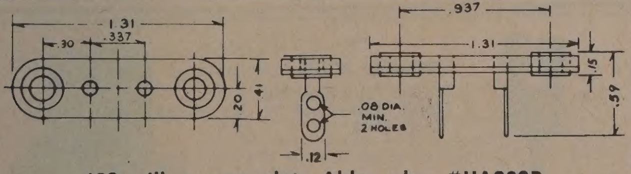
458F


.125 ±.002
.093 ±.002

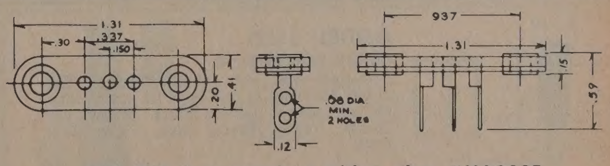
458S



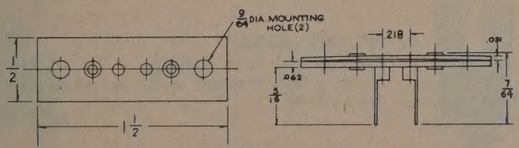
458M


1.31
.30
.337
.20
.41
.08 DIA. MIN. 2 HOLES
.12
.937
1.31
.15
.59

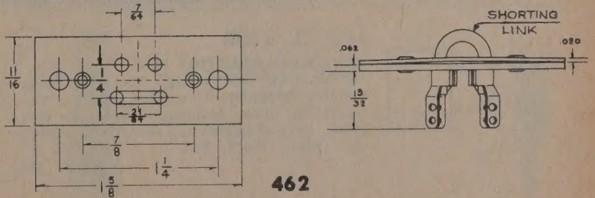
459 will accommodate Alden plug #HA902P


1.31
.30
.337
.150
.20
.41
.08 DIA MIN. 2 HOLES
.12
.937
1.31
.15
.59

460 Will accommodate Alden plug #HA903P


9/64 DIA MOUNTING HOLE(2)
1/2
1 1/2
.218
.031
.062
3/16
7/64

461


7/64
11/16
1/4
21/64
7/8
1 1/4
1 5/8
SHORTING LINK
.062
.020
15/32

462

Photos shown are not to size or scale

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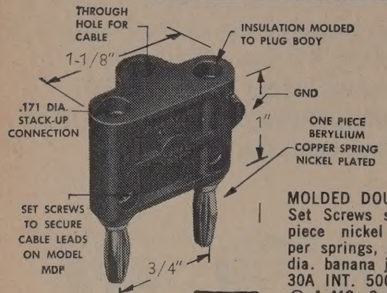
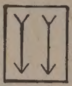
POMONA Electronics CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

¾″ MOLDED DOUBLE PLUG STACK-UP ACCESSORIES

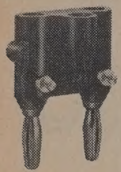

THROUGH HOLE FOR CABLE
INSULATION MOLDED TO PLUG BODY
1-1/8″
GND
.171 DIA. STACK-UP CONNECTION
1″
ONE PIECE BERYLLIUM COPPER SPRING NICKEL PLATED
SET SCREWS TO SECURE CABLE LEADS ON MODEL MDP
3/4″

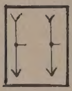
MODEL MDP



MOLDED DOUBLE PLUG, ¾″ SPACED Set Screws secure cable leads. One piece nickel plated beryllium copper springs, for use with st'd. .166 dia. banana jacks. Rated: 15A CONT. 30A INT. 5000 WVDC, Cap. 0.8 $\mu\mu f$ @ 1 MC. Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

NET .75

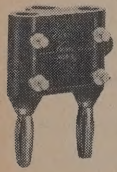


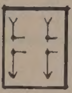


MODEL MDP-ST

Similar to Model MDP, except has solder turret terminals.
Color—Black

NET .85

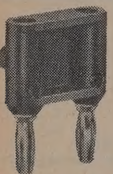


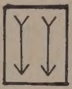


MODEL MDP-X

4 TERMINAL ISOLATION PLUG
Suitable for design of attenuators, filters, pads, networks, etc.
Color—Red

NET 3.25



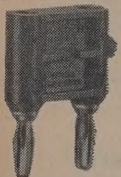


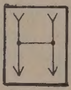
MODEL 1330

COMPONENT MOUNTING PLUG
Ideal for lab standards, R & D, etc. Features recess for small components, internal set screws firmly secure lead wires. Colors: Black, Red.

NET .75

MODEL 1330-ST Same as above except with solder turret terminals. **NET .85**

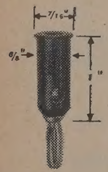


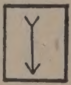


MODEL MDP-S

Molded shorting bar ¾″ spaced, noise free, solder bonded internally. Color: Cream, Black, Red.

NET .95

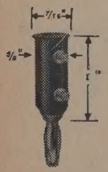


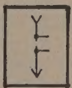


MODEL 1325

SINGLE BANANA PLUG
Solderless type, with stack-up feature. Simplifies assembly of test cords by use of internal set screws. Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Grey, White.

NET .50

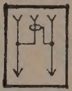




MODEL 1390

COMPONENT MOUNTING PLUG
Top stack-up jack isolated from lower plug. Permits mounting of resistors, diodes, etc., on solder turret terminals. Useful in computer, general lab circuit design and testing, etc. Colors: Black, Red.

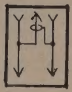
NET .95



MODEL 1269

BNC RECEPTACLE ADAPTOR
Adapts ¾″ spaced jacks to BNC plug.
Color—Black

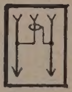
NET 2.85



MODEL 1270

BNC PLUG ADAPTOR
Adapts ¾″ spaced jacks to BNC receptacle.
Color—Black

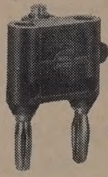
NET 3.85



MODEL 1340

TNC RECEPTACLE ADAPTER
Adapts ¾″ spaced jacks to TNC plug.
Color: Black.

NET 5.85



MODEL 1275 50 OHM TYPE
MODEL 1277 70 OHM TYPE
MODEL 1279 93 OHM TYPE

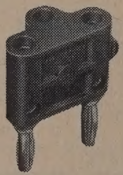
MICRODOT RECEPTACLE ADAPTORS, SCREW-ON TYPE
Adapts ¾″ spaced jacks to Microdot miniature coaxial plugs, screw-on type. Color: Green, 50 Ohm; Violet, 70 Ohm; White, 93 Ohm.

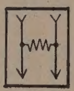
NET 5.85

MODEL 1276

MICRODOT RECEPTACLE ADAPTOR, SLIDE-ON TYPE
Adapts ¾″ spaced jacks to Microdot coaxial miniature plugs, slide-on type, universally adapts to 50, 70 or 93 Ohm type plug. Color: Black.

NET 5.85





MODEL MDP-R

MOLDED PRECISION RESISTORS 1% tolerance, deposited carbon, values—600, 0.1, 0.2, 0.25, 0.5, 1, 2, 5, 10 Megohms. Each value color identified, ¾″ spaced.

NET 2.75

(SPECIAL VALUES UPON REQUEST)

MODEL 1285

PHONE PLUG ADAPTOR
Adapts phone jack to ¾″ spaced binding posts.
Color: Black

NET 4.85

MODEL 1296

BNC BINDING POST ADAPTOR
Adapts a BNC receptacle to ¾″ spaced binding posts.
Color: Black

NET 4.85

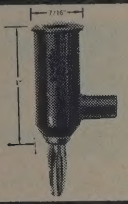
OTHER COLORS AVAILABLE ON QUANTITY ORDERS

POMONA Electronics CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

NEW ¾″ MOLDED DOUBLE PLUG STACK-UP ACCESSORIES NEW

- Banana Plugs, one piece beryllium copper, heat treated spring, nickel plated.
- Fits standard .166 dia. banana jack.
- Heavy duty molded plastic construction.
- Solder bonded noise-free connections.
- GND. clearly indicated on shell and plug body.

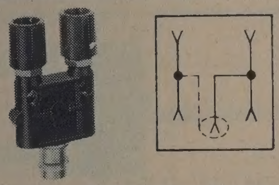


MODEL 1825

BANANA PLUG: SAFETY TYPE

Stack-Up Feature. Set screw secures wire, without soldering. Integral safety collar covers exposed wire leads. Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Grey, White.

NET .50

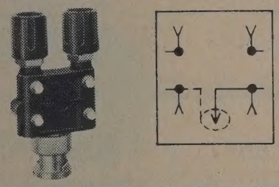


MODEL 1452

BNC BINDING POST ADAPTOR

Adapts BNC Plug to ¾″ spaced binding posts. Color: Black.

NET 4.85

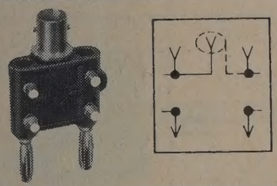


MODEL 1469

BNC BINDING POST ISOLATION ADAPTOR

Four isolated solder turret terminals. Permit design of attenuators, matching pads, networks, etc. Color: Black.

NET 10.85

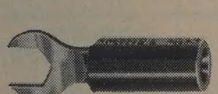


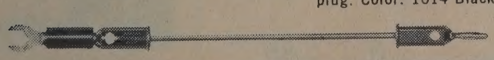
MODEL 1468

BNC RECEPTACLE ISOLATION ADAPTOR

Four isolated solder turret terminals. Permit design of attenuators, matching pads, networks, etc. Color: Black.

NET 9.85



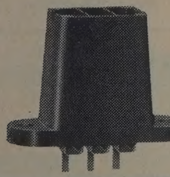


MODEL 1614

INSULATED SPADE LUG ADAPTOR

Heavy duty machined one piece brass nickel plated. Plastic molded to spade lug. Permits rear insertion of banana plug. Color: 1614 Black • 1614-2 Red.

NET .35

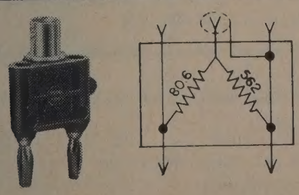


MODEL TS-187

TRANSISTOR TEST SOCKET

For use in testing 3 lead transistors with .017 dia. leads. Beryllium copper springs for long life. Withstands temperature over 300°C. Insulation resistance 10,000 megohms min. at 40% R.H. at 24°C. Useful for aging racks, incoming inspection life testing etc. Color: Black.

NET 1.75

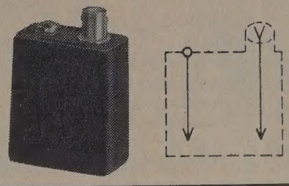


MODEL 1656

BNC MATCHING PAD ADAPTOR

600 to 75 ohm. Resistors, ¼ watt, 1% internally molded. Color: Red.

NET 10.85

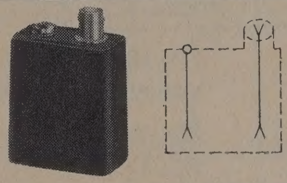


MODEL 1645

SHIELDED BNC ADAPTOR

Shielded ¾″ spaced banana plugs adapt from binding post to BNC plug. Shell, die cast aluminum, black anodized.

NET 3.45

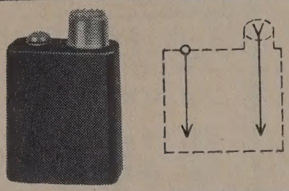


MODEL 1681

SHIELDED BNC ADAPTOR

Shielded ¾″ spaced banana jacks adapts from banana plugs to BNC plug. Shell, die cast aluminum, black anodized.

NET 3.45

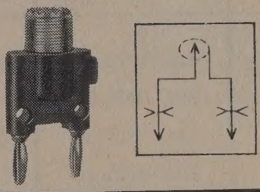


MODEL 1708

SHIELDED UHF ADAPTOR

Shielded ¾″ spaced banana plugs adapt from binding post to UHF plug. Shell, die cast aluminum, black anodized.

NET 4.85

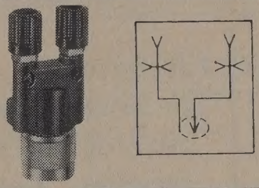


MODEL 1707

UHF ADAPTOR

Adapts ¾″ spaced jacks to UHF plug. Color: Black.

NET 4.85

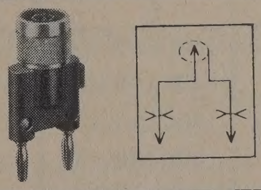


MODEL 1796

TYPE "N" BINDING POST ADAPTOR

Adapts type "N" receptacle to ¾″ spaced banana plugs. Color: Black.

NET 5.85

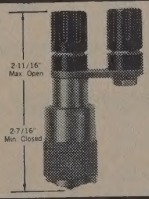


MODEL 1770

TYPE "N" BANANA PLUG ADAPTOR

Adapts ¾″ spaced banana jacks to Type "N" receptacle. Color: Black.

NET 5.85



MODEL 1699

UHF ADAPTOR

Adapts UHF receptacle to ¾″ spaced banana plugs. Center conductor binding post red, Ground Black.

NET 4.85

2-19/32" Max. Open
2-11/32" Min. Closed

MODEL 1698

UHF ADAPTOR

Adapts UHF receptacle to single banana plug. Binding post color, Red.

NET 3.85

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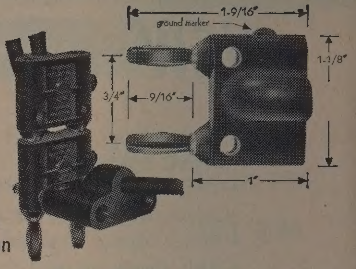
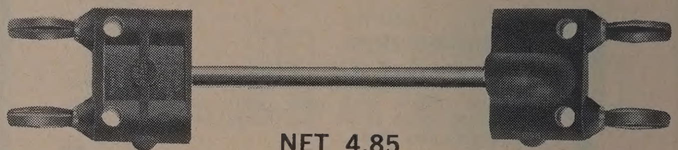
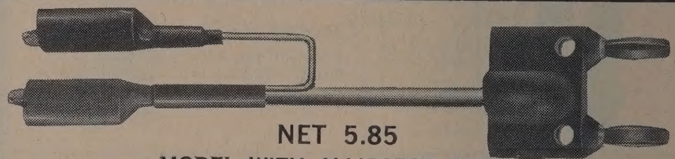
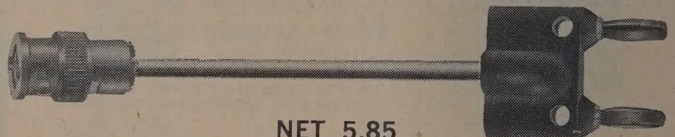
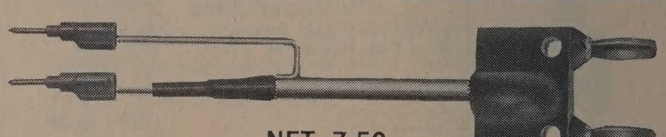
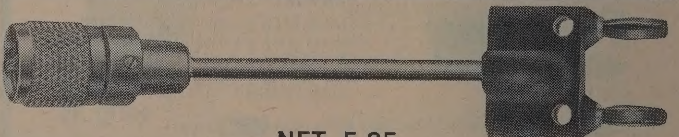
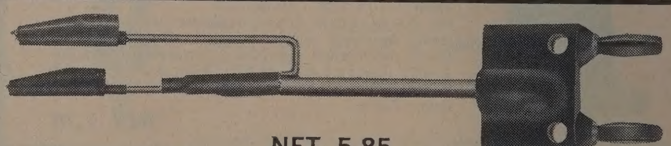
¾" MOLDED DOUBLE PLUG PATCH CORD & TEST LEADS

- Molded polyethylene plug body fully insulated
- Permits parallel multiple stacking
- Ground connection clearly marked
- One piece beryllium copper spring
- Solder bonded noise-free connection
- Fits standard banana jacks



TWO COND. TWISTED PAIR 18 gauge wire 65/36 stranding. Vinyl insulation. Vinyl jacket. Nom. Capacity 30 mmf/ft.	SHIELDED MICROPHONE CABLE Polyethylene insulation. Vinyl jacket. Nom. Capacity 25 mmf/ft.	COAXIAL SHIELDED CABLE Polyethylene insulation. Vinyl jacket. Nom. Capacity 28.5 mmf/ft. RG58C/U.	CABLE LGTHS. IN INCHES *	
MODEL NO.	MODEL NO.	MODEL NO.		
2BA-18	2BB-18	2BC-18	18"	 NET 4.85 MODEL WITH DOUBLE PLUGS BOTH ENDS
2BA-24	2BB-24	2BC-24	24"	
2BA-30	2BB-30	2BC-30	30"	
2BA-36	2BB-36	2BC-36	36"	
2BA-AL-18	2BB-AL-18	2BC-AL-18	18"	 NET 5.85 MODEL WITH ALLIGATOR CLIPS
2BA-AL-24	2BB-AL-24	2BC-AL-24	24"	
2BA-AL-30	2BB-AL-30	2BC-AL-30	30"	
2BA-AL-36	2BB-AL-36	2BC-AL-36	36"	
	2BB-BNC-18	2BC-BNC-18	18"	 NET 5.85 MODEL WITH UG 88C/U MALE BNC CONNECTOR
	2BB-BNC-24	2BC-BNC-24	24"	
	2BB-BNC-30	2BC-BNC-30	30"	
	2BB-BNC-36	2BC-BNC-36	36"	
2BA-PP-18	2BB-PP-18	2BC-PP-18	18"	 NET 7.50 MODEL WITH PHONE TIPS
2BA-PP-24	2BB-PP-24	2BC-PP-24	24"	
2BA-PP-30	2BB-PP-30	2BC-PP-30	30"	
2BA-PP-36	2BB-PP-36	2BC-PP-36	36"	
	2BB-UHF-18	2BC-UHF-18	18"	 NET 5.85 MODEL WITH MALE PLUG UHF CONNECTOR PL259
	2BB-UHF-24	2BC-UHF-24	24"	
	2BB-UHF-30	2BC-UHF-30	30"	
	2BB-UHF-36	2BC-UHF-36	36"	
2BA-MG-18	2BB-MG-18	2BC-MG-18	18"	 NET 5.85 MODEL WITH MINIGATOR CLIPS
2BA-MG-24	2BB-MG-24	2BC-MG-24	24"	
2BA-MG-30	2BB-MG-30	2BC-MG-30	30"	
2BA-MG-36	2BB-MG-36	2BC-MG-36	36"	

NOTE: 2BA and 2BB Series. Standard color, gray cable and molded double plug. 36" length available also as a standard item with colored cable and molded double plug to match: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray and White.

Other lengths also available in color, to order.

Minimum 25 pieces per color, per model, per length at no extra cost.

NOTE: 2BC Series, color black only, cable and molded double plug.

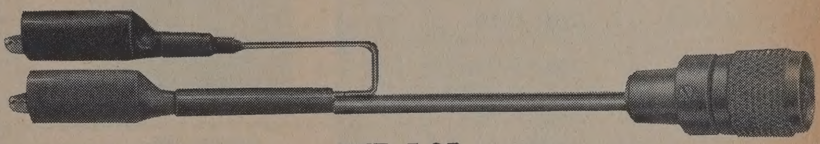
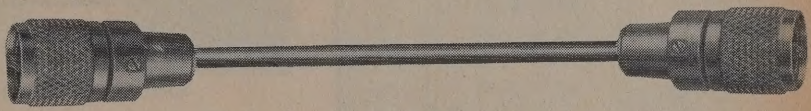
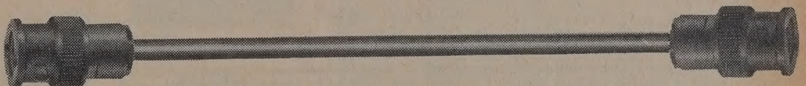
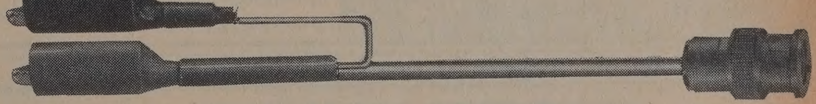
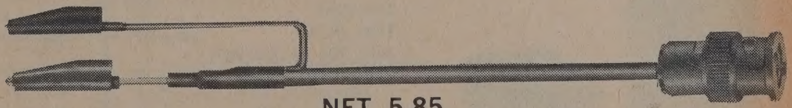
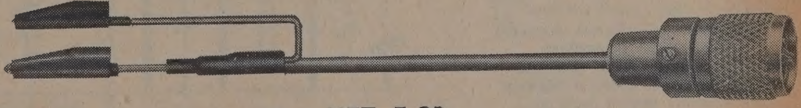
* Other lengths and cable types than those specified available upon request.

POMONA Electronics CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

CONNECTING LEADS

*NOTE: Lengths other than those specified available upon request. These models also available on special order in the following cable types: RG55A/U, RG59B/U, RG62A/U.

SHIELDED MICROPHONE CABLE Polyethylene insulation. Vinyl jacket. Nom. Capacity 25 mmf/ft.	SHIELDED COAXIAL CABLE Polyethylene insulation. Vinyl jacket. RG58C/U. Nom. Cap. 28.5 mmf/ft.	CABLE LGTHS. IN INCHES *	
MODEL NO.	MODEL NO.		
AL-B-UHF-18	AL-C-UHF-18	18″	 NET 5.85 ALLIGATOR CLIPS TO PL259 UHF CONNECTOR
AL-B-UHF-24	AL-C-UHF-24	24″	
AL-B-UHF-30	AL-C-UHF-30	30″	
AL-B-UHF-36	AL-C-UHF-36	36″	
UHF-B-18	UHF-C-18	18″	 NET 5.85 PL259 UHF MALE CONNECTOR BOTH ENDS
UHF-B-24	UHF-C-24	24″	
UHF-B-30	UHF-C-30	30″	
UHF-B-36	UHF-C-36	36″	
BNC-B-18	BNC-C-18	18″	 NET 5.85 UG88C/U MALE BNC CONNECTOR BOTH ENDS
BNC-B-24	BNC-C-24	24″	
BNC-B-30	BNC-C-30	30″	
BNC-B-36	BNC-C-36	36″	
AL-B-BNC-18	AL-C-BNC-18	18″	 NET 5.85 ALLIGATOR CLIPS TO UG88C/U MALE BNC CONNECTOR
AL-B-BNC-24	AL-C-BNC-24	24″	
AL-B-BNC-30	AL-C-BNC-30	30″	
AL-B-BNC-36	AL-C-BNC-36	36″	
MG-B-BNC-18	MG-C-BNC-18	18″	 NET 5.85 MINIGATOR CLIPS TO UG88C/U MALE BNC CONNECTOR
MG-B-BNC-24	MG-C-BNC-24	24″	
MG-B-BNC-30	MG-C-BNC-30	30″	
MG-B-BNC-36	MG-C-BNC-36	36″	
MG-B-UHF-18	MG-C-UHF-18	18″	 NET 5.85 MINIGATOR CLIPS TO MALE PLUG UHF PL259 CONNECTOR
MG-B-UHF-24	MG-C-UHF-24	24″	
MG-B-UHF-30	MG-C-UHF-30	30″	
MG-B-UHF-36	MG-C-UHF-36	36″	

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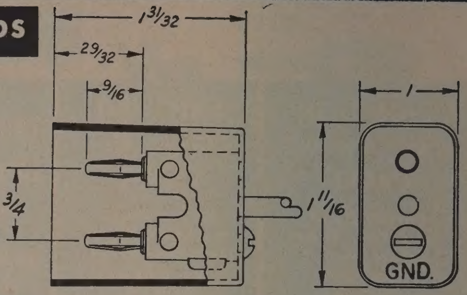
POMONA Electronics CO., INC., POMONA, CALIFORNIA

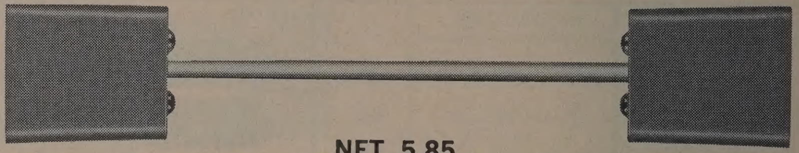
MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

¾" SHIELDED DOUBLE PLUG PATCH CORD & TEST LEADS

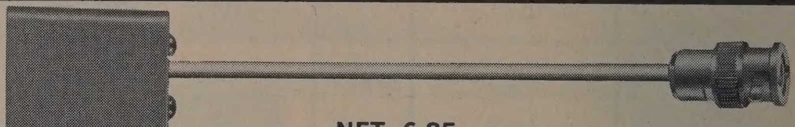


- Molded polyethylene plug body fully insulated
- GND. clearly molded in shell
- One piece, heat treated beryllium copper spring
- Solder bonded noise free connection
- Fits standard .166 diameter banana jacks
- Aluminum shell, black anodized

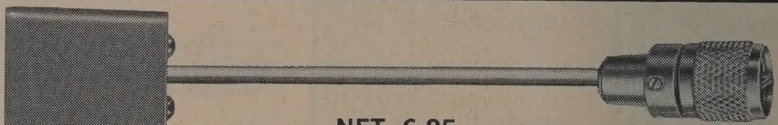
SHIELDED MICROPHONE CABLE Polyethylene insulation. Vinyl jacket. Nom. Capacity 25 mmf/ft. (Color: gray) MODEL NO.	**SHIELDED COAXIAL CABLE** Polyethylene insulation. Vinyl jacket.RG58C/U. Nom. Cap.28.5 mmf/ft. (Color: black) MODEL NO.	**CABLE LGTHS. IN INCHES** *
1550-B-18	1550-C-18	18"
1550-B-24	1550-C-24	24"
1550-B-30	1550-C-30	30"
1550-B-36	1550-C-36	36"
1555-B-18	1555-C-18	18"
1555-B-24	1555-C-24	24"
1555-B-30	1555-C-30	30"
1555-B-36	1555-C-36	36"
1556-B-18	1556-C-18	18"
1556-B-24	1556-C-24	24"
1556-B-30	1556-C-30	30"
1556-B-36	1556-C-36	36"
1551-B-18	1551-C-18	18"
1551-B-24	1551-C-24	24"
1551-B-30	1551-C-30	30"
1551-B-36	1551-C-36	36"



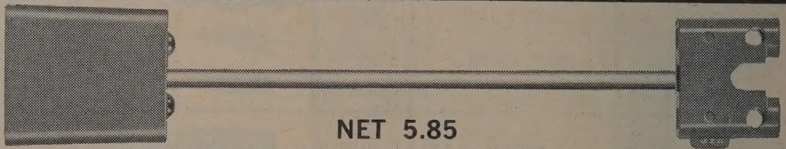
NET 5.85
SHIELDED DOUBLE PLUG BOTH ENDS



NET 6.85
SHIELDED DOUBLE PLUG TO MALE BNC UG88C/U



NET 6.85
SHIELDED DOUBLE PLUG TO MALE UHF PL259



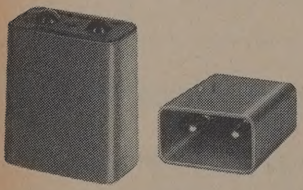
NET 5.85
SHIELDED DOUBLE PLUG TO EXTENSION CORD

*Lengths and cable types other than those shown available upon request.

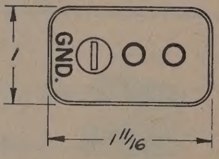
SHIELDED DOUBLE PLUG

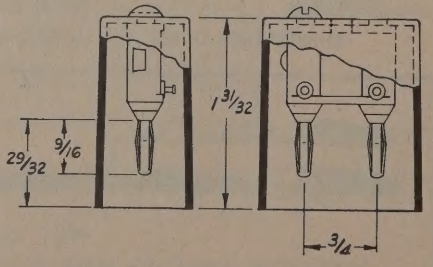
MODEL 1433

NET 2.25



RATED:
15A CONT.
1200 WVDC
3400 VDC BREAKDOWN
2.5 $\mu\mu$F @ 1 MC.

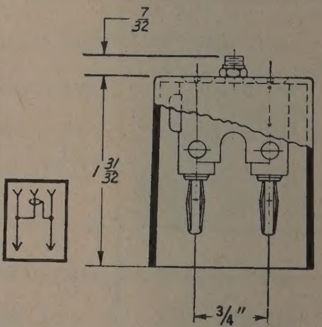




- Shielded double plug, ¾" spaced
- Aluminum shell, black anodized
- Gold flashed solder turret terminals for reliable cable connections
- One piece nickel plated beryllium copper spring for use with standard .166 diameter banana jacks
- GND. cearly molded in shell
- Cable hole 7/32" diameter

MICRODOT ADAPTER

WITH SHIELDED DOUBLE PLUG



MODEL 1575
NET 6.85

Shielded double plug; Microdot adapter. Adapts ¾" spaced jacks to Microdot coaxial miniature screw-on type plug, 50 Ohm. Color: Black.

Net

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MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

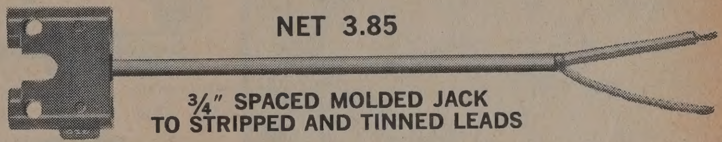
CONNECTING LEADS AND TEST ACCESSORIES

- **MODEL 1592** used as extension cord with ¾″ spaced jacks molded to cable.
- **MODEL 1547** patch cord, molded ¾″ double banana plug with .080 diam. x ½″ molded phone tips other end.
- **MODEL 1569** patch cord, molded ¾″ double banana plug with test prod and ground clip.

NOTE: Lengths and cable types other than those shown available upon request.

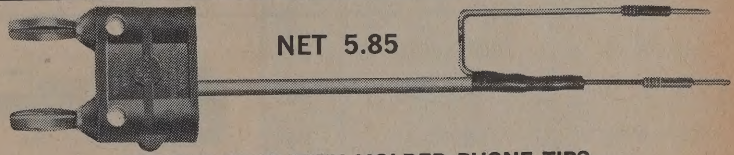
TWO COND. TWISTED PAIR 18 gauge wire 65/36 stranding. Vinyl insulation. Vinyl jacket. Nom. Capacity 30 mmf/ft. (Color: gray)	SHIELDED MICROPHONE CABLE Polyethylene insulation. Vinyl jacket. Nom. Capacity 25 mmf/ft. (Color: gray)	SHIELDED COAXIAL CABLE Polyethylene insulation. Vinyl jacket.RG58C/U. Nom. Cap.28.5 mmf/ft. (Color: black)
MODEL NO.	MODEL NO.	MODEL NO.
1592-A-48 CABLE LENGTH 48″	1592-B-48 CABLE LENGTH 48″	1592-C-48 CABLE LENGTH 48″
1547-A-24 CABLE LENGTH 24″ 1547-A-36 CABLE LENGTH 36″	1547-B-24 CABLE LENGTH 24″ 1547-B-36 CABLE LENGTH 36″	1547-C-24 CABLE LENGTH 24″ 1547-C-36 CABLE LENGTH 36″
1569-A-48 CABLE LENGTH 48″	1569-B-48 CABLE LENGTH 48″	

NET 3.85



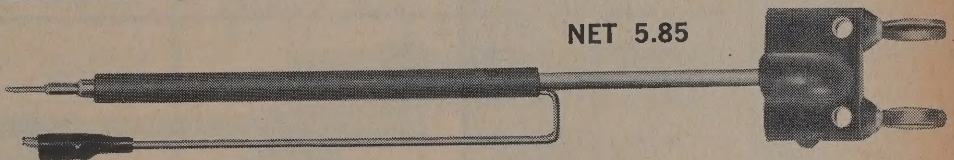
¾″ SPACED MOLDED JACK TO STRIPPED AND TINNED LEADS

NET 5.85



DOUBLE PLUG WITH MOLDED PHONE TIPS

NET 5.85



DOUBLE PLUG WITH TEST PROD AND MINIGATOR CLIP

INSULATED ALLIGATOR CLIPS BOTH ENDS

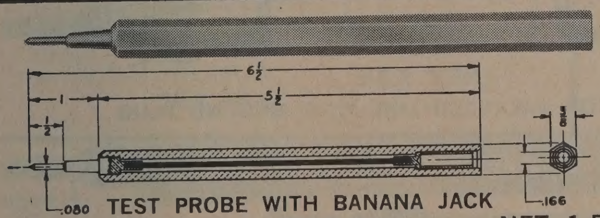
18 ga., 65 x 36, extra flexible PVC insulated wire. .140″ O.D. Clip, steel, cad plated. Colors: Red or Black; other colors and lengths available to order. NET .95

MODEL NO.	LENGTH
AL-B-4	4″
AL-B-12	12″
AL-B-24	24″
AL-B-36	36″

INSULATED MINIGATOR CLIPS BOTH ENDS

18 ga., 65 x 36, extra flexible PVC insulated wire. .140″ O.D. Clip, steel, cad plated. Colors: Red or Black; other colors and lengths available to order. NET .95

MODEL NO.	LENGTH
MG-B-4	4″
MG-B-12	12″
MG-B-24	24″
MG-B-36	36″



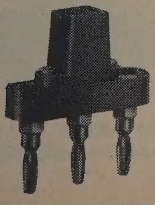
TEST PROBE WITH BANANA JACK

1589 Black • 1589-2 Red NET 1.50

.080 diam. tip. Nickel plated. Heavy duty insulated handle. Banana jack in handle connected to tip. Permits use of standard banana plugs for circuit testing as a test prod. Colors: Red or Black.

1705 Black* • 1705-2 Red* NET 1.75

*Similar to Model 1589 except with replaceable phone needle tip.



TRANSISTOR TEST ADAPTER

For Use with .017 Dia. Leads

MODEL 1472 NET 5.85

Banana Plugs on ¾″ spacing. Heavy duty molded phenolic construction. Socket contacts and Banana Springs of beryllium copper.

INSULATED BANANA JACK ASSEMBLY

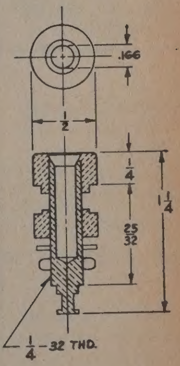
MODEL 1581

NET .25

Body, brass, silver plated. Heavy duty, shouldered ceramic insulator. Lockwasher and hex nut included.

Features:

- Insulator head molded to body
- Closed entry receptacle
- Mounts in ⅜″ diam. hole, panels up to ⅜″ thick.
- For use with standard banana plugs
- Solder turret terminal
- Rated, 2500 WVDC



1581 — Black
1581-1 — Brown
1581-2 — Red
1581-3 — Orange
1581-4 — Yellow
1581-5 — Green
1581-6 — Blue
1581-7 — Violet
1581-8 — Gray
1581-9 — White

© U.C.P., Inc.

Net

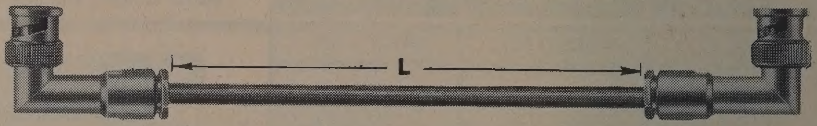
POMONA *Electronics* CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

PATCH CORDS & CONNECTING TEST LEADS

Designed to meet rigid industrial and military applications. Springs on Banana Plugs one piece beryllium copper, heat treated. Reliable solder-bonded connections.

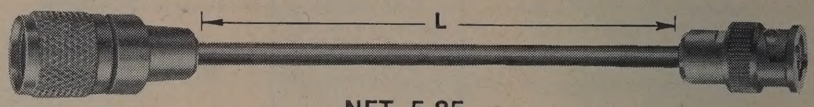
SHIELDED MICROPHONE CABLE Polyethylene insulation. Vinyl jacket. Nom. Capacity 25 mmf/ft. (Color: gray)	**COAXIAL SHIELDED CABLE** Polyethylene insulation. Vinyl jacket. RG58C/U. Nom. Cap. 28.5 mmf/ft. (Color: black)	**CABLE LGTHS. IN INCHES** *
MODEL NO.	MODEL NO.	
1155-B-18	1155-C-18	18″
1155-B-24	1155-C-24	24″
1155-B-30	1155-C-30	30″
1155-B-36	1155-C-36	36″



NET 10.85

UG913A/U ANGLE MALE BNC CONNECTOR BOTH ENDS

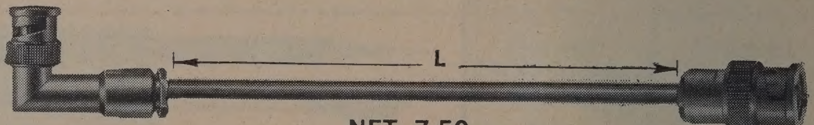
MODEL NO.	MODEL NO.	LGTHS.
1367-B-18	1367-C-18	18″
1367-B-24	1367-C-24	24″
1367-B-30	1367-C-30	30″
1367-B-36	1367-C-36	36″



NET 5.85

PL259 UHF MALE TO UG88C/U MALE BNC

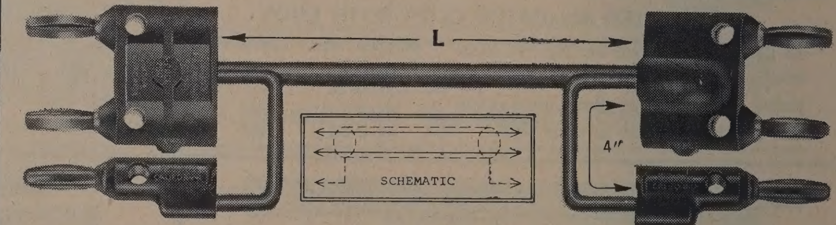
MODEL NO.	MODEL NO.	LGTHS.
1383-B-18	1383-C-18	18″
1383-B-24	1383-C-24	24″
1383-B-30	1383-C-30	30″
1383-B-36	1383-C-36	36″



NET 7.50

UG1913A/U ANGLE MALE BNC TO UG88C/U MALE BNC CONNECTOR

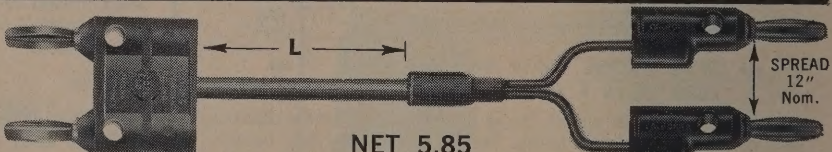
CABLE DESCRIPTION	MODEL NO.	LGTHS. IN IN.
2-conductor shielded microphone cable. Polyethylene insulation. Vinyl jacket. Nom. capacity between conductors 18 mmf/ft. Nom. capacity between 1 conductor and remaining conductor connected to shield, 32 mmf/ft. Color Gray.	1167-18 1167-24 1167-30 1167-36	18″ 24″ 30″ 36″



NET 7.85

2-CONDUCTOR BALANCED LINE WITH GROUND PLUG

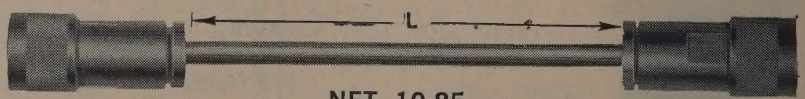
CABLE DESCRIPTION	MODEL NO.	LGTHS. IN IN.
Two Cond. Twisted pair-18 gauge wire 65/36 stranding. Vinyl jacket. Nom. Capacity 30mmf/ft. Color Gray.	1368-18 1368-24 1368-30 1368-36	18″ 24″ 30″ 36″



NET 5.85

¾″ SPACED MOLDED DOUBLE PLUG TO SINGLE BANANA PLUGS

CABLE DESCRIPTION	MODEL NO.	LGTHS. IN IN.
RG8A/U Coaxial Shielded Cable. Polyethylene insulation. Vinyl jacket. Nom. capacity 29.5 mmf/ft. Black.	1658-18 1658-24 1658-30 1658-36	18″ 24″ 30″ 36″



NET 10.85

SERIES "N" UG21B/U MALE CONNECTOR BOTH ENDS

* Lengths other than those specified, available upon request.

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POMONA *Electronics* CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

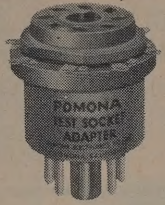
TEST SOCKET TUBE ADAPTERS

POMONA
TEST SOCKET ADAPTER

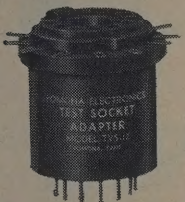
MODEL TVS-7
SEVEN PIN MINIATURE
NET 1.65 ea.

POMONA
TEST SOCKET ADAPTER

MODEL TVS-9
NINE PIN MINIATURE
NET 1.85


POMONA
TEST SOCKET ADAPTER

MODEL TVS-8
EIGHT PIN OCTAL
NET 1.75


POMONA ELECTRONICS
TEST SOCKET
ADAPTER
MODEL TVS-12

New

MODEL TVS-12
12 PIN COMPACTRON
NET 2.55

Heavy duty construction, molded Black Phenolic.

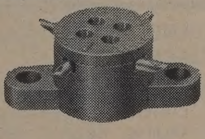
Pomona Test Socket Tube Adapters are ideal for making measurements of voltage, resistance, audio and video without tracing complicated circuits from the bottom of the chassis. They feature: Extended test tabs for easy use with either alligator clips or test prods; Low loss MICA-FILLED molded phenolic construction per MIL-M-14, MFE. Power factor less than 0.010 at 10 Mc; High insulation resistance, the I.R. exceeds 500,000 megohms at 40% R.H., at 24°C; Distributed capacity, inter-element approximately 1 micro-micro farad; High voltage operation, voltage breakdown elements exceeds 1700 volts AC or DC.

MODEL TVS—789 KIT, Set of Three. NET 5.25

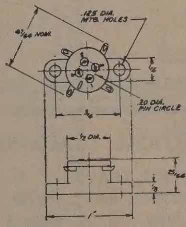
TRANSISTOR SOCKET

Pomona XS-T4, surface mounted socket, designed for JETEC 30 type transistor. Features include: closed-entry, silver plated, beryllium copper contacts; contact numbers and location tab molded into top of socket. Easily mounted with two #2 screws. All connections are made on top of chassis, making socket readily adaptable to enclosed-unit circuits. Socket is molded of low-loss mica-filled phenolic per MIL-M-14, type MFE.

NET .45 ea.



MODEL XS-T4


.125 DIA. MTG. HOLES
47/64 NOM.
1/16
.20 DIA. PIN CIRCLE
3/4
1/2 DIA.
25/64
1/8
1"

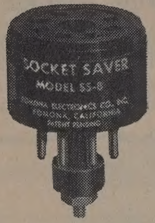
SOCKET SAVERS®

SOCKET SAVER
MODEL SS-7

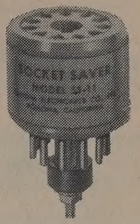
MODEL SS-7
SEVEN PIN MINIATURE
NET 1.75

SOCKET SAVER
MODEL SS-9

MODEL SS-9
NINE PIN MINIATURE
NET 1.75


SOCKET SAVER
MODEL SS-8
POMONA ELECTRONICS CO. INC.
POMONA, CALIFORNIA
PATENT PENDING

MODEL SS-8
EIGHT PIN OCTAL
NET 1.75


SOCKET SAVER
MODEL SS-11

MODEL SS-11
11 PIN OCTAL STYLE
NET 1.95

New

POMONA ELECTRONICS
SOCKET SAVER

MODEL SS-12
12 PIN COMPACTRON
NET 2.25

U.S. PAT. NO. 2952003

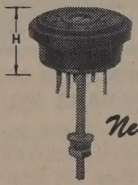
MODEL 1751, NINE PIN, NOVAR, NET 1.95 *New*

MODEL SS-789 KIT, Set of Three NET 5.25

The Socket Saver® is designed to be installed on tube checkers and other electronic equipment to prevent wear and tear of sockets on original equipment. They are easy to install and remove. This eliminates the necessity of replacing and rewiring sockets on original equipment. Built of quality materials. BERYLLIUM COPPER LONG LIFE CONTACTS to give maximum service.

MAXIMUM HEIGHT ABOVE EQUIPMENT... Models SS-7, SS-9, SS-8, SS-12 — 13/16", Model SS-11 — 1".

MINIATURIZED SOCKET SAVERS®



New

MODEL 1847
7 PIN MINIATURE
NET 1.95

New

MODEL 1849
9 PIN MINIATURE
NET 1.95

New

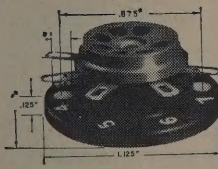
MODEL 1848
8 PIN OCTAL
NET 1.95

For use in applications where vertical height is restricted. Contact and pin made of one piece beryllium copper heat treated. Molded of black phenolic.

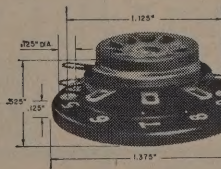
MODEL 1847 and 1849 max. height above equipment, .336 inches.
MODEL 1848, max. height above equipment, .687 inches.

SURFACE MOUNTED BREADBOARD SOCKETS

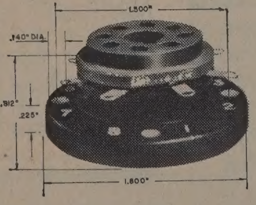
ideal for electronic and experimental use


.875"
.125"
1.125"

MODEL XS-7
SEVEN PIN MINIATURE
NET .49 ea.


1.125"
.125" DIA.
.525"
.125"
1.375"

MODEL XS-9
NINE PIN MINIATURE
NET .57 ea.


1.500"
.140" DIA.
.812"
.225"
1.800"

MODEL XS-8
EIGHT PIN OCTAL
NET .57 ea.

Surface Mounted Breadboard Sockets are used for experimental circuit design, portable and enclosed units, plug-in and packaged assemblies. They feature: An insulated base to prevent connections from shorting to chassis; Eliminates double chassis design; Circuits may be wired in an enclosed unit; The base connections are numbered for easy identification; Grade-A phosphor bronze spring contacts; Standard center to center mounting holes; For ease of installation the 7 and 9 Pin Miniatures may be mounted either in the center or on the sides, the 8 Pin Octal is mounted on the sides; Small mounting holes permit the re-use of experimental chassis.

© U.C.P., Inc.

PATCH-CORDS & STACK-UP CONNECTING LEADS

POMONA MOLDED PATCH-CORDS ARE QUALITY CONTROLLED FOR QUALITY TECHNICIANS

WIRE DESCRIPTION: MODEL HB & B STACK-UP PATCH-CORDS

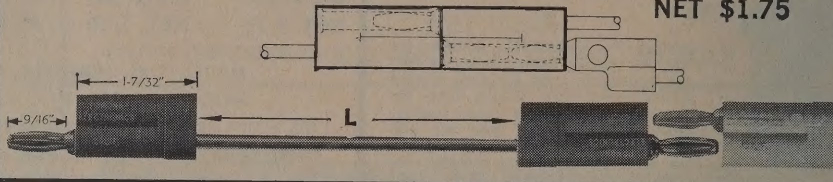
Polyvinyl extra flexible insulation on all wires. The insulating jacket molds the plug, solder connection and wire insulation into a long lasting single piece. Banana plugs are one piece heat treated beryllium copper spring. Contact resistance less than 0.001 ohm per plug in standard .166″ dia. banana jacks. Current carrying capacity, 15 amps. cont. and 30 amps. int. 18 ga. wire, stranding 65 x 36 T. C., with .140″ insulation O. D., 7500 WVDC, breakdown 15 KV. Reliable solder bonded connections withstand pull test in excess of 50 lbs.

MODEL NO.	LENGTH (L)
HB-4	4 inches
HB-8	8 inches
HB-12	12 inches
HB-18	18 inches
HB-24	24 inches
HB-36	36 inches
(specify color)*	

MODEL HB EXTENSION-STACKING PATCH-CORD

Dual purpose. Shields all hot leads when used as an extension cord. Endless extension couplings possible with any banana plug patch-cord. Also provides vertical stacking from any jack. Finest quality, materials and assembly. A two-in-one tool with countless applications. Available in 10 colors*

NET $1.75

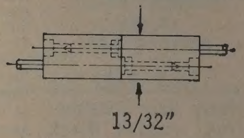


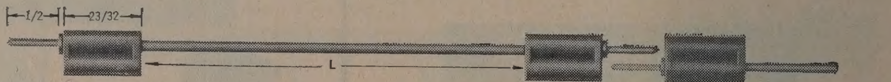
MODEL NO.	LENGTH (L)
1727-4	4 inches
1727-8	8 inches
1727-12	12 inches
1727-24	24 inches
1727-36	36 inches
(specify color)*	

MODEL 1727 EXTENSION OR STACK-UP PATCH-CORD .080 DIA. TIP.

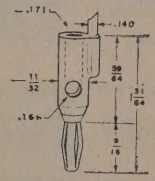
Dual purpose, insulates exposed leads when used as an extension cord. Endless extension couplings possible. Also provides vertical stacking from .080 jack. Beryllium copper heat treated receptacle, gold flashed. Wire, 20 A.W.G., OD .087 3 KV, strand 41 x 36 T.C. (10 Colors)*

NET 1.85





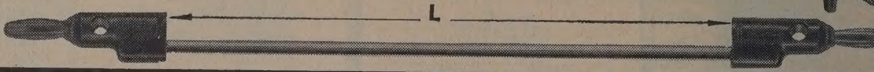
MODEL NO.	LENGTH (L)
B-4	4 inches
B-8	8 inches
B-12	12 inches
B-18	18 inches
B-24	24 inches
B-36	36 inches
(specify color)*	



MODEL B VERTICAL AND HORIZONTAL STACKING BANANA PLUG PATCH-CORD

Vertical and horizontal stacking connections greatly simplify circuit connections and changes. Preserves compactness while accommodating the most complex stacking. Helps to keep circuitry neater, thus more diagramatic. Stocked in 10 colors.*

NET $1.50

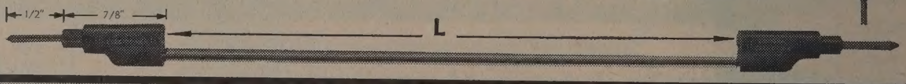


MODEL NO.	LENGTH (L)
P-4	4 inches
P-8	8 inches
P-12	12 inches
P-18	18 inches
P-24	24 inches
P-36	36 inches
(specify color)*	

MODEL P .080 PHONE TIP VERTICAL STACKING PATCH-CORD

A must item in most circuit designing and testing to utilize instruments with .080 jacks. Beryllium copper vertical stacking jacks. Finish, gold flash, .00002/.00003. Tip is .080 diameter and ½″ long. 20 ga. wire with .087″ O.D. extra flexible Polyvinyl insulation, WVDC 3 KV, stranding 41 x 36 T. C. 10 colors.*

NET $1.75



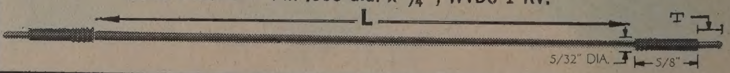
MODEL NO.			LENGTH (L)
PT063-4	PT080-4	PM080-4	4 inches
PT063-8	PT080-8	PM080-8	8 inches
PT063-12	PT080-12	PM080-12	12 inches
PT063-18	PT080-18	PM080-18	18 inches
PT063-24	PT080-24	PM080-24	24 inches
PT063-36	PT080-36	PM080-36	36 inches
	(specify color)*		

PT AND PM MODELS, PIN TYPE PATCH-CORD

Three models: .063 dia. pin with 7/16″ length and .080 pin in either ½″ or ¼″ Tip(T). 22 ga. wire, stranding 19 x 34 T. C., .064 O.D. Polyvinyl insulation. Finish gold flash over silver plating. 10 colors.*

Model PT063 — Pin .063 dia. x 7/16″, WVDC 1 KV.
Model PT080 — Pin .080 dia. x ½″, WVDC 1 KV.
Model PM080 — Pin .080 dia. x ¼″, WVDC 1 KV.

NET $.85



*Colors: Stocked in 10 colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.
Production of other lengths contingent upon quantities desired. Order by model, length (inches), and color, e.g., B-72, Red.

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POMONA Electronics CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

PATCH-CORDS & STACK-UP CONNECTING LEADS

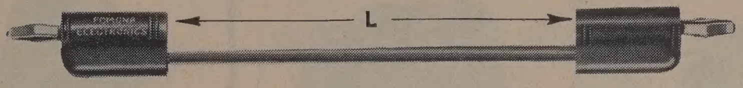
MODEL 1081 STACK-UP MINIATURE BANANA PLUG

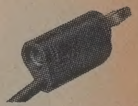
(Formerly Model M)

Fits all standard miniature banana jacks with .104 diam. Finish, gold flash. Beryllium copper one piece spring. Wire, Polyvinyl, extra flexible insulation. O.D., .087. 5KV RMS working voltage. 20 gauge. Stranding 41 x 36. Insulation on plug body molded to wire. Compact size. Extended height above jack, 35/64".

SPECIFY LENGTH AND COLOR. *

NET $1.50





MODEL NO.	LENGTH (L)
1081-4	4 inches
1081-8	8 inches
1081-12	12 inches
1081-24	24 inches
1081-36 (specify color) *	36 inches

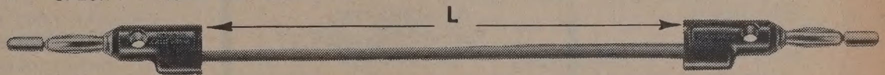
MODEL 1084 STACK-UP BANANA PLUG WITH EXTENDED TIP

(Formerly Model BE)

Spring, one piece beryllium copper, heat treated, nickel plated. Fits standard .166 diam. banana jack. Banana Plug, including extended tip is 7/8" long. Wire, polyvinyl extra flexible insulation. O.D., .140. 10KV RMS working voltage. 18 gauge. Stranding 65 x 36 T.C. Insulation on plug body molded to wire.

SPECIFY LENGTH AND COLOR. *

NET $2.35



MODEL NO.	LENGTH (L)
1084-4	4 inches
1084-8	8 inches
1084-12	12 inches
1084-24	24 inches
1084-36 (specify color) *	36 inches

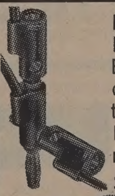
MODEL 1126 STACK-UP BANANA PLUG TO STACK-UP PHONE TIP

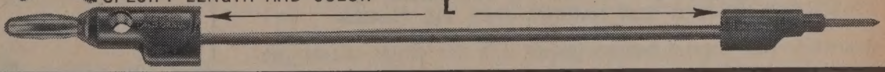
(Formerly Model B-P-P)

Banana Plug spring and .080 receptacle, each made of one piece beryllium copper, heat treated. Banana Plug, nickel plated. Phone tip and .080 receptacle, gold flash. Wire, polyvinyl extra flexible insulation. O.D., .087. 5KV RMS working voltage. 20 gauge. Stranding 41 x 36. Insulation on plug body molded to wire.

SPECIFY LENGTH AND COLOR *

NET $1.75





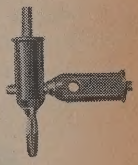
MODEL NO.	LENGTH (L)
1126-4	4 inches
1126-8	8 inches
1126-12	12 inches
1126-24	24 inches
1126-36 (specify color) *	36 inches

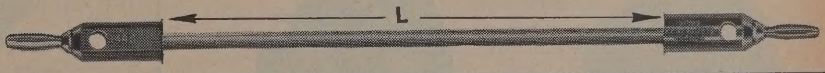
HORIZONTAL STACKING BANANA PLUG

Spring, one piece beryllium copper, heat treated, nickel plated. Fits standard .166 diam. banana jack. Wire, polyvinyl extra flexible insulation. O.D., .140. 10KV RMS working voltage. 18 gauge. Stranding 65 x 36 T.C. Insulation on plug body molded to wire.

SPECIFY LENGTH AND COLOR *

NET $1.00





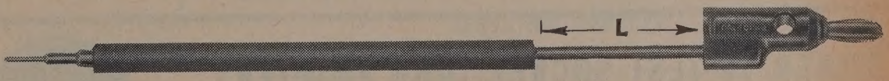
MODEL NO.	LENGTH (L)
1440-4	4 inches
1440-8	8 inches
1440-12	12 inches
1440-24	24 inches
1440-36 (specify color) *	36 inches

MOLDED TEST PROBE WITH STACK-UP BANANA PLUG

Insulation on test probe and banana plug molded to wire. Probe tip nickel plated; fits .080 diam. receptacle. Heavy duty insulation on handle. Banana plug, one piece beryllium copper heat treated spring; nickel plated. Wire, polyvinyl extra flexible insulation. O.D., .140. 10KV RMS working voltage. 18 gauge. Stranding 65 x 36 T.C.

SPECIFY COLOR. Available, Red or Black.

NET $1.95



MODEL NO.	LENGTH (L)
1382-48-R COLOR RED	48 inches
1382-48-B COLOR BLACK	48 inches

MOLDED TEST PROBE WITH STACK-UP .080 PHONE TIP

Insulation on test probe and phone tip, molded to wire. Probe tip, nickel plated, fits .080 diam. receptacle. Heavy duty insulation on handle. .080 phone tip receptacle, beryllium copper, heat treated. Phone tip and .080 receptacle, gold flashed. Wire, polyvinyl extra flexible insulation. O.D., .087. 5KV RMS working voltage. 20 gauge. Stranding 41 x 36.

SPECIFY COLOR. Available, Red or Black.

NET $1.95

MODEL NO.	LENGTH (L)
1663-48-R COLOR RED	48 inches
1663-48-B COLOR BLACK	48 inches

* Colors: Stocked in 10 colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.
Production of other lengths contingent upon quantities desired. Order by model, length (inches), and color, e.g., B-72, Red.

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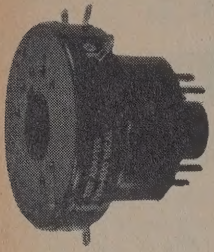
POMONA *Electronics* CO., INC., POMONA, CALIFORNIA

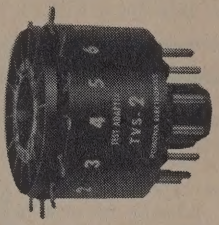
MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

TEST SOCKET CATHODE RAY TUBE ADAPTERS

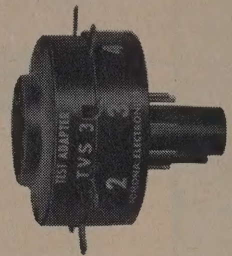
The POMONA Test Socket Adapters are ideal for making measurements of voltage, resistance, and video from the base of the picture tube. The test socket adapter is inserted between the CR Tube base and its socket. This completes the circuit and makes all connections readily accessible. Measurements can be made without tracing circuit wiring to test points below the chassis, thereby saving valuable time and increasing efficiency in trouble shooting.



MODEL TVS-1
DUO DECAL
For Television
picture tubes
NET 1.95 ea.


TEST ADAPTER
TVS-2
3
4
5
6

MODEL TVS-2
NEO-DIHEPTAL
For color Television
picture tubes
NET 7.45 ea.


TEST ADAPTER
TVS 3
POMONA ELECTRONICS
2
3
4

MODEL TVS-3
EIGHTAR (.040 PINS)
For 110° Television
picture tubes
NET 2.55 ea.

TEST ADAPTER
TVS 4

MODEL TVS-4
7 PIN (.093 PINS)
For 110° Television
picture tubes
NET 1.95 ea.

TUBE SOCKET CONVERSION ADAPTERS

**110° CRT SOCKET ADAPTER TO DUO DECAL BASE.
FOR TESTING NEW NARROW-NECK 110° TUBES.**

Modernize your present test equipment with this simple adapter, no rewiring necessary. Just plug in adapter to convert to 110° socket. Used for testing, ageing, and lifetesting. Model 110-S has .820 pin-circle diameter (7 pins. .093 diameter) similar to 17BVP4, etc. Model 110-R has .600 pin-circle diameter (.040 pins) similar to 17BZP4, etc.

Model 110-P is similar to Model 110-R except that it is wired to test 110° Semi-Flat S-F series 17DAP4/SF17, 21EAP4/SF21, etc.

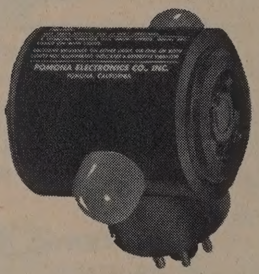
110-S
SOCKET
ADAPTER

MODEL 110-S
NET 1.55 ea.

110-R
SOCKET
ADAPTER

MODEL 110-P
MODEL 110-R
NET 1.55 ea.

VIBRATOR TEST ADAPTERS


POMONA ELECTRONICS CO. INC.
POMONA, CALIFORNIA

MODEL DA-34
3 OR 4 PRONG
6-12 VOLT
NET 4.95 ea.

FOR CHECKING ANY STANDARD 3 OR 4 PRONG VIBRATOR, 6 OR 12 VOLT

The Pomona Vibrator Test Adapter simplifies servicing of auto radios by eliminating the vibrator as a possible source of trouble. Features compact rugged phenolic construction. Instantly shows when contacts are sticking or open. Will indicate starting voltage. Eliminates all guesswork.

TUNER TV TEST SOCKET TUBE ADAPTERS

FOR USE WITH TUNERS HAVING CAPTIVE OR TELESCOPING TUBE SHIELDS

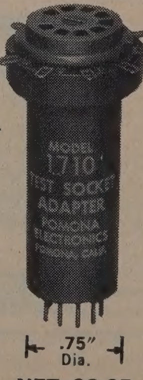
IT'S TALL • IT'S SLIM • IT FITS

- Extra height—exact fit—clears shields
- Ready access to socket connections
- Exposed operation saves time

A MUST for every modern TV Service Shop

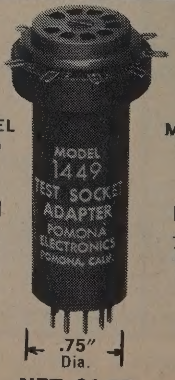
The 7, 9 or 10-HIGH adapter rises above the shields and places testing in the open. Shields or tuner covers do not have to be removed. All construction is the highest quality. Interelement distributed capacity is approximately 1.5 micro-micro farad. Voltage breakdown elements exceed 1800 V. AC or DC. The insulation resistance exceeds 5 x 10^5 megohms at 40% R.H. at 24°C.

MODEL 1710
10 HIGH
10 pin, Miniature


MODEL
1710
TEST SOCKET
ADAPTER
POMONA
ELECTRONICS
POMONA, CALIF.
.75"
Dia.

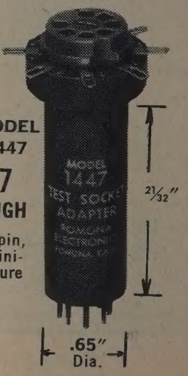
NET $2.25

MODEL 1449
9 HIGH
9 pin, Miniature


MODEL
1449
TEST SOCKET
ADAPTER
POMONA
ELECTRONICS
POMONA, CALIF.
.75"
Dia.

NET $1.95

MODEL 1447
7 HIGH
7 pin, Miniature


MODEL
1447
TEST SOCKET
ADAPTER
POMONA
ELECTRONICS
POMONA, CALIF.
2 1/32"
.65"
Dia.

NET $1.85

Net

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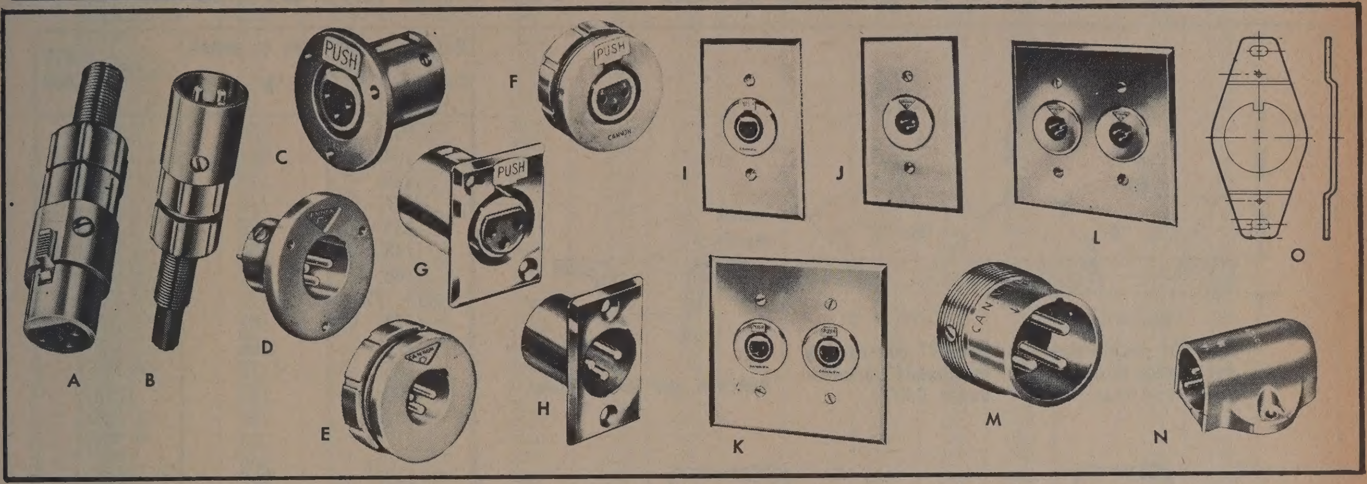
ROBINS® INDUSTRIES CORP., FLUSHING 56, N. Y. IS THE EXCLUSIVE DISTRIBUTOR FOR GENUINE

CANNON® PLUGS

CANNON ELECTRIC®

XL★ AUDIO AND ELECTRONIC CONNECTORS



STRAIGHT CORD PLUG

Cable relief spring entry. Zinc alloy shell, Phenolic insulator. Satin Nickel finish.

Fig. A SOCKET CONTACTS

#XL-3-11★	**3 contacts**	**List $1.90**	**#XL-4-11★**	**4 contacts**	**List $2.50**
#XL-3-11	3 contacts	...... ——	#XL-4-11	4 contacts	...... ——

Fig. B PIN CONTACTS

#XL-3-12★	**3 contacts**	**List 1.90**	**#XL-4-12★**	**4 contacts**	**List 2.50**
#XL-3-12	3 contacts	...... ——	#XL-4-12	4 contacts	...... ——

RECEPTACLE

Wall mount. Has mounting holes. Zinc alloy shell. Phenolic insulator. Satin Nickel finish.

Fig. C SOCKET CONTACTS — LATCH LOCK

#XL-3-13★	**3 contacts**	**List 1.90**	**#XL-4-13★**	**4 contacts**	**List 2.50**
#XL-3-13	3 contacts	...... ——	#XL-4-13	4 contacts	...... ——

Fig. D PIN CONTACTS

#XL-3-14★	**3 contacts**	**List 1.50**	**#XL-4-14★**	**4 contacts**	**List 2.10**
#XL-3-14	3 contacts	...... ——	#XL-4-14	4 contacts	...... ——

RECEPTACLE

Panel mount. The mounting nut accommodates 1/32" panel. Reversing the nut permits mounting on panels up to 5/16" thick. Zinc alloy shell. Satin Nickel finish.

Fig. E SOCKET CONTACTS — LATCH LOCK

#XL-3-13N★	**3 contacts**	**List 2.25**	#XL-3-13N	3 contacts	...... ——

Fig. F PIN CONTACTS

#XL-3-14N★	**3 contacts**	**List 2.25**	**#XL-4-14N★**	**4 contacts**	**List 2.90**
#XL-3-14N	3 contacts	...... ——	#XL-4-14N	4 contacts	...... ——

RECEPTACLE

Wall mount. Compact rectangular flange saves mounting space. Zinc alloy shell. Satin Nickel finish.

Fig. G SOCKET CONTACTS — LATCH LOCK

#XL-3-31★	**3 contacts**	**List 2.25**	**#XL-4-31★**	**4 contacts**	**List 3.10**
#XL-3-31	3 contacts	...... ——	#XL-4-31	4 contacts	...... ——

Fig. H PIN CONTACTS

#XL-3-32★	**3 contacts**	**List 1.75**	**#XL-4-32★**	**4 contacts**	**List 2.10**
#XL-3-32	3 contacts	...... ——	#XL-4-32	4 contacts	...... ——

★ALL XL PLUGS ARE SUPPLIED EITHER IN BULK PACKED FOR E.O.M. AND INDUSTRIAL USE (AVAILABLE THROUGH INDUSTRIAL DISTRIBUTORS) OR INDIVIDUALLY PACKAGED FOR REPLACEMENT USE (AVAILABLE FROM GENERAL LINE DISTRIBUTORS. ORDER XL-( ) ★ (STAR SUFFIX) FOR INDIVIDUAL PACKAGE FOR REPLACEMENT USE.

MANUFACTURED BY CANNON PLUGS (AUSTRALIA) PTY. LTD. ® "CANNON" IS A TRADEMARK REGISTERED IN THE U. S. PATENT OFFICE AND IN OTHER COUNTRIES BY CANNON ELECTRIC COMPANY.

SINGLE GANG RECEPTACLE

Wall mount, consists of XL-3-13N Socket Receptacle and mounting bracket XL-MB-1 assembled to wall plate.

Fig. I SOCKET CONTACTS

#XL-3-35★	**3 contacts**	**List 5.00**	#XL-3-35	3 contacts	...... ——

SINGLE GANG RECEPTACLE

Wall mount. Consists of XL-( )-14N Pin Receptacle and mounting bracket XL-MB-1 assembled to wall plate.

Fig. J PIN CONTACTS

#XL-3-36★	**3 contacts**	**List 5.00**	**#XL-4-36★**	**4 contacts**	**List 6.40**
#XL-3-36	3 contacts	...... ——	#XL-4-36	4 contacts	...... ——

TWO GANG RECEPTACLE

Wall mount, consists of 2 XL-3-13N Socket Receptacles and 2 mounting brackets XL-MB-1 assembled to double wall plate.

Fig. K SOCKET CONTACTS

#XL-3-35-2G★	**3 contacts**	**List 11.00**	#XL-3-35-2G	3 contacts	...... ——

TWO GANG RECEPTACLE

Wall mount, consists of 2 XL-( )-14N and 2 mounting brackets XL-MB-1 assembled to double wall plate.

Fig. L PIN CONTACTS

#XL-3-36-2G★	**3 contacts**	**List 11.00**	**#XL-4-36-2G★**	**4 contacts**	**List 12.00**
#XL-3-36-2G	3 contacts	...... ——	#XL-4-36-2G	4 contacts	...... ——

RECEPTACLE

Microphone or 90° mounting receptacle. Two mounting holes. Removeable insert for soldering, inspection, etc. Zinc alloy shell. Satin Nickel finish.

Fig. N PIN CONTACTS

#XL-3-42★	**3 contacts**	**List 2.20**	#XL-3-42	3 contacts	...... ——

ADAPTOR RECEPTACLE

Mounts directly in or on to microphone and other units or surfaces where they can be adequately supported. Threads to mate into unit of equipment. Satin Nickel finish.

Fig. M PIN CONTACTS

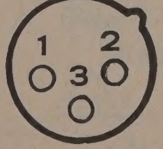
#XL-3-50T★	**3 contacts**	**List 2.80**	#XL-3-50T	3 contacts	...... ——

MOUNTING BRACKET

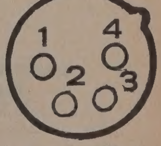
XL-( )-13N and XL-( )-14N Receptacles can be installed in the floor or at other convenient locations using this bracket for mounting receptacles in a Russel and Stoll Box No. 2503 and other boxes.

Fig. O	**#XL-MB-1★**	**List 1.00**	#XL-MB-1	.... ——

INSERT ARRANGEMENT



Front view of pins.



XL-3 . . . 3-15 amp contacts #14 B & S stranded wire.

XL-4 . . . 4-10 amp contacts #16 B & S stranded wire.

INTERCHANGEABLE WITH AND MATE WITH CANNON XLR CONNECTOR

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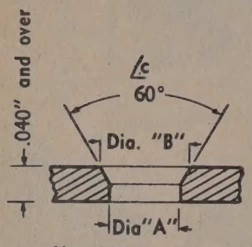
Sealectro PRESS-FIT® TEFLON† TERMINALS

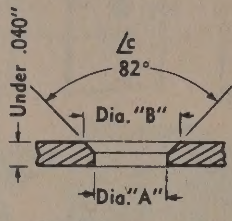
†Reg. Trademark, E. I. Du Pont de Nemours & Co.

INSTALLATION PROCEDURE

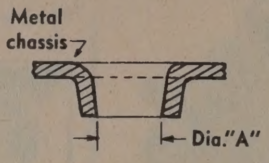
FEED-THRU AND STAND-OFF



Use 60° countersink for chassis thickness .040" and over.

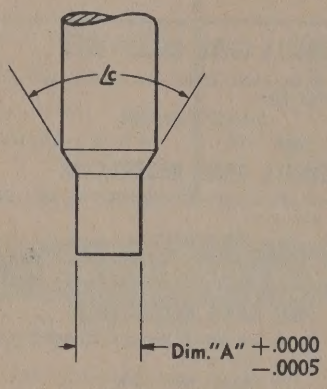


Use 82° countersink for chassis thickness under .040".

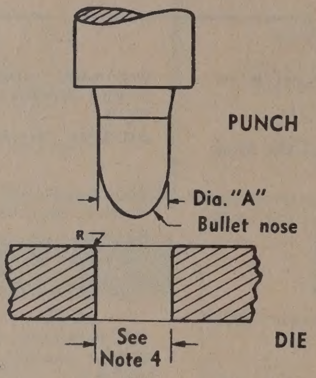


Punched and Drawn Hole

Bushing minor diameter +.002 −.000	Hole or punch Dia. "A" ±.002	Dia. "B" +.010 −.000
.093	.086	.110
.104	.091	.115
.125	.113	.135
.127	.114	.140
.135	.122	.145
.148	.136	.160
.165	.152	.175
.171-.172	.158	.175
.175	.162	.195
.179	.166	.185
.185	.172	.195
.200	.187	.210
.204	.191	.235
.215	.203	.235
.217-.218	.205	.235
.234	.221	.240
.263	.250	.280
.266	.253	.280



PUNCH AND COUNTERSINK DETAIL



DRAW PUNCH AND DIE DETAIL

NOTES

1. Teflon should protrude .040" min. below chassis.
2. Clearance between punch and die should be held to normal shop tolerances governed by material and thickness and type.
3. Predrawn hole size is governed by material type and thickness.
4. Die diameter is punch diameter plus double the metal thickness, tolerances being consistent with normal shop practice.

INSTALLATION PROCEDURE

Simplest, fastest, most economical terminal installation known, with practically no restriction as to chassis material and thickness.

Inexpensive insertion tool available from Sealectro, facilitates installation. Tool fits any drillpress (power off) or hand arbor press, to hold given PRESS-FIT Terminal. Centered over chassis hole, and with applied pressure, the PRESS-FIT Terminal slips into the hole for a rigid permanent, trouble-free installation. Just PRESS-FIT — that's it! In four easy steps:

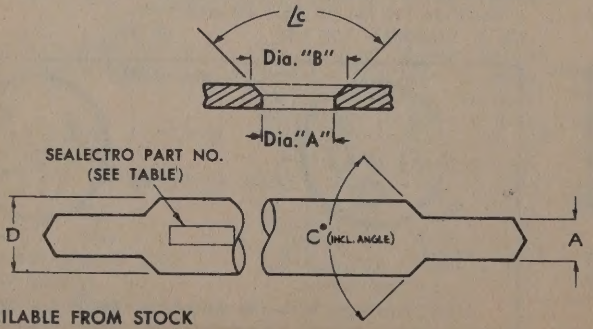
(1) PUNCH OR DRILL HOLE . . .
.013"±.002" less than diameter of terminal section (dia. "G" in tables) passing through chassis. Minimum protrusion of bushing passing through chassis, .040". Maximum thickness of chassis .125"; for greater thickness, ask for our recomcomendations. Countersink from breakout or die side of chassis (not from punch side).

(2) COUNTERSINK ENTRANCE EDGE . . .
Use 60° countersink when chassis thickness is .040" and over; use 82° countersink when chassis thickness is less than .040". This enables centering of terminal in hole and prevents scoring the Teflon bushing. Depth and maximum diameter of countersink is determined by thickness of chassis stock and bushing's major diameter.

(3) INSERTION TOOL . . .
Insertion tool is placed in chuck of drillpress (power off) or hand arbor press. Terminal is held by tool, leaving assembler's hands free to index and center chassis hole underneath tool. Proper pressure is applied and released just as soon as major diameter of terminal seats itself.

(4) PERMANENT INSTALLATION . . .
PRESS-FIT Terminal is now permanently secured in place.

DRILL AND COUNTERSINK IN 1 OPERATION



AVAILABLE FROM STOCK

SEALECTRO PART NO.	DIMENSION			
	A	B*	C°	D
086 - 115 - 60	.086	.115	60	.187
112 - 140 - 60	.112	.140	60	.187
136 - 160 - 60	.136	.160	60	.187
136 - 160 - 82	.136	.160	82	.187
152 - 175 - 60	.152	.175	60	.187
158 - 175 - 60	.158	.175	60	.187
172 - 195 - 60	.172	.195	60	.250

Note: B* is recommended diameter of countersink +.010 −.000

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STANDS-OFFS MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACI-TANCE mmf	V,RMS 60 CPS		A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	K	K_1
				NOMINAL RATING	FLASHOVER SEA LEVEL												
1	ST-SM-3C1-L6	B3-10	0.35	750	2500	.213	.093			.031	.089	.040		.125	.093		
1	ST-SM-7	B3-1	0.30	1000	3000	.262	.147			.040	.075	.040		.125	.093		
1	ST-SM-7LT	B3-1	0.40	1000	3000	.299	.174			.040	.085	.040		.125	.093		
1	ST-SM-16	B3-1	0.60	1000	3000	.350	.210			.040	.100	.040		.125	.093		
1	ST-SM-3C1-L4	B3-4	0.50	750	2500	.250	.130			.031	.089	.040		.125	.104		
1	ST-SM-1	B-8	0.45	1000	3000	.350	.210			.040	.100	.040		.172	.148		
1	*ST-SM-1C2	B-8	0.50	1000	3000	.410	.210			.040	.160	.040		.172	.148		
1	ST-SM-1C6	B-8	0.50	1000	3000	.500	.210			.040	.250	.040		.172	.148		
1	ST-SM-1L2	B-8	0.40	1000	3000	.265	.125			.040	.100	.040		.172	.148		
1	ST-SM-1L2-C2	B-8	0.40	1000	3000	.280	.125			.040	.115	.040		.172	.148		
1	ST-SM-1L4	B-8	0.35	1000	3000	.250	.110			.040	.100	.040		.172	.148		
1	ST-SM-1L6	B-8	0.40	1000	3000	.285	.145			.040	.100	.040		.172	.148		
1	ST-SM-1L6-C2	B-8	0.30	1000	3000	.260	.145			.040	.075	.040		.172	.148		
1	ST-SM-1L8	B-8	0.50	1000	3000	.750	.610			.040	.100	.040		.172	.148		
1	ST-SM-1L10	B-8	0.50	1000	3000	.594	.450			.040	.100	.040		.172	.148		
1	ST-SM-1L12	B-8	0.40	1000	3000	.460	.320			.040	.100	.040		.172	.148		
1	ST-SM-2	B-8	0.35	1000	3000	.310	.210			.050	.050	.040		.172	.148		
1	ST-SM-2C2	B-8	0.50	1000	3000	.335	.210			.050	.075	.040		.172	.148		
1	ST-SM-2C2-L2	B-8	0.20	1000	3000	.230	.105			.050	.075	.040		.172	.148		
1	ST-SM-2C4	B-8	0.40	1000	3000	.370	.210			.050	.110	.040		.172	.148		
1	ST-SM-2C6	B-8	0.40	1000	3000	.305	.145			.050	.110	.040		.172	.148		
1	ST-SM-2C6-C2	B-8	0.30	1000	3000	.247	.147			.050	.050	.040		.172	.148		
1	**ST-SM-2L2	B-8	0.35	1000	3000	.250	.150			.030	.070	.040		.172	.148		
1	ST-SM-2L4	B8-G1	0.30	1000	3000	.210	.120			.030	.060	.040		.172	.148		
1	ST-SM-500	B8-18A	0.40	1000	3000	.360	.204			.046	.110	.046		.172	.148		
1	ST-SM-6	B-8	0.40	1200	3500	.345	.210			.060	.075	.040		.172	.148		
1	ST-SM-8	B-8	0.45	1000	3000	.370	.210			.040	.120	.040		.172	.148		
1	ST-SM-15	B-8	0.35	1500	4000	.350	.210			.078	.062	.040		.172	.148		
1	ST-SM-19	B-8	0.45	1000	3000	.365	.193			.040	.132	.040		.172	.148		
1	ST-SM-3	B-15	0.45	1000	3000	.350	.210			.040	.100	.040		.195	.172		
1	ST-SM-4	B-16	0.35	1200	3500	.350	.210			.040	.100	.040		.200	.179		
1	ST-SM-5	B-22	0.35	1200	3500	.350	.210			.040	.100	.040		.250	.218		
2	ST-SM-1SL	B8-16	0.40	1000	3000	.265	.125			.040	.100	.040		.172	.148	.010	.010
3	ST-MM-10-TUR	B3-2C	0.40	1000	3000	.310	.170	.020	.060	.040	.100	.030	.060	.125	.093		
3	ST-SM-16-TUR	B3-2B	0.60	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.125	.093		
3	ST-SM-027-TUR	B8-A	0.60	1000	3000	.480	.250	.020	.093	.040	.190	.040	.093	.172	.130		
3	ST-SM-1 TUR	B-8	0.40	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.172	.148		
3	ST-SM-1 TUR-C2	B-8	0.50	1000	3000	.375	.210	.020	.100	.040	.125	.040	.080	.172	.148		
3	ST-SM-TUR-C4	B-8	0.40	1000	3000	.360	.210	.020	.100	.040	.110	.040	.080	.172	.148		
3	ST-SM-19 TUR-C2	B-8	0.55	1000	3000	.500	.210	.020	.100	.040	.250	.040	.080	.172	.148		
3	ST-SM-22 TUR	B-8	0.50	1700	4500	.428	.210	.020	.100	.093	.125	.040	.080	.172	.148		
3	ST-SM-22 TUR-C2	B-8	0.30	1700	4500	.461	.210	.020	.100	.093	.158	.040	.080	.172	.148		
3	*ST-SM-25 TUR	B8-A	0.50	1000	3000	.334	.154	.020	.046	.040	.140	.046	.093	.172	.148		
3	ST-SM-25 TUR-C2	B8-A	0.35	1000	3000	.254	.154	.020	.046	.040	.060	.046	.093	.172	.148		
3	*ST-SM-29 TUR	B8-A	0.50	1000	3000	.455	.250	.020	.093	.040	.165	.040	.093	.172	.148		
3	ST-SM-29 TUR-C2	B8-A	0.60	1000	3000	.540	.250	.020	.093	.040	.250	.040	.093	.172	.148		
3	ST-SM-29 TUR-L2	B8-A	0.50	1000	3000	.470	.250	.020	.093	.040	.180	.040	.093	.172	.148		
3	ST-SM-51-TUR-C2	B8-A	0.45	1400	3800	.346	.156	.020	.047	.040	.150	.047	.093	.172	.152		
3	ST-SM-51-TUR-C4	B8-A	0.40	1000	3000	.296	.156	.020	.047	.040	.100	.047	.093	.172	.152		
3	ST-SM-51-TUR-C6	B8-A	0.50	1000	3000	.361	.156	.020	.047	.040	.165	.047	.093	.172	.152		
3	ST-SM-51-TUR-L2	B8-A	0.40	1000	3000	.335	.207	.020	.100	.040	.088	.047	.093	.172	.152		
3	ST-SM-52-TUR	B8-A	0.30	1000	3000	.347	.207	.020	.100	.040	.100	.047	.093	.172	.152		
3	ST-SM-4 TUR	B-16	0.35	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.200	.179		
3	ST-SM-20 TUR	B-18	0.40	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.218	.185		
3	ST-SM-21 TUR	B-18	0.40	1000	3000	.375	.210	.020	.100	.040	.125	.040	.080	.218	.185		
3	ST-SM-23 TUR	B-22	0.40	1200	3500	.350	.210	.020	.100	.040	.100	.040	.080	.250	.204		
4	ST-SM-50-TUR	B-8	0.30	1000	3000	.262	.125	.020	.085	.050	.087	.040	.080	.172	.148		
4	ST-SM-352-TUR	B-8	0.30	1000	3000	.250	.110	.020	.080	.040	.100	.040	.080	.172	.148		
4	ST-SM-36 TUR	B-16	0.35	1500	4000	.320	.120	.020	.080	.075	.125	.048	.090	.200	.172		
5	ST-SM-40 TUR	B-9	0.40	1000	3000	.392	.232	.029	.031	.050	.110	.070	.109	.172	.148		
5	ST-SM-45 TUR	B8-13B	0.40	1000	3000	.362	.232	.029	.031	.050	.080	.070	.109	.172	.148		
6	ST-SM-47 TUR	B-8	0.30	1000	3000	.328	.210	.020	.120	.040	.078	.040	.080	.172	.148		
6	ST-SM-47 TUR-C2	B-8	0.40	1000	3000	.350	.210	.020	.120	.040	.100	.040	.080	.172	.148		
6	ST-SM-47 TUR-C4	B-8	0.50	1000	3000	.415	.210	.020	.120	.040	.165	.040	.080	.172	.148		
6	ST-SM-47-TUR-C6	B-8	0.50	1000	3000	.428	.210	.020	.120	.093	.125	.040	.080	.172	.148		
7	ST-SM-42 TUR	B3-2A	0.40	1000	3000	.334	.153	.015	.031	.041	.140	.068	.078	.125	.093		
7	ST-SM-44 TUR	B-2	0.40	1000	3000	.255	.150	.015	.031	.030	.075	.068	.078	.125	.093		

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick (*Silver—**Gold Flash over Silver)
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

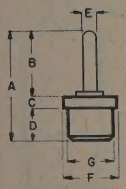

Fig. 1

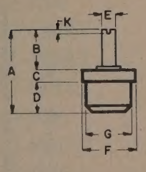

Fig. 2

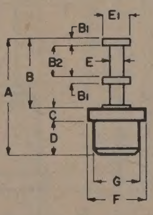

Fig. 3

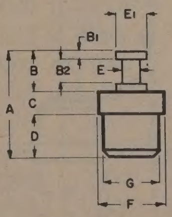

Fig. 4

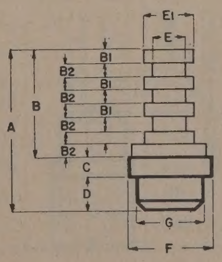

Fig. 5

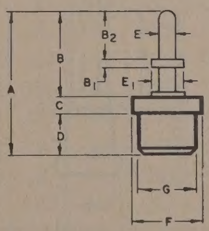

Fig. 6

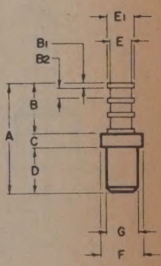

Fig. 7

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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STAND-OFFS MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS		A	B	B_1	B_2	C	D	E	E_1	F	+.002 −.000 G	K	K_1
				NOMINAL RATING	FLASHOVER SEA LEVEL							DIA.	DIA.	DIA.	DIA.		
51	RST-SM-3-C1	B-3-B	0.40	1000	3000	.250	.130			.031	.089	.040		.125	**.093**		
51	RST-SM-16	B-3-2X	0.40	1000	3000	.350	.210			.040	.100	.040		.125	**.093**		
51	RST-SM-3	B-3-B	0.30	1000	3000	.250	.130			.031	.089	.040		.125	**.104**		
51	RST-SM-3-C3	B-3-B	0.30	1000	3000	.250	.130			.031	.089	.040		.125	**.106**		
51	RST-SM-11C1	B8-G	0.45	1500	4000	.350	.210			.020	.120	.040		.172	**.112**		
51	RST-SM-39-C1	B-8-M	0.35	1000	3000	.350	.210			.015	.125	.040		.172	**.112**		
51	RST-SM-13	B6-X1	0.50	500	2000	.310	.210			.040	.060	.040		.150	**.125**		
51	RST-SM-1	B8-X1	0.40	1200	3500	.350	.210			.040	.100	.040		.172	**.148**		
51	RST-SM-1B2	B8-G	0.40	1200	3500	.330	.210			.020	.100	.040		.172	**.148**		
51	RST-SM-1-CB	B8-X1	0.30	1000	3000	.330	.210			.046	.074	.040		.170	**.148**		
51	RST-SM-1C6	B8-X1	0.40	2000	5000	.500	.210			.040	.250	.040		.172	**.148**		
51	RST-SM-1L2	B8-X1	0.50	1200	3500	.265	.125			.040	.100	.040		.172	**.148**		
51	RST-SM-1L8	B8-X1	0.50	1200	3500	.750	.610			.040	.100	.040		.172	**.148**		
51	RST-SM-2	B8-X2	0.40	1000	3000	.310	.210			.050	.050	.040		.172	**.148**		
51	RST-SM-6	B8-X	0.35	1200	3500	.345	.210			.060	.075	.040		.172	**.148**		
51	RST-SM-7C2	B8-X1	0.30	1200	3500	.382	.210			.040	.132	.045		.172	**.148**		
51	** RST-SM-11	B8-G	0.30	1200	3500	.350	.210			.020	.120	.040		.172	**.148**		
51	RST-SM-28	B8-X1	0.35	1500	4000	.390	.218			.040	.132	.040		.172	**.148**		
51	RST-SM-39	B-8-M	0.30	1200	3500	.350	.210			.015	.125	.040		.172	**.148**		
51	RST-SM-3CD3	B-15-X	0.45	1000	3000	.500	.360			.040	.100	.040		.195	**.172**		
52	RST-SM-3SL	B3-2X	0.50	500	2000	.350	.210			.040	.100	.080		.125	**.104**	.036	.180
52	RST-SM-41SL	B6-C	0.30	750	2500	.150	.062			.025	.063	.050		.150	**.125**	.020	.047
53	RST-SM-47-TUR	B8-X-1	0.40	1000	3000	.328	.210	.020	.120	.040	.078	.040	.080	.172	**.148**		
53	RST-SM-47-TUR-C2	B8-X-1	0.40	1200	3500	.350	.210	.020	.120	.040	.100	.040	.080	.172	**.148**		
54	RST-MM-10-TUR	B1-2	0.40	500	2000	.310	.170	.020	.060	.040	.100	.030	.060	.125	**.093**		
54	RST-SM-25-TUR-C4	B8-X-1	0.40	1500	4000	.295	.156	.020	.046	.040	.100	.046	.093	.172	**.148**		
54	RST-SM-38-TUR	B10	0.40	1500	4000	.405	.210	.020	.100	.040	.155	.040	.080	.188	**.171**		
54	RST-SM-1-TUR	B8-X-1	0.40	1200	3500	.350	.210	.020	.100	.040	.100	.040	.080	.172	**.148**		
54	RST-SM-4-TUR	B16	0.40	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.200	**.179**		
54	RST-SM-20-TUR	B18	0.40	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.218	**.185**		
54	RST-SM-21-TUR	B18	0.30	1700	4500	.375	.210	.020	.100	.040	.125	.040	.080	.218	**.185**		
54	RST-SM-23-TUR	B22-X-2	0.30	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.250	**.204**		
55	RST-SM-31-TUR	B8-X-1	0.50	1700	4500	.455	.227	.020	.187	.040	.187	.040	.080	.172	**.148**		
55	RST-SM-31-TUR-CD1	B8-3	0.35	1500	4000	.382	.227	.020	.187	.025	.130	.040	.080	.172	**.148**		
55	RST-SM-31-TUR-L2	B8-X-1	0.40	1200	3500	.296	.156	.020	.116	.040	.100	.046	.093	.172	**.148**		
55	RST-SM-352-TUR	B8-X-1	0.40	1200	3500	.250	.110	.020	.080	.040	.100	.040	.080	.172	**.148**		
55	RST-SM-350-TUR	B10	0.20	1500	4000	.320	.125	.020	.080	.040	.155	.040	.080	.188	**.171**		
55	RST-SM-36-TUR	B16	0.30	1500	4000	.320	.120	.020	.080	.075	.125	.048	.090	.200	**.172**		

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003″ Minimum Thickness.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.

**Gold flash over silver.

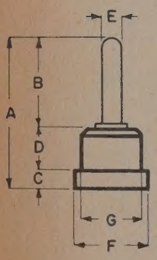

Fig. 51

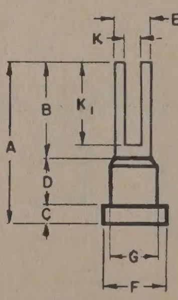

Fig. 52

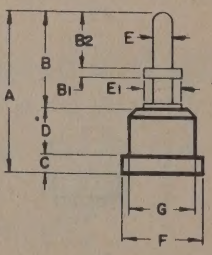

Fig. 53

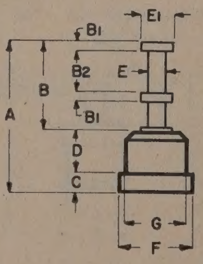

Fig. 54

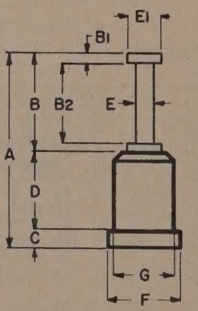

Fig. 55

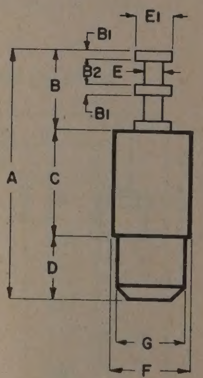

Fig. 101

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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STAND-OFFS MINIATURE

FIG. #	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS		A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.
				NOMINAL RATING	FLASHOVER SEA LEVEL										
101	ST-210	B3-A	0.50	1500	4000	.346	.156	.020	.046	.103	.087	.046	.093	.125	.104
101	ST-211	B3-A	0.50	1500	4000	.346	.156	.020	.046	.103	.087	.046	.093	.125	.104
101	ST-215	B3-A	0.50	1500	4000	.359	.156	.020	.046	.103	.100	.046	.093	.125	.104
101	ST-1200	B6-10	0.20	3000	7000	.531	.156	.020	.046	.219	.156	.046	.093	.156	127
101	ST-1400L2	B12-3	0.30	2800	7500	.647	.250	.020	.093	.250	.150	.040	.093	.187	.135
101	ST-230L2	B9-3	0.50	2500	6000	.482	.250	.020	.094	.125	.110	.040	.093	.172	.148
101	ST-1175L2	B9-3	0.30	3200	7500	.598	.250	.020	.093	.187	.165	.040	.093	.172	.148
101	ST-250	B12	0.30	2500	6000	.431	.156	.020	.046	.125	.150	.046	.093	.187	.165
101	ST-250L2	B12	0.50	2500	6000	.522	.250	.020	.093	.125	.150	.040	.093	.187	.165
101	ST-250L3	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.046	.125	.187	.165
101	ST-250L6	B12	0.50	2500	6000	.485	.210	.020	.100	.125	.150	.040	.093	.187	.165
101	ST-260L3	B13	0.60	3000	7000	.556	.281	.031	.093	.175	.100	.046	.125	.187	.165
101	ST-1000	B13	0.20	2800	6700	.493	.156	.020	.046	.187	.150	.046	.093	.187	.165
101	ST-1000L2	B13	0.30	2800	6700	.584	.250	.020	.093	.187	.150	.040	.093	.187	.165
101	ST-1000L3	B13-3B	0.65	2500	6000	.616	.281	.031	.093	.187	.150	.046	.125	.187	.165
101	ST-1000-2C	B13	0.30	2800	6700	.468	.156	.020	.046	.187	.125	.046	.093	.187	.165
101	ST-1450L3	B13-3B	0.55	3000	7000	.681	.281	.031	.093	.200	.200	.046	.125	.187	.165
101	ST-1500	B12-3	0.20	3100	7300	.556	.156	.020	.046	.250	.150	.046	.093	.187	.165
101	ST-1500L2	B12-3	0.30	3100	7300	.647	.250	.020	.093	.250	.150	.040	.093	.187	.165
101	ST-1500L3	B13	0.35	3100	7300	.681	.281	.031	.093	.250	.150	.046	.125	.187	.165
101	ST-1525	B12-3	0.25	3000	7000	.706	.156	.020	.046	.250	.300	.046	.093	.187	.165
101	ST-1900	B13-4	0.20	3500	8000	.831	.281	.031	.093	.350	.200	.046	.125	.187	.165
101	ST-1901	B12	0.25	3500	8000	.893	.343	.031	.125	.350	.200	.047	.125	.187	.165
101	ST-2000	B13-3B	0.25	4500	10000	.831	.281	.031	.093	.400	.150	.046	.125	.187	.165
101	ST-2000L2	B12-3	0.20	4500	10000	.797	.250	.020	.093	.400	.150	.040	.093	.187	.165
101	ST-2000L2-C2	B12-3	0.20	4500	10000	.797	.250	.020	.093	.400	.100	.040	.093	.187	.165
101	ST-2000L3	B12-3	0.15	4500	10000	.706	.156	.020	.046	.400	.150	.046	.093	.187	.165
101	ST-2000L3-C2	B12-3	0.20	4500	10000	.656	.156	.020	.046	.400	.100	.046	.093	.187	.165
101	ST-250C1	B12	0.30	2500	6000	.431	.156	.020	.046	.125	.150	.046	.093	.187	.171
101	ST-250L3-C1	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.046	.125	.187	.171
101	ST-250L4	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.062	.125	.187	.171
101	ST-250L4-C2	B12	0.65	2000	5000	.621	.281	.031	.093	.125	.215	.062	.125	.187	.171
101	ST-250L5	B12	0.50	2500	6000	.485	.210	.020	.100	.125	.150	.040	.080	.218	.171
101	ST-251C1	B12	0.35	2500	6000	.485	.210	.020	.100	.125	.150	.040	.080	.187	.171
101	ST-1000C1	B13	0.20	2800	6700	.493	.156	.020	.046	.187	.150	.046	.093	.187	.171
101	ST-1000L2-C1	B13	0.35	2800	6700	.584	.250	.020	.093	.187	.150	.040	.093	.187	.171
101	ST-1500C1	B12-3	0.25	3100	7300	.556	.156	.020	.046	.250	.150	.046	.093	.187	.171
101	ST-1500L3-C1	B13	0.40	3100	7300	.681	.281	.031	.093	.250	.150	.046	.125	.187	.171
101	ST-1500L4-C1	B12-3	0.15	3200	7500	.610	.210	.020	.100	.250	.150	.040	.080	.187	.171
101	ST-1501C1	B13	0.20	3100	7300	.593	.156	.020	.046	.250	.187	.046	.093	.187	.171
101	ST-1525C1	B12-3	0.20	3000	7000	.706	.156	.020	.046	.250	.300	.046	.093	.187	.171
101	ST-2000C1	B13-3B	0.25	4500	10000	.831	.281	.031	.093	.400	.150	.046	.125	.187	.171
101	ST-2000C4	B13-3B	0.40	3000	7000	.831	.281	.031	.093	.250	.300	.046	.125	.187	.171
101	ST-2500C1	B26	0.20	5500	12000	.968	.281	.031	.093	.500	.187	.046	.125	.250	.171
101	ST-4000C1	B26	0.25	6000	13000	1.268	.281	.031	.093	.800	.187	.046	.125	.250	.171
101	ST-941	B19-A	0.60	2500	6000	.546	.281	.031	.093	.125	.140	.046	.125	.218	.185
101	ST-1510L3	B24-1	0.40	3000	7000	.718	.281	.031	.093	.250	.187	.046	.125	.250	.215
101	ST-2500	B26	0.20	5500	12000	.968	.281	.031	.093	.500	.187	.046	.125	.250	.215
101	ST-2500B2	B24-1	0.30	4000	9000	.968	.281	.031	.093	.370	.317	.046	.125	.250	.215
101	ST-2500L2	B26	0.20	5200	11500	.934	.250	.020	.093	.500	.187	.040	.093	.250	.215
101	ST-2500L3	B26	0.20	5200	11500	.843	.156	.020	.046	.500	.187	.046	.093	.250	.215
101	ST-4000	B26	0.30	6000	13000	1.268	.281	.031	.093	.800	.187	.046	.125	.250	.215
101	ST-4000L2	B26	0.25	6000	13000	1.234	.250	.020	.093	.800	.187	.040	.093	.250	.215
101	ST-4000L3	B26	0.15	6000	13000	1.143	.156	.020	.046	.800	.187	.046	.093	.250	.215

Terminal Lugs: Brass, Silver Plate .0003″ Min. Thick.

Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.

See preceding page for figure drawing

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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STAND-OFFS MINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACI-TANCE mmf	V,RMS 60 CPS NOM-INAL RAT. ING	V,RMS 60 CPS FLASH OVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	K	K_1
102	**ST-1150**	B12	0.60	2500	6000	.555	.218	.020	.046	.187	.150	.046	.093	.187	**.171**			
103	**ST-1500TUR**	B12-3	0.20	2700	6500	.520	.120	.020		.250	.150	.048	.090	.187	**.165**			
103	**ST-1600-TUR**	B13-3B	0.20	2000	6000	.519	.120	.020		.187	.212	.048	.090	.187	**.171**			
104	**ST-251***	B13-3	0.45	2000	5000	.485	.210			.125	.150	.040		.187	**.165**			
104	**ST-1020L5***	B13-3	0.40	2200	5500	.547	.210			.187	.150	.040		.187	**.165**			
104	**ST-1181***	B13	0.70	2200	5500	.718	.312			.187	.218	.040		.187	**.165**			
104	**ST-1182***	B16-1	0.55	2500	5500	.600	.300			.125	.175	.062		.200	**.180**			
105	**ST-1500SL-C3**	B11	0.50	2700	6500	.603	.203			.250	.150	.148		.187	**.165**	.078		.156
105	**ST-250SL**	B11	0.70	2000	5000	.478	.203			.125	.150	.148		.187	**.171**	.078		.156
105	**ST-250SL-1L**	B11	0.70	2000	5000	.478	.203			.125	.150	.148		.187	**.171**	.046		.161
105	**ST-1000SL**	B11	0.70	2300	5600	.540	.203			.187	.150	.148		.187	**.171**	.078		.156
105	**ST-1000SL-1L**	B11	0.70	2300	5600	.540	.203			.187	.150	.148		.187	**.171**	.046		.161
105	**ST-1150SL-1L**	B11	0.50	2300	5600	.555	.203			.187	.165	.148		.187	**.171**	.046		.156
105	**ST-1180SL**	B11	0.70	2300	5600	.602	.203			.187	.212	.148		.187	**.171**	.078		.156
105	**ST-1180SL-C2**	B11	0.80	2300	5600	.620	.203			.187	.230	.148		.187	**.171**	.078		.156
105	**ST-1500SL**	B11	0.45	2700	6500	.603	.203			.250	.150	.148		.187	**.171**	.078		.156
105	**ST-1500SL-1L**	B11	0.45	2700	6500	.603	.203			.250	.150	.148		.187	**.171**	.046		.156
105	**ST-2000SL**	B11	0.30	4200	9500	.753	.203			.400	.150	.148		.187	**.171**	.078		.156
105	**ST-2000SL-1L**	B11	0.30	4200	9500	.753	.203			.400	.150	.148		.187	**.171**	.046		.161
105	**ST-2000SL-C2**	B11	0.30	4200	9500	.703	.203			.400	.100	.148		.187	**.171**	.078		.156
105	**ST-2500SL-C1**	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	**.171**	.078		.156
105	**ST-4000SL-C1**	B25	0.25	6000	13000	1.190	.203			.800	.187	.148		.250	**.171**	.078		.156
105	**ST-2500SL**	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	**.217**	.078		.156
105	**ST-2500SL-1L**	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	**.217**	.046		.161
105	**ST-4000SL**	B25	0.20	6000	13000	1.190	.203			.800	.187	.148		.250	**.217**	.078		.156
105	**ST-4000SL-1L**	B25	0.25	6000	13000	1.190	.203			.800	.187	.148		.250	**.217**	.046		.161
106	**ST-35ML**	B11-C	0.85	2000	5000	.633	.296			.187	.150	.150		.187	**.171**		.090	.234
151	**RST-1**	B18-1B	0.40	3000	7000	.487	.154	.020	.046	.046	.287	.046	.093	.218	**†.185**			
151	**RST-1L2**	B18-1B	0.20	3000	7000	.583	.250	.020	.093	.046	.287	.046	.093	.218	**†.185**			
152	**RST-2**	B18	0.15	3200	7500	.543	.210			.046	.287	.040		.218	**.185**			
152	**RST-2C2**	B18-1B	0.50	4000	9000	.756	.210			.046	.500	.040		.218	**.185**			
152	**RST-2L2**	B18	0.70	2500	6000	1.133	.800			.046	.333	.040		.218	**.185**			
153	**RST-1150**	B13-X	0.70	1200	3500	.555	.218	.020	.046	.187	.150	.046	.093	.187	**.171**			
154	**RST-15ML**	B13-X-2	0.75	2000	5000	.629	.296			.093	.240	.150		.187	**.171**		.090	.234
155	**RST-250SL**	B12-X	0.75	1900	4800	.478	.203			.125	.150	.148		.187	**.165**	.078		.156
201	**DST-SM-110***	B8-16	0.20	1000	3000	.560	.180			.040	.160	.040		.172	**.148**			
201	**DST-SM-110-L4***	B8-11	0.15	1500	4000	.600	.155			.080	.210	.040		.172	**.148**			
201	**DST-1010-C2***	B13-3-1	0.20	2700	6400	.819	.210			.187	.212	.040		.187	**.148**			
201	**DST-1010-C4***	B9	0.20	2700	6400	.819	.210			.187	.212	.040		.172	**.148**			
201	**DST-SM-105***	B17	0.25	1000	3000	.640	.210			.050	.170	.040		.205	**.169**			
201	**DST-900***	B12	0.15	2000	5000	.572	.110			.140	.212	.040		.187	**.171**			
201	**DST-900-L2**	B12	0.20	2000	5000	.696	.172			.140	.212	.040		.187	**.171**			
201	**DST-1010***	B13-3-1	0.20	2700	6500	.819	.210			.187	.212	.040		.187	**.171**			
201	**DST-1010-L1***	B13	0.20	1500	4000	.587	.125			.187	.150	.040		.187	**.171**			
202	**DST-1001***	B13	0.20	2000	6000	.819	.210	.020	.120	.187	.212	.040	.080	.187	**.171**			
203	**DST-1000-C2***	B13	0.20	2000	5000	.819	.210	.020	.100	.187	.212	.040	.080	.187	**.148**			
203	**DST-SM-105-TUR***	B17	0.20	1000	3000	.640	.210	.020	.100	.050	.170	.040	.080	.205	**.169**			
203	**DST-1000***	B13	0.20	2500	6000	.819	.210	.020	.100	.187	.212	.040	.080	.187	**.171**			
203	**DST-1015***	B20	0.20	2700	6500	.819	.210	.020	.100	.187	.212	.040	.080	.218	**.187**			
203	**DST-1550**	B24-1	0.40	3500	8000	1.187	.281	.031	.093	.250	.375	.046	.125	.250	**.218**			
203	**DST-2550**	B26	0.35	5000	11000	1.687	.281	.031	.093	.500	.625	.046	.125	.250	**.218**			
203	**DST-4050**	B26	0.30	6000	13000	2.287	.281	.031	.093	.800	.925	.046	.125	.250	**.218**			
204	**DST-2560**	B28	0.15	4000	9000	1.377	.176			.500	.525	.085		.312	**.217**	.062	.156	
205	**DTS-SM-101SL***	B10-3	0.20	1000	3000	.480	.140			.040	.160	.060	.093	.185	**.165**		.032	.110
205	**DST-SM-100SL***	B17	0.20	1000	3000	.480	.140			.040	.160	.060	.093	.205	**.169**		.032	.110

Terminal Lug: Brass, Silver Plate .0003″ Min. Thick.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.

*Solder Finish (40 to 70% Tin Content) Electro-Plate .0003″ Min. Thick.

Fig. 102

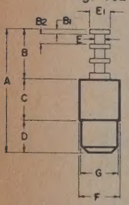


Fig. 103

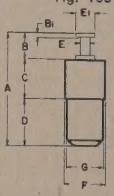


Fig. 104

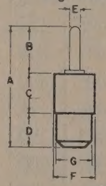


Fig. 105

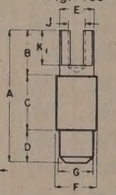


Fig. 106

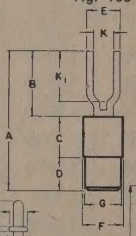


Fig. 151

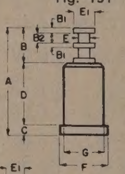


Fig. 152

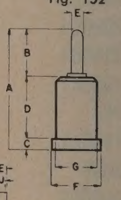
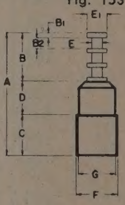


Fig. 153



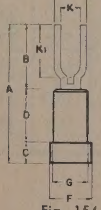


Fig. 154

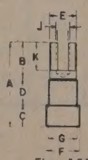


Fig. 155

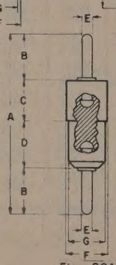


Fig. 201

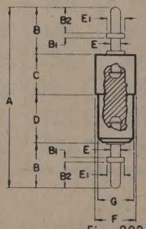


Fig. 202

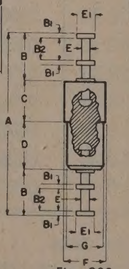


Fig. 203

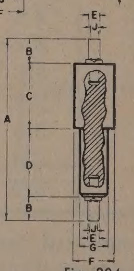


Fig. 204

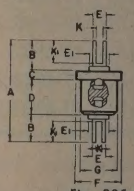


Fig. 205

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS NOMINAL RATING	60 CPS FLASH-OVER SEA LEVEL	A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J	K	K_1
301	FT-MM-3SL	BO-1	0.65	400	1800	.510	.100			.040	.090	.030	.060	.093	**.075**		.024	.080
301	FT-MM-3SL-2L	BO-1-A	0.75	400	1800	.635	.225			.040	.090	.030	.060	.093	**.075**		.024	.075
301	FT-MM-3SL-4L	BO-1	0.65	400	1800	.471	.110			.040	.090	.030	.060	.093	**.075**		.024	.080
302	FT-MM-5-TUR	BO	0.70	400	1800	.510	.100	.020	.060	.040	.100	.040	.060	.093	**.075**			
303	FT-MM-5SL	BO-1	0.70	400	1800	.510	.100			.040	.100	.030	.060	.093	**.075**		.024	.080
303	FT-MM-6SL	BO-1	0.70	400	1800	.552	.100			.040	.100	.030	.060	.093	**.075**		.024	.080
304	FT-MM-7	BO-1	0.70	400	1800	.588	.125			.040	.100	.030	.060	.093	**.075**	.040		.080
305	FT-MM-7ML	BO-1	0.70	400	1800	.588	.120			.040	.100	.030	.060	.093	**.075**	.040		.080
306	FT-MM-16L2	BO-2	0.70	400	1800	.550	.275			.040	.100	.030		.093	**.075**			
307	FT-MM-47-TUR	BO-A	1.05	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	**.075**			
307	FT-MM-47-TUR-BC*	BO-A	1.10	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	**.075**			
307	FT-MM-47-TUR-SS#	BO-A	1.00	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	**.075**			
307	FT-MM-48-TUR-BC*	BO-5	0.70	500	2000	1.700	.210	.020	.100	.090	.125	.032	.060	.093	**.075**			
351	FT-SM-7	B3-1	0.50	500	2000	.375	.147			.040	.075	.040		.125	**.093**			
351	FT-SM-16	B3-1	0.75	500	2000	.515	.210			.040	.100	.040		.125	**.093**			
351	FT-SM-16L2	B3-1	0.65	500	2000	.453	.156			.040	.100	.040		.125	**.093**			
351	†FT-SM-16L6	B3-1	0.80	500	2000	.987	.687			.040	.100	.040		.125	**.093**			
351	†FT-SM-16L14	B3-1	0.80	500	2000	.438	.125			.040	.100	.040		.125	**.093**			
351	FT-SM-13	B6	0.50	750	2500	.515	.210			.040	.060	.040		.150	**.125**			
351	FT-SM-23	B6	0.45	750	2500	.335	.125			.040	.060	.040		.150	**.125**			
351	FT-SM-23L2	B6	0.60	750	2500	.375	.125			.040	.100	.040		.150	**.125**			
351	FT-SM-022	B8-A	0.65	1000	3000	.630	.210			.040	.170	.040		.172	**.148**			
351	FT-SM-023	B8	0.65	1000	3000	.630	.210			.040	.217	.040		.172	**.148**			
351	FT-SM-1	B8-16	0.50	1000	3000	.515	.210			.040	.100	.040		.172	**.148**			
351	FT-SM-1C6	B8-A	0.70	1000	3000	.710	.210			.040	.250	.040		.172	**.148**			
351	FT-SM-1L2	B8-16	0.50	1000	3000	.443	.210			.040	.100	.040		.172	**.148**			
351	FT-SM-1L3	B8-16	0.70	1000	3000	.725	.210			.040	.100	.040		.172	**.148**			
351	FT-SM-1L4	B8-16	0.70	1000	3000	1.000	.210			.040	.100	.040		.172	**.148**			
351	FT-SM-1L6	B8-16	0.55	1000	3000	.562	.210			.040	.100	.040		.172	**.148**			
351	FT-SM-2	B8-18	0.40	1000	3000	.515	.210			.050	.050	.040		.172	**.148**			
351	FT-SM-2C4	B8-18	0.50	1200	3500	.535	.210			.050	.110	.040		.172	**.148**			
351	FT-SM-2C4-L2	B8-13	0.50	1200	3500	.431	.106			.050	.110	.040		.172	**.148**			
351	FT-SM-2C6	B8-18	0.50	1200	3500	.410	.147			.050	.110	.040		.172	**.148**			
351	FT-SM-8	B8-16	0.60	1000	3000	.535	.210			.040	.120	.040		.172	**.148**			
351	FT-SM-9	B8-16	0.50	1000	3000	.535	.210			.040	.132	.040		.172	**.148**			
351	FT-SM-9L1	B8-16	0.55	1000	3000	.515	.210			.040	.132	.040		.172	**.148**			
351	FT-SM-9L2	B8-16	0.50	1000	3000	.407	.125			.040	.132	.040		.172	**.148**			
351	†FT-SM-14**	B8'16	0.50	1000	3000	.375	.125			.040	.100	.040		.172	**.148**			
351	†FT-SM-14L2**	B8-16	0.50	1000	3000	.325	.075			.040	.100	.040		.172	**.148**			
351	FT-SM-18	B8-16	0.55	1000	3000	.443	.093			.040	.100	.040		.172	**.148**			
351	FT-SM-19	B8-16	0.60	1000	3000	.535	.210			.040	.160	.040		.172	**.148**			
351	FT-SM-19L1	B8-16	0.60	1000	3000	.571	.210			.040	.160	.040		.172	**.148**			
351	FT-SM-35	B8	0.70	1200	3500	.890	.625			.040	.100	.045		.172	**.148**			
351	FT-SM-35L2	B8	0.60	1000	3000	.585	.320			.040	.100	.045		.172	**.148**			
351	FT-SM-1C1	B8-16	0.55	1000	3000	.515	.210			.040	.100	.040		.172	**.157**			
351	FT-SM-10	B18	1.10	1000	3000	2.500	.460			.040	.100	.040		.219	**.169**			
351	FT-SM-10L1	B18	1.30	1000	3000	2.500	.460			.040	.100	.049		.219	**.169**			
351	FT-SM-10L2	B18	1.00	1000	3000	1.875	.125			.040	.100	.049		.218	**.169**			
351	FT-SM-10L4	B18	0.65	1000	3000	.937	.125			.040	.100	.049		.218	**.169**			
351	FT-SM-10L6	B18-E	0.85	1000	3000	1.250	.125			.040	.100	.049		.218	**.169**			
351	FT-SM-27L2	B18-1	0.70	1000	3000	1.090	.680			.050	.110	.040		.218	**.171**			
351	FT-SM-3	B15	0.50	1200	3500	.515	.210			.040	.100	.040		.195	**.172**			
351	FT-SM-3L2	B15	0.55	1200	3500	.560	.210			.040	.100	.040		.195	**.172**			
351	FT-SM-4	B16	0.50	1200	3500	.515	.210			.040	.100	.040		.200	**.179**			
351	FT-SM-5	B22	0.50	1200	3500	.515	.210			.040	.100	.040		.250	**.218**			

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003″ Minimum Thick
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.
* Beryllium Copper
# Stainless Steel

**Gold Flash over Silver
† E Diameter ±.001

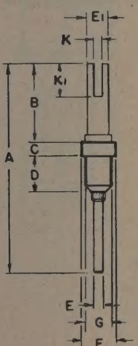

Fig. 301

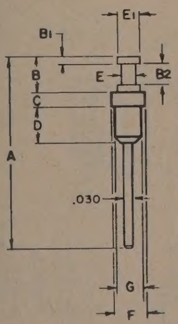

Fig. 302

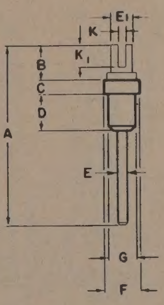

Fig. 303

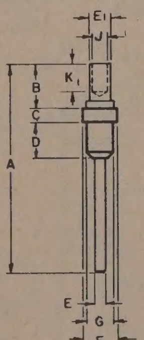

Fig. 304

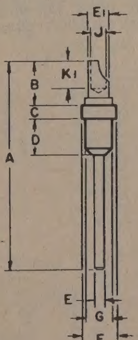

Fig. 305

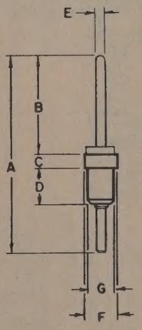

Fig. 306

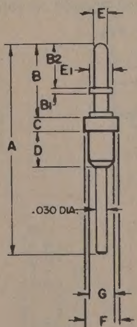

Fig. 307

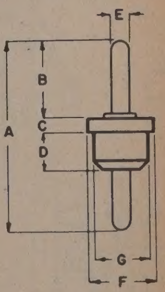

Fig. 351

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS 60 CPS		A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	K	K_1
				NOMINAL RATING	FLASHOVER SEA LEVEL												
352	FT-SM-024		—	—	—	.515	.210			.140		.040		.148			
352	FT-SM-17		—	—	—	.375	.200			.140		.040		.180			
353	FT-SM-80	B9-X	0.70	1700	4500	.531	.031			.156	.218	.050		.172	.148		
353	FT-SM-81	B9-X1	0.70	1000	3000	.281	.031			.040	.100	.040		.172	.148		
354	FT-SM-125	B3-1	0.50	500	2000	.306	.078			.040	.075	.040	.050	.125	.093		
354	FT-SM-021	B18	0.40	1200	3500	.449	.250			.046	.060	.051	.060	.218	.185		
355	FT-SM-706	B3-5	0.40	500	2000	.218	.031			.040	.060	.030	.040	.125	.093		
356	FT-SM-400	B18-H	1.00	1000	3000	.561	.053		.718	.040	.125	.040	.060	.218	.185		
356	FT-SM-400L2	B18-H	1.10	1000	3000	.718	.210		1.031	.040	.125	.040	.060	.218	.185		
356	FT-SM-400L4	B18-H	1.30	1000	3000	.998	.490		1.343	.040	.125	.040	.060	.218	.185		
357	FT-M-9L4	B10-2	0.80	1000	3000	.593	.250			.062	.140	.050		.187	.148		
357	FT-SM-9L6	B8-15-2	0.60	1000	3000	.479	.250			.040	.070	.050		.172	.148		
358	FT-SM-1SL	B3-1	0.60	500	2000	.312	.116			.040	.100	.040		.125	.106	.010	.020
358	FT-SM-100SL	B17	0.65	1500	4000	.480	.140			.040	.160	.060		.205	.169	.032	.110
359	FT-SM-1SL-1	B3-1	0.50	500	2000	.312	.116			.040	.100	.040		.125	.106	.010	.020
360	FT-SM-16-TUR	B-3-2B	0.70	500	2000	.500	.210	.020	.100	.040	.100	.040	.080	.125	.093		
360	FT-SM-1TUR-C6	B8	0.70	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.116		
360	FT-SM-028TUR	B8	0.60	1000	3000	.550	.245	.020	.070	.040	.125	.040	.080	.172	.148		
360	FT-SM-029TUR	B8	0.50	1000	3000	.812	.210	.020	.100	.040	.165	.040	.080	.172	.148		
360	FT-SM-1TUR	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148		
360	FT-SM-1TUR-C4	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.165	.040	.080	.172	.148		
360	FT-SM-1-TUR-C10	B8	0.40	1000	3000	.438	.210	.020	.100	.040	.083	.040	.080	.172	.148		
360	FT-SM-1-TUR-L2	B8	0.50	1000	3000	.438	.210	.020	.100	.040	.100	.040	.080	.172	.148		
360	FT-SM-1-TUR-L6	B8	0.70	1000	3000	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148		
360	FT-SM-22-TUR-C2	B9	0.70	1200	3500	.609	.210	.020	.100	.093	.158	.040	.080	.172	.148		
360	FT-SM-4-TUR	B16	0.50	1200	3500	.500	.210	.020	.100	.040	.100	.040	.080	.200	.179		
360	FT-SM-1TUR-C8	B18	0.50	1200	3500	.438	.210	.020	.100	.040	.100	.040	.080	.218	.185		
360	FT-SM-33-TUR	B22	0.50	1500	4000	.500	.210	.020	.100	.040	.100	.040	.080	.250	.234		
361	FT-SM-2-TUR-C1	B8	0.50	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.112		
361	FT-SM-23-TUR	B6	0.50	750	2500	.500	.210	.020	.100	.040	.060	.040	.080	.150	.125		
361	FT-SM-025-TUR	B8	0.65	1000	3000	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148		
361	FT-SM-026-TUR	B8-A	0.55	1000	3000	.437	.156	.020	.047	.040	.065	.040	.080	.172	.148		
361	FT-SM-1-TUR-C2	B8	0.45	1000	3000	.500	.210	.020	.100	.040	.060	.040	.080	.172	.148		
361	FT-SM-2-TUR	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.148		
361	FT-SM-2-TUR-C2	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.125	.040	.080	.172	.148		
361	FT-SM-22-TUR	B9	0.65	1200	3500	.609	.210	.020	.100	.093	.125	.040	.080	.172	.148		
361	FT-SM-51-TUR	B8-A	0.55	1000	3000	.437	.156	.020	.047	.040	.088	.047	.093	.172	.152		
361	FT-SM-51-TUR-C2	B8-A	0.65	1000	3000	.500	.156	.020	.047	.040	.150	.047	.093	.172	.152		
361	FT-SM-51-TUR-C4	B8-A	0.60	1000	3000	.437	.156	.020	.047	.040	.100	.047	.093	.172	.152		
361	FT-SM-20-TUR-C1	B18	0.55	1200	3500	.531	.210	.020	.100	.040	.100	.040	.080	.218	.175		
361	FT-SM-20-TUR	B18	0.65	1200	3500	.531	.210	.020	.100	.040	.100	.040	.080	.218	.185		
361	FT-SM-21-TUR	B18	0.65	1200	3500	.531	.210	.020	.100	.040	.125	.040	.080	.218	.185		
361	FT-SM-34-TUR	B19-A	0.55	1500	4000	.609	.210	.020	.100	.093	.125	.040	.080	.218	.185		
361	FT-SM-26-TUR	B28-A	0.50	1500	4000	.531	.210	.020	.100	.040	.100	.040	.080	.312	.264		
362	FT-SM-1-TUR-L4	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148		
363	FT-SM-28-TUR	B6	0.45	750	2500	.350	.125	.020	.095	.040	.060	.040	.080	.150	.125		
363	FT-SM-18-TUR	B8	0.60	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148		
363	FT-SM-37-TUR-C1	B8-G-1	0.65	750	2500	.493	.093	.020	.063	.020	.170	.040	.080	.172	.148		
363	FT-SM-84-TUR	B8	0.60	1000	3000	.640	.250	.020	.210	.040	.125	.040	.080	.172	.148		
363	FT-SM-36-TUR	B16	0.60	1200	3500	.500	.120	.020	.080	.075	.125	.048	.090	.200	.172		
363	FT-SM-36-TUR-L1	B16-1-A	1.00	1000	3000	.500	.120	.020	.080	.075	.125	.080	.125	.200	.172		
364	FT-SM- 16-TUR-L2	B3-5	0.60	500	2000	.350	.125	.020	.085	.040	.100	.040	.080	.125	.093		
364	FT-SM-32-TUR	B8	0.50	1000	3000	.350	.125	.020	.095	.040	.100	.040	.080	.172	.148		
364	FT-SM-32-TUR-L2	B8	0.60	1000	3000	.385	.160	.020	.130	.040	.100	.040	.093	.172	.148		
364	FT-SM-47-TUR-L2	B8	0.50	1000	3000	.380	.090	.020	.060	.040	.100	.040	.080	.172	.148		
365	FT-SM-47-TUR	B8	0.55	1000	3000	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148		
365	FT-SM-47-TUR-L1	B8	0.50	1000	3000	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148		
366	FT-SM-6-TUR-SL	B3-4-1	0.70	750	2500	.346	.093	.020	.060	.030	.130	.040	.080	.125	.106	.015	.047

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

Fig. 352

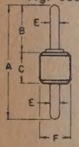


Fig. 353

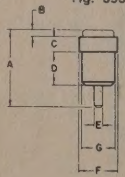


Fig. 354

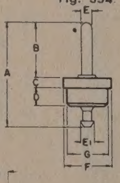


Fig. 355

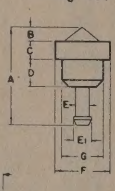


Fig. 356

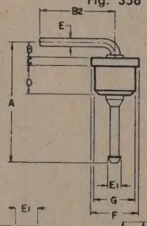


Fig. 357

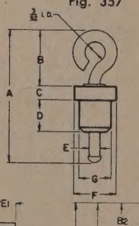


Fig. 358

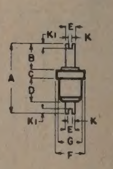
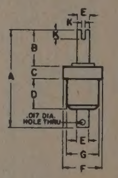


Fig. 359



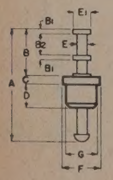


Fig. 360

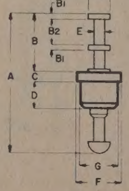


Fig. 361

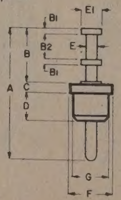


Fig. 362

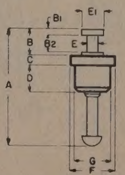


Fig. 363

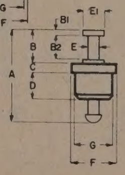


Fig. 364

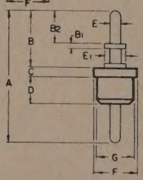


Fig. 365

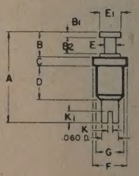


Fig. 366

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS SUBMINIATURE – SUBMINIATURE, MINIATURE (TUBULAR)

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B₁	B₂	C	D	E DIA.	E₁ DIA.	F DIA.	+.002 —.000 G DIA.
451	RFT-SM-9	B8	0.50	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148
452	RFT-SM-1	B8	0.50	1000	3000	.515	.210			.040	.100	.040		.172	.148
452	RFT-SM-2	B8	0.40	750	2500	.515	.210			.050	.050	.040		.172	.148
452	RFT-SM-9L4	B8-19	1.15	1200	3500	2.500	1.750			.040	.132	.040		.172	.148
453	RFT-SM-47-TUR-L1	B8	0.60	1200	3500	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148
454	RFT-SM-16-TUR	B3-12	0.85	500	2000	.500	.210	.020	.100	.040	.100	.040	.080	.125	.093
454	RFT-SM-23-TUR	B6	0.50	1000	3000	.500	.210	.020	.100	.040	.060	.040	.080	.150	.125
454	RFT-SM-1-TUR	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148
454	RFT-SM-1-TUR-L6	B8	0.60	1200	3500	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148
454	RFT-SM-2-TUR	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.148
454	RFT-SM-2-TUR-C4	B8	0.60	1200	3500	.531	.210	.020	.100	.040	.165	.040	.080	.172	.148
454	RFT-SM-2-TUR-C6	B8	0.70	1200	3500	.531	.210	.020	.100	.040	.125	.040	.080	.172	.148
454	RFT-SM-22-TUR	B8	0.70	1200	3500	.609	.210	.020	.100	.093	.125	.040	.080	.172	.148
454	RFT-SM-21-TUR	B18	0.50	1500	4000	.531	.210	.020	.100	.040	.125	.040	.080	.218	.185
455	RFT-SM-18-TUR	B8	0.55	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148
455	RFT-SM-32-TUR	B8	0.45	1000	3000	.350	.125	.020	.094	.040	.100	.040	.080	.172	.148
455	RFT-SM-35-TUR	B8	0.60	1000	3000	.500	.120	.020	.080	.040	.130	.040	.080	.172	.148
455	RFT-SM-37-TUR	B8	0.50	1200	3500	.493	.093	.020	.062	.040	.150	.040	.080	.172	.148
456	RFT-SM-18-TUR-L2##	B8-15-1	0.60	1000	3000	.378	.093	.020	.062	.040	.100	.040	.080	.172	.148

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V,RMS NOMINAL RATING	60 CPS FRASHOVER SEA LEVEL	A	B	C	D	E DIA.	F DIA.	+.002 —.000 G DIA.	H	H₁ DIA.	J	K	K₁
501	FT-SM-59	B3-1	0.40	500	2000	.225	.125	.040	.060	.040	.125	.093			.030		
501	FT-SM-59C2	B3-1	0.40	500	2000	.215	.125	.040	.050	.040	.125	.093			.030		
501	FT-SM-59L2	B3-1	0.45	500	2000	.312	.207	.040	.060	.040	.125	.093			.030		
501	FT-SM-600	B3-1	0.45	500	2000	.317	.187	.040	.090	.040	.125	.093			.030		
501	FT-SM-601	B3-1	0.40	500	2000	.405	.275	.040	.090	.040	.125	.093			.030		
501	FT-SM-54	B4-1	0.40	750	2500	.310	.207	.050	.053	.040	.130	.120			.030		
501	FT-SM-52	B6	0.40	750	2500	.225	.125	.040	.060	.040	.150	.125			.030		
501	FT-SM-50L2	B8-13-A	0.30	750	2500	.250	.147	.050	.053	.040	.172	.148			.030		
501	FT-SM-55	B8-4	0.50	1000	3000	.296	.136	.060	.100	.040	.172	.148			.030		
501	FT-SM-55L2	B8-4	0.45	1000	3000	.234	.074	.060	.100	.040	.172	.148			.030		
501	FT-SM-62	B8-13-A	0.75	750	2500	.367	.207	.050	.110	.085	.172	.148			.063		
501	FT-SM-62C2	B8-13-A	0.90	1000	3000	.413	.207	.050	.156	.085	.172	.148			.063		
501	FT-SM-62C6	B8-13-A	0.70	1000	3000	.332	.207	.050	.075	.085	.172	.148			.063		
501	FT-SM-62C8	B8-13-A	0.60	1000	3000	.312	.207	.050	.055	.085	.172	.148			.063		
501	FT-SM-62L1	B8-13-A	0.70	1000	3000	.367	.207	.050	.110	.085	.172	.148			.070		
501	FT-SM-57	B18-2	0.40	1200	3500	.367	.207	.050	.110	.040	.218	.171			.030		
501	FT-SM-60	B18-1	0.70	1000	3000	.367	.207	.050	.110	.085	.218	.171			.063		
501	FT-SM-63	B21-A	0.65	1200	3500	.367	.207	.050	.110	.085	.240	.200			.063		
502	FT-SM-56	B8-13-A	0.35	1200	3500	.307	.207	.050	.110	.040	.172	.148	.057	.050	.030		
502	FT-SM-58	B8-4	0.30	1000	3000	.282	.147	.060	.075	.040	.172	.148	.042	.070	.030		
502	FT-SM-61	B18-1	0.75	1200	3000	.417	.207	.050	.160	.085	.218	.171	.050	.085	.063		
502	FT-SM-61L2	B18-1	0.95	1000	3000	.710	.500	.050	.160	.085	.218	.171	.050	.085	.063		
502	FT-SM-51	B21	0.35	1200	3500	.367	.207	.050	.110	.040	.240	.200	.057	.050	.030		
502	FT-SM-53	B22	0.35	1200	3500	.287	.147	.040	.100	.060	.250	.218	.030	.050	.030		
503	FT-SM-55-1A	B8-4	0.45	1000	3000	.296	.136	.060	.100	.040	.172	.148			.030		
503	FT-SM-50L2-1A	B8-13-A	0.30	1000	3000	.250	.147	.050	.053	.040	.172	.148			.030		
504	FT-SM-71L4	B8-A	0.55	1000	3000	.270	.100	.040	.100	.060	.172	.148			.030		
505	FT-SM-42SL	B3-3	0.65	1500	4000	.412	.065	.109	.238	.062	.125	.089			.030	.020	.050
505	FT-1025SL	B11	0.90	2000	5000	.602	.203	.187	.212	.148	.187	.171			.052	.072	.156
505	FT-150-SL*	B11-A	1.0	1000	3000	.426	.203	.060	.163	.148	.218	.185			.078		.156
506	FT-SM-59SL	B3-1	0.40	500	2000	.225	.125	.040	.060	.040	.125	.093			.030	.015	.115
506	FT-SM-52SL	B6	0.40	750	2500	.225	.125	.040	.060	.040	.150	.125			.030	.015	.115
506	FT-SM-50SL	B8-13-A	0.30	1000	3000	.310	.207	.050	.053	.040	.172	.148			.030	.010	.125
506	FT-SM-62C4SL	B8-13-A	0.75	1000	3000	.320	.190	.050	.080	.085	.172	.148			.050	.030	.175
506	FT-SM-50SL-C1	B8-13-A	0.30	1000	3000	.310	.207	.050	.053	.040	.172	.165			.030	.010	.125
506	FT-SM-60SL	B18-1	0.70	1000	3000	.367	.207	.050	.110	.085	.218	.171			.062	.030	.175

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003″ Minimum Thick
Cavacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.

*Silver Finish
Gold over Silver

Fig. 451

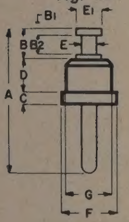


Fig. 452

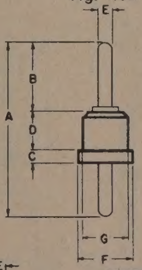


Fig. 453

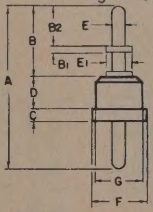


Fig. 454

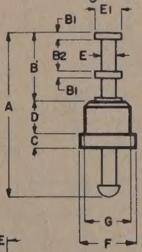


Fig. 455

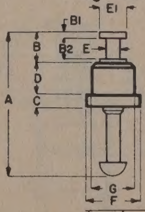
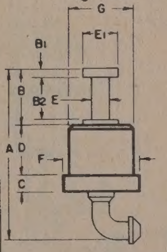


Fig. 456



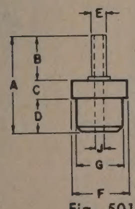


Fig. 501

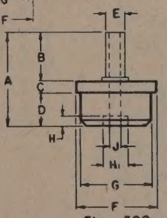


Fig. 502

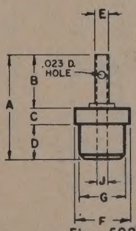


Fig. 503

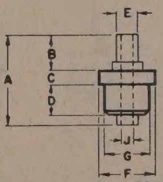


Fig. 504

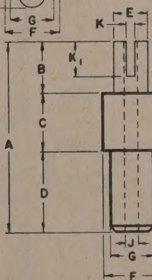


Fig. 505

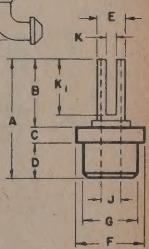


Fig. 506

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

FEED-THRUS SUBMINIATURE (TUBULAR)

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B₁	B₂	C	D	E DIA.	E₁ DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	K	K₁
507	FT-SM-65SL	B3-2B	0.40	750	2500	.294	.156			.078	.060	.060		.125	**.105**	.030	.015	.145
507	FT-SM-56SL	B8-13-A	0.25	1000	3000	.367	.207			.050	.110	.040		.172	**.148**	.030	.010	.125
508	FT-SM-66	B8-G-2	0.80	250	1500	.332	.072			.025	.220	.072		.172	**.148**	.052	.011	.062
508	FT-SM-66L2	B8-G-2	0.75	250	1500	.470	.210			.025	.220	.072		.172	**.148**	.052	.011	.062
508	FT-SM-66L4	B8-G-2	0.90	250	1500	.606	.346			.025	.220	.072		.172	**.148**	.052	.011	.062
509	FT-SM-702	B3-5	0.50	500	2000	.215	.125	.020		.040	.050	.040	.080	.125	**.093**	.030		
509	FT-SM-79	B6-A	0.50	750	2500	.273	.133	.020		.060	.080	.060	.090	.150	**.125**	.030		
509	FT-SM-79C4	B6-B	0.65	750	2500	.273	.133	.020	.093	.040	.100	.060	.090	.150	**.125**	.030		
509	FT-SM-701	B6	0.60	750	2500	.293	.133	.020		.050	.110	.060	.090	.150	**.125**	.030		
509	FT-SM-703	B6-B	0.50	750	2500	.233	.133	.020		.040	.060	.060	.090	.150	**.125**	.030		
509	FT-SM-704L2	B6-B	0.50	750	2500	.200	.090	.020	.050	.050	.060	.060	.090	.150	**.125**	.030		
509	FT-SM-71C2	B8-A	0.60	1000	3000	.303	.133	.020		.040	.130	.060	.090	.172	**.148**	.030		
509	FT-SM-71C4	B8-A	0.50	1000	3000	.238	.133	.020	.093	.040	.065	.060	.093	.172	**.148**	.040		
509	FT-SM-72L2	B8-13	0.50	1000	3000	.293	.133	.020	.093	.050	.110	.060	.093	.172	**.148**	.030		
509	FT-SM-71L2	B8-A	0.50	1000	3000	.273	.133	.020		.040	.100	.060	.090	.172	**.148**	.030		
509	FT-SM-350	B23-1	0.35	1200	3500	.273	.133	.020		.065	.075	.060	.090	.250	**.218**	.030		
509	FT-SM-70	B27	0.40	1700	4500	.333	.133	.020	093	.040	.160	.060	.090	.297	**.263**	.030		
510	FT-SM-74	B9-1	0.75	1000	3000	.351	.133	.020	.093	.093	.125	.082	.125	.172	**.148**	.062		
510	FT-SM-77	B10	0.80	1500	4000	.381	.133	.020	.093	.093	.155	.082	.125	.188	**.171**	.062		
511	FT-SM-79L2	B6-B	0.60	1000	3000	.303	.133	.020		.060	.080	.060	.090	.150	**.125**	.030		
511	FT-SM-71	B8-A	0.50	1000	3000	.303	.133	.020	.093	.040	.100	.060	.090	.172	**.148**	.030		
511	FT-SM-71L8	B8-A	0.70	1000	3000	.460	.133	.020	.093	.040	.100	.060	.090	.172	**.148**	.040		
511	FT-SM-72	B8-13	0.60	1200	3500	.333	.133	.020	.093	.050	.110	.060	.090	.172	**.148**	.030		
511	FT-SM-74L2	B8-13	0.85	1000	3000	.411	.133	.020		.093	.125	.082	.125	.172	**.148**	.062		
512	FT-SM-76SL	B17	0.75	1200	3500	.333	.133	.020	.093	.040	.160	.060	.093	.205	**.169**	.030	.032	.080
513	FT-SM-75		0.40	750	2500	.313	.120	.020	.080			.047	.090	.172		.031		
514	FT-EM-75L2		0.40	750	2500	.343	.120	.020	.080		.060	.047	.090	.172	**.150***			
551	FT-MM-8	B3-2X	0.50	750	2500	.360	.055			.045	.260	.045		.125	**.090**	.030		
551	FT-SM-96	B3-2X	0.30	750	2500	.252	.100			.040	.110	.043		.125	**.093**	.030		
551	RFT-SM-40	B6-C	0.30	750	2500	.193	.105			.025	.063	.050		.150	**.125**	.030		
551	RFT-SM-52B2	B6-C	0.30	750	2500	.225	.125			.025	.075	.040		.150	**.125**	.030		
551	RFT-SM-52B4	B6-C	0.30	500	2000	.247	.147			.025	.075	.040		.150	**.125**	.030		
551	RFT-SM-50	B8	0.40	1000	3000	.310	.207			.050	.053	.040		.172	**.148**	.030		
551	RFT-SM-50B2	B8-X-1	0.30	1000	3000	.250	.147			.045	.053	.040		.172	**.148**	.030		
551	RFT-SM-50L2	B8-X-2	0.30	1000	3000	.250	.147			.050	.053	.040		.172	**.148**	.030		
551	RFT-SM-55	B8-X	0.45	1000	3000	.296	.136			.060	.100	.040		.172	**.148**	.063		
551	RFT-SM-62	B8-X-2	0.70	1000	3000	.367	.207			.050	.110	.085		.172	**.148**	.063		
551	RFT-SM-62L2	B8-X-2	0.70	950	2900	.310	.150			.050	.110	.085		.172	**.148**	.063		
551	RFT-SM-66	B8-3	0.35	750	2500	.193	.105			.025	.063	.080		.172	**.148**	.052		
551	RFT-SM-60	B18-X	0.70	1000	3000	.367	.207			.050	.110	.085		.218	**.171**	.063		
552	RFT-SM-103SL	B3-1X	0.40	500	2000	.225	.115			.020	.090	.065		.108	**.093**	.018	.023	.090
552	RFT-SM-1B4SL	B2-5	0.40	500	2000	.266	.146			.020	.100	.060		.125	**.105**	.030	.015	.130
552	RFT-SM-40SL	B6-C	0.40	500	2000	.193	.105			.025	.063	.050		.150	**.125**	.030	.020	.050
552	RFT-SM-41SL	B6-C	0.30	500	2000	.150	.062			.025	.063	.050		.150	**.125**	.030	.030	.047
552	RFT-SM-52B2-SL	B6-C	0.40	750	2500	.310	.160			.025	.125	.060		.150	**.135**	.030	.028	.100
553	RFT-SM-602	B3-6	0.40	500	2000	.200	.100	.010		.020	.080	.050	.070	.125	**.093**	.030		
553	RFT-SM-78D1	B6-C	0.35	750	2500	.200	.100	.010	.080	.025	.075	.060	.090	.150	**.123**	.030		
553	RFT-SM-74	B9	1.00	750	2500	.351	.133	.020	.093	.093	.125	.082	.125	.172	**.148**	.062		
554	RFT-SM-72BC-2	B9	0.60	1200	3500	.392	.162	.020	.130	.100	.130	.060	.093	.172	**.148**	.042		
554	RFT-SM-77	B10	0.60	1200	3500	.381	.133	.020	.093	.093	.155	.090	.125	.188	**.177**	.062		
555	RFT-SM-71	B8	0.60	1000	3000	.333	.133	.020	.093	.040	.100	.060	.093	.172	**.148**	.030		
555	RFT-SM-71L2	B8-X-1	0.50	750	2500	.273	.133	.020	.093	.040	.100	.060	.093	.172	**.148**	.030		
555	RFT-SM-72C4	B8	0.50	1000	3000	.333	.133	.020		.040	.130	.060	.093	.172	**.148**	.030		
556	RFT-SM-602SL	B3-6	0.40	500	2000	.200	.100	.010	.080	.020	.080	.050	.070	.125	**.093**	.030	.030	.080
556	RFT-SM-602SL-C2	B3-6	0.50	750	2500	.260	.100	.010	.080	.020	.140	.050	.070	.125	**.093**	.030	.030	.040
556	RFT-SM-78SL	B7-B	0.55	500	2000	.200	.100	.010	.080	.020	.080	.085	.115	.160	**.143**	.060	.030	.090

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003″ Minimum Thick
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.

*±.005

Fig. 507

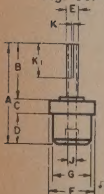


Fig. 508

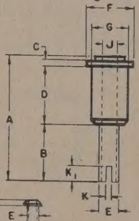


Fig. 509

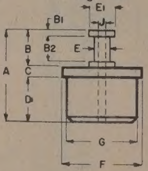


Fig. 510

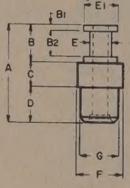


Fig. 511

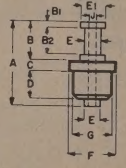


Fig. 512

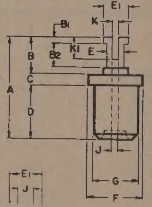
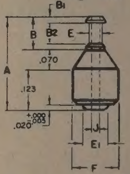


Fig. 513



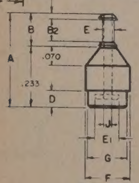


Fig. 514

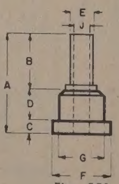


Fig. 551

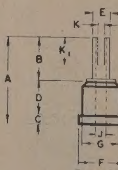


Fig. 552

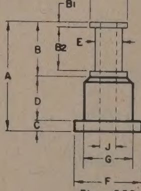


Fig. 553

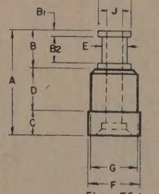


Fig. 554

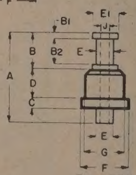


Fig. 555

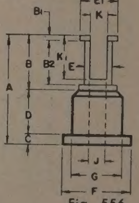


Fig. 556

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS MINIATURE

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS		A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 −.000 G DIA.	J DIA.	K
				NOMINAL RATING	FLASHOVER SEA LEVEL												
601	**FT-225***	B9	0.60	1500	4000	.619	.187			.140	.105	.040		.172	**.148**		
601	**FT-800-L5***	B12	0.60	1700	4500	.675	.200			.125	.150	.040		.187	**.165**		
601	**FT-311***	B10	0.60	1700	4500	.540	.133			.063	.171	.046		.187	**.171**		
601	**FT-1000-L5***	B13-3A	0.80	2000	5000	.740	.125			.187	.212	.063		.187	**.171**		
601	**FT-1500-L5***	B13	0.80	2500	6000	.865	.125			.250	.275	.050		.187	**.171**		
602	**FT-1101**	B12-3	0.75	2000	5000	.836	.250	.020	.093	.250	.150	.050	.093	.187	**.171**		
603	**FT-992**	B9-3	0.75	1700	4500	.836	.250	.020	.073	.187	.165	.050	.093	.172	**.148**		
603	**FT-1001**	B13	0.75	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	**.171**		
604	**FT-M-1***	B19	1.10	2000	5000	2.005	.125	.020	.085	.093	.287	.050	.093	.218	**.185**		
604	**FT-M-1L2***	B19	0.75	2000	5000	1.000	.125	.020	.085	.093	.287	.050	.093	.218	**.185**		
604	**FT-M-2BC***	B19	1.00	2000	5000	2.000	.125	.020	.085	.230	.150	.050	.093	.218	**.185**		
605	**FT-M-3****	B18-1B	0.95	1000	3000	1.052	.281	.031	.093	.046	.287	.060	.125	.218	**.185**		
606	**FT-310#**	B10	0.75	1700	4500	.540	.133	.020	.093	.063	.171	.046	.093	.187	**.171**		
606	**FT-320*#**	B28-A	0.70	1700	4500	.540	.133	.020	.093	.063	.171	.046	.093	.312	**.171**		
606	**FT-325****	B28	1.20	750	2500	.506	.099	.020	.048	.063	.171	.125	.188	.312	**.171**		
607	**FT-960**	B13	0.70	1500	4000	.740	.125	.031	.062	.187	.125	.050	.093	.187	**.171**		
607	**FT-1000**	B13	0.70	2200	5500	.740	.125	.031	.062	.187	.212	.050	.093	.187	**.171**		
607	**FT-1000B1**	B24	0.80	2500	6000	.740	.125	.031	.062	.187	.212	.050	.093	.250	**.171**		
607	**FT-1100**	B12-3	0.70	2500	6000	.740	.125	.031	.062	.250	.150	.050	.093	.187	**.171**		
607	**FT-1500**	B12-3	0.70	3000	7000	.865	.125	.031	.062	.250	.275	.050	.093	.187	**.171**		
607	**FT-1990**	B13	0.90	2500	6000	1.115	.125	.031	.062	.365	.318	.050	.125	.187	**.171**		
607	**FT-1995**	B13	0.90	2500	6000	1.115	.125	.031	.062	.375	.340	.050	.125	.187	**.171**		
607	**FT-2000**	B13-3B	0.95	3500	8000	1.115	.125	.031	.062	.375	.400	.050	.125	.187	**.171**		
607	**FT-2000B2**	B13-3B	0.80	2000	5000	1.115	.125	.031	.062	.562	.212	.050	.125	.187	**.171**		
607	**FT-2500C1**	B26	1.45	4500	10000	1.365	.125	.031	.062	.500	.525	.050	.125	.250	**.171**		
607	**FT-4000C1**	B26	1.65	6000	13000	1.965	.125	.031	.062	.800	.825	.050	.125	.250	**.171**		
607	**FT-400**	B19-A	0.80	2000	5000	.640	.133	.020	.093	.093	.210	.046	.093	.215	**.185**		
607	**FT-410**	B19-A	0.80	2000	5000	.718	.133	.020	.093	.093	.288	.046	.093	.215	**.185**		
607	**FT-2500**	B26	1.70	4500	10000	1.365	.125	.031	.062	.500	.525	.050	.125	.250	**.217**		
607	**FT-4000**	B26	1.50	6000	13000	1.965	.125	.031	.062	.800	.825	.050	.125	.250	**.217**		
608	**FT-990-DTUR**	B9-3	0.80	1500	4000	.836	.250	.020	.093	.187	.165	.050	.093	.172	**.148**		
608	**FT-995-DTUR**	B9-3	0.85	1500	4000	.836	.250	.020	.093	.125	.230	.050	.093	.172	**.148**		
608	**FT-1000-DTUR-C3**	B13-3B	0.75	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	**.165**		
608	**FT-1000-DTUR**	B13-3B	0.80	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	**.171**		
608	**FT-1100-DTUR**	B12-3	0.75	2000	5000	.836	.250	.020	.093	.250	.150	.050	.093	.187	**.171**		
608	**FT-2000-DTUR**	B13	1.00	3500	8000	1.337	.281	.031	.093	.375	.400	.050	.093	.187	**.171**		
608	**FT-1050-DTCR**	B24	0.80	2500	6000	.836	.250	.020	.093	.187	.212	.050	.093	.250	**.204**		
608	**FT-1050-DTUR-C3**	B24	0.70	2500	6000	.836	.250	.020	.093	.187	.212	.050	.093	.250	**.230**		
609	**FT-950-DTUR***	B12	1.00	1500	4000	.828	.281	.031	.093	.125	.200	.062	.125	.187	**.171**		
609	**FT-940-DTUR***	B19-A	1.00	1200	3500	.828	.281	.031	.093	.094	.210	.062	.125	.218	**.185**		
609	**FT-996-DTUR***	B19-A	1.00	2500	6000	.828	.281	.031	.093	.187	.212	.062	.125	.218	**.185**		
610	**FT-1550-DTUR**	B24-A	1.25	3000	7000	1.187	.281	.031	.093	.250	.375	.062	.125	.250	**.218**		
610	**FT-2550-DTUR**	B26	1.60	5000	11000	1.687	.281	.031	.093	.500	.625	.062	.125	.250	**.218**		
610	**FT-4050-DTUR**	B40	1.90	6000	13000	2.287	.281	.031	.093	.800	.925	.062	.125	.250	**.218**		
611	**FT-800**	B12	0.75	1700	4500	.680	.207			.125	.150		.085	.187	**.171**	.063	.187
611	**FT-801****	B12	0.70	1700	4500	.535	.062			.125	.150		.085	.187	**.171**	.067	.062

Terminal Lug: Brass, Silver Plate .0003″ Min. Thick.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis
**Gold flash over silver.

*Solder Finish (40 to 70% Tin Content) Electro-Plate .0003″ Minimum Thick
#Seating Turret E1 dimension.

Fig. 601

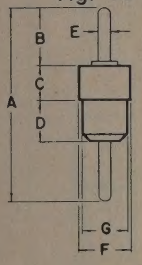


Fig. 602

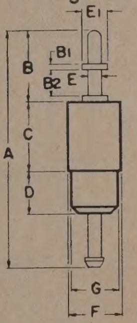


Fig. 603

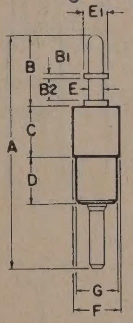


Fig. 604

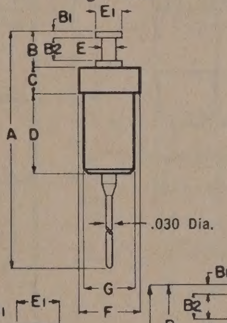


Fig. 605

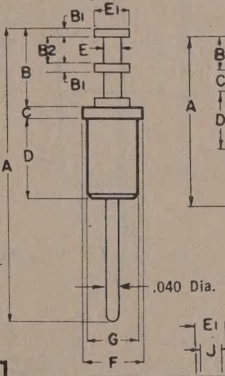
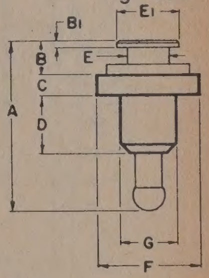


Fig. 606



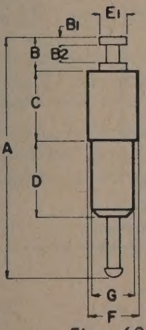


Fig. 607

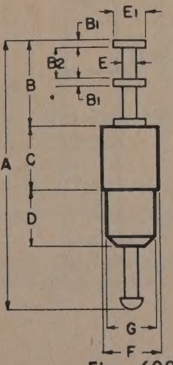


Fig. 608

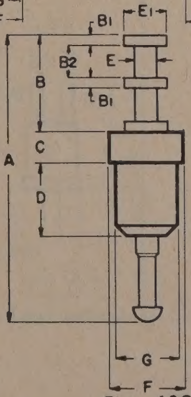


Fig. 609

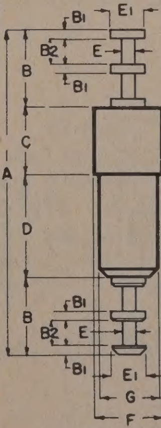


Fig. 610

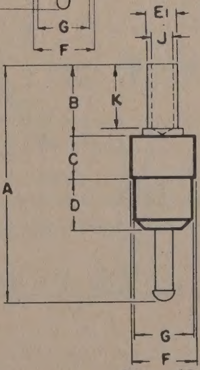


Fig. 611

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS MINIATURE

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	K	K_1	L Class 2
612	**FT-E-4****	B19	1.00	1500	4000	.500		.281	.100	.050	.062	.218	**.185**				4-40
613	**FT-1000T**	B13-2	0.80	2000	5000	.899	.281	.187	.212	.050		.187	**.171**				4-36
613	**FT-1000T1**	B13-2	0.80	2000	5000	.899	.281	.187	.212	.050		.187	**.171**				4-40
613	**FT-1500T**	B13-2	0.90	2500	6000	1.024	.281	.250	.275	.050		.187	**.171**				4-36
613	**FT-1500T1**	B13-2	0.90	2500	6000	1.024	.281	.250	.275	.050		.187	**.171**				4-40
613	**FT-1800T1**	B13-6	0.90	2000	5000	1.039	.421	.187	.212	.050		.187	**.171**				4-40#
613	**FT-2000T**	B13-2	0.95	3500	8000	1.274	.281	.375	.400	.050		.187	**.171**				4-36
613	**FT-2000T1**	B13-2	0.95	3500	8000	1.274	.281	.375	.400	.050		.187	**.171**				4-40
614	**FT-500T1**	B13-4	0.80	1500	4000	.743	.281	.187	.150	.070		.187	**.171**				4-40
615	**FT-1000SL**	B11	0.80	2000	5000	.821	.203	.187	.212	.148		.187	**.171**	.078		.156	
615	**FT-1000SL-1L**	B11	0.75	2000	5000	.821	.203	.187	.212	.148		.187	**.171**	.046		.156	
615	**FT-1000SL-C2**	B11	0.80	2000	5000	.821	.203	.187	.230	.148		.187	**.171**	.078		.156	
615	**FT-1500SL**	B13-X-3	0.90	2500	6000	.947	.203	.250	.275	.148		.187	**.171**	.078		.156	
615	**FT-1500SL-1L**	B13-X-3	0.80	2500	6000	.947	.203	.250	.275	.148		.187	**.171**	.046		.156	
615	**FT-2000SL**	B11	1.20	3500	8000	1.197	.203	.375	.400	.148		.187	**.171**	.078		.156	
615	**FT-2000SL-1L**	B11	0.85	3500	8000	1.197	.203	.375	.400	.148		.187	**.171**	.046		.156	
615	**FT-2030SL**	B11	1.10	2500	6000	1.197	.203	.225	.550	.148		.187	**.171**	.078		.156	
615	**FT-2035SL**	B11	1.00	2500	6000	1.197	.203	.250	.525	.148		.187	**.171**	.078		.156	
616	**FT-900SL**	B11	0.90	1000	3000	.593	.203	.150	.100	.148		.187	**.171**	.078		.156	
617	**FT-1500ML**	B13-B	0.90	2500	6000	1.040	.296	.250	.275	.148		.187	**.171**		.110	.250	
618	**FT-35ML**	B11-C	1.40	2000	5000	1.015	.296	.187	.427	.150		.187	**.171**		.090	.234	
619	**FT-2010ML***	B33	1.35	2500	6000	1.285	.281	.562	.250	.050		.250	**.171**				
625	**FT-1600T10**	B32-1	1.80	2000	5000	.737	.050	.125	.250	.125	.187	.375	**.312**	##			
630	**FT-E-2****	B10	0.85	1000	3000	.225	.020	.040	.150	.125		.187	**.165**	†			
630	**FT-E-1**	B23-X-1	0.90	1000	3000	.225	.015	.040	.155	.195		.250	**.203**	.096			
630	**FT-E-5**	B23-X-1	0.75	1000	3000	.210	.010	.040	.155	.170		.250	**.203**	.072			
651	**RFT-195SL**	B10	0.60	1000	3000	.477	.125	.040	.187	.148		.187	**.171**	.078		.078	
651	**RFT-200SL**	B10	0.70	1000	3000	.532	.125	.040	.187	.148		.187	**.171**	.078		.078	
651	**RFT-210SL**	B10	0.70	1000	3000	.586	.125	.040	.140	.148		.187	**.171**	.078		.078	
652	**RFT-1000SL**	B13	0.80	2000	5000	.821	.203	.187	.212	.148		.187	**.171**	.078		.156	
652	**RFT-1500SL**	B13-X-1	1.00	2500	6000	.947	.203	.250	.275	.148		.187	**.171**	.078		.156	
652	**RFT-2000SL**	B13	1.00	3500	8000	1.197	.203	.375	.400	.148		.187	**.171**	.078		.156	
653	**RFT-1500ML**	B13	0.95	2500	6000	1.040	.296	.250	.275	.148		.187	**.171**		.110	.250	

Terminal Lug: Brass, Silver Plated .0003″ Min. Thick.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.
** Gold Flash over Silver
# .156 Hex Brass Base.

† 0-80 Thread.
10/32 Thread
* Solder dip on tail only.

Fig. 612

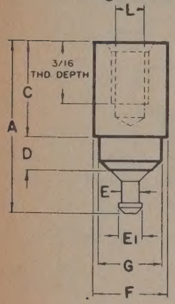


Fig. 613

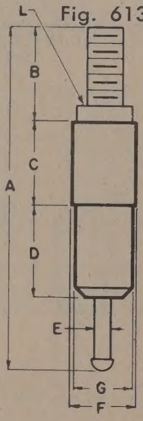


Fig. 614

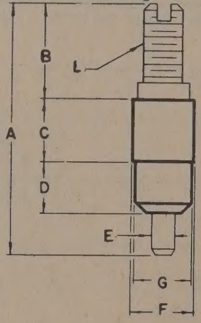


Fig. 615

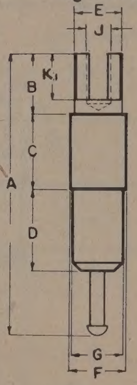


Fig. 616

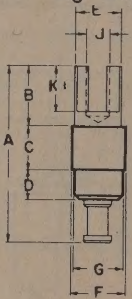


Fig. 617

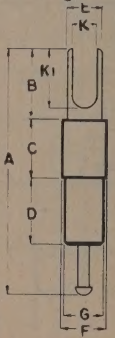
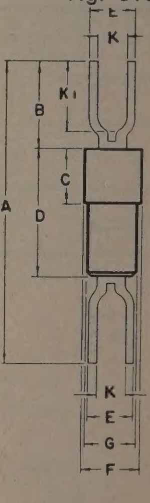


Fig. 618



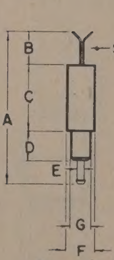


Fig. 619

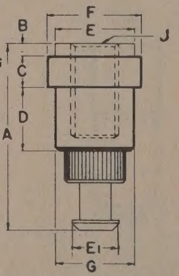


Fig. 625

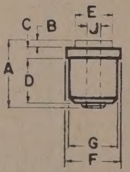


Fig. 630

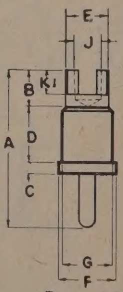


Fig. 651

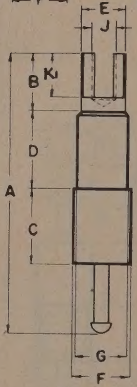


Fig. 652

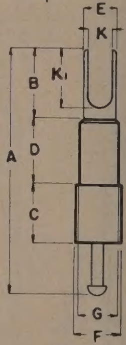


Fig. 653

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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FEED-THRUS

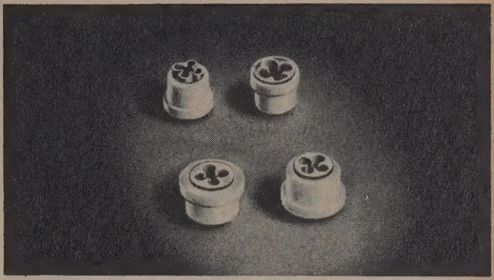
CLOVERLEAF TEFLON RECEPTACLES

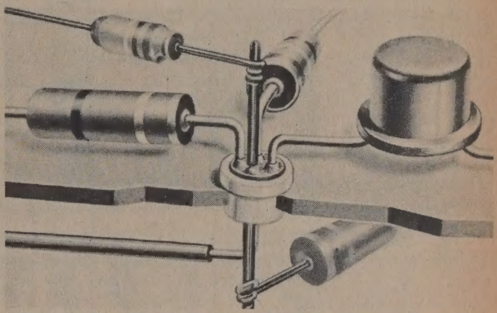
PAT. PENDING

The "Press-Fit" Cloverleaf Receptacle provides economical, yet uniformly perfect solder joints by means of dip-soldering with metal chassis. The unique Cloverleaf configuration permits insertion of four, or more wire leads, plus an optional center pin post for mounting additional components after the dip-soldering operation. The Cloverleaf design provides an encompassing hold on the leads, and excellent capillary flow of solder. The Cloverleaf receptacle is a Sealectro "Press-Fit" design. Virgin Teflon insulation, precisely machined to "Press-Fit" into the chassis provides fast, positive installation.

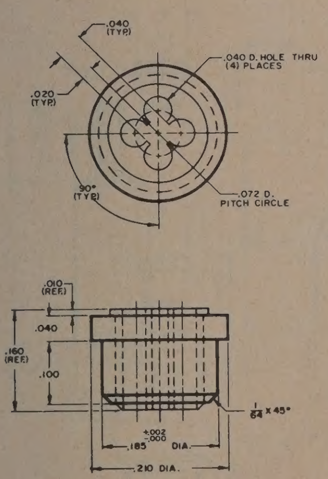
The reliability of dip solder joints made with the Cloverleaf receptacle, combined with the inherent dependability and repairability of metal chassis construction makes it ideal for use in high density, complex electronic instrumentation packaging, while the low cost of the terminal and its installation provides a new and better assembly technique for premium quality radio and television manufacturing.

- Best of both—dip soldering economies and uniformity with metal chassis reliability and repairability.
- Fast, positive "Press-Fit" installation. Terminal may be oriented by insertion tool.
- Optional center pin for additional component mounting.
- Cloverleaf design provides holding position of leads during soldering operations.
- Shaped and plated for maximum capillary flow of solder. No pre-cleaning required.

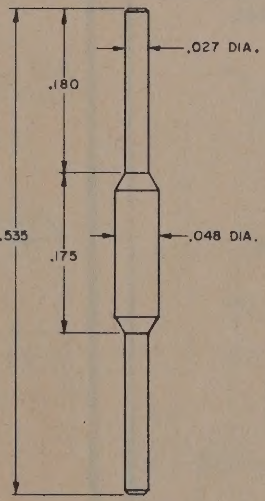




Optional center pin provides top and bottom extra component mounting. Extremely useful in high-density packaging, or for after-mounting of delicate components.



.040 (TYP)
.040 D. HOLE THRU (4) PLACES
.020 (TYP)
90° (TYP)
.072 D. PITCH CIRCLE
.010 (REF.)
.040
.160 (REF.)
.100
1/64 X 45°
+.002 -.000
.185 DIA.
.210 DIA.



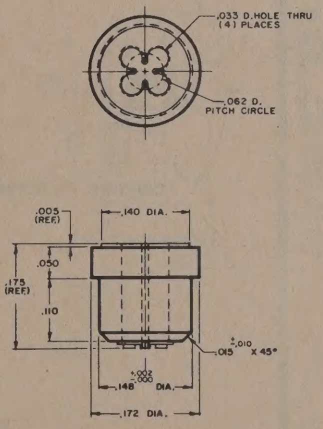
.027 DIA.
.180
.535
.175
.048 DIA.

FT-E-10 **FT-MM-L10**

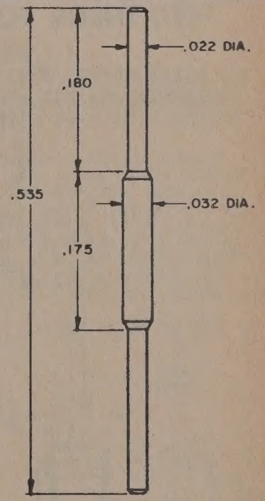
For AWG-19 wire or smaller.
Chassis Preparation: .172″ diameter hole with 60° countersink to a .195″ $^{+.010''}_{-.000''}$ diameter.

Chassis thickness — .040″ to .060″.
Cloverleaf insert material: Brass-Gold Flashed.
Center pin (FT-MM-L10) Material: Brass-Gold Flashed.

Insertion Tool No. B-18-F



.033 D.HOLE THRU (4) PLACES
.062 D. PITCH CIRCLE
.005 (REF.)
.140 DIA.
.050
.175 (REF.)
.110
.015 +.010 X 45°
+.002 -.000
.148 DIA.
.172 DIA.



.022 DIA.
.180
.535
.032 DIA.
.175

FT-E-12 **FT-MM-L12**

For AWG-22 wire or smaller.
Chassis Preparation: .136″ diameter hole with 60° countersink to a .160″ $^{+.010''}_{-.000''}$ diameter.

Chassis thickness — .040″ to .060″.
Cloverleaf insert material: Bronze-Gold Flashed.
Center pin (FT-MM-L12) Material: Brass-Gold Flashed.

Insertion Tool No. B-9-4

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FEED-THRUS FOR WELDED CONNECTIONS

FIG.	Part No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B₁	B₂	C	D	E DIA.	E₁ DIA.	F DIA.	+.002 —.000 G DIA.	J	J₁	K	K₁
660	FT-SM-705-L2	B10-5	.80	750	2500	.463	.100			.035	.155	.060	.149	.187	.172	.068	.100	.018	.125
660	FT-SM-705-L4	B10-6	.80	750	2500	.581	.218			.035	.155	.060	.149	.187	.172	.068	.100	.018	.125
307	FT-MM-47-TUR-BC*	BO-A	1.10	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075				.080
307	FT-MM-48-TUR-BC*	BO-5	0.70	500	2000	1.700	.210	.020	.100	.090	.125	.032	.060	.093	.075				.080

Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis

*Beryllium copper gold plate over copper flash.

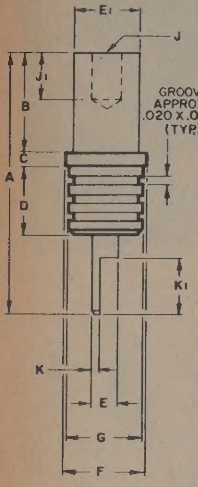
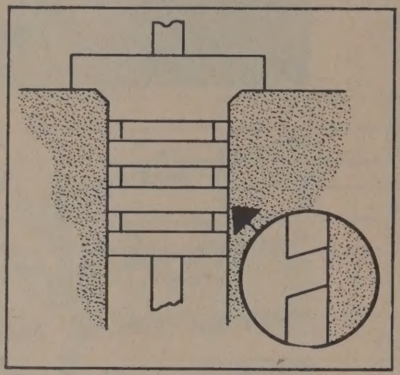


Fig. 660



"Press-Fit" installation for deep holes. As the terminal is pressfitted into the hole, the lands and grooves of the body are deflected upward, thus providing a high degree of pull-out strength as illustrated in the accompanying sketch.

Typical deep hole terminal Type FT-SM-705-L2 is a feedthru featuring a wield terminal at bottom. In this particular case, the wire is welded to the bottom terminal and drawn through the hole before terminal is pressfitted into place.

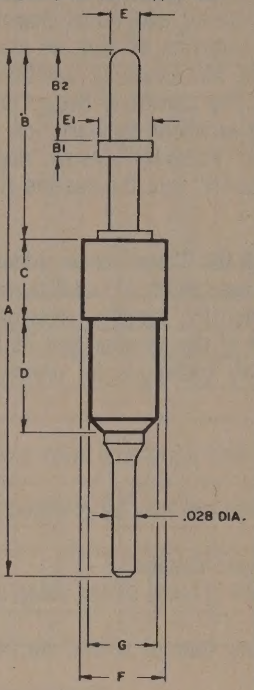
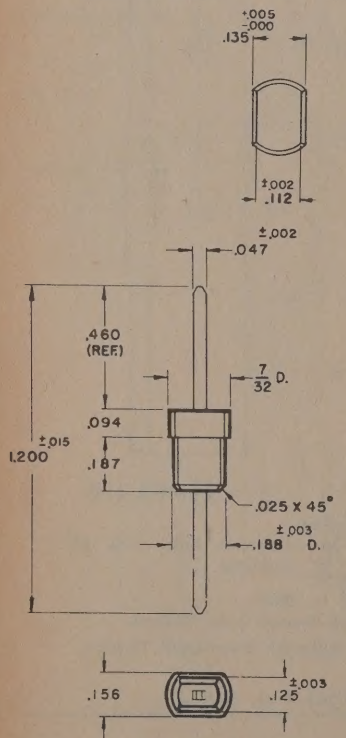
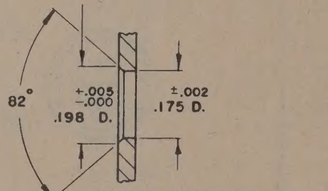


Fig. 307

FEED-THRUS FOR WIRE-WRAP CONNECTIONS





CHASSIS PIERCING DETAIL

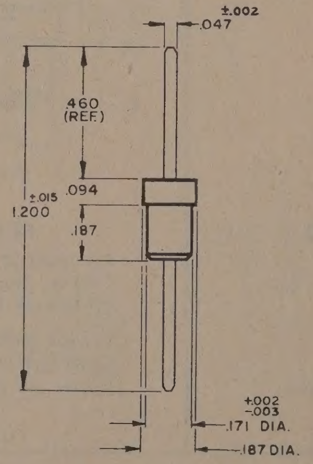


Fig. FT-WJ-100
Insertion Tool No. B-19

Fig. FT-WJ-200
Insertion Tool No. B13-5

BUSHINGS

FIG.	PART No.	A	D	D₁	F	G	G₁	J
1001	**B-1440**	.140	.100		.125	**.093**		.040
1001	**B-1440-1**	.140	.100		.125	**.093**		.035
1001	**B-1441**	.100	.060		.125	**.093**		.037
1001	**B-1464**	.100	.080		.125	**.093**		.038
1001	**B-1414**	.140	.100		.172	**.148**		.060
1001	**B-1435**	.140	.100		.172	**.148**		.040
1001	**B-1439**	.160	.120		.172	**.148**		.073
1001	**B-1452**	.125	.075		.172	**.148**		
1001	**B-1455**	.165	.125		.172	**.148**		.083
1001	**B-1475**	.140	.100		.172	**.148**		.073
1001	**B-1446**	.330	.250		.218	**.185**		
1001	**B-1447**	.225	.185		.218	**.185**		.120
1001	**B-1447-1**	.130	.090		.218	**.185**		.120
1001	**B-1451**	.327	.140		.218	**.185**		
1001	**B-1473**	.450	.400		.218	**.185**		.150
1001	**B-1443**	.140	.075		.250	**.218**		
1001	**B-1454**	.240	.200		.250	**.218**		
1002	**B-1409**	.080	.060		.172	**.148**		.030
1002	**B-1447-2**	.130	.090		.218	**.185**		.120
1003	**B-1453**	.082	.042	.017	.145	**.103**	.115	.067
1003	**B-1449**	.070	.040	.020	.187	**.123**	.143	.052
1003	**B-1403**	.104	.069	.040	.218	**.154**	.164	.120
1003	**B-1401**	.104	.054	.025	.218	**.154**	.164	.085
1003	**B-1406**	.094	.044	.015	.218	**.154**	.164	.099
1003	**B-1407**	.104	.069	.040	.218	**.154**	.164	.085
1003	**B-1408**	.094	.044	.015	.218	**.154**	.164	.085
1003	**B-1413**	.094	.044	.015	.218	**.154**	.164	.120
1003	**B-1416**	.104	.069	.040	.218	**.154**	.164	.099
1003	**B-1418**	.085	.035	.015	.195	**.154**	.164	.085
1003	**B-1419**	.134	.099	.070	.218	**.154**	.164	.120
1003	**B-1420**	.104	.054	.025	.218	**.154**	.164	.099
1003	**B-1421**	.104	.069	.040	.218	**.154**	.164	.120
1003	**B-1424**	.094	.044	.025	.195	**.154**	.164	.085
1003	**B-1432**	.104	.054	.025	.218	**.154**	.164	.120
1003	**B-1437**	.125	.075	.060	.218	**.154**	.164	.120
1003	**B-1463**	.104	.054	.035	.218	**.154**	.164	.099
1003	**B-1466**	.140	.105	.075	.218	**.154**	.164	.120
1003	**B-1472**	.135	.085	.060	.218	**.154**	.164	.085
1003	**B-1462**	.156	.106	.076	.218	**.168**	.178	.089
1003	**B-1431**	.104	.069	.040	.248	**.184**	.194	.150
1003	**B-1467**	.104	.054	.035	.250	**.190**	.200	.157
1003	**B-1436**	.104	.069	.040	.260	**.199**	.210	.128
1003	**B-1450**	.190	.140	.120	.230	**.199**	.210	.128
1003	**B-1459**	.104	.069	.040	.268	**.204**	.214	.170
1003	**B-1459-1**	.104	.069	.040	.268	**.204**	.214	.125
1004	**#B-1470**	.260	.140	.070	.500	**.431**	.450	.302

Can be used as Transistor Holder for TO-5 Header.

Fig. 1001

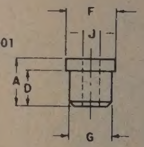


Fig. 1002

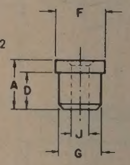


Fig. 1003

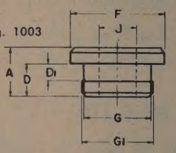
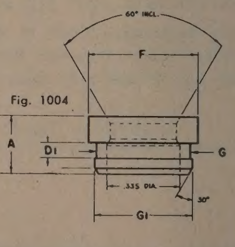


Fig. 1004



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TEST POINT JACKS

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS		REF. A	B	B_1	B_2	C	D	E DIA.	E_1 DIA.	F DIA.	+.002 —.000 G DIA.	J* PROBE DIA.	J_1 PROBE LNGTH	K	K_1
				NOMINAL RATING	FLASHOVER SEA LEVEL														
701	**SKT-13C3**	S13-1	0.45	500	2000	.203	.060	.010	.040	.030	.113	.046	.080	.150	**.120**	.040	.078		
701	**SKT-22**	S4	0.20	1500	4000	.449	.120	.030	.060	.046	.283	.040	.060	.142	**.120**	.040	.245		
701	**SKT-22C2**	S22	0.30	1500	4000	.410	.120	.030	.060	.046	.244	.040	.060	.142	**.120**	.040	.205		
701	**SKT-13B2**	S14	0.30	750	2500	.253	.060	.010	.040	.050	.143	.046	.080	.172	**.140**	.040	.125		
701	**SKT-14B2**	S14	0.30	1000	3000	.345	.120	.023	.077	.046	.179	.040	.060	.172	**.140**	.040	.140		
701	**SKT-13B4**	S13	0.40	750	2500	.203	.060	.010	.040	.046	.097	.046	.080	.172	**.148**	.040	.078		
701	**SKT-13L2**	S13	0.40	750	2500	.190	.050	.010	.030	.046	.094	.046	.080	.172	**.148**	.040	.078		
701	**SKT-14**	S5	0.35	1000	3000	.345	.120	.023	.077	.046	.179	.040	.060	.172	**.148**	.040	.140		
701	**SKT-12**	S7	0.70	1000	3000	.375	.060	.010	.040	.046	.269	.046	.078	.218	**.170**	.090	.250		
701	**SKT-2BC**	S2	0.70	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.218	**.185***	.090	.195		
701	**SKT-5BC**	S2	0.60	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.218	**.185***	.080	.195		
701	**SKT-5BC-C2**	S35	0.45	1000	3000	.453	.120	.037	.053	.046	.287	.054	.074	.218	**.185***	.050	.195		
701	**SKT-10**	S1	0.70	1200	3500	.640	.187	.037	.104	.050	.400	.054	.074	.218	**.185***	.080	.287		
701	**SKT-37C1**	S12	0.55	1000	3000	.340	.120	.023	.077	.046	.174	.054	.074	.218	**.185***	.090	.140		
701	**SKT-41**	S2	0.55	1200	3500	.467	.120	.035	.047	.046	.301	.054	.074	.218	**.185***	.080	.225		
701	**SKT-42**	S23-1	0.40	2000	5000	.455	.105	.020	.065	.050	.300	.080	.125	.218	**.185***	.080	.315		
701	**SKT-27**	S11	0.80	3200	7500	.761	.187	.035	.116	.187	.386	.054	.074	.218	**.200**	.093	.455		
701	**SKT-27L1**	S12	0.70	2000	5000	.699	.187	.035	.116	.125	.386	.054	.074	.218	**.200**	.093	.390		
701	**SKT-0930**	S37	0.70	3200	7500	.834	.187	.035	.116	.230	.417	.054	.074	.375	**.200**	.093	.518		
701	**SKT-3BC**	S2	0.60	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.250	**.204**	.080	.195		
701	**SKT-19**	S9	0.60	1200	3500	.400	.060	.010	.037	.046	.294	.066	.098	.250	**.218**	.105	.250		
702	**SKT-35**	B8-14	0.25	1200	3500	.400	.150			.046	.204	.040		.172	**.148**	.032	.200		
703	**SKT-1**	S31	0.55	1200	3500	.687	.354			.046	.287	.115		.218	**.185***	.050	.250	.140	.042
703	**SKT-4**	S30	0.40	1200	3500	.687	.354			.046	.287	.104		.218	**.185***	.041	.250	.140	.050
703	**SKT-8**	S1	0.50	1200	3500	.687	.330			.046	.287	.103		.218	**.185***	.080	.250	.156	.046
703	**SKT-8B2**	S1	0.55	2000	5000	.711	.354			.070	.287	.103		.218	**.185***	.080	.274	.156	.048
703	**SKT-18**	S25	0.50	1500	4000	.687	.354			.052	.281	.115		.218	**.185***	.050	.250	.140	.042
703	**SKT-20**	S27	0.80	1000	3000	.687	.330			.187	.146	.103		.218	**.185***	.080	.187	.156	.046
703	**SKT-20L1**	S25	0.75	1000	3000	.687	.330			.187	.146	.110		.218	**.185***	.050	.250	.156	
703	**SKT-23**	S28	0.65	1000	3000	.625	.355			.046	.224	.115		.218	**.185***	.050	.200	.140	.042
703	**SKT-26**	S26	0.60	1000	3000	.718	.316			.046	.356	.104		.218	**.185***	.060	.315	.125	.052
704	**SKT-15**	S32	0.60	3500	8000	.732	.188			.157	.387	.110		.250	**.220**	.050	.320	.140	.042
705	**SKT-36**	S28	0.80	1000	3000	.620	.287			.046	.287	.115		.218	**.185***	.050	.250	.156	.052
706	**SKT-31**	S17	0.45	1000	3000	.408	.187			.046	.175	.060		.172	**.148**	.040	.135		
707	**SKT-38**					1.000	.060	.010			.940	.046	.078	.218	**.125#**	.090	.825		
707	**SKT-38C1**					1.000	.060	.010			.940	.046	.078	.187	**.125#**	.090	.825		
707	**SKT-13**					.203	.060	.010			.143	.046	.080	.140		.040	.075		
707	**SKT-13C1**					.203	.060	.010			.143	.046	.080	.120		.040	.075		
707	**SKT-13L1**					.203	.060	.010			.143	.046	.080	.140		.025	.075		
708	**SKT-39**					.370	.120	.023			.250	.040	.060	.250		.040	.165		
708	**SKT-39C1**					.370	.120	.023			.250	.040	.060	.270		.040	.140		
708	**SKT-43B1**					.460	.120	.037			.340	.054	.074	.400		.070	.250		

Terminal Lug: Beryllium Copper — Gold Flash over Silver Plate.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.

*±.001
#±.005

Fig. 701

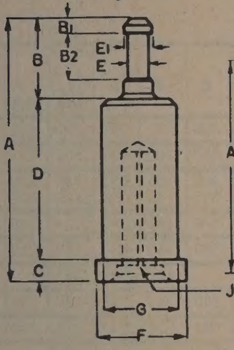


Fig. 702

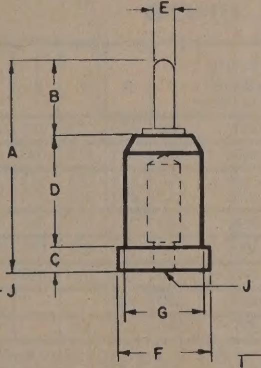


Fig. 703

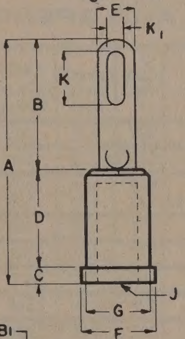
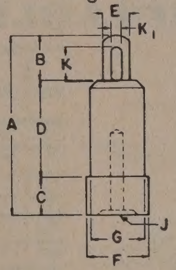


Fig. 704



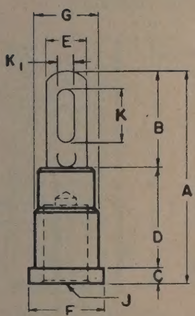


Fig. 705

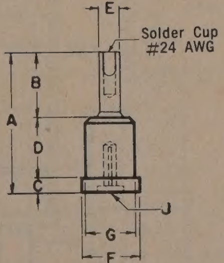


Fig. 706

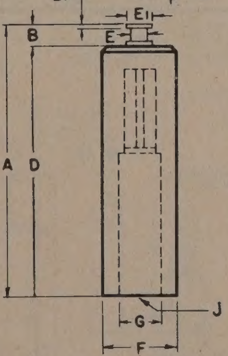


Fig. 707

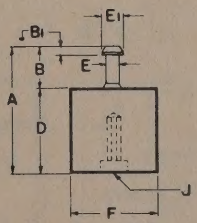
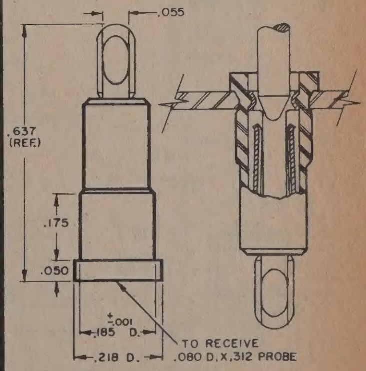


Fig. 708

SKT-0804—GUIDED ENTRY TEST POINT JACK FOR INCREASED CHASSIS PULL-OUT STRENGTH

Featuring a beryllium-copper formed lug with unique design configuration, the SKT-0804 test point jack offers greater pull-out strength and high torque resistance. The jack is designed to provide guided-entry for an .080″ diameter probe. The SKT-0804 construction permits uniform retention and greater support of the Teflon bushing by the lug.

Insertion Tool No. S-38



Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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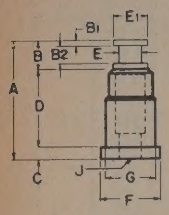
TEST POINT JACKS

FIG.	Part No.	Tool No.	Capacitance mmf	V,RMS 60 CPS Nominal Rating	V,RMS 60 CPS Flashover Sea Level	Ref. A	B	B₁	B₂	C	D	E Dia.	E₁ Dia.	F Dia.	+.002 —.000 G Dia.	J* Probe Dia.	J₁ Probe Lgth
709	**SKT-50**	S23	0.50	2700	5500	.435	.105	.020	.065	.046	.284	.080	.125	.218	**.184**	.080	.310
710	**SKT-34**	B8-14	0.25	1700	4500	.425	.175	.020	.060	.046	.250	.040	.080	.172	**.184**	.032	.200
710	**SKT-24**	S18	0.65	1000	3000	.437	.154	.020	.046	.046	.391	.050	.080	.250	**.204**	.080	.145
711	**SKT-100**	S8	0.60	2200	5500	.912	.534	.125		.060	.378	.050	.080	.250	**.218**	.080	.250
712	**SKT-28**	S20	0.70	1000	3000	.450	.180		.120	.046	.224	.110	.080	.218	**.185***	.080	
713	**SKT-401**	S17	0.50	1000	3000	.359	.140			.065	.154			.172	**.148**	.040	.125
713	**SKT-400**	S17	0.50	1000	3000	.359	.140			.065	.154			.187	**.148**	.040	.125
713	**SKT-620**	S33	0.60	1200	3500	.437	.156			.065	.216			.218	**.171**	.062	.187
713	**SKT-800**	S18	0.60	1200	3500	.437	.156			.065	.216			.250	**.185***	.080	.187
714	**SKT-113PC**					.381	.090			.281		.062		.187		.080	.250
714	**SKT-110PC**					.441	.078			.343		.112		.218		.080	.250
714	**SKT-111PC**					.381	.080			.281		.112		.218		.080	.250
730	**SKT-16L2**	S15	0.80	1200	3500	.640		.140		.050	.400	.031		.218	**.185***	.050	.200
731	**SKT-100PC**	S8	0.55	2200	5500	.500	.250	.130		.062	.316	.050	.080	.250	**.218**	.080	.250
731	**SKT-101PC**	S8	0.45	2200	5500	.400	.250	.130		.062	.316	.050	.080	.250	**.218**	.080	.250
732	**SKT-102PC**		0.45	1200	3500	.500	.140	.125			.378	.050	.080	.218	**.187†**	.080	.250
732	**SKT-102PC-B2**		0.40	1500	4000	.520	.140	.130			.398	.040	.080	.218	**.187†**	.080	.250
732	**SKT-103PC**		0.50	1200	3500	.400	.140	.125			.378	.050	.080	.218	**.187†**	.080	.250
732	**SKT-103PC-L1**		0.50	1200	3500	.400	.140	.187			.378	.035	.080	.218	**.187†**	.080	.250
732	**SKT-0802**		0.50	2700	6500	.500	.140	.125			.689	.050	.080	.218	**.187†**	.080	.500
733	**SKT-105PC**					.385	.233	.125		.062		.050	.080	.219	**.185***	.080	.250

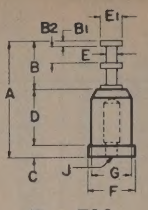
Terminal Lug: Beryllium Copper, Gold Flash over Silver.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.

*±.001 † Tolerance ±.005



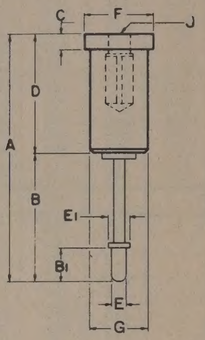
B₁
E₁
B
B2
E
A
D
C
J
G
F

Fig. 709



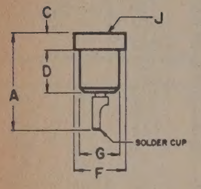
B2
B₁
E₁
E
B
A
D
C
J
G
F

Fig. 710



C
F
J
D
A
B
E₁
B₁
E
G

Fig. 711



C
J
D
A
G
F
SOLDER CUP

Fig. 713

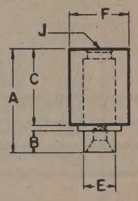
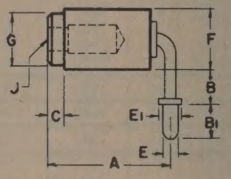


Fig. 714



G
F
J
C
B
E₁
B₁
E
A

Fig. 733

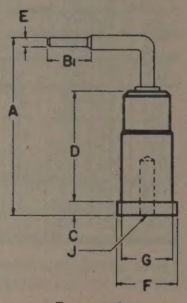
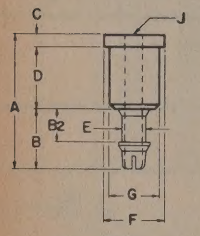
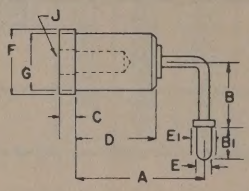


Fig. 730



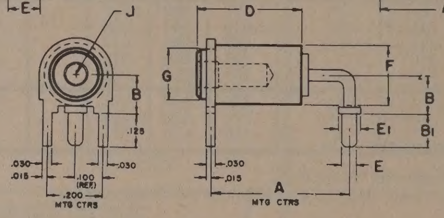
C
J
D
A
B2
E
B
G
F

Fig. 712



J
F
G
C
D
B
E₁
B₁
E
A

Fig. 731



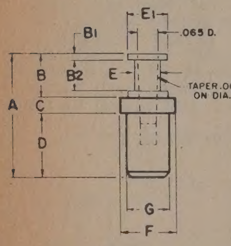
J
B
.125
.030
.015
.030
.100 (REF)
.200 MTG CTRS
D
G
F
B
E₁
B₁
.030
.015
E
A
MTG CTRS

Fig. 732

TAPER PIN RECEPTACLES AND SPECIAL UNITS

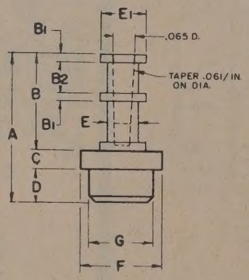
Fig.	Part No.	TOOL No.	Capacitance mmf	V,RMS 60 CPS Nominal Rating	V,RMS 60 CPS Flashover Sea Level	A	B	B₁	B₂	C	D	E Dia.	E₁ Dia.	F Dia.	+.002 —.000 Dia. G
751	**TP-ST-201**	B22	0.70	1000	3000	.350	.133	.020	.093	.080	.140	.093	.149	.250	**.200**
752	**TP-ST-203**	B8-13	0.90	1500	4000	.383	.133	.020	.093	.050	.200	.093	.125	.172	**.133**
753	**TP-ST-202**	B22	0.65	1000	3000	.453	.293	.025	.093	.060	.100	.093	.149	.250	**.200**
753	**TP-ST-202-B2**	B23	0.75	1500	4000	.513	.293	.025	.093	.080	.140	.093	.149	.250	**.200**
754	**TP-FT-200**	S22	1.10	1000	3000	.593	.210	.020	.180	.040	.143	.093	.125	.250	**.200**
755	**TP-FT-201**	B22	0.70	1000	3000	.500	.133	.020	.093	.080	.140	.093	.149	.250	**.200**
756	**TP-FT-100**	B6A-1	1.10	1000	3000	1.798	.133	.020	.093		.171	.080	.093		**.150**
757	**RFT-340****	B22	0.90	1500	4000	.650	.182			.040	.138	.093	.125	.250	**.200**
758	**PL-20****	B23-B	1.40	1000	3000	.940	.140	.020		.050	.450	.050	.078	.250	**.218**

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003″ Minimum Thick.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.
**Gold Flash over Silver Plate.



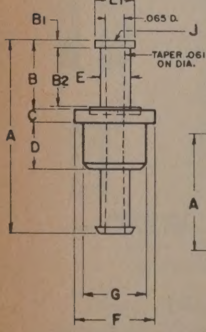
E₁
B₁
.065 D.
B
B2
E
TAPER .061 / IN. ON DIA.
A
C
D
G
F

Fig. 752



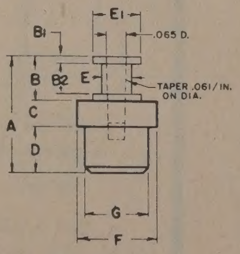
E₁
B₁
.065 D.
B2
TAPER .061 / IN. ON DIA.
B
B₁
E
A
C
D
G
F

Fig. 753



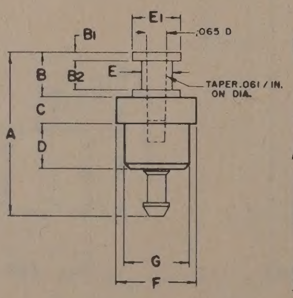
E₁
B₁
.065 D.
J
B
B2
E
TAPER .061 / IN. ON DIA.
C
A
D
G
F

Fig. 754



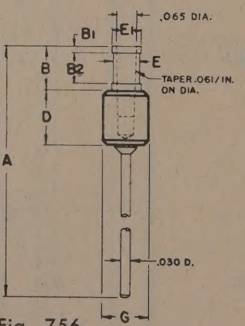
E₁
B₁
.065 D.
B
B2
E
TAPER .061 / IN. ON DIA.
C
A
D
G
F

Fig. 751



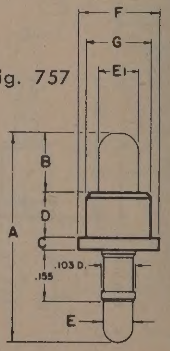
E₁
B₁
.065 D
B
B2
E
TAPER .061 / IN. ON DIA.
C
A
D
G
F

Fig. 755



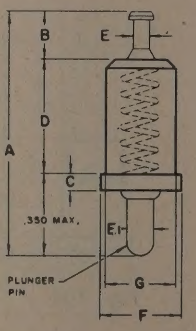
.065 DIA.
B₁
E₁
B
B2
E
TAPER .061 / IN. ON DIA.
D
A
.030 D.
G

Fig. 756



F
G
E₁
B
D
A
.103 D.
.155
E

Fig. 757



B
E
D
A
C
.350 MAX.
E₁
PLUNGER PIN
G
F

Fig. 758

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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PROBES AND PLUGS

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V,RMS 60 CPS NOMINAL RATING	V,RMS 60 CPS FLASHOVER SEA LEVEL	A	B	B₁	C	D	±.001 E DIA.	E₁ DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	J₁ DIA.	K₁
801	**FT-M-9C1**	B8-16	1.0	1000	3000	1.937	.250		.046	.165	.050		.172	**.148**			
801	**FT-M-9**	B18-1B	1.0	1000	3000	1.937	.250		.046	.141	.050		.218	**.185***			
801	**FT-M-2**	B18-1B	1.10	1000	3000	2.083	.250		.046	.287	.050*		.218	**.185***			
801	**FT-M-2L2**	B18-1B	0.70	1000	3000	.906	.250		.046	.287	.050		.218	**.185***			
801	**FT-M-2L4**	B18-1B	0.85	1000	3000	1.531	.250		.046	.287	.050*		.218	**.185***			
801	**FT-M-19**	B18-1B	1.0	1000	3000	1.870	.120		.046	.250	.040		.218	**.185***			
802	**PR-15**	B-23	0.90	3000	7000	1.531			.157	.375	.050*	.125	.250	**.220**			
803	**RFT-M-14**	B-18-1C	0.90	1700	4500	1.940	.120		.046	.320	.040*		.218	**.185***			
804	**FT-M-4#**	B18-1B	0.80	1000	3000	.739	.281		.046	.287	.081*		.218	**.185***			
804	**FT-M-12**	B-10	0.65	1000	3000	.687	.272		.040	.212	.040		.187	**.171**			
804	**FT-M-7**	B18-1B	0.80	1000	3000	.739	.281		.046	.287	.081*		.218	**.185***			
804	**FT-M-8**	B18-1B	0.90	1000	3000	.562	.250		.046	.141	.050*		.218	**.185***			
804	**FT-M-8-L1**	B18-E	0.90	1000	3000	.562	.250		.046	.141	.081		.218	**.185***			
804	**FT-M-11**	B18-1B	0.90	1000	3000	.562	.250		.052	.135	.050*		.218	**.185**			
804	**FT-M-14**	B18-E	0.80	1000	3000	.906	.250		.046	.287	.050		.218	**.185**			
804	**FT-M-16**	B18-1B	0.80	1000	3000	.648	.190		.046	.287	.090*		.218	**.185***			
804	**FT-M-17**	B18-1B	0.80	1000	3000	.612	.250		.046	.141	.062*		.218	**.185***			
805	**RFT-M-11**	B18-E	0.80	1000	3000	.562	.250		.052	.135	.050*		.218	**.185***			
806	**FT-M-6##**	B13-2	0.85	2000	5000	.867	.250		.187	.212	.100**		.187	**.171**			.203
807	**PR-10**	B8-14	0.70	1000	3000	.538	.130		.046	.175	.040		.172	**.148**			
807	**PR-10-B-L2**	B-9-3	0.70	1500	4000	.571	.125		.125	.160	.040		.172	**.148**			
807	**PR-13**	B-8	0.65	1000	3000	.416	.080		.040	.135	.040		.172	**.148**			
807	**PR-13C1**	B-8	0.65	1000	3000	.416	.080		.040	.135	.040		.172	**.148**			
808	**PR-400**	B13-3	0.55	1000	3000	.407	.125		.065	.090	.040		.187	**.148**			
808	**PR-620**	B18-1	0.55	1200	3500	.559	.187		.065	.176	.062		.218	**.171**			
808	**PR-800**	B23-A	0.70	1200	3500	.559	.187		.065	.169	.080		.250	**.185***			
809	**PR-300**					.645	.270		.375		.080		.218		.062	.128	
809	**PR-0900**					.645	.270		.375		.090		.218		.062	.128	
810	**PR-302**	B22-X1				.645	.270		.050	.325	.080		.250	**.218**	.062	.128	
811	**PR-100****	B6-X	0.75	750	2500	.365	.194		.046	.125	.077**		.150	**.120**	.030		
812	**FT-M-5**	B18-1B	0.70	1000	3000	.833	.250		.046	.287	.050		.218	**.185**			
812	**FT-M-9L2**	B18-1B	0.65	1000	3000	.682	.250		.046	.141	.050		.218	**.185**			
813	**PR-28*****					1.300		.030	.453		.080	.060					

Terminal Lug: Gold Flash over Silver Plate.
Capacitance and voltage measured with terminals installed in .050″ thick aluminum chassis.
No ball on end of Lug.
Silver Plate .0003″ Min. Thick.
**Beryllium Copper — E Dimension +.003 —.002
***Gold over Copper.
*±.001

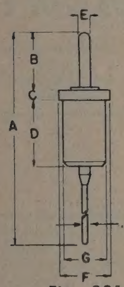


Fig. 801

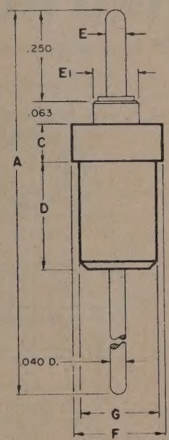


Fig. 802

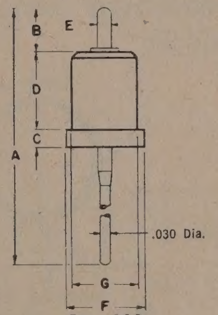


Fig. 803

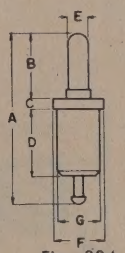


Fig. 804

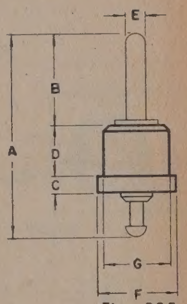


Fig. 805

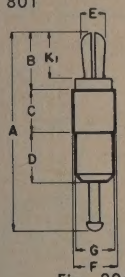


Fig. 806

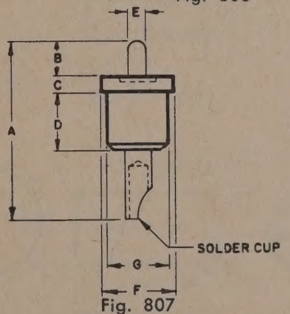


Fig. 807

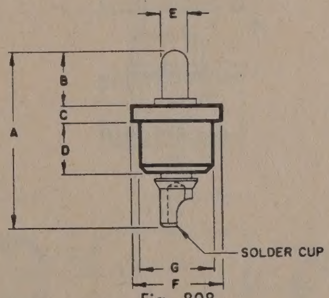


Fig. 808

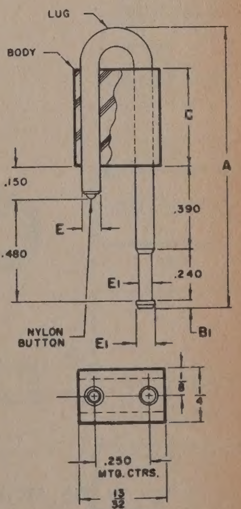


Fig. 813

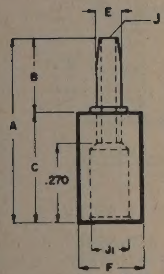


Fig. 809

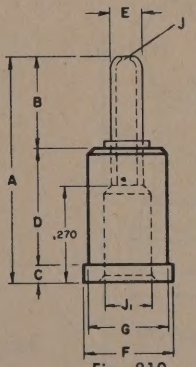


Fig. 810

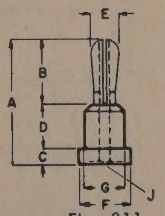


Fig. 811

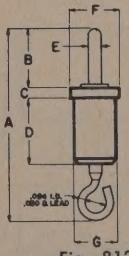
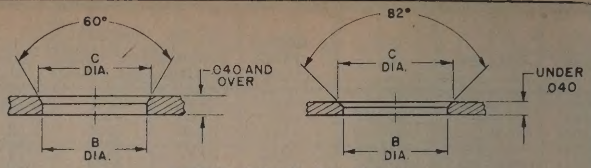


Fig. 812

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

TRANSISTOR UNITS HOLDERS

TRANSISTOR HOLDER	TOOL No.	B ±.002	C +.010 —.000	TRANSISTOR HOLDER	TOOL NO.	B ±.002	C +.010 —.000
TC-300T	B34	.277	.305	RTC-303T	B34	.277	.305
TC-303T	B34	.277	.305	RTC-304T	B34	.277	.305
TC-400T	B34	.277	.305	RTC-350T	B37	.454	.485
TC-404T	B34	.277	.305	RTC-400T	B34	.277	.305
TC-1000	B34	.277	.305	RTC-400-L2	B34	.277	.305
RTC-300T	B34	.277	.305	RTC-404T	B34	.277	.305
RTC-300-L2	B34	.277	.305	RTC-460T	B38	.421	.467
RTC-301T	B34	.277	.305	RTC-650T	B37	.453	485


60°
C DIA.
.040 AND OVER
B DIA.
82°
C DIA.
UNDER .040
B DIA.

INSTALLATION DIAGRAM

Contact Material—Brass, Gold Flash over .0003" Silver.

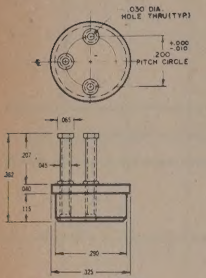

.030 DIA. HOLE THRU (TYP)
+.000 -.010
.200 PITCH CIRCLE
065
207
045
362
040
115
290
325

Fig. TC-300T

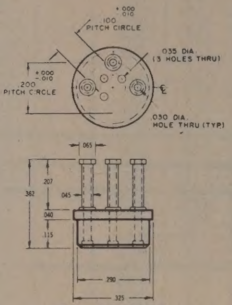

+.000 -.010
.100 PITCH CIRCLE
.035 DIA. (3 HOLES THRU)
+.000 -.010
.200 PITCH CIRCLE
.030 DIA. HOLE THRU (TYP)
065
207
362
045
040
115
290
325

Fig. TC-303T

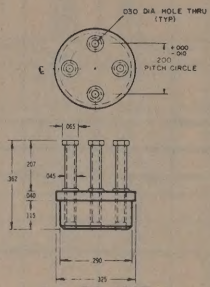

.030 DIA HOLE THRU (TYP)
+.000 -.010
.200 PITCH CIRCLE
065
207
362
045
040
115
290
325

Fig. TC-400T

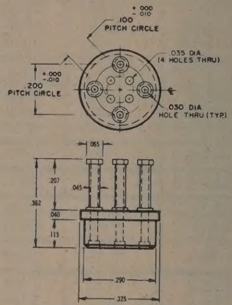

+.000 -.010
.100 PITCH CIRCLE
.035 DIA. (4 HOLES THRU)
+.000 -.010
.200 PITCH CIRCLE
.030 DIA HOLE THRU (TYP)
065
207
045
362
040
115
290
325

Fig. TC-404T

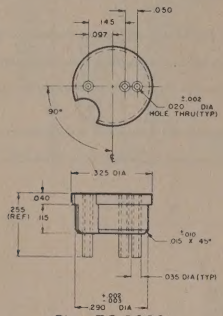

.050
.145
.097
90°
±.002
.020 DIA HOLE THRU (TYP)
.325 DIA
.040
.255 (REF)
115
+.010
.015 X 45°
.035 DIA (TYP)
+.002 -.003
.290 DIA

Fig. TC-1000

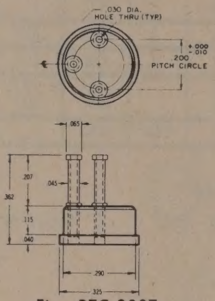

.030 DIA. HOLE THRU (TYP)
+.000 -.010
.200 PITCH CIRCLE
065
207
045
362
115
040
290
325

Fig. RTC-300T

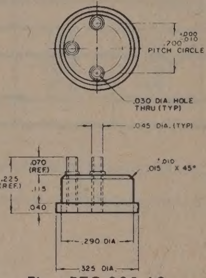

+.000 -.010
.700 PITCH CIRCLE
.030 DIA. HOLE THRU (TYP)
.045 DIA. (TYP)
.070 (REF)
+.010
.015 X 45°
.225 (REF)
.115
.040
.290 DIA
.325 DIA.

Fig. RTC-300-L2

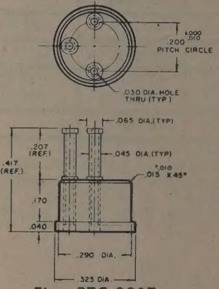

+.000 -.010
.200 PITCH CIRCLE
.030 DIA. HOLE THRU (TYP)
.065 DIA. (TYP)
.207 (REF)
.045 DIA. (TYP)
.417 (REF)
+.010
.015 X 45°
.170
.040
.290 DIA.
.325 DIA.

Fig. RTC-301T

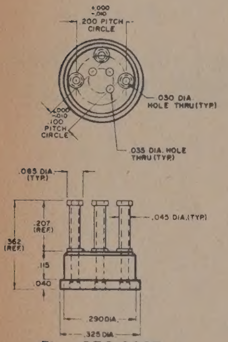

+.000 -.010
.200 PITCH CIRCLE
.030 DIA. HOLE THRU (TYP)
+.000 -.010
.100 PITCH CIRCLE
.035 DIA. HOLE THRU (TYP)
.065 DIA. (TYP)
.207 (REF)
.045 DIA. (TYP)
.362 (REF)
.115
.040
.290 DIA.
.325 DIA.

Fig. RTC-303T

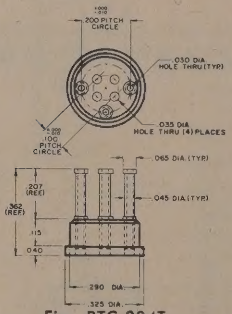

+.000 -.010
.200 PITCH CIRCLE
.030 DIA. HOLE THRU (TYP)
.035 DIA HOLE THRU (4) PLACES
+.000 -.010
.100 PITCH CIRCLE
.065 DIA. (TYP)
.207 (REF)
.045 DIA (TYP)
.362 (REF)
.115
.040
.290 DIA.
.325 DIA.

Fig. RTC-304T

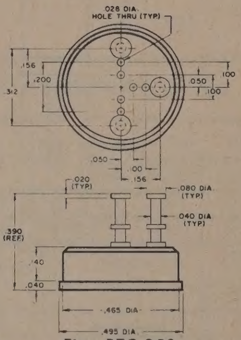

.028 DIA. HOLE THRU (TYP)
.156
.200
.312
.050
.100
.100
.050
.100
.156
.020 (TYP)
.080 DIA. (TYP)
.040 DIA (TYP)
.390 (REF)
.140
.040
.465 DIA.
.495 DIA.

Fig. RTC-350

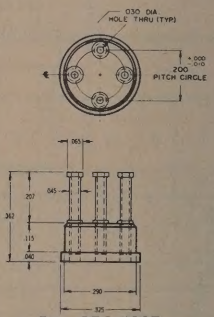

.030 DIA. HOLE THRU (TYP)
+.000 -.010
.200 PITCH CIRCLE
065
207
045
362
115
040
290
325

Fig. RTC-400T

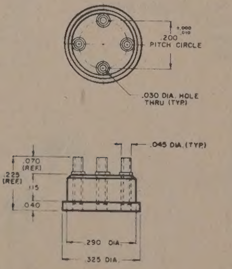

+.000 -.010
.200 PITCH CIRCLE
.030 DIA. HOLE THRU (TYP)
.045 DIA. (TYP)
.070 (REF)
.225 (REF)
.115
.040
.290 DIA.
.325 DIA.

Fig. RTC-400-L2

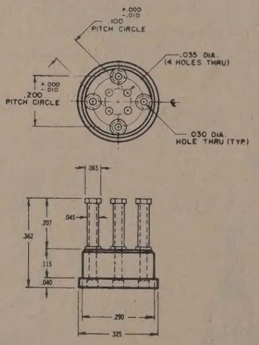

+.000 -.010
.100 PITCH CIRCLE
.035 DIA. (4 HOLES THRU)
+.000 -.010
.200 PITCH CIRCLE
.030 DIA. HOLE THRU (TYP)
065
207
045
362
115
040
290
325

Fig. RTC-404T

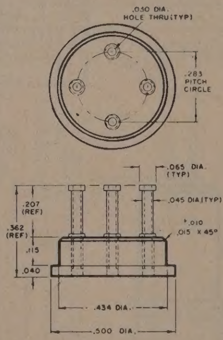

.030 DIA. HOLE THRU (TYP)
.283 PITCH CIRCLE
.065 DIA. (TYP)
.207 (REF)
.045 DIA (TYP)
+.010
.015 X 45°
.362 (REF)
.115
.040
.434 DIA.
.500 DIA.

Fig. RTC-460T

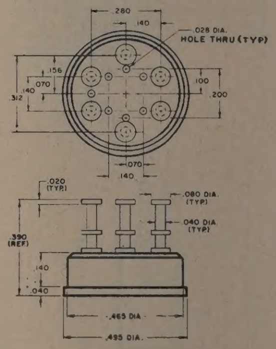

.280
.140
.028 DIA. HOLE THRU (TYP)
.156
.070
.140
.312
.100
.200
.070
.140
.020 (TYP)
.080 DIA. (TYP)
.040 DIA. (TYP)
.390 (REF)
.140
.040
.465 DIA.
.495 DIA.

Fig. RTC-650T

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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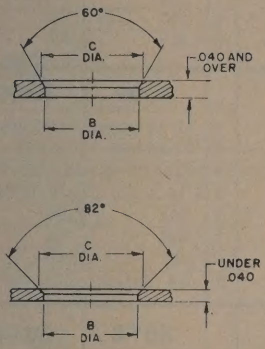
TRANSISTOR UNITS SOCKETS

TRANSISTOR SOCKET	TOOL No.	B ±.002	C +.010 —.000
TS-300	B35	.360	.380
TS-300/1	B27-1	.243	.268
TS-350*	B35	.360	.386
TS 400	B35	.360	.386
TS-400/1	B27-1	.243	.268
TS-450*	B35	.360	.386
TS-500	B35	.360	.386

Contact Material—Heat Treated Beryllium Copper
Plating—(Stamped Contacts)—Gold Flash over Silver.
TS-350 and TS-450* (Machined Contacts)—Gold Flash over .0003" Silver.


60°
C DIA.
.040 AND OVER
B DIA.
82°
C DIA.
UNDER .040
B DIA

INSTALLATION DIAGRAM

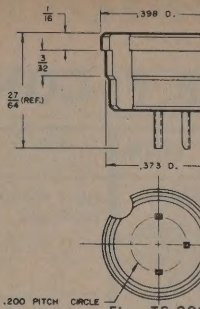

1/16
.398 D.
3/32
27/64 (REF.)
.373 D.
.200 PITCH CIRCLE

Fig. TS-300

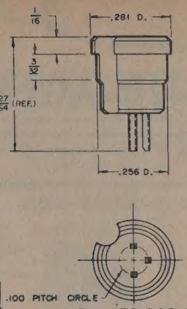

1/16
.281 D.
3/32
27/64 (REF.)
.256 D.
.100 PITCH CIRCLE

Fig. TS-300-1

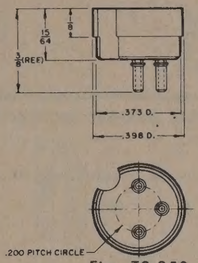

15/64
1/8
3/8 (REF.)
.373 D.
.398 D.
.200 PITCH CIRCLE

Fig. TS-350

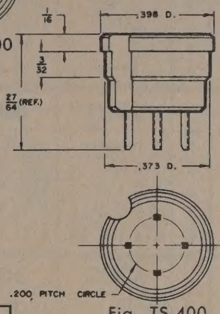

1/16
.398 D.
3/32
27/64 (REF.)
.373 D.
.200 PITCH CIRCLE

Fig. TS-400

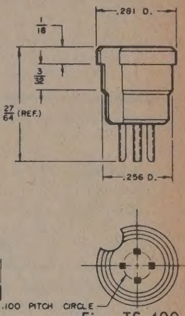

.281 D.
1/16
3/32
27/64 (REF.)
.256 D.
.100 PITCH CIRCLE

Fig. TS-400-1

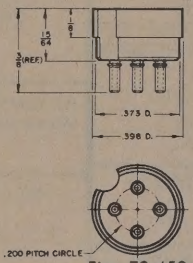

15/64
1/8
3/8 (REF.)
.373 D.
.398 D.
.200 PITCH CIRCLE

Fig. TS-450

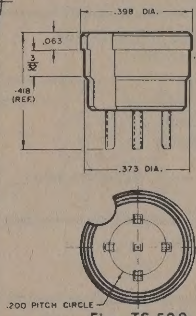
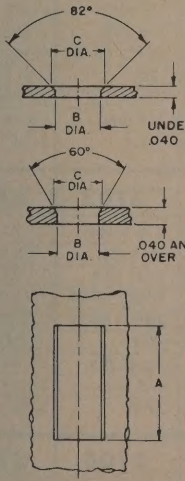

.398 DIA.
.063
3/32
.418 (REF.)
.373 DIA.
.200 PITCH CIRCLE

Fig. TS-500

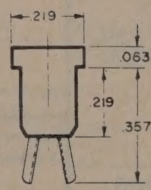
TRANSISTOR UNITS IN-LINE SOCKETS

IN-LINE TRANSISTOR SOCKETS	A	B ±.002	C +.010 —.000
TSL-3	.360	.161	.184
TSL-4	.360	.161	.184
TSL-5	.360	.161	.184
TSL-6	.410	.161	.184
TSL-7	.460	.161	.184

Contact Material—Heat Treated Beryllium Copper.
Plating—(Stamped Contacts)—Gold Flash over Silver.


82°
C DIA.
B DIA.
UNDER .040
60°
C DIA
B DIA.
.040 AND OVER
A

INSTALLATION DIAGRAM


.219
.063
.219
.357

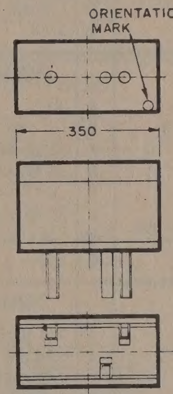

ORIENTATION MARK
.350

Fig. TSL-3

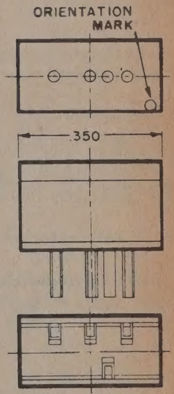

ORIENTATION MARK
.350

Fig. TSL-4

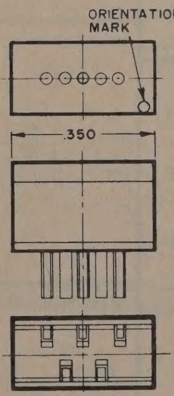

ORIENTATION MARK
.350

Fig. TSL-5

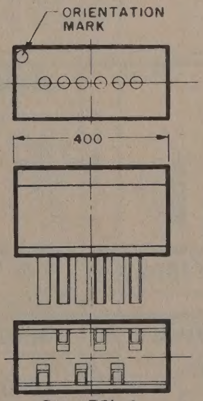

ORIENTATION MARK
.400

Fig. TSL-6

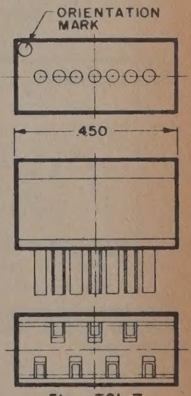

ORIENTATION MARK
.450

Fig. TSL-7

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

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Sealectro

CON HEX ®

SUB-MINIATURE R. F. CONNECTORS

PLATING: 0.0001 Gold over 0.0001 Copper.

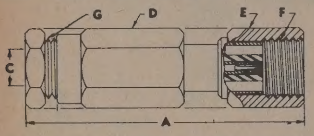
MATING CONNECTORS: All Screw-On (Snap-On) plugs will mate with all Screw-On (Snap-On) jacks & receptacles of the same resistance rating.

U. S. Pat. No. 2,937,360

*Designed for use with 50 ohm sub-miniature cables such as the RG-188/U or RG-174/U.

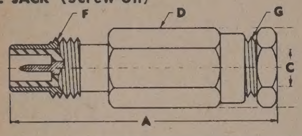
	50 OHM	75 OHM

STRAIGHT CABLE PLUG (Screw-On) (Screw-On)



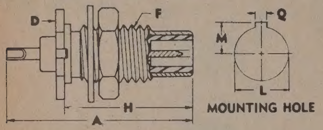
	3000*	3030†
A	78 approx.	13/16 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
E	7/32 HEX	11/32 HEX
F	10-32, NF-2B	5/16-32, NEF-2B
G	10-32, NF-2A	9/32-40, NS-2A

CABLE JACK (Screw-On)



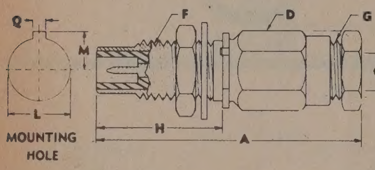
	3001*	3031†
A	7/8 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2A	9/32-40, NS-2A

BULKHEAD RECEPTACLE WITH LOCKING NUT OUTSIDE THE PANEL (Screw-On)



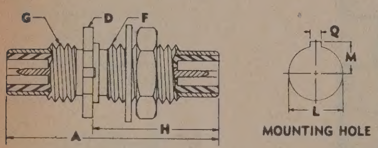
	3002	3032
A	19/32	19/32
D	1/4 HEX	3/8 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.397	.397
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

BULKHEAD JACK (Screw-On)



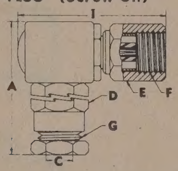
	3003*	3033†
A	7/8 approx.	7/8 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2A	5/16-32, NEF-2A
H	.402	.402
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

CABLE FEED-THRU (Screw-On)



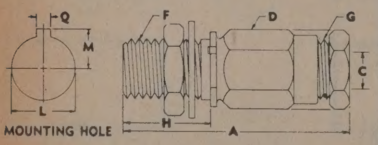
	3004	3034
A	.671	.671
D	1/4 HEX	3/8 HEX
F	10.32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2A	5/16-32, NEF-2A
H	.397	.397
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

RIGHT ANGLE PLUG (Screw-On)



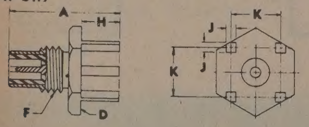
	3005*	3035†
A	3/4 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
E	7/32 HEX	11/32 HEX
F	10-32, NF-2B	5/16-32, NEF-2B
G	10-32, NF-2A	9/32-40, NS-2A
I	5/8	.725

CABLE TERMINATION (Screw-On)



	3006*	3036†
A	3/4 approx.	23/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2A	5/16-32, NEF-2A
H	.277	.277
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

STRAIGHT PRINTED WIRING BOARD RECEPTACLE (Screw-On)

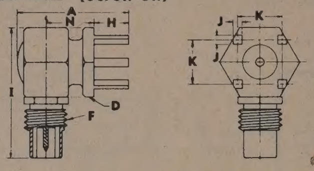


	3007	3037
A	.448	.448
D	5/16 HEX	3/8 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.155	.155
J	.040	.040
K	.200	.200

†Designed for use with many of the 75 ohm sub-miniature cables and 95 ohm sub-miniature cables.

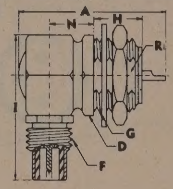
	50 OHM	75 OHM

RIGHT ANGLE PRINTED WIRING BOARD RECEPTACLE (Screw-On)



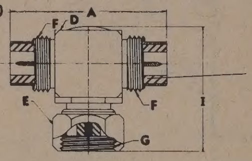
	3008	3038
A	1/2	21/32
D	5/16 HEX	1/2 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.155	.155
I	.587	.706
J	.040	.040
K	.200	.250
N	.215	.300

RIGHT ANGLE BULKHEAD RECEPTACLE (Screw-On)



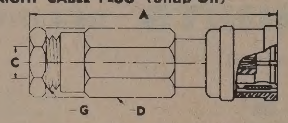
	3009	3039
A	41/64 approx.	25/32 approx.
D	11/32 HEX	1/2 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	5/16-32,NEF-2A	3/8-32, NEF-2A
H	.198	.230
I	.619	.706
N	.187	.250
R	.025/.030FLAT	.025/.030 FLAT

TEE ADAPTOR, PLUG INLET, 2 JACK OUTLETS (Screw-On)



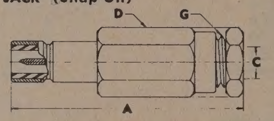
	3014	3044
A	.844	.907
D	5/16 CUBE	3/8 CUBE
E	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2B	5/16-32, NEF-2B
I	21/32	45/64

STRAIGHT CABLE PLUG (Snap-On)



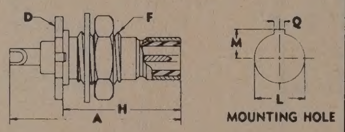
	3100*	3130†
A	27/32 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
G	10-32, NF-2A	9/32-40, NS-2A

CABLE JACK (Snap-On)



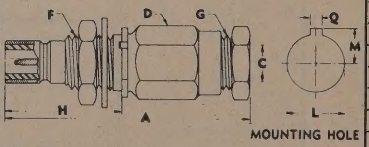
	3101*	3131†
A	7/8 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
G	10-32, NF-2A	9/32-40, NS-2A

BULKHEAD RECEPTACLE WITH LOCKING NUT OUTSIDE THE PANEL (Snap-On)



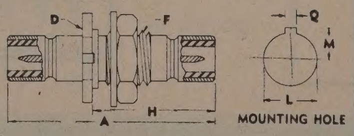
	3102	3132
A	19/32	19/32
D	1/4 HEX	3/8 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.397	.397
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

BULKHEAD JACK (Snap-On)



	3103*	3133†
A	7/8 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2A	5/16-32, NEF-2A
H	.402	.402
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

CABLE FEED-THRU (Snap-On)



	3104	3134
A	.671	.671
D	1/4 HEX	3/8 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.397	.397
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

SEALECTRO CORPORATION

MAMARONECK, N. Y.

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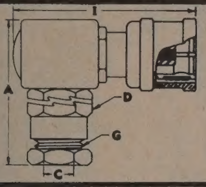
Sealectro CONHEX®

SUB-MINIATURE R. F. CONNECTORS

*Designed for use with 50 ohm sub-miniature cables such as the RG-188/U or RG-174/U.

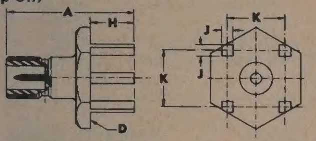
†Designed for use with many of the 75 ohm sub-miniature cables and 95 ohm sub-miniature cables.

RIGHT ANGLE PLUG (Snap-On)



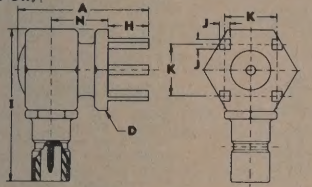
	50 OHM 3105*	75 OHM 3135†
A	3/4 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
G	10-32, NF-2A	9/32-40, NS-2A
I	43/64	3/4

STRAIGHT PRINTED WIRING BOARD RECEPTACLE (Snap-On)



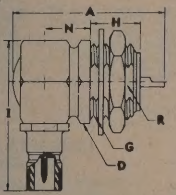
	50 OHM 3107	75 OHM 3137
A	.448	.448
D	5/16 HEX	3/8 HEX
H	.155	.155
J	.040	.040
K	.200	.200

RIGHT ANGLE PRINTED WIRING BOARD RECEPTACLE (Snap-On)



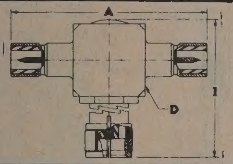
	50 OHM 3108	75 OHM 3138
A	1/2	21/32
D	5/16 HEX	3/8 HEX
H	.155	.155
I	.587	.706
J	.040	.040
K	.200	.250
N	.215	.300

RIGHT ANGLE BULKHEAD RECEPTACLE (Snap-On)



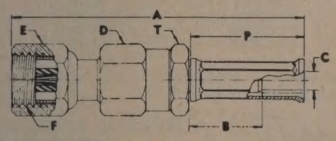
	50 OHM 3109	75 OHM 3139
A	41/64 approx.	25/32 approx.
D	11/32 HEX	1/2 HEX
G	5/16-32,NEF-2A	3/8-32, NEF-2A
H	.198	.230
I	.619	.706
N	.187	.250
R	.025/.030FLAT	.025/.030 FLAT

TEE ADAPTOR, PLUG INLET, 2 JACK OUTLETS (Snap-On)



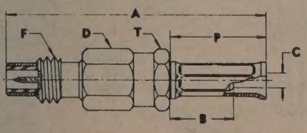
	50 OHM 3114	75 OHM 3144
A	.844	.907
D	5/16 CUBE	3/8 CUBE
I	5/8	43/64

STRAIGHT CABLE PLUG (Crimp Type, Screw-On)



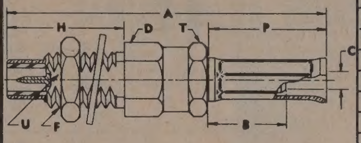
	50 OHM 6000*	75 OHM 6031†
A	1-1/64	1-7/64
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	5/16 HEX
E	7/32 HEX	11/32 HEX
F	10-32, NF-2B	5/16-32, NEF-2B
P	.375	.400
T	7/32 HEX	5/16 HEX

CABLE JACK (Crimp Type, Screw-On)



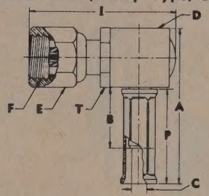
	50 OHM 6001*	75 OHM 6031†
A	1-1/16	1-1/8
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	5/16 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
P	.375	.400
T	7/32 HEX	5/16 HEX

BULKHEAD JACK (Crimp Type, Screw-On)



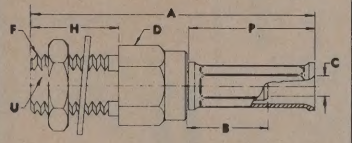
	50 OHM 6003*	75 OHM 6033†
A	1-1/16	1-1/8
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.390	.390
P	.375	.400
T	7/32 HEX	5/16 HEX
U	.020 FLAT	.030 FLAT

RIGHT ANGLE PLUG (Crimp Type, Screw-On)



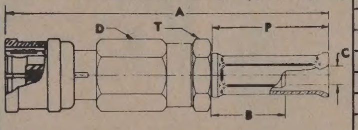
	50 OHM 6005*	75 OHM 6035†
A	5/8	23/32
B	.260	.260
C	.067 dia.	.109 dia.
D	1/4 CUBE	5/16 CUBE
E	7/32 HEX	11/32 HEX
F	10-32, NF-2B	5/16-32, NEF-2B
I	5/8	23/32
P	.375	.400
T	7/32 HEX	11/32 HEX

CABLE TERMINATION (Crimp Type, Screw-On)



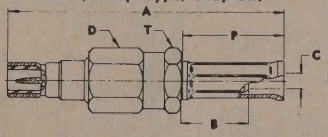
	50 OHM 6006*	75 OHM 6036†
A	11/16	23/32
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.177	.177
P	.375	.400
U	.020 FLAT	.030 FLAT

STRAIGHT CABLE PLUG (Crimp Type, Snap-On)



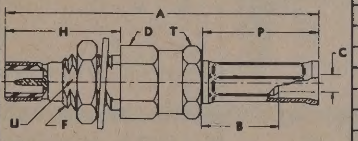
	50 OHM 6100*	75 OHM 6130†
A	1″	1-1/16
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	5/16 HEX
P	.375	.400
T	7/32 HEX	5/16 HEX

CABLE JACK (Crimp Type, Snap-On)



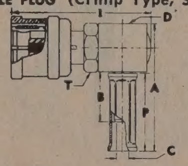
	50 OHM 6101*	75 OHM 6131†
A	1-1/16	1-1/8
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	5/16
P	.375	.400
T	7/32 HEX	5/16 HEX

BULKHEAD JACK (Crimp Type, Snap-On)



	50 OHM 6103*	75 OHM 6133†
A	1-1/16	1-1/8
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.390	.390
P	.375	.400
T	7/32 HEX	5/16 HEX
U	.020 FLAT	.030 FLAT

RIGHT ANGLE PLUG (Crimp Type, Snap-On)



	50 OHM 6105*	75 OHM 6135†
A	5/8	23/32
B	.260	.260
C	.067 dia.	.109 dia.
D	1/4 CUBE	5/16 CUBE
I	39/64	11/16
P	.375	.400
T	7/32 HEX	5/16 HEX

CRIMP-ON ASSEMBLY TOOL — Part No. CT-6

TYPICAL SPEC CABLES FOR USE WITH "CONHEX" CONNECTORS

RG-161/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-174/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-179/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-179A/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-180/U	3030, -31, -33, -35, -36 — 3130, -31, -33, -35
RG-187/U	3000SB, -1SB, -3SB, -5SB, -6SB 3100SB, -1SB, -3SB, -5SB, -6SB
RG-188/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5 6000, -1, -3, -5, -6 — 6100, -1, -3, -5
RG-195/U	3030, -31, -33, -35, -36 — 3130, -31, -33, -35 6030, -31, -33, -35, -36 — 6130, -31, -33, -35

SEALECTRO CORPORATION MAMARONECK, N. Y.

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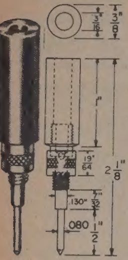
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"



INSULATED TIP PLUG
Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

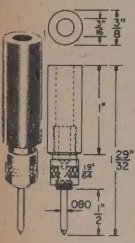
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Type	NET Per C
200	Senior	$15.00



INSULATED TIP PLUG
Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

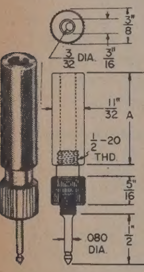
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Type	NET Per C
201	Junior	$15.00



INSULATED TIP PLUG
Signal Corps Approved

HANDLE: ETHYL CELLULOSE, Type EM-1, per MIL-P-3412. Red, Black. SPECIFY COLOR

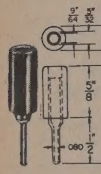
PLUG: Steel, case hardened to Signal Corps specs.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Recess at end of prod tip holds plugs more firmly in jack spring. Prevents tip from falling out when in an inverted position.

Std. Pkg. 50

No.	Handle (A)	Overall (B)	NET Per C
250	1 inch	2⅛"	$54.00
358	3 inch	4⅛"	84.00



INSULATED TIP PLUG
Solder Type

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

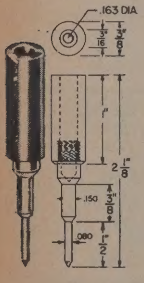
BODY: Brass, nickel plated our No. 158.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Drawn hollow tip for easy soldering. Fits standard phone tip jack.

Std. Pkg. 100

No.	NET Per C
237	$10.20



INSULATED TIP PLUG
Heavy Duty Type

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

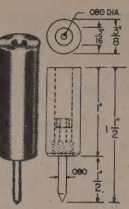
PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks.

Std. Pkg. 100

No.	NET Per C
229	$15.00



INSULATED SHORT TIP PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

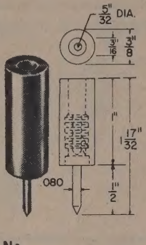
PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Inserts flush to insulate handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks.

Std. Pkg. 100

No.	NET Per C
203	$12.00



INSULATED SHORT TIP PLUG
Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

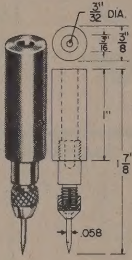
PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to insulated handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks.

Std. Pkg. 50

No.	NET Per C
283	$13.20



INSULATED TIP PLUG
Phono Needle

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

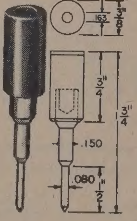
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Removable chuck for easy replacement of broken needle. Needle pierces corrosion or plating for positive reading.

Std. Pkg. 50

No.	NET Per C
216	$15.00



ADAPTER
Banana Plug to Tip Plug

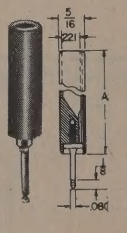
HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. SPECIFY COLOR

BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Accepts standard banana plugs, adapts to standard tip plug. Std. Pkg. 100

No.	NET Per C
215	$15.00



SUB-MINIATURE TIP PLUG AND TEST PROD

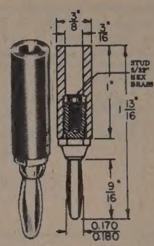
HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black. SPECIFY COLOR

TIP: Brass, Silver plated.

DESCR.: Solderless assembly. Ideal for use with sub-miniature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on printed-circuit pattern for positive contact when used as prod. Grooved head or prod makes positive contact when laid across wires. Fits all standard .080" tip jacks.

Std. Pkg. 25

No.	Handle (A)	Overall (B)	NET Per C
348	1 inch	1⁵⁄₁₆"	$15.00
349	4 inches	4⁵⁄₁₆"	30.00



INSULATED BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUG: Hex brass, nickel or silver plated.

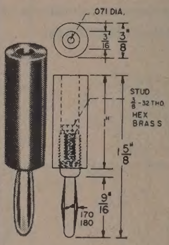
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.

Std. Pkg. 100

No.	Spring Material	Plating	NET Per C
212	Phosphor Bronze	Nickel	$21.00
232	Phosphor Bronze	Silver	24.00
242	Beryllium Copper	Nickel	30.00
262	Beryllium Copper	Silver	33.00



INSULATED BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUG: Brass, nickel or silver plated.

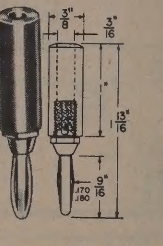
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.

RATING: 15 Amps AC for 10° Temp. rise, continuous duty.

DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.

Std. Pkg. 100

No.	Spring Material	Plating	NET Per C
211	Phosphor Bronze	Nickel	$18.00
261	Phosphor Bronze	Silver	21.00
271	Beryllium Copper	Nickel	24.00
281	Beryllium Copper	Silver	27.00



INSULATED BANANA PLUG
Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUG: Hex brass, nickel or silver plated.

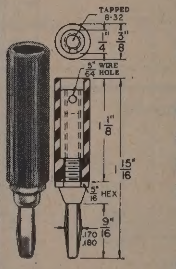
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.

RATING: 15 AC Amps for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Fits standard banana jacks.

Std. Pkg. 50

No.	Spring Material	Plating	NET PER C
295	Phosphor Bronze	Nickel	$18.00
296	Phosphor Bronze	Silver	21.00
297	Beryllium Copper	Nickel	24.00
298	Beryllium Copper	Silver	27.00



INSULATED BANANA PLUG
Solderless

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black. SPECIFY COLOR

BODY: Hex brass, nickel plated with mating brass spacer.

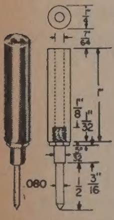
SPRING: Four-leaved phosphor bronze, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Cross drilled hole in spacer enables quick solderless connection of wire to plug. Fits standard banana jacks.

Std. Pkg. 100

No.	NET Per C
236	$33.00



SUB-MINIATURE TIP PLUG

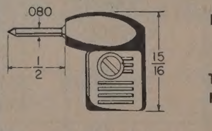
HANDLE: FIBRE, per MIL-F-148A, Grade CH. Red, Black. SPECIFY COLOR

TIP: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Ideally suited for checking sub-miniature equipment. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	NET Per C
270	$18.00



METER TIP PLUG

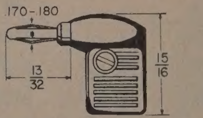
HANDLE: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR

TIP: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard phone tip jacks. **Std Pkg. 50**

No.	NET Per C
235	$27.00



METER BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR

PLUG: Brass, nickel plated.

SPRING: Four-leaved phosphor bronze, nickel plated.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard banana jacks. **Std. Pkg. 50**

No.	NET Per C
255	$36.00

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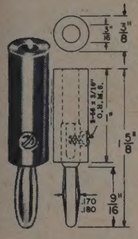
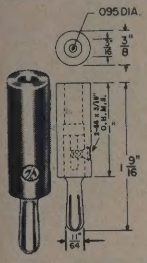


INSULATED BANANA PLUG
With Side Screw

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Set screw secures wire without soldering. Fits standard banana jacks. **Std. Pkg. 100**

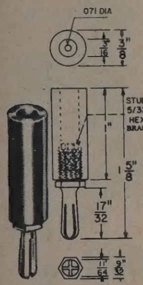
No.	Spring	NET Per C
204	Phosphor Bronze	$18.00
254	Beryllium Copper	27.00



INSULATED BANANA PLUG
Split Type With Side Screw

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Set screw secures wire, without soldering. Fits standard banana jacks. **Std. Pkg. 100**

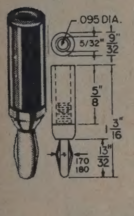
No.	NET Per C
213	$18.00



INSULATED BANANA PLUG
Split Type With Internal Stud

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

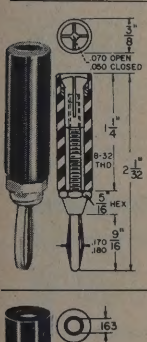
No.	NET Per C
253	$18.00



INSULATED BANANA PLUG
Midget Type

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black. SPECIFY COLOR
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks. **Std. Pkg. 50**

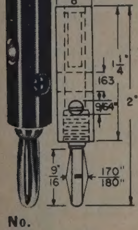
No.	Spring Material	Plating	NET Per C
291	Phosphor Bronze	Nickel	$18.00
292	Phosphor Bronze	Silver	21.00
293	Beryllium Copper	Nickel	24.00
294	Beryllium Copper	Silver	27.00



INSULATED BANANA PLUG
With Internal Spring Collett

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. SPECIFY COLOR
BODY: Hex brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Spring collett provides quick connect and disconnect of wire or standard phone tip. Tin wire for secure contact. Fits standard banana jack. **Std. Pkg. 100**

No.	NET Per C
239	$39.00



STACK BANANA PLUG
Solderless

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow or Green. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless connection. Accepts standard banana plugs in top and side. Interconnects unlimited amount of multiple circuits. **Std. Pkg. 50**

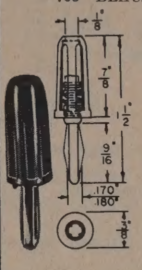
No.	Spring Material	NET Per C
1511	Phosphor Bronze	$27.00
1512	Beryllium Copper	30.00

NYLON PLUGS COLOR CODE SUFFIX

Add to Catalog Number as required

— 101 WHITE
— 102 RED
— 103 BLACK
— 104 GREEN
— 105 BLUE
— 106 ORANGE
— 107 YELLOW
— 108 BROWN
— 112 PURPLE
— 113 GREY

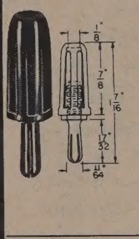
BANANA PLUG TYPE



NYLON BANANA PLUG

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

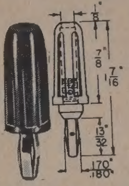
No.	Spring Material	Plating	NET Per C
476	Phosphor Bronze	Nickel	$21.00
477	Phosphor Bronze	Silver	24.00
478	Beryllium Copper	Nickel	27.00
479	Beryllium Copper	Silver	30.00



NYLON BANANA PLUG
Split Type

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

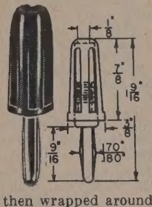
No.	NET Per C
494	$18.00



NYLON BANANA PLUG
Midget

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
426	Phosphor Bronze	Nickel	$18.00
427	Phosphor Bronze	Silver	21.00
428	Beryllium Copper	Nickel	24.00
429	Beryllium Copper	Silver	27.00

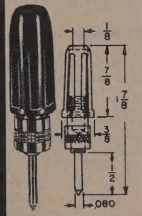


NYLON BANANA PLUG
Solderless

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard banana jacks. **Std. Pkg. 100**

No.	Spring Material	Plating	NET Per C
455	Phosphor Bronze	Nickel	$21.00
456	Phosphor Bronze	Silver	24.00
457	Beryllium Copper	Nickel	27.00
458	Beryllium Copper	Silver	30.00

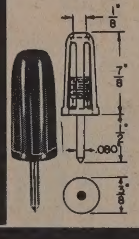
PIN TIP TYPE



NYLON TIP PLUG
Solderless

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portions and tightened with knurled collar. Threaded type. Fits standard phone tip jacks. **Std. Pkg. 100**

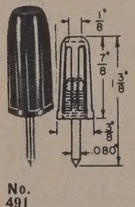
No.	NET Per C
490	$16.80



NYLON SHORT TIP PLUG
Solderless

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std.Pkg.100**

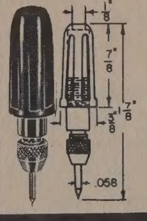
No.	NET Per C
492	$15.00



NYLON SHORT TIP PLUG

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Inserts flush to insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 100**

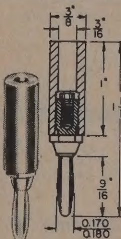
No.	NET Per C
491	$13.80



NYLON TIP PLUG
Phono Needle

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement of broken needles. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 50**

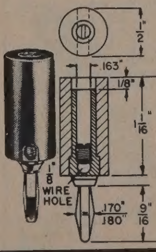
No.	NET Per C
493	$16.80



HIGH TEMPERATURE BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
PLUG: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Withstands temperature to 1200 degrees F. Full resiliency—non-oxidizing. Excellent for thermocouple connection on plastic extruding die heads. **Std. Pkg. 10**

No.	NET Per C
388	$72.00

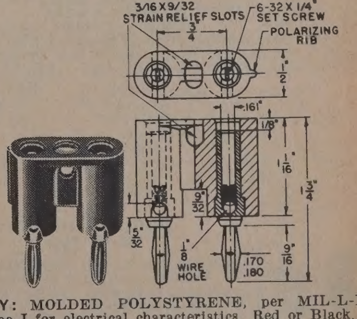


STACK BANANA PLUG

BODY: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics. Red or Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Internal set screw for wire or phone tip connection. Can be stacked for multiple connections. **Std. Pkg. 25**

No.	NET Ea.
324	$48.00

DUAL BANANA PLUG



BODY: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics. Red or Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5K Volts 60 cycle AC continuous working voltage. CAPACITANCE 1.0 mmfd. between conductors.
DESCR.: Mates with standard dual binding post ¾" centers. Polarity indicated on top and side. Wire held with internal set screw. Can be stacked for multiple connections. **Std. Pkg. 25**

No.	NET Per C
210	$72.00

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Net

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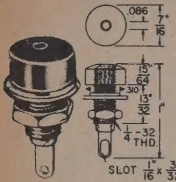


INSULATED PHONE TIP JACK

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

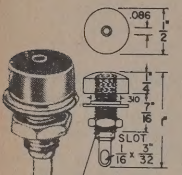
BODY: Brass, nickel plated.

SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Positive contact with standard phone tip plugs. Supplied complete with hex nut and fibre washer. Mounts in 5⁄16″ hole in panels up to ⅜″ thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.	NET Per C
202	$13.20



INSULATED PHONE TIP JACK

HEAD: MACHINED BUTYRATE, per MIL-L-P344, Type I, class MH. Red, Black, Yellow, Green. SPECIFY COLOR

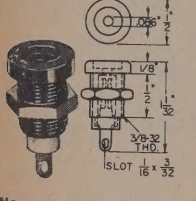
BODY: Brass, nickel plated.

SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Complete with hex nut and fibre washer. Mounts in 5⁄16″ hole in panels up to ⅜″ thick. Accepts standard phone tip plugs. **Std. Pkg. 50**

No.	NET Per C
223	$21.00



MOLDED NYLON TIP JACK

BODY: MOLDED NYLON, per MIL-P-20693A. Red, Black, Yellow, Green, Blue. SPECIFY COLOR

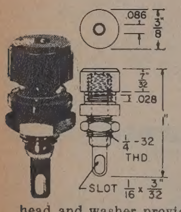
CONTACT: Phosphor bronze.

CAP: Brass, nickel plated.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 5 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.

DESCR.: Mounts in ⅜″ hole in panels up to 5⁄16″ thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.	NET Per C
240	$18.00



INSULATED PHONE TIP JACK

HEAD: Fluted Head, MOLDED NYLON, per MIL-P-20693A. With molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR

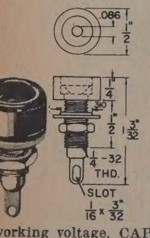
BODY: Brass, nickel plated.

SPRING: Phosphor bronze.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut. Mounts in 5⁄16″ hole in panels up to ¼″ thick. Accepts standard tip plugs. **Std. Pkg. 100**

No.	NET Per C
241	$18.00



INSULATED TIP JACK
Meter Type

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue per LC-726-1. SPECIFY COLOR

BODY: Brass, nickel plated.

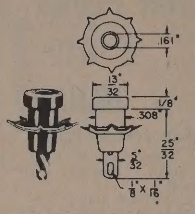
SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

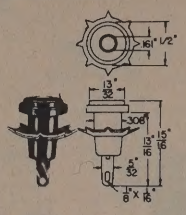
DESCR.: Supplied complete with hex nut and fibre washer. Mounts in 5⁄16″ hole in panels up to ⅜″ thick. Recessed jack body prevents possibility of shock or grounding. Accepts standard phone tip plugs. **Std. Pkg. 50**

No.	NET Per C
282	$15.00

"SPEEDI-MOUNT" BANANA JACKS



#398—Small Head



#399—Large Head

BODY: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.. SPECIFY COLOR

CONTACT: Brass, cadmium plated.

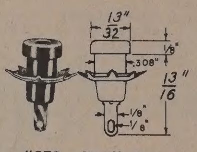
WASHER: Steel cadmium plated, internal and external tooth.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 3 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

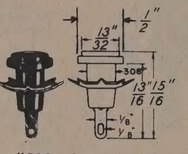
DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panels, prevent pulling out and turning. Mounts in 5/16″ hole in panels up to 3/16″ thick. Accepts standard banana plug. **Std. Pkg. 100**

No.		NET Per C
398	Small Head 13/32″	$6.60
399	Large Head 1/2″	$6.60

"SPEEDI-MOUNT" TIP JACKS



#279—Small Head



#299—Large Head

BODY: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

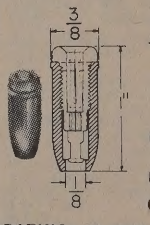
SPRING: Phosphor bronze.

WASHER: Steel cadmium plated, internal and external tooth.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 3 K Volts 60 cycle AC continuous working voltage. CAACITANCE 3.0 mmfd.

DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panels, prevents pulling out and turning. Mounts in 5/16″ hole in panels up to 3/16″ thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.		NET Per C
279	Small Head 13/32″	$6.60
299	Large Head 1/2″	$6.60



NYLON IN-LINE TIP JACK
Color Code Suffix

Add to Catalog Number as Required

— 101 WHITE	— 106 ORANGE
— 102 RED	— 107 YELLOW
— 103 BLACK	— 108 BROWN
— 104 GREEN	— 112 PURPLE
— 105 BLUE	— 113 GREY

All Nylon

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

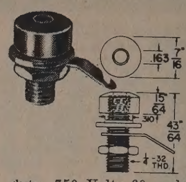
BODY: Molded Nylon, per MIL-P-20693A.

CONTACT: Heat treated beryllium copper, gold washed.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.

DESC.: Fits all standard phone-tip plugs, with recessed contact for safe connection. Ideally suited for use in patch and extension cords. Can also be used for panel mounting where wrap-around terminal connection must be insulated at rear **Std. Pkg. 50**

No.	NET Per C
1513	$30.00



INSULATED BANANA JACK

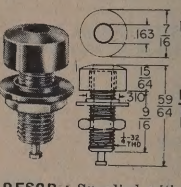
HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Supplied with hex nut, fibre washer, and brass tinned lug. Mounts in 5⁄16″ hole in panels up to ⅜″ thick. Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
205	$13.20



INSULATED BANANA JACK
With Solder Tab

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

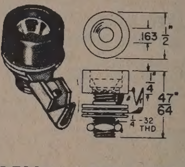
BODY: Brass, nickel plated.

TAB: Brass, cadmium plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Supplied with hex nut and fibre washer. Mounts in 5⁄16″ hole in panels up to ⅝″ thick. Solder direct to tab Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
256	$15.00



INSULATED BANANA JACK

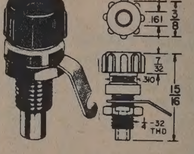
HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue per LC-726-1. SPECIFY COLOR

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Supplied with hex nut, fibre washer, lockwasher and brass tinned lug. Mounts in 5⁄16″ hole in panels up to ⅜″thick. Jack body recessed for snug contact. Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
219	$15.00



INSULATED
MIDGET BANANA JACK

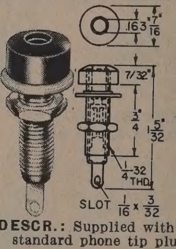
HEAD: Fluted Head, MOLDED NYLON, per MIL-P-20693A. With molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut, brass tinned lug. Mounts in 5⁄16″ hole in panels up to ¼″ thick. Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
221	$18.00



INSULATED JACK
Combination Type

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

BODY: Brass, nickel plated.

SPRING: Phosphor bronze.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

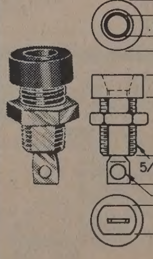
DESCR.: Supplied with hex nut and fbre washer. Accepts standard phone tip plugs or standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
206	$16.20

NYLON BANANA JACKS

COLOR CODE SUFFIX — Add to Catalog Number as required

— 101 WHITE	— 104 GREEN	
— 102 RED	— 105 BLUE	— 108 BROWN
— 103 BLACK	— 106 ORANGE	— 112 PURPLE
	— 107 YELLOW	— 113 GREY



"DOUBLE-D" BODY

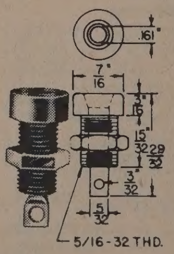
BODY: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

CONTACT: Brass, cadmium plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 5.5 mmfd.

DESCR.: Mounts in 5/16″ hole in panels up to 5/16″ thick. Accepts standard banana plugs. Wide temperature and humidity range. "Double-D" body mounts in round or punched hole to fit. **Std. Pkg. 50**

No.	NET Per C
1509	$12.00



FULL ROUND BODY

BODY: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

CONTACT: Brass, cadmium plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 5.0 mmfd.

DESCR.: Mounts in 5⁄16″ hole in panels up to 5⁄16″ thick. Accepts standard banana plugs. Wide temperature and humidity range. **Std. Pkg. 50**

No.	NET Per C
1508	$12.00

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

NYLON TIP JACKS

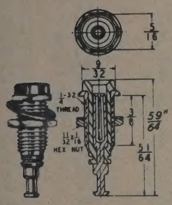
With Metal Shell

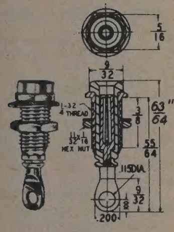
Made to Meet MS-16108 Spec.

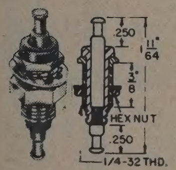
COLOR CODE SUFFIX

(Add to Catalog Number as Required)

— 101 WHITE
— 102 RED
— 103 BLACK
— 104 GREEN
— 105 BLUE
— 106 ORANGE
— 107 YELLOW
— 108 BROWN
— 112 PURPLE
— 113 GREY





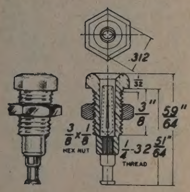


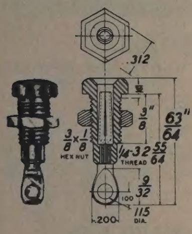
Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements:

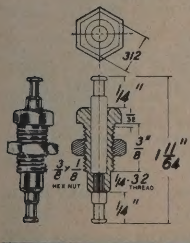
1. Salt Spray Test — Withstands 100 hours.
2. Rating — 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 10.0 mmfd.
3. Insulation Resistance — 5,000 megohms.
4. Operating Conditions —
   - A. Continuous: 23 hours on, 1 hour off.
   - B. Elevation: Up to 5,000 ft.
   - C. Temperature: —55 to +85°C.
   - D. Humidity: Up to 95%.
5. Material Specifications —
   - A. Insulator: Molded Nylon, per MIL-P-20693A. Specify color as coded above.
   - B. Shell and Nut: Brass Nickel Plated per Spec. 72-53.
   - C. Lockwasher: Phosphor Bronze Nickel Plated per Spec. 72-53.
   - D. Center Contact Numbers 1501 and 1502 Heat Treated Bery. Copper Silver plated per Spec. 72-53. Number 1503 Brass, Tin plated.
6. Non-Operating Conditions —
   - A. Elevation: Up to 50,000 ft.
   - B. Temperature: Continuous exposure for 72 hours at +160°F and 240 hours at —80°F.
   - C. Humidity: Up to 100%.

No.	Type	Std. Pkg.	NET Per C
1501	Wrap Around	25	$28.80
1502	Spade Terminal	25	42.00
1503	Feed Through	25	39.00

All Nylon







Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼" hole in panels up to ¼" thick. Meets following requirements:

1. Salt Spray Test — Withstands 100 hours.
2. Rating: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
3. Insulation Resistance — 5,000 megohms.
4. Operating Temperature— —55 to +150°C.
5. Nominal Capacity — 2.0 mmf.
6. Material Specifications —
   - A. Body: Molded Nylon, per MIL-P-20693A. Specify Color as coded above.
   - B. Center Contact: Numbers 1505 and 1506 Heat Treated Beryllium Copper Silver plated per Spec. 72-53. Number 1507 Brass, Tin Pl.
   - C. Hex Nut: Brass Nickel Plated.

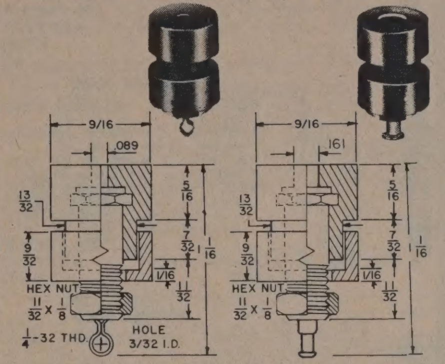
No.	Type	Std. Pkg.	NET Per C
1505	Wrap Around	25	$21.00
1506	Spade Terminal	25	30.00
1507	Feed Through	25	28.20

HIGH VOLTAGE NYLON JACKS

Color Code Suffix

Add to Catalog Number as Required

— 101 WHITE
— 102 RED
— 103 BLACK
— 104 GREEN
— 105 BLUE
— 106 ORANGE
— 107 YELLOW
— 108 BROWN



Made to meet MS-16107 Spec.

Heavy molded nylon body and cup washer prevent high-voltage flashover to panel. Meets following requirements:

1. Salt Spray Test — Withstands 100 hours.
2. Electrical Rating — 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage. Millivolt drop per MIL-J-6751.
3. Material Specifications—
   - A. Insulator and Washer: Nylon Grade FM 10001, in accordance with MIL-P-17091 spec.
   - B. Insert Shell and Nut: Brass, Nickel plated per spec. QQ-N-290, type V (FC). Insert gold washed overall.
   - C. Contact: Phosphor bronze or beryllium copper, gold washed.
   - D. Terminal style: Optional formed cylinder or slotted flat terminals as shown.

HIGH VOLTAGE NYLON TIP JACKS

Accepts standard phone tips. **Std. Pkg. 25**

No.	NET Per C
1521	$75.00

HIGH VOLTAGE NYLON BANANA JACK

Accepts standard phone tips. **Std. Pkg. 25**

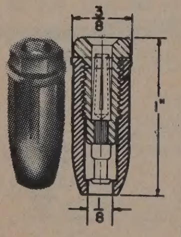
No.	NET Per C
1522	$00.00

NYLON IN-LINE TIP JACK

Color Code Suffix

Add to Catalog Number as Required

— 101 WHITE
— 102 RED
— 103 BLACK
— 104 GREEN
— 105 BLUE
— 106 ORANGE
— 107 YELLOW
— 108 BROWN
— 112 PURPLE
— 113 GREY



All Nylon

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

BODY: Molded Nylon, per MIL-P-20693A.

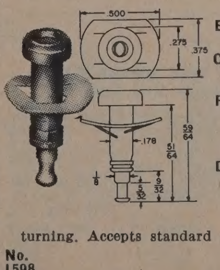
CONTACT: Heat treated beryllium copper, gold washed.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.

DESCR.: Fits all standard phone-tip plugs, with recessed contact for safe connection. Ideally suited for use in patch and extension cords. Can also be used for panel mounting where wrap-around terminal connection must be insulated at rear. **Std. Pkg. 50**

No.	NET Per C
1513	$30.00

NYLON TEST JACK



BODY: Nylon, Grade FM 10001. SPECIFY COLOR

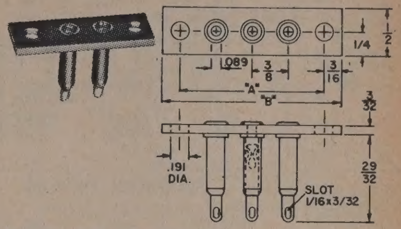
CONTACT: Phosphor bronze, silver plated. End hot tinned for easy soldering.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 3 KV 60 cycle AC continuous working voltage.

DESCR.: Mounts in 3⁄16" hole, with Tinnerman Speed Nut for fast permanent assembly. Teeth embed into jack body, preventing pulling out and turning. Accepts standard phone tip plugs. **Std. Pkg. 25**

No.	NET Per C
1598	$25.00

PIN JACK STRIPS



STRIP: LAMINATED PHENOLIC, XP, Black. Meets Federal Spec. L-L-31, Type I.

BODY: Brass, nickel plated.

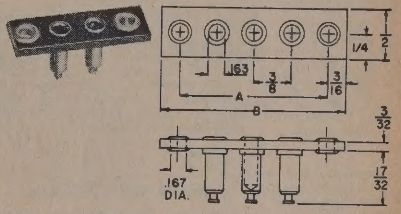
SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 KV, 60 cycle AC continuous working voltage.

DESCR.: From 2 to 10 pin jacks assembled on ⅜" centers on a heavy-duty board. Provides positive contact with standard phone tip plugs. Mounting holes accept screws up to #8. **Std. Pkg. 100**

No.	Jacks	Mtg. Ctrs. ("A")	Length ("B")	NET Per C
1982	2	1⅛"	1½"	$21.00
1983	3	1½"	1⅞"	27.00
1984	4	1⅞"	2¼"	36.00
1985	5	2¼"	2⅝"	45.00
1986	6	2⅝"	3"	51.00
1987	7	3"	3⅜"	60.00
1988	8	3⅜"	3¾"	69.00
1989	9	3¾"	4⅛"	75.00
1990	10	4⅛"	4½"	84.00

BANANA JACK STRIPS



STRIP: LAMINATED PHENOLIC, XP, Black, Meets Federal Spec. L-L-31, Type 1.

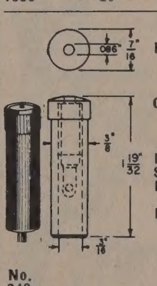
BODY: Brass, nickle plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 KV, 60 cycle AC continuous working voltage.

DESCR.: From 2 to 10 Banana jacks assembled on⅜" centers on a heavy-duty board. Provides positive contact with standard banana plugs. Mounting holes accept screws up to #8. **Std. Pkg. 25**

No.	Jacks	Mtg. Ctrs. ("A")	Length ("B")	Net Per C
1972	2	1⅛"	1½"	$21.00
1973	3	1½"	1⅞"	27.00
1974	4	1⅞"	2¼"	36.00
1975	5	2¼"	2⅝"	45.00
1976	6	2⅝"	3"	51.00
1977	7	3"	3⅜"	60.00
1978	8	3⅜"	3¾"	69.00
1979	9	3¾"	4⅛"	75.00
1980	10	4⅛"	4½"	84.00

IN-LINE PHONE TIP JACK



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR

CAP.: MOLDED THERMOSETTING plastic Red and Black per MIL-P-14 CFG. Yellow, Green, per LC-726-1.

BODY: Brass, nickel plated.

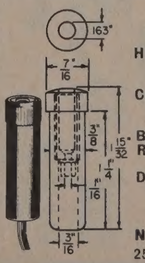
SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Suitable for test lead extension where long leads are required. Accepts standard phone tip plug. **Std. Pkg. 50**

No.	NET Per C
248	$21.00

IN-LINE BANANA JACK



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow. SPECIFY COLOR

CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, per LC-726-1.

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Suitable for test lead extension where long leads are required. Accepts standard banana plugs. **Std. Pkg. 50**

No.	NET Per C
251	$21.00

HERMAN H. SMITH, INC.

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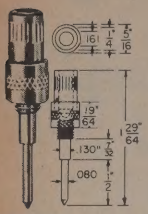
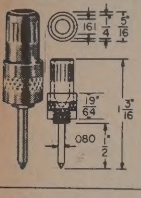


SOLDERLESS TIP PLUG

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Type	NET Per C
105	Senior	$10.20

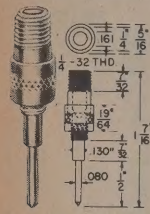


SOLDERLESS TIP PLUG

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Type	NET Per C
106	Junior	$9.60

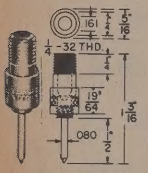


SOLDERLESS TIP PLUG
Threaded Sr.

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with knurled collar. Threaded for easy assembly in plastic handle. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Type	NET Per C
124	Senior	$12.00

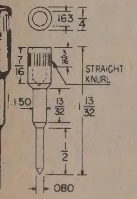


SOLDERLESS TIP PLUG
Threaded Jr.

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with assembly in plastic handle. Fits knurled collar. Threaded for easy standard phone tip jacks.

Std. Pkg. 50

No.	Type	NET Per C
127	Junior	$11.40

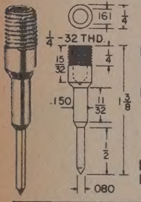


HEAVY DUTY TIP PLUG
Force-Fit

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits all standard phone tip jacks.

Std. Pkg. 25

No.	Type	NET Per C
156	Force Fit	$10.00

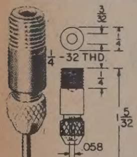


HEAVY DUTY TIP PLUG
Threaded

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits standard phone tip jacks. Threaded for easy assembly in plastic handle.

Std. Pkg. 50

No.	Type	NET Per C
125	Threaded	$10.20



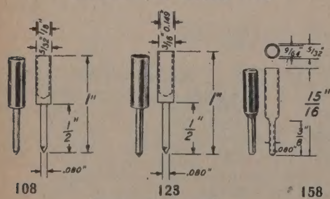
NEEDLE TIP AND CHUCK

BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement. Needle pierces plating or corrosion for positive reading.

Std. Pkg. 50

No.	NET Per C
128	$13.20

SOLDER TYPE PHONE TIPS

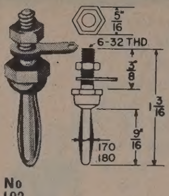


Brass, Nickel Plated

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

Std. Pkg. 100

No.	Type	NET Per C
108	Standard	$21.00
123	Large I.D.	26.40
158	Drawn	15.00

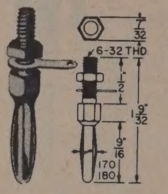


BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 100

No	NET Per C
102	$15.00

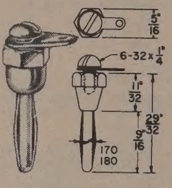


BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 100

No.	NET Per C
103	$15.00

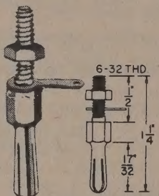


BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and phosphor bronze tinned lug. Internal female permits use on all size panels. Fits standard banana jacks.

Std. Pkg. 100

No.	Spring Material	NET Per C
100	Phosphor Bronze	$15.00
190	Beryllium Copper	24.00

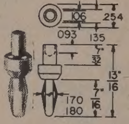


BANANA PLUG
Split Type

BODY: HEX BRASS, nickel plated, cross-slotted.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Fits all standard banana jacks. Supplied with hex nut and phosphor bronze lug, threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 100

No.	NET Per C
104	$13.20



MIDGET BANANA PLUG
Rivet Type

BODY: BRASS, silver plated.
SPRING: Four-leaved phosphor bronze, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Can be furnished in varying types to meet Jan specs. Fits all standard banana jacks.

Std. Pkg. 100

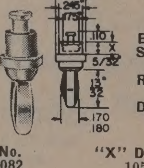
No.	NET Per C
121	$16.20

MIL-SPEC. TYPE

Same as above, made to meet Signal Corps Drawings SC-C2231.

Std. Pkg. 100

No.	NET Per C
122	$18.00

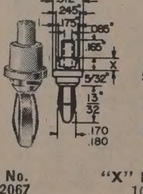


RIVET TYPE BANANA PLUG
Wrap Around Type

BODY: BRASS, nickel plated.
SPRING: Four leaved, beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire wraps around stud and is then soldered.

Std. Pkg. 100

No.	"X" Dim.	Panel	NET Per C
2082	.105	¹⁄₁₆"	$18.00
2083	.135	³⁄₃₂"	18.00
2084	.165	⅛"	18.00

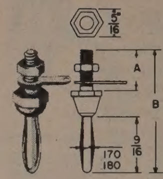


RIVET TYPE BANANA PLUG
Solder Well Type

BODY: BRASS, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire solders to well in rear of plug.

Std. Pkg. 100

No.	"X" Dim.	Panel	NET Per C
2067	.105	¹⁄₁₆"	$18.00
2068	.135	³⁄₃₂"	18.00
2069	.165	⅛"	18.00



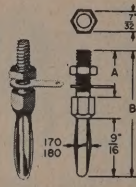
BANANA PLUG

BODY: HEX BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 50

PHOS. BR. SPRING Nickel Plated Overall				BERYL. COP. SPRING Nickel Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
431	$15.00	6-32x⅜"	1⁷⁄₃₂"	443	$18.00
432	15.00	6-32x½"	1¹¹⁄₃₂"	444	18.00
433	15.00	6-32x¾"	1¹⁹⁄₃₂"	445	18.00
434	15.00	8-32x⅜"	1⁷⁄₃₂"	446	18.00
435	15.00	8-32x½"	1¹¹⁄₃₂"	447	18.00
436	15.00	8-32x¾"	1¹⁹⁄₃₂"	448	18.00

PHOS. BR. SPRING Silver Plated Overall				BERYL. COP. SPRING Silver Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
437	$18.00	6-32x⅜"	1⁷⁄₃₂"	449	$21.00
438	18.00	6-32x½"	1¹¹⁄₃₂"	450	21.00
439	18.00	6-32x¾"	1¹⁹⁄₃₂"	451	21.00
440	18.00	8-32x⅜"	1⁷⁄₃₂"	452	21.00
441	18.00	8-32x½"	1¹¹⁄₃₂"	454	21.00
442	18.00	8-32x¾"	1¹⁹⁄₃₂"	453	21.00



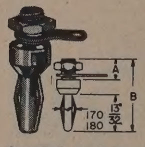
BANANA PLUG

BODY: HEX BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 50

PHOS. BR. SPRING Nickel Plated Overall				BERYL. COP. SPRING Nickel Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
401	$15.00	6-32x⅜"	1⁷⁄₃₂"	414	$18.00
403	15.00	6-32x½"	1¹¹⁄₃₂"	415	18.00
404	15.00	6-32x¾"	1¹⁹⁄₃₂"	416	18.00
405	15.00	8-32x⅜"	1⁷⁄₃₂"	417	18.00
406	15.00	8-32x½"	1¹¹⁄₃₂"	418	18.00
407	15.00	8-32x¾"	1¹⁹⁄₃₂"	419	18.00

PHOS. BR. SPRING Silver Plated Overall				BERYL. COP. SPRING Silver Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
408	$18.00	6-32x⅜"	1⁷⁄₃₂"	420	$21.00
409	18.00	6-32x½"	1¹¹⁄₃₂"	421	21.00
410	18.00	6-32x¾"	1¹⁹⁄₃₂"	422	21.00
411	18.00	8-32x⅜"	1⁷⁄₃₂"	423	21.00
412	18.00	8-32x½"	1¹¹⁄₃₂"	424	21.00
413	18.00	8-32x¾"	1¹⁹⁄₃₂"	425	21.00



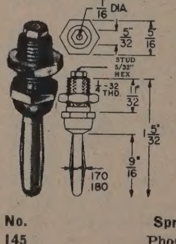
MIDGET BANANA PLUG

BODY: BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper. Nickel or silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 50

PHOS. BR. SPRING Nickel Plated Overall				BERYL. COP. SPRING Nickel Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
460	$15.00	4-40x⅜"	¹⁵⁄₁₆"	468	$18.00
461	15.00	4-40x½"	1¹⁄₁₆"	469	18.00
462	15.00	6-32x⅜"	¹⁵⁄₁₆"	470	18.00
463	15.00	6-32x½"	1¹⁄₁₆"	471	18.00

PHOS. BR. SPRING Silver Plated Overall				BERYL. COP. SPRING Silver Plated Overall	
No.	NET Per C	A	B	No.	NET Per C
464	$18.00	4-40x⅜"	¹⁵⁄₁₆"	472	$21.00
465	18.00	4-40x½"	1¹⁄₁₆"	473	21.00
466	18.00	6-32x⅜"	¹⁵⁄₁₆"	474	21.00
467	18.00	6-32x½"	1¹⁄₁₆"	475	21.00



BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection.

Std. Pkg. 50

No.	Spring Material	NET Per M
145	Phosphor Bronze	$16.20
135	Beryllium Copper	27.00

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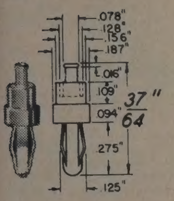
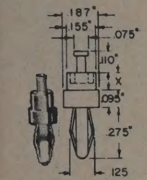
SUBMINIATURE PLUGS & JACKS



SUB MINIATURE BANANA PLUG
Rivet Type

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 50**

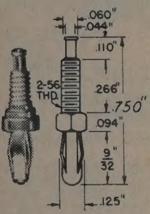
No.	NET Per C
191	$15.00



Swager Type
SUB MINIATURE BANANA PLUG

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 100**

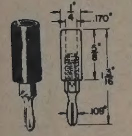
No.	"X" Dim.	Panel	NET Per C
2073	.105	1/16"	$15.00
2074	.135	3/32"	15.00
2075	.165	1/8"	15.00



SUB MINIATURE BANANA PLUG

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 50**

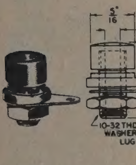
No.	NET Per C
192	$15.00



INSULATED BANANA PLUG
Sub Miniature

HANDLE: MACHINED BUTYRATE, per MIL-L-P344, Type I, Class MH. Red or Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire solders directly into plug. Fits standard midget banana jacks. **Std. Pkg. 100**

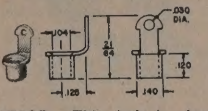
No.	NET Per C
197	$15.00



INSULATED BANANA JACK
Sub Miniature

HEAD: MACHINED BUTYRATE, per MIL-L-P344, Type I, Class MH. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 6.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer and tinned lug. Mounts in 1/4" hole in panels up to 1/8" thick. Accepts standard midget banana plugs. **Std. Pkg. 100**

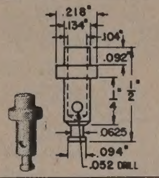
No.	NET Per C
196	$15.00



SUB MINIATURE BANANA JACK

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: This jack is riveted directly to chassis or to printed circuit board for easy assembly. **Std. Pkg. 100**

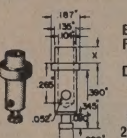
No.	NET Per C
194	$.90



SUB MINIATURE BANANA JACK

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: This jack is riveted directly to chassis or to printed circuit board for easy assembly. **Std. Pkg. 50**

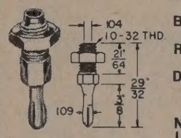
No.	NET Per C
193	$9.00



SUB MINIATURE BANANA JACK
Panel Mount

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: These jacks are riveted directly to chassis or bakelite board. **Std. Pkg. 100**

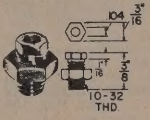
No.	"X" Dim.	Panel	NET Per C
2076	.105	1/16"	$9.00
2077	.135	3/32"	9.00
2078	.165	1/8"	9.00



MIDGET BANANA PLUG

BODY: BRASS, nickel plated, cross-slotted.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted, supplied with hex nut. Fits our No. 112 midget jack. **Std. Pkg. 50**

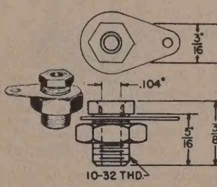
No.	NET Per C
111	$10.20



MIDGET BANANA JACK

BODY: BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Accepts our No. 111 midget plug. **Std. Pkg. 50**

No.	NET Per C
112	$7.80

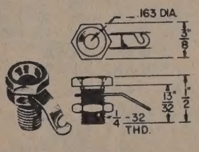


SUB MINIATURE BANANA JACK

BODY: HEX BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned lug Mounts in .196 (#10) hole in panels up to 1/8" thick. Accepts standard midget banana plugs. **Std. Pkg. 100**

No.	NET Per C
195	$7.80

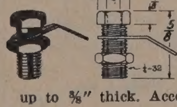
STANDARD BANANA JACKS



BANANA JACK

BODY: Hex brass nickel plated with recessed head.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug. Mounts in 1/4" hole; fits panels up to 5/16" thick. Accepts standard banana plugs. **Std. Pkg. 100**

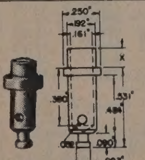
No.	NET Per C
101	$10.20



BANANA JACK

BODY: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug. Mounts in 1/4" hole in panels up to 3/8" thick. Accepts standard banana plugs. **Std. Pkg. 100**

No.	NET Per C
109	$10.20

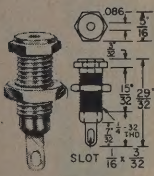


PANEL MOUNT BANANA JACK

BODY: BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts all standard banana plugs. These jacks are riveted directly to chassis or bakelite board. **Std. Pkg. 100**

No.	"X" Dim.	Panel	NET Per C
2079	.105	1/16"	$10.80
2080	.135	3/32"	10.80
2081	.165	1/8"	10.80

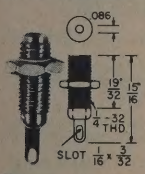
STANDARD TIP JACKS



PHONE TIP JACK

BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Positive contact with standard phone tip plugs. Supplied with hex nut. Mounts in 1/4" hole in panels up to 3/8" thick. **Std. Pkg. 100**

No.	NET Per C
107	$10.20

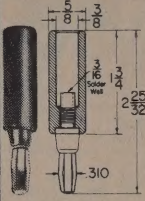


HEADLESS PHONE TIP JACK

BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Used with plastic molded instrument cases, where jack body is screwed into case. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.	NET Per C
147	$6.00

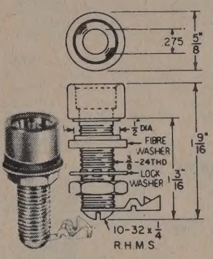
GIANT BANANA PLUGS & JACKS



INS. GIANT BANANA PLUG

HANDLE: MACHINED PHENOLIC plastic, per MIL-P-77B, Type I. Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated.
SPRING: Six-leaved, phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Large deep internal well for soldering heavy duty wire. Recessed so that no metal portions are exposed when plugged into mating jack, in order to prevent shocks or grounding. **Std. Pkg. 50**

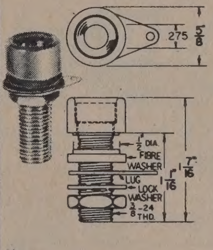
No.	NET Per C
285	$46.20



INS. GIANT BANANA JACK

HEAD: MACHINED BUTYRATE, per MIL-L-P344, Type I, class MH. Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, lock-washer, screw and tinned copper lug. Jack body recessed for snug contact. Mounts in 1/2" hole in panel up to 3/4" thick. **Std. Pkg. 50**

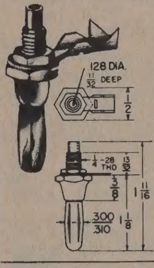
No.	NET Per C
286	$42.00



INS. GIANT BANANA JACK

HEAD: MACHINED BUTYRATE, per MIL-L-P344, Type I, class MH. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, lock-washer, and brass tinned lug. Jack body recessed for snug contact. Mounts in 1/2" hole in panel up to 3/4" thick. **Std. Pkg. 50**

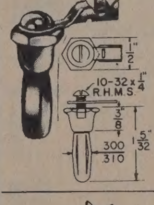
No.	NET Per C
287	$42.00



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Plug portion of #285 plug. Supplied with hex nut and brass tinned lug. Large deep internal well for soldering heavy duty wire. **Std. Pkg. 25**

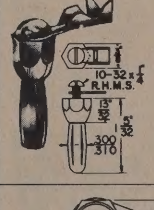
No.	NET Per C
185	$30.00



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and brass tinned lug. Internal female permits use on all size panels. **Std. Pkg. 25**

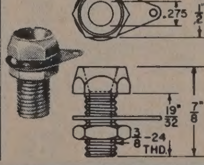
No.	NET Per C
186	$30.00



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and brass tinned lug. Female permits use on all size panels. Internal screw. **Std. Pkg. 25**

No.	NET Per C
188	$30.00



GIANT BANANA JACK

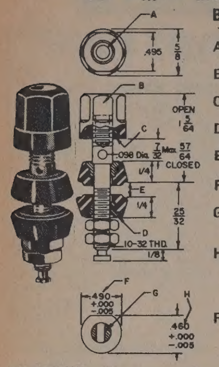
BODY: HEX BRASS, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug, mounts in 3/8" hole in panels up to 1/2" thick. **Std. Pkg. 25**

No.	NET Per C
187	$30.00

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

BINDING POST - Multipurpose



NOTES:

- A Banana Plug Receptacle, .161 I.D.
- B Head non-removable from stud.
- C Molded-in Brass Bushing in Head.
- D Molded-in Brass Bushing in Washers.
- E For Panels 1/16″ to 1/4″ thick.
- F Drill 1/2″ hole for mounting washers.
- G Wire Hole is at right angle to Flat on insulated Washers.
- H Production Punch for keyed Slot for mounting Washers. (Sample Washer Sent on Request.)

RATING: 30 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 5.0 mmfd.

CURRENT: 30 amps safe current carrying capacity.

ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.

DESCR.: MOLDED NYLON, per MIL-P-20693A, head and washer completely insulates post from panel. Mounts in ½″ or keyed hole as indicated. Wrap around type—direct solder connection to stud. Metal parts brass.

COLORS: Red, Black, Yellow, Green, Blue, White. Specify color. **Std. Pkg. 100**

No. 257 **NET Per C $36.00**

MIL-SPEC BINDING POST

Same as our #257 above, made to meet MIL-P-55149/1. **Std. Pkg. 50**

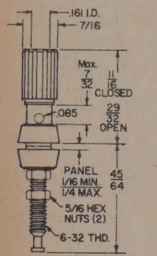
No. 267 **NET Per C $42.00**

PIN JACK TYPE

Same as above, with Beryllium copper, gold plated pin tip receptacle replacing Note "A" above. All other specifications apply. **Std. Pkg. 50**

No. 258 **NET Per C $42.00**

NYLON BINDING POST
Insulated



HEAD: CAPTIVE, MOLDED NYLON, per MIL-P-20693A, with brass Gold-Plated Insert.

BODY: Brass, Gold Plated

WASHERS: MOLDED NYLON, per MIL-P-20693A, with brass Gold-plated inserts.

ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.

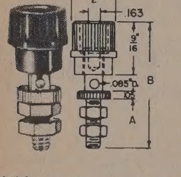
DESCR.: Molded washers completely insulate post from panel. Miniature washers and narrow fluted head require minimum panel space. Mounts in ⁵⁄₁₆″ round or "D" hole in panel as indicated. Wrap-around solder terminal on stud for direct connection.

COLORS: Red, Black, Yellow, Green, Blue, White.

SPECIFY COLOR **Std. Pkg. 100**

No. 1517 **NET Per C $33.00**

BINDING POST
Five-Way Grounding Type



HEAD: CAPTIVE: MOLDED BUTYRATE. per MIL-L-P349A, Type 3, Class MS. Red or Black.

SPECIFY COLOR

BODY: Brass, nickel plated.

ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.

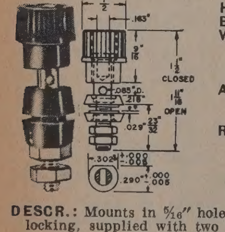
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 5.0 mmfd.

DESCR.: Can be insulated from panel with our 2155 and 2163 fibre washers; supplied with 2 hex nuts.

Std. Pkg. 100

No.	Description	NET Per C
220	8-32 x ½ Stud	$18.00
230	6-32 x ⅜ Stud	18.00
391	Rivet Type	15.00
	With brass nickel plated insert in head	
280	8-32 Stud	$24.00
264	6-32 Stud	24.00
394	Rivet Type	15.00

All Insulated Type



HEAD: As above.

BODY: As above.

WASHERS: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. With brass inserts.

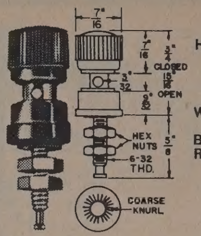
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.

DESCR.: Mounts in ⁵⁄₁₆″ hole in panel with milled slot for locking, supplied with two hex nuts. **Std. Pkg. 100**

No.	Description	NET Per C
260	8-32 Stud	$27.00
259	6-32 Stud	27.00
	With brass nickel plated insert in head	
290	8-32 Stud	$33.00
231	6-32 Stud	33.00

NYLON BINDING POSTS
Grounding Type



HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.

SPECIFY COLOR

WASHER: Molded nylon with brass nickel plated insert.

BODY: Brass, nickel plated.

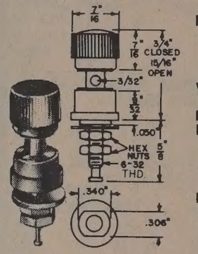
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 6.0 mmfd.

DESCR.: Supplied with 2 hex nuts. Grounds to panel but supplied with nylon washer for uniformity of height with No. 378 when used on same panel. Can be insulated from panel by using our No. 2150 shoulder washer.

Std. Pkg. 100

No. 377 **NET Per C $26.40**

ALL INSULATED



HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.

SPECIFY COLOR

WASHER: Molded nylon with brass nickel plated insert.

BODY: Brass, nickel plated.

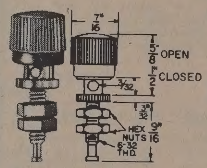
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Supplied with two hex nuts. Boss washer insulates post from chassis when used with bakelite washer supplied.

Std. Pkg. 100

No.	Min. Panel Thickness	NET Per C
378	1/16″	$26.40
198	1/32″	26.40

GROUNDING TYPE



HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.

SPECIFY COLOR

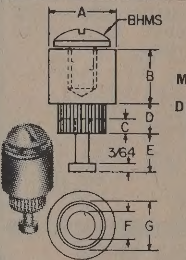
BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 7.0 mmfd.

DESCR.: Supplied with two hex nuts. Can be insulated from panel by using our No. 2150 shoulder washer and 2162 flat washer. **Std. Pkg. 100**

No. 379 **NET Per C $21.00**

COMBINATION TERMINALS

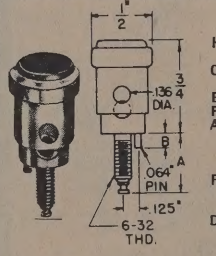


MATERIAL: BRASS, alloy plate.

DESCR.: Combination Screw and Turret Terminal. Knurled shank prevents turning. Supplied complete with BHMS and Internal Tooth Lockwasher, unassembled. **Std. Pkg. 100**

No.	A	B	C	D	E	F	G	Bhms	Panel Thk.	Net Per C
2045	⁵⁄₁₆	¼	¹⁄₁₆	⁹⁄₆₄	¹¹⁄₆₄	⅛	.220	6-32	³⁄₃₂	7.80
2046	¹¹⁄₃₂	⁵⁄₁₆	⁵⁄₆₄	¹¹⁄₆₄	¹³⁄₆₄	⁹⁄₆₄	.250	8-32	⅛	7.80
2047	⅜	⅜	³⁄₃₂	¹⁵⁄₆₄	¹³⁄₆₄	⁵⁄₃₂	.257	10-32	³⁄₁₆	7.80

SPRING LOADED BINDING POSTS



HEAD: CAPTIVE, Brass nickel plated.

CAP: STYRENE, per MIL-L-P416, Type I. Black.

BODY: Brass, nickel plated.

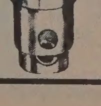
PIN: Nickel Silver.

ACCEPTS: Standard phone tip or wire in side hole and locks them in place on release of pressure on cap.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Side dowel pin locates and prevents post from turning when mounted in panel.

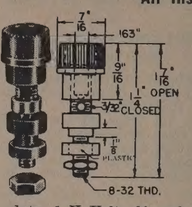
A	B	With Dowel Pin No.	With Dowel Pin NET Per C	Less Dowel Pin No.	Less Dowel Pin NET Per C
¼″	⅛″	2701	$36.00	2801	$30.00
⅜″	⅛″	2702	39.00	2802	33.00
½″	¼″	2703	42.00	2803	36.00
¾″	¼″	2704	45.00	2804	39.00
1″	⅜″	2705	48.00	2805	42.00
1¼″	⅜″	2706	51.00	2806	45.00
1½″	½″	2707	54.00	2807	48.00
2″	¾″	2708	57.00	2808	51.00



Same as above less threaded stud. Supplied with 6-32 internal mounting thread.

No.	Description	NET Per C
2709	With ⅛″ lg. Dowel Pin	$33.00
2809	Without Dowel Pin	27.00

BINDING POST
Five-Way With Molded Mounting Washers
All Insulated Type



HEAD: CAPTIVE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black.

SPECIFY COLOR

BODY: Brass, nickel plated.

WASHERS: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS.

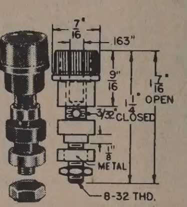
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 5.0 mmfd.

DESCR.: Mounts in ¼″ hole in panel. Supplied with one hex nut. **Std. Pkg. 100**

No.	NET Per C
386	$24.00

Grounding Type



HEAD: CAPTIVE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black.

SPECIFY COLOR

BODY: Brass, nickel plated.

WASHERS: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Mounting Washer — Molded plastic. Back-up Washer — Brass, nickel plated.

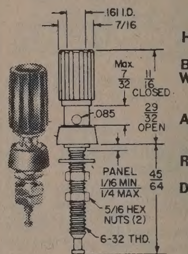
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Mounts in ¼″ hole in panel. Grounded to panel by back-up washer. Supplied with one hex nut.

Std. Pkg. 100

No.	NET Per C
387	$24.00

METAL BINDING POST
Grounded



HEAD: CAPTIVE, Fluted Brass, Gold-plated.

BODY: Brass, Gold-plated.

WASHER: MOLDED BLACK NYLON, per MIL-P-20693A, with brass Gold-plated insert.

ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.

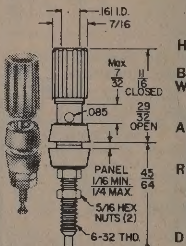
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Fluted-head metal post to match our No. 1517. For use where direct ground connection is made to panel or chassis. Supplied with brass, gold-plated flat metal washer for grounding.

Std. Pkg. 100

No.	NET Per C
1518	$27.00

METAL BINDING POST
Insulated



HEAD: CAPTIVE, Fluted Brass, Gold-plated.

BODY: Brass, Gold-plated.

WASHER: MOLDED BLACK NYLON, per MIL-P-20693A, with brass Gold-plated insert.

ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.

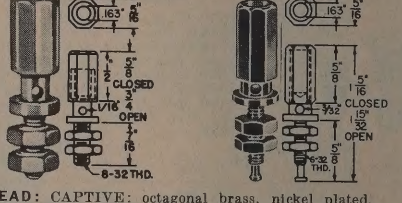
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts, 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.

DESCR.: Fluted-head metal post to match our No. 1517. Molded washers insulate post from panel for use where internal ground circuit is isolated from chassis or panel.

Std. Pkg. 100

No.	NET Per C
1519	$27.00

BINDING POST - Metal Five-Way



HEAD: CAPTIVE: octagonal brass, nickel plated.

BODY: Brass, nickel plated.

ACCEPTS: Phone tip, spade lug, banana plug, alligator clip or wire strand.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 5.0 mmfd.

DESCR.: Can be completely insulated from panel by using our 2155 and 2163 fibre washers. Supplied with two hex nuts.

No.	Description	NET Per C
137	Standard	$21.00
208	Wrap-around	21.60

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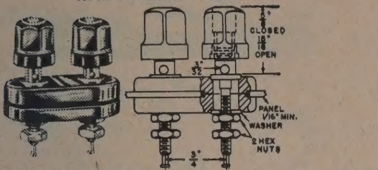
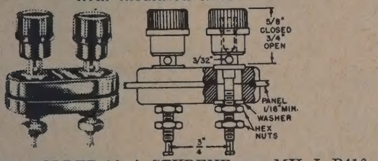
DUAL ASSEMBLY With Insulated Head



WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: MOLDED NYLON, per MIL-P-20693A, with molded in brass insert.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	Description	NET Per C
269BB	Two Black Heads	$66.00
269RR	Two Red Heads	66.00
269RB	One Red, One Black Head	66.00

DUAL ASSEMBLY With Insulated Head



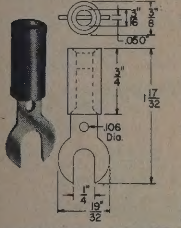
WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive. MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	Description	NET Per C
224BB	Two Black Heads	$54.00
224RR	Two Red Heads	54.00
224RB	One Red, One Black Head	54.00

Same as above with brass nickel plated insert in head

No.	Description	NET Per C
263BB	Two Black Heads	66.00
263RR	Two Red Heads	66.00
263RB	One Red, One Black Head	66.00

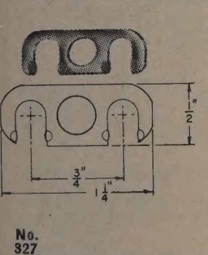
INSULATED SPADE LUG



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
LUG: Brass, .050 thick, nickel plated.
RATING: 30 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: ¼" I.D. fits all standard Multi-purpose binding posts. Accepts up to #10 insulated wire, which solders in front hole.
Std. Pkg. 100

No.	NET Per C
400	$12.00

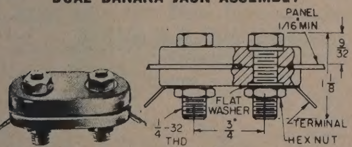
SHORTING LINK



MATERIAL: Spring brass, nickel plated, .033" thick.
RATING: 50 Amps AC continuous duty, for 10°C Temp. rise.
DESCR.: Snaps over contact barrels of dual binding posts with standard ¾" mounting centers for positive shorting. Snap-in feature allows use in any position without falling off. Rotates on either post for open-circuit use, retaining snap-in feature. Center hole allows easy insertion or removal.
Std. Pkg. 50

No.	NET Per C
327	$6.00

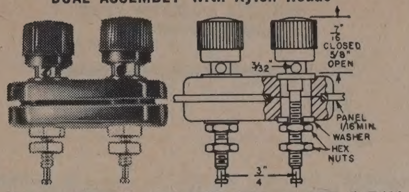
DUAL BANANA JACK ASSEMBLY



WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates standard and dual banana plugs. Supplied with two hex nuts and brass tinned lugs.
Std. Pkg. 10

No.	NET Per C
489	$48.00

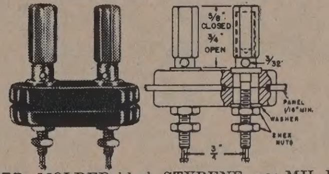
DUAL ASSEMBLY With Nylon Heads



WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward, back or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: MOLDED NYLON, per MIL-P-20693A, with molded in brass insert.
RATING: 15 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	Description	NET Per C
284BB	Two Black Heads	$60.00
284RR	Two Red Heads	60.00
284RB	One Red, One Black Head	60.00

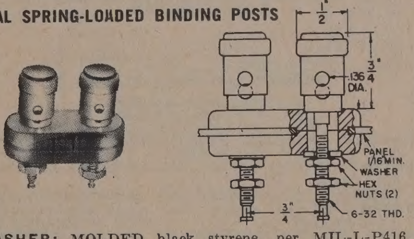
DUAL METAL BINDING POST



WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward, or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.
Std. Pkg. 10

No.	NET Per C
209	$60.00

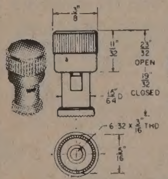
DUAL SPRING-LOADED BINDING POSTS



WASHER: MOLDED black styrene, per MIL-L-P416, Type 1, cross slotted (+) to accept standard phone tips or wire in post either forward or sideways. Supplied in colors on special order.
HEAD: Captive, brass, nickel plated.
CAP: Molded black styrene, per MIL-L-P416.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.
DESCR.: Accepts standard phone tips or wires in side holes, and locks them in place when pressure on cap is released.
Std. Pkg. 10

No.	NET Per C
2713	$75.00

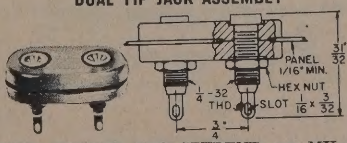
BINDING POST
Compression Type



HEAD: Captive, brass nickel plated. Straight knurled for finger grip.
BODY: Brass, nickel plated.
ACCEPTS: Phone tips or wire (up to #10 gauge).
DESCR.: Head screws down to compress wire between body and sliding contact. Internally threaded for 6-32 mounting screw. Base knurled for positive grip to panel.
Std. Pkg. 50

No.	NET Per C
159	$21.00

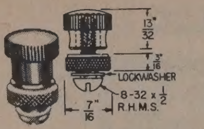
DUAL TIP JACK ASSEMBLY



WASHER: MOLDED black STYRENE, per MIL-P-416, Type I.
BODY: Recessed, brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates standard tip plugs. Supplied with two hex nuts.
Std. Pkg. 10

No.	NET Per C
488	$54.00

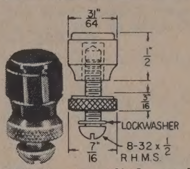
BINDING POST



HEAD: MOLDED THERMO-SETTING plastic, per MIL-P-14CFG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR
WASHER: Brass, nickel plated
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.
Std. Pkg. 100

No.	NET Per C
265	$15.00

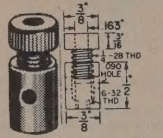
BINDING POST



HEAD: MOLDED THERMO-SETTING plastic, per MIL-P-14CFG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR
WASHER: Brass, nickel plated
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.
Std. Pkg. 100

No.	NET Per C
266	$18.00

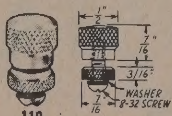
METAL BINDING POST



HEAD: BRASS, nickel plated.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard phone tips or banana plugs.
Std. Pkg. 50

No.	NET Per C
136	$12.00

METAL BINDING POST

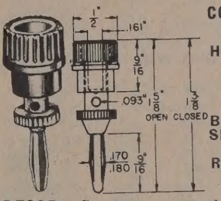


110

HEAD: BRASS, nickel plated.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.
Std. Pkg. 25

No.	NET Per C
110	$15.00

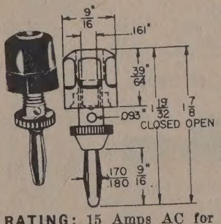
COMBINATION BINDING POST AND BANANA PLUG



HEAD: CAPTIVE. Molded Butyrate, per MIL-L-P-349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 AMPS AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a five-way binding post termination. Accepts phone tip, spade lug, banana plug, alligator clip, or solid or stranded wire.
Std. Pkg. 25

No.	NET Per C
233	$27.00

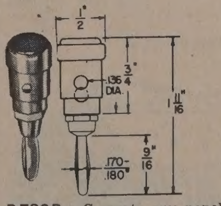
COMBINATION NYLON BINDING POST AND BANANA PLUG



HEAD: CAPTIVE, Molded Nylon, per MIL-P-20693A. Available in Red, Black, Yellow, Green, Blue, White. Molded-in brass nickel plated insert. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a nylon five-way binding post termination. Accepts phone tips, spade lugs, banana plug, alligator clips, or solid or stranded wires.
Std. Pkg. 25

No.	NET Per C
234	$27.00

COMBINATION PUSH POST AND BANANA PLUG



HEAD: Captive, brass nickel plated.
CAP: Molded Styrene, per MIL-L-P416, Type I, Black.
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a spring loaded push-post. Accepts standard phone tip, solid or stranded wire, and locks them in place on release of pressure on cap.
Std. Pkg. 25

No.	NET Per C
2714	$42.00

HERMAN H. SMITH, INC.

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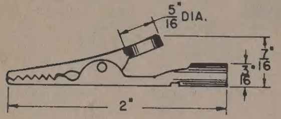
ALLIGATOR CLIPS
Solder Connection



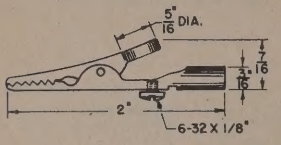
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ½" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear.

Std. Pkg. 100

No.	Type	NET Per C 10	100
300	Steel, Cad. Pl.	$5.00	$4.40
380	Solid Copper	7.50	6.50
332	Brass N.P.	10.40	8.40

Screw Connection



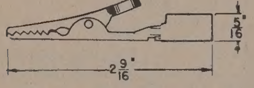
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ½" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear.

Std. Pkg. 100

No	Type	NET Per C 10	100
350	Steel, Cad. Pl.	$5.80	$4.80
360	Solid Copper	8.40	7.20
339	Brass N.P.	13.00	9.90

JUMBO ALLIGATOR CLIP
Solder Connection



RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #392.
15 Amps AC for 10°C Temp. rise, continuous duty, #396.

DESCR.: ¾" jaw opening. Jaws match accurately. For heavy terminal use.

Std. Pkg. 100

No.	Type	NET Per C
392	Steel. Cad. Pl.	$15.00
396	Solid Copper	18.00

Screw Connection

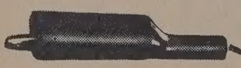
RATING: STEEL: 10 Amps AC for 10°C Temp. rise, continuous duty.
COPPER: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ¾" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use.

Std. Pkg. 100

No.	Type	NET Per C
368	Steel, Cad. Pl.	$18.00
356	Solid Copper	21.00

ALLIGATOR CLIP BOOTS



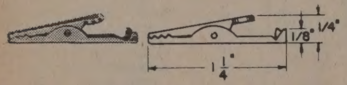
MATERIAL: MOLDED VINYL PLASTIC, Red, Black, Yellow, Green, Blue or White. SPECIFY COLOR

RATING: 1 K Volts 60 cycle AC continuous working voltage.

DESCR.: Fully insulated clip while allowing maximum jaw opening. No. 331 for use on standard size alligator clips such as our No. 300. No. 389 for use on miniature alligator clips, such as our No. 338.

No.	Description	NET Per C 10	100
389	Miniature	$4.80	$4.00
331	Standard	4.80	4.00

MIDGET ALLIGATOR CLIP

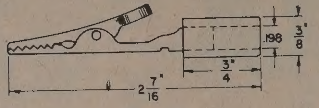


DESCR.: 3/16" jaw opening, jaws match accurately and grip securely. Unique SMITH spring construction. Solder connection and ears for crimping.

Std. Pkg. 100

No.	Type	NET Ea. Ea.	10
338	Steel, Cad. Pl.	$.07	$ 044
367	Copper	.07	.044

INSULATED ALLIGATOR CLIPS
Solder Connection



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

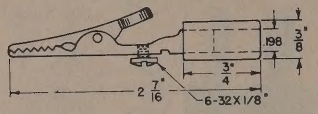
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ½" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear.

Std. Pkg. 100

No.	Type	NET Per C 10	100
301	Steel, Cad. Pl.	$8.50	$7.50
381	Solid Copper	10.50	9.00
354	Brass N.P.	15.00	11.40

Screw Connection



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

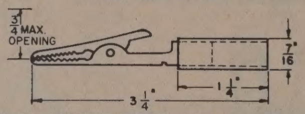
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: ½" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear.

Std. Pkg. 100

No.	Type	NET Per C 10	100
351	Steel, Cad. Pl.	$9.50	$8.00
361	Solid Copper	11.00	9.60
362	Brass N.P.	19.00	12.40

INSULATED JUMBO ALLIGATOR CLIPS
Solder Connection



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red or Black. SPECIFY COLOR

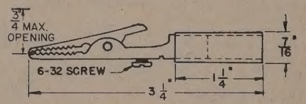
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #393.
15 Amps AC for 10°C Temp. rise, continuous duty, #397.

DESCR.: ¾" jaw opening. Jaws match accurately. For heavy terminal use.

Std. Pkg. 100

No.	Type	NET Per C
393	Steel, Cad. Pl.	$21.00
397	Solid Copper	24.00

Screw Connection



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red or Black. SPECIFY COLOR

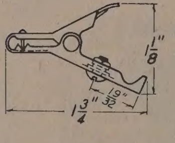
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #369.
15 Amps AC for 10°C Temp. rise, continuous duty, #357.

DESCR.: ¾" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use.

Std. Pkg. 100

No.	Type	NET Per C
369	Steel, Cad. Pl.	$24.00
357	Solid Copper	27.00

TL137 TEST CLIP
Signal Corps Approved



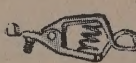
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Steel, nickel plated, made in accordance with government specs, ¾" jaw opening. Needle for piercing corrosion.

Std. Pkg. 25

No.	NET Per C
315	$42.00

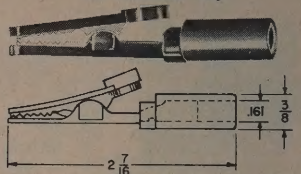
BATTERY TEST CLIP



MATERIAL: Steel, electro plated. **Std. Pkg. 100**

No.	Spread	Lgth.	Rating	Spring	100	10
365	½"	1½"	5 amp	7 lbs	4.20	.05
366	9/16"	2"	10 amp	10 lbs	6.00	.07

All Insulated Clip



INSULA.: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY CLOR

CLIP: Steel cadmium plated.

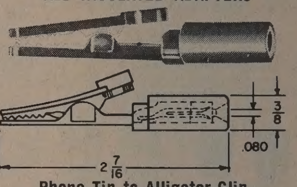
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.

DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Solder type connection.

Std. Pkg. 25

No.	NET Per C
337	$24.00

ALL INSULATED ADAPTERS



Phone Tip to Alligator Clip

INSULA.: MOLDED BUTYRATE, per MIL-L-349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

CLIP: Steel, cadmium plated.

BODY: Brass.

CONTACT: Phosphor bronze.

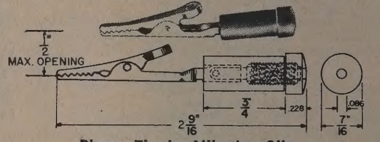
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Jack in rear permits adapting standard phone tip plugs to alligator clips.

Std. Pkg. 25

No.	NET Per C
336	$36.00

ALLIGATOR CLIP ADAPTERS



Phone Tip to Alligator Clip

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG.

CLIP: Steel, cadmium plated or solid copper.

BODY: Brass.

SPRING: Phosphor bronze.

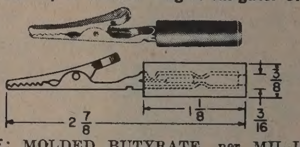
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Jack in rear permits adapting standard phone tip plugs to alligator clips.

Std. Pkg. 25

No.	Description	NET Per C
304	Steel Clip	$33.00
334	Copper Clip	36.00

Phone Tip or Banana Plug to Alligator Clip



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

CLIP: Steel, cadmium plated or solid copper.

BODY: Brass.

SPRING: Phosphor bronze.

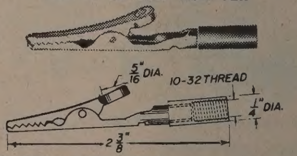
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Combination jack in rear, permits the adapting standard phone tip plug or banana plugs to alligator clip.

Std. Pkg. 25

No.	Description	NET Per C
305	Steep Clip	$39.00
335	Copper Clip	42.00

ALLIGATOR CLIP ADAPTER



BUSHING: Brass, nickel plated.

CLIP: Steel cadmium plated.

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Adapts standard solderless tips to alligator clip. This novel quick-adapter is a must for all types of bench work.

Std. Pkg. 50

No.	NET Per C
310	$13.20

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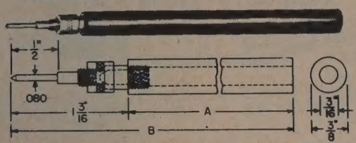
SOLDERLESS TEST PROD—Threaded Type



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

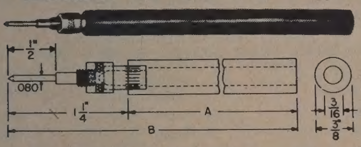
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
302	4"	5¼"	$30.00
303	5½"	6¾"	33.00

SOLDERLESS TEST PROD—Force Fit Type



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

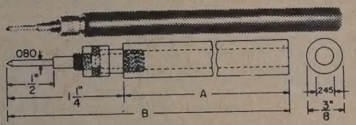
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
382	4"	5¼"	$24.00
383	5½"	6¾"	27.00

SOLDERLESS TEST PROD—Force Fit Type Extra Large Inside Diameter



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

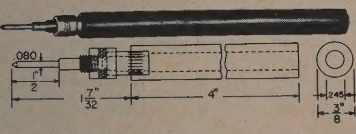
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. Extra large I.D. for heavy duty wire. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
352	4"	5¼"	$24.00
353	5½"	6¾"	27.00

SOLDERLESS FIBRE TEST PROD Extra Large Inside Diameter



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY CLOR

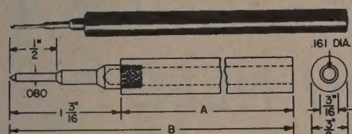
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. Large I.D. permits use of heavy duty wire. **Std. Pkg. 25**

No.	NET Per C
323	$30.00

HEAVY DUTY TEST PROD—Threaded Type



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

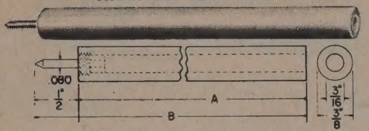
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
319	4"	5$\frac{5}{16}$"	$30.00
329	5½"	6$\frac{11}{16}$"	33.00

SHORT TIP TEST PROD



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

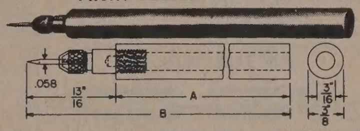
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous Duty.

DESCR.: Inserts flush with insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
363	4"	4½"	$21.00
364	5½"	6"	24.00

PHONO NEEDLE TEST PROD



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

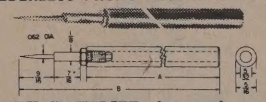
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Removable chuck for easy replacement or broken needles. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
317	4"	4$\frac{13}{16}$"	$30.00
318	5½"	6$\frac{5}{16}$"	33.00

SOLDERLESS PHONO NEEDLE TEST PROD



HANDLE: XX BAKELITE, lacquered, per MIL-P-79, Form TR. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.

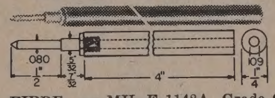
NEEDLE: Phono needle, steel.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to pellet for solderless connections. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
314	4"	5$\frac{8}{32}$"	$75.00
313	6"	7$\frac{8}{32}$"	75.00

SUB-MINIATURE TEST PROD



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY COLOR

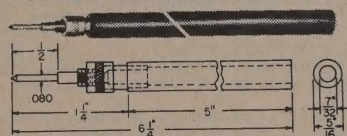
TIP: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Threaded for easy assembly. Ideally suited for checking all types sub-miniature equipment. **Std. Pkg. 25**

No.	NET Per C
322	$24.00

PENCIL TYPE SOLDERLESS TEST PROD



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class 2. Red or Black. SPECIFY COLOR

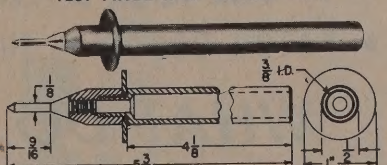
PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug, then wraps around screw portion and is tightened with knurled collar. **Std. Pkg. 25**

No.		NET Per C
384	**Force Fit Type**	$21.00

TEST PROBE HIGH VOLTAGE TYPE



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY COLOR

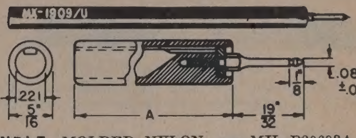
PROBE: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 15 KV 60 cycle AC continuous working voltage.

DESCR.: Heavy insulated fibre probe with flash-over shield for high-voltage applications. Large internal I.D. accommodates shielded cable or R.F. networks. Heavy duty removal tip. **Std. Pkg. 10**

No.		NET Ea.
630		$ .72
630D	Display of 12	8.64

NYLON HANDLE PRODS AND TIPS



HANDLE: MOLDED NYLON, per MIL-P20693A. Specify color as coded above.

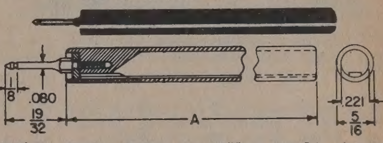
TIP: Brass, silver plated.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless. Made to meet Signal Corps Drawing SC-C-82761. **Std. Pkg. 25**

No.	Sig. Corps. Drawing and Part No.	Size ("A")	Color	NET Per C
176	MX-1906/U	1"	Red	$54.00
177	MX-1907/U	1"	Black	54.00
178	MX-1909/U	4"	Red	60.00
179	MX-1910/U	4"	Black	60.00

SUB-MINIATURE TEST PROD



HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black. SPECIFY COLOR

TIP: Brass, Silver plated.

DESCR.: Solderless assembly. Ideal for use with sub-miniature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on printed-circuit pattern for positive contact when used as prod. Grooved head of prod makes positive contact when laid across wires. Fits all standard .080" tip jacks. **Std. Pkg. 25**

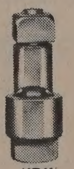
No.	Handle (A)	Overall (B)	NET Per C
348	1"	1$\frac{5}{16}$"	$15.00
349	4"	4$\frac{5}{16}$"	30.00

RADIO CHASSIS PUNCHES

ROUND

SQUARE

"KEY"


"D"

An assortment of round, square, "D", and Keyed holes can be punched by inserting in drilled pilot hole, and turning with wrench. Finished hole is smooth, accurately sized without burrs. Round punches are provided with center-line markings for enlarging holes larger than pilot hole. Individually packed in re-usable plastic box for keeping punch sharp and rust-free.

ROUND HOLE PUNCHES

No.	Hole Size	NET Ea.	No.	Hole Size	NET Ea.
3801	½"	$2.60	3814	1¼"	$3.00
3802	$\frac{9}{16}$"	2.60	3815	1$\frac{5}{16}$"	3.60
3803	⅝"	2.60	3816	1⅜"	3.60
3804	$\frac{11}{16}$"	2.60	3817	1½"	4.10
3805	¾"	2.60	3818	1⅝"	4.85
3806	$\frac{13}{16}$"	2.60	3819	1¾"	5.50
3807	⅞"	2.60	3320	1⅞"	6.85
3808	$\frac{15}{16}$"	2.85	3821	2"	7.40
3809	1"	2.85	3822	2⅛"	11.00
3810	1$\frac{1}{16}$"	3.00	3823	2¼"	7.95
3811	1⅛"	3.00	3824	2½"	13.00
3812	1$\frac{5}{32}$"	3.00	3825	2¾"	18.00
3813	1$\frac{3}{16}$"	3.00	3826	3"	25.00

SQUARE PUNCHES

3827	½"	4.85	3830	⅞"	6.55
3828	⅝"	5.00	3831	1"	6.80
3829	¾"	5.70			

"KEY" PUNCHES

3832	$\frac{15}{32}$"	5.00	3834	1$\frac{11}{64}$"	5.80
3833	$\frac{15}{16}$"	5.00	3835	1$\frac{17}{64}$"	6.55

METER HOLE PUNCH

3836	2$\frac{25}{32}$"	12.50

"D" PUNCHES

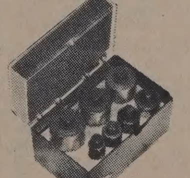
3837	½x$\frac{15}{32}$"	4.50	3838	⅝x$\frac{19}{32}$"	4.75

BALL BEARING DRIVE SCREWS

Reduces friction and effort when punching round holes $\frac{11}{16}$" and larger. For use only with Round punches listed above.

No.	Use with Nos.	NET Ea.
3839	3804 to 3808	$1.00
3840	3809 to 3817	1.10
3841	3818 to 3819	2.60
3842	3820 to 3824 and 3836	2.75
3843	3825 to 3826	5.15

CHASSIS PUNCH SET



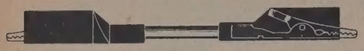
A set of 7 of the most often used chassis punch sizes for electronic construction. Packed in a plastic platform box to keep punches sharp and rust-free. Contains the following sizes: ½", ⅝", ¾", ⅞", 1", 1⅛", 1¼".

No.	NET Ea.
3844	$21.00

SMITH JUMPERS & PATCH CORDS

COLOR CODE SUFFIX
Add to Catalog Number as required
—101 WHITE
—102 RED
—103 BLACK
—104 GREEN
—105 BLUE
—107 YELLOW

STANDARD ALLIGATOR CLIP TO PIN PLUG



CLIPS: STEEL, Cadmium plated (No. 300)

BOOTS: Vinyl plastic (No. 331). Boot colors match wire.

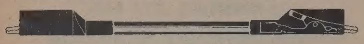
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an 0.D of .140″. Available in Red, Black, Yellow, Green, Blue, and White.

SPECIFY COLOR
Std. Pkg. 10

No.	Length	Net Ea.
1596-12	12 inches	$ .40
1596-24	24 inches	.43
1596-36	36 inches	.48
1596-48	48 inches	.51
1596-60	60 inches	.55

MINIATURE ALLIGATOR CLIP BOTH ENDS



CLIPS: STEEL, Cadmium plated (No. 338).

BOOTS: Vinyl plastic (No. 389). Boot colors match wire.

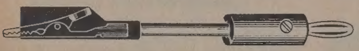
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: General purpose, PVC insulated 1/64″ wall, #18 AWG, 16/30 stranded conductor. Available in Red, Black, Yellow, Green, Blue, and White.

SPECIFY COLOR
Std. Pkg. 10

No.	Length	Net Ea.
1597-12	12 inches	$ .40
1597-18	18 inches	.42
1597-24	24 inches	.43
1597-36	36 inches	.48
1597-48	48 inches	.51
1597-60	60 inches	.55

STANDARD ALLIGATOR CLIP TO BANANA PLUG



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue White per LC-726-1 SPECIFY COLOR

PLUG: Hex brass, nickel plated.

SPRING: Four-leaved phosphor bronze, nickel plated.

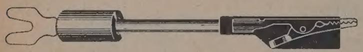
CLIPS: STEEL, Cadmium plated (No. 300) match wire.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140″. **Std. Pkg. 10**

No.	Length	Net Ea.
1866-12	12 inches	$ .45
1866-24	24 inches	.50
1866-36	36 inches	.55
1866-48	48 inches	.60
1866-60	60 inches	.65

STANDARD ALLIGATOR CLIP TO SPADE LUG



HANDLES: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR

LUG: Steel, Hot Tinned, .030 thick.

CLIPS: STEEL, Cadmium plated (No. 300).

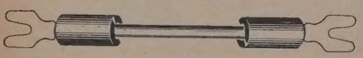
BOOTS: Vinyl plastic (No. 331). Boot colors match wire.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140″. **Std. Pkg. 10**

No.	Length	Net Ea.
1867-12	12 inches	$ .35
1867-24	24 inches	.40
1867-36	36 inches	.45
1867-48	48 inches	.50
1867-60	60 inches	.55

SPDE LUG BOTH ENDS



HANDLES: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR

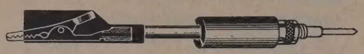
LUGS: Steel, hot tinned, .030 thick.

RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140″.

No.	Length	Net Ea.
1864-12	12 inches	$ .30
1864-24	24 inches	.35
1864-36	36 inches	.40
1864-48	48 inches	.45
1864-60	60 inches	.50

STANDARD ALLIGATOR CLIP TO PIN PLUG



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUG: Brass, nickel plated.

CLIPS: STEEL, Cadmium plated (No. 300).

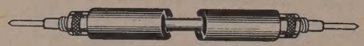
BOOTS: Vinyl plastic (No. 331). Boot colors match wire.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG insulated to an O.D. of .140″. **Std. Pkg. 10**

No.	Length	Net Ea.
1865-12	12 inches	$ .40
1865-24	24 inches	.45
1865-36	36 inches	.50
1865-48	48 inches	.55
1865-60	60 inches	.60

PIN PLUG BOTH ENDS



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

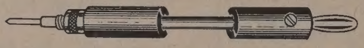
PLUGS: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140″.

No.	Length	Net Ea.
1862-12	12 inches	$ .50
1862-24	24 inches	.55
1862-36	36 inches	.60
1862-48	48 inches	.65
1862-60	60 inches	.70

PIN PLUG TO BANANA PLUG



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUGS: Brass, nickel plated.

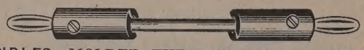
SPRING: Four-leaved phosphor bronze, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140″. **Std. Pkg. 10**

No.	Length	Net Ea.
1868-12	12 inches	$ .50
1868-24	24 inches	.55
1868-36	36 inches	.60
1868-48	48 inches	.65
1868-60	60 inches	.70

BANANA PLUG BOTH ENDS



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUGS: Brass, nickel plated.

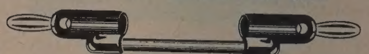
SPRINGS: Four-leaved phosphor bronze, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140″.

No.	Length	Net Ea.
1863-12	12 inches	$ .60
1863-24	24 inches	.65
1863-36	36 inches	.70
1863-48	48 inches	.75
1863-60	60 inches	.80

"CROSS PATCH" BANANA PLUG CORD



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR

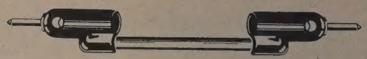
BODY: Brass, nickel plated.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140″.

DESCR.: Interconnects unlimited number of multiple circuits. Positive, lasting contact for all banana plugs on top and side. **Std. Pkg. 10**

No.	Length ("A")	NET Per C
WITH PLUG SPRING 9/16″ LONG		
1510-8	8 inches	$90.00
1510-12	12 inches	90.00
1510-24	24 inches	90.00
1510-36	36 inches	102.00
WITH PLUG SPRING 13/32″ LONG		
1515-8	8 inches	90.00
1515-12	12 inches	90.00
1515-24	24 inches	96.00
1515-36	36 inches	102.00

"CROSS PATCH" PIN TIP CORD



HANDLE: MOLDED BUTYRATE, per MIL-P-349A, White. SPECIFY COLOR

BODY: Brass, nickel plated.

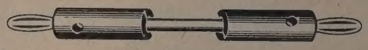
CONTACT: Beryllium copper.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140″.

DESCR.: Interconnects an unlimited number of multiple circuits: .080″ tip plug and female jack in rear of body fits all standard phone tips and jacks. Side holes accept standard banana plugs. **Std.Pkg. 10**

No.	Length ("A")	NET Per C
1595-8	8 inches	$90.00
1595-12	12 inches	90.00
1595-24	24 inches	96.00
1595-36	36 inches	102.00

"CROSS PATCH" CORD



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, ClassII. Red, Black, Yellow, Green assemblies. SPECIFY COLOR

BODY: Brass, nickel plated.

SPRING: Four-leaved, beryllium copper, nickel plated.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140″.

DESCR.: Provides a never ending banana plug receptacle, and can be used to interconnect an unlimited amount of multiple circuits. Accepts standard banana plug in side. **Std. Pkg. 10**

No.	Length ("A")	NET Per C
680	8 inches	$87.00
681	12 inches	93.00
682	24 inches	99.00
683	36 inches	105.00

FOR YOUR SPECIAL REQUIREMENTS IN

• PATCH CORDS • JUMPERS • TEST LEADS •

WHAT DO YOU NEED?

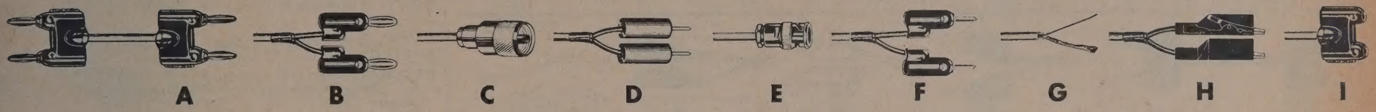
We are equipped to manufacture Patch Cords, Jumpers and Test Leads in every conceivable combination of terminal ends — plugs, jacks, clips and connectors — to be found in our entire line.

What are YOUR special requirements? We welcome your inquiry!

SMITH DOUBLE BANANA PATCH CORDS

CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C/U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.



A DOUBLE PLUG BOTH ENDS

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

DESCR.: Mates with standard dual binding post having ¾″ center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. Each end terminates with molded double banana plug. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1530-12	1540-12	1580-12	12″	$2.15
1530-24	1540-24	1580-24	24″	2.28
1530-36	1540-36	1580-36	36″	2.40
1530-48	1540-48	1580-48	48″	2.52
1530-60	1540-60	1580-48	60″	2.65

B PLUG TO "CROSS-PATCH" BANANA PLUGS

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

BODY: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

PLUG: Our No. 1510.

DESCR.: Mates with standard dual binding post having ¾″ centers.Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana plug, other end with "Cross-Patch" banana plugs, color coded Red and Black **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1523-12	1524-12	1525-12	12″	$2.15
1523-24	1524-24	1525-24	24″	2.28
1523-36	1524-36	1525-36	36″	2.40
1523-48	1524-48	1525-48	48″	2.552
1523-60	1524-60	1525-60	60″	2.65

C DOUBLE PLUG TO PL 259

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

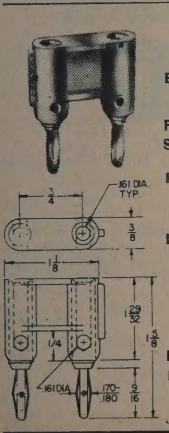
SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

CONN.: PL-259A.

DESCR.: Mates with standard dual binding post having ¾″ center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with PL-259A. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
——	1545-24	1585-24	24″	$3.00
——	1545-36	1585-36	36″	3.12
——	1545-48	1585-48	48″	3.24



DUAL SHORTING PLUG

BODY: Molded Red or Black Polystyrene, per MIL-L-P416, Type I. SPECIFY COLOR

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.

DESCR.: Internally shorted plug mates with standard dual binding posts on ¾″ centers. Used for grounding or shorting input and output connections. Can be stacked for additional current rating. Rear banana jack holes allow connection to shorted posts. **Std. Pkg. 25**

No.	NET Per C
1516	$72.00

D PLUG TO PHONE TIP

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

PLUG: Our No. 203.

DESCR.: Mates with standard dual binding post having ¾″ center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with insulated tip plug, one red and one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1533-12	1543-12	1583-12	12″	$1.55
1533-24	1543-24	1583-24	24″	1.68
1533-36	1543-36	1583-36	36″	1.80
1533-48	1543-48	1583-48	48″	1.92
1533-60	1543-60	1583-60	60″	2.05

E PLUG TO UG 88C/U

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

CONN.: UG 88C/U.

DESCR.: Mates with standard dual binding post having ¾″ center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with UG 88 C/U. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
——	1544-24	1584-24	24″	$2.88
——	1544-36	1584-36	36″	3.00
——	1544-48	1584-48	48″	3.12

F PLUG TO "CROSS PATCH" PIN PLUGS

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

BODY: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

PLUG: Our No. 1595.

DESCR.: Mates with standard dual binding post having ¾″ centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana plug, other end with "Cross-Patch" Pin plugs with standard .080″ tip and jack in rear, banana jack in side, color coded Red and Black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1592-12	1593-12	1594-12	12″	$2.15
1592-24	1593-24	1594-24	24″	2.28
1592-36	1593-36	1594-36	36″	2.40
1592-48	1593-48	1594-48	48″	2.52
1592-60	1593-60	1594-60	60″	2.65

G PLUG TO TINNED LEADS

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

DESCR.: Mates with standard dual binding post having ¾″ center. Polarity indicated by the word GROUND molded on the side. One end terminates with double banana plug, other end stripped and tinned. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1532-12	1542-12	1582-12	12″	$1.19
1532-24	1542-24	1582-24	24″	1.32
1532-36	1542-36	1582-36	36″	1.44
1532-48	1542-48	1582-48	48″	1.56
1532-60	1542-60	1582-60	60″	1.69

H DOUBLE PLUG TOALLIGATOR CLIPS

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

CLIP: Steel cadmium plated (No. 300).

INSUL.: Molded vinyl plastic (No. 331).

WIRE: As specified above.

DESCR.: Mates with standard dual binding post having ¾″ center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with insulated alligator clips, one red, one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1531-12	1541-12	1581-12	12″	$1.55
1531-24	1541-24	1581-24	24″	1.68
1531-36	1541-36	1581-36	36″	1.80
1531-48	1541-48	1581-48	48″	1.92
1531-60	1541-60	1581-60	60″	2.05

I DOUBLE JACK TO DOUBLE PLUG

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

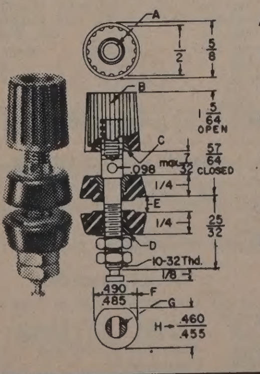
SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

DESCR.: Mates with standard dual binding post having ¾″ center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. One end terminates with molded double banana plug, other end in double extension jack. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1881-12	1822-12	1883-12	12″	$2.15
1881-24	1882-24	1883-24	24″	2.28
1881-36	1882-36	1883-36	36″	2.40
1881-48	1882-48	1883-48	48″	2.52
1881-60	1882-60	1883-60	60″	2.65

NYLON FLUTED HEAD MULTI-PURPOSE BINDING POST



NOTES:

A Banana Plug Receptacle, .161 I.D.
B Head non-removable from stud.
C Molded-in Brass Bushing in Head.
D Molded-in Brass Bushing in Washers.
E For Panels 1/16″ to ¼″ thick.
F Drill ½″ hole for mounting washers.
G Wire Hole is at right angle to Flat on insulated Washers.
H Production punch keyed hole for mounting Washers. (Sample Washer sent on request.)

RATING: 30 Amps AC for 10°C temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 5.0 mmfd.

ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.

DESCR.: MOLDED NYLON, per MIL-P-20693A, head and washer completely insulates post from panel. Mounts in ½″ or keyed hole as indicated. Wrap around type—direct solder connection to stud. BODY & INSERTS: Brass, per QQ-B-626, Comp. 22. Gold Plated Overall.

COLORS: Red, Black, Yellow, Green, Blue, White. Specify color.

St. Pkg. 100

No.	NET Per C
459	$36.00

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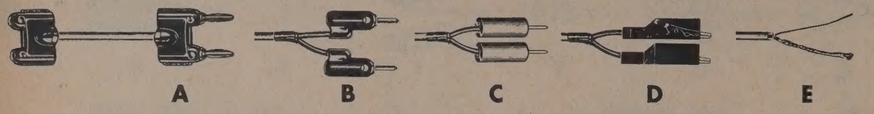
SMITH PATCH CORDS

CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C*U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.



A DOUBLE JACK TO "CROSS-PATCH" PLUGS

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Color to match wire.

BODY: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

PLUG: Our No. 1510. Red and black.

DESCR.: Mates with standard dual banana plugs having ¾″ centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana jacks, other end with "Cross-patch" banana plugs, color coded Red and Black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1895-12	1896-12	1897-12	12″	$2.15
1895-24	1896-24	1897-24	24″	2.28
1895-36	1896-36	1897-36	36″	2.40
1895-48	1896-48	1897-48	48″	2.52
1895-60	1896-60	1897-60	60″	2.65

B DOUBLE JACK TO "CROSS-PATCH" PIN PLUGS

Type 3, Class MS. Color to match wire.

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A.

BODY: Brass, nickel plated.

WIRE: As specified above.

PLUG: Our No. 1595. Red and black.

DESCR.: Mates with standard dual banana plugs having ¾″ centers. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits on top and side. One end terminates with double banana jacks, other end with "Cross-Patch" Pin plugs with standard .080″ tip and jack in rear, banana jack in side, color coded Red and Black.

Std. Pkg. 10

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1861-12	1898-12	1899-12	12″	$2.15
1861-24	1898-24	1899-24	24″	2.28
1861-36	1898-36	1899-36	36″	2.40
1861-48	1898-48	1899-48	48″	2.52
1861-60	1898-60	1899-60	60″	2.65

UHF COAXIAL CABLE CONNECTORS

Solder Type

R.F. Connectors for use with RG-8, 9, 10, 11, 12, 63, 65/U coaxial cables. **Std. Pkg. 25**

STRAIGHT COAXIAL CONNECTOR

Brass, Silver-plated shell.

No.	Type	NET Per C
1713	PL-259	$67.50

CHASSIS TYPE COAXIAL RECEPTACLE

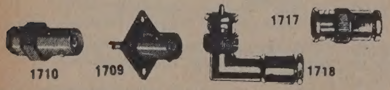
1715	SO-239	$67.50

COAXIAL JUNCTION

For joining separate cable lengths.

1716	PL-258	$121.50

RF COAXIAL CABLE CONNECTORS



Small, weatherproof low-voltage connectors with bayonet action for quick-disconnect. Constant impedance, 50 ohms. Brass, silver-plated. For RG-55 and 58/U Cables.

Std. Pkg. 5

No.	Type	Description	Each
1717	UG-88C/U	Plug	$.81
1718	UG-913/U	90° Plug	2.70
1709	UG-290AA/U	Receptacle	1.08
1710	UG-89B/U	Jack	1.35

C DOUBLE JACK TO PHONE TIP

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

WIRE: As specified above.

PLUG: Our No. 203. Red and black.

DESCR.: Mates with standard dual banana plugs by the word GROUND molded on side. One end terminates with double banana jacks, other end with insulated tip plug, one red and one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1892-12	1893-12	1894-12	12″	$1.55
1892-24	1893-24	1894-24	24″	1.68
1892-36	1893-36	1894-36	36″	1.80
1892-48	1893-48	1894-48	48″	1.92
1892-60	1893-60	1894-60	60″	2.05

D DOUBLE JACK TO ALLIGATOR CLIPS

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

JACKS: Brass, nickel plated.

CLIP: Steel cadmium plated (No. 300).

INSUL.: Molded vinyl plastic (No. 331).

WIRE: As specified above.

DESCR.: Mates with standard dual banana plugs having ¾″ center. Polarity indicated by the word GROUND molded o nside. One end terminates with double banana jacks, other end with insulated alligator clips, one red, one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1889-12	1890-12	1891-12	12″	$1.55
1889-24	1890-24	1891-24	24″	1.68
1889-36	1890-36	1891-36	36″	1.80
1889-48	1890-48	1891-48	48″	1.92
1889-60	1890-60	1891-60	60″	2.05

E DOUBLE JACK TO STRIPPED & TINNED LEADS

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

WIRE: As specifier above.

DESCR.: Mates with standard dual plugs having ¾″ center. Polarity indicated by the word GROUND molded on side. One end terminates in double extension jack, other end in stripped and tinned leads.

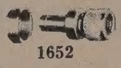
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1886-12	1887-12	1888-12	12″	$1.19
1886-24	1887-24	1888-24	24″	1.32
1886-36	1887-36	1888-36	36″	1.44
1886-48	1887-48	1888-48	48″	1.56
1886-60	1887-60	188-60	60″	1.69

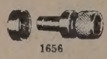
SOLDERLESS COAXIAL CABLE CONNECTORS

For RG-8/U, RG-11/U, RG-13/U and RG-59/U Cables

Designed to use the inner conductor of the coaxial cable for the male pin. Can be wrench-tightened for positive contact. Brass, silver plated. **Std. Pkg. 25**

Crimp Type





MALE CONNECTORS

Both types mate with female chassis fitting #1660 and Female Coupling #1680. Designed for quick and easy assembly using #1752 Crimping Tool. Withstands 350-lb pull when assembled. Packaged individually, with instruction sheet. **Std. Pkg. 25**

No.	For Cables	NET Ea.
1652	RG-59/U	$ .48
1652D	Display of 24	11.52
1656	RG-6/U	.63
1656D	Display of 24	.15.12
1752	Crimping Tool	3.00

FEMALE CHASSIS FITTING

Mates with #1652 connector. Mounts in ⁵⁄₁₆″ hole. Threaded stem is ⅜″.

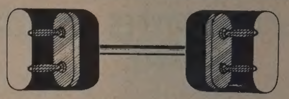
No.		NET Ea.
1660	Individually Packaged	$ .48
1660D	Display of 24	11.52

FEMALE COUPLING

Accepts two #1680, 1652 or 1656 connectors.

No.		NET Ea.
1680	Individually Packaged	$ .60
1680D	Display of 24	14.40

SHIELDED DOUBLE PLUG TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.

BODY: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS.

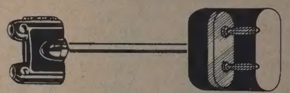
PLUG: Brass,nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

DESCR.: Mates with standard dual binding post having ¾″ center. Both ends terminate with double shielded banana plugs.

No. RG-58C/U Wire	No. RG-11/U Wire	Length	NET Ea.
1876-12	1877-12	12 inches	$7.50
1876-24	1877-24	24 inches	7.62
1876-36	1877-36	36 inches	7.75
1876-48	1877-48	48 inches	7.88
1876-60	1877-60	60 inches	8.00

DOUBLE JACK TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

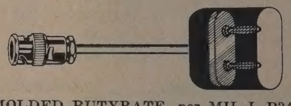
SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

DESCR.: Mates with standard dual binding pos having ¾″ center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. One end terminates with molded double shielded banana plug, other end in double extension jack. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
——	1884-12	1885-12	12″	$5.15
——	1884-24	1885-24	24″	5.28
——	1884-36	1885-36	36″	5.40
——	1884-48	1885-48	48″	5.52
——	1884-60	1885-60	60″	5.65

BNEC MALE TO SHIELDED DOUBLE PLUG



BODY: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Assemblies.

SHIELD: Aluminum, black anodized.

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

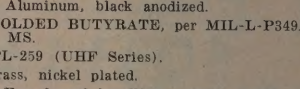
WIRE: RG-58C/U.

CONN.: UG 88C/U. (BNC Series)

DESCR.: Mates with standard dual binding post having ¾″ center. One end terminates with double shielded banana plug, other end with UG 88 C/U. **Std. Pkg. 10**

No.	Length	NET Ea.
1873-12	12 inches	$6.00
1873-24	24 inches	6.12
1873-36	36 inches	6.25
1873-48	48 inches	6.38
1873-60	60 inches	6.50

UHF MALE TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.

BODY: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS.

CONN.: PL-259 (UHF Series).

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

DESCR.: Mates with standard dual binding post having ¾″ center. One end terminates with double shielded banana plug, other end in UHF Conn. **Std. Pkg. 10**

No. Wire RG-58C/U	No. Wire RG-11/U	Length	Ea. NET
1874-12	1875-12	12 inches	$6.00
1874-24	1875-24	24 inches	6.12
1874-36	1875-36	36 inches	6.25
1874-48	1874-48	48 inches	6.38
1874-60	1875-60	60 inches	6.50

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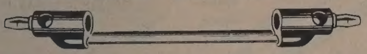
SMITH JUMPERS & PATCH CORDS

COLOR CODE SUFFIX

Add to Catalog Number as required

- — 101 WHITE
- — 102 RED
- — 103 BLACK
- — 104 GREEN
- — 105 BLUE
- — 106 ORANGE
- — 107 YELLOW
- — 108 BROWN
- — 112 PURPLE
- — 113 GREY

SUB-MINIATURE "CROSS PATCH" CORD



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. SPECIFY COLOR

BODY: Brass, silver plated.

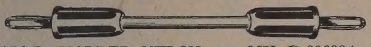
SPRING: Four-leaved beryllium copper, silver plated.

WIRE: General purpose, PVC insulated, 1/64" wall. #18 AWG, 41/34 stranded conductor. Voltage rating up to 1 KV RMS.

DESCR.: Interconnects unlimited number of multiple circuits. Positive, lasting contact for banana plugs on top and side. Special lengths on request. **Std. Pkg. 10**

No.	Length ("A")	NET Per C
1590-6	6 inches	$60.00
1590-12	12 inches	69.00
1590-18	18 inches	75.00
1590-24	24 inches	84.00

NYLON HANDLE PATCH CORD



HANDLE: MOLDED NYLON, per MIL-P-20693A. Red, Black, Yellow or Green. SPECIFY COLOR

BODY: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

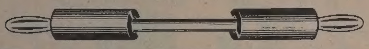
WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140".

DESCR.: Uses our standard No. 478 banana plug to interconnect circuits. Fits standard banana jacks.

Std. Pkg. 10

No.	Length	NET Per C
1520-8	8 inches	$54.00
1520-12	12 inches	60.00
1520-24	24 inches	66.00
1520-36	36 inches	72.00

PATCH CORD



HANDLE: MOLDED THERMOSETTING plastic. Red and Black per MIL-P-14CFG. Yellow, Green per LC-721-1. SPECIFY COLOR

BODY: Brass, nickel plated.

SRING: Four-leaved beryllium copper, nickel plated.

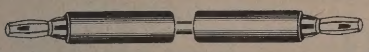
WIRE: 10 KV PVC flexible wire ,65 strands #36 copper, insulated to an O.D. of .140".

DESCR.: Uses our standard No. 271 banana plug to interconnect circuits. Fits standard banana jacks.

Std. Pkg. 10

No.	Length ("A")	NET Per C
690	8 inches	$48.00
691	12 inches	54.00
692	24 inches	60.00
693	36 inches	66.00

HIGH-CURRENT PATCH CORD



HANDLE: MACHINED PHENOLIC plastic, per MIL-P-77B, Type 1. Red or Black assemblies SPECIFY COLOR

BODY: Brass, nickle plated.

SPRINGS: Six-leaved, phosphor bronze, nickel plated.

WIRE: #10, PVC insulated stranded wire, 105 strands #30 tinned copper wire, insulated to an 0.D of .215".

RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Tapered recessed plug so that no metal portions are exposed when plugged into mating jacks.

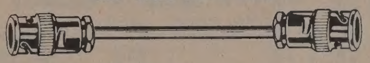
Std. Pkg. 10

No.	Length	NET Per C
1591-8	8 inches	$135.00
1591-12	12 inches	135.00
1591-24	24 inches	140.00
1591-24	24 inches	140.00
1591-36	36 inches	145.00

CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C/U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.

BNC MALE BOTH ENDS

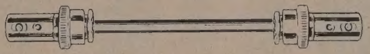


CONN.: UG 88 C/U. (BNC Series)

WIRE: RG-58C/U. **Std. Pkg. 10**

No.	Length	NET Ea.
1589-12	12 inches	$4.00
1589-24	24 inches	4.20
1589-36	36 inches	4.32
1589-48	48 inches	4.34
1589-60	60 inches	4.55

BNC FEMALE BOTH ENDS

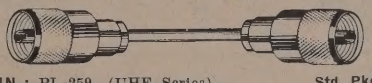


CONN.: UG-89B/U. (BNC Series)

WIRE: RG-58C/U.

No.	Length	NET Ea.
1869-12	12 inches	$3.75
1869-24	24 inches	3.85
1869-36	36 inches	4.00
1869-48	48 inches	4.15
1869-60	60 inches	4.25

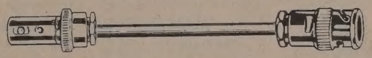
UHF MALE BOTH ENDS



CONN.: PL-259. (UHF Series) **Std. Pkg. 10**

No. RG-58C/U Wire	No. RG-11/U Wire	Length	NET Ea.
1871-12	1870-12	12 inches	$4.50
1871-24	1870-24	24 inches	4.62
1871-36	1870-36	36 inches	4.75
1871-48	1870-48	48 inches	4.88
1871-60	1870-60	60 inches	5.00

BNC FEMALE TO BNC MALE

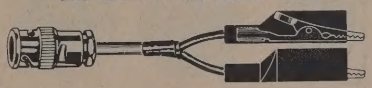


CONN.: UG-89B/U. (BNC Series)
UG-89B/U. (BNC Series)

WIRE: RG-58C/U.

No.	Length	NET Ea.
1878-12	12 inches	$4.00
1878-24	24 inches	4.20
1878-36	36 inches	4.20
1878-48	48 inches	4.34
1878-60	60 inches	4.55

BNC MALE TO ALLIGATOR CLIPS



CONN.: UG-88C/U. (BNC Series)

CLIPS: Steel Cad. Plated (#300).

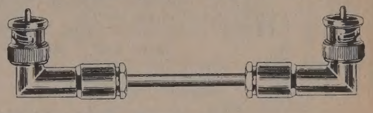
INSUL.: Molded Vinyl (#331).

WIRE: As specified above.

DESCR.: For testing of wave patterns etc. One end termination with UG-88C/U other end with insulated alligator clips, one red, one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1537-12	1587-12	12"	$3.75
———	1537-24	1587-24	24"	3.96
———	1537-36	1587-36	36"	4.08
———	1537-48	1587-48	48"	4.20
———	1437-60	1587-60	60"	4.30

RIGHT ANGLE BNC TO RIGHT ANGLE BNC



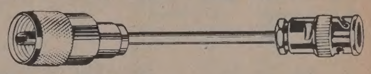
CONN.: UC-913/U. (BNC Series)

WIRE: As specified above.

DESCR.: Used for patching and jumping. Each end terminates with UG-913/U.

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
———	1538-12	1588-12	12"	$5.88
———	1538-24	1588-24	24"	6.00
———	1538-36	1588-36	36"	6.12
———	1538-48	1588-48	48"	6.24
———	1538-60	1588-60	60"	6.35

UHF MALE TO BNC MALE

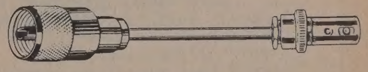


CONN.: UG-88C/U. (BNC Series)
PL-259. (UHF Series)

WIRE: RG-58C/U.

No.	Length	NET Ea.
1879-12	12 inches	$4.00
1879-24	24 inches	4.20
1879-36	36 inches	4.32
1879-48	48 inches	4.34
1879-60	60 inches	4.55

UHF MALE TO BNC FEMALE

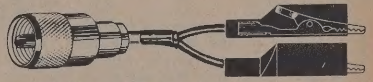


CONN.: UG-89B/U. (BNC Series)
PL-259. (UHF Series)

WIRE: RG-58C/U.

No.	Length	NET Ea.
1880-12	12 inches	$4.20
1880-24	24 inches	4.40
1880-36	36 inches	4.52
1880-48	48 inches	4.54
1880-60	60 inches	4.75

UHF MALE TO ALLIGATOR CLIPS



CONN.: PL-259. (UHF Series)

CLIPS: Steel Cad. Plated (#331).

WIRE: As specified above.

DESCR.: For testing of wave patterns, etc. One end terminates with PL-259, other end with insulated alligator clips one red, one black. **Std. Pkg. 10**

No. BG-11/U Wire	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1872-12	1536-12	1586-12	12"	$3.75
1872-24	1536-24	1586-24	24"	3.96
1872-36	1536-36	1586-36	36"	4.08
1872-48	1536-48	1586-48	48"	4.20
1872-60	1536-60	1586-60	60"	4.30

SPECIAL REQUIREMENTS?

We are equipped to manufacture Probes, Test Leads, Jumpers, Patch Cords, etc., for NON-STANDARD applications. Our nationwide network of technically qualified sales-engineers is at your service, eager to help you with your special requirements and production runs.

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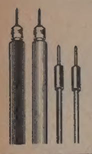
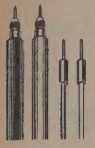


SOLDERLESS TIP TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
TIP: Solderless: Brass, nickel plated.
Std. Pkg. 6

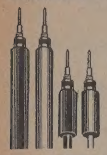
No.	Meter End	NET Per Pr.
600	Phone Tips (No. 158)	$.87
601	Spade Lugs (No. 129)	.87
602	Alligator Clips (No. 300)	.93



PHONO NEEDLE TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 317).
BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated. **Std. Pkg. 6**

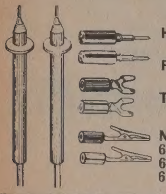
No.	Meter End	NET Per. Pr.
613	Phone Tips (No. 158)	$.87
614	Spade Lugs (No. 129)	.87
615	Alligator Clips (No. 300)	.93



ALL SOLDERLESS TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
PLUG: Molded Bakelite 1" long x ⅜" O.D. Red and Black (No. 200).
TIP: Solderless: Brass, nickel plated.
Std. Pkg. 6

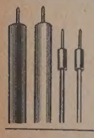
No.	NET Per Pr.
603	$1.26



HIGH TENSION TEST LEAD

HANDLE: PROD: FIBRE 5" long x ½" O.D. Red and Black (No. 630).
PLUG: Fibre 1" long x ½" O.D. Red and Black.
TIP: Brass, nickel plated.
Std. Pkg. 1

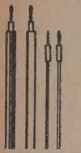
No.	Meter End	NET Per Pr.
620	Ins. Phone Tips	$1.98
621	Ins. Spade Lugs	1.98
622	Ins. Alligator Clips	2.40



SHORT TIP TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 363).
PLUG: Molded Bakelite 1" long x ⅜" O.D. Red and Black (No. 203).
TIP: Brass, nickel plated. **Std. Pkg. 6**

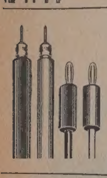
No.	NET Per Pr.
624	$1.05



SLIM HANDLE TEST LEAD

HANDLE: MACHINED TENITE 5" long x 5/16" O.D. Red and Black.
TIPS: Prod: Brass, nickel plated.
METER END: Drawn brass, nickel plated (No. 158). **Std. Pkg. 6**

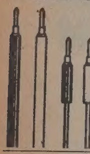
No.	NET Per Pr.
670	$.66



BANANA PLUG TEST LEAD

HANDLES: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black. (No. 302).
PLUG: Molded bakelite 1" long x ⅜" O.D. Red and Black. (No. 211).
TIP: Solderless: Brass, nickel plated.
BODY: Brass, nickel plated.
SPRING: Four leaved phosphor bronze, nickel plated. **Std. Pkg. 6**

No.	NET Per Pr.
623	$1.50



SUB MINIATURE TEST LEAD

HANDLES: PROD: BONE FIBRE 4" long x ¼" O.D. Red and Black (No. 322).
PLUG: Bone fibre 1" long x ¼" O.D. Red and Black. (No. 270).
TIPS: Brass, nickel plated. **Std. Pkg. 6**

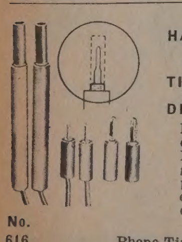
No.	NET Per Pr.
678	$1.26

TEST LEAD KIT

DESCR.: Each kit is supplied with one pair of test leads. One end test prods, other end ins. banana plugs.

FITTINGS: Two each: Phone tips, alligator clips, spade lugs. **Std. Pkg. 6**

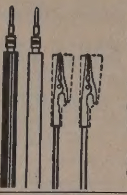
No.	Type	NET Ea.
610	Solderless Prods	$1.20
611	Needle Tip Prods	1.80



SHIELDED TEST LEADS

HANDLE: MACHINED TENITE 7/16" O.D. x 4½" lg. Red and Black.
TIP: Prod tip brass, nickel plated. Meter end, see type.
DESCR.: Plugs insert flush to insulated handle. Prods have retractable cover leaving no metal exposed. Eliminates possibility of shock or grounding. Supplied with either phone tip or banana plug meter ends. Other variations on special order. **Std. Pkg. 6**

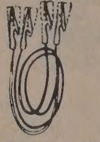
No.	Type	NET Per Pr.
616	Phone Tip End (No. 203)	$1.80
617	Banana Plug End (No. 211)	1.86



ALLIGATOR CLIP TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
TIPS: Solderless: Brass, nickel plated.
CLIPS: Steel, cadmium plated (No. 300).
BOOT: Vinyl Plastic. Red and Black (No. 331). **Std. Pkg. 6**

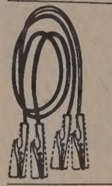
No.	NET Per Pr.
672	$1.26



ALLIGATOR CLIP TEST LEAD

CLIPS: STEEL, cadmium plated.
Std. Pkg. 6

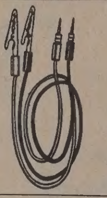
No.	Wire	NET Per Pr.
604	12 inches	$.57
605	24 inches	.63
606	36 inches	.72
607	48 inches	.81



INSULATED ALLIGATOR CLIP TEST LEADS

CLIPS: STEEL, cadmium plated.
BOOTS: Vinyl plastic, Red and Black (No. 331). **Std. Pkg. 6**

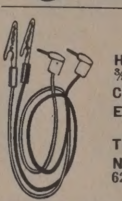
No.	Wire	NET Per Pr.
629	12 inches	$.81
657	24 inches	.87
658	36 inches	.96
659	48 inches	1.02



ALLIGATOR CLIP TEST LEAD

HANDLES: CLIP: MOLDED TENITE ¾" long x ⅜" O.D. Red and Black (No. 301).
PLUG: Molded bakelite 1" long x ⅜" O.D. Red and Black (No. 200).
CLIPS: Steel, cadmium plated (No. 301).
TIPS: Solderless: Brass, nickel plated.
Std. Pkg. 6

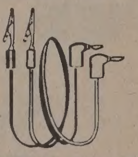
No.	NET Per Pr.
627	$.99



ALLIGATOR CLIP TEST LEAD

HANDLE: MOLDED TENITE ¾" long x ⅜" O.D. Red and Black (No. 301).
CLIPS: Steel, cadmium plated (No. 301).
ELBOWS: Molded bakelite, Red and Black (No. 235).
TIPS: Brass, nickel plated. **Std. Pkg. 6**

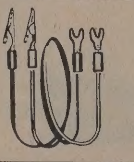
No.	NET Per Pr.
628	$1.20



ALLIGATOR CLIP TEST LEAD

HANDLES: CLIP: Molded Tenite ¾" long x ⅜" O.D. Red and Black (No. 301).
CLIPS: Steel, cadmium plated.
ELBOWS: Molded Bakelite, Red and Black. (No. 255). **Std. Pkg. 6**

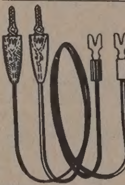
No.	NET Per Pr.
647	$1.20



ALLIGATOR CLIP TEST LEAD

HANDLES: CLIP and LUG: Molded Tenite ¾" long x ⅜" O.D. Red and Black.
CLIPS: Steel, cadmium plated (No. 301).
LUGS: Steel, hot tinned (No. 129).

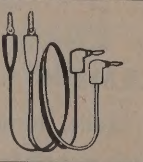
No.	NET Per C
649	$1.20



CROCODILE CLIP TEST LEAD

CLIP: STEEL, cadmium plated.
BOOT: Vinyl plastic. Red and Black.
HANDLE: Spade Lug: Molded tenite ¾" long x ⅜" O.D. Red and Black (No. 218).
LUG: Steel, Hot tinned (No. 129).
Std. Pkg. 6

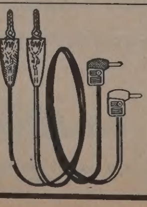
No.	NET Per Pr.
671	$1.20



CROCODILE CLIP TEST LEAD

CLIPS: Steel, Cadmium plated.
BOOTS: Vinyl plastic, Red and Black.
ELBOWS: Molded Bakelite, Red and Black (No. 255). **Std. Pkg. 6**

No.	NET..Per Pr.
648	$1.14



CROCODILE CLIP TEST LEAD

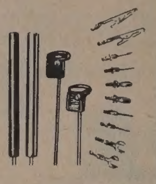
CLIP: STEEL, cadminum plated.
BOOT: Vinyl plastic. Red and Black.
ELBOW: Molded bakelite. Red and Black (No. 235).
TIP: Brass, nickel plated.
Std. Pkg. 6

No.	NET Per Pr.
675	$1.14

"UNIVERSAL TEST LEAD"
Completely Interchangeable

Fifty Leads In One! One lead can make any required test lead combination. All parts adapt into prod handle or tip handle. Complete as shown. With plastic kit. **Std. Pkg. 6**

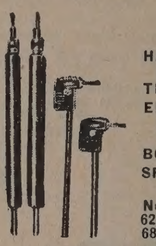
No.	NET Ea.
699	$2.40



"UNIVERSAL TEST LEAD"
Miniature Accessories
Completely Interchangeable

Fifty Leads In One. One lead can make any required test lead combination. All parts adapt into prod handle or meter tip. Supplied with miniature tips, clips, banana plugs and spade tips. Complete as shown. With plastic kit. **Std. Pkg. 6**

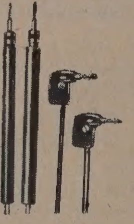
No.	NET Ea.
679	$2.40



METER TEST LEADS
Solderless Prod

HANDLE: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
TIP: Solderless: Brass, nickel plated.
ELBOW: Molded, bakelite, Red and Black (#235, Phone Tip; #255, Banana Tip).
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor bronze, nickel plated. **Std. Pkg. 6**

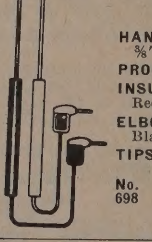
No.	Type	NET Per Pr.
625	Phone Tip Meter Tip	$1.35
685	Banana Meter Tip	1.50



Needle Prod

HANDLE: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 317).
NEEDLE: Steel, nickel plated.
ELBOW: Molded, bakelite, Red and Black (#235, Phone Tip; #255, Banana Tip).
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor bronze, nickel plated. **Std. Pkg. 6**

No.	Type	NET Per Pr.
626	Phone Tip Meter Tip	$1.35
686	Banana Meter Tip	1.50



SLIM JIM TEST LEAD

HANDLE: MOLDED TENITE 4" long x ⅜" O.D. Red and Black.
PROBE: Steel, cadmium plated.
INSULATOR: Vinyl spaghetti tubing, Red and Black.
ELBOWS: Molded bakelite, Red and Black (No. 235).
TIPS: Brass, nickel plated. **Std. Pkg. 6**

No.	NET Per Pr.
698	$1.14

TEST LEAD WIRE

Supplied in 100-ft. coils, Red and Black.
SPECIFY COLOR

No.	Type	Cond.	Strands	Wall	Voltage	O.D.	Ea.
660	Standard	20	26/34	.040"	5,000	.125"	$1.95
768	Hv. Duty	18	65/36	.047"	12,000	.150"	3.00

TEST LEAD WIRE SPECIFICATIONS

All test leads on this and following page are supplied with extra-flexible rubber-covered kinkless wire, 50-in. long, unless specified otherwise. **#20 wire, 26/34 strands, 5000 Volts, .125" O.D.**

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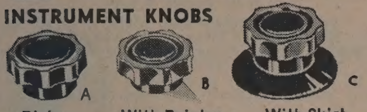
INSTRUMENT KNOBS



Plain — With Pointer — With Skirt

Molded black bakelite instrument knobs with molded in brass insert for ¼″ shafts. **Style B** pointer knobs have white vinyl pointer. **Style C** skirt type have white indicator line. **Style D** same as style A except with protruding brass insert for mounting special dials and pointers.

Std. Pkg. 10

No.	Style	O.D.	Pointer Size	Height	NET Per C
2200	A	1⅛″		⅝″	$28.20
2201	A	1⅜″		11/16″	29.40
2202	A	1⅝″		¾″	33.60
2203	A	2⅜″		⅞″	48.00
2204	B	1⅛″	¾″ pointer	11/16″	44.40
2205	B	1⅜″	1 1/16″ pointer	¾″	45.00
2206	B	1⅝″	1 3/16″ pointer	13/16″	48.00
2207	B	2⅜″	1 9/16″ pointer	15/16″	64.20
2208	C	1⅛″	1½″ Skirt	13/16″	53.40
2209	C	1⅜″	1¾″ Skirt	⅞″	55.20
2210	C	1⅝″	2 1/16″ Skirt	29/32″	65.40
2211	C	2⅜″	3″ Skirt	1 1/32″	85.80
2212	D	1⅛″		23/32″	34.80
2213	D	1⅜″		25/32″	35.40
2214	D	1⅝″		27/32″	40.20
2215	D	2⅜″		31/32″	55.20
			SKIRT ONLY		
2216		1½″	Skirt only		10.80
2217		1¾″	Skirt only		12.60
2218		2 1/16″	Skirt only		14.40
2219		3″	Skirt only		21.00

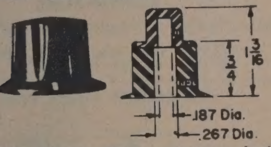
Matte Finish — Made to Meet MS-91531

Molded Black, Matte finish bakelite instrument knobs, with molded-in brass insert for ¼″ shafts. All knobs supplied with two (2) Allen-head set-screws. Style B pointer knobs have white vinyl pointer. Style C skirt knobs have white indicator line on skirt.

Std. Pkg. 10

No.	Style	O.D.	Pointer size	Height	NET Per C
2460	A	1⅛″		⅝″	$81.00
2461	A	1⅝″		¾″	99.00
2462	A	2⅜″		⅞″	122.00
2463	B	1⅛″	¾″ pointer	11/16″	92.00
2464	B	1⅝″	1 3/16″ pointer	13/16″	106.00
2465	B	2⅜″	1 9/16″ pointer	15/16″	132.00
2466	C	1⅛″	1½″ skirt	13/16″	123.00
2467	C	1⅝″	2 1/16″ skirt	29/32″	152.00
2468	C	2⅜″	3″ skirt	1 1/32″	191.00

FLUTED INSTRUMENT KNOBS



Molded black bakelite fluted instrument knobs, supplied with white-filled line on crown and skirt, opposite set-screw. Supplied with ¼″ plain hole with set-screw.

Std. Pkg. 10

No.	Skirt Dia.	Height	NET Per C
2391	¾″	½″	$18.00
2392	1⅛″	⅝″	18.60
2393	1¼″	¾″	18.60
2394	1½″	⅞″	19.20
2395	2″	1 5/16″	44.00
	With ⅛″ plain hole with set-screw		
2396	¾″	½″	18.00

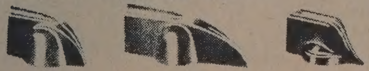
CONCENTRIC FLUTED

Molded black and Red bakelite dual-concentric fluted instrument knobs. Outside knob is black with white filled line on skirt. Inner knob is red with white-filled line on skirt and crown. Both knobs supplied with set-screws.

Std. Pkg. 10

No.	NET Per C
2397	$32.40

POINTER KNOBS



A — Length 1¼″ Hgt. ⅝″
B — Length 2″ Hgt. ⅝″
C — Length 1¼″ Hgt. 9/16″

Molded bakelite pointer knobs, supplied with ¼″ plain hole or brass inset. Complete with set screw.

Std. Pkg. 25

No.	Style	Type Hole	Color	NET Per C
2220	A	¼″ Plain	Black	$10.80
2221	A	¼″ Plain	Walnut	11.40
2222	A	¼″ Plain	Ivory	12.00
2223	A	¼″ Brass Insert	Black	16.80
2224	A	¼″ Brass Insert	Walnut	17.40
2225	A	¼″ Brass Insert	Red	18.00
2226	B	¼″ Plain	Black	21.60
2227	B	¼″ Plain	Walnut	22.20
2228	B	¼″ Brass Insert	Black	27.00
2229	B	¼″ Brass Insert	Walnut	27.00
2230	C	¼″ Plain	Black	13.80
2231	C	¼″ Plain	Walnut	14.40

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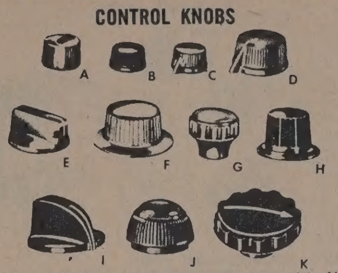
More than 2,000 electronic component parts manufactured under one roof.

CONTROL KNOBS



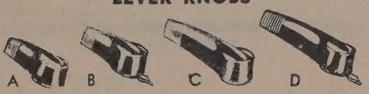
Molded bakelite control knobs. Supplied with ¼″ molded hole; complete with set screw. *Recessed for locknut.

Std. Pkg. 25

No.	Style	O.D.	Height	Color	NET Per C
2240	A	¾″	19/32″	Black	$12.00
2241	A	¾″	19/32″	Walnut	12.00
2242	B	11/16″	13/32″	Black	9.60
2243	B	11/16″	13/32″	Walnut	9.60
2244*	B	1″	½″	Black	13.20
2245*	B	1″	½″	Walnut	13.80
2275†	B	11/16″	13/32″	Black	21.60
2276†	B	11/16″	13/32″	Red	21.60
2246	C	11/16″	13/32″	Black	9.60
2247	C	11/16″	13/32″	Walnut	9.60
2273†	C	11/16″	13/32″	Black	21.60
2274†	C	11/16″	13/32″	Red	22.20
2248*	D	1″	½″	Black	16.80
2249*	D	1″	½″	Walnut	17.40
2250*	E	1⅛″	9/16″	Black	14.40
2251*	E	1⅛″	9/16″	Walnut	15.00
2252*	F	1½″	11/16″	Black	17.40
2253*	F	1½″	11/16″	Walnut	18.00
2254*	F	1½″	11/16″	Ivory	19.20
2258	G	⅞″	¾″	Black	15.00
2259	G	⅞″	¾″	Walnut	15.60
2265	H	29/32″	19/32″	Black	13.80
2266	H	29/32″	19/32″	Red	14.40
2267	J	1 3/16″	⅝″	Black	12.60
2268	J	1 3/16″	⅝″	Red	13.80
2269	K	⅞″	⅝″	Black	14.40
2270	K	⅞″	⅝″	Red	18.60
2283	L	⅞″	½″	Black	19.20
2284	L	⅞″	½″	Red	19.80

† Supplied with brass insert.

LEVER KNOBS



Molded bakelite lever knobs with ¼″ brass insert, complete with set screw.

Std. Pkg. 25

No.	Style	Length	Height	Color	NET Per C
2232	A	1⅝″	19/32″	Black	$22.20
2233	A	1⅝″	19/32″	Walnut	22.80
2234	B	1 15/16″	19/32″	Black	38.40
2235	B	1 15/16″	19/32″	Walnut	38.40
2236	C	2½″	⅝″	Black	24.00
2237	C	2½″	⅝″	Walnut	24.00
2238	D	2 13/16″	⅝″	Black	43.20
2239	D	2 13/16″	⅝″	Walnut	43.80

DIAL PLATES

2261

2262

5
6
4
7
3
8
2
9
1
10
0
2290

DIAL: BRASS, chrome silver, 1⅝″ O.D.
KNOB: Molded bakelite black (our 2250).
DESCR.: For matching dials on instruments, receivers, amplifiers. Dial has clear black etched numbers. Knob fits 1′4″ shaft. **Std. Pkg. 10**

No.	Type	NET Each
2261	10 to 0 180 Degrees	$.75
2262	10 to 0 270 Degrees	.75
	DIAL PLATES ONLY ½″ I.D.	
2263	10 to 0 180 Degrees	.45
2264	10 to 0 270 Degrees	.45

KNOB DIAL PLATE

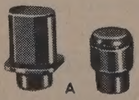
DIAL: Nickel silver, 1⅝″ O.D.

KNOB: Molded bakelite.

DESCR.: Engraved numerals, varnish coated. 10 to 0, in 360 degrees. Knob fits ¼″ shaft. **Std. Pkg. 10**

No.	NET Each
No. 2290	$.75

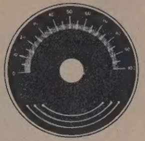
PUSH BUTTON KNOBS



Std. Pkg. 25

No.	Style	O.D.	Height	Color	NET Per C
2277	A	½″	51/64″	Black	$7.20
2278	A	½″	51/64″	Red	8.40
2279	B	31/64″	9/16″	Black	4.80
2280	B	31/64″	9/16″	Red	6.00

CONTROL PLATES



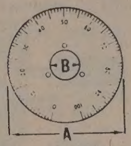
MATERIAL: Brass Black Satin Finish. Etched silver numerals.

DIMENSION: 13/32″ I.D. x O.D. as specified.

Std. Pkg. 5

Clock-wise Calib. 0.100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	O.D.	NET Per C
2900	2906	180	2″	$45.00
2901	2907	270	2″	45.00
2902	2908	325	2″	45.00
2903	2909	180	3½″	90.00
2904	2910	270	3½″	90.00
2905	2911	325	3½″	90.00

DIAL PLATES



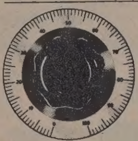
MATERIAL: Brass Chrome Silver Finish.

DESCR.: Mounting Holes 9/64″.

Std. Pkg. 5

Clock-wise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	A	B	NET Per C
2912	2928	180	1⅛″	⅜″	$45.00
2913	2929	270	1⅛″	⅜″	45.00
2914	2930	325	1⅛″	⅜″	45.00
2915	2931	360	1⅛″	⅜″	45.00
2916	2932	180	1¾″	31/64″	60.00
2917	2933	270	1¾″	31/64″	60.00
2918	2934	325	1¾″	31/64″	60.00
2919	2935	360	1¾″	31/64″	60.00
2920	2936	180	2¾″	¾″	75.00
2921	2937	270	2¾″	¾″	75.00
2922	2938	325	2¾″	¾″	75.00
2923	2939	360	2¾″	¾″	75.00
2924	2940	180	4″	15/16″	120.00
2925	2941	270	4″	15/16″	120.00
2926	2942	325	4″	15/16″	120.00
2927	2943	360	4″	15/16″	120.00

DIAL AND KNOB ASSEMBLY



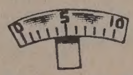
DIAL: Brass Chrome Silver Finish.

KNOB: Molded Bakelite with ¼″ Brass insert.

Std. Pkg. 5

Clock-wise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	O.D.	NET Each
2960	2976	180	1⅛″	$1.35
2961	2977	270	1⅛″	1.35
2962	2978	325	1⅛″	1.35
2963	2979	360	1⅛″	1.35
2964	2980	180	1¾″	1.41
2965	2981	270	1¾″	1.41
2966	2982	325	1¾″	1.41
2967	2983	360	1¾″	1.41
2968	2984	180	2¾″	3.00
2969	2985	270	2¾″	3.00
2970	2986	325	2¾″	3.00
2971	2987	360	2¾″	3.00
2972	2988	180	4″	3.45
2973	2989	270	4″	3.45
2974	2990	325	4″	3.45
2975	2991	360	4″	3.45

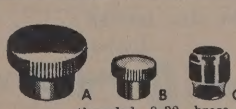
VERNIER DIAL MARKERS



MATERIAL: Brass Chrome Silver Finish. Supplied with hardware. **Std. Pkg. 5**

No.	For °Dials	Dial O.D.	NET Per C
2944	180	1⅛″	$30.00
2945	270	1⅛″	30.00
2946	325	1⅛″	30.00
2947	360	1⅛″	30.00
2948	180	1¾″	30.00
2949	270	1¾″	30.00
2950	325	1¾″	30.00
2951	360	1¾″	30.00
2952	180	2¾″	30.00
2953	270	2¾″	30.00
2954	325	2¾″	30.00
2955	360	2¾″	30.00
2956	180	4″	30.00
2957	270	4″	30.00
2958	325	4″	30.00
2959	360	4″	30.00

BINDING POST KNOBS



threaded 8-32 brass inserts

No.	Style	O.D.	Height	Color	NET Per C
2271	A	¾″	½″	Black	$8.40
2272	A	¾″	½″	Red	9.60
2285	B	½″	7/16″	Red	9.00
2286	B	½″	7/16″	Black	9.00
2287	C	½″	½″	Red	9.00
2288	C	½″	½″	Black	9.00

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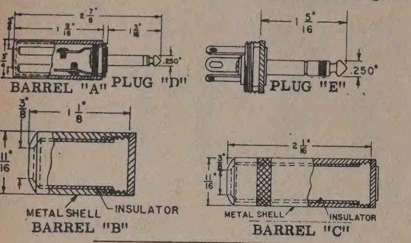
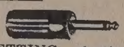
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

STANDARD PHONE PLUGS

BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC working voltage.
DESCR.: Fits standard phone jacks. Molded styrene separator insures maximum insulation between elements.
LUGS: 2 circuit plugs are screw terminals with ribbed clips and cord anchor. 3 circuit plugs are solder lugs.
Std. Pkg. 25



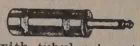
Bakelite Barrel



BARREL: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
222	2	Screw	D	A	$39.00
227	3	Solder	E	A	84.00

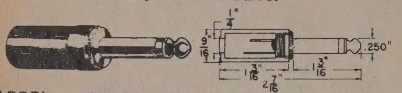
Shielded Barrel



BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
252	2	Screw	D	B	$54.00
272	2	Screw	D	C	66.00
228	3	Solder	E	B	90.00
238	3	Solder	E	C	111.00

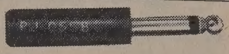
STANDARD PHONE PLUG
Baby Bakelite Barrel



BARREL: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: Molded styrene separator insures maximum insulation between conductors. Fits standard phone jacks.
Std. Pkg. 25

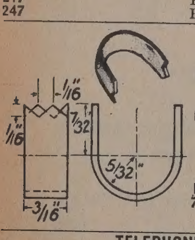
No.	Circuit	Terminals	NET Per C
243	Two	Solder	$24.00

PJ055 AND PJ068 PLUGS



BARREL: MOLDED plastic.
BODY: Body, tip, sleeve—Machined brass.
TERM.: Brass, hot tinned.
INSUL.: Ethyl cellulose type EM-1 MIL-P-3412.
DESCR.: Designed especially for high quality communications equipment and to meet the exacting requirements of the armed services. Parts are assembled together in a mold, providing a finished plug with complete continuity of thermo plastic insulation between the tip rod and plug sleeve.
Std. Pkg. 25

No.	Type	Each
217	PJ055B	$1.35
247	PJ068B	3.65

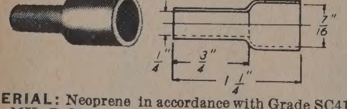


CORD CLAMP STRAIN RELIEF

MATERIAL: Cold Rolled Steel, per QQ-S-636. Finish zinc per Spec. 7253, Table II, Type I.
DESCR.: Used on Government cord assemblies. Made in accordance with Signal Corps. Spec. SC-A-7674.
Std. Pkg. 100

No.	NET Per C
747	$1.80

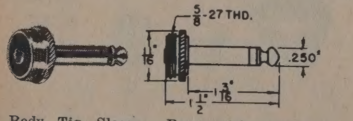
TELEPHONE CORD SLEEVE



MATERIAL: Neoprene in accordance with Grade SC415AFF per MIL-R-3065.
DESCR.: Used on Government cord assemblies, for Strain Relief, Dust and Moisture Seal.
Std. Pkg. 100

No.	NET Per C
748	$6.60

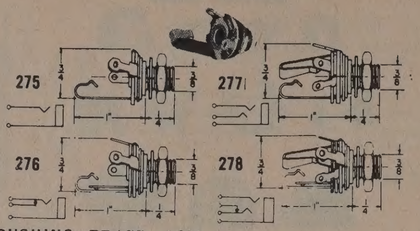
PHONE PLUG ADAPTER



BODY: Body, Tip, Sleeve — Brass, nickel plated.
INSUL.: XXXP Bakelite.
DESCR.: Mates with No. 116 microphone connector. Fits standard phone jacks.
Std. Pkg. 25

No.	NET Per C
113	$30.00

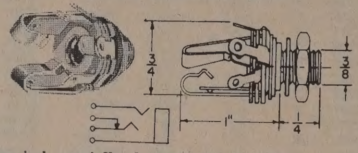
TELEPHONE JACKS



BUSHING: BRASS, nickel plated.
INSUL.: Bakelite, type PBE-P per MIL-P-3115B.
SPRING: Nickel-Silver alloy, spring temper. New tapered design provides for ease of insertion while eliminating possibility of shorts.
SLEEVE TERM.: Brass, hot tinned.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage.
DESCR.: Notched insulating washers accurately locate all parts, and eliminate possibility of shorts and arc-over. Springs designed for firm, low-resistance electrical contact. Bushings ¼" long, threaded ⅜"-32. Mounts in ⅜" hole in panels up to 5/32" thick. Overall diameter ⅞", require 1" clearance behind panel. Supplied with ½" hex brass nut and ⅝" steel panel washer, all nickel plated.
Std. Pkg. 50

No.	Circuit	NET Per C
275	Two Conductor Open	$27.00
276	Two Conductor Closed	30.00
277	Three Conductor Open	36.00
278	Three Conductor Closed	45.00

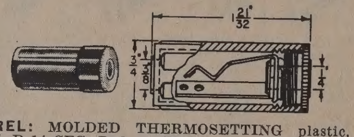
STEREO TELEPHONE JACK



A new jack specially designed for switching-out speakers when connecting stereo headphones, and for switching three-wire stereo input circuits. Dual, normally-closed switch contacts open both stereo circuits independently when three circuit plug is inserted.

No.	Circuit	NET Per C
268	Three Conductor Dual Closed	$54.00

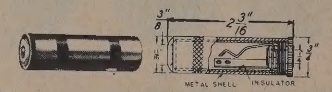
IN-LINE EXTENSION JACK
Bakelite Barrel



BARREL: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.
Std. Pkg. 50

No.	Type	NET Per C
274	Solder Connection	$54.00
288	Screw Connection	66.00

Shielded Barrel



BARREL: Brass, nickel plated, with tubular insulator.
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.
Std. Pkg. 25

No.	Type	NET Per C
273	Solder Connection	$75.00
289	Screw Connection	84.00

MINIATURE MICROPHONE CONNECTORS
⅜-32 THREAD

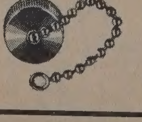
DESCR.: Ideal for lapel microphone, musical instruments, etc., wherever small cable is used. Accepts caple up to 3/16" diameter.
Std. Pkg. 50

No.	Type	Length	NET Per C
484	Single Contact Female	1¼"	$36.00
485	Single Contact Male	1⅛"	70.00

CHASSIS CONNECTOR

Mounts in 3/16" hole grounded; ¼" hole insulated with shoulder washer.

No.	Type	Length	NET Per C
486	Single Contact Male	⅝"	21.00



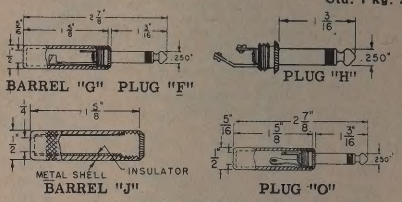
CAP AND CHAIN

DESCR.: Brass, nickel plated. Seals chassis connectors against dust. Eliminates noisy connections. Used with any threaded one or two conductor chassis unit.
Std. Pkg. 10

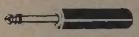
No.		NET Per C
118	⅝-27 Thread	$36.00

SLIM PHONE PLUGS
Cable Clamp Style

BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: Fits standard phone jacks. Molded styrene separator insures maximum insulation between elements.
Std. Pkg. 25



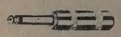
Bakelite Barrel



BARREL: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
225	2	Solder	F	G	$39.00
307	2	Screw	H	G	45.00

Shielded Barrel



BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
226	2	Solder	F	J	$60.00
316	2	Screw	H	J	63.00

ECONOMY TYPE

BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: An inexpensive modified version of our popular #225 and 225 plugs shown above. Features two small solder lugs.
Std. Pkg. 25

Bakelite Barrel

BARREL: MOLDED BAKELITE, Red or Black. SPECIFY COLOR

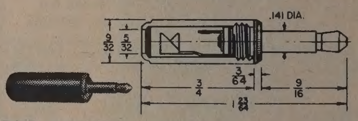
No.	Circuit	Terminals	Plug	Barrel	NET Per C
320	2	Solder	O	G	$30.00

Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
330	2	Solder	O	J	$39.00

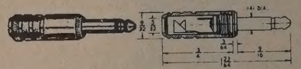
MINIATURE PHONE PLUG



HANDLE: MOLDED plastic. Black.
BODY: Body, tip, sleeve—Brass, nickel plated.
TERM.: Brass, hot tin dipped.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 350 Volts 60 cycle AC continuous working voltage.
DESCR.: Designed for use with hearing aids, small meters, etc. Solder terminals.
Std. Pkg. 50

No.	NET Per C
480	$42.00

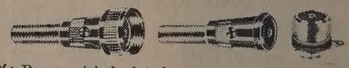
Shielded Barrel



BARREL: BRASS, nickel plated with tubular insulator.
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 350 Volts 60 cycle AC continuous working voltage.
DESCR.: Designed for use with hearing aids, small meters, etc. Solder terminals.
Std. Pkg. 50

No.	Circuit	NET Per C
481	Two Conductor	$51.00

MICROPHONE CONNECTORS



BODY: Brass, nickel plated.
SPRING: Steel, cadmium plated.
INSUL.: XXXP Bakelite.
EYELET: Brass, hot tinned for easy soldering.

Standard Type ⅝-27 Thread

DESCR.: Designed for use with single conductor cable. Microphone connectors provided with flexible protector spring. Cable clamped firmly to connector by hollow point set screw.
Std. Pkg. 50

No.	Type	Length	NET Per C
115	Single Contact Male	1¾"	$21.00
116	Single Contact Female	2"	31.80

CHASSIS CONNECTORS

Mount in .385 hole grounded: .500 hole insulated with shoulder washer.

No.	Type	Length	NET Per C
117	Single Contact Male	⅝"	21.00
114	Closed Circuit Male	¾"	30.00

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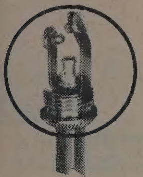
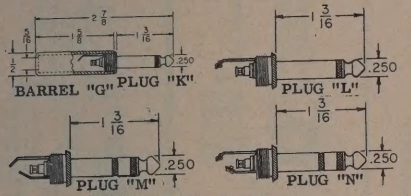


IMPROVED "TURRET-CENTER" STYLE

BODY: Body, Tip, Ring, and sleeve —Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 1.5 KV 60 cycle AC continuous working voltage.
DESCR.: New, improved construction has co-axial "turret-terminal" tip lug and widely separated contacts for maximum voltage ratings. Styrene separator, Mylar sleeves, and Nylon bushings used for increased performance. Fits standard phone jacks.
Std. Pkg. 25

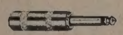


Bakelite Barrel

BARREL: Molded Bakelite, Red or Black.
SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
171	2	Solder	K	G	$39.00
172	2	Screw	L	G	45.00
308	3	Solder	M	G	63.00
309	3	Screw	N	G	72.00

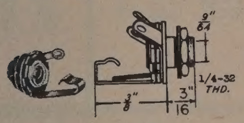
Shielded Barrel



BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
173	2	Solder	K	J	$60.00
174	2	Screw	L	J	63.00
311	3	Solder	M	J	78.00
312	3	Screw	N	J	84.00

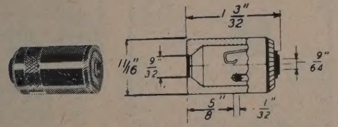
MINIATURE TELEPHONE JACKS



BUSHING: BRASS, nickel plated.
INSUL.: XXXP bakelite, type PBE-P per MIL-P-3115A.
SPRING: Nickel silver alloy, spring temper.
TERM.: Brass, hot tinned.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 500 Volts 60 cycle AC continuous working voltage.
DESCR.: Notched insulation washers interlock springs and lugs, eliminate possibility of shifting which result in electrical shorts. Springs firmly hold mating plug. Supplied with hex brass nut and steel mounting washer all nickel plated.
Std. Pkg. 50

No.	Circuit	NET Per C
482	Two Conductor, Open	$24.00
483	Two Conductor, Closed	27.00

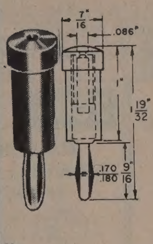
MINIATURE EXTENSION JACK
Shielded



BARREL: Brass, nickel plated.
BODY: Brass, nickel plated.
SPRING: Nickel silver alloy, spring temper.
INSUL.: Bakelite.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 500 Volts 60 cycle AC continuous working voltage.
DESCR.: Mates with Miniature Phone Plugs.
Std. Pkg. 25

No.	NET Per C
487	$72.00

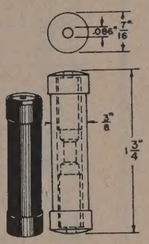
ADAPTER
Tip Plug to Banana Plug



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class 3, Class MS. Red or Black.
SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14CPG.
PLUG: Brass, nickel plated.
CONTACT: Phosphor Bronze.
SPRING: Four-leaved phosphor bronze, nickel plated.
JACK: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard phone tip plugs and adapts to standard banana plugs.
Std. Pkg. 50

No.	NET Per C
214	$30.00

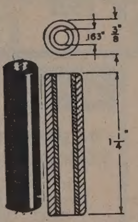
PHONE TIP PLUG SPLICE



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14CFG. Yellow, Green, per LC-726-1.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15. Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Invaluable for quick splicing connections or for test lead extension. Accepts standard phone tip plugs.

No.	NET Per C
246	$27.00

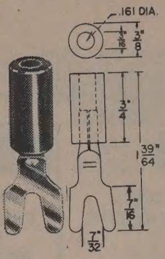
BANANA PLUG SPLICE



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green.
SPECIFY COLOR
INSERT: Brass.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Invaluable for quick splicing connections. Accepts standard banana plugs. **Std. Pkg. 50**

No.	NET Per C
245	$24.00

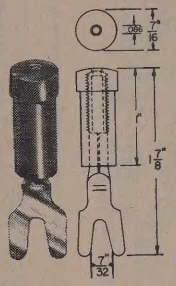
INSULATED SPADE LUG



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
LUG: Steel, hot tinned, .030 thick.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Banana plug can be inserted into spade lug thru rear of handle. **Std. Pkg. 100**

No.	Description	NET Per C
218	Insulated Spade Lug	$10.80
129	Lug Only	1.20

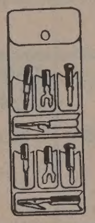
ADAPTER
Phone Tip to Spade Lug



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3 Class MS. Red or Black.
SPECIFY COLOR
CAP.: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG.
JACK: Brass.
SPRING: Phosphor Bronze.
SPADE LUG: Steel hot tinned .030 thick.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Tip jack accepts standard phone tip plugs and adapts to spade lug. **Std. Pkg. 50**

No.	Descr.	NET Per C
249	Adapter	$33.00

LABORATORY INTERCHANGE KIT



DESCR.: All parts interchangeable, converts any:
Phone tips No. 215
Spade lugs No. 218
Tip plug adapter No. 214
Alligator clip jack No. 305
DESCR.: All parts interchangeable, converts any standard test lead to an all purpose unit. Packaged in an electronically sealed vinyl kit. **Std. Pkg. 1**

No.	NET Ea.
640	$2.25

QUALIFIED SALES ENGINEERS

AT YOUR SERVICE!

The Nation-Wide Network of SMITH Representatives is ready to help you. These men and their organizations are technically qualified and eager to consult with you on your requirements for standard or special components manufactured by

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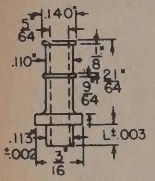
TURRET TERMINALS

Terminals shown below are "stock" items, available for speedy delivery. All brass, silver-plated, precision made. See next page for Suggested Resale Prices. For quantities over 15,000 request special prices. Inquiries are invited, for special types and sizes to particular requirements. L indicates **Shank Length** of Lug. T indicates **Thickness** of mounting boards

Minimum package 100

2000

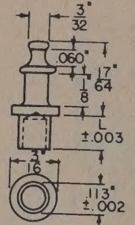
HOLLOW LUG


.140"
5/64
1/8"
.110"
21/64"
9/64
.113
±.002
L±.003
3/16

No.	L	T
2000A	.075	1/32
2000B	.105	1/16
2000C	.135	3/32
2000D	.165	1/8
2000E	.195	5/32
2000F	.230	3/16

2001

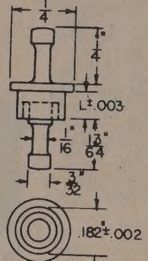
SHORT TERMINAL LUG


3/32"
.060"
17/64"
1/8
L ±.003
3/16
.113"
±.002

No.	L	T
2001A	.075	1/32
2001B	.105	1/16
2001C	.135	3/32
2001D	.165	1/8

2002

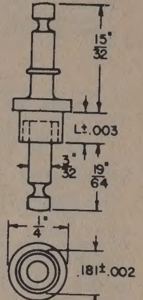
DOUBLE END TERMINAL LUG


1/4"
1/4"
L±.003
1/16"
13/64"
3/32"
.182"±.002

No.	L	T
2002A	.105	1/16
2002B	.135	3/32
2002C	.165	1/8
2002D	.195	5/32
2002E	.230	3/16

2003

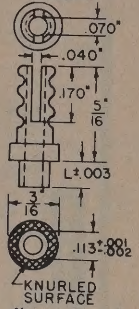
DOUBLE END LUG, LONG


15/32"
L±.003
3/32"
19/64"
1/4"
.181±.002

No.	L	T
2003A	.105	1/16
2003B	.135	3/32
2003C	.165	1/8
2003D	.195	5/32
2003E	.230	3/16

2004

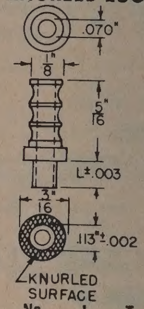
SLOTTED TERMINAL LUG SHORT


.070"
.040"
.170"
5/16"
L±.003
3/16
.113 +.001 -.002
KNURLED SURFACE

No.	L	T
2004A	.075	1/32
2004B	.105	1/16
2004C	.135	3/32
2004D	.165	1/8

2005

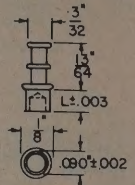
HOLLOW KNURLED LUG


.070"
1/8"
5/16"
L±.003
3/16"
.113"±.002
KNURLED SURFACE

No.	L	T
2005A	.105	1/16
2005B	.135	3/32
2005C	.165	1/8

2006

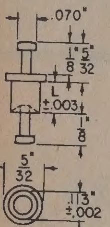
SHORT TERMINAL LUG


3/32"
13/64"
L±.003
1/8"
.090"±.002

No.	L	T
2006A	.075	1/32
2006B	.105	1/16
2006C	.135	3/32
2006D	.165	1/8

2007

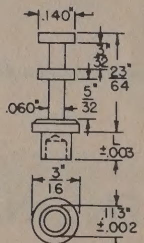
SHORT DOUBLE END LUG


.070"
1/8"
5/32
L ±.003
1/8
5/32"
.113"
±.002

No.	L	T
2007A	.075	1/32
2007B	.105	1/16
2007C	.135	3/32
2007D	.165	1/8

2008

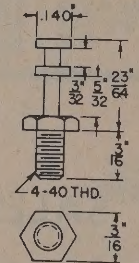
TERMINAL LUG


.140"
3/32
23/64"
5/32
.060"
L ±.003
3/16"
.113"
±.002

No.	L	T
2008A	.075	1/32
2008B	.105	1/16
2008C	.135	3/32
2008D	.165	1/8
2008E	.195	5/32
2008F	.230	3/16
2008G	.293	1/4

2009

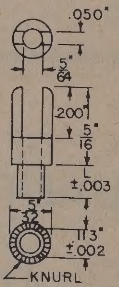
TERMINAL LUG


.140
3/32"
5/32
23/64"
3/16"
4-40 THD.
3/16"

No. 2009

2010

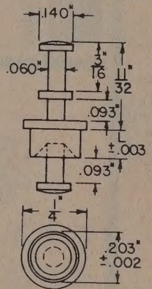
SPLIT TERMINAL LUG


.050"
5/64"
.200"
5/16"
L ±.003
.113"
±.002
KNURL

No.	L	T
2010A	.075	1/32
2010B	.105	1/16
2010C	.135	3/32
2010D	.165	1/8

2011

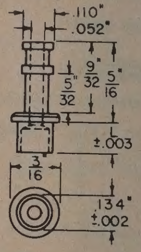
DOUBLE END TERMINAL LUG


.140"
.060"
3/16"
11/32"
.093"
L ±.003
.093"
1/4"
.203"
±.002

No.	L	T
2011A	.105	1/16
2011B	.135	3/32
2011C	.165	1/8
2011D	.195	5/32
2011E	.230	3/16

2012

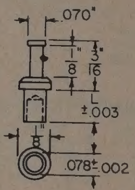
TERMINAL LUG


.110"
.052"
9/32
5/16"
5/32
L ±.003
3/16
.134"
±.002

No.	L	T
2012A	.105	1/16
2012B	.135	3/32
2012C	.165	1/8

2013

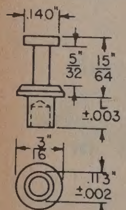
TERMINAL LUG


.070"
1/8"
3/16
L ±.003
.078±.002

No.	L	T
2013A	.075	1/32
2013B	.105	1/16
2013C	.135	3/32
2013D	.165	1/8

2014

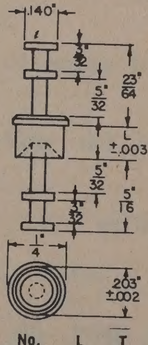
TERMINAL LUG


.140"
5/32"
15/64
L ±.003
3/16"
.113"
±.002

No.	L	T
2014A	.105	1/16
2014B	.135	3/32
2014C	.165	1/8
2014D	.195	5/32
2014E	.230	3/16

2015

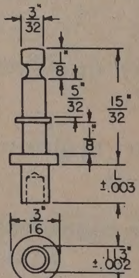
TERMINAL LUG


.140"
3/32
5/32
23/64"
L ±.003
5/32
5/16
3/32
1/4"
.203"
±.002

No.	L	T
2015A	.135	3/32
2015B	.165	1/8
2015C	.195	5/32
2015D	.230	3/16

2016

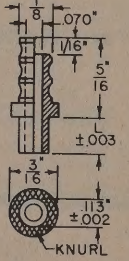
TERMINAL LUG


3/32"
1/8"
5/32
15/32"
1/8
L ±.003
3/16
.113"
±.002

No.	L	T
2016A	.105	1/16
2016B	.135	3/32
2016C	.165	1/8

2017

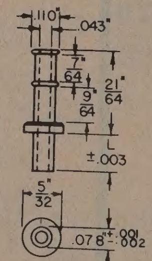
HOLLOW KNURLED LUG


1/8"
.070"
1/16"
5/16
L ±.003
3/16"
.113"
±.002
KNURL

No.	L	T
2017A	.105	1/16
2017B	.135	3/32
2017C	.165	1/8
2017D	.195	5/32

2018

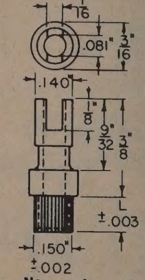
HOLLOW TERMINAL LUG


.110"
.043"
7/64
9/64
21/64"
L ±.003
5/32"
.078 +.001 -.002

No.	L	T
2018A	.075	1/32
2018B	.105	1/16
2018C	.135	3/32
2018D	.165	1/8
2018E	.195	5/32
2018F	.230	3/16

2019

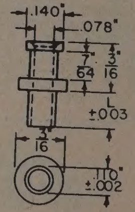
SPLIT TERMINAL LUG


1/16"
.081"
3/16"
.140"
1/8"
9/32
3/8"
L ±.003
.150"
±.002

No.	L	T
2019A	.075	1/32
2019B	.105	1/16
2019C	.135	3/32
2019D	.165	1/8
2019E	.195	5/32
2019F	.230	3/16

2020

TERMINAL LUG


.140"
.078"
7/64
3/16
L ±.003
3/16
.110"
±.002

No.	L	T
2020A	.075	1/32
2020B	.105	1/16
2020C	.135	3/32
2020D	.165	1/8

Net

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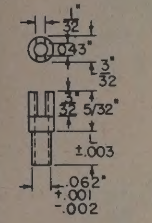
TURRET TERMINALS

2021

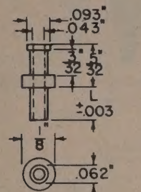
MINIATURE SPADE LUG


1/32"
.043"
3/32
3/32
5/32"
L
±.003
.062"
+.001
-.002

No.	L	T
2021A	.037	1/64
2021B	.053	1/32
2021C	.084	1/16
2021D	.115	3/32
2021E	.147	1/8

2022

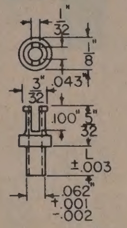
MINIATURE HOLLOW LUG


.093"
.043"
1/32 1/32
L
±.003
1/8"
.062"

No.	L	T
2022A	.037	1/64
2022B	.053	1/32
2022C	.084	1/16
2022D	.115	3/32
2022E	.147	1/8

2023

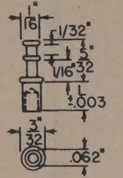
MINIATURE HOLLOW SPLIT LUG


1/32"
1/8
3/32"
.043"
.100"
5/32"
L
±.003
.062"
+.001
-.002

No.	L	T
2023A	.037	1/64
2023B	.053	1/32
2023C	.084	1/16
2023D	.115	3/32
2023E	.147	1/8

2024

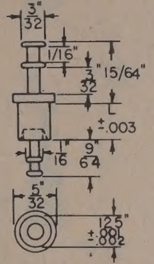
MINIATURE DOUBLE TIE LUG


1/16"
1/32"
1/16
3/32
L
±.003
3/32"
.062"

No.	L	T
2024A	.037	1/64
2024B	.053	1/32
2024C	.084	1/16
2024D	.115	3/32
2024E	.147	1/8

2025

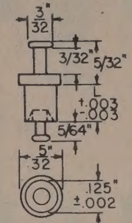
MINIATURE THROUGH LUG


3/32"
1/16"
3/32
15/64"
L
±.003
1/16
9/64
5/32"
.125"
±.002

No.	L	T
2025A	.075	1/32
2025B	.105	1/16
2025C	.135	3/32
2025D	.165	1/8

2026

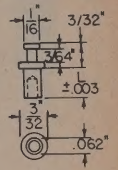
MINIATURE THROUGH LUG


3/32"
3/32"
5/32"
L
±.003
5/64"
5/32"
.125"
±.002

No.	L	T
2026A	.075	1/32
2026B	.105	1/16
2026C	.135	3/32
2026D	.165	1/8

2027

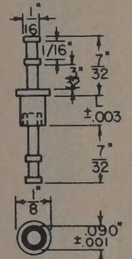
MINIATURE LUG


1/16"
3/32"
3/64"
L
±.003
3/32"
.062"

No.	L	T
2027A	.037	1/64
2027B	.054	1/32
2027C	.084	1/16
2027D	.115	3/32
2027E	.147	1/8

2028

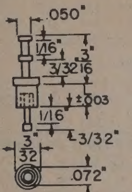
FEED-THRU TERMINAL LUG


1/16"
1/16"
3/32
7/32"
L
±.003
7/32
1/8"
.090"
±.001

No.	L	T
2028A	.054	1/32
2028B	.084	1/16
2028C	.115	3/32
2028D	.147	1/8

2029

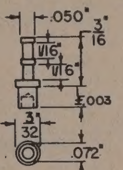
TERMINAL LUG


.050"
1/16"
3/32
3/16"
L
±.003
1/16
3/32"
3/32"
.072"

No.	L	T
2029A	.054	1/32
2029B	.084	1/16
2029C	.115	3/32
2029D	.147	1/8

2030

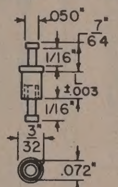
TERMINAL LUG


.050"
3/16"
1/16
1/16
L
±.003
3/32"
.072"

No.	L	T
2030A	.054	1/32
2030B	.084	1/16
2030C	.115	3/32
2030D	.147	1/8

2031

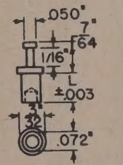
FEED TERMINAL LUG


.050"
7/64"
1/16"
L
±.003
1/16"
3/32"
.072"

No.	L	T
2031A	.054	1/32
2031B	.084	1/16
2031C	.115	3/32
2031D	.147	1/8

2032

TERMINAL LUG


.050"
7/64"
1/16"
L
±.003
3/32"
.072"

No.	L	T
2032A	.054	1/32
2032B	.084	1/16
2032C	.115	3/32
2032D	.147	1/8

SUGGESTED RESALE PRICES OF TURRET TERMINALS

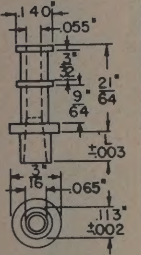
Cat. No. Series	100-999 Per C	1,000-4,999 Per M	5,000-15,000 Per M
2000	$ 1.50	$12.50	$10.00
2001	1.50	12.50	10.00
2002	3.30	27.50	22.00
2003	4.20	35.00	28.00
2004	2.52	21.00	16.80
2005	2.06	18.00	14.40
2006	1.02	8.50	6.80
2007	1.38	11.50	9.20
2008	1.62	13.50	10.80
2009	2.52	21.00	16.80
2010	2.40	20.00	16.00
2011	3.60	30.00	24.00
2012	2.10	17.50	14.00
2013	1.08	9.00	7.20
2014	1.38	11.50	9.20
2015	4.20	35.00	28.00
2016	1.62	13.50	10.80
2017	2.40	20.00	16.00
2018	3.00	25.00	20.00
2019	2.70	22.50	18.00
2020	1.50	12.50	10.00
2021	1.50	12.50	10.00
2022	1.50	12.50	10.00
2023	2.70	22.50	18.00
2024	1.80	15.00	12.00
2025	2.70	22.50	18.00
2026	2.70	22.50	18.00
2027	1.20	10.00	8.00
2028	3.30	26.50	22.00
2029	2.10	17.50	14.00
2030	1.62	13.50	10.80
2031	1.62	13.50	10.80
2032	3.30	27.50	22.00
2033	3.60	30.00	24.00
2034	4.20	35.00	28.00
2035	4.50	37.50	30.00
2036	3.90	32.50	26.00
2037	9.00	75.00	60.00
2038	10.20	85.00	68.00

ADDITIONAL NUMBERS

We invite your inquiries on other types of turret terminals not shown here.

2033

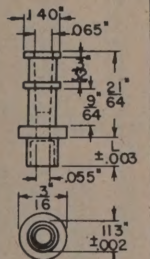
RECEPTACLE LUG


.140"
.055"
3/32"
21/64"
9/64
L
±.003
3/16"
.065"
.113"
±.002

No.	L	T
2033A	.075	1/32
2033B	.105	1/16
2033C	.135	3/32
2033D	.165	1/8
2033E	.195	5/32
2033F	.230	3/16

2034

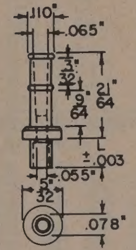
RECEPTACLE LUG


.140"
.065"
3/32"
21/64"
9/64
L
±.003
.055"
3/16"
.113"
±.002

No.	L	T
2034A	.075	1/32
2034B	.105	1/16
2034C	.135	3/32
2034D	.165	1/8
2034E	.195	5/32
2034F	.230	3/16

2035

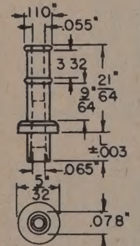
RECEPTACLE LUG


.110"
.065"
3/32"
21/64"
9/64
L
±.003
.055"
5/32"
.078"

No.	L	T
2035A	.075	1/32
2035B	.105	1/16
2035C	.135	3/32
2035D	.165	1/8
2035E	.195	5/32
2035F	.230	3/16

2036

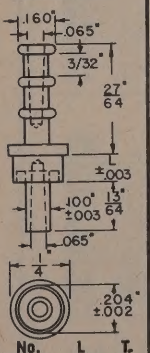
RECEPTACLE LUG


.110"
.055"
3/32
21/64"
9/64
L
±.003
.065"
5/32"
.078"

No.	L	T
2036A	.075	1/32
2036B	.105	1/16
2036C	.135	3/32
2036D	.165	1/8
2036E	.195	5/32
2036F	.230	3/16

2037

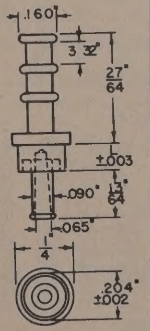
TAPERED TERMINAL


.160"
.065"
3/32"
27/64"
L
±.003
.100"
±.003
13/64"
.065"
1/4"
.204"
±.002

No.	L	T
2037A	.105	1/16
2037B	.135	3/32
2037C	.165	1/8

2038

TAPERED TERMINAL


.160"
3/32"
27/64"
L
±.003
.090"
13/64"
.065"
1/4"
.204"
±.002

No.	L	T
2038A	.105	1/16
2038B	.135	3/32
2038C	.165	1/8

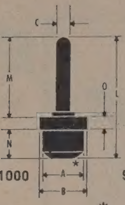
SMITH TEFLON TERMINALS

COLOR CODE SUFFIX
Add to Catalog Number as required

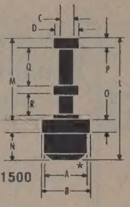
- — 101 WHITE*
- — 102 RED
- — 103 BLACK
- — 104 GREEN
- — 105 BLUE
- — 106 ORANGE
- — 107 YELLOW
- — 108 BROWN
- — 112 PURPLE
- — 113 GREY

PLATING FINISH
STANDARD .0002 Silver Plate, Gold Flash.
OTHER Finishes supplied on request.

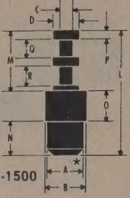
* WHITE is natural Teflon, supplied if no color specified. Color does not affect electrical, mechanical, physical or thermal characteristics.



92-1000

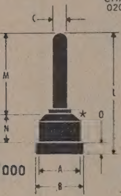


92-1500

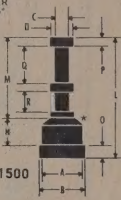


93-1500

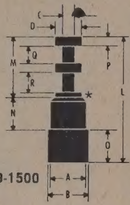
*CHAMFER .020 x 45°



29-1000



29-1500



39-1500

SUBMINIATURE STANDOFF TERMINALS

STANDARD TYPE

PART NO.	A	B	C	L	M	N	O	Net Per C
92-1000	.148	.172	.040	.350	.210	.100	.040	$ 9.00
92-1001	.148	.172	.040	.375	.210	.110	.050	9.00
92-1003	.172	.195	.040	.350	.210	.100	.040	11.00
92-1004	.179	.200	.040	.350	.210	.100	.040	11.00
92-1005	.218	.250	.040	.350	.210	.100	.040	12.00
92-1006	.148	.172	.040	.345	.210	.075	.060	9.00
92-1007	.148	.172	.040	.370	.210	.120	.040	11.00
92-1008	.148	.172	.040	.350	.210	.062	.078	11.00
92-1009	.148	.172	.040	.406	.210	.156	.040	11.00
92-1010	.148	.172	.040	.500	.210	.250	.040	12.00
92-1012	.148	.172	.040	.335	.210	.075	.050	9.00
92-1016	.148	.172	.040	.265	.125	.100	.040	11.00
92-1034	.093	.125	.040	.350	.210	.100	.040	10.00

REVERSE TYPE

PART NO.	A	B	C	L	M	N	O	Net Per C
29-1000	.148	.172	.040	.350	.210	.100	.040	$11.00
29-1001	.148	.172	.040	.375	.210	.110	.050	11.00
29-1003	.172	.195	.040	.350	.210	.100	.040	12.00
29-1004	.179	.200	.040	.350	.210	.100	.040	12.00
29-1005	.218	.250	.040	.350	.210	.100	.040	13.00
29-1006	.148	.172	.040	.345	.210	.075	.060	11.00
29-1007	148	.172	.040	.370	.210	.120	.040	12.00
29-1008	.148	.172	.040	.350	.210	.062	.078	11.00
29-1009	.148	.172	.040	.406	.210	.156	.040	12.00
29-1010	.148	.172	.040	.500	.210	.250	.040	13.00
29-1012	.148	.172	.040	.335	.210	.075	.050	11.00
29-1016	.148	.172	.040	.265	.125	.100	.040	11.00
29-1034	.093	.125	.040	.350	.210	.100	.040	10.00

SUBMINIATURE STANDOFF TURRET

STANDARD TYPE

PART No.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
92-1500	.148	.172	.040	.080	.350	.210	.100	.040	.020	.100	.050	$10.00
92-1501	.148	.172	.040	.080	.375	.210	.125	.040	.020	.100	.050	10.00
92-1502	.179	.200	.040	.080	.350	.210	.100	.040	.020	.100	.050	12.00
92-1503	.185	.218	.040	.080	.375	.210	.125	.040	.020	.100	.050	12.00
92-1504	.148	.172	.046	.093	.334	.154	.140	.040	.020	.046	.048	11.00
92-1505	.148	.172	.040	.080	.428	.210	.125	.093	.020	.100	.050	12.00
92-1506	.148	.172	.040	.093	.455	.250	.165	.040	.020	.093	.097	12.00
92-1507	.148	.172	.040	.080	.500	.210	.250	.040	.020	.100	.050	11.00
92-1508	.185	.218	.040	.080	.350	.210	.100	.040	.020	.100	.050	12.00
92-1512	.148	.172	.040	.093	.540	.250	.250	.040	.020	.093	.097	10.00
92-1513	.171	.188	.040	.080	.405	.210	.155	.040	.020	.100	.050	11.00
92-1519	.148	.172	.046	.093	.334	.154	.140	.040	.020	.046	.048	10.00
92-1520	.172	.200	.048	.090	.320	.120	.125	.075	.020	—	.080	11.00
92-1521	.148	.172	.040	.080	.455	,227	.187	.040	.020	—	.087	10.00

REVERSE TYPE

PART No.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
29-1500	.148	.172	.040	.080	.350	.210	.100	.040	.020	.100	.050	$11.00
29-1501	.148	.172	.040	.080	.375	.210	.125	.040	.020	.100	.050	11.00
29-1502	.179	.200	.040	.080	.350	.210	.100	.040	.020	.100	.050	13.00
29-1503	.185	.218	.040	.080	.375	.210	.125	.040	.020	.100	.050	14.00
29-1504	.148	.172	.046	.093	.334	.154	.140	.040	.020	.046	.048	13.00
29-1505	.148	.172	.040	.080	.428	.210	.125	.093	.020	.100	.050	14.00
29-1506	.148	.172	.040	.093	.455	.250	.165	.040	.020	.093	.097	14.00
29-1507	.148	.172	.040	.080	.500	.210	.250	.040	.020	.100	.050	13.00
29-1508	.185	.218	.040	.080	.350	.210	.100	.040	.020	.100	.050	14.00
29-1512	.148	.172	.040	.093	.540	.250	.250	.040	.020	.093	.097	12.00
29-1513	.171	.188	.040	.080	.405	.210	.155	.040	.020	.100	.050	13.00
29-1519	.148	.172	.046	.093	.540	.154	.140	.040	.020	.046	.048	12.00
29-1520	.172	.200	.048	.090	.320	.120	.125	.075	.020	—	.080	12.00
29-1521	.148	.172	.040	.080	.455	.227	.187	.040	.020	—	.187	12.00

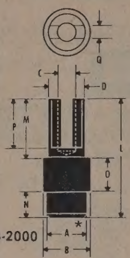
MINIATURE STANDOFF TURRET (set in 6 no. 20)

STANDARD TYPE

PART No.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
93-1500	.165	.187	.046	.093	.431	.156	.150	.125	.020	.046	.050	$12.00
93-1501	.165	.187	.046	.093	.493	.156	.156	.187	.020	.046	.050	13.00
93-1502	.165	.187	.040	.093	.522	.250	.150	.125	.020	.093	.095	12.00
93-1503	.165	.187	.046	.125	.556	.281	.150	.125	.031	.093	.095	12.00
93-1504	.165	.187	.040	.093	.584	.250	.150	.187	.020	.093	.097	13.00
93-1505	.165	.187	.046	.093	.556	.156	.150	.250	.020	.046	.050	14.00
93-1506	.165	.187	.046	.125	.616	.281	.150	.187	.031	.093	.095	13.00
93-1507	.165	.187	.046	.125	.831	.281	.150	.400	.031	.093	.095	18.00
93-1508	.215	.250	.046	.125	.968	.281	.187	.500	.031	.093	.095	22.00
93-1509	.215	.250	.046	.125	.968	.281	.187	.800	.031	.093	.095	30.00
93-1510	.171	.187	.046	.093	.431	.156	.150	.125	.020	.046	.050	12.00
93-1516	.148	.172	.040	.093	.482	.250	.110	.125	.020	.093	.097	12.00

REVERSE TYPE

PART No.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
39-1500	.165	.187	.046	.093	.431	.156	.150	.125	.020	.046	.050	$13.00
39-1501	.165	.187	.046	.093	.493	.156	.150	.187	.020	.046	.050	14.00
39-1502	.165	.187	.046	.093	.552	.250	.150	.125	.020	.093	.097	13.00
39-1503	.165	.187	.046	.125	.556	.281	.150	.125	.031	.093	.095	13.00
39-1504	.165	.187	.040	.093	.584	.250	.150	.187	.020	.093	.097	14.00
39-1505	.165	.187	.046	.093	.556	.156	.150	.250	.020	.046	.050	15.00
39-1506	.165	.187	.046	.125	.616	.281	.150	.187	.031	.093	.095	14.00
39-1507	.165	.187	.046	.125	.831	.281	.150	.400	.031	.093	.095	19.00
39-1508	.215	.250	.046	.125	.968	.281	.187	.500	.031	.093	.095	23.00
39-1509	.215	.250	.046	.125	1.268	.281	.187	.800	.031	.093	.095	31.00
39-1510	.171	.187	.046	.093	.431	.156	.150	.125	.020	.046	.050	13.00
39-1518	.148	.172	.040	.093	.482	.250	.110	.125	.020	.093	.097	13.00



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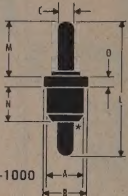
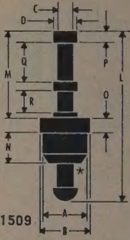


82-1000



82-1509

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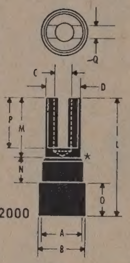

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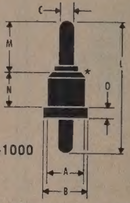

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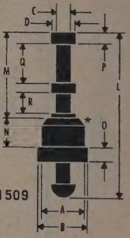

23-1509

MINIATURE STANDOFF SLOTTED LUG

STANDARD TYPE

PART NO.	A	B	C	D	L	N	M	O	P	Q	NET Per C
93-2000	.171	.187	.078	.148	.478	.203	.150	.125	.156	.046	$12.00
93-2001	.171	.187	.078	.148	.540	.203	.150	.187	.156	.046	13.00
93-2002	.171	.187	.078	.148	.603	.203	.150	.250	.156	.046	14.00
93-2003	.171	.187	.078	.148	.753	.203	.150	.400	.156	.046	18.00
93-2004	.217	.250	.078	.148	.890	.203	.187	.500	.156	.046	22.00
93-2005	.217	.250	.078	.148	1.190	.203	.187	.800	.156	.046	30.00

REVERSE TYPE

PART NO.	A	B	C	D	L	N	M	O	P	Q	NET Per C
39-2000	.171	.187	.078	.148	.478	.203	.150	.125	.156	.046	$13.00
39-2001	.171	.187	.078	.148	.540	.203	.150	.187	.156	.046	14.00
39-2002	.171	.187	.078	.148	.603	.203	.150	.250	.156	.046	15.00
39-2003	.171	.187	.078	.148	.753	.203	.150	.400	.156	.046	19.00
39-2004	.217	.250	.078	.148	.890	.203	.187	.500	.156	.046	23.00
39-2005	.217	.215	.078	.148	1.190	.203	.187	.800	.156	.046	31.00

SUBMINIATURE FEED-THRU TERMINALS

STANDARD TYPE

PART NO.	A	B	C	L	M	N	O	Net Per C
82-1000	.148	.172	.040	.443	.210	.100	.040	$11.00
82-1001	.148	.172	.040	.410	.147	.110	.050	10.00
82-1002	.148	.172	.040	.515	.210	.050	.050	10.00
82-1003	.148	.172	.040	.515	.210	.100	.040	10.00
82-1004	.148	.172	.040	.535	.210	.110	.050	10.00
82-1005	.179	.200	.040	.515	.210	.100	.040	12.00
82-1006	.218	.250	.040	.515	.210	.100	.040	13.00
82-1007	.148	.172	.040	.535	.210	.120	.040	12.00
82-1008	.148	.172	.040	.535	.210	.132	.040	12.00
82-1009	.148	.172	.040	.535	.210	.160	.040	13.00
82-1010	.148	.172	.040	.725	.210	.100	.040	11.00
82-1011	.148	.172	.040	1.000	.210	.100	.040	13.00
82-1012	.171	.218	.040	2.000	.680	.110	.050	14.00
82-1013	.169	.219	.040	2.500	.460	.100	.040	14.00
82-1014	.169	.219	.049	2.500	.460	.100	.040	14.00
82-1015	.172	.195	.040	.515	.210	.100	.040	11.00
82-1022	.093	.125	.040	.515	.210	.100	.040	11.00
82-1031	.125	.150	.040	.335	.125	.060	.040	11.00

REVERSE TYPE

PART NO.	A	B	C	L	M	N	O	Net Per C
28-1000	.148	.172	.040	.443	.210	.100	.040	$12.00
28-1001	.148	.172	.040	.410	.147	.110	.050	11.00
28-1002	.148	.172	.040	.515	.210	.050	.050	12.00
28-1003	.148	.172	.040	.515	.210	.100	.040	11.00
28-1004	.148	.172	.040	.535	.210	.110	.050	11.00
28-1005	.179	.200	.040	.515	.210	.100	.040	13.00
28-1006	.218	.250	.040	.515	.210	.100	.040	14.00
28-1007	.148	.172	.040	.535	.210	.120	.040	13.00
28-1008	.148	.172	.040	.535	.210	.132	.040	13.00
28-1009	.148	.172	.040	.535	.210	.160	.040	14.00
28-1010	.148	.172	.040	.725	.210	.100	.040	12.00
28-1011	.148	.172	.040	1.000	.210	.100	.040	14.00
28-1012	.171	.218	.040	2.000	.680	.110	.050	15.00
28-1013	.169	.219	.040	2.500	.460	.100	.040	15.00
28-1014	.169	.219	.049	2.500	.460	.100	.040	15.00
28-1015	.172	.195	.040	.515	.200	.100	.040	12.00
28-1022	.093	.125	.040	.515	.210	.100	.040	12.00
28-1031	:125	.150	.040	.335	.125	.060	.040	12.00

SUBMINIATURE FEED-THRU TURRET

STANDARD TYPE

PART No.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
82-1509	.148	.172	.040	.080	.438	.210	.100	.040	.020	.100	.050	$10.00
82-1500	.148	.172	.040	.080	.500	.210	.100	.040	.020	.100	.050	11.00
82-1501	.148	.172	.040	.080	.500	.210	.165	.040	.020	.100	.050	12.00
82-1502	.179	.200	.040	.080	.500	.210	.100	.040	.020	.100	.050	13.00
82-1504	.148	.172	.040	.080	.531	.210	.100	.040	.020	.100	.050	11.00
82-1505	.148	.172	.040	.080	.531	.210	.125	.040	.020	.100	.050	11.00
82-1506	.185	.218	.040	.080	.531	.210	.100	.040	.020	.100	.050	13.00
82-1507	.185	.218	.040	.080	.531	.210	.125	.040	.020	.100	.050	13.00
82-1508	.185	.172	.040	.080	.609	.210	.125	.093	.020	.100	.050	14.00
82-1516	.093	.125	.040	.080	.500	.210	.100	.040	.020	.100	.050	11.00
82-1512	.148	.172	.040	.080	.609	.210	.125	.093	.020	.100	.050	13.00

REVERSE TYPE

PART No.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
28-1509	.148	.172	.040	.080	.438	.210	.100	.040	.020	.100	.050	$11.00
28-1500	.148	.172	.040	.080	.500	.210	.100	.040	.020	.100	.050	12.00
28-1501	.148	.172	.040	.080	.500	.210	.165	.040	.020	.100	.050	13.00
28-1502	.179	.200	.040	.080	.500	.210	.100	..040	.020	.100	.050	14.00
28-1504	.148	.172	.040	.080	.531	.210	.100	.040	.020	100	.050	12.00
28-1505	.148	.172	.040	.080	.531	.210	.125	.040	.020	.100	.050	12.00
28-1506	.185	.218	.040	.080	.531	.210	.100	.040	.020	.100	.050	14.00
28-1507	.185	.218	.040	.080	.531	.210	.125	.040	.020	.100	.050	14.00
28-1508	.185	.172	.040	.080	.609	.210	.125	.093	.020	.100	.050	15.00
28-1516	.093	.125	.040	.080	.500	.210	.100	.040	.020	.100	.050	12.00
28-1512	.148	.172	.040	.080	.609	.210	.125	.093	.020	.100	.050	13.00

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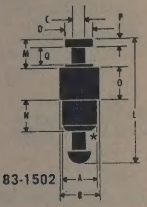
SMITH TEFLON TERMINALS

COLOR CODE SUFFIX
Add to Catalog Number as required

— 101 WHITE*
— 102 RED
— 103 BLACK
— 104 GREEN
— 105 BLUE
— 106 ORANGE
— 107 YELLOW
— 108 BROWN
— 112 PURPLE
— 113 GREY

PLATING FINISH
STANDARD .0002 Silver Plate, Gold Flash.
OTHER Finishes supplied on request.

* WHITE is natural Teflon, supplied if no color specified. Color does not affect electrical, mechanical, physical or thermal characteristics.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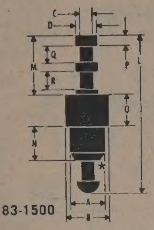
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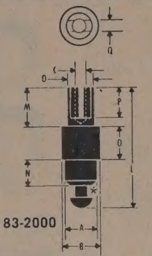
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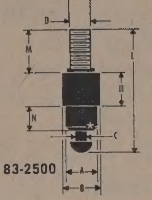
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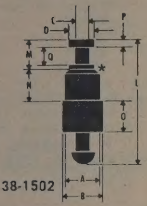
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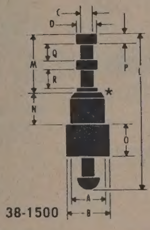
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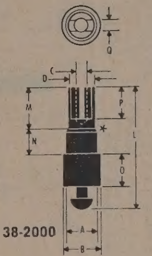
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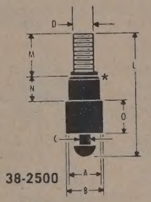

38-2500

MINIATURE FEED-THRU

STANDARD TYPE

PART NO.	A	B	C	D	L	M	N	O	P	Q	NET Per C
83-1502	.171	.187	.046	.093	.540	.133	.171	.063	.020	.093	$14.00
83-1503	.185	.215	.046	.093	.640	.133	.210	.093	.020	.093	18.00
83-1504	.171	.187	.050	.093	.740	.125	.212	.187	.031	.062	18.00
83-1505	.171	.187	.050	.093	.740	.125	.150	.250	.031	.062	18.00
83-1506	.171	.187	.050	.093	.865	.125	.275	.250	.031	.062	20.00
83-1507	.171	.187	.050	.125	1.115	.125	.400	.375	.031	.062	24.00
83-1508	.217	.250	.050	.125	1.365	.125	.525	.500	.031	.062	31.00
83-1516	.171	.250	.050	.125	1.965	.125	.825	.800	.031	.062	44.00
82-1510	.148	.172	.040	.080	.443	.125	.100	.040	.020	.062	13.00
82-1513	.148	.172	.040	.080	.350	.093	.100	.040	.020	.062	12.00
REVERSE TYPE											
38-1502	.171	.187	.046	.093	.540	.133	.171	.063	.020	.093	$15.00
38-1503	.185	.215	.046	.093	.640	.133	.210	.093	.020	.093	19.00
38-1504	.171	.187	.050	.093	.740	.125	.150	.250	.031	.062	19.00
38-1505	.171	.187	.050	.093	.740	.125	.150	.250	.031	.062	19.00
38-1506	.171	.187	.050	.093	.865	.125	.275	.250	.031	.062	21.00
38-1507	.171	.187	.050	.125	1.115	.125	.400	.375	.031	.062	25.00
38-1508	.217	.250	.050	.125	1.365	.125	.525	.500	.031	.062	32.00
38-1516	.171	.250	.050	.125	1.965	.125	.825	.800	.031	.062	45.00
28-1510	.148	.172	.040	.080	.443	.093	.100	.040	.020	.062	13.00
28-1513	.148	.172	.040	.080	.350	.125	.100	.040	.020	.062	14.00

MINIATURE FEED-THRU TURRET

STANDARD TYPE

PART NO.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
83-1500	.264	.312	.040	.080	.531	.210	.100	.040	.020	.100	.050	$14.00
83-1501	.234	.250	.040	.080	.500	.210	.100	.040	.020	.100	.050	12.00
83-1509	.148	.172	.040	.093	.836	.250	.165	.187	.020	.095	.095	18.00
83-1510	.148	.172	.040	.093	.836	.250	.230	.125	.020	.095	.095	18.00
83-1511	.171	.187	.040	.093	.836	.212	.212	.187	.020	.095	.095	18.00
83-1512	.204	.250	.040	.093	.836	.250	.212	.187	.020	.095	.095	18.00
83-1513	.230	.250	.040	.093	.836	.250	.212	.187	.020	.095	.095	18.00
83-1523	.171	.187	.040	.093	.836	.250	.150	.250	.020	.095	.095	18.00
†83-1524	.218	.250	.062	.125	1.187	.281	.375	.250	.031	.093	.093	25.00
REVERSE TYPE												
38-1500	.264	.312	.040	.080	.531	.210	.100	.040	.020	.100	.050	$15.00
38-1501	.264	.312	.040	.080	.531	.210	.100	.040	.020	.100	.050	13.00
38-1509	.148	.172	.040	.093	.836	.250	.165	.187	.020	.095	.095	19.00
38-1510	.148	.172	.040	.093	.836	.250	.230	.125	.020	.095	.095	19.00
38-1511	.171	.187	.040	.093	.836	.250	.212	.187	.020	.095	.095	19.00
38-1512	.204	.250	.040	.093	.836	.250	.212	.187	.020	.095	.095	19.00
38-1513	.230	.250	.040	.093	.836	.250	.212	.187	.020	.095	.095	19.00
38-1523	.171	.187	.040	.093	.836	.250	.150	.250	.020	.095	.095	18.00
†38-1524	.218	.250	.062	.125	1.187	.281	.375	.250	.031	.093	.093	26.00

† TURRETS BOTH ENDS

MINIATURE FEED-THRU SLOTTED LUG

STANDARD TYPE

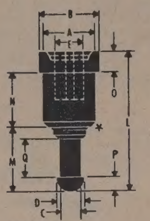
PART NO.	A	B	C	D	L	M	N	O	P	Q	NET Per C
83-2000	.171	.187	.078	.148	.821	.203	.212	.187	.156	.046	$22.00
83-2001	.171	.187	.046	.148	.821	.203	.212	.187	.156	.046	22.00
83-2002	.171	.187	.078	.148	.947	.203	.275	.250	.156	.046	24.00
83-2003	.171	.187	.046	.148	.947	.203	.275	.250	.156	.030	24.00
83-2004	.171	.187	.078	.148	1.197	.203	.400	.375	.156	.046	30.00
83-2005	.171	.187	.046	.148	1.197	.203	.400	.375	.156	.030	30.00
83-2006	.171	.187	.078	.148	1.197	.203	.550	.225	.156	.046	36.00
83-2007	.171	.187	.078	.148	1.197	.203	.525	.250	.156	.046	36.00
REVERSE TYPE											
38-2000	.171	.187	.078	.148	.821	.203	.212	.187	.156	.046	$22.00
38-2001	.171	.187	.046	.148	.821	.203	.212	.187	.156	.046	22.00
38-2002	.171	.187	.078	.148	.947	.203	.275	.250	.156	.046	24.00
38-2003	.171	.187	.046	.148	.947	.203	.275	.250	.156	.030	25.00
38-2004	.171	.187	.078	.148	1.197	.203	.400	.375	.156	.046	30.00
38-2005	.171	.187	.046	.148	1.197	.203	.400	.375	.156	.030	31.00
38-2006	.171	.187	.078	.148	1.197	.203	.550	.225	.156	.046	36.00
38-2007	.171	.187	.078	.148	1.197	.203	.525	.250	.156	.046	37.00

MINIATURE FEED-THRU THREADED LUG

STANDARD TYPE

PART NO.	A	B	C	D†	L	M	N	O	NET Per C
83-2500	.171	.187	.050	4-36	.899	.281	.212	.187	$22.00
83-2501	.171	.187	.050	4-40	.899	.281	.212	.187	22.00
83-2502	.171	.187	.050	4-36	1.024	.281	.212	.250	24.00
83-2503	.171	.187	.050	4-40	1.024	.281	.212	.250	24.00
83-2504	.171	.187	.050	4-36	1.274	.281	.212	.375	30.00
83-2505	.171	.187	.050	4-40	1.274	.281	.212	.375	30.00
REVERSE TYPE									
38-2500	.171	.187	.050	4-36	.899	.281	.212	.187	$23.00
38-2501	.171	.187	.050	4-36	.899	.281	.212	.187	23.00
38-2502	.171	.187	.050	4-40	1.024	.281	.212	.250	25.00
38-2503	.171	.187	.050	4-40	1.024	.281	.212	.250	25.00
38-2504	.171	.187	.050	4-36	-.274	.281	.212	.375	31.00
38-2505	.171	.187	.050	4-40	1.274	.281	.212	.375	31.00

† CLASS 2 THREAD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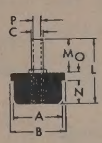
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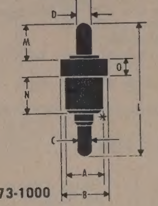
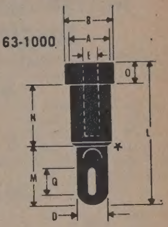
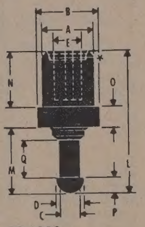

73-1000


63-1000

*CHAMFER .020 x 45°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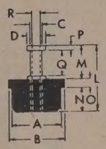
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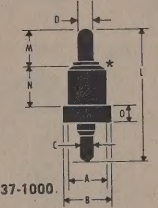
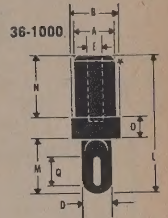

37-1000


36-1000

TEST JACK MINIATURE

These Jacks hve Beryllium Copper Contacts

STANDARD TYPE

PART NO.	A	B	C	D	E†	L	M	N	O	P	Q	NET Per C
63-1003	.185	.218	.054	.074	.090	.437	.120	.281	.046	.037	.053	$19.00
63-1004	.185	.218	.054	.074	.080	.437	.120	.281	.046	.031	.053	19.00
63-1005	.185	.218	.054	.074	.080	.637	.187	.400	.050	.037	.104	19.00
63-1010	.148	.172	.040	.074	.040	.345	.120	.179	.046	.037	.053	20.00
REVERSE TYPE												
36-1003	.185	.218	.054	.074	.090	.437	.120	.281	.046	.037	.053	$19.00
36-1004	.185	.218	.054	.074	.080	.437	.120	.281	.046	.037	.053	19.00
36-1005	.185	.218	.054	.074	.080	.637	.187	.400	.050	.037	.104	19.00
36-1010	.148	.172	.040	.074	.040	.345	.120	.179	.046	.037	.053	20.00

* CHAMFER .020 x 45″ † DIAMETER OF MATING PROBE

SUB-MINIATURE TUBULAR FEED-THRU

PART NO.	A	B	C	D	L	M	N	O	P	Q	NET Per C
82-1034	.148	.172	.040	—	.310	.207	.053	.050	.030	—	$11.00
82-1041	.171	.218	.085	—	.367½	.125	.060	.040	.030	—	11.00
82-1040	.093	.125	.040	—	.225	.207	.110	.050	.063	—	13.00
82-1043	.148	.172	.040	—	.407	.207	.160	.040	.030	—	15.00
82-1045	.218	.250	.060	—	.287	.147	.100	.040	.030	.050	14.00

PART NO.	A	B	C	D	L	M	N	O	P	Q	R	NET Per C
82-1049	.125	.150	.060	.090	.273	.133	.080	.060	.020	.093	.030	$13.00
82-1050	.148	.172	.060	.090	.303	.133	.100	.040	.020	.093	.030	13.00
82-1052	.171	.188	.082	.125	.093	.133	.155	.093	.020	.093	.030	15.00

PROBES AND PLUGS MINIATURE

STANDARD TYPE

PART NO.	A	B	C	D	L	M	N	O	NET Per C
73-1000	.185	.218	.030	.050	.906	.250	.287	.046	$15.00
83-1001	.185	.218	.030	.050	1.531	.250	.287	.046	15.00
73-1002	.185	.218	.030	.050	2.083	.250	.287	.046	15.00
REVERSE TYPE									
37-1000	.185	.218	.030	.050	.906	.250	.287	.046	$16.00
37-1001	.185	.218	.030	.050	1.531	.250	.287	.046	16.00
37-1002	.185	.218	.030	.050	2.083	.250	.287	.046	16.00

* CHAMFER .020 x 45°

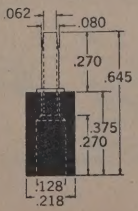
CONNECTOR AND TEST JACK MINIATURE

These Jacks have Beryllium Copper Contacts

STANDARD TYPE

PART NO.	A	B	D	E†	L	M	N	O	NET Per C
63-1000	.185	.218	.105	.050	.687	.354	.287	.140	$16.00
63-1001	.185	.218	.105	.041	.687	.354	.287	.140	16.00
63-1002	.185	.218	.110	.080	.687	.354	.287	.156	16.00
REVERSE TYPE									
36-1000	.185	.218	.105	.050	.687	.354	.287	.140	$17.00
36-1001	.185	.218	.105	.041	.687	.354	.287	.140	17.00
36-1002	.185	.218	.110	.080	.687	.354	.287	.156	17.00

* CHAMFER .020 x 45° † DIAMETER OF MATING PROBE



PROBES

PART NO.	NET Per C
73-3001	$16.00

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EQUIPMENT HANDLES

MATERIALS AND FINISH SPECIFICATIONS

The following specifications are met by all panel handles, ferrules, and hardware where applicable:

Materials:

Brass: In accordance with Federal Spec. QQ-B-626, Composition 22, ½ Hard.
Aluminum: In accordance with Federal Spec. QQ-A-365, Composition A, Type 3.
Steel: Cold-Rolled, in accordance with QQ-S-633b, Grade FS-1010.

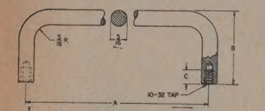
Finishes:

Nickel Plate: Polished Nickel Plate, in accordance with Federal Spec. QQ-N-290, Class I, Type VI.
Black Oxide: In accordance with MIL-F-495A.
Satin Etch: Commercial finish.
Black Anodize: In accordance with MIL-A-8625A.
Optical Black: Color in accordance with Fed. Std. 595, Type 37038. Paint complies with Fed. Spec. TT-E-527.

Note:

Aluminum Handles, either round or oval, and matching ferrules, can be supplied anodized in colors per MIL-A-8625A on special order.

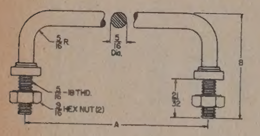
PANEL HANDLES



Brass Panel Handles, finished as shown, with internal 10-32 thread. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Finish	NET Ea.
2050	3"	1-5/16"	7/16"	Nickel Plate	$.63
1601	3"	1-5/16"	7/16"	Black Oxide	.63
2057	3"	1-1/2"	9/16"	Nickel Plate	.63
1602	3"	1-1/2"	9/16"	Black Oxide	.63
2056	4-1/4"	1-1/2"	9/16"	Nickel Plate	.72
1604	4-1/4"	1-1/2"	9/16"	Black Oxide	.72
2051	4-9/16"	1-1/2"	9/16"	Nickel Plate	.75
1605	4-9/16"	1-1/2"	9/16"	Black Oxide	.75
2052	6-7/16"	1-3/4"	9/16"	Nickel Plate	.78
1606	6-7/16"	1-3/4"	9/16"	Black Oxide	.78

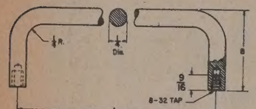
PANEL HANDLES



Brass Panel Handles, finished as shown with male threaded stud. Supplied complete with matching ferrules, and brass, nickel plated hex nuts. Mount in 5/16" panel holes. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Finish	NET Ea.
1607	2"	2⅛"	Nickel Plate	$.81
1608	2"	2⅛"	Black Oxide	.81
1609	3"	2⅛"	Nickel Plate	.84
1610	3"	2⅛"	Black Oxide	.84
1611	4"	2⅛"	Nickel Plate	.87
1612	4"	2⅛"	Black Oxide	.87
2053	4¼"	2⅛"	Nickel Plate	.90
1613	4¼"	2⅛"	Black Oxide	.90
1614	6"	2 11/16"	Nickel Plate	.98
1615	6"	2 11/16"	Black Oxide	.98

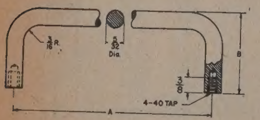
PANEL HANDLES



¼" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 8-32 thread. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
1616	2"	1½"	Brass	Nickel Plate	$.60
1617	2"	1½"	Brass	Black Oxide	.60
1618	2"	1½"	Aluminum	Satin	.60
1619	2"	1½"	Aluminum	Blk. Anodize	.60
1620	3"	1½"	Brass	Nickel Plate	.63
1621	3"	1½"	Brass	Black Oxide	.63
1622	3"	1½"	Aluminum	Satin	.63
1623	3"	1½"	Aluminum	Blk. Anodize	.63
1624	4"	1½"	Brass	Nickel Plate	.69
1625	4"	1½"	Brass	Black Oxide	.69
1626	4"	1½"	Aluminum	Satin	.69
1627	4"	1½"	Aluminum	Blk. Anodize	.69
1628	6"	1½"	Brass	Nickel Plate	.75
1629	6"	1½"	Brass	Black Oxide	.75
1630	6"	1½"	Aluminum	Satin	.75
1631	6"	1½"	Aluminum	Blk. Anodize	.75

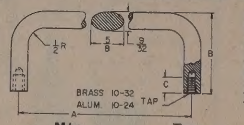
PANEL HANDLES



5/32" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 4-40 thread. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
1632	1¼"	1"	Brass	Nickel Plate	$.82
1633	1¼"	1"	Brass	Black Oxide	.82
1634	1¼"	1"	Aluminum	Satin	.82
1635	1¼"	1"	Aluminum	Blk. Anodize	.82
1636	2"	1"	Brass	Nickel Plate	.86
1637	2"	1"	Brass	Black Oxide	.86
1638	2"	1"	Aluminum	Satin	.86
1639	2"	1"	Aluminum	Blk. Anodize	.86
1640	3"	1"	Brass	Nickel Plate	.90
1641	3"	1"	Brass	Black Oxide	.90
1642	3"	1"	Aluminum	Satin	.90
1643	3"	1"	Aluminum	Blk. Anodize	.90

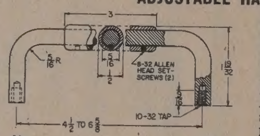
OVAL PANEL HANDLES



Flat, oval panel handles in Brass and Aluminum, finished as shown. Brass handles have internal 10-32 thread, Aluminum handles have internal 10-24 thread. Individually packaged.
Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Material	Finish	NET Ea.
1644	3"	1 9/32"	9/32"	Brass	Nickel Plate	$1.35
1645	3"	1 9/32"	9/32"	Brass	Black Oxide	1.35
1646	3"	1 9/32"	9/32"	Aluminum	Blk. Anodize	1.03
1647	4 9/16"	1½"	½"	Brass	Nickel Plate	1.52
1648	4 9/16"	1½"	½"	Brass	Black Oxide	1.52
1649	4 9/16"	1½"	9/32"	Aluminum	Blk. Anodize	1.10
1651	6 7/16"	1¾"	½"	Brass	Nickel Plate	1.73
1653	6 7/16"	1¾"	½"	Brass	Black Oxide	1.73
1654	6 7/16"	1¾"	9/32"	Aluminum	Blk. Anodize	1.20
1655	9"	1¾"	½"	Brass	Nickel Plate	1.91
1657	9"	1¾"	½"	Brass	Black Oxide	1.91
1658	9"	1¾"	9/32"	Aluminum	Blk. Anodize	1.31

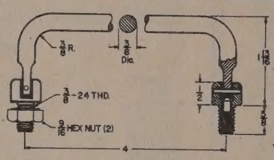
ADJUSTABLE HANDLES



Adjustable Brass Panel handles, with mounting center range from 4½" to 6⅝". Finished as shown. Internal 10-32 thread, supplied with Allen-Head locking screws. Individually packaged. **Std. Pkg. 10**

No.	Finish	NET Ea.
1659	Nickel Plate	$2.60
1661	Black Oxide	2.60

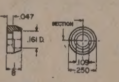
FOLDING HANDLES



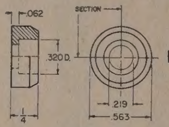
Folding Brass panel handles, with spring-loaded detents which snap into upright or left-or-right folded position. Finished as shown. Supplied with brass, nickel plated hex nuts. Mounts in ⅜" panel holes. Individually packaged.
Std. Pkg. 10

No.	Finish	NET Ea.
1662	Nickel Plate	$2.28
1663	Black Oxide	2.28

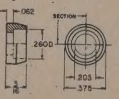
FERRULES



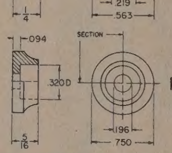
No. 1664



No. 2054



No. 1668



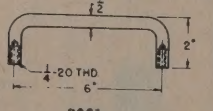
No. 2055

Brass and Aluminum ferrules, finished as shown, to match handles listed above.
Std. Pkg. 50

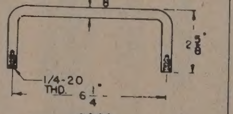
FOR 5/32" DIA. HANDLES

No.	Material	Finish	NET Per C
1664	Brass	Nickel Plate	$15.00
1665	Brass	Black Oxide	15.00
1666	Aluminum	Satin	15.00
1667	Aluminum	Black Anodize	15.00
FOR 1/4" DIA. HANDLES			
1668	Brass	Nickel Plate	$15.00
1669	Brass	Black Oxide	15.00
1670	Aluminum	Satin	15.00
1671	Aluminum	Black Anodize	15.00
FOR 5/16" DIA. HANDLES			
2054	Brass	Nickel Plate	$15.00
1672	Brass	Black Oxide	15.00
2055	Brass	Black Oxide	15.00
1673	Brass	Nickel Plate	15.00

HANDLES



2061

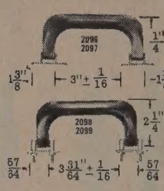


2062

Steel handles painted with Optical Black finish.
Std. Pkg. 10

No.	Diameter	NET Ea.
2061	½"	$1.80
2062	⅝"	1.20

MOLDED GRIP HANDLES

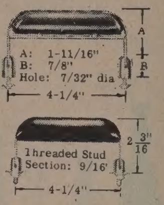


HANDLE: Molded High Impact styrene.
HDWRE.: Steel, nickel plated.
DESCR.: Designed for economy and rugged use. **Std. Pkg. 10**

ATTACHES WITH RIVETS OR SCREWS

No.	Color	NET Per C
2096	Black	$45.00
2097	Grey	45.00
ATTACHES WITH THREADED STUD		
2098	Black	84.00
2099	Grey	84.00

MOLDED GRIP HANDLES



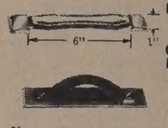
HANDLE: Molded high impact Styrene, Fungus Resistant.
HDWRE.: Steel. Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with machine screws.

No.	Color	Each
2085	Black	$1.75
2086	Grey	1.75

HANDLE: Molded high impact Styrene. Fungus Resistant.
HDWRE.: Steel, Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with washers and nuts supplied. Will support 100 lbs.

No.	Color	Stud Lgth.	NET Ea.
2087	Black	9/16"	$1.05
2088	Grey	9/16"	1.05

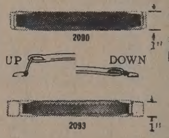
SPRING GLIDE HANDLE



HANDLE: Genuine leather, contoured BLACK, matching stitching, 6" long.
CAPS: Steel, chrome plated.
DESCR.: Strong, silent spring glide, frequency of decibel extremes will not induce handle rattle. Handle moves up for comfortable carrying down when not in use. **Std. Pkg. 10**

No.	Color	NET Ea.
2089	Black	$2.40

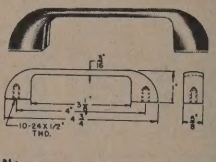
RETRACTO-LINK HANDLES



HANDLE: Genuine leather, matching stitching, BLACK.
HDWRE.: Steel, nickel plated.
DESCR.: Assemblies are shaped with all hardware installed except for decorative cover caps which are packed separately. Supplied in two styles—different lengths.
Std. Pkg. 10

ATTACHES WITH PRONGS THAT BEND INSIDE CASE

No.	Length	Ea.
2090	4½"	$2.10
2091	5½"	2.10
2092	6¾"	2.10
ATTACHES WITH RIVETS OR SCREWS		
2093	4½"	$2.10
2094	5½"	2.10
2095	6¾"	2.10

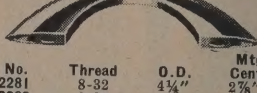


OVAL HANDLE

Die Cast Zamac Handle. Brush chrome plated.

Std. Pkg. 10

No.	NET Per C
2065	$90.00

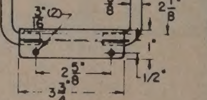


BAKELITE HANDLE

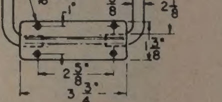
Std. Pkg. 10

No.	Thread	O.D.	Mtg. Center	Color	NET Per C
2281	8-32	4¼"	2⅞"	Black	$14.40
2282	8-32	4¼"	Center	Red	15.60

MIL. SPEC. HANDLES



2063



2064

MATERIAL: Aluminum.
FINISH: Alodine per MIL-C-5541 Spec. Sprayed to MIL-E-15090. Gloss gray color #1640 per MIL SPEC. PTC-595.
Std Pkg. 10

No.	Type	NET Ea.
2063	Half Bracket	$1.35
2064	Full Bracket	1.35
With Transflux Plastic Protector		
2048	Half Bracket	$1.80
2049	Full Bracket	1.80

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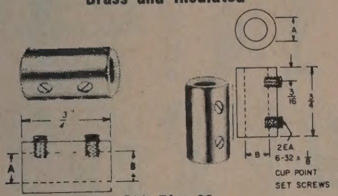
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

COUPLERS
Brass and Insulated

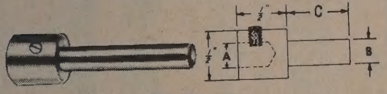

A
3/16
3/4
3"/4
A
B
B
2EA
6-32 x 1/8
CUP POINT
SET SCREWS

Std. Pkg. 25

With Two Set Screws

No.	A B	O.D.	Material	NET Per C
120	¼″-¼″	7/16″	Brass N.P.	$18.00
140	¼″-¼″	7/16″	Fibre	15.00
131	⅜″-¼″	½″	Brass N.P.	18.00
141	⅜″-¼″	½″	Fibre	15.00
133	⅜″-⅜″	½″	Brass N.P.	18.00
142	⅜″-⅜″	½″	Fibre	15.00
With Four Set Screws				
138	¼″-¼″	7/16″	Brass N.P.	39.00
MINIATURE COUPLER With Allen Head Set Screws				
180	⅛″-⅛″	9/32″	Brass N.P.	$24.00

EXTENDERS
Brass and Insulated



Std. Pkg. 25

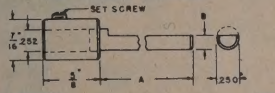
Long Shaft Type

No.	A B	C	Material	NET Per C
150	¼″-¼″	1¼″	Brass N.P.	$19.80
130	¼″-¼″	1¼″	Fibre	27.00
132	⅜″-¼″	1¼″	Brass N.P.	19.80
134	⅜″-¼″	1¼″	Fibre	27.00

Short Shaft Type

No.	A B	C	Material	NET Per C
160	¼″-¼″	⅝″	Brass N.P.	$18.00
161	¼″-¼″	⅝″	Fibre	18.00
162	⅜″-¼″	⅝″	Brass N.P.	18.00
163	⅜″-¼″	⅝″	Fibre	18.00
MINIATURE EXTENDER With Allen Head Set Screws				
189	⅛″-⅛″	⅜″	Brass N.P.	$18.00

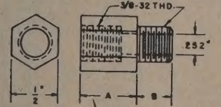
SHAFT EXTENDERS
For Volume Controls


SET SCREW
7"/16
.252
B
5"/8
A
.250

Brass, Nickel Plated. Std. Pkg. 25

No.	A	B	NET Per C
2356	2″	.250″	$21.00
2357	3″	.250″	24.00
2358	4″	.250″	27.00
2359	2″	.219″	21.00
2360	3″	.219″	24.00
2361	4″	.219″	27.00
2362	2″	.156″	21.00
2363	3″	.156″	24.00
2364	4″	.156″	27.00

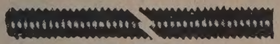
BUSHING EXTENDERS
For Volume Controls


3/8-32 THD.
.252"
1"/2
A
B

Brass, Nickel Plated. Std. Pkg. 25

No.	A	B	NET Per C
2350	⅝″	3/16″	$36.00
2351	⅝″	¼″	36.00
2352	⅝″	⅜″	36.00
2353	1 1/16″	⅜″	36.00
2354	1 1/16″	½″	36.00
2355	¾″	¼″	36.00

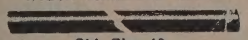
BRASS THREADED RODS



Std. Pkg. 10

1-Ft. Length No.	NET Ea.	Threaded	2-Ft. Length No.	NET Ea.
1400-1	$.24	6-32	1400-2	$.48
1401-1	.24	8-32	1401-2	.48
1402-1	.36	10-32	1402-2	.72
1403-1	.54	¼-20	1403-2	1.08

NYLON THREADED RODS



Std. Pkg. 10

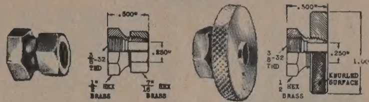
1-Ft. Length No.	NET Ea.	Threaded	2-Ft. Length No.	NET Ea.
1420-1	$ .90	6-32	1420-2	$1.08
1421-1	1.02	8-32	1421-2	2.04
1422-1	1.08	10-32	1422-2	2.16
1423-1	1.20	¼-20	1423-2	2.40

PLAIN RODS
Brass Fibre and Nylon

Std. Pkg. 10

No.	Type	Length	Dia.	NET Ea.
1404	Brass N.P.	6″	¼″	$.20
1405	Brass N.P.	12″	¼″	.40
1406	Fibre	6″	¼″	.15
1407	Fibre	12″	¼″	.30
1408	Nylon	6″	¼″	.30
1409	Nylon	12″	¼″	.45

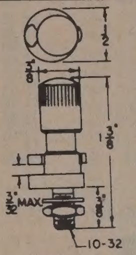
SHAFT LOCKS


.500"
3/8-32 THD
.250"
1/2" HEX BRASS
7/16" HEX BRASS
.500"
3/8-32 THD
.250"
1.00"
KNURLED SURFACE
1/2 HEX BRASS

Brass Nickel Plated

Wrench Type

No.	Shaft	Std. Pkg.	NET Per C
181	¼″	100	$24.00
Miniature Wrench Type			
183	⅛″	25	24.00
Thumb Type			
182	¼″	25	33.00


1/2
3/8
1 3/8"
3"/32 MAX
3"/8
10-32

DIAL LOCK

HEAD: Captive: Brass, nickel plated.

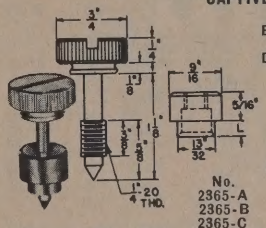
BODY: Brass nickel plated.

DESCR.: Prevents detuning of the dial when locked by means of the captive knurled nut. Supplied with hex nut & lockwasher.

Std. Pkg. 25

No.	NET Per C
199	$66.00

CAPTIVE SCREW & BUSHING
Large Head


3"/4
1"/4
1"/8
9"/16
5/16"
1 1/8
3"/8
5"/8
L
13"/32
1"/4-20 THD.

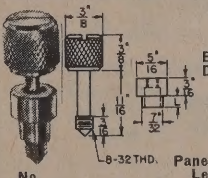
BODY: BRASS, nickel plated.

DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non - removable from panel.

Std. Pkg. 50

No.	Panel Bushing Length (L)	NET Per C
2365-A	5/32″	$75.00
2365-B	7/32″	75.00
2365-C	9/32″	75.00

CAPTIVE SCREW & BUSHING
Small Head


3"/8
3"/8
5"/16
3"/16
11"/16
3/16
L
7"/32
8-32 THD.

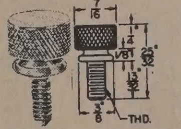
BODY: BRASS, nickel plated.

DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non-removable from panel.

Std. Pkg. 50

No.	Panel Bushing Length (L)	NET Per C
2375-A	5/32″	$60.00
2375-B	7/32″	60.00
2375-C	9/32″	60.00

THUMB SCREW

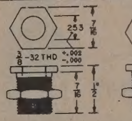

7"/16
1"/4
1/8
25"/32
13"/32
3"/8
THD.

BODY: BRASS, nickel plated.

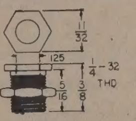
DESCR.: Used extensively for quick removal of panels from chassis.

Std. Pkg. 2

No.	Thread	NET Per C
2366	6-32	$24.00
2367	8-32	24.00
2368	10-32	24.00


.253
7/16
3/8-32 THD
+.002 -.000
7/16
1"/2

119

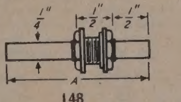

11/32
.125
1/4-32 THD
5/16
3/8

184

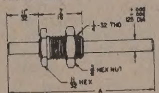
PANEL BEARINGS
Brass, Nickel Plated

No.	Type	Std. Pkg.	NET Per C
119	Standard	100	$15.00
184	Miniature	25	15.00

PANEL BEARING ASSEMBLY



148


15/32
7/16
1/4-32 THD
.125 DIA
3/8 HEX NUT
15/32 HEX
A

1448

Uses our standard #119 Panel Bearing. Nickel plated overall.

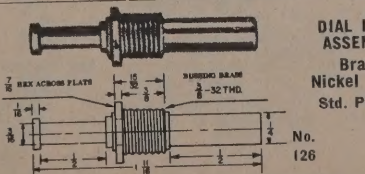
Std. Pkg. 25

No.	A	NET Per C
148	8″	$33.00
149	6″	39.00

MINIATURE PANEL BEARING ASSEMBLY

Miniature ⅛″ shaft assembly, using our standard #184 Panel Bearing. Brass, nickel plated overall. Std. Pkg. 25

No.	Length "A"	NET Per C
1448	2″	$33.00
1449	4″	39.00


7/16 HEX ACROSS FLATS
15/32
3/8
BUSHING BRASS
3/8-32 THD.
1/16
3/16
1/4
1/2
1 1/16
1/2

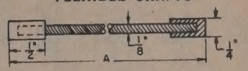
DIAL DRIVE ASSEMBLY

Brass, Nickel Plated

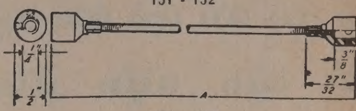
Std. Pkg. 25

No.	NET Per C
126	$24.00

FLEXIBLE SHAFTS



151 - 152


1"/4
1"/2
A
3"/8
27"/32

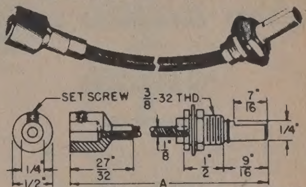
153 - 154

High quality phosphor bronze non-magnetic, non-rusting flexible shafts. Remote control when necessary to mount condensers and potentiometers away from panel at unusual angles. Turns at any angle up to 90°; free from back lash.

Std. Pkg. 25

No.	Size "A"	Description	NET Per C $45.00
151	3″	With ¼″ hub	$45.00
152	6″	With ¼″ hub	60.00
153	3⅝″	With ¼″ coupler	90.00
154	6⅝″	With ¼″ coupler	105.00

BI-DIRECTIONAL FLEXIBLE SHAFT AND PANEL BEARING

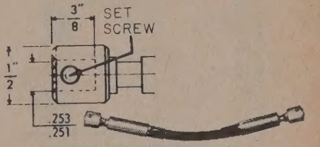

SET SCREW
3/8-32 THD.
7"/16
1/4"
1/4
1/2"
27"/32
1"/8
1"/2
9"/16
A

Combination of ¼″ Coupler at one end and Panel Bearing Assembly at other. High quality phosphor bronze non-magnetic, non-rusting flexible shaft, turns at any angle up to 90°. Free from backlash.

Std. Pkg. 25

No.	Length "A"	NET Ea.
165	4 1/16″	$1.35
166	7 1/16″	1.50

FLEXIBLE SHAFT ASSEMBLY

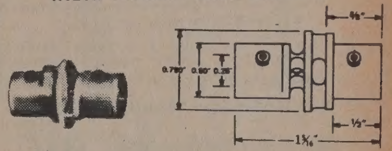

3"/8
SET SCREW
1"/2
.253
.251

With Casing

Bi-directional high quality flexible shaft. Cable casing acts as a support and reduces amount of deflection in cable. Metal parts steel cadmium plated.

No.	Length	NET Ea.
169	8″	$6.00
170	12″	6.30

NYLON FLEXIBLE SHAFT COUPLING

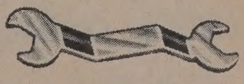

⅝"
0.750"
0.50"
0.25"
½"
1 5/16"

DESCR.: Molded nylon with molded-in brass bushings. Hi-temp nylon not influenced by moisture. Designed for long reach shaft coupling. Supplied with 2 Allen head set screws.

Std. Pkg. 25

No.	NET Ea.
164	$1.05

SHAFT WRENCH



Specially designed offset, double-end wrenches for most hex sizes encountered in electronic construction. Made of heavy gauge, cadmium plated steel, clearly marked with size. No. 999 is especially useful for Toggle Switch and Volume Control mounting nuts.

Std. Pkg. 25

No.	For Nut Sizes	NET Per C
998	5/16″ - 3/8″	$21.00
997	Set of 2 above	42.00
999	1/2″ - 9/16″	21.00

All **MOUNTING ACCESSORIES** and **SHAFT ACCESSORIES** can be furnished on special order plated to meet existing government specifications. We welcome your inquiries on special sizes to meet your rigid requirements.

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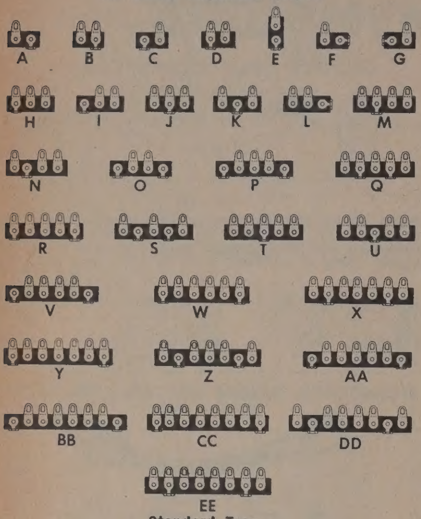
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

TIE DOWN TERMINAL STRIPS



Standard Type

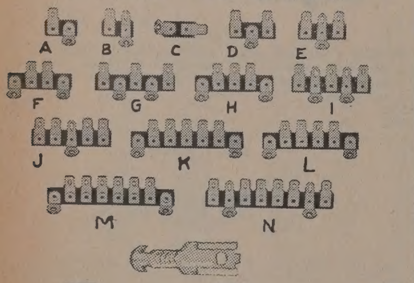
LUG: STEEL, cadmium plated, spaced ⅜″ centers.
STRIP: XP Bakelite, 5/16″ wide x .016 thick.
MOUNT.: .140 I.D. for No. 6 screw.

Miniature Type

LUG: STEEL, cadmium plated, spaced ¼″ centers.
STRIP: XP Bakelite, 5/16″ wide x .016 thick.
MOUNT.: .096 I.D. for No. 3 screw or 3/32 rivet.

STANDARD TYPE			MINIATURE TYPE	
No.	NET Per C	Illustration	No.	NET Per C
861	$2.10	A	1061	$2.40
862	2.10	B	1062	2.70
813	2.10	C	1003	2.70
820	2.10	D	1004	2.70
849	2.40	E	1039	2.70
828	2.40	F	1005	2.70
821	2.40	G	1009	2.70
830	3.00	H	1055	3.60
829	2.70	I	1043	3.60
864	2.40	J	1064	3.60
863	2.40	K	1063	3.30
846	2.70	L	1059	3.60
850	3.90	M	1074	4.80
857	3.90	N	1072	4.80
867	3.60	O	1067	3.80
853	4.80	P	1073	5.25
868	4.20	Q	1068	5.70
847	4.20	R	1071	5.85
865	4.20	S	1065	5.25
866	3.60	T	1066	5.40
855	3.30	U	1084	5.85
869	5.10	V	1069	6.00
854	5.10	W	1076	7.20
879	5.10	X	1158	8.10
859	5.10	Y	1156	8.10
871	4.80	Z	1157	8.10
860	4.95	AA	1060	6.60
848	5.85	BB	1078	7.80
900	5.85	CC	1075	9.60
858	5.40	DD	1096	9.30
870	5.85	EE	1070	8.10

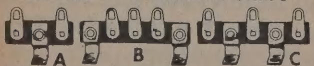
"QUICK-CONNECT" TERMINAL STRIPS



No.	Ill.	NET Per C	No.	Ill.	NET Per C	No.	Ill.	NET Per C
1085	A	$2.82	1090	F	$4.80	1095	K	$9.60
1086	B	3.00	1091	G	4.80	1097	L	8.10
1087	C	2.82	1092	H	4.80	1098	M	10.80
1088	D	4.20	1093	I	6.30	1099	N	11.40
1089	E	4.50	1094	J	6.60			

No.		NET Per C
1576	Terminal Strip Connectors	$3.30

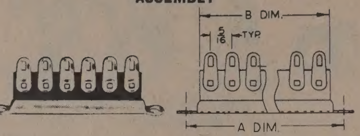
BRACKET TYPE TERMINAL STRIPS



LUGS: STEEL, cadmium plated, spaced ⅜″ centers.
BRACKETS: Brass, cadmium plated.
STRIPS: X.P. Bakelite ⅜″ wide x .062 thick.
MOUNT.: .140 I.D. for No. 6 screw. **Std. Pkg. 100**

No.	Fig.	Lugs	NET Per C
1077	A	2	$6.36
1079	C	3	6.60
1080	B	3	6.60
1081	B	4	7.20
1082	B	5	7.80
1083	B	6	8.40

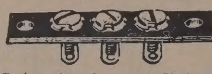
TERMINAL STRIP ASSEMBLY



LUG: STEEL, cadmium plated.
BASE: STEEL, cadmium plated. Mounting holes for No. 6 screw.
STRIP: X.P. Bakelite. **Std. Pkg. 100**

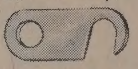
No.	Terminals	Dimensions "A"	Dimensions "B"	NET Per C
3002	2	1.000	⅝″	$6.00
3003	3	1.312	15/16″	6.90
3004	4	1.625	1¼″	7.80
3005	5	1.937	1 9/16″	8.70
3006	6	2.250	1⅞″	9.60
3007	7	2.562	2 3/16″	10.50
3008	8	2.875	2½″	11.40
3009	9	3.187	2 13/16″	12.30
3010	10	3.500	3⅛″	13.20
3011	11	3.812	3 7/16″	14.10
3012	12	4.125	3¾″	15.00

SCREW TYPE TERMINAL BOARD



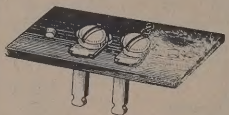
LUGS: BRASS, hot tinned, spaced 7/16″ centers.
SCREW: Steel, cadmium plated 6-32x⅜.
STRIP: X.P. Bakelite ⅝″ wide x .062 thick.

No.	Terminals	Mounting Center	Std. Pkg.	NET Per C
872	2	1 7/16″	50	$6.00
873	3	1¾″	50	9.00
874	4	2 3/16″	25	11.20
875	5	2⅝″	25	13.20
876	6	3 1/16″	25	16.80
877	7	3½″	25	21.00



878	Shorting Link	1.80

HEAVY DUTY TERMINAL BOARDS



LUG: BRASS, cadmium plated .042 thick spaced ½″ centers. Terminals numbered.
STRIP: X.P. Bakelite ⅞″ wide x 3/32″ thick, numbered.
SCREW: Brass, nickel plated 8-32 x 5/16.

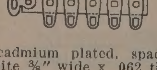
No.	Terminals	Mtg. Center	NET Per C
902	2	1½″	$20.40
903	3	2″	28.20
904	4	2½″	34.20
905	5	3″	40.80
906	6	3½″	46.20
907	7	4″	52.20
908	8	4½″	58.80
909	9	5″	64.80
910	10	5½″	70.80
911	11	6″	76.80
912	12	6½″	82.80

CONTACT STRIPS

CONTACTS: STEEL, cadmium plated, spring tension spaced ⅜″ centers.
STRIP: X.P. Bakelite ⅝″ wide x .062 thick.
BRACKET: Steel cadmium plated .140 I.D. for No. 6 screw.
DESCR.: Quick connect and disconnect. Spring tension contacts for .125 dia. contact pins. Single hole mounting. Even number contacts have mtg. bracket in center; odd number contacts have extra contact on right. Special contacts on request.

No.	Contacts	Std. Pkg.	NET Per C
822	2	100	$6.60
823	3	50	8.40
824	4	25	10.20
825	5	25	12.00
826	6	25	15.00
827	Pin Only	100	1.20

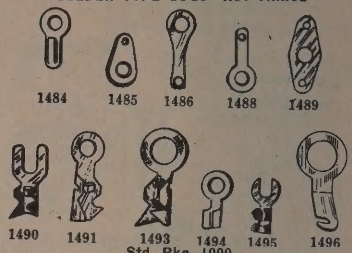
"T" TYPE TERMINAL STRIPS



LUGS: STEEL, cadmium plated, spaced ⅜″ centers.
STRIP: XP Bakelite ⅜″ wide x .062 thick
MOUNT.: .140 I.D. for No. 6 screw. **Std. Pkg. 100**

No.	Lugs	NET Per C
815	1	$3.90
816	2	5.10
817	3	6.30
818	4	7.50
819	5	8.70

SOLDER TYPE LUGS—Hot Tinned



Std. Pkg. 1000

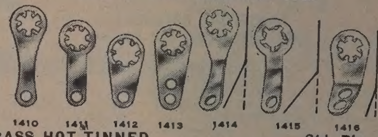
No.	Material	L.	Thick.	Hole	NET Per M
1484	Ph. Br.	⅝″	.020″	No. 6	$5.70
1485-4	Ph. Br.	9/16″	.012″	No. 4	5.40
1485-6	Ph. Br.	9/16″	.012″	No. 6	5.40
1485-8	Ph. Br.	9/16″	.012″	No. 8	5.40
1485-10	Ph. Br.	9/16″	.012″	No. 10	5.40
1486-4	Ph. Br.	13/16″	.012″	No. 4	5.40
1486-6	Ph. Br.	13/16″	.012″	No. 6	5.40
1486-8	Ph. Br.	13/16″	.012″	No. 8	5.40
1486-10	Ph. Br.	13/16″	.012″	No. 10	5.40
1488-4	Ph. Br.	9/16″	.012″	No. 4	4.35
1488-6	Ph. Br.	9/16″	.012″	No. 6	4.35
1488-8	Ph. Br.	9/16″	.012″	No. 8	4.35
1489	Brass	⅞″	.015″	No. 8	6.00
1490	Brass	¾″	.020″	No. 10	6.60
1491	Copper	15/16″	.020″	No. 10	10.50
1493	Brass	1⅛″	.027″	¼″	16.80
1494-6	Brass	⅝″	.020″	No. 6	5.40
1494-8	Brass	⅝″	.020″	No. 8	5.40
1495	Brass	⅝″	.020″	No. 8	6.60
1496	Brass	¾″	.020″	¼″	10.20
1497	Brass	⅞″	.017″	⅜″	24.00

SOLDER LUG ASSORTMENT

A complete assortment of the most widely used Solder Lug styles, with hole sizes from #4 thru #10. Packed in a re-usable clear plastic compartmented box.

No.	Approx Quantity of Terminals	NET
1546	1400	$9.00

LOCKING TYPE TERMINAL LUGS

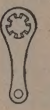


BRASS HOT TINNED **Std. Pkg. 1000**

No.	L	Thick	Hole	NET Per M
1410-4	⅞″	.018″	No. 4	$9.00
1410-6	⅞″	.018″	No. 6	9.00
1410-8	⅞″	.018″	No. 8	9.00
1410-10	57/64″	.018″	No. 10	9.00
1410-14	13/16″	.018″	¼″	10.20
1411-4	47/64″	.020″	No. 4	10.20
1411-6	47/64″	.020″	No. 6	9.00
1411-8	47/64″	.020″	No. 8	9.00
1412-4	⅝″	.018″	No. 4	9.00
1412-6	⅝″	.018″	No. 6	8.40
1412-8	⅝″	.018″	No. 8	8.40
1413-4	23/32″	.018″	No. 4	8.40
1413-6	23/32″	.018″	No. 6	9.00
1413-8	23/32″	.018″	No. 8	9.00
1414-4	13/16″	.018″	No. 4	9.00
1414-6	13/16″	.018″	No. 6	9.00
1414-8	13/16″	.018″	No. 8	9.00
1414-10	53/64″	.018″	No. 10	9.00
1415-4	41/64″	.018″	No. 4	9.00
1415-6	41/64″	.018″	No. 6	9.00
1415-8	41/64″	.018″	No. 8	9.00
1416-4	11/16″	.020″	No. 4	9.00
1416-6	11/16″	.020″	No. 6	9.00
1416-8	11/16″	.020″	No. 8	9.00

LOCKING TYPE TERMINAL LUGS

Brass Electro Plated



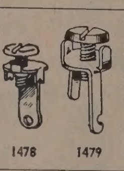
No.	Hole Size	Thick	Length	NET Per M
1465	No. 4	.020″	47/64″	$10.20
1466	No. 6	.020″	47/64″	10.20
1467	No. 8	.020″	⅞″	10.20
1468	¼″	.020″	13/16″	12.00

LOCKING TERMINAL LUG ASSORTMENT

A complete assortment of the most widely used Locking Terminal Lug styles, with hole sizes from #4 thru #10. Packed in a re-usable clear plastic compartmented box.

No.	Approx. Quantity of Terminals	NET
1547	900	$9.00

TERMINAL LUGS & SCREWS

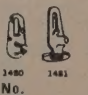


Recommended for heavy duty terminal strips. Lugs are tapped with screw inserted. Brass hot tinned.

Std. Pkg. 100

No.	NET Per C
1478	$3.96
1479	5.40

EYELET TYPE SOLDER LUGS



Std. Pkg. 1000

No.	Length	Hole	NET Per M
1480	⅝″	5/64 Slot	$3.30
1481	⅝″	#8	7.20

Net

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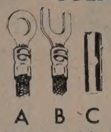
SOLDERLESS TERMINALS



"SOLISTRAND" Non-Insulated

The only terminal designed for use with solid, stranded or irregularly shaped wires, or combinations of wires. Corrosion resistant, high strength, electro-tinned; versatile — widely adaptable.

Std. Pkg. 100

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
	2850	32989	4	7/32	17/32	5/32	$4.20
22	2851	34194	6	7/32	17/32	5/32	4.20
	2852	32990	8	9/32	11/16	15/64	4.80
to	2853	33214	10	5/16	11/16	9/32	4.80
	2854	33215	1/4	15/32	15/16	27/64	6.60
16	2855	33452	5/16	15/32	15/16	27/64	6.60
	2856	33453	3/8	17/32	1 1/16	17/32	6.60
	2857	32991	4	1/4	9/16	11/64	$4.80
16	2858	34197	6	1/4	9/16	11/64	4.80
	2859	32992	8	5/16	11/32	1/4	4.80
to	2860	320093	10	5/16	11/32	1/4	4.80
	2861	33218	1/4	15/32	15/16	7/16	6.60
14	2862	33454	5/16	15/32	15/16	7/16	6.60
	2863	33455	3/8	17/32	1 1/8	17/32	6.60

SPADE TONGUE (B)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
22	2864	32897	6	11/32	5/8	13/64	$4.20
to	2865	32898	8	11/32	5/8	13/64	4.20
16	2866	32899	10	11/32	5/8	13/64	4.20
16	2867	32903	6	11/32	5/8	13/64	$4.20
to	2868	32904	8	11/32	5/8	13/64	4.20
14	2869	32905	10	11/32	5/8	13/64	4.20

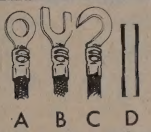
BUTT CONNECTOR (C)

No.	AMP No.	Wire Size	I.D.	O'all L.	NET Per C
2870	31818	22-16	.140 I.D.	37/64	$5.10
2871	31819	16-14	.170 I.D.	37/64	5.10

SOLDERLESS TERMINAL ASSORTMENTS

A basic assortment of the most commonly used Ring Tongue and Spade Terminals for wire sizes 22 thru 14. Packed in a re-usable clear plastic compartmented box.

No.	Approx. Quantity of Terminals	Style	NET
1526	200	"PLASTI-GRIP"	$16.20
1527	300	"PLASTI-GRIP"	22.80
1528	200	"SOLISTRAND"	12.00
1529	300	"SOLISTRAND"	18.00
1577	200	"P.I.D.G."	21.00
1578	300	"P.I.D.G."	30.00



"PLASTI-GRIP" (P.G.)

Insulated, strong, special plastic has high dielectric strength. Applied with single operation of press dies or hand tools. High tensile strength. High conductivity copper, electro-tinned. Color coded for wire size.

Std. Pkg. 100

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
	2750	34141	4	7/32	21/32	5/32	$6.60
22	2751	34142	6	7/32	21/32	5/32	6.60
	2752	34145	8	9/32	25/32	1/4	6.60
to	2753	34146	10	9/32	25/32	1/4	6.60
	2754	34150	1/4	15/32	1 1/16	27/64	7.80
16	2755	34151	5/16	15/32	1 1/16	27/64	7.80
	2756	34152	3/8	17/32	1 13/64	17/32	7.80
	2757	34157	4	1/4	11/16	5/32	$6.60
16	2758	34158	6	1/4	11/16	5/32	6.60
	2759	34160	8	11/32	27/32	17/64	6.60
to	2760	34161	10	11/32	27/32	17/64	6.60
	2761	34162	1/4	15/32	1 1/16	27/64	7.80
14	2762	34163	5/16	15/32	1 1/16	27/64	7.80
	2763	34164	3/8	17/32	1 13/64	33/64	7.80

SPADE TONGUE (B)

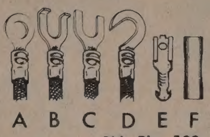
Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
22	2764	34153	6	11/32	49/64	13/64	$6.60
to	2765	34155	8	3/8	57/64	19/64	6.60
16	2766	34156	10	3/8	57/64	19/64	6.60
16	2767	34165	6	3/8	57/64	19/64	$5.70
to	2768	34166	8	3/8	57/64	19/64	6.60
14	2769	34167	10	3/8	57/64	19/64	6.60

HOOK TONGUE (C)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
20-16	2770	34501	6	9/32	47/64	3/16	$6.60
	2771	321699	8	11/32	55/64	9/32	6.60
16-14	2772	320263	8	11/32	55/64	17/64	$9.60

BUTT CONNECTOR (D)

No.	AMP No.	Wire Size	I.D.	O'all L.	NET Per C
2773	34070	22-16	.140 I.D.	1	$8.10
2774	34071	16-14	.70 I.D.	1 1/64	8.10



Pre-Insulated Diamond Grip

Color-coded for wire size. **Std. Pkg. 100**

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
22	1550	320882	4	3/16	21/32	5/32	$9.00
	1551	31881	6	7/32	21/32	5/32	9.00
to	1552	31886	8	9/32	25/32	1/4	9.00
	1553	31887	10	9/32	25/32	1/4	9.00
16	1554	31894	1/4	15/32	1 1/16	27/64	9.60
14	1555	32441	4	1/4	11/16	11/64	9.00
	1556	32442	6	1/4	11/16	11/64	9.00
to	1557	31902	8	11/32	27/32	9/32	9.00
	1558	322238	10	5/16		1/4	9.00
16	1559	31906	1/4	15/32	1/16	7/16	9.60

FLANGED SPADE (B)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
22-16	1560	32562	6	19/64	23/32	13/64	$9.00
	1561	32498	8	27/64	13/16	1/4	9.60
	1562	320861	6	19/64	23/32	13/64	9.00
14-16	1563	320862	8	19/64	23/32	13/64	9.00
	1564	320863	10	19/64	23/32	13/64	9.00

SPADE TONGUE (C)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
	1565	34541	6	1/4	53/64	19/64	$9.00
22-16	1566	32053	8	3/8	57/64	19/64	9.00
	1567	32054	10	3/8	57/64	19/64	9.00
	1568	35559	6	19/64	47/64	13/64	9.00
14-16	1569	321233	8	19/64	47/64	13/64	9.00
	1570	32060	10	3/8	57/64	5/16	9.00

HOOK TONGUE (D)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
22-16	1571	34313	6	9/32	47/64	13/64	$9.00
	1572	32456	8	11/32	55/64	9/32	9.00
	1573	320381	6	11/32	27/32	9/32	$9.00
14-16	1574	320306	8	11/32	27/32	9/32	10.20
	1575	35481	10	11/32	27/32	9/32	10.20
18-14	1576	47100	.250 Faston Receptacle (E) w/insulation support				$ 3.30

BUTT CONNECTOR (F)

Wire Size	No.	AMP No.	I.D.	NET Per C
22-16	1548	320559	.125 I.D.	36.00
16-14	1549	320562	.150 I.D.	60.00

HAND CRIMPING TOOL

Makes strong, solderless connections; cuts and strips wire, and has threaded bolt cutter.

No.	Type	NET Ea.
1579	For P.I.D.G. & P.G.	$7.20
2872	For Solistrand Type	7.20

MAGIC MARKERS

HEAVY OPAQUE for the Electronics Industry. Completely NEW, with Speedry type "DO" heavy opaque ink, answers industry's need for a marking device that marks clearly and easily on porous or non-porous surfaces that are abrasive, grimy, dirty or oily. Unbreakable squeeze bottle.

Box of 12 all one color, SPECIFY COLOR by adding suffix to Catalog Number as coded on chart below. White, Black, Yellow only.

No.	Standard Package	NET Per Box
3896*	Box of 12	$21.48

Box of 12 Assorted Colors. Contains 4 Black, 4 White 4 Yellow.

No.	Standard Package	NET Per Box
3896A	Box of 12	$21.48

JUMBO 2½ times capacity. Over 7 miles of writing. Lowest cost-per mile of writing, of all other ready-to-write devices. Instant dry, waterproof, all-purpose.

Box of 12 all one color. SPECIFY COLOR by adding suffix to Catalog Number as coded on chart below.

No.	Standard Package	NET Per Box
3895*	Box of 12	$16.20

Box of 12 Assorted Colors. Contains 3 Black, 3 Red, 1 each Yellow, Orange, Purple, Brown, Blue, Green.

No.	Standard Package	NET Per Box
3895A	Box of 12	$16.20

ALL-PURPOSE Write, letter, label, draw, color on any surface or material. Dries instantly, waterproof, permanent. No loose ink. Built-in cap holder in base.

Box of 12, all one color. SPECIFY COLOR by adding suffix to catalog Number as coded below.

No.	Standard Package	NET Per Box
3897*	Box of 12	$5.88

Box of 12 Assorted Colors. Contains 3 black, 3 Red, 1 each Yellow, Orange, Purple, Brown, Blue, Green.

No.	Standard Package	NET Per Box
3897A	Box of 12	$5.88

Display of 24 Assorted Colors. Contains 12 Black, 3 Red, 3 Blue, 2 Green, 1 each Yellow, Orange, Purple, Brown.

No.	Standard Package	NET Each
3897D	Display of 24	$11.76

LINEN LACING CORD

Mildew proofed. Spec. MIL-T-713-A. Type N.

Natural Color

No.	Tube	Ply	Class	Ydg.	NET Ea.
725	4 oz.	4	—	210	$1.65
726	8 oz.	4	—	425	3.00
727	1 lb.	4	—	850	5.40
728	4 oz.	6	3	150	1.65
729	8 oz.	6	3	300	3.00
730	1 lb.	6	3	600	5.40
737	4 oz.	8	2	115	1.65
738	8 oz.	8	2	235	3.00
739	1 lb.	8	2	470	5.40
731	4 oz.	9	—	100	1.65
732	8 oz.	9	—	200	3.00
733	1 lb.	9	—	400	5.40
740	4 oz.	12	1	75	1.65
741	8 oz.	12	1	150	3.00
742	1 lb.	12	1	300	5.40

Black Color

No.	Tube	Ply	Class	Ydg.	NET Ea.
794	1 lb.	4	—	850	$6.00
795	1 lb.	6	3	600	6.00
796	1 lb.	8	2	470	6.00
797	1 lb.	9	—	400	6.00
798	1 lb.	12	1	300	6.00

NYLON LACING CORD

MIL-T-713A, Type S. Composition P, Classes 3, 2 and 1. Supplied in 1-lb. tubes.

Natural Color

No.	Class	Test	Yardage	NET Ea.
734	1	70 lb.	600	$9.00
735	2	48 lb.	800	9.30
736	3	32 lb.	1140	9.60

Black Color

No.	Class	Test	Yardage	NET Ea.
791	1	70 lb.	600	$10.80
792	2	48 lb.	800	11.10
793	3	32 lb.	1140	11.40

NYLON LACING TAPE

Braided — MDG Finish

#18 size meets MIL-T-13 A, Type P, Class 2. 500-yard spools.

Natural Color

No.	Size	Width	Thick	Test	NET Each
766	18	.090	.0125	50 lbs.	$9.50
767	21	.0625	.009	25 lbs.	7.00

Black Color

No.	Size	Width	Thick	Test	NET Each
769	18	.090	.0125	50 lbs.	$10.00
770	21	.0625	.009	25 lbs.	7.50

Commercial Type

Has all application of above but at a much lower cost. Supplied in 1-lb tubes in natural color.

No.	Width	Yardage	NET Ea.
743	1/8"	620	$5.10

DACRON LACING CORD

Conforms to the physical requirements of MIL-T-713A. Greater tensile strength with minimal stretch than nylon. Fungus, acid and abrasion resistance. Supplied in 1 lb. tubes in natural color.

No.	Class	Test	Yardage	NET Ea.
722	1	78 lbs.	750	$9.60
723	2	57 lbs.	1000	9.90
724	3	37 lbs.	1500	10.20

AUTOMATIC WIRE STRIPPERS

For Industrial Production. Electrical and Electronic Servicing, Laboratories. Single Squeeze operation — Easy Grip.

ADJUSTABLE STOP INCLUDED WITH EACH STRIPPER

Easy to put on and take off. Ideal for production work where many wires must be stripped to exactly the same length. Max. length of stripping with stop, 7/8".

Supplied free with every stripper

OPEN-SHUT TYPE

For Stripping Solid Wires

No.	Wire Size	NET Ea.
1320	10 to 22	$5.30
1321	14 to 30	5.30
1322	16 to 22	5.30
1323	10 to 18	5.30
1324	8 to 10	5.30
1325	POSJ-18	5.30
1326	300 ohm	5.30

TRIGGER TYPE

Strips Solid or Stranded Wire

No.	Wire Size	NET Ea.
1330	10 to 22	$6.60
1331	14 to 30	6.60
1332	16 to 22	6.60
1333	10 to 18	6.60
1334	8 to 10	6.60
1335	POSJ-18	6.60
1336	300 ohm	6.60

FULLY AUTOMATIC TYPE

Strips Solid or Stranded Wire

No.	Wire Size	NET Ea.
1340	8 to 22	$6.60
1341	14 to 30	6.60
1342	16 to 22	6.60
1343	10 to 18	6.60
1344	8 to 10	6.60
1345	PSJ-18	6.60
1346	300 ohm	6.60

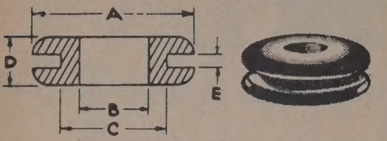
REPLACEMENT BLADES are available for all wire strippers. Add suffix "B" to catalog number of stripper for required replacement blade. 1320 series and 1330 series blades are interchangeable.

All Blades .... **$1.17 Each**

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

RUBBER GROMMETS



Std. Pkg. 100

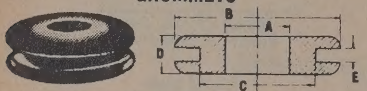
No.	A	B	C	D	E	NET Per C
2185	5/16"	1/8"	3/16"	3/16"	1/16"	$2.31
2172	7/16"	3/16"	5/16"	3/16"	1/16"	1.98
2170	5/8"	1/4"	3/8"	1/4"	1/16"	2 31
2174	5/8"	5/16"	7/16"	1/4"	1/16"	2.16
2175	11/16"	3/8"	1/2"	1/4"	1/16"	2.31
2177	3/4"	7/16"	9/16"	1/4"	1/16"	2.16
2186	1 1/16"	1/2"	3/4"	5/16"	1/16"	4.20
2187	1 1/8"	5/8"	7/8"	5/16"	1/16"	4.20
2188	1 1/16"	9/16"	3/16"	5/16"	1/16"	4.20
2189	1 "	3/4"	7/8"	5/32"	1/32"	5.10

VINYL GROMMETS

DESCR.: Exceptional aging qualities. High dielectric properties. Oil resistant. Durameter hardness 45 to 85.

No.	A	B	C	D	E	NET Per C
2145	11/32	1/8	1/4	3/16	1/16	$.90
2146	7/16	3/16	5/16	7/32	1/16	.96
2147	9/16	1/4	3/8	1/4	1/16	1.32
2148	5/8	3/8	1/2	1/4	1/16	1.50
2149	13/16	1/2	5/8	9/32	1/16	2.28

GROMMETS



Formerly listed by Radio Essentials, Inc., and American Radio Hardware Inc., (Their catalog numbers as below, minus first digit.)

No.	A	B	C	D	E	NET Per C
91100	3/8"	13/16"	1/2"	13/32"	9/64"	$7.50
91101	7/8"	1 9/16"	1 1/4"	5/8"	3/16"	13.20
91102	9/32"	5/8"	13/32"	3/8"	5/32"	3.15
91103	3/16"	9/16"	15/32"	3/8"	1/8"	3.00
91104	1/4"	7/8"	5/8"	15/32"	3/16"	5.40
91106	5/16"	5/8"	1/2"	1/2"	3/16"	6.60
91107	3/8"	5/8"	7/16"	5/16"	3/32"	3.30
91108	1/4"	5/8"	7/16"	17/32"	5/32"	4.20
91109	3/8"	1 1/16"	7/8"	3/8"	1/4"	13.50
91110	13/64	3/8 1/2"	9/32"	7/32"	3/32"	4.20
91111	3/8"	7/8 1"	11/16"	13/32"	9/64"	6.60
91112	49/64	1 5/8"	13/32"	5/16"	1/16"	7.05
91113	21/64"	5/8"	13/32"	1/4"	1/16"	2.85
91114	1/8"	11/32"	1/4"	3/16"	1/16"	2.34
91115	1/4"	9/16"	3/8"	1/2"	7/32"	4.05
91116	5/16"	3/4"	1/2"	3/8"	1/8"	4 35
91117	3/8"	9/16"	15/32"	5/16"	1/8"	3.15
91118	3/16"	7/16"	5/16"	7/32"	1/16"	2.40
91119	17/64"	9/16"	13/32"	1/4"	1/16"	2.55
91120	19/64	5/8"	7/16"	1/4"	1/16"	3.00
91121	3/8"	11/16"	1/2"	1/4"	1/16"	2.85
91122	1/4"	1/2"	11/32"	5/32"	1/32"	2.85
91123	9/32"	11/16"	1/2"	7/16"	1/4"	3.60
91124	7/16"	3/4"	9/16"	1/4"	1/16"	3.45

RECESS RUBBER BUMPERS

Std. Pkg. 100

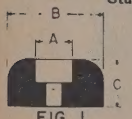


FIG. 1

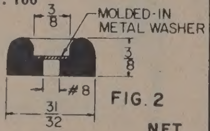


FIG. 2

No.	Fig.	A	B	C	NET Per C
2192	1	7/32"	17/32"	1/4"	$1.50
2193	1	1/4"	5/8"	5/16"	1.95
2194	1	9/32"	3/4"	3/8"	3.00
2184	1	1/4"	5/8"	9/32"	3.00
With molded-in metal washer					
2135	2	3/8"	31/32"	3/8"	4.80

With Screw

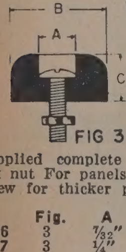


FIG 3

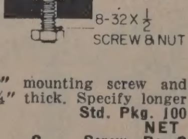


FIG. 4

Supplied complete with 1/2" mounting screw and hex nut For panels up to 1/4" thick. Specify longer screw for thicker panels

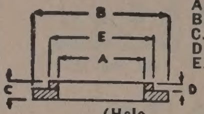
Std. Pkg. 100

No.	Fig.	A	B	C	Screw	NET Per C
2196	3	7/32"	17/32"	1/4"	6-32	$6.60
2197	3	1/4"	5/8"	5/16"	6-32	6.90
2198	3	9/32"	3/4"	3/8"	6-32	7.50
2199	3	1/4"	5/8"	9/32"	6-32	7.50
With molded-in metal washer						
2195	4	3/8"	31/32"	3/8"	8-32	9.30

FIBRE SHOULDER WASHERS

All material based on N.E.M.A. Standard and A.S.P.M. Spec. D-710.

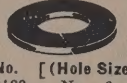
Std. Pkg. 1000



- A. Inside Diameter
- B. Outside Diameter
- C. Thickness Overall
- D. Height of Shoulder
- E. Diameter of Shoulder

No.	A	(Hole Size)	B	C	D	E	NET Per M
2150	.140	No. 6	.375	.093	.031	.237	$6.90
2151	.110	No. 4	.250	.062	.031	.187	5.70
2152	.136	No. 6	.250	.093	.031	.187	6.00
2153	.136	No. 6	.312	.093	.031	.187	6.60
2154	.250	1/4"	.500	.068	.028	.312	7.20
2155	.172	No. 8	.375	.093	.031	.246	6.60
2156	.196	No. 10	.375	.093	.031	.308	6.60
2159	.265	17/64"	.500	.097	.031	.365	7.20
2157	.375	3/8"	.750	.093	.031	.500	8.70
2158	.385	3/8"	.625	.093	.031	.500	8.40

FLAT FIBRE WASHERS



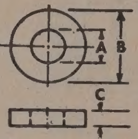
All material based on N.E.M.A. Standard and A.S.P.M. Spec. D-710

Std. Pkg. 1000

No.	[(Hole Size)	I.D.]	O.D.	Thickness	NET Per M
2160	No. 6	.136	.250	1/16	$5.70
2161	No. 4	.110	.250	1/16	5.70
2162	No. 6	.140	.375	1/16	5.10
2163	No. 8	.172	.375	1/16	5.10
2164	No. 10	.196	.375	1/16	5.10
2165	1/4"	.250	.500	1/16	5.40
2166	1/4"	.250	.500	3/32	5.70
2167	5/16"	.312	.500	1/16	5.40
2168	3/8"	.385	.625	1/16	6.60
2169	3/8"	.375	.750	1/16	8.40

NYLON MOUNTING ACCESSORIES

Natural Color

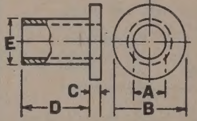


NYLON FLAT WASHERS

No.	I.D. (A)	O.D. (B)	Thick (C)	NET Per M
2514	#4(.115)	.281	.047	$18.00
2515	#6(.140)	.312	.047	18.60
2516	#8(.170)	.375	.062	21.00
2517	#10(.200)	.437	.062	22.20
2518	1/4"(.260)	.562	.062	24.00

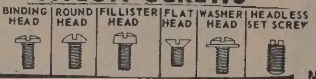
NYLON SPACER BUSHINGS

NATURAL COLOR



No.	I.D. (A)	B	C	D	E	NET Per M
2534	#4(.115)	.235	3/64	1/4	.147	$21.00
2535	#6(.140)	.290	3/64	1/4	.170	21.00
2536	#8(.170)	.344	1/16	3/8	.205	22.00
2537	#10(.200)	.399	1/16	3/8	.260	24.00
2538	1/4"(.260)	.513	1/16	3/8	.312	27.00

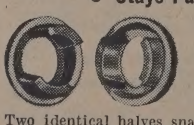
NYLON SCREWS

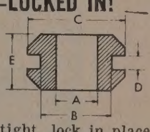


Size	BINDING HEAD No.	ROUND HEAD No.	FILLISTER HEAD No.	FLAT HEAD No.	WASHER HEAD No.	HEADLESS SET SCREW No.	NET Per M
4-40x1/4	2500	2520	2540	2580	2560	2480	$30.00
4-40x3/8	2501	2521	2541	2581	2561	2481	33.00
4-40x1/2	2502	2522	2542	2582	2562	2482	31.20
6-32x1/4	2503	2523	2543	2583	2563	2483	30.60
6-32x3/8	2504	2524	2544	2584	2564	2484	30.60
6-32x1/2	2505	2525	2545	2585	2565	2485	31.20
6-32x5/8	2506	2526	2546	2586	2566	2486	31.20
6-32x3/4	2507	2527	2547	2587	2567	2487	31.80
8-32x1/4	2509	2529	2549	2589	2569	2489	30.60
8-32x3/8	2510	2530	2550	2590	2570	2490	31.20
8-32x1/2	2511	2531	2551	2591	2571	2491	31.20
8-32x5/8	2512	2532	2552	2592	2572	2492	31.80

SNAP-LOCK PLASTIC GROMMETS

- **Snaps in Place—FAST!**
- **Stays Put—LOCKED IN!**





Two identical halves snap tight, lock in place. Provides a rigid bearing surface, greater dielectric, extreme chemical and wear resistance. Identical halves form complete grommet. Color, black.

Std. Pkg. 100

No.	A	B	C	D	E	NET Per C
2178	3/16"	5/16"	7/16"	1/16"	1/4"	$2.76
2179	1/4"	3/8"	1/2"	1/16"	1/4"	2.88
2180	3/8"	1/2"	5/8"	1/16"	1/4"	3.00

NYLON HEX NUTS

Std. Pkg. 100

No.	Size	NET Per C
2554	4-40	$6.00
2555	6-32	6.30
2556	8-32	6.60
2557	10.32	6.90

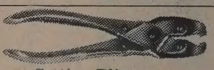
NYLON STRAIN RELIEF BUSHINGS

One piece construction. Eliminates grommets, wire knots and costly labor. Completely insulates wire from chassis and prevents cord pull push and twist. No. 937 ideal for small mike cables; No. 938 for line cords; No. 939 for Co-Ax Wire.

Std. Pkg. 50

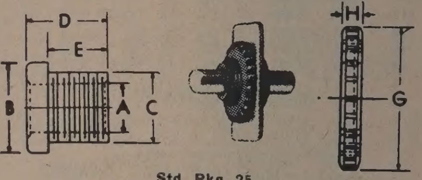
- **A:** Chassis Hole
- **B:** Diameter of head
- **C:** Length
- **D:** Chassis Thickness

No.	Wire Size	A	B	C	D	NET Per C
937	1/8-3/16"	.375	.440	.415	to 1/16"	$3.60
938	SP-1 & SPT-1	.437	.468	.406	to 1/16"	3.60
939	.235-.265	.500	.560	.438	to 3/32"	4.20



No.		NET Each
No. 940	Setting Pliers	$10.20

INSULATED RUBBER GROMMETS

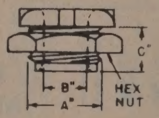


Std. Pkg. 25

Black Phenolic—Matte Finish

	BUSHING			COLLAR				
No.	A	B	C	D	E	G	H	NET Per C
931	1/8"	3/8"	1/4"—32	.3750"	1/4"	1/2"	1/8"	$17.40
932	3/16"	7/16"	5/16"—32	.4250"	5/16"	5/8"	1/8"	17.40
933	1/4"	1/2"	3/8"—27	.4375"	5/16"	11/16"	1/8"	18.00
934	5/16"	9/16"	15/32"—32	.4500"	5/16"	7/8"	1/8"	19.80
935	3/8"	3/4"	5/8"—27	.4500"	5/16"	1"	1/8"	21.60

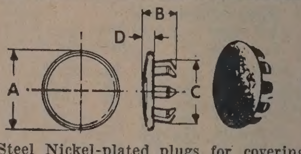
BAKELITE INSULATING BUSHINGS



BODY: MOLDED, bakelite, black. U.L. approved recommended for temperatures up to 300 degrees Fahrenheit.
NUT: Steel, cadmium plated.

Std. Pkg. 50

No.	A	B	C	NET Per C
2136	13/32"	17/64"	1/4"	$8.40
2137	17/32"	5/16"	5/16"	9.00
2138	21/32"	29/64"	5/16"	9.60
2139	27/32"	9/16"	11/32"	10.20



SNAP BUTTON HOLE PLUGS

Steel Nickel-plated plugs for covering punched or drilled holes in metal, plastic or wood.

Std. Pkg. 100

No.	Hole	A	B	C	D	Prongs	NET Per C
650	1/4"	13/32	1/4	17/64	5/64	6	$2.00
651	5/16"	7/16	1/4	21/64	1/16	6	2.00
652	3/8"	17/16	3/8	25/64	5/64	6	2.00
653	1/2"	21/32	17/64	17/32	5/64	8	2.80
654	5/8"	51/64	9/32	41/64	5/64	8	2.80
655	3/4"	15/16	19/64	49/64	3/32	12	2.80
608	7/8"	1 11/16	19/64	57/64	1/16	12	3.30
612	1"	1 5/32	19/64	1 1/64	5/64	12	4.50
*656	1"	1 5/32	19/64	1 1/32	5/64	12	13.80

* Vent

Send for New Complete

Catalog of SMITH

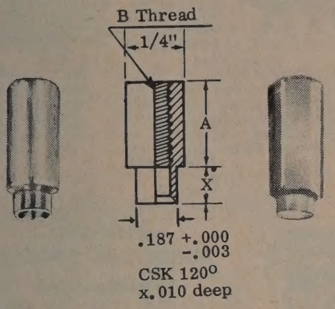
Components & Accessories

© U.C.P., Inc.

THREADED SWAGE STANDOFFS

Brass Nickel Plated

Std. Pkg. 100



ROUND					HEX	
No.	Per C NET Per C	A	B	X	No.	Per C NET Per C
4100	$4.50	¼	4/40	.105	4200	$5.10
4101	4.50	¼	4/40	.135	4201	5.10
4102	4.50	¼	4/40	.165	4202	5.10
4103	5.10	⅜	4/40	.105	4203	5.70
4104	5.10	⅜	4/40	.135	4204	5.70
4105	5.10	⅜	4/40	.165	4205	5.70
4106	5.70	½	4/40	.105	4206	6.45
4107	5.70	½	4/40	.135	4207	6.45
4108	5.70	½	4/40	.165	4208	6.45
4109	6.90	⅝	4/40	.105	4209	7.35
4110	6.90	⅝	4/40	.135	4210	7.35
4111	6.90	⅝	4/40	.165	4211	7.35
4112	8.10	¾	4/40	.105	4212	8.40
4113	8.10	¾	4/40	.135	4213	8.40
4114	8.10	¾	4/40	.165	4214	8.40
4115	10.50	1	4/40	.105	4215	11.10
4116	10.50	1	4/40	.135	4216	11.10
4117	10.50	1	4/40	.165	4217	11.10
4118	4.50	¼	6/32	.105	4218	5.10
4119	4.50	¼	6/32	.135	4219	5.10
4120	4.50	¼	6/32	.165	4220	5.10
4121	5.10	⅜	6/32	.105	4221	5.70
4122	5.10	⅜	6/32	.135	4222	5.70
4123	5.10	⅜	6/32	.165	4223	5.70
4124	5.70	½	6/32	.105	4224	6.45
4125	5.70	½	6/32	.135	4225	6.45
4126	5.70	½	6/32	.165	4226	6.45
4127	6.90	⅝	6/32	.105	4227	7.35
4128	6.90	⅝	6/32	.135	4228	7.35
4129	6.90	⅝	6/32	.165	4229	7.35
4130	8.10	¾	6/32	.105	4230	8.40
4131	8.10	¾	6/32	.135	4231	8.40
4132	8.10	¾	6/32	.165	4232	8.40
4133	10.50	1	6/32	.105	4233	11.10
4134	10.50	1	6/32	.135	4234	11.10
4135	10.50	1	6/32	.165	4235	11.10
4136	4.50	¼	8/32	.105	4236	5.10
4137	4.50	¼	8/32	.135	4237	5.10
4138	4.50	¼	8/32	.165	4238	5.10
4139	5.10	⅜	8/32	.105	4239	5.70
4140	5.10	⅜	8/32	.135	4240	5.70
4141	5.10	⅜	8/32	.165	4241	5.70
4142	5.70	½	8/32	.105	4242	6.45
4143	5.70	½	8/32	.135	4243	6.45
4144	5.70	½	8/32	.165	4244	6.45
4145	6.90	⅝	8/32	.105	4245	7.35
4146	6.90	⅝	8/32	.135	4246	7.35
4147	6.90	⅝	8/32	.165	4247	7.35
4148	8.10	¾	8/32	.105	4248	8.40
4149	8.10	¾	8/32	.135	4249	8.40
4150	8.10	¾	8/32	.165	4250	8.40
4151	10.50	1	8/32	.105	4251	11.10
4152	10.50	1	8/32	.135	4252	11.10
4153	10.50	1	8/32	.165	4253	11.10

FIBRE SPACERS

These fibre bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc.

Std. Pkg. 100

¼" O.D.

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
¼"	2335	2130	2140	$3.90
⅜"	2336	2131	2141	4.95
½"	2337	2132	2142	6.00
¾"	2338	2133	2143	7.20
1"	2339	2134	2144	8.25

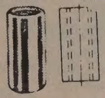
SPACERS

Brass Cadmium Plated

These brass bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc. Hole in bushing to accommodate a #4, #6, or #8 screw. Std. Pkg. 100

¼" O.D.

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
¼"	2340	2100	2105	$3.30
⅜"	2341	2101	2106	4.35
½"	2342	2102	2107	5.28
¾"	2343	2103	2108	6.30
1"	2344	2104	2109	7.20
⅜" O.D.				
¼"	2345	2110	2115	$5.28
⅜"	2346	2111	2116	6.30
½"	2347	2112	2117	7.20
¾"	2348	2113	2118	8.25
1"	2349	2114	2119	9.30



THREADED SPACERS

Brass Cadmium Plated

¼" O.D. Threaded
4-40, 6-32 and 8-32.

Length	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	NET Per C
¼"	2370	2120	2125	$3.90
⅜"	2371	2121	2126	4.95
½"	2372	2122	2127	6.00
¾"	2373	2123	2128	7.20
1"	2374	2124	2129	8.25

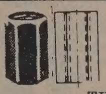
HEX SPACERS

Brass Cadmium Plated

Std. Pkg. 100

¼" HEX

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
¼"	2380	2300	2305	$3.60
⅜"	2381	2301	2306	4.65
½"	2382	2302	2307	5.58
¾"	2383	2303	2308	6.75
1"	2384	2304	2309	7.80
⅜" HEX				
¼"	2385	2310	2315	6.18
⅜"	2386	2311	2316	7.20
½"	2387	2312	2317	8.25
¾"	2388	2313	2318	9.90
1"	2389	2314	2319	10.50

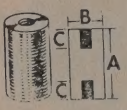


THREADED HEX SPACERS

Brass Cadmium Plated

¼" HEX

Length	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	NET Per C
¼"	2330	2320	2325	$4.20
⅜"	2331	2321	2326	5.25
½"	2332	2322	2327	6.30
¾"	2333	2323	2328	7.65
1"	2334	2324	2329	8.85

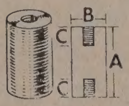


CERAMIC STANDOFFS

MADE TO JAN. SPECS.

Grade L-5 Ceramic made to JAN 1-8 and JAN 1-10 Specs. Outside of ceramic is glazed. Std. Pkg. 50

No.	Type	A	B	C	Thd.	NET Per C
2600	NS5W0104	½"	⅜"	5/32"	6-32	$13.20
2601	NS5W0105	⅝"	⅜"	¼"	6-32	15.00
2602	NS5W0106	¾"	⅜"	¼"	6-32	18.00
2603	NS5W0108	1"	⅜"	⅜"	6-32	21.00
2604	NS5W0110	1¼"	⅜"	⅜"	6-32	24.00
2605	NS5W0112	1½"	⅜"	⅜"	6-32	25.20
2606	NS5W0116	2"	⅜"	⅜"	6-32	28.20
2607	NS5W0205	⅝"	½"	3/16"	8-32	15.00
2608	NS5W0206	¾"	½"	¼"	8-32	18.00
2609	NS5W2008	1"	½"	⅜"	8-32	21.00
2610	NS5W0210	1¼"	½"	⅜"	8-32	24.00
2611	NS5W0212	1½"	½"	⅜"	8-32	25.20
2612	NS5W0216	2"	½"	⅜"	8-32	28.20
2613	NS5W0220	2½"	½"	⅜"	8-32	30.00
2614	NS5W0224	3"	½"	⅜"	8-32	33.00
2615	NS5W0308	1"	¾"	⅜"	10-32	18.00
2616	NS5W0310	1¼"	¾"	⅜"	10-32	21.00
2617	NS5W0312	1½"	¾"	⅜"	10-32	24.00
2618	NS5W0316	2"	¾"	⅜"	10-32	28.20
2619	NS5W0320	2½"	¾"	⅜"	10-32	33.00
2620	NS5W0324	3"	¾"	⅜"	10-32	39.00
2621	NS5W0332	4"	¾"	⅜"	10-32	43.20
2622	NS5W0410	1¼"	1"	7/16"	¼-20	33.00
2623	NS5W0412	1½"	1"	½"	¼-20	39.00
2624	NS5W0416	2"	1"	⅝"	¼-20	43.20
2625	NS5W0420	2½"	1"	⅝"	¼-20	48.00
2626	NS5W0424	3"	1"	⅝"	¼-20	54.00
2627	NS5W0432	4"	1"	⅝"	¼-20	66.00
2628	NS5W0440	5"	1"	⅝"	¼-20	78.00
2629	NS5W0448	6"	1"	⅝"	¼-20	90.00



CERAMIC STANDOFFS

COMMERCIAL

Grade L5 Ceramic with outside glazed. Std. Pkg. 50

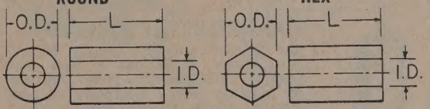
No.	A	B	C	Thd.	NET Per C
2640	¼"	¼"	Thru	6-32	$10.20
2641	½"	¼"	5/32"	6-32	15.00
2642	⅜"	⅜"	5/32"	6-32	10.20
2643	½"	⅜"	3/16"	6-32	10.80
2644	½"	½"	9/64"	6-32	12.00
2645	¾"	½"	¼"	6-32	12.00
2646	1"	½"	⅜"	6-32	12.00
2647	1½"	½"	9/16"	6-32	13.80
2648	2½"	½"	½"	6-32	13.80
2649	2½"	¾"	¾"	¼-20	13.80
2650	4"	¾"	¾"	¼-20	30.00

ALUMINUM SPACERS

Irridite 14-2 per MIL-C-5541

CLEAR

ROUND HEX



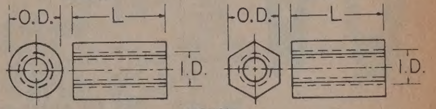
ROUND

OUTSIDE DIAMETER (O.D.)

.250	.250	.250	.312		
INSIDE DIAMETER					
#4 (.124)	#6 (.156)	#8 (.180)	#10 (.218)	LENGTH "L"	NET Per C
8320	8340	8360	8380	.125	$ 7.20
8321	8341	8361	8381	.250	7.80
8322	8342	8362	8382	.375	9.00
8323	8343	8363	8383	.500	10.20
8324	8344	8364	8384	.625	11.40
8325	8345	8365	8385	.750	12.60
8326	8346	8366	8386	.875	13.80
8327	8347	8367	8387	1.000	14.40
8328	8348	8368	8388	1.250	20.40
8329	8349	8369	8389	1.500	22.80
8330	8350	8370	8390	1.750	24.00
8331	8351	8371	8391	2.00	26.40
—	8352	—	—	2.50	28.80
—	8453	—	—	3.00	31.80
—	8354	—	—	3.00	34.80
—	8355	—	—	4.00	37.80
HEX					
8400	8420	8440	8460	.125	$ 7.20
8401	8421	8441	8461	.250	7.80
8402	8422	8442	8462	.375	9.00
8403	8423	8443	8463	.500	10.20
8404	8424	8444	8464	.625	11.40
8405	8425	8445	8465	.750	12.60
8406	8426	8446	8466	.875	13.80
8407	8427	8447	8467	1.000	14.40
8408	8428	8448	8468	1.250	20.40
8409	8429	8449	8469	1.500	22.80
8410	8430	8450	8470	1.750	24.00
8411	8431	8451	8471	2.00	26.40
—	8432	—	—	2.50	28.80
—	8433	—	—	3.00	31.80
—	8434	—	—	3.50	34.80
—	8435	—	—	4.00	37.80

TAPPED

ROUND HEX



ROUND

OUTSIDE DIAMETER (O.D.)

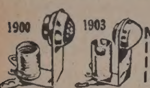
.250	.250	.250	.312		
I.D. (THREAD)					
4-40	6-32	8-32	10-32	LENGTH "L"	NET Per C
8480	8500	8520	8540	.125	$ 5.40
8481	8501	8521	8541	.250	6.00
8482	8502	8522	8542	.375	7.20
8483	8503	8523	8543	.500	8.40
8484	8504	8524	8544	.625	9.60
8485	8505	8525	8545	.750	10.80
8486	8506	8526	8546	.875	12.00
8487	8507	8527	8547	1.000	12.60
8488	8508	8528	8548	1.250	18.60
8489	8509	8529	8549	1.500	21.00
8490	8510	8530	8550	1.750	21.60
8491	8511	8531	8551	2.000	22.20
—	—	8532	8552	2.50	24.60
—	—	8533	8553	3.00	27.00
—	—	—	8554	3.50	30.00
—	—	—	8555	4.00	33.00
—	—	—	8556	5.00	36.00
—	—	—	8557	6.00	39.00
HEX					
8560	8580	8600	8620	.125	$ 5.40
8561	8581	9601	9621	.250	6.00
8562	8582	9602	8622	.375	7.20
8563	8583	9603	8623	.500	8.40
8564	8584	8604	8624	.625	9.60
8565	8585	8605	8625	.750	10.80
8566	8586	8606	8626	.875	12.00
8567	8587	8607	8627	1.000	12.60
8568	8588	8608	8628	1.250	18.60
8569	8589	8609	8629	1.500	21.00
8570	8590	8610	8630	1.750	21.60
8571	8591	8611	8631	2.00	22.20

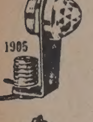
HERMAN H. SMITH, INC.

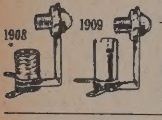
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

PANEL INDICATORS

Indicators supplied with facetted jewels in Red, Green, Amber, Blue, Opal and White.
SPECIFY COLOR. **Std. Pkg. 10**







½" JEWEL—
Mounts in 7/16" Hole

No.	Type	NET Per C
1900	Miniature Screw	$27.00
1901	Candelabra	33.00
1902	Candelabra. w/Univ. Bkt.	34.80
1903	Bayonet	27.00
1904	Bayonet w/Univ. Bkt	30.00
1912	½" Jewel Only	21.00

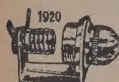
¾" JEWEL—
Mounts in 11/16" Hole

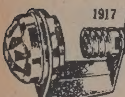
No.	Type	NET Per C
1905	Miniature Screw	$57.00
1906	Bayonet	60.00
1907	Candelabra	60.00
1914	¾" Jewel Only	42.00

⅜" JEWEL—
Mounts in 5/16" Hole

No.	Type	NET Per C
1908	Miniature Screw	$27.00
1909	Bayonet	28.80
1941	⅜" Jewel Only	21.00

OPEN TYPE





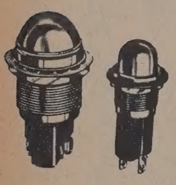
Jewel Removable
From Front
½" JEWEL—Mounts in 11/16" Hole
Std. Pkg. 10

No.	Type	NET Per C
1920	Miniature Screw Open Type	$39.00
1921	Bayonet, Open Type	39.00
1942	Bayonet, "U" Bkt.	54.00
1943	½" Jewel Only	25.20

1" JEWEL—Mounts in 1" Hole

No.	Type	NET Per C
1917	Miniature Screw	$96.00
1918	Bayonet	96.00
1919	Candelabra	102.00
1916	1" Jewel Only	75.00

NEON INDICATORS



UL Approved. Supplies 180 degree light spread. Available in Red, Amber, White, Yellow and Clear caps. Neon removable from front.
Candelabra screw base; 105-125 volts 1" mtg. clearance hole. **Std. Pkg. 10**

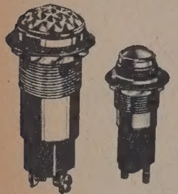
No.	Type	NET Per C
1953		$171.00
1954	Lens Cap Only	70.20

Built-in 56K ohm, ⅓ watt resistor
11/16" mtg. celarance hole.

No.	Type	NET Per C
1955		$135.00
1956	Lens Cap Only	22.20

INDICATOR ASSEMBLIES

Enclosed Type

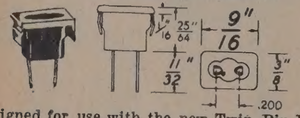


UL Approved. Available in Red, Green, Amber, Blue, Yellow, Clear and White. **Std. Pkg. 10**

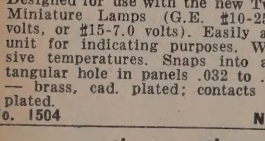
Candelabra screw base; 1" mtg. clearance hole; 1" indicator. Uses No. 1916 Jewel. **NET Per C**
No. 1957 **$172.20**

Bayonet base; 11/16" mtg. clearance hole; ½" indicator. Uses No. 1943 jewel.
No. 1958 **NET Per C $128.40**

SNAP-IN BULB CONNECTOR



Designed for use with the new Twin Pin Baseless Miniature Lamps (G.E. #10-25 volts, #12-6.3 volts, or #15-7.0 volts). Easily assembled to any unit for indicating purposes. Withstands excessive temperatures. Snaps into a .500x.296 rectangular hole in panels .032 to .062 thick. Bezel — brass, cad. plated; contacts — brass, silver plated. **Std. Pkg. 25**
No. 1504 **NET Per C $10.20**



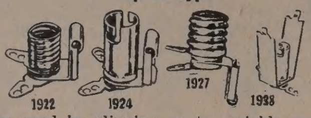
PILOT LIGHT SHIELD

DESCR.: Prevents glare when used in radio receiver meters, etc. Ribbed bottom holds shield securely in place on bulb. **Std. Pkg. 100**

No.	Type	NET Per C
1963	Brass Cad. Plate	$3.60
1968	Plain Brass	3.30
1969	Flared Brass Cad. Plate	4.20

PILOT LIGHT SOCKETS

Clip-On Type

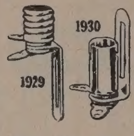


Can be used by clipping on to variable condenser or chassis. All brackets are cadmium plated. **Std. Pkg. 50**

No.	Type	NET Per C
1922	Miniature Screw Up Clip	$9.30
1923	Miniature Screw Down Clip	9.30
1924	Miniature Bayonet Up Clip	9.30
1925	Miniature Bayonet Down Clip	9.30
1926	Candelabra Up Clip	10.20
1927	Candelabra Down Clip	10.20
1938	Clip-in Socket	9.30

PILOT LIGHT SOCKETS

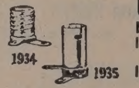
Bracket Type



Std. Pkg. 50

No.	Type	NET Per C
1928	Miniature Screw Up Bracket	$9.30
1929	Miniature Screw Down Bracket	9.30
1930	Miniature Bayonet Up Bracket	9.30
1931	Miniature Bayonet Down Bracket	9.30
1932	Candelabra Up Bracket	10.20
1933	Candelabra Down Bracket	10.20

UNMOUNTED TYPE SOCKETS



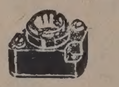
Std. Pkg. 50

No.	Type	NET Per C
1934	Miniature Screw Base	$9.30
1935	Miniature Bayonet Base	9.30
1936	Candelabra Base	10.20

NAVY TYPE LAMP SOCKETS

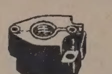
75W-125V

Bayonet Base



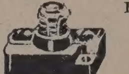
Vibration-proof socket for surface mounting. Made to rigid specifications of black phenolic. Has bayonet sleeve of brass and double contacts of heavy spring phosphor bronze. **Std. Pkg. 10**
No. 1950 **NET Per C $84.00**

SCREW BASE



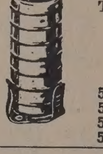
Made of black phenolic to strict requirements. Instead of usual screw shell has phosphor bronze wire coiled spring for perfect contact and elimination of vibration. Designed for soldering wire leads. **Std. Pkg. 10**
No. 1951 **NET Per C $84.00**

SCREW BASE



Easily wired and mounted. A very practical unit made of black phenolic to rigid specifications. Has phosphor bronze spring contact to assure positive contact and elimination of vibration. **Std. Pkg. 10**
No. 1952 **NET Per C $84.00**

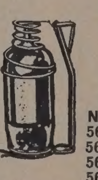
MINI-SHIELDS FOR MINI-TUBES



These Mini-Shields fit snugly on all Mini-Tubes. Serrations in base clip prevent shielded tube from jiggling or working loose. Available in two sizes for 1½ & 2" long tubes.

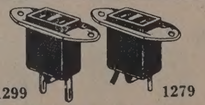
Std. Pkg. 50			NET Per C
550	for 2" tube	1¾"	$7.80
551	for 1½" tube	1¼"	6.60
553	3 prong base clip		3.30
554	single clips		1.98

MINI-SPRING FOR MINI-TUBES



Maintains a direct axial pressure downwards plus a sideways support that keeps the tube upright and perpendicular to the chassis. The spring action is constant and resilient permanently. **Std. Pkg. 50**

No.	Type	NET Per C
560	Short	$10.20
561	Medium	10.20
562	Long	10.20
563	9 Prong	10.80

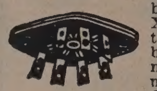


SPACE SAVER APPLIANCE RECEPTACLES

Mounting holes 1⅛" centers from #6 screw. Mounts from either top or bottom of mounting bracket. Has barrier to prevent shorts. Fully approved by UL for 15A-125V, AC and DC. **Std. Pkg. 50**

No.		NET Per C
1299	With soldering terminals	$12.00
1279	With 8" wire leads	22.80

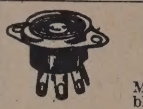
MINIATURE WAFER SOCKETS



Miniature bakelite sockets with brass cadmium plated contacts. XP bakelite top plate 1/16" thick, bottom plate 3/64" thick; high grade spring brass cadmium plated contact; .095 dia. mounting holes. Std. Pkg. 50

No.	Description	MTG. Cen.	NET Per C
	SEVEN PIN		
880	Eyelet only	⅞"	$6.60
881	Eyelet and Shield	⅞"	6.90
882	Grd Strap and Shield	⅞"	7.20
887	Eyelet only	1"	6.60
888	Eyelet and Shield	1"	6.90
889	Grd Strap and Shield	1"	7.20
	NINE PIN		
890	Eyelet only	1⅛"	$ 8.60
891	Eyelet and Shield	1⅛"	8.90
892	Grd Strap and Shield	1⅛"	9.30

MOLDED MINIATURE SOCKETS

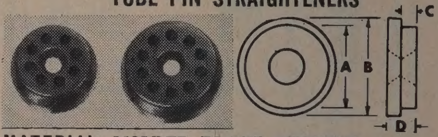


Saddle Type

Molded from either high dielectric black general purpose bakelite or low loss mica-filled bakelite. Both types supplied with center pin. .098 dia. mtg. holes. Std. Pkg. 50

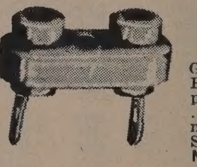
No.	Type	Pin	Mtg. Ctrs.	Mtg. Hole	NET Per C
	GENERAL PURPOSE BLACK BAKELITE				
895	Bottom Mount	7	⅞"	⅝"	$9.00
896	Top Mount	7	⅞"	⅝"	9.00
897	Bottom Mount	9	1⅛"	¾"	10.80
898	Top Mount	9	1⅛"	¾"	10.80
	LOW LOSS MICA-FILLED BAKELITE				
883	Bottom Mount	7	⅞"	⅝"	11.40
884	Top Mount	7	⅞"	⅝"	11.40
885	Bottom Mount	9	⅛"	¾"	13.20
886	Top Mount	9	⅛"	¾"	13.20

TUBE PIN STRAIGHTENERS



MATERIAL: MOLDED BLACK STYRENE.
DESCR.: Can be mounted from top with #4 wood screw or screw and nut, or from rear thru hole in plate with supporting bracket. **Std. Pkg. 50**

No.	Type	A	B	C	D	NET Per C
893	7-Pin	39/64"	11/16"	⅛"	¼"	$5.40
894	9-Pin	47/64"	51/64"	⅛"	¼"	5.40
899	Set					10.20

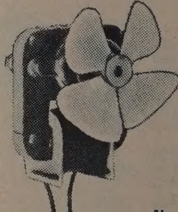


CRYSTAL SOCKET

Suitable for Citizen's Band

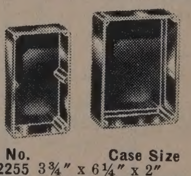
Glazed ceramic base. Phosphor bronze silver plated contacts spaced .486". Pin diameter .051. mtg. hole .125
Std. Pkg. 25 **NET Per C**
No. 1945 **$15.00**

COOLING FAN



An exceptionally efficient fan for cooling tubes, rectifiers, etc. for Industrial equipment, Amateur Transmitters, and other devices requiring assisted convection flow of air. Permits more efficient RF shielding of equipment without depending on convection cooling. Shaded pole induction motor with Nylon Fan Blade runs 3000 RPM on 105-125 Volts, 60 cycle AC. Blade diameter 2½", over-all size 3½" x 2½" x 3". Mounts either horizontally or vertically. Supplied complete with two 6-32 x 1½" screws and nuts, and two 1" fibre standoffs.

No. 2427
NET Each **$4.40**



METER CASES

Molded Black, with four corner brass inserts for corner mounting.

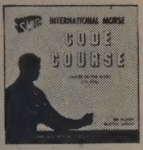
Std. Pkg. 5

No.	Case Size	Insert	NET Each
2255	3¾" x 6¼" x 2"	6-32	$1.03
2257	5-9/32" x 6-13/16" x 2-5/16"	4-36	1.28
2289	7" x 8" x 2¾"	6-32	2.40
2256	Cover for 2255		.59
2260	Cover for 2257		1.02
2390	Cover for 2289		1.50

© U.C.P., Inc.

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"



SINGLE RECORD 33-1/3 R.P.M.

TEN LESSONS
UP TO 15 WORDS
PER MINUTE
Complete on Two Sides

This twelve inch long play record contains all ten of the Code Course Lessons listed above, five on each side. 20-Page SMITH Instruction Book is included, and the record is housed in attractive, sturdy jacket with International Morse Code table on reverse side.

No. 2420 **NET Each $4.80**

SMITH
INTERNATIONAL MORSE
ADVANCED
CODE COURSE

ADVANCED CODE COURSE

Single Record— 33⅓ R.P.M.

TWELVE LESSONS
16 to 25 Words
Per Minute

Specially prepared to increase skills in copying code at high speeds. 12 step-by-step lessons are provided plus specific directions with each. 20 page Advanced Code Instruction Book included. Record comes in sturdy jacket with International Morse Code table on reverse side.

No. 2435 Advanced Code Course complete with 20 page instruction Book .... **NET $4.80**

BEGINNERS AND ADVANCED CODE COURSES IN COMBINATION PACKAGE

Advanced Code Course #2435 PLUS Beginners' Code Course #2420 (see above) both complete with 20-page instruction books, attractively packaged in combination carton.

No. 2436 **NET $9.00**

SMITH
CODE PRACTICE

CODE PRACTICE OSCILLATOR & MONITOR

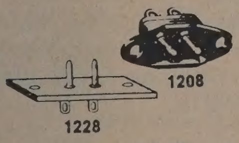
Ideal for the beginner as well as the experienced operator, this versatile instrument can be used as a code practice oscillator, as a keying monitor to check ICW signals, or as a monitor for phone signals.

Two tubes are used, in an up to date circuit that provides continuously variable tone and volume. Self-contained PM speaker affords ample volume for group use, with phone jack available for individual headphone listening.

The handsome Hammertone finish cabinet has additional provision for wall mounting, an exclusive SMITH feature that eliminates need for valuable desk space. The unit is designed for use on 110 Volts AC or DC, and is supplied complete with two tubes.

No.	Description	NET Each
2425	Kit	$13.50
2426	Wired	18.00

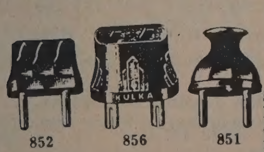
* These Items Subject to Special Jobber Discount



INTERLOCK PLUGS

Std. Pkg. 100

No.	Type	NET Per C
1208	Recessed	$7.80
1228	Flush	5.40



AMERICAN-FOREIGN PLUG ADAPTERS

Streamlined bakelite plug adapters. Adapts from American to Foreign type.

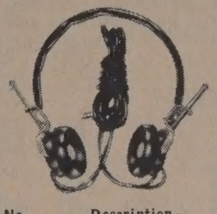
No.	Female End	Male End	NET Per C
852	American	Continental	$24.00
856	American	British	24.00
851	Continental Plug		18.00

TELEGRAPH KEY

A well-built, smooth operating key, low priced, ideal for the beginner. Molded bakelite base and knob. Simple adjustments. All metal parts plated, ⅛″ silver contacts. Base size 3¼ x 1 13/16″

No. 2442 **NET Each $.99**

HIGH SENSITIVITY HEADPHONES



The latest in deluxe design, with many features of more expensive types. Featherweight construction assures fatigue-free use. Alnico V magnets, dual coil construction provide excellent tonal fidelity. Adjustable vinyl covered headband, molded plastic cases. Cord equipped with phone tips.

No.	Description	Ohms	NET Each
2441	Single	1000	$1.65
2440	Double	2000	1.35
2446	Single	2—4	3.30
2447	Double	4—8	1.20
2448	Single	2000	1.80
2449	Double	4000	3.00

FOR STEREO USE

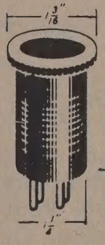
Same as above, except each Phone has leads brought out separately.

No.	Description	Ohms	NET Each
2477	Double	2000	3.00
2478	Double	4—8	3.00
2479	Double	4000	3.30

RUBBER EAR CUSHIONS

Finest quality soft rubber ear cushions, fit all standard earphones. For comfortable listening over long periods of time.

No. 2410 **Per Pair $.81**

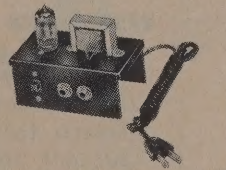


PLUG-IN COILS

For Short Wave and Broadcast

Molded bakelite, black. Precision wound low loss forms. Four prongs. Equipped with special rim making it easy to insert and pull out. Grooved for color coding.

No.	Description	NET Each
2408	No Winding	$ .50
2413	Set of 4— 9½ to 217 Meters	3.00
2414	Set of 2— 190 to 500 Meters	2.40
2412	No Winding - Ribbed, 6-Prong	.60



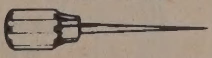
JUNIOR CODE OSCILLATOR

For Headset Only

A neat, compact little unit that provides a clean audio tone, ideal for code practice. It is equipped with two standard telephone jacks, to take phone plugs of both key and headset. A single 12AX7 tube is used in an improved circuit, designed for operation on 110 volts AC or DC. Available in wired or kit form, either type supplied with tube.

No.	Description	NET Each
2430	Kit	$6.60
2431	Wired	8.70

SCRATCH AWL



Scratch awl with unbreakable amber handle. Overall length 5″. A "must" in a serviceman's tool kit.

No. 814 **NET Per C $36.00**

ALL SMITH Products listed here can be found on the shelves of leading Electronic Parts Distributors throughout America.

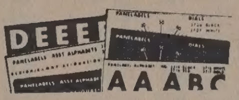
COMPLETE MULTI-VIBRATOR COURSE

"AutoTutor" Modern Teaching Technique, using new "re-inforced learning" principles. Designed as a refresher course for the practicing technician or engineer; as a detailed exploration of Multi-vibrators, for student electronic technician. Complete course consists of 4 hi-fi unbreakable 33⅓ RPM recordings, a 56-page instruction book, illustrations and checksheets, in attractive album package.

No. 2450 .... **NET $12.60**

"PANELABELS"

Modern Panel Title Decals



New size type face on all word titles to match modern instrument panels and sound equipment.

Packaged individually in clear plastic boxes — instant selection — box itself can be used as water tray for applying the decals.

Standard Packages of 6.

Please order by catalog number.

NET, EACH PACKAGE **$1.50**

TRANSMITTER

For industrial prototype use, Hams, Citizens' Banders. Also for Microwave and Broadcast stations.

No. 3700	BLACK
No. 3701	WHITE

RECEIVER

Hams, Citizens' Banders, industrial prototypes, Hi-Fi and Experimenter applications.

No. 3702	BLACK
No. 3703	WHITE
No. 3704	RED
No. 3705	GOLD

DIALS

For all uses in transmitters, Ham and Citizens' Band industrial prototypes, Hi-Fi, electricians, experimenters.

No. 3706	BLACK
No. 3707	WHITE
No. 3708	RED
No. 3709	GOLD

ALPHABETS

Most popular item in the line! For all general uses above.

3710	2-inch	BLACK
3711	2-inch	WHITE
3712	2-inch	RED
3713	2-inch	GOLD
3714	⅝-inch	BLACK
3715	⅝-inch	WHITE
3716	⅝-inch	RED
3717	⅝-inch	GOLD
3718	Assorted	BLACK
3719	Assorted	WHITE
3720	Assorted	RED
3721	Assorted	GOLD

INSTRUMENTS

Primarily for Technicians, Hams and industrial use.

No. 3722	BLACK
No 3723	WHITE

HI-FI AND STEREO

For experimenters, commercial sound distributors, industrial prototypes.

No. 3724	BLACK
No. 3725	WHITE
No. 3726	RED
No. 3727	GOLD

SOUND SYSTEMS

For industrial use by commercial sound distributors, custom installers, electricians and experimenters.

No. 3728	BLACK
No. 3729	WHITE
No. 3730	RED
No. 3731	GOLD

TRANSISTORS AND DIODES

Used by Hams, experimenters, technicians, and industrial prototype use. Includes complete list of transistor and diode numbers plus symbols of PNP, NPN, 4 and 5 element transistors, diode symbols.

No. 3732	BLACK
No. 3733	WHITE

ELECTRICAL DISTRIBUTION

Used primarily by electricians and custom installers on the job and in distribution panel design.

No. 3734	BLACK
No. 3735	WHITE

BOOKLET OF COMPLETE TITLE LISTS OF ALL PANELABELS AVAILABLE ON REQUEST

© U.C.P., Inc.

HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

TEFLON* SPAGHETTI TUBING

Teflon tubing is ideal for slip-on insulation in electricial and electronics applications. Its exceptional insulating properties provide greater reliability and resistance to high temperatures. Due to its resistance to soldering temperatures, shrink-back during soldering is virtually eliminated.

SMITH Teflon tubing is available in most AWG sizes from #30 to #0, in three basic wall thicknesses; Standard (.011 to .020"), Thin Wall (.009 to .015"), and Lightweight (.006 to .012"). Specific wall thickness for various AWG sizes is detailed in the table. All sizes are available in Natural Teflon, and any of 10 colors as indicated in the Color Code chart.

SMITH Teflon Spaghetti Tubing meets or exceeds the requirements of MIL-I-22129B, and colors conform to MIL STD-104. Standard and Thin-Wall tubing in sizes AWG #30 to #8, and Lightweight tubing in sizes AWG #28 to #9 are supplied in 100-foot dustproof, re-useable reels, polyethylene covered and closed with a special polyethylene plug. Sizes to AWG #0 are carefully packaged in 50 foot coils to prevent distortion of the tubing.

SPECIFY COLOR

STANDARD
WALL

COLOR CODE CHART

— 101 WHITE
— 102 RED
— 103 BLACK
— 104 GREEN
— 105 BLUE
— 106 ORANGE
— 107 YELLOW
— 108 BROWN
— 112 PURPLE
— 113 GREY
— 115 NATURAL

(If no color is specified, Natural Teflon (—115) will be supplied.)

*Registered Trademark, E.I. DuPont DeNemours & Co.

LIGHTWEIGHT

Awg Wire Size	Nom. I.D.	Cat. No.	Nom. Wall Thk.	Std. Pkg. Ft.	NET Ea.
30	.012	————	——	——	——
28	.015	7703-28	.006	100	$7.63
26	.018	7703-26	.006	100	7.75
24	.022	7703-24	.006	100	8.13
22	.027	7703-22	.006	100	9.38
20	.034	7703-20	.006	100	11.13
19	.038	7703-19	.006	100	12.38
18	.042	7703-18	.006	100	13.38
17	.047	7703-17	.006	100	14.88
16	.053	7703-16	.006	100	16.13
15	.059	7703-15	.006	100	16.75
14	.066	7703-14	.008	100	19.50
13	.076	7703-13	.008	100	22.25
12	.085	7703-12	.008	100	24.38
11	.095	7703-11	.008	100	27.38
10	.106	7703-10	.008	100	29.50
9	.118	7703-09	.008	50	16.63
⅛"	.125	7703-81	.008	50	17.88
8	.133	7703-08	.008	50	18.44
7	.148	7703-07	.008	50	20.00
6	.166	7703-06	.010	50	25.88
5	.186	7703-05	.010	50	28.38
4	.208	7703-04	.010	50	31.38
3	.234	7703-03	.010	50	34.50
¼"	.250	7703-41	.010	50	36.69
2	.263	7703-02	.010	50	37.57
1	.294	7703-01	.010	50	41.19
5⁄16"	.312	7703-51	.012	50	48.69
0	.330	7703-00	.012	50	49.63

THINWALL

Awg Wire Size	Nom. I.D.	Cat. No.	Nom. Wall Thk.	Std. Pkg. Ft.	NET Ea.
30	.012	7702-30	.009	100	$10.53
28	.015	7702-28	.009	100	9.20
26	.018	7702-26	.009	100	8.88
24	.022	7702-24	.010	100	9.63
22	.027	7702-22	.010	100	10.75
20	.034	7702-20	.012	100	13.63
19	.038	7702-19	.012	100	14.68
18	.042	7702-18	.012	100	15.75
17	.047	7702-17	.012	100	17.38
16	.053	7702-16	.012	100	19.00
15	.059	7702-15	.012	100	19.63
14	.066	7702-14	.012	100	21.00
13	.076	7702-13	.012	100	23.75
12	.085	7702-12	.012	100	25.50
11	.095	7702-11	.012	100	28.38
10	.106	7702-10	.012	100	30.50
9	.118	7702-09	.015	100	44.00
⅛"	.125	7702-81	.015	100	45.00
8	.133	7702-08	.015	50	24.32
7	.148	7702-07	.015	50	26.63
6	.166	7702-06	.015	50	29.75
5	.186	7702-05	.015	50	33.50
4	.208	7702.04	.015	50	36.75
3	.234	7702-03	.015	50	40.75
¼"	.250	7702-41	.015	50	43.75
2	.263	7702-02	.015	50	45.50
1	.294	7702-01	.015	50	50.69
5⁄16"	.312	7702-51	.015	50	55.12
0	.330	7702-00	.015	50	56.12

STANDARD WALL

Awg Wire Size	Nom. I.D.	Cat. No.	Nom. Wall Thk.	Std. Pkg. Ft.	NET Ea.
30	.012	————	——	——	——
28	.015	————	——	——	——
26	.018	————	——	——	——
24	.022	7701-24	.012	100	$11.68
22	.027	7701-22	.012	100	12.95
20	.034	7701-20	.016	100	17.75
19	.038	7701-19	.016	100	19.38
18	.042	7701-18	.016	100	20.88
17	.047	7701-17	.016	100	22.93
16	.053	7701-16	.016	100	24.63
15	.059	7701-15	.016	100	25.30
14	.066	7701-14	.016	100	27.25
13	.076	7701-13	.016	100	30.30
12	.085	7701-12	.016	100	32.75
11	.095	7701-11	.016	100	36.38
10	.106	7701-10	.016	100	40.00
9	.118	7701-09	.020	100	57.10
⅛"	.125	7701-81	.020	100	61.00
8	.133	7701-08	.020	50	31.25
7	.148	7701-07	.020	50	33.69
6	.166	7701-06	.020	50	36.44
5	.186	7701-05	.020	50	40.10
4	.208	7701-04	.020	50	43.56
3	.234	7701-03	.020	50	49.88
¼"	.250	7701-41	.020	50	52.88
2	.263	7701-02	.020	50	54.82
1	.294	7701-01	.020	50	60.94
5⁄16"	.312	7701-51	.020	50	67.50
0	.330	7701-00	.020	50	68.57

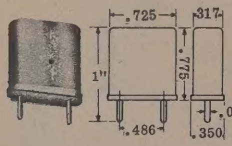
CITIZENS BAND CRYSTALS

Extremely accurate crystals, designed to meet FCC tolerance of ±.005%. Recommended for use with 3rd overtone type oscillator having approximately 32 mmfd. input capacities. (For use with other oscillators a trimming capacitor may be necessary). These crystals match most Class D equipment in use today.

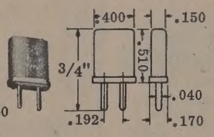
All crystals are stamped with channel number, frequency, and use (transmitting or reseiving).

Std. Pkg. 5

MINIATURE HOLDER TYPE HC-6/U



SUBMINIATURE HOLDER TYPE HC-18/U



TRANSMITTING CRYSTALS

Channel Number	Frequency Megacycles	Holder Type HC-6/U No.	Holder Type HC-18/U No.
1	26.965	3601	3624
2	26.975	3602	3625
3	26.985	3603	3626
4	27.005	3604	3627
5	27.015	3605	3628
6	27.025	3606	3629
7	27.035	3607	3630
8	27.055	3608	3631
9	27.065	3609	3632
10	27.075	3610	3633
11	27.085	3611	3634
12	27.105	3612	3635
13	27.115	3613	3636
14	27.125	3614	3637
15	27.135	3615	3638
16	27.155	3616	3639
17	27.165	3617	3640
18	27.175	3618	3641
19	27.185	3619	3642
20	27.205	3620	3643
21	27.215	3621	3644
22	27.225	3622	3645
23*	27.255	3623	3646

Each............NET $2.75

RECEIVING CRYSTAL

(455 Kc Below Transmitting Frequency)

Channel Number	Frequency Megacycles	Holder Type HC-6/U No.	Holder Type HC-18/U No.
1	26.510	3647	3670
2	26.520	3648	3671
3	26.530	3649	3672
4	26.550	3650	3673
5	26.560	3651	3674
6	26.570	3652	3675
7	26.580	3653	3676
8	26.600	3654	3677
9	26.610	3655	3678
10	26.620	3656	3679
11	26.630	3657	3680
12	26.650	3658	3681
13	26.660	3659	3682
14	26.670	3660	3683
15	26.680	3661	3684
16	26.700	3662	3685
17	26.710	3663	3686
18	26.720	3664	3687
19	26.730	3665	3688
20	26.750	3666	3689
21	26.760	3667	3690
22	26.770	3668	3691
23*	26.800	3669	3692

Each............NET $2.75

*Channel 23 is used on a shared basis with Class C Radio Control devices, which are allowed higher power levels than class D Citizens' Band Radio.

Booklet of complete title lists of all Panelabels available on request.

SMITH Electronic Components

"PROGRESS thru PURPOSE"

SALES:

All SMITH Products illustrated in this catalog can be found on the shelves of leading Electronic Industrial Distributors throughout America. For your PRODUCTION Requirements, we suggest you contact the factory. Our Sales Representative in your area is equipped to help you.

RESEARCH & DEVELOPMENT

Our staff is equipped to design new products and to modify existing components to meet specific requirements. We continue in our never-ending search for new ideas and products allied to our present lines. YOUR SPECIAL REQUIREMENTS ARE STANDARD WITH SMITH!

GOVERNMENT SPECIFICATIONS

Our rigid quality control assures you of the most exacting standards, whether for Military or commercial uses. Close tolerances, Gold or Silver plating, are a routine matter with SMITH.

MANUFACTURING FACILITIES

We invite you to utilize our modern manufacturing facilities and methods for your molding, screw-machine, stamping or sub-assemblies. We are equipped for both the long run and the short run. From raw material to finished part, SMITH detailed workmanship and production efficiency assure a quality product, speedily and economically made.

Because of the excellence of SMITH Products and Service, Engineers, Technicians and Purchasing Agents know that:

"IT'S SOUND PLANNING TO SPECIFY SMITH!"

© U.C.P., Inc.

BRASS MACHINE SCREWS
Round Head Nickel Plated

No.	NET Per M	Size	No.	NET Per C
1044M	$6.31	4-36 x ¼″	1044C	$.80
1045M	7.14	4-36 x ⅜″	1045C	.88
1046M	8.05	4-36 x ½″	1046C	.98
1047M	6.31	4-40 x ¼″	1047C	.80
1048M	6.72	4-40 x ⅜″	1048C	.61
1049M	8.05	4-40 x ½″	1049C	.98
1050M	8.55	6-32 x ¼″	1050C	1.03
1051M	9.05	6-32 x ⅜″	1051C	1.08
1052M	10.29	6-32 x ½:	1052C	1.20
1056M	12.62	8-32 x ¼″	1056C	1.43
1057M	13.28	8-32 x ⅜″	1057C	1.50
1058M	15.11	8-32 x ½″	1058C	1.68

BINDING HEAD SCREWS
Steel Nickel Plated

No.	NET Per M	Size	No.	NET Per C
1425M	$6.25	6-32 x ¼″	1425C	$1.05
1426M	6.75	6-32 x ⅜″	1426C	1.15
1427M	7.25	6-32 x ½″	1427C	1.20
1428M	8.00	8-32 x ¼″	1428C	1.35
1429M	8.65	8-32 x ⅜	1429C	1.50
1430M	9.30	8-32 x ½″	1430C	1.55

RACK SCREWS AND WASHER
Oval Head, Steel, Nickel Plated

No.	NET Per M	Size	No.	NET Per C
1111M	$7.22	10-32 x ½″	1111C	$.90
1112M	8.63	10-32 x ¾″	1112C	1.03

COUNTERSUNK WASHERS
Brass, Nickel Plated

No.	NET Per M	Size	No.	NET Per C
1115M	$3.07	6	1115C	$.48
1116M	3.24	6	1116C	.50
1117M	5.40	10	1117C	1.08

SELF TAPPING SCREWS
CADMIUM PLATED
Round Head—Type A—Sharp Point

No.	NET Per M	Size	No.	NET Per C
1801M	$6.00	4 x ½″	1801C	$.77
1802M	6.67	6 x ¼″	1802C	.83
1803M	7.00	6 x ⅜″	1803C	.87
1804M	8.10	6 x ½″	1804C	.98
1805M	7.50	8 x ⅜″	1805C	.92
1806M	9.45	8 x ½″	1806C	1.12

Round Head—Type Z—Blunt Point

No.	NET Per M	Size	No.	NET Per C
1807M	$7.00	4 x ½″	1807C	$.87
1808M	7.00	6 x ¼″	1808C	.87
1809M	7.00	6 x ⅜″	1809C	.87
1810M	8.10	6 x ½″	1810C	.98
1811M	7.50	8 x ⅜″	1811C	.92
1812M	9.45	8 x ½″	1812C	1.12

Slotted Hex Head—Type B—Blunt Point

No.	NET Per M	Size	No.	NET Per C
1830M	$9.45	6 x ¼″	1830C	$1.12
1831M	9.45	6 x ⅜″	1831C	1.12
1832M	9.45	6 x ½″	1832C	1.12
1833M	7.50	8 x ⅜″	1833C	.92
1834M	9.45	8 x ½″	1834C	1.12

HEXAGON NUTS
Brass, Nickel Plated

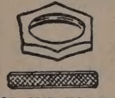
No.	NET Per M	Size	No.	NET Per C
1188M	$9.33	4-36 x ¼″	1188C	$1.10
1168M	9.25	4-40 x ¼″	1168C	1.10
1189M	9.17	6-32 x ¼″	1189C	1.08
1190M	11.08	6-32 x ⁵⁄₁₆″	1190C	1.28
1192M	11.08	8-32 x ⁵⁄₁₆″	1192C	1.28
1193M	12.08	10-32 x ⁵⁄₁₆″	1193C	1.38
1187M	18.00	¼-32	1187C	1.97

Steel, Cadmium Plated

No.	NET Per M	Size	No.	NET Per C
1179M	$5.25	6-32 x ¼″	1179C	$.70
1180M	5.55	6-32 x ⁵⁄₁₆″	1180C	.72
1181M	5.70	8-32 x ⁵⁄₁₆″	1181C	.73

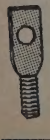
Steel, Nickel Plated

No.	NET Per M	Size	No.	NET Per C
1186M	13.20	¼-32	1186C	$1.50



VOLUME CONTROL AND TOGGLE SWITCH NUTS
Nickel Plated
Std. Pkg. 500

No.	Type	Dimensions	Per M
1195	Vol. Cont. Brass	⅜-32x½x³⁄₃₂	$25.00
1199	Vol. Cont. Steel	⅜-32x½x³⁄₃₂	20.00
1196	Toggle Sw. Hex	15-32x⁹⁄₁₆x⁵⁄₆₄	30.00
1197	Toggle Sw. Ring	15-32x⅝x¹⁄₁₆	50.00



STEEL SPADE BOLTS

Steel, cadmium plated finish, threaded 6-32, thread length ⁵⁄₁₆″, length overall ¾″.
Std. Pkg. 500

No.	NET Per M
1500	$10.20

LOCK WASHERS
Steel, Cadmium Plated — Internal Teeth

No.	NET Per M	Type	No.	NET Per C
1127M	$3.50	No. 4	1127C	$.51
1128M	3.50	No. 6	1128C	.51
1129M	3.83	No. 8	1129C	.55
1130M	3.83	No. 10	1130C	.55
1132M	5.00	¼″	1132C	.67
1131M	8.50	⅜″	1131C	1.02
Narrow Rim Control Shaft Lockwasher Internal Teeth				
1145M	$8.50	⅜″	1145C	$1.02
Narrow Rim Toggle Switch Lockwasher Internal Teeth				
1146M	$8.50	¹⁵⁄₃₂″	1146C	$1.02

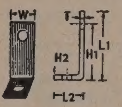
External Teeth

No.	NET Per M	Type	No.	NET Per C
1139M	$3.50	No. 4	1139C	$.51
1140M	3.50	No. 6	1140C	.51
1141M	3.83	No. 8	1141C	.55
1142M	5.00	No 10	1142C	.55
1144M	5.83	¼″	1144C	.67
1143M	850	⅜″	1143C	1.02

FLAT WASHERS — Brass, Nickel Plated

No.	NET Per M	Size	Material	No.	NET Per C
1149M	$6.60	4x⅜x.037″	Brass	1149C	$.83
1150M	4.80	6x⅜x.012″	Phos. Br.	1150C	.65
1151M	4.80	8x⅜x.012″	Phos. Br.	1151C	.65
1152M	6.60	10x⅜x.037″	Brass	1152C	.83

ANGLES
Steel, Cadmium Plated



L1—Lgth. of Leg
L2—Lgth of Leg
T —Thickness
H1—Hole Location
H2—Hole Location
W —Width

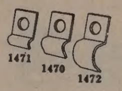
Std. Pkg. 100

STEEL, Cadmium Plated

No.	L1	L2	T	H1	H2	W	A	B	Per C
1444	⁷⁄₁₆″	⁷⁄₁₆″	.032″	¹⁷⁄₆₄″	¼″	⅜″	#8	⁷⁄₆₄″	$ .72
1445	½″	1/2″	.050″	¹¹⁄₃₂″	¼″	½″	#4	⁷⁄₆₄″	.90
1446	⁴⁹⁄₆₄″	²⁷⁄₆₄″	.030″	³⁹⁄₆₄″	¹⁵⁄₆₄″	⁵⁄₁₆″	#6	⁹⁄₆₄″	.90
1447	1⁹⁄₆₄″	½″	.050″	⁶¹⁄₆₄″	²³⁄₆₄″	⁵⁄₁₆″	#4	⁷⁄₆₄″	1.02
1474	⁷⁄₁₆″	⁷⁄₁₆″	.025″	⁵⁄₁₆″	⁵⁄₁₆″	⁵⁄₁₆″	#8	#8	1.80
1475	⅝″	⅝″	.0[illegible]0″	⅜″	⅜″	⅜″	#8	#8	3.60

BRASS, Nickel Plated

No.	L1	L2	T	H1	H2	W	A	B	Per C
1476	¹¹⁄₁₆″	¹¹⁄₁₆″	.032″	½″	½″	½″	#8	#8	1.50
1477	1⅛″	⅝″	.030″	⅞″	⅜″	⅜″	#8	#8	1.50

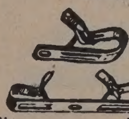


CABLE CLAMPS

Steel Cadmium Plated with No. 8 Mtg. Hole.
Std. Pkg. 100

No.	Length	Width	Cable	NET Per C
1471	⅝″	⅜″	⅛″	$.78
1470	¾″	⅜″	¼″	.84
1472	1″	⅜″	½″	.90

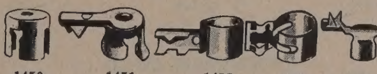
FAHNESTOCK SPRING BATTERY CLIPS



Clips are made of brass, nickel plated and are available in the single and double clip types.
Std. Pkg. 100

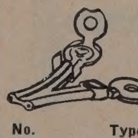
No.	Type	Length	NET Per C
539	Single	⅝″	$1.20
533	Single	¾″	1.44
534	Single	1″	2.10
535	Double	1½″	2.40
536	Double	2¹⁄₁₆″	9.60

GRID CAPS



Std. Pkg. 100

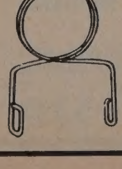
No.	Tube Type	NET Per C
1450	⅜″ Glass Tubes	$1.20
1452	⅜″ Glass Tubes	1.20
1453	⅜″ Glass Tubes	1.20
1454	¼″ Mini Tubes	1.20



TV ANTENNA LUG
Solderless Type

A secure, swift, positive and permanent method of connecting TV wire to antenna. Simply strip wire, coil around groove and fold over. Insure positive contact.
Std. Pkg. 100

No.	Type	Length	Hole	NET Per C
1460	Double Cup	¹³⁄₁₆″	No. 10	$1.98
1461	Double Cup	¹⁵⁄₁₆″	¼″	2.10

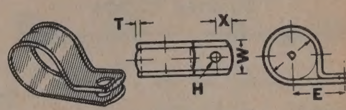


SPRING GRID CLIP

Small and large type grid clip used to replace clips that have lost their tension due to heat causing poor contact. Available in bulk or 24. $.45. List envelopes on attractive display card. Std. Pkg. 100

No.	Type Type	Per C	Display	NET Per C
1288	1X2-6BQ6	$8.00	1288D	$6.48
1289	1B3-6BG6	8.00	1289D	6.48

PLASTIC CABLE CLIPS — ETHYL CELLULOSE



These clips are well known for ability to withstand age, moisture, corrosion, shock and vibration. This tough, light weight, durable clip withstands temperatures from —60 to +175 degrees F. Made to MIL Std. 242A (Ships).

T .060 — W ½″ X 7/32″ — H .204

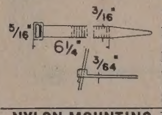
No.	Hole (D)	E	NET Per C	NET Per M
831	⅛	.360	$2.34	$19.20
832	³⁄₁₆	.423	2.40	19.80
833	¼	.457	2.58	21.60
834	⁵⁄₁₆	.498	2.85	24.00
835	⅜	.529	3.00	25.20
836	⁷⁄₁₆	.560	3.30	27.60
837	½	.592	3.60	30.00
838	⁹⁄₁₆	.623	4.20	34.20
839	⅝	.654	4.50	39.60
840	¹¹⁄₁₆	.752	4.80	42.60
841	¾	.783	5.10	44.40
842	⅞	.845	5.40	48.00
843	1	.908	5.70	51.60
844	1⅛	.970	6.00	54.60
845	1¼	1.062	6.30	58.20

NYLON

These strong and tough molded nylon clamps hold their shape under severest stress. Do not support combustion. Withstands temperatures from —60 to +250 degrees F. Made to MIL P17091A amend. 2.

	⅛″ to ½″ (D)	9/16″ to 1¼″ (D)
T	.040	.060
W	⅜″	½″
X	⁵⁄₃₂″	¹³⁄₆₄″
H	.167	.204

No.	Hole (D)	E	NET Per C	NET Per M
771	⅛	.310	$3.60	$30.00
772	³⁄₁₆	.373	3.90	31.80
773	¼	.407	4.20	34.80
774	⁵⁄₁₆	.448	4.65	38.40
775	⅜	.479	4.80	40.20
776	⁷⁄₁₆	.510	5.10	42.60
777	½	.542	5.40	45.00
778	⁹⁄₁₆	.623	6.60	55.80
779	⅝	.654	7.20	65.40
780	¹¹⁄₁₆	.752	7.50	69.00
781	¾	.783	8.10	75.00
782	⅞	.845	8.70	81.00
783	1	.908	10.20	96.00
784	1⅛	1.002	12.00	108.00
785	1¼	1.062	13.80	120.00

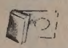


NYLON LOCKING CLAMP

Wedge and ratchet design makes for positive holding and locking. Accommodates cables from ⅛″ to 1¾″. No knot tying, just slip clamp around cable, insert tongue and pull tight.

No.	NET Per C
800	$9.00

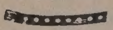
NYLON MOUNTING TABS



For use with No. 800 locking clamp when premounted assembly points are desired. Furnished with .203 mounting hole.
Std. Pkg. 100

No.	NET Per C
801	$9.00

NYLON PERFORATING STRAPPING



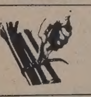
For bundling of wire, cable and tubing. Time saver for harnessing. Use No. 803 ratchet buckle for fast assembly. Supplied on 50′ rolls.

No.	NET Per C
802	$15.00

NYLON RATCHET BUCKLE

For No. 802 strapping. Quick and easier assembly with this ingenious item.
Std. Pkg. 100

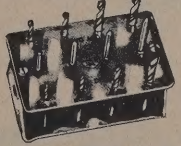
No.		NET Per C
803	For ½″ Strapping	$10.20



TIGHTENING TOOL

Used with strapping for fast assembly.

No.	NET Ea.
804	$18.00



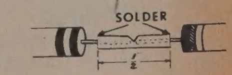
DRILL & TAP KIT for

- Hams
- Laboratories
- Servicemen

Specially designed for electronic bench duty, this kit contains the most popular sizes of taps and corresponding tap and body drills for precise and speedy work. Drill and tap size identifications are engraved on the steel cadmium plated drill stand, to facilitate correct replacement as needed. **Contains: 4-40, 6-32, 8-32, 10-32 Taps with eight corresponding tap and body drills.**

No.		NET Ea.
750	Kit	$9.00
749	Stand Only	.66

"CLEAPS"
(Connectors for Joining Severed Wires)



MATERIAL: Brass, cadmium plated.
WIRE SIZE: For wires, .010″ to .050″ (B&S Gauge 16 to 30).
DESCR.: Used to splice cut leads of condensers, resistors, etc., in process of trouble-shooting. Insert wire in each tapered end and solder thru center opening. Packaged 10 per envelope.
Std. Pkg. 100

No.	NET Per C
1270	$3.00

HERMAN H. SMITH, INC.

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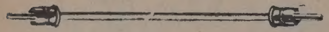
JUMPER CORDS



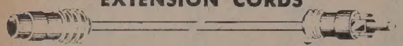
Male Phono Plug (our No. 1202) with finger-grip handle on each end. Std. pkg. 6

		NET Each
No. 631	18 inches	$.75
No. 632	24 inches	.78
No. 633	30 inches	.84
No. 634	48 inches	.96
No. 635	72 inches	1.05
No. 636	120 inches	1.50

STEREO JUMPER CORD

745 15 feet $1.20

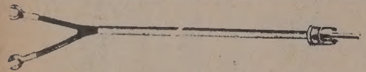
EXTENSION CORDS



Male Phono Plug (our No. 1202) with finger-grip handle on end. Female in-Line Jack (our No. 1237) other end. Std. pkg. 6

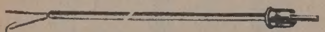
		NET Each
No. 641	18 inches	$.99
No. 642	24 inches	1.02
No. 643	36 inches	1.08
No. 644	48 inches	1.20
No. 645	72 inches	1.29
No. 646	120 inches	1.62

PHONO PLUG CONNECTOR CORDS



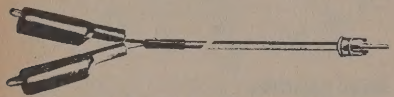
Male Phono Plug (our No. 1202) with finger-grip handle, one end. Spade lugs other end. Std. pkg. 6

No. 668 72 inches NET Eeach .72.



Male Phono Plug (our No. 1202) with finger-grip handle, one end. Other end stripped and tinned. Std. pkg. 6

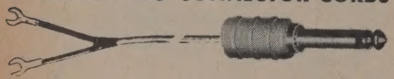
		NET Each
No. 637	36 inches	$.66
No. 638	72 inches	.84



Male Phono Plug (our No. 1202) with finger-grip handle, one end. Insulated alligator clips other end. Std. pkg. 6

		NET Each
No. 673	36 inches	$.72
No. 674	72 inches	.90

PHONE PLUG CONNECTOR CORDS



Male Phone Plug one end. Spade Lugs other end. Std. pkg. 6

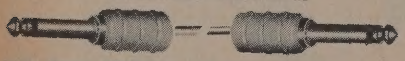
No. 665 72 inches $1.08 Ea.

Male Phone Plug one end. Other end stripped and tinned. Std. pkg. 6

No. 667 72 inches $1.20 Ea.

Male Phone Plug one end. Insulated alligator clips other end. Std. pkg. 6

No. 664 72 inches $1.29 Ea.



Male Phone Plugs on each ena.

No. 677 72 inches Std. Pkg. 6 $1.35 Ea.

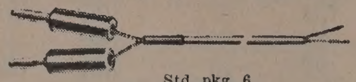
FEED THRU

Accepts phono plug on Each End Std. Pkg. 10

No. 661 $.72 Ea.

CONNECTOR CORDS

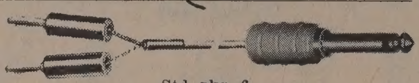
For Imported Hi-Fi Equipment



Std. pkg. 6

Two banana plugs one end, stripped and tinned other end.

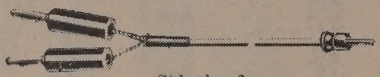
No. 709 72 Inches $1.02 Ea.



Std. pkg. 6

Two banana plugs one end, phone plug other end.

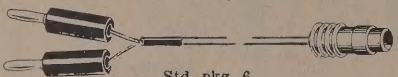
No. 710 72 Inches $1.44 Ea.



Std. pkg. 6

Two banana plugs one end, phono plug other end.

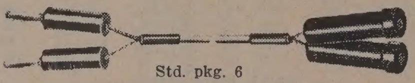
No. 711 72 Inches $1.20 Ea.



Std. pkg. 6

Two banana plugs one end, phono jack other end.

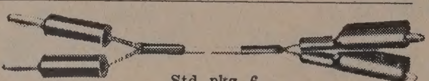
No. 712 72 Inches $1.38 Ea.



Std. pkg. 6

Two banana plugs one end, in-line banana jacks other end.

No. 713 72 Inches $1.62 Ea.

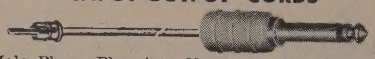


Std. pkg. 6

Two banana plugs one end, ins. alligator clips other end.

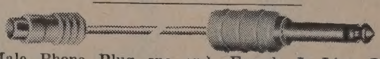
No. 714 72 Inches $1.38 Ea.

INPUT-OUTPUT CORDS



Male Phono Plug (our No. 1202) with finger-grip handle, one end. Male Phone Plug (our No. 225) other end. Std. pkg. 6

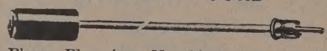
No. 662 72 inches $1.38 Ea.



Male Phone Plug one end. Female In-Line Jack (our No. 1237) other end. Std. pkg. 6

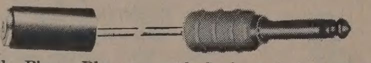
No. 663 72 inches $1.80 Ea.

EXTENSION CORD



Male Phono Plug (our No. 1202) one end. In-Line Jack (our No. 274) other end. Std. pkg. 6

No. 639 72 inches $1.44 Ea.



Male Phone Plug one end. In-Line Jack (our No. 274) other end. Std. pkg. 6

No. 669 72 inches $1.98 Ea.

PHONO PLUG TO PHONE PLUG ADAPTER

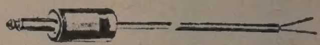
Adapts standard phono plug to phone plug with built in resistor to adapt either crystal or magnetic pickups. Std. pkg. 10.

No. 707	With Resistor	$1.59 Ea.
No. 708	Without Resistor	$.90 Ea.

HI-FI CORDS FOR REVERE EQUIPMENT

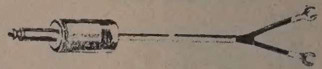
These cords are designed for use exclusively with Revere Tape Recorders and Hi-Fi equipment all using the special type phone plug 3/16" O.D. necessary for use with this type equipment.

CONNECTOR CORDS



Short sleeve phone plug one end, other end stripped and tinned. Std. pkg. 6

No. 700 120 inches $2.10 Ea.



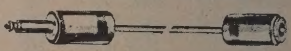
Short sleeve phone plug one end, other end spade lugs. Std. pkg. 6

No. 701 120 inches $2.22 Ea.

Short sleeve phone plug one end, insulated alligator clips other end. Std. pkg. 6

No. 702 120 inches $2.43 Ea.

EXTENSION CORDS

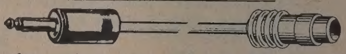


Short sleeve phone plug one end. Revere type in-line jack other end. Std. pkg. 6

No. 703 120 inches $4.98 Ea.

Short sleeve phone plug one end. Standard in-line jack other end. Std. pkg. 6

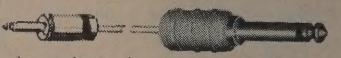
No. 704 120 inches $2.88 Ea.



Short sleeve phone plug one end. Phono in-line jack other end. Std. pkg. 6

No. 705 120 inches $2.64 Ea.

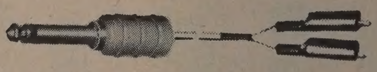
INPUT-OUTPUT



Short sleeve phone plug one end. Standard phono plug other end. Std. pkg. 6

No. 706 120 inches $2.64 Ea.

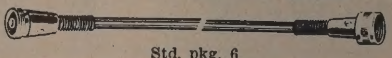
CONNECTOR CORD FOR WEBCOR TAPE RECORDER



Three way phone plug with built in resistor to cut down on audio one end, insulated alligator clips other end. Std. pkg. 6

No. 676 120 inches $2.34 Ea.

COAXIAL EXTENSION CABLE

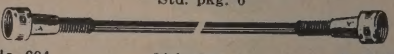


Std. pkg. 6

No. 687	36 inches	$1.44 Ea.
No. 688	72 inches	$1.80 Ea.
No. 689	144 inches	$2.58 Ea.

COAXIAL JUMPER CABLE

Std. pkg. 6



No. 694	36 inches	$1.62 Ea.
No. 696	72 inches	$1.98 Ea.
No. 697	144 inches	$2.52 Ea.

HI-FI WIRE

Cond.	Strand.	Wall
22	7/30	.062
Cap.	**Shield**	**O.D.**
37 Mmf.	Spiral	.140

No. 765 100-ft. $2.10 Ea.

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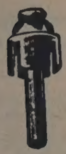
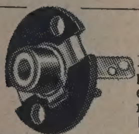
PHONO PLUGS

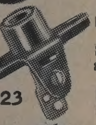


RCA Type Phone Plug. For use with record players, recording and reproducing equipment, etc. Extra large hole in cap (.175") for coaxial cable. Std. Pkg. 100

No.	Type	NET Per C
1201	Long Pin (1" overall)	$3.60
1202	Short Pin (13/16" overall)	3.60

PHONO JACKS


1203

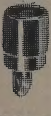

1223

Female for No. 1201 plug. Single prong positive grip jack mounted on 1/16" bakelite with 11/16" mounting centers. Std. Pkg. 100

No.		NET Per C
1203		$4.20
1203-1	Insulating Washer	1.80

Small, compact . . . where space is at a premium. 7/16" Mtg. Ctrs.
Std. Pkg. 100

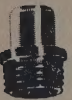
No.	NET Per C
1223	$7.20



Space Saver . . . Rivets and grounds to chassis. Mounts in 19/64" hole.
Std. Pkg. 50

No.	NET Per C
1233	$6.60

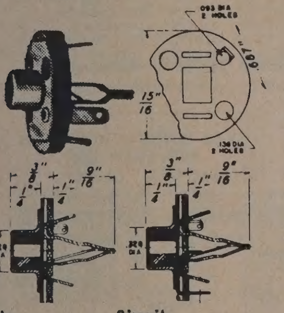
PANEL MOUNT PHONO JACK



Mounts in 29/64" hole (.453) with nut and washer. Easy installation for the home Hi-Fi enthusiast. Std. Pkg. 50

No.	NET Per C
1247	$21.00

STEREO PHONO JACKS

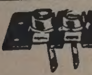


Used for stereo input, phonograph input and amplifier connections. Switches out single track audio for double track stereo when phono plug is inserted.

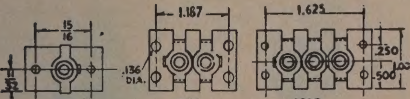
Std. Pkg. 50

No.	Circuit	NET Per C
1215	2-Cond. Closed	$21.00
1216	3-Cond. Closed	27.00

PHONO JACKS



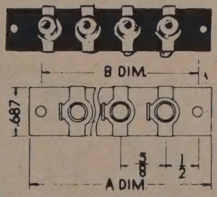
Used on recording units, phono plays, etc. Std. pkg. 50



1211 1214 1212

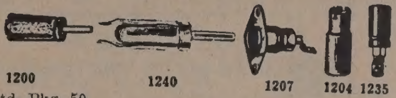
No.	NET Per C
1211—Single Jack	$ 7.20
1214—Double Jack	9.60
1212—Triple Jack	15.00
1214-1—Insulating Washer for No. 1214	2.40

MULTIPLE PHONO JACKS



Individual phono jacks (no interconnected grounds) kmounted on narrow width bakelite strip.
Std. Pkg. 50

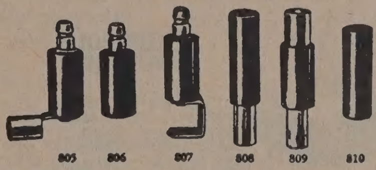
No.	No. of Jacks	Dimensions "A"	Dimensions "B"	NET Per C
1261	1	1⅜"	1.000	$4.80
1262	2	2"	1.625	8.70
1263	3	2⅝"	2.250	14.10
1264	4	3¼"	2.875	17.10
1265	5	3⅞"	3.500	21.60
1266	6	4½"	4.125	25.20
1267	7	5⅛"	4.750	29.40
1268	8	5¾"	5.375	33.60



Std. Pkg. 50

No.	Type	NET Per C
1200	Motorola Type Plug	$10.20
1240	Motorola Type Plug	$10.20
1207	Antenna Connector, Takes 1200 Plug	18.00
1204	Lead-in Adapter, converts Motorola pin plug to Delco	9.00
1235	Female for #1200 plug, without flange	7.20

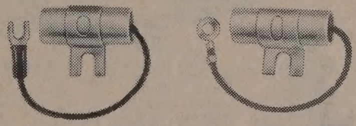
Auto Radio IGNITION SUPPRESSORS



Std. Pkg. 50

Cat. No.	Type	NET Per C
805	Snap-On Type Suppressor	$27.00
806	Univ. Type with Double Thrd.	27.00
807	Angle Type Suppressor	33.00
808	Distributor Screw Type	45.00
809	Distributor Plug-in Type	36.00
810	Double Screw Type	27.00

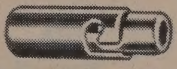
AUTO RADIO CONDENSERS



Eliminates radio interference caused by auto electrical system. Fits all cars — Proven quality — Guaranteed long life.

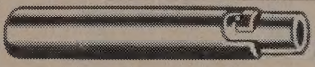
No.	Cap.	Type	NET Per C
811	.5 MFD	General, Univ.	$60.00
812	.25 MFD	Universal	54.00

ANTENNA CONNECTOR



For use as connection of auto radio antenna lead-in to auto radio receiver. Std. Pkg. 50
No. 1300.................................. **$17.00 Per C**

FUSE RETAINER



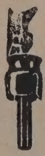
Recommended for use in auto radio power supply cables. Std. Pkg. 50
No. 1301 ....**NET Per C $10.20**

PARTS FOR CONNECTOR & RETAINER

Std. Pkg. 100

No.	Type	NET Per C
1305	Male Cap for #1300 & #1301	$1.98
1306	Female Shell for #1300	2.31
1307	Contact for #1300 & #1301	3.30
1308	Spring for #1300 & #1301	.66
1309	Washer for #1300 & #1301	.33
1310	Insulating Tube for #1301	.60
1311	Female Shell for #1301	3.30

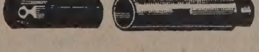
HANDY GRIP PHONO PLUG



Quick connect: strip wire, solder inner conductor to pin and either solder braid to lug or crimp to lug. Fits all standard phone jacks.
Std. Pkg. 100

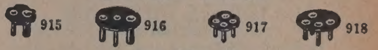
No.	NET Per C
1246	$9.00

SHIELDED EXTENSION JACK



Brass shell, cadmium plated, $1\frac{7}{16}$" long, with black bakelite insert. Provides insulation for solder-coated positive grip contact. Uses No. 1201 phono plug. Std. Pkg. 50 **NET Per C**
No. 1237 .... **$27.00**

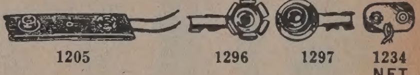
BATTERY PLUGS



Std. Pkg. 50

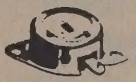
No.	Voltage	For Batteries — Eveready No.	For Batteries — RCA No.	For Batteries — Philco No.	NET Per C
915	1½ "A"	741, 742 743, 1052P	VS004, VS005 VS007, VS008	P94, P96 P8F1	$6.00
916	7½ "A"	687	VS003	—	6.60
917	6 "A", 90 "B"	—	VS044	P60A8F4	6.00
918	6 "A", 90 "B"	—	VS046	P41AFL	6.60

BATTERY CONNECTORS



No.	Volts	Eveready No.	Std. Pkg.	NET Per C
1205	67½	467, 455, 457	25	$18.00
1206	90	490	25	24.00
1210	67½	477, 437, 479, 495	25	18.00
1217	7½	707	25	18.00
1218	9	276	25	18.00
1219	4½	243	25	24.00
1234	45	216, 246, 415, 416	25	24.00
1296		Female	100	4.50
1297		Male	100	4.50

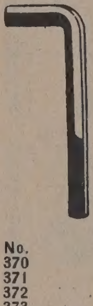
MINIATURE HUM BALANCING CONTROLS



Rheostat rated at 2 watts, grounded rotor, tolerance ± 20%. Screwdriver slot adjustment from front or rear. Useful for hum balancing, centering, hold and locking, linearity, AGC sensitivity, etc.
Std. Pkg. 25

No.	Total Res. Ohms	NET Per C
2291	50	$39.00
2292	100	39.00
2293	300	39.00
2294	500	39.00
2295	700	39.00
2296	1000	39.00
2297	2000	39.00
2298	3000	39.00
2299	4000	39.00

HEX AND SPLINE KEYS



Made of special alloy steel, tempered to avoid brittleness and impose maximum resistance to torsional strain. Ends ground for easy insertion.

HEX KEYS

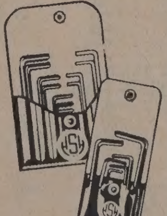
Std. Pkg. 50

No.	Screw	Hex	NET Per C
340	No. 2	.034	$7.80
341	No. 3, 4	.050	7.80
342	No. 5, 6	.062	7.80
343	No. 8	.078	7.80
344	No. 10	.093	9.00
345	No. ¼"	.125	9.00
346	No. 5⁄16"	.156	9.00

SPLINE KEYS

No.	Screw	O. D.	NET Per C
370	No. 4	.058	$7.80
371	No. 5	.068	7.80
372	No. 6	.075	7.80
373	No. 8	.093	7.80
374	No. 10	.109	9.00
375	No. ¼"	.143	9.00
376	No. 5⁄16"	.182	9.00

HEX AND SPLINE KEY KITS



Attractive tearproof vinyl plastic kit with individual pockets for each of six keys in kit.
Std. Pkg. 25.

Kit of 6 hex keys for screws from No. 3 to 5/16".
No. 355 $100.00 **NET Per C**

Kit of 6 spline keys for screws from No. 5 to 5/16".
No. 385 $100.00 **NET Per C**

Combination Kit of 3 hex and 3 spline keys for No. 6-8-10 screws.
No. 390 $100.00 **NET Per C**

Kit of 7 hex keys for screws from No. 2 to 5/16" and 4 spline keys Nos. 4, 6, 8, and 10.
No. 395 $200.00 **NET Per C**

DISPLAY CARDS

No.		NET Each
355D	Display of 24 Hex Kits No. 355	$24.00
385D	Display of 24 Spline Kits No. 385	24.00
390D	Display of 24 Comb. Kits No. 390	24.00
395D	Display of 20 Comb. Kits No. 395	40.00

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CUTLER-HAMMER SWITCHES

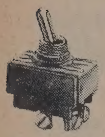
TOGGLE SWITCHES
STANDARD DUTY

15 Amps. 125 Volts — 10 Amps. 250 Volts
AC, UL Approved 15/32" shank; slow-make and break; bakelite case. AC rated only for longer life and greater capacity. **Std. Pkg. 10**

BACK CONNECTED LUG TERMINALS

No.	C-H No.	Type	NET Each
966	7501K13	SPST	$ .69
967	7505K4	SPDT	.81
968	7561K4	DPST	1.08
969	7565K5	DPDT	1.26
970	7611K2	TPST	2.19
971	7615K2	TPDT	2.70

BACK CONNECTED SCREW TERMINALS



No.	C-H No.	Type	NET Each
972	7500K14	SPST	$ .81
973	7504K4	SPDT	.96
974	7560K5	DPST	1.26
975	7564K6	DPDT	1.56
976	7610K2	TPST	2.55
977	7614K2	TPDT	3.24

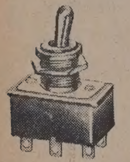
CENTER OFF STANDARD DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

No.	C-H No.	Type	NET Each
978	7503K13	SPDT	$ .81
979	7563K4	DPDT	1.26
980	7613K2	TPDT	2.70

BACK CONNECTED SCREW TERMINALS

No.	C-H No.	Type	NET Each
981	7502K13	SPDT	$ .96
982	7562K4	DPDT	1.56
983	7612K2	TPDT	3.24



TOGGLE SWITCHES
LIGHT DUTY

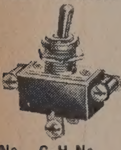
AC-DC, UL Approved; 15/32" shank; quick make — quick break; bakelite case. Unusually small size for electrical capacity. **Std. Pkg. 10**

BACK CONNECTED LUG TERMINALS
SMALL BAT HANDLE 15/32" LONG

			Current Rating		
No.	C-H No.	Type	125 V.	250 V	NET Each
950	8280K16	SPST		3 Amps.	$ .69
951	8381K8	SPST	6 Amps.	3 Amps.	.81
952	8282K14	SPDT	3 Amps.	1 Amp.	.87
953	8284K14	2 circ.	3 Amps.	1 Amp.	.93
954	8360K7	DPST		3 Amps.	1.26
955	8370K7	DPST	6 Amps.	3 Amps.	1.38
956	8363K7	DPDT		3 Amps.	1.44
957	8373K7	DPDT	6 Amps.	3 Amps.	1.56

STANDARD BAT HANDLE 11/16" LONG

					NET Each
1160	8908K446	SPST		3 Amps.	$ .69
1161	8908K447	SPST	6 Amps.	3 Amps.	.81
1162	8908K448	SPDT	3 Amps.	1 Amp.	.87
1163	8908K449	2 Circ.	3 Amps.	1 Amp.	.93
1164	8908K450	DPST		3 Amps.	1.26
1165	8908K451	DPST	6 Amps.	3 Amps.	1.38
1166	8908K452	DPDT		3 Amps.	1.44
1167	8908K453	DPDT	6 Amps.	3 Amps.	1.56



SIDE CONNECTED SCREW TERMINALS

			Current Rating		
No.	C-H No.	Type	125 V.	250 V.	NET Each
958	8285K8	SPST		3 Amps.	$ .84
959	8396K8	SPST	6 Amps.	3 Amps.	.96
960	8297K8	SPDT	3 Amps.	1 Amp.	1.11
961	8372K7	DPST	6 Amps.	3 Amps.	1.65
962	8365K7	DPDT		3 Amps.	1.89
963	8375K7	DPDT	6 Amps.	3 Amps.	2.01

WIRE LEADS— SIX INCHES LONG

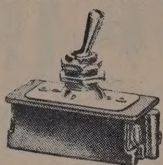
		Current Rating	
No.	C-H No.	Type	125 V.
964	8290K16	SPST	
965	8391K8	SPST	6 Amps.

No. C-H No. 250 V. NET Each
250 V. Each 3 Amps. $ .84
Type 125 V. 3 Amps. .96

PUSH BUTTON MOMENTARY SWITCHES

AC-DC, UL Approved, 15/32" shank; rated at ¾ Amp, 125 volts — ¼ Amp, 250 volts.

No.	C-H No.	Type	Term.	NET Each
992	8411K4	SP Norm. Op	Lug	$ .48
993	8411K3	SP Norm. Op	Screw	.54
994	8411K8	SP Norm. Cl	Lug	.36
995	8411K7	SP Norm. Cl	Screw	.39



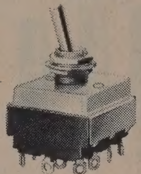
TOGGLE SWITCHES
HEAVY DUTY

AC - DC, UL Approved; 15/32" shank; quick make-quick break; bakelite case. Screw Terminals.

Std. Pkg. 10

			Current Rating		NET
No.	C-H No.	Type	125 V	250-V	Each
984*	7321K3	SPST	12 A	6 A	$1.32
985*	7320K3	DPST	12 A	6 A	1.32
986+	7361K5	SPST	15 A	10 A	2.31
987+	7360K8	DPST	15 A	10 A	2.31
988±	7402K4	DPST		20 A	3.24

*1 Hp — 125/250V. +1½ Hp — 125/250V.
±1½ Hp — 125V, 2 Hp — 250V.



FOUR POLE SWITCHES

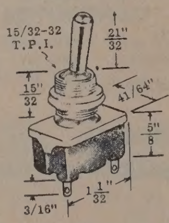
AC-DC GOVERNMENT APPROVED PER MIL-S-6745. 15/32" shank. Rated 10 amps, 115 volt AC—20 amps, 28 volts DC (Nominal rating per pole) SEALED LEVER **Std. Pkg. 10**

No.	C-H No.	Type	Terminals	NET Each
944	7661K6	4 PST	Solder Lugs	$4.56
945	7665K4	4 PDT	Solder Lugs	5.61
946	7660K8	4 PST	Screw Term.	4.95
947	7664K3	4 PDT	Screw Term.	6.15
		CENTER OFF		
948	7663K5	4 PDT	Solder Lugs	$5.61
949	7662K5	4 PDT	Screw Term.	6.15

PUSH BUTTON SWITCHES

Push to make—Push to break
AC-DC, UL Approved; 11/16" shank; bakelite case. Pushing the button once closes the contacts. Pushing it again opens the contacts. Rated at 6 Amps. 125 Volts; 3 Amps. 250 Volts. **Std. Pkg. 10**

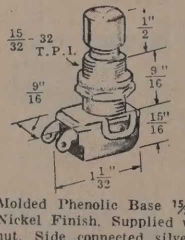
No.	C-H No.	Type	Term.	NET Each
989	7206K4	SPST	Lug	$ .96
990	7208K4	SPST	Screw	1.08
991	7207K4	SPST	Wire	1.08



MIDGET TOGGLE SWITCH

Bat lever. Molded phenolic base. 15/32-32 x 15/32" long. Slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. Rated 1 amp.-250 volts; 3 amps.-125 volts. **Std. Pkg. 10**

No.	Circuit	NET Each
920	SPST	$ .93
921	SPDT	1.11
922	2 Circ.	1.14
923	DPST	1.35
924	DPDT	1.56



MIDGET MOMENTARY SWITCH

SLOW MAKE AND BREAK

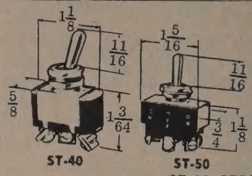
Molded Phenolic Base 15/32-32 x 9/16" slotted sleeve, Nickel Finish. Supplied with hex nut and knurled nut. Side connected silver plated solder contacts. Rated at 3 amps.-120 volts A.C. Supplied less button; order button separately. **Std. Pkg. 10**

Normally Closed (ON)

No.	Circuit	NET Each
925	SPST	$ .75
926	2 Circ.	.81

Normally Open (OFF)

No.	Circuit	NET Each
927	SPST	$ .75



"ST" SWITCHES

Nominal Rating Per. Pole:
10 Amps. 115 V. AC
20 Amps. 28V. DC
Std. Pkg. 10

ST-40 SERIES — Single Pole With Screw Terminals

HHS	C-H	JAN Type		Circuit	NET Each
1720	8801K13	ST40A	SPST	On-None-Off	$1.68
1721	8813K12	ST40B	SPST	On-None-Mom-Off	1.86
1722	8811K12	ST40C	SPST	On-None-Mom-On	1.86
1723	8810K12	ST40D	SPDT	On-None-On	2.04
1724	8800K13	ST40E	SPDT	On-Off-On	2.04
1725	8804K12	ST40F	SPDT	On-None-Mom-On	2.19
1726	8812K13	ST40G	SPDT	Mom-On-Off-Mom-On	2.19
1727	8809K13	ST40H	SPDT	Off-On-Mom-On	2.19

All ST-40 Switches have Sealed Lever.

ST-42 SERIES — Single Pole With Solder Lugs

HHS	C-H	JAN Type		Circuit	Each
1730	8803K6	ST42A	SPST	On-None-Off	$1.26
1731	8819K5	ST42B	SPST	On-None-Mom-Off	1.38
1732	8817K5	ST42C	SPST	On-None-Mom-On	1.38
1733	8816K5	ST42D	SPDT	On-None-On	1.47
1734	8802K6	ST42E	SPDT	On-Off-On	1.47
1735	8805K5	ST42F	SPDT	On-None-Mom-On	1.82
1736	8818K5	ST42G	SPDT	Mom-On-Off-Mom-On	1.62
1737	8815K6	ST42H	SPDT	On-Off-Mom-On	1.62

ST-50 SERIES — Double Pole With Screw Terminals

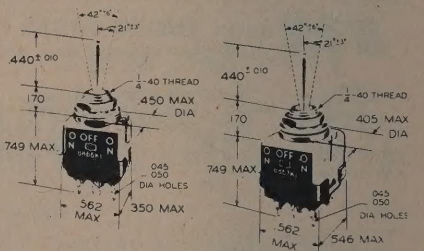
HHS	C-H	JAN Type		Circuit	Each
1740	8822K8	ST50K	DPST*	On-None-Off	$2.25
1741	8828K5	ST50L	DPST	On-None-Mom-Off	2.70
1742	8826K5	ST50M	DPST	Off-None-Mom-On	2.70
1743	8824K8	ST50N	DPDT*	On-None-On	2.70
1744	8820K10	ST50P	DPDT*	On-Off-On	2.70
1745	8830K5	ST50R	DPDT	On-None-Mom-On	2.94
1746	8834K4	ST50S	DPDT*	Mom-On-Off-Mom-On	2.94
1747	8832K4	ST50T	DPDT*	On-Off-Mom-On	2.94

* These switches are equipped with Sealed Lever.

ST-52 SERIES — Double Pole With Solder Lugs

HHS	C-H	JAN Type		Circuit	Each
1760	8823K5	ST52K	DPST	On-None-Off	$1.50
1761	8829K5	ST52L	DPST	On-None-Mom-Off	1.68
1762	8827K5	ST52M	DPST	Off-None-Mom-On	1.68
1763	8825K5	ST52N	DPDT.	On-None-On	1.68
1764	8821K5	ST52P	DPDT	On-Off-On	1.68
1765	8831K5	ST52R	DPDT	On-None-Mom-On	1.95
1766	8835K3	ST52S	DPDT	Mom-On-Off-Mom-On	1.95
1767	8833K3	ST52T	DPDT	On-Off-Mom-On	1.95

C-H MINIATURE MILITARY SWITCHES



Extremely compact, highly reliable power or dry circuit switches. Usable as a pre-set switch in aircraft recognition systems; for walkie-talkies; for electronic instruments and communication systems.

RATINGS: 2 Amps. @ 28 V.D.C. 1 Amp @ 50 V.D.C. 2 Amps @ 115 V.A.C.

MINIMUM RATING: 30 Microamps. @ 50 Millivolts.

SINGLE POLE

WEIGHT: 5.0 Grams.

CUBIC CONTENT: .147 cubic inches "behind panel" volume. **Std. Pkg. 10**

HHS	C-H		Circuit	NET Each
1841	8866K1	SPDT	On-Off-On	$6.00
1842	8866K2	SPDT	Mom. On-Off-Mom. On	6.09
1843	8866K3	SPDT	On-Off-Mom. On	6.09
1844	8866K4	SPDT	On-None-On	6.00
1845	8866K5	SPST	On-Off-None	6.00
1846	8866K6	SPST	None-Off-Mom. On	6.09
1847	8866K7	SPST	On-None-Off	6.00

DOUBLE POLE

WEIGHT: 6.5 grams.

CUBIC CONTENT: .230 cubic inches "behind panel" volume. **Std. Pkg. 10**

HHS	C-H		Circuit	NET Each
1851	8867K1	DPDT	On-Off-On	$7.53
1852	8867K2	DPDT	Mom. On-Off-Mom. On	8.76
1853	8867K3	DPDT	On-Off-Mom. On	8.76
1854	8867K4	DPDT	On-None-On	7.53
1855	8867K5	DPST	On-Off-None	7.53
1856	8867K6	DPST	None-Off-Mom. On	8.76
1857	8867K7	DPST	On-None-Off	7.53

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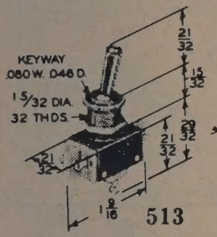
HERMAN H. SMITH, INC.

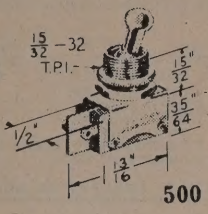
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

ARROW HART & HEGEMAN SWITCHES

SMALL CANOPY TYPE SWITCHES



513



500

Laminated type 15/32-32 slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Solder terminals. SPST rated at 3 amps-250 volts AC-DC; all other rated at 1 amp-250 volts, 3 amps-125 volts AC-DC. Std. pkg. 10

BAT LEVER POSITIVE ACTION

15/32" long shaft No.	NET Each	CIRCUIT	13/32" long shaft No.	NET Each
510	$ .69	SPST	584	$ .69
511	.87	SPDT	585	.87
542	.93	2-Circ.	586	.93
512	1.26	DPST	587	1.26
513	1.44	DPDT	588	1.44

BAT LEVER MOMENTARY ACTION

15/32" long shaft

Normally Closed (ON)	NET Each	CIRCUIT	Normally Open (OFF)	NET Each
1020	$1.11	SPST	1024	$1.11
1021	1.29	SPDT	—	—
1022	1.68	DPST	1025	1.68
1023	1.86	DPDT	—	—

BALL LEVER POSITIVE ACTION

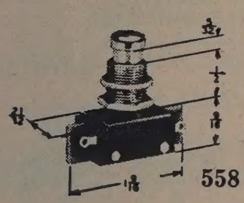
15/"32 long shaft	NET Each	CIRCUIT	3/4" long shaft	NET Each
500	$ .69	SPST	501	$ .84
502	.87	SPDT	503	1.08
540	.87	2 Circ.	541	1.08
504	.26	DPST	505	1.44
506	1.44	DPDT	507	1.59

6" WIRE LEADS POSITIVE ACTION

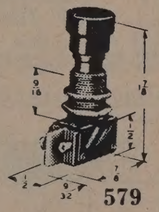
15/32" long shaft

BALL LEVER	NET Each	CIRCUIT	BAT LEVER	NET Each
1010	$ .84	SPST	1015	$ .84
1011	1.17	SPDT	1016	1.17
1012	1.29	2 Circ.	1017	1.29
1013	1.65	DPST	1018	1.65
1014	2.01	DPDT	1019	2.01

MOMENTARY PUSH SWITCHES



558



579

Laminated type 15/32-32 x 9/16" slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. All switches accept snap on button. SPST rated at 3 amps-250 volts AC-DC. All others rated at 1 amp-250 volts. 3 amps-125 volts AC-DC.

SUPPLIED LESS BUTTON: ORDER BUTTON SEPARATELY.

QUICK MAKE AND BREAK

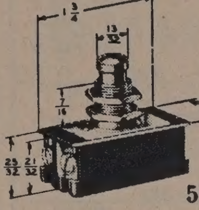
Normally Closed (ON) No.	NET Each	CIRCUIT	Normally Open (OFF) No.	NET Each
552	$1.35	SPST	555	$1.35
556	1.56	SPDT	—	—
557	1.53	2 Circ.	—	—
564	1.86	DPST	558	1.86
559	2.07	DPDT	—	—

SLOW MAKE AND BREAK

Rated at 1 amp.-125 volts AC

Normally Closed (ON)	NET Each	CIRCUIT	Normally Open (OFF)	NET Each
582	$ .75	SPST	579	$ .75
580	.96	2 Circ.	—	—

STANDARD DUTY MOMENTARY PUSH SWITCHES



595

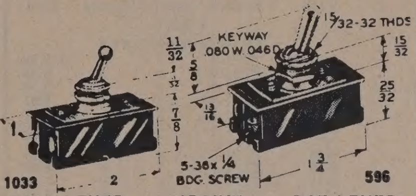
Molded phenolic base. 15/32-32 x 7/16" long slotted sleeve, nickel finish. Screw terminals. Supplied with hex nuts.

Two circ. rated at 3 amps.-250 volts, 6 amps-125 volts. AC-DC. All others rated at 6 amps-250 volts, 12 amps-125 volts AC-DC. DPST also rated at 1 HP at 250 volts AC-DC.

Normally Closed (ON) No.	NET Each	CIRCUIT	Normally Open (OFF) No.	NET Each
1026	$1.98	SPST	544	$1.98
1027	1.98	SPDT	—	—
1028	1.98	2 Circ.	—	—
1029	1.98	DPST	595	1.98

STANDARD DUTY TOGGLE SWITCHES

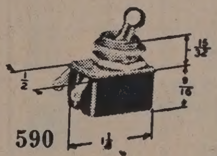
QUICK MAKE AND BREAK



1033 596

BALL LEVER	NET Each	CIRCUIT	BAT LEVER	NET Each
1030	$1.32	SPST	597	$1.32
1031	1.32	SPDT	598	1.32
1032	1.32	2 Circ.	599	1.32
1033	1.32	DPST	596	1.32

MIDGET SIZE TOGGLE SWITCHES



590

527

Molded phenolic base, 15/32-32 x 15/32" long slotted sleeve, nickel finish. Side connected silver plated solder contacts. Supplied with hex nut and knurled nut. SPST rated at 3 amps-250 volts; 6 amps.-125 volts; all others rated at 1 amp-250 volts, 6 amps.-125 volts.

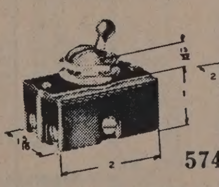
BALL LEVER No.	NET Each	CIRCUIT	BAT LEVER No.	NET Each
590	$ .78	SPST	591	$ .78
589	.99	SPDT	592	.99
594	1.02	2 Circ.	593	1.02

6" WIRE LEADS

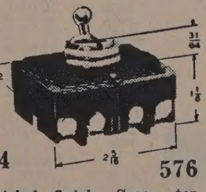
BALL LEVER	NET Each	CIRCUIT	BAT LEVER	NET Each
526	$ .96	SPST	527	$ .96
538	1.26	SPDT	528	1.26
543	1.41	2 Circ.	514	1.41

EXTRA HEAVY DUTY POWER SWITCHES

3 POSITION—POSITIVE CENTER OFF



574

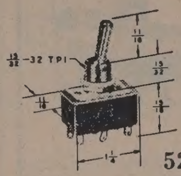


576

Slotted sleeve 3/4-32, nickel finish. Screw terminals. Supplied with 2 hex nuts. Rated at 5 amps-250 volts. 10 amps-125 volts plus HP rating shown below. Std. pkg. 5

No.	Circuit	Description	NET Each
574	DPDT 3/4 HP	250 volts AC-DS	$ 4.89
575	TPDT 1/2 HP	115/230 volts AC, 3 phase	7.53
576	4PDT 1/2 HP	115/230 volts AC, 2 phase	10.05

INTERMEDIATE SIZE TOGGLE SWITCHES



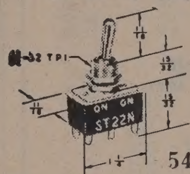
523

Molded phenolic base. 15/32-32 x 15/32" long slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. SPDT rated at 1 amp-250 volts, 6 amps-125 volts AC-DC; all others rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

BAT LEVER

POSITIVE ACTION No.	NET Each	CIRCUIT	MOMENTARY ACTION No.		NET Each
520	$ .93	SPST	524	OFF	$1.32
521	1.11	SPDT	549	—	1.50
583	1.14	2 Circ.	—	—	—
522	1.35	DPST	537	OFF	1.89
523	1.56	DPDT	525	—	2.07

ST TYPE TOGGLE SWITCHES



548

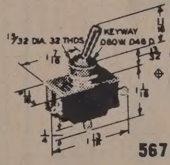
MEETS AN SPEC. JAN-23

Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

No.	AWS No.	CIRCUIT	Position	NET Each
545	ST 12A	SPST	OFF-ON	$1.23
546	ST 12D	SPDT	ON-ON	1.41
1040	ST 12V	2-Circ.	ON-OFF	1.44
547	ST 22K	DPST	OFF-ON	1.77
548	ST 22N	DPDT	ON-ON	1.92

MOMENTARY NORMALLY OPEN (OFF)

No.	AWS No.	CIRCUIT	Position	NET Each
1041	ST 12C	SPST	OFF-ON	$1.62
1042	ST 22M	DPST	OFF-ON	2.13



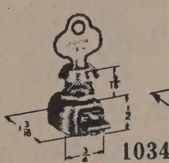
567

3 POSITION CENTER OFF

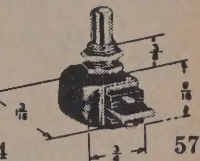
Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

No.	CIRCUIT	NET Each
566	SPDT	$1.68
565	2 Circ.	1.89
567	DPDT	2.07

CANOPY TYPE ROTARY SWITCHES



1034



570

Laminated type. 11/32-32 x 15/32" sleeve, nickel finish. Solder lugs. Supplied with hex nut and dress nut. SPST rated at 3 amps-250 volts AC-DC, all others rated at 1 amp-250 volts, 3 amps-125 volts. AC-DC. Key removable in OFF position only on SPST and DPST—key removable in both positions on all others. 1⅛" shaft.

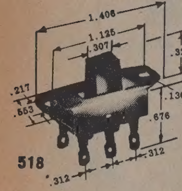
KEY TYPE	NET Each	CIRCUIT	ROTARY TYPE	NET Each
1034	$1.32	SPST	570	$.87
1035	1.50	SPDT	571	1.05
1036	1.53	2 Circ.	—	—
1037	1.89	DPST	572	1.44
1038	2.07	DPDT	573	1.62

SWITCH ACCESSORIES

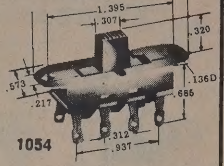
508 509 581 1146 1170 1171 1172 1196 1197 1198

No.	Description	NET Per C
508	ON-OFF name plate	$ 5.40
509	HI-LO name plate	5.40
581	Snap-On Button (Red or Black)	14.40
1146	Narrow Rim Lockwasher	.78
1170	Key—Remove off position	21.00
1171	Key—Remove both positions	21.00
1172	Locking Ring	2.40
1196	Hex Nut—Brass N.P.	1.80
1197	Ring Nut—Brass N.P.	3.00
1198	Dress Nut—Brass N.P.	18.00

CONTINENTAL-WIRT SLIDE SWITCHES



518



1054

With Detent

UL APPROVED

General purpose switches, used on hi-fi equipment, test instruments, etc. Steel cadmium plated housings. Black phenolic buttons. **Std. Pkg. 25**

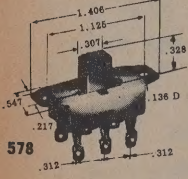
No.	Circuit	Rating @ 125 Volts AC Amps	Rating @ 125 Volts DC Amps	NET Per C
515	SPST	.75	.75	$11.40
516	SPDT	.75	.75	12.00
517	DPST	.5	.5	15.00
518	DPDT	.5	.5	18.00
1105	SPST	6.0	1.0	14.40
1106	SPDT	6.0	1.0	15.00
1107	DPST	6.0	1.0	24.00
1108	DPDT	6.00	1.0	27.00

With Spring Return

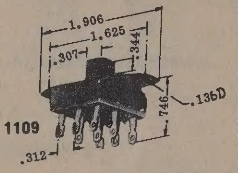
No.	Circuit	Rating 125V ACDC	NET Per C
568	SPST	.5 Amp	$24.00
569	SPDT	.5 Amp	28.80

TRIPLE THROW With Detent

No.	Circuit	Rating 125V ACDC	NET Per C
1053	SP3T	.5 Amp	$28.80
1054	DP3T	.5 Amp	30.00



578



1109

SLIDE SWITCHES With Detent

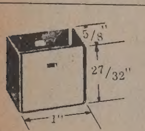
CENTER OFF

No.	Circuit	Rating 125V ACDC	NET Per C
577	SP 3-Position	.5 Amp	$28.80
578	DP 3-Position	.5 Amp	30.00

MULTI-POLE SWITCHES With Detent

Unique construction, all poles are in the same plane, more compact, easier wiring. **Std. Pkg. 25**

No.	Circuit	Rating @ 125 Volts AC Amps	Rating @ 125 Volts DC Amps	NET Per C
1109	3PDT	3.0	1.0	$48.00
1110	3PDT	.5	.5	45.00
	Same as above but 1.005" wide			
1104	4PDT	.5	.5	60.00



SLIDE SWITCH SHIELD

For terminal protection or electrostatic shielding. Shield is made of steel, cadmium plated, with fibre insulation.

Std. Pkg. 25

No. 519 **Each $.10**

SMITH STOCKS SWITCHES FOR INDUSTRY

- CUTLER HAMMER
- KULKA "ST" SWITCHES
- MICRO TOGGLE SWITCHES
- ARROW, HART & HEGEMAN
- CONTINENTAL-WIRT

The Major Portions of these foremost brands of switch lines are stocked in depth at our plant in Brooklyn, N.Y., for quick availability either from our warehouse or thru our nationwide network of leading electronic parts distributors.

ROCKER-ACTUATED TOGGLE SWITCHES

Combines advantages of Toggle Switch circuitry and current capacity with pushbutton control. Snag-proof keys prevent false actuation. Translucent plastic keys feature edge light indication. Lower half of key emits soft glow from light source in panel. Enables easy identification of actuator position. Transparent plastic keys mounted above flush. An insert with signs, symbols, or letters can be placed under the key.

Temperature range −65°F to +160°F. Sealed between bushing and rocker actuator, and between cover and case. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON(MOM)
2	ON-NONE-OFF	9	ON(MOM)OFF-ON (MOM
3	ON-NONE-ON	10	ON-NONE-ON(MOM)
4	ON-OFF-NONE	11	ON-OFF(MOM)-NONE
5	ON-ON-NONE	12	ON(MOM)-ON-NONE
6	ON-NONE-OFF(MOM)	13	NONE-OFF-ON(MOM)
7	ON-OFF-ON(MOM)		

RATING: CURRENT CAPACITY (AMPS)

	CON-TINU-OUS	RESISTIVE LOAD 30 vdc	115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUC-TIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8
E	40	20	.75	.5	15	6	5	4	12	15
F	40	18	.75	.5	11	6	4	2	10	8

HHS	MICRO	Circuit	Rating	NET Each
	1 POLE			
	TRANSLUCENT KEY			
3401	1TP1-1	1	A	$ 8.58
3402	1TP1-2	2	A	8.58
3403	1TP1-3	3	A	8.58
3404	1TP1-21	4	A	8.87
3405	1TP1-31	5	A	8.87
3406	1TP1-4	6	B	8.58
3407	1TP1-5	7	B	8.58
3408	1TP1-6	8	B	8.58
3409	1TP1-7	9	B	8.58
3410	1TP1-8	10	B	8.58
3411	1TP1-41	11	B	8.87
3412	1TP1-51	12	B	8.87
3413	1TP1-61	13	B	8.87
	TRANSPARENT KEY			
3414	1TP4-1	1	A	$10.30
3415	1TP4-2	2	A	10.30
3416	1TP4-3	3	A	10.30
3417	1TP4-21	4	A	10.60
3418	1TP4-31	5	A	10.60
3419	1TP4-4	6	B	10.30
3420	1TP4-5	7	B	10.30
3421	1TP4-6	8	B	10.30
3422	1TP4-7	9	B	10.30
3423	1TP4-8	10	B	10.30
3424	1TP4-41	11	B	10.60
3425	1TP4-51	12	B	10.60
3426	1TP4-61	13	B	10.60
	2 POLE			
	TRANSLUCENT KEY			
3427	2TP1-1	1	C	$ 9.98
3428	2TP1-2	2	C	9.98
3429	2TP1-3	3	C	9.98
3430	2TP1-21	4	C	10.21
3431	2TP1-31	5	C	10.21
3432	2TP1-4	6	D	9.98
3433	2TP1-5	7	D	9.98
3434	2TP1-6	8	D	9.98
3435	2TP1-7	9	D	9.98
3436	2TP1-8	10	D	9.98
3437	2TP1-41	11	D	10.21
3438	2TP1-51	12	D	10.34
3439	2TP1-61	13	D	10.21
	TRANSPARENT KEY			
3440	2TP4-1	1	C	$11.70
3441	2TP4-2	2	C	11.70
3442	2TP4-3	3	C	11.70
3443	2TP4-21	4	C	11.93
3444	2TP4-31	5	C	11.93
3445	2TP4-4	6	D	11.70
3446	2TP4-5	7	D	11.70
3447	2TP4-6	8	D	11.70
3448	2TP4-7	9	D	11.70
3449	2TP4-8	10	D	11.70
3450	2TP4-41	11	D	11.93
3451	2TP4-51	12	D	12.06
3452	2TP4-61	13	D	11.93
	4 POLE			
	TRANSLUCENT KEY			
3453	4TP1-1	1	E	$12.29
3454	4TP1-2	2	E	12.29
3455	4TP1-3	3	E	12.29
3456	4TP1-21	4	E	12.48
3457	4TP1-31	5	E	13.26
3458	4TP1-4	6	F	12.29
3459	4TP1-5	7	F	12.29
3460	4TP1-6	8	F	12.29
3461	4TP1-7	9	F	12.29
3462	4TP1-8	10	F	12.29
3463	4TP1-41	11	F	12.48
3464	4TP1-51	12	F	13.49
3465	4TP1-61	13	F	12.48
	THANSPARENT KEY			
3466	4TP4-1	1	E	$14.01
3467	4TP4-2	2	E	14.01
3468	4TP4-3	3	E	14.01
3469	4TP4-21	4	E	14.01
3470	4TP4-31	5	E	14.98
3471	4TP4-4	6	F	14.01
3472	4TP4-5	7	F	14.01
3473	4TP4-6	8	F	14.01
3474	4TP4-7	9	F	14.01
3475	4TP4-8	10	F	14.01
3476	4TP4-41	11	F	14.20
3477	4TP4-51	12	F	15.24
3478	4TP4-61	13	F	14.20

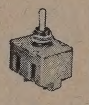
BUSHING-MOUNTED TOGGLE SWITCHES

Tested and approved under MIL-S-3950A. Silicone sealed between cover and case, and between bushing and toggle lever. Integral terminals provide stronger wiring connections. Wide temperature range of −85°F to +250°F. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON(MOM)
2	ON-NONE-OFF	9	ON(MOM)OFF-ON (MOM)
3	ON-NONE-ON	10	ON-NONE-ON(MOM)
4	ON-OFF-NONE	11	ON-OFF(MOM)-NONE
5	ON-ON-NONE	12	ON(MOM)-ON-NONE
6	ON-NONE-OFF(MOM)	13	NONE-OFF-ON(MOM)
7	ON-OFF-ON(MOM)		

RATING: CURRENT CAPACITY (AMPS)

	CON-TINU-OUS	RESISTIVE LOAD 30 vdc	115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUC-TIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8



HHS	MICRO	"MS" No.	Cir-cuit	Rat-ing	Net Each
	1 POLE (MS 24523)				
3101	1TL1-1	MS24523-21	1	A	$4.16
3102	1TL1-2	MS24523-22	2	A	4.16
3103	1TL1-3	MS24523-23	3	A	4.16
3104	1TL1-21	MS24523-24	4	A	4.42
3105	1TL1-31	MS24523-33	5	A	4.42
3106	1TL1-4	MS24523-29	6	B	4.16
3107	1TL1-5	MS24523-31	7	B	4.16
3108	1TL1-6	MS24523-30	8	B	4.16
3109	1TL1-7	MS24523-27	9	B	4.16
3110	1TL1-8	MS24523-26	10	B	4.16
3111	1TL1-41	MS24523-25	11	B	4.42
3112	1TL1-51	MS24523-51	12	B	4.42
3113	1TP1-61	MS24523-28	13	B	4.42
	2 POLE (MS 24524)				
3114	2TL1-1	MS24524-21	1	C	$5.53
3115	2TL1-2	MS24524-22	2	C	5.53
3116	2TL1-3	MS24524-23	3	C	5.53
3117	2TL1-21	MS24524-24	4	C	5.75
3118	2TL1-31	MS24524-33	5	C	5.75
3119	2TL1-4	MS24524-29	6	D	5.53
3120	2TL1-5	MS24524-31	7	D	5.53
3121	2TL1-6	MS24524-30	8	D	5.53
3122	2TL1-7	MS24523-27	9	D	5.53
3123	2TL1-8	MS24524-26	10	D	5.53
3124	2TL1-41	MS24524-25	11	D	5.75
3125	2TL1-51	MS24524-32	12	D	5.88
3126	2TL1-61	MS24524-28	13	D	5.75
	4 POLE (MS 24525)				
3127	4TL1-1	MS24525-21	1	C	$7.77
3128	4TL1-2	MS24525-22	2	C	7.77
3129	4TL1-3	MS24525-23	3	C	7.83
3130	4TL1-21	MS24525-24	4	C	8.03
3131	4TL1-31	MS24525-33	5	C	8.81
3132	4TL1-4	MS24525-29	6	D	7.77
3133	4TL1-5	MS24525-31	7	D	7.83
3134	4TL1-6	MS24525-30	8	D	7.77
3135	4TL1-7	MS24525-27	9	D	7.83
3136	4TL1-8	MS24525-26	10	D	7.83
3137	4TL1-41	MS24525-25	11	D	8.03
3139	4TL1-51	MS24525-32	12	D	9.07
3139	4TL1-61	MS24525-28	13	D	8.03

BUSHING-MOUNTED "TS" TOGGLE SMITCHES

Tested and approved under MIL-S-3950A. Terminals plated to enable conversion to solder use by removing screws. Sealed toggle lever. **Std. Pkg. 10**

RATING: CURRENT CAPACITY (AMPS)

	CON-TINU-OUS	RESISTIVE LOAD 30 vdc	125 vdc	250 vdc	125 vac	250 vac	LAMP LOAD 30 vdc	125 vac	INDUC-TIVE LOAD 30 vdc	125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8

HHS	MICRO	"MS" No.	Cir-cuit	Rat-ing	Net Ea.
	1 POLE (MS 35058)				
3141	511TS1-1	MS35058-21	1	A	$2.18
3142	511TS1-2	MS35058-22	2	A	1.82
3143	511TS1-3	MS35058-23	3	A	2.18
3144	511TS1-21	MS35058-24	4	A	1.82
3145	511TS1-4	MS35058-29	5	B	2.02
3146	511TS1-5	MS35058-31	6	B	2.37
3147	511TS1-6	MS35058-30	7	B	2.02
3148	511TS1-7	MS35058-27	8	B	2.37
3149	511TS1-8	MS35058-26	9	B	2.37
3150	511TS1-61	MS35058-28	10	B	2.02
3151	511TS1-41	MS35058-25	11	B	2.02
	2 POLE (35059)				
5152	512TS1-1	MS35059-21	1	C	$2.93
3153	512TS1-2	MS35059-22	2	C	2.44
3154	512TS1-3	MS35059-23	3	C	2.93
3155	512TS1-21	MS35059-24	4	C	2.44
3156	512TS1-4	MS35059-29	5	D	2.93
3157	512TS1-5	MS35059-31	6	D	3.15
3158	512TS1-6	MS35059-30	7	D	2.93
3159	512TS1-7	MS35059-27	8	D	3.15
3160	512TS1-8	MS35059-26	9	D	3.15
3161	512TS1-61	MS35059-28	10	D	2.93
3162	512TS1-41	MS35059-25	11	D	2.93

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

"UL" LISTED "TS" TOGGLE SMITCHES

"UL" listed "Commercial" type are identical to military type except for bat handle finish. Bright chrome plated to enhance panel appearance. Also certified by the Canadian Standards Association (CSA). **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON(MOM)
2	ON-NONE-OFF	9	ON(MOM)OFF-ON (MOM)
3	ON-NONE-ON		
4	ON-OFF-NONE	10	ON-NONE-ON(MOM)
6	ON-NONE-OFF(MOM)	13	NONE-OFF-ON(MOM)
7	ON-OFF-ON(MOM)		

RATING "A"	RATING "B"	RATING "C"
15 Amps.,	10 Amps.,	15 Amps.,
125-250 VAC	125-250 VAC	125-250 VAC
½ HP, 125 VAC	¼ HP, 125 VAC	⅓ HP, 125 VAC
1 HP, 250 VAC	½ HP, 250 VAC	¾ HP, 250 VAC

1 POLE

SCREW TERMINALS

HHS	MICRO	Circuit	Rating	Net Ea.
3331	11TS15-1	1	A	$2.18
3332	11TS15-2	2	A	1.82
3333	11TS15-3	2	A	2.18
3334	11TS15-6	8	B	2.02
3335	11TS15-61	13	B	2.02
3336	11TS15-7	9	B	2.37

QUICK DISCONNECT TERMINALS

HHS	MICRO	Circuit	Rating	Net Ea.
3337	11TS95-1	1	A	$2.11
3338	11TS95-2	2	A	1.76
3339	11TS95-21	4	A	1.76
3340	11TS95-3	3	A	2.11
3341	11TS95-4	6	B	1.95
3342	11TS95-5	7	B	2.31
3343	11TS95-6	8	B	1.95
3344	11TS95-61	13	B	1.95
3345	11TS95-7	9	B	2.31
3346	11TS95-8	10	B	2.31

SOLDER TERMINALS

HHS	MICRO	Circuit	Rating	Net Ea.
3347	11TS115-1	1	A	$2.05
3348	11TS115-2	2	A	1.72
3349	11TS115-3	3	A	2.05
3350	11TS115-4	6	B	1.92
3351	11TS115-7	9	B	2.24

2 POLE

SCREW TERMINALS

HHS	MICRO	Circuit	Rating	Net Ea.
3352	12TS15-1	1	A	$2.93
3353	12TS15-2	2	A	2.44
3354	12TS15-21	4	A	2.44
3355	12TS15-3	3	A	2.93
3356	12TS15-4	6	C	2.93
3357	12TS15-5	7	C	3.15
3358	13TS15-6	8	C	2.93
3359	12TS15-61	13	C	2.93
3360	12TS15-7	9	C	3.15
3361	12TS15-8	10	C	3.15

QUICK DISCONNECT

HHS	MICRO	Circuit	Rating	Net Ea.
3362	12TS95-1	1	A	$2.76
3363	12TS95-2	2	A	2.31
3364	12TS95-21	4	A	2.31
3365	12TS95-3	3	A	2.76
3366	12TS95-4	6	C	2.83
3367	12TS95-5	7	C	3.02
3368	12TS95-6	8	C	2.83
3369	12TS95-61	13	C	2.83
3370	12TS95-7	9	C	3.02
3371	12TS95-8	10	C	3.02

SOLDER TERMINALS

HHS	MICRO	Circuit	Rating	Net Ea.
3372	12TS115-1	1	A	$2.63
3373	12TS115-2	2	A	2.24
3374	12TS115-21	4	A	2.24
3375	12TS115-3	3	A	2.63
3376	12TS115-4	6	C	2.73
3377	12TS115-5	7	C	2.89
3378	12TS115-6	8	C	2.73
3379	12TS115-61	13	C	2.73
3380	12TS115-7	9	C	2.89
3381	12TS115-8	10	C	2.89

3-HOLE MOUNTED "TS" TOGGLE SMITCHES

"An" Type tested and approved under MIL specs. "JAN" Type conform to JAN-S-23. Sealed Lever. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON(MOM)
2	ON-NONE-OFF	9	ON(MOM)OFF-ON (MOM)
3	ON-NONE-ON		
4	ON-OFF-NONE	10	ON-NONE-ON(MOM)
6	ON-NONE-OFF(MOM)	11	ON-OFF(MOM)-NONE
7	ON-OFF-ON(MOM)	13	NONE-OFF-ON(MOM)

RATING: CURRENT CAPACITY (AMPS)

	CON-TINUOUS	RESISTIVE					LAMP LOAD		INDUCTIVE LOAD	
		30 vdc	125 vdc	250 vdc	115 vac	230 vac	30 vdc	125 vac	30 vdc	125 vac
A	55	40	.75	.5	20	7.5	7	7	20	15
B	55	30	.75	.5	20	7.5	5	4	18	11
C	55	40	.75	.5	25	8	10	7	20	15
D	55	30	.75	.5	20	7	7	4	18	11

1 POLE (MIL-S-6745)

HHS	MICRO	"AN" No.	"JAN" No.	Circuit	Rating	Net Ea.
3301	31TS1-1	3022-1	ST45E	1	A	$2.57
3302	37TS1-2	3022-2	ST45A	2	A	2.11
3303	31TS1-3	3022-3	ST45D	3	A	2.57
3304	31TS1-21	——	——	4	A	2.11
3305	31TS1-4	3022-9	ST45B	6	B	2.34
3306	31TS1-5*	——	ST45H	7	B	2.76
3307	31TS1-6	3022-8	ST45C	8	B	2.34
3308	31TS1-7	3022-7	ST45G	9	B	2.76
3309	31TS1-8	3022-11	ST45F	10	B	2.76
3310	31TS2-5	3022-6	——	7	B	2.96
3311	31TS1-61	——	——	13	B	2.34

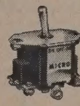
*Has a jumper across the stationary contact terminals.

2 POLE (MIL-S-3950A)

HHS	MICRO	"MS" No.	Circuit	Rating	Net Ea.
3312	532TS1-1	MS25103-21	1	C	$5.33
3313	532TS1-3	MS25103-23	3	C	5.33
3314	532TS1-21	MS25103-24	4	C	4.45
3315	532TS1-5	MS25103-31	7	D	5.79
3316	532TS1-7	MS25103-27	9	D	5.79
3317	532TS1-8	MS25103-26	10	D	5.79
3318	532TS1-41	MS25103-25	11	D	4.88
3319	532TS1-61	MS25103-28	13	D	5.23

RATING: CURRENT CAPACITY (AMPS)

	CON-TINUOUS	RESISTIVE LOAD			LAMP LOAD		INDUCTIVE LOAD
		30 vdc	115 vac	30 vdc	115 vac	30 vdc	115 vdc
E	30	25	22	5	3	15	15
F	20	20	20	5	4	12	15
G	20	18	11	4	2	10	8



3 POLE (MIL-S-3950A)

HHS	MICRO	"MS" No.	Circuit	Rating	Net Ea.
3320	533TS1-1	MS25105-21	1	E	$4.97
3321	533TS1-3	MS25105-23	3	E	4.97
3322	533TS1-21	MS25105-24	4	E	4.16

4 POLE (MIL-S-6745)

HHS	MICRO	"AN" No.	Circuit	Rating	Net Ea.
3323	34TS1-1	3227-1	1	F	$6.66
3324	34TS1-2	3227-2	2	F	5.33
3325	34TS1-3	3227-3	3	F	6.66
3326	34TS1-21	3227-9	4	F	7.83
3327	34TS1-5	3227-5	7	G	8.03
3328	34TS1-6	3227-8	10	G	7.22
3329	34TS1-7	3227-7	9	G	8.03
3330	34TS1-61	3227-10	13	G	7.22

SEALED "TS" TOGGLE SWITCHES

These switches have a panel seal in addition to all other "TS" features. When mounted, the seal provides a dust, liquid and moisture seal at the panel. **Std. Pkg. 10**

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	7	ON-OFF-ON(MOM)
2	ON-NONE-OFF	8	OFF-NONE-ON(MOM)
3	ON-NONE-ON	9	ON(MOM)OFF-ON (MOM)
4	ON-OFF-NONE		
6	ON-OFF-ON(MOM)	10	ON-NONE-ON(MOM)

RATING: CURRENT CAPACITY (AMPS)

	CON-TINUOUS	RESISTIVE LOAD					LAMP LOAD		INDUCTIVE LOAD	
		30 vdc	125 vdc	250 vdc	125 vac	250 vac	30 vdc	125 vac	30 vdc	125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8

1 POLE

SCREW TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3201	211TS1-1	1	A	$3.45
3202	211TS1-2	2	A	3.06
3203	211TS1-3	3	A	3.45
3204	211TS1-21	4	A	3.06
3206	211TS1-5	7	B	3.61
3207	211TS1-6	8	B	3.25
3208	211TS1-7	9	B	3.61
3209	211TS1-8	10	B	3.61

SOLDER TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3211	211TS11-1	1	A	$3.28
3212	211TS11-2	2	A	2.96
3213	211TS11-3	3	A	3.28
3215	211TS11-4	6	B	3.15
3216	211TS11-5	7	B	3.48
3217	211TS11-6	8	B	3.15
3218	211TS11-7	9	B	3.48
3219	211TS11-8	10	B	3.48

2 POLE

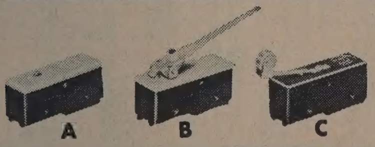
SCREW TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3221	212TS1-1	1	C	$4.13
3222	212TS1-2	2	C	3.64
3223	212TS1-3	3	C	4.13
3224	212TS1-21	4	C	3.64
3225	212TS1-4	6	D	4.13
3226	212TS1-5	7	D	4.39
3227	212TS1-6	8	D	4.13
3228	212TS1-7	9	D	4.39
3229	212TS1-8	10	D	4.39

SOLDER TYPE TERMINALS

HHS	MICRO	Circuit	Rating	NET Each
3231	212TS11-1	1	C	$3.84
3232	212TS11-2	2	C	3.45
3233	212TS11-3	3	C	3.84
3235	212TS11-4	6	D	3.93
3236	212TS11-5	7	D	4.06
3237	212TS11-6	8	D	3.93
3238	212TS11-7	9	D	4.06
3239	212TS11-8	10	D	4.06

ARROW H & H "SNAP-ACTING" Momentary Contact SWITCHES



TERMINAL CODE:

S = solder lugs
L = screws, lock washers
C = screws, cup washers
Q = quick connect

HIGH SENSITIVITY PIN TYPE (A)

RATINGS

LIMIT LOAD to 1 10 Amp, 125 V., A.C.
or 10 Watts, 125 V., A.C.
or 5 Watts, 25 V., D.C.

Operating Characteristics

Operating Force	7 to 12 oz.
Pretravel	.012″ max.
Overtravel	.005″ min.
Diff. Travel	.0002 to .0008 in.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4701	$5.82	4705	$5.82	4709	$6.$6
C	4702	5.94	4706	5.94	4710	6.15
L	4703	5.94	4707	5.94	4711	6.15
Q	4704	5.82	4708	5.82	4712	6.06

ADJUSTABLE RIGID LEVER (B)

Heavy Duty 20 Amp

RATINGS

20 A., 480 V., A.C.
10 A, 125 V., A.C. "L" Load
½ A, 125 V., D.C.
¼ A., 250 V., D.C.
1 H.P., 120 V., A.C.
2 H.P., 240 V., A.C.

Operating Characteristics

Operating Force	2½ oz. max.
Pretravel	⅝″ max.
Overtravel	.078″ min.
Diff. Travel	.109″ max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4721	$2.64	4725	$2.64	4729	$2.88
C	4722	2.76	4726	2.76	4731	3.00
L	4723	2.76	4727	2.76	4731	3.00
Q	4724	2.64	4728	2.64	4732	2.88

ROLLER LEAF ACTUATOR (C)

General Purpose 15 Amp

RATINGS

15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics

Operating Force	5 oz. max.
Pretravel	5/32″ max.
Overtravel	not over 1/16 in.
Diff. Travel	.050″ max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4501	$2.19	4533	$2.19	4565	$2.49
C	4502	2.25	4534	2.25	4566	2.52
L	4503	2.25	4535	2.25	4567	2.52
Q	4504	2.19	4536	2.19	4568	2.49

Heavy Duty 20 Amp

RATINGS

20 A., 480 V., A.C.
10 A, 125 V., A.C. "L" Load
½ A, 125 V., D.C.
¼ A., 250 V., D.C.
1 H.P., 120 V., A.C.
2 H.P., 240 V., A.C.

Operating Characteristics

Operating Force	5 oz. max.
Pretravel	11/32″ max.
Overtravel	not over 1/16 in.
Diff. Travel	.065″ max.

WITH TERMINALS	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T. No.	NET Ea.
S	4601	$2.25	4633	$2.25	4665	$2.58
C	4602	2.31	4634	2.31	4666	2.64
L	4603	2.31	4635	2.31	4667	2.64
Q	4604	2.25	4636	2.25	4668	2.58

ARROW H & H Snap-Acting Switches continued on next page

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ARROW, HART & HEGEMAN

"SNAP ACTING" MOMENTARY CONTACT SWITCHES

PRECISION SNAP-ACTING SWITCH A precision snap-acting switch is a mechanically operated electric switch having predetermined and accurately controlled characteristics, and having contacts other than the blade and jaw, or mercury type, where the maximum separation between any butting contacts is 1/8 inch.

MOMENTARY CONTACT SWITCH A momentary contact switch is a switch which returns from the operated condition to its normal circuit condition when the actuating force is removed.

ACTUATOR An actuator is the mechanism of the switch or enclosure which, when moved as intended, will operate the contacts.

OPERATING FORCE Operating force is that straight line force in the designated direction applied to the actuator to cause the switch contacts to snap to the operated contact position.

PRETRAVEL Pretravel is the distance or angle through which the actuator moves from the actuator free position to the actuator operating position.

OVERTRAVEL Overtravel is the movement of the actuator beyond the operating position.

MOVEMENT DIFFERENTIAL Movement differential is the distance or angle from the operating position to the releasing position.

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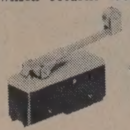
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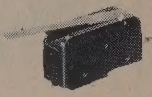
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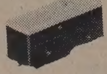
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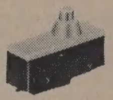
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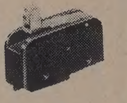

J

TERMINAL CODE: L = screws, lock washers C = screws, cup washers
S = solder lugs Q = quick disconnect

FLEXIBLE LEAF ACTUATOR (D)

General Purpose 15 amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force...... 5 oz. max.
Pretravel................. 5/32″ max.
Overtravel...... not over 1/16 in.
Diff. Travel........... .050″ max.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4505	$1.62	4537	$1.62	4569	$1.95
C	4506	1.68	4538	1.68	4507	2.07
L	4507	1.68	4539	1.68	4571	2.07
Q	4508	1.62	4505	1.62	4572	1.95

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force...... 9 oz. max.
Pretravel............ 11/32″ max.
Overtravel ..... not over 1/16 in.
Diff. Travel........... .065″ max.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4605	$1.68	4637	$1.68	4669	$2.97
C	4606	1.74	4638	1.74	4670	2.13
L	4607	1.74	4639	1.74	4671	2.13
Q	4608	1.68	4640	1.68	4672	2.07

STANDARD ROLLER (E)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force . 3½ oz. max.
Pretravel............... 9/32″ max.
Overtravel............... .156″ min.
Diff. Travel.... .004 to .040 in.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4521	$2.52	4553	$2.52	4585	$2.88
C	4522	2.64	4554	2.64	4586	3.00
L	4523	2.64	4555	2.64	4587	3.00
Q	4524	2.52	4556	2.52	4588	2.88

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.. 2½ oz. max.
Pretravel............ 15/32″ max.
Overtravel............... 1/16″ min.
Diff. Travel........... .085″ max.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4621	$2.64	4653	$2.64	4685	$3.00
C	4622	2.70	4654	2.70	4686	3.06
L	4623	2.70	4655	2.70	4687	3.06
Q	4624	2.64	4656	2.64	4688	3.00

RIGID HINGE (F)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force........... 2½ oz.
Pretravel .... ⅜″ max.
Overtravel .... .219″ min.
Diff. Travel...... .007 to .050 in.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4525	$1.95	4557	$1.95	4589	$2.31
C	4526	2.01	4558	2.01	4590	2.37
L	4527	2.01	4559	2.01	4591	2.37
Q	4528	1.95	4560	1.95	4592	2.31

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.. 2½ oz. max.
Pretravel .... ⅝″ max.
Overtravel .... .078″ min.
Diff. Travel........... .109″ max.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4625	$2.07	4657	$2.07	4689	$2.37
C	4626	2.13	4658	2.13	4690	2.43
L	4627	2.13	4659	2.13	4691	2.43
Q	4628	2.07	4660	2.07	4692	2.37

PIN TYPE (G)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force...... 9 to 13 oz.
Pretravel................. .015″ max.
Overtravel................ .005″ min.
Diff. Travel.. .0004 to .002 in.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4529	$1.50	4561	$1.50	4593	$1.77
C	4530	1.56	4562	1.56	4594	1.89
L	4531	1.56	4563	1.56	4595	1.89
Q	4532	1.50	4564	1.50	4596	1.77

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.... 14 to 22 oz.
Pretravel................. .050″ max.
Overtravel................ .010″ min.
Diff. Travel.. .002 to .0075 in.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4629	$1.56	4661	$1.56	4693	$1.86
C	4630	1.62	4662	1.62	4694	1.95
L	4631	1.62	4663	1.62	4695	1.95
Q	4632	1.56	4664	1.56	4696	1.86

PANEL MOUNTED TYPE (H)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force...... 9 to 13 oz.
Pretravel............... 1/64″ max.
Overtravel............. 7/32″ min.
Diff. Travel.... .0004 to .002 in.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4509	$3.54	4541	$3.54	4573	$3.96
C	4510	3.57	4542	3.57	4574	4.02
L	4511	3.57	4533	3.57	4575	4.02
Q	4512	3.54	4544	3.45	4576	3.96

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.... 14 to 22 oz.
Pretravel................. .050″ max.
Overtravel............... .219″ min.
Diff. Travel.. .002 to .0075 in.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4609	$3.63	4641	$3.63	4673	$4.08
C	4610	3.69	4642	3.69	4674	4.14
L	4611	3.69	4643	3.69	4675	4.14
Q	4612	3.63	4644	3.63	4676	4.08

SHORT OVERTRAVEL BUTTON (I)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force...... 9 to 13 oz.
Pretravel............... 1/64″ max.
Overtravel................ 1/16″ min.
Diff. Travel.. .0004 to .002 in.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4513	$1.86	4545	$1.86	4577	$2.19
C	4514	1.89	4546	1.89	4578	2.25
L	4515	1.89	4547	1.89	4579	2.25
Q	4516	1.86	4548	1.86	4580	2.19

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force.... 14 to 22 oz.
Pretravel............... .050″ max.
Overtravel............... .093″ min.
Diff. Travel.. .002 to .0075 in.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4613	$1.89	4645	$1.89	4677	$2.25
C	4614	1.95	4646	1.95	4678	2.31
L	4615	1.95	4647	1.95	4679	2.31
Q	4616	1.89	4648	1.89	4680	2.25

SHORT ROLLER (J)

General Purpose 15 Amp

RATINGS
15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

Operating Characteristics
Operating Force ....6 oz. max.
Pretravel............... 9/64″ max.
Ovetravel............... 3/32″ min.
Diff. Travel.... .003 to .020 in.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4517	$2.52	4549	$2.52	4581	$2.88
C	4518	2.64	4550	2.64	4582	3.00
L	4519	2.64	4551	2.64	4583	3.00
Q	4520	2.52	4552	2.52	4584	2.88

Heavy Duty 20 Amp

RATINGS
20 A., 480 V., A.C. ¼ A., 250 V., D.C.
10 A, 125 V., A.C. "L" Load 1 H.P., 120 V., A.C.
½ A, 125 V., D.C. 2 H.P., 240 V., A.C.

Operating Characteristics
Operating Force ....6 oz. max.
Pretravel.................. ¼″ max.
Overtravel............... 1/32″ min.
Diff. Travel........... 3/64″ max.

WITH	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
TERMINALS	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4617	$2.64	4649	$2.64	4681	$3.00
C	4618	2.70	4650	2.70	4682	3.06
L	4619	2.70	4651	2.70	4683	3.06
Q	4620	2.64	4652	2.64	4684	3.00

HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

To Series Number Add Suffix

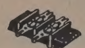
With Screw Terminals

600-2

With One-Sided Solder Terminals

600-¾ST-2

With Two-Sided Solder Terminals



600-ST-2

With Bottom Solder Terminals

600-Y-2

With Side And Bottom Terminals

600-XY-2

With Bottom Terminals

600-Z-2

Height 13/32", Width 7/8", Thickness 1/4", Terminals 3/8" Centers, 5/16" Mtg., 5-40 x 1/4 Screws.

600- SERIES	600-				
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"
- 1	$ .15	$ .16	$ .30	$. 42	$ .50
- 2	.24	.25	.48	.68	.82
- 3	.33	.36	.66	.91	1.09
- 4	.42	.46	.84	1.15	1.38
- 5	.51	.56	1.02	1.40	1.68
- 6	.59	.65	1.18	1.62	1.94
- 7	.68	.75	1.36	1.89	2.27
- 8	.77	.85	1.54	2.11	2.53
- 9	.86	.95	1.72	2.36	2.83
- 10	.95	1.05	1.90	2.61	3.13
- 11	1.03	1.13	2.06	2.83	3.40
- 12	1.12	1.23	2.24	3.08	3.70
- 13	1.21	1.33	2.42	3.32	3.98
- 14	1.31	1.44	2.62	3.60	4.32
- 15	1.40	1.54	2.80	3.85	4.62
- 16	1.49	1.64	2.98	4.10	4.92
- 17	1.57	1.70	3.14	4.31	5.17
- 18	1.66	1.83	3.32	4.56	5.47
- 19	1.75	1.93	3.50	4.81	5.77
- 20	1.84	2.03	3.68	5.06	6.07
- 21	1.93	2.13	3.86	5.30	6.36
- 22	2.02	2.23	4.04	5.55	6.66

Suffix	600-¾ST-		600-ST-		600-Y-
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"
- 1	$ .19	$ .20	$ .38	$ .45	$ .53
- 2	.32	.33	.64	.76	.89
- 3	.44	.47	.88	1.00	1.18
- 4	.57	.61	1.14	1.30	1.53
- 5	.69	.74	1.38	1.58	1.86
- 6	.83	.89	1.66	1.86	2.18
- 7	.95	1.02	1.90	2.14	2.51
- 8	1.08	1.16	2.16	2.42	2.84
- 9	1.21	1.30	2.42	2.72	3.24
- 10	1.33	1.43	2.66	2.99	3.55
- 11	1.45	1.55	2.90	3.25	3.86
- 12	1.58	1.69	3.16	3.54	4.20
- 13	1.71	1.83	3.42	3.82	4.54
- 14	1.84	1.97	3.68	4.13	4.90
- 15	1.96	2.10	3.92	4.41	5.18
- 16	2.09	2.24	4.18	4.70	5.52
- 17	2.21	2.37	4.42	4.96	5.82
- 18	2.34	2.51	4.68	5.25	6.16
- 19	2.46	2.64	4.92	5.52	6.48
- 20	2.60	2.78	5.20	5.82	6.83
- 21	2.72	2.90	5.44	6.10	7.16
- 22	2.86	3.07	6.14	6.40	7.51

Suffix	600-YSY-			600-Z-	
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "F"
- 1	$ .23	$ .24	$ .46	$ .53	$ .61
- 2	.40	.41	.80	.92	1.05
- 3	.60	.63	1.20	1.32	1.50
- 4	.73	.81	1.46	1.62	1.85
- 5	.93	.98	1.86	2.06	2.34
- 6	1.07	1.17	2.14	2.34	2.66
- 7	1.23	1.34	2.46	2.70	3.07
- 8	1.40	1.52	2.80	3.16	3.58
- 9	1.57	1.70	3.14	3.44	3.91
- 10	1.73	1.87	3.46	3.76	4.28
- 11	1.89	2.03	3.78	4.13	4.69
- 12	2.06	2.21	4.12	4.50	5.11
- 13	2.23	2.39	4.46	4.86	5.52
- 14	2.40	2.57	4.80	5.05	5.77
- 15	2.56	2.74	5.12	5.61	6.38
- 16	2.73	2.92	5.46	5.88	6.70
- 17	2.89	3.09	5.78	6.32	7.18
- 18	3.06	3.27	6.12	6.69	7.60
- 19	3.22	3.44	6.44	7.04	8.00
- 20	3.40	3.70	6.80	7.42	8.43
- 21	3.56	3.90	7.12	7.78	8.84
- 22	3.74	3.98	7.48	8.04	9.15

Height 13/32"; Width 7/8", Thickness 1/4", Terminals 3/8" Centers, 5/16" Mtg., 6-32 x 1/4 Screws.

600A- SERIES	600A-				
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"
- 1	$ .16	$ .18	$ .32	$ .47	$ .56
- 2	.25	.28	.50	.70	.91
- 3	.36	.40	.72	1.00	1.20
- 4	.46	.51	.92	1.26	1.51
- 5	.56	.62	1.12	1.54	1.85
- 6	.65	.72	1.30	1.79	2.15
- 7	.75	.83	1.50	2.06	2.47
- 8	.85	.94	1.70	2.33	2.80
- 9	.95	1.05	1.80	2.60	3.12
- 10	1.05	1.16	2.10	2.88	3.46
- 11	1.13	1.25	2.26	3.12	3.74
- 12	1.23	1.36	2.46	3.38	4.06
- 13	1.33	1.47	2.66	3.65	4.38
- 14	1.44	1.60	2.88	3.96	4.75
- 15	1.54	1.71	3.08	4.23	5.08
- 16	1.64	1.82	3.28	4.51	5.41
- 17	1.73	1.91	3.46	4.74	5.69
- 18	1.83	2.02	3.66	5.02	6.02
- 19	1.93	2.13	3.86	5.29	6.35
- 20	2.03	2.24	4.06	5.57	6.68
- 21	2.13	2.35	4.26	5.83	7.00
- 22	2.23	2.46	4.46	6.10	7.32

Suffix	600A-¾ST-		600A-ST-		600A-Y-
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"
- 1	$ .20	$ .22	$ .40	$ .50	$ .59
- 2	.33	.37	.66	.83	.97
- 3	.47	.51	.94	1.10	1.30
- 4	.61	.66	1.22	1.43	1.68
- 5	.74	.80	1.48	1.74	2.04
- 6	.89	.96	1.78	2.05	2.40
- 7	1.02	1.10	2.04	2.36	2.77
- 8	1.16	1.25	2.32	2.67	3.13
- 9	1.30	1.40	2.60	3.00	3.52
- 10	1.43	1.54	2.86	3.30	3.87
- 11	1.55	1.67	3.10	3.58	4.20
- 12	1.69	1.82	3.38	3.90	4.57
- 13	1.83	1.97	3.66	4.21	4.94
- 14	1.97	2.13	3.94	4.54	5.33
- 15	2.10	2.27	4.20	4.85	5.69
- 16	2.24	2.42	4.48	5.17	6.07
- 17	2.37	2.55	4.74	5.46	6.40
- 18	2.51	2.70	5.02	5.78	6.78
- 19	2.64	2.84	5.28	6.18	7.23
- 20	2.78	3.00	5.56	6.40	7.51
- 21	2.90	3.14	5.80	6.71	7.88
- 22	3.07	3.29	6.14	7.24	8.46

Suffix	600-YSY-			600-A-Z-	
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "F"
- 1	$ .24	$ .26	$ .48	$ .54	$ .63
- 2	.41	.45	.82	.91	1.05
- 3	.63	.63	1.26	1.39	1.59
- 4	.81	.82	1.62	1.80	2.05
- 5	.98	1.00	1.96	2.16	2.46
- 6	1.17	1.20	2.34	2.57	2.92
- 7	1.34	1.38	2.68	2.94	3.35
- 8	1.52	1.57	3.04	3.34	3.80
- 9	1.70	1.76	3.40	3.67	4.19
- 10	1.87	1.94	3.74	4.11	4.68
- 11	2.03	2.11	4.06	4.46	5.08
- 12	2.21	2.30	4.42	4.86	5.53
- 13	2.39	2.49	4.78	5.25	5.98
- 14	2.57	2.69	5.14	5.65	6.44
- 15	2.74	2.87	5.48	6.02	6.86
- 16	2.92	3.08	5.84	6.42	7.32
- 17	3.09	3.23	6.18	6.79	7.73
- 18	3.27	3.42	6.54	7.15	8.15
- 19	3.44	3.60	6.88	7.56	8.61
- 20	3.62	3.80	7.24	7.96	9.07
- 21	3.78	3.98	7.56	8.31	9.47
- 22	3.99	4.17	7.98	8.77	9.99

Height 1/2", Width 1 1/8", Thickness 5/16", Terminals 7/16" Centers, 27/64" Mtg., 6-32 x 1/4 Screws.

601- SERIES	601-				
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"
- 1	$ .20	$ .22	$ .40	$ .55	$ .66
- 2	.31	.34	.62	.85	1.02
- 3	.42	.46	.84	1.15	1.38
- 4	.54	.59	1.08	1.48	1.78
- 5	.64	.72	1.28	1.76	2.11
- 6	.75	.83	1.50	2.06	2.47
- 7	.88	.97	1.76	2.42	2.90
- 8	.99	1.09	1.98	2.72	3.26
- 9	1.10	1.21	2.20	3.02	3.62
- 10	1.22	1.34	2.44	3.35	4.02
- 11	1.33	1.46	2.66	3.65	4.38
- 12	1.44	1.58	2.88	3.96	4.75
- 13	1.56	1.72	3.12	4.29	5.15
- 14	1.67	1.84	3.34	4.59	5.51
- 15	1.78	1.96	3.56	4.90	5.88
- 16	1.90	2.09	3.80	5.22	6.26
- 17	2.01	2.21	4.02	5.52	6.62
- 18	2.12	2.33	4.24	5.83	7.00
- 19	2.24	2.46	4.48	6.16	7.39
- 20	2.35	2.59	4.70	6.46	7.75
- 21	2.47	2.72	4.94	6.79	8.15
- 22	2.59	2.85	5.18	7.12	8.54
- 23	2.71	2.98	5.42	7.45	8.94

Suffix	601-¾ST-		601-ST-		601-Y-
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"
- 1	$ .24	$ .26	$ .48	$ .59	$ .70
- 2	.41	.44	.82	.95	1.12
- 3	.57	.61	1.14	1.30	1.53
- 4	.74	.79	1.48	1.68	1.97
- 5	.90	.98	1.80	2.02	2.37
- 6	1.07	1.15	2.14	2.38	2.79
- 7	1.23	1.32	2.46	2.77	3.25
- 8	1.40	1.50	2.80	3.13	3.67
- 9	1.56	1.67	3.12	3.48	4.08
- 10	1.73	1.85	3.46	3.86	4.52
- 11	1.89	2.02	3.78	4.21	4.94
- 12	2.06	2.20	4.12	4.58	5.37
- 13	2.22	2.38	4.44	4.95	5.80
- 14	2.39	2.56	4.78	5.31	6.22
- 15	2.55	2.73	5.10	5.72	6.70
- 16	2.72	2.91	5.42	6.09	7.13
- 17	2.88	3.08	5.76	6.45	7.55
- 18	3.05	3.26	6.10	6.80	7.96
- 19	3.21	3.43	6.42	7.19	8.41
- 20	3.38	3.62	6.76	7.54	8.82
- 21	3.55	3.80	7.10	7.92	9.28
- 22	3.72	3.98	7.44	8.30	9.72
- 23	3.89	4.16	7.78	8.68	10.17

Suffix	600-YSY-			601-Z-	
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "F"
- 1	$ .28	$ .30	$ .56	$ .63	$ .74
- 2	.49	.52	.98	1.03	1.19
- 3	.69	.73	1.38	1.51	1.74
- 4	.90	.95	1.80	1.98	2.27
- 5	1.10	1.18	2.20	2.42	2.77
- 6	1.31	1.39	2.62	2.84	3.25
- 7	1.51	1.60	3.02	3.32	3.80
- 8	1.72	1.82	3.44	3.74	4.28
- 9	1.92	2.03	3.84	4.22	4.82
- 10	2.13	2.25	4.26	4.66	5.33
- 11	2.33	2.46	4.66	5.06	5.79
- 12	2.54	2.68	5.08	5.50	6.29
- 13	2.74	2.90	5.48	6.00	6.85
- 14	2.95	3.12	5.90	6.40	7.31
- 15	3.15	3.33	6.30	6.70	7.68
- 16	3.36	3.55	6.72	7.39	8.43
- 17	3.56	3.76	7.12	7.84	8.94
- 18	3.77	3.98	7.54	8.25	9.41
- 19	3.97	4.19	7.94	8.73	9.99
- 20	4.18	4.42	8.36	9.19	10.48
- 21	4.38	4.64	8.76	9.63	10.98
- 22	4.58	4.86	9.16	10.07	11.49
- 23	4.78	5.08	9.56	10.51	12.00

Height 5/8", Width 1 5/16", Thickness 3/8", Terminals 9/16" Centers, 1/2" Mtg., 8-32 x 5/16 Screws.

602- SERIES	602-				
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"
- 1	$ .23	$ .25	$ .46	$ .63	$ .76
- 2	.36	.40	.72	.99	1.19
- 3	.51	.56	1.02	1.40	1.68
- 4	.65	.72	1.30	1.78	2.14
- 5	.78	.86	1.56	2.15	2.58
- 6	.92	1.01	1.84	2.53	3.04
- 7	1.07	1.18	2.14	2.94	3.53
- 8	1.20	1.32	2.40	3.30	3.96
- 9	1.34	1.47	2.68	3.68	4.42
- 10	1.49	1.64	2.98	4.10	4.92
- 11	1.62	1.78	3.24	4.45	5.34
- 12	1.76	1.94	3.52	4.84	5.81
- 13	1.90	2.09	3.80	5.22	6.26
- 14	2.04	2.24	4.08	5.61	6.73
- 15	2.18	2.40	4.36	6.00	7.20
- 16	2.32	2.55	4.64	6.38	7.66
- 17	2.45	2.70	4.90	6.73	8.08
- 18	2.58	2.85	5.16	7.10	8.52
- 19	2.76	3.00	5.52	7.59	9.11
- 20	2.90	3.15	5.80	7.97	9.56
- 21	3.04	3.30	6.08	8.36	10.03
- 22	3.19	3.45	6.38	8.77	10.52
- 23	3.33	3.60	6.66	9.15	10.98
- 24	3.48	3.75	6.96	9.57	11.48
- 25	3.62	3.90	7.24	9.95	11.94
- 26	3.76	4.05	7.52	10.34	12.41

Suffix	602-¾ST-		602-ST-		602-Y-
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"
- 1	$ .30	$ .32	$ .60	$ .70	$ .82
- 2	.50	.54	1.00	1.13	1.33
- 3	.70	.75	1.40	1.59	1.87
- 4	.90	.97	1.80	2.03	2.38
- 5	1.11	1.19	2.22	2.48	2.91
- 6	1.31	1.40	2.62	2.92	3.42
- 7	1.52	1.63	3.14	3.39	3.97
- 8	1.72	1.84	3.44	3.82	4.48
- 9	1.93	2.06	3.86	4.27	5.00
- 10	2.12	2.27	4.24	4.63	5.45
- 11	2.33	2.49	4.66	5.16	6.05
- 12	2.53	2.71	5.06	5.61	6.57
- 13	2.74	2.93	5.48	6.06	7.10
- 14	2.94	3.14	5.88	6.31	7.43
- 15	3.15	3.47	6.30	6.97	8.17
- 16	3.34	3.67	6.68	7.40	8.67
- 17	3.54	3.79	7.08	7.82	9.16
- 18	3.74	4.01	7.48	8.26	9.68
- 19	3.99	4.23	7.98	8.82	10.33
- 20	4.20	4.45	8.40	9.27	10.86
- 21	4.41	4.67	8.82	9.73	11.40
- 22	4.62	4.88	9.24	10.20	11.95
- 23	4.83	5.10	9.66	10.65	12.48
- 24	5.04	5.31	10.08	11.13	13.04
- 25	5.25	5.53	10.50	11.68	13.57
- 26	5.46	5.75	10.92	12.04	14.10

Suffix	600-YSY-			602-Z-	
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "F"
-1	$ .34	$ .36	$ .60	$ .74	$ .86
-2	.58	.62	1.00	1.21	1.39
-3	.82	.87	1.40	1.71	1.99
-4	1.06	1.13	1.80	2.19	2.54
-5	1.31	1.39	2.22	2.68	3.11
-6	1.55	1.64	2.62	3.14	3.64
-7	1.80	1.91	3.14	3.67	4.25
-8	2.04	2.16	3.44	4.14	4.80
-9	2.29	2.42	3.86	4.63	5.36
-10	2.52	2.67	4.24	5.03	5.85
-11	2.77	2.93	4.66	5.60	6.49
-12	3.01	3.19	5.06	6.09	7.05
-13	3.26	3.45	5.48	6.52	7.56
-14	3.50	3.70	5.88	6.87	7.99
-15	3.75	4.07	6.30	7.57	8.77
-16	3.98	4.31	6.68	8.04	9.31
-17	4.32	4.47	7.08	8.50	9.84
-18	4.46	4.73	7.48	8.98	10.40
-19	4.75	4.99	7.98	9.58	11.09
-20	5.00	5.25	8.40	10.07	11.66
-21	5.25	5.51	8.82	10.57	12.24
-22	5.50	5.76	9.24	11.08	12.83
-23	5.75	6.02	9.86	11.57	13.39
-24	6.00	6.27	10.08	12.09	14.00
-25	6.25	6.54	10.50	12.60	14.59
-26	6.50	6.77	10.92	13.10	15.16

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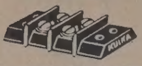
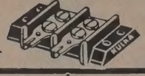
WITH SCREW TERMINALS



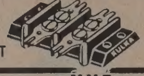
WITH ONE-SIDED SOLDER TERMINALS

¾ST



WITH TWO-SIDED SOLDER TERMINALS

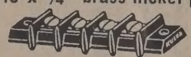
ST

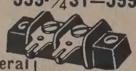


To Series Number Add Suffix	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"
Height ¾″, Width 1¹³⁄₁₆″, Thickness ⁷⁄₁₆″, Terminals ¹¹⁄₁₆″ Centers, ⅝″ Mtg., 10-32 x ⅜″ Screws.										
603- SERIES			603-			603-¾ST-			603-ST-	
- 1	$ .55	$ .61	$1.10	$1.51	$1.81	$ .66	$ .72	$1.32	$1.62	$1.92
- 2	.94	1.03	1.88	2.58	3.10	1.13	1.22	2.26	2.77	3.28
- 3	1.32	1.45	2.64	3.63	4.36	1.60	1.73	3.20	3.91	4.63
- 4	1.71	1.88	3.42	4.70	5.64	2.07	2.24	4.14	5.06	6.00
- 5	2.09	2.30	4.18	5.75	6.90	2.53	2.73	5.06	6.18	7.23
- 6	2.48	2.73	4.96	6.82	8.18	3.00	3.25	6.00	7.34	8.70
- 7	2.86	3.15	5.72	7.86	9.43	3.46	3.75	6.92	8.46	10.02
- 8	3.25	3.58	6.50	8.93	10.72	3.92	4.25	7.48	9.60	11.38
- 9	3.63	3.99	7.26	9.99	11.99	4.40	4.77	8.80	10.75	12.74
- 10	4.02	4.45	8.04	11.05	13.26	4.80	5.23	9.60	11.83	14.03
Height ¹⁵⁄₁₆″, Width 2″, Thickness ½″, Terminals ⅞″ Centers, ¾″ Mtg., 12-32 x ⅜″ Screws.										
604- SERIES			604-			604-¾-ST-			604-ST-	
- 1	$ .90	$ .99	$1.80	$2.47	$2.96	$1.10	$1.19	$2.20	$2.67	$3.15
- 2	1.65	1.82	3.30	4.53	5.44	2.00	2.17	4.00	4.92	5.82
- 3	2.40	2.64	4.80	6.60	7.92	2.90	3.14	5.80	7.10	8.42
- 4	3.15	3.46	6.30	8.66	10.39	3.80	4.11	7.60	9.31	11.03
- 5	3.90	4.29	7.80	10.72	12.86	4.70	5.09	9.40	11.52	13.66
- 6	4.65	5.11	9.30	12.78	15.34	5.60	6.06	11.20	13.73	16.27
- 7	5.40	5.94	10.80	14.85	17.82	6.50	7.04	13.00	15.95	18.91
- 8	6.15	6.76	12.30	16.91	20.29	7.40	8.01	14.80	18.16	21.54
Height 1⅛″, Width 2½″, Thickness ⅝″, Terminals 1⅛″ Centers, ⅞″ Mtg. ¼-28 x ½″ Screws										
605- SERIES			605-			605-¾-ST-			605-ST-	
- 1	$1.25	$1.38	$2.50	$3.43	$4.12	$1.45	$1.58	$2.90	$3.63	$4.31
- 2	2.40	2.64	4.80	6.60	7.92	2.80	3.04	5.60	7.00	8.32
- 3	3.50	3.85	7.00	9.62	11.54	4.20	4.55	8.40	10.32	12.24
- 4	4.70	5.17	9.40	12.92	15.50	5.60	6.07	11.20	13.82	16.40
- 5	5.80	6.38	11.60	15.95	19.14	7.00	7.50	14.00	17.15	20.33
- 6	7.00	7.70	14.00	19.25	23.10	8.30	9.00	16.60	20.55	24.39

599 SERIES NARROW WIDTH TERMINAL BLOCK

Single Screw Terminal. Height ¹³⁄₃₂″, Width ⁹⁄₁₆″, Thickness ¼″, Terminals ⅜″ Centers, .156 dia mtg. holes: 5-40 x ¼″ brass nickel plated screws.

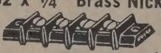


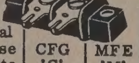


To Series Number Add Suffix	599-					599-¾ST—599-ST—599-Z				
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'
- 1	$ .15	$ .16	$ .30	$ .42	$ .50	$ .19	$ .20	$ .38	$ .45	$ .53
- 2	.24	.25	.50	.69	.82	.32	.33	.64	.76	.89
- 3	.33	.36	.66	.91	1.09	.44	.47	.88	1.00	1.18
- 4	.42	.46	.84	1.15	1.38	.57	.61	1.14	1.30	1.53
- 5	.51	.56	1.02	1.40	1.68	.69	.74	1.38	1.58	1.85
- 6	.59	.65	1.18	1.62	1.94	.83	.89	1.66	1.86	2.18
- 7	.68	.75	1.36	1.89	2.27	.95	1.02	1.90	2.14	2.51
- 8	.77	.85	1.54	2.11	2.53	1.08	1.16	2.16	2.42	2.84
- 9	.86	.95	1.72	2.36	2.83	1.21	1.30	2.42	2.72	3.19
- 10	.95	1.05	1.90	2.61	3.13	1.33	1.43	2.66	2.99	3.51
- 11	1.03	1.13	2.06	2.83	3.40	1.45	1.55	2.90	3.25	3.81
- 12	1.12	1.23	2.24	3.08	3.70	1.58	1.69	3.16	3.54	4.15
- 13	1.21	1.33	2.42	3.32	3.98	1.71	1.83	3.42	3.82	4.48
- 14	1.31	1.44	2.62	3.60	4.32	1.84	1.97	3.68	4.13	4.85
- 15	1.40	1.54	2.80	3.85	4.62	1.96	2.10	3.92	4.41	5.18
- 16	1.49	1.64	2.98	4.10	4.92	2.09	2.24	4.18	4.70	5.52
- 17	1.57	1.73	3.14	4.31	5.17	2.21	2.37	4.42	4.96	5.82
- 18	1.66	1.83	3.32	4.56	5.47	2.34	2.51	4.68	5.25	6.16
- 19	1.75	1.93	3.50	4.81	5.77	2.46	2.64	4.92	5.52	6.48
- 20	1.84	2.03	3.68	5.06	6.07	2.60	2.78	5.20	5.82	6.83
- 21	1.93	2.13	3.86	5.30	6.36	2.72	2.90	5.44	6.10	7.16
- 22	2.02	2.23	4.04	5.55	6.66	2.86	3.07	6.14	6.40	7.51

699 SERIES NARROW WIDTH TERMINAL BLOCK

Single Screw Terminal. Height ½″, Width ⅝″, Thickness ⁵⁄₁₆″, Terminals ⁷⁄₁₆″ Centers. .175 Dia. Mtg. Holes 6-32 x ¼″ Brass Nickel Plated Screws.

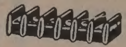




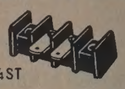
To Series Number Add Suffix	699-					699-¾ST—699-ST—699-Z				
	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'
- 1	$ .20	$ .22	$ .40	$ .55	$ .66	$ .24	$ .26	$ .48	$ .59	$ .69
- 2	.31	.34	.62	.85	1.02	.41	.44	.82	.95	1.11
- 3	.42	.46	.84	1.15	1.38	.57	.61	1.14	1.30	1.52
- 4	.54	.59	1.08	1.48	1.78	.74	.79	1.48	1.68	1.96
- 5	.64	.72	1.28	1.76	2.11	.90	.98	1.80	2.02	2.36
- 6	.75	.83	1.50	2.06	2.47	1.07	1.15	2.14	2.38	2.78
- 7	.88	.97	1.76	2.42	2.90	1.23	1.32	2.46	2.77	3.25
- 8	.99	1.09	1.98	2.72	3.26	1.40	1.50	2.80	3.13	3.67
- 9	1.10	1.21	2.20	3.02	3.62	1.56	1.67	3.12	3.48	4.08
- 10	1.22	1.34	2.44	3.35	4.02	1.73	1.85	3.46	3.86	4.53
- 11	1.33	1.46	2.66	3.65	4.38	1.89	2.02	3.78	4.21	4.93
- 12	1.44	1.58	2.88	3.96	4.75	2.06	2.20	4.12	4.58	5.36
- 13	1.56	1.72	3.12	4.29	5.15	2.22	2.38	4.44	4.95	5.79
- 14	1.67	1.84	3.34	4.59	5.51	2.39	2.56	4.78	5.31	6.22
- 15	1.78	1.96	3.56	4.90	5.88	2.55	2.73	5.10	5.72	6.70
- 16	1.90	2.09	3.80	5.22	6.26	2.72	2.91	5.42	6.09	7.13
- 17	2.01	2.21	4.02	5.52	6.62	2.88	3.08	5.76	6.45	7.55
- 18	2.12	2.33	4.24	5.83	7.00	3.05	3.26	6.10	6.80	7.96
- 19	2.24	2.46	4.48	6.16	7.39	3.21	3.43	6.42	7.19	8.41
- 20	2.35	2.59	4.70	6.46	7.75	3.38	3.62	6.76	7.54	8.82
- 21	2.47	2.72	4.94	6.79	8.15	3.55	3.80	7.10	7.92	9.27
- 22	2.59	2.85	5.18	7.12	8.54	3.72	3.98	7.44	8.30	9.72
- 23	2.71	2.98	5.42	7.45	8.94	3.89	4.16	7.78	8.68	10.16

409 SERIES SUBMINIATURE TERMINAL BLOCK

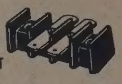
Single Screw Terminal. Height .260, Width .312, Thickness ⁷⁄₁₆″ Terminals .187 Centers, .093 dia. mtg. holes; 0.80 x ⅛″ brass silver plated or gold flash screws.



¾ST



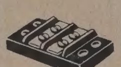
ST

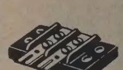


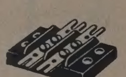
To Series Number Add Suffix	General Purpose Bakelite CFG 'C'	MME 'M' MFE 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'	General Purpose Bakelite CFG 'C'	MFE 'M' MME 'GMF' MDG 'B'	GDI-30 "H" MAI-60 'D'
		409-		409-¾ST-		409-ST-
- 1	$ .40	$ .80	$ .90	$ .47	$ .87	$ .97
- 2	.60	1.10	1.20	.74	1.24	1.34
- 3	.80	1.40	1.50	.99	1.59	1.69
- 4	1.00	1.70	1.80	1.25	1.95	2.05
- 5	1.20	2.00	2.10	1.53	2.33	2.43
- 6	1.40	2.30	2.40	1.79	2.69	2.79
- 7	1.60	2.60	2.70	2.05	3.05	3.15
- 8	1.80	2.90	3.00	2.32	3.42	3.52
- 9	2.00	3.20	3.30	2.59	3.79	3.89
- 10	2.20	3.50	3.70	2.83	4.13	4.33
- 11	2.40	3.80	4.00	3.11	4.51	4.71
- 12	2.60	4.10	4.30	3.33	4.88	5.08
- 13	2.80	4.40	4.60	3.64	5.24	5.44
- 14	3.00	4.70	4.90	3.90	5.60	5.80
- 15	3.20	5.00	5.20	4.17	5.97	6.17
- 16	3.40	5.30	5.50	4.42	6.32	6.52
- 17	3.60	5.60	5.80	4.69	6.69	6.89
- 18	3.80	5.90	6.10	4.96	7.06	7.26
- 19	4.00	6.20	6.40	5.23	7.53	7.73
- 20	4.20	6.50	6.70	6.50	7.80	8.00
- 21	4.40	6.80	7.00	5.77	8.17	8.37

410 SERIES MINIATURE TERMINAL BLOCK

Double Screw Terminals. Height ⁵⁄₁₆″, Width ⅝″, Thickness ⁷⁄₃₂″, Terminals ¼″ Centers, .125 dia. mtg. holes; 2-56 x ³⁄₁₆″ binding head brass nickel plated screws.



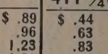




To Series Number Add Suffix	410-			410-¾ ST-410-ST—410-Y		
- 1	$ .40	$ .80	$ .96	$ .44	$ .84	$1.00
- 2	.56	1.08	1.30	.63	1.15	1.37
- 3	.72	1.34	1.61	.83	1.45	1.72
- 4	.88	1.60	1.92	1.03	1.75	2.07
- 5	1.04	1.86	2.23	1.22	2.04	2.41
- 6	1.20	2.12	2.54	1.44	2.36	2.78
- 7	1.36	2.38	2.86	1.63	2.65	3.43
- 8	1.52	2.64	3.17	1.83	2.95	3.48
- 9	1.68	2.90	3.48	2.03	3.25	3.83
- 10	1.84	3.16	3.79	2.22	3.54	4.17
- 11	2.00	3.42	4.10	2.42	3.84	4.52
- 12	2.16	3.68	4.42	2.62	4.14	4.88
- 13	2.32	3.94	4.73	2.82	4.44	5.23
- 14	2.48	4.20	5.04	3.01	4.73	5.57
- 15	2.64	4.46	5.35	3.20	5.02	5.91
- 16	2.80	4.72	5.66	3.40	5.32	6.26
- 17	2.96	4.98	5.98	3.60	5.62	6.62
- 18	3.12	5.24	6.29	3.80	5.92	6.97
- 19	3.28	5.50	6.60	4.00	6.22	7.32
- 20	3.44	5.76	6.91	4.20	6.52	7.67
- 21	3.60	6.02	7.22	4.40	6.82	8.02
- 22	3.76	6.28	7.54	4.60	7.12	8.38

411 SERIES MINIATURE TERMINAL BLOCK

Single Screw Terminal. Height ⁵⁄₁₆″, Width ¹³⁄₃₂″, Thickness ⁷⁄₃₂″, Terminals. .250 Centers, .125 mtg. holes; 2-56 x ³⁄₁₆″ binding head brass nickel plated screws.



To Series Number Add Suffix	411			411-¾ST—411-ST—411-Z		
- 1	$ .23	$ .46	$ .89	$ .44	$ .84	$1.00
- 2	.32	.69	.96	.63	1.15	1.37
- 3	.41	.93	1.23	.83	1.45	1.72
- 4	.50	1.17	1.50	1.03	1.75	2.07
- 5	.59	1.31	1.77	1.22	2.04	2.41
- 6	.68	1.65	2.04	1.44	2.36	2.78
- 7	.77	1.85	2.30	1.63	2.65	3.43
- 8	.87	2.10	2.52	1.83	2.95	3.48
- 9	.97	2.25	2.70	2.03	3.25	3.83
- 10	1.07	2.40	2.88	2.22	3.54	4.17
- 11	1.17	2.55	3.06	2.42	3.84	4.52
- 12	1.27	2.60	3.12	2.62	4.14	4.88
- 13	1.37	2.75	3.30	2.82	4.44	5.23
- 14	1.47	2.90	3.48	3.01	4.73	5.57
- 15	1.57	3.05	3.66	3.20	5.02	5.91
- 16	1.67	3.20	3.84	3.40	5.32	6.26
- 17	1.77	3.35	4.02	3.60	5.62	6.62
- 18	1.87	3.50	4.20	3.80	5.92	6.97
- 19	1.97	3.65	4.38	4.00	6.22	7.32
- 20	2.07	3.80	4.56	4.20	6.52	7.67
- 21	2.17	3.95	4.74	4.40	6.82	8.02
- 22	2.27	4.10	4.92	4.60	7.12	8.38

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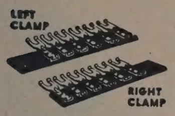
HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

TERMINAL CONNECTING STRIPS

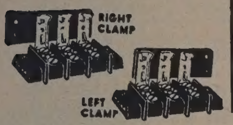
FLAT STYLE



For faster, better wiring of multiple connections to terminal blocks. Lugs are double eyeletted to prevent shift. Upturned ends of lugs acts as extra lock. Made of laminated black XP Phenolic (also supplied in XXXP natural Phenolic and GMG Glass Cloth Melamine resin per MIL-P-15037B).

Supplied in two styles, flat or angle—each style either right hand or left hand mounting.

ANGLE STYLE



650 SERIES

Connecting strip for 600 series terminal block. Strips are 3/32″ thick, ½″ wide, ⅜″ centers.

Left Clamp Catalog No.	Right Clamp Catalog No.	Number of Terminals	Price Each
650-L-2	650-R-2	2	$.13
650-L-3	650-R-3	3	.20
650-L-4	650-R-4	4	.25
650-L-5	650-R-5	5	.32
650-L-6	650-R-6	6	.39
650-L-7	650-R-7	7	.45
650-L-8	650-R-8	8	.51
650-L-9	650-R-9	9	.57
650-L-10	650-R-10	10	.64
650-L-11	650-R-11	11	.70
650-L-12	650-R-12	12	.76
650-L-13	650-R-13	13	.83
650-L-14	650-R-14	14	.89
650-L-15	650-R-15	15	.96
650-L-16	650-R-16	16	1.01
650-L-17	650-R-17	17	1.08
650-L-18	650-R-18	18	1.16
650-L-19	650-R-19	19	1.21
650-L-20	650-R-20	20	1.28
650-L-21	650-R-21	21	1.33
650-L-22	650-R-22	22	1.38
650-AL-2	650-AR-2	2	.19
650-AL-3	650-AR-3	3	.29
650-AL-4	650-AR-4	4	.37
650-AL-5	650-AR-5	5	.47
650-AL-6	650-AR-6	6	.57
650-AL-7	650-AR-7	7	.66
650-AL-8	650-AR-8	8	.75
650-AL-9	650-AR-9	9	.84
650-AL-10	650-AR-10	10	.94
650-AL-11	650-AR-11	11	1.03
650-AL-12	650-AR-12	12	1.12
650-AL-13	650-AR-13	13	1.22
650-AL-14	650-AR-14	14	1.31
650-AL-15	650-AR-15	15	1.41
650-AL-16	650-AR-16	16	1.49
650-AL-17	650-AR-17	17	1.59
650-AL-18	650-AR-18	18	1.70
650-AL-19	650-AR-19	19	1.78
650-AL-20	650-AR-20	22	1.88
650-AL-21	650-AR-21	21	1.96
650-AL-22	650-AR-22	22	2.08

651 SERIES

Connecting strip for 601 series terminal black. Strips are 3/32″ thick, ⅝″ wide, 7/16″ centers.

Left Clamp Catalog No.	Right Clamp Catalog No.	Number of Terminals	Price Each
651-L-2	651-R-2	2	$.14
651-L-3	651-R-3	3	.21
651-L-4	651-R-4	4	.26
651-L-5	651-R-5	5	.33
651-L-6	651-R-6	6	.40
651-L-7	651-R-7	7	.46
651-L-8	651-R-8	8	.52
651-L-9	651-R-9	9	.58
651-L-10	651-R-10	10	.65
651-L-11	651-R-11	11	.72
651-L-12	651-R-12	12	77
651-L-13	651-R-13	13	.84
651-L-14	651-R-14	14	.91
651-L-15	651-R-15	15	.97
651-L-16	651-R-16	16	1.03
651-L-17	651-R-17	17	1.09
651-L-18	651-R-18	18	1.17
651-L-19	651-R-19	19	1.22
651-L-20	651-R-20	20	1.29
651-L-21	651-R-21	21	1.36
651-L-22	651-R-22	22	1.43
651-L-23	651-R-23	23	1.50
651-AL-2	651-AR-2	2	.20
651-AL-3	651-AR-3	3	.30
651-AL-4	651-AR-4	4	.38
651-AL-5	651-AR-5	5	.48
651-AL-6	651-AR-6	6	.58
651-AL-7	651-AR-7	7	.67
651-AL-8	651-AR-8	8	.76
651-AL-9	651-AR-9	9	.85
651-AL-10	651-AR-10	10	.95
651-AL-11	651-AR-11	11	1.05
651-AL-12	651-AR-12	12	1.13
651-AL-13	651-AR-13	13	1.23
651-AL-14	651-AR-14	14	1.33
651-AL-15	651-AR-15	15	1.42
651-AL-16	651-AR-16	16	1.51
651-AL-17	651-AR-17	17	1.60
651-AL-18	651-AR-18	18	1.71
651-AL-19	651-AR-19	19	1.79
651-AL-20	651-AR-20	20	1.89
651-AL-21	651-AR-21	21	1.99
651-AL-22	651-AR-22	22	2.09
651-AL-23	651-AR-23	23	2.19

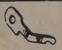
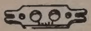
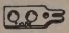
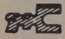
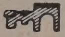
652 SERIES

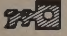
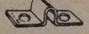
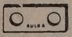
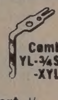
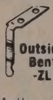
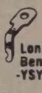
Connecting strip for 602 series terminal block. Strips are 3/32″ thick, ⅝″ wide, 9/16″ centers.

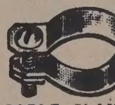
Left Clamp Catalog No.	Right Clump Catalog No.	Number of Terminals	Price Each
652-L-2	652-R-2	2	$.17
652-L-3	652-R-3	3	.23
652-L-4	652-R-4	4	.29
652-L-5	652-R-5	5	.35
652-L-6	652-R-6	6	.43
652-L-7	652-R-7	7	.48
652-L-8	652-R-8	8	.55
652-L-9	652-R-9	9	.61
652-L-10	652-R-10	10	.68
652-L-11	652-R-11	11	.74
652-L-12	652-R-12	12	.80
652-L-13	652-R-13	13	.86
652-L-14	652-R-14	14	.94
652-L-15	652-R-15	15	.99
652-L-16	652-R-16	16	1.06
652-L-17	652-R-17	17	1.11
652-L-18	652-R-18	18	1.16
652-L-19	652-R-19	19	1.21
652-L-20	652-R-20	20	1.26
652-L-21	652-R-21	21	1.31
652-L-22	652-R-22	22	1.36
652-L-23	652-R-23	23	1.41
652-L-24	652-R-24	24	1.46
652-L-25	652-R-25	25	1.51
652-L-26	652-R-26	26	1.56
652-AL-2	652-AR-2	2	.23
652-AL-3	652-AR-3	3	.32
652-AL-4	652-AR-4	4	.41
652-AL-5	652-AR-5	5	.50
652-AL-6	652-AR-6	6	.61
652-AL-7	652-AR-7	7	.69
652-AL-8	652-AR-8	8	.79
652-AL-9	652-AR-9	9	.89
652-AL-10	652-AR-10	10	.98
652-AL-11	652-AR-11	11	1.07
652-AL-12	652-AR-12	12	1.16
652-AL-13	652-AR-13	13	1.25
652-AL-14	652-AR-14	14	1.36
652-AL-15	652-AR-15	15	1.44
652-AL-16	652-AR-16	16	1.54
652-AL-17	652-AR-17	17	1.62
652-AL-18	652-AR-18	18	1.72
652-AL-19	652-AR-19	19	1.82
652-AL-20	652-AR-20	20	1.92
652-AL-21	652-AR-21	21	2.02
652-AL-22	652-AR-22	22	2.12
652-AL-23	652-AR-23	23	2.22
652-AL-24	652-AR-24	24	2.32
652-AL-25	652-AR-25	25	2.42
652-AL-26	652-AR-26	26	2.52

TERMINAL LUGS

Std. pkg. 100

	 Bent -YL		 Two-Sided -STL		 One-Sided -¾STL		 Spade -SLS		 Flag -SLF	
Series	Part #	Per C	Part #	Per C	Part #	Per C	Part #	Per C	Part #	Per C
409			73104	$4.40	73115	$4.40				
410			73105	4.40	73116	4.40	73126	$3.00	73134	$3.00
411			73106	4.40	73117	4.40	73127	3.00	73135	3.00
599			73107	4.40	73118	4.40	73128	3.00	73136	3.00
600	73101	$4.40	73108	4.40	73119	4.40	73129	3.00	73137	3.00
601	73102	5.90	73109	5.90	73120	5.90	73130	3.50	73138	3.50
602	73103	7.20	73110	7.20	73121	7.20	73131	4.00	73139	4.00
603			73111	10.00	73122	10.00	73132	5.00	73140	5.00
604			73112	18.00	73123	18.00				
605			73113	26.00	73124	26.00				
699			73114	5.90	73125	5.90	73133	3.50	73141	3.50

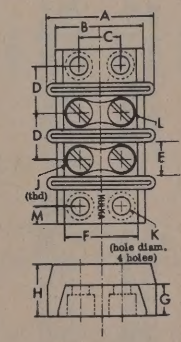
	 Hole -SLH		 Jumper -J		 Straddle Plate -SP		 Comb. YL-¾STL -XYL		 Outside Bent -ZL		 Long Bent -YSYL	
Series	Part #	Per C	Part #	Per C	Part #	Per C	Part #	Per C	Part #	Per C	Part #	Per C
409												
410	73142	$3.00	73150	$3.50	73160	$3.50						
411	73143	3.00	73151	3.50					73169	$4.40		
599	73144	3.00	73152	3.50					73170	4.40		
600	73145	3.00	73153	3.50	73161	3.50	73167	$4.40	73171	4.40	73175	$4.40
601	73146	3.50	73154	4.00	73162	4.00			73172	5.90	73176	5.90
602	73147	4.00	73155	4.50	73163	4.50	73168	7.20	73173	7.20	73177	7.20
603	73148	5.00	73156	5.50	73164	7.50						
604			73157	7.50	73165	15.00						
605			73158	10.00	73166	20.00						
699	73149	3.50	73159	4.00					73174	5.90		



CABLE CLAMPS
For Terminal Connecting Strips

Made of nickel plated brass with 6-32 plated brass screws.

No.	Size	Per C
1435	⅜″	$16.00
1436	½″	16.00
1437	⅝″	16.00
1438	¾″	16.00
1439	⅞″	16.00



DIMENSIONAL DRAWING AND ELECTRICAL RATING OF TERMINAL BLOCKS

Series No.	A	B	C	D	E	F	G	H	J	K	L	M	Max. Tms.	Rated Voltage (Volts RMS) ⅓ Voltage Breakdown Without Marker Strip	With Marker Strip	Current Rating Amps	Maximum AWG Wire Sizes
409	5/16	¼	—	3/16	9/64	3/16	5/32	17/64	0-80	.093	⅛	¼	21	750	1500	2	26 to 22
410	⅝.	⅝	¼	¼	3/16	⅝	7/32	5/16	2-56	.125	3/16	⅛	22	1000	2000	5	20 to 18
411	13/32	13/32	—	¼	3/16	13/32	7/32	5/16	2-56	.125	3/16	⅛	22	1000	2000	5	20 to 18
599	9/16	⅜	—	⅜	19/64	9/32	¼	13/32	5-40	.156	¼	9/64	22	1100	2500	15	22 to 16
600	⅞	11/16	5/16	⅜	19/64	9/32	¼	13/32	5-40	.156	¼	9/64	22	1100	2500	15	22 to 16
601	1⅛	⅞	27/64	7/16	21/64	¾	5/16	½	6-32	.175	¼	5/32	23	1100	3000	20	16 to 14
602	1 5/16	1 1/16	½	9/16	27/64	⅞	⅜	⅝	8-32	.209	5/16	13/64	26	1600	3300	30	14 to 12
603	1 13/16	1 5/16	⅝	11/16	15/32	1 1/16	7/16	¾	10-32	.165	⅜	7/32	10	1700	3000	50	6
604	2	1½	¾	⅞	9/16	1¼	½	15/16	12-32	.195	⅜	17/64	8	1800	3400	70	4
605	2½	1 13/16	⅞.	⅜	¼	⅜	9/32	½	4-40	.156	5/16	11/64	13	2100	3800	90	2
609	⅜	⅜	—	1⅛	21/32	1½	⅝	1⅛	¼-29	.209	½	5/16	6	1000	2000	10	20 to 18
699	11/16	½	—	7/16	21/64	13/32	5/16	½	6-32	.156	¼	7/32	23	1100	3000	20	16 to 14

© U.C.P., Inc.

HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

FIBRE AND XP BAKELITE MARKER STRIPS

Marker strips are supplied to fit each size terminal block — either plain or imprinted — in vulcanized fibre or Bakelite (1/32″ thick).

410— 411— 600— 600A

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
MS600-1	$ 2.90	$ 7.90	$ 3.40	$ 8.40
MS600-2	3.80	8.80	4.60	9.60
MS600-3	4.70	9.70	5.70	10.70
MS600-4	5.70	10.70	6.80	11.80
MS600-5	6.60	11.60	8.00	13.00
MS600-6	7.60	12.60	9.10	14.10
MS600-7	8.50	13.50	10.20	15.20
MS600-8	9.50	14.50	11.40	16.40
MS600-9	10.40	15.40	12.50	17.50
MS600-10	11.40	21.40	13.70	23.70
MS600-11	12.30	22.30	14.80	24.80
MS600-12	13.30	23.30	15.90	25.90
MS600-13	14.20	24.20	17.10	27.10
MS600-14	15.20	25.20	18.20	28.20
MS600-15	16.10	31.10	19.40	34.40
MS600-16	17.10	32.10	20.50	35.50
MS600-17	18.00	33.00	21.60	36.60
MS600-18	19.00	34.00	22.80	37.80
MS600-19	19.90	34.90	23.90	38.90
MS600-20	20.90	40.90	25.00	45.00
MS600-21	21.80	41.80	26.20	46.20
MS600-22	22.70	42.70	27.40	47.40

410-Y—600-Y—600-XY—600A-Y—600A-XY

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
MS600-Y-1	$ 6.60	$11.60	$ 7.20	$12.20
MS600-Y-2	7.60	12.60	8.30	13.30
MS600-Y-3	8.50	13.50	9.50	14.50
MS600-Y-4	9.50	14.50	10.60	15.60
MS600-Y-5	10.40	15.40	11.80	16.80
MS600-Y-6	11.40	16.40	12.90	17.90
MS600-Y-7	12.30	17.30	14.00	19.00
MS600-Y-8	13.30	18.30	15.20	20.20
MS600-Y-9	14.20	19.20	16.30	21.30
MS600-Y-10	15.20	25.20	17.50	27.50
MS600-Y-11	16.10	26.10	18.60	28.60
MS600-Y-12	17.10	27.10	19.70	29.70
MS600-Y-13	18.00	28.00	20.90	30.90
MS600-Y-14	19.00	29.00	22.00	32.00
MS600-Y-15	19.90	34.90	23.10	38.10
MS600-Y-16	20.90	35.90	24.30	39.30
MS600-Y-17	21.80	36.80	25.40	40.40
MS600-Y-18	22.80	37.80	26.60	41.60
MS600-Y-19	23.70	38.70	27.70	42.70
MS600-Y-20	24.70	44.70	28.80	48.80
MS600-Y-21	25.60	45.60	30.00	50.00
MS600-Y-22	26.50	46.50	31.20	51.20

601—699

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
MS601-1	$ 3.20	$ 8.20	$ 3.80	$ 8.80
MS601-2	4.40	9.40	5.30	10.30
MS601-3	5.70	10.70	6.80	11.80
MS601-4	7.00	12.00	8.30	13.30
MS601-5	8.20	13.20	9.90	14.90
MS601-6	9.50	14.50	11.40	16.40
MS601-7	10.80	15.80	12.90	17.90
MS601-8	12.00	17.00	14.40	19.40
MS601-9	13.30	18.30	15.90	20.90
MS601-10	14.50	24.50	17.50	27.50
MS601-11	15.80	25.80	19.00	29.00
MS601-12	17.10	27.10	20.50	30.50
MS601-13	18.30	28.30	22.00	32.00
MS601-14	19.60	29.60	23.50	33.50
MS601-15	20.90	35.90	25.00	40.00
MS601-16	22.10	37.10	26.60	41.60
MS601-17	23.40	38.40	28.10	43.10
MS601-18	24.70	39.70	29.60	44.60
MS601-19	25.90	40.90	31.10	46.10
MS601-20	27.20	47.20	32.60	52.60
MS601-21	28.50	48.50	34.10	54.10
MS601-22	29.80	49.80	35.50	55.50
MS601-23	31.10	51.10	37.00	57.00

603

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
MS603-1	$ 7.60	$12.60	$ 9.10	$14.10
MS603-2	9.40	14.40	11.20	16.20
MS603-3	11.10	16.10	13.40	18.40
MS603-4	12.90	17.90	15.50	20.50
MS603-5	14.70	19.70	17.60	22.60
MS603-6	16.40	21.40	19.70	24.70
MS603-7	18.20	23.20	21.90	26.90
MS603-8	20.00	25.00	24.00	29.00
MS603-9	21.80	26.80	26.10	31.10
MS603-10	23.50	33.50	28.20	38.20

604

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
MS604-1	$ 7.70	$12.70	$ 9.20	$14.20
MS604-2	11.70	16.70	14.10	19.10
MS604-3	15.50	20.50	18.60	23.60
MS604-4	19.30	24.30	23.20	28.20
MS604-5	23.10	28.10	27.70	32.70
MS604-6	26.90	31.90	32.30	37.30
MS604-7	30.70	35.70	36.80	41.80
MS604-8	34.50	39.50	41.40	46.40

NOTE: XXXP Bakelite Markers are 25% more than XP Bakelite Markers.

601-Y—601-XY

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp. XP Bake. Per C
MS601-Y-1	$ 7.00	$12.00	$ 7.60	$12.60
MS601-Y-2	8.20	13.20	9.10	14.10
MS601-Y-3	9.50	14.50	10.60	15.60
MS601-Y-4	10.80	15.80	12.10	17.10
MS601-Y-5	12.00	17.00	13.70	18.70
MS601-Y-6	13.30	18.30	15.20	20.20
MS601-Y-7	14.50	19.50	16.70	21.70
MS601-Y-8	15.80	20.80	18.20	23.20
MS601-Y-9	17.10	22.10	19.70	24.70
MS601-Y-10	18.30	28.30	21.30	31.30
MS601-Y-11	19.60	29.60	22.80	32.80
MS601-Y-12	20.90	30.90	24.30	34.30
MS601-Y-13	22.10	32.10	25.80	35.80
MS601-Y-14	23.40	33.40	27.30	37.30
MS601-Y-15	24.70	39.70	28.80	43.80
MS601-Y-16	25.90	40.90	30.40	45.40
MS601-Y-17	27.20	42.20	31.90	46.90
MS601-Y-18	28.50	43.50	33.40	48.40
MS601-Y-19	29.70	44.70	34.90	49.90
MS601-Y-20	31.00	51.00	36.40	56.40
MS601-Y-21	32.30	52.30	37.90	57.90
MS601-Y-22	33.60	53.60	39.40	59.40
MS601-Y-23	34.90	54.90	40.90	60.90

602

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp. XP Bake. Per C
MS602-1	$ 3.50	$ 8.50	$ 4.20	$ 9.20
MS602-2	5.10	10.10	6.10	11.10
MS602-3	6.60	11.60	8.00	13.00
MS602-4	8.20	13.20	9.90	14.90
MS602-5	9.80	14.80	11.80	16.80
MS602-6	11.40	16.40	13.70	18.70
MS602-7	13.00	18.00	15.60	20.60
MS602-8	14.50	19.50	17.50	22.50
MS602-9	16.10	21.10	19.40	24.40
MS602-10	17.70	27.70	21.30	31.30
MS602-11	19.30	29.30	23.10	33.10
MS602-12	20.90	30.90	25.00	35.00
MS602-13	22.50	32.50	26.90	36.90
MS602-14	24.00	34.00	28.80	38.80
MS602-15	25.60	40.60	30.70	45.70
MS602-16	27.20	42.20	32.60	47.60
MS602-17	28.80	43.80	34.50	49.50
MS602-18	30.40	45.40	36.50	51.50
MS602-19	32.00	47.00	38.50	53.50
MS602-20	33.60	53.60	40.40	60.40
MS602-21	35.20	55.20	42.30	62.30
MS602-22	36.80	56.80	44.30	64.30
MS602-23	38.40	58.40	46.30	66.30
MS602-24	40.00	60.00	48.20	68.20
MS602-25	41.60	66.60	50.20	75.20
MS602-26	43.20	68.20	52.20	77.20

602-Y—602-XY

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp. XP Bake. Per C
MS602-Y-1	$ 7.30	$12.30	$ 8.00	$13.00
MS602-Y-2	8.90	13.90	9.90	14.90
MS602-Y-3	10.40	15.40	11.80	16.80
MS602-Y-4	12.00	17.00	13.70	18.70
MS602-Y-5	13.60	18.60	15.60	20.60
MS602-Y-6	15.20	20.20	17.50	22.50
MS602-Y-7	16.80	21.80	19.40	24.50
MS602-Y-8	18.30	23.30	21.30	26.30
MS602-Y-9	19.90	24.90	23.10	28.10
MS602-Y-10	21.50	31.50	25.00	35.00
MS602-Y-11	23.10	33.10	26.90	36.90
MS602-Y-12	24.70	34.70	28.80	38.80
MS602-Y-13	26.30	36.30	30.70	40.70
MS602-Y-14	27.80	37.80	32.60	42.60
MS602-Y-15	29.40	44.40	34.50	49.50
MS602-Y-16	31.00	46.00	36.40	51.40
MS602-Y-17	32.60	47.60	38.30	53.30
MS602-Y-18	34.20	49.20	40.20	55.20
MS602-Y-19	35.80	50.80	42.10	57.10
MS602-Y-20	37.40	57.40	44.00	64.00
MS602-Y-21	39.00	59.00	45.90	65.90
MS602-Y-22	40.60	60.60	47.80	67.80
MS602-Y-23	42.20	62.20	49.70	69.70
MS602-Y-24	43.80	63.80	51.60	71.60
MS602-Y-25	45.40	70.40	53.50	78.50
MS602-Y-26	47.00	72.00	55.40	80.40

605

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp. XP Bake. Per C
MS605-1	$ 8.20	$13.20	$ 9.90	$14.90
MS605-2	14.50	19.50	17.50	22.50
MS605-3	20.90	25.90	25.00	30.00
MS605-4	27.20	32.20	32.60	37.60
MS605-5	33.50	38.50	40.20	45.20
MS605-6	39.80	44.80	47.80	52.80

EXTRA SERVICES

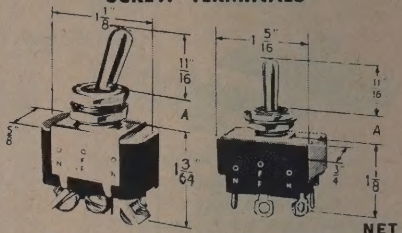
	600-1-2	603	604	605
Phillips Screws	.01	.02	.05	.05
Sems Screws	.02	.03	.04	.05
Phillips Sems Screws	.03	.03	.06	.06
K Monel Sems Screws	.04	.06	.08	.09
Fungus Varnish	.05	.05	.05	.05
Staked Screws	.05	.05	.05	.05
Stamped End	.10	.10	.10	.10

List Prices shown are per screw or per end.
All other series prices in first column.

"ST" SERIES Made to Spec. JAN-S-23

NOMINAL RATING: 20 amps., 125 V.A.C.
10 amps., 250 V.A.C.
Std. Pkg. 10

SCREW TERMINALS

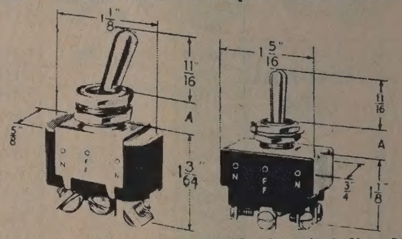


			NET Ea.
73501	ST40A	SPST ON-NONE-OFF	$1.05
73502	ST40B	SPST ON-NONE-MOM OFF	1.17
73503	ST40C	SPST ON-NONE-MOM ON	1.17
73504	ST40D	SPDT ON-NONE-ON	1.29
73505	ST40E	SPDT ON-OFF-ON	1.29
73506	ST40F	SPDT ON-NONE-MOM ON	1.41
73507	ST40G	SPDT MOM ON-OFF-MOM ON	1.41
73508	ST40H	SPDT ON-OFF-MOM ON	1.41
73517	ST50K	DPST ON-NONE-OFF	1.35
73518	ST50L	DPST ON-NONE-MOM OFF	1.56
73519	ST50M	DPST OFF-NONE-MOM ON	1.56
73520	ST50N	DPDT ON-NONE-ON	1.56
73521	ST50P	DPDT ON-OFF-ON	1.56
73522	ST50R	DPDT ON-NONE-MOM ON	1.77
73523	ST50S	DPDT MOM ON-OFF-MOM ON	1.77
73524	ST50T	DPDT ON-OFF-MOM OFF	1.77

SOLDER LUGS

73509	ST42A	SPST ON-NONE-OFF	.99
73510	ST42B	SPST ON-NONE-MOM OFF	1.08
73511	ST42C	SPST ON-NONE-MOM ON	1.08
73512	ST42D	SPDT ON-NONE-ON	1.17
73513	ST42E	SPDT ON-OFF-ON	1.17
73514	ST42F	SPDT ON-NONE-MOM ON	1.29
73515	ST42G	SPDT MOM ON-OFF-MOM ON	1.29
73516	ST42H	SPDT ON-OFF-MOM ON	1.29
73525	ST52K	DPST ON-NONE-OFF	1.20
73526	ST52L	DPST ON-NONE-MOM OFF	1.35
73527	ST52M	DPST OFF-NONE-MOM ON	1.35
73528	ST52N	DPDT ON-NONE-ON	1.35
73529	ST52P	DPDT ON-OFF-ON	1.35
73530	ST52R	DPDT ON-NONE-MOM ON	1.56
73531	ST52S	DPDT MOM ON-OFF-MOM ON	1.56
73532	ST52T	DPDT ON-OFF-MOM ON	1.56

"MS" SERIES Made to Spec. MIL-S-3950A



Superseding all previous specification, including MIL-S-3950, MIL-S-6745, MIL-S-21195 and JAN-S-23. Provided with SEALED LEVER for sand, dust and 15-ft. water submersion tests. Screw terminals only.

HHS	TYPE	CIRCUIT	NET Ea.
73533	MS35058-21	SPST ON-OFF-ON	$1.62
73534	MS35058-22	SPST ON-NONE-OFF	1.41
73535	MS35058-23	SPST ON-NONE-ON	1.62
73536	MS35058-24	SPDT ON-OFF-NONE	1.41
73537	MS35058-25	SPDT ON-MOM OFF-NONE	1.48
73538	MS35058-26	SPDT ON-NONE-MOM ON	1.75
73539	MS35058-27	SPDT MOM ON-OFF MOM ON	1.75
73540	MS35058-28	SPDT NONE-OFF-MOM ON	1.48
73541	MS35058-29	SPDT ON-NONE-MOM OFF	1.48
73542	MS35058-30	SPDT OFF-NONE-MOM ON	1.48
73543	MS35058-31	SPDT ON-OFF-MOM ON	1.75
73551	MS35059-21	DPDT ON-OFF-ON	2.16
73552	MS35059-22	DPST ON-NONE-OFF	1.80
73553	MS35059-23	DPDT ON-NONE-ON	2.16
73554	MS35059-24	DPDT ON-OFF-NONE	1.80
73555	MS35059-25	DPDT ON-MOM OFF-NONE	2.16
73556	MS35059-26	DPDT MOM ON-OFF-MOM ON	2.34
73557	MS35059-27	DPDT ON-NONE-MOM ON	2.34
73558	MS35059-28	DPDT NONE-OFF MOM ON	2.16
73559	MS35059-29	DPDT ON-NONE MOM OFF	2.16
73560	MS35059-30	DPDT OFF-NONE-MOM ON	2.16
73561	MS35059-31	DPDT ON-OFF-MOM ON	2.34

"AN" SERIES Made to Spec. MIL-S-6745

Screw terminals only. Toggle seal meets sand and dust requirements.

HHS	TYPE	CIRCUIT	NET Ea.
73544	AN3021-1	SPDT ON-OFF-ON	$1.62
73545	AN3021-3	SPDT ON-NONE-ON	1.62
73546	AN3021-10	SPDT ON-OFF-NONE	1.34
73547	AN3021-12	SPDT ON-MOM OFF-NONE	1.48
73548	AN3021-7	SPDT MOM ON-OFF-MOM ON	1.75
73549	AN3021-11	SPDT NONE-OFF-MOM ON	1.48
73550	AN3021-5	SPDT ON-OFF-MOM ON	1.75
73562	AN3027-1	DPDT ON-OFF-ON	2.16
73563	AN3027-3	DPDT ON-NONE-ON	2.16
73564	AN3026-9	DPST ON-OFF-NONE	1.80
73565	AN3027-10	DPST ON-MOM OFF-NONE	2.16
73566	AN3027-6	DPDT ON-NONE-MOM ON	2.34
73567	AN3027-7	DPDT MOM ON-OFF-MOM ON	2.34
73568	AN3027-11	DPST NONE-OFF-MOM ON	2.16
73569	AN3027-8	DPDT ON-OFF-MOM ON	2.34

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

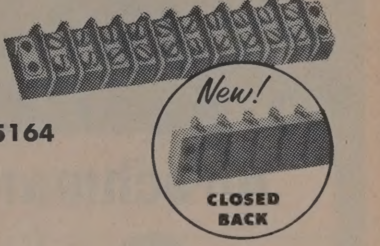
NAVY TERMINAL BOARDS

Made According to BUREAU of SHIPS Drawings No. 90… —S6505F-73214 Rev. 5 and Spec. MIL-T-16784 (Ships).

Part No.	Type Desig.	NET Each
73601	3TB10	$10.00
73602	4TB8	4.10
73603	4TB20	7.50
73604	5TB8	7.50
73605	5TB10	8.50
73606	5TB12	9.00
73607	6TB6	3.40
73608	6TB10	3.75
73609	6TB24	7.05
73610	7TB8	5.00
73611	7TB12	6.25
73612	8TB2	1.20
73613	8TB2C	.80
73614	8TB2M	1.00
73615	8TB6	2.30
73616	8TB6C	1.80
73617	8TB6M	2.00
73618	8TB8	2.86
73619	8TB8C	2.30
73620	8TB8M	2.60
73621	8TB10	3.50
73622	8TB10C	2.80
73623	8TB10M	3.20
73624	9TB2	2.00
73625	9TB4	2.25
73626	10TB8	4.25
73627	10TB12	4.75
73628	10TB18	5.25
73629	10TB28	6.66
73630	11TB4	3.86
73631	11TB6	4.20
73632	11TB9	5.20
73633	11TB14	6.60
73634	15TB10	4.00
73635	15TB24	6.50
73636	16TB4	3.60
73637	16TB10	6.50
73638	17TB4[3, 4]	5.00
73639	17TB10[3, 4]	9.00
73640	25TB2	1.60
73641	25TB5	2.10
73642	25TB6	2.30
73643	25TB7	2.50
73644	25TB9	2.90
73645	25TB10	3.10
73646	25TB12	3.50
73647	25TB2[3]	2.00
73648	26TB6[3]	3.25
73649	26TB8[3]	3.80
73650	26TB10[3]	4.40
73651	26TB12[3]	5.00
73652	27TB12	7.00

Send for our Engineering Data Brochure on the complete line of Kulka Navy Terminal Boards and Hardware.

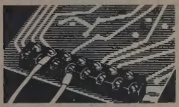
New! CLOSED BACK TERMINAL BOARDS



MADE to MEET or EXCEED MIL-T-55164

- **MOLDED-IN TERMINALS.**
- Equal molded sections, Kulka improved design, for weight saving, greater strength, flexibility.
- Holes for mounting and for feedthru solder lugs are molded in, not drilled, for unbroken surfaces without burring and chipping.
- Molded-in Reinforcement Plates (Straddle Plates) at mounting holes.
- Can be supplied with Sems Type or other special screws.
- All sizes available, Classes 37TB thru 42TB.

Kulka Series No.	MIL-T-55164 Class No.	Current Rating Amps.	**Dielectric With,stand-ing Voltage (Test) Volts RMS	Max-mum No. of Ter-minals	Type of Terminal	Terminal Screw Size	Interchangeable with Standard Kulka Series
20000	37TB	15	3000	31	Screw	5-40 x 7/32	600
20100	40TB	7½	3000	31	Feedthru	5-40 x 7/32	600-Y
20200	*lug #TBLD-1	15	3000	31	Two-sided	5-40 x 7/32	600-ST
20300	*lug #TBLS-2	20	3000	31	One-sided	5-40 x 7/32	600-3/4ST
21000	38TB	20	3400	23	Screw	6-32 x 1/4	601
21100	41TB	10	3400	23	Feedthru	6-32 x 1/4	601-Y
21200	*lug #TBLD-2	20	3400	23	Two-sided	6-32 x 1/4	601-ST
21300	*lug #TBLS-2	20	3400	23	One-sided	6-32 x 1/4	601-3/4ST
22000	39TB	30	4000	18	Screw	8-32 x 5/16	602
22100	42TB	15	4000	18	Feedthru	8-32 x 5/16	602-Y
22200	*lug #TBLD-3	30	4000	18	Two-sided	8-32 x 5/16	602-ST
22300	*lug #TBLS-3	30	4000	18	One-sided	8-32 x 5/16	602-3/4ST

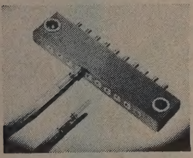


MINIATURE PRINTED CIRCUIT TERMINAL BLOCK TYPE 520

Height 3/8", Width 3/8", Terminals 5/32" centers.

Multiple connections provided by a single block regardless of how close the printed wiring leads may be. Securely mounts by dip-soldering pins into connector mounting holes. This block can be supplied in any of the molded materials shown on page 63.

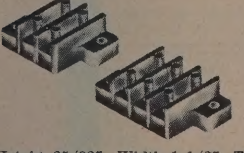
No.	Each	No.	Each
520-1	$ .50	520-13	$3.98
520-2	.82	520-14	4.32
520-3	1.09	520-15	4.62
520-4	1.94	520-16	4.92
520-5	1.68	520-17	5.17
520-6	1.94	520-18	5.47
520-7	2.27	520-19	5.77
520-8	2.53	520-20	6.07
520-9	2.83	520-21	6.36
520-12	3.70	520-24	7.66
520-10	3.13	520-22	6.66
520-11	3.40	520-23	7.50



MINIATURE TAPER-PIN TERMINAL BLOCK TYPE 399

These blocks are primarily intended for printed-circuit assemblies. One side of block has taper-pin receptacles for solderless wiring. Other side has counter-bored brass terminal studs for wire up to No. 20AWG. Blocks may be mounted Upright, Flat or Stacked. Working voltages 1100VRMS (1550DC). Available in six or ten terminals. Material GDI-30. 5/32" centers.

No.	Mtg. Ctr.	Lgth.	Thick	Each
399-6	1-5/32	1-13/32	1/4	$2.17
399-10	1-25/32	2-1/32	1/4	2.83



HIGH TEMPERATURE TERMINAL BLOCKS TYPE 1215

Height 25/32", Width 1-1/2", Thickness 3/8", Terminals 17/32" centers.

Stud type terminal boards specifically designed for high temperature applications. Available in two and three terminal configurations, which interlock to make strips of any desired number of terminals. Stainless steel terminals and Mykroy (glass-bonded mica) body allows use up to 850°F, continuous duty. Rated at 5,000 V. RMS, 50 amps.

No.	Terminals	Each
1215-2	2	$5.80
1215-3	3	6.50

PRESSURE CONTACT TERMINAL BLOCK TYPE 9-85

Height 1-1/8", Width 1-1/4", Terminals 5/8" centers.

For heavy amperage, high voltage applications. Rated 85 amps, 8,000 volts between terminals and from terminals to mounting surface. Maximum wire size No. 4AWG solid or stranded cable. Cables can be disconnected from either side of the block, while cables on opposite side remain connected. Available in general purpose phenolic or plastics per MIL-M-14.

No.	Each	No.	Each
9-85-2	$1.16	9-85-8	$3.55
9-85-3	1.75	9-85-9	4.35
9-85-4	2.20	9-85-10	4.60
9-85-5	2.60	9.85-11	4.95
9-85-6	2.85	9-85-12	5.10
9-85-7	3.30		

609 SERIES NARROW WIDTH TERMINAL BLOCK

Single Screw Terminal. Height 1/2", Width 3/8", Thickness 9/32", Terminals 3/8" centers, .156 dia. mtg. holes; 4-40 x 5/16" Panhead, phillips type sems brass nickel plated screws.

Cat. No.	Gen. Pur. Bake. CFG'C'	MFE'M' MME GMF MDG'B'	Cat. No.	Gen. Pur. Bake. CFG'C'	MFE'M' MME GMF MDG'B'
609-1	.20	.50	609-8	1.02	2.30
609-2	.30	.75	609-9	1.14	2.60
609-3	.42	1.02	609-10	1.26	2.90
609-4	.54	1.29	609-11	1.38	3.20
609-5	.66	1.56	609-12	1.50	3.50
609-6	.78	1.83	609-13	1.62	3.80
609-7	.90	2.00			

An Organization With a Mission...

HERMAN H. SMITH, Inc.

Since Electronics Became an Industry . . .

all your planning and building have depended upon the "tremendous trifles" we call PARTS. WHERE to get WHAT you want, WHEN you want it — maybe just a tiny part, yet indispensable — must of necessity puzzle the Laboratory Executive and the Engineer until the right SOURCE is located.

Our mission is to be that source . . . originative, thorough, trustworthy. The SMITH organization has expanded facilities for CREATING and MANUFACTURING — working in steel, in brass, in plastics . . .punching, drilling, fitting micrometrically . . . piecing together under one roof the myriad accessories known as PARTS.

MORE THAN TWO THOUSAND ELECTRONIC COMPONENT PARTS
***Manufactured* UNDER ONE ROOF**

It's Sound Planning to **"SPECIFY SMITH"**

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rye SOUND
CORPORATION, MAMARONECK, N. Y.

hirschmann · plugs · sockets · terminals

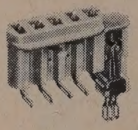
6-36 POLE MULTIPLE CONNECTORS

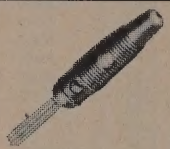
SMALL, MULTI-POLE CONNECTORS

PICK-UP PLUGS AND SOCKETS

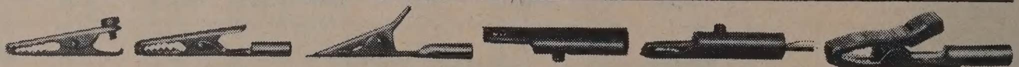
THIRD-HAND PROBE CONNECTORS

FULL CONTACT PLUGS


SOCKET WITH SWITCH


BUNCH-PIN PLUGS FLEX-HANDLES

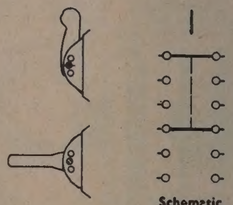
BINDING POSTS & TERMINALS

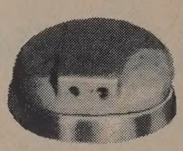

ALLIGATOR CLIPS

sound/transducers

HEADSETS: stereo or mono monitoring for maximum intelligibility. Lightweight units available in a variety of styles with choice of earpads, earloops, eartips, lucite earcups, cords and plugs. Impedance range 15 to 8000 ohms.

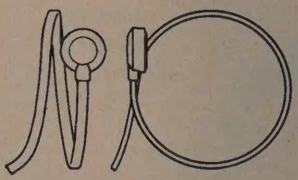
MINIATURE SWITCHES: for low voltage applications. These switches are subjected to the most stringent mechanical and metallurgical inspections and can be employed with full confidence on the widest range of electrical equipment.





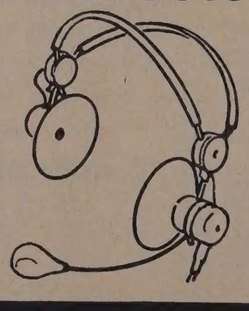
EARPHONES: quality magnetic transducers in flesh or grey; power, frequency or sensitivity to fit the application. Standard U.S. polarized-type cord connection. Impedances from 3.2 to 8000 ohms.

CONTACT THROAT MICROPHONES/HEART BEAT MICROPHONES: effective for use in surroundings with high background sound levels because only the operator's voice is registered. Microphone diaphragm is held in place by a light steel band covered by soft plastic. Impedances: 50, 120, 200 and 500 ohms. In grey only.

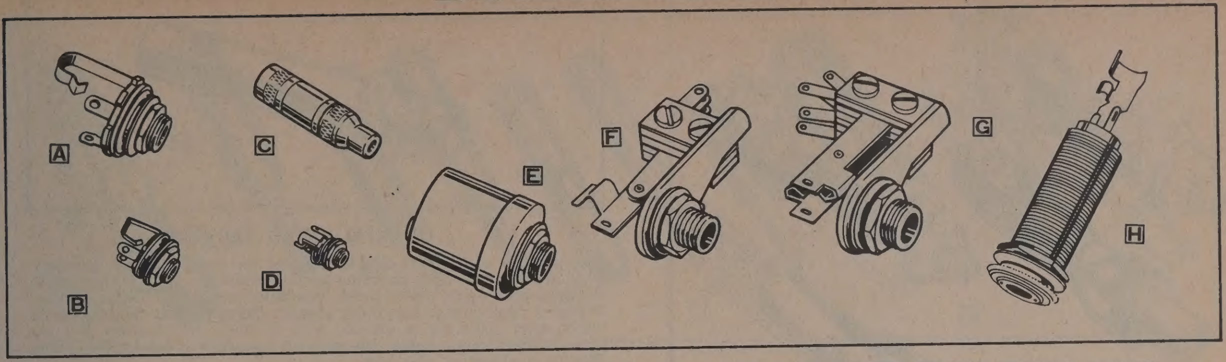


language lab headsets

To meet the growing demands of this active field, Rye Sound has prepared a complete line of aircrew headsets, microphone insets, boom-arm microphones, noise-cancellation mikes in divers combinations. These headsets are of the finest quality, offer maximum intelligibility, wearing ease, operating freedom and flexibility.



SWITCHCRAFT INC. Phone Jacks



"LITTLE-JAX" PHONE JACKS

A Quality phone jacks that mate with standard ¼" phone plugs. Notched insulating washers mechanically interlock springs and solder lugs. "V" bend in tip spring firmly "holds" mating plug. Minimum space requirements. Economical. Mount in single ⅜" hole, panels up to 5/32" thick, except L-11 and L-12A in panels up to ¼" thick.

Nos. C-11 and C-12A mate with No. 440 (PJ-055B) Plug; C-12B, S-12B and S-13B mate with No. 480 (JAN-PJ-068) or No. 484 (W.E. No. 309) Plug. Nos. C-11 and C-12B have locating pins (non-turn devices). No. S-11 similar to No. 11 except .210" I.D. sleeve. C-11, C-12B and C-12A per JAN-J-641. All others mate with standard ¼" dia. plugs.

TWO-CONDUCTOR TYPES

Part No.	Schematic No.	Typical Mating Plug	Mil-Type	U.S.A. List Price
11	I	250	—	$0.40
C-11	I	440	JJ-034	.60
L-11	I	250	—	.50
S-11	I	S-250	—	.45
12A	III	250	—	.45
C-12A	III	440	JJ-089	.75
L-12A	III	250	—	.55
13	V	250	—	.90
13A	VI	250	—	.85
13E	IX	250	—	.90

THREE-CONDUCTOR TYPES

12B	IV	267	—	$0.55
C-12B	IV	480	JJ-033	.70
L-12B	IV	267	—	.65
S-12B	IV	480	—	.65
13B	VII	267	—	.75
S-13B	VII	480	—	.95

"TINI-JAX" MINIATURE PHONE JACKS

B Miniature 2-conductor Jacks, approximately ⅓ the size of the "Littel-Jax"; otherwise similar in construction. Mount in ¼" dia. hole; panel up to ⅛" thick. No. 43A has a unique spring design that requires a pear shaped tip, such as Switchcraft "Tini-Plug" No. 750.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
41	I	750	2	$0.40
42A	III	750	2	.45
43A	VI	750	2	.70

"TINI-EXTENSION JAX"

C An extension or cable jack to mate with "Tini-Plugs". Two-conductor. Metal housing for ruggedness and electrical shielding. Solder lug terminals.

Switchcraft Part No. 125 .... U.S.A. List Price **$1.25**

"MICRO-JAX" SUB-MINIATURE PHONE JACKS

D Precision manufactured jack for miniaturized applications. Two-conductor, single closed circuit. See Schematic Circuit III. Silver plating on special tempered nickel silver springs. Internally keyed nylon insulation interlocks springs and solder lugs to eliminate shorts. Fits .190" dia. hole in panels to 3/32" thick. Only 1/25th the size of standard phone jacks. Mates with "Micro-Plug", Series 850, 880.

Switchcraft Part No. TR-2A .... U.S.A. List Price **$0.45**

"SHIELDED JAX"

E A unique modification of the "Littel-Jax". The shield is assembled into and made part of the jack. Ideal for high impedance circuits.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
CN-11	I	250	2	$0.80
CN-12A	III	250	2	.85
CN-12B	IV	267	3	.95
CN-13B	VII	267	3	1.15

"SF-JAX" SHORT FRAME PHONE JACKS

F **Series 20**—High quality commercial jacks, solder lugs parallel to mounting surface. Mount in ⅜" dia. holes, panels up to 3/16" thick.

G **Series 50**—Similar to Series 20, except solder lug location necessitates more depth but requires less panel space. Mount in panels up to ¼" thick.

Series C-20 and C-50—MIL Types with Military insulation and finishes, otherwise similar to commercial Series 20 and 50; both will mount in panels up to ¼" thick.

SERIES 20 and C-20

Part No.	Schematic No.	Typical Mating Plug	Mil-Type	U.S.A. List Price
21	I	250	—	$0.65
22	II	250	—	.80
22A	III	250	—	.80
22B	IV	267	—	.80
23	V	250	—	.95
C-23	V	440	JJ-099	1.35
23A	VI	250	—	.95
C-23A	VI	440	JJ-098	1.35
23B	VII	267	—	.95
23C	VIII	267	—	.95
23E	IX	250	—	.95
C-23E	IX	440	JJ-102	1.35
24	X	267	—	1.10
24A	XI	250	—	1.10
24B	XII	267	—	1.10
25	XIII	250	—	1.30
26	XIV	267	—	1.40

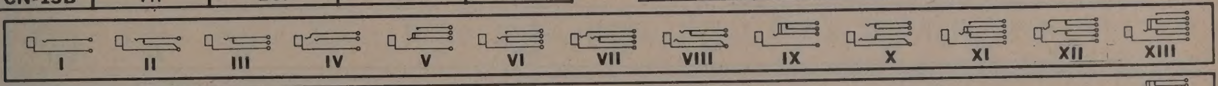
SERIES 50 and C-50

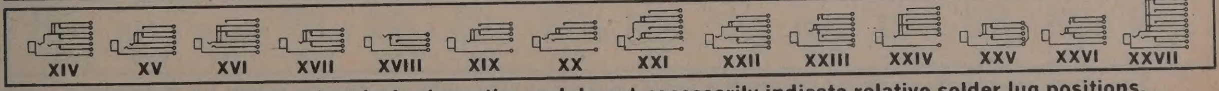
51	I	250	—	$0.65
C-51	I	440	JJ-096	1.20
52	II	250	—	.80
52A	III	250	—	.80
C-52A	III	440	JJ-097	1.30
52B	IV	267	—	.80
C-52B	IV	480	JJ-103	1.30
53	V	250	—	.95
53A	VI	250	—	.95
C-53A	VI	440	JJ-092	1.55
53B	VII	267	—	.95
53C	VIII	267	—	.95
53E	IX	250	—	.95
54	X	267	—	1.10
54A	XI	250	—	1.10
C-54A	XI	440	JJ-093	1.60
54B	XII	267	—	1.10
C-54B	XII	480	JJ-101	1.60
55	XIII	250	—	1.30
C-55B	XV	480	JJ-095	1.85
56	XIV	267	—	1.40

"THICK PANEL JAX"

H Phone jacks with long bushing. Mount in single 15/32" dia. hole in panels up to 1¼" thick. Solder lug terminals. Ideal for use with microphones; extra shielding virtually eliminates audio hum. No. 151, 2-conductor mates with 240, 245, 250, 255, 270 and 280 Plugs. No. 152B, 3-conductor mates with 260, 267, 269 and 297 Plugs.

Part No.	Description	U.S.A. List Price
151	2-cond. Brass Nickel Plated	$1.35
152B	3-cond. Brass Nickel Plated	1.50

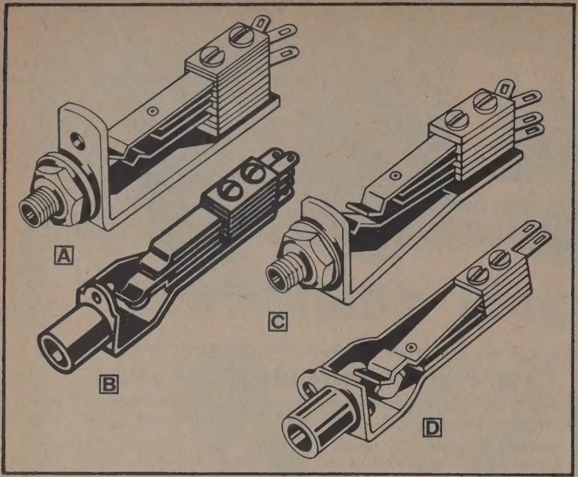




The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

© U.C.P., Inc.

SWITCHCRAFT INC. Jacks



"M-JAX" MILITARY TYPE PHONE JACKS

A Very heavy long frame jacks often referred to as the **Navy Jack.** Ideal for industrial and Military equipment. Long heavy duty springs with fine silver contacts. Mounts on single ⅜" hole, in panels up to ¼" thick.

Part No.	Schematic No.	Adjusted for Plug	Mil-Type No.	U.S.A. List Price
M-441	I	250	—	$1.50
M-442A	III	440	JJ-107	1.70
M-443A	VI	440	JJ-105	1.95
M-443B	VII	482	JJ-106	2.10
M-444*	XII	484 & 480	JJ-083	2.30
M-444B	XII	482	JJ-082	2.20
M-445	XIII	440	JJ-104	2.75
M-446	XIV	482	JJ-079	3.50
M-446A	XVI	482	JJ-081	3.90

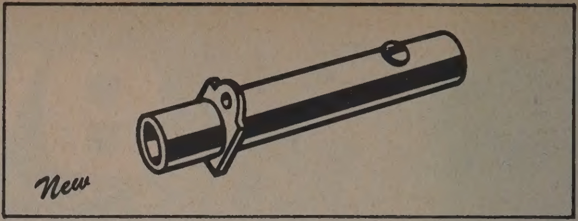
*Bushing, .2085".

"MT-JAX" MILITARY TELEPHONE JACKS

B Long frame, telephone switchboard jacks designed for high quality communication and military equipment. Springs are of a special nickel silver alloy with welded cross bar palladium contacts. MT-Jax are available in two frame designs, namely "A" & "C". Part numbers in chart cover "A" frame design as shown in **Fig. D.** For frame design "C" as shown in **Fig. B,** add prefix letter "C" to part numbers.

Part No.	Schematic No.	Adjusted for Plug	Mil-Type No.	U.S.A. List Price
MT-331	I	440*	JJ-086	$1.50
MT-332	II	440	—	1.70
MT-332A	III	440	JJ-024	1.70
MT-332B	IV	482†	JJ-022	1.70
MT-332C	XVIII	440	JJ-016	1.95
MT-333	V	440	JJ-084	1.95
MT-333B	VII	482	—	1.95
MT-333E	IX	440	—	1.95
MT-334A	XI	440	—	2.00
MT-334B	XII	482	JJ-042	2.00
MT-334C	XVII	440	JJ-072	2.00
MT-334E	XXV	440	JJ-085	2.00
MT-334F	XIX	440	JJ-035	2.00
MT-335	XIII	440	—	2.25
MT-335A	XXVI	440	JJ-017	2.25
MT-336	XX	482	JJ-074	2.25
MT-336A	XIV	482	JJ-075	2.75
MT-336B	XXI	482	JJ-077	2.75
MT-336C	XXII	482	JJ-073	2.75
MT-336E	XXIII	440	—	2.75
CMT-336E	XIII	440	JJ-019	2.75
MT-337	XXIV	440	JJ-087	2.75
CMT-337	XXIV	440	JJ-015	2.75
MT-339	XXVII	482	JJ-078	4.00
MT-342B§	IV	480‡	—	1.95
MT-344B§	XII	480	—	2.25

*MIL Type PJ-055.
†MIL Type PJ-051B.
‡MIL Type PJ-068.
§Bushing, .2085".



COAXIAL-VIDEO JACK

High quality coaxial-video jack designed for use in 75 ohm circuitry. Used in audio and video patching panels, broadcast and test equipment. Features heavy gold plated finish, insulation washers of Teflon, contact fingers of heat-treated beryllium copper, exclusive heat-sink device for faster, safer soldering of braided wire to shield termination. For use with RG59/U type cable. Mates with standard coaxial-video plugs. Mounts in single 7/16" dia. hole.

Switchcraft Part No. 3601.............U.S.A. List Price **$10.00**

"LF-JAX" LONG FRAME JACKS

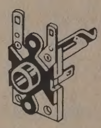
C Quality long frame phone jacks. Fine silver contacts, rated at 3 amp, 300 watts, A.C., non-inductive load. Mount in single ⅜" dia. hole in panels up to 5/16" thick.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
31	I	250	2	$0.75
32	II	250	2	.95
32A	III	250	2	.95
32B	IV	267	3	.95
33	V	250	2	1.05
33A	VI	250	2	1.05
33B	VII	267	3	1.05
33C	VIII	267	3	1.05
33E	IX	250	2	1.05
34	X	267	3	1.20
34A	XI	250	2	1.20
34B	XII	267	3	1.20
35	XIII	250	2	1.45
36	XIV	267	3	1.70

"T-JAX" TELEPHONE TYPE PHONE JACKS

D Long frame, switchboard type, phone jacks. For high quality communication equipment. Springs of nickel silver alloy for maximum life and corrosion resistance. Fine silver contacts are standard. Frame design also available with mounting ears rotated 90° from position shown in **Fig. D**; add prefix "C" to part number. All jacks listed mate with standard ¼" dia. phone plugs.

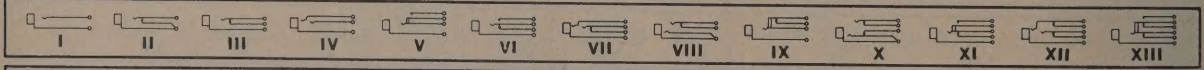
Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
T-331	I	250	2	$1.05
T-332A	III	250	2	1.20
T-332B	IV	267	3	1.20
T-334A	XI	250	2	1.50
T-334B	XII	267	3	1.60
T-334C	XVII	250	2	1.50

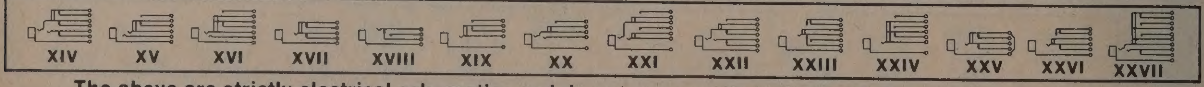


"R-JAX" ECONOMY PHONE JACKS

Radically new jack design. Simple mounting needs only two (2) 5/32" dia. rivets to fasten securely to mounting panel. Accept standard ¼" dia. phone plugs.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
1	I	250	2	$0.35
2A	II	250	2	.40
2B	IV	267	3	.45
3A	VI	250	2	.65
3B	VIII	267	3	.55
3E	IX	250	2	.75
3F	VII	267	3	.55
4B	X	267	3	.65





The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

Trade Discount Applies To List Prices Only

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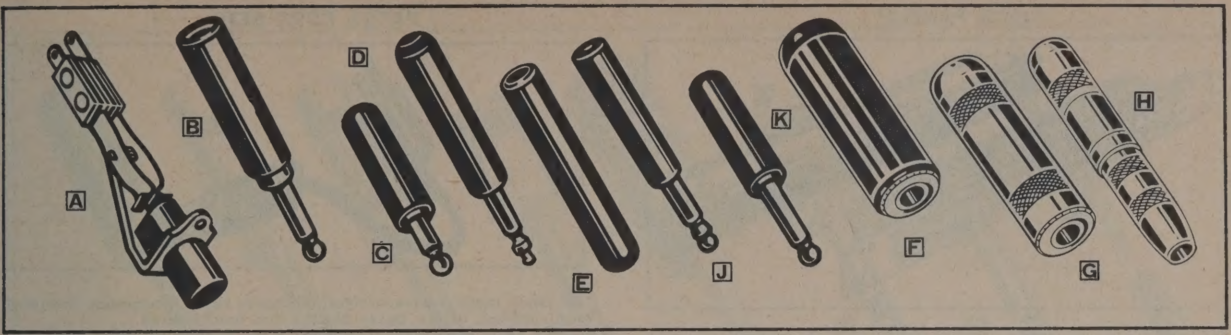
SWITCHCRAFT INC. Jacks and Plugs



"LAMP JAX" SWITCHBOARD PANEL TYPE

A Black nylon lamp housing completely insulates lamp from frame. Interchangeable with W.E. Nos. 47A and 47B. Accepts standard switchboard lamps and lamp caps, W.E. Nos. 2 and 72, etc.

Switchcraft Part No. LT-47..............U.S.A. List Price **$2.00**

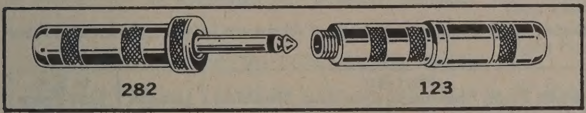
MILITARY TYPE "LITTEL-PLUGS" AND EXTENSION JAX

Designed to meet exact industrial and military requirements. Plugs are made in accordance with MIL-P-642(A) specifications. One-piece tip rod and one-piece sleeve and plug body provide internal interlock to prevent parts shifting in position. Type 820 Extension Jack meets MIL-J-641A specifications and mates with "Littel-Plug" No. 430. No. 470 has shielded handle; all others plastic: †Red; ‡Black. All plugs have screw terminals.

Part No.	Fig.	Mil-Type No.	Typical Mating Jack	Cond.	U.S.A. List Price
420‡	B	PJ-047B	MT-388	2	$1.50
425†	B	PJ-047R	MT-388	2	1.50
430‡	C	PJ-054B	820	2	1.40
435†	C	PJ-054R	820	2	1.40
440‡	K	PJ-055B	MT-331	2	1.40
445†	K	PJ-055R	MT-331	2	1.40
450‡	C	PJ-540B	820	2	1.40
455†	C	PJ-540R	820	2	1.40
470	—	PJ-055M	MT-331	2	2.00
480‡	D	PJ-068	MT-342B	3	3.60
482†	J	PJ-051R	MT-332B	3	4.00
483‡	J	PJ-051B	MT-332B	3	4.00
484†	J	PJ-309	M-444	3	3.60
820‡	E	JJ-026	430 Plug	2	2.00

Switchcraft Part No. P-1074-1—Strain Relief Clamp. Nickel Plate Brass. Package of 25.............U.S.A. List Price **$0.85**

"LOCK PLUG AND EXTENSION JAX"


282 123

Standard size 1/4", 2 and 3 conductor phone plugs and mating cable extension jacks with built-in device. Plug has coupling ring that can be threaded to the bushing of a "Littel-Jax" or to the mating end of the "Lock Extension Jax". Lock Plug handle, 1 51/64" long; 1/2" dia. Lock Extension Jax, 1/2" O.D.; 2 1/2" long. All have solder lug terminals.

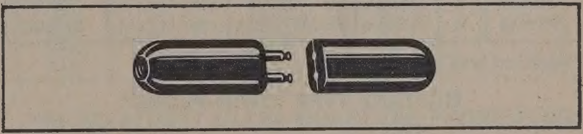
Part No.	Description	U.S.A. List Price
282	2-Conductor Lock Plug	$1.40
298	3-Conductor Lock Plug	1.75
123	2-Conductor Extension Jax	1.75
133	3-Conductor Extension Jax	2.25

"EXTENSION JAX" CABLE EXTENSION JACKS

Standard 1/4", 2 and 3-conductor extension phone jacks with solder lugs or screw type terminals. Size 11/16" O.D., 25/32" long; 121 and 131 1/2" O.D., 2 1/2" long. Black handles are durable plastic. Shielded handles are brass, bright nickel plated.

Part No.	Fig.	Cond.	Typical Mating Plug	Term.	Handle	U.S.A. List Price
80	F	2	250	Screw	Black	$1.15
88	F	2	250	Solder	Black	1.00
120	G	2	270	Screw	Shielded	1.55
121	H	2	270	Solder	Shielded	1.60
126	G	2	R-280	Solder	Shielded	1.80
128	G	2	270	Solder	Shielded	1.40
S-128	G	2	S-250	Solder	Shielded	1.50
131	H	3	290	Solder	Shielded	2.00
830	F	3	267	Screw	Black	1.55
S-830	F	3	480	Screw	Black	2.00
838	F	3	267	Solder	Black	1.40
1230	G	3	290	Screw	Shielded	1.95
S-1230	G	3	480	Screw	Shielded	2.50
1238	G	3	290	Solder	Shielded	1.80

TYPE 410 PLUG AND TYPE 810 JACK



Miniature 2-conductor extension jack and mating plug; often referred to as "Throat Microphone Plug and Jack". Plug is Military Type PJ-291; jack is Type JJ-048. Each is of two-piece molded construction. Plug has solder-cup terminals; jack has solder lugs. After wiring, shells must be cemented and clamped till dry. Overall size (engaged), 2 5/8" x 17/32" x 3/8".

Switchcraft Part No. 410 Plug..........U.S.A. List Price **$0.60**
Switchcraft Part No. 810 Jack..........U.S.A. List Price **.80**

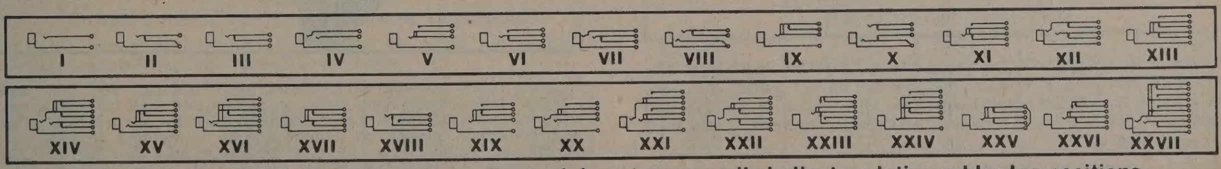
"JACK COVERS"

Handy, rugged, spring-load phone jack covers. Covers jack openings when phone plug is removed. Protects against dust and moisture.

Series 500—Use with standard 3/8"-32 threaded bushing type phone jacks.

Series 600—Use with certain type tip jacks with 1/4" mounting; height of tip jack head 1/8" to 3/16". Also used as covers for "Tini-Jax".

Part No.	Color	U.S.A. List Price
510	Olive Drab	$1.05
512	Bright Nickel	1.05
515	Black	1.05
520	Navy Gray	1.05
610	Olive Drab	.75
612	Bright Nickel	.75
615	Black	.75
620	Navy Gray	.75



The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

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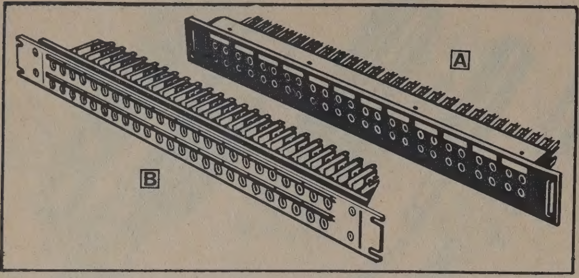
SWITCHCRAFT INC. Jacks, Plugs, Patch Cords

"JACK PANELS"

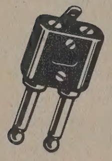


Rugged, heavy-duty jack panels for switching, distribution and control of audio signals in broadcasting stations, theaters, P. A. systems installations, etc. **Series 1200**, Fig. A, black phenolic panels reinforced with steel for the utmost rigidity. Mounting brackets slotted to fit all standard 19" relay racks. Panel includes plastic covered designation strips. **Series 2800**, Fig. B, clear anodized aluminum panel. Extremely rugged, yet lightweight. Includes new narrow designation strip for each row. Add Prefix "X" to part numbers to indicate offset ground lugs on jacks. Aluminum panels available only with offset lugs.

Part No.	Fig.	Rows	Number of Jacks	Size, In. W x D x H	U.S.A. List Price
1200	A	Single	24 *	19x1¼x1¾	$ 18.00
1232A	A	Single	24 T-332A	19x1¼x1¾	45.00
1332A	A	Single	24 MT-332A	19x1¼x1¾	55.00
1400	A	Single	26 *	19x ⅝x1¾	20.00
1432A	A	Single	26 T-332A	19x ⅝x1¾	50.00
1532A	A	Single	26 MT-332A	19x ⅝x1¾	62.00
2400	A	Double	48 *	19x1¼x2⅛	20.00
2432A	A	Double	48 T-332A	19x1¼x2⅛	75.00
2532A	A	Double	48 MT-332A	19x1¼x2⅛	95.00
2600	A	Double	52 *	19x ⅝x1¾	25.00
2632A	A	Double	52 T-332A	19x ⅝x1¾	85.00
2732A	A	Double	52 MT-332A	19x ⅝x1¾	110.00
2800	B	Double	48 *	19x ⅝x1¾	40.00
X2832A	B	Double	48 T-332A	19x ⅝x1¾	99.00
X2932A	B	Double	48 MT-332A	19x ⅝x1¾	115.00

*Supplied less jacks.

MILITARY TYPE "TWIN-PLUGS"


412

Meet exact industrial and military requirements. **No. 411**, both design and materials, is manufactured in accordance with MIL-P-642(A) specs. **Nos. 412 and 413**, use identical materials. "Twin-Plug" sleeves spaced ⅝" center to center with self-aligning feature.

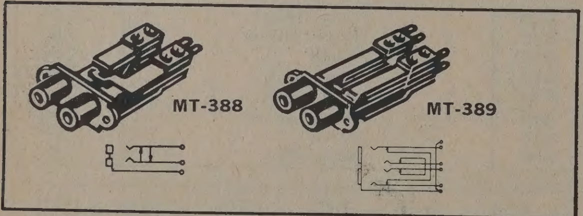
Part No. 411—Two electrically independent 2-conductor plugs in black plastic handle. Has provision for Cord Clamp No. S-2674. Military Type **PJ-327** (Old Navy No. 491242). Interchangeable with W.E. 327……U.S.A. List Price **$4.75**

Part No. 412—Two electrically independent 2-conductor plugs in black plastic handle. Has external cord clamp. Old Military Type PJ-289. Similar to W.E. 289B……………U.S.A. List Price **$4.50**

Part No. 413—Three circuit plug with two electrically independent tip circuits in heavy duty die cast frame. Molded black phenolic handle notched to indicate polarity. Interchangeable with MIL-Type PJ-421 and W.E. 241…………………………U.S.A. List Price **$4.50**

Part No. S-2674—Strain relief clamp, natural brass. For use with No. 411 Twin-Plug. Package of ten………U.S.A. List Price **$0.50**

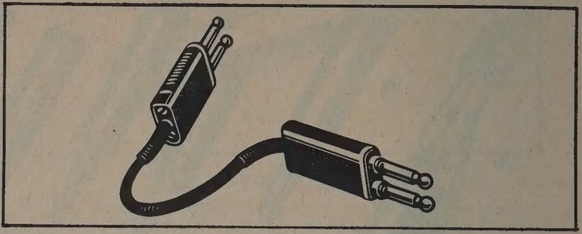
"TWIN JAX" DUAL MILITARY JACKS



Similar in design to "MT-Jax" except frame is double width, with two mounting ears on 1⅜" centers; bushings are on ⅝" centers. MT-388, MIL-Type No. **JJ-088**, mates with Nos. 411, 412, 413, 420 and 425 plugs. MT-389 has two 3-conductor jacks interconnected; mates with No. 482 Plug.

Switchcraft Part No. MT-388………..U.S.A. List Price **$5.15**
Switchcraft Part No. MT-389………..U.S.A. List Price **5.65**

PATCH CORD SETS



All patch cords are constructed of bronze tinsel conductors, insulated and shielded, with a heavy black nylon braid overall.

Series 17Q—2-conductor patch cords have No. 413 "Twin-Plug" at each end with shields grounded both ends.

Series 17P—Same as 17Q, except shield grounded one plug only.

Series 18Q—2-conductor patch cords use Military Plug **PJ-051** (Switchcraft Part No. 482) at each end with shields grounded both ends.

Series 19Q—Single conductor patch cords utilize Military Plug **PJ-047B** (Switchcraft Part No. 420) connected to each end with shield grounded both ends.

Part No.	Length	Plugs Used	U.S.A. List Price
17QA17	6 inch	413	$11.00
17QB17	1 foot	413	11.25
17QD17	2 feet	413	11.50
17QF17	3 feet	413	11.75
17QH17	4 feet	413	12.15
17QK17	6 feet	413	13.00
17QN17	10 feet	413	13.75
17PA17	6 inch	413	11.00
17PB17	1 foot	413	11.25
17PD17	2 feet	413	11.50
17PF17	3 feet	413	11.75
17PH17	4 feet	413	12.15
17PK17	6 feet	413	13.00
17PN17	10 feet	413	13.75
18QA18	6 inch	482	11.50
18QB18	1 foot	482	12.00
18QD18	2 feet	482	12.50
18QF18	3 feet	482	13.00
18QH18	4 feet	482	13.50
18QK18	6 feet	482	14.50
18QN18	10 feet	482	16.50
19QA19	6 inch	420	6.00
19QB19	1 foot	420	6.25
19QD19	2 feet	420	6.75
19QF19	3 feet	420	7.25
19QH19	4 feet	420	7.75
19QK19	6 feet	420	9.10
19QN19	10 feet	420	10.50

REPLACEMENT PATCH CORDS

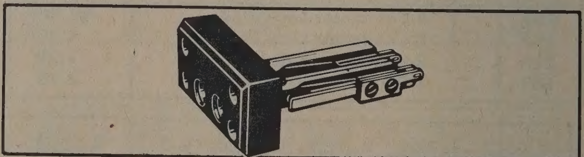
Patch cords are made of bronze tinsel conductors, insulated and shielded, with a heavy black nylon braid overall. Cords designed for use with Switchcraft plugs 413, 420 and 482 or equivalents. When used with No. 420, clip off unnecessary lead.

Series 89Q—2-conductor shielded cord with shield termination at both ends.

Series 89P—2-conductor shielded cord with shield termination at one end only.

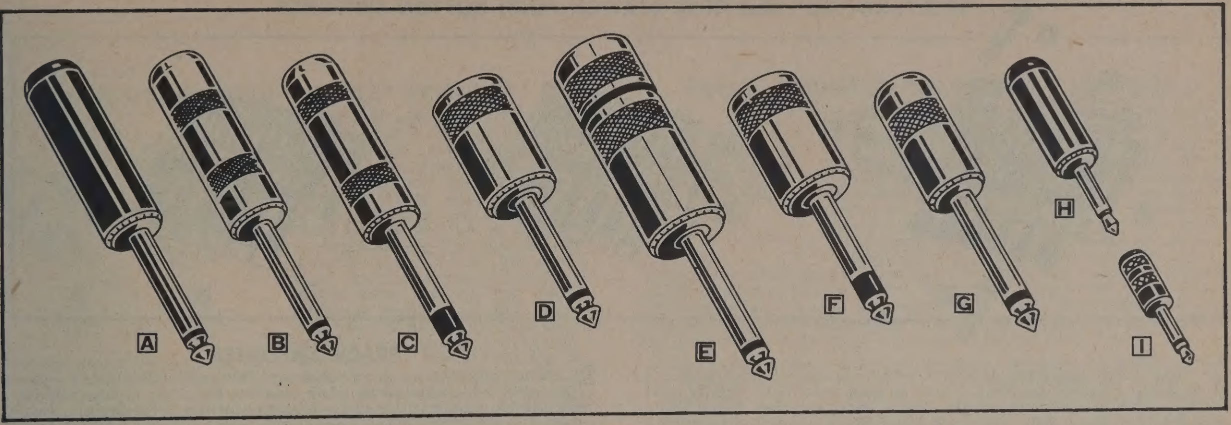
Part No. Both Ends Shielded	Part No. One End Shielded	Length	U.S.A. List Price
89QA89	89PA89	6 inch	$2.25
89QB89	89PB89	1 foot	2.75
89QD89	89PD89	2 feet	3.00
89QF89	89PF89	3 feet	3.25
89QH89	89PH89	4 feet	3.50
89QK89	89PK89	6 feet	4.50
89QN89	89PN89	10 feet	6.50

DUAL-JACK BLOCKS



Molded black phenolic jack blocks for mounting "MT-Jax" and "T-Jax" long frame phone jacks, on ⅝" centers. Can be rack equipment mounted individually or in multiples. Ideal for use in broadcasting and recording studios or communication equipment applications. Blocks are 2¾" W. x 1¼" H. x ⅝" D. Mount with four No. 8-32 flat head screws. All Dual-Jack Blocks are available on special order only. Specify Series 2300 type number and position of long frame jacks to be mounted on block.

SWITCHCRAFT INC. Phone Plugs



"LITTEL PLUG" PHONE PLUGS

Small size phone plugs fit standard ¼" phone jacks except *Nos. S-250, S-260, S-280 and S-290 which have a .206" dia. sleeve. **Nos. C-240, C-245 and C-270 feature an integral cable clamp with screw terminals. †No. R-280 has short sleeve for Revere Recorders. ‡No. 288 has a wide insulator between tip and sleeve for use in a 3-conductor jack to perform a 2-conductor function without shorting. Plugs with solder terminals have built-in cable clamp. Shielded metal handles are nickel plated brass; others are molded of durable plastic; ⅝" long x ½" dia.

TWO-CONDUCTOR TYPE

Part No.	Fig.	Typical Mating "Littel-Jax"	Handle	Terminals	U.S.A. List Price
240	A	11	Black	Screw	$0.75
C-240**	A	11	Black	Screw	.90
245	A	11	Red	Screw	.75
C-245**	A	11	Red	Screw	.90
250	A	11	Black	Solder	.70
255	A	11	Red	Solder	.70
270	B	11	Shielded	Screw	1.05
C-270**	B	11	Shielded	Screw	1.20
280	B	11	Shielded	Solder	1.00
288‡	C	11	Shielded	Solder	1.05
S-250	A	S-11	Black	Solder	.75
S-280	B	S-11	Shielded	Solder	1.00
R-280†	B	—	Shielded	Solder	1.25

THREE-CONDUCTOR TYPE

260	A	12B	Black	Screw	$1.20
S-260*	A	S-12B	Black	Screw	1.65
267	A	12B	Black	Solder	1.05
269	A	12B	Red	Solder	1.05
290	B	12B	Shielded	Screw	1.40
S-290*	B	S-12B	Shielded	Screw	1.85
297	B	12B	Shielded	Solder	1.30

STANDARD ¼" PHONE PLUGS

Available with phenolic or shielded, nickel plated over brass handle.

TWO-CONDUCTOR TYPE—SCREW TERMINALS

Typical mating jack "Littel-Jax" No. 11. Nos. 49 and 169 feature circuit closing device. Nos. 170 and 475 (MIL PJ-636) have two-piece handle with built-in clamp for ¼" cable. No. 180 has wide insulator between tip and sleeve for use in a 3-conductor jack to perform a 2-conductor function without shorting.

Part No.	Fig.	Handle	Length & Dia.	U.S.A. List Price
40	A	Black	2 1⁄16x¾	$0.75
45	A	Red	2 1⁄16x¾	.75
49	A	Black	2 1⁄16x¾	1.50
70	B	Shielded	2 1⁄16x11⁄16	1.20
160	D	Shielded	1x11⁄16	.90
169	D	Shielded	1x¾	1.75
170	E	Shielded	2 1⁄16x11⁄16	1.65
180	F	Shielded	1x¾	1.05
475	E	Shielded	1¾x¾	1.95

THREE-CONDUCTOR TYPE—SOLDER TERMINALS

Typical mating jack "Littel-Jax" No. 12B. No. 190A has two-piece handle with built-in cable clamp for ¼" cable.

60	A	Black	2 1⁄16x11⁄16	$1.05
90	D	Shielded	1x11⁄16	1.30
190	B	Shielded	2 1⁄16x11⁄16	1.50
190A	E	Shielded	2 1⁄16x11⁄16	1.95

"LUG-PLUG" PHONE PLUGS

Low cost, two-conductor phone plugs. Fit all ¼" phone jacks.

No. 385 Plug has a .206" dia. sleeve and mates with S-11 "Littel-Jax". All have solder lug terminals. Handle: Shielded metal or phenolic.

Part No.	Fig.	Typical Mating "Littel-Jax"	Handle	Length & Dia.	U.S.A. List Price
350	A	11	Black	1⅝x½	$0.55
355	A	11	Red	1⅝x½	.55
380	G	11	Shielded	1x½	.70
385	G	S-11	Shielded	1x½	1.00

"TINI-PLUGS" SUB-MINIATURE PHONE PLUGS

Miniature 2-conductor phone plugs for use with "TINI-JAX" only 1/3 the size of standard phone plugs. Handle 1⅝" overall length, are plastic or brass, nickel plated.

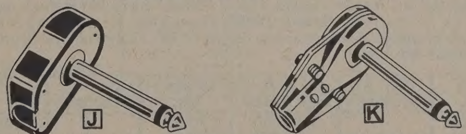
Part No.	Fig.	Terminal	Handle	U.S.A. List Price
740	H	Screw	Black	$0.75
745	H	Screw	Red	.75
750	H	Solder	Black	.70
755	H	Solder	Red	.70
770	H	Screw	Shielded	1.05
780	H	Solder	Shielded	1.05

"MICRO-PLUGS" ULTRA-MINIATURE PHONE PLUGS

Ultra-miniature 2-conductor phone plugs, only 1 1⁄64" long; ¼" O.D., .097" dia. sleeve. Mate with No. TR-2A. Have screw on handles in black, red or natural anodized aluminum; accommodates cables up to 7⁄64" dia. All plugs have integral cable clamps.

Part No.	Fig.	Description	U.S.A. List Price
850	I	Black Handle	$0.75
855	I	Red Handle	.75
880	I	Natural Handle	.75

"FLAT PLUGS" FLAT PHONE PLUGS



¼" phone plugs featuring flat, space-saving handles. Ideal for applications where conventional plugs would protrude too far. Nos. 220, 225 have adapter clips which make them convenient to clamp standard phone tips to terminals. Shielded flat plugs, Nos. 228 and 238 have nickel plated steel handles; all others have red or black plastic handles. Nos. S-230 and S-235 have .206" dia. sleeve.

TWO-CONDUCTOR TYPE

Part No.	Fig.	Typical Mating Jack	Handle	Terminals	U.S.A. List Price
220	J	11	Black	Screw	$0.90
225	J	11	Red	Screw	.90
227	J	11	Black	Solder	.85
228	K	11	Shielded	Solder	.95
229	J	11	Red	Solder	.85

THREE-CONDUCTOR TYPE

230	J	12B	Black	Screw	$1.30
S-230	J	S-12B	Black	Screw	1.75
235	J	12B	Red	Screw	1.30
S-235	J	S-12B	Red	Screw	1.75
237	J	12B	Black	Solder	1.25
238	K	12B	Shielded	Solder	1.40
239	J	12B	Red	Solder	1.25

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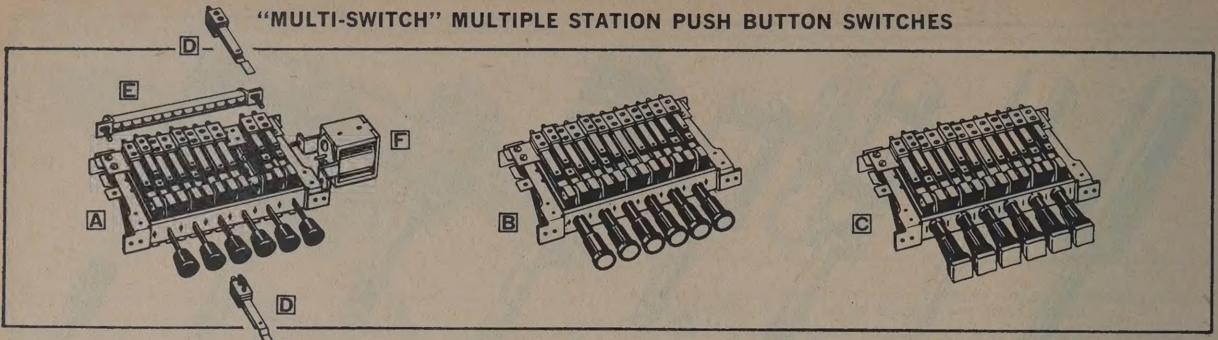
SWITCHCRAFT INC. "Multi-Switches"

"MULTI-SWITCH" MULTIPLE STATION PUSH BUTTON SWITCHES



New basic design simplicity provides a multiple station push button switch that's rugged, compact, versatile and extremely flexible in functions. **All switching components**—frame, stack switches, lamps and accessories **are changeable** to give you hundreds of circuit and function combinations. You can order a "Multi-Switch" with the function you now desire; and later change circuits and/or functions in the field by simple positioning adjustments of "stop plate", "latch bar spring" and/or interchanging switch stacks. **For a complete multiple station assembly, you must order the proper frame and the necessary stack switch for each button on the frame.** Optional accessories include lock-out bar and solenoid release. **Frames can be set up for: 1. Interlock; 2. Non-Lock; 3. All-Lock; 4. Interlock and Non-Lock combinations; 5. All-Lock and Non-Lock combinations.** Interlock action restores to normal any previously actuated buttons when actuating a button. Non-Lock is momentary action of each button. All-Lock is accumulative locking of all buttons with restoration of all buttons to normal when release button is depressed. **Specify switching function when ordering** the frames listed below.

SERIES 7000 NON-ILLUMINATED FRAMES

A Switch frames mount on panels up to ⅜" thick, with 3 5/16" depth behind panel. End brackets of frames have four No. 8/32 tapped holes for mounting. A round brown push-on button is furnished for each station; one extra red button included for use when switch requires a release. Center to center distance between buttons is ⅝". Standard plunger is 1⅛" long, can be supplied up to 4¾" long on special order. Switch frames with buttons on ¾" centers are available in **Series 8000.** This Series has all other features of Series 7000. **Series 7000** "Multi-Switch" frames available from 1 to 37 stations. **Series 8000,** from 1 to 31 stations. Add **10%** to the below prices when ordering Series 8000. Only the most commonly used frames are listed here:

Part No.	No. of Stations	U.S.A. List Price	Part No.	No. of Stations	U.S.A. List Price
7100	1	$ 7.50	7700	7	$18.00
7200	2	8.50	7800	8	20.00
7300	3	9.75	7900	9	22.00
7400	4	12.00	71000	10	24.00
7500	5	14.00	71100	11	26.00
7600	6	16.00	71200	12	28.00

SERIES 17000 ILLUMINATED FRAMES

B Similar in switching functions and characteristics to non-illuminated "Multi-Switches" but feature modern round black buttons with push-in identifying white discs and an extra red disc for release station. Miniature 6-volt lamp located in button for front end replacement. Buttons on ⅝" centers; ¾" centers are available on special order by specifying **Series 18000.** Lighting circuits on both Series are isolated from switching stacks. Prefix part numbers with **"L"** if push buttons are to light in "IN" position; with **"M"** to light in "OUT" position; with **"N"** to light in "IN" and "OUT" positions. Stacks for illumination circuits are mounted on frame. **Series 17000** "Multi-Switch" frames available from 1 to 37 stations. **Series 18000,** from 1 to 31 stations. Add **10%** to the below prices when ordering Series 18000. Only the most commonly used frames are listed:

Part No.	No. of Stations	U.S.A. List Price	Part No.	No. of Stations	U.S.A. List Price
17100	1	$11.50	17700	7	$40.00
17200	2	14.50	17800	8	45.00
17300	3	19.50	17900	9	50.00
17400	4	24.50	171000	10	55.00
17500	5	29.50	171100	11	60.00
17600	6	34.50	171200	12	65.00

SERIES 21000 ILLUMINATED FRAMES

C Same as Series 7000 and 17000, except features modern **square button** with **front and side illumination,** lamp diffusers that provide uniform lighting; knurled retaining collar for quick and easy front panel lamp replacement. A 6-volt or 28-volt lamp can be used. Buttons with white jewels and white diffusers are furnished for switching and release stations. Plungers are on ⅝" centers; ¾" centers are available on special order by specifying **Series 22000.** Lighting circuits on Series 21000 "Multi-Switch" are identical to those on Series 17000. **Series 21000** available up to 37 stations; **Series 22000** to 31 stations. Add **10%** to below prices when ordering Series 22000. Only the most commonly used frames are listed below. Series 21000 frames are supplied **less** lamps and stack switches.

Part No.	No. of Stations	U.S.A. List Price	Part No.	No. of Stations	U.S.A. List Price
21100	1	$11.50	21700	7	$40.00
21200	2	14.50	21800	8	45.00
21300	3	19.50	21900	9	50.00
21400	4	24.50	211000	10	55.00
21500	5	29.50	211100	11	60.00
21600	6	34.50	211200	12	65.00

STACK SWITCHES

D Interchangeable stack switches for "Multi-Switch" frames. Two types listed below: **Series 70,** silver contacts for power circuits; **Series 70P,** welded cross bar palladium contacts for low level circuits. Both rated at 3 amps, 300 Watts, max., A.C. non-inductive load. If more than one circuit will be required specify two (or more) stacks in order to balance the load on the plunger. For example, if two form "C" circuits are required, specify two No. 73 rather than one No. 76; locate stacks to balance load on plunger for easier action. Two mounting screws and one pressure plate furnished with each switch. In addition to Series 70 and 70P Stack Switches, **four other Series are available,** as standard, from stock.

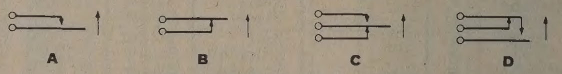
SERIES 70—SILVER CONTACTS

Part No.	Contacts	U.S.A. List Price	Part No.	Contacts	U.S.A. List Price
71	1 "A"	$0.50	74	2 "A"	$0.80
72	1 "B"	.50	75	2 "B"	.80
73	1 "C"	.60	76	2 "C"	.95
73D	1 "D"	.70	76D	2 "D"	1.15

SERIES 70P—PALLADIUM CONTACTS

Part No.	Contacts	U.S.A. List Price	Part No.	Contacts	U.S.A. List Price
71P	1 "A"	$0.60	74P	2 "A"	$0.95
72P	1 "B"	.60	75P	2 "B"	.95
73P	1 "C"	.80	76P	2 "C"	1.15
73PD	1 "D"	.90	76PD	2 "D"	1.40

BASIC CONTACT FORMS



LOCK-OUT BAR "K" SERIES

E Prevents the operation of more than one button at a time. For example, a switch with interlock function, automatically releases a previously actuated station when a new station is depressed, but it is possible to depress more than one station simultaneously, unless the "K" Series Lock-Out Bar has been added. Mounts on back of standard Multi-Switch frame with two screws (furnished). Available from 2 to 37 stations for a single frame. Lock-Out Bars listed below for ⅝" center plungers only; for ¾" centers, order special.

Part No.	Stations	U.S.A. List Price	Part No.	Stations	U.S.A. List Price
K-02	2	$3.00	K-08	8	$3.75
K-03	3	3.15	K-09	9	4.00
K-04	4	3.25	K-10	10	4.25
K-05	5	3.40	K-11	11	4.50
K-06	6	3.50	K-12	12	4.75
K-07	7	3.65			

SOLENOID RELEASE—"J" SERIES

F A simple solenoid assembly that can be added on the end of standard frames by two screws to provide automatic remote release of depressed stations. For use in 115 volt, A.C., 60 cycle circuits. Other voltages available on special order. **J-3** designed for use with up to 12 stations. Complete with mounting bracket and screws.

Part No.	Function Used on	U.S.A. List Price	Part No.	Function Used on	U.S.A. List Price
J-1	Interlock	$8.50	J-3	All-Lock	$9.50

ESCUTCHEON PLATES

Attractive escutcheon plates for "Multi-Switches", non-illuminated Series 7000 and illuminated Series 17000 only. Black satin finish over a 1/32" thick aluminum plate; back side has pressure sensitive adhesive. Listed below are standard lengths; can be made available from 1 to 37 stations.

For Series 17000 Part No.	For Series 7000 Part No.	Stations	U.S.A. List Price
ER-04	ES-04	4	$9.90
ER-06	ES-06	6	1.10
ER-08	ES-08	8	1.30
ER-12	ES-12	12	1.75
ER-18	ES-18	18	2.50

LAMPS FOR "MULTI-SWITCHES"

A 6-volt screw base lamp is furnished with Series 17000 frames; however, lamps are not furnished with Series 21000. For initial order or replacement, specify by using the following part numbers:

Part No.	V.	Lamp Base	For Frame Series	Mfg. or Ind. No.	U.S.A. List Price
P-1215	6V	Screw	17000, 18000	G.E. 1775	$0.90
P-1593-1	28V	Flange	21000, 22000	Ind. 327	1.50
P-1593-2	6V	Flange	21000, 22000	Ind. 328	1.20

Many other "Multi-Switch" frames, buttons, diffusers, stack switches, lock-out bars, etc., are available from your distributor.

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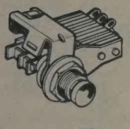
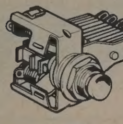
SWITCHCRAFT INC. Push-Button Switches

NEW ILLUMINATED "NF-LITE" SWITCHES



A
Series 4100



B
Series 4200

Series 4100 and 4200 "NF-LITE" illuminated switches indicate switching and circuit functions at a glance. Flat frame construction provides multiple pole momentary action switching. Lighting circuit is independent of switching circuit. Ideal for control panel or press-to-test applications. Contacts are fine silver rated at 3 amps, 300 watts max., A.C., non-inductive load.

Series 4100, Fig. A, uses single miniature lamp, 6V or 28V. Light from lamp is filtered through color chip to clear plastic push-button. Various colored chips can be inserted at any time. **Series 4200, Fig. B,** same as Series 4100, except utilizes two lamps for greater illumination or color coding of two circuit conditions. Both series require 11/16" min., 1 5/16" max. depth behind panel depending on size of stack; mounts in 3/8" hole in panels up to 1/4" thick. **Series 4100** furnished with **one kit of 4 color chips** (red, amber, green, and yellow), **Series 4200** furnished with **two kits. Lamps** must be **purchased separately.** See lamp listing below.

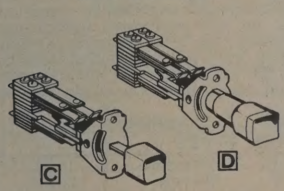
SERIES 4100

Part Number	Action	Schematic Circuit	U.S.A. List Price
4101	S.P.S.T.n.o.	1-A	$ 1.95
4103	S.P.D.T.	1-C	2.10
4104	D.P.S.T.n.o.	2-A	2.20
4106	D.P.D.T.	2-C	2.45
4109	3 P.D.T.	3-C	3.00

SERIES 4200

Part Number	Action	Schematic Circuit	U.S.A. List Price
4201	S.P.S.T.n.o.	1-A	$2.85
4203	S.P.D.T.	1-C	3.00
4204	D.P.S.T.n.o.	2-A	3.10
4206	D.P.D.T.	2-C	3.35
4209	3 P.D.T.	3-C	3.90

SERIES 5000 NON-ILLUMINATED, SERIES 15000 ILLUMINATED "PUSH-PUSH" SWITCHES



C **D**

Push-to-Lock, Push-to-Release or momentary action push-button switches. Available in numerous multiple pole circuits. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., non-inductive A.C. load. Mounts with two 3-48 screws on 5/8" centers. Depth behind panel, 2 7/8".

Series 5000, Fig. C, non-illuminated push-button switch, supplied with square, brown button.

Series 15000, Fig. D, illuminated push-button switch, supplied with modern white, square button with front and side illumination; white lamp diffuser that provides uniform lighting; knurled retaining collar for quick and easy front panel lamp replacement. A 6V or 28V lamp can be used, lamps are not furnished with switches, see lamp listing below. Lighting circuits are isolated from switching stacks. †Prefix Series 15000 part numbers with **"L"** if push-buttons are to light in "IN" position; with **"M"** to light in "OUT" position; with **"N"** to light in "IN" and "OUT" positions.

*Add suffix letter "L" to Part Number to indicate locking type.

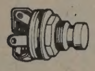
NON-ILLUMINATED SERIES 5000

Part Number Non-locking*	Action	Schematic Circuit	U.S.A. List Price
5003	S.P.D.T.	1-C	$ 6.00
5004	D.P.S.T.n.o.	2-A	6.50
5006	D.P.D.T.	2-C	6.75
5008	4 P.S.T.n.o.	4-A	7.60
5009	3 P.D.T.	3-C	7.75
5012	4 P.D.T.	4-C	9.00

ILLUMINATED SERIES 15000†

Part Number	Action	Schematic Circuit	U.S.A. List Price
15003	S.P.D.T.	1-C	$8.50
15004	D.P.S.T.n.o.	2-A	9.00
15006	D.P.D.T.	2-C	9.25
15008	4 P.S.T.n.o.	4-A	10.00
15009	3 P.D.T.	3-C	10.25
15012	4 P.D.T.	4-C	11.50

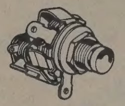
"TINY SWITCHES"



Series 950, red button, and **Series 960,** black button, sub-miniature push-button switches for limited space applications. Integral contacts suitable for low level circuits where contact resistance is not important. Mounts in 1/4" hole in panels up to 3/32" thick; depth behind panel 3/8".

Part Number Red Button	Part Number Black Button	Action	Schematic Circuit	U.S.A. List Price
951	961	S.P.S.T.n.o.	1-A	$0.90
952	962	S.P.S.T.n.c.	1-B	.90
953	963	S.P.D.T.	1-C	1.00

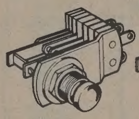
NEW ILLUMINATED "LITTEL-LITE" SWITCHES



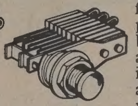
Series 210 "Littel-Lite" Switches are unusually small, momentary contact, illuminated push-button types. Requires minimum panel space; ideal for limited space applications and press-to-test circuits. One-piece, clear plastic button and shaft is illuminated by a single miniature lamp, 6V or 28V. Lamps are **not** furnished, see lamp listing below. Includes kit of 4 color chips (red, amber, green, and yellow), can be inserted in switch at any time. Nickel silver spring contacts are recommended for low lever circuits where contact resistance is not important. Also available, fine silver contacts (Part No. suffix **"S"**) rated at 3 amps, 300 watts, max., A.C. non-inductive load. Lighting circuit is independent of switching circuit. Mounts in single 3/8" hole in panels up to 1/4" thick; depth behind panel 1 3/16".

Part Number	Action	Schematic Circuit	U.S.A. List Price
211	S.P.S.T.n.o.	1-A	$1.65
212	S.P.S.T.n.c.	1-B	1.65
213	S.P.D.T.	1-C	1.90
211S	S.P.S.T.n.o.	1-A	1.85
212S	S.P.S.T.n.c.	1-B	1.85
213S	S.P.D.T.	1-C	2.10

NON-LOCKING FLAT FRAME SWITCHES



E



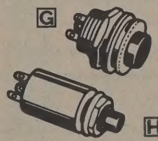
F

FF Switches. Fig. E, Series 1000. Flat frame construction provides multiple pole switching with minimum depth behind panel. Fine silver contacts rated at 3 amps, 300 Watts Max., A.C., non-inductive load. One piece black button and shaft. 3/8" diameter threaded shank; mounts in panels up to 1/4" thick.

NF Switches. Fig. F, Series 4000, same as FF Switches, except smaller spring design, ideal for mounting in ultra-compact equipment. Only 1/2" W.; 1 5/8" L.; mounts in 3/8" hole in panels up to 5/32" thick.

Part Numbers Series 1000	Part Numbers Series 4000	Action	Schematic Circuit	U.S.A. List Price
1001	4001	S.P.S.T.n.o.	1-A	$1.05
1002	4002	S.P.S.T.n.c.	1-B	1.05
1003	4003	S.P.D.T.	1-C	1.20
1004	4004	D.P.S.T.n.o.	2-A	1.30
1005	4005	D.P.S.T.n.c.	2-B	1.30
1006	4006	D.P.D.T.	2-C	1.55
1009	4009	3 P.D.T.	3-C	2.10

"BUTTON SWITCHES"



G **H**

Series 903, 923. Unusually small, momentary action push button switches. Enclosed in metal housing; black or red plastic button. **Series 903, Fig. G.** back panel mounting; 15/32" hole, mounts in panels up to 19/64" thick. **Series 923, Fig. H.** front panel mounting; 1/4" hole, mounts in panels up to 5/32" thick. Both rated at 250 mils, AC, non-inductive load, 30 watts max.

Part Nos. Red Button	Part Nos. Black Button	Action	Schematic Circuit	U.S.A. List Price
903	913	S.P.D.T. "Break-Make"	1-C	$1.50
903D	913D	S.P.D.T. "Make-Break"	1-D	1.50
923	933	S.P.D.T. "Break-Make"	1-C	1.75
923D	933D	S.P.D.T. "Make-Break"	1-D	1.75

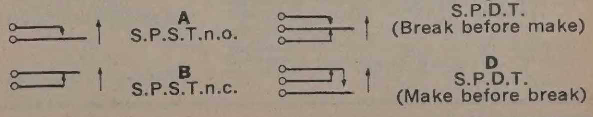
LAMPS FOR ILLUMINATED SWITCHES

The **"NF-Lite"**, **"Littel-Lite"** and **Series 15000 "Push-Push"** Switches are not supplied with lamps. When ordering these switches, be sure to specify:

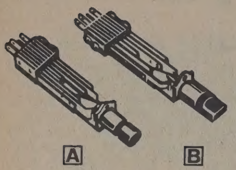
Part No.	Used in Switch	Voltage	Base	Ind. No.	U.S.A. List Price
P-1217	NF-Lite Littel-Lite	6	Screw	1768	$1.20
P-1218	NF-Lite Littel-Lite	28	Screw	335	2.00
P-1593-1	Push-Push Series 15000	28	Flange	327	1.50
P-1593-2	Push-Push Series 15000	6	Flange	328	1.20

BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



SWITCHCRAFT INC. Push Button Switches



"T-SWITCHES"

Rugged, long frame switches for quality communication equipment. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Requires minimum of panel space, only 9⁄16"x13⁄16"; 2⅞" depth behind panel. **Series 11000, Fig. A,** push button T-Switch. Available in momentary action and push-to-lock, pull-to-release action. **Series 11200, Fig. B,** two position turn button T-Switch. Available in non-locking and locking action. Black button with white arrow to indicate switching position.

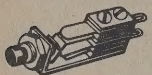
*Add Suffix **"L"** to Part Numbers to Indicate Locking Type.

A PUSH BUTTON—SERIES 11000

Part No. Non-Locking*	Action	Schematic Circuit	U.S.A. List Price
11001	S.P.S.T. n.o.	1-A	$3.50
11002	S.P.S.T. n.c.	1-B	3.50
11003	S.P.D.T.	1-C	4.00
11003D	S.P.D.T.	1-D	4.00
11004	D.P.S.T. n.o.	2-A	4.50
11005	D.P.S.T. n.c.	2-B	4.50
11006	D.P.D.T.	2-C	5.00
11006D	D.P.D.T.	2-D	5.00
11008	4 P.S.T. n.o.	4-A	5.60
11009	3 P.D.T.	3-C	6.00
11012	4 P.D.T.	4-C	6.80

B TURN BUTTON—SERIES 11200

11201	S.P.S.T. n.o.	1-A	$3.50
11202	S.P.S.T. n.c.	1-B	3.50
11203	S.P.D.T.	1-C	4.00
11203D	S.P.D.T.	1-D	4.00
11204	D.P.S.T. n.o.	2-A	4.50
11205	D.P.S.T. n.c.	2-B	4.50
11206	D.P.D.T.	2-C	5.00
11206D	D.P.D.T.	2-D	5.00
11208	4 P.S.T. n.o.	4-A	5.60
11209	3 P.D.T.	3-C	6.00
11212	4 P.D.T.	4-C	6.80



MINIATURE "TF" BUTTON SWITCHES

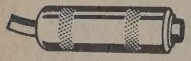
"Tiny Frame" switches. Small, sturdily constructed, provides simple, direct acting push button switching for use where space is at a premium. Available in **Series 970L** push-to-lock, pull-to-release; or **Series 970,** momentary action. Nickel silver springs, integral contacts, recommended for low level circuits where contact resistance is unimportant. Requires only 1 19⁄32" depth behind panel; mounts in single ¼" hole in panels up to 3⁄32" thick.

SERIES 970—NON-LOCKING

Part No.	Action	Schematic Circuit	U.S.A. List Price
974	D.P.S.T. n.o.	2-A	$1.30
975	D.P.S.T. n.c.	2-B	1.30
976	D.P.D.T.	2-C	1.30

SERIES 970L—LOCKING

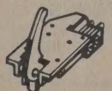
974L	D.P.S.T. n.o.	2-A	$1.55
975L	D.P.S.T. n.c.	2-B	1.55
976L	D.P.D.T.	2-C	1.55



"CORD SWITCHES"

An attractive bright nickel plated housing supports **Series 903** and **913** button switches. Ideal for cord mounted or pendant switch on remote control applications. Sleeve 11⁄16" diameter, 2 3⁄16" long.

Part Nos.		Action	Schematic Circuit	U.S.A. List Price
Red Button	Black Button			
E-903	E-913	S.P.D.T. "Break-Make"	1-C	$2.50
E-903D	E-913D	S.P.D.T. "Make-Break"	1-D	2.50



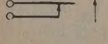
"HOOK SWITCHES"

Quality constructed leaf-type switch actuated by a hook (or hanger). Ideal for equipment where it is necessary to actuate a circuit by hanging an accessory on a "hook", as a headset, telephone or microphone. Fine silver contacts, rated at 3 amps, 300 watts, max., A.C., non-inductive load. Requires only 19⁄32" depth behind panel.

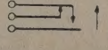
Part No.	Action	Schematic Circuit	U.S.A. List Price
14004	D.P.S.T. n.o.	2-A	$2.75
14005	D.P.S.T. n.c.	2-B	2.75
14006	D.P.D.T.	2-C	3.00
14012	4 P.D.T.	4-C	3.85

BASIC SCHEMATIC CIRCUITS

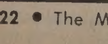
Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



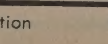
A
S.P.S.T.n.o.



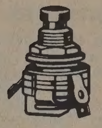
C
S.P.D.T.
(Break before make)



B
S.P.S.T.n.c.



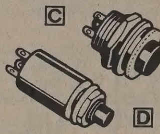
D
S.P.D.T.
(Make before break)



"LITTEL-SWITCHES"

Series 100, 200, tiny momentary contact push button switches. Rugged, dependable action. All contacts insulated from panel bushing with interlocking phenolic washers. Series 100 and 200, springs are of nickel silver, recommended only for low level circuits where contact resistance is unimportant. **Series 100S and 200S** have fine silver contacts rated at 3 amps or 300 watts max., A.C., non-inductive load. One-piece plastic button and shaft in red or black. Mounts in ⅜" hole in panels up to ¼".

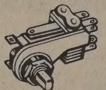
Part Nos.		Action	Schematic Circuit	U.S.A. List Price
Red Button	Black Button			
101	201	S.P.S.T. n.o.	1-A	$0.90
101S	201S	S.P.S.T. n.o.	1-A	1.05
102	202	S.P.S.T. n.c.	1-B	.90
102S	202S	S.P.S.T. n.c.	1-B	1.05
103	203	S.P.D.T.	1-C	1.00
103S	203S	S.P.D.T.	1-C	1.20



"BUTTON SWITCHES"

Series 903, 923. Unusually small, momentary action push button switches. Enclosed in metal housing; black or red plastic button. **Series 903, Fig. C,** back panel mounting; 15⁄32" hole, mounts in panels up to 19⁄64" thick. **Series 923, Fig. D,** front panel mounting; ¼" hole, mounts in panels up to 5⁄32" thick. Both rated at 250 mils, AC, non-inductive load, 30 watts max.

Part Nos.		Action	Schematic Circuit	U.S.A. List Price
Red Button	Black Button			
903	913	S.P.D.T. "Break-Make"	1-C	$1.50
903D	913D	S.P.D.T. "Make-Break"	1-D	1.50
923	933	S.P.D.T. "Break-Make"	1-C	1.75
923D	933D	S.P.D.T. "Make-Break"	1-D	1.75



"RS-SWITCHES"

Rugged rotary switches, available in various multiple circuits, two and three position types, locking or non-locking action. Ideal for communication, musical and test equipment applications. **Fibre cam** actuates long, leaf-type springs resulting in easy action; good wiping action of contacts. Fine silver contacts rated at 3 amps, 300 watts max., AC, non-inductive load. Requires only ⅞" depth behind panel, mounts in single ⅜" hole in panels up to ¼" thick.

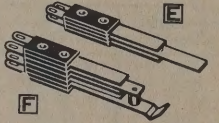
*Add suffix letter **"L"** to part number to indicate locking type.

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Schematic Circuit Pos. 2	U.S.A. List Price
2001	S.P.S.T. n.o.	1-A		$1.25
2002	S.P.S.T. n.c.	1-B		1.25
2003	S.P.D.T.	1-C		1.50
2004	D.P.S.T. n.o.	2-A		1.50
2005	D.P.S.T. n.c.	2-B		1.50
2006	D.P.D.T.	2-C		1.95

THREE POSITION TYPES

2034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	$1.50
2035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	1.50
2036	S.P.D.T. Ea. Sec.	1-C	1-C	1.95



STACK SWITCHES

General purpose stack switch assemblies made from a pile-up of various actuator springs, contact springs and lifters. These stack switch assemblies can be used on manually operated devices where switching is operated by cams, levers, push buttons, and other mechanical devices. General purpose stack switches are available with a **"Flat" (Fig. E)** or **"V" (Fig. F)** actuator spring. Fine silver or palladium cross bar welded contacts are standard, rated at 3 amps., 300 watts max., A.C., non-inductive load. Supplied with pressure plate and two No. 5-40 screws; mount on ⅜" centers. **Height of stack** depends on switching circuit; 1-B circuit 21⁄64" **H., min.;** 2-C circuit 45⁄64" **H., max.**

FLAT ACTUATOR SPRING

Part No.	Contact Material	Action	Schematic Circuit	U.S.A. List Price
AA01AA	Silver	S.P.S.T. n.o.	1-A	$0.70
AA01AB	Palladium	S.P.S.T. n.o.	1-A	.80
AA02AA	Silver	S.P.S.T. n.c.	1-B	.70
AA02AB	Palladium	S.P.S.T. n.c.	1-B	.80
AA03AA	Silver	S.P.D.T.	1-C	.90
AA03AB	Palladium	S.P.D.T.	1-C	1.10
AA06AA	Silver	D.P.D.T.	2-C	1.25
AA06AB	Palladium	D.P.D.T.	2-C	1.55

"V" FORMED ACTUATOR SPRING

AA01BA	Silver	S.P.S.T. n.o.	1-A	$0.80
AA01BB	Palladium	S.P.S.T. n.o.	1-A	.90
AA02BA	Silver	S.P.S.T. n.c.	1-B	.80
AA02BB	Palladium	S.P.S.T. n.c.	1-B	.90
AA03BA	Silver	S.P.D.T.	1-C	1.00
AA03BB	Palladium	S.P.D.T.	1-C	1.20
AA06BA	Silver	D.P.D.T.	2-C	1.45
AA06BB	Palladium	D.P.D.T.	2-C	1.65

Trade Discount Applies To List Prices Only

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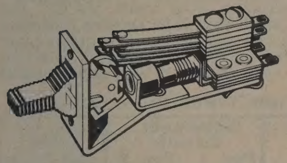
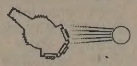
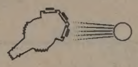
SWITCHCRAFT INC. Lever Switches

NEW COLOR ILLUMINATED LEVER SWITCHES THE "LEVER-LITE"




UP POSITION
1st Color Shows

NEUTRAL POSITION
2nd Color Shows


DOWN POSITION
3rd Color Shows

"Lever-Lite", Series 25000. Illuminated switches indicate positions at a glance. Individual color chips can be inserted in each switch position. Available in 2 or 3 positions, locking and non-locking types. Reduces panel space; minimizes costly wiring. Supplied with 6V miniature screw base lamp and six color chips, Red, Green, Amber, Yellow, Blue and White; 28V lamp also available. See lamp listing below. Nickel-silver springs, silver contacts rated 3 amps, 300 watts max., A.C., non-inductive load. Requires only 2¼″ depth behind panel, can be mounted on ⅝″ centers in panels up to 3/32″ thick.

Size: 2¼″ L. x 39/64″ W. x 17/32″ H. *Add suffix letter "L" to Part No. to indicate locking type.

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
25201	S.P.S.T. n.o.	1-A		$4.00
25203	S.P.D.T.	1-C		4.25
25206	D.P.D.T.	2-C		5.00
25209	3 P.D.T.	3-C		5.75

THREE POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
25304	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	$4.50
25306	S.P.D.T. Ea. Sec.	1-C	1-C	5.00
25308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.50
25312	D.P.D.T. Ea. Sec.	2-C	2-C	6.00

LAMPS FOR "LEVER-LITE" SWITCHES

Lamps are mounted in a "snap-out" frame assembly. A 6V lamp is furnished with each of the above listed switches. Specify the following part numbers when ordering replacement lamps:

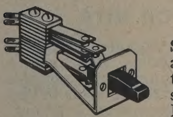
Part No.	Voltage	Base	Ind. No.	U.S.A. List Price
P-1217	6V	Screw	1768	$1.20
P-1218	28V	Screw	Hudson 369	2.00

ESCUTCHEON PLATE FOR "LEVER-LITE" SWITCHES

Part No. 531 escutcheon plate for easy and convenient mounting of **"Lever-Lite"** switches. Eliminates punching rectangular hole in mounting panel. Satin black finish. Complete with two No. 3-48 black machine screws and mounting template.

Switchcraft Part No. 531..................U.S.A. List Price **$0.15**

"LK" LITTEL-KEY SWITCHES



Series 23000. Short frame lever-type switches available in 2 or 3 positions, locking or non-locking types. Ideal for applications where panel mounting space and depth behind panel is at a premium. Fine silver contacts, rated at 3 amps, 300 watts max., A.C., non-inductive load. Frame has 2 tapped No. 3-48 holes for easy mounting. Mounts in panels up to ⅛″ thick. Depth behind panel only 23/32″. *Add suffix letter "L" to Part No. to indicate locking type.

TWO POSITION TYPES

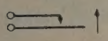
Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
23201	S.P.S.T. n.o.	1-A		$1.65
23203	S.P.D.T.	1-C		1.95
23206	D.P.D.T.	2-C		2.25

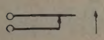
THREE POSITION TYPE

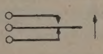
Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
23304	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	$2.10
23306	S.P.D.T. Ea. Sec.	1-C	1-C	2.25
23308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	2.50

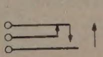
BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.

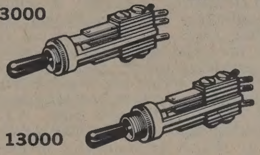

A
S.P.S.T.n.o.


B
S.P.S.T.n.c.


C
S.P.D.T.
(Break before make)


D
S.P.D.T.
(Make before break)

LEV-R SWITCHES



Small lever action switches in two and three position types, locking and non-locking action. Requires half the space usually needed for a lever switch; frame bushing and shaft nickel plated brass. Supplied with locknut and screw-on black knob. Fine silver contacts rated at 3 amps, 300 watts, max. A.C. non-inductive load. Non-locking types have spring return. Series 3000 mounts in panels up to 3/32″ thick; Series 13000 mounts in panels up to ¼″ thick. Both Series are ⅝″ wide; requires 2¼″ behind panel; mounts in single ½″ dia. hole. †n.o. center position off. ‡Inter-communications "Talk-Listen" switches, lever locks on one side of neutral and operates non-locking on the other side. *Add suffix letter "L" to Part No. to indicate locking type.

SERIES 3000 TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
3001	S.P.S.T. n.o.	1-A		$1.95
3002	S.P.S.T. n.c.	1-B		1.95
3003	S.P.D.T.	1-C		2.25
3003D	S.P.D.T.	1-D		2.40
3004	D.P.S.T. n.o.	2-A		2.50
3005	D.P.S.T. n.c.	2-B		2.50
3006	D.P.D.T.	2-C		2.75
3006D	D.P.D.T.	2-D		2.90
3009	3 P.D.T.	3-C		3.40

THREE POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
3033	S.P.D.T. n.o.	1-C†		$2.65
3034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	2.75
3035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	2.75
3036	S.P.D.T. Ea. Sec.	1-C	1-C	3.10
3036D	S.P.D.T. Ea. Sec.	1-D	1-D	3.25
3037	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.10
30312	D.P.D.T. Ea. Sec.	2-C	2-C	4.00
30313	D.P.D.T. n.o. Ea. Sec.	2-C†	2-C†	4.00

SERIES 13000 TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
13001	S.P.S.T. n.o.	1-A		$2.10
13002	S.P.S.T. n.c.	1-B		2.10
13003	S.P.D.T.	1-C		2.40
13003D	S.P.D.T.	1-D		2.50
13004	D.P.S.T. n.o.	2-A		2.65
13005	D.P.S.T. n.c.	2-B		2.65
13006	D.P.D.T.	2-C		2.75
13006D	D.P.D.T.	2-D		2.90
13009	3 P.D.T.	3-C		3.75

THREE POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
13033	S.P.D.T. n.o.	1-C†		$2.65
13034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	2.75
13035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	2.75
13036	S.P.D.T. Ea. Sec.	1-C	1-C	3.10
13036D	S.P.D.T. Ea. Sec.	1-D	1-D	3.25
13037	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.10
130312	D.P.D.T. Ea. Sec.	2-C	2-C	4.00
130313	D.P.D.T. n.o. Ea. Sec.	2-C†	2-C†	4.00

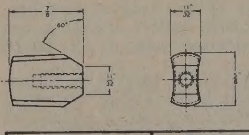
INTER-COM SWITCHES‡ SERIES 3000

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
3033T	S.P.D.T. n.o.	1-C†		$2.50
3037T	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	2.95

SERIES 13000

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1	Pos. 2	U.S.A. List Price
13033T	S.P.D.T. n.o.	1-C†		$2.65
13037T	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.10

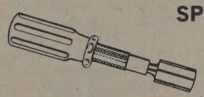
CONTOUR KNOBS FOR LEVER SWITCHES



Attractive contour knobs designed for today's modern equipment. Series M-1177 knobs, 8-32″ tapped hole for use with "LEV-R" switches Series 3000, 12000, and 13000. Series M-1178 knobs, 6-32″ tapped hole for use with "TEL-EVER" switches Series 6000 and 16000.

Part No. Series 1177	Part No. Series 1178	Color	U.S.A. List Price Per Pkg. of 10
M-1177-1	M-1178-1	Red	$3.50
M-1177-2	M-1178-2	Black	3.50
M-1177-15	M-1178-15	White	3.50

SPECIAL WRENCHES



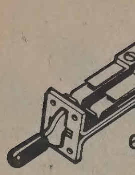
Special Switchcraft wrenches designed to assemble knurled locknuts normally furnished with lever and button switches and jacks. A-1070 wrench fits 15/32″-32 locknuts; A-1071 for use with ¼″-32 knurled locknuts.

Part No. A-1070........................U.S.A. List Price **$6.65**
Part No. A-1071........................U.S.A. List Price **6.65**

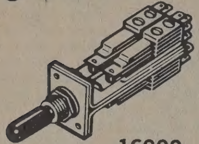
© U.C.P., Inc.

SWITCHCRAFT INC. Lever Switches

"TELEVER SWITCHES"



6000



16000

Series 6000 and 16000. Rugged telephone type lever switches featuring **"T-Beam"** frame construction which results in a relatively light construction with sturdiness of a structural "T-Beam". Available in two and three positions, locking and non-locking types. **Nylon rollers** on the lever actuate the special nickel silver springs, providing smooth action; assures long dependable spring life. Welded cross bar palladium contacts are standard, rated at 3 amps, 300 watts max., A.C., non-inductive load. **Series 6000** mounts with four No. 3-48 machine screws. Mounting centers 17/32" x 13/16", mounts in panels up to ¼" thick. **Series 16000** features single hole mounting; 15/32"-32 threaded bushing. Mounts in ½" dia. hole in panels up to ¼" thick. **Part No. 545, "Stop Plate"** provides positive "stops" for two position action. **Part No. 540, "Stop Plate"** provides non-locking or momentary action. The "Stop Plates" can be changed in the field. Both Series switches supplied with black insulated knob. All have tinned solder lug terminals. *Add suffix letter **"L"** to Part No. to indicate locking type. **Series 16000 non-locking type** can be converted to **locking type** by removing **"Stop Plate"**.

SERIES 6000
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
6006	D.P.D.T.	2-C	**$5.00**
6006D	D.P.D.T.	2-D	**5.60**
6008	4 P.S.T. n.o.	4-A	**5.60**
6009	3 P.D.T.	3-C	**6.00**
60012	4 P.D.T.	4-C	**6.80**
60012D	4 P.D.T.	4-D	**7.50**
60024	8 P.D.T.	8-C	**10.00**

THREE POSITION TYPES

6036	S.P.D.T. Ea. Sec.	1-C	1-C	**$5.00**
6036D	S.P.D.T. Ea. Sec.	1-D	1-D	**5.60**
6038	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	**5.60**
60312	D.P.D.T. Ea. Sec.	2-C	2-C	**6.80**
60312D	D.P.D.T. Ea. Sec.	2-D	2-D	**7.50**
60316	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	**8.80**
60324	4 P.D.T. Ea. Sec.	4-C	4-C	**10.00**

SERIES 16000
TWO POSITION TYPES

16006	D.P.D.T.	2-C	**$5.00**
16006D	D.P.D.T.	2-D	**5.60**
16008	4 P.S.T.n.o.	4-A	**5.60**
16009	3 P.D.T.	3-C	**6.00**
160012	4 P.D.T.	4-C	**6.80**
160012D	4 P.D.T.	4-D	**7.50**
160024	8 P.D.T.	8-C	**10.00**

THREE POSITION TYPES

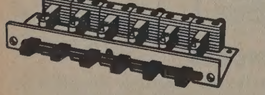
16036	S.P.D.T. Ea. Sec.	1-C	1-C	**$5.00**
16036D	S.P.D.T. Ea. Sec.	1-D	1-D	**5.60**
16038	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	**5.60**
160312	D.P.D.T. Ea. Sec.	2-C	2-C	**6.80**
160312D	D.P.D.T. Ea. Sec.	2-D	2-D	**7.50**
160316	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	**8.80**
160324	4 P.D.T. Ea. Sec.	4-C	4-C	**10.00**

Part No. 530 Escutcheon Plate. For Series 6000 Telever switches with 4 mounting screws.......U.S.A. List Price **$0.60**

Part No. 540 Stop Plate. For Series 16000 Telever switches. To convert from locking to non-locking action. Includes two mounting screws.......U.S.A. List Price (package of 12) **$0.25**

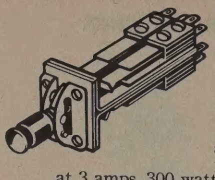
Part No. 545 Stop Plate. For Series 16000 Telever switches. To convert from 3-position to 2-position. Includes two mounting screws.................U.S.A. List Price (package of 12) **$0.25**

MULTIPLE LITTEL-KEY SWITCH



TYPE "MLK". The **Multiple Littel-Key** switches are designed for control panels in industrial, educational, military and communication equipment. Available in assemblies of **6** and **12** stations only. All "MLK" switch assemblies are handled as "special orders". Both the 6 and 12 station assemblies are available in two or three positions, locking and non-locking types. Switches on frames are on ¾" centers. Leaf springs of special nickel silver; fine silver contacts rated at 3 amps, 300 watts max., A.C., non-inductive load.

SERIES 26000 "LEVER-LOCK" SWITCHES



Rugged telephone-type lever switches. "Lever-Lock" feature guards against accidental switching due to **shock, vibrations, operator fatigue,** or **unintended operation.** Ideal for mobile communication equipment. **Index bracket** and **release plunger "locks" lever** in any position. Turning actuator knob to extreme left actuator will be permanently locked. To unlock, turn knob to the right. Pressing release plunger frees actuator from index bracket and allows actuator to be moved to another switching position. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Mounts with four No. 3-48 screws in panels up to 3/32" thick. Requires 31/32" depth behind panel.

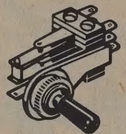
TWO POSITION TYPES

Part No. Locking Type Only	Action	Schematic Circuits Pos. 1 Pos. 2	U.S.A. List Price
26206L	D.P.D.T.	2-C	**$8.50**
26208L	4 P.S.T. n.o.	4-A	**9.10**
26212L	4 P.D.T.	4-C	**10.30**
26212DL	4 P.D.T.	4-D	**11.00**

THREE POSITION TYPES

26306L	S.P.D.T. Ea. Sec.	1-C	1-C	**$8.50**
26308L	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	**9.10**
26312L	D.P.D.T. Ea. Sec.	2-C	2-C	**10.30**
26312DL	D.P.D.T. Ea. Sec.	2-D	2-D	**11.00**
26316L	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	**12.30**
26324L	4 P.D.T. Ea. Sec.	4-C	4-C	**13.50**

"LEV-R SWITCHES", SERIES 12000



Small **right-angle** action switches requiring minimum of depth behind panel. Available in two and three position, locking and non-locking types. Long leaf-type springs insure long switch life. Fine silver contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Requires only ⅞" depth behind panel; single ½" dia. mounting hole; mounts in panels up to 3/32" thick. Supplied with nickel plated locknut and removable black plastic knob. †n.o. center position off. *Add suffix letter **"L"** to Part No. to indicate locking type.

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
12001	S.P.S.T. n.o.	1-A	**$1.75**
12002	S.P.S.T. n.c.	1-B	**1.75**
12003	S.P.D.T.	1-C	**2.00**
12003D	S.P.D.T.	1-D	**2.25**
12004	D.P.S.T. n.o.	2-A	**2.25**
12005	D.P.S.T. n.c.	2-B	**2.25**
12006	D.P.D.T.	2-C	**2.50**
12006D	D.P.D.T.	2-D	**2.75**

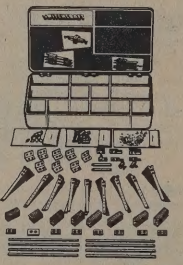
THREE POSITION TYPES

12033	S.P.D.T. n.o.	1-C†		**$2.25**
12034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	**2.35**
12035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	**2.35**
12036	S.P.D.T. Ea. Sec.	1-C	1-C	**2.65**
12036D	S.P.D.T. Ea. Sec.	1-D	1-D	**2.85**
12037	S.P.D.T. Ea. Sec.	1-C†	1-C†	**2.75**

THREE POSITION TYPES
LOCKING ONE SIDE—NON-LOCKING OTHER SIDE

12033T	S.P.D.T. n.o.	1-C†		**$2.25**
12037T	S.P.D.T. Ea. Sec.	1-C†	1-C†	**2.75**

STACK SWITCH KITS



Experimental kits of component parts for assembling stack switches. Designed to speed the assembly of engineering samples in the lab, aid maintenance men in the field and save time in general replacement. Ideal for mechanical engineers and coin machine servicing; used in relays, electronic organs, etc. Each kit consists of **136** springs in different thicknesses, over **152** phenolic spacers and insulators in various sizes, hard-rubber insulating tubing, two sets of stack assembling pins, two roller assemblies, assorted contacts, etc. All in compartmented plastic box.

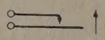
Kit No. K-101. Assorted ¼" and ⅜" mtg. center contact springs and associated parts..................................NET **$9.90**

Kit No. K-102. Assorted ¼" mtg. center contact springs and associated parts..................................NET **$9.90**

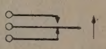
Kit No. K-103. Assorted ⅜" mtg. center contact springs and associated parts..................................NET **$9.90**

BASIC SCHEMATIC CIRCUITS

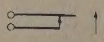
Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



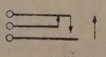
A
S.P.S.T.n.o.



C
S.P.D.T.
(Break before make)



B
S.P.S.T.n.c.



D
S.P.D.T.
(Make before break)

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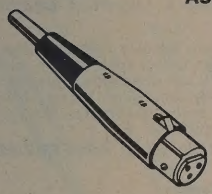
SWITCHCRAFT INC. Q-G* Audio Connectors

Patent Applied For

*NEW AUDIO CONNECTORS WITH COMPLETE GROUNDING PROVISIONS!

Switchcraft's "Quick-Ground" connectors feature a separate "Ground-Terminal" electrically integral with the connector shell. Ground continuity between mating plugs automatically accomplished through the exclusive "Ground Contactors." Possible loss of insert screw is eliminated by new "Captive Design" Insert Screw. Socket and pin assemblies utilize "wedge-action" to insure firm, reliable positioning in connector shell. Q-G* Series 3-contact audio connectors, offer 4-contact versatility when "Ground Terminal" is utilized. Can be used interchangeably with Cannon type XLR-3 and Amphenol type 91-850 Series.

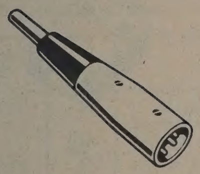
A3F CORD PLUG



Fresh, streamlined design includes rugged, diecast zinc body, satin nickel finish, high-impact resistant thermosetting plastic socket insert, molded latchlock, dual pressure plates, keyed neoprene relief bushing. Features "Ground Terminal" and "Ground Contactors" offers 4-contact versatility. Mates with Switchcraft A3M and other connectors with similar contact arrangements. Takes 7/32" O.D. cable. Overall length 3 7/32"; dia. 3/4". Three contacts.

Switchcraft Part No. A3F................U.S.A. List Price **$2.25**

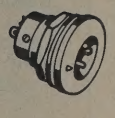
A3M CORD PLUG



Has "Captive Design" insert screw, one-piece pin insert assembly easily removable for fast soldering. Polarizing groove. Die-cast zinc shell, satin nickel finish. Mates with Switchcraft A3F and other connectors with similar contact arrangements. Brass, silver plated chromate dipped pins to resist tarnishing. Overall length 2 25/32"; dia. 3/4". Three contacts.

Switchcraft Part No. A3M...............U.S.A. List Price **$1.90**

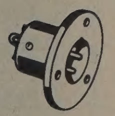
B3M RECEPTACLE



For panel or chassis mounting; locknut accommodates panels up to 1/4" thick. Single hole mounting, can be keyed by using "D" shaped panel hole or S-3519 mounting adapter. Pin insert features "Captive Design" insert screw and "Ground Terminal". Mates with Switchcraft A3F and other connectors with similar contact arrangements. Diecast zinc shell, satin nickel finish. Dimensions: Flange 1 7/64" dia.; Barrel 13/16" overall; pin extensions 9/32". Three contacts.

Switchcraft Part No. B3M...............U.S.A. List Price **$2.90**

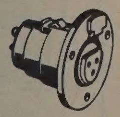
C3M RECEPTACLE



Mounts on wall, panel or chassis with three .136" dia. mounting holes. High impact thermosetting plastic pin insert. "Captive Design" insert screw, "Ground Terminal". Three pins, brass, silver plated, chromate dipped; resists tarnishing. Mates with Switchcraft A3F and other connectors with similar contact arrangements. Dimensions: Flange 1 1/16" dia.; Barrel 13/16" overall; pin extensions 9/32".

Switchcraft Part No. C3M...............U.S.A. List Price **$1.40**

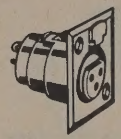
C3F RECEPTACLE



For panel or chassis mounting; has socket insert, push-type latch locking device. Flange has three .136" holes for mounting screws. Mates with Switchcraft A3M and other connectors with similar contact arrangements. Dimensions: Flange 1 1/16" dia.; Barrel 1 13/16" overall; pin extension 1/4". Three contacts.

Switchcraft Part No. C3F................U.S.A. List Price **$3.10**

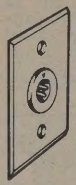
D3F RECEPTACLE



Rectangular flange design receptacle permits close mounting on crowded panel or chassis. Features "Captive Design" loss-proof insert screw, positive latch locking device and high impact thermosetting socket insert. Mates with Switchcraft A3M and other connectors with similar contact arrangements. Dimensions: Flange 1 1/16" x 1 7/16"; Barrel 1 13/64" overall; pin extension 1/4". Three contacts.

Switchcraft Part No. D3F................U.S.A. List Price **$3.20**

G3M TYPE WALL PLATE RECEPTACLE

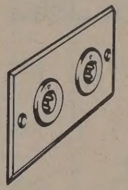


Single gang wall plates with a B3M 3-pin male receptacle. Fits standards electrical outlet box. Wall plates available in brushed brass or brushed stainless steel. B3M receptacle mates with Switchcraft A3F or other connectors with similar contact arrangements. Dimensions: Wall Plate 4 1/2"H x 2 3/4"W.

Brass Finish—
Switchcraft Part No. G3M...............U.S.A. List Price **$5.00**

Stainless Steel Finish—
Switchcraft Part No. G3MS..............U.S.A. List Price **$5.50**

H3M TYPE WALL PLATE RECEPTACLE

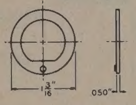


Two gang wall plates with two B3M 3-pin male receptacles. Mounts in standard electrical switch box (single). Wall plates available in brushed brass or brushed stainless steel. B3M receptacle mates with Switchcraft A3F or other connectors with similar contact arrangements. Dimensions: Wall Plate 4 1/2"H x 2 3/4"W. Six contacts.

Brass Finish—
Switchcraft Part No. H3M...............U.S.A. List Price **$7.50**

Stainless Steel Finish—
Switchcraft Part No. H3MS..............U.S.A. List Price **$8.00**

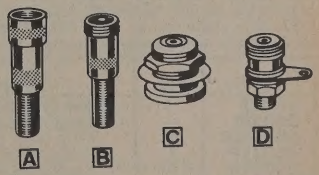
MOUNTING ADAPTER



For use with B3M panel and chassis receptacle. Eliminates necessity of providing a flatted "D" shaped hole in panel to prevent turning of receptacle.

Switchcraft Part No. S-3519............U.S.A. List Price **$0.40**

"MINI-CON" MINIATURE CONNECTORS



Popular "Mini-Con" microphone-type connectors used with miniaturized audio equipment, lapel microphones, musical instruments, etc. About 1/2 the size of standard microphone connectors. Accepts single conductor shielded cables up to 3/16" O.D. Nickel plated brass bodies. Coupling ring on 5501F removable for quick change of female to male type. Cable-braid spring clamped to body by hollow point set screw. 5501MF mounts by lock-nut front side of panel, in 3/8" dia. hole. 5501MP mounts back side of panel in 3/16" dia. hole. 5501MPC same as 5501MP except shorting type

Part Number	Fig.	Description	U.S.A. List Price
5501F	A	Female Cord Connector	$0.60
5501M	B	Male Cord Connector	.45
5501MF	C	Panel Connector, Male	.45
5501MP	D	Panel Connector, Male	.35
5501MPC	D	Panel Connector, Male	.60

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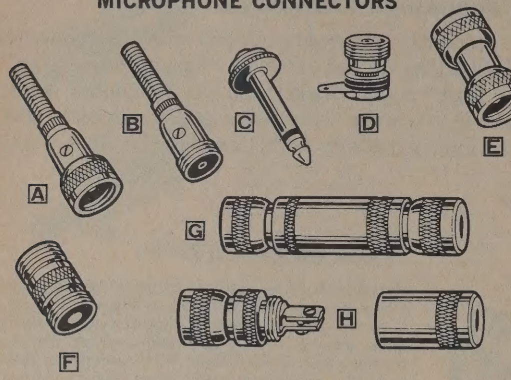
SWITCHCRAFT INC.

Microphone Connectors and Mixers

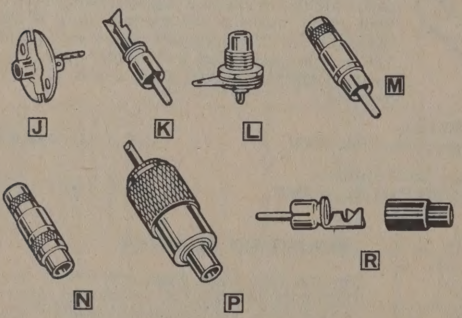
MICROPHONE CONNECTORS



Standard connectors with ⅝″-27 threads. Designed for use with single conductor microphone cable with 9/32″ max. O.D. **Coupling ring** on 2501F removable for fast change of female to male type. Spring assembled into body, cable braid and spring clamped by hollow set screw. **No. 44** adapts 2501F to fit standard 2-cond. phone jack. No. 2501MP mounts in .385″ dia. hole. *No. 2501MPC same as 2501MP except closed circuit type. No. 2501FT, coupler, two female connectors at each end. No. 2501MT, coupler, two male connectors at each end. Nos. 2501FL, 2501FS, for attaching cable to female connector without soldering; screw terminals. **Cable clamp.

Part No.	Fig.	Description	U.S.A. List Price
2501F	A	Female Connector	$0.60
2501M	B	Male Connector	.45
44	C	Phone Plug Adapter	.50
2501MP	D	Panel Receptacle	.35
*2501MPC	D	Panel Receptacle	.45
2501FT	E	Double Female Connector	.80
2501MT	F	Double Male Connector	.70
**2501FL	G	Screw Term. Female Connector	2.25
2501FS	H	Screw Term. Female Connector	1.65

PHONO JACKS AND PLUGS



Low cost 2-cond. jacks and plugs for record players, FM-AM tuners, tape recorders, test equipment, etc. 3501MC has ⅜″ O.D. shell and cable clamp. 3501FP for front panel mount in ¼″ hole, in panels up to ⅛″ thick. 3501FR for rear panel mount in ⅜″ hole, in panels up to 13/64″ thick. **3502** has unique cable clamp with 13/32″ O.D. shielded removable handle. 3503 ext. jack has shielded removable handle, 13/32″ O.D. with cable clamp. **3508 Series,** new color coded phono plugs with cable clamp and **"snap-on"** plastic handles in Red, Black, and White.

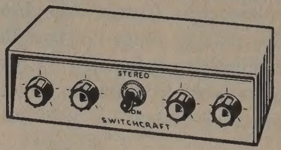
Part No.	Fig.	Description	U.S.A. List Price
3501F	J	Chassis jack	$0.15
3501M	—	Plug, less cable clamp	.10
3501MC	K	Plug with cable clamp	.15
3501FP	L	Chassis jack	.35
3501FR	—	As above, chassis jack	.40
3502	M	Plug	.50
3503	N	Extension jack	.60
3508-1	R	Plug, Red handle	.25
3508-2	R	Plug, Black handle	.25
3508-5	R	Plug, White handle	.25

RF-JACKS and RF-PLUGS

Standard phono jacks and plugs with **nylon insulation.** For use in radio frequency applications—low cost, max. insulation resistance. No. 3504M, ⅜″ O.D. No. 3505F mounts front of panel in ⅜″ hole—fits panel up to 11/64″ thick. **No. 3506** adapter has coaxial connector (Amphenol 83-1SP) one end; 3505F at other end. **No. 3507** has 13/32″ O.D. shielded, screw-on handle with cable clamp.

Part No.	Fig.	Description	U.S.A. List Price
3504M	K	Plug	$0.20
3505F	L	Chassis jack	.60
3506	P	Adapter	2.00
3507	M	Plug	.80

MICROPHONE MIXERS



STEREOPHONIC MIXERS

MODEL 306. Two channel stereophonic, high impedance microphone mixers. Extremely versatile, feeds up to two pairs of stereo signals such as microphones, tuners, phonos into two outputs to a recorder or amplifier. Individual gain control for each channel. With a flip of a **lever switch,** converts to 4 monophonic channels. Four standard 2-cond. phone jack inputs on rear panel; two phono jacks for output to amplifier or tape recorder. Size: 2″x3″x6″.

Switchcraft Part No. 306..............U.S.A. List Price **$22.50**

MODEL 306TR, same as above, but with two battery operated **transistor amplifiers.** Provides **6 db** gain. Permits use of microphone with up to 30′ of cable without loss. Low noise level, low distortion, frequency response: **20 to 20,000 c.p.s.** On-Off switch lengthens battery life. Battery included. Tan finish, brown knobs with gold inserts. Rubber feet on base prevents scratching of finished surfaces.

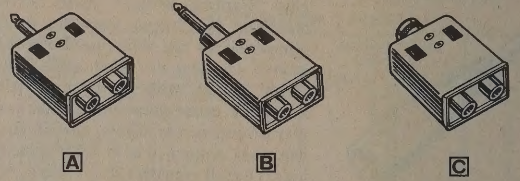
Switchcraft Part No. 306TR...........U.S.A. List Price **$37.50**

MONOPHONIC MIXERS

MODEL 301 (not illustrated). Similar to 306, except monaural only.
Switchcraft Part No. 301.............U.S.A. List Price **$19.50**

MODEL 301TR. Same as above, but with one battery powered **transistor-amplifier.** Battery included.
Switchcraft Part No. 301TR...........U.S.A. List Price **$30.00**

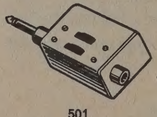
"MINI-MIX" AUDIO MIXERS



Miniature, high impedance microphone mixer. Feeds **2** signals into a single output. Each channel has separate gain control recessed inside housing. Very low loss factor. Size: 2-1/6″x1 13/16″x1-1/6″.

Part No.	Fig.	Description	U.S.A. List Price
310	A	Two 2-cond. phone jack inputs to 2-cond. phone plug output.	$7.95
311	B	As above, but has long plug output to fit recorders with recessed jacks.	8.95
312	B	Similar to above, except has special size plug and jacks for use with American Geloso recorders.	8.95
313	B	Similar to No. 311, except has short Revere plug and jacks for standard or short phone plugs.	8.95
315	C	Two 2-cond. phone jack inputs to a female mike connector.	7.95
316	—	(Not illustrated.) Two phono jack inputs to a phono plug output.	7.95
320	C	Similar to No. 315, except 2 male mike connector inputs to a female mike connector output.	7.95
326	B	Two 3-cond. phone jack inputs to long 2-cond. phone plug output. Internal resistor network for use with Webcor recorders.	9.95

"MIX-AMP" Miniature Transistorized Amplifier


501

Designed for use with resistance type mixers to overcome loss factor. **Battery powered transistor amplifier.** When used with "MINI-MIX", provides **3 db** gain and accepts signals up to **2 V.** On-Off switch. Hi-Lo impedance switch. Frequency response **20 to 20,000 c.p.s.** Battery included. Size: 2¼″x1¾″x1⅛″.

Part No.	Description	U.S.A. List Price
501	2-cond. phone jack input to extra long 2-cond. phone plug output to fit recorders with recessed jacks.	$20.00
502	Same as 501, but male mike connector input to female mike connector output.	20.00

Trade Discount Applies To List Prices Only

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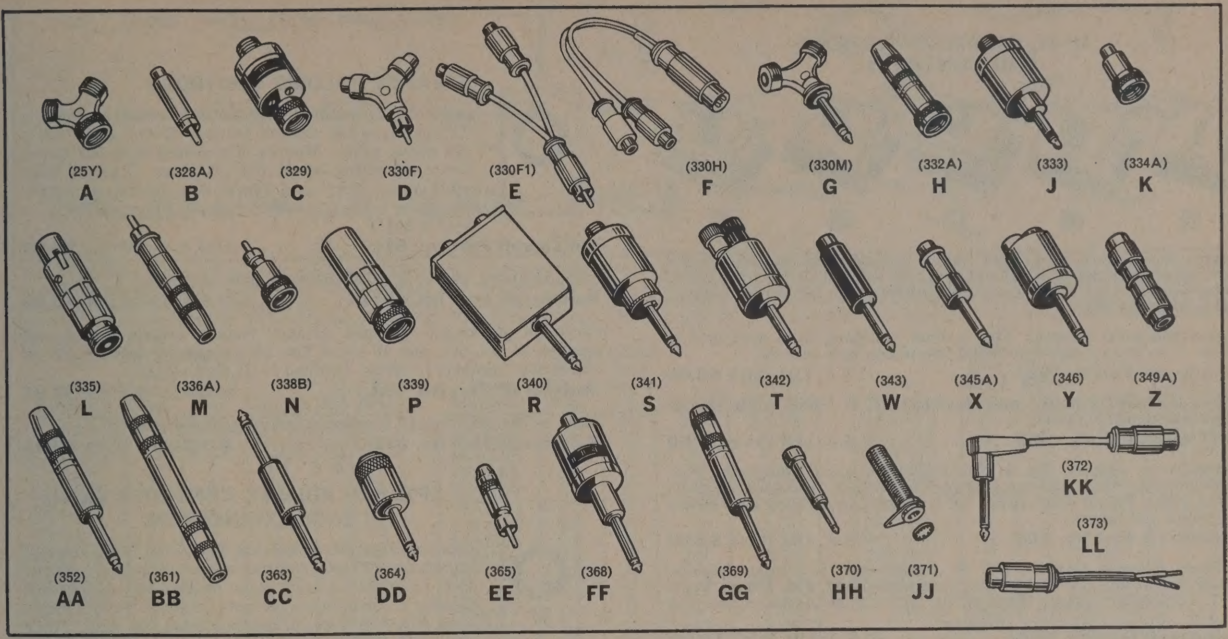
SWITCHCRAFT INC. Adapters



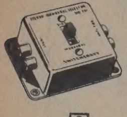
A versatile and complete line of adapters for interconnecting components that do not have mating jacks and/or plugs. For hi-fi, stereo, phonographs, tuners, tape recorders, amplifiers, P.A. systems, etc. Positive mating contacts of high quality material prevent resistive line-losses. **Nickel plated finish for long life.** **No. 328A, audio equalizer,** converts ceramic phono cartridge to magnetic input. **No. 329 Volume Control Adapter** for use in high impedance circuits. **No. 330H,** adapts 3-pin Hirschmann/Prey plug to standard Switchcraft phono plugs. **No. 335** has unsoldered internal wire at one end to permit user to connect terminal needed. **No. 341, silent plug** adapter, includes a circuit closing device to eliminate amplifier "squeals" when disconnecting. **No. 352,** converts stereo headphones and/or microphones to a monaural input. **Nos. 332A, 334A, 338B** can be used as male or female connector; coupling ring screws back converting to male mike connector.

Part No.	Fig.	Description	U.S.A. List Price
25Y	A	Y-Adapter, two male mike connectors in parallel to one female mike connector.	$1.65
328A	B	Audio Equalizer. Phono jack input to phono plug output.	2.95
329	C	Volume Control, female mike connector to male mike connector.	6.95
330F	D	Y-Adapter. Two phono jacks in parallel to a phono plug. Shielded.	1.75
330F1	E	Flexible Y-Adapter, phono plug in parallel to 2 phono jacks. Shielded 4″ cable.	2.00
330F2	—	Same as above, but phono plug and phono jack to a phono plug.	2.00
330F3	—	Same as above, but 2 phono plugs to 1 phono plug.	2.00
330H	F	Flexible Y-Adapter. 3-pin Hirschmann/Prey plug to 2 phono jacks. Shielded 5″ cable.	3.00
330M	G	Y-Adapter, two male mike connectors in parallel to a 2-conductor phone plug.	1.90
330PJ	—	Y-Adapter, as above, except two phono jacks in parallel to a 2-cond. phone plug. Shielded.	1.90
333	J	Phone jack input to special 2-cond. plug for American Geloso recorders.	2.35
332A	H	Phone jack input to female mike connector output.	1.75
334A	K	Phono jack input to female mike connector output. Shielded.	1.25
334B	—	Same as above, but phono jack input to male mike connector output. Shielded.	1.25
335	L	2-cond. input has Switchcraft 2501MP (Amphenol 75PCIM) to output connector Cannon XL-3-11.	2.95
336A	M	2-Cond. phone jack input to phono plug output. Shielded.	1.45
336B	—	Same as above, but 2-cond. phone jack input to phono jack output.	1.45
338A	—	Phono plug input to male mike connector output. Shielded. Similar to 338B.	1.00
338B	N	Phono plug input to female mike connector output. Shielded.	1.00
339	P	Same as 335, but output connector Switchcraft 2501F (Amphenol 75MCIF) to input connector Cannon XL-3-12.	2.95

Part No.	Fig.	Description	U.S.A. List Price
340	R	Two 2-cond. phone jack inputs in parallel to a 2-cond. phone plug output. Shielded.	$3.75
341	S	Silent-Plug Adapter. 2-cond. phone jack input to 2-cond. phone plug output.	2.95
342	T	Dual purpose binding post/banana jack input to 2-cond. phone plug output.	2.60
343	W	Phono jack input to phone plug output. Built-in limiting resistor for Webcor recorders.	1.95
345A	X	Phone plug output to phono jack input.	1.25
346	Y	Tip jack input to 2-cond. phone plug output.	2.15
349A	Z	Phono plug coupler, mates with phono plug at each end. Shielded.	1.00
352	AA	Stereo to monaural adapter. 3-cond. phone jack to 2-cond. phone plug output. Shielded.	2.00
361	BB	Coupler. 2-cond. phone jack at each end. Shielded.	2.25
362	—	Same as above, but 3-cond. phone jack at each end.	2.75
363	CC	Coupler. 2-Cond. phone plug at each end. Shielded.	2.00
364	DD	2-Cond. "Tini-Jax" 9/64″ dia. sleeve, to 2-cond. ¼″ O.D. phone plug. Shielded.	1.45
365	EE	2-Cond. "Tini-Jax" (as above) input to phono jack output. Shielded.	1.45
368	FF	Input volume control, phono jack input to a 2-cond. phone plug output. Shielded.	4.50
369	GG	2-Cond. Revere/Wollensak phone jack input to a standard 2-cond. phone plug output. Shielded.	2.00
370	HH	Phono jack input to a 2-cond. "Tini-Plug" (9/64″ dia. finger) output. Shielded.	1.40
371	JJ	Thick panel adapter for 3501P phono jack. Permits mounting of jack in panels up to 1¼″ thick.	.95
372	KK	2-Cond. molded right angle phone plug to a molded phono jack. 2″ shielded cable.	1 75
373	LL	2-Cond. molded phono jack to 3″ shielded cable, stripped and tinned leads.	.75

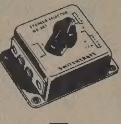
SWITCHCRAFT INC. Hi-Fi Switches, Controls

HI-FI, STEREO SWITCHES AND CONTROLS


A

B

C


D

E

Quality Switchcraft Hi-Fi and Stereo volume controls and selector switches are completely wired and ready for use. Attractive tan finished metal housing. 2"x2"x1". Each unit is complete with mounting hardware and instruction sheet.

Stereo-Monaural Selector. Fig. A. Fast switching from monaural to stereo. Two phono jack inputs and two phono jack outputs.
Switchcraft Part No. 661................U.S.A. List Price **$3.00**

Stereo-Monaural Selector with Reverse. Fig. B. Same as above, but provides channel reversing.
Switchcraft Part No. 662................U.S.A. List Price **$3.50**

Phono-Tuner Adapter. Fig. A. Modernizes old sound equipment. Provides amplifier with two inputs for phono and tuner, etc. Switch selects either input. Phono jack output for amplifier; two phono jack inputs for phono and tuner.
Switchcraft Part No. 663................U.S.A. List Price **$2.50**

Multiple Selector Control. Fig. B. Accepts up to 5 input circuits. Switch selects any one of the five inputs labeled **AM, FM, Phono, Tape, AUX** to amplifier output. Five phono jack inputs to one phono jack output.
Switchcraft Part No. 664................U.S.A. List Price **$4.95**

Speaker Phase Control. Fig. A. Provides proper phasing in stereo and other speaker installations. Slide switch alters phasing. Screw terminals.
Switchcraft Part No. 665................U.S.A. List Price **$2.50**

Speaker Volume Control with L-Pad. Fig. C. For volume control of remote or extra speakers. 5 watts peak, 8 ohm, screw terminals.
Switchcraft Part No. 666................U.S.A. List Price **$6.50**

Speaker Selector Switch. Fig. D. Connects remote or extra speakers to radio, T.V. or Hi-Fi set. Three position switch selects either one or both speakers at same time. Screw terminals. Shielded housing.
Switchcraft Part No. 667................U.S.A. List Price **$4.25**

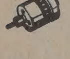
Stereo Selector Switch. Fig. B. Switch permits selection of both channels of any one of three stereo sources such as FM tuner, tape recorder and record player to one pair of outputs such as a stereo amplifier. Three pairs of phono jack inputs to one pair of phono jack outputs.
Switchcraft Part No. 668................U.S.A. List Price **$6.25**

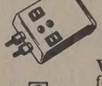
Stereo Volume Control. Fig. C. Specially matched tandem control for high impedance circuits. Use as a master gain control for ceramic type stereo cartridges, stereo tape decks, etc., when connected to separate amplifiers. One pair of phono jack inputs to one pair of phono jack outputs.
Switchcraft Part No. 669................U.S.A. List Price **$6.50**

Stereo Speaker Selector Switch. Fig. E. Designed to connect two remote pairs of stereo speakers to a stereo amplifier. Three position switch selects either pair of stereo speakers or both pairs at the same time. Screw terminals.
Switchcraft Part No. 670................U.S.A. List Price **$6.25**

Monaural Speaker Selector Switch. Fig. B. Five position tap switch selects any one of five monaural speakers. Inputs labeled 1 through 5. Five phono jack inputs to one phono jack output for amplifier.
Switchcraft Part No. 671................U.S.A. List Price **$5.50**

STEREO LINE BALANCE CONTROLS


F


G

Volume Control Adapter. Fig. F. Single channel for high impedance circuits only, such as crystal mike, phono, etc. Ideal for use in balancing stereo channels; used in pairs for dual stereo channel control. Phono jack input to phono plug output. Shielded. Nickel plated.
Switchcraft Part No. 366................U.S.A. List Price **$3.95**

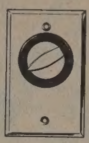
Dual Volume Control Adapter. Fig. G. Twin-channel for high impedance circuits. Same as above, but two phono jack inputs and two phono plug outputs with recessed volume controls for each channel. Shielded housing, tan finished. Size: $2\frac{1}{16}$"x$1\frac{13}{16}$"x1-1/6".
Switchcraft Part No. 367................U.S.A. List Price **$7.50**

"STROBOLAMP"

STROBOLAMP

Tells you if turntable is moving at the proper speed. Includes **4** speed **strob-disc** and "Strobolamp"—a neon lamp molded to 6 ft. A.C. cord with plug. Place strob-disc on turntable, set to desired speed and hold lamp over appropriate dots. If speed is correct, dots will appear to stand still—if too slow, dots will run counter-clockwise—if too fast, dots will run clockwise. For 110-120 V., 60 cycles A.C.
Switchcraft Part No. 699................U.S.A. List Price **$1.95**

SPEAKER VOLUME CONTROLS



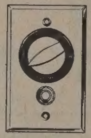
Designed for custom installations. Constant impedance **"T"-pad** controls speaker volume. Rated at **10** watts (20 watts, peak). Mounts in standard electrical outlet boxes, mounting center $3\frac{9}{32}$", 8 ohms. Brushed brass wall plate; ivory and black dial. Screw terminals; mounting screws and instructions. Plate size: 2¾" x 4½" x 1⅝".
Switchcraft Part No. 651................U.S.A. List Price **$9.95**

Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 651-S..............U.S.A. List Price **$9.95**

Constant impedance **"T"-pad** speaker volume control switch. All features of No. 651, but **16** ohms. Use with single 16 ohm speaker or two 8 ohm speakers in series. Brushed brass wall plate.
Switchcraft Part No. 652................U.S.A. List Price **$9.95**

Same as No. 652, except brushed stainless steel wall plate.
Switchcraft Part No. 652-S..............U.S.A. List Price **$9.95**

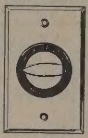
SPEAKER VOLUME CONTROLS WITH JACK CONNECTION



Mounts in standard electrical wall outlet box. Constant impedance **"T"-pad** controls volume of speakers. **Phone jack** mounted on wall plate permits use of external speaker or headphones: accepts standard 2-cond. phone plug. Rated at 4 watts. Brushed brass wall plate; ivory and black dial. 8 ohms. Wall plate size: 4½" x 2¾" x 1⅝".
Switchcraft Part No. 653..............U.S.A. List Price **$12.00**

Same as above, but **16** ohm impedance.
Switchcraft Part No. 654..............U.S.A. List Price **$12.00**

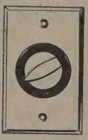
MULTI-SPEAKER SELECTOR SWITCH



7-position switch mounted on wall plate; fits standard outlet box. Selects any combination of three speakers. Ivory and black dial; brushed brass plate. Screw terminals. Maintains constant impedance regardless of switch position. Size: 4½" x 2¾" x 1⅝".
Switchcraft Part No. 655................U.S.A. List Price **$5.50**

Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 655-S..............U.S.A. List Price **$5.50**

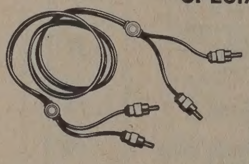
SPEAKER VOLUME CONTROL WITH QUALITY L-PAD



Specially designed **"L"-pad** volume control to prevent mismatch to amplifier at different volume settings. Brushed brass wall plate, ivory and black dial. Fits standard electrical outlet boxes. Solder lug terminals. Rated at **10** watts of peak audio power. **8** ohms. Size: 4½" x 2¾" x 1¼".
Switchcraft Part No. 656................U.S.A. List Price **$6.95**

Same as above, except brushed stainless steel wall plate.
Switchcraft Part No. 656-S..............U.S.A. List Price **$6.95**

SPECIAL STEREO CABLES



New, small diameter, molded stereo cable assemblies. **All cable connections are soldered** for noise-free connections. 2 shielded insulated cables (tandem) inside a common grey plastic jacket; provides two completely isolated channels. Phono plugs are **color coded** for easy identification of channels. Ideal for use in all stereo applications, such as tape recorders, record players, amplifiers, tuners, etc. Cable capacity, 36 pF per foot.

Part No.	Description	U.S.A. List Price
25FF25	2 straight phono plugs on ea. end. Grey stereo cable, 36" long, shielded.	$3.25
25FK25	Same as above, but 6' long.	3.75
25FN25	Same as 25FF25, but 10' long.	4.50
25FF84	2 straight phono plugs on one end to stripped and tinned leads on other end. Grey stereo cable, 36" long, shielded.	2.90
25FK84	Same as above, but 6' long.	3.25
25FN84	Same as 25FF84, but 10' long.	3.75

Trade Discount Applies To List Prices Only

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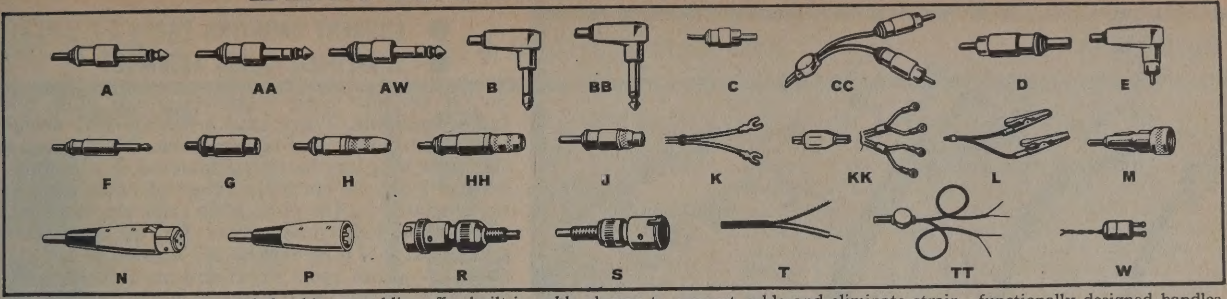
SWITCHCRAFT INC. HI-FI MOLDED CABLES



Only Switchcraft quality molded cable assemblies offer built-in cable clamps to support cable and eliminate strain—functionally designed handles to provide an easy grip. Cables 05LH84, 15LH84 and 87LH84 use coiled cord. Cable is chrome grey (unless otherwise specified) with matching plastic handles. **Fig. AW** Phone Plug with Resistor. 3-Conductor. **Fig. M** Microphone Connector—Female. **Fig. N** Switchcraft 3-Pin Connector—Female. **Fig. P** Switchcraft 3-Pin Connector—Male. **Fig. R** Amphenol 3-Pin Connector—Female. **Fig. S** Amphenol 3-Pin Connector—Male. **Fig. W** Ear-Receiver Plug.

STRAIGHT 2-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS

Part Number	Terminations End No. 1 Fig.	Terminations End No. 2 Fig.	Length	U.S.A. List Price
05AC05	A	A	18″	$1.60
05AD05	A	A	24″	1.75
05AK05	A	A	6′	2.60
05AN05	A	A	10′	3.50
05AU05	A	A	25′	4.75
05AK15	A	BB	6′	2.60
05AN15	A	BB	10′	3.50
05AK25	A	C	6′	2.00
05AN25	A	C	10′	2.75
05AR25	A	C	15′	3.00
05AK30	A	E	6′	2.00
05AN30	A	E	10′	2.75
05AK80	A	H	6′	2.60
05AN80	A	H	10′	3.50
05AR80	A	H	15′	4.00
05AU80	A	H	25′	4.75
05AK82	A	G	6′	2.20
05AN82	A	G	10′	3.00
05AR82	A	G	25′	3.25
05AK87	A	M	6′	2.60
05AN87	A	M	10′	3.50
05AU87	A	M	25′	4.75
05AK84	A	T	6′	1.75
05AN84	A	T	10′	2.25
05AR84	A	T	15′	2.75
05CK84*	A	T	6′	1.40
05CN84*	A	T	10′	1.90
05CK85*	A	K	6′	1.50
05CN85*	A	K	10′	2.00
05CK86*	A	L	6′	1.90
05CN86*	A	L	10′	2.40
05CR86*	A	L	15′	2.60
05CT86*	A	L	20′	3.00
05LH84†	A	T	4′	3.25

Monaural Replacement Headphone Cords for Brush BA-200, BA-205, BA-206 headphones and RCA M1-38107B headphone. Molded "Y" junction.

05KF88*	A	KK	3′	$3.00
05KJ88*	A	KK	5′	3.20

STRAIGHT 3-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS

10BD10	AA	AA	24″	$3.25
10BF10	AA	AA	36″	3.65
10BK10	AA	AA	6′	4.80
10BN10	AA	AA	10′	6.00
10BU10	AA	AA	25′	8.75
10BK81	AA	H	6′	4.80
10BN81	AA	H	10′	6.00
10BU81	AA	H	25′	8.75

Stereo replacement headphone cords for direct replacement on Jensen HS-10 and Knight KN-840 stereo headphones. Quality tandem shielded stereo cable.

10FJ84	AA	TT	5′	$2.95

Stereo Cable Assembly for use with stereo tape recorders using 3-conductor dual microphone inputs—Norelco, Webcor, Revere, Wollensak.

10FK25	AA	CC	6′	$4.00

Webcor cable assemblies. 3-Cond. phone plug with internal resistor to various connections.

11AK26	AW	D	6′	$3.25
11AN26	AW	D	10′	4.00
11CN86	AW	L	10′	3.25

2-Conductor Revere and Wollensak cables with R.A. Phone Plug to various connections.

12HK25	B	B	6′	$2.50
12HB79	B	HH	12′	3.25
12HR79	B	HH	15′	5.00
12HU79	B	HH	25′	5.95
12HD80	B	H	24′	3.95

RIGHT ANGLE 2-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS

Part Number	Terminations End No. 1 Fig.	Terminations End No. 2 Fig.	Length	U.S.A. List Price
15AK15	BB	BB	6′	$2.60
15AN15	BB	BB	10′	3.50
15AU15	BB	BB	25′	$4.75
15AK25	BB	C	6′	2.00
15AN25	BB	C	10′	2.75
15AR25	BB	C	15′	3.00
15AK30	BB	E	6′	2.00
15AN30	BB	E	10′	2.75
15AK80	BB	H	6′	2.60
15AN80	BB	H	10′	3.50
15AU80	BB	H	25′	4.75
15AK82	BB	G	6′	2.20
15AN82	BB	G	10′	3.00
15AK87	BB	R	6′	2.60
15AN87	BB	R	10′	3.50
15AN84	BB	T	10′	2.25
15AR84	BB	T	15′	2.75
15CN84*	BB	T	10′	1.90
15CK85*	BB	K	6′	1.50
15CN85*	BB	K	10′	2.00
15CK86*	BB	L	6′	1.90
15CN86*	BB	L	10′	2.40
15LH84†	BB	T	4′	3.25

STRAIGHT PHONO PLUG TO VARIOUS CONNECTIONS

25AC25	C	C	18″	$1.05
25AF25	C	C	36″	1.20
25AH25	C	C	4′	1.35
25AK25	C	C	6′	1.50
25AN25	C	C	10′	2.00
25AR25	C	C	15′	2.50
25AT25	C	C	20′	3.00
25AU25	C	C	25′	3.50
25AC30	C	E	18″	1.05
25AF30	C	E	36″	1.20
25AK30	C	E	6′	1.50
25AN30	C	E	10′	2.00
25AU30	C	E	25′	3.50
25AK80	C	H	6′	2.00
25AN80	C	H	10′	2.75
25AR80	C	H	15′	3.25
25AC82	C	G	18″	1.25
25AF82	C	G	36″	1.35
25AH82	C	G	4′	1.60
25AK82	C	G	6′	1.75
25AN82	C	G	10′	2.00
25AR82	C	G	15′	2.50
25AT82	C	G	20′	3.00
25AU82	C	G	25′	3.50
25AC84	C	T	18″	.80
25AF84	C	T	36″	.95
25AH84	C	T	4′	1.00
25AK84	C	T	6′	1.15
25AN84	C	T	10′	1.65
25AR84	C	T	15′	2.25
25AT84	C	T	20′	2.75
25AU84	C	T	25′	3.25
25CF84*	C	T	36″	.75
25CK84*	C	T	6′	.90
25CN84*	C	T	10′	1.40
25CK85*	C	K	6′	1.00
25CN85*	C	K	10′	1.50
25CK86*	C	L	6′	1.75
25CN86*	C	L	10′	2.25
25CR86*	C	L	15′	2.35
25CT86*	C	L	25′	2.60
25AK87	C	M	6′	2.45
25AN87	C	M	10′	3.35
25AU87	C	M	25′	4.60

Special Stereo Cables. Two shielded insulated cables inside a common grey plastic jacket. Provides two isolated channels for all stereo applications. Phono plugs color coded.

25FF25	CC	CC	36″	$3.25
25FK25	CC	CC	6′	3.75
25FN25	CC	CC	10′	4.50
25FF84	CC	TT	36″	2.90
25FK84	CC	TT	6′	3.25
25FN84	CC	TT	10′	3.75

STRAIGHT PHONO PLUG (LONG HANDLE) TO VARIOUS CONNECTIONS

Part Number	Terminations End No. 1 Fig.	Terminations End No. 2 Fig.	Length	U.S.A. List Price
26AF26	D	D	36″	$1.30
26AK26	D	D	6′	1.60
26AN26	D	D	10′	$2.10
26AR26	D	D	15′	2.60
26AK05	D	A	6′	2.20
26AN05	D	A	10′	2.75
26AF82	D	G	36″	1.50
26AK82	D	G	6′	1.95
26AN82	D	G	10′	2.25
26AR82	D	G	15′	2.75
26AF84	D	T	36″	1.10
26AK84	D	T	6′	1.30
26AN84	D	T	10′	1.80

RIGHT ANGLE PHONO PLUG TO VARIOUS CONNECTIONS

30AC30	E	E	18″	$1.05
30AF30	E	E	36″	1.20
30AH30	E	E	4′	1.35
30AK30	E	E	6′	1.50
30AN30	E	E	10′	2.00
30AR30	E	E	15′	2.50
30AT30	E	E	20′	3.00
30AU30	E	E	25′	3.50
30AK80	E	H	6′	2.00
30AN80	E	H	10′	2.75
30AC82	E	G	18″	1.25
30AF82	E	G	36″	1.35
30AK82	E	G	6′	1.75
30AN82	E	G	10′	2.00
30AR82	E	G	15′	2.50
30AT82	E	G	20′	3.00
30AU82	E	G	25′	3.50
30AF84	E	T	36″	.95
30AK84	E	T	6′	1.15
30AN84	E	T	10′	1.65
30CF84*	E	T	36″	.75
30CK84*	E	T	6′	.90
30CN85*	E	K	10′	1.50
30CF86*	E	L	6′	1.75
30CK86*	E	L	10′	2.25

STRAIGHT TINI-PLUG TO VARIOUS CON.

40DK05	F	A	6′	$2.75
40DF25	F	C	36″	2.10
40DK25	F	C	6′	2.50
40DK80	F	H	6′	2.75
40DK82	F	G	6′	2.50
40DK83	F	J	6′	2.75
40DN83	F	J	10′	3.25
40DF84	F	T	36″	1.75
40DK84	F	T	6′	2.00
40DN84	F	T	10′	2.50
40DN86	F	L	10′	2.50
41EF75‡	F	W	36″	2.00
41EH75‡	F	W	4′	2.25
45AN25	F	C	10′	2.75
45AR25	F	C	15′	3.25
45AU25	F	C	25′	4.25

EXTENSION JACK CORDS

82AC82	G	G	18″	$1.50
82AF82	G	G	36″	1.65
82AK82	G	G	6′	1.95
83DK05	J	A	6′	2.75

CORDS w/ SPADE LUGS, ALLIGATOR CLIPS

85CN85*	K	K	10′	$0.90
85CT85*	K	K	20′	1.50
85CU85*	K	K	25′	1.75
86CN86*	L	L	10′	1.70
86CU86*	L	L	25′	2.55

MICROPHONE CONNECTOR TO VARIOUS CONNECTIONS

87AF84	M	T	36″	$1.50
87AK84	M	T	6′	1.75
87AN84	M	T	10′	2.25
87AU84	M	T	25′	4.25
87LH84†	M	T	4′	3.35
87AF87	M	M	36″	2.00
87AK87	M	M	6′	2.50
87AP87	M	M	12′	3.50
87AU87	M	M	25′	5.00
91BU92	N	P	25′	12.50
93BU94	R	S	25′	9.75

*Parallel unshielded cable. †Shielded, tinsel coiled cord, Black plastic jacket, extends to 4′. ‡Hearing Aid Tinsel Cord. All other cables shielded.

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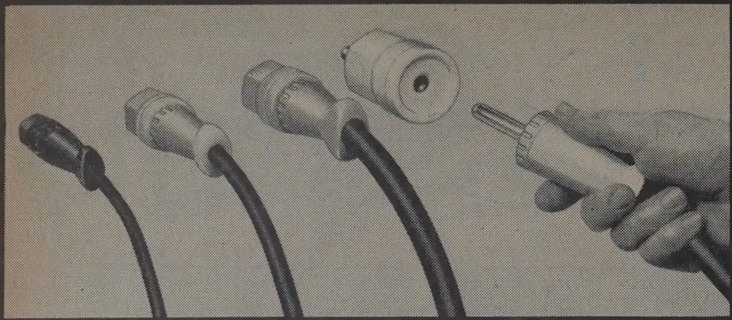
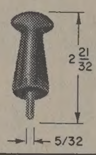
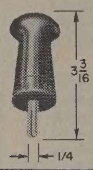
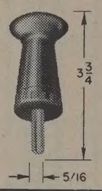
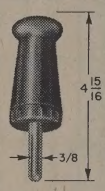
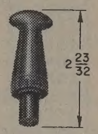
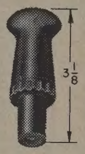
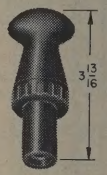
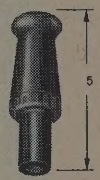
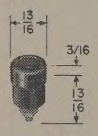
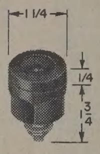
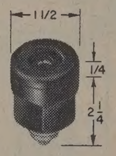
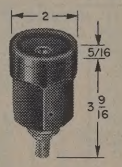
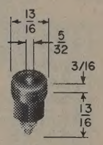
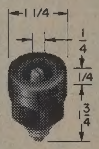
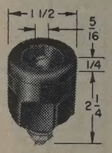
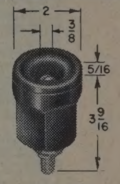
SUPERCON® *Electrical Connectors*



- **CURRENT CARRYING PARTS GOLD-PLATED**
- **SIMPLIFIED, QUICK ASSEMBLY**

Socket and pin types single-conductor plugs and receptacles available. Plugs have a functionally designed grip for handling ease and convenience. Wiring connection to the same plug can be either soldered or solderless. Cable-fastening screws permit a range of cable sizes to be accommodated by the plug. Plug grips are of a simple, two-piece threaded construction for quick assembly. All plastic parts of a receptacle are molded of the same color nylon to permit more rapid and accurate circuit identification front and back of panel when installed. Six colors are available.

	PIN PLUGS				SOCKET PLUGS			
COLOR	25 AMPERE TYPES	50 AMPERE TYPES	100 AMPERE TYPES	250 AMPERE TYPES	25 AMPERE TYPES	50 AMPERE TYPES	100 AMPERE TYPES	250 AMPERE TYPES
BLACK	PP25GB	PP50GB	PP100GB	PP250GB	PS25GB	PS50GB	PS100GB	PS250GB
YELLOW	PP25GY	PP50GY	PP100GY	PP250GY	PS25GY	PS50GY	PS100GY	PS250GY
RED	PP25GR	PP50GR	PP100GR	PP250GR	PS25GR	PS50GR	PS100GR	PS250GR
BLUE	PP25GBL	PP50GBL	PP100GBL	PP250GBL	PS25GBL	PS50GBL	PS100GBL	PS250GBL
GREEN	PP25GGN	PP50GGN	PP100GGN	PP250GGN	PS25GGN	PS50GGN	PS100GGN	PS250GGN
WHITE	PP25GWT	PP50GWT	PP100GWT	PP250GWT	PS25GWT	PS50GWT	PS100GWT	PS250GWT
								

	SOCKET RECEPTACLES				PIN RECEPTACLES			
								
PANEL:	3/16. MAX.	1/4 MAX.	1/4 MAX.	1/4 MAX.	3/16 MAX.	1/4 MAX.	1/4 MAX.	1/4 MAX
HOLE:	11/16	1	1 3/16	1 9/16	11/16	1	1 3/16	1 9/16
BLACK	RS25GB	RS50GB	RS100GB	RS250GB	RP25GB	RP50GB	RP100GB	RP250GB
YELLOW	RS25GY	RS50GY	RS100GY	RS250GY	RP25GY	RP50GY	RP100GY	RP250GY
RED	RS25GR	RS50GR	RS100GR	RS250GR	RP25GR	RP50GR	RP100GR	RP250GR
BLUE	RS25GBL	RS50GBL	RS100GBL	RS250GBL	RP25GBL	RP50GBL	RP100GBL	RP250GBL
GREEN	RS25GGN	RS50GGN	RS100GGN	RS250GGN	RP25GGN	RP50GGN	RP100GGN	RP250GGN
WHITE	RS25GWT	RS50GWT	RS100GWT	RS250GWT	RP25GWT	RP50GWT	RP100GWT	RP250GWT

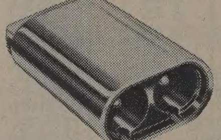
DUB-L-PLUG *Dual Electrical Connectors*

DUB-L-PLUG Dual Electrical Connectors are designed for making safe, rapid connections to binding posts mounted on ¾" centers. All conducting metal parts are gold-plated. Completely recessed integral banana plugs prevent accidental shorting; captive black and white thumbnuts facilitate circuit and polarity identification.

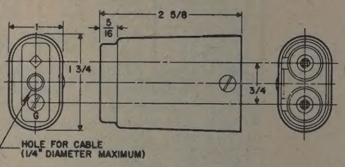
NYLON BODY COLOR	INSULATED TYPE	SHIELDED/ INSULATED TYPE
BLACK	IPG2BC	SPGK2BC
RED	IPG2RC	—
WHITE	IPG2WTC	—
BLUE	IPG2BLC	—
YELLOW	IPG2YC	—
GREEN	IPG2GNC	—

SHIELDED/INSULATED

Has sturdy, die-cast chrome-plated case, removable grounding banana plug, black nylon body.

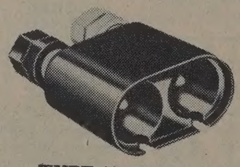


TYPE SPGK2BC

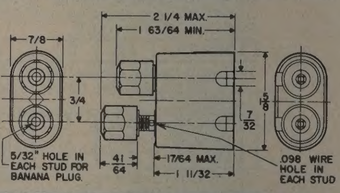


INSULATED TYPES

Have wire slots to permit stacking if desired. Available with bodies in choice of six colors.



TYPE IPG2BC


2 1/4 MAX.
1 63/64 MIN.
7/8
3/4
1 5/8
7/32
5/32" HOLE IN EACH STUD FOR BANANA PLUG.
41/64
17/64 MAX.
1 11/32
.098 WIRE HOLE IN EACH STUD

THE SUPERIOR ELECTRIC COMPANY

Bristol, Connecticut, U.S.A.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 3500, 4000 AND 5600

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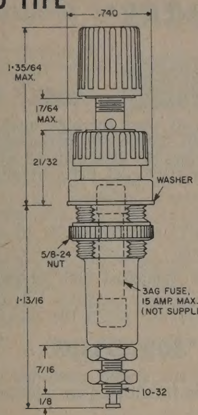
SUPERIOR 5-WAY® *Binding Posts*

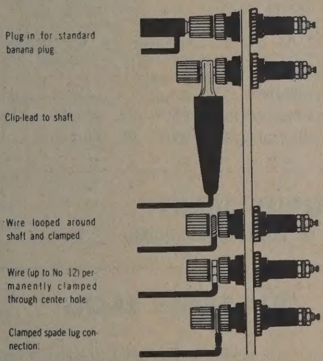
- 5 WAYS TO CONNECT
- GOLD-PLATED BRASS PARTS
- RANGE OF COLORS

FUSED TYPE

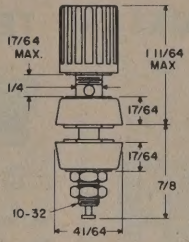

.740
1-35/64
MAX.
17/64
MAX.
21/32
WASHER
5/8-24
NUT
1-13/16
3AG FUSE,
15 AMP. MAX.
(NOT SUPPLIED)
7/16
10-32
1/8

Rated for 250 volts, 15 amperes maximum. Built-in fuseholder accepts standard type 3AG fuse (not supplied). Fuse can be replaced from front of panel. Type FP15BGC has black captive thumbnut; types with noncaptive black, red, white, blue, yellow and green thumbnuts available on special order.

TYPE	FP15BGC
COLOR	BLACK


Plug-in for standard banana plug
Clip-lead to shaft
Wire looped around shaft and clamped
Wire (up to No. 12) permanently clamped through center hole
Clamped spade lug connection

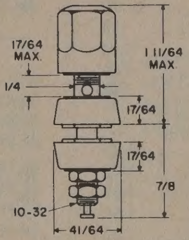
FLUTED NUT TYPES


17/64
MAX.
1 11/64
MAX
1/4
17/64
17/64
7/8
10-32
41/64

Plastic parts of standard (not miniature) size types molded of Lexan polycarbonate resin; brass parts are gold-plated. Rated for 30 amperes, 1000 volts working. Nickel-plated brass types available on special order.

COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
FLUTED TYPE	DF31RC	DF31BLC	DF31GNC	DF31WTC	DF31BC	DF31YC

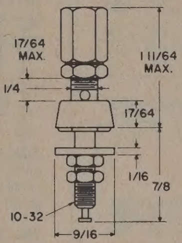
HEX NUT TYPES


17/64
MAX.
1 11/64
MAX
1/4
17/64
17/64
7/8
10-32
41/64

Rated for 30 amperes, 1000 volts working. Brass parts are gold-plated; plastic parts are of nylon compounded to meet military specifications MIL-P-20693, Type IV. Nickel-plated brass types available on order.

COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
HEX TYPE	DF30RC	DF30BLC	DF30GNC	DF30WTC	DF30BC	DF30YC

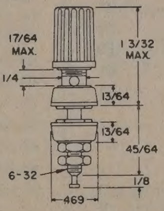
GROUNDING TYPE


17/64
MAX.
1 11/64
MAX.
1/4
17/64
1/16
7/8
10-32
9/16

For making rapid connections to ground. Made of finely machined brass nickel-plated and polished. Panel grounding collar frozen to shaft has "D" type shoulder for locking in keyed panel hole.

TYPE	GP30NC
FINISH	NICKEL-PLATED

MINIATURE TYPES

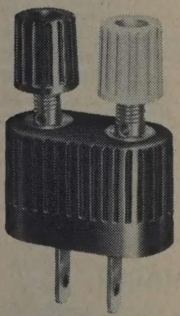

17/64
MAX.
1 3/32
MAX.
1/4
13/64
13/64
45/64
6-32
1/8
.469

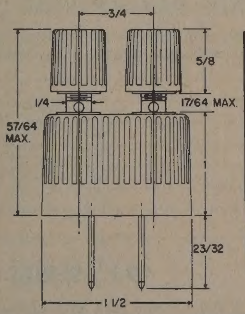
Fluted nut design only. Rated for 15 amperes, 1000 volts working. Gold-plated brass parts; nylon plastic parts compounded to meet military specification MIL-P-20693, Type IV. Types with nickel-plated brass available also.

COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
TYPE	DF21RC	DF21BLC	DF21GNC	DF21WTC	DF21BC	DF21YC

DUAL ADAPTER TYPE

Facilitates line voltage connections from output receptacles to binding posts. Has integral parallel-blade plug. Rating is 15 amperes, 125 volts. Brass parts are gold-plated.

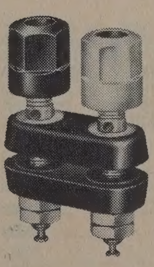


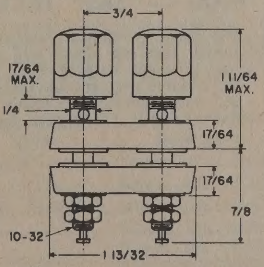

3/4
5/8
1/4
17/64 MAX.
57/64
MAX.
23/32
1 1/2

TYPE	DAP15BWC
NUTS	WHITE & BLACK
BODY	BLACK

DOUBLE ASSEMBLY TYPES

For instrument and equipment panels requiring binding posts mounted on ¾″ centers. Rated for a current capacity of 30 amperes and a working voltage of 1000 volts. Brass parts are gold-plated. Panel insulators in black only.




3/4
17/64
MAX.
1 11/64
MAX.
1/4
17/64
17/64
7/8
10-32
1 13/32

TYPE	NUTS
DF30-2-BWTC	WHITE & BLACK
DF30-2-BBC	BLACK
DF30-2-BRC	RED & BLACK

FOR MORE DETAILED INFORMATION
about specifications
and technical data
on all Superior Electric
electrical connectors,
write for literature.

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—TRIMM—

PLUGS • JACKS • TERMINAL BLOCKS

STANDARD PHONE PLUGS

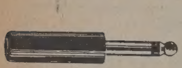
The standard radio phone plug, widely used on P.A. equipment, tape recorders, radios, etc. Designed to fit all standard jacks and available in two-circuit and three-circuit types. The two-circuit "511" series is supplied with binding head screws for termination and has a molded bakelite shell or metal shell when shielded plugs are required. The "513" series are three-circuit types. The "515" adapter couples Amphenol type mike plug to standard phone jack.

No.		List
No. 511	—Black plastic shell	$ .70
No. 511-1	—Red plastic shell	.70
No. 511-2	—Shielded, single piece shell	1.20
No. 511-3	—Shielded, two piece shell	1.65
No. 511-4	—Shielded, stubby shell	.90
No. 511-5	—Two-circuit, shielded, stubby shell. Has long tip to sleeve insulator which leaves "ring" spring open when inserted in three-circuit jack	$1.05
No. 513	—Three-circuit, black plastic shell	1.05
No. 513-1	—Three-circuit, red plastic shell	1.05
No. 513-2	—Three-circuit, shielded, single piece shell	1.50
No. 513-3	—Three-circuit, shielded, two piece shell	1.95
No. 513-4	—Three-circuit, shielded, stubby shell	1.30
No. 515	—Adapter	.50

TELEPHONE TYPE PLUGS

For detailed description, see facing page, under Audio Section.

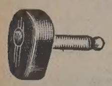
"514" MIN-A-PLUG



Developed especially for shielded microphone cable. Wing type terminal clamps directly onto cord shield. Center conductor solders to lug. Also widely used for ordinary cords.

No.		List
No. 514	—Black plastic shell	$.70
No. 514-1	—Red plastic shell	.70
No. 514-2	—Shielded, single piece shell	1.00
No. 514-4	—Shielded, stubby shell	.90
No. 514-6	—Black plastic shell, screw terminals	.69
No. 514-7	—Red plastic shell, screw terminals	.69
No. 514-8	—Shielded, single piece shell, screw terminals	1.09

"512" FLAT TYPE PLUG



Compact, non-protruding design. Ideal for group hearing aid systems, centralized radio systems, etc. Body molded of phenolic plastic. All exposed edges rounded. Provision for stay cord anchorage. Fits standard jacks.

No.		List	No.		List
No. 512	—Black	$.90	No. 512-1	—Red	$.90
No. 512-2	Same as No. 512 plus hook projecting outward from face of plug on which headset may be hung. Used on centralized radio installations	$1.35			

"518" PLUG — "562" JACK

Two-circuit miniature disconnect plug and jack series. Ideal for small size cordage. Plugs have two grooved, parallel pins which engage with multi-leafed contract springs in jack. No. 518 and 562 have acetate half shells cemented together. No. 518-7 and 562-7 have molded bakelite shells held together with screws.

No.		List
No. 518	—Plug	$.56
No. 518-7	—Plug	.80
No. 562	—Jack	.80
No. 562-7	—Jack	1.00

"525" CONNECTORS

The "525" series provides means of attaching headset cords, or any two wires, to single contact mike plugs (Amphenol 75-MC series of plugs). Main body of connector is similar to handle of "511" series plug. Connector held to receptacle by threaded retaining ring.

No.		List
No. 525	—Black plastic shell	$1.20
No. 525-1	—Red plastic shell	1.20
No. 525-2	—Shielded, single piece shell	1.70
No. 525-3	—Shielded, two piece shell with cable clamp	2.10
No. 525-4	—Shielded, stubby shell	1.40

"501" PLUG

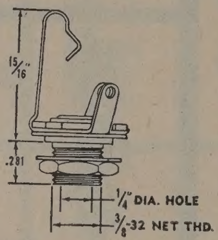
Widely used for high quality communication equipment. Commonly known as PJ-055. Features a one-piece tip-rod construction preventing loosening or separating of parts while in service. Nylon insulation interlocks all parts of plug.

No.		List
No. 501	—Black plastic shell	$1.20
No. 501-1	—Red plastic shell	1.20
No. 501-2	—Shielded shell	1.70
No. 501-10	—Black plastic shell embossed with PJ-055B	1.25

"509" PLUG

For use on microphone circuits and usually identified as PJ-068. Tip, ring, and sleeve circuits are insulated and interlocked by injected nylon. Sleeve diameter is 0.206".

No.		List
No. 509	—Black plastic shell	$3.05
No. 509-10	—Black plastic shell embossed with PJ-068	3.10



"95" SERIES JACKS

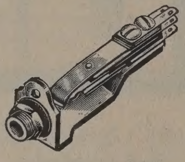
Widely used on P.A. amplifiers, tape recorders, short wave radios, servicemen test instruments, etc. Used where space behind panel is limited. Jack is mounted by a threaded bushing which fits a 3/8" dia. hole. Springs are nickel silver and are held in place by interlocking insulators. Circuit types can be identified by referring to "Jack Circuits" as shown below.

No.		List
No. 95-01	—Open circuit, two conductor	$ .40
No. 95-02	—Closed circuit, two conductor	.48
No. 95-25	—Open circuit, three conductor (for 0.250" dia. plugs)	.50
No. 95-50	—Open circuit, three conductor (for 0.206" dia. plugs)	.60

"90" SERIES JACKS

See Page 834 for detailed description.

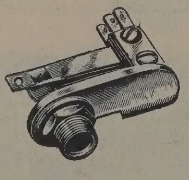
"91" SERIES JACKS



A long frame jack having a threaded bushing which can be used for mounting as well as by a mounting screw. Can be mounted in panels up to 1/4" thick. The most common circuits are shown below, but most other circuits can be supplied.

No.	List
No. 91-01	$0.75
No. 91-02	.95
No. 91-05	1.05
No. 91-06	1.10
No. 91-07	1.20
No. 91-09	1.20
No. 91-09A	1.20
No. 91-12	1.10
No. 91-25	1.00
No. 91-26	1.20
No. 91-50	1.10
No. 91-51	1.30

"93" SERIES JACKS



A short frame jack with springs mounted parallel to panel. Used particularly where depth behind panel is limited, on such applications as intercom systems, P.A. amplifiers, etc. Mounting is by means of threaded bushing 3/8" diameter, rigidly attached to a steel frame. May be mounted on panels up to 3/16" thick. Contact springs of nickel silver, terminals hot tinned. See diagrams below for circuits.

No.	List	No.	List
No. 93-01	$0.65	No. 93-07	$1.10
No. 93-02	.80	No. 93-25	.85
No. 93-05	1.00	No. 93-26	1.10
No. 93-06	1.00	No. 93-27	1.30

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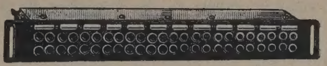
—TRIMM—

AUDIO JACK PANELS



Extensively used in the broadcast field, on instrumentation systems, communication networks, etc. Listed below are two separate series most frequently used.

"96" Series. Uses ⅝″ thick bakelite panel with appropriate end brackets, side reinforcing strips and designation strips. All jack bushings are insulated from each other. Jacks, as ordinarily supplied (mounted on panels) have offset ground lugs, which considerably reduces wiring cost of installation. Straight ground lugs (duplicating W.E. jacks) available. Types 96-71, 96-72, etc., use tip ring and sleeve plugs (No. 516 and No. 517); others usually used with twin plugs (No. 506) but will fit other standard two-circuit jacks.

"99" Series. Features an all aluminum, sandwich-like construction. Front panel 3/16″ thick separated from rear sub-panel by spacers. Jacks mounted on sub-panel. Over all thickness 19/32″. Normally supplied in natural anodized satin-silver finish, but can be furnished with assortment of enamel finishes. Commonly used types listed for above two series.

Code No.	Mtg. Strip Type	Uses Qty. Jacks	Jack Type	List
96-01	96-21	24	90L-02	$ 42.50
96-02	96-22	48	90L-02	71.25
96-03	96-23	48	90L-02	78.00
96-06	96-26	26	90L-02	47.20
96-07	96-27	52	90L-02	78.20
96-71	96-21	24	90L-26	56.00
96-72	96-22	48	90L-26	93.00
96-74	96-24	48	90L-26	101.00
96-75	96-25	24	90L-26	72.00
96-76	96-26	26	90L-26	59.50
96-77	96-27	52	90L-26	108.00

JACK MOUNTING STRIPS — LESS JACKS

Used where non-standard arrangements of jacks, lamp sockets, turn or push keys, video jacks, etc., are desired to be mounted onto a jack strip. Listed below are the most commonly used types. The "96" series and "99" series are construtced, as described above. All fit standard 19″ racks except 96-38 and -39. Numerous other types are available.

Code No.	Rows	Jack Holes per Row.	Width	Desig. Qty.	Strip Type	List
96-20	1	12	1¾″	1	JP-30	$ 27.00
96-21	1	24	1¾″	1	JP-30	15.80
96-22	2	24	2⅛″	1	JP-30	16.40
96-23	2	24	3½″	1	JP-30	22.00
96-24	2	24	3½″	2	JP-30	24.00
96-25	2	12	3½″	2	JP-30	32.00
96-26	1	26	1¾″	1	JP-34	17.40
96-27	2	26	1¾″	2	JP-34	18.00
96-32	2	24	2⅛″	2	JP-33	18.40
96-38	1	32	1¾″	1	JP-34-3	48.00
96-39	2	32	1¾″	2	JP-34-3	54.00
99-20	1	12	1¾″	1	JP-37	26.00
99-21	1	24	1¾″	1	JP-37	27.00
99-22	2	24	2⅛″	1	JP-34	34.00
99-26	1	26	1¾″	1	JP-34	27.00
99-27	2	26	1¾″	2	JP-34	36.00

DESIGNATION STRIPS

A variety of types are produced by TRIMM. the types listed are those used on most panels, other differing in length and accepting up to 5 rows of typing, can be produced.

Code No.	No. of Windows	Size	Notes	List
***JP-30**	12	16¾″ x 15/32″		$ 1.60
†JP-31	13	16 9/32″ x 3/16″	Equiv. WE. 99A	4.50
†JP-32	13	16 9/32″ x 7/16″	Equiv. WE. 99B	5.50
***JP-33**	12	14 13/16″ x 25/64″	Equiv. WE. 90A	2.20
***JP-34**	1	17″ x ¼″		1.20
***JP-35**	1	16¾″ x 15/32″		1.50
†JP-36	12	16¾″ x ⅝″		2.40
†JP-37	1	16¾″ x ⅝″		1.80
‡JP-39	1	17″ x ¼″		1.50

* Dull black baked enamel finish
† Bright nickel plated.
‡ Extruded lucite.

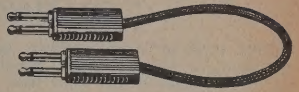
MISCELLANEOUS ACCESSORIES

APPARATUS BLACK.

Illustrated at right. Used to fill unused openings in Jacks panels. Fits 29/64″ dia. hole. Black enamel face.

	List
No. 71-96-160 (packaged 10/bag)	**$ 2.25**

AUDIO PATCH CORDS



A superior line of patch cords, featuring braided nylon outer covering and TRIMM "blue chip" telephone type plugs, described elsewhere, insuring maximum reliability. Cord available with shield connected to plug one end, and running up to, but not electrically connected to, opposite plug, thereby avoiding ground loops (normal construction), shielded from one plug to opposite, (identified by X following length in in code number), or without shield (identified by W in code number). Black cords standard but blue, brown, green, grey, orange, red, white and yellow are available at slight extra cost. Any length, although not listed, can be supplied.

No. 840 Series — The accepted standard in the broadcast field, also in other communication and instrument systems. Use TRIMM No. 506 plug.

Normal Shielding	List	"X" Shielding.	List
No. 840-1-PP	$11.70	**No. 840-1X-PP**	$11.70
No. 840-2-PP	12.00	**No. 840-2X-PP**	12.00
No. 840-3-PP	12.30	**No. 840-3X-PP**	12.30
No. 840-4-PP	12.60	**No. 840-4X-PP**	12.60

No. 841 Series. Use TRIMM No. 517 plug having a special contour allowing normal through spring for both tip and ring to open at approximately the same time, etc.,

Normal Shielding	List	"X" Shielding.	List
No. 841-1-PP	$10.00	**No. 841-1X-PP**	$10.50
No. 841-2-PP	10.40	**No. 841-2X-PP**	10.90
No. 841-3-PP	10.80	**No. 841-3X-PP**	11.30
No. 841-4-PP	11.20	**No. 841-4X-PP**	11.70

No. 851 Series. Uses standard telephone switchboard type three circuit plug, TRIMM No. 516. Extensively used on instrument systems.

Normal Shielding	List	"X" Shielding.	List
No. 851-1-PP	$ 9.50	**No. 851-1X-PP**	$10.00
No. 851-2-PP	9.90	**No. 851-2X-PP**	10.40
No. 851-3-PP	10.30	**No. 851-3X-PP**	10.80
No. 851-4-PP	10.70	**No. 851-4X-PP**	11.20
No. 851-6-PP	11.70	**No. 851-6X-PP**	12.20
No. 851-10-PP	13.30	**No. 851-10X-PP**	13.80

No. 842 Series. Uses standard telephone switchboard type two circuit plug, TRIMM No. 500, cord as listed is black; red color frequently used.

Unshielded	List
No. 842-1W-PP	$ 7.70
No. 842-2W-PP	8.30
No. 842-3W-PP	8.60

In addition to the few types listed above, patch cords with any of the wide assortment of telephone type plugs manufactured by TRIMM, are regularly produced.

TELEPHONE TYPE PLUGS

High impact, high melting temperature injection molded zytel insulation used on all these plugs, interlocking all parts into a single unit. Precision machined to minimize jack bushing wear. All are 0.250″ dia. except No. 508 and 509, which are 0.260″ dia. Of the twin plugs, all are on ⅝″ centers except No. 507 which is 11/16″. TRIMM blue chip line.

Code No.	W.E. or MIL Equiv.	Description	List
500	347A	Single, two circuit	$ 1.80
501		Single, two circuit	1.80
501-10	MIL PJ-055B	Single, two circuit	1.90
502		Single, two circuit	1.80
503		Single, two circuit	2.00
504	327	Twin, four circuit	4.50
505	289B	Twin, four circuit	4.50
506	241A	Twin, three circuit	4.75
507		Twin, six circuit	16.00
508	309	Single, three circuit	3.20
509-10	MIL PJ-068	Single, three circuit	3.10
516	310	Single, three circuit	2.70
517	291	Single, three circuit	2.95
523	353A	Twin, six circuit	9.00

A number of other infrequently used types, or modifications of these, are also available; see bulletin R-35

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— TRIMM —

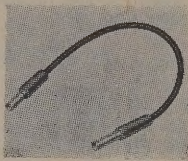
COAXIAL JACK PANELS

Widely used in video stations, instrumentation systems, etc. A variety of standard, as well as special panels, are regularly produced. The jacks used in these, mount in the same hole size as standard telephone types, and can be assembled on any of our regular mounting strips described elsewhere. Listed below are a few more common types; see bulletin R-40a for more complete listing.

W.E. Comp.	RCA. Comp.	Qty/Row	Jacks Rows	Type	Jacks Mtg. Strip	List
No. 99-80		12	1	89-32	99-20	Prices on Request
	99-780	12	1	89-732	99-20	
No. 96-82		24	2	89-02	99-24	
	99-782	24	2	89-702	99-24	
*No. 96-94-2		24	2	89-02	99-524-2	
	*96-94-702	24	2	89-702	99-524-2	
No. 96-85		12	2	89-02	96-25	
	96-785	12	2	89-702	96-25	

* Has sub-chassis with 24-83-1R connectors at rear.

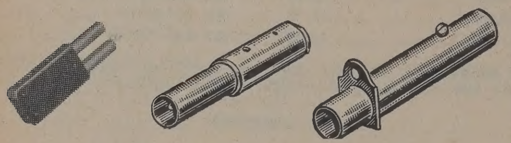
VIDEO PATCH CORDS



Types used in video stations are generally one or the other of the types listed below. Use either 531-2 or 531-702 plugs. Note use of bridging plugs, 531 series in place of patch cords. Length in feet between plugs shown by −105 (1′−6″), −2 (2′−0″), etc. Other lengths and RG cable types available.

W.E. Comp.	RCA Comp.	List
849-105X-PPG	849-105X-700-PPG	$18.30
849- 2X-PPG	849- 2X-700-PPG	18.30
849- 3X-PPG	849- 3X-700-PPG	18.60

COAXIAL JACKS AND PLUGS

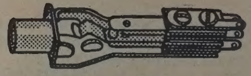


Used for video, pulse, and special RF applications, serving the analogous function as telephone jacks serve for audio patching systems. Quick disconnect and patching with only extremely slight discontinuity. Circuits carried through concentrically arranged inner and outer conductors. All contacts and conducting surfaces are gold plated. Normally compatible with W.E. equipment — those with "700" added to code number are compatible with RCA. equipment. There are types to fit numerous RG cable types other than those listed.

Code No.	RG-Cable	Notes	List
JACKS			
89-01	58		$11.00
89-701	58		11.00
89-02	59		11.00
89-702	59		11.00
89-04	62		11.00
89-05	11		11.00
89-06	8		11.00
89-07	54	Equiv. to W.E. 477B	11.00
89-32		Female BNC on rear	13.00
89-732		Female BNC on rear	13.00
89-33		Female "C" on rear	16.00
TWIN JACKS			
89-52	59		24.00
89-132		Female BNC at rear	32.00
PLUGS			
530-1	58		8.00
530-701	58		8.00
530-2	59		8.00
530-702	59		8.00
530-6	54	Equiv. W.E. 358A	9.00
BRIDGING PLUGS			
531-1		50 ohm	13.00
531-2		75 ohm	13.00
531-702		75 ohm	13.00

See bulletin R-40a for information on Twin Coaxial Jacks. No. 89-52 generally used for paralleling two circuits, 89-132 has normal through circuitry.

"90" SERIES JACKS



Commonly known as the telephone jack. Extensively used on jack panels. Bushing fits $^{29}/_{64}$″ dia. hole. Available in two modifications, generally referred to as the "A" and "C" frame. These differ only in the orientation of the springs with respect to the plane of the jack mounting. Frame of steel, cadmium plated with dichromate treatment. Bushing of brass, natural finish (nickel plated to order). Springs of nickel silver, terminals hot tinned. Standard contacts (no letter on end of code number), are silver with diffused gold coating. Cross-bar 100% palladium contacts indicated by "B" following code number. Numerous special contacts available. Straight ground lug illustrated, offset lug available by changing of "S" in code number to "L". Dash numbers up to "−24" fit two-circuit plugs; "−25" to "−49" three-circuit 0.250″ dia. plugs; and "−50" to "−74" three-circuit 0.206″ dia. plugs.

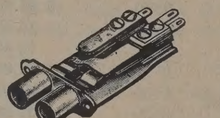
Code No.	List	Code No.	List
90S-01	$1.05	90S -09AB	$1.90
90S-02	1.25	90S -10B	1.90
90S-02B	1.40	90S -12B	1.90
90S-06	1.50	90CS-14	2.30
90S-06B	1.70	90CS-14B	2.60
90S-07	1.60	90S -25	1.25
90S-07B	1.90	90S -26	1.60
90S-08	1.60	90S -26B	2.00
90S-08B	1.80	90S -50	1.40
90S-09	1.60	90S -51	1.70
90S-09B	1.90	90S -51B	2.00
90S-09A	1.60		

See bulletin R-35/5 for more information; refer to this bulletin or to diagrams, as shown below, for circuit identification.

Military types and equivalent TRIMM types are listed below.

Mil No.	TRIMM No.	List	Mil No.	TRIMM No.	List
JJ-016	90SN-08BM	$1.90	JJ-022	90SN-25M	$1.80
JJ-017	90SN-24BM	2.40	JJ-042	90SN-26BM	2.10
JJ-024	90SN-02BM	1.50	JJ-073	90SN-32BM	2.85
JJ-035	90SN-10BM	2.00	JJ-074	90SN-27BM	2.35
JJ-072	90SN-09BM	2.00	JJ-075	90SN-35BM	2.90
JJ-084	90SN-06BM	1.80	JJ-077	90SN-28BM	2 60
JJ-085	90SN-09ABM	2.00	JJ-078	90SN-34BM	4.10
JJ-086	90SN-01M	1.20			
JJ-087	90SN-13BM	2.70	JJ-015	90CS-13BM	2.85
JJ-088	90SN-1009BM	4.00	JJ-019	90CS-14BM	2.70

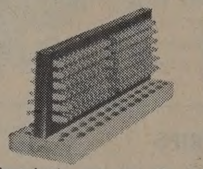
"92" SERIES JACKS



Twin jacks, used in microwave systems and certain carrier frequency applications requiring activation of crossover contact springs by insertion of single plug in either jack bushing. Uses 100% palladium cross-bar contacts. Two circuit plugs used on types 92-1009 and 92-1009G (equivalent to W.E. 410A and 410D respectively). Three-circuit plus (0.250″ dia.) used on 92-1030 (equivalent to W.E. 482A) and on 92-1030G.

	List
No. 92-1009	$3.50
No. 92-1009G Gold plated contacts	4.50
No. 92-1030	4.50
No. 92-1030G Gold plated contacts	6.50

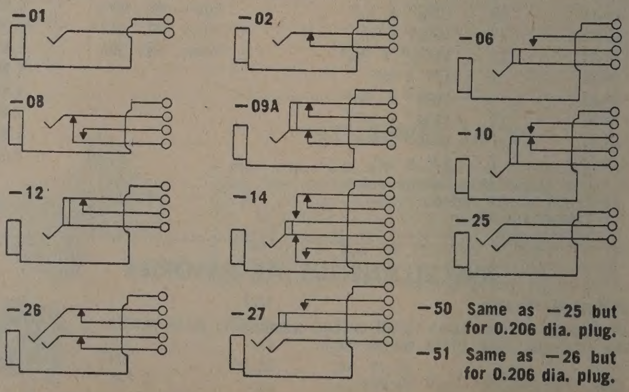
TERMINAL BLOCKS



Referred to as telephone "Christmas Tree" type. Terminals are notched top and bottom, electro-tin plated and individually removable. New "wire-wrap" type terminals available. All types available from one to ten rows high. Special terminal arrangements upon request. No. 421 series has twenty terminals per row; No. 425 series, twenty-four terminals per row; No. 427 series, twenty-six terminals per row. Hard maple base. Numerous variations available.

JACK CIRCUITS

All TRIMM jacks have a standardized coding consisting of the Jack series number plus a dash number indicating spring arrangement, a few of which are shown below.



−50 Same as −25 but for 0.206 dia. plug.

−51 Same as −26 but for 0.206 dia. plug.

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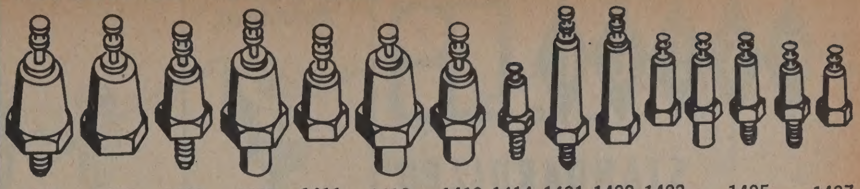
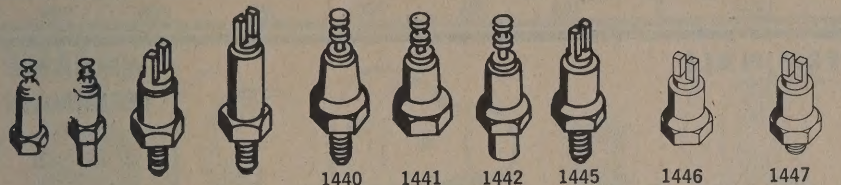
USECO®

STANDARDIZED ELECTRONIC HARDWARE

INSULATED TERMINALS

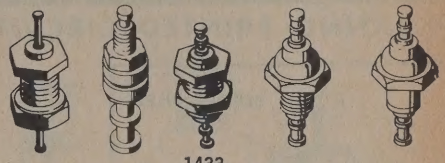


1400 1418 · 1401 1417 · 1409 · 1410 1419 · 1411 · 1412 · 1413 · 1414 · 1421 · 1422 · 1423 · 1424 · 1425 · 1426 · 1427



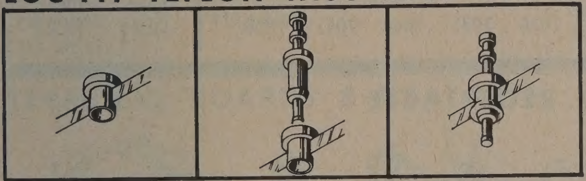
1428 · 1429 · 1600, 01,02, 03,04,05 · 1612, 13,14, 15,16,17 · 1440 1450, 60,70, 80,90 · 1441 1451, 61,71, 81,91 · 1442 1452, 62,72, 82,92 · 1445 1455, 65,75, 85,95 · 1446 1456, 66,76, 86,96 · 1447 1457, 67,77, 87,97

Feed-Thru



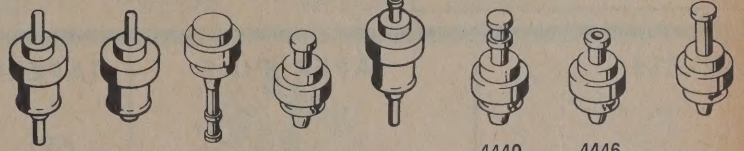
1430 1431 · 1432 · 1433, 34,35 36 · 1483 · 1484

LOC-FIT TEFLON INSULATED TERMINALS

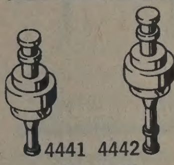


1. Push Teflon Grommet into hole.
2. Insert LOC-FIT terminal.
3. Snap LOC-FIT into place.

Insulated Terminals

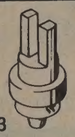


4401 4485 · 4402 4480 · 4430 · 4435 · 4437 · 4440 4470 4482 · 4446 4476 · 4460



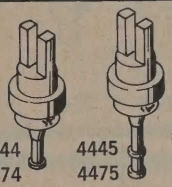
4441 4471 · 4442 4472

Insulated Feed-Thru



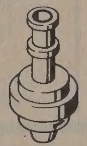
4443 4473 4484

Bifurcated Terminals



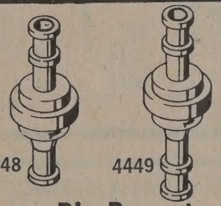
4444 4474 · 4445 4475

Insulated Bifurcated Feed-Thru



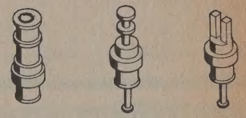
4447

Taper Pin Receptacle



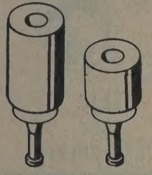
4448 · 4449

Taper Pin Receptacle Feed-Thru



4483 · 4487 · 4489

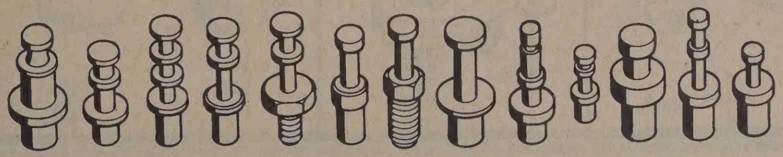
SUB-MINIATURE INSULATED TERMINALS — FEED THRUS — BIFURCATED FEED THRU



4450 · 4451

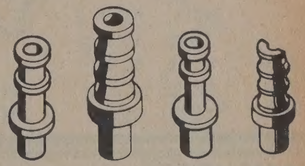
Insulated Test Point

STANDARD TERMINALS Turret

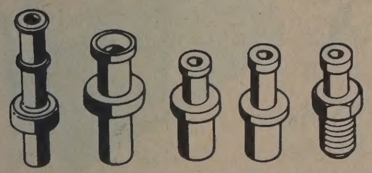


1210 · 1280 81, 82 · 1299 2035 · 1300 · 1300T · 1340 · 1340T · 1350 · 1370 · 2030 2031 · 2060 2061 · 2520 · 2540

Hollow Lug

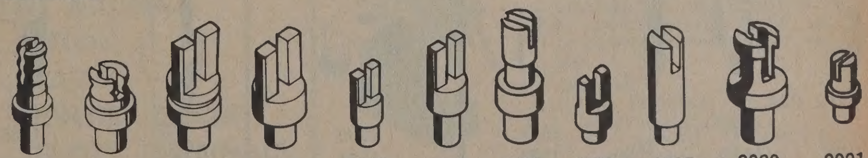


1200 · 1260 · 1330 · 1380



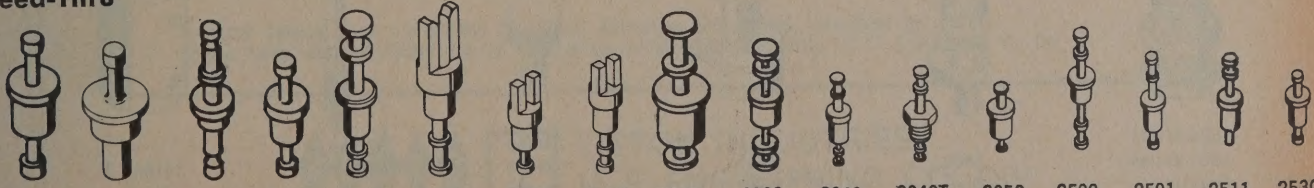
1390 · 1392 · 2010 · 2011 · 2010T

Bifurcated



1250 1240 · 1255 · 1304 THRU 1307 · 1308 · 1309 · 1310 · 1391 2023 · 2000 THRU 2004 · 2005 2006 · 2020 2022 · 2021

Feed-Thru



1220 · 1221 · 1230 · 1290 · 1301 · 1311 · 1315 · 1316 · 1320 · 1360 · 2040 · 2040T · 2050 · 2500 02,09 · 2501 2510 · 2511 · 2530

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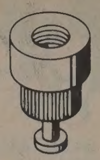
USECO

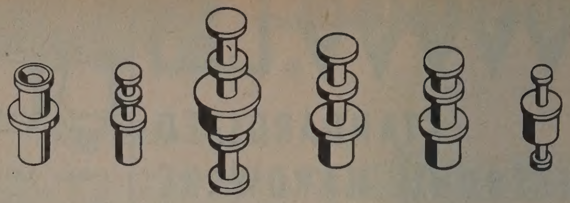
STANDARDIZED
ELECTRONIC HARDWARE

Combination Terminal



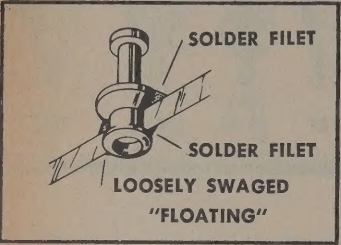
1203

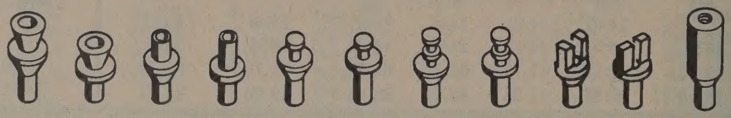
NAS Terminals



704 705 706 707 708 709

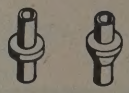
FLOATING PRINTED CIRCUIT TERMINALS





7000 7001 7010 7011 7020 7021 7030 7031 7040 7041 7050

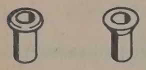
WELDABLE TERMINALS



7200
11,21

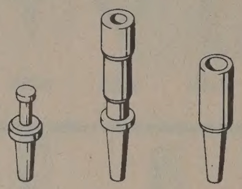
7201
10,20

EYELETS



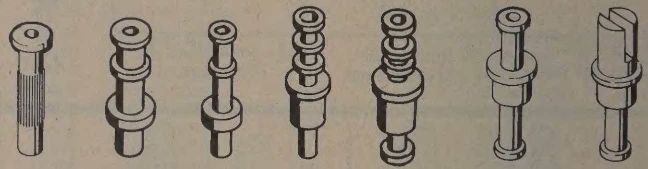
7600 7650

TAPER PINS



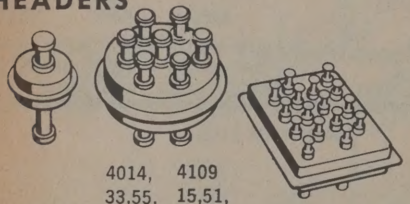
2770 2775 2776

TAPERED RECEPTACLE



2710
2720
2730
2740 2760 2761 2762 2763

HEADERS



4008
4010
4011

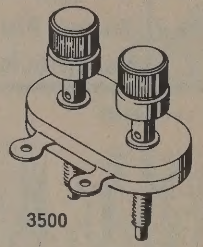
4014,
33,55,
56,64,
67,68,
74,78

4109
15,51,
52,62,
63,64,
65,67

4107
4166

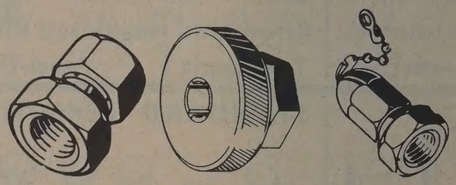
4098

BINDING POST



3500

SHAFT LOCKS

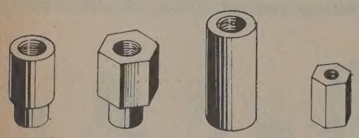


1510
1511
1512

1513
1520

1515
1514
(CAP ONLY)

STAND-OFFS



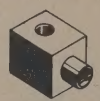
1530

1531
1532

1550

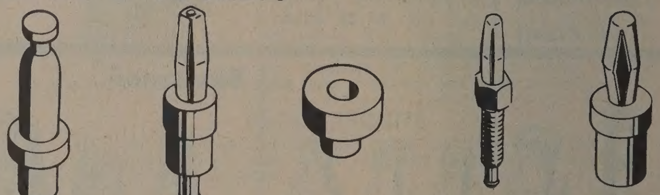
1551
1580

Chassis
Fastener



1590
1591

PLUGS & SOCKETS



1700
1785

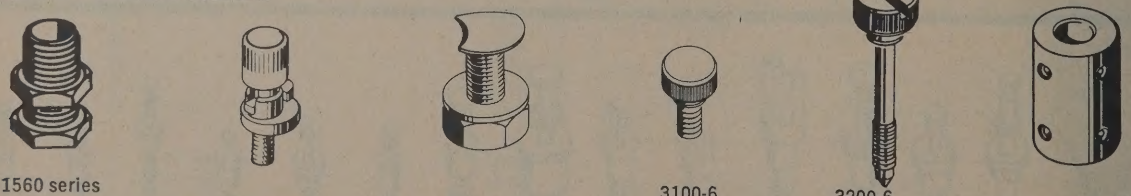
1705
1782

1710
1786

1715
1716

1780
1781

ACCESSORY HARDWARE



1560 series
1561 series
Chassis
Bushing

1800
Dial
Lock

1815
Dial
Indicator

3100-6
8, 10
Thumb
Screw

3200-6
8,10,25
Captive
Panel Screw

3316A, B
Shaft
Coupling

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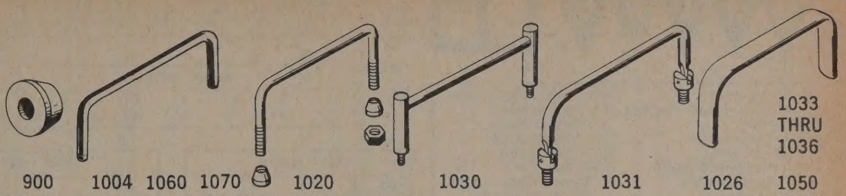
USECO®

STANDARDIZED ELECTRONIC HARDWARE

HANDLES & FERRULES

Brass and Aluminum



900
901
903

1004
THRU
1019

1060
THRU
1069

1070
THRU
1072

1020
1021

1030

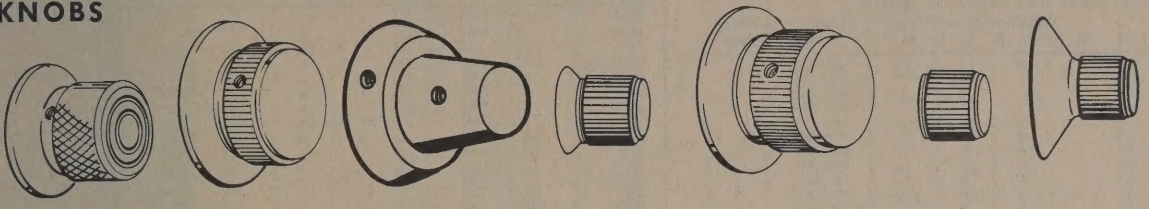
1031
1032

1026
THRU
1029

1033
THRU
1036

1050
THRU
1053

KNOBS



FOR ANODIZED COLORS
ORDER BY DASH NO.

-20 PLAIN	-25 GREEN
-21 BROWN	-26 BLUE
-22 RED	-27 VIOLET
-23 ORANGE	-28 GREY
-24 YELLOW	-30 BLACK

300 series
305 series
310 series

400 series
410 series

450 series

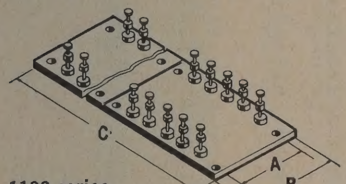
500 series
501 series
502 series

550 series
555 series
560 series

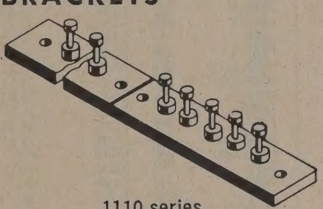
625 series
626 series
627 series

1000 series
1038 series
1040 series

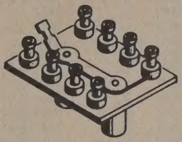
TERMINAL BOARDS & BRACKETS



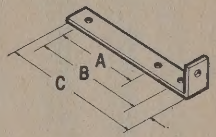
1100 series
1102 series
2200 series
2202 series
8001 series
8003 series



1110 series
1112 series
2210 series
2212 series
8002 series
8004 series

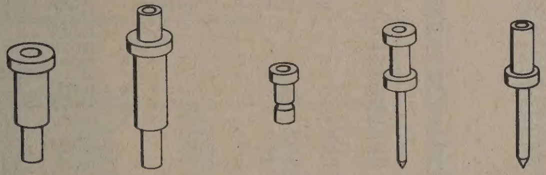


1180
1181
1182
1183
1184
1185



NO.	A	B	C	D	USE ON
11-2	1.50	—	2-1/8	.35	1100B
11-3	1.50	2.00	2-5/8	.35	1100B 1100C
11-4	2.00	2.50	3-5/16	.56	1100C 1100D
11-5	1.50	2.00	2-13/16	.56	1100B 1100C

UNIJAK CONNECTORS



7708
7709

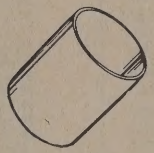
7701
THRU
7707

7705

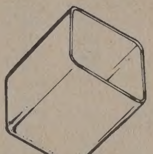
7710
7712

7711
7713

ENCAPSULATION CAPS

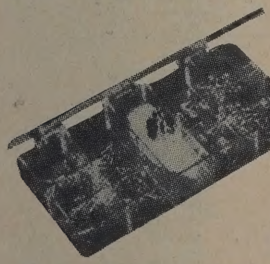


Series
100



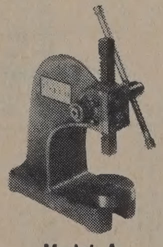
Series
200

ENGINEERING DESIGN KIT



K-44	**LOC FIT**
K-14-1	**HI ALUMINA**
K-14-2	**TEFLON**
K-14-3	**PLASTIC**
K-70	**PRINTED CIRCUIT**
K-12	**SOLDER TERMINALS**

SWAGING MACHINES AND TOOLS



Model A

How To Order

Order by basic part number of terminal for which tool is to be used. Disregard letter and/or number following basic number.

Example:
1. For terminal #1300 A-1 order tool #1300
2. For LOC-FIT #4430 B-9 order tool #4330

note: unless otherwise specified, tolerances are ±.010

Standard Catalog Items are stocked by USECO Authorized Distributors throughout the country.
Special Items and information may be obtained by writing Litton Industries, U. S. Engineering Co. Div.

USECO®
LITTON INDUSTRIES
U. S. ENGINEERING CO. DIV.

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Al = Aluminum
Bd. Thick. = Board Thickness
Br = Brass
C = Consecutively
CW = Clockwise
CCW = Counter-clockwise
D = Swage Diameter
H = Height
M = Material
Mtg. D = Mounting Diameter
O.H. = Overall Height
O.L. = Overall Length
S.D. = Shaft Diameter
Sk. D. Skirt Diameter
T = Thread
X = Shank or Thread Length, see box as indicated

1

SHANK LENGTH

NAS	-1	-2	-3	-4			
	A	B	C	D	E	F	.293
	.075	.105	.135	.165	.195	.230	G

2

SHANK LENGTH

AA	A	B	C	D
.037	.053	.084	.115	.147

3

SHANK LENGTH

A	B	C	D	E	F	G
.054	.094	.125	.156	.188	.219	.281

4

THREAD LENGTH

A	B	C	D
E	F	G	H
.187	.250	.312	.375

5

THREAD LENGTH

A	B
C	D
.125	.218

6

SHANK LENGTH

NAS	-1	-2	-3	-4
	A	B	C	D
	.062	.094	.125	.156

7

SHANK LENGTH

NAS	-1	-2	-3	-4
	.078	.109	.141	.172

8

HEIGHT ABOVE BOARD

-1/8	-3/16	-1/4	-3/8	-1/2	-5/8	-3/4	-1.00

TERMINALS & EYELETS

Order by Part Number and Letter. For example, 1300A, NAS 704-1, etc., Standard Plating All Metal Terminals -1, Insulated Terminals, -9, P.C. Terminals and Eyelets -7.

Part Number	X (see box no.)	T or D	Bd Thick—Order by Letter								H above/ below bd.	Insulation Material
			1/64	1/32	1/16	3/32	1/8	5/32	3/16	1/4		
1200	#1	.114		A	B	C	D	E	F		.328/—	
1203C	.141	.221				C					.250/.172	
1203D	.172	.251					D				.312/.203	
1203E	.234	.258						E			.375/.203	
1210	#1	.114		A	B	C	D				.266/—	
1220	#1	.183			B	C	D	E	F		.250/.203	
1221	#1	.183			B	C	D	E	F		.250/.203	
1230	#1	.183			B	C	D	E	F		.469/.297	
1240	#1	.183			B	C	D	E	F		.481/—	
1250	#1	.114		A	B	C	D				.312/—	
1255	#1	.114		A	B	C	D				.188/—	
1260	#1	.114			B	C	D				.312/—	
1280	#1	.091		A	B	C	D				.239/—	
1281	#7	.090		A	B	C	D				.219/—	
1282	#7	.090		A	B	C	D				.281/—	
1290	#1	.114		A	B	C	D				.156/.125	
1299	#1	.114		A	B	C	D	E	F		.421/—	
1300	#1	.114		A	B	C	D	E	F	G	.364/—	
1300T	.188	4-40									.364/—	
1301	#1	.114				C	D	E	F		.364/.312	
1304	#1	.114			B	C	D				.344/—	
1305	#1	.114			B	C	D				.344/—	
1306	#1	.135			B	C	D				.500/—	
1307	#1	.186				C	D	E	F		.688/—	
1308	#2	.114		A	B	C	D				.328/—	
1309	#1	.091		A	B	C	D				.239/—	
1310	#1	.114		A	B	C	D				.312/—	
1311	#1	.114			B	C	D				.310/.250	
1315	#3	.094			B	C	D				.188/.100	
1316	#3	.094			B	C	D				.188/.194	
1320	#1	.204			B	C	D	E	F		.344/.125	
1330	#1	.135			B	C	D				.312/—	
1340	#1	.079		A	B	C	D				.181/—	
1340T	.125	2-56									.181/—	
1350	#1	.114			B	C	D	E	F		.234/—	
1360	#1	.204				C	D	E	F		.364/.315	
1370	#1	.114			B	C	D			G	.469/—	
1380	#1	.114			B	C	D	E			.312/—	
1390	#1	.079		A	B	C	D	E	F		.328/—	
1391	#1	.151		A	B	C	D	E	F		.375/—	
1392	#1	.111		A	B	C	D				.188/—	
1400A,B,C,D	#4	6-32									.59/—	Phenolic
1400E,F,G,H	#4	4-40									.59/—	"
1401		6-32									.59/—	"
1401A		4-40									.59/—	"
1409A,B,C,D	#4	6-32									.50/—	Alkyd
1409E,F,G,H	#4	4-40									.50/—	"
1410	#3	.188		A	B	C	D				.59/—	Phenolic
1411A		6-32									.50/—	Alkyd
1411B		4-40									.50/—	"
1412	#3	.115		A	B	C	D				.42/--	"
1413	#3	.115		A	B	C	D				.50/—	"
1414	.080	3-48									.375/—	"
1417		6-32									.59/—	"
1417A		4-40									.59/—	"
1418A,B,C,D	#4	6-32									.59/—	"
1418E,F,G,H	#4	4-40									.59/—	"
1419	#3	.188		A	B	C	D				.59/—	"
1421	.250	6-32									1.08/—	"
1422		6-32									1.08/—	"
1423		6-32									.88/—	"
1424	#1	.115			B	C	D				.53/—	"
1425	.218	2-56									.53/—	"
1426A	.125	2-56									.38/—	"
1426B	.218	2-56									.38/—	"
1427		2-56									.53/—	"
1428		2-56									.38/—	"
1429	#1	.115			B	C	D				.38/—	"
1430		10-32									.26/.42*	Diallyl Phthalate
1431		10-32									.26/.42*	Teflon
1432	.358	5-40									.43/.348	"
1433		1/4-28									.355/.538*	Diallyl Phthalate
1434		1/4-28									.355/.538*	Teflon
1435		3/8-32									.542/.768*	Diallyl Phthalate
1436		3/8-32									.542/.768*	Teflon
1440A,B,C,D	#4	6-32									.53/—	Hi-Alumina
1440E,F,G,H	#4	4-40									.53/—	"
1441A		2-56									.57/—	"
1441B		4-40									.57/—	"
1442	#1	.115		A	B	C	D				.53/—	"
1445A,B,C,D	#4	6-32									.55/—	"
1445E,F,G,H	#4	4-40									.55/—	"
1446A		2-56									.60/—	"
1446B		4-40									.60/—	"
1447	#1	.115		A	B	C	D				.53/—	"
1450A,B,C,D	#4	6-32									.60/—	Teflon
1450E,F,G,H	#4	4-40									.60/—	"
1451		6-32									.63/—	"
1451A		4-40									.63/—	"
1452	#4	.188		A	B	C	D				.60/—	"
1455A,B,C,D	#4	6-32									.60/—	"
1455E,F,G,H	#4	4-40									.60/—	"
1456		6-32									.63/—	"
1456A		4-40									.63/—	"
1457	#3	.188		A	B	C	D				.60/—	"
1460A,B,C,D	#4	6-32									.60/—	Hi-Alumina
1460E,F,G,H	#4	4-40									.60/—	"
1461		6-32									.63/—	"
1461A		4-40									.63/—	"
1462	#3	.188		A	B	C	D				.60/—	"
1465A,B,C,D	#4	6-32									.60/—	"
1465E,F,G,H	#4	4-40									.60/—	"
1466		6-32									.63/—	"
1466A		4-40									.63/—	"
1467	#3	.188		A	B	C	D				.60/—	"
1470A,B,C,D	#4	6-32									.51/—	Teflon
1470E,F,G,H	#4	4-40									.51/—	"
1471A		2-56									.55/—	Teflon
1471B		4-40									.55/—	"
1472	#1	.115		A	B	C	D				.51/—	"
1475A,B,C,D	#4	6-32									.51/—	"
1475E,F,G,H	#4	4-40									.51/—	"
1476A		2-56									.55/—	"
1476B		4-40									.55/—	"
1477	#1	.115		A	B	C	D				.51/—	"
1480A,B	#5	2-56									.36/—	Hi-Alumina
1480C,D	#5	4-40									.36/—	"
1481A,		4-40									.42/—	"
1481B		2-56									.42/—	"
1482	#3	.115		A	B	C	D				.36/—	"
1483	.250	1/4-28									.359/.552	"
1484	#1	.188			B						.39/.29	"
1485AB	#5	2-56									.36/—	"
1485CD	#5	4-40									.36/—	"
1486A		4-40									.42/—	"
1486B		2-56									.42/—	"
1487	#3	.115		A	B	C	D				.36/—	"
1490A,B	#5	2-56									.36/—	Teflon
1490C,D	#5	4-40									.36/—	"
1491A		2-56									.39/—	"
1492	#3	.115		A	B	C	D				.36/—	"
1495A,B	#5	2-56									.36/—	"
1495C,D	#5	4-40									.36/—	"
1496A		2-56									.39/—	"
1497	#3	.115		A	B	C	D				.36/—	"
1600A,B,C,D	#4	6-32									.62/—	Alkyd
1600E,F,G,H	#4	4-40									.62/—	"
1601A		6-32									.62/—	"
1601B		4-40									.62/—	"
1602	#1	.115		A	B	C	D				.62/—	"
1603A,B,C,D	#4	6-32									.56/—	"
1603E,F,G,H	#4	4-40									.56/—	"
1604A		6-32									.56/—	"
1604B		4-40									.56/—	"
1605	#1	.115		A	B	C	D				.56/—	"
1612A,B,C,D	#4	6-32									.84/—	"
1612E,F,G,H	#4	4-40									.84/—	"
1613A		6-32									.84/—	"
1613B		4-40									.84/—	"
1614	#1	.115		A	B	C	D				.84/—	"
1615A,B,C,D	#4	6-32									.78/—	"
1615E,F,G,H	#4	4-40									.78/—	"
1616A		6-32									.78/—	"
1616B		4-40									.78/—	"
1617	#1	.115		A	B	C	D				.78/—	"
1700	#1	.135				C	D				.390/—	
1705	#1	.157			B	C	D				.38/.109	
1710	#1	.135				C	D				.070/—	
1715	.27	2-56									.38/.39	
1716	.23	4-40									.36/.36	
1780	#1	.190						E	F	G	.48/—	
1781	#3	.094			B	C	D				.38/—	
1782	#1	190						E	F	G	.48/.131	
1785	#1	.203						E	F	G	.596/—	
1786	#1	.205						E	F	G	.094/—	
2000	#2	.063	AA	A	B	C	D	E			.156/—	
2001	#2	.062	AA	A	B	C	D				.281/—	
2002	#2	.042	AA	A	B	C	D				.125/—	
2003	#2	.063	AA	A	B	C	D	E			.156/—	
2004	#2	.062	AA	A	B	C	D				.281/—	
2005	#2	.062	AA	A	B	C	D				.312/—	
2006	#2	.042	AA	A	B	C	D				.312/—	
2010	#2	.063	AA	A	B	C	D				.156/—	
2010T	.125	4-40									.156/—	
2011	#2	.071	AA	A	B	C	D				.187/—	
2020	#2	.063	AA	A	B	C	D				.156/—	
2021	#2	.063	AA	A	B	C	D				.156/—	
2022	#2	.063	AA	A	B	C	D				.156/—	
2023	#2	.048	AA	A	B	C	D				.156/—	
2030	#2	.062	AA	A	B	C	D				.156/—	
2031	#2	.042	AA	A	B	C	D				.156/—	
2035	#1	.089		A	B	C	D				.340/—	
2040	#1	.126		A	B	C	D				.239/.136	
2040T	.125	5-40									.239/.136	
2050	#1	.126		A	B	C	D				.156/.084	
2060	#2	.063	AA	A	B	C	D				.094/—	
2061	#2	.042	AA	A	B	C	D				.094/—	
2500	#2	.091		A	B	C	D				.218/.218	
2501	#6	.090		A	B	C	D				.219/.104	
2502	#6	.090		A	B	C	D				.219/.188	
2509	#2	.073		A	B	C	D				.191/.164	
2510	#2	.073		A	B	C	D				.191/.082	
2511	#2	.073		A	B	C	D				.191/.082	
2520	#2	.073		A	B	C	D				.191/—	
2530	#2	.073		A	B	C	D				.109/.082	
2540	#2	.073		A	B	C	D				.109/—	
2710	.531	.094									.030/—	
2720	#1	.114		A	B	C	D	E	F		.328/—	
2730	#1	.114		A	B	C	D	E	F		.328/—	
2740	#1	.079		A	B	C	D	E	F		.328/—	
2750	#1	.079		A	B	C	D	E	F		.328/—	
2760	#1	.204			B	C	D				.422/.210	
2761	#1	.204			B	C	D				.422/.210	
2762	#3	.145		A	B	C	D	E	F	G	.250/.250	
2763	#3	.145		A	B	C	D	E	F	G	.250/.250	
2770	.205	taper									.188/—	
2775	.281	taper									.484/—	
2776	.281	taper									.250/—	
4401		.142		A	B	C					.312/.266	
4402		.142		A	B	C					.312/.081	
4430		.142		A	B	C	D				.116/.319	
4435		.142		A	B	C					.230/.081	
4437		.142		A	B	C					.312/.319	
4440		.142		A	B	C					.312/.081	
4441		.142		A	B	C	D				.312/.205	
4442		.142		A	B	C					.312/.319	

*approx.

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TERMINALS & EYELETS (Cont'd)

Part Number	X (see box no.)	T or D	Bd Thick—Order by Letter 1/32	1/16	3/32	1/8	H above/ below bd.
4443		.142	A	B	C		.312/.081
4444		.142	A	B	C		.312/.205
4445		.142	A	B	C		.312/.319
4446		.142	A	B	C		.230/.081
4447		.188	A	B	C		.400/.081
4448		.188	A	B	C		.400/.247
4449		.188	A	B	C		.400/.369
4450		.126	A	B	C	D	.346/.280
4451		.189	A	B	C	D	.135/.197
4460		.142	A	B	C		.312/.081
4470		.154	A	B	C		.312/.081
4471		.154	A	B	C	D	.312/.205
4472		.154	A	B	C		.312/.319
4473		.154	A	B	C	D	.312/.081
4474		.154	A	B	C		.312/.205
4475		.154	A	B	C		.312/.319
4476		.154	A	B	C		.230/.081
4480		.126	A	B			.260/.060
4482		.126	A	B			.289/.060
4483		.126	A	B			.253/.060
4484		.126	A	B			.289/.060
4485		.126	A	B			.260/.218
4487		.126	A	B			.289/.218
4489		.126	A	B			.289/.218
7000	#6	.062	A	B	C	D	.136/—
7001	#6	.062	A	B	C	D	.104/—
7010	#6	.062	A	B	C	D	.188/—
7011	#6	.062	A	B	C	D	.156/—
7020	#6	.062	A	B	C	D	.136/—
7021	#6	.062	A	B	C	D	.104/—
7030	#6	.062	A	B	C	D	.188/—

TERMINALS & EYELETS

Part Number	X (see box no.)	T or D	Bd Thick—Order by Letter 1/32	1/16	3/32	1/8	H above/ below bd.
7031	#6	.062	A	B	C	D	.156/—
7040	#6	.062	A	B	C	D	.188/—
7041	#6	.062	A	B	C	D	.156/—
7050	#6	.062	A	B	C	D	.312/—
7600	#6	.030	A	B			
7601	#6	.047	A	B	C	D	
7602	#6	.058	A	B	C	D	
7603	#6	.075	A	B	C	D	
7604	#6	.090	A	B	C	D	
7650A	.051	.030	A				
7650B	.082	.030		B			
7651A	.054	.047	A				
7651B	.085	.047		B			
7651C	.117	.047			C		
7651D	.148	.047				D	
7652A	.068	.058	A				
7652B	.099	.058		B			
7652C	.131	.058			C		
7652D	.162	.058				D	
7653A	.064	.075	A				
7653B	.095	.075		B			
7653C	.127	.075			C		
7653D	.158	.075				D	
7654A	.068	.090	A				
7654B	.099	.090		B			
7654C	.131	.090			C		
7654D	.162	.090				D	
NAS 704	#7	.110	-1	-2	-3	-4	.188/—
NAS 705	#1	.090	-1	-2	-3	-4	.237/—
NAS 706	#6	.201		-2	-3	-4	.342/.315
NAS 707	#7	.112		-2	-3	-4	.360/—
NAS 708	#7	.112		-2	-3	-4	.313/—
NAS 709	#6	.116	-1	-2	-3	-4	.156/.125

Part Number	X (See Box No.)	Tor D	Bd Thick—Order by Letter 1/64	1/32	1/16	3/32	1/8	H above/ below bd.
7200	#2	.046	AA	A	B	C	D	.312/—
7201	#2	.046	AA	A	B	C	D	.312/—
7210	#6	.046		A	B	C	D	.086/—
7211	#2	.046	AA	A	B	C	D	.097/—
7220	#6	.046		A	B	C	D	.086/—
7221	#2	.046	AA	A	B	C	D	.097/—
7701	#2	.062			B	C		.245/—
7702	#2	.062			B	C		.345/—
7703	#6	.062			B	C		.245/—
7704	#6	.062			B	C		.345/—
7705	NA	.060						.030/—
7706	#3	.062			B	C		.245/—
7707	#3	.062			B	C		.345/—
7708	NA	.072						.062/—
7709	NA	.072						.062/—
7710	NA	NA						.395/—
7711	#6	.060				C		.270/—
7712	NA	NA						.215/—
7713	.065	.040	AA					.150/—

TERMINAL BOARDS & BRACKETS

A, B, C Letters Indicated on Drawing

Part Number	M	See Dwg A	B	C
11-2, 3, 4, 5	Steel	(See bracket box)		
1100A	XXXP	1.00	1.50	13.12
1100B	XXXP	1.50	2.00	13.12
1100C	XXXP	2.00	2.50	13.12
1100D	XXXP	2.50	3.00	13.12
1102A	GEE	1.00	1.50	13.12
1102B	GEE	1.50	2.00	13.12
1102C	GEE	2.00	2.50	13.12
1102D	GEE	2.50	3.00	13.12
1110	XXXP	—	.50	13.12
1112	GEE	—	.50	13.12
1180	GMG	.50	.72	.88
1181	GMG	.75	1.03	1.22
1182	GMG	.88	1.16	1.50
1183	GEE	.50	.72	.88
1184	GEE	.75	1.03	1.22
1185	GEE	.88	1.16	1.50
2200B	XXXP	.75	1.00	7.81
2200C	XXXP	.50	.75	7.81
2202B	GEE	.75	1.00	7.81
2202C	GEE	.50	.75	7.81
2210	XXXP	—	.31	7.81
2212	GEE	—	.31	7.81
8001		(materials		(See 1100 series)
8002		and		(See 1110)
8003		configurations		(See 2200 series)
8004		on request)		(See 2210)

1100 and 2200 series scored for 5 sections

KNOBS

Part Number	SD	H	SKD
300	.250	.562	.75
301	.188	.562	.75
302	.125	.562	.75
305	.250	.625	1.00
306	.188	.625	1.00
307	.125	.625	1.00
310	.250	.687	1.25
311	.188	.687	1.25
312	.125	.687	1.25
400	.250	.69	1.12
401	.188	.69	1.12
402	.125	.69	1.12
410	.250	.875	1.81
411	.188	.875	1.81
412	.125	.875	1.81

KNOBS (Cont'd)

Part Number	SD	H	SKD
450	.250/.125	.99	1.00
500	.250	.50	.62
501	.188	.50	.62
502	.125	.50	.62
550	.250	.612	.81
551	.188	.612	.81
552	.125	.612	.81
555	.250	.675	1.03
556	.188	.675	1.03
557	.125	.675	1.03
560	.250	.750	1.23
561	.188	.750	1.23
562	.125	.750	1.23
625	.250	.56	.45
626	.188	.56	.45
627	.125	.56	.45
1000	.250	.75	1.00
1001	.188	.75	1.00
1002	.125	.75	1.00
1038	.250	.88	1.38
1039	.188	.88	1.38
1040	.125	.88	1.38

HANDLES & FERRULES

Part Number	M	T	OL	H
900	Br	(Fits 1004 thru 1019)		
901	Al	(Fits 1060 thru 1069)		
903	Br	(Fits 1070 thru 1072)		
1004	Br	10-32	6.44	1.50
1005	Br	10-32	6.44	1.75
1007	Br	10-32	6.00	1.50
1010	Br	10-32	4.25	1.50
1012	Br	10-32	4.00	1.50
1013	Br	10-32	4.56	1.50
1015	Br	10-32	3.00	1.50
1017	Br	10-32	2.00	1.50
1018	Br	10-32	8.00	1.50
1019	Br	10-32	10.00	1.50
1020	Br	5/16-18	4.25	2.12
1021	Al	5/16-18	4.25	2.12
1030	Br	5/16-18	*	1.50
1031 (90° fold)	Br	3/8-24	4.00	1.81
1032 (180° fold)	Br	3/8-24	4.00	1.81
1033	Br	10-32	3.00	1.28
1034	Br	10-32	4.56	1.50
1035	Br	10-32	6.44	1.75
1036	Br	10-32	9.00	1.75
1050	Al	10-32	3.00	1.28

*Available lengths 3″ to 6″ in ½″ increments.

HANDLES & FERRULES (Cont'd)

Part Number	SD	H		SKD
1051	Al	10-32	4.56	1.50
1052	Al	10-32	6.44	1.75
1053	Al	10-32	9.00	1.75
1060	Al	10-32	6.44	1.50
1061	Al	10-32	6.44	1.75
1062	Al	10-32	6.00	1.50
1063	Al	10-32	4.25	1.50
1064	Al	10-32	4.00	1.50
1065	Al	10-32	4.56	1.50
1066	Al	10-32	3.00	1.50
1067	Al	10-32	2.00	1.50
1068	Al	10-32	8.00	1.50
1069	Al	10-32	10.00	1.50
1070	Br	6-32	1.25	1.00
1071	Br	6-32	1.75	1.00
1072	Br	6-32	2.25	1.00

HEADERS

Part No.	Mtg. D	O.H.	Pins Numbered
4008	17/64	9/16	1
4010	29/64	29/32	1
4011	29/64	1 9/32	1
4014	1 3/32	31/32	1 thru 7 CCW
4033	1 13/32	21/32	1 thru 16 CCW
4055	¾	17/32	1 thru 9 CW
4056	29/32	17/32	1 thru 12 CW
4064	41/64	7/16	1 thru 8 CW
4067	¾	7/16	1 thru 9 CW
4068	29/32	7/16	1 thru 12 CW
4074	37/64	7/16	1 thru 7 CW
4078	1 3/32	31/32	1 thru 7 CW
4098	61/64	⅞	1 thru 8 CW
4107	1 9/32x23/32	7/16	1 thru 16 C
4109	29/32	½	1 thru 12 CW
4115	¾	31/32	1 thru 9 CW
4151	29/32	21/32	1 thru 7 CCW
4152	29/32	21/32	1 thru 7 CCW
4162	41/64	13/32	1 thru 8 CW
4163	37/64	13/32	1 thru 7 CW
4164	29/32	13/32	1 thru 12 CW
4165	¾	13/32	1 thru 9 CW
4166	1 9/32x23/32	13/32	1 thru 16 C
4167	29/32	21/32	1 thru 7 CW

MISC. HARDWARE

Part No.	S.D.	T
1510	.250	⅜-32
1511	.250	⅜-32
1512	.125	¼-32
1513	.125	¼-32
1514	Cap Only	
1515	.250	⅜-32
1520	.250	⅜-32

Part Number	X (see box no.)	T and D	Bd. Thick.—Order by Letter 1/32	1/16	3/32	1/8	H above/ below bd.
1530	#1	6-32, .188	A	B	C	D	#8
1531	#1	6-32, .188	A	B	C	D	#8
1532	#1	2-56 .125	A	B	C	D	#8
1550A		4-40, .187					.250/—
1550B		4-40, .187					.375/—
1550C		6-32, .250					.250/—
1550D		6-32, .250					.375/—
1550E		6-32, .250					.500/—
1550F		6-32, .250					.625/—
1550G		6-32, .250					.750/—
1550H		8-32, .375					.250/—
1550I		8-32, .375					.375/—
1550J		8-32, .375					.500/—
1550K		8-32, .375					.625/—
1550M		8-32, .375					.750/—
1551A		4-40, .187					.250/—
1551B		4-40, .187					.375/—
1551C		6-32, .250					.250/—
1551D		6-32, .250					.375/—

MISC. HARDWARE (Cont'd)

Part Number	X (see box no.)	T and D	Bd. Thick.—Order by Letter 1/32	1/16	3/32	1/8	H above/ below bd.
1551E		6-32, .250					.500/—
1551F		6-32, .250					.625/—
1551G		6-32, .250					.750/—
1551H		8-32, .375					.250/—
1551I		8-32, .375					.375/—
1551J		8-32, .375					.500/—
1551K		8-32, .375					.675/—
1551M		8-32, .375					.750/—
1560		⅜-32, .250					.562/—
1560-1		⅜-32, .250					.438/—
1560-2		⅜-32, .250					.375/—
1560-3		⅜-32, .250					.620/—
1561		¼-32, .125					.562/—
1561-1		¼-32, .125					.438/—
1561-2		¼-32, .125					.375/—
1580		⅜-32, .500					.750/—
1590	#1	6-32, .188		B	C	D	.380/—
1591	#1	4-40, .126		B	C	D	.250/—
1800		10-32, .500					1.00/.38
1815		4-40, .250					.04/.375
3100-6		6-32, .420					.375/.500
3100-8		8-32, .420					.375/.500
3100-10		10-32, .420					.375/.500
3200-6		6-32, .094					.188/.692
3200-8		8-32, .120					.188/.692
3200-10		10-32, .140					.188/.692
3200-25		¼-20, .171					.375/1.125
3316A		.251					.750/—
3316B		.126					.750/—
3500		1.50 x .750					.766/.922

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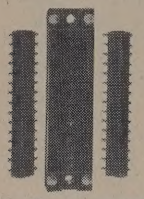
U. S. COMPONENTS

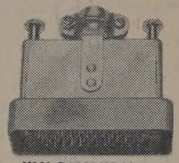
AVIONICS ● AUTOMATION ● COMMUNICATION ● CONTROLS ● INSTRUMENTATION
MISSILES ● PORTABLE EQUIPMENT ● PRINTED CIRCUITS ● TEST APPARATUS

A CONNECTOR MAKES IT WORK!

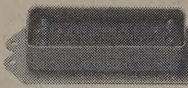
U. S. Components makes connectors for every conceivable purpose. Write for details and information on these new series.



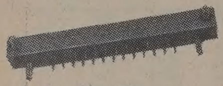
MIC-15M MIC-30FDTP



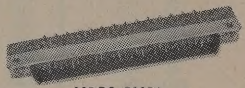
XMI-50M2HRSL-P



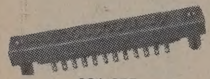
XMI-50F2SLKX



901-25M

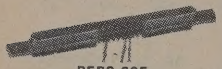


MPCC-GM29

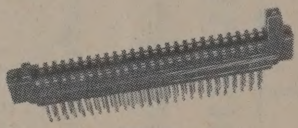


901-25F

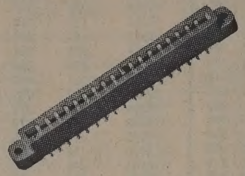
UPCC-GF29



REPC-32F



RPCR-52



UPCR SERIES

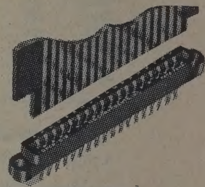
Single Row Printed Card Receptacle

Number of contacts—(Beryllium Copper) 6, 10, 15, 18, 22
Solder wire hole size .... 1/16"x3/32"
Voltage breakdown between contacts—sea level 2500 V A.C. RMS.
Current rating .... 5 amps.

Polarizing pins and contacts—snap-in or out design permitting easy interchangeability.
Pat. #2,853,689.

UPCR-D. Double Row Printed Card Receptacle. Solder Type Terminals

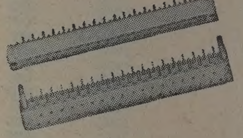
Card range thickness accommodation
UPCR-D .... .052—.072 (nom. 1/16")
UPCR-93D .... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper) 6, 10, 15, 18, 22 per row, (2) rows
Solder wire hole size .... 3/64"x3/32"
Voltage breakdown between contacts—sea level 2500 V A.C. RMS.
Current rating .... 5 amps.



Pat. #2,909,755

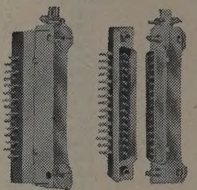
MPC SERIES—Micro Miniature Printed Circuit Connectors

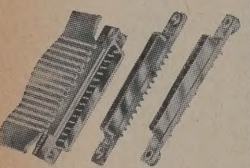
Number of contacts 15, 23, 33, 37, 49
Maximum wire size .... 26 AWG Wire
Voltage breakdown between contacts—sea level 3100 V. A.C., RMS.
Current rating .... 3 amps.



UPCC-SLH SERIES. Hooded Screw Lock

UPCC-M2SL .... Male Chassis Screw Lock
UPCC-F2HSL .... Female Hooded Mating Unit
Available .... 7, 11, 15, 19, 23, 32 contacts
Voltage Breakdown between contacts—sea level 2500 V. A.C. RMS.
Male — available solder dip, wire solder turret, taper tab terminals
Female — available wire solder, turret tab terminals
Pat. #2,953,767



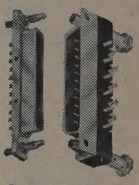


UPCC SERIES. Printed Circuit Connector

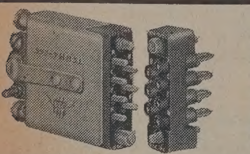
Card range thickness accommodation—
Male Dip Solder
UPCC-M ( ) A .... 1/16"
UPCC-M ( ) B .... 1/8"
UPCC-M ( ) C .... 1/4"
UPCC-F ( ) female .... #20 AWG wire
UPCC-FDN ( ) .... Solder dip terminals
Maximum wire size—female .... #20 AWG wire
Number of contacts 7, 11, 15, 19, 23, 32
Voltage Breakdown between contacts—sea level 2500 V. A.C. RMS.
Current rating .... 7.5 amps.

UPCC-SL SERIES. Printed Circuit Screw Lock

Card range thickness accommodation—
Male Dip Solder
UPCC MSL ( ) A .... 1/16"
UPCC MSL ( ) B .... 1/8"
UPCC MSL ( ) C .... 1/4"
UPCC-FSL ( ) female .... #20 AWG wire
UPCC-FD-SL ( ) .... Solder dip terminals
Number of contacts 7, 11, 15, 19, 23, 32
Voltage Breakdown between contacts—sea level 2500 V. A.C. RMS.
Current rating .... 7.5 amps.



Pat. #2,953,767

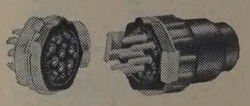


990-SL SERIES. Power Screw Lock

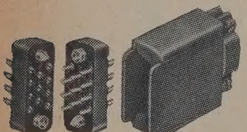
Number of contacts 7, 10, 15, 18
Maximum wire size .... #16 AWG, wire
Voltage breakdown between contacts—sea level 5300 V. A.C. RMS.
Current rating .... 13 amps.
990-SL-SDL (solderless .... uses #53 taper pin
Patent #2,761,108. Double lead threads. "Twice the speed with double lead."

MH SERIES. Miniature Hex

Number of contacts 4, 5, 7, 9
Maximum wire size .... #20 AWG wire
Voltage breakdown between contacts—sea level 1215 V A.C. RMS.
Current rating .... 7.5 amps.
MH-SDL (solderless) uses #37 taper receptacle
Also available HMH Hermetic Seal. Plug Series.



Pat. #2,848,702

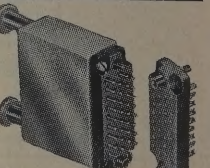


SMI SERIES. Subminiature

Number of contacts 5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size .... #20 AWG wire
Voltage Breakdown between contacts—sea level 1950 V. A.C. RMS.
Current rating .... 7.5 amps.
SMI-SDL (solderless) uses #37 taper receptacle
Other configurations upon request.

SMI-SL SERIES. Subminiature Screw Lock

Number of contacts 5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size .... #20 AWG wire
Voltage Breakdown between contacts—sea level 1950 V. A.C. RMS.
Current rating .... 7.5 amps.
SMI-SL-SDL (solderless) uses #37 taper receptacle
Other configurations upon request.
Pat. #2,761,108



GENERAL NOTE

All Sub-miniature (SMI), Miniature (MI), 980, 990 series Connectors, available with Solder Type, Solderless Type (SDL) and Turret Type (TU) Terminals

Connectors are available with molded bodies made of asbestos-filled melamine, glass-filled alkyd, asbestos or glass-filled diallyl phthalate, or mica-filled bakelite. All connectors meet or surpass all applicable sections of MIL-Q-9858, MIL-C-8384B, MS MIL-C-21097A, MIL-C-25955 and NAS specifications. Rigid quality control is applied on a 100% basis for inspection and testing. All solder cups can be provided with 60-40 solder or projecting terminals can be solder dipped.

U. S. COMPONENTS, INC.

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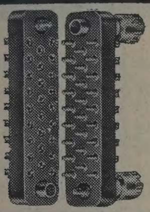
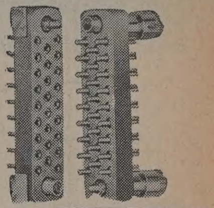


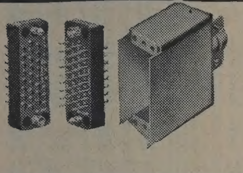
SMI-K SERIES

Subminiature Hoodless Knob Type Screw Lock
Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size.......................#20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating.......................7.5 amps.
SMI-K-SDL (solderless)
uses #37 taper receptacle
Pat. 2,761,108. Other configurations on request.

SMI-KC SERIES

Subminiature Hoodless Knob Type Screw Lock
Reentrancy female contact....Anti-Rotation Brackets
Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size.......................#20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating.......................7.5 amps.
SMI-K-SDL (solderless)
uses #37 taper receptacle
Pat. 2,761,108. Other configurations on request.



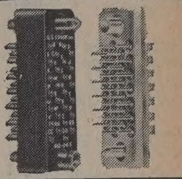


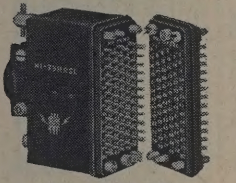
MI-SERIES. Miniature

Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ....#20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ....7.5 amps.
MII-SDL (solderless) uses #37 taper receptacle
MIP Series #18 wire — MIW Series #16 wire

HMI SERIES. Hermetic Seal Miniature

Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ....#20 AWG wire
Voltage breakdown between contacts—sea level
2200 V A.C. RMS.
Current rating ....7.5 amps.
Mates with corresponding MI-F (female) series connectors.





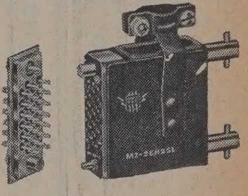
Pat. #2,761,108

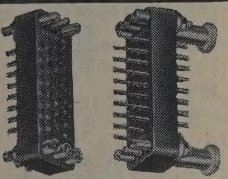
MI-SL SERIES. Miniature Screw Lock

Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ....#20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ....7.5 amps.
MI-SL-SDL (solderless)
uses #37 taper receptacle
Pat. #2,761,108
ALSO AVAILABLE FOR #18 AWG WIRE
6-32—Double or single lead threads can be furnished.

HMI-SL SERIES

Hermetic Seal Miniature Screw Lock
Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50
Maximum wire size ....#20 AWG wire
Voltage breakdown between contacts—sea level
2200 V A.C. RMS.
Current rating ....7.5 amps.
Mates with corresponding MI-FSL (female screw lock) series connectors.
6-32—Double or single lead threads can be furnished.





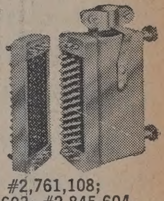
Pat. #2,761,108

MI-KSL SERIES

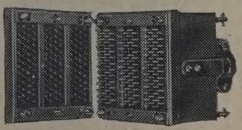
Miniature Hoodless Knob Type Screw Lock
Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ....#20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ....7.5 amps.
MI-K-SDL (solderless)
uses #37 taper receptacle
ALSO AVAILABLE FOR #18 AWG WIRE

MI-BSL "FBI" SERIES

Miniature Bracket Screw Lock
Number of contacts 34, 41, 50, 75
Maximum wire size ....#20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ....7.5 amps.
Hoods ....aluminum anodized
Brackets ....die-cast aluminum
MI-BSL-SDL (solderless)
uses #37 taper receptacle

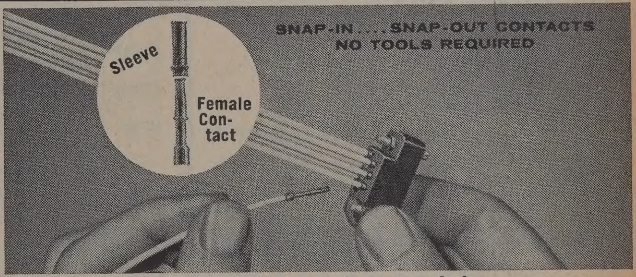


Pat. #2,761,108; #2,845,603; #2,845,604



MI-MBSL SERIES

Miniature Bracket Modular Screw Lock
Number of contacts.......................123, 150, 225
Maximum wire size.......................#20 AWG wire
Voltage Breakdown between contacts—sea level
2800 V. A.C. RMS.
Current rating.......................7.5 amps.
Hoods ....aluminum anodized
Brackets ....die-cast aluminum
MI-BMSL-SLD (solderless)
uses #37 taper receptacle
ALSO AVAILABLE FOR #18 AWG WIRE
Pat. #2,761,108; #2,845,603; #2,933,713; #2,845,604; Additional Patents Pending.
Other configurations upon request.



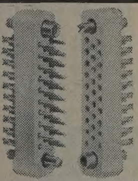
ALSO AVAILABLE FOR #18 AWG WIRE

MRO-MRA. Miniature Round

Number of contacts 7, 9
Maximum wire size ....#20 AWG wire
Voltage breakdown between contacts—sea level
1215 V A.C. RMS.
Current rating ....7.5 amps.
MRO-SDL—MRA-SDL (solderless)
uses #37 taper receptacle

REMI SERIES—Standard and Screwlock

Number of contacts 7, 12 (8-4) 14, 18, 20, 21, 26, 34, 41, 50, 75, 104
Type of contact ....crimp style, removable with "snap-in, snap-out" feature
Wire sizes accommodated 18, 20, 22, 24, 26, 30
Pat. 2,979,689
REMI counterparts of our MI, MI-SL, MI-KSL, MI-BSL and MI-BMSL SERIES can be provided.

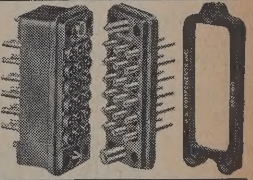


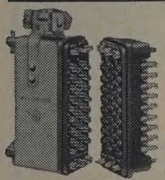
UMI SERIES—Ultra Miniature Series

Number of Contacts
5, 7, 9, 11, 14, 20, 26, 29, 34, 44, 50
Max. Wire Size ....#22 AWG Wire
Voltage breakdown between contacts—sea level
1330 V. A.C., RMS.
Current rating ....3 amps.
ALSO AVAILABLE IN UMI-SL SCREWLOCK SERIES

980 SERIES. Power-Guide Pin Spring Release

Number of contacts 12, 18, 24, 34
Maximum wire size ....#16 AWG wire
Voltage breakdown between contacts—sea level
4000 V A.C. RMS.
Current rating ....13 amps.
980-SL-SDL (solderless) ....uses #53 taper pin
Patent #2,658,182



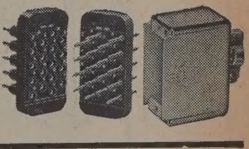


980-SL SERIES. Power Screw Lock

Number of contacts 12, 18, 24, 34
Maximum wire size ....#16 AWG wire
Voltage breakdown between contacts—sea level
4000 V A.C. RMS.
Current rating ....13 amps.
980-SDL (solderless) ....uses #53 taper pin
Patents #2,658,182; #2,761,108

990 and 990S (Short Contacts) SERIES. Power

Number of contacts 7, 10, 15, 18
Maximum wire size ....#16 AWG wire
Voltage breakdown between contacts—sea level
5300 V A.C. RMS.
Current rating ....13 amps.
990-SDL (solderless) ....uses #53 taper pin



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Chicago 11, Illinois

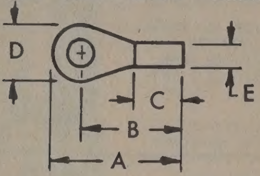
All Vaco Solderless Terminals have been engineered and tested to give you perfect connections every time. Four distinct classes are available to meet your requirements. See illustrations at right for selective packaging.

VACO
Connector Pak

$ CONNECTOR PAK
Plastic box holds adequate quantity of terminals for on-the-job use. Tab shows actual size terminal illustration and pertinent information

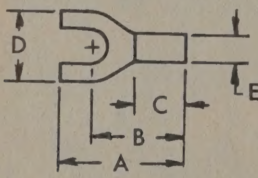
SOLDERLESS TERMINALS and CONNECTORS

SINGLE-GRIP SOLDERLESS TERMINALS



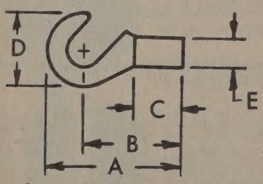
RING TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E
11204	22-18	4	19/32	15/32	1/4	7/32	9/64
11205	22-18	5-6	19/32	15/32	1/4	7/32	9/64
11206	22-18	5-6	21/32	33/64	1/4	9/32	9/64
11208	22-18	8	43/64	1/2	1/4	21/64	9/64
11210	22-18	10	43/64	1/2	1/4	21/64	9/64
11214	22-18	12-1/4	59/64	11/16	1/4	29/64	9/64
11238	22-18	3/8	1 1/16	51/64	1/4	17/32	9/64
11304	16-14	4	9/16	29/64	1/4	15/64	5/32
11305	16-14	5-6	9/16	29/64	1/4	15/64	5/32
11306	16-14	5-6	43/64	33/64	1/4	21/64	5/32
11308	16-14	8	23/32	35/64	1/4	21/64	5/32
11310	16-14	10	23/32	35/64	1/4	21/64	5/32
11314	16-14	12-1/4	59/64	11/16	1/4	29/64	5/32
11338	16-14	3/8	1 1/16	51/64	1/4	17/32	5/32



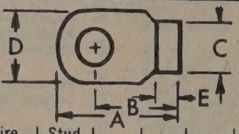
SPADE TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E
13204	22-18	4	17/32	27/64	1/4	15/64	1/8
13206	22-18	5-6	5/8	15/32	1/4	19/64	1/8
13208	22-18	8	41/64	15/32	1/4	11/32	1/8
13210	22-18	10	11/16	1/2	1/4	13/32	1/8
13306	16-14	4-6	19/32	29/64	1/4	19/64	5/32
13308	16-14	8	21/32	31/64	1/4	11/32	5/32
13310	16-14	10	45/64	1/2	1/4	13/32	5/32
14206	22-18	4-6	11/16	15/32	1/4	19/64	1/8



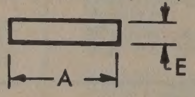
HOOK TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E
15208	22-18	4-8	23/32	9/16	1/4	11/32	1/8
15306	16-14	4-6	19/32	29/64	1/4	19/64	5/32
15308	16-14	8	21/32	31/64	1/4	11/32	5/32
15310	16-14	10	45/64	1/2	1/4	13/32	5/32



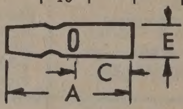
FLAG TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E
16210	22-18	8-10	41/64	29/64	1/4	3/8	1/8
16310	16-14	8-10	21/32	15/32	1/4	3/8	5/32
16410	12-10	8-10	23/32	17/32	1/4	3/8	7/32



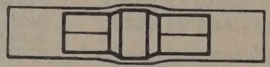
CONNECTOR

Catalog Number	Wire Size	Stud Size	A	B	C	D	E
17202	22-18		9/16				9/64
17302	16-14		9/16				5/32
17402	12-10		9/16				7/32



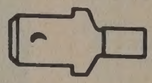
SNAP TERMINAL

Catalog Number	Wire Size	Stud Size	A	B	C	D	E
19301	16-14		5/8		1/4	1/8	5/32
19303	16-14		43/64		1/4	5/32	5/32



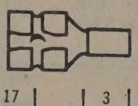
SNAP CONNECTOR

Catalog Number	Wire Size	A	B	C	D	E	F
19302		3/4				3/16	1/4
19304		51/64				7/32	1/4
19305		11/16	3/8	1/4	3/16	1/8	



QUICK CONNECTOR

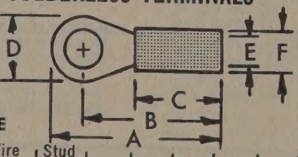
Catalog Number	Wire Size	A	B	C	D	E	F
18301	16-14	45/64		13/64	1/4	5/32	
18303	16-14	9/16		1/4	1/4	5/32	



QUICK CONNECTOR

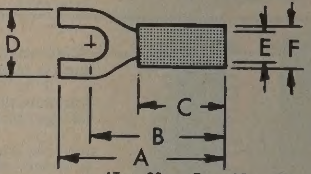
Catalog Number	Wire Size	A	B	C	D	E	F
18204	22-18	17/32		3/16	3/16	3/32	
18302	16-14	39/64		13/64	1/4	1/8	
18304	16-14	15/32		1/4	1/4	9/64	

INSULATED SINGLE-GRIP SOLDERLESS TERMINALS



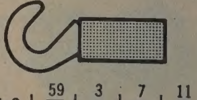
RING TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
51204	22-18	4	25/32	43/64	7/16	7/32	1/8	3/16
51205	22-18	5-6	25/32	43/64	7/16	7/32	1/8	3/16
51206	22-18	5-6	27/32	23/32	7/16	9/32	1/8	3/16
51208	22-18	8	55/64	45/64	7/16	21/64	1/8	3/16
51210	22-18	10	55/64	45/64	7/16	21/64	1/8	3/16
51214	22-18	12-1/4	1 7/64	57/64	7/16	29/64	1/8	3/16
51238	22-18	3/8	1 1/4	63/64	7/16	17/32	1/8	3/16
51304	16-14	4	3/4	41/64	7/16	15/64	5/32	13/64
51305	16-14	5-6	3/4	41/64	7/16	15/64	5/32	13/64
51306	16-14	5-6	55/64	45/64	7/16	21/64	5/32	13/64
51308	16-14	8	29/32	47/64	7/16	21/64	5/32	13/64
51310	16-14	10	29/32	47/64	7/16	21/64	5/32	13/64
51314	16-14	12-1/4	1 7/64	57/64	7/16	29/64	5/32	13/64
51338	16-14	3/8	1 1/4	63/64	7/16	17/32	5/32	13/64



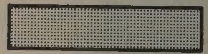
SPADE TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
53204	22-18	4	47/64	39/64	7/16	15/64	1/8	3/16
53206	22-18	5-6	13/16	21/32	7/16	19/64	1/8	3/16
53208	22-18	8	53/64	21/32	7/16	11/32	1/8	3/16
53210	22-18	10	57/64	11/16	7/16	13/32	1/8	3/16
53306	16-14	4-6	25/32	41/64	7/16	19/64	5/32	13/64
53308	16-14	8	27/32	43/64	7/16	11/32	5/32	13/64
53310	16-14	10	57/64	11/16	7/16	19/64	5/32	13/64
54206	22-18	4-6	7/8	21/32	7/16	19/64	1/8	3/16



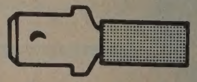
HOOK TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
55208	22-18	4-8	59/64	3/4	7/16	11/32	1/8	3/16
55306	16-14	4-6	25/32	41/64	7/16	19/64	5/32	13/64
55308	16-14	8	27/32	43/64	7/16	11/32	5/32	13/64
55310	16-14	10	57/64	11/16	7/16	13/32	5/32	13/64



CONNECTOR

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
57202	22-18		1				1/8	3/16
57302	16-14		1				5/32	13/64
57402	12-10		1				13/64	17/64



QUICK CONNECTOR

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
58301	16-14		15/16		7/16	1/4	5/32	13/64
58302	16-14		55/64		7/16	1/4	5/32	13/64

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VACO®
PRODUCTS CO.
Chicago 11, Illinois

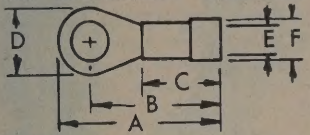
VACO
Solderless Terminals

"C" PAK contains 100 terminals of a number and convenient for larger quantity users. Each carton readily identifiable from outside.

"MB" PAK contains 1000 terminals providing minimum terminal cost to large quantity users.

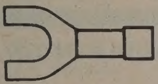
SOLDERLESS TERMINALS and CONNECTORS

DOUBLE-GRIP SOLDERLESS TERMINALS



RING TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
41204	22-18	4	47/64	5/8	13/32	7/32	5/32	11/64
41205	22-18	5-6	47/64	5/8	13/32	7/32	5/32	11/64
41206	22-18	5-6	13/16	43/64	13/32	9/32	5/32	11/64
41208	22-18	8	13/16	21/32	13/32	21/64	5/32	11/64
41210	22-18	10	13/16	21/32	13/32	21/64	5/32	11/64
41304	16-14	4	23/32	19/32	13/32	15/64	3/16	13/64
41305	16-14	5-6	23/32	19/32	13/32	15/64	3/16	13/64
41306	16-14	5-6	53/64	21/32	13/32	21/64	3/16	13/64
41308	16-14	8	55/64	45/64	13/32	21/64	3/16	13/64
41310	16-14	10	55/64	45/64	13/32	21/64	3/16	13/64
41314	16-14	12-1/4	1 5/64	27/32	13/32	29/64	3/16	13/64
41338	16-14	3/8	1 13/64	15/16	13/32	17/32	3/16	13/64



SPADE TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
43204	22-18	4	23/32	9/16	13/32	15/64	5/32	11/64
43206	22-18	5-6	49/64	39/64	13/32	19/64	5/32	11/64
43208	22-18	8	51/64	39/64	13/32	11/32	5/32	11/64
43210	22-18	10	27/32	41/64	13/32	13/32	5/32	11/64
43306	16-14	4-6	3/4	19/32	13/32	19/64	3/16	13/64
43308	16-14	8	51/64	5/8	13/32	11/32	3/16	13/64

SPADE TONGUE (cont.)

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
43310	16-14	10	27/32	21/32	13/32	13/32	3/16	13/64
44206	22-18	4-6	27/32	5/8	13/32	19/64	5/32	11/64

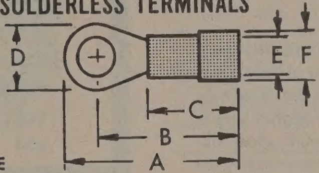
HOOK TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
45208	22-18	4-8	7/8	45/64	13/32	11/32	5/32	11/64
45306	16-14	4-6	3/4	19/32	13/32	19/64	3/16	13/64
45308	16-14	8	51/64	5/8	13/32	11/32	3/16	13/64
45310	16-14	10	27/32	21/32	13/32	13/32	3/16	13/64

QUICK CONNECTORS

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
48301	16-14		29/32		13/32	1/4	3/16	13/64
48302	16-14		13/16		13/32	1/4	5/32	11/64

INSULATED DOUBLE-GRIP SOLDERLESS TERMINALS



RING TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
91204	22-18	4	51/64	11/16	29/64	7/32	11/64	13/64
91205	22-18	5-6	51/64	11/16	29/64	7/32	11/64	13/64
91206	22-18	5-6	55/64	47/64	29/64	9/32	11/64	13/64
91208	22-18	8	7/8	23/32	29/64	21/64	11/64	13/64
91210	22-18	10	7/8	23/32	29/64	21/64	11/64	13/64
91304	16-14	4	25/32	21/32	29/64	15/64	13/64	15/64
91305	16-14	5-6	25/32	21/32	29/64	15/64	13/64	15/64

RING TONGUE (cont.)

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
91306	16-14	5-6	57/64	23/32	29/64	21/64	13/64	15/64
91308	16-14	8	59/64	49/64	29/64	21/64	13/64	15/64
91310	16-14	10	59/64	49/64	29/64	21/64	13/64	15/64
91314	16-14	12-1/4	1 1/8	29/32	29/64	29/64	13/64	15/64
91338	16-14	3/8	1 17/64	1	29/64	17/32	13/64	15/64

SPADE TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
93204	22-18	4	3/4	5/8	29/64	15/64	11/64	13/64
93206	22-18	5-6	53/64	43/64	29/64	19/64	11/64	13/64
93208	22-18	8	27/32	43/64	29/64	11/32	11/64	13/64
93210	22-18	10	29/32	45/64	29/64	13/32	11/64	13/64
93306	16-14	4-6	13/16	21/32	29/64	19/64	11/64	13/64
93308	16-14	8	55/64	11/16	29/64	11/32	13/64	15/64
93310	16-14	10	29/32	45/64	29/64	13/32	13/64	15/64
94206	22-18	4-6	57/64	11/16	29/64	19/64	11/64	13/64

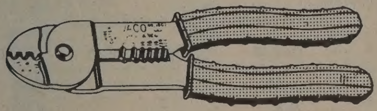
HOOK TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
95208	22-18	4-8	15/16	49/64	29/64	11/32	11/64	13/64
95306	16-14	4-6	13/16	21/32	29/64	19/64	13/64	15/64
95308	16-14	8	55/64	11/16	29/64	11/32	13/64	15/64
95310	16-14	10	29/32	45/64	29/64	13/32	13/64	15/64

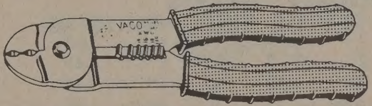
QUICK CONNECTOR

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
98301	16-14		61/64		29/64	1/4	13/64	15/64
98302	16-14		7/8		29/64	1/4	13/64	13/64

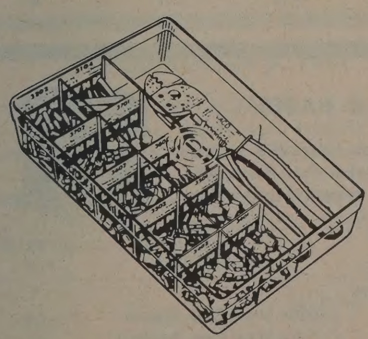
VACO CRIMPING TOOLS and KITS



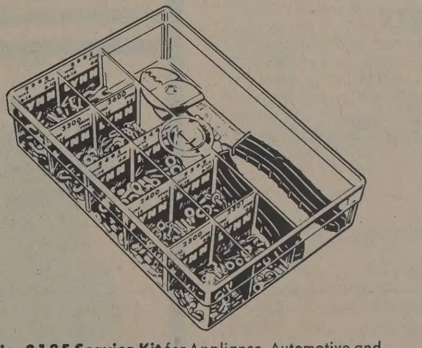
No. 1900 cuts wire, strips wire from 22 to 10 gauge, and crimps non-insulated solderless terminals. Plastic comfort handles are used on all Vaco crimping tools.



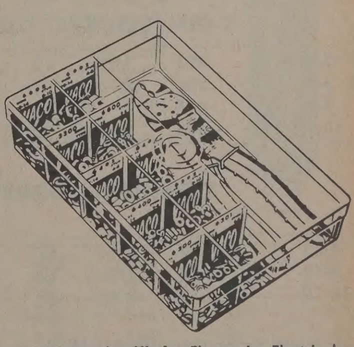
No. 1906 cuts and strips wire 22 to 10 gauge and crimps insulated solderless terminals. All Vaco tools are chrome plated, high quality steel.



No. 2195 Service Kit for Radio-TV and General Purpose Use. Contains No. 1900 crimping tool and one bin each of the following numbers: 11205, 11206, 11210, 11305, 11306, 11310, 14206, 13306, 13310, 15208.



No. 3185 Service Kit for Appliance, Automotive and Electrical Use. Contains No. 1900 crimping tool plus popular assortment of quick-connect terminals and adapters as follows: 18301, 18302, 18303, 18304, 18001, 18002, 18008, 18007, 19301, 19302.



No. 6175 Service Kit for Electronics, Electrical and General Purpose Use. Contains No. 1906 crimping tool plus insulated single-grip terminals as follows: 51205, 51206, 51210, 51305, 53206, 53306, 53310, 51306, 51310, 54206.

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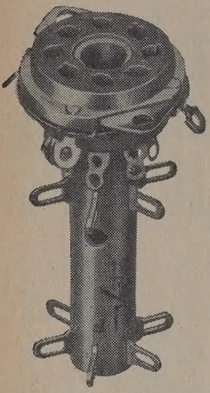
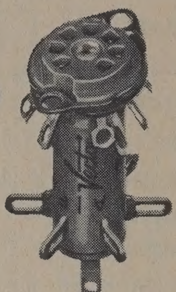
Vector Electronic Company

GLENDALE, CALIFORNIA

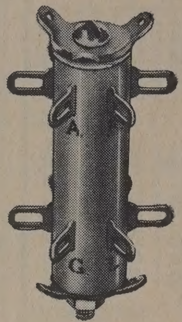
POST SOCKET TURRETS


10-0-12T

OCTAL


6-M-6T

7-PIN


6-12

TERMINAL

VECTOR SOCKET TURRETS AND TERMINAL TURRETS simplify electronic construction. Faster wiring, greater component density and higher reliability are assured by their use. Military types (premium grade- have MIL sockets with beryllium copper silver plated socket contacts, brass nickel plated hot tin dipped saddles and glass silicone turret post with fused tin brass terminals. Commercial types have mica filled sockets, hot tin dipped steel saddle, XXXP Phenolic turret post with brass fused tin terminals.

ORDERING INFORMATION

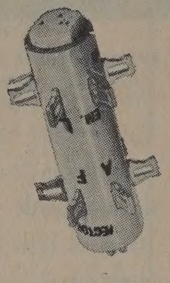
CATALOG NUMBERS		TURRET DETAILS				NET PRICE
Commercial Types	Military Types	Height	No. of Term	No. of Rings	Space Between Rings	Comm. Type 1-19
OCTAL SOCKET-TURRETS						
6-0- 6T	680	1½″	6	1	—	.54
➧ 8-0- 9T	681	2″	9	2	1″	.60
8-0-12T	682	2″	12	2	1″	.63
➧ 10-0- 9T	683	2½″	9	2	1⅜″	.63
10-0-12T	684	2½″	12	2	1⅜″	.66
7-PIN SOCKET TURRETS						
➧ 6-M - 6T	687	1½″	6	1	—	.63
➧ 8-M - 9T	688	2″	9	2	1″	.69
8-M -12T	689	2″	12	2	1″	.72
10-MB-12T	690	2½″	12	2	1⅜″	.81
9-PIN SOCKET TURRETS						
➧ 6-N - 6T	693	1½″	6	1	—	.63
➧ 8-N - 9T	694	2″	9	2	1″	.69
8-N -12T	695	2″	12	2	1″	.72
10-NB-12T	696	2½″	12	2	1⅜″	.81
TERMINAL-TURRETS						
6-12	676	1 11/32″	12	2	⅝″	.45
➧ 8-12	677	1 27/32″	12	2	1″	.48
➧ 10-12	678	2 11/32″	12	2	1⅜″	.51

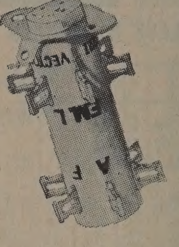
NOTE: Tolerance on dimensions ± 1/16″

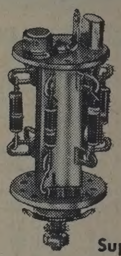
➧ Indicates preferred types

Longer or shorter types and other terminal configurations can be readily made to order.

TRANSISTOR TURRETS


7-A-12T-440


8-A-12T

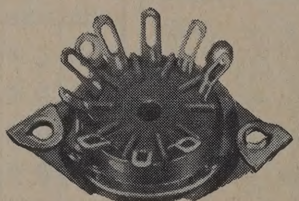

#654 Supplied without wiring

TRANSISTOR SOCKET TURRETS enable user to mount one transistor and other necessary circuit components on a post structure. Sockets furnished accommodate 3-in-line or "top-hat" type transistors. Units furnished with saddle or recessed 4-40 Knurl nut in end opposite socket.

TRANSISTOR WAFER TURRET: Holds four transistors on wafer punched to take JEDEC or in-line leads. 5-40 screw projects 5/16″ Min. beyond bottom ground lug for chassis mounting.

Catalog No.	Height	Space Between Rings	Space Between Wafers	Saddle	Knurl Nut	Net Price 1-19
6-A-12T	1½″	⅞″	—	YES	NO	1.06
7-A-12T-440	1¾″	⅞″	—	NO	YES	1.04
8-A-12T	2″	1⅜″	—	YES	NO	1.08
652	2″	1″	1 11/16″	NO	NO	.81
654	2½″	1⅜″	2 3/16″	NO	NO	.87

SOCKET SADDLE NUTS

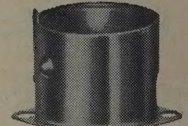


U nut designed especially to slip over and clamp on socket saddles provide convenient means for quickly screwing sockets to chassis. Two types are available, No. 4-40 U which fits No. 4-40 screws and No. 4Z U which fits a No. 4 sheet metal screw. The latter is stronger since it is of thicker metal than the former. Screws should be hardened steel for both nuts to avoid stripping and are also listed below: Material is cad. plated steel. Bags of 50 each.

Cat. No.	Thread	Screw Length	Net Price 1-19 Bags
➧ 4-40 U Nut	4-40	—	1.00
4-Z U Nut	4 Z	—	1.25
4-40 x ¼″ Screw	4-40	¼″	.60
4Z x ¼″ Screw	4 Z	¼″	.40

TUBE SHIELD BASES

TUBE SHIELD BASES are intended to be mounted above the socket as a base for conventional bayonet type tube shields.



CATALOG NO.		DESCRIPTION	NET PRICE 1-19
Commercial	Military		
➧ S7	—	7 Pin Steel Cad. Plated	.05
S7.17	—	7 Pin Steel Cad. Iridited	.06
—	S7.22	7 Pin Brass Nickel Plated	.17
➧ S9	—	9 Pin Steel Cad. Plated	.05
S9.17	—	9 Pin Steel Cad. Iridited	.06
—	S9.22	9 Pin Brass Nickel Plated	.17

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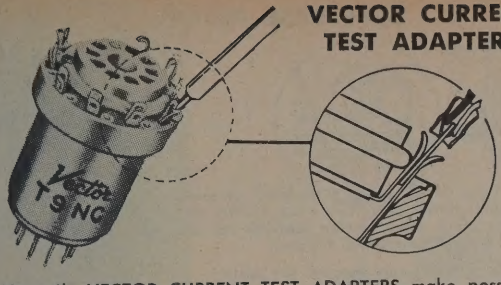
VECTOR CURRENT TEST ADAPTERS



Versatile VECTOR CURRENT TEST ADAPTERS make possible tube circuit current or votage measurements without cutting leads or making computations. All measurements may be made from the tube side of the electronic equipment without disturbing the chassis.

Cat. No.	Type	Net Price 1-19
T-7-M-C	7 Pin Min.	2.20
T-8-O-C	8 Pin Octal	2.45
T-9-N-C	9 Pin Noval	2.45
P-2	Dual Sided Plug-in Probe, Required for above	.75
T-789-C	Set of Above 3 Adapters with P-2 Probe in Case	8.40

SOCKET EXTENDERS

Socket extenders provide a replaceable unit for use in tube testers and expensive meters. Wear is shifted from the socket in the tester to the one in the extender so that when it is worn out a new one can be easily inserted. Sockets have beryllium copper silver plated contacts for long life. An all molded outside shell is used with socket leads soldered to plug pins. All units provided with 1¾" long screw to hold unit firmly in place if desired.

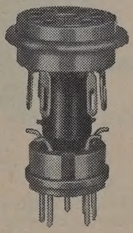
Vector
SOCKET EXTENDER
NO. 1262

1262

Cat. No.	Socket Type	Net Price 1-19
#1262	Octal 8	1.75
#1263	9 P. Noval	1.75
#1264	7 P. Miniature	1.75

SOCKET CHANGE ADAPTERS

SOCKET CHANGE ADAPTERS facilitate use of unlike tube bases in existing sockets where a change of tube types is required. To be wired by user. Add "S" to number for an outer shell which may be cemented in place.

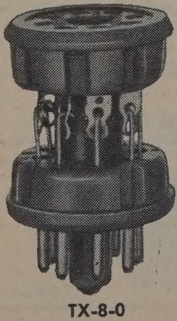


T97

Cat. No.	Socket	Plug	Net Price 1-19
T 780	7 P. Min.	Octal 8	1.05
T 79	7 P. Min.	9 P. Nov.	1.02
T 807	Octal 8	7 P. Min.	1.23
T 809	Octal 8	9 P. Nov.	1.23
T 97	9 P. Nov.	7 P. Min.	1.02
T 980	9 P. Nov.	Octal 8	1.05

EXPERIMENTER'S TEST ADAPTERS

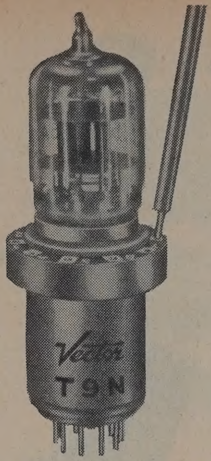
EXPERIMENTER'S TEST ADAPTERS. These are similar to the Socket Test Adapter but are less the shells and tabs so that connections can be cross-connected in any desired way. User must solder connections (Outer shells available at factory — add "S" to number to obtain).



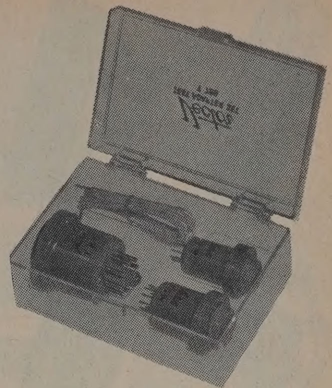
TX-8-0

Cat. No.	Socket Type	Net Price 1-19
TX-8-0	Octal	1.30
TX-7-M	Miniature	.80
TX-9-N	Noval	.85
TX-789	Set of above three in kit	3.25

TUBE SOCKET TEST ADAPTERS



T9N



T-789

TUBE SOCKET TEST ADAPTERS are ideal for making voltage resistance and wave form measurements from the tube side of electronic equipment. To use, insert adapter between tube and socket, and replace tube in adapter socket. Special test tabs are recessed on the adapter skirt and have a hole to grip test probe and protect operator's fingers during insertion and withdrawal. Regular alligator test-clipped probes also hold on tab and socket. Castings are low loss phenolic and fit all shield bases for miniature and noval type or into standard tube clamps. Reduced body diameter permits insertion into new telescoping shields. Adapter socket contacts are beryllium copper, silver plated for long life and low resistance. Electrostatic capacity between adacent leads of the adapter is approximately 1 micro-micro-farad. Flash over voltage between adjacent terminals is in excess of 1500 volts DC.

Adapters may be purchased separately or in kits. Kit T789 consists of the 3 popular "must have" sizes, 7-pin miniature, 8-pin octal, 9-pin noval plus a P1 probe packed into a handy clear plastic carrying case.

Kit T429 consists of 9 adapters as listed below packed in a sturdy plastic case and is a commercial equivalent of the well known Navy tube socket test adapter kit.

Cat. No.	Tube Type	Body Dia.	Skirt Dia.	Length Less Prongs	Price 1 - 19
T-4	4 Pin	1.26	1.56	1.50	2.76
T-5	5 Pin	1.26	1.56	1.50	2.82
T-6	6 Pin	1.26	1.56	1.50	2.89
T-7-O	7 Pin Small	1.26	1.56	1.50	2.95
T-7-L	7 Pin Large	1.45	1.75	1.50	2.95
T-7-M	7 Pin Min.	0.75	1.03	1.50	1.65
T-8-O	8 Pin Octal	1.25	1.56	1.50	1.60
T-8-L	8 Pin Loctal	1.26	1.56	1.50	3.95
T-9-N	9 Pin Noval	0.87	1.16	1.50	1.85
T-429	Set of above Nine types in case.				27.00
T-789	Set of types T-7-M, T-8-O, T-9-N, P1, in case.				5.90
P1	Plug-in Probe with 30" lead.				.39

Special Adapters Designed to Customer Specifications—Write Factory.

EXTENDED TUBE SOCKET TEST ADAPTERS

For most work the short, unshielded adapters are adequate. For hard to reach locations or where surrounding equipment restricts use of regular test adapters, the 3 to 4 inch extended adapter may be used. In these the leads between plug and socket are individually shielded to minimize coupling. The shield is brought out to a lug on the wall of the adapter and should be connected to the chassis being tested. Capacity to shield is approx. 8 mmf. per lead.

4
GND.
T7MS
Vector

T7MS

Cat. No.	Tube Type	Body Dia.	Skirt Dia.	Length Less Prongs	Price 1 - 19
T-7-M-S	7 Pin Min.	0.75	1.03	3.25	5.37
T-8-O-S	8 Pin Octal	1.25	1.56	4.00	5.05
T-9-N-S	9 Pin Noval	0.87	1.16	3.25	6.00
P1	Plug-in Probe with 30" lead				.39
T-789-S	Set of above in case				17.70

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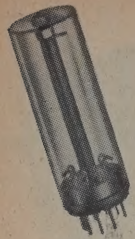
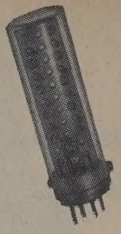
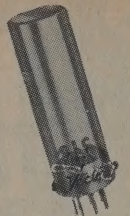
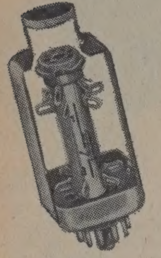
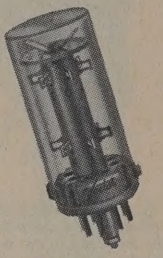
SMALL ROUND AND SQUARE PLUG INS

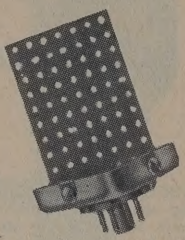

G2.1-8


G2.2-8-4


G2.2-8F


B-10-M


G2-10-T-1


C-12-K1.02 (with 511)

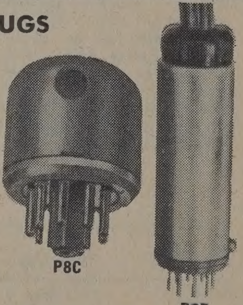
SMALL ROUND AND SQUARE PLUG-INS are ideal for packaging hand wired, printed, or solid state plug-in modules. Aluminum cases provide shielding and strength. Wide variety of internal structures eases circuit wiring. Plugs are standard tube base style with case sizes as follows: "B" type 8-pin Octal 1.42" square; "C" type 8-pin Octal 2" square; G2, 8-pin Octal 1¼" diameter; G2.1, 9-pin miniature ¾" diameter; G2.2, 7-pin miniature ⅝" diameter. Sockets in case top, when furnished, are mica-filled phenolic with brass cadmium plated contacts. Military type (premium grade) have "MIL" sockets with beryllium copper silver plated contacts. (Add "J" to catalog number for this).

Catalog Number	Type of Socket	Internal Structure	Height	Net Price 1-19
B-8	None	None	2"	.99
B-10	None	None	2½"	1.03
B-10-M	7-p. Min.	Turret	2½"	2.01
B-10-N	9-p. Nov.	Turret	2½"	2.05
B-10-T	None	Turret	2½"	1.73
B-10-4	None	Strip "A"	2½"	1.82
C-10	None	None	2½"	1.16
C-10-NN	9-p. Nov. (2)	Turret	2½"	3.01
C-12	None	None	3"	1.20
C-12K1.02	None	None	3"	.97
C-12-M	7-p. Min.	Turret	3"	2.24
C-12-N	9-p. Nov.	Turret	3"	2.27
C-12-NN	9-p. Nov. (2)	Turret	3"	3.04
511*	None	None	3"	.63
514*	None	None	3"	.83
C-12-T	None	Turret	3"	1.88
C-12-4	None	Strip "A"	3"	2.85
G2-10	None	None	2½"	1.05
G2-10-M	7-p. Min.	Post	2½"	1.66
G2-10-N	9-p. Nov.	Post	2½"	1.69
G2-10-T-1	None	Wafer	2½"	1.68
G2-10-4	None	Strip "D"	2½"	1.85
G2.1-8F	None	None	2"	1.35
G2.1-8N	9-p. Nov.	Post	2"	2.04
G2.1-8-4	None	Strip "G"	2"	1.90
G2.2-8F	None	None	2"	1.30
G2.2-8-M	7-p. Min.	Post	2"	1.93
G2.2-8-4	None	Strip "G"	2"	1.88

NOTE: *Indicates wall w/mtg. brackets attached for use in C-12-K1.02. 511 has holes per strip A — .093 holes spc. .265". 514 has 1/16" holes per strip G — 1/16" holes spaced .141 to fit JEDEC Transistor leads. Strip "D" has .093" holes spaced 0.2" x 0.25". "Wafer" is 1" diameter used on Transistor Turret 654.

CABLE CONNECTOR PLUGS

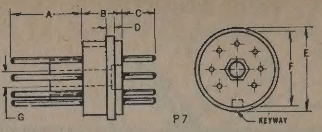
Used to permit plugging cables into 8-pin octal, 7 and 9-pin miniature tube sockets. Construction: P7C, P9C, Aluminum shells, side outlet with rubber grommet with ¼" hole, center screw thru length; P7D, P9D, Aluminum shells attached with side screws, end outlet furnished with Heyco strain relief grommet. P8C, PK1D snap-on Polyethylene case with ¼" diam. hole end or side.

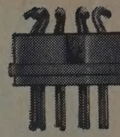

P8C

P9D

End Outlet Cat. No.	Side Outlet Cat. No.	Plug Style	Outside Diam.	Length Less Prongs	Net Price 1-19 End Outlet	Net Price 1-19 Side Outlet
P7D	P7C	7-p Min.	⅝"	2.2"	1.58	1.13
PK1D	P8C	8-p Oct.	1 17/64"	1¼"	.50	.50
P9D	P9C	9-p Min.	¾"	2.3"	1.67	1.26

TUBE BASE PLUGS




K1.434

Vector tube base plugs have Mica-filled phenolic castings and phosphor bronze cadmium plated pins. The wide variety of pin configurations on the top side of the plugs allow design features not possible with other types of plugs. Plugs may be mounted as follows:

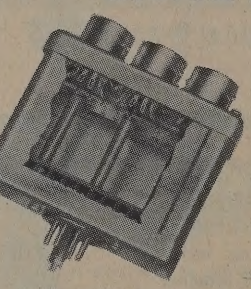
1. With a 4-40 or 5-40 screw through the center.
2. With a split retainer ring around plug, in a plate or chassis. Retainer rings are indicated by adding "R" after "K" or "P" in the catalog number.
3. With a stamped metal saddle B36-4 for 7-pin, B37-4 for 9-pin, B38-2 for 14-pin.
4. Round shells may be attached by screws and threaded 1/72 inserts in plug periphery, except plugs with a keyway. Add "F" after "K" or "P" in the catalog number. (See Plug-in Can Section for complete units).

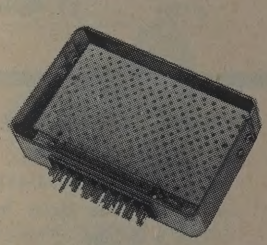
Cat. No.	Type	DIMENSIONS A	B	C	D	E	F	G	Net Price 1-19
P7	7-pin min.	17/32"	.300"	.265"	1/16"	.621	.568	.125	.47
P9	9-pin noval	17/32"	.300"	.265"	1/16"	.748	.700	.125	.52
P7A	7-pin min.	3/16"	.300"	.265"	1/16"	.621	.568	.125	.47
P9A	9-pin noval	3/16"	.300"	.265"	1/16"	.748	.700	.125	.52
*K1.302	(Same as P7 exc. no centerpost)								.47
*K1.402	(Same as P9 exc. no centerpost)								.52
K1.334	Min. hooked Pin	.150	.300"	.265"	1/16"	.621	.568	.125	.59
K1.434	Noval hooked pin	.162	.300"	.265"	1/16"	.748	.700	.125	.64
*P8L	Loctal	13/16"	7/16"	13/32"	100	1.17	1.00	.110	.95
K1.14	14 pin	17/32"	.300"	.265"	1/16"	.750	.700	None	.63

Add R after "P" or "K" for retainer ring. .45

*ADD $5.00 SET-UP CHARGE FOR ADDING "R"

MULTI-USE PLUG-IN-KIT:


TUBE SOCKET TYPE


TRANSISTOR TYPE

MULTI USE PLUG-IN KITS enable the user to readily wire and package a wide variety of circuits. Kits consist of an aluminum case with plug and accessories for mounting (a) Tube Sockets, or (b) Transistor type assemblies. For the tube circuits the Lip-Loc Case units (see left fig.) are used. These include the following parts: Mounted noval sockets, shield bases, 2 Zip wiring decks, and 11-pin Octal plug plus extra components as follows: equal number of 7-pin miniature sockets, shield bases and adapter mounting rings; plug buttons to close unused socket holes; one extra unpunched base with spacers and screws for mounting larger plugs such as the Amphenol Blue Line (not supplied in kit); one extra zip wiring deck. The extra components may be readily installed as required in place of the furnished items.

For transistor and printed circuit assemblies the Frame-Loc type case shown at the right above is used with furnished Elco Varicon 16-pin plug and optional perforated epoxy-paper center wall with 1/16" holes on alternate centers of a 0.1" grid. T28 Push-in Terminals supplied (not installed). Order Receptacle R1.72.

Material specifications are as follows: case, caustic etch on aluminum; sockets, mica-filled phenolic, commercial grade; terminal strips and spacers are phenolic for tube units and epoxy-paper for transistor units. Overall height of all units is 3".

Cat. No.	Sockets	Base Dimen.	Deck Spacing (2 Decks)	Number Terminals per Deck	Base Price 1-19
4-EK3	3N & 3M	1⅝" x 3⅞"	1 7/16	22	6.60
5-E2K3	4N & 4M	1.68" x 4.82"	1 7/16	30	7.20
6-E1K3	5N & 5M	1⅝" x 5⅞"	1 7/16	38	7.87
4-HK3	None	1" x 4"	1 Wall	—	6.84
5-HK3	None	1" x 5"	1 Wall	—	7.04
6-HK3	None	1" x 6"	1 Wall	—	7.54
R1.72	16 pins	1.19 Net any Quantity			

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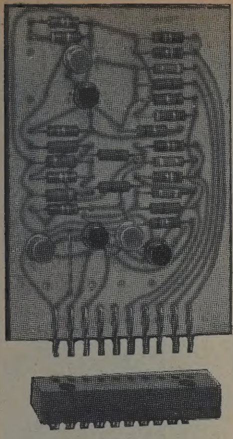
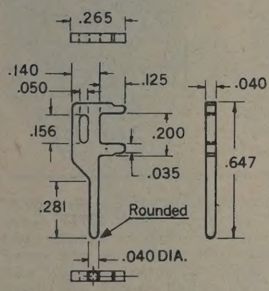
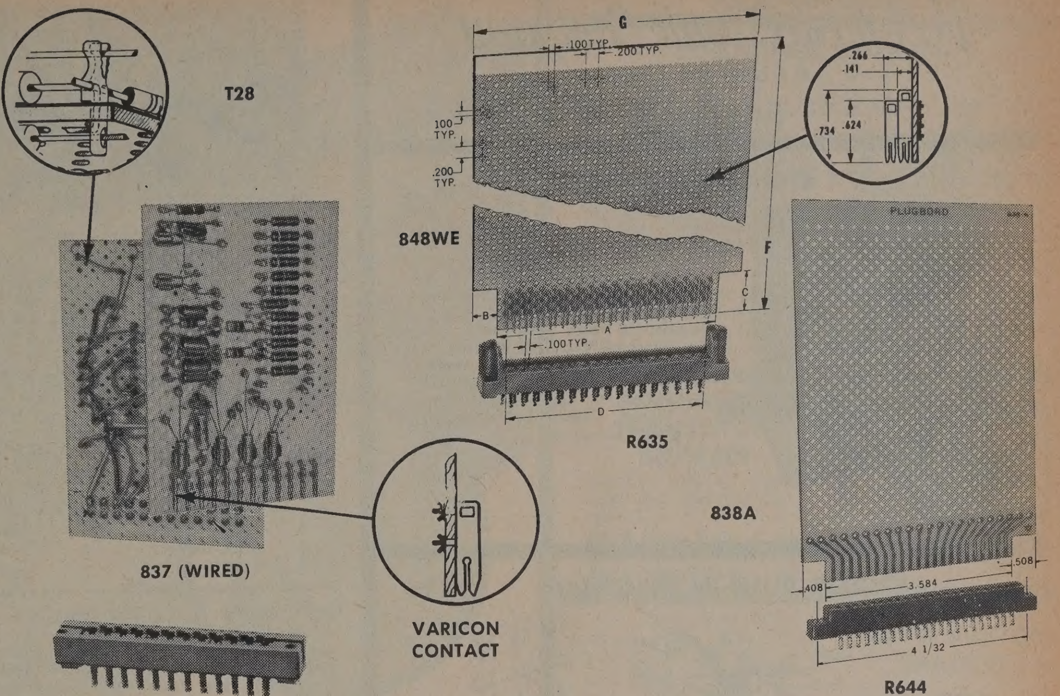
PLUGBOARDS



R315



EDGE PIN K23A



T28

837 (WIRED)

R612-1

VARICON CONTACT

848WE

R635

838A

R644

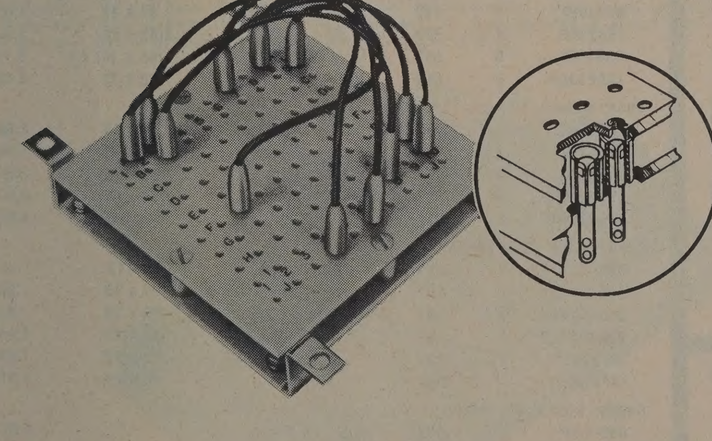
Use Plugboards with attached contacts for test circuits, P. C. prototypes and short runs. Precision pre-punched 1/16″ diameter holes on alternate 0.1″ centers permit maximum flexibility of component location. Vector T28 MINI-KLIPS, eyelets, or standard turned terminals may be located wherever desired. For maximum economy use epoxy paper boards; for military specification requirements or additional strength use epoxy glass. All Plugboards are 1/16″ thick and are available with Elco Varicon, 2 oz. copper etched or Vector Edge-pin contacts. Epoxy paper boards meet requirements MIL-P-22323 type PEE; Epoxy glass is G-10 grade per MIL-P-18177. Copper clad Epoxy paper meets MIL-P-13949 type PX, and copper-clad Epoxy glass meets MIL-P-13949B type FLGE-91.

Receptables listed are glass filled diallyl phthalate, except R315 which is mineral filled phenolic.

Edge-pins as used on 846 and 846A may be purchased separately for customer installation where only a small number of connector pins are required. Vector Edge-pins stake readily along the edge of a "G" pattern Vectorbord with hand tool P93.

Catalog No.	Description	Net Price 1-19
812	4½″ x 6½″ Epoxy Paper, 16 Varicon Contacts	2.73
812WE	4½″ x 6½″ Epoxy Glass, 16 Varicon Contacts	3.23
R616-1	Molded Receptable for 812, 812WE	2.38
837	3″ x 4½″ Epoxy Paper, 12 Varicon Contacts	2.13
837WE	3″ x 4½″ Epoxy Glass, 12 Varicon Contacts	2.36
R612-1	Molded Receptacle for 837, 837WE	1.64
838	4½″ x 6½″ Epoxy Paper, 43 Etched Contacts, 2 sides	3.34
838A	4½″ x 6½″ Epoxy Paper, 22 Etched Contacts, 1 side	2.57
838AWE	4½″ x 6½″ Epoxy Glass, 22 Etched Contacts, 1 side	3.19
838WE	4½″ x 6½″ Epoxy Glass, 43 Etched Contacts, 2 sides	3.92
R644	Receptacle for above (Fits all above etched boards)	2.62
846A	3″ x 4½″ Epoxy Paper, 10-Edge-pin Contacts	1.60
846AWE	3″ x 4½″ Epoxy Glass, 10 Edge-pin Contacts	2.15
R310	Receptable for 846A, 846AWE	1.75
848WE	4½″ x 6½″ Epoxy Glass, 35 Varcion Contacts	5.58
R635	Receptacle for 848WE	4.46
K23A-PKG L	Vector Edge-pins, Half Hard Brass, Gold Plt. (50)	1.00
P93	Installing Tool for Vector Edge-pins	Net 20.50

PATCH BOARDS



VECTOR PATCHBOARDS provide simple, but reliable low-cost units for multiple connection, single conductor patching on computers, test and central equipment. Holes are on .265″ centers. PB1010 and PB1010-1 are furnished in a 10 x 10 hole layout. PB1020-1 has two blocks of 10 x 10 holes on one panel, and PB1520-1 is arranged in one block of holes in a 15 hole by 20 hole layout in a single panel. Extremely low contact resistance (less than .001 ohms) and long contact life (over 2000 insertion per contact without resistance change) assures reliability. All boards are marked front and back with horizontal rows lettered alphabetically and vertical columns numbered. "Z" type brackets for flush mounting using pre-drilled mounting holes on back supplied. Special size patchboards to order.

Specifications:

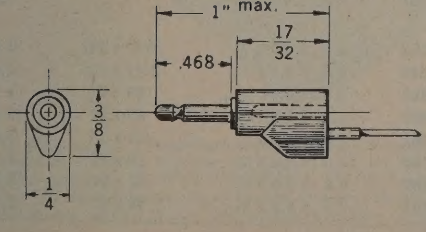
Panels: PB1010: Panels epoxy paper, ivory color, .093″ thick with printed black numbers and letters.

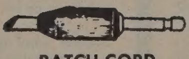
Other panels epoxy paper, .093″ thick, black, with white numbers and letters.

Contacts: Beryllium copper, nickel plated and gold flashed, 2 holes for soldering on leads.

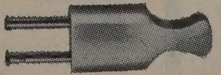
Patchcords: Plugs .087″ - .091″ diameter x .468″ long, nickel plated with standard #20 gage wire vinyl insulation. 6″ black, 9″ yellow, 15″ blue.

Dimensions: All boards 7/8″ thick. Outside dimensions PB1010 and PB1010-1, 3¼″ x 3¼″; PB1020-1, 3 17/64″ x 5 15/16; PB1520-1, 4.6″ x 6″.





PATCH CORD K2.06



JUMPER PLUG K2.02-1

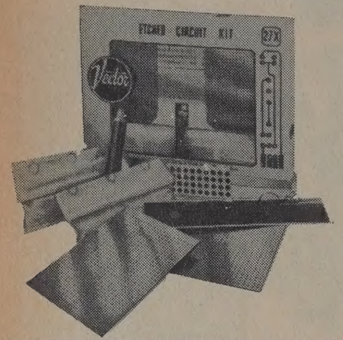
Cat. No.	Description	Net Price 1-19
PB1010	Patchboard 100 contacts, Ivory color 3¼″ x 3¼″	10.75
PB1010-1	Patchboard 100 contacts, Black color 3¼″ x 3¼″	10.85
PB1020-1	Patchboard 200 contacts, Black color 3¼″ x 5.9″	21.60
PB1520-1	Patchboard 300 contacts, Black color 4.5″ x 5.9″	32.35
K2.02-1	Jumper Plug — Jumper Type (25 per bundle)	2.50
K2.06	Patchcord Single contact ea. end 6″ (25 per bundle)	2.00
K2.09	Patchcord Single contact ea. end 9″ (25 per bundle)	2.25
K2.15	Patchcord Single contact ea. end 15″ (25 per bundle)	2.50
K9.06	Patchcord Piggy-back each end 6″	1.05 ea.
K9.09	Patchcord Piggy-back each end 9″	1.05 ea.
K9.15	Patchcord Piggy-back each end 15″	1.05 ea.

PATCHCORD PRICES ARE NET ANY QUANTITY.

Vector Electronic Company

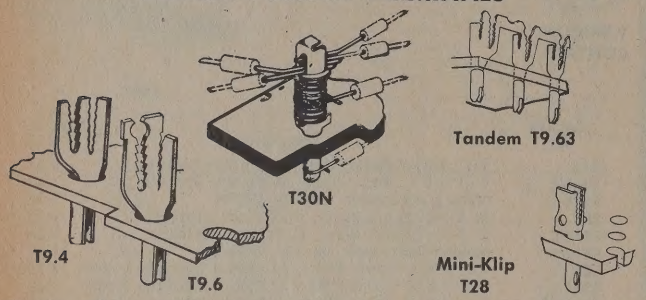
INCORPORATED
GLENDALE, CALIFORNIA

27X ETCHED CIRCUIT KIT



Etched Circuits in Minutes. All you need add is hot water. Complete with 2—4½" x 6½" copper clad one side pre-punched Vectorbords, etch resist tape strips and circles, etch ball pen, dry chemical etchant in heavy plastic bag, layout paper; instructions, $5.95 complete.

VECTOR PUSH-IN TERMINALS

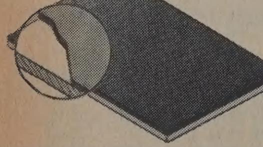


VECTOR PUSH-IN TERMINALS simplify "breadboarding" and production. Push them into .062" or .093" holes in 1/16" or 3/32" Vectorbord panels and they hold without staking. (May be staked by clipping off flush with board surface or flattening with a pair of pliers for maximum holding, if desired). All terminals except T9.4A have serrated slots to grip inserted wires. Large slot accommodates most resistor and capacitor wires. Small slot hold transistor leads. The T9.4A is supplied without "teeth" on the wire slots to permit easy removal of leads when soldered components must be changed. The T9.6 has a special "snap-in" slot to accommodate .075-.080 diode leads. All types have thru hole construction enabling riser wires to be inserted down through center of terminal, and slot or hole in shank for additional connections.

SOLDERLESS SPRINGCLIP TERMINALS—Reliable truly solderless terminals for fast setup of experimental circuitry. May be used over and over—permits reusing expensive components by eliminating heat damage. Extremely low contact resistance—less than .002 ohms for T30. Order insertion tool P-92A for easy insertion in .093" holes. Suggested board thickness 3/32" for best support of terminal.

Cat. No.	Fits Holes	Description	Quantity Per Bag	Net Price 1-19 Bags	Bulk Price 1M-4999
T9.4	.093"	Brass, Fused Tin Pltg.	100	$1.25	$ 8.90/M
T9.4A	.093"	Brass, Fused Tin Pltg.	100	1.25	8.90/M
T28	.062"	Beryllium Copper, Fused Tin Pltg.	100	1.55	11.00/M
P91		Inserting Tool for T28	1	.50	
T30	.093"	Brass, Silver Pltg.	10	1.20	
T30	.093"	Brass, Silver Pltg.	100	8.95	63.93/M
T30N	.093"	Brass, Nickel Pltg.	10	1.15	
T30N	.093"	Brass, Nickel Pltg.	100	8.45	58.90/M
P92C		Inserting-Spring Depressing Tool for T30 and T30N	1	.50	
T9.62	.093"	Two T9.6 in Tandem	25	1.22	
T9.63	.093"	Three T9.6 in Tandem	25	1.75	
T9.64	.093"	Four T9.6 in Tandem	25	2.27	

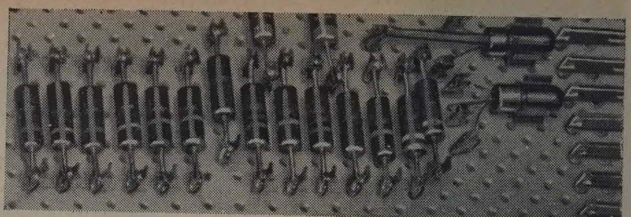
COPPER CLAD PLASTIC SHEETS

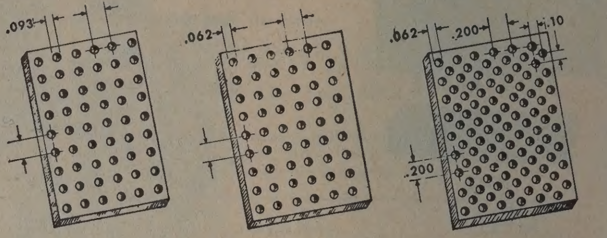


1/16" copper clad unperforated. For making etched circuits, shielding. 2 oz. (.003") clad one or two sides XXXP per MIL-P-13949 Type PP and G-10 epoxy glass per MIL-P-13949B Type FL-GE.

Description	Cat. No. Clad 1 side	Price 1-19	Cat. No. Clad 2 sides	Price 1-19
4½" x 3" XXXP Phenolic	CU 453-1	.30	CU 453-2	.40
6½" x 4½" XXXP Phenolic	CU 6545-1	.55	CU 6545-2	.77
8½" x 4½" XXXP Phenolic	CU 8545-1	.70	CU 8545-2	.98
4½" x 3" Epoxy Glass	CU 453WE-1	.69	CU 453WE-2	.77
6½" x 4½" Epoxy Glass	CU 6545WE-1	1.34	CU 6545WE-2	1.52
8½" x 4½" Epoxy Glass	CU 8545WE-1	1.71	CU 8545WE-2	1.95

VECTORBORD





Pattern	Spacing	Pattern	Spacing	Pattern	Spacing
A	.265 Centers	B	.188 Centers	H	.100 Centers
C	.200 Centers	E	.141 Centers	G	.20 x .10
D	.20 x .25	F	.200 Centers		

VECTORBORD (Pre-Punched Terminal Board) has precision pre-punched .093" or .062" holes at various spacings on tan XXXP Phenolic (MIL-P-18177) ivory epoxy paper (MIL-P-22324), G-10 Epoxy Glass (MIL-P-1877) or Copper clad epoxy glass type FLGE-91 (MIL-P-13949-B). Ideal for prototypes and many production uses. Vector Push-in Terminals or standard turned terminals and eyelets fit pre-punched holes. User can make own etched circuits with listed copper clad boards. May be sawed, drilled, or punched.

VECTORBORD TABLE OF SIZES

Cat. No.	Pattern	Hole Size	Dimensions	No. of Holes	Price 1-19
XXXP Phenolic					
18A18	A	.093	4.80 x 4.80 x 1/16	18 x 18	$ .43
32A9	A	.093	8.51 x 2.41 x 1/16	32 x 9	.45
32AA18	A	.093	8.51 x 4.80 x 3/32	32 x 18	.84
64A18	A	.093	4.8 x 16.99 x 1/16	64 x 18	1.25
64AA18	A	.093	4.8 x 16.99 x 3/32	64 x 18	1.60
64AA32	A	.093	16.99 x 8.51 x 3/32	64 x 32	2.45
45B30	B	.062	8.51 x 5.69 x 1/16	45 x 30	.84
90B30	B	.062	16.97 x 5.69 x 1/16	90 x 30	1.62
85C24	C	.093	16.99 x 4.80 x 1/16	85 x 23	1.41
95G175	G	.062	35.00 x 19.00 x 1/16	(94 x 175) x 2	7.62
Epoxy Paper					
32AA18EP	A	.093	8.51 x 4.80 x 3/32	32 x 18	1.40
64AA18EP	A	.093	16.99 x 4.80 x 3/32	64 x 18	2.73
64AA32EP	A	.093	16.99 x 8.51 x 3/32	64 x 32	4.39
85F24EP	F	.062	16.99 x 4.80 x 1/16	85 x 23	2.06
85G24EP	G	.062	16.99 x 4.80 x 1/16	2(85 x 23)	2.06
85G42EP	G	.062	16.99 x 8.5 x 1/16	(85 x 42) x 2	3.17
120E33EP	E	.062	16.99 x 4 13/16 x 1/16	120 x 33	2.23
Epoxy Glass					
32A18WE	A	.093	8.51 x 4.80 x 1/16	32 x 18	1.89
42G24WE	G	.062	8.5 x 4.80 x 1/16	2(42 x 24)	1.94
85G24WE	G	.062	16.99 x 4.80 x 1/16	2(85 x 23)	3.81
170H48WE	H	.062	17.00 x 4.80 x 1/16	170 x 47	4.07
120E33WE	E	.062	16.99 x 4 13/16 x 1/16	120 x 33	3.99
Copper Clad XXXP Phenolic					
849-1-XXXP*	F	.062	3 x 4½	22 x 15	.45
849-2-XXXP**	F	.062	3 x 4½	22 x 15	.55
850-1-XXXP*	F	.062	4½ x 6½	32 x 22	.84
850-2-XXXP**	F	.062	4½ x 6½	32 x 22	1.04
42F22C1*	F	.062	4.5 x 8.5	42 x 22	1.05
42F22C2**	F	.062	4.5 x 8.5	42 x 22	1.32
Copper Clad Epoxy Paper					
850-1-EP*	F	.062	4.5 x 6.5 x 1/16		1.39
850-2-EP**	F	.062	4.5 x 6.5 x 1/16		1.67
Copper Clad Epoxy Glass					
42G22WEC1*	G	.062	8.5 x 4.5 x 1/16	2(42 x 22)	2.55
42G22WEC2**	G	.062	8.5 x 4.5 x 1/16	2(42 x 22)	2.60
85F42WEC1*	F	.062	16.99 x 8.51 x 1/16	85 x 42	8.33
85F42WEC2**	F	.062	16.99 x 8.51 x 1/16	85 x 42	10.25
849-1*	F	.062	3.0 x 4.5 x 1/16	22 x 15	1.01
849-2**	F	.062	3.0 x 4.5 x 1/16	22 x 15	1.10
850-1*	F	.062	4.5 x 6.5 x 1/16	32 x 22	2.03
850-2**	F	.062	4.5 x 6.5 x 1/16	32 x 22	2.21

*Indicates 2 oz. Copper Clad 1 Side
**Indicates 2 oz. Copper Clad 2 Sides

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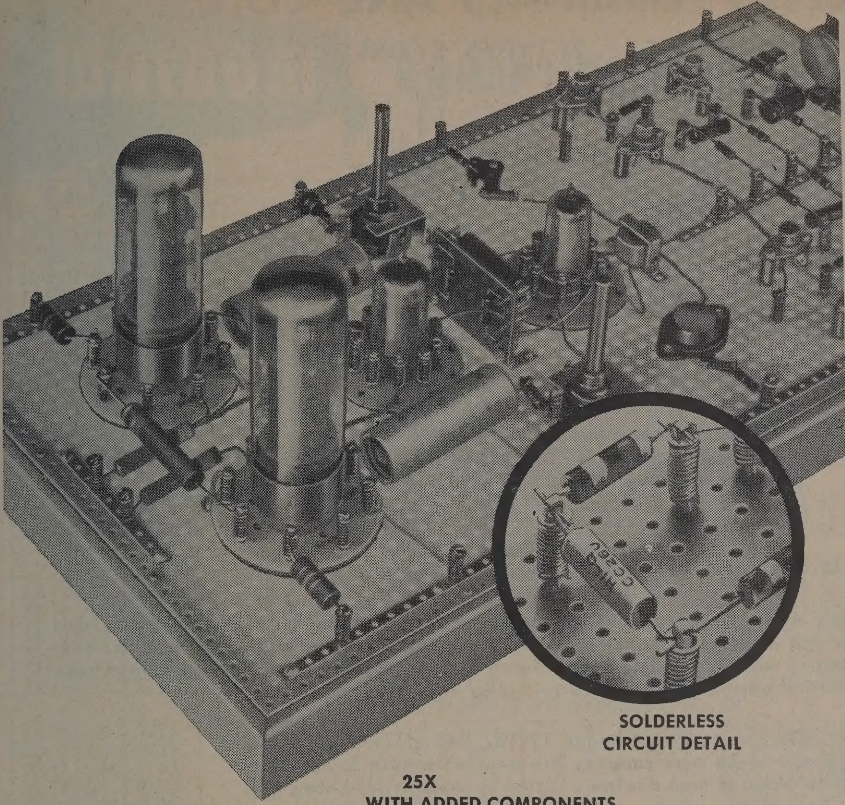
EXPERIMENTER'S CIRCUIT SET-UP KITS



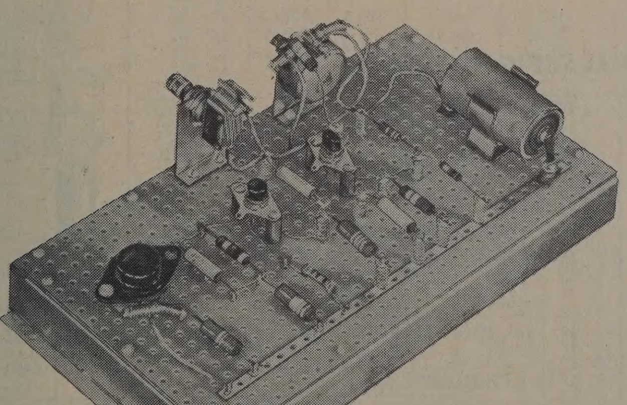
25X
WITH ADDED COMPONENTS

All Kits are provided with supporting side rails (Aluminum in 20X, 21X, and 22X; wood in 25X). The 20X is a starter assortment, 21X a larger size with more components, 22X is for transistor experimentation, and 25X is the largest and designed for solderless circuit set ups with tubes or transistors. Detailed contents as follows:

20X 4¹³⁄₁₆″ x 8½″ Vectorbord deck, 8 tube sockets (3-7 pin, 3-9 pin, 2-8 octal); 75-T9.4 push-in terminals; 20 T30N SOLDERLESS SPRINGCLIPS, 10 springclips for pot lugs, 2 pieces bus strip; terminal installation tool; 2 sheets grid layout paper; 66 miscellaneous screws, spacers for set up; 2 pot and switch brackets, $6.25.

21X 4¹³⁄₁₆″ x 17″ Vectorbord deck, 2 pieces Vectorbord as follows: 1-5AA5, 1-32AA7; Sockets as follows: Tube type: 3-7 pin, 3-9 pin, 2-8 pin octal; transistor: 6 Universal type; terminals: 10-T9.6 push-in, 4-T9.62 tandem, 100-T9.4 push-in, 50 T30N SOLDERLESS SPRINGCLIPS, 15 springclips for pot lugs; 3 pieces bus strip; 170 miscellaneous screws, nuts, spacers; terminal installation tool, 70′ hookup wire; 6 sheets grid layout paper, 4 pot and switch brackets; 14 miscellaneous mounting brackets, $15.25.

25X 8½″ x 17″ Vectorbord deck, 2 pieces Vectorbord as follows: 1-15AA5, 1-32AA7, transistor sockets as follows: 2 power transistor sockets, 4 Universal; tube sockets: 3-7 pin, 3-9 pin, 2-8 pin; terminals: 10-T9.6 push-in, 4-T9.62 tandem, 100-T9.4, 100-T30N SOLDERLESS SPRINGCLIPS, 15 springclips for pot lugs; 3 pieces bus strip, 160 miscellaneous screws, nuts, spacers, 8 wafers to make solderless sockets; terminal installation tool, 70′ hookup wire, 6 sheets grid layout paper, 4 pot and switch brackets; 8 miscellaneous brackets, $19.50.

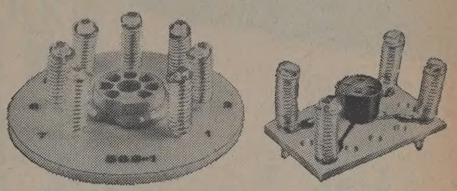


22X
WITH ADDED COMPONENTS

22X 4¹³⁄₁₆″ x 8½″ Vectorbord deck; 2 pieces Vectorbord as follows: 1-15AA5, 1-32AA7; transistor sockets as follows: 3 power, 4 Universal, 2 tetrode; terminals: 10-T9.6 push-in, 2-T9.62 tandem, 75-T9.4 push-in; 20 T30N SOLDERLESS SPRINGCLIPS, 10 springclips for pot lugs; 3 pieces bus strip; 102 miscellaneous screws, nuts, spacers; terminal installation tool; 70′ hookup wire; 6 sheets grid layout paper; 4 pot and switch brackets; 8 miscellaneous brackets; $10.50.

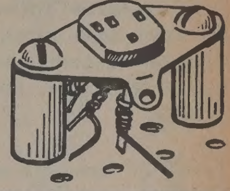
ACCESSORIES

SOLDERLESS SOCKETS



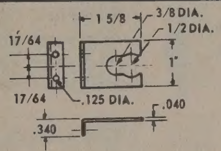
567-1C	Solderless Octal Socket	1.50 ea.
568-1C	Solderless Noval (9 pin) Socket	1.65 ea.
569-1C	Solderless Miniature (7 pin) Socket	1.35 ea.
570-B	Solderless Universal Transistor Socket	1.20 ea.

SOLDERLESS TRANSISTOR SOCKETS



Supplied with 4″ pigtail leads and mounting hardware.

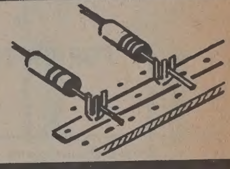
RA2.4	Power Trans.	.50
RA4.4	Universal Trans.	.62
RA9.4	Tetrode Tans.	.64



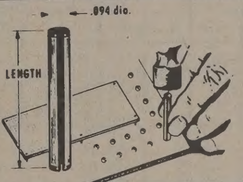
POT & SWITCH BRACKET

B20 Bracket
Pkg. of 4 $.44

BUS STRIP



T-57—PKG X 16″ long .95
T-58—PKG X 8″ long .65
Pkg. of 10

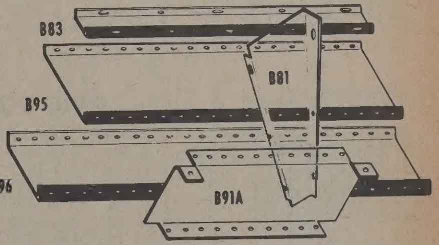


DRIVE PIN CHASSIS LEGS

Pkg. of 25

1111-40	.094″ Dia. x 1″ long	.53
1110-49	.063″ Dia. x ¾″ long	.53

CHASSIS SUPPORTS



Heavy 0.040″ aluminum in 1″ & 2¼″ heights. Punched holes along top surface accept #4 self tap screws in A or AA pattern VECTORBORD.

Cat. No.	Description (Alum. Channel)	L. H.	Price 1-19
B81	Z Type End piece	4¾″ x 1″	.38 ea.
B83	U Type Side rail	8½″ x 1″	.43 ea.
B91A	Z Type End piece	4¾″ x 2¼″	.45 ea.
B95	U Type Side rail	8½″ x 2¼″	.51 ea.
B96	U Type Side rail	17″ x 2¼″	.60 ea.

GRID PAPER

Tracing paper printed with dot pattern corresponding to Vectorbord patterns A (.093 holes on .265 grid) or "G" (.062 holes on staggered 0.1 grid). Speeds circuit construction by facilitating optimum arrangement of components. Paper, when laid on Vectorbord can serve as layout or checking template. Printed dots "WASH OUT" on reproduced copies supplied in pads of 50 sheets per pad.

R173A	(A pattern) 8½″ x 11″ sheets	$1.45/pad
R173A-1	(A pattern) 8½″ x 17″ sheets	2.50/pad
R173F	(F pattern) 8½″ x 11″ sheets	1.45/pad
R173G	(G pattern) 8½″ x 11″ sheets	1.45/pad

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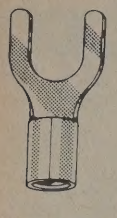
Net

WALDOM

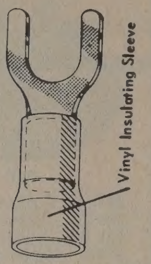
SOLDERLESS TERMINALS AND CONNECTORS

COMPLETE LINE . . . 21 TYPES, 5 CONSTRUCTION STYLES



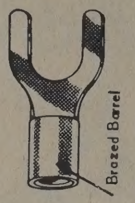
KRIMPTITE ®

Basic non-insulated electro-tin plated copper terminal. One-piece construction for maximum strength and conductivity.



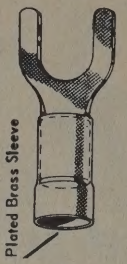
INSULKRIMP ®

All advanced features of KRIMPTITE, plus permantly attached rigid vinyl plastic insulating sleeve for increased vibration resistance.



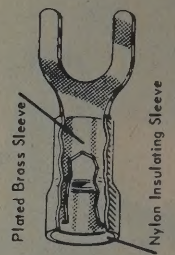
VERSAKRIMP ®

Advantageous features of KRIMPTITE plus the higher tensile strength afforded by BRAZED BARREL construction.



VIBRAKRIMP ®

Particularly suitable where high vibration is a factor. KRIMPTITE construction plus seamless annealed electro-tin plated brass sleeve.



AVIKRIMP ®

All VIBRAKRIMP features, tin-plated brass sleeve plus permanently attached overlapping nylon insulating sleeve.

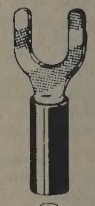
Insulated terminals color coded: 22-18 Red, 16-14 Blue, 12-10 Yellow, 8 Red, 6 Blue

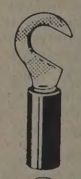
BASIC TERMINAL CONSTRUCTION DETAILS

Material: Annealed electrolytic copper, electro-tin finish. Modern one-piece design for maximum strength and conductivity. With strength gusset, open end rapid inspection, beveled edge to facilitate wire insertion. Circumferential serrations for maximum contact area and grip. Full 1/4 inch barrel length, wide crimping area, easy location.

Wire ranges 22-18, .032 stock. Wire Ranges 12-10, ,040 stock. Terminals Terminals in 22-18 and 16-14 wire ranges. Are available with 5/32" barrel by adding "S" to front of part desired. Listed by Underwriter Labs., Inc.

FOR CRITICAL APPLICATIONS – VERSAKRIMP® AND AVIKRIMP® TERMINALS


A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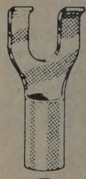
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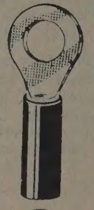
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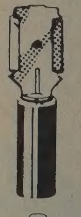
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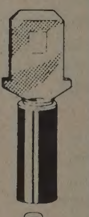
F

SPADE TONGUE TERMINALS (FIG. A)

Basic Dimensions				Versakrimp®					Avikrimp®				
Wire Range	Stud Size	Width	Stud Clearance	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-18	5-6	1/4"	7/32"	5/8"	B-3118	3.18	25.44	19.08	13/16"	N-5118	6.55	53.19	39.91
22-18	10	5/16"	5/16"	3/4"	B-3032	3.18	25.44	19.08	15/16"	N-5032	6.55	53.19	39.91
16-14	5-6	1/4"	7/32"	5/8"	B-3123	3.18	25.44	19.08	13/16"	SN-5123	6.55	53.19	39.91
16-14	10	23/64"	9/32"	3/4"	B-3016	3.18	25.44	19.08	15/16"	SN-5016	6.55	53.19	39.91

FLANGED SPADE TERMINALS (FIG. C)

22-18	5-6	19/64"	7/32"	5/8"	B-3080	3.18	25.44	19.08	13/16"	N-5080	6.55	53.19	39.91

RING TONGUE TERMINALS (FIG. D)

22-18	1-2	7/32"	5/32"	33/64"	B-3099	3.18	25.44	19.08	45/64"	N-5099	6.55	53.19	39.91
22-18	3-4	7/32"	5/32"	33/64"	B-3047	3.18	25.44	19.08	45/64"	N-5047	6.55	53.19	39.91
22-18	5-6	7/32"	5/32"	33/64"	B-3001	3.18	25.44	19.08	45/64"	N-5001	6.55	53.19	39.91
22-18	8	9/32"	1/4"	41/64"	B-3097	3.18	25.44	19.08	53/64"	N-5097	6.55	53.19	39.91
22-18	10	9/32"	1/4"	41/64"	B-3098	3.18	25.44	19.08	53/64"	N-5098	6.55	53.19	39.91
22-18	1/4	15/32"	.400"	57/64"	B-3004	4.43	35.59	26.68	1-5/64"	N-5004	8.20	65.61	49.22
16-14	3-4	11/32"	5/16"	47/64"	B-3095	3.18	25.44	19.08	59/64"	N-5095	6.55	53.19	39.91
16-14	5-6	1/4"	7/32"	19/32"	B-3006	3.18	25.44	19.08	45/64"	SN-5006	6.55	53.19	39.91
16-14	10	5/16"	9/32"	45/64"	B-3008	3.18	25.44	19.08	13/16"	SN-5008	6.55	53.19	39.91
16-14	1/4	15/32"	.400"	57/64"	B-3009	4.43	35.59	26.68	1"	SN-5009	8.20	65.61	49.22
12-10	10	3/8"	5/16"	3/4"	B-3011	4.43	35.59	26.68	1-3/64"	N-5011	8.20	65.61	49.22
12-10	1/4	17/32"	13/32"	59/64"	B-3100	5.12	40.94	30.71	59/64"	N-5100	8.38	66.99	50.26
8	10	15/32"	11/32"	61/64"	B-3202	6.99	61.41	52.64					
8	1/4	15/32"	11/32"	61/64"	B-3203	6.99	61.41	52.64					
8	3/8	19/32"	13/32"	1-5/64"	B-3208	9.33	81.63	69.97					
6	10	5/8"	1/2"	1-1/4"	B-3228	10.81	94.58	81.07					
6	1/4	5/8"	1/2"	1-1/4"	B-3229	10.81	94.58	81.07					
6	3/8	5/8"	1/2"	1-1/4"	B-3231	10.81	94.58	81.07					
4	10	21/32"	1/2"	1-5/16"	B-3251	15.50	135.64	116.27					
4	1/4	21/32"	1/2"	1-5/16"	B-3252	15.50	135.64	116.27					
4	3/8	21/32"	1/2"	1-5/16"	B-3254	15.50	135.64	116.27					
2	1/4	5/8"	43/64"	1-17/32"	B-3281	20.76	181.69	155.74					
1/0	1/4	13/16"	5/8"	1-59/64"	B-3307	25.81	226,77	194.37					
2/0	1/4	29/32"	5/8"	1-15/16"	B-3322	32.92	289.24	247.92					

HIGH TEMPERATURE TERMINALS - RING TONGUE

Wire Range	Stud Size	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-16	5-6	S-1165	1.88	15.02	11.27
22-16	8	S-1167	1.88	15.02	11.27
22-16	10	S-1168	1.88	15.02	11.27
16-14	5-6	S-1170	2.08	16.62	12.47
16-14	8	S-1172	2.08	16.62	12.47
16-14	10	S-1173	2.08	16.62	12.47
12-10	10	S-1177	2.77	22.14	16.61

Only a partial listing of more than 2000 items in the WALDOM line of solderless terminals and connectors. Includes many more sizes and types, including Heavy Duty, Flared Insulation, Military Types, Terminal Block Terminals, Flag Terminals, insulation sleeve and many more. Write for WALDOM CATALOG #6E2.

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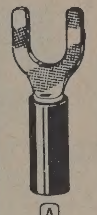
WALDOM KRIMPTITE® AND INSULKRIMP® TERMINALS

SPADE TONGUE TERMINALS (FIG. A)

Basic Dimensions				Krimptite®					Insulkrimp®				
Wire Range	Stud Size	Width	Stud Clearance	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-18	3-4	1/4"	7/32"	5/8"	S-1116	1.83	14.64	10.98	13/16"	T-2116	4.06	32.48	24.36
22-18	5-6	1/4"	7/32"	5/8"	S-1118	1.83	14.64	10.98	13/16"	T-2118	4.06	32.48	24.36
22-18	5-6	19/64"	7/32"	5/8"	S-1014	1.83	14.64	10.98	13/16"	T-2014	4.06	32.48	24.36
22-18	5-6	5/16"	5/16"	3/4"	S-1029	1.83	14.64	10.98	15/16"	T-2029	4.06	32.48	24.36
22-18	8	19/64"	7/32"	5/8"	S-1030	1.83	14.64	10.98	13/16"	T-2030	4.06	32.48	24.36
22-18	8	5/16"	5/16"	3/4"	S-1031	1.83	14.64	10.98	15/16"	T-2031	4.06	32.48	24.36
22-18	10	5/16"	5/16"	3/4"	S-1032	1.83	14.64	10.98	15/16"	T-2032	4.06	32.48	24.36
16-14	5-6	19/64"	7/32"	5/8"	S-1015*	1.83	14.64	10.98	13/16"	T-2015†	4.06	32.48	24.36
16-14	8	19/64"	7/32"	5/8"	S-1033	1.83	14.64	10.98	13/16"	T-2033	4.06	32.48	24.36
16-14	10	23/64"	9/32"	3/4"	S-1016*	1.83	14.64	10.98	15/16"	T-2016†	4.06	32.48	24.36
12-10	10	3/8"	5/16"	25/32"	S-1017	2.69	21.52	16.14	1-3/32"	T-2017	5.26	42.05	31.54
HOOK TONGUE TERMINALS (FIG. B)													
22-18	5-6	5/16"	5/16"	23/32"	S-1018*	.1.83	14.64	10.98	29/32"	T-2018	4.06	32.48	24.36
16-14	5-6	23/64"	9/32"	23/32"	S-1038	1.83	14.64	10.98	29/32"	T-2038	4.06	32.48	24.36
FLANGED SPADE TERMINALS (FIG. C)													
22-18	5-6	19/64"	7/32"	5/8"	S-1080*	1.83	14.64	10.98	13/16"	T-2080†	4.06	32.48	24.36
22-18	8	19/64"	7/32"	5/8"	S-1081	1.83	14.64	10.98	13/16"	T-2081	4.06	32.48	24.36
22-18	10	3/8"	1/4"	23/32"	S-1082"	1.83	14.64	10.98	29/32"	T-2082	4.06	32.48	24.36
16-14	5-6	19/64"	7/32"	5/8"	S-1083	1.83	14.64	10.98	13/16"	T-2083	4.06	32.48	24.36
16-14	8	19/64"	7/32"	5/8"	S-1084	1.83	14.64	10.98	13/16"	T-2084	4.06	32.48	24.36
16-14	10	3/8"	1/4"	23/32"	S-1085	1.83	14.64	10.98	29/32"	T-2085	4.06	32.48	24.36
12-10	10	3/8"	5/16"	3/4"	S-1088	2.69	21.52	16.14	1-1/16"	T-2088	5.26	42.05	31.54
RING TONGUE TERMINALS (FIG. D)													
22-18	1-2	7/32"	5/32"	33/64"	S-1099	1.83	14.64	10.98	45/64"	T-2099	4.06	32.48	24.36
22-18	3-4	7/32"	5/32"	33/64"	S-1047	1.83	14.64	10.98	45/64"	T-2047	4.06	32.48	24.36
22-18	5-6	7/32"	5/32"	33/64"	S-1001	1.83	14.64	10.98	45/64"	T-2001	4.06	32.48	24.36
22-18	5-6	9/32"	1/4"	41/64"	S-1002*	1.83	14.64	10.98	53/64"	T-2002†	4.06	32.48	24.36
22-18	8	9/32"	1/4"	41/64"	S-1097	1.83	14.64	10.98	53/64"	T-2097	4.06	32.48	24.36
22-18	8	5/16"	5/16"	23/32"	S-1021	1.83	14.64	10.98	29/32"	T-2021	4.06	32.48	24.36
22-18	10	9/32"	1/4"	41/64"	S-1098	1.83	14.64	10.98	53/64"	T-2098	4.06	32.48	24.36
22-18	10	5/16"	5/16"	23/32"	S-1003*	1.83	14.64	10.98	23/32"	T-2003†	4.06	32.48	24.36
22-18	1/4	15/32"	.400"	57/64"	S-1004	2.69	21.52	16.14	1-5/64"	T-2004	5.26	42.05	31.54
22-18	5/16	15/32"	.400"	57/64"	S-1005	2.69	21.52	16.14	1-5/64"	T-2005	5.26	42.05	31.54
22-18	3/8	9/16"	9/16"	1-7/64"	S-1143	3.28	26.24	19.68	1-19/64"	T-2143	5.26	42.05	31.54
16-14	3-4	1/4"	7/32"	19/32"	S-1048	1.83	14.64	10.98	25/32"	T-2048	4.06	32.48	24.36
16-14	3-4	11/32"	5/16"	47/64"	S-1095	1.83	14.64	10.98	59/64"	T-2095	4.06	32.48	24.36
16-14	5-6	1/4"	7/32"	19/32"	S-1006*	1.83	14.64	10.98	25/32"	T-2006†	4.06	32.48	24.36
16-14	5-6	5/16"	9/32"	45/64"	S-1007	1.83	14.64	10.98	57/64"	T-2007	4.06	32.48	24.36
16-14	8	5/16"	9/32"	45/64"	S-1024	1.83	14.64	10.98	57/64"	T-2024	4.06	32.48	24.36
16-14	10	5/16"	9/32"	45/64"	S-1008*	1.83	14.64	10.98	57/64"	T-2008†	4.06	32.48	24.36
16-14	1/4	15/32"	.400"	57/64"	S-1009	2.69	21.52	16.14	1-5/64"	T-2009	5.26	42.05	31.54
16-14	5/16	15/32"	.400"	57/64"	S-1041	2.69	21.52	16.14	1-5/64"	T-2041	5.26	42.05	31.54
16-14	3/8	9/16"	9/16"	1-7/64"	S-1147	3.28	26.24	19.68	1-19/64"	T-2147	5.26	42.05	31.54
12-10	5-6	3/8"	5/16"	3/4"	S-1049	2.69	21.52	16.14	1-1/16"	T-2049	5.26	42.05	31.54
12-10	8	3/8"	5/16"	3/4"	S-1050	2.69	21.52	16.14	1-1/16"	T-2050	5.26	42.05	31.54
12-10	10	3/8"	5/16"	3/4"	S-1011*	2.69	21.52	16.14	1-1/16"	T-2011†	5.26	42.05	31.54
12-10	1/4	17/32"	13/32"	59/64"	S-1100	3.49	27.92	20.94	1-15/64"	T-2100	5.57	44.58	33.44
12-10	5/16	17/32"	13/32"	59/64"	S-1101	3.49	27.92	20.94	1-15/64"	T-2101	5.57	44.58	33.44
12-10	3/8	19/32"	31/64"	1-1/32"	S-1013	3.84	30.72	23.04	1-11/32"	T-2013	6.19	49.48	37.11
QUICK DISCONNECTS - PUSH-ON TYPE (FIG. E & F)													
				Length									
18-14	Male .250"			21/32	S-1089*	2.05	16.40	12.30	27/32	T-2089†	4.36	34.85	26.14
18-14	Female .250"			41/64	SS-1090†	2.05	16.40	12.30	27/32	ST-2090†	4.36	34.85	26.14
18-14	Female .187"			17/32	SS-1187	2.05	16.40	12.30	47/64	ST-2187	4.36	34.85	26.14
18-14	Female .110-.125"			29/64	SS-1186	2.05	16.40	12.30	21/32	ST-2186	4.36	34.85	26.14
SNAP PLUG & RECEPTACLE													
16-14	Snap Plug			19/32	S-1055	1.74	13.92	10.44	27/32	T-2055	4.06	32.48	24.36
16-14	Plug Receptacle			1-3/8	PR-1426	6.52	52.16	39.12					
BUTT CONNECTORS (FIG. G)													
22-18				9/16	S-1019*	2.04	16.32	12.24	15/16	T-2019†	4.80	38.38	28.78
16-14				9/16	S-1020	2.04	16.32	12.24	15/16	T-2020	4.80	38.38	28.78
12-10				9/16	S-1046	3.66	29.28	21.96	1-1/16	T-2046	6.55	52.39	39.30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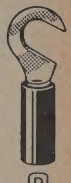
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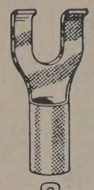
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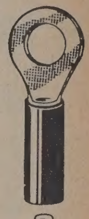
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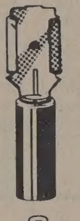
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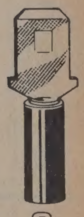
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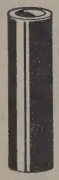
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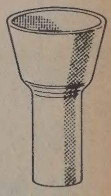
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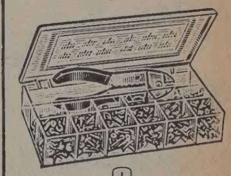
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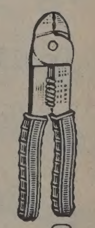

(J)

NYLON INSULATED CLOSED END CONNECTORS (FIG. H)

Wire Range	O.D.	Barrel Length	I.D.	Circular Mil Area	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-14	5/16	11/32	1/4	600-5,180	39/64	CE-2214	3.09	24.67	18.54
16-10	7/16	3/8	3/8	2,400-13,000	23/32	CE-1610†	4.60	36.82	27.61

ASSORTMENTS (FIG. I)

Assortment K-170 (Fig. I) - Contains 215 Krimptite® (non-insulated) terminals of types indicated by astericks (*) in listings above, plus Universal Crimping Tool
Net Each. . . . . $ 8.95

Assortment K-180 (Fig. I) - Contains 138 Insulkrimp® (insulated) terminals of types indicated by daggers (†) in above listings plus Universal Crimping tool.
Net Each $10.95

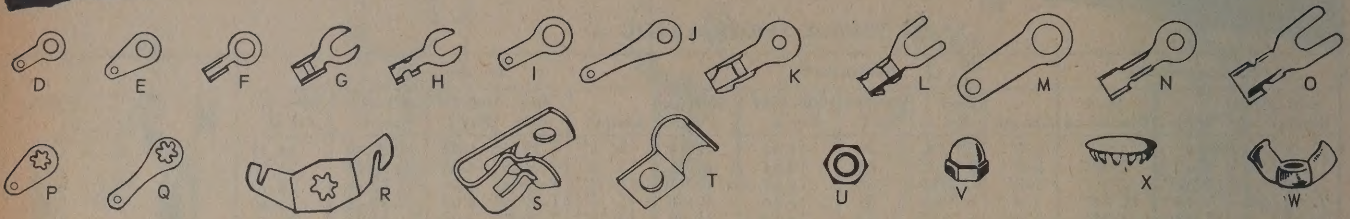
UNIVERSAL CRIMPING TOOL (FIG. J)

Part No. CT-4050 - Crimps both insulated and non-insulated terminals, wire sizes 22 thru 10. Cuts and strips wire.
Net Each . . . . $ 3.95

Only a partial listing of more than 2000 items in the WALDOM line of solderless terminals and connectors. Includes many more sizes and types, including Heavy Duty, Flared Insulation, Military Types, Terminal Block Terminals, Flag Terminals, insulation sleeve and many more. Write for WALDOM CATALOG #6E2.

WALDOM

ELECTRONIC HARDWARE



TERMINAL AND SPADE LUGS

Terminal lugs for all applications. Supplied with hot-tin dipping in brass, copper or steel as specified in Material (Mtl.) column below.

Waldom No.	Mtl Fig.	Mtl., In.	Hole Size	Length In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
T-151	D	.020B	#6	1/2	$0.76	$ 6.23	$ 4.33
T-152	D	.020B	#8	13/16	.82	6.72	4.67
T-153	D	.020B	$10	13/16	.82	6.72	4.67
T-154	E	.020B	#6	9/16	.88	7.22	5.02
T-224	E	.015C	#8	17/32	.97	7.95	5.53
T-155	F	.032C	3/16"	19/32	1.42	11.64	8.09
T-156	F	.032C	#6	1/2	.94	7.71	5.36
T-157	G	.020B	#8	41/64	.80	6.56	4.56
T-158	H	.020B	#6	21/32	.88	7.22	5.02
T-159	H	.020B	#8	21/32	.88	7.22	5.02
T-160	H	.020B	#8	13/16	.98	8.04	5.59
T-162	I	.015B	#8	47/64	.86	7.05	4.90
T-163	J	.025B	#6	1	.98	8.04	5.59
T-164	J	.025B	#8	1	.98	8.04	5.59
T-166	K	.020C	#6	15/16	1.62	13.28	9.23
T-167	K	.020C	#8	15/16	1.62	13.28	9.23
T-168	K	.020C	#10	15/16	1.62	13.28	9.23
T-170	L	.020B	3/16"	25/32	.94	7.71	5.36
T-173	M	.020B	#10	1-5/32	1.56	12.55	8.72
T-187	N	.032B	#8	15/16	2.81	23.04	16.02
T-188	N	.032B	#10	15/16	3.10	25.42	17.67
T-193	O	.032B	#8	1	4.25	34.85	24.23

LOCKING-TYPE LUGS

Locking-type construction eliminates need for additional washer. Fabricated from .018 phosphor bronze and tinned for ease in soldering.

Waldom No.	Fig.	Screw Size	Length, In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
T-194	P	#6	5/8	$1.09	$ 8.94	$ 6.21
T-195	P	#8	5/8	1.09	8.94	6.21
T-196	Q	#4	7/8	1.09	8.94	6.21
T-197	Q	#6	7/8	1.09	8.94	6.21
T-198	Q	#8	7/8	1.09	8.94	6.21
T-223	Q	#10	7/8	1.09	8.94	6.21
T-220	R	#4	53/64	2.06	16.89	11.74
T-221	R	#6	53/64	2.06	16.89	11.74
T-222	R	#8	53/64	2.06	16.89	11.74

SPRING CLIPS (FIG. S)

Brass, nickel-plated spring clips.

Waldom No.	Thickness	Ht., In.	W., In.	Mtg. Hole In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
C-101	.016	45/64	7/32	.130	$1.08	$ 8.85	$ 6.15
C-102	.020	25/32	5/16	.144	1.52	12.45	8.65
C-103	.022	1	3/8	.144	2.47	20.25	14.10

METAL CABLE CLAMPS (FIG. T)

Mounting hole, .144". Material (Mtl.) abbreviations: B, brass, hot-tin dipped; S, steel, cadmium plated.

Waldom No.	Mtl., In.	Ht., In.	W., In.	Wire Hold Area	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
C-201	.020B	7/16	1/4	3/32"	$0.81	$ 6.65	$ 4.60
C-202	.032S	5/8	3/8	10/64"	1.02	8.35	5.80
C-203	.032S	11/16	3/8	1/4"	1.17	9.60	6.65
C-204	.032S	15/16	3/8	10/32"	1.30	10.65	7.40

CONTROL AND SWITCH MTG. HEX NUTS (FIG. U)

F-565	3/8-32x 1/2x3/32	$1.47	$12.05	$ 8.38
F-566	15/32x 9/16x5/64	1.80	14.76	10.26
F-567*	475-32X19/32x1/16	3.11	25.50	17.75

*Knurled ring nut (Fig. J)

ACORN NUTS NICKEL-PLATED (FIG. V)

F-574	6-32	$2.74	$22.47	$15.62
F-575	8-32	2.91	23.86	16.59
F-576	10-32	3.52	28.86	20.06

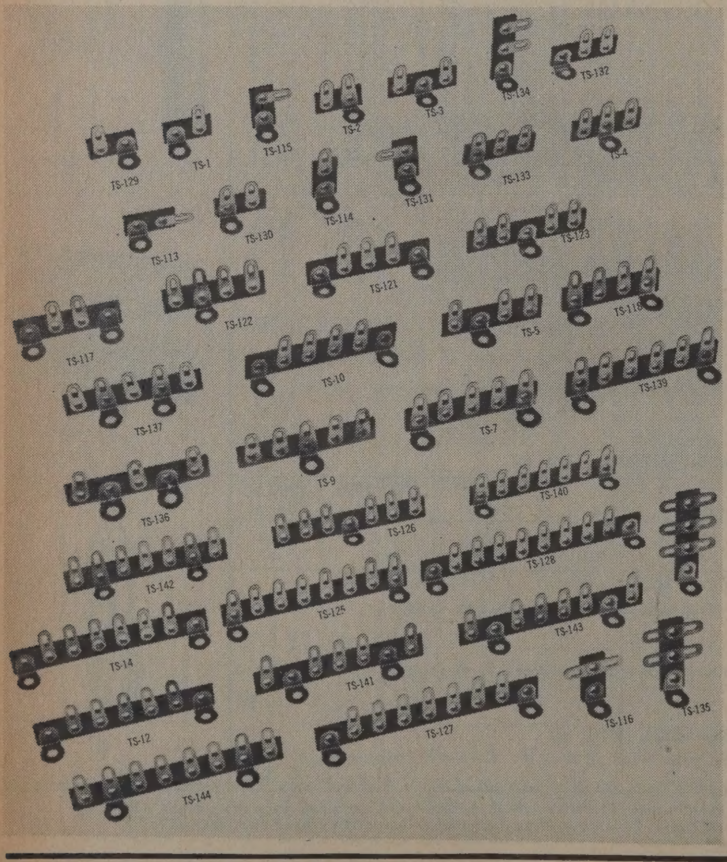
WING NUTS NICKEL-PLATED (FIG. W)

F-571	6-32	$3.32	$27.22	$18.92
F-572	8-32	2.38	19.52	13.57
F-573	10-32	2.65	21.73	15.11

SNAP BUTTON HOLE PLUGS (FIG. X)

HP-1	1/4" hole	$2.20	$18.04	$12.54
HP-2	3/8" hole	2.50	20.50	14.25
HP-3	1/2" hole	2.40	19.68	13.68
HP-4	3/4" hole	3.30	27.06	18.81
HP-5	1" hole	4.40	36.08	25.08

TERMINAL STRIPS



STANDARD TERMINAL STRIPS

Standard type lug mounting terminal strips. Fabricated from X Grade bakelite 1/16" thick, 3/8" wide. Square barrelled construction prevents twisting and slippage. End Terminals are spaced 3/16" from end of strip. All strips are furnished with lug holes spaced 3/8" center to center.

Catalog No.	Bag of 25	100-Over per/C
2 and 3 Position		
TS-1	.58	1.58
TS-129	.58	1.58
TS-2	.63	1.65
TS-130	.63	1.65
TS-113	.68	1.92
TS-114	.68	1.92
TS-115	.68	1.92
TS-131	.58	1.58
TS-3	.80	2.08
TS-132	.80	2.08
TS-4	.80	2.15
TS-133	.80	2.15
TS-134	.80	2.08
4, 5 and 6 Position		
TS-117	1.13	3.05
TS-5	.95	2.58
TS-122	1.00	2.65
TS-118	1.20	3.18
TS-136	1.33	3.55
TS-121	1.33	3.55

Catalog No.	Bag of 25	100-Over per/C
4, 5 and 6 Position		
TS-123	1.18	3.08
TS-9	1.18	3.15
TS-137	1.38	3.68
TS-7	1.38	3.68
TS-10	1.50	4.05
TS-139	1.55	4.18
7, 8 and 9 Position		
TS-141	1.70	4.55
TS-12	1.70	4.55
TS-126	1.55	4.08
TS-142	1.75	4.68
TS-140	1.75	4.68
TS-143	1.88	5.05
TS-14	1.88	5.05
TS-144	1.95	5.18
TS-125	1.95	5.18
TS-127	2.08	5.55
TS-128	2.25	6.05
TS-116	.88	2.30
TS-135	1.33	3.53
TS-138	1.80	4.75

Net

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WABER Industrial OUTLET BOXES

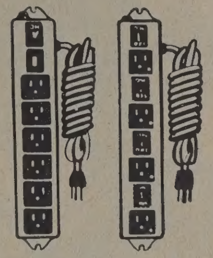
THE *Safe* INSTANT WIRING LINE FOR PLANT, LAB OR SCHOOL

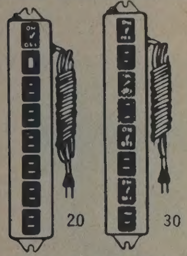
All Waber Outlet Boxes are completely wired for instant use, are of heavy duty steel construction, and are rated at 15 amperes, 130 volts continuous duty. Inquiries are invited on "specials" and quantity requirements.

"U" GROUND OUTLET BOXES

Model 24 has six "U" ground outlets, bright pilot light, and switch. Model 32 has four sets (switch and outlet) color coded for easy identification. Available with fuse or circuit breaker, 6 or 15 ft. HSJ asbestos and rubber jacketed cord-set. 12¾" mounting centers.

Model 24 (fuse, 6' cord)	8.50 net
Model 24-15 (fuse, 15' cord)	9.50 net
Model 24CB (crct. brkr., 6' cord)	10.50 net
Model 24CB-15 (crct. brkr., 15' cord)	11.50 net
Model 32 (fuse, 6' cord)	8.50 net
Model 32-15 (fuse, 15' cord)	9.50 net
Model 32CB (crct. brkr., 6' cord)	10.50 net
Model 32CB-15 (crct. brkr., 15' cord)	11.50 net


Model 24 Model 32



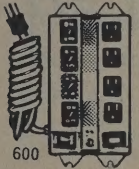
TWO WIRE OUTLET BOXES

Model 20 has six outlets, bright pilot light, and switch. Model 30 has four sets (switch and outlet) color coded for easy identification. Both units have a 10 ft. neoprene heater cord-set. 12¾" mounting centers.

Model 20 (fuse type)	6.75 net
Model 20CB (crct. brkr. type)	8.75 net
Model 30 (fuse type)	6.75 net
Model 30CB (crct. brkr. type)	8.75 net

600 SERIES COMPACT SIZE OUTLET BOXES

These space saver units are available in deluxe and standard models. 8¼" mounting centers.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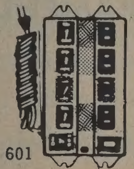
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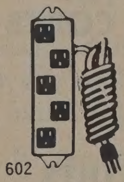
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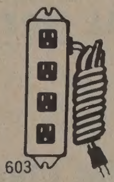
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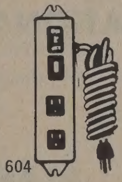
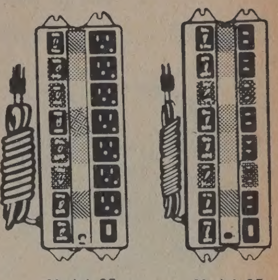

604

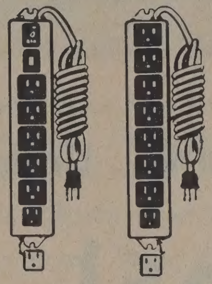
Model 600 (fuse, 6' cord)	12.50 net
Model 600-15 (fuse, 15' cord)	13.50 net
Model 600CB (crct. brkr., 6' cord)	13.60 net
Model 600CB-15 (crct. brkr., 15' cord)	14.60 net
Model 601 (fuse, 10' 2-wire cord)	11.00 net
Model 601CB (crct. brkr., 2-wire cord)	12.10 net
Model 602 (outlets, 6' cord)	5.50 net
Model 602-15 (outlets, 15' cord)	6.50 net
Model 603 (fuse, 6' cord)	6.25 net
Model 603-15 (fuse, 15' cord)	7.25 net
Model 603CB (crct. brkr., 6' cord)	7.35 net
Model 603CB-15 (crct. brkr., 15' cord)	8.35 net
Model 604 (fuse, 6' cord)	6.50 net
Model 604-15 (fuse, 15' cord)	7.50 net
Model 604CB (crct. brkr., 6' cord)	6.60 net
Model 604CB-15 (crct. brkr., 15' cord)	7.60 net

DELUXE SERIES OUTLET BOXES

Seven color coded switch-outlet sets with a master switch, bright pilot light, and center "write-on" marking strip. Model 25 has "U" ground outlets and 6 or 15 ft. HSJ heater cord-set. Model 35 has two wire outlets and a 10 ft. HPN neoprene heater cord-set. 12¾" mounting centers.

Model 25 (fuse, 6' cord)	15.40 net
Model 25-15 (fuse, 15' cord)	16.40 net
Model 25CB (crct. brkr., 6' cord)	16.50 net
Model 25CB-15 (crct. brkr., 15' cord)	17.50 net
Model 35 (fuse type)	13.40 net
Model 35CB (crct. brkr. type)	14.50 net


Model 25 Model 35


Model 15 Model 17

"IN-LINE" OUTLET BOXES

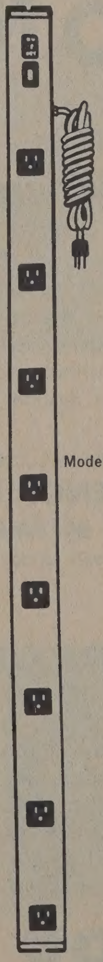
These "U" ground models have an extra outlet on the end for series stringing. Model 15 is the control unit with switch and bright pilot light, and Model 17, the slave unit, contains only outlets. Cord-set is HSJ type heater cord. 12¾" mounting centers.

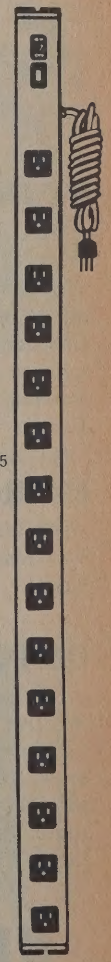
Model 15 (fuse, 6' cord)	8.75 net
Model 15-15 (fuse, 15' cord)	9.75 net
Model 15CB (crct. brkr., 6' cord)	10.75 net
Model 15CB-15 (crct. brkr., 15' cord)	11.75 net
Model 17 (6' cord)	6.75 net
Model 17-15 (15' cord)	7.75 net

RACK AND WORK BENCH 4 FT. OUTLET BOXES

"U" ground models are ideal for racks, work-benches, and labs. Sturdy, steel case with heavy duty HSJ asbestos and rubber jacketed heater cord-set. 700 has eight outlets and 705 has fifteen outlets. 48¾" mounting centers.

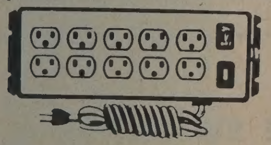
Model 700 (fuse, 6' cord)	14.95 net
Model 700-15 (fuse, 15' cord)	15.95 net
Model 700CB (crct. brkr., 6' cord)	15.85 net
Model 700CB-15 (crct. brkr., 15' cord)	16.85 net
Model 705 (fuse, 6' cord)	18.95 net
Model 705-15 (fuse, 15' cord)	19.95 net
Model 705CB (crct. brkr., 6' cord)	19.85 net
Model 705CB-15 (crct. brkr., 15' cord)	20.85 net

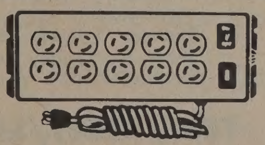

Model 700

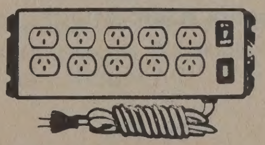

Model 705

"U" GROUND, TWIST LOCKING TYPE, AND CROW'S FOOT OUTLET BOXES

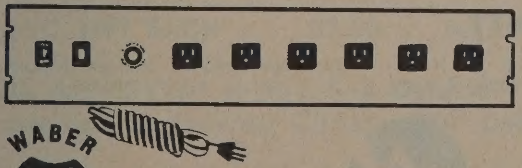
In addition to the models shown, other configuration receptacles can be obtained in this standard case.







Model 800 ("U" ground, fuse, 6' cord)	13.50 net
Model 800-15 (fuse, 15' cord)	14.50 net
Model 800CB (crct. brkr., 6' cord)	14.60 net
Model 800CB-15 (crct. brkr., 15' cord)	15.60 net
Model 801 (twist locking type, fuse, 6' cord)	30.00 net
Model 801-15 (fuse, 15' cord)	31.00 net
Model 801CB (crct. brkr., 6' cord)	31.10 net
Model 801CB-15 (crct. brkr., 15' cord)	32.10 net
Model 802 (crow's foot, fuse, 6' cord)	35.00 net
Model 802-15 (fuse, 15' cord)	36.00 net
Model 802CB (crct. brkr., 6' cord)	36.10 net
Model 802CB-15 (crct. brkr., 15' cord)	37.10 net



RACK PANEL TYPE OUTLET CHASSIS

Model 900 (fuse, 6' cord)	14.50 net
Model 900-15 (fuse, 15' cord)	15.50 net
Model 900CB (crct. brkr., 6' cord)	15.60 net
Model 900CB-15 (crct. brkr., 15' cord)	16.60 net

SIZE: 3½" x 19"

WABER ELECTRONICS INC. PHILADELPHIA 33, PENNA.

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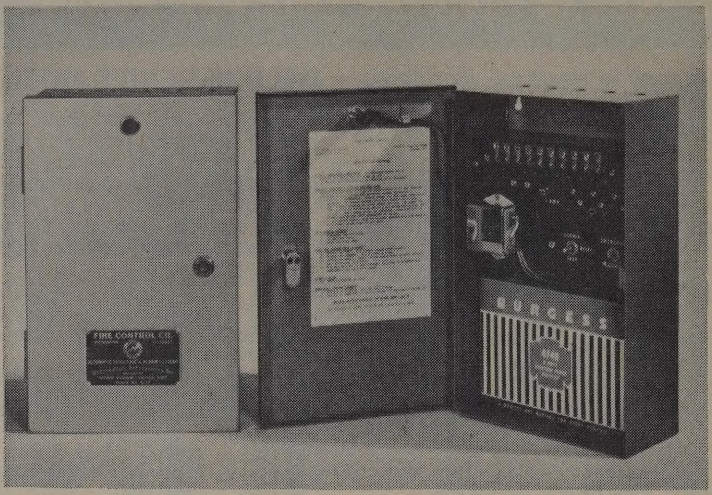
AUTOMATIC FIRE DETECTION AND ALARM SYSTEMS



Control Unit #SC-600R Underwriters' Laboratories Approved

COMPARE!

SPECIAL FEATURES MEET AND EXCEED NATIONAL FIRE CODES PAMPHLET #72

MAIN POWER SUPPLY

Input 110-125 Volts AC, 60 Cycles. Maximum current 0.25 ampere. Transformed and rectified to 6 Volts DC, maximum load 2.0 amperes. The Supply is **electrically supervised** so that a failure will sound immediate trouble alarm and automatically transfer to Emergency Power, thus assuring continuity of fire protection. When power is restored, the System automatically returns to Main Power Supply.

EMERGENCY POWER SUPPLY

6 Volt dry battery, Burgess #4F4H or equivalent. Maximum load under alarm condition 2.0 amperes. Order locally.

DETECTOR CIRCUIT

6 Volts DC, maximum current 0.15 ampere. Maximum wire run 5000 ft. #18/2. This Double-Loop Safety Circuit is **electrically supervised** so that a wire break will sound immediate trouble alarm. Emergency circuits compensate for such fault (see N/E Switch), thus assuring continuity of fire protection. Use UL Approved Fire Detector Cable #18/2 for substantial savings in installation.

ALARM CIRCUITS

6 Volts DC, maximum load 1.5 amperes. If only one bell is used, it is **electrically supervised** so that a failure will sound immediate trouble alarm. If two or more bells are used, and/or Annunciator #A-604 is added to the System, they are alternately-connected to the two alarm circuits provided. Use #14/2 wire.

NORMAL/EMERGENCY SWITCH

Provides emergency circuit adjustment.

A) Compensates for wire break in Detector Loop, permitting full response from every Detector until repairs are made.
B) Silences Trouble Buzzer but maintains Red Light to show emergency condition.

TEST/RESET/SILENCE SWITCH

Provides simple operating procedure.

A) Test the System.
B) Silence all Firebells and transfer to Red Light.
C) Reset to normal supervised operation.

CABINET

14" x 9" x 4". Gray Hammertone. Surface Mount. Cylinder lock, 2 keys.

FIRE CONTROL CO. **WILMINGTON 1, DEL.**

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PRICE BREAK-THROUGH !!!

NOW YOU CAN OFFER A PREMIUM-QUALITY, ALL-UL-APPROVED FIRE ALARM SYSTEM AT LOWEST COST, EVEN IN THE HOME MARKET!!

ORDER THE BASIC SYSTEM—COVERS AVERAGE 3 BEDROOM RANCH HOUSE

$120.00 NET

1 Control Unit #SC-600R
1 Underdome Inside Bell #A-6″
6 FyrGuard Detectors #3S
4 FyrGuard Detectors #3H

Same System, but substituting #501 & #502 Detectors **$132.50**

UL APPROVED! The finest quality underdome bells made today. Clear pitch, firm tone. Low current draw. Flush easy-mount on all standard outlet boxes. Use #14/2 wire.

INSIDE BELLS #A		**NET EACH**	**WEATHERPROOF BELLS #AP**	
6″	**$18.00**		6″	**$19.50**
8″	**21.00**		8″	**22.50**
10″	**24.00**		10″	**25.50**

UL APPROVED! The famous Spot Fire Locators. Combination Rate-of-Rise & Fixed-Temperature Automatic Detectors. The standard in the industry and specified in commercial, industrial, and military installations.

Rated to cover 2500 sq. ft. (Room Area 50′ x 50′).

Use #501 in offices, showrooms, living rooms, bedrooms, etc.

Use #502 in high temperature areas: furnace room, kitchen, attic.

NET EACH ...... **$3.25** Case Lot of 50, **NET EACH** **$3.00**

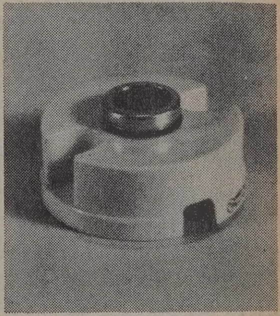
UL APPROVED! FyrGuard Automatic Detectors, Fixed-Temperature. A small, unobtrusive and economical fire detector. It is the most widely-used unit in home fire alarm installations.

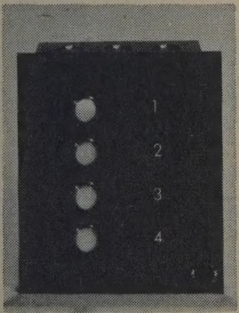
Rated to cover 400 sq. ft. (Room Area 20′ x 20′).

Use #3S in living rooms, bedrooms, closets, halls, etc.

Use #3H in high temperature areas: furnace room, kitchen, attic.

NET EACH ...... **$2.00** Case Lot of 50, **NET EACH** **$1.75**





UL APPROVED! 4 Zone Annunciator with all Detector Circuits **electrically supervised.** Simple tie-in connections to Control Unit #SC-600R. Optional, for use where large installations require quick identification of the fire area.

Gray Hammertone Cabinet, Flush Mount: 7″ x 6″ x 3″.

Annunciator #A-604, **NET** **$45.00**

UL APPROVED! #5C Manual Pull Station, non-code. Add where required. Wire into Detector Circuit exactly as an Automatic Detector. Flush mount on all handy boxes.

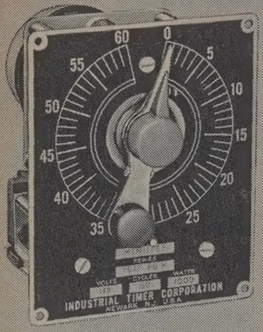
#5C, **NET EACH** .... **$7.50.** Back Box for surface mount **$2.00**

PULL DOWN
LOCAL
FIRE
ALARM

UL APPROVED! #18/2 Fire Detector Cable. Ivory plastic parallel cord specified for Detector Circuits. **250′ Coil, NET** **$4.00**

FIRE CONTROL CO. WILMINGTON 1, DEL.

INDUSTRIAL TIMER
CORPORATION
PARSIPPANY, N.J.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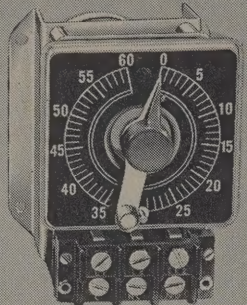

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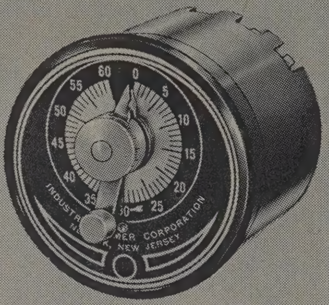
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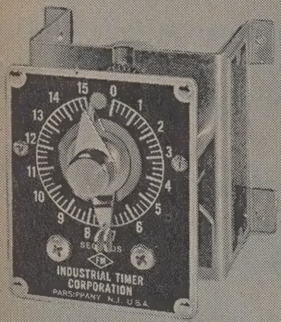
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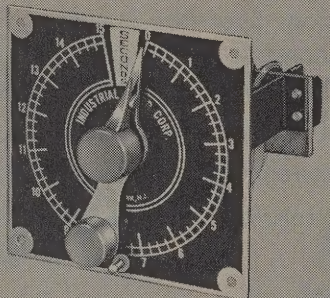
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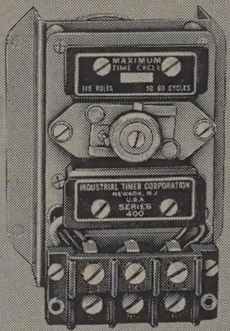
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115 VOLTS
50 60 CYCLES
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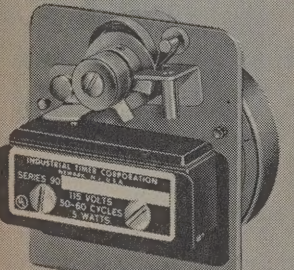
NEWARK, N.J.
U.S.A.
SERIES 400

400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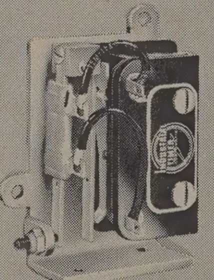
SERIES 90
115 VOLTS
50-60 CYCLES
5 WATTS

90



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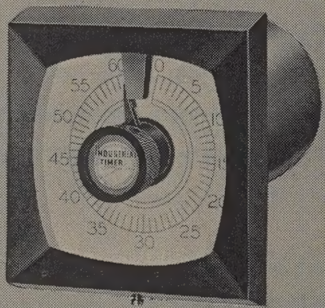

INDUSTRIAL TIMER

GTD

DELAY TIMERS

This type of timer introduces a predetermined time delay between the closing of a switch and the opening or closing of a load switch. The sequence is: The timer is started by a switch closure, the load switch remains in normal condition until commencement of time delay, at which time it is operated.

TDAF (BULLETIN #300) Time cycles from 1/60 second to 3 hours, instant reset, 10 amp contact rating, panel mounting, extremely accurate.

TDAB (BULLETIN #300) Time cycles from 1/60 second to 3 hours, instant reset, 10 amp contact rating, back mounted or available in housing, extremely accurate.

TD (BULLETIN #300) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, auto-reset, mounts through a round hole.

SF (BULLETIN #300) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, back mounted, auto-reset.

"H" (BULLETIN #300) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, panel mounted, auto-reset.

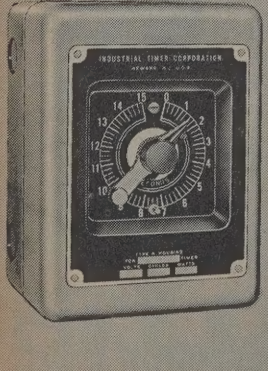
400 (BULLETIN #300) Time cycles from 1/60 second to 3 hours, designed for infrequent adjustment, load rating 10 amps, auto-reset, back mounted.

90 (BULLETIN #300) Time cycles from 1/2 second to 90 seconds. 10 amp contact rating, auto-reset.

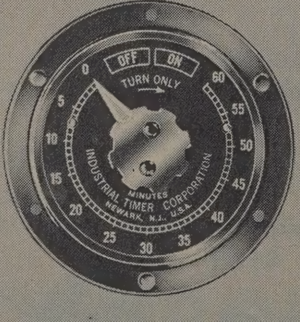
TH (BULLETIN #300) Thermal Time delay switch, snap action contacts rated at 10 amps. Time cycles from 15 seconds to 2 minutes, temperature compensated, adjustable.

GTD (BULLETIN #302) Automatic reset, available in 11 models ranging in time cycles from 3 seconds to 3 hours. 10 amp isolated load contacts. Unit mounts through 3 inch hole in panel and features built-in self locking feature that eliminates mounting screws. A.C. voltages of 115 or 220.

PAB


INDUSTRIAL TIMER CORPORATION
NEWARK, N.J. U.S.A.

RS


OFF
ON
TURN ONLY
MINUTES
INDUSTRIAL TIMER CORPORATION
NEWARK, N.J., U.S.A.

P & M

INDUSTRIAL TIMER CORPORATION
NEWARK, N.J. U.S.A.

INTERVAL TIMERS

An Interval Timer closes (or opens) a load switch at the beginning of a time cycle; at the end of the time interval the load circuit is returned to its original condition.

PAB (BULLETIN #400) Time Intervals from 1/60 second to 3 hours. 15 amp non-inductive. Instant automatic reset. Available with housing. Momentary starting.

RS (BULLETIN #400) Time Intervals from 15 seconds to 24 hours. 20 amp, non-inductive. Manual reset. Available with housing.

P & M (BULLETIN #400) "P" Series — 1/10 second to 5 minutes, remote momentary start, auto-reset, 15 amp load rating.
"M" Series—1 second to 1 minute, push button start, auto-reset, 10 amp contact rating.

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INDUSTRIAL TIMER CORPORATION

PARSIPPANY, N.J.

PROGRAMMING CAM TIMERS

A Recycling Timer opens and closes an electrical circuit in a continuous pre-set sequence.

TANDEM (BULLETIN #500) Interchangeable timing elements provide individual time cycles from 1/10 seconds to 3 hours. Elements operate in sequence. 15 amp load rating.

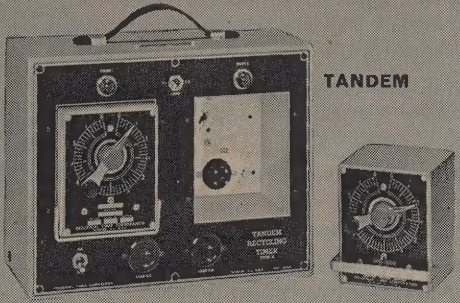
CM (BULLETIN #200) Single switch rated at 10 amps. Adjustable cam provides 2% to 98% "ON"—"OFF" of any of 600 available time cycles. Each model has 50 available time cycles through use of interchangeable gear racks, cycles continuously.

RC (BULLETIN #200) Similar to Series MC, but starts from momentary pulse, makes 1 revolution of cam shaft and stops. The timer recycles from a sustained start. Time cycles from 2/3 second to 72 hours are available, switch rating is 10 amps.

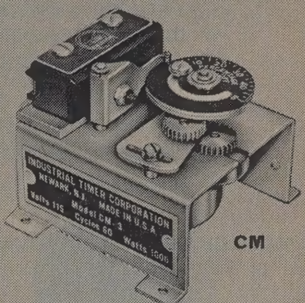
600 (BULLETIN #203) Simplified Recycling Cam Timer available with up to 7 switches from 15 seconds to 60 hours.

PC (BULLETIN #500) Opens and closes a 15 amp load switch continuously. Adjustable from 3% to 97% of time cycles from 15 seconds to 24 hours. Available in housing.

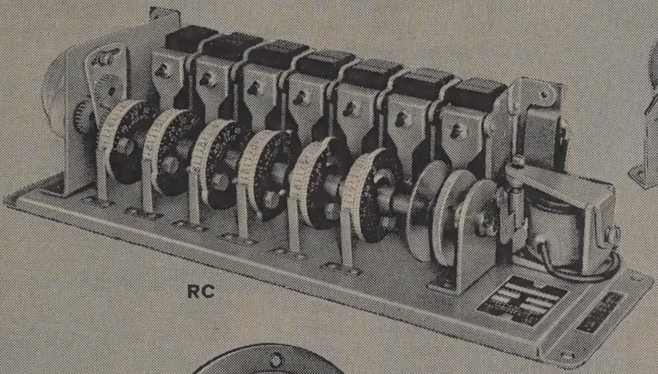
MC (BULLETIN #200, 201, 202) Available with up to 20 individual load circuits. Time cycles from 2/3 second to 72 hours. 10 amp load rating, available in Kit for prototype assembly, or with shaft extension for external drive.

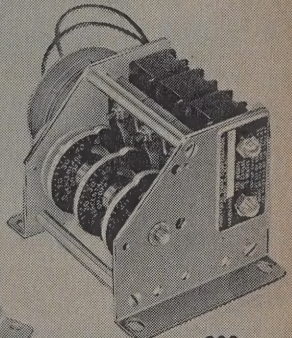

TANDEM

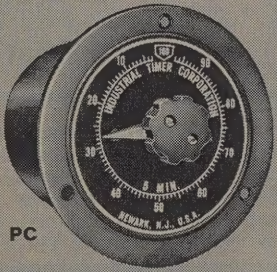
TANDEM RECYCLING TIMER


CM

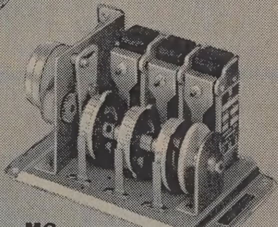
INDUSTRIAL TIMER CORPORATION
NEWARK, N.J. MADE IN U.S.A.
Model CM-3
Volts 115 Cycles 60 Watts 1000

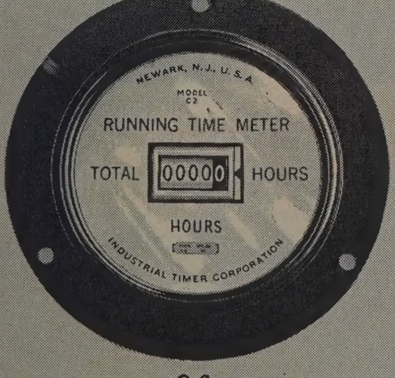

RC


600

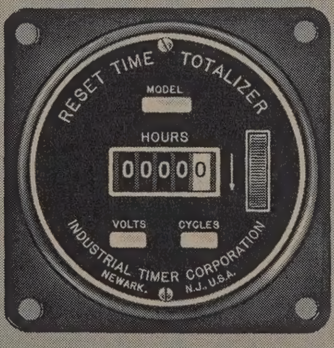

PC

INDUSTRIAL TIMER CORPORATION
5 MIN.
NEWARK, N.J., U.S.A.

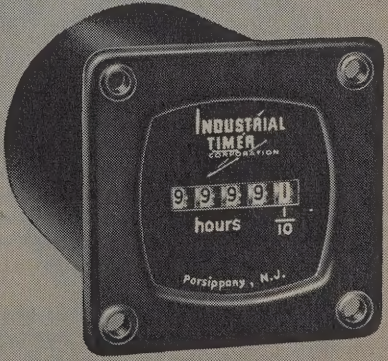

MC


C-2

NEWARK, N.J., U.S.A.
MODEL C2
RUNNING TIME METER
TOTAL
00000
HOURS
HOURS
INDUSTRIAL TIMER CORPORATION


C-5

RESET TIME TOTALIZER
MODEL
HOURS
00000
VOLTS
CYCLES
INDUSTRIAL TIMER CORPORATION
NEWARK, N.J. U.S.A.


C-8 D.C.

INDUSTRIAL TIMER CORPORATION
99991
hours 1/10
Parsippany, N.J.

TIME MEASUREMENT DEVICES

The running Time Meters and Reset Time Totalizers are used to record the operating time of equipment requiring periodic maintenance.

C-2 (BULLETIN #700) The Series C-2 Running Time Meter is available in counts from 1/10 second to 1 hour. Total accumulation ranges are 10,000 seconds to 100,000 hours.

C-5 (BULLETIN #700) This is a cased type instrument, mounted in a black, baked-finish housing. With heavy steel mounting flange. Screw terminals on back. Model C-5 incorporates a special type of counter that permits resetting to zero at any time. Offered for 115 and 220 volts, 60, 50, and 25 cycles.

C-8 D.C. (BULLETIN #701) The C-8 is a compact Running Time Meter for use on equipment using D.C. voltages. Available for 6, 12, 24, 28 or 32 VDC. Mounts through round 2-3/16" hole in panel, secures with 4 screws. The C-8 accumulates up to 9999.9 hours with a minimum count of 1/10 hour.

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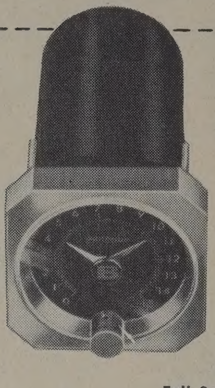
BRISTOL MOTORS / DIVISION OF VOCALINE

SYNCHRONOUS MOTORS AND TIMERS

Versatility is the characteristic which design engineers need — and find — in Bristol Synchronous Motors and Timing Devices. Bristol's unusually broad experience and range of design and manufacturing skills are particularly valuable where special requirements must be met.

The devices shown are among the most widely used. All can be mounted in any position, and take a minimum of space. Materials are selected on the basis of their suitability to provide long service, and perform well under a variety of conditions.

Bristol engineering service is available for applications that require custom design and manufacture.

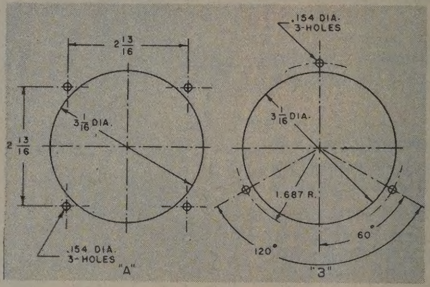


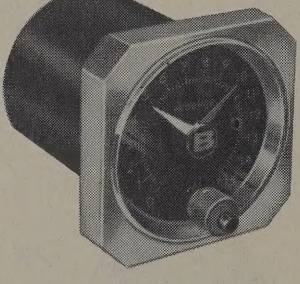
Series 61 Time Delay Relay. Universal Time Delay Relay provides self-holding solenoid starting with adjustable timed contact operation. Series 61 provides three types of load contacts which give seven types of load circuit operation in a single unit. This model may be wired up for one of four basic types of operation: momentary start, automatic reset; momentary start, manual reset; sustained switching; and tandem or cascaded operation. Size 3″ in diameter by $5\frac{25}{64}$ long. Timer case bezel $\frac{19}{32}$ thick x $3\frac{5}{8}$ inches square. Universal mounting allows standard 3-stud or 4-stud panel mounting. 115 VAC — Price $44.00 each.

TWO TYPES OF FRAMES WITH INTERCHANGEABLE DIAL FACES PROVIDE 4 COMBINATIONS! (See 62 Series)

Full Scale Available from 6 Sec. to 24 Hours
Interchangable Mounting

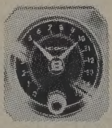
The 61 series timers are provided with removable threaded studs. Timers are normally mounted with four studs, Figure A. Threaded holes are provided for alternate three-hole mounting, Figure B.





Series 62 Interval Timer. Companion to the 61 series timers. This model is operated by a manual push button start on the face of the timer and provides unusual circuit versatility. This unit times out to the zero position and remains timed out until started by the manual push button. This timer does not reset on power failure. Size, 3 inches in diameter x $4\frac{21}{64}$ long. Intended for lower cost variable delay timer operations. 115 VAC — Price $27.00 each.

TWO TYPES OF FRAMES WITH INTERCHANGEABLE DIAL FACES PROVIDE 4 COMBINATIONS!


STYLE A

STYLE B

STYLE C

STYLE D*

New "Bristol-Vision" Dial Design

Features square-dial plate, provides background contrast for better viewing. Pointer-position knob is **easily adjusted without covering hands.**

Rugged Dial Frame

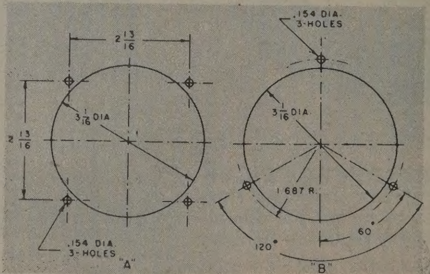
Die-cast in gleaming, rust-and-corrosion-resistant Zemak. Light weight; modern, clean lines.

Bevelled Glass Dial Face

Non-scratch surface won't buckle or deform over wide range of environmental conditions. Fully sealed for permanent protection against dust.

Full Scale Available from 6 Sec. to 24 Hours
Interchangeable Mounting

The 62 series timers are provided with removable threaded studs. Timers are normally mounted with four studs, Figure A. Threaded holes are provided for alternate three-hole mounting, Figure B. *Type D supplied as standard unless otherwise specified.



VOCALINE COMPANY OF AMERICA, INC., Old Saybrook, Conn.

Timers and Motors to meet special applications are available from distributors. See Vocaline Bristol Motors Catalog for complete line of motors and timers.

IMMEDIATE DELIVERY FROM FRANCHISED VOCALINE\BRISTOL MOTORS DISTRIBUTORS

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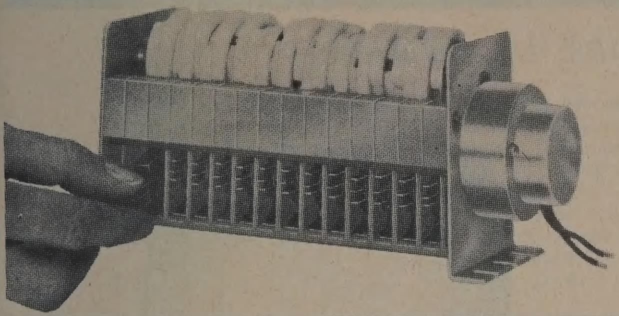
BRISTOL MOTORS / DIVISION OF VOCALINE

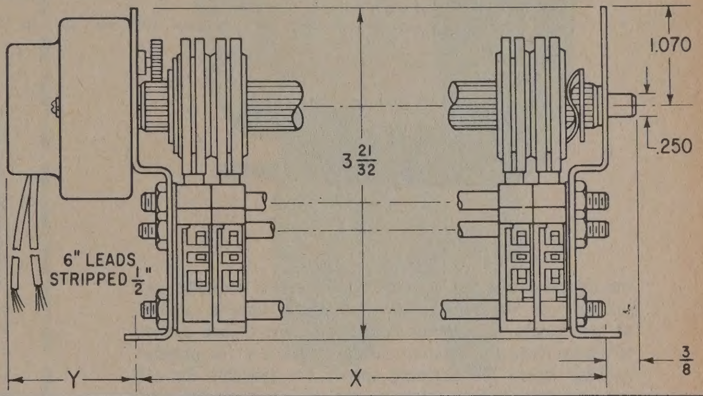


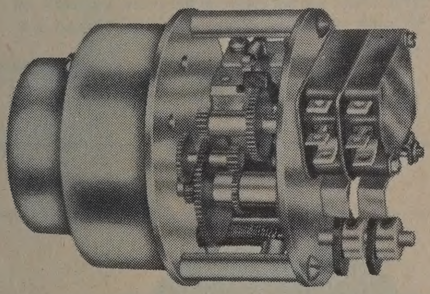
Series 47 pocket timer . . . microminiature . . . adjustable . . . compact . . . high repeat accuracy. This replaceable switch repeat cycle timer is a multi-contact program timer which permits easy switch replacement without disassembling. In addition, one turn of the calibrated adjusting screw provides a 2% variation of cam time sequence. Switches are rated at 5 amps-115 volts. Standard switch timer available in speeds of 1 rev. per minute, 1 rev. per 5 minutes, 1 rev. per 30 minutes, and 1 rev. per hour.

Price: 4-switch—$21.50
8-switch—$29.50

NO. OF SWITCHES	DIM.–X	NO. OF SWITCHES	DIM.–X
1	$1\frac{1}{4}$	11	5
2	$1\frac{5}{8}$	12	$5\frac{3}{8}$
3	2	13	$5\frac{3}{4}$
4	$2\frac{3}{8}$	14	$6\frac{1}{8}$
5	$2\frac{3}{4}$	15	$6\frac{1}{2}$
6	$3\frac{1}{8}$	16	$6\frac{7}{8}$
7	$3\frac{1}{2}$	17	$7\frac{1}{8}$
8	$3\frac{7}{8}$	18	$7\frac{5}{8}$
9	$4\frac{1}{4}$	19	8
10	$4\frac{5}{8}$	20	$8\frac{3}{8}$

MODEL OF MOTOR	DIM. Y
MODEL 447 or 647 STD. UNIDIRECTIONAL MOTOR	$1\frac{7}{16}$
MODEL 530 or 830 REVERSIBLE MOTOR	$2\frac{11}{64}$
MODEL 420 UNIDIRECTIONAL MOTOR FOR TIME CYCLE OVER 20 MINUTES	$1\frac{49}{64}$

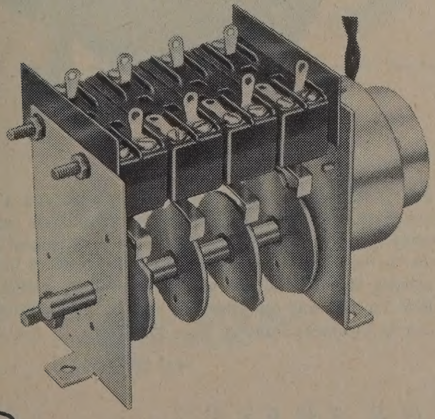


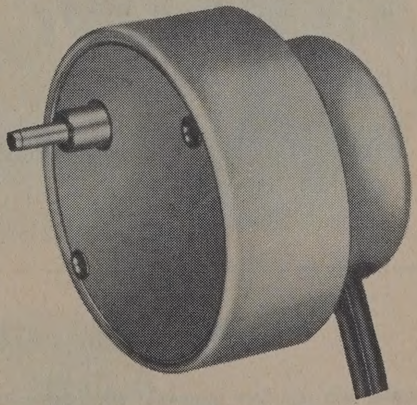


Bristol time delay relay series TDR-100 features instantaneous reset action (under 1/5 second) for such applications as photographic timers, electronic circuit safety, alarms, signals, etc. Repeat accuracy better than 1% full scale. Standard unit has two switches rated at 10 amps-non inductive, 5 amps inductive load. Timing sequence may be changed by positioning of set screw cams. Standard time setting full-scale is one hour but may be adjusted to as low as 2 minutes. 115 VAC — Price $29.00

Repeat cycle or program timer RCT-100 is a multi-contact timer with high repeat accuracy. Switches are double pole-single throw and rated 20 amps 115-230 volts. Cams are 180 Degrees dual/adjustable for easy setting. Standard 4 switch unit available with motor speeds of 1 rev. per minute, 1 rev. per 5 min. 1 rev. per 30 minutes, and 1 rev per hour. 115 VAC.

Price $27.00





The Bristol hysteresis synchronous motor Model 447 features high starting torque (40 inch-ounces at 1 RPM) and considerably higher running torque. The Model 447 is 2 inches in diameter by $1\frac{21}{64}$" deep and is available off the shelf for 115 Volts A.C. operation in the following speeds: 1 RPM, 2 RPM, 4 RPM, 5 RPM, 10 RPM, 15 RPM, 30 RPM, 60 RPM. Be sure to specify clockwise or counter-clockwise rotation (Rotation is determined facing motor output shaft) Price $5.00 each. U/L Approved.

Model 425 — Speeds 4/5 RPM to 1/15 RPM.
Price $5.20

VOCALINE COMPANY OF AMERICA, INC.

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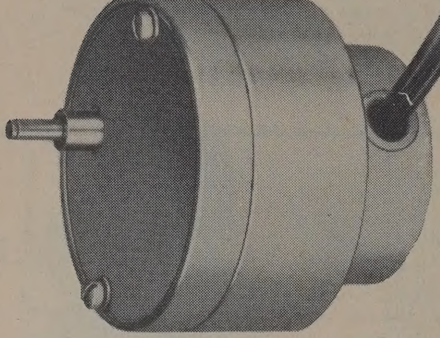
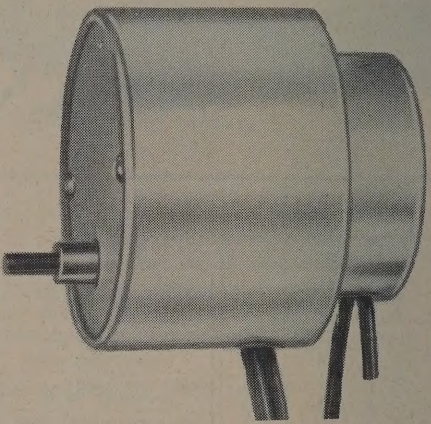
BRISTOL MOTORS / DIVISION OF VOCALINE

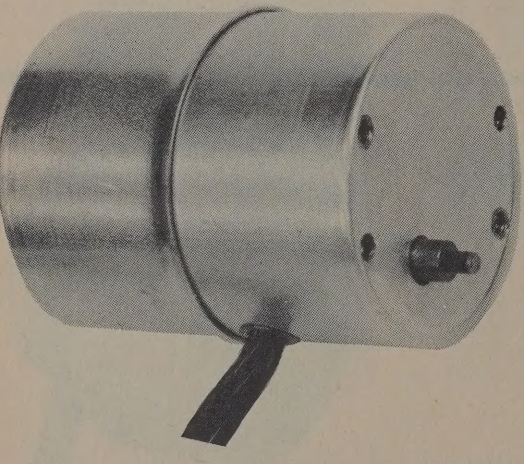
SYNCHRONOUS MOTORS AND TIMERS



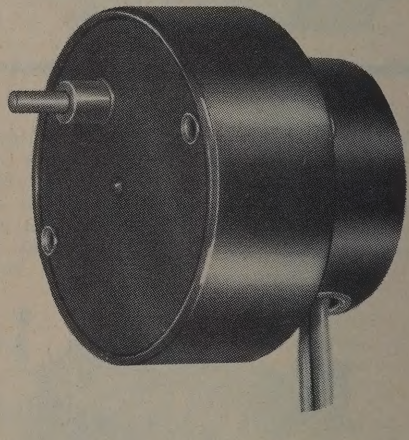
The Bristol Model 420 is a low speed version of Model 447 and develops high torque. The motor's gear train is rated at 20 inch-ounces for continuous operation and 5 inch pounds for static loading or intermittent duty. Size is 2″ in diameter by 1²¹⁄₃₂″ deep. The following speeds are available for 115 volt operation in both clockwise and counter-clockwise rotation — 1 rev. 30 minutes, 1 rev. per hour, 1 rev. per 6 hours, 1 rev. per 12 hours, 1 rev. per 24 hours, 1 rev. per 30 days. Price $6.70 each. U/L Approved.



Bristol Model 830 hysteresis synchronous reversible motor develops 100 inch-ounce starting torque at 1 RPM. This motor employs a resistor and condenser as a phase shift network and these components are included in the price. Available off the shelf in same speeds as Model 447 for 115 volt A.C. operation — $9.20 each.



Series 900 reversible instrument drive motor provides the highest starting and running torque of any motor in the Bristol line. It incorporates a phase shift network . . . a resistor and capacitor is included with each motor. Starting torque in 200 inch ounces at 1RPM. Available speeds for 115 VAC operation: 5 RPM, 10 RPM, 15 RPM, and 60 RPM. Price: $20.00



Bristol shift motor Model 350. This motor features a solenoid action clutch which disengages the rotor from gear train when motor is not energized allowing easy manual positioning or resetting of the output shaft. Develops 16 inch ounce starting torque. Available at 1 RPM, 2 RPM, 4 RPM, and 10 RPM for 115 volt operation. Be sure to specify clockwise or counter-clockwise rotation. Price $7.00 each. U/L Approved.

AVAILABLE "OFF THE SHELF"

VOCALINE COMPANY OF AMERICA, INC.

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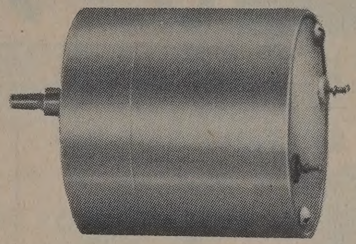
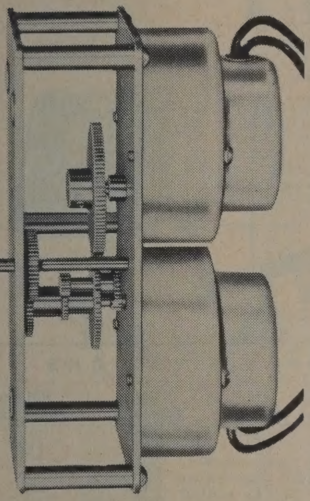
BRISTOL MOTORS / DIVISION OF VOCALINE

MOTORS AND TIMERS



Bristol Model 318 D.C. motor for 12 VDC or 24 VDC operation. The self-contained transistorized inverter system is moulded into the housing. Originally developed for airborne equipment where its freedom from radio interference was an essential requirement. Output speed accuracy plus or minus 10% at 68°F ambient. Starting torque 16 inch ounces at 1 RPM. Operating ambient range plus 50 Degrees C to minus 30 Degrees C. Model 318 has 2″ diameter and is 2⅜″ deep and weighs less than 9 ounces. Nominal speeds 1 RPM, 10 RPM, 30 RPM, and 60 RPM.

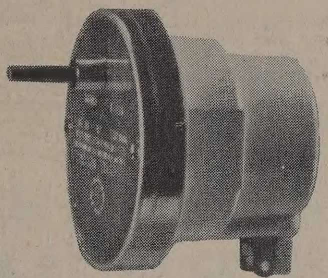
Price — 12 Volt — $30.00
24 Volt — $35.00



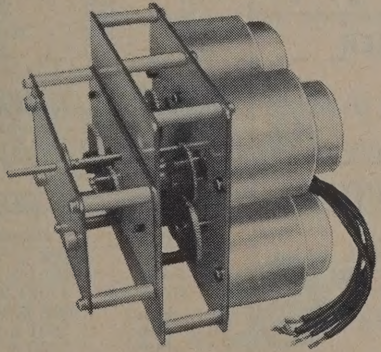
Bristol dual speed unit DSU-100

Two reversible motors are connected through a common external gear train. The speed of the output shaft of the dual speed unit equals the sum or the difference of the input motor speeds depending upon their relative rotation. Price $18.00

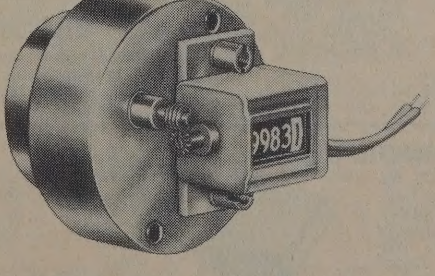
BATTERY MOTOR



Bristol Model 311 battery motor is a conventional brush-type battery motor which will operate from two standard 1.5 volt flashlight batteries ("D" cells). This motor is self starting. Speed is proportional to input voltage. Available in speeds of 30, and 60 RPM. Voltages 3 and 4.5 only VDC. Price $5.00.



Bristol multiple speed drive — MSU-40. Four reversible motors, coupled to a common output shaft through three differentials, provide, through electrical switching, any speed between 1 RPM and 40 RPM in increments of 1 RPM. 115 VAC — Price $110.00 each.



Bristol elapsed time indicators Model ET-1B. A Bristol motor coupled to a small, non-reset counter records operating hours registered in hours and tenths of hours up to 9999.9. Two inches in diameter by 2½″ in depth. 115 VAC —

ET-1A Registers Hours By Hours.
ET-1C Registers Minutes.
Price $14.00 Each

IMMEDIATE DELIVERY FROM FRANCHISED DISTRIBUTORS

VOCALINE COMPANY OF AMERICA, INC.

PR Crystals

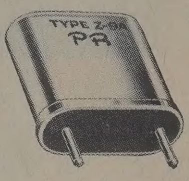
- AMATEUR
- AIRCRAFT
- CITIZENS BAND
- INDUSTRIAL
- RADIO CONTROL
- DIATHERMY
- FREQUENCY STANDARD

PRICE LIST • MINIMUM ORDER $10.00

Effective July 1, 1963
Subject to Change Without Notice

FOR AMATEUR SERVICE

Z-2

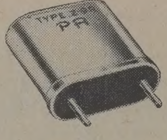

Z-9A

Z-2 and Z-9A Crystals are supplied ONLY in the following bands and calibrated INTEGRAL KILOCYCLES only, NO FRACTIONS. All Z-2 Crystals are calibrated with a load of 32 mmfd.

Type	Frequency Range	For	Price
Z-2 Fundamental	1750 to 2000 Kc. ±250 Cycles	160M.	$2.95
	3500 to 4000 Kc.	80M.	
	7000 to 7425 Kc.	40M.	
	8000 to 8222 Kc.	2M.	
	8334 to 9000 Kc.	6M.	
	±500 Cycles		

Type	Frequency Range	Price
Z-9A 3rd Overtone	24000 to 24666 Kc. 25000 to 27000 Kc. } ±3 Kc.	$3.95
	28000 to 29700 Kc. ±5 Kc.	
Z-9A 5th Overtone	50000 to 54000 Kc. ±15 Kc.	$4.95

CITIZENS BAND, TRANSMITTER



Supplied in all 23 assigned frequencies. **Be sure to specify channel desired, with name of manufacturer and model of equipment.** Calibrated .005%. Type Z-9R Crystals have .486″ pin spacing; .050″ pin diameter; .758″ height above pins; width .720″ and depth .309″. Z-13 Crystals have .192″ pin spacing; .040″ pin diameter; .530″ height above pins; width .402″ and thickness .150″. Z-13P Crystals are same as Z-13 except for having .017″ wire leads instead of pins.

Type Z-9R—Transmitter	$2.95
Type Z-13—Transmitter	2.95
Type Z-13P—Transmitter	2.95

CITIZENS BAND, RECEIVER

Calibrated .005%. Specifications are same as for transmitter crystals, listed above. In ordering, be sure to specify channel desired, with manufacturer and model number of equipment.

Type Z-9R—Receiver	$2.95
Type Z-13—Receiver	2.95
Type Z-13P—Receiver	2.95

Type Z-9R, RADIO CONTROL

Supplied in all FCC assigned frequencies. Calibrated .005%. In ordering, be sure to specify frequency desired, with manufacturer and model number of equipment.

Type Z-9R—Radio Control	$2.95

VHF Types, AIRCRAFT

For Lear, Narco and similar equipment operating in the 121 Mc. region, requiring crystals in 30 Mc. range. Z-9R Crystals have .486″ pin spacing; .050″ pin diameter; .758″ height above pins; width .720″ and depth .309″. Z-13 Crystals have .192″ pin spacing; .040″ pin diameter; .530″ height above pins; width .402″ and thickness .150″. Z-13P Crystals are same as Z-13, except for having .017 wire leads instead of pins.

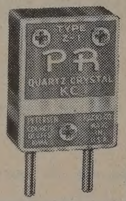
Type Z-9R—Aircraft	$4.95
Type Z-13—Aircraft	4.95
Type Z-13P —Aircraft	4.95

Type Z-6A, FREQUENCY STANDARD

Correlated in oscillator having load capacity of 32 mmfd. .486″ pin spacing; .050″ pins.

Type Z-6A—100 Kc.	$6.95

Type Z-1, MARS and CAP



Calibrated to .005% with 32 mmfd. crystal load capacity. Official assigned transmitter frequencies in the range.

1600 to 10000 Kc.	$3.45

Type Z-1, TV MARKER

Channels 2 through 13	$6.45
4.5 Mc. Intercarrier, .01%	2.95
5.0 Mc. Signal Generator, .01%	2.95
10.7 Mc. FM, IF, .01%	2.95

Type 2XP, EXPERIMENTAL

Suitable for converters, experimental, etc. Same holder specifications as Type Z-2.

1600 to 12000 Kc. ± 5 Kc. (Fund.)	$3.45
12001 to 25000 Kc. ±10 Kc. (3rd Overtone)	4.45

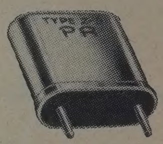
MILITARY EQUIVALENTS

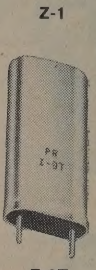
Table below shows PR Crystal types that are interchangeable with Military types.

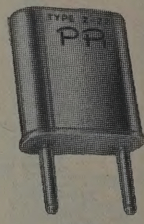
Military Type	PR Equivalent
HC/6	Z-9, Z-9A, Z-9R
FT-243	Z-1, Z-2
CR-1, CR-1A, etc.	Z-1D
FT-241	Z-1R, Z-1
DC-20	Z-1, Z-1R
DC-30	Z-1D
CM-1	Z-1B, Z-22, Z-1A
DC-34, DC-35	Z-1A Banana Pins
FT-171	Z-1A Banana Pins
DC-11	Z-1A, Z-1B

COMMERCIAL TYPES

Z-1


Z-9, Z-9R


Z-9T


Z-22

SPECIFICATIONS

Type	Pin Spacing	Pin Diameter	Height Above Pins
Z-1	.486″	.093″	1³⁄₁₆″
Z-1A	¾″	.125″	1⅜″
Z-1B	¾″	.125″	1⅜″
Z-1D	½″	.125″	1³⁄₁₆″
Z-1R	½″	.093″	1¼″
Z-6A	.486″	.050″	1.526″
Z-9	.486″	.050″	.758″
Z-9R	.486″	.050″	.758″
Z-9T	.486″	.050″	1.526″
Z-13	.192″	.040″	.530″
Z-13P	.192″	.017 wire	.530″
Z-22	¾″	.125″	1¼″

Note: Z-1A can be supplied with Standard Banana Pins. Specify when ordering. Z-9, Z-9R, and Z-9T can be supplied with .093 Pins. All Fundamental Crystals are correlated in oscillator having load capacity of 32 mmfd. **unless otherwise specified.**

PRICES WITH .005% TOLERANCE

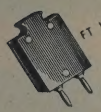
Type	Frequency Range	Each
Z-1—Fund.	900 to 1600 Kc.	$7.00
Z-1—Fund.	1601 to 12000 Kc.	6.50
Z-1—Overtone	12001 to 20000 Kc.	7.00
Z-1A—Fund.	500 to 1600 Kc.	7.00
Z-1A—Fund.	1601 to 2000 Kc.	6.50
Z-1B—Fund.	1000 to 12000 Kc.	6.50
Z-1D—Fund.	Same as Z-1	
Z-1R—Fund.	455 to 900 Kc.	7.50
Z-6A—Fund.	100 Kc. only	6.95
Z-9T—Fund.	101 to 174 Kc.	8.50
Z-9—Fund.	175 to 500 Kc.	7.50
Z-9—Fund.	1601 to 2000 Kc.	9.00
Z-9—Fund.	2001 to 15000 Kc.	6.50
Z-9—Fund.	15001 to 18000 Kc.	7.50
Z-9R—3rd Overtone	15001 to 50000 Kc.	7.50
Z-9R—5th Overtone	50001 to 60000 Kc.	9.00
Z-22—Fund.	150 to 500 Kc.	9.50
Z-22—Fund.	1000 to 3000 Kc.	9.00
Z-22—Fund.	3001 to 12000 Kc.	8.50
Z-22—Fund.	12001 to 15000 Kc.	9.00

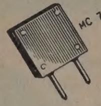
NOTE: When ordering Fundamental Crystals, specify Crystal Load Capacity. For tolerances of .01% and .02%, also for quantities of more than 10 of the same frequency, write for quotations.

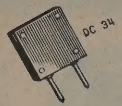
PETERSEN RADIO CO., INC. • COUNCIL BLUFFS, IOWA • MAKERS OF FINE CRYSTALS SINCE 1934

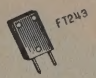
© U.C.P., Inc.

TEXAS CRYSTALS...*FOR EVERY PURPOSE*









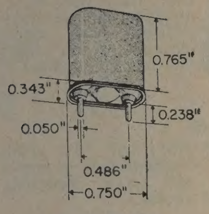
CRYSTALS MADE TO ORDER

M 1,001 to 1,600 KC .005% TOL.	$4.50
1,601 to 2,600 KC .005% TOL.	$2.75
2,600 to 9,000 KC .005% TOL.	$2.50
9,000 to 10,000 KC .005% TOL.	$3.00

Made to order crystals in pressure type holders can be supplied in five types as shown. All TEXAS CRYSTALS are cut, lapped, and etched to exact frequencies. They are supplied for oscillator circuits having 32 MMFD capacity, unless otherwise ordered, as the crystal frequency will vary with capacity of the circuit.

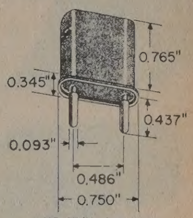
Low frequency crystals from 1001 KC to 2100 KC are space mounted —all others are pressure mounted. The advantage of the pressure mount crystal is its ability to handle more current (up to 50 Milliwatts) without fracture. Order by frequency, type holder, tolerance, and circuit capacity (if known) or type of equipment in which it is to be used.

HERMETICALLY SEALED CRYSTALS MADE TO ORDER



HC 6/U .050 PINS

In recent years, manufacturers have engineered new equipment utilizing the hermetically sealed plated crystal (HC6/U). This crystal is either gold or silver plated, the plating acting as electrodes. These crystals should be used in circuits designed for them as the maximum current capacity is 10 milliwatts (5 milliwatts for overtone type). High stability of frequency is a characteristic of this crystal. All TEXAS CRYSTALS are made to conform with military specifications. When ordering for G. E., Motorola, Link, etc., for split channel operation, a sample of both transmitting and receiving crystals known to be correct, be sent us with order specifying exact crystal frequency desired. We will correlate crystals and return your samples. Type HC6/U has .050 pins and fits CE-1 socket. Type HC17/U is the same physical size except the pins are .093 diameter. Specify type circuit, if known. Order by fundamental frequency, type circuit, type holder. All plated crystals are .005% tolerance.



HC 17/U .093 PINS

1,000 KC to 1,400 KC (Fundamental Frequency)	Prices on Request
1,401 KC to 2,000 KC (Fundamental Frequency)	$5.00 ea.
2,001 KC to 2,500 KC (Fundamental Frequency)	4.00 ea.
2,501 KC to 5,000 KC (Fundamental Frequency)	3.50 ea.
5,001 KC to 10,000 KC (Fundamental Frequency)	3.25 ea.
10,001 KC to 15,000 KC (Fundamental Frequency)	3.75 ea.
15 MC to 20 MC (Fundamental Frequency)	5.00 ea.

OVERTONE CRYSTALS

15 MC to 30 MC Third Overtone	$3.85 ea.
30 MC to 40 MC Third Overtone	4.10 ea.
45 MC to 65 MC Third or Fifth Overtone	4.50 ea.
65 MC to 100 MC Fifth Overtone	6.00 ea.

HC-6/U

$2.95 EACH

CLASS "D" CITIZEN BAND CRYSTALS

23 Frequencies—3rd Overtone—.005% TOL.

All "Citizen Band" crystals supplied in HC-6/U holders. Pin spacing .493—Pin dia. .050—Frequencies listed in megacycles. Use circuit recommended in our catalog. Order by frequency.

	CHANNEL		CHANNEL		CHANNEL		CHANNEL		CHANNEL
26.965	1	27.005	4	27.065	9	27.105	12	27.175	18
26.975	2	27.015	5	27.075	10	27.115	13	27.185	19
26.985	3	27.025	6	27.085	11	27.125	14	27.205	20
		27.035	7			27.135	15	27.215	21
		27.055	8			27.155	16	27.225	22
						27.165	17	27.255	23

CE-1 .... 20c
Ceramic Low Loss Socket for HC-6/U Holder — ½" Pin Spacing .050" Holes.

Can be supplied with .093 pins—15c extra. Available in counter display unit

We supply crystals for every popular make of Citizen Band Transceivers

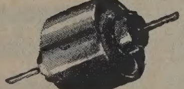
SUB MINATURE CRYSTALS TYPE HC18/U

Miniature type

Sub Miniature Crystals will operate in the same circuits as HC6/U and HC17/U Crystals. They were designed for use where space is a factor. Supplied in either Pin Type or Wire Leads (½" length for soldering directly into circuit). Be sure to specify Pin Type or Wire Leads.

Fund Freq. Overtones	
8MC to 12MC	$3.95
12MC to 17MC	4.50
20MC to 30MC	3.95
30MC to 40MC	4.25
40MC to 65MC	4.65

CR24/U (BARREL TYPE) CRYSTALS



CR24/U

Designed for the Armed Services the CR24/U is a Pressure Type "AT" Crystal which will accomodate more current than the plated crystal. From 15 to 25MC the crystal is a third overtone — From 25.001 to 60MC the crystal is a fifth overtone.

All Frequencies from 15MC to 50 MC.......................................$5.95

TEXAS AMATEUR CRYSTALS

All Texas amateur crystals are lapped and etched to frequency and supplied in FT 243 holders. They can be supplied in MC7, FT171 or DC34 holders for 25¢ extra per crystal.......................................$1.50 each

AIRCRAFT CRYSTALS

All crystals are supplied at ¼ operating frequency unless otherwise specified. Tolerance .005%. Order by final frequency and type equipment. Be sure to designate 'HC6/U' holder, or 'miniature' type.

Frequencies in stock from 118 MC to 130 MC

Type HC6/U—all frequencies	$3.85 each
Miniature type—all frequencies	4.75 each

Note: Above crystals can be supplied with wire leads for soldering directly to equipment at 25c per crystal extra.

AIRPORT OWNERS AND SERVICE DEPARTMENTS WRITE FOR QUANTITY PRICES

MARINE CRYSTALS

Supplied in 4 types of holders—FT243, MC7, CR1/AR, HC6/U. .005% tolerance. Order by frequency for transmitter for transmitter types and actual crystal frequency for receiver (including 455 KC IF).

ANY MARINE FREQUENCY FROM 2000 KC to 3200 KC IN FT243, FT171, MC7 or CR1AR	$2.50
HERMETICALLY SEALED CRYSTALS FOR MARINE IN ANY FREQUENCY (Specify either .050 or .093 pins)	3.50

TEXAS LOW FREQUENCY CRYSTALS

Our own manufacture at military tolerances in HC6/U and HC13/U holders.

80 to 99KC	$6.50	371 to 540KC	$3.95
100 to 199KC	4.50	541 to 729KC	4.50
200 to 370KC	4.25	730 to 1000KC	3.55

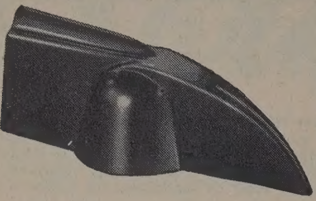
TEXAS CRYSTALS

FORT MYERS, FLORIDA

HARRY DAVIES MOLDING CO.

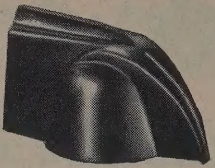
MOLDERS OF PLASTICS

POINTER AND BAR KNOBS



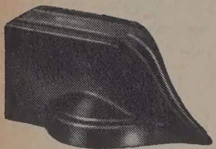
No. 2350

Length 2", hgt. ⅝", ¼" molded hole or metal insert, set screw mounting, locknut recess.



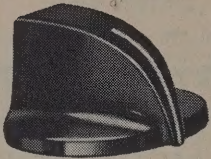
No. 2300

Length 1¼", hgt. ⅝", ¼" molded hole, also ¼" metal insert, set screw or knurled hole mounting, locknut recess.



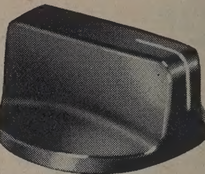
No. 2150

Length 1¼", hgt. 9/16', ¼" molded hole, set screw mounting, locknut recess.



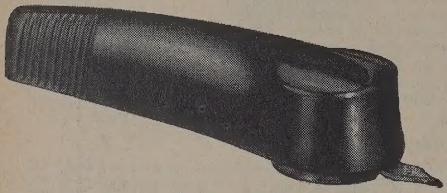
No. 1550

Dia. 1⅛", hgt. ⅝", ¼" molded hole or metal insert, setscrew, spring or knurled hole mounting, locknut recess.



No. 1500

Dia. 1⅛", hgt. 9/16", ¼" molded hole, set screw or knurled hole mounting, locknut recess, indicator line filled or unfilled.

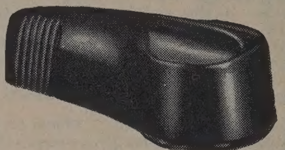


No. 2100-P

Length 2½", hgt. ⅝", width ¾", ¼" metal insert and 5/16" pointer, set screw mounting.

No. 2110-P

Length 1⅝", hgt. 19/32, width ¾", ¼" metal insert and 5/16" pointer, set screw mounting.



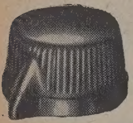
No. 2100

Length 2½", hgt. ⅝", width ¾", ¼" molded hole or metal insert, set screw mounting, locknut recess.

No. 2110

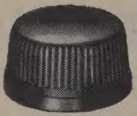
Length, 1⅝", hgt. 19/32", width ¾", ¼" molded hole or metal insert, set screw or knurled hole mounting, locknut recess.

CONTROL KNOBS



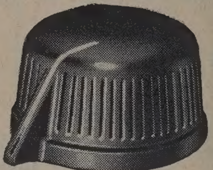
No. 1400

Dia. 11/16", hgt. 13/32, ⅛" or ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.



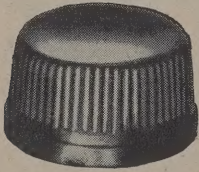
No. 1450

Dia. 11/16", hgt. 13/32, ⅛" or ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.



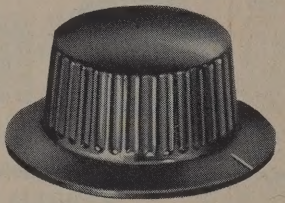
No. 1470

Dia. 1", hgt. ½", ¼" molded hole or brass insert, set screw, spring or knurled hole mounting, indicator line filled or unfilled, locknut recess.



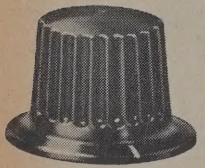
No. 1475

Dia. 1", hgt. ½", ¼" molded hole or brass insert, set screw, spring or knurled hole mounting, locknut recess.



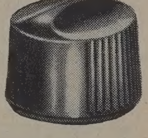
No. 1600

Dia. 1½", hgt. 11/16", ¼" molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.



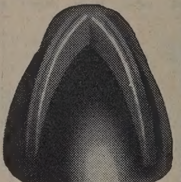
No. 1610

Dia. 15/16", hgt. ⅝", ⅛" or ¼" molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.



No. 1700

Dia ¾", hgt. 19/32", ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.



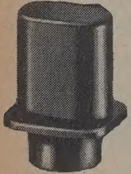
No. 2500

Dia. ¾", hgt. ¾", ¼" molded hole, set screw, spring or knurled hole mounting.

No. 2600

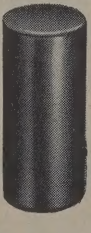
Dia. ⅞", hgt. ⅞", ¼" molded hole, set screw, spring or knurled hole mounting.

PUSH BUTTONS



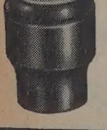
No. 5149-A

Hgh. 51/64", oval touch tuning. Push-on to fit flatted shaft. .050" x .187".



No. 1800

Dia. 7/16", hgt. 1" to 1⅜", touch tuning, plain or recessed top, push on, to fit flatted shaft .050" x .187 patented friction fit. Also with studs of various lengths.



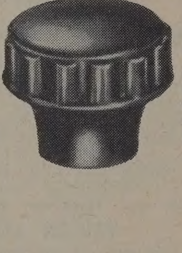
No. 1750

Dia. 31/64", hgt. 9/16" to 15/16", touch tuning, push on, to fit flatted shaft .050" x .187".

No. 1770

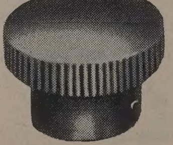
Dia. 31/64", hgt. ½" to ⅞", 6-32 or 8-32 female metal insert. 8-32 male stud.

TERMINAL NUTS



No. 2960

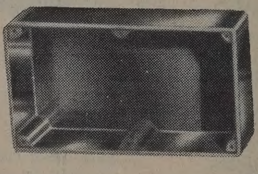
Dia. ⅞", hgt. ¾", 8-32 or 10-32 female metal insert, 10-24 or 10-32 male stud.



No. 2710

Dia. ¾", hgt. ½", 8-32, 10-32, 10-24 metal insert.

METER CASE AND COVERS



No. 240 Case

2" hgt. x 3¾" wide x 6¼" long. (Outside Dimensions) ⅛" (Wall Thickness).

No. 241

Mating cover with interlocking lip for No. 240 series cases.

No. 220 Case

1 9/16" hgt. x 2⅞" x 4" long (outside dimensions) .109" (wall thickness).

No. 260 Case

2 5/16" hgt. x 5 9/32" w x 6 13/16" l. (Outside Dimensions)—5/32" (Wall Thickness).

No. 261

Mating cover with interlocking lip for No. 260 case.

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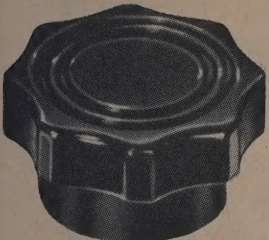
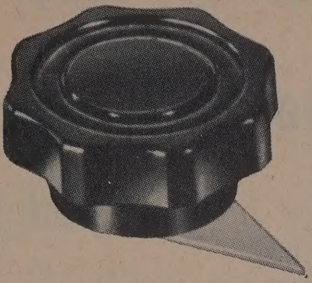
MOLDERS OF PLASTICS

INSTRUMENT KNOBS

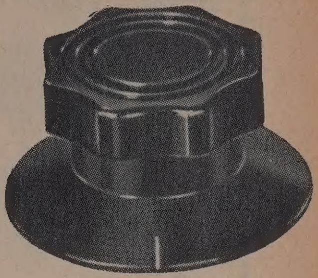


Part No.	Knob Dia.	Knob Hgt.
4100	1⅛"	⅝"
4101	1⅜"	11/16"
4102	1⅝"	¾"
4103	2⅜"	⅞"



Part No.	Knob Dia.	Knob Hgt.
4100 W/PTR	1⅛"	⅝"
4101 W/PTR	1⅜"	11/16"
4102 W/PTR	1⅝"	¾"
4103 W/PTR	2⅜"	⅞"

Entire series available with ¼" molded hole or metal insert. Set screw mounting. White vinylite pointer available. Pointer lengths ⅝", ¾", ⅞", 1 1/16", 1 9/16".

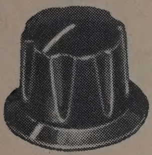


Part No.	Knob Dia.	Skirt Dia.
4104	1⅛"	1½"
4107	1⅜"	1¾"
4108	1⅝"	2 1/16"
4109	2⅜"	3"

Skirt available with or without indicator line filled. Branding stamps constructed to your specifications.

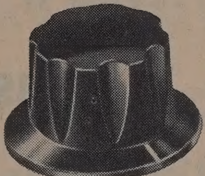
This series can be furnished in compliance with MS 91531.

NEW FLUTED INSTRUMENT KNOBS



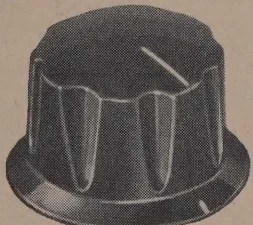
No. 1910

Dia. ¾", hgt. ½". ⅛" or ¼", molded hole or brass insert, set screw, spring or knurled hole mounting.



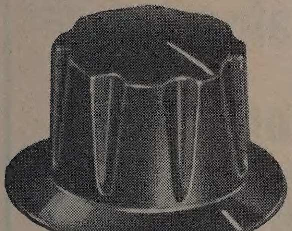
No. 1913

Dia. 1⅛", hgt. ⅝". ¼" molded hole or brass insert. Set screw mounting.



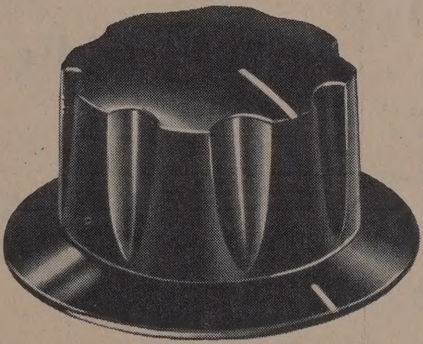
No. 1920

Dia. 1¼", hgt. ¾". ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.



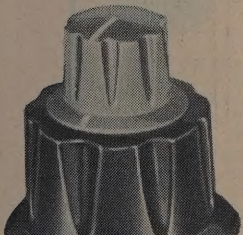
No. 1930

Dia. 1½", hgt. ⅞". ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.



No. 1940

Dia. 2", hgt. 15/16". ¼" molded hole or brass insert. Set screw mounting.

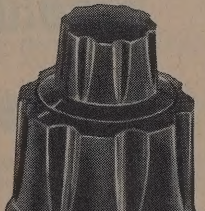


No. 1935

Dia. 1½", hgt. 1 5/16". ¼" molded hole or brass Insert. Dual concentric control knob.

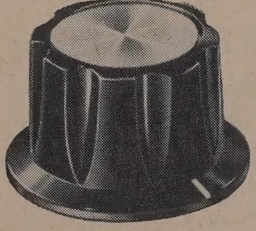
No. 1915

Dia. 1¼", hgt. 1 3/16". ¼" or 17/64" molded hole or brass insert. Dual concentric control knob.



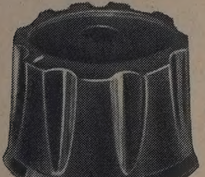
No. 1905

Dia. 1 1/16", hgt. 1 3/16". Dual concentric control ¼" or .267" moulded hole.



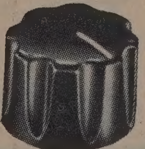
No. 1925

Dia. 1¼", hgt. ¾". ¼" molded hole or brass insert. Set screw mounting with or without decorative inlay.



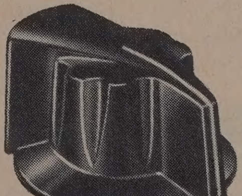
No. 1922

Dia. 1 1/16", hgt. 23/32". ¼ or 17/64" molded hole. With or without decorative inlay.



No. 1914

Dia. ¾", hgt. ½". ⅛", 3/16", ¼" molded hole or insert.



No. 1919

Length 1¼", hgt. ⅝". ¼" molded hole or brass insert. Set screw mounting.

Please specify if paint filled indicator line is desired on top of knob and/or on skirt of knob.

Knobs shown are only part of our stock on hand. Our stock molds are interchangeable and meet most requirements with only minor tooling variations. Let us quote on your specifications.

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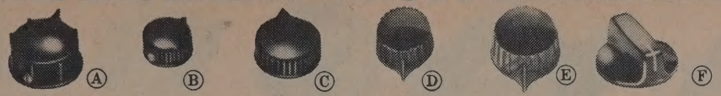
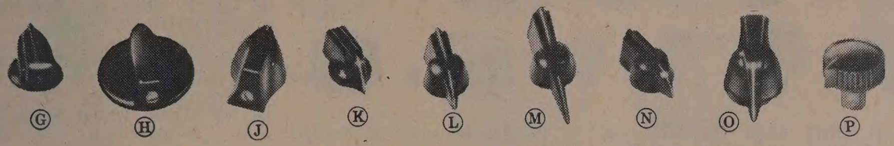
GC ELECTRONICS

REPLACEMENT KNOBS





POINTER KNOBS

(A) TENITE POINTER KNOB—1" Diameter, ½" Height, Fits ¼" shafts.

Knurl

Cat. No. 24-464	Walnut	Net $ .12
24-466	Ivory	.12

Set Screw

Cat. No. 24-468	Walnut	Net $ .20
24-470	Ivory	.20

(B) TENITE POINTER KNOB — 23/32" Diameter, ⅜" Height, Fits ¼" shafts.

Knurl

Cat. No. 24-472	Walnut	Net $ .08
24-474	Ivory	.08

Set Screw

Cat. No. 24-476	Walnut	Net $ .17
24-478	Ivory	.17

(C) TENITE POINTER KNOB — 15/16" Diameter, 7/16" Height, Fits ¼" shafts.

Knurl

Cat. No. 24-480	Walnut	Net $ .08
24-482	Ivory	.08

(D) BAKELITE POINTER KNOB — 1" Diameter, ½" Height, Fits ¼" shafts.

No Insert—Set Screw

Cat. No. 24-484	Walnut	Net $ .17
24-486	Black	.17

With Insert—Set Screw

Cat. No. 24-488	Walnut	Net $ .33
24-490	Black	.33

(E) BAKELITE POINTER KNOB—1¼" Diameter, ⅝" Height, Fits ¼" shafts.

No Insert—Set Screw

Cat. No. 24-492	Walnut	Net $ .37
24-494	Black	.37
24-496	Ivory	.37

Brass Insert—Set Screw

Cat. No. 24-498	Walnut	Net $ .37
24-500	Black	.37
24-502	Ivory	.37

(F) BAKELITE POINTER KNOB—Line filled, 1⅛" Diameter, 9/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-504	Walnut	Net $ .25
24-506	Black	.25
24-508	Red	.25
24-510	Ivory	.25

(G) BAKELITE POINTER KNOB—13/16" Length, ¾" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-512	Walnut	Net $ .18
24-514	Black	.18

(H) TENITE POINTER KNOB — 1¼" Diameter, 9/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-516	Walnut	Net $ .27
24-518	Black	.27
24-520	Red	.27
24-522	White	.27

(J) BAKELITE POINTER KNOB—1¼" Length, 11/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-524	Black	Net $ .25
24-526	Red	.25
24-528	Ivory	.25

(K) BAKELITE POINTER KNOB—1¼" Length, 9/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-530	Black	Net $ .22
24-532	Walnut	.22
24-534	Red	.22
24-536	Ivory	.22

(L) BAKELITE POINTER KNOB—1¼" Length, ⅝" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-538	Black	Net $ .20
24-540	Walnut	.20
24-542	Red	.20
24-544	Ivory	.20

(M) BAKELITE BRASS INSERT — 2" Length, ⅝" Height, Fits ¼" shafts.

No Insert—Set Screw

Cat. No. 24-546	Black	Net $ .33
24-548	Walnut	.33
24-550	Red	.33
24-552	Ivory	.33

Brass Insert—Set Screw

Cat. No. 24-554	Black	Net $ .42
24-556	Walnut	.42
24-558	Red	.42
24-560	Ivory	.42

(N) BAKELITE BRASS INSERT—1¼" Length, ⅝" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-562	Black	Net $ .27
24-564	Walnut	.27
24-566	Red	.27

(O) BAKELITE POINTER KNOB—1¼" Length, ⅝" Height, Fits ¼" shafts.

No Insert—Set Screw

Cat. No. 24-570	Walnut	Net $ .18
24-572	Black	.18
24-574	Red	.18
24-576	Ivory	.18

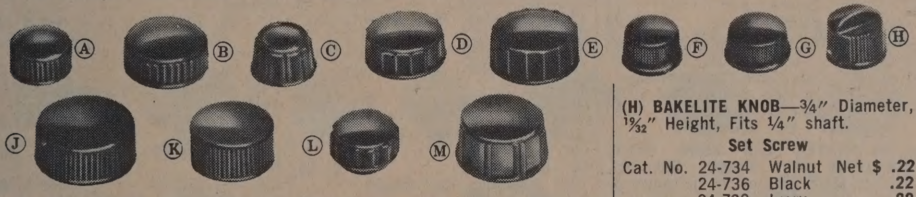
Brass Insert—Set Screw

Cat. No. 24-578	Walnut	Net $ .28
24-580	Black	.28
24-582	Red	.28
24-584	Ivory	.28

(P) PLASTIC POINTER KNOB — 15/16" Diameter, ½" shank extension for ¼" knurled shaft.

Knurl

Cat. No. 24-586	Walnut	Net $ .12
24-588	Ivory	.12



(A) TENITE KNOB—23/32" Diameter, 13/32" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-666	Walnut	Net $ .12
24-668	Ivory	.12

Set Screw

Cat. No. 24-670	Walnut	Net $ .18
24-672	Ivory	.18

(B) TENITE KNOB—15/16" Diameter, 7/16" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-674	Walnut	Net $ .12
24-676	Ivory	.12

Spring Type

Cat. No. 24-678	Walnut	Net $ .12
24-680	Ivory	.12

(C) TENITE KNOB—¾" Diameter, ½" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-682	Walnut	Net $ .12
24-684	Ivory	.12

Set Screw

Cat. No. 24-686	Walnut	Net $ .15
24-688	Ivory	.15

(D) TENITE KNOB—15/16" Diameter, 7/16" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-690	Walnut	Net $ .12
24-692	Ivory	.12

Spring Type

Cat. No. 24-694	Walnut	Net $ .12

(E) TENITE KNOB—1⅛" Diameter, 9/16" Height, Fits ¼" shafts.

Knurl

Cat. No. 24-700	Walnut	Net $ .12
24-702	Ivory	.12

Spring Type

Cat. No. 24-704	Walnut	Net $ .12
24-706	Ivory	.12

Set Screw

Cat. No. 24-108	Walnut	Net $ .18
24-710	Ivory	.18

(F) BAKELITE KNOB—1 1/16" Diameter, 13/32" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-712	Walnut	Net $ .17
24-714	Black	.17
24-716	Red	.17
24-718	Ivory	.17

Set Screw with Arrow

Cat. No. 24-720	Walnut	Net $ .23
24-722	Black	.23
24-724	Red	.23
24-726	Ivory	.28

(G) BAKELITE KNOB—1" Diameter, ½" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-728	Black	Net $ .25
24-730	Red	.25
24-732	Ivory	.25

(H) BAKELITE KNOB—¾" Diameter, 19/32" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-734	Walnut	Net $ .22
24-736	Black	.22
24-738	Ivory	.22

(J) TENITE KNOB—1 3/16" Diameter, ½" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-740	Walnut	Net $ .13
24-742	Ivory	.13

(K) TENITE KNOB—1 1/16" Diameter, ½" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-744	Walnut	Net $ .13
24-746	Ivory	.13

Set Screw with Arrow

Cat. No. 24-748	Walnut	Net $ .15
24-750	Ivory	.15

(L) BAKELITE KNOB—⅞" Diameter, ½" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-752	Walnut	Net $ .23
24-754	Black	.23
24-756	Ivory	.25

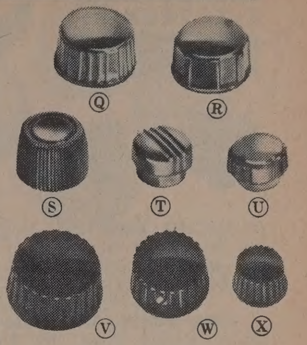
Set Screw with Arrow

Cat. No. 24-758	Walnut	Net $ .30
24-760	Black	.30
24-762	Ivory	.30

(M) BAKELITE KNOB—1" Diameter, 9/16" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-764	Walnut	Net $ .28
24-766	Ivory	.28



(Q) BAKELITE KNOB—1 1/16" Diameter, 9/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-772	Walnut	Net $ .30
24-774	Ivory	.30

(R) BAKELITE KNOB—1" Diameter, 9/16" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-776	Walnut	Net $ .23
24-778	Ivory	.23

(S) TENITE KNOB — 1" Diameter, 11/16" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-780	Walnut	Net $ .13
24-782	Ivory	.13

Spring Type

Cat. No. 24-784	Walnut	Net $ .13
24-786	Ivory	.13

(T) BAKELITE KNOB—⅞" Diameter, ⅝" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-788	Walnut	Net $ .30
24-790	Ivory	.30

(U) BAKELITE KNOB—⅞" Diameter, ⅝" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-792	Walnut	Net $ .15

(V) BAKELITE KNOB—1¼" Diameter, ⅝" Height, Fits ¼" shaft.

Set Screw—No Insert

Cat. No. 24-796	Walnut	Net $ .28
24-798	Black	.28

Brass Insert—Set Screw

Cat. No. 24-800	Walnut	Net $ .32
24-802	Black	.32

(W) BAKELITE KNOB—1" Diameter, ½" Height, Fits ¼" shaft.

Set Screw—No Insert

Cat. No. 24-804	Black	Net $ .25
24-806	Red	.25

Brass Insert—Set Screw

Cat. No. 24-808	Black	Net $ .28

(X) BAKELITE KNOB—⅝" Diameter, 13/32" Height, Fits ¼" shaft.

Set Screw—No Insert

Cat. No. 24-812	Walnut	Net $ .15
24-814	Black	.15
24-816	Red	.17
24-818	Ivory	.17

Set Screw—Brass Insert

Cat. No. 24-820	Walnut	Net $ .22
24-822	Black	.22
24-824	Red	.22
24-826	Ivory	.22

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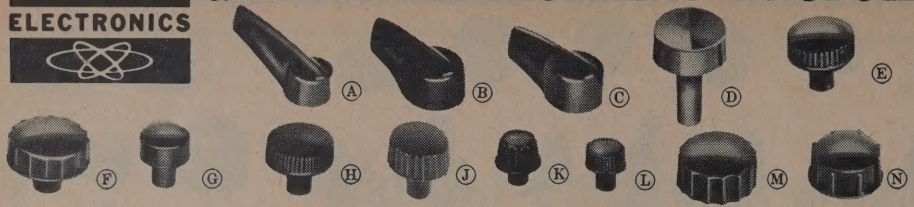
GC ELECTRONICS

GEE-LAR REPLACEMENT KNOBS



(A) BAKELITE KNOB—2½″ Length, ⅝″ Height, Fits ¼″ shafts.

NO INSERT—SET SCREW
Cat. No. 24-590 Black Net $ .30
24-592 Walnut .30

BRASS INSERT—SET SCREW
Cat. No. 24-594 Black Net $ .37
24-596 Walnut .37

(B) BAKELITE KNOB—1⅝″ Length, ¹⁹⁄₃₂″ Height, Fits ¼″ shafts.

SET SCREW
Cat. No. 24-598 Black Net $ .25
24-600 Walnut .25

(C) BAKELITE BRASS INSERT—1⅝″ Length, ¹⁹⁄₃₂″ Height, Fits ¼″ shafts.

SET SCREW
Cat. No. 24-602 Black Net $ .37
24-604 Walnut .37

(D) TENITE KNOB—1³⁄₁₆″ Shank, 1⅛″ Diameter, ⁷⁄₁₆″ Height, Fits ¼″ shafts.

KNURL
Cat. No. 24-606 Walnut Net $ .18
24-608 Ivory .18

(E) TENITE KNOB—¹⁵⁄₁₆″ Diameter, ⁷⁄₁₆″ Height, ½″ Shank Extension, Fits ¼″ shafts.

KNURL
Cat. No. 24-610 Walnut Net $ .13
24-612 Ivory .13

(F) TENITE KNOB—1¼″ Diameter, ⁹⁄₁₆″ Height, ½″ Shank Extension, Fits ¼″ shafts.

KNURL
Cat. No. 24-614 Walnut Net $ .15
24-616 Ivory .15

(G) TENITE KNOB—¾″ Diameter, ⁷⁄₁₆″ Height, ½″ Shank Extension, Fits ¼″ shafts.

KNURL
Cat. No. 24-618 Walnut Net $ .12
24-620 Ivory .12

(H) TENITE KNOB—¹⁵⁄₁₆″ Diameter, ⅝″ Height, ½″ Shank Extension, Fits ¼″ shafts.

KNURL
Cat. No. 24-622 Walnut Net $ .13
24-624 Ivory .13

(J) PLASTIC KNOB—¹⁵⁄₁₆″ Diameter, ½″ Shank Extension for ¼″ Knurled Shaft.

KNURL
Cat. No. 24-626 Walnut Net $ .12
24-628 Ivory .12

(K) PLASTIC KNOB MIDGET TYPE—¾″ Diameter, ⅜″ Shank Extension, Fits ¼″ shafts.

KNURL
Cat. No. 24-634 Walnut Net $ .12
24-636 Ivory .12

(L) PLASTIC KNOB MIDGET TYPE—²³⁄₃₂″ Diameter, ½″ Shank Extension, Fits ¼″ shafts.

KNURL
Cat. No. 24-640 Ivory $ .12

(M) TENITE KNOB—1⅛″ Diameter, ½″ Height, Fits ¼″ shafts.

KNURL
Cat. No. 24-642 Walnut Net $ .12
24-644 Ivory .12

SPRING TYPE
Cat. No. 24-646 Walnut Net $ .18
24-648 Ivory .18

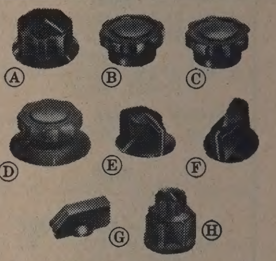
SET SCREW
Cat. No. 24-650 Walnut Net $ .18
24-652 Ivory .18

(N) TENITE KNOB—1″ Diameter, ⁷⁄₁₆″ Height, Fits ¼″ shafts.

KNURL
Cat. No. 24-654 Walnut Net $ .12
24-656 Ivory .12

SPRING TYPE
Cat. No. 24-658 Walnut Net $ .15
24-660 Ivory .15

SET SCREW
Cat. No. 24-662 Walnut Net $ .18
24-664 Ivory .18



GEE-LAR KURZ-KASCH KNOBS

(A) POINTER KNOBS—Indicator line.
¾″ Diameter, ⁷⁄₁₆″ Height.
Cat. No. 25-034 Net $ .48
1″ Diameter, ¹⁹⁄₃₂″ Height.
Cat. No. 25-036 Net $ .55
1¼″ Diameter, ²¹⁄₃₂″ Height.
Cat. No. 25-038 Net $ .55
1½″ Diameter, ¾″ Height.
Cat. No. 24-040 Net $ .55
2″ Diameter, ⅞″ Height.
Cat. No. 25-042 Net $1.03
No Indicator Line.
1½″ Diameter, ¾″ Height.
Cat. No. 25-044 Net $ .52
2″ Diameter, ⅞″ Height.
Cat. No. 25-046 Net $ .98

(B) POINTER KNOBS—1″ Diameter ⅝″ Height, ¾″ Pointer.
Cat. No. 25-048 Net $ .70
1⅛″ Diameter, ⅝″ Height, ¾″ Pointer.
Cat. No. 25-050 Net $ .70
1⅜″ Diameter, ¹¹⁄₁₆″ Height, 1¹⁄₁₆″ Pointer.
Cat. No. 25-052 Net $ .95
1⅝″ Diameter, ¾″ Height, 1³⁄₁₆″ Pointer.
Cat. No. 25-054 Net $ .95
2⅜″ Diameter, ⅞″ Height, 1⁹⁄₁₆″ Pointer.
Cat. No. 25-056 Net $1.28

(C) NO POINTER—1″ Diameter, ⅝″ Height.
Cat. No. 25-058 Net $ .60
1⅛″ Diameter, ⅝″ Height.
Cat. No. 25-060 Net $ .73
1⅜″ Diameter, ¹¹⁄₁₆″ Height.
Cat. No. 25-062 Net $ .97
1⅝″ Diameter, ¾″ Height.
Cat. No. 25-064 Net $ .80
2⅜″ Diameter, ⅞″ Height.
Cat. No. 25-066 Net $1.17

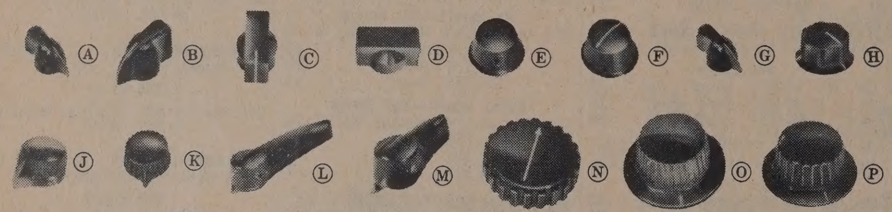
(D) SKIRT KNOBS—1⅛″ Diameter, ¹³⁄₁₆″ Height, 1½″ Skirt.
Cat. No. 25-068 Net $1.42
1⅜″ Diameter, ²⁷⁄₃₂″ Height, 1¾″ Skirt.
Cat. No. 25-070 Net $1.37
1⅝″ Diameter, ⅞″ Height, 2¹⁄₁₆″ Skirt.
Cat. No. 25-072 Net $1.53
2⅜″ Diameter, ¹⁵⁄₁₆″ Height, 3″ Skirt.
Cat. No. 25-074 Net $2.33

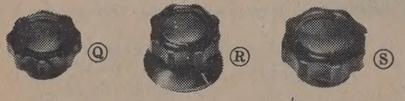
(E) POINTER KNOB BRASS INSERT—1⅛″ Diameter, ⅝″ Height.
Cat. No. 25-076 Net $ .63

(F) POINTER KNOB NO BRASS INSERT—1⅛″ Diameter, ¹¹⁄₁₆″ Height, 1 Set Screw.
Cat. No. 25 078 Net $ .18

(G) BAR KNOB NO BRASS INSERT—1½″ Length, ⅝″ Height, 1 Set Screw.
Cat. No. 25-080 Net $ .33

(H) DUAL CONTROL—1″ Diameter, 1³⁄₆₄″ Height.
Cat. No. 25-086 Net $1.23





GEE-LAR KURZ-KASCH

(A) POINTER KNOB BRASS INSERT—1¼″ Length, ⅝″ Height, MIL Spec. AN3219-1.
Cat. No. 25-088 Black Net $ .32

(B) POINTER KNOB BRASS INSERT—1½″ Length, ⅞″ Height.
Cat. No. 25-092 Black Net $ .42

(C) BAR KNOB BRASS INSERT—1¼″ Length, ²¹⁄₃₂″ Height, Black only.
Cat. No. 25-098 Black Net $ .83

(D) BAR KNOB BRASS INSERT—1¼″ Length, ²¹⁄₃₂″ Height, Black only.
Cat. No. 25-100 Black Net $ .78

(E) BRASS INSERT NO ARROW—¾″ Diameter, ⁹⁄₁₆″ Height, Black only.
Cat. No. 25-102 Black Net $ .45

(F) BRASS INSERT WITH ARROW—1⅛″ Diameter, ⁹⁄₁₆″ Height.
Cat. No. 25-104 Net $ .42
1½″ Diameter, ¾″ Height, Black only.
Cat. No. 25-106 Black Net $ .47

(G) POINTER KNOB BRASS INSERT—1¼″ Length, ⅝″ Height.
Cat. No. 25-108 Black Net $ .43

(H) POINTER KNOB ⅛″ BRASS INSERT—¾″ Diameter, ⁷⁄₁₆″ Height.
Cat. No. 25-116 Black Net $ .50

(J) BAKELITE POINTER KNOB—¹¹⁄₁₆″ Diameter, ¹³⁄₃₂″ Height, Fine serrations, Fits ¼″ shaft.

SET SCREW
Cat. No. 24-430 Walnut Net $ .17
24-432 Black .17
24-434 Red .18
24-436 Ivory .18

(K) BAKELITE POINTER KNOB—¹¹⁄₁₆″ Diameter, ¹³⁄₃₂″ Height, Fits ¼″ shaft.

NO INSERT—SET SCREW
Cat. No. 24-440 Walnut Net $ .15
24-442 Black .15
24-444 Red .15
24-446 Ivory .15

WITH BRASS INSERT
Cat. No. 24-448 Walnut Net $ .23
24-450 Black .23
24-452 Red .23
24-454 Ivory .28

(L) POINTER BAR KNOB BRASS BUSHING—2¾″ Length, Fits ¼″ shaft, Metal pointer can be removed.
Cat. No. 24-456 Black Net $ .55
24-458 Walnut .58

SET SCREW

(M) POINTER BAR KNOB BRASS BUSHING 1⅝″ Length, Fits ¼″ shaft, Metal pointer can be removed.

SET SCREW
Cat. No. 24-460 Black Net $ .55
24-462 Walnut .58

(N) BAKELITE POINTER KNOB—1¾″ Diameter, ⅞″ Height, with molded white arrow, brass bushing, Black only.
Cat. No. 25-000 Set Screw Type Net $ .47

(O) BAKELITE WITH BRASS INSERT—1½″ Diameter, ¾″ Height, Indicator line, Black only.
Cat. No. 25-002 Set Screw Type Net $ .33

(P) BAKELITE SKIRT KNOBS—1½″ Skirt Diameter, ¹¹⁄₁₆″ Height.
Cat. No. 25-004 Set Screw Type Net $ .27

(Q) POINTER KNOBS—1⅛″ Diameter, ⅝″ Height, ¾″ Pointer.
Cat. No. 25-006 Net $ .63
1⅜″ Diameter, ¹¹⁄₁₆″ Height, 1¹⁄₁₆″ Pointer.
Cat. No. 25-008 Net $ .65
1⅝″ Diameter, ¾″Height, 1³⁄₁₆″ Pointer.
Cat. No. 25-010 Net $ .72
2⅜″ Diameter, ⅞″ Height, 1⁹⁄₁₆″ Pointer.
Cat. No. 25-012 Net $ .82

(R) SKIRT KNOBS—1⅛″ Diameter, ¹³⁄₁₆″ Height, 1½″ Skirt.
Cat. No. 25-014 Net $ .78
1⅛″ Diameter, ¹³⁄₁₆″ Height, 1¾″ Skirt.
Cat. No. 25-016 Net $ .78
1⅜″ Diameter, ⅞″ Height, 1½″ Skirt.
Cat. No. 25-018 Net $ .80
1⅜″ Diameter, ⅞″ Height, 1¾″ Skirt.
Cat. No. 25-020 Net $ .80
1⅝″ Diameter, ²⁹⁄₃₂″ Height, 2¹⁄₁₆″ Skirt.
Cat. No. 25.022 Net $ .95
2⅜″ Diameter, 1¹⁄₃₂″ Height, 3″ Skirt.
Cat. No. 25-024 Net $1.33

(S) BAKELITE KNOB—1⅛″ Diameter, ⅝″ Height.
Cat. No. 25-026 Net $ .40
1⅜″ Diameter, ¹¹⁄₁₆″ Height.
Cat. No. 25-028 Net $ .45
1⅝″ Diameter, ¾″ Height.
Cat. No. 25-030 Net $ .52
2⅜″ Diameter, ⅞″ Height.
Cat. No. 25-032 Net $ .72

GEE-LAR KURZ-KASCH PUSH BUTTON KNOBS

PUSH BUTTON KNOB—½″ Diameter, ¹⁵⁄₃₂″ Height, ⅜″ Hole Depth, Black only. Tapered sides.
Cat. No. 25-118 Black Net $ .13

PUSH BUTTON RECESSED TOP—½″ Diameter, ¹⁵⁄₃₂″ Height, ⅜″ Hole Depth, Top recessed for selector tab, Black only.
Cat. No. 25-120 Black Net $ .13

PUSH BUTTON KNOB—⁷⁄₁₆″ Diameter ¹⁵⁄₃₂″ Height, ⅜″ Hole Depth, Black only.
Cat. No. 25-122 Black Net $ .13

PUSH BUTTON KNOB—⁷⁄₁₆″ Diameter, ⅝″ Height, ⅜″ Hole Depth, Black only.
Cat. No. 25-124 Black Net $ .15

PUSH BUTTON RECESSED TOP—⁷⁄₁₆″ Diameter, ⅝″ Height, ⅜″ Hole Depth, Top recessed for selector tab, Black only.
Cat. No. 25-126 Black Net $ .15

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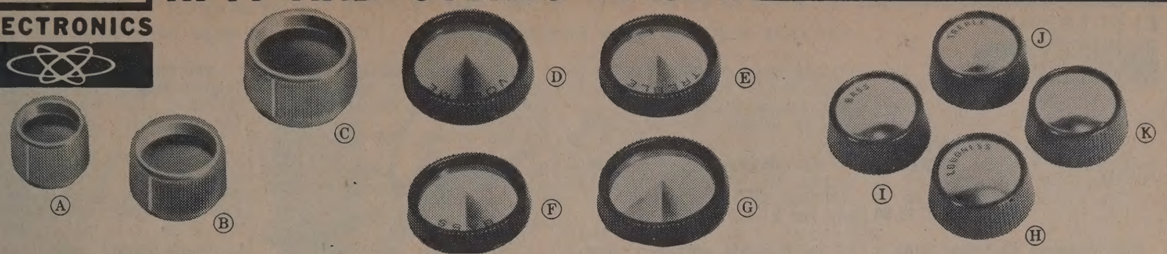
GC ELECTRONICS

HI-FI AND STEREO KNOBS



HI-FI STEREO KNOB SERIES—For Hi-Fi Stereo Cabinets and Custom Installations.
Precision made of TENITE with sparkling brass top ring inserts and indicator lines. Set screw type.
Cat. No. 24-012 Set of 3, Black Net $ .97
24-014 Set of 3, Ivory Net $ .97

INDIVIDUAL KNOBS

"A" Small
1" Diameter 13/16" Height, Fits 1/4" shaft.
Cat. No. 24-000 Black Net $ .30
24-002 Ivory .30

"B" Medium
1 5/16" Diameter, 13/16" Height, Fits 1/4" shaft.
Cat. No. 24-004 Black Net $ .33
24-006 Ivory .33

"C" Large
1½" Diameter, 7/8" Height, Fits 1/4" shaft.
Cat. No. 24-008 Black Net $ .40
24-010 Ivory .40

AUDIO-PHILE KNOB SERIES—For Hi-Fi Custom Installations. TENITE with brass inserts. Indicated for Volume, Treble, Bass or Plain.
Cat. No. 24-024 Set of 4, Maroon Net $1.42

"D" Volume
1½" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-016 Maroon Net $ .40

"E" Treble
1½" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-018 Maroon Net $ .40

"F" Bass
1½" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-020 Maroon Net $ .40

"G" Plain
1½" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-022 Maroon Net $ .30

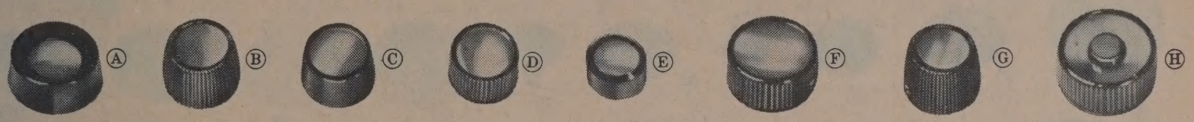
HIGH-FIDELITY KNOB SERIES TENITE—with handsome, individually marked brass inserts for Volume, Bass, Treble and Plain.
Cat. No. 24-034 Set of 4, Maroon Net $1.35

"H" Loudness
1 1/8" Diameter, ½" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-026 Maroon Net $ .35

"I" Bass
1 1/8" Diameter, ½" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-028 Maroon Net $ .35

"J" Treble
1 1/8" Diameter, ½" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-030 Maroon Net $ .35

"K" Plain
1 1/8" Diameter, ½" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-032 Maroon Net $ .33



(A) TENITE PLATED GOLD INLAY—1¼" Diameter, ½" Height, Fits 1/4" shaft.

SPRING TYPE

Cat. No. 24-070 Walnut Net $ .33
24-072 Ivory .33

(B) TENITE PLATED GOLD INLAY—1" Diameter, 5/8" Height, Fits 1/4" shaft.

KNURL TYPE

Cat. No. 24-074 Walnut Net $ .25
24-076 Ivory .25

(C) TENITE PLATED GOLD INLAY—1" Diameter, ½" Height, Fits 1/4" shaft.

KNURL TYPE

Cat. No. 24-078 Walnut Net $ .23
24-080 Ivory .23

(D) TENITE PLATED GOLD INLAY—1" Diameter, 3/8" Height, Fits 1/4" shaft.

KNURL TYPE

Cat. No. 24-082 Walnut Net $ .25
24-084 Ivory .25

SPRING TYPE

Cat. No. 24-086 Walnut Net $ .27
24-088 Ivory .27

SET SCREW

Cat. No. 24-090 Walnut Net $ .40
24-092 Ivory .40

(E) TENITE PLATED GOLD INLAY—3/4" Diameter, 3/8" Height, Fits 1/4" shaft.

KNURL TYPE

Cat. No. 24-094 Walnut Net $ .22
24-096 Ivory .22

SPRING TYPE

Cat. No. 24-098 Walnut Net $ .27
24-100 Ivory .27

(F) TENITE PLATED GOLD INLAY—1 3/16" Diameter, ½" Height, Fits 1/4" shaft.

KNURL TYPE

Cat. No. 24-102 Walnut Net $ .27
24-104 Ivory .27

SET SCREW

Cat. No. 24-106 Walnut Net $ .42
24-108 Ivory Net $ .42

(G) TENITE PLATED GOLD INLAY—1" Diameter, 11/16" Height, Fits 1/4" shaft.

SET SCREW

Cat. No. 24-110 Walnut Net $ .37
24-112 Ivory .37

(H) TENITE PLATED GOLD INLAY—1 3/16" Diameter, ½" Height, Fits 1/4" shaft.

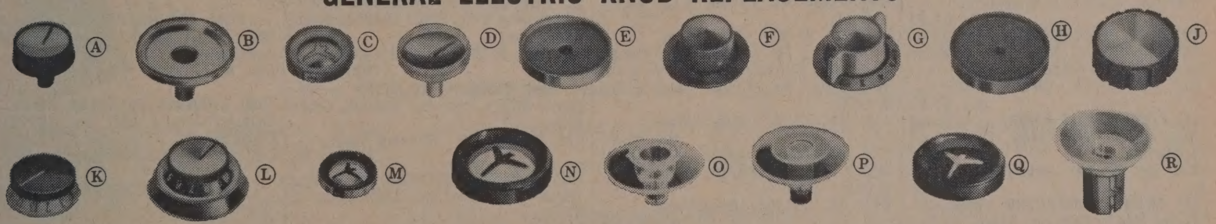
KNURL TYPE

Cat. No. 24-114 Walnut Net $ .28
24-116 Ivory .28

SET SCREW

Cat. No. 24-118 Walnut Net $ .35

GENERAL ELECTRIC KNOB REPLACEMENTS



(A) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. G 1001, Color Black & Gold.
Cat. No. 27-064 Channel Knob Net $ .92

CHANNEL SELECTOR KNOB

Original Mfg.'s Part No. G 1002, Color Black & Silver.
Cat. No. 27-066 Channel Knob Net $ .92

(B) FINE TUNING KNOB—Original Mfg.'s Part No. G 1003, Color Silver.
Cat. No. 27-068 Fine Tuning Net $ .92

(C) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. GWT43x246, Color Green & Gold.
Cat. No. 27-070 Channel Knob Net $1.25

(D) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. GWT43x269, Color Clear & Gold.
Cat. No. 27-072 Channel Knob Net $2.10

(E) FINE TUNING KNOB—Original Mfg.'s Part No. WT43x40 (RDK222), Color Fawn.
Cat. No. 27-074 Fine Tuning Net $ .57

(F) OFF-ON VOLUME KNOB—Original Mfg.'s Part No. WT43x41 (RDK223), Color Fawn.
Cat. No. 27-076 Off-On Volume Net $ .75

(G) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x42 (RDK224), Color Fawn.
Cat. No. 27-078 Channel Knob Net $ .87

(H) PICTURE VOLUME KNOB—Original Mfg.'s Part No. WT43x43 (RDK225), Color Fawn.
Cat. No. 27-080 Picture Volume Net $ .57

(J) OFF-ON VOLUME KNOB—Original Mfg.'s Part No. WT43x53 (RDK263), Color Brown & Fawn.
Cat. No. 27-082 Off-On Volume Net $1.00

CHANNEL SELECTOR KNOB

Original Mfg.'s Part No. WT43x54 (RDK264), Color Brown & Fawn.
Cat. No. 27-084 Channel Knob Net $1.50

(K) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x76 (RDK331), Color Brown & Gold.
Cat. No. 27-086 Channel Knob Net $1.92

CHANNEL SELECTOR KNOB

Original Mfg.'s Part No. WT43x152 (RDK455), Color Brown.
Cat. No. 27-090 Channel Knob Net $2.85

(L) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x139 (RDK434), Color Brown & Gold.
Cat. No. 27-092 Channel Knob Net $2.10

CHANNEL SELECTOR KNOB

Original Mfg.'s Part No. WT43x141 (RDK438), Color Fawn & Gold.
Cat. No. 27-094 Channel Knob Net $2.28

(M) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x159 (RDK469), Color Brown.
Cat. No. 27-096 Channel Knob Net $1.77

(N) ON-OFF VOLUME OR BRIGHTNESS—Original Mfg.'s Part No. WT43 x158 (RDK467), Color Mahogany & Gold.
Cat. No. 27-462 On-Off Volume Net $1.27

ON-OFF VOLUME OR BRIGHTNESS—Original Mfg.'s Part No. WT-43x163 (RDK473), Color Brown.
Cat. No. 27-464 On-Off Volume Net $1.00

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x164 (RDK474), Color Mahogany.
Cat. No. 27-466 Channel Knob Net $1.50

ON-OFF VOLUME KNOB—Original Mfg.'s Part No. WT43x165 (RDK475), Color Mahogany & Gold.
Cat. No. 27-468 On-Off Volume Net $1.27

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x169 (RDK479), Color Mahogany & Gold.
Cat. No. 27-470 UHF Channel Net $1.77

(O) PICTURE TUNING KNOB—Original Mfg.'s Part No. WT43x171 (RDK490), Color Clear.
Cat. No. 27-472 Picture Knob Net $ .90

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x176 (RDK521), Color Mahogany & Gold.
Cat. No. 27-474 UHF Channel Net $1.77

Continued next page

GC ELECTRONICS

REPLACEMENT KNOBS

GENERAL ELECTRIC KNOB REPLACEMENTS . . . See previous page for illustrations

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x179 (RDK524), Color Mahogany.
Cat. No. 27-476 Channel Knob
Net $1.50

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x182 (RDK527), Color Gold.
Cat. No. 27-478 UHF Channel
Net $1.77

(P) CONTRAST TUNING KNOB—Original Mfg.'s Part No. WT43x184 (RDK530), Color Clear.
Cat. No. 27-480 Contrast Tuning
Net $ .90

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x187 (RDK540), Color Navy Blue.
Cat. No. 27-482 UHF Channel
Net $1.17

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x192 (RDK550), Color Bronze & Gold.
Cat. No. 27-484 UHF Channel
Net $1.77

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x194 (RDK552), Color Peacock Blue & Gold.
Cat. No. 27-486 UHF Channel
Net $1.77

(Q) BRIGHTNESS KNOB—Original Mfg.'s Part No. WT43x209 (RDK569), Color Navy Blue.
Cat. No. 27-488 Brightness Knob
Net $1.00

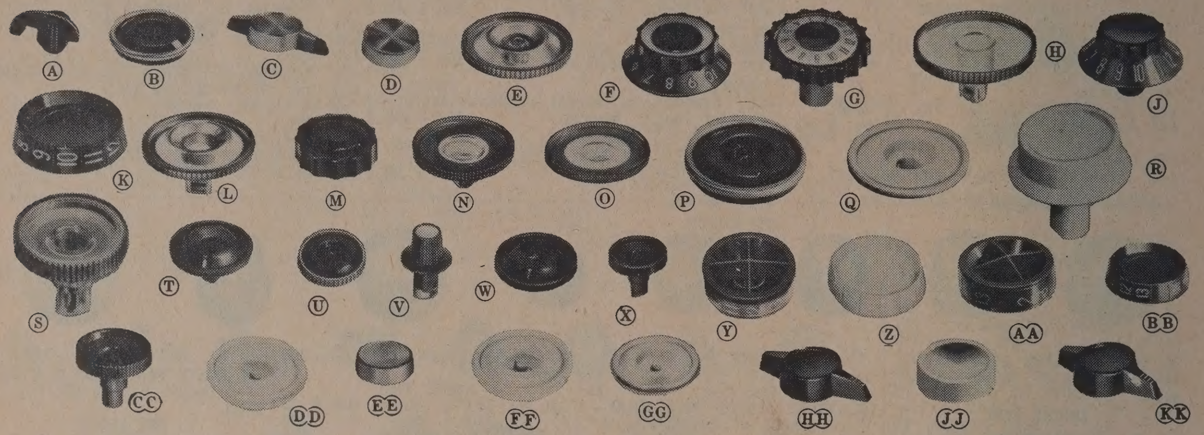
UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x207 (RDK568), Color Cream & Gold.
Cat. No. 27-490 UHF Channel
Net $1.77

VHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x217 (RDK587), Color Cream & Gold.
Cat. No. 27-492 VHF Channel
Net $1.77

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x219 (RDK599), Color Green & Gold.
Cat. No. 27-494 UHF Channel
Net $1.77

(R) BRIGHTNESS KNOB—Original Mfg.'s Part No. WT43x226 (RDK609), Color Clear.
Cat. No. 27-496 Brightness Knob
Net $ .42

RCA EXACT TV REPLACEMENT KNOBS



(A) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 76770, Color Dark Maroon & Gold.
Cat. No. 27-200 Channel Knob
Net $ .76

(B) FINE TUNING KNOB — Original Mfg.'s Part No. 77707, Color Brown with Polished Brass Shell.
Cat. No. 27-202 Fine Tuning
Net $1.57

(C) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708, Color Red with Polished Brass Shell.
Cat. No. 27-204 Channel Knob
Net $1.50

(D) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710, Color Black with Polished Brass Shell.
Cat. No. 27-206 On-Off Volume
Net $1.57

(E) FINE TUNING KNOB — Original Mfg.'s Part No. 79464, Color Gold & Maroon.
Cat. No. 27-208 Fine Tuning
Net $1.26

(F) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 79466, Colors Amber, Gray, Maroon & Gold.
Cat. No. 27-210 Channel Knob
Net $1.77

(G) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100627, Color Maroon & Polished Brass.
Cat. No. 27-212 Channel Knob
Net $2.70

(H) FINE TUNING KNOB — Original Mfg.'s Part No. 100629, Color Clear with Gold Edge.
Cat. No. 27-214 Fine Tuning
Net $1.27

(J) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100637, Color Brown.
Cat. No. 27-216 Channel Knob
Net $1.77

(K) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100944, Color Dark Wine.
Cat. No. 27-218 Channel Knob
Net $1.35

(L) FINE TUNING KNOB — Original Mfg.'s Part No. 101015, Color Gold & Maroon.
Cat. No. 27-220 Fine Tuning
Net $1.26

(M) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 101150, Color Dark Wine.
Cat. No. 27-222 Channel Knob
Net $ .90

(N) FINE TUNING KNOB — Original Mfg.'s Part No. 101154, Color Gold & Maroon.
Cat. No. 27-224 Fine Tuning
Net $1.00

(O) FINE TUNING KNOB — Original Mfg.'s Part No. 101276, Color Gold & Maroon.
Cat. No. 27-226 Fine Tuning
Net $1.26

(P) BRIGHTNESS KNOB — Original Mfg.'s Part No. 77709, Color Brown & Gold.
Cat. No. 27-700 Brightness
Net $1.35

(Q) FINE TUNING KNOB — Original Mfg.'s. Part No. 77717, Color Beige & Gold.
Cat. No. 27-702 Fine Tuning
Net $1.35

BRIGHTNESS KNOB — Original Mfg's. Part No. 77718, Color Beige & Gold.
Cat. No. 27-704 Brightness
Net $1.35

(R) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 100621, Color Gray.
Cat. No. 27-706 On-Off Volume
Net $ .67

ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 101138, Color Brown.
Cat. No. 27-708 On-Off Volume
Net $ .67

(S) BRIGHTNESS KNOB — Original Mfg.'s Part No. 101124, Color Clear & Gold.
Cat. No. 27-710 Brightness
Net $1.17

(T) FINE TUNING KNOB — Original Mfg.'s Part No. 100639, Color Brown.
Cat. No. 27-712 Fine Tuning
Net $1.26

(U) CONTRAST-BRIGHTNESS—Original Mfg.'s Part No. 79470, Color Mahogany.
Cat. No. 27-714 Contrast-Bright-
Net $1.50

(V) HORIZONTAL CONTROL KNOB—Original Mfg.'s Part No. 101010, Color Maroon.
Cat. No. 27-716 Horizontal
Net $ .82

(W) FINE TUNING KNOB — Original Mfg.'s Part No. 79864, Color Brown.
Cat. No. 27-718 Fine Tuning
Net $1.26

(X) CONTRAST KNOB—Original Mfg.'s Part No. 100622, Color Mahogany.
Cat. No. 27-720 Contrast
Net $ .82

CONTRAST KNOB — Original Mfg.'s Part No. 100623, Color Gray.
Cat. No. 27-722 Contrast
Net $ .82

(Y) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 104304, Color Mahogany.
Cat. No. 27-724 Channel Knob
Net $1.35

(Z) UHF CHANNEL SELECTOR — Original Mfg.'s Part No. 104305, Color Mahogany.
Cat. No. 27-726 Channel Knob
Net $1.35

UHF CHANNEL SELECTOR — Original Mfg.'s Part No. 104306, Color Gray.
Cat. No. 27-728 Channel Knob
Net $1.35

(AA) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 102503, Color Gray.
Cat. No. 27-730 Channel Knob
Net $3.00

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 102502, Color Mahogany.
Cat. No. 27-732 Channel Knob
Net $3.00

(BB) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 104303, Color Gray.
Cat. No. 27-734 Channel Knob
Net $1.35

(CC) CONTRAST KNOB — Original Mfg.'s Part No. 104386, Color Maroon.
Cat. No. 27-736 Contrast Knob
Net $ .82

(DD) BRIGHTNESS KNOB — Original Mfg.'s Part No. 79080, Color Beige.
Cat. No. 27-738 Brightness Knob
Net $1.35

(EE) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710M, Color Mahogany & Gold.
Cat. No. 27-740 On-Off Volume
Net $1.35

VOLUME KNOB—Original Mfg.'s Part No. 79445, Color Beige & Gold.
Cat. No. 27-742 Volume Knob
Net $1.35

VOLUME KNOB — Original Mfg.'s Part No. 79471, Color Mahogany & Gold.
Cat. No. 27-744 Volume Knob
Net $1.35

(FF) FINE TUNING KNOB — Original Mfg.'s Part No. 79077, Color Beige.
Cat. No. 27-746 Fine Tuning
Net $1.35

(GG) BRIGHTNESS KNOB — Original Mfg.'s Part No. 77718M, Color Mahogany & Gold.
Cat. No. 27-748 Brightness Knob
Net $1.35

FINE TUNING KNOB — Original Mfg.'s Part No. 77717M, Color Mahogany & Gold.
Cat. No. 27-750 Fine Tuning
Net $1.35

(HH) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. 79222BL, Color Black.
Cat. No. 27-752 Channel Knob
Net $1.17

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 79222, Color Mahogany.
Cat. No. 27-754 Channel Knob
Net $1.17

(JJ) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710B, Color Beige & Gold.
Cat. No. 27-756 On-Off Volume
Net $1.35

(KK) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708B, Color Beige & Gold.
Cat. No. 27-758 Channel Knob
Net $1.35

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708M, Color Brown & Gold.
Cat. No. 27-760 Channel Knob
Net $1.35

ALSO AVAILABLE

Replacement Knobs for

- Admiral
- Crosley
- Emerson
- Hotpoint
- Motorola
- Muntz
- Olympic
- Philco
- Westinghouse
- Zenith

WRITE FOR LATEST LISTING

Net·

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GC ELECTRONICS

ELECTRONIC COMPONENTS

GC TV-RADIO DIAL CABLES

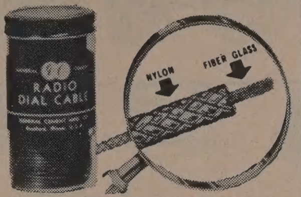
Nylon cord with a fibreglass core. All especially treated to prevent stretching and slipping. G-C Cords No. 75, 75-A and 74 will handle 90% of replacements. 25-Ft., 50-Ft., 100-Ft. Spools are supplied in permanent, clear plastic containers.

G-C No. 75 STANDARD THIN NYLON CORD .028″ Diameter — Used on 95% of the latest sets manufactured. Made of finest braided Nylon over a Fiberglas Core. It is pre-stretched and chemically treated.

Cat. No.		
75-25	25 ft. spool	Net $ .75
75-50	50 ft. spool	1.43
75-100	100 ft. spool	2.37
75-1000	1000 ft. spool	15.57

G-C No. 75-A EXTRA THIN NYLON CORD .025″ Diameter—Used on Motorola, RCA, GE, Sentinel, Stromberg Carlson and others. Extra thin, made of finest braided Nylon, chemically treated.

Cat. No.		
75A-25	25 ft. spool	Net $ .75
75A-50	50 ft. spool	1.43
75A-100	100 ft. spool	2.37
75A-1000	100 ft. spool	14.25



G-C No. 74 MEDIUM NYLON CORD .040″ Diameter—Used on models of RCA, Philco, Majestic, Wells Gardner, etc. Made of finest braided Nylon over a Spun Fiberglas Core.

Cat. No.		
74-25	25 ft. spool	Net $ .75
74-50	50 ft. spool	1.43
74-100	100 ft. spool	2.37
74-1000	1000 ft. spool	19.77

G-C No. 70 BRAIDED BRONZE CABLE .035″ Diameter—Braided phosphor bronze cable made over a Fiberglas core for greater strength and flexibility. Will not unravel.

Cat. No.		
70-25	25 ft. spool	Net $ .97
70-50	50 ft. spool	1.63
70-100	100 ft. spool	2.70
70-1000	1000 ft. spool	22.20

G-C No. 71 42-STRAND BRONZE CABLE .040″ Diameter — 42-strand twisted phosphor bronze cable used on Majestic, Bosch, Philco, etc. 42 fine strands braided over a cotton core.

Cat. No.		
71-25	25 ft. spool	Net $1.23
71-50	50 ft. spool	1.88
71-100	100 ft. spool	3.52
71-1000	1000 ft. spool	25.80

G-C No. 73 HEAVY NYLON CORD .062″ Diameter—This is a heavier cord such as used on models of Philco, Silver Marshall, Majestic, Brunswick, etc.

Cat. No.		
73-25	25 ft. spool	Net $1.02
73-50	50 ft. spool	1.73
73-100	100 ft. spool	2.97
73-1000	1000 ft. spool	24.90

G-C No. 76 SPECIAL THIN BRONZE CABLE .023″ Diameter—Extra thin braided bronze cable such as is used on GE and RCA sets. Also used for speaker cones, pigtails, etc.

Cat. No.		
76-25	25 ft. spool	Net $ .97
76-50	50 ft. spool	1.43
76-100	100 ft. spool	2.70
76-1000	1000 ft. spool	20.47

G-C COLOR TV NO-STRETCH DIAL CORD

EXTRA FINE .025″ Diameter—Supplied on metal spools.

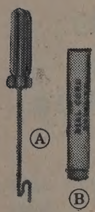
Cat. No.		
87-25	25 ft. spool	Net $ .90
87-100	100 ft. spool	2.70

STANDARD .028″ Diameter — Supplied on metal spools.

Cat. No.		
88-25	25 ft. spool	Net $ .90
88-100	100 ft. spool	2.70

MEDIUM .040″ Diameter—Supplied on metal spools.

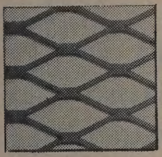
Cat. No.		
89-25	25 ft. spool	Net $ .90
89-100	100 ft. spool	2.70



(A) G-C DIAL CABLE TOOL—A handy tool to aid in replacing worn out cables or cables slipped off of drums, to replace dial cord springs also.
Cat. No. 5096 Net $ .53

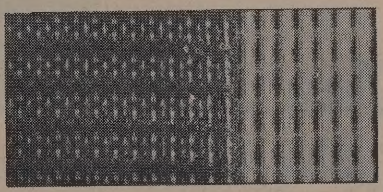
(B) G-C DIAL CORD NON-SLIP DRESSING STICK—Simply rub the stick on cord and job is done. Prevents and stops slipping.
Cat. No. 1212 Net $ .25

G-C SWED. STEEL SPEAKER SHIMS—Four sizes are furnished in a handy gold-lettered partitioned snap case. .004, .006, .008 and .010 in. Instructions included with kit.
Cat. No. 701 Net $ .53



G-C ORNAMENTAL METAL GRILLE SCREEN — Made of heavy metal, finished in beautiful "Brushed Brass-Rich Gold Color" and lacquered for durability.

Cat. No.		
9252	12″x18″	Net $2.10
9253	18″x24″	3.67
9254	24″x36″	6.27
9255	24″x48″	8.67
9256	36″x48″	11.70



G-C PLASTIC SARAN WOVEN GRILLE CLOTH—A beautiful "lumite" plastic woven cloth in attractive patterns. Easily cleaned with a damp cloth. Won't stain, rot or mildew.

Cat. No.		
8736	12″x18″ Bronze & Gold	Net $ .98
8739	36″x36″ Bronze & Gold	Net $5.55
8737	12″x18″ Ecru & Ivory	Net $ .98
8740	36″x36″ Ecru & Ivory	Net $5.55

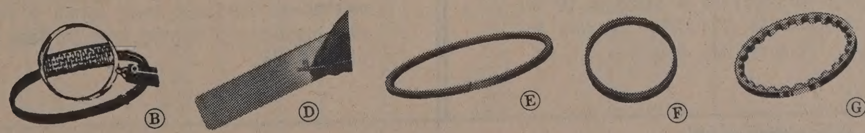
G-C GRILLE CLOTH ASSORTMENT—All patterns are modern and the assortment will provide for nearly all of the smaller and moderate size speaker grille openings.
Cat. No. 9114 Net $1.08

G-C TV GRILLE CLOTH—New, modern patterns specially selected to blend in with the best of television cabinets. Gold metallic braid makes this an outstanding TV grille cloth. Colors: Walnut, Mahogany and Blonde. (Specify color when ordering).

Cat. No.		
8656-E	Envelope 18″x24″	Net $1.92
8657-E	Envelope 24″x36″	3.50
8658-E	Envelope 36″x36″	5.13
8659	36″Wide, per yard, bulk	4.97

G-C RADIO CABINET SPEAKER GRILLE CLOTH—The cloth is supplied in light and dark shades in patterns for both small and large cabinets. It is also available in the light and ivory shades for light wood and plastic cabinets. Colors: Walnut, Mahogany, Ivory, (Specify Color Wanted).

Cat. No.		
949-1	1-Yard Packages	Net $3.78
949-1R	40″ Wide Cont. Length, Yd.	3.60
949-2R	50″ Wide Cont. Length, Yd.	3.90
940	18″x20″	.98
941	9″x18″	.45
942	12″x12″	.65
943	14″x18″	.60
944	24″x13″	.82
945	18″x13″	.53
955	18″x25″	1.73



(B) G-C RADIO DIAL BELTS—G-C Belt are approved replacements for all sets. They are made of the very best quality belting material and will not stretch. Especially treated to prevent slipping.
Cat. No. 101 thru 195 Net $ .30

G-C SERVICEMEN'S KIT—Kits contain more popular belts, belt scale and complete listing of over 1100 models. Cat. No. G-25 Net $8.37

(D) G-C WIRE MARKERS—Handy wire markers needed for tracing circuits, marking wires in replacing parts, etc. Nos. 1 to 33—3 full strips included to kit. Cat. No. 9229 Net $1.00

(E) G-C MOTOROLA TV DIAL BELT—Replacement belt as used on Motorola TV Tuners. Original replacement part. Cat. No. 196 Net $ .30

(F) G-C RCA TUNER BELT—Belt used on RCA Tuners such as 8T, 8TC, 8TK, 9TC, etc.
Cat. No. 195 Net $ .30

(G) G-C RCA-TV CHANNEL INDICATOR DRIVE BELT—Exact replacement for 1956 model RCA TV sets. Cat. No. 197 Net $1.10

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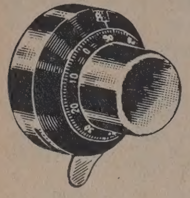
SPECTROL

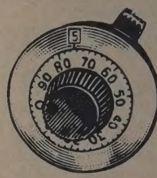
MULTIDIAL®

TURNS COUNTING DIALS



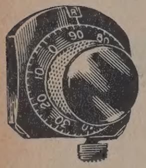
MODEL 10 Precision Turns-Counting Dial

• **Diameter** 1″ • **Number of turns** 10 • **Shaft diameters** ¼″, 3/16″, ⅛″ • **Protrusion from panel** 1″ • **Brake mechanism** One-finger lever action • **Finish** Black anodized aluminum • **Base price** in 1-9 quantities: $8.75



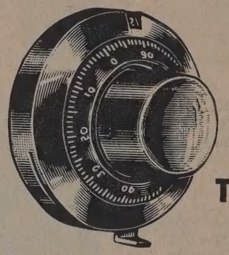
MODEL 11 Precision Turns-Counting Dial

• **Diameter** 1″ • **Number of turns** 11 • **Shaft diameters** ¼″, 3/16″, ⅛″ • **Protrusion from panel** ⅞″ • **Brake mechanism** One-finger lever action • **Finish** Satin chrome with black plastic turning knob • **Base price** in 1-9 quantities: $7.75



MODEL 14 Precision Space Saving Turns-Counting Dial

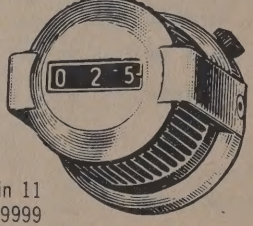
• **Width** 13/16″ • **Height** 29/32″ • Similar to Model 10 above, but sides and bottom squared off for use where panel space is severely limited • **Number of turns** 10 • **Shaft diameters** ⅛″, 3/16″, ¼″ • **Protrusion from panel** 1″ • **Brake mechanism** One finger lever action • **Finish** Black anodized aluminum, standard; clear, red, blue, gold available • **Base price** in 1-9 quantities: $7.75



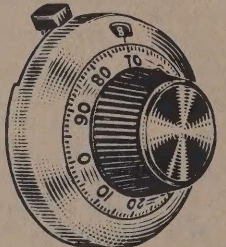
MODEL 20 Precision Turns-Counting Dial

• **Diameter** 1 13/16″ • **Number of turns** 10 • **Shaft diameters** ¼″ 3/16″, ⅛″ • **Protrusion from panel** 1″ • **Brake mechanism** One-finger lever action • **Finish** Black anodized aluminum • **Base price** in 1-9 quantities: $7.50

MODEL 25 Digital Dial



• 3-digit dial reads to 1099 in 11 turns • 4-digit dial reads to 9999 in 100 turns • Fine calibrations allow setting to 1/10 of a digit accuracy • 2 to 1 gear ratio between setting knob and device shaft allows extremely fine settings • Available for ¼″, 3/16″, and ⅛″ diameter shafts • Mounts directly to panel with no auxiliary hardware needed • Satin chrome finish with black plastic turning knob • Standard 10-turn, 3-digit dial price, 1-9 quantities, $14.25 • Standard 100-turn, 4-digit dial price, 1-9 quantities, $19.75



MODEL 30 Precision Turns-Counting Dial

• **Diameter** 1 13/16″ • **Number of turns** 10 • **Shaft diameters** ¼″ 3/16″, ⅛″ • **Protrusion from panel** 1″ • **Brake mechanism** One-finger lever action • **Finish** Satin chrome with black plastic turning knob • **Base Price** in 1-9 quantities: $5.75

SPECTROL ELECTRONICS CORPORATION

SAN GABRIEL, CALIFORNIA
PLAINVIEW, L. I., NEW YORK
BRAMPTON (TORONTO), ONTARIO, CANADA

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INSTRUMENT KNOBS AND DIALS

WALDOM

A

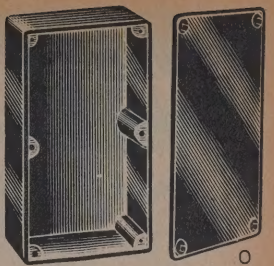
B

C

D

F

G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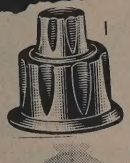
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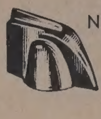
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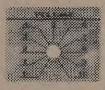
T

U

V

W

X

MODERN KNOBS

Styrene 1/4" brass insert, slotted set screw

Part No.	Diameter	Height		1-99 Ea.	100-Up
6126	5/8"	7/16		.25	.207
6126 Red	5/8"	7/16"		.29	.238
6129	5/8"	19/32"		.40	.32

BAR KNOB – FIG. B

BK-1B	11/16"	1/2"		.31	.28

FULL FLUTED KNOBS – FIG. C

Black bakelite, ¼" brass insert, slotted set screw

WA-4100	1-1/8"	5/8"		.35	.28
WA-4101	1-3/8"	11/16"		.36	.2905
WA-4102	1-5/8"	3/4"		.41	.3248
WA-4103	2-3/8"	7/8"		.59	.4748

W/Skirt – FIG. D

WA-4104	1-1/2"	51/64"		.56	.4718
WA-4107	1-3/4"	55/64"		.63	.5168
WA-4108	2-1/16"	7/8"		.73	.6105
WA-4109	3"	1"		.95	.7875

W/Pointer (plastecele)

6566-P	1-1/8"	5/8"		.63	.5250
6571-P	1-3/8"	11/16"		.68	.5004
6570-P	1-5/8"	3/4"		.73	.6044
6559-P	2-3/8"	7/8"		.98	.8040

LATEST SERIES INSTRUMENT KNOBS

Black bakelite, slotted set screw,
white marker line on skirt

			Fig.		
WA-101	3/4"	1/2"	F	.22	.1738
WA-101B*	3/4"	1/2"	F	.29	.2379
WA-101C+	3/4"	1/2"	F	.23	.1868
WA-102	1-1/8"	5/8"	F	.23	.188
WA-102B*	1-1/8"	5/8"	F	.32	.2499
WA-103	1-1/4"	3/4"	F	.25	.2003
WA-103B*	1-1/4"	3/4"	F	.33	.2621
WA-104	1-1/2"	7/8"	F	.27	.2141
WA-104B*	1-1/2"	7/8"	F	.36	.2866
WA-105	2"	15/16"	F	.47	.3822
WA-105B*	2"	15/16"	F	.58	.4627
WA-108	3/4"	1/2"	G	.36	.2879
WA-108B*	3/4"	1/2"	G	.45	.3549
WA-109	1-1/4"	5/8"	H	.31	.2499
WA-109B*	1-1/4"	5/8"	H	.39	.3099

*1/4 Brass Insert, +1/8" molded hole, all other 1/4" molded hole.

DUO CONCENTRIC KNOB

Small knob WA-101C - large knob for 1/4" shaft

WA-107	1-1/4"	1-3/16"	I	.49	.3967

POINTER AND LEVER CONTROL KNOBS–FIG. N

Black bakelite, white filled pointer
For 1/4" shaft, set screw

Part No.	Diameter	Height	1-99 Ea.	100-Up
WA-2300	1-1/4"	5/8"	.13	.1008
WA-2300A*	1-1/4"	5/8"	.20	.1573
WA-2350	2"	5/8"	.26	.2037
WA-2350A*	2"	5/8"	.33	.2610

*Brass insert

STANDARD KNOBS – FIG. J

Small Pointer knobs - 11/16" dia., 13/32" high

WA-1400	1/4" molded hole	.11	.09
WA-1400W	1/4" brass insert	.28	.2130
WA-1400R	1/8" molded hole	.17	.1228

Pointer knob - 1" diameter 1/2" high - Fig. J

WA-1470	1/4" molded hole	.22	.1694
WA-1470C	1/4" brass insert	.30	.2284

Small Round knob -
11/16" diameter, 13/32" high - Fig. K

WA-1450	1/4" molded hole	.11	.09
WA-1450W	1/4" brass insert	.28	.2130
WA-1450G	1/8" molded hole	.17	.1228

Round knob - 1" diameter, 1/2" high - Fig. K

WA-1475	1/4" molded hole	.17	.129
WA-1475C	1/4" brass insert	.25	.1924

SKIRTED KNOBS - Fig. L

1-1/2" O.D. x 3/4" high.

WA-1600	1/4" molded hole	.22	.1682
WA-1600A	1/4" brass insert	.26	.2095

7/8" diameter x 9/16" high

WA-1610	1/4" molded hole	.20	.1735
WA-1610A	1/4" brass insert	.26	.2150

MATCHING BAR AND POINTER KNOBS

Black bakelite, set screw, white indicator line.
For 1/4" shaft. 1-1/8" diameter, 9/16" high.

WA-1500	Bar knob - Fig. M	.19	.14
WA-1550	Pointer knob	.15	.116
WA-1550C	Above w/brass insert	.22	.1693

ALUMINUM DIAL PLATES – FIG. T

2-3/16" H. x 2-5/8W.

Part No.	Description	Calibration	1-49 Ea.	50-99 Ea.	100-Up
410	Title	0-10	.52	.44	.313
415	Microphone	0-10	.52	.44	.313
423	Increase	Arrow	.52	.44	.313
426	Volume	0-10	.52	.44	.313
428	Bass	5-0-5	.52	.44	.313
429	Treble	5-0-5	.52	.44	.313

ROUND ALUMINUM CONTROL PLATES – FIG. U

1-3/4" Diameter

25	Volume	.28	.24	.168
26	Off-Tone Control	.28	.24	.168
569	0-100 thru 180°	.28	.24	.168
905	0-100 thru 270°	.28	.24	.168

HORIZONTAL SWITCH PLATE – FIG. V

"Off-On" Switch Plate. Etched aluminum with black background and polished aluminum letters and border. 11/16" x 1-11/16".

278		.17	.14	.102

AUXILIARY PLANETARY DRIVES – FIG. W

Fits 1/4" shafts: Operates at 5:1 ratio. Maximum smoothness with adequate torque. 2 Speed drive. Slow speed 5:1, High Speed 1:1

Part No.	1-9 Ea.	10-24 Ea.	25-99 Ea.	100-Over-Ea.
599	7.25	7.00	6.81	5.54

Single speed. Threaded sleeve w/shoulder for mounting dial or pointer

27067	7.40	7.15	6.96	5.69

PAIR OF KNOBS – FIG. X

	1-99 Ea.	100-Over
Duo-Concentric knobs for 599	.68	.5004

INSTRUMENT CASES – PANELS – COVERS – FIG. O

Wall thickness 1/8" w/highly polished finish. Will withstand rugged usage.

Type	Description	1-49 Ea.	50-99 Ea.	100-Up
BC-138	2"H x 3-3/4"W x 6-1/4"L	.98	.89	.648
BC-138B1	W/Brass inserts in 4 corners	1.10	.98	.7258
BP-137	Flat panel for above	.56	.51	.3672
BP-137A	Molded cover for above	.65	.58	.426
BC-140	2-15/16"H x 5-9/32"W x 6-13/16"L	1.31	1.18	.86
BC-140BI	W/Brass inserts in 4 corners	1.47	1.32	.9636
BP-138	Flat panel for above	.75	.68	.486
BP-139A	Molded Cover for above	.85	.77	.552

HIGH QUALITY DIALS – FIG. P

Aluminum w/hand spun finish. Black numerals.

Type	Calibration	Diameter	1-49,Ea.	50-99 Ea.	100-Up
DO-15	0-100/180°	1-1/8	.45	.38	.27
DO-16	0-100/270°	1-1/8	.45	.38	.27
DO-17	0-100/325°	1-1/8	.45	.38	.27
DO-18	0-100/360°	1-1/8	.45	.38	.27
DO-1	0-100/180°	1-3/4	.60	.51	.36
DO-2	0-100/270°	1-3/4	.60	.51	.36
DO-19	0-100/325°	1-3/4	.60	.51	.36
DO-20	0-100/360°	1-3/4	.60	.51	.36
DO-3	0-100/180°	2-3/4	.75	.64	.45
DO-4	0-100/270°	2-3/4	.75	.64	.45
DO-21	0-100/325°	2-3/4	.75	.64	.45
DO-5	0-100/360°	2-3/4	.75	.64	.45
DO-6	0-100/180°	4	1.20	1.02	.72
DO-7	0-100/270°	4	1.20	1.02	.72
DO-22	0-100/325°	4	1.20	1.02	.72
DO-8	0-100/360°	4	1.20	1.02	.72
DO-8A	0-360/360°	4	1.20	1.02	.72

AZIMUTH DIALS – FIG. S

Precision Test Dial. Outer numbers 0-360 in counter-clockwise direction; inner numerals 0-360 in clockwise direction. Etched in heavy aluminum. Complete w/attached knob, indicator.

27010	6" dia. 3/8" shaft d.	7.20	6.12	4.32
27011	6" dia. 1/4" shaft d.	7.20	6.12	4.32
KD-12	4" dia. 1/4" shaft	3.39	2.88	2.05

DIRECT DRIVE DIAL ASSEMBLIES – FIG. R

Above dials with knob attached and supplied complete w/indicator. Dials under 2-3/4" supplied with knob only, others w/knob and skirt.

Part No.	Calibration	Diameter	1-49 Ea.	50-99 Ea.	100-Up
27084	0-100/180°	1-1/8	1.07	.91	.642
27085	0-100/270°	1-1/8	1.07	.91	.642
27086	0-100/325°	1-1/8	1.07	.91	.642
27087	0-100/360°	1-1/8	1.07	.91	.642
27068	0-100/180°	1-3/4	1.40	1.19	.84
27069	0-100/270°	1-3/4	1.40	1.19	.84
27080	0-100/325°	1-3/4	1.40	1.19	.84
27081	0-100/360°	1-3/4	1.40	1.19	.84
294	0-100/180°	2-3/4	1.84	1.56	1.104
295	0-100/270°	2-3/4	1.84	1.56	1.104
27082	0-100/325°	2-3/4	1.84	1.56	1.104
303	0-100/360°	2-3/4	1.84	1.56	1.104
292	0-100/180°	4	2.54	2.16	1.524
293	0-100/270°	4	2.54	2.16	1.524
27083	0-100/325°	4	2.54	2.16	1.524
302	0-100/360°	4	2.54	2.16	1.524
302A	0-360/360°	4	2.54	2.16	1.524

INDICATORS – FIG. Q

Dials below 2-3/4" D take SL-1, 2-3/4 & 4"
Dials take calibrated indicator matched w/its number

SL-1	Single line indicator	.10	.09	.06
VI-3	For DO-3	.30	.26	.18
VI-4	For DO-4	.30	.26	.18
VI-21	For DO-21	.30	.26	.18
VI-5	For DO-5	.30	.26	.18
VI-6	For DO-6	.30	.26	.18
VI-7	For DO-7	.30	.26	.18
VI-22	For DO-22	.30	.26	.18
VI-8	For DO-8	.30	.26	.18
VI-8A	For DO-8A	.30	.26	.18

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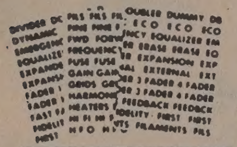
Net

Walsco ELECTRONICS DECALS TEKNI-LABELS • TEK-TITLES

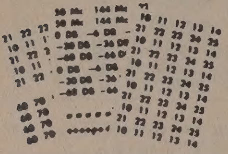
WALSCO TEKNI-LABELS provide thousands of handy titles and designs for fast-easy labeling of electronic equipment. Each package contains hundreds of electronic terms, symbols, designs, abbreviations and letters for almost every conceivable use. Tekni-Labels are used by engineers, designers, manufacturers, technicians, hi-fi enthusiasts, amateurs, custom builders and particularly the "do-it-yourself" group



RECEIVER LABELS

For the engineer, designer or builder of receiver type equipment. Over 1300 titles, miscellaneous letters, alphabets and marks.

Cat. No. 2102 White	Net $1.50
Cat. No. 2112 Black	Net $1.50



TRANSMITTER LABELS

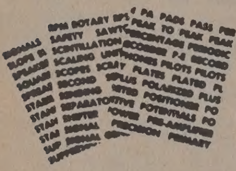
For transmitting equipment. Set contains over 1200 titles, including large, 1/8" high labels for titling stages or separate major components of transmitter equipment.

Cat. No. 2100 White	Net $1.50
Cat. No. 2108 Black	Net $1.50

TELEVISION LABELS

For the Television experimenter, engineer or designer of Television equipment and custom installer. Includes special color experimental Television titles of great usefulness in Television work.

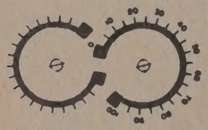
Cat. No. 2103 White	Net $1.50
Cat. No. 2113 Black	Net $1.50



INSTRUMENTS

Set includes all labels necessary for an Oscilloscope, Variable Frequency Oscillator, Grid Dip Meter, Standing Wave Meter, Null Detector, AC-DC Voltmeter, Audio Signal Generator, Modulation Monitor, Distortion Meter and Tube Tester and others.

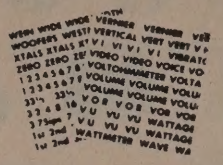
Cat. No. 2101 White	Net $1.50
Cat. No. 2109 Black	Net $1.50



DIAL LABELS

For general use to match titles in other decal sets of our manufacture. Dials impart a wholly professional look to front panels and add greatly to the usefulness and ease of operation of any equipment.

Cat. No. 2104 White	Net $1.50
Cat. No. 2110 Black	Net $1.50

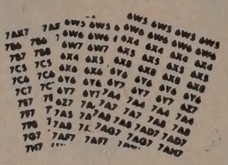


DECALS
TEKNI LABELS

AUDIO LABELS

For use in the Audio and Sound field by engineers, designers, Custom Builders and installers of sound system. Set contains all necessary titles as well as recent new Hi-Fi titles.

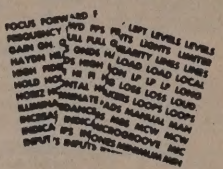
Cat. No. 2105 White	Net $1.50
Cat. No. 2107 Black	Net $1.50



RECEIVING TUBES

For identification of all tube sockets. More than 320 different tubes listed including most commonly used types. Tubes not listed can be made up by combining portions of titles.

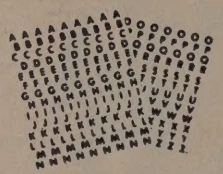
Cat. No. 2106 White	Net $1.50



PANEL TITLES

For Custom Builders and service men in titling front panels of finished wood cabinets, especially broadcast receivers. Television sets, Hi-Fi amplifiers, tape recorders and similar equipment.

Cat. No. 2111 Gold	Net $1.50



ALPHABETS

Seven complete alphabets in each package ranging from 3/4" high letters down to 1/10" high. Set includes large block letters as well as Greek and Old English. This assortment is ideal to make individualized titles and designs on all equipment. Arresting results are easily obtainable by combining these letters with markings in the "Trademarks" set, especially if two or more colors are combined.

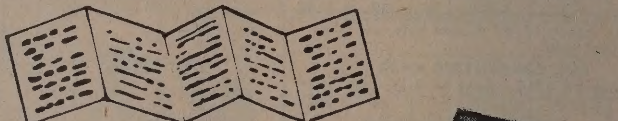
Cat. No. 2115 White	Net $1.50
Cat. No. 2125 Black	Net $1.50
Cat. No. 2135 Gold	Net $1.50
Cat. No. 2145 Red	Net $1.50

TRADEMARKS

Hundreds of electrical and electronic markings are included in this assortment, among them are circles, ovals, triangles, squares, arrows, dots, music notes, lighting flash, multi-orbit "Atomic" designs, name plates, corner designs, borders and many others which are extremely useful in decorating all electronic equipment.

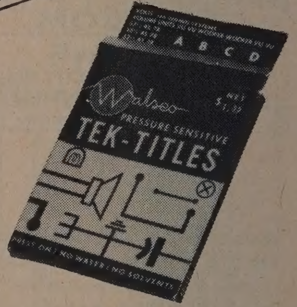
Cat. No. 2116 White	Net $1.50
Cat. No. 2126 Black	Net $1.50
Cat. No. 2136 Gold	Net $1.50
Cat. No. 2146 Red	Net $1.50

WALSCO TEK-TITLES are handsome gold and silver foil labels designed to identify controls, knobs, switches and other electronic components. No water or adhesive is required; you merely snip out the exact title desired from the sheet of hundreds of labels, peel off the backing and press label into position.



Cat. No.		Foil Comp.
42-220	Stereo & High Fidelity Systems	(Gold on White)
42-222	Stereo & High Fidelity Systems	(Silver on Black)
42-224	Transistor Titles	(Silver on Black)
42-226	Intercom Systems	(Gold on White)
42-228	Intercom Systems	(Silver on Black)
42-230	Lubrication Titles	(Silver on Black)
42-232	Maintenance & Calibration	(Gold on White)
42-234	Repairman's Titles	(Gold on White)
42-236	Sound Systems	(Gold on White)
42-238	Amateur Equipment	(Silver on Black)
42-240	Alphabets, Large	(Gold on White)
42-242	Alphabets, Large	(Silver on Black)
42-244	Alphabets & Numerals, Medium	(Gold on White)
42-246	Alphabets & Numerals, Medium	(Silver on Black)
42-248	Numerals, Large	(Gold on White)
42-250	Numerals, Large	(Silver on Black)
42-252	Alphabets & Numerals, Small	(Gold on White)
42-254	Alphabets & Numerals, Small	(Silver on Black)
42-256	Electrical Distribution	(Gold on White)
42-258	School Electrical Systems	(Silver on Black)
42-260	U.S. Government Property	(Silver on Black)
42-262	U.S. Army Property	(Silver on Black)
42-264	U.S. Navy Property	(Silver on Black)
42-266	U.S. Air Force Property	(Silver on Black)

Dealer Net, each $1.35



SEND FOR COMPLETE WALSCO CATALOG . . . or ask your jobber.

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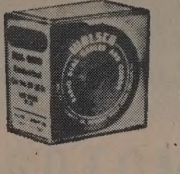
Walsco ELECTRONICS DIAL CORDS • CABLES • BELTS

[redacted]



Same quality as used on original equipment, in variety of sizes and types and conveniently packaged.

"SPECIAL THIN"

Diameter .025", Breaking Strength 15 lbs.

Cat. No. 656-02	25 feet	Net $	.75
Cat. No. 656-10	100 feet	Net	2.37
Cat. No. 656-50	500 feet	Net	8.58

MEDIUM

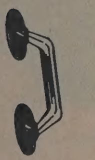
Diameter .040", Breaking Strength 35 lbs.

Cat. No. 652-02	25 feet	Net $	.75
Cat. No. 652-10	100 feet	Net	2.37
Cat. No. 652-50	500 feet	Net	10.57

PHOSPHOR BRONZE CABLE

42-strand, .032" diameter, 40 lb. breaking strength. Numerous strands give cable extraordinary flexibility.

Cat. No. 662-02	25 feet	Net $	1.23
Cat. No. 662-10	100 feet	Net	3.52
Cat. No. 662-50	500 feet	Net	16.20



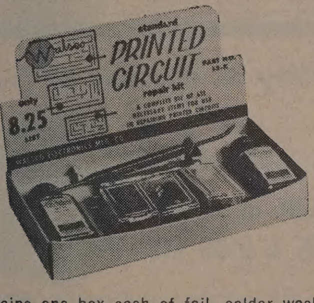
WALSCO SAFETY GLASS REMOVER

Chrome plated, steel handle is combined with two powerful, long lasting suction cups to insure trouble free removal of safety glass on TV sets.

Cat. No. 2575 Net $ .90

PRINTED CIRCUIT ACCESSORIES

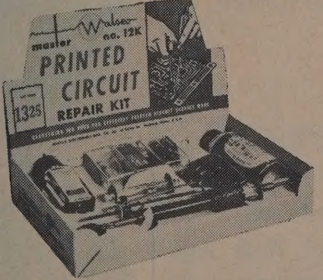
STANDARD PRINTED CIRCUIT REPAIR KIT



Contains one box each of foil, solder washers, solder wire, 1 solder-ease tool, fiber glass brush, printed circuit insulating varnish and solvent, tweezers and complete instructions.

Cat. No. 13-K Net $4.95

MASTER PRINTED CIRCUIT REPAIR KIT



Contains all items above plus 1 Ungar soldering iron with 1 special tip and a 6 oz. spray can of printed circuit insulating varnish. Also includes practice wiring board.

Cat. No. 12-K Net $9.50

BRAIDED BRONZE CABLE

16-strand, .039" O.D., 50 lb. breaking strength. Good flexibility, excellent abrasion resistance.

Cat. No. 660-02	25 feet	Net $	.97
Cat. No. 660-50	500 feet	Net	2.70
Cat. No. 654-02	25 feet	Net	12.00

STANDARD

Diameter .032", Breaking Strength 20 lbs.

Cat. No. 654-02	100 feet	Net $	.75
Cat. No. 654-10	100 feet	Net	2.37
Cat. No. 654-50	50 feet	Net	8.58

HEAVY

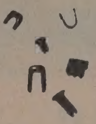
(Used on many Philco and Majestic sets.) **Diameter .060".**

Cat. No. 650-02	25 feet	Net	$1.02
Cat. No. 650-10	100 feet	Net	2.97

THIN BRONZE CABLE

An extra-thin cable with diameter of only .022". Surprisingly strong and flexible. Non-raveling.

Cat. No. 664-02	25 feet	Net $	.97
Cat. No. 664-10	100 feet	Net	2.70
Cat. No. 664-50	500 feet	Net	12.00



DIAL CORD CLIPS

This assortment of 24 Walsco Dial Cord Clips contains the proper sizes for all standard thicknesses of cords.

Cat. No. 7745-F Net $ .36

FLAT NYLON LACING CORD

The new, waxed and fungus resistant flat cord for tying harnesses, wrapping coils, etc. Will not cut wire insulation. Breaking strength 50 lbs., approx. width, .085", approx. thickness, .0125".

Cat. No. 666-15	150 ft. spool	Net	$2.97
Cat. No. 666-75	750 ft. spool	Net	9.00

STANDARD LACING CORD

Meets specifications JAN T-713—type N—Class 3. In natural gray color. Approximately .040". Min. tensile strength 32 lbs., low stretch.

Cat. No. 665-10	100 ft. spool	Net	$1.05
Cat. No. 665-45	450 ft. spool	Net	2.00
Cat. No. 665-80	1800 ft. spool	Net	6.60

PRINTED CIRCUIT ACCESSORIES

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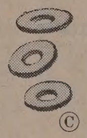
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(A) PRINTED CIRCUIT REPAIR SOLDER — Especially compounded 11' solder wire with flux core to give a perfect solder joint and flow quickly and easily at lower temperatures required for printed circuit work.

Cat. No. 649 Net $ .52

(B) PRINTED CIRCUIT REPAIR FOIL — Copper foil with thermo-plastic backing 24 sq. in. For use in repair of damaged or burned out sections of a printed circuit. Bonds permanently to panel with heat of soldering iron.

Cat. No. 647 Net $ .48

(C) PRINTED CIRCUIT SOLDER WASHERS — Supplies the exact amount solder and flux when replacing components on printed circuit board. Center hole permits passage of most standard wire leads. Box of 60 washers.

Cat. No. 648 Net $ .60

(D) PRINTED CIRCUIT INSULATING VARNISH — A special formula insulating varnish designed for the protection of printed circuits after they have been worked upon in repair or replacement of parts.

Cat. No. 120-02W 2 oz. bottle with brush Net $1.30

Cat. No. 120-06 6 oz. spray can $2.42 each

INSULATING VARNISH SOLVENT — Excellent for dissolving and removing insulating varnish from printed circuits, etc. Also thinner for the Walsco Printed Circuit Insulating Varnish.

Cat. No. 205-02 2 oz. Net $ .37 each

(E) WALSCO SILVER AND COPPER PRINT — "No more wires" when you use Silver or Copper Print. The same "Pure Silver" or Copper compound as used in Printed Circuit design.

Cat. No. 36 ½ Troy oz. Silver Print Net $3.30
Cat. No. 36-1 1 Troy oz. Silver Print Net $5.75
Cat. No. 37-02 2 oz. bottle Copper Print Net $1.75

(F) PRINTED CIRCUIT SOLDER-AID TOOL — Has probe on one end for tightening contacts, etc., and a fork on opposite end for handling wires or wire leads while soldering and unsoldering. 8" long plastic handle.

Cat. No. 2530 Net $1.00

SEND FOR COMPLETE CATALOG . . .

shows hundreds of Walsco Electronic Products.

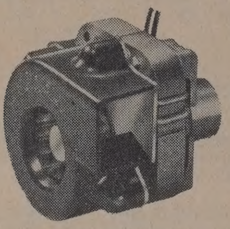
Superior . . . RIPLEY *through Research*

RIPLEY COMPANY, INC.

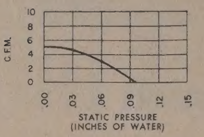
ESTABLISHED 1936

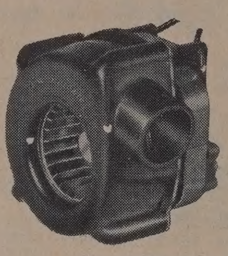
SPACE-SAVING *Precision Bearing* MOTOR-BLOWERS

A new line of compact Motor-Blowers are now available with air deliveries ranging from 5 to 19 cfm free air output. Designed to fill the requirement where space is a problem and a minimum of 5-year maintenance-free performance is imperative. The precision bearing "power-pac" motor with permanent sealed-in lubrication requires no oiling and operates at an extremely low noise level. The unit can be mounted in any position. The low input wattage required is a cost saving factor of particular advantage in multiple installations. The metal wheels are carefully balanced and individually matched to assure maximum efficiency and quietness of operation. Blower housings are high-impact phenolic.



No. 1½





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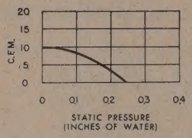

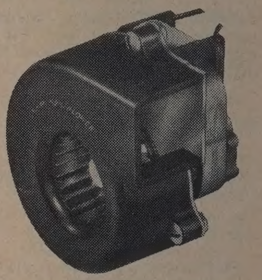

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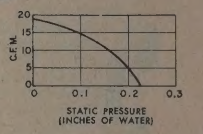
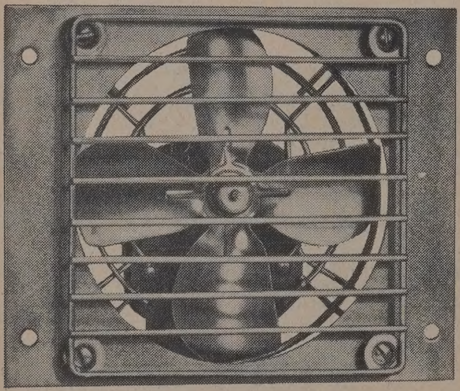


MODEL NUMBER	TYPE	INPUT VOLTAGE	WATTS	DUTY CYCLE	RPM	OUTPUT FREE AIR CFM	DIMENSIONS H x W x D	LIST PRICE
UK-1500	1½	115 V. AC-60 Cycle	7.5	Continuous	3400	5	2 15/16" x 3 5/8" x 3 1/16"	$9.69
UK-2000	2	115 V. AC-60 Cycle	7.5	Continuous	3300	10	3 3/4" x 3 1/2" x 3 1/4"	$9.78
UK-2500	2½	115 V. AC-60 Cycle	8	Continuous	3250	19	4 3/8" x 3 7/8" x 3 1/4"	$9.90

For applications demanding maintenance-free reliability in excess of 5-years!

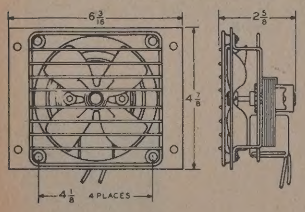


AXIAL FAN MODEL 4:25

THE BIG VALUE IN RUGGEDNESS, COMPACTNESS & HIGH EFFICIENCY

Specifically designed for electronic and instrumentation cooling with tight space requirements — this quiet, dependable 100 CFM "Power-Pac" Axial Fan is recommended for applications where compactness, high-level performance, mounting flexibility and economical price are imperative. "Power-Pack" motor with sealed-in lubrication requires no oiling or maintenance.

Typical applications include: Computors, Electronic Transmitters, Receivers, Radar, TV Cameras, Hi-Fi Equipment, Tape Recorders, Light Projectors, Amplifiers, Test Equipment, Telephone Booths.

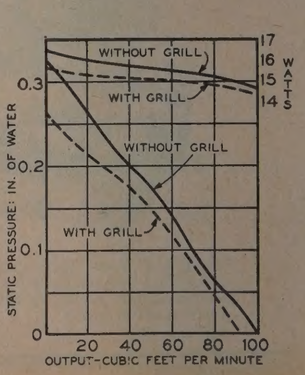


SPACE SAVING DESIGN

Overall mounting plate size is 4⅞" x 6 3/16" and depth is 2⅝". Total weight of complete assembly is 1½ pounds. All metal fire-proof construction.

100 CFM CAPACITY

High output of 100 CFM free air delivery. For larger air volumes, two or more units may be mounted in parallel. Note chart for high performance over wide range of static pressures. Unit designed for operaton on 50/60 cycles.



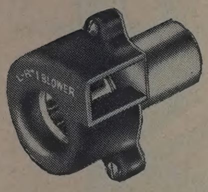
Superior . . . RIPLEY *through Research*

RIPLEY COMPANY, INC.

ESTABLISHED 1936

L-R MOTOR & BLOWER ASSEMBLIES

Model No.	Type	Input Voltage	Watts	Duty Cycle	R.P.M.	Output Free Air C.F.M.	Dimensions Length O.A.	Dimensions Motor Dia.	List Price
8474	1	27.5V. DC	8	Continuous	18,000	9	2²¹⁄₆₄	⅞	**$49.00**
8437	1½	115V. AC-60 Cycle	15	Continuous	3,150	4	4⁹⁄₁₆	2¼	**13.29**
8446-E	1½	115V. AC/DC	25	Intermittent	8,000	12	4½	2⁷⁄₃₂	**17.96**
8446-D	1½	115V. AC/DC	45	Intermittent	11,000	17	4½	2⁷⁄₃₂	**17.96**
8446-C	1½	115V. AC/DC	70	Intermittent	15,000	23	4½	2⁷⁄₃₂	**17.96**
8438	2	115V. AC-60 Cycle	16	Continuous	3,100	10	4½	2¼	**13.48**
8444-E	2	115V. AC/DC	27	Intermittent	6,500	20	4¹⁵⁄₁₆	2⁷⁄₃₂	**18.14**
8444-D	2	115V. AC/DC	53	Intermittent	10,000	30	4¹⁵⁄₁₆	2⁷⁄₃₂	**18.14**
8444-C	2	115V. AC/DC	90	Intermittent	13,000	40	4¹⁵⁄₁₆	2⁷⁄₃₂	**18.14**
8433	2½	115V. AC-60 Cycle	17	Continuous	2,800	17	4½	2¼	**13.60**
8445-E	2½	115V. AC/DC	30	Intermittent	6,000	35	4²⁷⁄₃₂	2⁷⁄₃₂	**18.26**
8445-D	2½	115V. AC/DC	55	Intermittent	9,000	53	4²⁷⁄₃₂	2⁷⁄₃₂	**18.26**
8445-C	2½	115V. AC/DC	105	Intermittent	12,000	70	4²⁷⁄₃₂	2⁷⁄₃₂	**18.26**
94	2¾	115V. AC-60 Cycle	26	Continuous	1,600	28	5¹¹⁄₆₄	3¼	**16.50**
81	2¾	115V. AC-60 Cycle	40	Continuous	3,100	58	5⁵¹⁄₆₄	2¹³⁄₁₆	**16.50**
8453	3	115V. AC-60 Cycle	35	Continuous	1,600	40	5¹⁵⁄₃₂	3¼	**16.95**
8472	3	115V. AC-60 Cycle	40	Continuous	3,100	77	6⁵⁄₆₄	2¹³⁄₁₆	**16.05**
8452	3	115V. AC/DC	120	Intermittent	6,000	150	6¾	2¾	**22.40**



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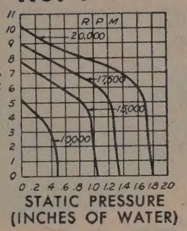

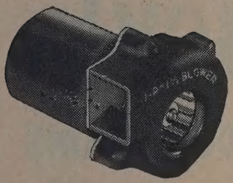

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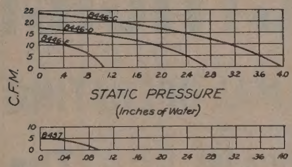

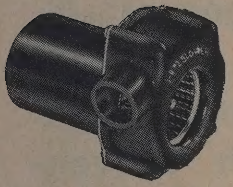

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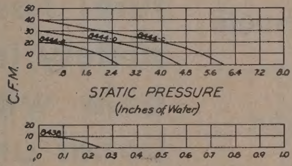

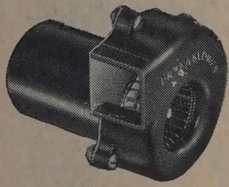

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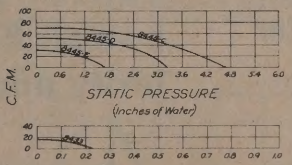

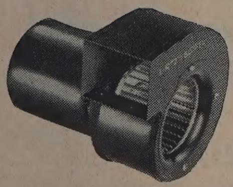

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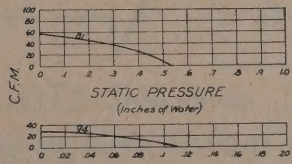

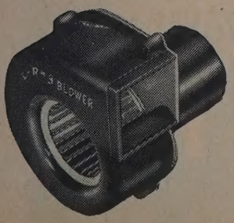

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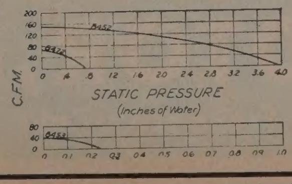
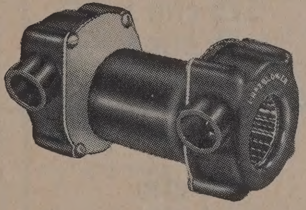
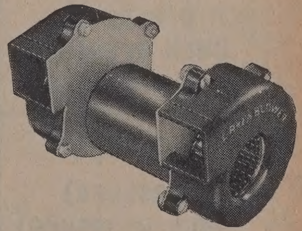


L-R BLOWERS DUAL ASSEMBLY





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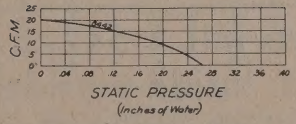

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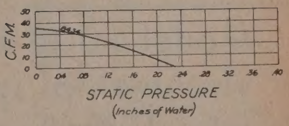

Model No.	Type	Input Voltage	Watts	Duty Cycle	R.P.M.	Output Free Air C.F.M.	Dimensions Length O.A.	Dimensions Motor Dia.	List Price
8442	2 Dual	115V. AC-60 Cycle	18	Continuous	3,000	10-10	5¹¹⁄₁₆	2¼	**$19.52**
8434	2½ Dual	115V. AC-60 Cycle	20	Continuous	2.800	17-17	5¹¹⁄₁₆	2¼	**20.59**

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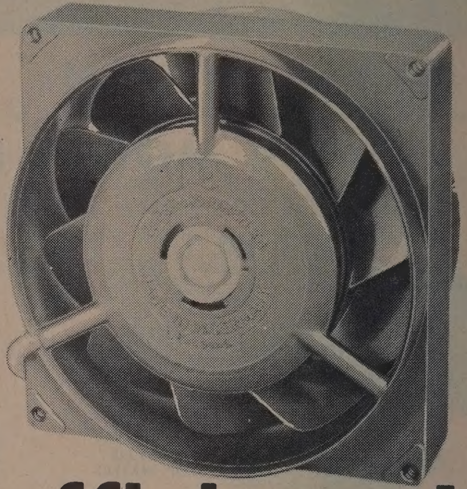
Trade Discount Applies to List Prices Only

PAMOTOR FANS

New! MINIATURE AXIAL FANS up to 4 times greater cooling efficiency!



FULLY GUARANTEED FOR 10,000 HRS. UNDER NORMAL OPERATING CONDITIONS

Characteristic	PAMOTOR Model 1000	Conventional Fan
Type of Motor	induction (capacitor-type squirrel cage)	shaded-pole
Housing	die cast warp-free Zymec	plastic
Output @ 60 cps		
(0 back pressure)	125 cfm	100 cfm
(.25″ back pressure)	75 cfm	20 cfm
(.3″ back pressure)	50 cfm	0
Output @ 50 cps		
(0 back pressure)	100 cfm	75 cfm
(.25″ back pressure)	62.5 cfm	5 cfm
Operating Temp. Range	−55°C to +85°C	−18°C to +44°C

The PAMOTOR Model 1000 Miniature Fan is completely interchangeable with conventional units now in use (4⅛" center-to-center mounting holes). But the similarity ends there.

check this comparison chart!

Model 1000 meets MIL-T-5422E (Class 2), and MIL-STD-202 Environmental specs. Inside-outside rotating motor design gives flywheel effect, resulting in constant, quiet fan speed. Large surface sleeve bearings mean minimum maintenance, maximum reliability.

For complete specifications and name of nearest stocking distributor, write to:

PAMOTOR, Inc.
San Francisco, Calif.

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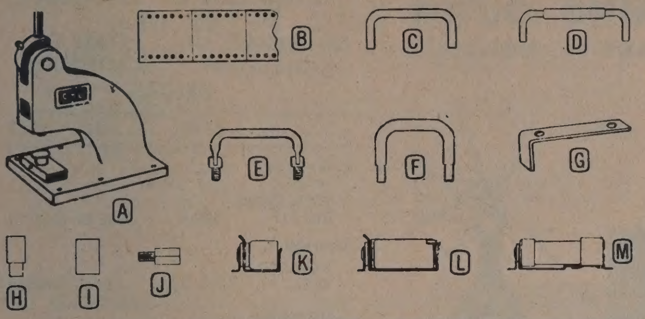
HARDWARE



#3802-1 ARBOR SWAGER

Specially designed by Cambion for mounting Cambion terminals on terminal boards. These Arbor Swagers are sturdy, precision-built, hand operated, cam action rolling tools; designed for quick, solid uniform swaging of solder terminals. Adjustable to a wide range of terminal board thicknesses by setting the anvil at the proper height. Terminals may be swaged, in place, as far as 1⅞" from the board edge. Pressure is adjustable and uniform, assuring good, even peening. When ordering, specify terminal to be staked. PSA (anvil) and PSP (punch) toolings are used with the Arbor Swager.

Cambion No. 3802-1 Arbor Swager—Net Ea., 1-99 .... $40.00

PSA and PSP Tooling, Each $4.00

ALL-PURPOSE HANDLES

BRASS TYPE

Available in polished nickel plate or black oxide finish.

Cambion Number	Fig.	Mtd. Ht.	Mtg. Ctrs.	Tap or Stud Lgth. x Size	Dia.	Net Each, 1-9* Nickel Plate -1*	Black Oxide -2*
1075	C	1½"	4 9/16"	9/16" x 10-32	5/16"	$1.16	$0.97
1220	C	1"	1¼"	⅜" x 4-40	5/32"	1.09	.96
1221	C	1"	2"	⅜" x 4-40	5/32"	1.16	1.02
1222	C	1"	3"	⅜" x 4-40	5/32"	1.21	1.07
1250	C	1 5/16"	2"	7/16" x 8-32	5/16"	.99	.85
1252	C	1 5/16"	3"	7/16" x 8-32	5/16"	1.02	.91
1260	F	1 5/16"	2"	29/64" x 12-28	5/16"	1.16	1.02
1261	F	1 5/16"	3"	29/64" x 12-28	5/16"	1.24	1.10
1262	F	1½"	4"	29/64" x 12-28	5/16"	1.37	1.21
1263	F	1¾"	6"	29/64" x 12-28	5/16"	1.51	1.38
1280	C	1½"	2"	9/16" x 8-32	¼"	1.07	.93
1281	C	1½"	3"	9/16" x 8-32	¼"	1.12	.99
1282	C	1½"	4"	9/16" x 8-32	¼"	1.21	1.07
1283	C	1½"	6"	9/16" x 8-32	¼"	1.31	1.16
1965	C	1¾"	6 7/16"	9/16" x 10-32	5/16"	1.19	1.12
1900-1†☐	E	1 27/32"	4"	⅝" x ⅜-24	⅜"	2.80	2.60
2066	D	1 19/32"	§	9/16" x 10-32	5/16"	3.10	2.60
2062-1‡☐	E	1 13/16"	4"	⅝" x ⅜-24	⅜"	2.70	2.50
2111-2☐	C	1½"	4 9/16"	½" x 10-32	#	1.82	1.70
2111-3☐	C	1¾"	6 7/16"	½" x 10-32	#	2.10	1.92
2111-4☐	C	1¾"	9"	½" x 10-32	#	2.30	2.20
2111-1☐	C	1 9/32"	3"	9/32" x 10-32	#	1.62	1.50
2721-1☐ ‡	E	1¾"	4"	⅝" x ⅜-24	#	3.60	2.90
2722-1☐ †	E	1¾"	4"	⅝" x ⅜-24	#	3.70	3.00

*Add suffix to Cambion number when ordering (example, 1075-1). †90° folding; ⅝" dia. base. ‡180° folding; ⅝" dia. base. §Adjustable 4½" to 6⅝" #Oval: 9/32" x ⅝". ☐Add suffix -02 for nickel plate; -12 for black oxide.

ALUMINUM TYPE

Specify black or semi-frost finish when ordering.

Cambion Number	Fig.	Mtd. Ht.	Mtg. Ctrs.	Tap or Stud Lgth. x Size	Dia.	Net Ea., 1-9*
1230	C	1"	1¼"	⅜" x 4-40	5/32"	$0.69
1231	C	1"	2"	⅜" x 4-40	5/32"	.77
1232	C	1"	3"	⅜" x 4-40	5/32"	.82
1290	C	1½"	2"	9/16" x 8-32	¼"	.71
1291	C	1½"	3"	9/16" x 8-32	¼"	.77
1292	C	1½"	4"	9/16" x 8-32	¼"	.88
1293	C	1½"	6"	9/16" x 8-32	¼"	1.01
1270-1	C	1⅞"	4"	9/16" x 10-32	⅜"	1.19
1271-1	C	1⅞"	4"	9/16" x 12-24	⅜"	1.19
2385-1-14	C	1 9/32"	3"	9/32" x 10-24	#	1.23
2385-2-14	C	1½"	4 9/16"	9/32" x 10-24	#	1.31
2385-3-14	C	1¾"	6 7/16"	9/32" x 10-24	#	1.43
2385-4-14	C	1¾"	9"	9/32" x 10-24	#	1.56

#Oval, 9/32" x ⅝".

MERCURY BATTERY HOLDERS

Phosphor-bronze body with nylon insulator. Rivets (No. 2099) available for assembly of holders. **Specify Finish:** Add suffix to number to indicate finish desired (example 2233-1); **-1**, no longer available; **-2**, nickel plate; **-3**, gold flash over nickel plate.

Cambion Number	Fig.	Max. Size, Inches H. x W. x L.	Battery Size, Inches Dia. x Lgth.	Net Each, 1-9* Suffix -2	Suffix -3
2233	K	49/64 x ½ x 1 3/32	⅝ x 21/32	$0.35	$0.43
2234	L	49/64 x ¾ x 1¾	21/32 x 1 5/16	.44	.52
2324	M	57/64 x 25/32 x 4 5/32	21/32 x 3¼	.92	1.05
2475	M	57/64 x 25/32 x 2 27/32	21/32 x 2	.74	.85
2477	M	57/64 x 25/32 x 3½	21/32 x 2⅝	.83	.93
2570	*	1½ x 1 x 3¼	1 3/16 x 2⅜	1.01	1.26

*Mercury "D" cell, not illustrated.

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ALL-SET TERMINAL BOARDS (FIG. B)

Board is scored into 2⅝" sections to facilitate wiring divisions; 5-section length, 13⅛". Terminal spacing, ⅜" Standard boards, below, have 5 sections per board. For use with 1724 terminal unless otherwise noted.

PHENOLIC TYPE

Board Width	Terminal Rows Spaced	Recommended Bracket	Cotton Fabric Cambion No.	Cotton Fabric Net Ea. 1-9*	Nylon Fabric Cambion No.	Nylon Fabric Net Ea. 1-9*
½"	§	....	1401*	$ .89	1401*	$1.02
2"	1½"	1998-B	1402*	2.00	1402*	2.50
2½"	2"	1998-C	1403*	2.10	1403*	2.70
3"	2½"	1998-D	1404*	2.20	1404	2.90
1 1/16"	¾"	1998-E	1405‡	1.84	1405‡	2.00
1½"	1 3/16"	1998-F	1406*	1.97	1406*	2.30

*Specify Board thickness by dash no. In cotton **-15** = 3/32"; **-45** = ⅛"; in Nylon **-35** = 3/32"; **-65** = ⅛". ‡In Cotton **-15** = 1/16" bd., **-45** = 3/32" bd. In Nylon **-35** = 3/32" bd. **-65** = ⅛" bd. Used with 1558 Terminal. §Single Row of Terminals.

GLASS EPOXY TYPE

Board Width	Terminal Rows Spaced	Recommended Bracket	Thin Board* Cambion No.	Thin Board* Net Ea. 1-9*	Heavy Board† Cambion No.	Heavy Board† Net Ea. 1-9*
½"	§	....	1401	$1.51	1401	$1.72
2"	1½"	1998-B	1402	3.40	1402	4.20
2½"	2"	1998-C	1403	3.70	1403	4.40
3"	2½"	1998-D	1404	4.20	1404	5.20
1 1/16"	¾"	1998-E	1405	2.50	1405	3.00
1½"	1 3/16"	1998-F	1406	3.20	1406	3.60

‡Used with 1558 terminal. §Single row of terminals. ***-25** 3/32" thick. †**-55** ⅛" thick. **1405-25** = 1/16", **1405-55** = 3/32".

MOUNTING BRACKETS (FIG. G)

Cadmium plated cold rolled steel construction.

Cambion Number	Width In.	Long Leg Size, In. Lgth.	Hole Dis.*	Hole Ctrs.	Hole Dia.	Short Leg, In. Lgth.	Hole Dia.	Net Each 1-9*
1301-1#	5/16	7/16	9/32	......	.144	7/16	.144	.12
1302-1†	5/16	23/32	9/16	......	.144	½	.144	.11
1303-1‡	5/16	27/32	11/16	......	.144	½	.155	.11
1963-1#	⅜	15/32	9/32	......	5/32	7/32	5/32	.12
1981-1	7/16	2½	9/16	1¾	5/32	½	5/32§	.11
1998-1	⅜	2⅛	⅜	1½	5/32	½	5/32§	.11
1998-2	⅜	2⅝	⅜	2	5/32	½	5/32§	.11
1998-3	⅜	3⅛	⅜	2½	5/32	½	5/32§	.11
1998-4	⅜	1 3/16	9/32	¾	5/32	½	5/32§	.11
1998-5	⅜	1⅝	9/32	1 3/16	5/32	½	5/32§	.11

*Distance from surface to center of hole. †1/16" sq. tab on center of longer leg, 25/64" from end . ‡1/16" sq. tab on center of longer leg, 33/64" from end. §Slot. #Curved end on short leg.

STANDOFFS

Cadmium plated brass construction.

Cambion Number	Fig.	O.D., In.	I.D.	Shank Dia. or Stud	Above Panel Ht., In.	Use With Tool‡	Net Each 1-9*
1246	H	¼	6-32	.187"	*	PSA-10 PSP-12	.12
1300	H	¼	4-40	.138"	*	PSA-10 PSP-7	.12
2188	H	⅝	2-56	.125"	*	PSA-39 PSP-38	.12
1801-1	I	3/16	4-40	....	¼	....	.13
1801-2 thru-6	I	¼	6-32	....	†	....	.13
1801-7 thru-10	I	⅜	8-32	....	†	....	.13
1915	I	¼	.129"	....	†	....	.06
1916	I	5/16	.154"	....	†	....	.08
1917	I	⅜	.180"	....	†	....	.09
1299-1	J	¼	6-32	6-32§	⅜"	....	.10
1299-2	J	¼	6-32	6-32§	½"	....	.10

§¼" stud length.

*CHART I

Specify above-panel height desired and board thickness by adding suffix to number (example: 1246-1, 1300-11, etc.).

Suffix for Panel Thickness of 1/32"	1/16"	3/32"	⅛"	3/16"	¼"	Above-Panel Height
-1	-9	-17	-25	-33	-41	⅛"
-2	-10	-18	-26	-34	-42	3/16"
-3	-11	-19	-27	-35	-43	¼"
-4	-12	-20	-28	-36	-44	⅜"
-5	-13	-21	-29	-37	-45	½"
-6	-14	-22	-30	-38	-46	⅝"
-7	-15	-23	-31	-39	-47	¾"
-8	-16	-24	-32	-40	-48	1"

†CHART II

Specify above-panel height desired by adding suffix to number.

Suffix for Standoff Nos. 1801	1915-1917	Above-Panel Height
-1, -2	-1	¼"
-3, -7	-2	⅜"
-4, -8	-3	½"
-5, -9	-4	⅝"
-6, -10	-5	¾"

‡CHART III

Specify tooling by proper suffix onto tool type listed for specific stand-off (examples: PSA-10-1 and PSP-10-1 for ⅛" or 3/16" h 1246 standoff).

Suffix	Above-Panel Height
-1	⅛", 3/16"
-2	¼", ⅜"
-3	½", ⅝"
-4	¾", 1"

★WRITE FOR DISCOUNTS ON LARGER QUANTITIES.

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Birnbach

WIRE MEASURING MACHINE, BINDING POSTS, PHONO JACKS - HANDLES

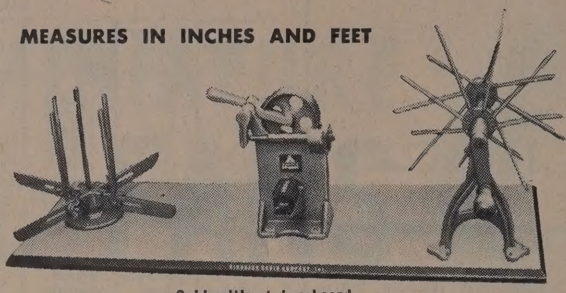
BIRNBACH

"NEW" COMPLETE WIRE MEASURING OUTFIT

ACCURATE • COMPACT • NOISELESS

MEASURING MACHINE
Sturdy and compact construction. Has a precision quality built counter with large numbers for easy reading and will register wire up to .9,999 feet for direct accurate reading. Can be easily reset to zero position.
Wire passes through two rollers, the upper roller being self-adjusting and the tension of the upper roller can be set by a thumb screw to provide the proper grip for very fine as well as for heavy wire.
Two hardened lead bushings with an opening of ⅝" diameter will guide the wire properly through the rollers. Bushings are removable to allow cables up to 1" dia. to pass through. Will measure accurately all electric wires, cables, coaxial cables, rope, tape, etc.

MEASURES IN INCHES AND FEET



Sold without baseboard.

WIRE WINDER
Has adjustable arms to be set to the desired coil size and the arms will open to a flat position for easy removal of the coil. Simply open thumb screw which holds the front collar tight on the shaft, push the collar in any direction to the desired position and tighten the thumb screw again.

HOLDING REEL
Compact, adjustable to size of coil and folding. Will hold spools or coils of wire.

CERTIFICATE OF APPROVAL
NO. 498-61
DEPARTMENT OF AGRICULTURE STATE OF CALIFORNIA

PRICES

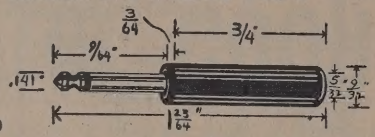
	MODEL	LIST	NET
COMPLETE WIRE MEASURING OUTFIT	7389A	$252.50	$126.25
Separately:			
HOLDING REEL	7398-1M	35.00	17.50
MEASURING MACHINE	7398-2MA	175.00	87.50
WIRE WINDER	7398-3M	59.00	29.50

MINIATURE PLUGS & JACKS

MINIATURE PHONE PLUG

Insulated type, Solder terminals, two conductor mini. phone plug. Ideal for hearing aids, portable receivers, small instruments, etc. Rated 500 volts.

No.	Std. pkg.
130 Red or Black	50

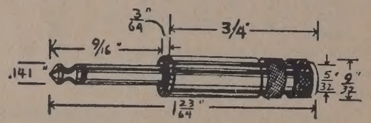


No. 130

SHIELDED MINIATURE PHONE PLUG

Same as No. 130 except with brass, bright nickel plated barrel with insulating tube inside.

No.	Std. pkg.
131	50

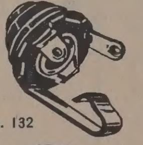


No. 131

MINIATURE TELEPHONE TYPE JACK

Rugged construction, smaller than standard type Jacks. Mount in ¼" dia. hole in panels up to ⅛" thick.

	Std. pkg.
No. 132 Open circuit type	50
No. 133 Single closed circuit type	50



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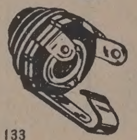
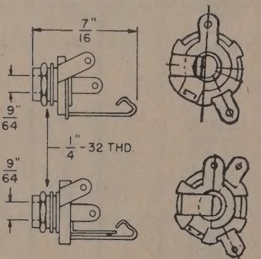
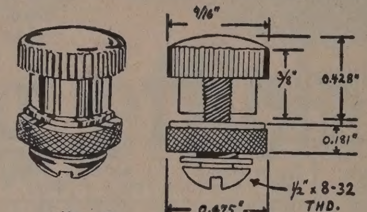


No. 133



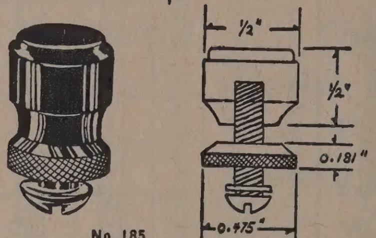
INSULATED BINDING POST



No. 184

Milded bakelite head with brass insert molded-in. Supplied complete with 8/32 x ½" screw, lock washer. Has brass insert molded-in. Supplied with washer. Available in black.

Cat. No.	Std. pkg.
184..Binding Post	50



No. 185

Molded bakelite head with brass insert molded-in. Supplied complete with 8/32 x ½" screw and lock washer. Has brass nickel-plated retaining washer.

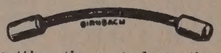
Colors: Red, Black.

Cat. No.	Std. pkg.
185..Binding Post	50

Brass, heavily nickel-plated overall. Complete with screw and lock washer. Designed for high amperage, low resistance connections.

Cat. No.	Std. pkg.
186. Metal Binding Post	50

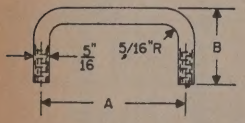
BIRNBACH FLEXIBLE SHAFTS



Modern construction calls for more compact arrangement of parts. At times there is difficulty getting the controls to the proper position on the panel. With couplings and these flexible shafts, locations can be made with ease on an offset and angles up to 90 degrees. The flexible shafts are made of phosphor bronze and fitted into ¼" dia. hubs.

Cat. No.	Std. Pkg.
553—Flexible Shaft 3" long	25
554—Flexible Shaft 6" long	25

HANDLES

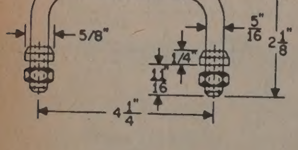


MATERIAL: BRASS
FINISH: NICKEL PLATED

Has 10-32 thread individually packaged for a perfect finish.

Cat. No.	A	B	Std. Pkg.
1065-3	3"	1⅚₁₆"	10
1065-4	4⁹⁄₁₆"	1½"	10
1065-6	6⁷⁄₁₆"	1¾"	10
1065-9	9"	1¾"	10

CABINET HANDLE



MATERIAL: BRASS
FINISH: NICKEL PLATED
Mounts in ⁵⁄₁₆" Hole.
Supplied with Hex Nut and Washer. Individually packaged for perfect finish.

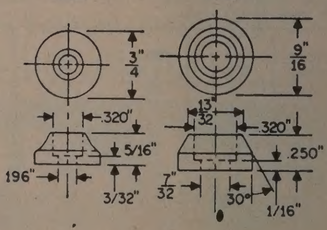
Cat. No.		Std. Pkg.
1066	Handle	10

FERRULE

BRASS—NICKEL PLATED
Used for mounting handles.

Cat. No.		Std. Pkg.
1068	Ferrule	100
1069	Ferrule	100

1069 1068



See Pages 1560-1565 for Birnbach Prices for Above Items

© U.C.P., Inc.

NEW SUB-MINIATURE TEFLON TERMINALS

NEW SUB-MINIATURE TEFLON* terminals provide instant mounting without any extra hardware of any kind because of the exceptional properties of Virgin Teflon*.

Low dielectric constant, low power factor (60 cps to 30,000 mc), low capacitance, high volume, high surface resistivity, high dielectric strength (1500-2000 v/mil, s.t.), continuous service —450°F to plus 500°F, unaffected by soldering, chemically inert, damage resistant, water repellant.

Installed permanently in seconds, in metallic or non-metallic chassis in one, simple, corking motion into punched or drilled holes. Mounting Hole Data: 1. Punch or drill the hole to a diameter that is .012" less than the diameter of the Teflon insulator which passes thru the chassis. 2. Where the thickness of the chassis permits, the entrance edge of the mounting hole should be countersunk 30° to the diameter of the insulator. Where chassis thickness will not permit (.040" or smaller), countersink 45° to the diameter of the insulator.

Speeds up assembly — cut production costs, no nuts, washers, staking or soldering necessary especially adapted in crowded assemblies.

As for HF, VHF, UHF, microwave, radar, telemetering, guided missile instrumentation and circuitry.

Your inquiries invited for sizes not shown here. *DuPont TM

MATERIALS

Teflon* (MIL-P-19468) ......100% Virgin Teflon*, produced from raw resin to insure maximum quality for terminal body.

Property	ASTM Test	Value
ELECTRICAL		
Dielectric Strength Short Time	D149-55T	500-2000 V/Mil dependent upon thickness
Dielectric Constant 60 to 10^6 cycles	D150-54T	2.0—2.1
Dielectric Constant 10^9 cycles	D150-54T	2.0—2.1
Dissipation Factor 60 to 10^6 cycles	D150-54T	Greater than 0.0003
Dissipation Factor 10^9 cycles	D150-54T	Greater than 0.0003
Surface Resistivity 100% R.H.	D257-57	Less than 10^{15} OHMS/sq.
Surface Arc Resistance	D495-56T	Does not track
MECHANICAL		
Specific Gravity	D792-50	2.14—2.19
Hardness Durometer	D676-49T	D50—D65
Service Temperature		—450° to +500°F
Flammability		Non-Flammable
Water Absorption		Does not absorb moisture
Coefficient of Friction		.04 against polished steel

CHEMICAL

Inert to all known chemicals and solvents except Molten Alkali Metals and Fluorine at elevated temperatures and pressures.

Brass.......................................The brass used in the terminal meets Mil. Spec. QQ-B-626 comp. ½H.

Test Jack Material..............................Beryllium Copper with .000030 min. Gold Flash over .0003 min. Silver Plate

Plating.......................................Solder Finish Electro Solder Plate (40 to 70% tin content) min. .0003 Electro Solder Plate over .0001 Copper

Also available in Silver, Gold Flash or Gold Plate to Mil. Specs or other special plating.

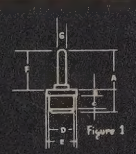


Figure 1

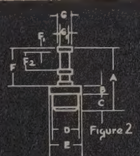


Figure 2

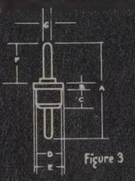


Figure 3

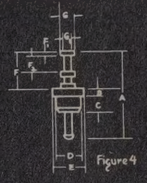


Figure 4

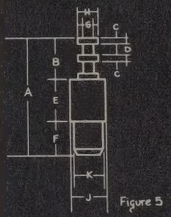


Figure 5

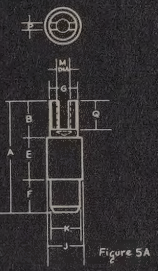


Figure 5A

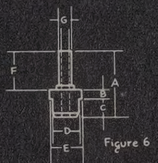


Figure 6

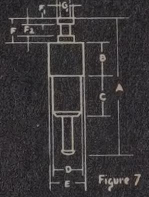


Figure 7

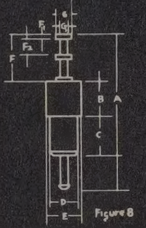


Figure 8

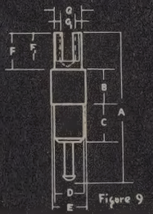


Figure 9

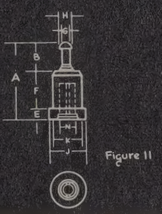


Figure 11

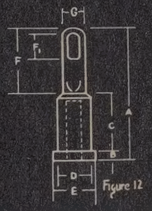


Figure 12

Cat. No.	Fig.	SUB-MINIATURE STAND-OFFS VOLTAGE FLASHOVER								+.002" —.000 D diam.	STD. PKG. 100, 1000								
		° Sea Level	50	100	200	Cap. MMF	A	B	C		E diam.	F	F1	F2	G diam.	G1 diam.			
506	1	3800	1400			.41	.350	.040	.100	.148	.172	.210			.040				
507	1	3950	1400			.39	.410	.040	.160	.148	.172	.210			.040				
508	1	3500	1410			.32	.500	.040	.250	.148	.172	.210			.040				
510	2	3960	1330			.41	.350	.040	.100	.148	.172	.210	.020	.100	.040	.080			
511	2	4060	1275			.36	.375	.040	.125	.148	.172	.210	.020	.100	.040	.080			
512	2	4150	1383			.36	.350	.040	.100	.179	.200	.210	.020	.100	.040	.080			
510-01	2	5580	1800			.45	.428	.093	.125	.148	.172	.210	.020	.100	.040	.080			
510-02	2	3730	1350			.37	.500	.040	.250	.148	.172	.210	.020	.100	.040	.080			
511-01	5	6220	1980			.58	.522	.125	.150	.165	.187	.250	.020	.095	.040	.093			
511-02	5	5300	1550	325	290	.60	.487	.046	.287	.185	.218	.154	.020	.046	.046	.093			
512-01	5A	4930	1933			.50	.478	.125	.150	.171	.187	.203	.156		.148	.078			
		SUB-MINIATURE FEED-THRUS											STD. PKG. 100, 1000						
515	3	3960	1720			.55	.443	.040	.100	.148	.172	.210			.040				
514	3	4228	1135			.73	.515	.040	.100	.148	.172	.210			.045				
516	3	3984	1250			.71	.725	.040	.100	.148	.172	.210			.040				
518	4	3970	1340			.62	.500	.040	.100	.148	.172	.210	.020	.100	.040	.080			
519	4	4130	1190			.69	.500	.040	.165	.148	.172	.210	.020	.100	.040	.080			
517	6						.193	.025	.063	.125	.150	.105			.040	.030			
520	7	4000	1250	275	250	.80	.540	.063	.171	.171	.187	.133	.020	.093	.046	.093			
521	8	4230	1275			.72	.836	.187	.165	.148	.172	.250	.020	.093	.040	.093			
																	M	P	Q
522	9	5740	1775			.81	.821			.171	.187	.203			.148		.078	.046	.156
		CONNECTORS AND TEST JACKS											STD. PKG. 100, 1000				L	N[b]	
525-01	11	3500	725	275	250	.70	.637	.050	.400	.185*	.218	.187	.031	.104	.054	.074	.250	.080	
525-02	11	3500	1155			.80	.437	.046	.271	.185*	.218	.120	.037	.053	.054	.074	.195	.080	
525-03	11	3100				.50	.345	.046	.179	.148	.172	.120	.023	.077	.046	.050	.140	.040	
																			Q[a]
523	12	4300	975	300	275	.50	.687	.046	.287	.185*	.218	.354			.105		.263	.140	.042

NOTES:

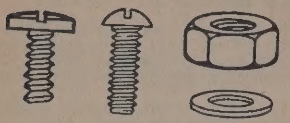
Terminals may be ordered with Teflon insulators in reverse position of those shown making possible the entire assembly from one side. Add "R" to part number.

° Altitude — Thousands of feet. Capacitance measured when terminals installed in .062" thick aluminum chassis.

*Tolerance: ±.001". [a]—Width of wire hole. [b]—Diam. of probe received by contact.

Birnbach SCREWS & NUTS • WASHERS • STANDOFFS ALL-NYLON FASTENINGS

Non-Corrosive, Non-Conducting



Used in variety of applications, such as; appliances, computers and business machines, chemical and food processing equipment, electronic equipment and instruments, airborn equipment, etc.

*Reg. T.M. of DuPont

ALL-NYLON FASTENINGS

Zytel 101 per Mil P 20693 Spec, Mil S 7742 Spec

Birnbach All-Nylon Fastenings are made of Zytel 101*, a Polymide plastic of the Nylon 6.6 Type. They offer outstanding insulating properties plus resistance to heat, shock, vibration and chemical solvents plus lightness elasticity and superior torque strength. In most cases, because of their high dielectric strength, they eliminate the need of bushings, washers or other insulation. They are corrosion resistant, non-magnetic and good torque strength thru a wide temperature range. Continuous service temperature to 300°F (150°C). Stock color: Natural. Additional colors available to order. Zytel 101 per MIL-P-17019B.

ALL NYLON MACHINE SCREWS

STANDARD PKG.: 100, 1000

Cat. No.	Size	Type
6640	2-56 x ¼″	Round Head
6640A	2-56 x ¼″	Fillister Head
6640B	2-56 x ¼″	Binding Head
6641	2-56 x ⅜″	Round Head
6641A	2-56 x ⅜″	Fillister Head
6641B	2-56 x ⅜″	Binding Head
6550	2-56 x ½″	Round Head
6551	2-56 x ½″	Fillister Head
6551A	2-56 x ½″	Binding Head
6643	4-40 x ¼″	Round Head
6643A	4-40 x ¼″	Fillister Head
6643B	4-40 x ¼″	Binding Head
6644	4-40 x ⅜″	Round Head
6644A	4-40 x ⅜″	Fillister Head
6644B	4-40 x ⅜″	Binding Head
6552	4-40 x ½″	Round Head
6552A	4-40 x ½″	Fillister Head
6552B	4-40 x ½″	Binding Head
6646	6-32 x ¼″	Round Head
6646A	6-32 x ¼″	Fillister Head
6646B	6-32 x ¼″	Binding Head
6553	6-32 x ⅜″	Round Head
6554	6-32 x ⅜″	Binding Head
6555	6-32 x ⅜″	Fillister Head
6556	6-32 x ⅜″	Flat Head
6557	6-32 x ½″	Round Head
6558	6-32 x ½″	Binding Head
6559	6-32 x ½″	Fillister Head
6560	6-32 x ½″	Flat Head
6648	6-32 x ¾″	Round Head
6648A	6-32 x ¾″	Fillister Head
6648B	6-32 x ¾″	Binding Head
6561	6-32 x 1″	Round Head
6561C	6-32 x 1″	Flat Head
6650	8-32 x ¼″	Round Head
6650A	8-32 x ¼″	Fillister Head
6650B	8-32 x ¼″	Binding Head
6562	8-32 x ⅜″	Round Head
6563	8-32 x ⅜″	Binding Head
6564	8-32 x ⅜″	Flat Head
6565	8-32 x ⅜″	Fillister Head
6566	8-32 x ½″	Round Head
6567	8-32 x ½″	Binding Head
6568	8-32 x ½″	Flat Head
6569	8-32 x ½″	Fillister Head
6570	8-32 x ⅝″	Round Head
6571	8-32 x ⅝″	Fillister Head
6572	8-32 x ¾″	Round Head
6572A	8-32 x ¾″	Fillister Head
6572B	8-32 x ¾″	Binding Head
6573	8-32 x 1″	Flat Head
6573A	8-32 x 1″	Fillister Head
6574	10-32 x ⅜″	Round Head
6575	10-32 x ½″	Round Head
6576	10-32 x ½″	Flat Head
6577	10-32 x ⅝″	Round Head
6578	10-32 x 1″	Round Head
6579	10-32 x 1″	Flat Head

THREADED NYLON ROD in 6-32, 8-32, 10-32 and ¼-20 thread sizes available.

ROUND HEAD MACHINE SCREWS

Standard Package 1000

STEEL NICKEL PLATED

Cat. No.	Size
6300 ..	2-56 x 3/16
6301 ..	2-56 x ⅜
6302 ..	2-56 x ½
6303 ..	3-48 x ¾
6304 ..	4-36 x ¼
6305 ..	4-36 x ½
6306 ..	4-36 x ¾
6307 ..	4-40 x ¼
6308 ..	4-40 x ½
6309 ..	4-40 x ¾
6420 ..	6-32 x ¼
6421 ..	6-32 x ⅜
6422 ..	6-32 x ½
6423 ..	6-32 x ⅝
6424 ..	6-32 x ¾
6425 ..	6-32 x 1
6426 ..	8-32 x ¼
6427 ..	8-32 x ⅜
6428 ..	8-32 x ½
6429 ..	8-32 x ⅝
6430 ..	8-32 x ¾
6431 ..	8-32 x 1
6432 ..	8-32 x 1½
6433 ..	10-32 x ¼
6434 ..	10-32 x ⅜
6435 ..	10-32 x ½
6436 ..	10-32 x ⅝
6437 ..	10-32 x ¾
6438 ..	10-32 x 1
6439 ..	¼-20 x ½
6310 ..	¼-20 x 1¼
6311 ..	¼-20 x 2½
6400 ..	4-36 x ¼
6401 ..	4-36 x ⅜

BRASS NICKEL PLATED

Cat. No.	Size
6402 ..	4-36 x ½
6403 ..	4-36 x ¾
6404 ..	4-36 x 1
6312 ..	4-40 x ¼
6313 ..	4-40 x ⅜
6314 ..	4-40 x ½
6315 ..	4-40 x ¾
6405 ..	6-32 x ¼
6406 ..	6-32 x ⅜
6407 ..	6-32 x ½
6408 ..	6-32 x ⅝
6409 ..	6-32 x ¾
6410 ..	6-32 x 1
6410A ..	6-32 x 1⅛
6411 ..	6-32 x 1¼
6412 ..	6-32 x 1½
6413 ..	8-32 x ¼
6414 ..	8-32 x ⅜
6415 ..	8-32 x ½
6416 ..	8-32 x ⅝
6417 ..	8-32 x ¾
6418 ..	8-32 x 1
6316 ..	10-32 x ¼
6317 ..	10-32 x ⅜
6318 ..	10-32 x ½
6318A ..	10-32 x ⅝
6319 ..	10-32 x ¾
6319A ..	12-24 x 1
6320 ..	10-32 x 1
6320A ..	¼-20 x ⅞
6320B ..	¼-20 x 1¼
6320C ..	¼-20 x 1½

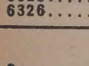
BINDING HEAD MACHINE SCREWS

Steel Nickel Plated

Cat. No.	Size	Std. Pkg.
6321	6-32 x ¼″	1000
6322	6-32 x ⅜″	1000
6323	6-32 x ½″	1000
6324	8-32 x ¼″	1000
6325	8-32 x ⅜″	1000
6326	8-32 x ½″	1000

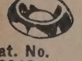
OVAL HEAD RACK SCREWS

Steel Nickel Plated



Widely used for mounting panels on racks and cabinets. Screws are nickel-plated brass.

Cat. No.	Size	Std. Pkg.
6600	6-32 x ¼″	1000
6601	6-32 x ½″	1000
6602	6-32 x ¾″	1000
6603	6-32 x 1″	1000
6604	8-32 x ¼″	1000
6605	8-32 x ½″	1000
6606	8-32 x ¾″	1000
6607	8-32 x 1″	1000
6608	10-32 x ¼″	1000
6609	10-32 x ½″	1000
6610	10-32 x ⅝″	1000
6611	10-32 x ¾″	1000
6611-A	10-32 x 1″	1000



FINISHING RACK WASHERS

Brass Nickel Plated

Cat. No.	Size	Std. Pkg.
6612	6-32 Cup Washer	1000
6613	8-32 Cup Washer	1000
6614	10-32 Cup Washer	1000

SHEET METAL SELF TAPPING SCREWS

Steel Cadmium Plated

TYPE A — SHARP POINT

Cat. No.	Size	Std. Pkg.
6500	#4 x ½	144
6501	#6 x ¼	144
6502	#6 x ⅜	144
6503	#6 x ½	144
6504	#6 x ¾	144
6540	#8 x ⅜	144
6541	#8 x ½	144
6505	#8 x 1	144
6542	#10 x ⅜	144
6543	#10 x ½	144
6506	#10 x ¾	144
6507	#10 x 1	144

HEX HEAD SELF TAPPING SCREWS

TYPE B — BLUNT POINT SLOTTED

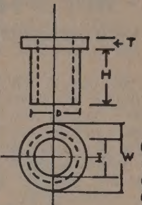
Steel Cadmium Plated

Cat. No.	Size	Std. Pkg.	Cat. No.	Size	Std. Pkg.
6510	#6 x ⅜	144	6515	#8 x ½	144
6511	#6 x ½	144	6516	#8 x ¾	144
6512	#6 x ¾	144	6517	#8 x 1	144
6513	#8 x ¼	144	6518	#10 x ½	144
6514	#8 x ⅜	144	6519	#10 x 1	144

VOLUME CONTROL AND TOGGLE NUTS

STEEL - BRASS - NICKEL PLATED

No.	Type	Size	Std. Pkg
6337	Vol. Control Brass	⅜-32x½x3/32	1000
6337A	Vol. Control Steel	⅜-32x½x3/32	1000
6338	Toggle Switch Brass	15-32x9/16x5/64	1000
6339	Toggle Ring Nut	15-32x⅝x1/16	1000



BIRNBACH NYLON BUSHINGS AND SPACERS

Designed with wide flanges to completely isolate screw from mounting surface, useful where hi tensile and torque requirements require high strength non-insulating screws. Natural color.

Cat. No.	UsedU with Screw Size	Dimensions			
	I	W	T	H	D
6549	#4(.115″)	.235″	3/64″	¼″	.146″
6549A	#6(.140″)	.290″	3/64″	¼″	.170″
6549B	#8(.173″)	.344″	1/16″	⅜″	.205″
6549C	#10(.200″)	.399″	1/16″	⅜″	.260″
6549D	¼″(.260″)	.513″	1/16″	⅜″	.312″

All parts are manufactured to American Thread Standards to a class 2A or 2B fit. B 18.2 (hex nuts), B 18.6 (machine screws), B 1.1 (thread specs.)

BIRNBACH ALL NYLON HEX NUTS

STANDARD PKG.: 100, 1000

Cat. No.	Size	Cat. No.	Size
6585	2-56	6588	8-32
6586	4-40	6589	10-32
6587	6-32	6590	¼-20

BIRNBACH ALL-NYLON WASHERS

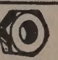
STANDARD PKG.: 100, 1000

Cat. No.	Fits Screw No.	O.D.	I.D.	Thickness
6592	2	¼″	3/32″	.016″
6593	4	¼″	⅛″	.016″
6594	6	5/16″	5/32″	.031″
6595	8	⅜″	.170″	.031″
6596	10	⅜″	.195″	.031″
6597	¼″	⅝″	9/32″	.063″

BIRNBACH HEXAGON STEEL MACHINE SCREW NUTS

Nickel Plated

Cat. No.	Thread Size	Width across Flats	Thickness	Std. Pkg
6330	2-56	3/16″	1/16″	1000
6331	3-48	3/16″	1/16″	1000
6332	4-36	1/4″	3/32″	1000
6333	4-40	1/4″	3/32″	1000
6448	6-32	1/4″	3/32″	1000
6449	6-32	5/16″	7/64″	1000
6334	8-32	1/4″	3/32″	1000
6450	8-32	5/16″	7/64″	1000
6335	10-32	3/8″	1/8″	1000
6336	¼-20	7/16″	3/16″	1000



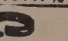
BIRNBACH HEXAGON MACHINE SCREW NUTS

BRASS—NICKEL PLATED

Cat. No.	Thread Size	Width across Flats	Thickness	Std. Pkg.
6440	4-36	1/4″	3/32″	1000
6442	4-40	1/4″	3/32″	1000
6441	6-32	1/4″	5/64″	1000
6443	6-32	5/16″	7/64″	1000
6444	8-32	11/32″	1/8″	1000
6445	10-32	5/16″	7/64″	1000
6446	10-32	3/8″	1/8″	1000
6447	¼-20	7/16″	1/8″	1000

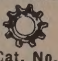
BIRNBACH BRASS NICKEL PLATED FLAT WASHERS

Cat. No.	Fits Screw No.	Hole Size	O.D.	Thickness	Std. Pkg.
6479	4	.118″	9/32″	.025″	1000
6480A	6	.145″	5/16″	.025″	1000
6480	6	.145″	3/8″	.025″	1000
6481	8	.172″	3/8″	.032″	1000
6482	10	.203″	7/16″	.036″	1000
6483	¼-20	.265″	9/16″	.040″	1000



BIRNBACH STEEL KANKLINK LOCKWASHERS

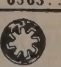
Cat. No.	Screw Size	O.D.	Thickness	Std. Pkg
6484	4	3/16″	1/32″	1000
6485	6	15/64″	1/32″	1000
6486	8	15/64″	.025″	1000
6487	10	5/16″	.050″	1000
6488	¼	7/16″	5/64″	1000



BIRNBACH SHAKEPROOF LOCKWASHERS

EXTERNAL TEETH

Cat. No.	Screw Size	Std. Pkg
6358	4	1000
6359	6	1000
6360	8	1000
6361	10	1000
6362	¼	1000
6363	⅜	1000



BIRNBACH SHAKEPROOF LOCKWASHERS

INTERNAL TEETH

Cat. No.	Screw Size	Std. Pkg.
6355	2	1000
6356	3	1000
6357	4	1000
6490	6	1000
6491	8	1000
6492	10	1000
6493	¼	1000
6494	⅜	1000

6494/1 Narrow Rim Control Shaft Lockwasher 3/8″ 1000

6494/2 Narrow Rim Toggle Switch Lockwasher 15/32″ 1000

See Pages 1560-1565 for Birnbach Prices for Above Items

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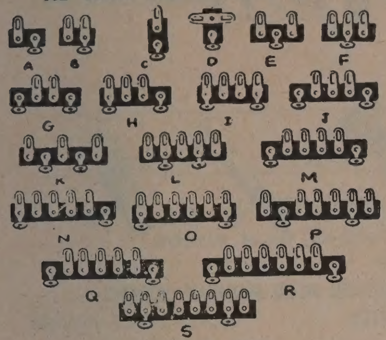
Birnbach

TERMINAL STRIPS • LUGS • BUSHINGS SHAFT COUPLINGS • PANEL BEARINGS SPACERS • TUBE CLAMPS

TIE DOWN LUG TERMINAL STRIPS



STANDARD TYPE

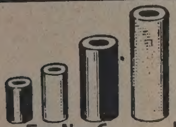
These lugs made of 1/16" (.062" thick) XP bakelite x ⅜" wide with cadmium plated brass lugs. Lugs are ⅜" centers with .140 diam. mounting holes. Strips illustrated are standard; special combinations on request.

Cat. No.	Illustration	Std. Pkg.
1382	A	100
1382A	B	100
1382B	C	100
1382C	D	100
1383	E	100
1383A	F	100
1384	G	100
1384A	H	100
1384B	I	100
1385	J	100
1385A	K	100
1385B	L	100
1386	M	100
1386A	N	100
1386B	O	100
1387	P	100
1388	Q 5 Ter., 2 grds.	100
1389	R 6 Ter., 2 grds.	100
1390	S	100

MINIATURE TYPE

These lugs made of 1/16" (.062" thick) XP bakelite x 5/16" wide. Brass, cadmium plated lugs are ¼" centers; .096 diam. mounting hole. Clearance for 3/32" rivet or No. 3 screw. Strips illustrated are standard; special combinations on request.

Cat. No.	Illustration	Std. Pkg.
1352	A	100
1352A	B	100
1352B	C	100
1352C	D	100
1353	E	100
1353A	F	100
1354	G	100
1354A	H	100
1354B	I	100
1355	J	100
1355A	K	100
1355B	L	100
1356	M	100
1356A	N	100
1356B	O	100
1357	P	100
1358	Q	100
1359	R	100
1360	S	100



BIRNBACH BRASS BUSHINGS & SPACERS

An ideal brass bushing for raising sub panels, chassis, condensers, transformers, etc. Hole will accommodate a No. 6 or No. 8 screw.

For No. 6 Cat. No.	For No. 6 Std. Pkg.	Length	For No. 8 Cat. No.	For No. 8 Std. Pkg.
		¼" O.D.		
1125	100	¼"	1130	100
1126	100	⅜"	1131	100
1127	100	½"	1132	100
1128	100	¾"	1133	100
1129	100	1"	1134	100
		⅜" O.D.		
1135	100	¼"	1140	100
1136	100	⅜"	1141	100
1137	100	½"	1142	100
1138	100	¾"	1143	100
1139	100	1"	1144	100

THREADED BRASS SPACERS

¼" O.D.

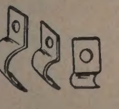
For No. 6-32 Cat. No.	For No. 6-32 Std. Pkg.	Length	For No. 8-32 Cat. No.	For No. 8-32 Std. Pkg.
1125T	100	¼"	1130T	100
1126T	100	⅜"	1131T	100
1127T	100	½"	1132T	100
1128T	100	¾"	1133T	100
1129T	100	1"	1134T	100

BIRNBACH INSULATED BUSHINGS AND SPACERS

¼" O.D.

For No. 6 Cat. No.	For No. 6 Std. Pkg.	Length	For No. 8 Cat. No.	For No. 8 Std. Pkg.
1145	100	¼"	1149	100
1146	100	⅜"	1150	100
1147	100	½"	1151	100
1148	100	¾"	1152	100

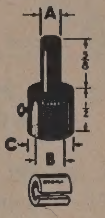
BIRNBACH CABLE CLAMPS



Cat. No.	To Fit Cable Up to	Lth.	Wth.	Mtg. Hole	Std. Pkg.
1153	3/32"	7/16"	¼"	4	100
1154	5/32"	⅝"	⅜"	6	100
1155	¼"	11/16"	⅜"	6	100
1156	½"	15/16"	⅜"	8	100
1157	¾"	1¼"	¾"	10	100

SHAFT COUPLING REDUCERS AND EXTENDERS

By the use of these units all ¼" and ⅜" dia. shafts and knobs can be assembled together. The insulated units are for use where electrical isolation is desired. Furnished complete with set screws shown. Be sure to specify whether Brass or Insulated is desired.

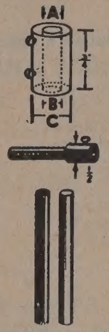


SHAFT COUPLINGS

Cat. No. Br.	Cat. No. Insul.	Shaft A	Hole B	O.D. C	Std. Pkg.
534	634	¼"	¼"	½"	50
535	635	¼"	⅜"	9/16"	50
536	636	⅜"	¼"	½"	50
537		Reducer for ⅜" Dia. Hole to ¼" Dia. Hole		⅜"	50

COUPLINGS

Cat. No. Br.	Cat. No. Insul.	Shaft A	Hole B	O.D. C	Std. Pkg.
531	631	¼"	¼"	½"	50
532	632	¼"	⅜"	9/16"	50
533	633	⅜"	⅜"	9/16"	50



EXTENDERS

Cat. No.	Over-all Lgth.	Shaft Lgth.	Hole I.D.	Shaft O.D.	Std. Pkg.
538 Brass	1¾"	1¼"	¼"	¼"	50
539 Insulated	1¾"	1¼"	¼"	¼"	50

BRASS SHAFTING

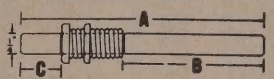
Cat. No.			Std. Pkg.
540	¼" Dia.	6" Long	12
541	¼" Dia.	12" Long	12
542	⅜" Dia.	8" Long	12

FIBRE SHAFTING

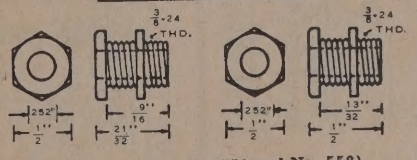
Cat. No.			Std. Pkg.
543	¼" Dia.	6" Long	12
544	¼" Dia.	12" Long	12
545	⅜" Dia.	8" Long	12

BIRNBACH FRONT PANEL BEARINGS

Cadmium plated brass for panels up to ⅜" in thickness and for ¼" dia. shafts. The No. 551 and No. 552 are complete assemblies of the No. 550 and ¼" dia. brass shaft cadmium plated.



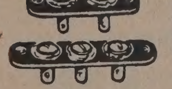
Cat. No.	A	B	C	Std. Pkg.
551	3"	1¾"	½"	50
552	6"	4¾"	½"	25



(Same as used on No. 551 and No. 552)

Cat. No.		Std. Pkg.
550	—Front Panel Bearing, threaded length 9/16"	50
550A	—Front Panel Bearing, threaded length 13/32"	50
550-B	—Front Panel Bearing, ⅜-32 threaded length 7/16 - 21/32 O.L.	
550-C	—Front Panel Bearing—Miniature ¼-32 thd length 5/16, 3/8" O.L. .125 opening 11/32 hex.	

BAKELITE TERMINAL STRIPS



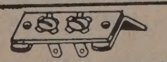
Terminals are made of brass and cadmium plated. Terminals are mounted on 1/16" bakelite. 7, 8, 9 and 10 terminals are mounted on 3/32" bakelite. All terminals are space 7/16" center to center.

PLAIN

Cat. No.	Terminals	Mtg. Center
1372	2	1-5/16"
1373	3	1-¾"
1374	4	2-3/16"
1375	5	2-⅝"
1376	6	3-1/16"
1377	7	3-½"
1378	8	3-15/16"
1379	9	4-⅜"
1380	10	4-13/16"

MARKED

Cat. No.	Terminals Marked
1260	2; A-G
1261	2; Output
1262	2; Input
1263	3; 1-2-3
1264	4; 1-2-3-4
1265	5; 1-2-3-4-5
1266	6; 1-2-3-4-5-6

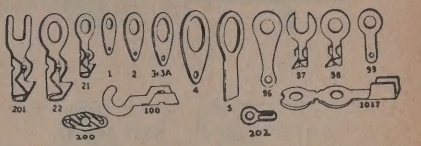


TERMINAL STRIPS 2 POST

Excellent mounting for twin lead transmission lines Brass hot tinned lugs spaced 7/16" center to center. 1/16" bakelite. 1 15/16" mounting center.

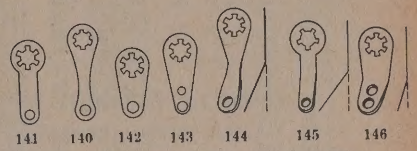
Cat. No. T16 .... St. Pkge. 50

BIRNBACH TINNED TERMINAL LUGS



Cat. No.	Hole for Screw	Material	Thickness	Lgth.
1	6	Tinned Copper	.015"	17/32"
2	10	Tinned Copper	.016"	⅝"
3	.252	Tinned Copper	.015"	17/32"
3A	1/4	Tinned Copper	.015"	13/16"
4	3/8	Tinned Copper	.016"	⅞"
5	1/2	Hot Tin. Cop.	.024"	1 3/16"
21	10	Hot Tin. Cop.	.020"	3/16"
22	1/4	Hot Tin. Cop.	.025"	1 1/16"
200	8	Brass Hot Tin.	.015"	⅞"
201	10	Brass Hot Tin.	.020"	25/32"
202	6	Brass Hot Tin.	.020"	⅝"
96	4-6-8-10	Brass Hot Tin.	.020"	⅞"
97	8	Tinned Copper	.016"	⅝"
98	4-6-8-10	Brass Hot Tin.	.020"	11/16"
99	4-6-8-10	Brass Hot Tin.	.020"	11/16"
100	10	Brass Hot Tin.	.020"	⅞"
1017	10	N. Pl. Cop.	.023"	13/16"

Standard Package — 1000

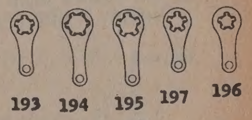


LOCKWASHER TERMINAL LUGS BRASS HOT TINNED

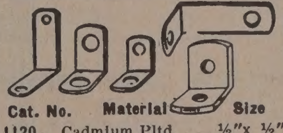
Cat. No.	Hole for Screw	Thickness	Std. Pkge. 1000 Length
140-4	4	.018"	⅞"
140-6	6	.018"	⅞"
140-8	8	.018"	⅞"
140-10	10	.018"	57/64"
140-14	¼"	.018"	13/16"
141-4	4	.018"	47/64"
141-6	6	.018"	47/64"
141-8	8	.018"	47/64"
142-4	4	.018"	⅝"
142-6	6	.018"	⅝"
142-8	8	.018"	⅝"
143-4	4	.018"	23/32"
143-6	6	.018"	23/32"
143-8	8	.018"	23/32"
144-4	4	.018"	13/16"
144-6	6	.018"	13/16"
144-8	8	.018"	13/16"
144-10	10	.018"	53/64"
145-4	4	.018"	23/32"
145-6	6	.018"	23/32"
145-8	8	.018"	23/32"
146-4	4	.018"	41/64"
146-6	6	.018"	41/64"
146-8	8	.018"	41/64"

BIRNBACH LOCKING TYPE TERMINAL LUGS

Brass
Electro Plated



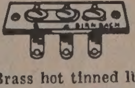
Cat. No.	Hole for Screw	Thickness	Length In.	Std. Pkg
193	4	.020"	¾"	1000
194	6	.020"	¾"	1000
195	8	.020"	⅞"	1000
197	10	.020"	⅞"	1000
196	¼"	.020"	13/16"	1000



BRASS AND STEEL ANGLES

CAT. NO. 1120 HAS ONE PLAIN .165 HOLE AND ONE 8/32 TAPPED HOLE

Cat. No.	Material	Size	Mtg. Holes	Std. Pkg.
1120	Cadmium Pltd.	½"x ½"	165	100
1121	Brass N.P.	½"x ½"	169	100
1122	Brass N.P.	⅝"x ⅝"	169	100
1123	Steel H.T.	¾"x ¾"	144	100
1124	Steel H.T.	⅝"x1⅛"	169	100



BIRNBACH 3 POST

A synchronizing lock strip for RCA type television receivers.

Brass hot tinned lugs. Spaced 7/16" center to center. Mounting center 1¾". 1/16" bakelite.

Ca. No. T16A .... Std. Pkg. 50

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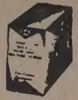
See Pages 1560-1565 for Birnbach Prices for Above Items

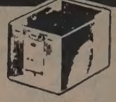
GC
ELECTRONICS

RADIO AND TV HARDWARE

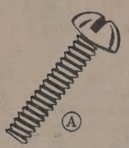
HINGED COVER
PLASTIC BOXES
— 50 LINE —
Dlr. Net Price. 36c
Per Box



BOXES OF 100
Standard Carton
10 Boxes of 100



BULK
HARDWARE
Box of 1000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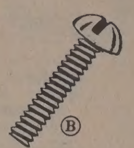
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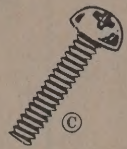
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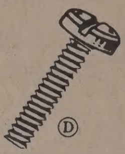
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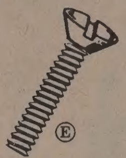
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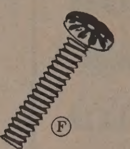
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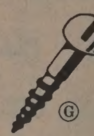
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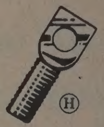
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(A) G-C ROUND HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted Screws	H1000-F	35				
Assorted Screws & Nuts	H1001-F	40				
Assorted No. 2 & 4 Screws & Nuts	H1002-F	35				
Assorted 4-36 Screws	H1010-F	40				
Assorted 6-32 Screws	H1012-F	40				
Assorted 8-32 Screws	H1016-F	40				
Assorted 10-32 Screws	H1018-F	25				
2-56 x ¼″	H1022-F	40	7130-C	$ .45	7130-M	$3.53
2-56 x ½″	H1024-F	40	7131-C	.48	7131-M	3.85
2-56 x ¾″	H1026-F	40	7132-C	.55	7132-M	4.43
3-48 x ¾″	H1028-F	40	7124-C	.58	7124-M	4.65
4-36 x ¼″	H1032-F	40	6005-IC	.48	6005-M	3.87
4-36 x ⅜″	H1033-F	35	7138-C	.50	7138-M	3.97
4-36 x ½″	H1034-F	35	6006-C	.52	6006-M	4.18
4-36 x ⅝″			5651-C	.87	5651-M	7.36
4-36 x ¾″	H1036-F	35	6007-C	.77	6997-M	6.63
4-40 x ¼″	H1042-F	40	6005-AC	.48	6005-AM	3.87
4-40 x ½″	H1044-F	35	6005-BC	.53	6005-BM	4.22
4-40 x ⅝″			5652-C	.57	5652-M	4.53
4-40 x ¾″	H1046-F	35	6005-CC	.78	6005-CM	6.60
6-32 x ¼″	H1062-F	40	6008-C	.53	6008-M	4.25
6-32 x ½″	H1064-F	30	6009-C	.62	6009-M	4.93
6-32 x ⅝″			5653-C	.68	5653-M	5.40
6-32 x ¾″	H1066-F	30	6010-C	.80	6010-M	6.86
6-32 x 1″	H1068-F	30	6011-C	.83	6011-M	6.67
6-32 x 1¼″	H1070-F	30	7141-C	1.00	7141-M	8.00
6-32 x 2″	H1076-F	20	7148-C	1.50	7148-M	12.07
8-32 x ¼″	H1082-F	30	6013-C	.70	6013-M	5.55
8-32 x ⅜″	H1083-F	25	6014-C	.78	6014-M	6.48
8-32 x ½″	H1084-F	25	6015-C	.82	6015-M	6.48
8-32 x ⅝″			5654-C	.87	5654-M	6.95
8-32 x ¾″	H1086-F	25	6016-C	.93	6016-M	7.42
8-32 x 1″	H1088-F	20	6017-C	1.07	6017-M	8.50
8-32 x 1¼″	H1090-F	20	7142-C	1.23	7142-M	9.87
10-32 x ½″	H1104-F	20	6020-C	.95	6020-M	7.63
10-32 x ⅝″			5655-C	1.03	5655-M	8.32
10-32 x ¾″	H1106-F	20	6021-C	1.12	6021-M	8.93
10-32 x 1″	H1108-F	17	6022-C	1.25	6022-M	10.05
10-32 x 1½″	H1112-F	15	7143-C	1.65	7143-M	13.22

(B) G-C ROUND HEAD MACHINE SCREWS BRASS — NOT PLATED

Assorted	H1210-F	30				
2-56 x ¼″			5657-C	.67	5657-M	$ 5.32
2-56 x ½″			5658-C	.80	5658-M	6.42
2-56 x ⅝″			5659-C	.87	5659-M	6.97
2-56 x ¾″			5660-C	.93	5660-M	7.50
3-48 x ¾″			5661-C	1.05	5661-M	8.33
4-36 x ¼″			5662-C	.80	5662-M	6.45
4-36 x ½″			5663-C	1.02	5663-M	8.10
4-36 x ⅝″			5664-C	1.10	5664-M	8.82
4-36 x ¾″			5665-C	1.20	5665-M	9.53
4-40 x ¼″			5666-C	.93	5666-M	7.73
4-40 x ½″			5667-C	1.02	5667-M	8.10
4-40 x ⅝″			5668-C	1.43	5668-M	12.79
4-40 x ¾″			5669-C	1.27	5669-M	10.80
6-32 x ¼″			8501-C	1.08	8501-M	8.63
6-32 x ⅜″			5670-C	1.15	5670-M	9.22
6-32 x ½″			8502-C	1.30	8502-M	10.38
6-32 x ⅝″			5671-C	1.43	5671-M	11.47
6-32 x ¾″			8503-C	1.58	8503-M	12.67
6-32 x 1″			8504-C	1.88	8504-M	15.00
6-32 x 1¼″			5672-C	2.18	5672-M	17.82
6-32 x 2″			5673-C	3.68	5673-M	29.40
8-32 x ¼″			8505-C	1.60	8505-M	12.78
8-32 x ⅜″			5674-C	1.68	5674-M	13.43
8-32 x ½″			8506-C	1.92	8506-M	15.37
8-32 x ⅝″			5675-C	2.12	5675-M	16.92
8-32 x ¾″			8507-C	2.35	8507-M	18.75
8-32 x 1″			8508-C	2.80	8508-M	22.35
8-32 x 1¼″			5676-C	3.28	5676-M	26.25
10-32 x ½″			5677-C	2.43	5677-M	19.50
10-32 x ⅝″			5678-C	2.70	5678-M	21.67
10-32 x ¾″			5679-C	2.95	5679-M	23.55
10-32 x 1″			5680-C	3.52	5680-M	28.08
10-32 x 1½″			5681-C	4.80	5681-M	38.40

(C) G-C PHILLIPS TYPE ROUND HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1180-F	25				
6-32 x ¼″			8511-C	1.18	8511-M	$ 9.47
6-32 x ½″			8512-C	1.07	8512-M	8.53
6-32 x ⅝″			5689-C	1.18	5689-M	9.47
6-32 x ¾″			8513-C	1.22	8513-M	9.75
6-32 x 1″			8514-C	1.37	8514-M	10.87
8-32 x 5⁄16″			8515-C	1.03	8515-M	8.32
8-32 x ½″			8516-C	1.27	8516-M	10.70
8-32 x ⅝″			5690-C	1.23	5690-M	9.90
8-32 x ¾″			8517-C	1.33	8517-M	10.65
8-32 x 1″			8518-C	1.45	8518-M	13.57

(D) G-C BINDING HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Assorted	H1168-F	35				
5-36 x ¼″	H1170-F	35	7154-C	.53	7154-M	$4.20
6-32 x 3⁄16″			7151-C	.53	7151-M	4.20
6-32 x ¼″	H1172-F	35	7152-C	.53	7152-M	4.20
6-32 x ⅜″			7153-C	.57	7153-M	4.50
7-32 x ⅜″	H1174-F	30	7155-C	1.57	7155-M	12.48
8-32 x 5⁄16″			7158-C	.87	7158-M	7.41

(E) G-C OVAL HEAD RACK AND CABINET SCREWS STEEL — NICKEL PLATED

Assorted Screws and Washers	H1005-F	15				
6-32 x ½″			6540-C	.62	6540-M	$4.93
6-32 x ⅝″			5691-C	.87	5691-M	7.43
6-32 x ¾″			6541-C	.73	6541-M	5.80
8-32 x ⅝″			5692-C	.95	5692-M	7.90
8-32 x ¾″			6542-C	.93	6542-M	7.42
10-32 x ½″			8848-C	1.14	8848-M	9.30
10-32 x ⅝″			5693-C	1.03	5693-M	8.32
10-32 x ¾″			6543-C	1.12	6543-M	8.93

(F) G-C ORNAMENTAL HEAD SCREWS STEEL — BRONZE PLATED

Assorted	H1250-F	20				
6-32 x ¾″	H1252-F	25	1097-C	1.28	1097-M	$10.27
6-32 x 1″	H1253-F	20	1098-C	1.40	1098-M	11.28
8-32 x 1¼″	H1255-F	12	1099-C	1.92	1099-M	15.30

(G) G-C WOOD SCREWS ROUND HEAD — STEEL — NICKEL PLATED

Assorted	H1502-F	25				
No. 4 x ½″			6114-C	.78	6114-M	$ 6.23
No. 4 x ⅝″			5694-C	.90	5694-M	7.33
No. 4 x ¾″			6115-C	.90	6115-M	7.20
No. 6 x ¾″			6116-C	.97	6116-M	7.73
No. 6 x 1″			6117-C	1.20	6117-M	9.57
No. 8 x ¾″			6118-C	1.15	6118-M	9.15
No. 8 x 1¼″			8071-C	1.58	8071-M	12.68
No. 10 x 1½″			8073-C	2.12	8073-M	16.95
No. 12 x 1½″			8075-C	2.70	8075-M	21.60
No. 14 x 1¾″			8076-C	3.80	8076-M	30.45

(H) G-C SPADE BOLTS OR MOUNTING SCREWS STEEL — NICKEL PLATED

Assorted H1570-F 15

A	B No.	C	D	E				
6-32	6	9⁄32″	11⁄16″	9⁄16″	6081-C	1.15	6081-M	$ 9.15
6-32	6	13⁄32″	⅞″	11⁄16″	6082-C	1.75	6082-M	14.66
8-32	8	7⁄16″	15⁄32″	15⁄16″	6084-C	2.93	6084-M	23.40

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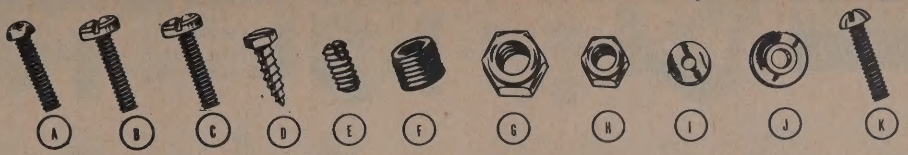
GC ELECTRONICS

ELECTRONIC HARDWARE



(A) GC-PHILLIPS TYPE

ROUND HEAD MACHINE SCREWS

STEEL — NICKEL PLATED

	100 PACK		1000 PACK	
DESCRIPTION	Part No.	Net/100	Part No.	Net/1000
Machine Screws, Phillips 6-32x5/16″	8510-C	$1.18	8510-M	$ 9.47

(B) GC-BINDING HEAD MACHINE SCREWS

STEEL — NICKEL PLATED

Machine Screws, 2-56x¼″	7160-C	$ .63	7160-M	$ 5.33
Machine Screws, 2-56x½″	7161-C	.63	7161-M	5.33
Machine Screws, 2-56x¾″	7162-C	.63	7162-M	5.33
Machine Screws, 4-36x¼″	7163-C	.63	7163-M	5.33
Machine Screws, 4-36x½″	7164-C	.63	7164-M	5.33
Machine Screws, 4-36x¾″	7165-C	.63	7165-M	5.33
Machine Screws, 4-40x¼″	7170-C	.63	7170-M	5.33
Machine Screws, 4-40x½″	7171-C	.63	7171-M	5.33
Machine Screws, 4-40x¾″	7172-C	.64	7172-M	5.35
Machine Screws, 6-32x¾″	7173-C	.72	7173-M	5.62
Machine Screws, 8-32x¼″	7174-C	.72	7174-M	5.62
Machine Ccrews, 8-32x¾″	7175-C	.95	7175-M	7.57
Machine Screws, 10-32x½″	7176-C	.99	7176-M	7.70
Machine Screws, 10-32x¾″	7177-C	1.15	7177-M	9.20

(C) GC-BINDING HEAD MACHINE SCREWS

BRASS — NICKEL PLATED

Machine Screws, 2-56x¼″	7160-1-C	$ .84	7160-1-M	$ 6.98
Machine Screws, 2-56x½″	7161-1-C	.96	7161-1-M	8.28
Machine Screws, 2-56x¾″	7162-1-C	1.11	7162-1-M	9.55
Machine Screws, 4-36x¼″	7163-1-C	.97	7163-1-M	8.32
Machine Screws, 4-36x½″	7164-1-C	1.19	7164-1-M	10.18
Machine Screws, 4-36x¾″	7165-1-C	1.40	7165-1-M	12.05
Machine Screws, 4-40x¼″	7170-1-C	.97	7170-1-M	8.32
Machine Screws, 4-40x½″	7171-1-C	1.19	7171-1-M	10.18
Machine Screws, 4-40x¾″	7172-1-C	1.40	7172-1-M	12.15
Machine Screws, 5-36x¼″	7154-1-C	1.40	7154-1-M	12.99
Machine Screws, 6-32x3/16″	7151-1-C	1.34	7151-1-M	11.47
Machine Screws, 6-32x¼″	7152-1-C	1.27	7152-1-M	10.90
Machine Screws, 6-32x⅜″	7153-1-C	1.35	7153-1-M	11.54
Machine Screws, 6-32x½″	7118-1-C	1.51	7118-1-M	12.90
Machine Screws, 6-32x¾″	7173-1-C	1.83	7173-1-M	15.65
Machine Screws, 8-32x¼″	7174-1-C	1.85	7174-1-M	15.70
Machine Screws, 8-32x⅜″	7119-1-C	1.94	7119-1-M	16.65
Machine Screws, 8-32x½″	7120-1-C	2.20	7120-1-M	18.80
Machine Screws, 8-32x5/16″	7158-1-C	1.88	7158-1-M	16.20
Machine Screws, 8-32x¾″	7175-1-C	2.70	7175-1-M	23.15
Machine Screws,10-32x½″	7176-1-C	2.54	7176-1-M	21.80
Machine Screws, 10-32x¾″	7177-1-C	3.43	7177-1-M	29.50

(D) GC-SHEET METAL SCREWS

HEX HEAD—SLOTTED—SELF-TAPPING—NICKEL PLATED

	100 PACK		1000 PACK	
DESCRIPTION	Part No.	Net/100	Part No.	Net/1000
Sheet Metal Screws, No. 4x⅜″	6089-C	$ .77	6089-M	$ 6.32

(E) GC-RADIO KNOB SET SCREWS

Set Screws, 6-32x⅛″	6071-C	$1.80	6071-M	$14.40
Set Screws, 6-32x¼″	6073-C	1.80	6073-M	14.40
Set Screws, 8-32x⅛″	6074-C	1.80	6074-M	14.40
Set Screws, 8-32x½″	6077-C	1.80	6077-M	14.40
Set Screws, 10-32x3/16″	6078-C	1.80	6078-M	14.40

(F) GC-ALLEN HEX SET SCREWS

STEEL — HARDENED — HEADLESS

Hex Set Screws, 6-32x⅛″	7196-C	$4.93	7196-M	$39.45
Hex Set Screws, 6-32x3/16″	7197-C	4.93	7197-M	39.45

(G) GC-HEXAGON NUTS

STEEL — NICKEL PLATED

Hex Nuts, Thread 8-32, Width 5/16″, Thickness ⅛″	7232-C	$ .73	7232-M	$ 5.85

(H) GC-BRASS HEXAGON NUTS

NOT PLATED

Hex Nuts, Thread 4-40, Width 5/16″, Thickness 7/64″	7246-C	$1.17	7246-M	$ 9.33

(I) GC-FLAT FIBRE WASHERS

Screw Size No. 4: I.D. .020″, O.D. ¼″, Thickness 1/32″	6512-C	$ .50	6512-M	$ 4.08
Screw Size No. 7/16″, I.D. .440″, O.D. ¾″,Thickness 1/32″	6519-C	.83	6519-M	6.63

(J) GC-EXTRUDED FIBRE WASHERS

Screw Size No. 4: A-9/32″, B-203, C-⅛″, D-.031	6524-C	$ .87	6524-M	$ 6.90

(K) GC-ROUND HEAD MACHINE SCREWS

BRASS — NOT PLATED

Machine Screws, 4-36x⅜″	8509-C	$ .91	8509-M	$ 7.34

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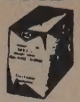
Net

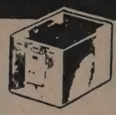
GC ELECTRONICS

RADIO AND TV HARDWARE

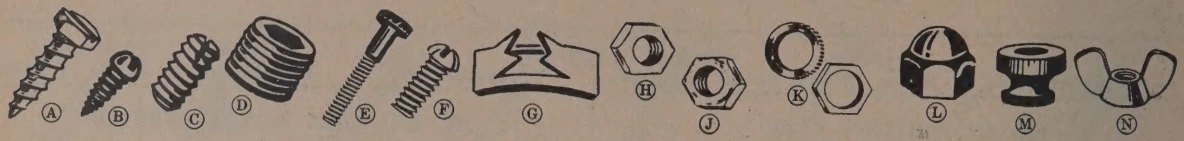
HINGED COVER
PLASTIC BOXES
— 50 LINE —
Ir. Net Price 36c
Per Box



BOXES OF 100
Standard Carton
10 Boxes of 100



BULK
HARDWARE
Box of 1000



(A) G-C SHEET METAL SCREWS HEX HEAD — SLOTTED — SELF-TAPPING — NICKEL PLATED POINTED TYPE "A"

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.	H1300-F	25				
Asstd. No. 4 & 6						
Asstd. No. 8 & 10						
No. 4 x ½"	H1350-F	35	6090-C	$ .87	6090-M	$ 7.33
No. 6 x ¼"	H1362-F	30	6091-C	.87	6091-M	7.33
No. 6 x ⅜"	H1363-F	25	6092-C	.90	6092-M	7.66
No. 6 x ½"	H1364-F	25	6093-C	.92	6093-M	7.75
No. 6 x ⅝"			5695-C	.95	5695-M	7.57
No. 6 x ¾"	H1366-F	20	6094-C	1.00	6094-M	8.16
No. 8 x ¼"	H1382-F	20	8102-C	1.00	8102-M	8.03
No. 8 x ⅜"	H1383-F	20	6095-C	1.05	6095-M	8.33
No. 8 x ½"	H1384-F	20	6096-C	1.08	6096-M	8.63
No. 8 x ⅝"			5696-C	1.10	5696-M	8.78
No. 8 x 1"	H1388-F	15	6097-C	1.38	6097-M	11.03
No. 10 x ⅜"	H1403-F	15	6098-C	1.25	6098-M	10.00
No. 10 x ½"	H1404-F	15	6099-C	1.27	6099-M	10.13
No. 10 x ¾"	H1406-F	12	6100-C	1.40	6100-M	11.17

(B) G-C ESCUTCHEON PLATE SCREWS ROUND HEAD — SLOTTED — BRONZE PLATED

Asstd.	H1500-F	25				
No. 2 x ¼"			1091-C	$ .87	1091-M	$5.70
No. 2 x ⅜"			1093-C	.72	1093-M	5.70

(C) G-C RADIO KNOB SET SCREWS SLOTTED — HEADLESS — CUP POINT Standard

Asst. 6-32, 8-32, 10-32	H1605-F	15				
6-32 x 3/16"	H1623-F	15	6072-C	$1.80	6072-M	$14.40
8-32 x 3/16"	H1633-F	15	6075-C	1.80	6075-M	14.40
8-32 x ¼"	H1634-F	15	6076-C	1.80	6076-M	14.40
10-32 x ¼"			6079-C	1.80	6079-M	14.40

(D) G-C ALLEN HEX SET SCREWS STEEL — HEADLESS

Asstd. Lengths, 4-36	H1674-F	5				
Asstd. Lengths, 6-32	H1676-F	5				
Asstd. Lengths, 8-32	H1678-F	5				
8-32 x ⅛"			7201-C	$4.93	7201-M	$39.45
8-32 x 3/16"			7202-C	4.93	7202-M	39.45

(E) G-C PHONOGRAPH NEEDLE AND STYLUS SET SCREWS STEEL — BRONZE PLATED

No. 1052 Ass't., 15 in Box. .... Dir. Net $ .36		
Assorted	H1550-F	12
No. 1053 Asst., 100 in Box .... Dir. Net .36	H1551-F	12
2-56 x 9/16"	H1553-F	12
1-72 x 29/32"	H1555-F	5

(F) PHONO CARTRIDGE MOUNTING SCREWS STEEL — NICKEL PLATED

Assorted	H1560-F	60				
4-36 x ¼"	H1562-F	40	6005-1C	.48	6005-M	$3.87
4-40 x ¼"	H1564-F	40	6005-AC	.48	6005-AM	3.87

(G) G-C TINNERMAN SPEED NUTS

Assorted	H1960-F	30				
No. 4			6051-C	$ .93	6051-M	$ 5.70
No. 6			6052-C	.78	6052-M	6.23
No. 8			6053-C	.78	6053-M	6.23

(H) G-C HEXAGON NUTS STEEL — NICKEL PLATED

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted			H1800-F	30				
Thread	Width	Thickness						
2-56	3/16"	1/16"	H1802-F	30	7225-C	$ .68	7225-M	$ 5.52
3-48	3/16"	1/16"	H1803-F	30	7226-C	.68	7226-M	5.52
4-36	¼"	3/32"	H1805-F	30	6041-C	.67	6041-M	5.28
4-40	¼"	3/32"	H1804-F	30	6041-AC	.67	6041-AM	5.28
5-40	5/16"	7/64"			6045-BC	.73	6045-BM	5.82
6-32	¼"	3/32"	H1806-F	30	6042-C	.68	6042-M	5.52
6-32	5/16"	7/64"	H1807-F	30	7230-C	.73	7230-M	5.82
8-32	¼"	3/32"	H1808-F	30	6043-C	.73	6043-M	5.85
8-32	11/32"	⅛"	H1809-F	30	7233-C	.73	7233-M	5.85
10-32	⅜"	5/64"	H1810-F	30	6044-C	.97	6044-M	7.68
10-32	⅜"	⅛"			6049-C	.87	6049-M	6.98
¼-20	7/16"	3/16"	H1820-F	25	7235-C	1.33	7235-M	10.62
11/32-32	7/16"	1/16"			7236-C	1.95	7236-M	15.60
⅜-32	9/16"	3/32"	H1923-F	15	6050-AC	1.47	6050-AM	11.70
7/16-27	9/16"	⅛"	H1924-F	10	7238-C	3.30	7238-M	26.40
15/32-32	9/16"	5/64"			6050-BC	1.80	6050-BM	14.40

(J) G-C BRASS HEXAGON NUTS NOT PLATED

Thread	Width	Thickness						
2-56	3/16"	1/16"			7241-C	$ .98	7241-M	$ 7.83
3-48	3/16"	1/16"			7242-C	.90	7242-M	7.13
4-36	¼"	3/32"	H1842-F	35	7243-C	1.18	7243-M	9.42
4-40	¼"	3/32"	H1844-F	25	7244-C	1.17	7244-M	9.33
6-32	¼"	3/32"	H1846-F	25	7245-C	1.17	7245-M	9.33
6-32	5/16"	7/64"			5697-C	1.40	5697-M	11.18
8-32	¼"	3/32"			5693-C	1.17	5698-M	9.30
8-32	5/16"	7/64"	H1848-F	15	7248-C	1.40	7248-M	11.18
10-32	⅜"	⅛"	H1850-F	15	7249-C	1.53	7249-M	12.27
¼-20	7/16"	3/16"			5699-C	3.13	5699-M	25.02

(K) G-C MOUNTING NUTS STEEL — NICKEL PLATED

Assorted			H1920-F	12				
Thread	Width	Thickness						
11/32-32 (Rotary Switch Size)	7/16"	1/16"			7236-C	$1.95	7236-M	$15.60
⅜-32 (Volume Control Size)	9/16"	3/32"	H1923-F	15	6050-AC	1.47	6050-AM	11.70
7/16-27 (Pilot Light Size)	9/16"	⅛"			7238-C	3.30	7238-M	26.40
15/32-32 (Toggle Switch Size)	9/16"	5/64"	H1924-F	10	6050-BC	1.80	6050-BM	14.40
15/32-32 (Toggle Switch Size)	Round Ring Nut	1/16"	H1926-F	8	6050-CC	3.47	6050-CM	27.78

(L) G-C ACORN NUTS SOLID BRASS — NICKEL PLATED

Assorted	H1950-F	10				
6-32			6031-C	$2.82	6031-M	$22.50
8-32			6032-C	3.00	6032-M	24.00
10-32			6033-C	3.63	6033-M	29.10

(M) G-C KNURLED THUMB NUTS BRASS — NICKEL PLATED

Assorted	H1941-F	10				
6-32	H1943-F	8	6655-C	$2.27	6655-M	$18.15
8-32	H1944-F	8	6656-C	2.27	6656-M	18.15
10-32	H1945-F	5	6657-C	4.98	6657-M	39.90

(N) G-C WING NUTS NICKEL PLATED

Assorted	H1931-F	10				
6-32	H1933-F	10	6658-C	$3.32	6658-M	$26.52
8-32	H1934-F	10	6659-C	2.45	6659-M	19.65
10-32	H1935-F	8	6660-C	2.73	6660-M	21.90

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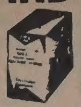
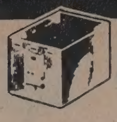
RADIO AND TV HARDWARE

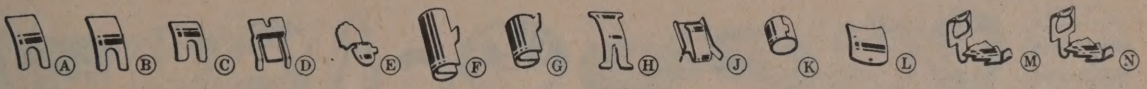
HINGED COVER PLASTIC BOXES
— 50 LINE —
Dlr. Net 36c
Per Box



BOXES OF 100
Standard Carton
10 Boxes of 100

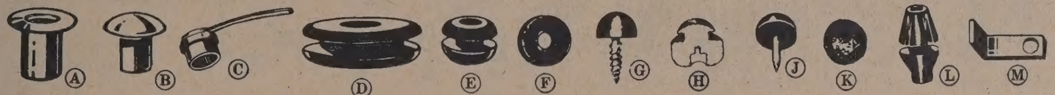


BULK HARDWARE
Box of 1000



G-C RADIO KNOB SPRINGS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst.	H480-F	18				
TV Spring Asst.	H460-F	12				
No. 1050 Kit of 35 Springs						
No. 1051 Kit of 100 Springs						
Width Length For Knob Shaft Dia.						
(A) 9/32" Light 7/16" 1/4"	H482-F	20	6460-C	1.05	6460-M	$ 8.38
(B) 9/32" Heavy 7/16" 1/4"	H484-F	20	6461-C	1.10	6461-M	8.78
(C) 9/32" 5/16" 1/4"	H487-F	20	6462-C	.88	6462-M	7.10
(D) 3/8" 5/32" 1/4"	H489-F	10	6463-C	$1.18	6463-M	$ 9.40
(E) 7/32" 13/32" 1/4"			6464-C	1.85	6464-M	14.78
(F) 9/32" 3/8" 1/4"	H492-F	8	6465-C	2.35	6465-M	18.83
(G) 9/32" 1/4" 1/4"			6466-C	2.80	6466-M	22.43
(H) 9/32" 1/2" 1/4"			6467-C	1.27	6467-M	10.10
(J) 9/32" 3/8" 1/4"	H494-F	10	6468-C	1.50	6468-M	11.93
(K) 11/32" 1/4" 1/4"			6469-C	2.35	6469-M	18.83
(L) 3/8" 3/8" 1/4"	H497-F	10	6470-C	1.50	6470-M	12.02
(M) 3/8" 7/16" 1/4"	H498-F	10	6471-C	2.55	6471-M	20.40
(N) 3/8" 7/16" 3/16"	H499-F	10	6472-C	2.33	6472-M	18.68
TV Knob Spring .202" Shaft	H462-F	10	8541-C	1.27	8451-M	10.10
TV Knob Spring 3/8" Flat Shaft	H464-F	10	8542-C	1.52	8542-M	12.08



(A) G-C BRASS EYELETS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst. Rivets and Eyelets	H526-F	55				
Asst. Eyelets and Clamps	H744-F	60				
Eyelet Asst.	H510-F	50				

Shank Dia.	Length Under Head	Head Dia.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
.087	1/8"	.145			7251-C	$ .28	7251-M	$ 2.27
.087	5/32"	.145			7252-C	.35	7252-M	2.85
.087	7/32"	.145			7253-C	.47	7253-M	3.20
.087	11/32"	.180			7254-C	1.08	7254-M	8.70
.123	5/32"	.197	H515-F	50	7257-C	.50	7257-M	3.98
.123	7/32"	.195			7259-C	.40	7259-M	3.20
.123	1/4"	.195			7260-C	.52	7260-M	4.18
.123	9/32"	.195			7261-C	.53	7261-M	4.25
.125	5/16"	.289			7264-C	.92	7264-M	7.30
.127	15/32"	.222			7265-C	1.12	7265-M	8.93
.182	3/16"	.315			7269-C	.32	7269-M	2.53

(B) G-C RIVETS NICKEL PLATED

Description & Specs.	Length Under Head	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst. Rivets and Eyelets		H526-F	55				
Rivet Assortment		H525-F	50				
TV Interlock Receptacle Rivets		H527-F	Asst.				
Shank Dia.							
.059	5/32"			7276-C	$ .88	7276-M	$6.98
.059	3/16"			7277-C	.88	7277-M	6.98
.060	1/4"			7278-C	.58	7278-M	4.72
.088	3/16"			7280-C	.95	7280-M	7.53
.098	3/16"			7283-C	.98	7283-M	7.92
.121	1/8"			7286-C	.77	7286-M	6.20
.121	3/16"			7288-C	.60	7288-M	4.75
.121	1/4"			7290-C	.70	7290-M	5.70
.121	1/2"			7293-C	.65	7293-M	5.15
.146	5/16"			7296-C	.82	7296-M	6.83

(C) G-C GRID CAPS NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.	H609-F	8				
Glass			6291-C	$1.33	6291-M	$10.73
Metal			6292-C	1.35	6292-M	10.77
TV Spring Type, Asstd.	H610-F					
1/4" High-Voltage			8838-IRC	3.80	8838-IRM	30.35
3/8" High-Voltage			8838-2RC	3.97	8838-2RM	31.75
1/4" Insulated High-Voltage	H612-F	1	8834-C	25.13	8834-M	228.96
3/8" Insulated High-Voltage	H614-F	1	8835-C	25.13	8835-M	228.96

(D) G-C RUBBER GROMMETS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Soft Grommets	H025-F	15				
No. 1040 Kit of 50 Asstd. Grommets Net $.75						
A B C D E						
11/32" 1/8" 3/16" 1/16" 1/4"	H030-F	16	1041-2C	$1.12	1041-2M	$8.93
7/16" 3/16" 7/32" 1/16" 5/16"	H032-F	14	1041-C	1.27	1041-M	10.08
9/16" 1/4" 1/4" 1/16" 3/8"	H034-F	12	1042-C	1.68	1042-M	13.50
5/8" 3/8" 1/4" 1/16" 1/2"	H036-F	10	1043-C	1.90	1043-M	15.15
1/2" 3/16" 1/4" 1/16" 5/16"			5710-C	$3.80	5710-M	$34.15
1/2" 1/4" 5/16" 1/8" 3/8"			7566-C	2.45	7566-M	19.53
7/8" 9/16" 15/64" 1/16" 3/4"			5711-C	3.53	5711-M	31,82
3/4" 7/16" 1/4" 1/16" 9/16"			5712-C	5.15	5712-M	41.22
13/16" 1/2" 9/32" 1/16" 5/8"	H038-F	8	1043-IC	2.88	1043-IM	26.40
1 1/16" 3/8" 5/16" 1/16" 13/16"			7569-C	5.75	7569-M	45.93
3/4" 5/16" 11/32" 3/32" 15/32"			5715-C	6.80	5715-M	54.36
1 1/8" 5/8" 5/16" 1/16" 7/8"			5716-C	5.73	5716-M	45.90
1 5/16" 11/16" 3/8" 1/16" 1"			5717-C	11.55	5717-M	98.46

(E) G-C PURE GUM GROMMETS
SOFT RUBBER GROMMETS FOR SHOCK DAMPENING. FOR MOUNTING TUNING CONDENSERS, SOCKETS, PHONO MOTORS, ETC.

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst.	H040-F	12				
No. 7581 Kit of 100 Asst. Grommets. $1.62						
A B C D E						
7/16" 3/16" 7/32" 1/16" 5/16"	H042-F	12	7582-C	1.62	7582-M	12.90
9/16" 1/4" 1/4" 1/16" 3/8"	H043-F	10	7584-C	2.30	7584-M	18.38

(F) G-C RADIO KNOB FELTS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
3/4" O.D. x 1/4" Hole, Brown	H760-F	40	1065-C	.38	1065-M	3.22

(G) G-C RUBBER FEET — Screw Type

O.D.	High	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
		H050-F	8				
3/8"	3/16"	H052-F	8	1075-BC	1.13	1075-BM	7.83
1/2"	1/4"	H054-F	8	1075-CC	1.47	1075-CM	11.70
5/8"	5/16"	H056-F	8	1075-FC	2.22	1075-FM	17.75

(H) G-C RUBBER BUTTON BUMPERS

A O.D.	B Height	C Hole	E Height	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
3/8"	3/8"	3/16"	3/16"			7596-C	1.43	7596-M	11.50
1/2"	7/16"	1/4"	1/4"	H058-F	8	7597-C	2.10	7597-M	16.85
5/8"	9/16"	3/8"	5/16"			7598-C	3.38	7598-M	27..10

(J) G-C RUBBER TACK BUMPERS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
3/8" O.D.	H071-F	10	1075-C	1.85	1075-M	14.78

(K) G-C FELT PADS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Felt Pads	H074-F	40				
1/2" O.D. x 1/4" Thick Felt Pads			1071-C	.30	1071-M	2.38

(L) G-C CORD STRAIN RELIEFS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Will Fit P.O.S.J. Cord	H048-F	5	6675-C	5.27	6675-M	42.11

(M) G-C ANGLES AND BRACKETS

A	B	C	Hole Size	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H570-F	12				
1/4"	3/16"	9/32"	6			6261-C	1.12	6261-M	8.97
3/8"	1/4"	9/32"	6			6262-C	1.40	6262-M	11.12
1/2"	7/16"	3/8"	6			6263-C	1.58	6263-M	12.68

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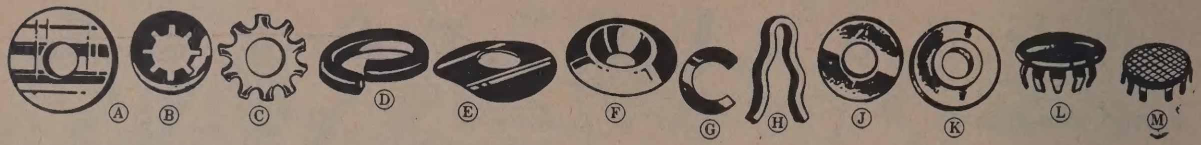
GC ELECTRONICS

RADIO AND TV HARDWARE

HINGED COVER
PLASTIC BOXES
— 50 LINE —
Dlr. Net 36c
Per Box

BOXES OF 100
Standard Carton
10 Boxes of 100

BULK
HARDWARE
Box of 1000



(A) G-C METAL WASHERS NICKEL PLATED

Screw Size No.	Hole Size	O.D.	Thickness	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H870-F	80				
4	1/8"	9/32"	1/32"	H874-F	80	6154-C	$ .50	6154-M	$ 4.03
6	5/32"	3/8"	1/32"	H876-F	80	6155-C	.50	6155-M	4.03
8	3/16"	7/16"	1/32"	H878-F	80	6156-C	.50	6156-M	4.03
10	13/64"	3/8"	1/32"	H880-F	70	7306-C	.47	7306-M	3.92
10	13/64"	7/16"	1/32"			7307-C	.47	7307-M	3.92
10	13/64"	1/2"	.049			6157-C	.50	6157-M	4.03
12	.228	7/16"	.021			7308-C	.47	7308-M	3.92
1/4"	9/32"	5/8"	1/16"	H882-F	50	6158-C	.57	6158-M	4.33
1/4"	17/64"	1/2"	1/16"			7311-C	.63	7311-M	5.07
5/16"	5/16"	11/16"	1/16"			7312-C	.58	7312-M	4.68

(B) G-C LOCK WASHERS INTERNAL LOCK WASHERS CADMIUM PLATED

Screw Size	O.D.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. All Types		H918-F	45				
Asstd. Internal Screw		H920-F	50				
2		H922-F	35	7322-C	$ .72	7322-M	$ 5.78
3				7323-C	.63	7323-M	5.03
4		H924-F	50	7324-C	.45	7324-M	3.63
6	9/32"	H926-F	50	7326-C	.45	7326-M	3.63
8	21/64"	H928-F	50	7328-C	.50	7328-M	3.98
10	3/8"	H930-F	45	7330-C	.50	7330-M	3.98
1/4"	9/16"			7332-G	.65	7332-M	5.25
5/16"	19/32"			7333-C	.82	7333-M	6.53
3/8"	11/16"			7334-C	1.10	7334-M	8.78
3/8"	9/16"	H938-F	25	7335-C	1.25	7335-M	9.98
15/32"	19/32"			7338-C	1.58	7338-M	12.63

(C) EXTERNAL LOCK WASHERS CAD PLATED

Desc. and Spec.		50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.		H950-F	60				
No. 4				7354-C	$ .45	7354-M	$ 3.63
No. 6				7356-C	.45	7356-M	3.63
No. 8				7358-C	.50	7358-M	3.98
No. 10				7360-C	.48	7360-M	3.87
No. 1/4"	1/2"			7361-C	.65	7361-M	5.22
No. 3/8"	11/16"			7363-C	.97	7363-M	7.68

(D) SPLIT TYPE LOCK WASHERS CAD PLATED

Screw Size	O.D.	Thick.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.			H960-F	60				
No. 4	3/16"	1/32"			6503-C	$ .57	6503-M	$ 4.50
No. 6	15/64"	1/32"			6504-C	.48	6504-M	3.90
No. 8	11/32"	.025			6505-C	.47	6505-M	3.70
No. 10	5/16"	.050			6506-C	.53	6506-M	4.32
No. 1/4"	7/16"	5/64"			6507-C	.80	6507-M	6.38

(E) G-C SPRING FRICTION WASHERS

A	B	C	Thick.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H750-F	12				
9/64"	5/16"	1/32"	.012			7385-C	$1.95	7385-M	$15.60
3/16"	3/8"	1/32"	.008			7386-C	1.65	7386-M	13.27
3/16"	7/16"	1/16"	.008			7387-C	1.62	7387-M	12.93
1/4"	9/16"	1/16"	.012			7389-C	1.87	7389-M	14.77

(F) G-C CUP FINISHING WASHERS NICKEL PLATED

Desc. and Spec.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Screws & Washers	H1005-F	15				
Asstd. Washers	H805-F	40				
No. 6	H806-F	45	6161-C	$ .47	6161-M	$ 3.92
No. 8	H808-F	45	6162-C	.53	6162-M	4.20
No. 10	H810-F	35	6163-C	.55	6163-M	4.47

(G) G-C C-WASHERS AND RETAINING RINGS STEEL-CAD PLATED

Shaft Diam.	A	B	C	D	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst'd. C-Washers					H770-F	25				
3/16"	.171	.125	.062	.031	H772-F	15	6182-C	$ .95	6182-M	$ 7.53
1/4"	.234	.156	.046	.031	H774-F	15	6183-C	1.07	6183-M	8:58
1/4"	.260	.187	.062	.031			6184-C	1.10	6184-M	8.73
1/4"	9/32" O.D. Wire Ring .029				H778-F	50	6185-C	.42	6185-M	3.30

(H) G-C HAIR PIN COTTERS

A	B	C	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.			H380-F	50				
9/32"	1/16"	.026			7375-C	$ .48	7375-M	$ 3.90
3/8"	1/16"	.026			7376-C	.42	7376-M	3.30
13/32"	3/32"	.026			7377-C	.47	7377-M	3.78
1/2"	5/32"	.026			7378-C	.48	7378-M	3.90
21/32"	3/16"	.032			7379-C	.50	7379-M	3.93

(J) G-C FLAT FIBRE WASHERS

Screw Size	I.D.	O.D.	Thick.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H820-F	35				
6	.140	1/4"	1/32"	H824-F	30	6513-C	$ .50	6513-M	$ 4.08
8	11/64"	3/8"	1/32"	H825-F	30	6514-C	.50	6514-M	4.08
10	.196	3/8"	1/32"	H826-F	30	6515-C	.50	6515-M	4.08
1/4"	1/4"	1/2"	3/64"	H827-F	24	6516-C	.53	6516-M	4.33
3/8"	.390	25/64"	3/64"	H828-F	20	6517-C	.77	6517-M	6.12
15/32"	15/32"	1/4"	1/32"			6518-C	.77	6518-M	6.12

(K) G-C EXTRUDED FIBRE WASHERS

Screw Size	A	B	C	D	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Extruded & Flat					H854-F	30				
Asstd. Extruded					H855-F	30				
6	5/16"	.187	.140	.039			6525-C	$ .87	6525-M	$ 6.90
8	3/8"	.250	.169	.031			6526-C	.87	6526-M	6.90
10	7/16"	.255	.196	.032			6527-C	.95	6527-M	7.53
1/4"	1/2"	.375	.250	.032			6528-C	.95	6528-M	7.53
3/8"	5/8"	.437	.380	.031	H864-F	20	6529-C	.98	6529-M	7.92

(L) G-C SNAP BUTTON HOLE PLUGS NICKEL PLATED

Asstd. H300-F 8

No. 1710 Asst. 50 Plugs in Box Dlr. Net $3.05

					50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
1/4"	13/32"	1/4"	17/64"	5/64"	H306-F	8	1711-AC	$ 2.25	1711-AM	18.00
5/16"	7/16"	1/4"	21/64"	1/16"			1711-BC	2.40	1711-BM	19.20
3/8"	17/32"	3/8"	25/64"	5/64"	H308-F	8	1711-C	3.08	1711-M	24.60
1/2"	21/32"	17/64"	17/32"	5/64"	H310-F	6	1712-C	3.08	1712-M	24.60
5/8"	51/64"	9/32"	41/64"	5/64"	H312-F	6	1713-C	3.30	1713-M	26.40
3/4"	15/16"	19/64"	49/64"	3/32"	H314-F	5	1714-C	3.60	1714-M	28.80
7/8"	Fits Switch Box Knockout Hole						1714-AC	4.62	1714-AM	36.90
1 "	1 5/32"	19/64"	1 1/32"	5/64"	H316-F	5	1715-AC	4.95	1715-AM	39.60
1 1/8"	1 5/16"	11/32"	1 9/64"	3/32"			1715-BC	5.93	1715-BM	59.40
1 1/4"	1 7/16"	5/16"	1 17/64"	3/32"			1715-C	6.45	1715-M	51.60
1 3/8"	1 9/16"	13/32"	1 13/32"	3/32"			5700-C	7.13	5700-M	57.00
1 7/16"	1 39/64"	27/64"	1 15/32"	7/64"			5701-C	7.28	5701-M	58.20
1 1/2"	1 41/64"	13/32"	1 17/32"	3/32"			5702-C	9.38	5702-M	75.00

(M) G-C SNAP-IN VENTILATING PLUGS NICKEL PLATED

Desc. and Spec.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
1" Punched Holes	H334-F	4	1709-C	$ 8.10	1709-M	$65.16
1" Screen Vent			1708-C	21.38	1708-M	170.99

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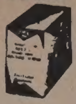
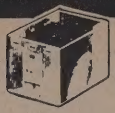
GC ELECTRONICS RADIO AND TV HARDWARE

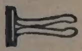
HINGED COVER
PLASTIC BOXES
— 50 LINE —
Dlr. Net 36c
Per Box



BOXES OF 100
Standard Carton
10 Boxes of 100

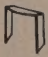


BULK
HARDWARE
Box of 1000



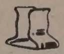
G-C SNAP-IN TRIMOUNTS

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
No. 1720 Asst. 100 Trimounts Net Price .... $ .82								
Assorted			H370-F	20				
To Fit Hole	**A**	**B**						
⅛"	9/32"	3/16"			1721-C	$1.13	1721-M	$ 9.60
⅛"	9/32"	13/64"	H373-F	25	1722-C	1.20	1722-M	9.90
.136	11/32"	17/64"			1723-C	1.38	1723-M	11.10
.136	23/64"	9/32"	H375-F	20	1724-C	1.45	1724-M	11.63
5/32"	3/16x11/32"	25/64"	H378-F	17	1726-C	1.77	1726-M	14.10
5/32"	3/16x11/32"	21/32"	H379-F	15	1727-C	1.77	1727-M	14.10



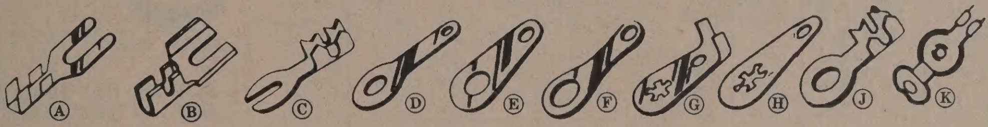
G-C DIAL CORD CLIPS NICKEL PLATED

Description & Specs. Used on Cord No.	A	B	C	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
				H745-F	30				
75-75A	⅛"	7/64"	3/32"	H746-F	40	6221-C	$ .68	6221-M	$ 5.43
74-74L	¼"	5/32"	5/32"			6222-C	.77	6222-M	6.08
73-73X	3/16"	9/64"	3/16"			6223-C	.78	6223-M	6.30



G-C FUSE CLIPS

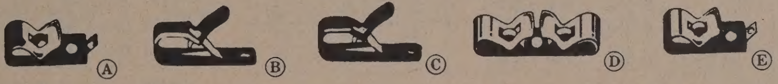
Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
For ¼" Fuses, No. 6 Mounting Hole TV Fuse Clip, No. 8618 ($ .25) Net	H600-F	12	6311-C	$1.85	6311-M	$14.82



G-C SOLDERING LUGS TINNED

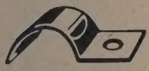
No. 1020, 100 Asst.
Dlr. Net .... $ .67

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted						
No. 6, ⅝" Length (A)	H100-F	30	8466-C	$1.58	8466-M	$12.63
No. 6, 23/32" Length (B)			8467-C	2.82	8467-M	22.50
No. 8, 23/32" Length (B)			8468-C	2.65	8468-M	21.15
No. 6, 23/32" Length (C)	H104-F	25	1021-BC	1.05	1021-BM	8.40
No. 8, 23/32" Length (C)	H106-F	25	7445-C	1.20	7445-M	9.57
No. 10, 23/32" Length (C)			8473-C	1.17	8473-M	9.30
No. 6, ½" Length (D)			5708-C	1.68	5708-M	13.50
No. 8, 13/16" Length (D)			5704-C	1.68	5704-M	13.50
No. 10, 13/16" Length (D)			5705-C	1.68	5705-M	13.50
No. 6, 11/16" Length (D)	H108-F	30	1021-CC	.93	1021-CM	8.08
No. 6, 9/16" Length (E)	H112-F	30	1021-FC	.92	1021-FM	7.38
No. 8, 9/16" Length (E)	H113-F	30	7451-C	.87	7451-M	6.98
No. 6, 1" Length (F)	H114-F	25	7454-C	$ .67	7454-M	$ 5.33
No. 8, 1" Length (F)	H117-F	25	7455-C	.86	7456-M	6.50
No. 10, 1" Length (F)	H118-F	25	7456-C	.86	7455-M	6.50
No. 4, 13/16" Length (G)			7458-C	1.85	7458-M	14.85
No. 8, 13/16" Length (G)			7460-C	1.87	7460-M	14.88
No. 10, 13/16" Length (G)			7461-C	1.87	7461-M	14.88
No. 6, ⅝" Length (H)	H122-F	20	7462-C	1.07	7462-M	8.52
No. 8, ⅝" Length (H)			7463-C	1.07	7463-M	8.52
No. 4, ⅞" Length (E)			5706-C	1.68	5706-M	13.50
No. 8, ⅞" Length (E)			5707-C	1.68	5707-M	13.50
No. 6, ⅞" Length (E)			5708-C	1.68	5708-M	13.50
No. 6, 11/16" Length (J)	H124-F	25	7441-C	1.18	7441-M	9.45
No. 8, 11/16" Length (J)	H134-F	25	7442-C	1.13	7442-M	9.12
No. 10, 11/16" Length (J)	H102-F	25	1021-AC	1.13	1021-AM	9.12
Solderless TV Line Lug (K)	H225-F	10	8633-C	1.65	8633-M	13.13



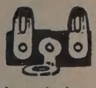
G-C FAHNESTOCK CLIPS NICKEL PLATED

	L	W	Hole	Wire	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted					H590-F	12				
(A)	½"	7/32"	4	16	H592-F	15	6301-C	1.50	6301-M	$13.05
(B)	¾"	5/16"	6	14	H594-F	14	6302-C	1.73	6302-M	13.98
(C)	1 1/16"	⅜"	8	10			6303-C	2.97	6303-M	23.85
(D)	1½"	5/16"	6	10			6304-C	11.02	6304-M	98.06
(E)	¾"	5/16"	6	14			6306-C	4.03	6306-M	32.28



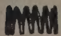
G-C CABLE HOLDER CLAMPS NICKEL PLATED

To Fit Cable	Mounting Hole	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted		H500-F	20				
⅛" to 3/16"	No. 6	H502-F	25	6251-C	$ .98	6251-M	$ 7.83
3/16" to ¼"	No. 6	H503-F	20	6252-C	1.12	6252-M	8.88
¼" to 5/16"	No. 6			7503-C	1.73	7503-M	13.80
5/16" to ½"	No. 6	H506-F	15	6253-C	1.27	6253-M	10.13
Baseboard Clips Blk.		H509-F	20	8345-C	2.07	8345-M	16.17



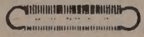
G-C TERMINAL STRIP ASSORTMENT 1/16" INSULATION — 3/8" SPACING

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100
Assorted	H250-F	4		
1 Lug			1781-C	$ 2.70
2 Lugs			1782-C	2.70
3 Lugs			1783-C	2.82
4 Lugs			1784-C	3.90
5 Lugs			1785-C	4.50
6 Lugs			1786-C	4.80
7 Lugs			1787-C	8.70
8 Lugs			1788-C	9.60



G-C COMPRESSION SPRINGS

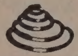
Description & Specs.	50-Line Part No.	Quan. In Box
Asst. Small	H440-F	20
Asst. Large	H441-F	15



G-C DIAL DRIVE TENSION PHONO SPRINGS STEEL CAD. PLATED

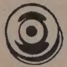
Description & Specs.	Part No.	Quan In Bx
Asst. Reg. Dial Drive		
Asst. Small Dial Drive		
No. 1055 Kit of 25 Asst. Net $1.23	H401-F	8
No. 1056 Kit of 100 Asst. Net $3.57	H400-F	10
Asst. Lge. Tension Spgs.	H421-F	10
Asst. Sm. Tension Spgs.	H420-F	10

A	B	C	Wire Size	Old No	Part No.	Quan In Bx	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
⅛"	½"	¼"	.019	T1	H403-F	10	6450-C	$ 5.03	6450-M	$40.33
⅛"	1"	¾"	.019	T2	H406-F	8	6451-C	3.78	6451-M	30.30
3/16"	1"	⅝"	.020	T3	H408-F	8	6452-C	4.23	6452-M	33.82
3/16"	1⅜"	1"	.020	T4	H410-F	8	6453-C	4.33	6453-M	34.72
¼"	1½"	1"	.026	T5	H412-F	6	6454-C	5.60	6454-M	44.85
¼"	2"	1½"	.026	T6			6455-C	6.92	6455-M	55.35



G-C PHONO TURNTABLE MOUNTING SPRINGS

O.D.	Lgth.	Wire Size	No. of Coils	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
1"x1 1/16"	13/16"	.079	4	7497-C	$ 3.17	7497-M	$25.35



G-C DIAL PULLEYS BRASS

A	B	C	(Groove D Wd.)	50-Line Part No.	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted				H1966-F				
⅜"	.120	⅛"	3/32"		6057-AC	4.62	6057-AM	36.97
7/16"	.067	13/64"	⅛"		6057-BC	6.85	6057-BM	54.88
½"	⅛"	3/16"	3/32"		6057-GC	8.48	6057-GM	67.93
.620	.128	.165	1/16"		6057-CC	9.35	6057-CM	74.76
.860	.128	5/32"	.050		6057-FC	16.05	6057-FM	128.34

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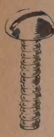
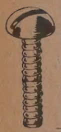
WALDOM Electronic Hardware



ROUND HEAD STEEL MACHINE SCREWS
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-579	2-56 x 1/8"	.49	4.02	2.79
F-461	2-56 x 1/4"	.44	3.61	2.51
F-462	2-56 x 1/2"	.47	3.85	2.68
F-463	2-56 x 3/4"	.53	4.35	3.02
F-464	3-48 x 3/4"	.56	4.59	3.19
F-465	4-36 x 1/4"	.47	3.85	2.68
F-466	4-36 x 3/8"	.49	4.02	2.79
F-467	4-36 x 1/2"	.51	4.18	2.91
F-580	4-36 x 5/8"	.55	4.51	3.14
F-468	4-36 x 3/4"	.58	4.76	3.31
F-469	4-40 x 1/4"	.47	3.85	2.68
F-581	4-40 x 3/8"	.50	4.10	2.85
F-470	4-40 x 1/2"	.51	4.18	2.91
F-582	4-40 x 5/8"	.55	4.51	3.14
F-471	4-40 x 3/4"	.58	4.76	3.31
F-472	6-32 x 1/4"	.53	4.35	3.02
F-583	6-32 x 3/8"	.57	4.67	3.25
F-473	6-32 x 1/2"	.60	4.92	3.42
F-584	6-32 x 5/8"	.66	5.41	3.76
F-474	6-32 x 3/4"	.71	5.82	4.05
F-475	6-32 x 1"	.81	6.64	4.62
F-476	6-32 x 1-1/4"	.97	7.95	5.33
F-477	6-32 x 2"	1.46	11.97	8.32
F-478	8-32 x 1/4"	.68	5.58	3.88
F-479	8-32 x 3/8"	.73	5.99	4.16
F-480	8-32 x 1/2"	.80	6.56	4.56
F-585	8-32 x 5/8"	.85	6.97	4.84
F-481	8-32 x 3/4"	.90	7.38	5.13
F-482	8-32 x 1"	1.04	8.53	5.93
F-483	8-32 x 1-1/4"	1.19	9.76	6.78
F-484	10-32 x 1/2"	.92	7.54	5.24
F-586	10-32 x 5/8"	1.00	8.20	5.70
F-485	10-32 x 3/4"	1.09	8.94	6.21
F-486	10-32 x 1"	1.21	9.92	6.99
F-487	10-32 x 1-1/2"	1.60	13.12	9.12
F-587	12-24 x 3/4"	1.49	12.22	8.49
F-588	12-24 x 1"	1.78	14.60	10.15
F-589	12-24 x 1-1/2"	2.30	18.86	13.11
F-590	12-24 x 2"	2.71	22.22	15.45
F-488	1/4-20 x 1/2"	1.81	14.84	10.32
F-489	1/4-20 x 3/4"	2.06	16.89	11.74
F-490	1/4-20 x 1"	2.35	19.27	13.40
F-491	1/4-20 x 1-1/4"	2.67	21.89	15.22
F-492	1/4-20 x 1-3/4"	3.24	26.57	18.47
F-493	1/4-20 x 2-1/2"	4.08	33.46	23.26

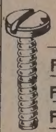


BRASS ROUND HEAD MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-461B	2-56 x 1/4"	.67	5.49	3.82
F-462B	2-56 x 1/2"	.80	6.56	4.56
F-463B	2-56 x 3/4"	.93	7.63	5.30
F-464B	3-48 x 3/4"	1.05	8.61	5.99
F-465B	4-36 x 1/4"	.80	6.56	4.56
F-466B	4-36 x 3/8"	.91	7.46	5.19
F-467B	4-36 x 1/2"	1.02	8.36	5.81
F-580B	4-36 x 5/8"	1.10	9.02	6.27
F-468B	4-36 x 3/4"	1.20	9.84	6.84
F-469B	4-40 x 1/4"	.80	6.56	4.56
F-470B	4-40 x 1/2"	1.02	8.36	5.81
F-582B	4-40 x 5/8"	1.10	9.02	6.27
F-471B	4-40 x 3/4"	1.20	9.84	6.84
F-472B	6-32 x 1/4"	1.08	8.86	6.16
F-583B	6-32 x 3/8"	1.15	9.43	6.56
F-473B	6-32 x 1/2"	1.30	10.66	7.41
F-584B	6-32 x 5/8"	1.43	11.73	8.15
F-474B	6-32 x 3/4"	1.58	12.76	9.01

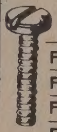
BRASS ROUND HEAD MACHINE SCREWS
(Continued)

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-475B	6-32 x 1"	1.88	15.42	10.72
F-476B	6-32 x 1-1/4"	2.18	17.88	12.43
F-477B	6-32 x 2"	3.68	30.18	20.98
F-478B	8-32 x 1/4"	1.60	13.12	9.12
F-479B	8-32 x 3/8"	1.68	13.78	9.58
F-480B	8-32 x 1/2"	1.92	15.74	10.94
F-585B	8-32 x 5/8"	2.12	17.38	12.08
F-481B	8-32 x 3/4"	2.35	19.27	13.40
F-482B	8-32 x 1"	2.80	22.96	15.96
F-483B	8-32 x 1-1/4"	3.28	26.90	18.70
F-484B	10-32 x 1/2"	2.43	19.93	13.85
F-586B	10-32 x 5/8"	2.70	22.14	15.39
F-485B	10-32 x 3/4"	2.95	24.19	16.82
F-486B	10-32 x 1"	3.52	28.86	20.06
F-487B	10-32 x 1-1/2"	4.80	39.36	27.36



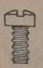
BINDER HEAD STEEL MACHINE SCREWS
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-591	2-56 x 1/8"	.49	4.02	2.79
F-592	2-56 x 1/4"	.44	3.61	2.51
F-593	2-56 x 1/2"	.47	3.85	2.70
F-594	2-56 x 5/8"	.53	4.35	3.02
F-020	4-40 x 1/4"	.47	3.85	2.68
F-021	4-40 x 1/2"	.51	4.18	2.91
F-022	4-40 x 3/4"	.58	4.76	3.31
F-502	6-32 x 3/16"	.52	4.26	2.96
F-503	6-32 x 1/4"	.53	4.35	3.02
F-504	6-32 x 3/8"	.57	4.67	3.25
F-014	6-32 x 1/2"	.60	4.92	3.42
F-015	6-32 x 3/4"	.71	5.82	4.05
F-621	6-32 x 5/8"	.66	5.41	3.76
F-023	8-32 x 1/4"	.68	5.58	3.88
F-505	8-32 x 5/16"	.70	5.74	3.99
F-024	8-32 x 3/8"	.73	5.99	4.16
F-025	8-32 x 1/2"	.80	6.56	4.56
F-026	8-32 x 3/4"	.90	7.38	5.13
F-577	10-32 x 1/2"	.92	7.54	5.24
F-578	10-32 x 3/4"	1.09	8.94	6.21



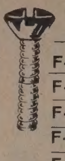
BINDER HEAD BRASS MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-503B	6-32 x 1/4"	1.08	8.86	6.16
F-504B	6-32 x 3/8"	1.15	9.43	6.56
F-014B	6-32 x 1/2	1.30	10.66	7.41
F-015B	6-32 x 3/4"	1.58	12.96	9.01
F-023B	8-32 x 1/4"	1.60	13.12	9.12
F-024B	8-32 x 3/8"	1.68	13.78	9.58
F-025B	8-32 x 1/2"	1.92	15.74	10.94
F-026B	8-32 x 3/4"	2.35	19.27	13.40



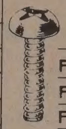
FILLISTER HEAD STEEL MACHINE SCREWS
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-606	2-56 x 1/4"	.44	3.61	2.51
F-607	2-56 x 1/2"	.47	3.85	2.70
F-608	4-40 x 1/4"	.47	3.85	2.70
F-609	4-40 x 1/2"	.51	4.18	2.91
F-610	4-40 x 3/4"	.58	4.76	3.31
F-611	6-32 x 1/4"	.53	4.35	3.02
F-612	6-32 x 1/2"	.60	4.92	3.42
F-613	6-32 x 3/4"	.71	5.82	4.05
F-614	8-32 x 3/8"	.73	5.99	4.16
F-615	8-32 x 1/2"	.80	6.56	4.56
F-616	8-32 x 3/4"	.90	7.38	5.13
F-617	10-32 x 1/2"	.92	7.54	5.24
F-618	10-32 x 3/4"	1.09	8.94	6.21



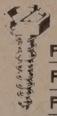
OVAL HEAD STEEL MACHINE SCREWS
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-506	6-32 x 1/2"	.60	4.92	3.42
F-507	6-32 x 3/4"	.71	5.82	4.05
F-508	8-32 x 3/4"	.90	7.38	5.13
F-509	10-32 x 1/2"	.92	7.54	5.24
F-510	10-32 x 3/4"	1.09	8.94	6.21



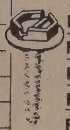
PHILLIPS HEAD ROUND STEEL M.S.
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-494	6-32 x 1/4"	1.14	9.35	6.50
F-018	6-32 x 5/16"	1.16	9.51	6.61
F-495	6-32 x 1/2"	1.05	8.61	5.99
F-496	6-32 x 3/4"	1.18	9.68	6.73
F-497	6-32 x 1"	1.33	10.91	7.58
F-019	8-32 x 1/4"	1.30	10.66	7.41
F-498	8-32 x 5/16"	1.00	8.20	5.70
F-499	8-32 x 1/2"	1.12	9.18	6.38
F-500	8-32 x 3/4"	1.29	10.58	7.35
F-501	8-32 x 1"	1.48	12.14	8.44



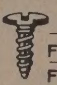
SLOTTED HEX HEAD SHEET METAL SCREWS
(Type A)
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-016	4 x 3/8"	.70	5.74	3.99
F-523	4 x 1/2"	.73	5.99	4.16
F-524	6 x 1/4"	.82	6.72	4.69
F-525	6 x 3/8"	.84	6.89	4.79
F-526	6 x 1/2"	.89	7.30	5.07
F-595	6 x 5/8"	.93	7.63	5.30
F-527	6 x 3/4"	.97	7.95	5.53
F-528	8 x 1/4"	.97	7.95	5.53
F-529	8 x 3/8"	1.02	8.36	5.81
F-530	8 x 1/2"	1.05	8.61	5.99
F-017	8 x 5/8"	1.07	8.77	6.10
F-531	8 x 1"	1.34	10.99	7.64
F-532	10 x 3/8"	1.14	9.35	6.50
F-533	10 x 1/2"	1.23	10.09	7.01
F-534	10 x 3/4"	1.36	11.15	7.76



HEX WASHER HEAD SHEET METAL SCREW
(Type A)
Steel— Indented Slotted Head
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-060	4 x 3/8"	.77	6.31	4.39
F-061	4 x 1/2"	.80	6.56	4.56
F-056	6 x 1/4"	.90	7.38	5.13
F-057	6 x 3/8"	.92	7.54	5.24
F-050	6 x 1/2"	.98	8.04	5.59
F-058	6 x 5/8"	1.02	8.36	5.81
F-054	6 x 3/4"	1.07	8.77	6.10
F-051	8 x 1/4"	1.07	8.77	6.10
F-052	8 x 3/8"	1.12	9.18	6.38
F-053	8 x 1/2"	1.16	9.51	6.61
F-055	8 x 5/8"	1.18	9.68	6.73
F-059	8 x 3/4"	1.32	10.82	7.52



PAN HEAD SHEET METAL SCREWS
(Type A)
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-596	4 x 1/2"	.73	5.99	4.16
F-033	6 x 1/4"	.82	6.72	4.67
F-597	6 x 3/8"	.84	6.89	4.79
F-034	6 x 1/2"	.89	7.30	5.07
F-035	6 x 3/4"	.97	7.95	5.53
F-036	8 x 1/4	.97	7.95	5.53
F-598	8 x 3/8"	1.02	8.36	5.81
F-037	8 x 1/2"	1.05	8.61	5.99
F-038	8 x 1"	1.34	10.99	7.64

WALDOM ELECTRONICS INC., CHICAGO 32, ILLINOIS

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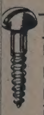
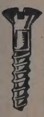
WALDOM Electronic Hardware



ROUND HEAD STEEL WOOD SCREWS Cadmium Plated	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-514 4 x 1/2"	.78	6.40	4.45
F-515 4 x 3/4"	.90	7.38	5.13
F-516 6 x 3/4"	.97	7.95	5.53
F-517 6 x 1"	1.20	9.84	6.84
F-518 8 x 3/4"	1.15	9.43	6.56
F-047 8 x 1"	1.35	11.07	7.70
F-519 8 x 1-1/4"	1.58	12.96	9.01
F-520 10 x 1-1/2"	2.12	17.38	12.08
F-521 12 x 1-1/2"	2.70	22.14	15.39
F-522 14 x 1-3/4"	3.80	31.16	21.66



FLAT HEAD STEEL WOOD SCREWS Cadmium Plated	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-027 4 x 1/2"	.78	6.40	4.45
F-028 4 x 3/4"	.90	7.38	5.13
F-029 6 x 3/4"	.97	7.95	5.53
F-030 6 x 1"	1.20	9.84	6.84
F-031 8 x 3/4"	1.15	9.43	6.56
F-048 8 x 1"	1.35	11.07	7.70
F-032 8 x 1-1/4"	1.58	12.96	9.01
F-044 10 x 1-1/2"	2.12	17.38	12.08
F-045 12 x 1-1/2"	2.70	22.14	15.39
F-046 14 x 1-3/4"	3.80	31.16	21.66

HEX STEEL NUTS Cadmium Plated Thrd. Width Thk.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-554 2-56 x 3/16 x 1/16"	.66	5.41	3.76
F-555 3-48 x 3/16 x 1/16"	.66	5.33	3.71
F-556 4-36 x 1/4 x 3/32"	.65	5.33	3.71
F-557 4-40 x 1/4 x 3/32"	.65	5.33	3.71
F-559 6-32 x 1/4 x 3/32"	.65	5.33	3.71
F-560 6-32 x 5/16 x 7/64"	.71	5.82	4.05
F-561 8-32 x 1/4 x 3/32"	.65	5.33	3.71
F-562 8-32 x 5/16 x 7/64"	.71	5.82	4.05
F-563 10-32 x 3/8 x 1/8"	.80	6.56	4.56
F-619 12-24 x 7/16 x 5/32"	1.13	9.27	6.44
F-564 1/4-20 x 7/16 x 3/16"	1.14	9.35	6.50
F-565 3/8-32 x 1/2 x 3/32"	1.47	12.05	8.38

HEX BRASS NUTS Nickel Plated Thrd. Width Thk.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-554B 2-56 x 3/16 x 1/16"	.98	8.04	5.59
F-555B 3-48 x 3/16 x 1/16"	.89	7.30	5.07
F-556B 4-36 x 1/4 x 3/32"	1.18	9.68	6.73
F-557B 4-40 x 1/4 x 3/32"	1.17	9.59	6.67
F-559B 6-32 x 1/4 x 3/32"	1.16	9.51	6.61
F-560B 6-32 x 5/16 x 7/64"	1.40	11.58	7.98
F-561B 8-32 x 1/4 x 3/32"	1.16	9.51	6.61
F-562B 8-32 x 5/16 x 1/8"	1.40	11.48	7.98
F-563B 10-32 x 3/8 x 1/8"	1.53	12.55	8.72

STEEL LOCK WASHERS – (INTERNAL AND EXTERNAL)
Cadmium Plated

INTERNAL Screw Size	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-416 #4	.44	3.61	2.51
MW-417 #6	.44	3.61	2.51
MW-418 #8	.48	3.94	2.74
MW-419 #10	.48	3.94	2.74
MW-420 1/4	.63	5.17	3.59
MW-421 3/8	1.07	8.77	6.10
EXTERNAL Screw Size			
MW-422 #4	.44	3.61	2.51
MW-423 #6	.44	3.61	2.51
MW-424 #8	.48	3.94	2.74
MW-425 #10	.48	3.94	2.74
MW-426 1/4	.63	5.17	3.59
MW-427 3/8	.94	7.71	5.36

STEEL CUP WASHERS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
CW-6	For #6 Oval Head or Flat Head Screws	.39	3.20	2.22
CW-8	For #8 Oval Head or Flat Head Screws	.41	3.36	2.34
CW-10	For #10 Oval or Flat Head Screws	.53	4.35	3.02

FLAT STEEL WASHERS
Cadmium Plated

	Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-400	#2	.092	7/32"	.018	.30	2.46	1.71
MW-401	#4	.125	9/32"	.025	.30	2.46	1.71
MW-402	#6	.150	3/8"	.032	.28	2.30	1.60
MW-403	#8	.170	3/8"	.032	.30	2.46	1.71
MW-404	#10	.204	3/8"	.032	.32	2.62	1.82
MW-408	1/4	.281	5/8"	.050	.46	3.77	2.62
MW-410	3/8	.392	11/16"	.050	.58	4.76	3.31

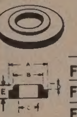
FLAT BRASS WASHERS
Nickel Plated

	Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-400B	#2	.092"	7/32"	.018"	.45	3.70	2.55
MW-401B	#4	.125"	9/32"	.025"	.47	3.85	2.70
MW-402B	#6	.150"	3/8"	.032"	.53	4.35	3.02
MW-403B	#8	.170"	3/8"	.032"	.51	4.15	2.90
MW-404B	#10	.204"	3/8"	.032"	.55	4.50	3.15

Insulating Fibre Washers – Precision made insulating washers, both flat and extruded, for insulation of components and controls from chassis or from each other.

FLAT

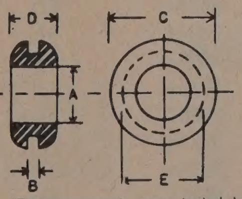
	Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
FW-374	#4	.020"	1/4"	1/32"	.41	3.36	2.34
FW-375	#6	.145"	1/4"	1/32"	.41	3.36	2.34
FW-376	#8	3/16"	3/8"	1/32"	.41	3.36	2.34
FW-377	#10	.192"	3/8"	1/32"	.41	3.36	2.34
FW-378	1/4	.255"	1/2"	3/64"	.46	3.77	2.62
FW-379	3/8	3/8"	5/8"	3/64"	.75	6.15	4.28
FW-380	7/16	.440"	3/4"	1/32"	.75	6.15	4.28



EXTRUDED

	Screw Size	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
FW-384	#4	9/32"	13/64"	1/8"	1/32"	5/64"	.84	6.89	4.79
FW-385	#6	5/16"	7/32"	9/64"	1/32"	5/64"	.84	6.89	4.79
FW-386	#8	3/8"	1/4"	11/64"	1/32"	3/32"	.84	6.89	4.79
FW-387	#10	7/16"	9/32"	13/64"	1/32"	3/32"	.92	7.54	5.24
FW-388	1/4"	1/2"	.375"	.256"	1/32"	3/32"	.92	7.54	5.24
FW-389	3/8"	5/8"	.437"	.375"	1/32"	3/32"	.95	7.79	5.42

VINYL GROMMETS

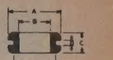


- Exceptional Aging Qualities*
- High Dielectric Properties
- Oil Resistant
- Durometer Hardness 45 to 85
- Cost Less Than Rubber
- Will Not Stain Most Surfaces

*These grommets were tested by Underwriters Laboratories in a circulating air oven at 212 degree F. for seven days with no visible change.

Cat. No.	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
G-401	1/8	1/16	11/32	3/16	1/4	.88	7.22	5.02
G-402	3/16	1/16	7/16	7/32	5/16	.99	8.12	5.64
G-403	1/4	1/16	9/16	1/4	3/8	1.16	9.51	6.61
G-404	5/16	1/16	5/8	1/4	7/16	1.24	10.17	7.09
G-405	3/8	1/16	5/8	1/4	1/2	1.24	10.17	7.09
G-406	1/2	1/16	13/16	9/32	5/8	2.16	17.71	12.31
G-407	5/8	1/16	1-1/8	9/32	7/8	3.71	30.42	21.15

WALDOM RUBBER GROMMETS – A complete selection of highest quality rubber grommets for use in protecting insulation from raw edges of chassis hole, shock and vibration dampening. For mounting tuning condensers, sockets, phono motors, chassis, etc.



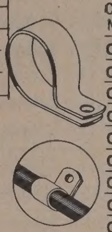
	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
G-300	11/32"	1/8"	3/16"	1/16"	1/4"	1.56	12.79	8.89
G-301	9/16"	5/16"	3/16"	1/16"	15/32"	1.76	14.43	10.03
G-302	11/16"	3/8"	9/32"	1/16"	1/2"	2.26	18.53	12.88
G-305	7/16"	3/16"	7/32"	1/16"	5/16"	1.78	14.60	10.15
G-307	3/4"	7/16"	1/4"	3/64"	19/32"	2.50	20.50	14.25
G-309	5/8"	11/32"	5/16"	1/16"	15/32"	1.74	14.26	9.92
G-311	1-1/8"	5/8"	5/16"	1/16"	7/8"	5.54	45.43	31.58

Nylon and Ethyl Cellulose Cable Clamps

These clamps combine lightweight and chemical resistance with excellent shock resisting properties in a temperature range of from 185° F. to −40° F. in the Ethyl Cellulose and 300° F. to −60° F. in the Nylon.

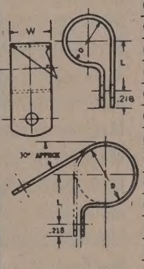
Approved 7-21-44 Army-Navy Aeronautical AN742.

- **OPENS EASILY FOR FAST ASSEMBLY**
- **ONE NAIL INSTEAD OF TWO**
- FORM STABILITY AT HIGH TEMPERATURES
- ECONOMY
- ABRASION AND MOISTURE RESISTANCE
- CHEMICAL RESISTANCE
- LIGHTNESS IN WEIGHT
- TOUGHNESS AND RESILIENCY
- GOOD ELECTRICAL PROPERTIES
- STRENGTH AND DURABILITY



NYLON CABLE CLAMPS

Cat. No.	For Use With Rod O.D.	Dia.	Width	Length	Mat. Thick.	PKG. OF 100	1000- OVER PER M
CCN-31	1/8"	.125"	3/8"	0.328	.050	2.85	24.30
CCN-32	3/16"	.188"	3/8"	0.390	.050	3.00	25.72
CCN-33	1/4"	.250"	3/8"	0.421	.050	3.30	28.12
CCN-34	5/16"	.313"	3/8"	0.453	.050	3.66	31.06
CCN-35	3/8"	.375"	3/8"	0.483	.050	3.89	32.65
CCN-36	7/16"	.438"	3/8"	0.531	.050	4.05	34.53
CCN-37	1/2"	.500"	3/8"	0.562	.050	4.30	36.75
CCN-38	9/16"	.563"	1/2"	0.625	.060	5.32	45.37
CCN-39	5/8"	.625"	1/2"	0.610	.060	6.24	53.16



ETHYL CELLULOSE PLASTIC CLAMPS– Width 3/8"

Cat. No.	For Use With Rod O.D.	Dia.	Length	Mat. Thick		
CCE-1	1/8"	.125"	0.328	.063	1.87	16.03
CCE-2	3/16"	.188"	0.390	.063	1.89	16.14
CCE-3	1/4"	.250"	0.421	.063	1.87	17.79
CCE-4	5/16"	.313"	0.453	.063	2.30	19.63
CCE-5	3/8"	.375"	0.483	.063	2.41	21.69
CCE-6	7/16"	.438"	0.531	.063	2.64	22.54
CCE-7	1/2"	.500"	0.562	.063	2.81	24.00
CCE-8	9/16"	.563"	0.625	.063	3.30	28.09
CCE-9	5/8"	.625"	0.610	.063	3.73	31.81
CCE-10	11/16"	.688"	0.666	.063	4.06	34.59
CCE-11	3/4"	.750"	0.765	.063	4.25	36.25
CCE-12	7/8"	.875"	0.812	.063	4.60	39.36
CCE-13	1"	1.000"	0.906	.063	4.90	41.79
CCE-14	1-1/8"	1.125"	0.968	.063	4.91	41.91
CCE-15	1-1/4"	1.250"	1.156	.063	5.52	47.14

WALDOM Skru-Box

VARIETY ASSORTMENTS SCREWS & NUTS

ROUND HEAD MACHINE SCREWS, NUTS, SHEET METAL SCREWS. R.H.SM.S 4-40 x 1/2, 6-32 x 1/4, 6-32 x 3/4, 8-32 x 1/2, Sheet Metal Screw #6 x 1/2, Nuts 4-40, 6-32, 8-32. 265 Total Pieces.
No. HD-4013 Net 1.59

BINDER-HEAD SCREWS – Same assortment as above, but machine screws have binder-head!
No. HD-4018 Net 1.59

SHEET METAL SCREWS – Slotted Hex Head Sheet Metal Screws Type A in 4 x 3/8", 6 x 1/4", 6 x 1/2", 6 x 3/4", 8 x 3/8", 8 x 1/2", 8 x 5/8". 165 Total Pieces.
No. HD-4014 Net 1.59

WASHER-HEAD SHEET METAL SCREWS – Slotted Hex Head Type A w/flat washer attached, sizes 6 x 1/4, 6 x 3/8, 6 x 1/2, 6 x 3/4, 8 x 1/4, 8 x 3/8, 8 x 1/2, 8 x 5/8. 120 Total Pieces.
No. HD.4011 Net 1.59

WOOD SCREW ASSORTMENT – Round Head Wood Screws 4 x 1/2, 6 x 3/4, 6 x 6 x 1. 8 x 3/4, 8 x 1¼. Flat Head 8 x 1, 8 x 1¼. 139 Total Pieces.
No. HD-4019 Net 1.59

GENERAL HARDWARE KIT – 260 Fasteners – Round Head, Binder Head, and Phillips Head Machine Screws. Hex Steel Nuts, Hex Head (slotted) and Hex Washer Head (slotted) Sheet Metal Screws, Flat Head and Round Head Wood Screws. All popular diameters and lengths.
No. HD-4020 Net 1.59

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Walsco
ELECTRONICS

ELECTRONIC HARDWARE

[redacted]

WALSCO BINDING HEAD MACHINE SCREWS — STEEL NICKEL PLATED

SIZE	BOX OF 100 PART NO.	BOX OF 100 NET/100	BOX OF 1000 PART NO.	BOX OF 1000 NET/1000
Machine Screws, 2-56 x ½″	8151-C	$ .63	8151-M	$ 5.33
Machine Screws, 2-56 x ¾″	8125-C	.63	8152-M	5.33
Machine Screws, 4-36 x ¼″	8154-C	.63	8154-M	5.33
Machine Screws, 4-36 x ½″	8155-C	.63	8155-M	5.33
Machine Screws, 4-36 x ¾″	8156-C	.63	8156-M	5.33
Machine Screws, 4-40 x ¼″	8157-C	.63	8157-M	5.33
Machine Screws, 4-40 x ½″	8158-C	.63	8158-M	5.33
Machine Screws, 2-56 x ¼″	8159-C	.63	8159-M	5.33
Machine Screws, 4-40 x ¾″	8160-C	.64	8160-M	5.35
Machine Screws, 5-36 x ¼″	8161-C	.53	8161-M	4.20
Machine Screws, 6-32 x 3/16″	8162-C	.53	8162-M	4.20
Machine Screws, 6-32 x ¼″	8163-C	.53	8163-M	4.20
Machine Screws, 6-32 x ⅜″	8164-C	.57	8164-M	4.50
Machine Screws, 6-32 x ½″	8166-C	.65	8166-M	5.12
Machine Screws, 6-32 x ¾″	8167-C	.72	8167-M	5.17
Machine Screws, 7-32 x ⅜″	8165-C	1.57	8165-M	12.48
Machine Screws, 8-32 x ¼″	8168-C	.72	8168-M	5.62
Machine Screws, 8-32 x ⅜″	8169-C	.75	8169-M	5.85
Machine Screws, 8-32 x ½″	8170-C	.78	8170-M	6.27
Machine Screws, 8-32 x 5/16″	8171-C	.72	8171-M	5.73
Machine Screws, 8-32 x ¾″	8172-C	.95	8172-M	7.57
Machine Screws, 10-32 x ½″	8173-C	.79	8173-M	7.70
Machine Screws, 10-32 x ¾″	8174-C	1.15	8174-M	9.20

WALSCO BINDING HEAD MACHINE SCREWS — BRASS NICKEL PLATED

SIZE	BOX OF 100 PART NO.	BOX OF 100 NET/100	BOX OF 1000 PART NO.	BOX OF 1000 NET/1000
Machine Screws, 2-56 x ¼″	8151-1-C	.84	8151-1-M	6.98
Machine Screws, 2-56 x ½″	8152-1-C	.96	8152-1-M	8.28
Machine Screws, 2-56 x ¾″	8154-1-C	1.11	8154-1-M	9.55
Machine Screws, 4-36 x ¼″	8155-1-C	.97	8155-1-M	8.32
Machine Screws, 4-36 x ½″	8156-1-C	1.19	8156-1-M	10.18
Machine Screws, 4-36 x ¾″	8157-1-C	1.40	8157-1-M	12.05
Machine Screws, 4-40 x ¼″	8158-1-C	.97	8158-1-M	8.32
Machine Screws, 4-40 x ½″	8159-1-C	1.19	8159-1-M	10.18
Machine Screws, 4-40 x ¾″	8160-1-C	1.40	8160-1-M	12.15
Machine Screws, 5-36 x ¼″	8161-1-C	1.40	8161-1-M	12.99
Machine Screws, 6-32 x 3/16″	8162-1-C	1.34	8162-1-M	11.47
Machine Screws, 6-32 x ¼″	8163-1-C	1.27	8163-1-M	10.90
Machine Screws, 6-32 x ⅜″	8164-1-C	1.35	8164-1-M	11.54
Machine Screws, 6-32 x ½″	8166-1-C	1.51	8166-1-M	12.90
Machine Screws, 6-32 x ¾″	8167-1-C	1.83	8167-1-M	15.65
Machine Screws, 8-32 x ¼″	8168-1-C	1.85	8168-1-M	15.70
Machine Screws, 8-32 x ⅜″	8169-1-C	1.94	8169-1-M	16.65
Machine Screws, 8-32 x ½″	8170-1-C	2.20	8170-1-M	18.80
Machine Screws, 8-32 x 5/16″	8171-1-C	1.88	8171-1-M	16.20
Machine Screws, 8-32 x ¾″	8172-1-C	2.70	8172-1-M	23.15
Machine Screws, 10-32 x ½″	8173-1-C	2.54	8173-1-M	21.80
Machine Screws, 10-32 x ¾″	8174-1-C	3.43	8174-1-M	29.50

HEX NUTS — STEEL NICKEL PLATED

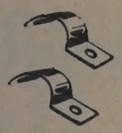
Thread	Width	Thickness	BOX OF 100 PART NO.	BOX OF 100 NET/100	BOX OF 1000 PART NO.	BOX OF 1000 NET/1000
2-56	3/16″	1/16″	8802-C	.68	8802-M	5.52
4-36	¼″	3/32″	8824-C	.67	8824-M	5.28
4-40	5/16″	7/64″	8804-C	.67	8804-M	5.28
6-32	¼″	3/32″	8806-C	.68	8806-M	5.52
6-32	5/16″	7/64″	8826-C	.73	8826-M	5.82
8-32	¼″	3/32″	8808-C	.73	8808-M	5.85
8-32	11/32″	⅛″	8828-C	.73	8828-M	5.85
10-32	⅜″	5/64″	8810-C	.97	8810-M	7.68
10-32	⅜″	⅛″	8830-C	.87	8830-M	6.98

HEX NUTS — BRASS

Thread	Width	Thickness	BOX OF 100 PART NO.	BOX OF 100 NET/100	BOX OF 1000 PART NO.	BOX OF 1000 NET/1000
2-56	3/16″	1/16″	8802-1-C	.98	8802-1-M	7.83
4-36	¼″	3/32″	8845-C	1.18	8845-M	9.42
4-40	5/16″	7/64″	8844-C	1.17	8844-M	9.33
6-32	¼″	3/32″	8846-C	1.17	8846-M	9.30
6-32	5/16″	7/64″	8826-1-C	1.40	8826-1-M	11.18
8-32	¼″	3/32″	8848-C	1.40	8848-M	11.18
10-32	⅜″	⅛″	8850-C	1.53	8850-M	12.27

Walsco ELECTRONIC HARDWARE

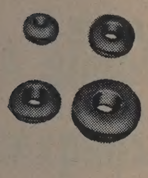
ELECTRONICS



WALSCO CABLE CLAMPS

For all cable or wire groups from ⅛" to 5⁄16" in diameter.

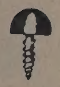
Description	Mtg. Hole Size	50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
⅛" to 3⁄16" cable diameter	#6	7502-F	25	7502-C	100	$ .98	7502-M	1000	$ 7.83
3⁄16" to ¼" cable diameter	#8	7503-F	20	7503-C	100	1.12	7503-M	1000	8.88
¼" to 5⁄16" cable diameter	#8	7505-F	16	7505-C	100	2.08	7505-M	1000	16.65
	Assorted	7500-F	20						



VINYL GROMMETS

Protects insulated wires from sharp edges of chassis holes. Easily installed. Extremely useful for damping vibration in mounting parts.

DIMENSIONS A	B	C	D	E	Cat. No.	Qty. Pkg.	Cat. No.	Qty. Pkg.	Dealer Net	Cat. No.	Std. Pack	Dealer Net Per 1000
11⁄32	⅛	3⁄16	1⁄16	¼	7030-F	14	7030-C	100	$1.00	7030-M	1000	$ 8.13
7⁄16	3⁄16	7⁄32	1⁄16	5⁄16	7032-F	12	7032-C	100	1.25	7032-M	1000	10.00
9⁄16	¼	¼	1⁄16	⅜	7034-F	12	7034-C	100	1.37	7034-M	1000	10.88
⅝	⅜	¼	1⁄16	½	7036-F	10	7036-C	100	1.47	7036-M	1000	11.73
13⁄16	½	9⁄32	1⁄16	⅝	7038-F	8	7038-C	100	2.27	7038-M	1000	18.22
			Assorted		7025-F	12						



CABINET FEET — SCREW TYPE

Made of synthetic rubber. Easily installed with wood screws, metal screws or tacks. Screw type is supplied with wood screws on "50" and "99" line packages.

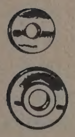
Diameter	Height	50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
⅜	3⁄16	7052-F	8**	7052-C	100**	$1.13	7052-M*	1000	$ 7.83
½	¼	7054-F	8**	7054-C	100**	1.47	7054-M*	1000	11.70
⅝	5⁄16	7056-F	8**	7056-C	100**	2.22	7056-M*	1000	17.70
¾	⅜			7058-C	100**	2.82	7058-M*	1000	22.50
	Assorted	7050-F	8**						

TACK TYPE

Same as above, but with handy tacks molded in feet.

Diameter	50 LINE Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
⅜			7071-C	100	$1.85	7071-M	1000	$14.78
½			7072-C	100	1.95	7072-M	1000	15.57
Assorted	7070-F	8						

* No screws included ** Wood screws included

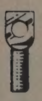


WALSCO INSULATING WASHERS

(Flat and Extruded)

Precision made from vulcanized phenolic fiber. Assures the proper and safe insulation between components and controls from each other or the chassis and other metal parts.

Fits Screw Size	DIMENSIONS A	B	C	D		50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
#6	5⁄16	3⁄16	.140	.039	Extruded			7856-C	100	$ .87	7856-M	1000	$6.90
	5⁄16		.140		Flat			7836-C	100	.42	7836-M	1000	3.30
					Fl & Ex.	7824-F	30						
#8	⅜	¼	.169	1⁄32	Extruded			7858-C	100	.87	7858-M	1000	6.90
	⅜		.166		Flat			7838-C	100	.42	7838-M	1000	3.30
					Fl. & Ex.	7825-F	30						
#10	⅜	.308	.195	1⁄32	Extruded			7860-C	100	.95	7860-M	1000	7.53
	⅜		.195		Flat			7840-C	100	.42	7840-M	1000	3.30
					Fl. & Ex.	7826-F	30						
¼"	½	11⁄32	.250	1⁄32	Extruded			7862-C	100	.95	7862-M	1000	7.53
	½		.250		Flat			7842-C	100	.47	7842-M	1000	3.68
					Fl. & Ex.	7827-F	24						
⅜"	⅝	½	.380	1⁄32	Extruded			7864-C	100	.98	7864-M	1000	7.92
	⅝		.380		Flat			7844-C	100	.77	7844-M	1000	6.12
					Fl. & Ex.	7828-F	20						



WALSCO SPADE BOLTS

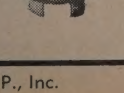
Ideal for fastening condsensers, coils, shields, etc. The type 8572 is straight and has 9⁄32" long thread. Thread on type 8573 is 5⁄16" long. Both types are ¾" long overall, have 6-32 thread and hole for 6-32 screw or ⅛" rivet. Hole Dia., .141.

Size	A	B	C	D	50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
				Assorted	8570-F	15						
6-32 Straight	¾"	9⁄16"	9⁄32"	¼"			8572-C	100	$1.22	8572-M	1000	$12.23
6-32 Offset	¾"	9⁄16"	5⁄16"	15⁄64"			8573-C	100	2.55	8573-M	1000	20.33

WALSCO SNAP-HOLE PLUGS

The quickest, simplest way ever devised to cover a hole in chassis or panel. Spring flanges hold polished nickel-plated flat-head button firmly in place. Use Walsco Snap-Hole Plugs to seal adjustments, cover unused holes, etc.

Fits Hole Diameter	50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
⅛"						7302-M	1000	$25.65
3⁄16"						7304-M	1000	24.38
¼"	7306-F	8	7306-C	100	$2.25	7306-M	1000	18.00
⅜"	7308-F	8	7308-C	100	2.85	7308-M	1000	22.87
½"	7310-F	6	7310-C	100	3.08	7310-M	1000	24.60
⅝"	7312-F	6	7312-C	100	3.30	7312-M	1000	26.40
¾"	7314-F	5	7314-C	100	3.60	7314-M	1000	28.80
⅞"			7315-C	100	4.62	7315-M	1000	36.90
1"	7316-F	4	7316-C	100	4.95	7316-M	1000	39.60
1⅛"			7318-C		5.93	7318-M	1000	59.40
1¼"			7320-C		6.45	7320-M	1000	51.60
Assorted	7300-F	6						



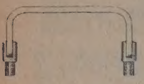
VENTILATING HOLE PLUGS

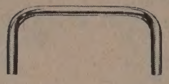
Assorted 7330-F 3

Snap these protective screen coverings into ventilating holes on chassis, portable equipment cases, amplifiers, amateur rigs, etc. Spring flange holds plug in place.

Fig. No.	Type	Hole Size	Finish	Cat. No.	Dealer Net	Cat. No.	Dealer Net
1	Screened	1"	Steel	7331-C	$21.38	7331-M	$170.99
2	Eyelet	19⁄32"	Brass—Not Plated	7332-C	4.50	7332-M	40.43
2	Eyelet	¾"	Brass	7333-C	6.37	7333-M	57.23

ntt NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

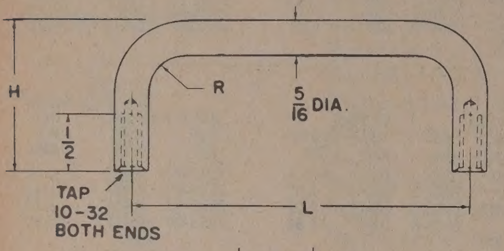




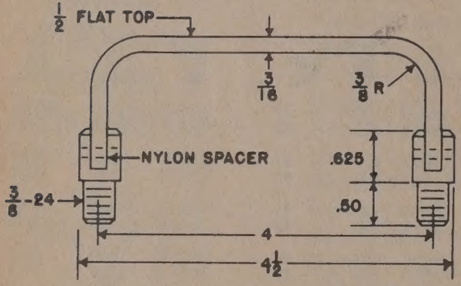
HARDWARE

HANDLES

Material: Brass, Nickel-Plated
Request quotation for other sizes or styles.


H
R
$\frac{5}{16}$ DIA.
$\frac{1}{2}$
TAP
10-32
BOTH ENDS
L

PART No.	L	H
1500	6-7/16	1-3/4
1501	4-1/4	1-1/2
1502	3	1-1/2

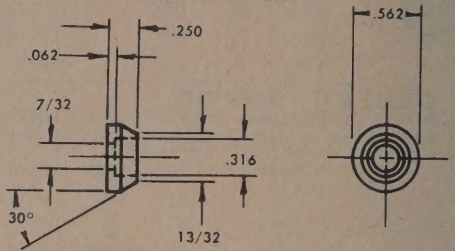

$\frac{1}{2}$ FLAT TOP
$\frac{3}{16}$
$\frac{3}{8}$ R
NYLON SPACER
.625
$\frac{3}{8}$-24
.50
4
$4\frac{1}{2}$

1503 FOLDING HANDLE

Handle folds full 180° has nylon bushings at knuckle joint to retain handle to desired position.

HANDLE FERRULE

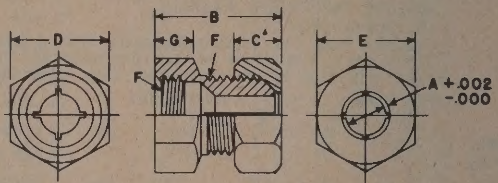
Material: Half-Hard Brass
Finish: Nickel-Plated


.562
.250
.062
7/32
.316
30°
13/32

1535

SHAFT LOCKS

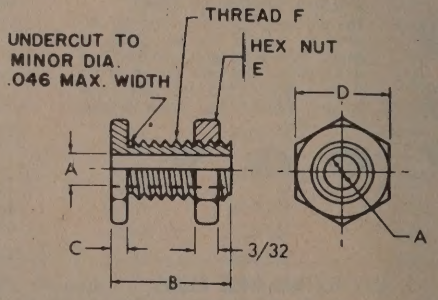
Material: Brass Finish: Nickel-Plated


D
B
G
F
C
E
F
A +.002
-.000

PART No.	A	B	C	D	E	F	G	FOR SHAFT DIA.
1551	.127	3/8	.150	5/16	5/16	1/4 x 32	.140	1/8
1552	.127	7/16	.187	3/8	3/8	1/4 x 32	.156	1/8
1553	.127	1/2	.218	3/8	5/16	1/4 x 32	.187	1/8
1554	.252	1/2	.250	1/2	7/16	3/8 x 32	.187	1/4
1555	.252	9/16	.250	1/2	7/16	3/8 x 32	.187	1/4

PANEL MOUNTS

PART NO.	SHAFT SIZE	A	B	C	D	E	F	PANEL THICKNESS	FINISH
1560	1/8	.127	5/16	1/16	3/8	3/8	1/4 x 32	1/8	Nickel Plated
1561	1/8	.127	5/16	1/16	3/8	3/8	1/4 x 32	1/8	Dull Black Oxide
1562	1/8	.127	7/16	1/16	3/8	3/8	1/4 x 32	1/4	Nickel Plated
1563	1/8	.127	7/16	1/16	3/8	3/8	1/4 x 32	1/4	Dull Black Oxide
1564	1/8	.127	9/16	1/16	3/8	3/8	1/4 x 32	3/8	Nickel Plated
1565	1/8	.127	9/16	1/16	3/8	3/8	1/4 x 32	3/8	Dull Black Oxide
1566	1/4	.252	3/8	3/32	1/2	1/2	3/8 x 32	1/8	Nickel Plated
1567	1/4	.252	3/8	3/32	1/2	1/2	3/8 x 32	1/8	Dull Black Oxide
1568	1/4	.252	1/2	3/32	1/2	1/2	3/8 x 32	1/4	Nickel Plated
1569	1/4	.252	1/2	3/32	1/2	1/2	3/8 x 32	1/4	Dull Black Oxide
1570	1/4	.252	5/8	3/32	1/2	1/2	3/8 x 32	3/8	Nickel Plated
1571	1/4	.252	5/8	3/32	1/2	1/2	3/8 x 32	3/8	Dull Black Oxide
1572	1/4	.252	3/4	3/32	1/2	1/2	3/8 x 32	1/2	Nickel Plated
1573	1/4	.252	3/4	3/32	1/2	1/2	3/8 x 32	1/2	Dull Black Oxide


THREAD F
UNDERCUT TO
MINOR DIA.
.046 MAX. WIDTH
HEX NUT
E
D
A
C
3/32
B
A

Photos shown are not to size or scale

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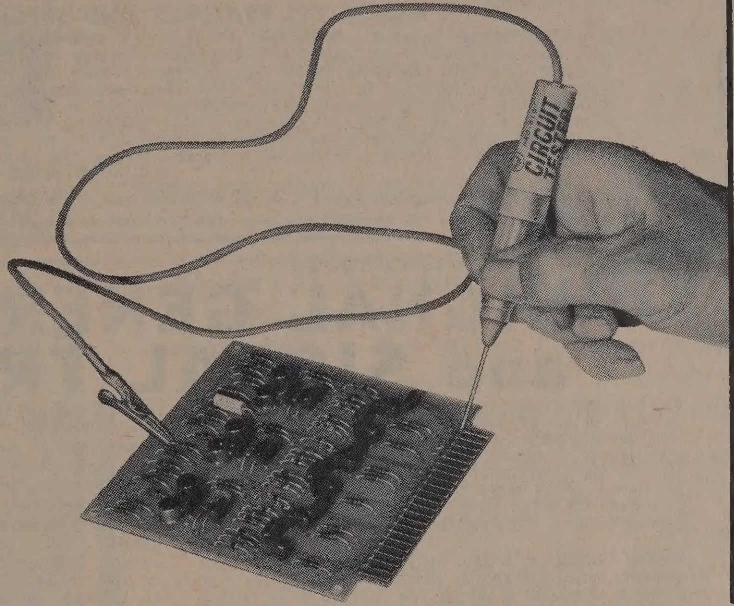
Another AMF Product-Better By Design

AMF *PRO-GLO*® CIRCUIT TESTER

A simple, inexpensive instrument for quick checking of non-energized circuits



For Checking

- relay contact points
- wiring harnesses
- ground connections
- terminal strips
- printed circuits
- switches
- chassis wiring
- fuses
- motor windings

and in the Home

- extension cords
- floor lamps
- power tools
- fuses
- electrical appliances

Consists simply of plastic case containing a battery and lamp, a pointed probe and 3-foot lead wire with alligator clip. In use, clip is connected to ground or common circuit point and probe is touched to various other circuit points. When resistance is less than 1 ohm, lamp glows brightly in translucent case. On open or high resistance circuits, no glow appears, and if continuity is poor, lamp glows dimly.

Signal light at point of contact eliminates necessity for shifting eyes to read meter, increases speed and accuracy in point-to-point testing; avoids distractions from buzzers of nearby workers. Inexpensive enough to be distributed to each person who checks circuits.

To assure long life and reliability, probe and battery contact spring are tin-plated beryllium copper, case is high-impact plastic, and wire is heavy-duty, highly flexible test lead. Uses standard size AA penlight battery and #112 lamp. Model CT-1.

Suggested List Price $1.30

NEW *PRO-GLO*® DIODE TESTER

CHECKS FOR
- **POLARITY**
- **SHORTS**
- **OPENS**

Similar and made of the same high quality materials as PRO-GLO Circuit Tester Model CT-1 described above, but larger case accommodates two AA penlight batteries and #222 lamp. In addition to testing diodes, extra voltage makes this a useful instrument for checking continuity in circuits with resistance up to 10 ohms. Model CT-2

Suggested List Price $1.80

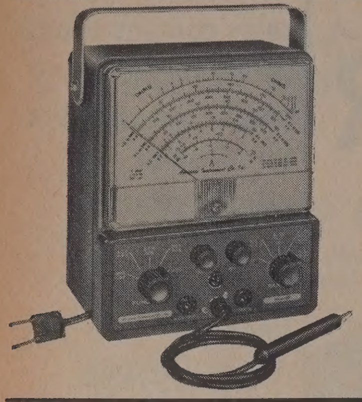
PARAGON ELECTRIC COMPANY, INC.
Subsidiary of American Machine & Foundry Company
TWO RIVERS, WISCONSIN

EXPORT SALES: AMF INTERNATIONAL COMPANY
AMF Building P.O.B., Geneva 2, Switzerland
Cable: "AMMAFOCO" Geneva
EXPORT INFORMATION ALSO AVAILABLE AT
261 Madison Avenue, New York 16, New York

IN CANADA: Phillips Electrical Company Limited
26 Hollinger Road, Toronto 16, Ontario

OVER 85 AUTHORIZED PARAGON SERVICE CENTERS

THE FIRST EIGHT MODELS IN THE NEW "ACCURATE" LINE—MORE TO COME!



Model 152
A Modern, Streamlined SENIOR V.T.V.M.

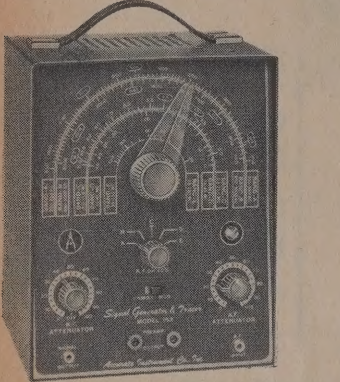
FEATURES GIANT 6½" METER

Only $29.95 COMPLETE! Not a kit . . . the 152 *is a completely Wired and Calibrated Tester . . . Ready to use!*

MODEL 152 FEATURES AND SPECIFICATIONS

● **D.C. VOLTMETER:** Ranges 0 to 3, 30, 150, 300, 1500 volts; Accuracy ± 3% of full scale; Input resistance: 11 megohms. ● **ZERO CENTER VOLTMETER** (For discriminator alignment): Ranges 0 to 1.5, 15, 75, 150, 750 volts; Accuracy ± 3% of full scale. Input resistance: 11 megohms ● **A.C. VOLTMETER:** R.M.S. Ranges: 0 to 3, 30, 150, 300, 1500 volts; Peak to Peak Ranges: 0 to 8, 80, 400, 800 volts; Accuracy: ± 3% of full scale. ● **OHMMETER:** Ranges: 0 to 1000 megohms (5 overlapping ranges); Center Scale Values: 10, 100, 1000, 100,000 ohms, 10 megohms. ● **DECIBEL METER** (for all audio measurements); Ranges —10 to +5, +6 to +25, +26 to +45 decibels. All based on zero db at 1.73 volts on 500 ohm line; ● Pilot light indicates when unit is "on". ● Housed in beautiful grey high-impact case, with color matched etched aluminum panel and portable handle.

Model 152 comes complete with D.C. V.T.V.M. Probe and cable, pair of standard test leads for all other services, detailed instructions. Net Price ______ **$\$29^{95}$**



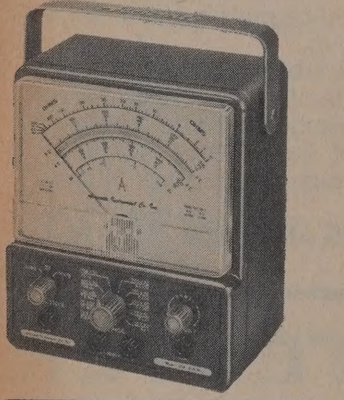
Model 153—A Combination
SIGNAL GENERATOR and SIGNAL TRACER

The true test of the claim "two instruments in one" is: can each of the two units be used separately as well as in conjunction with each other? In the case of this versatile combination instrument, the answer is emphatically yes, for, the Signal Generator will function as a full service instrument with a range of 250 Kilocycles to 120 Megacycles and the Signal Tracer will follow any signal whether generated by a broadcasting station or injected by the Signal Generator section of Model 153. When used in combination with no dependence on outside signals, the compatibility of Model 153 provides ideal service, for unlike any standard signal tracer, the Model 153 first injects its own signal then traces that controllable signal to locate the source of trouble whether due to component or circuit by standard signal tracing technique.

SPECIFICATIONS:

SIGNAL TRACER: ● Hi-gain cascode pre-amplifier ● Pre-amplifier output available at front panel jacks for use with VTVM, oscilloscope or phones. ● Low distortion triode output stage. ● Audio Attenuator provided to prevent high signal overloading. ● 4½ inch permanent magnet speaker. ● Separate R.F. and Audio Signal tracing probes.
SIGNAL GENERATOR ● Covers from 250 KC to 120 MC in 5 bands. ● All popular and most used frequencies marked on panel in color. ● High stability electron coupled R.F. oscillator. ● Attenuator used on both R.F. and Audio circuits.

Model 153 comes complete with all necessary probes. Net Price ______ **$\$28^{40}$**



Model 154, A Modern, Streamlined
20,000 OHMS-PER-VOLT V.O.M.

FEATURES GIANT 6½" METER . . . only $\$29^{95}$ COMPLETE!

The 20,000 Ohms-per-Volt-V.O.M. has been the one "must have" tester for all Radio and TV technicians since 1935 . . . and now . . . we proudly announce the most recent, streamlined edition of this all-around useful standard with a 6½" meter and at an unbelievably low price.

Model 154 Features and Specifications

● Mirrored Scale permits fine accurate measurements where fractional readings are important. ● Selected resistors are used as multipliers to assure unchanging accurate readings on all ranges. ● 6 D.C. VOLTAGE RANGES (at 20,000 Ohms per Volt) 0 to 15/75/150/300/750/3000 Volts. 6 A.C. VOLTAGE RANGES (at 5,000 Ohms per Volt) 0 to 15/75/150/300,/750/300 Volts. ● 5 RESISTANCE RANGES: 0 to 2000/20,000/200,000 Ohms. 0 to 2/20 Megohms. ● 5 D.C. CURRENT RANGES: 0 to 75/750 Microamperes; 0 to 7.5/75 Milliamperes; 0 to 7.5 Amperes; ● 3 DECIBEL RANGES: —6 db to +18 db; +14 db to +38 db; +28 db to +52 db.

Model 154 comes complete with operating instructions and test leads. Net Price ______ **$\$29^{95}$**

Employs 6½" Meter

New Model 155—Combination
VOLT-OHM MILLIAMMETER

plus **CAPACITY, REACTANCE, INDUCTANCE and DECIBEL MEASUREMENTS.**

Also Tests

SELENIUM and SILICON RECTIFIERS, SILICON and GERMANIUM DIODES.

SPECIFICATIONS:

√ D.C. Volts: 0 to 7.5/15/75/150/750/1,500.
√ A.C. Volts: 0 to 15/30/150/300/1,500/3,000.
√ D.C. Current: 0 to 1.5/15/ 150 Ma.: 0 to 1.5/15 Amperes.
√ Resistance 0 to 2,000/200,000 Ohms. 0 to 20 Megohms.
√ Capacity: .001 to 1 Mfd. 1 to 20 Mfd.
√ Reactance: 130 to 2,600 Ohms, 2600 Ohms to 2.6 Megohms.
√ Inductance: .35 to 7 Henries, 7 to 7,000 Henries.
√ Decibels: — 6 to + 18, + 14 to + 38, + 34 to + 58.

The following components are all tested for QUALITY at appropriate test potentials. Two separate BAD-GOOD scales on the meter are used for direct readings.

√ All Electrolytic Condensers from 1 Mfd to 1000 Mfd.
√ All Selenium Rectifiers
√ All Silicon Rectifiers
√ All Germanium Diodes √ All Silicon Diodes

Model 155 comes complete with operating instructions and test leads. Use it on the bench—use it on calls. Complete with all instructions and leads. Net Price **$\$28^{40}$**

Manufactured By: ACCURATE INSTRUMENT CO., INC. BRONX 59, N.Y.

Net

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THE FIRST EIGHT MODELS IN THE NEW "ACCURATE" LINE—MORE TO COME!

Genometer
Model 156
VARIABLE AUDIO
R.F. ATTENUATOR
R.F. RANGE
MODULATION

The Model 156 comes absolutely complete with shielded leads and operating instructions. Net Price $38.50

New Model 156 SEVEN (7) SIGNAL GENERATORS IN ONE!

- R.F. Signal Generator for A.M.
- R.F. Signal Generator for F.M.
- Audio Freq. Generator
- Bar Generator
- Cross Hatch Generator
- Color Dot Pattern Generator
- Marker Generator

SPECIFICATIONS:

R. F. SIGNAL GENERATOR: The Model 156 Genometer provides complete coverage for A.M. and F.M. alignment. Generates Radio Frequencies from 250 Kilocycles to 45 Megacycles on fundamentals and from 35 Megacycles to 120 Megacycles on powerful harmonics.

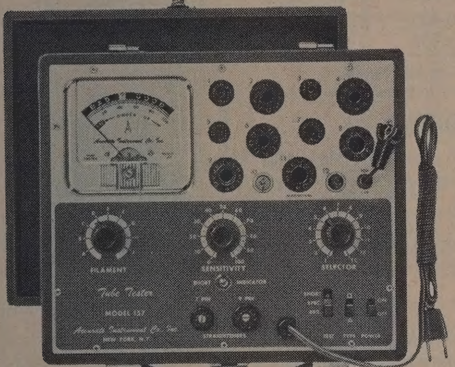
CROSS HATCH GENERATOR: The Model 156 Genometer will project a cross-hatch pattern on any TV picture tube.

VARIABLE AUDIO FREQUENCY GENERATOR: In addition to a fixed 400 cycle sine-wave audio, the Model 156 Genometer provides a variable 300 cycle to 20,000 cycle peaked wave audio signal.

DOT PATTERN GENERATOR (FOR COLOR TV): The Dot Pattern projected on any color TV Receiver tube by the Model 156 will enable you to adjust for proper color convergence.

BAR GENERATOR: The Model 156 projects an actual Bar Pattern on any TV Receiver Screen. Pattern will consist of 4 to 16 horizontal bars or 7 to 20 vertical bars.

MARKER GENERATOR: The Model 156 includes all the most frequently needed marker points. The following markers are provided: 262 Kc., 456 Kc., 600 Kc., 1000 Kc., 1600 Kc., 2500 Kc., 3.579 Mc., 4.5 Mc., 10.7 Mc., (3.579 Mc is the color burst frequency.)



Model 157, A Modern, Streamlined TUBE TESTER

Not a kit . . . The Model 157 is a completely wired and calibrated Tester . . . Ready to use!

TESTS ALL MODERN TUBES INCLUDING THE NEW

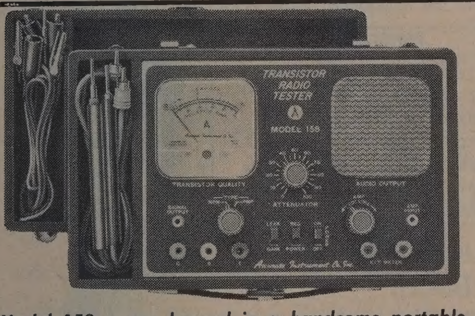
√ Novars √ Nuvistors √ Compactrons √ 10 Pins √ Magnovals

MODEL 157 FEATURES AND SPECIFICATIONS:

- Tests over 1,000 tube types.
- Makes **all** necessary tests. Checks for shorts and leakages between **all** elements; tests for filament continuity; indicates the quality (emission) of all tubes.
- Checks all modern tubes including 7-pin miniatures; octals, lock-ins, 9-pin noval miniatures; new T-9 types; novars, nuvistors, compactrons; 10 pins, magnovals.
- **Speedy** operation assured by use of a new improved circuit which enables us to use a single **rotary** switch in place of the one-at-a-time slide switches previously used.
- 7 and 9 pin tube straighteners permanently mounted on front panel.
- Employs a rugged, accurate, highly damped meter movement with **sealed** air-damping chamber.
- Comes housed in a beautiful portable carrying case with slip-on cover.

Model 157 comes complete — absolutely no extras. Net Price $28.40

PICTURE TUBE ADAPTER DESIGNED ESPECIALLY FOR MODEL 157 . . . ONLY $3.85



Model 158 comes housed in a handsome portable case. Complete with a set of clip-on cables for testing transistors; an R.F. diode probe for R.F. and I.F. signal tracing; an audio probe for amplifier tracing and a signal injector cable. Complete. Nothing elese to buy! Net Price $29.95

TEST ALL TRANSISTORS . . . ANY TYPE WITHOUT EXCEPTION . . . AND ALL . . . TRANSISTOR OPERATED DEVICES

With New Model 158 TRANSISTOR RADIO TESTER

SEE Read the relative gain and leakage of any transistor directly on the meter.

HEAR All audio stage signals through the front panel speaker

Simplified procedure —
Model 158 ① Injects a signal ② Follows the injected signal through each and every stage including all transistors!

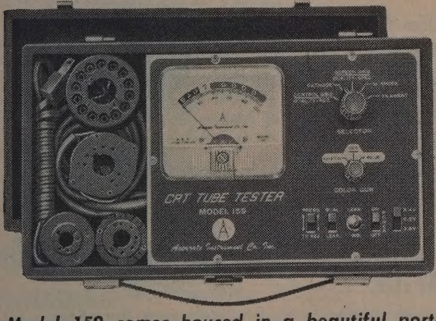
Specifications:

TESTING TRANSISTORS WITH MODEL 158

The Model 158 will test **all** transistors including NPN and PNP, Silicon and Germanium types, **without referring to characteristic data sheets.** The time-saving advantage of this method is self-evident. A further benefit of this service is that it will enable you to test new transistors as they are released, since no characteristic sheets are required.

TESTING TRANSISTOR RADIOS AND OTHER TRANSISTOR DEVICES WITH MODEL 153

An R.F. signal source modulated by an audio tone is injected into the transistor radio from the antenna through the R.F. stage past the mixer into the I.F. amplifier and detector stages and on to the audio amplifier. This injected signal is followed and traced through the receiver by means of the signal tracing section incorporated in the Model 158. The injected signal is heard on the front panel speaker as it is followed through the various stages.



Model 159 comes housed in a beautiful portable carrying case. Complete with sockets for all black and white tubes and all color tubes. Net price $29.95

Model 159 TESTS AND REJUVENATES ALL PICTURE TUBES

ALL BLACK AND WHITE TUBES . . .
From 50 degree to 110 degree types — from 8" to 30" types.

ALL COLOR TUBES . . .
Test *ALL* picture tubes — in the carton — out of the carton — in the set!

Specifications:

Provides **separate** filament operating voltages for the older 6.3 types and the newer 8.4 types.

Properly tests the red, green and blue sections of color tubes individually—for eacn section of a color tube contains its own filament, plate, grid and cathode.

Detects tubes which are apparently good but require rejuvenation. Such tubes will provide a picture seemingly good but lacking in proper definition, contrast and focus.

Rejuvenation: Model 159 applies a **selective** low voltage uniformly to assure increased life with no danger of cathode damage.

Manufactured By: **ACCURATE INSTRUMENT CO., INC.** BRONX 59, N.Y.

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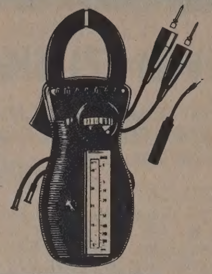
AMPROBE INSTRUMENT CORP., Lynbrook, N.Y

AMPROBE INSTRUMENTS

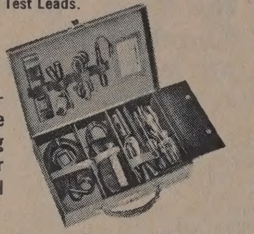


ROTARY SCALE MODELS

Offer you these outstanding features. • Only the Ohms scale plus one voltage scale or current scale is visible at any one time, providing greater reading speed and accuracy; on models other than RS-3 or RS-1000 only scale selected appears. • Magnified unbreakable window. • Pointer-lock "freezes" pointer at reading. • Accurate within ±3% full scale reading. • One hand operation.

MODEL	RANGES	PRICE
RS-1	0-5/15/40/100 Amps A.C. 0-150/600 Volts A.C.	$39.85
RS-2	0-5/15/40/100 Amps A.C. 0-150/300 Volts A.C.	39.85
RS-3	0-5/15/40/100/300 Amps A.C. 0-150/300/600 Volts A.C. 25Ω Mid-Scale	52.50
RS-300	0-5/15/40/100/300 Amps A.C. 0-150/300/600 Volts A.C.	47.50
RS-1000	0-15/40/100/300/1000 Amps A.C. 0-150/300/600 Volts A.C. 25Ω Mid-Scale	69.50

Price includes Top-Grain Cowhide Leather Carrying Case and Test Leads.



AMPROBE TEST-MASTER KITS

Truly the sign of the professional, these good-looking, rugged, genuine cowhide cases contain all the equipment you need to do all your electrical testing jobs with precision and accuracy. The Test-Master has a separate covered section to hold your small hand tools easily within reach.

MODEL TM-43 Super Test-Master Kit contains the famous **Amprobe RS-3** snap-around volt-ammeter-ohmmeter; the New **Model PSA-1 Amprobe Phase Sequence Adaptor:** determines phase sequence of polyphase circuits; the New **A-45L Energizer:** permits series connection to simplify current readings on permanently installed equipment and multiplies sensitivity of RS-3, 5x or 10x; **Model A-50-1 Deca-Tran** when 10x amperage range extension is required. **Price: $94.50**

MODEL TM-53 contains the **Amprobe RS-3, Model PSA-1 Phase Sequence Adaptor, A-45L Energizer. Price: $69.85**

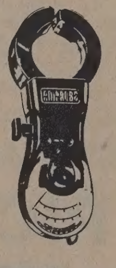
MODEL TM-33 contains the **Amprobe RS-3, Model A-50-1 Deca-Tran** and **Model A-45 Energizer. Price: $84.50**

MODEL TM-11 contains the **Amprobe RS-1,** economy snap-around volt-ammeter; **Model A-50-1 Deca-Tran** and **Model A-45 Energizer. Price: $71.75**

MODEL HK contains **Model A-50-1 Deca-Tran** and **A-45 Energizer.** (to be used with instrument already in possession). **Price: $39.75**

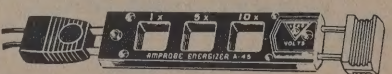
HIGH CURRENT AMPROBES

Designed to fill the need of the individual consistently working in current and voltage ranges higher than scale reading available on the rotary scale models.



MODEL	RANGE	PRICE
600	0-15/30/60/150/300/600 Amps A.C. 0-150/300/600 Volts A.C.	$59.50
1200	0-15/30/60/150/300/1200 Amps A.C. 0-150/300/600 Volts A.C.	67.50

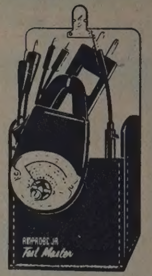
Price includes Top-Grain Cowhide Leather Carrying Case and Model VL-22 Voltage Test Leads.



AMPROBE ENERGIZERS

The New, more versatile, **Model A-45L ENERGIZER** now permits current readings on permanently wired low-current electrical equipment by simplifying series connection. It increases the sensitivity of your ammeter 5x or 10x for more precise readings directly at outlets by "splitting" double conductor line cords while the appliance is connected to the line. Capacity 10 amps. **Price w/weatherproof pouch: $6.75**

Model A-45 ENERGIZER multiplies sensitivity of any Amprobe by 5x or 10x for more precise readings. It also permits low-current readings by "splitting" double conductor line cords. **Price w/weatherproof pouch: $5.00**



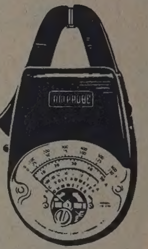
AMPROBE JR. TEST-MASTER KITS

The Amprobe Jr. Test-Master Kit consists of a specially designed leather case that contains one of the all new **YO Amprobe Jr.** voltage testers, an **Amprobe A-45 Energizer,** battery attachment and test leads.

The New YO models are the only precision instruments in their price class that measure voltage, amperage and resistance, instantly and accurately on a calibrated scale. **Price: $32.85**

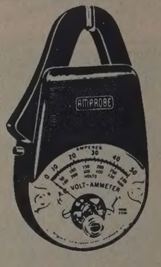
MODEL	3 AMMETER RANGES (full scale) BASIC INST.	ENERGIZER 5x	 10x	2 VOLTAGE RANGES
TM-YO "525"	0-25	0-5	0-2.5	0-150/600
TM-YO "550"	0-50	0-10	0-5	0-150/600
TM-YO "500"	0-100		0-10	0-150/600
TM-YO "25"	0-25	0-5	0-2.5	0-125/250
TM-YO "50"	0-50	0-10	0-5	0-125/250
TM-YO "100"	0-100		0-10	0-125/250

OHMMETER RANGE: 25 Ohms Mid-Scale
Frequency—60 cycles A.C. (other frequencies available)



AMPROBE JR. YO MODELS

The only voltage testers in their price class that measure voltage, amperage **and resistance.** Ranges and models are the same as for TM-YO Models above, except furnished with test leads only. When ordering specify YO "525", YO "550", etc. **Price: $24.85**
P-1 Leather Pouch optional at $2.85. Order Separately.

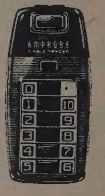


AMPROBE JR.

The only voltage testers in their price class that also measure amperage. They are precision instruments that measure instantly and accurately on a calibrated scale ±3% full scale (not just an indication). **Price: $19.85**

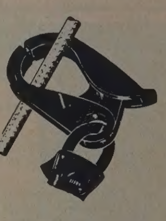
MODEL	RANGES
Y10	0-10 Amps A.C. 0-125/250 Volts A.C.
Y25	0-25 Amps A.C. 0-125/250 Volts A.C.
Y50	0-50 Amps A.C. 0-125/250 Volts A.C.
Y100	0-100 Amps A.C. 0-125/250 Volts A.C.
Y525	0-25 Amps A.C. 0-150/600 Volts A.C.
Y550	0-50 Amps A.C. 0-150/600 Volts A.C.
Y500	0-100 Amps A.C. 0-150/600 Volts A.C.

Price includes Test Leads.
P-1 Leather Pouch optional at $2.85. Order Separately.



AMPROBE CABLE TRACER

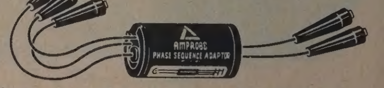
Revolutionary new CABLE TRACER lets you search—and unmistakably identify—up to 10 separate circuits simultaneously. With CABLE TRACER there's no needless handling of wires to locate a conductor. Every time the Indicator Button is pressed, you identify a circuit without extra trips between conductor ends. **Price: $39.50**



AMPROBE DECA-TRAN

The Model A-50-1 Amprobe Deca-Tran can be used with any model Amprobe to extend the amperage ranges 10 times up to 1200 amps. For example, by using the A-50-1 with an RS-1 you can obtain a current reading of 1000 amps AC on the RS-1 range of 0-100 amp. Leather case.

Model A-50-1 w/2' Line Cord Price: $27.50
Model A-50 Price: 24.75



PHASE SEQUENCE ADAPTOR

The Model PSA-1 Phase Sequence Adaptor is used to determine the phase sequence of polyphase circuits. When used in conjunction with any Amprobe RS model it permits you to determine phase sequence of motors and other electrical equipment using three phase lines up to 550 volts. **Price w/leather case: $10.85**

All prices slightly higher outside the U. S.
CANADIAN SALES DIVISION: ATLAS RADIO CORP., 50 WINGOLD AVE., TORONTO, ONTARIO • **EXPORT CABLE ADDRESS: AMPROBE LYNBROOK**

AMPROBE INSTRUMENT CORPORATION
Lynbrook, N.Y.

AMPROBE RECORDERS

New miniature precision instruments make permanent record of operating conditions

AMPROBE RECORDERS are the smallest, lightest, least-expensive precision instruments available today, which are universally adaptable to the measurement of any variable by using suitable transducers. AMPROBE RECORDERS provide permanent, continuous records on pressure-sensitive paper with simple drop-in loading. They are available in Portable or Flush panel-mount types, and can be used as either indicating meters or monitoring-recording devices. Simple, precise and foolproof, AMPROBE RECORDERS are time-and-labor saving tools necessary in today's complex electrical-electronic equipment installations.

SPECIFICATIONS

Paper Size: 2½" wide x 30' long.

Standard Chart Speeds: 1" or 6" or 12" per hour. Other speeds available. Unless otherwise specified 12" per hour chart speed will be shipped.

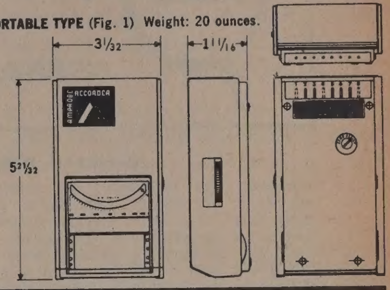
Power Requirements: 115 vAC, 60 cycles. Other voltages and frequencies available.

Accuracy: DC instruments: ±2% F.S.; AC instruments: ±3% F.S.; AC expanded-scale instruments: ±1% of full scale.

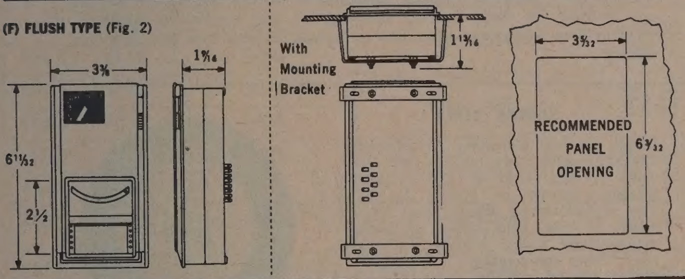
T-100
LOW RANGE: MINUS 50°F. TO PLUS 100°F.
±4° between minus 50°F. and plus 20° F.
±3° between plus 20°F. and plus 100° F.

HIGH RANGE: PLUS 50°F. TO 250°F.
±5°F.

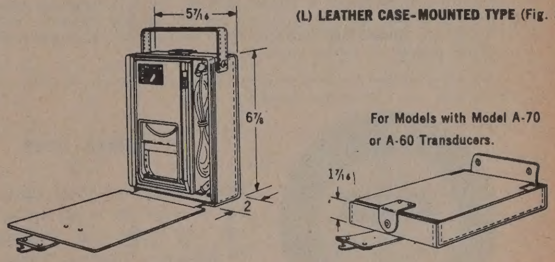
PORTABLE TYPE (Fig. 1) Weight: 20 ounces.



(F) FLUSH TYPE (Fig. 2)



(L) LEATHER CASE-MOUNTED TYPE (Fig. 3)



For Models with Model A-70 or A-60 Transducers.

MODELS (all portable models supplied with line cord, test leads and one roll of chart paper)

Model	Description	Range	Meter Sensitivity	Meter Resistance	Price
L (prefix)=Leather Case-Mounted Portable Type (See Fig. 3)					
LDC850	Microammeter	0/50 ua DC	50 ua	7400 ohms	**$84.85**
LDC8100	Microammeter	0/100 ua DC	100 ua	2750 ohms	**79.85**
LDC8500	Microammeter	0/500 ua DC	500 ua	103 ohms	**74.85**
LDB81	Milliammeter	0/1 ma DC	1 ma	30 ohms	**74.85**
LDM830	Millivoltmeter Furnished with 5' leads. Scale 0-30. DC amps	0/50 mv for use with external shunts	5 ma	10 ohms	**79.85**
LDM840	Millivoltmeter Furnished with 5' leads. Scale 0-40. DC amps	0/50 mv for use with external shunts	5 ma	10 ohms	**79.85**
LDM850	Millivoltmeter Furnished with 5' leads. Scale 0.50. DC amps	0/50 mv for use with external shunts	5 ma	10 ohms	**79.85**
***AA1**	Ammeter (with A-70 Transducer)	0/10/50/250/500 amps AC	260 ua	375 ohms	**94.85**
***AA2**	Ammeter (with A-60 Transducer)	0/5/25/100/250 amps AC	260 ua	375 ohms	**89.85**
***AV1X**	Voltmeter (expanded-scale)	95-130/190-260 vAC	260 ua	375 ohms	**84.85**
***PAV8600**	Voltmeter, 3 range	0/150/300/600 vAC	300 ua	375 ohms	**84.85**
***T100**	Temperature Recorder Supplied with RBT-1 Thermometer	−50°/+100°F., +50°/+250°F.	260 ua	375 ohms	**98.85**
***P600**	Pyrometer (uses Iron Constantan thermocouple—Type J—[not supplied]) External Resistance: 2.55 ohms	0°/600°F.	3.5 ma	—	**79.85**
LP81000	Pyrometer (uses Iron Constantan thermocouple—Type J—[not supplied]) External Resistance: 6.07 ohms	0°/1000°F.	3.5 ma	—	**84.85**
LP82000	Pyrometer (uses Chromel Alumel thermocouple—Type K—[not supplied]) External Resistance: 10.34 ohms	0°/2000°F.	3.5 ma	—	**84.85**
***AVA1**	Volt-ammeter in "L" carrying case	95-130/190-260 vAC 0/10/50/250/500 amps AC (with A-70 Transducer)	260 ua	375 ohms	**134.85**
***AVA2**	Volt-ammeter in "L" carrying case	95-130/190-260 vAC 0/5/25/100/250 amps AC (with A-60 Transducer)	260 ua	375 ohms	**129.85**
***ATM-2**	Consists of AV1X & AA2 in "M" carrying case.	See AV1X & AA2 12"/hr. chart speed.	260 ua	375 ohms	**181.20**

*Portable Type (See Fig. 1) separate case available, see accessories.
NOTE: MOST MODELS AVAILABLE IN FLUSH PANEL-MOUNT TYPE UPON REQUEST: (See Fig. 2)

ACCCESSORIES ***CARRYING CASES**

Model L—Holds one Recorder. Price: $4.50
Model M—Holds two Recorders. Price: $6.50

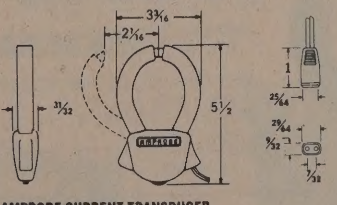
MOTOR VOLTAGE ADAPTOR

Model ADV 220. Allows Recorder motor to operate on 220 vAC. Price: $4.85

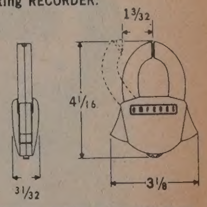
STRIP CHARTS Perforated and Printed 2 Colors. Individually Boxed. 30' Rolls. Minimum Order—Box of 6 Strip Charts. Price: $9.00 per box

Model	Description	For Use With RECORDER MODEL
501DC (Microamps-DC) (Milliamps-DC)	50 DIVISION for DC variables—.2 inches between time lines. (Supercedes 501A) MARKED: 0-1/50	DC50, DC100, DC500, DB1
850D (Millivolts-DC) (Milliamps-DC) (Microamps-DC)	50 DIVISION for DC variables MARKED: 0-1/5/25; 25-0-25	LDM850, FDM850, LDC850, PDC850, FDC850, FDB81, LDC8100, PDC8100, FDC8100, LDC8500, PDC8500, FDC8500, LDB81, PDB81
840D (Millivolts-DC)	40 DIVISION for DC variables MARKED: 0-20/40/80; 20-0-20	LDM840, FDM840
830D (Millivolts-DC)	30 DIVISION for DC variables MARKED: 0-15/30/60; 15-0-15	LDM830, FDM830
5012AA2 (Amps-AC)	MARKED: 0-5/25/100/250	AA1 & AA2
RCV12HX (Volts-AC)	MARKED: 95-130/190-260	AV1X
2012T1 (Temp. °F.)	MARKED: —50°F. to +100°F.	T100
2012T2 (Temp. °F.)	MARKED: +50°F. to +250°F.	T100
NP-1 (Blank)	Blank Charts, Perforated but without printing. For use with any AMPROBE RECORDER where Time and Variable Coordinates are not required.	Any Model
BL-12 (Time)	Time lines only—.2 inches spacing between lines	Any Model
3012P600 (Temp. °F.)	MARKED: 0°F. —600°F.	P600
850P½ (Temp. °F.)	MARKED: 0°F. —1000°F./0°F. —2000°F.	LP81000, LP82000
830AV600 (Volts-AC)	MARKED: 0/150/300 /600	PAV8600

TRANSDUCERS **CURRENT TRANSFORMERS.** Snap-around (split-core) transformers monitor current without interrupting line or service. Output provided through six-foot-long cord, allowing flexibility in locating RECORDER.

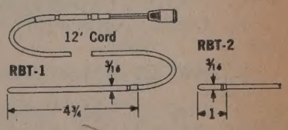


AMPROBE CURRENT TRANSDUCER. Model A-70. Heavy duty. Ranges (when used with Model AA1 RECORDER): 0/10/50/250/500 amps. Price: $24.75



AMPROBE CURRENT TRANSDUCER. Model A-60. Current ranges (when used with Model AA2 RECORDER): 0/5/25/100/250 amps. Price: $19.75

THERMOMETERS. Model RBT-1 and RBT-2. Resistance bulb thermometers. Range (when used with Model T100 RECORDER): —50°/+100°F., +50°/+250°F. 12 foot cord length. Price: $6.50



All prices slightly higher outside the U.S.
CANADIAN SALES DIVISION: ATLAS RADIO CORP., 50 WINGOLD AVE., TORONTO, ONTARIO • **EXPORT CABLE ADDRESS: AMPROBE LYNBROOK**

NORTHROP VENTURA

AERO INSTRUMENT FACILITY

NORTH HOLLYWOOD, CALIFORNIA

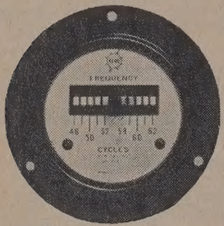
VIBRATING REED FREQUENCY & TIMING INSTRUMENTS

GENERAL DESCRIPTION

Vibrating Reed Instruments are direct reading frequency indicators for use where the efficient operation of A.C. equipment depends upon the maintenance of known or constant frequency. They are self contained, their accuracy is not affected by wide voltage variations or wave form distortions and require no auxiliary apparatus. They consist of a number of steel reeds, of high Q, each of which is tuned to a single frequency within the band covered by the instrument. Indication is by visual pattern formed by the vibration of the reed in resonance with the line frequency. Excitation is electromagnetic, and the reeds are the only moving elements. **Running Time Meters** are synchronous motor operated instruments to automatically measure service periods or service requirements.

APPLICATIONS

A large demand exists for VIBRATING REED FREQUENCY METERS for use with engine driven A.C. generator units as this is the most simple speed and frequency indicator yet devised for A.C. generator sets. These meters are also generally used in laboratory and portable test equipment, electronics, telephony, aircraft, industrial plants and numerous applications where electrical frequency indication is desired. Engineering services are available for those desiring assistance on their application problems. **Running Time Meters** are often used in conjunction with reed type frequency meters.

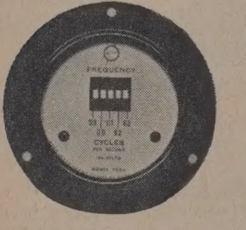


SERIES 7002

Range: 48-52 and 58-62 cycles for reading in either 50 or 60 cycles. **Voltage:** 125 volts ±20 volts. **Accuracy:** ±0.3% of designated frequency. **Power Consumption:** 1 watt. **Resistance:** Approximately 100 ohms per volt. Flush panel mounting.

2810-134—48-52 and 58-62 cy. in 3½″ flange MIL-M-6A molded bakelite case	**$25.00**
2810-133—48-52 and 58-62 cy. in 3½″ flange metal case	**25.00**
2810-153—48-52 and 58-62 cy. in 3¼″ flange metal case	**25.00**
2810-123—48-52 and 58-62 cy. in 2½″ flange metal case	**25.00**

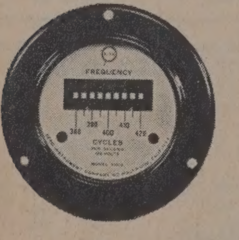
SERIES 7004



Range: 59-63 cycles. Used extensively on standby power supplies for measuring generator frequency and engine speeds. **Electrical characteristics:** Same as the Series 7002.

6915-134—59-63 cy. in 3½″ flange MIL-M-6A molded bakelite case.	**$21.50**
6915-133—59-63 cy. in 3½″ flange metal case	**$21.50**
6915-153—59-63 cy. in 3¼″ flange metal case	**$21.50**
6915-123—59-63 cy. in 2½″ flange metal case	**$21.50**

SERIES 4009



Range: 380-420 cycles. For use on 400 cycle commercial power supplies and air-raft inverters. **Accuracy:** ±0.2% at 70° F. **Power consumption:** Approximately 1.25 watts. **Resistance:** Approximately 70 ohms per volt. Flush panel mounting.

4059-134—380-420 cy. in 3½″ flange MIL-M-6A molded bakelite case.	**$31.00**
4059-133—380-420 cy. in 3½″ flange metal case	**$31.00**
4059-153—380-420 cy. in 3¼″ flange metal case	**$31.00**
4059-123—380-420 cy. in 2½″ flange metal case	**$31.00**

VOLTAGES—All frequency meters can be supplied for voltages from 10 to 440 volts.

DISCOUNTS—Quantity prices quoted upon request.

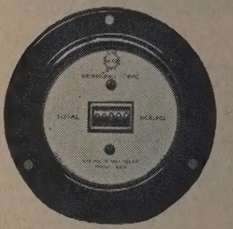
SPECIAL INSTRUMENTS—Prices on special ranges will be furnished upon request.

RUNNING TIME METERS—Special ranges, frequencies and voltages available.

Write for catalog describing complete line of Aero stock instruments.

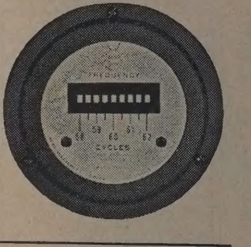
SERIES 1001

Direct reading indicators to automatically and cumulatively register total operating or idle time of any equipment, machine, circuit or system to which they are connected. **Range:** 0 to 10,000 hours in hours and tenths of hours—automatically resets. **Voltage:** 125 ±20 volts. **Power consumption:** 2.5 watts. **Frequency:** 50, 60 and 400 cycles.



61134—60 cy. in 3½″ flange MIL-M-6A molded bakelite case	**$19.00**
41134—400 cy.	Price upon request

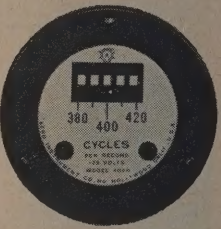
3½″ SEALED METER



Meets all applicable requirements of MIL-M-6A Specification. All 3½″ meters can be supplied in hermetically sealed cases. **Electrical characteristics:** Same as unsealed instruments.

Prices on all models available upon request.

1½″ SEALED METER



Range: 380-420 cycles. For use in air borne or ground equipment where size and weight are important factors. **Voltage:** 125 ±20 volts. **Resistance:** Approximately 70 ohms per volt. **Accuracy:** ±0.2% at 70° F. or 1.5% over range of —65° to +165° F. **Breakdown voltage:** 1500 volts. **Power consumption:** Approximately 1.25 watts.

4005-115—380-420 cy. in 1½″ hermeticaly sealed case..........**$23.85**

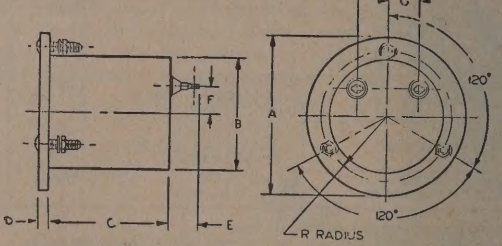


TABLE 1

CASE SIZE CHART												MOUNTING SCREWS
CASE STYLE	A	B	C	D	E	F		G		R		
	MAX	MAX	MAX	MAX	MAX	MAX	MIN	MAX	MIN	MAX	MIN	
A	2.10	1.51	1.56	0.14	0.40	.41	.35	.41	.35	.877	.873	4-36NS-2A

Series 4005
Range 380 to 420 C.P.S. Hermetically Sealed.

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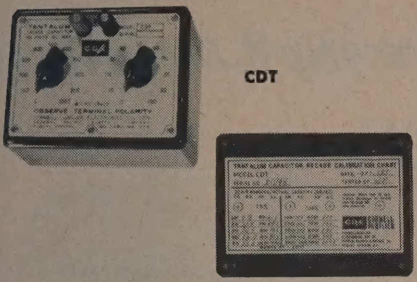
CLASS

259.00 Decades & Instruments



CDT

DECADE CAPACITORS

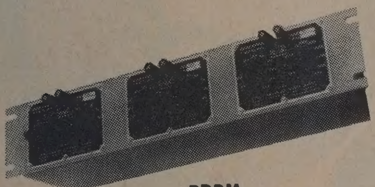
CDE decade capacitors provide a reliable and accurate source of precision selected capacitance for substitution purposes in a wide varitey of electronic and electrical applications. Individual capacitor decade boxes are available in mica and paper-oil dielectrics, as well as aluminum electrolytic and tantalum electrolytic types. Metal shielded three-unit decades for rack mounting are also available.

Individual decades feature quality CDE capacitors, ease of range selection, and heat- and shock-resistant phenolic cases. Six-way molded nylon terminal posts (polarized for electrolytic decades) are provided. All CDE decades are individually calibrated with a calibration chart showing actual capacitor values to ±1% permanently attached to the unit.

CAPACITOR DECADES RATING INFORMATION

CDE Type No.	User's Net	Cap. Tol.	Capacitor Dielectric	Voltage Max.	Capacitance, mfd. Min.	Max.	@ ea. step	Type of Range Selector	Approximate Size Inches
CDA-2	$17.50	±2%	Silvered Mica	600v DC 220v AC	.0001	.011	.0001	2 Rotary Switches	3⅝ x 5 x 3 13/16
CDA-5	14.20	±5%							
CDB-3	16.35	±3%	Paper—Oil	600v DC 220v AC	.01	1.1	.01	2 Rotary Switches	3⅝ x 5 x 3 13/16
CDB-5	14.20	±5%							
CDC-3	27.25	±3%	Paper—Oil	600v DC 220v AC	1.0	10.0	1.0	1 Rotary Switch	3⅝ x 5 x 3 13/16
CDC-5	24.65	±5%							
CDE	14.20	−10%, +50%	Etched cathode aluminum electrolytic	450v DC	10	150	10	4 Toggle Switches	3⅝ x 5 x 3 13/16
CDT	99.50	±5% (10-100 mfd) ±10% (100-1000 mfd)	Polarized Tantalum Foil 10-100 mfd—Plain 100 to 1000 mfd—Etched	50v DC Polarized	10	1100	10	2 Rotary Switches	3⅝ x 5 x 3 13/16
CDRM	58.85	Standard unit has one each CDA-2, CDB-3 and CDC-3. Special units may be equipped with any combination of decades.							5 x 19 x 3½

DECADE RESISTORS

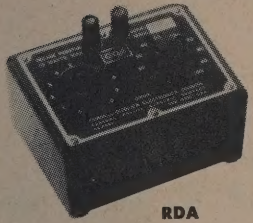


RDRM

CDE resistance decade boxes feature construction very similar to the type CD-capacitance decades described above. Resistors used in these decades are of relatively high wattage rating for maximum versatility.

Range selection is made by two rotary type selector switches in each decade. Like CDE capacitance decades, the resistance decades feature a custom calibration chart permanently attached to each decade box.

Approximate dimensions for types RDA, RDB and RDC resistance decades are 3⅝″ x 5″ x 3″. The metal encased, rack mounted type RDRM is approximately 19″ x 3½″ x 5″.



RDA

RESISTOR DECADE RATINGS

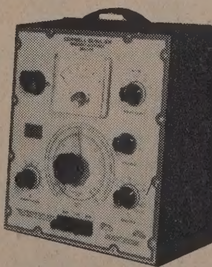
CDE Type No.	User's Net	Type of Resistor	Resistance, ohms Low Range	High Range	Max.	@ ea. Step	Resistance Tolerance	Watts Max.
RDA	$15.35	Wire Wound	1-10	10-100	110	1	Low Range ±5% High Range ±3%	10
RDB	15.65	Non-Inductive Wire Wound	100-1K	1K-10K	11K	100	±3%	10
RDC	15.65	Non-Inductive Carbon Precision	10K-100K	100K-1M	1.1M	10K	±1%	2
RDRM	55.00	Standard rack mount has 1 each RDA, RDB, RDC. Special units may be supplied with any combination of resistor decades.						

TEST INSTRUMENTS

C-D "HANDICHECK" FOR CAPACITORS
Model BF-90

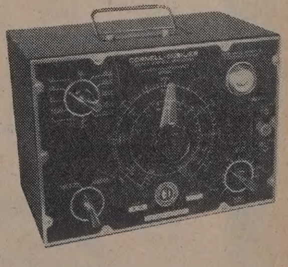
Determines the condition of open, shorted or intermittent capacitors WITHOUT REMOVING THEM FROM THE CIRCUIT. A handy dependable time saver. User's Net **$41.75**

C-D CAPACITOR-RESISTOR-ANALYZER
Model BF-71A



Improved and extended version of popular Model BF-70. Measures Current, Voltage, Power Factor; Capacitance from 10 mmfd. to 2000 mfd; Resistance from 2.5 Ohms to 25 Megohms.

Versatile and economical. Variable control, over DC voltages from as low as 1 Volt, for testing leakage current. User's Net **$129.75**



C-D CAPACITOR-RESISTOR BRIDGE
Model BF-60

Developed to measure rapidly and accurately, the important characteristics of substantially all types of Capacitors and Resistors. Range to 1000 Mfd. and 5 Megohms. User's Net **$51.85**

EMICO

PRECISION-PLUS

ELECTRO-MECHANICAL INSTRUMENT CO. PERKASIE, PENNSYLVANIA

PRECISION

the Recognized Leader . . .

PRICE LIST

PRICES—Prices listed are net and include all hardware and individual boxing. Resistance approximate. If important request factory engineering confirmation.

DC AMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C		MODEL RF-2C		MODEL RF-2¼C		MODEL 13		
		Catalog Number	Dealers' Net Price	Catalog Number	Dealers' Net Price	Catalog Number	Dealers' Net Price	Approximate Resist. Ohms	Catalog Number	Dealers' Net Price
0-1	.15	2101	$1.90	2201	$2.00	2301	$2.30			
0-3	.032	2101-A	1.90	2201-A	2.00	2301-A	2.30			
0-5	.016	2102	1.90	2202	2.00	2302	2.30			
0-10	.00115	2103	1.90	2203	2.00	2303	2.30	.0025	2403	$2.30
0-15	.00115	2103-A	1.90	2203-A	2.00	2303-A	2.30	.0025	2403-A	2.30
0-20	.00115	2104	1.90	2204	2.00	2304	2.30			
0-25	.00115	2104-A	1.90	2204-A	2.00	2304-A	2.30			
0-30	.00115	2105	1.90	2205	2.00	2305	2.30	.0006	2405	2.30
0-60	.000116	2106-A	2.60	2206-A	2.70	2306-A	3.00			
1-0-1	.08	2109	1.90	2209	2.00	2309	2.30			
3-0-3	.00115	2110	1.90	2210	2.00	2310	2.30			
6-0-6	.00115	2111	1.90	2211	2.00	2311	2.30			
10-0-10	.00115	2112	1.90	2212	2.00	2312	2.30			
15-0-15	.00115	2113	1.90	2213	2.00	2313	2.30			
20-0-20	.00115	2114	1.90	2214	2.00	2314	2.30	.0006	2414	2.30
30-0-30	.00115	2115	1.90	2215	2.00	2315	2.30	.0006	2415	2.30
75-0-75	.000116	2116-A	2.95	2216-A	3.05	2316-A	3.35			

DC MILLIAMMETERS

0-1	850	2120	$3.70	2220	$3.75	2320	$4.05	950	2420	$4.05
0-3	425	2121	2.60	2221	2.65	2321	2.95			
0-5	925	2125	2.35	2225	2.40			130	2425	2.70
0-5	1300					2325	2.70			
0-10	300	2126	2.20	2226	2.25			75	2426	2.55
0-10	350					2326	2.55			
0-20	95	2127	1.90	2227	2.00			23	2427	2.30
0-20	105					2327	2.30			
0-25	65	2127-A	1.90	2227-A	2.00	2327-A	2.30			
0-30	37	2128	1.90	2228	2.00			12	2428	2.30
0-30	45					2328	2.30			
0-50	14.5	2129	1.90	2229	2.00			5.5	2429	2.30
0-50	18.0					2329	2.30			
0-100	7.0	2130	1.90	2230	2.00			1.8	2430	2.30
0-100	8.3					2330	2.30			
0-150	1.8	2130-A	1.90	2230-A	2.00			1.0	2430-A	2.30
0-150	2.15					2330-A	2.30			
0-200	1.5	2130-B	1.90	2230-B	2.00			.5	2430-B	2.30
0-200	1.7					2330-B	2.30			
0-300	.61	2131	1.90	2231	2.00			.35	2431	2.30
0-300	.8					2331	2.30			
0-500	.21	2132	1.90	2232	2.00			.12	2432	2.30
0-500	.27					2332	2.30			

DC VOLTMETERS (HIGH RESISTANCE)

(100 ohms/volt except 150 and 300 volt ranges are 200 ohms per volt)

0-10	1050	2140	$2.75	2240	$2.85	2340	$3.15
0-30	2800	2141	2.75	2241	2.85	2341	3.15
0-50	4000	2142	2.95	2242	3.05	2342	3.35
0-150	28000	2143	3.10	2243	3.20	2343	3.60
0-300	55000	2144	3.20	2244	3.30	2344	3.60

DC VOLTMETERS (LOW RESISTANCE)

Range	Approximate Resist. Ohms	MODEL NF-2C		MODEL RF-2C		MODEL RF-2¼C				
		Catalog Number	Dealers' Net Price	Catalog Number	Dealers' Net Price	Catalog Number	Dealers' Net Price			
0-1	33	2134	$1.90	2234	$2.00	2334	$2.30			
0-3	100	2135	1.90	2235	2.00	2335	2.30	150	2435	$2.30
3-0-3	30	2136	1.90	2236	2.00	2336	2.30			
0-5	140	2136-A	1.90	2236-A	2.00	2336-A	2.30			
0-8	225	2136-B	1.90	2236-B	2.00	2336-B	2.30			
0-10	280	2137	1.90	2237	2.00	2337	2.30	500	2437	2.30
0-15	450	2137-A	1.90	2237-A	2.00	2337-A	2.30	750	2437-A	2.30
0-20	600	2137-B	1.90	2237-B	2.00	2337-B	2.30	1000	2437-B	2.30
0-30	1000	2137-C	1.90	2237-C	2.00	2337-C	2.30	1500	2437-C	2.30
0-50	1400	2138	1.90	2238	2.00	2338	2.30	2500	2438	2.30

AC AMMETERS

0-1	.365	6101	$3.05	6201	$3.15	6301	$3.45			
0-3	.078	6102	3.05	6202	3.15	6302	3.45			
0-5	.023	6103	3.05	6203	3.15	6303	3.45			
0-10	.013	6104	3.05	6204	3.15	6304	3.45	.023	6404	$3.45

AC MILLIAMMETERS

0-25	750	6125	$3.05	6225	$3.15	6325	$3.45			
0-50	175	6126	3.05	6226	3.15	6326	3.45			
0-100	58	6127	3.05	6227	3.15	6327	3.45			
0-250	12	6128	3.05	6228	3.15	6328	3.45			
0-500	1.75	6129	3.05	6229	3.15	6329	3.45	1.15	6429	$3.45

AC VOLTMETERS

0-5	50	6135	$3.05	6235	$3.15	6335	$3.45			
0-10	175	6136	3.05	6236	3.15	6336	3.45			
0-15	300	6137	3.05	6237	3.15	6337	3.45	300	6437	$3.45
0-25	920	6137-A	3.05	6237-A	3.15	6337-A	3.45			
0-50	1800	6138	3.05	6238	3.15	6338	3.45			
0-150	9530	6139	3.60	6239	3.70	6339	4.00	15000	6439	4.00
0-300	32000	6140	4.20	6240	4.25	6340	4.55	32000	6440	4.55

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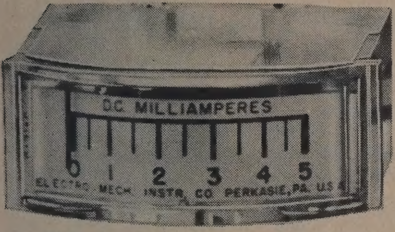
METERS

in Precision Products

EMICO

PRECISION-PLUS

ELECTRO-MECHANICAL INSTRUMENT CO. PERKASIE, PENNSYLVANIA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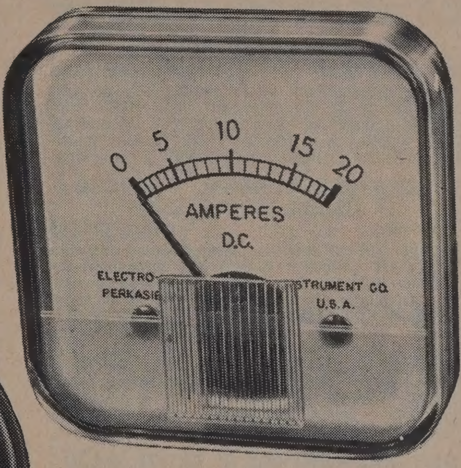
ELECTRO MECH. INSTR. CO. PERKASIE, PA. U.S.A.

MODEL 13
Edge Reading Type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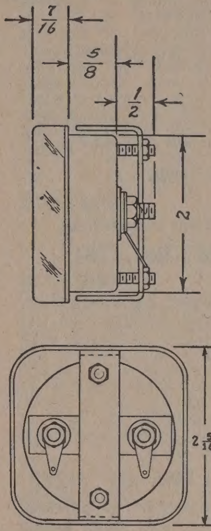
U.S.A.

MODEL RF2¼C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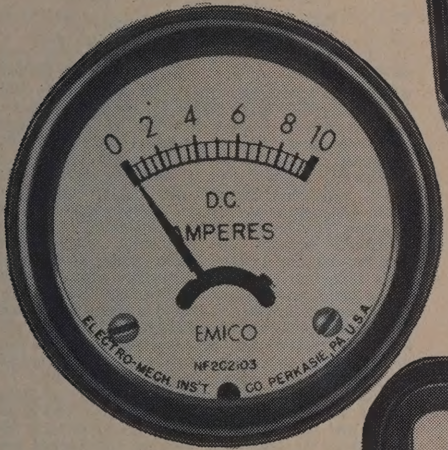
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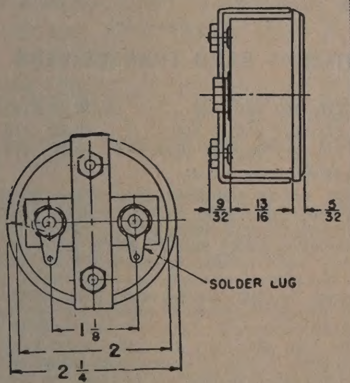
MODEL NF2C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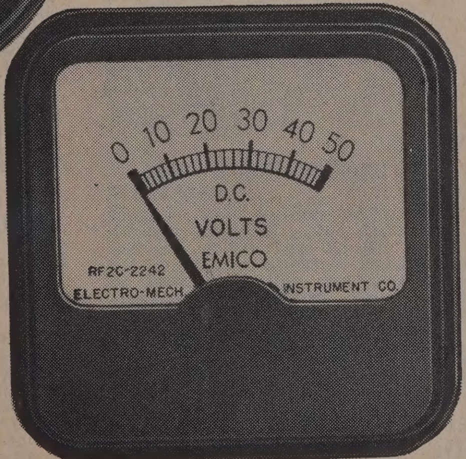
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EMICO
RF2C-2242
ELECTRO-MECH.
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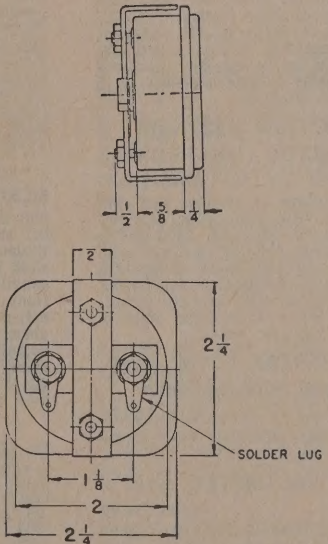
MODEL RF2C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SOLDER LUG
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Precision instruments engineered for

- accuracy
- long life
- economy

EMICO Miniature Circuit Indicator
MODEL 801

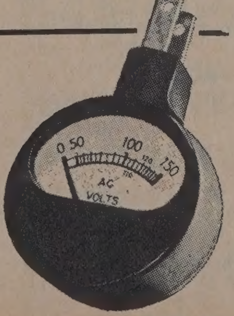
Gives snap-action response at .001 (milliwatt) to monitor all circuit malfunctions or on-off conditions. Dependable through millions of on-off cycles. Simplified panel installation.

Dealer's Net **$5.00**

EMICO A.C. Voltage Tester

Accurate, precision mechanism plug-in type with damped meter movement. Convenient 90° swivel prongs for ease of reading from any position.

Dealer's Net **$3.45**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EICO® KITS and WIRED...TEST INSTRUMENTS•HI-FI•HAM GEAR

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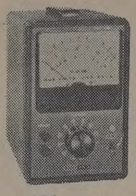
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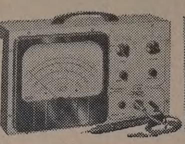
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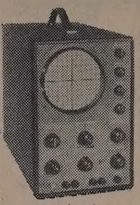
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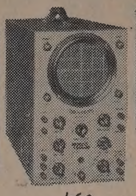
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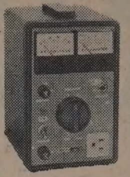
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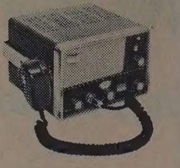
777

AC VTVM & AMPLIFIER #250

Kit $49.95 **Wired $79.95**

Highly sensitive, reliable AC VTVM & wideband amplifier. Measures 100 microvolts to 300V in 12 ranges; 10c-600kc ±0db response, 10 megohms input impedance, ±3% accuracy. Wideband amplifier switch-controlled for external use: 8c-800kc response, 5VRMS output, 5K ohms output impedance, gain control, noise —40db. Frame-grid triode cathode follower input circuit, freq.-compensated input attenuator, cathode circuit attenuator. Regulated power supply. 8½" x 5¾" x 7". Wt. 7 lbs.

AC VTVM #255

Kit $44.95 **Wired $72.95**

Same as #250 less external use amplifier.

AC VOLT-WATT METER #261

Kit $49.95 **Wired $79.95**

AC voltmeter & load-compensated audio watt-meter of unique quality. Measures AC voltages from 1mv to 1000V in 11 ranges, power from .015mw to 150W in 7 ranges, across standard loads from 4 to 600 ohms. Tapped power resistor load (4, 8, 16 and 600 ohms) handles up to 80W on 8 ohms and 40W on other taps. Switch to external load up to 150W. Meter automatically compensated for any load selected, internal or external, to provide single watt scale. 8½" x 5¾" x 7". Wt. 6 lbs.

VACUUM TUBE VOLTMETER #222

Complete with exclusive dual-purpose †Uni-Probe®

Kit $27.95 **Wired $42.95**

Entirely electronic, direct reading measurement of resistance, and AC & DC to 1500V in 5 ranges. May be calibrated without removal from cabinet. Complete electronic overload protection, plus fuse. 1% precision ceramic resistors. Exclusive AC/DC Uni-Probe® selects DC or AC-Ohms. DC voltmeter input impedance 11 megohms, accuracy ±3%. AC voltmeter input impedance 1 megohm, accuracy ±5%. Ohmmeter 0.2 ohms to 1000 megohms in 5 ranges. 8½" x 5¾" x 7". Wt. 5 lbs.

PEAK-TO-PEAK VTVM #232 with DUAL-PURPOSE AC/DC †UNI-PROBE®

Kit $29.95 **Wired $49.95**

Measure directly p-p voltage of complex and sine waves: 0-4, 14, 42, 140, 420, 1400, 4200. DC/RMS sine volts: 0-1.5, 5, 15, 50, 150, 500, 1500 (up to 30,000 V. with HVP probe, and 250 mc with PRF probe). Ohms: 0.2 ohms to 1000 megs. 7 **non-skip** ranges on every function. Calibration without removing from cabinet. 4½" meter, can't-burn-out circuit. Zero center, 1% multipliers. Exceptional stability and accuracy. 8½" x 5" x 5". Wt. 5 lbs.

DELUXE PEAK-TO-PEAK VTVM #249 7½" METER and †UNI-PROBE®

Kit $39.95 **Wired $59.95**

All features of Model 232—PLUS big 7½" meter. 8½" x 13" x 5". Wt. 9 lbs.

VACUUM TUBE VOLTMETER #221

Kit $25.95 **Wired $39.95**

4½" meter in can't-burn-out circuit. Zero center for TV/FM discriminator alignment. AC/DC Volts 0-5, 10, 100, 500, 1000 (up to 30,000 V. with HVP probe, up to 250 mc with PRF probe, and peak-to-peak with PTP probe). Ohms: 0.2 ohms to 1000 megs. DB: —20 to +55. Input R: 25 megs. 1% precision multipliers. Stable, accurate double-triode bridge circuit. 9 7/16" x 6" x 5". Wt. 7 lbs.

VTVM PROBES

DUAL-PURPOSE AC/DC †UNI-PROBE®

Kit $4.95 **Wired $6.95**

Performs all functions — half-turn of probe-tip selects DC or AC-OHMS!

PEAK-TO-PEAK VTVM PROBES PTP 11 & 25

Kit $4.95 **Wired $6.95**

Read p-p voltages directly on DC scales of your VTVM. Use with any 11 or 25 megohm VTVM.

†U. S. Pat.

RF VTVM PROBES PRF-11 & 25

Kit $3.95 **Wired $4.95**

For RF voltage measurements up to 250 mc. Accuracy ±10%. Use with any 11 or 25 megohm VTVM.

HIGH VOLTAGE PROBES

HVP-1 **Wired $6.95** HVP-2 **Wired $4.95**

For safe measurement up to 30,000 volts dc with any VTVM or 20,000 ohms/volt VOM. HVP-1 supplied with matching resistor for your instrument; HVP-2 supplied with choice of high quality multiplier resistors to match most popular instruments.

ADVANCED GENERAL PURPOSE 5" OSCILLOSCOPE #427

Kit $69.95 **Wired $109.95**

Six-stage vertical amplifier direct-coupled for minimum phase distortion & push-pull throughout for maximum linearity. Frequency-compensated vertical input attenuator. Intensity, focus and astigmatism controls on front panel. Non-blooming trace. Instantaneous, drift-free positioning permits centering and part of a trace expanded. Easy, direct connection to vertical deflection plates. Mu metal shielded 5DEP1 CRT. V Amp: flat DC-500kc, —6db @ 1MC; sensitivity 3.5mv rms cm. H Amp: flat 2cps-450kc; sensitivity 0.18V rms/cm. Sweep: 10cps-100kc. 12½" x 8½" x 16 7/16". Wt. 26 lbs.

GENERAL PURPOSE 3" SCOPE #430

Kit $65.95 **Wired $99.95**

Does everything many bigger, more expensive scopes do. Vert amp flat from 2 c to 500 kc, —6db @ 1 mc. Sensitivity 25 mv/cm. Horiz amp flat from 2 c to 300 kc. Sensitivity .25 V/cm. Frequency-compensated coarse attenuator plus fine attenuator adjust size of pattern. Vert and horiz positioning controls permit centering any portion of trace expanded as much as 3 times CRT dia vertically, 2 times horizontally. Sweep frequencies from 10 c to 100 kc in 4 overlapping ranges. Int or ext sweep. Full retrace blanking. Sync fully automatic on all ranges. Flat-face 3" tube; mu-metal neck shield eliminates effects of external fields. Trace controls include intensity and focus; astigmatism adjustment without cabinet removal. 8½" x 5¾" x 11¼". Wt. 11 lbs.

DC WIDE BAND 5" SCOPE #460

Kit $79.95 **Wired $129.50**

Flat from DC to 4.5 mc. usable to 10 mc., featuring DC amplifiers. Vert. Sens.: 25 mv/in., push-pull thruout. Sweep freqs.: 10 cps to 100 kc, low sweep with ext. condenser. Automatic sync limiter and amplifier eliminates sync voltage adjustment. On front panel: int. mod., saw-tooth output, 60 cps, ext. sync, ext. capacitor jacks! 60 cps variable phase sine sweep. Pre-set TV V&H sweep positions. Edge-lit plexiglass filter screen with variable illumination. 4 freq. compensated attenuator positions up to 1000:1 on either direct or capacitive coupled input. 13" x 8½" x 16". Wt. 29 lbs.

ELECTRONIC SWITCH #488

Kit $23.95 **Wired $39.95**

Simultaneously observe 2 patterns on 1 scope: compare voltage and current amplitudes, waveforms, freqs. and phase relationships. Continuously variable switching rates from less than 10 cps to over 2000 cps. Very useful as square wave generator over same range. 6" x 8" x 6". Wt. 7 lbs.

SCOPE VOLTAGE CALIBRATOR #495

Kit $19.95 **Wired $24.95**

Enables p-p voltage measurement of complex TV sweep waveforms displayed on scope, calibration of vert. and hor. scope amplifiers, etc. Output variable from zero on every range with full-scale readings of 0.1, 1, 10, and 100 volts p-p. Accuracy ±5% of full scale on each range. VR tube regulated power supply. 5" x 7⅝" x 4". Wt. 4 lbs.

SCOPE PROBES

MODEL PSD DEMODULATOR PROBE

Kit $3.95 **Wired $5.95**

Demodulates amplitude-modulated carriers between 150 kc and 250 mc.

MODEL PD DIRECT PROBE

Kit $2.95 **Wired $3.95**

Eliminates stray pickup and signal re-radiation.

MODEL PLC LOW CAPACITY PROBE

Kit $3.95 **Wired $5.95**

For TV waveform tracing in high Z, high frequency or wide-band circuits.

METERED VARIABLE AUTO-TRANSFORMER AC BENCH SUPPLIES

#1078: 7½A rating Kit $42.95 Wired $54.95

Delivers any voltage up to 140VAC with linear variation of output throughout entire range. Smooth rotary brush-tap controlled by panel dial. Highly efficient variable toroidal core design. Auto-transformer. No waveform distortion or voltage drop from no-load to full load. Separate output ammeter & output voltmeter. 8½" x 5¾" x 7". Wt. 13 lbs.

DELUXE CITIZENS BAND TRANSCEIVER MODEL 777

Kit $119.95 **Wired $189.95**

Deluxe CB transceiver that will delight the most demanding CB user. Receiver is super-selective dual conversion superheterodyne with RF stage; three-way power supply permits 117 VAC, 12 VDC, or 6 VDC operation; illuminated panel selection of 6 transmit crystals and 6 receiving crystals (all easily accessible through trap door), plus illuminated dial continuous vernier tuning; optional side-mounting 23 channel adaptor; illuminated "S" meter; adjustable squelch plus automatic noise limiter; spotting switch; 3 watts audio output at only 5% distortion; variable "pi" network with control knobs for simplified antenna loading; 3½" x 3½" heavy-magnet speaker, ceramic element mike with push-to-talk switch. New extra-sturdy Posi-Lock permits 360° rotation with positive lock every 90°. New deluxe appearance with chrome plated bezel and brushed aluminum panel. In the kit, the Model 777 is supplied with the entire transmitter oscillator circuit and RF final mounted, wired, precisely tuned, and sealed at the factory to comply with FCC regulations (section 19.71 part d). This legally permits you to build the kit and put it on the air **without** the supervision of a person holding a commercial radio-telephone license. 1 transmit and 1 receiver crystal supplied. Others available as required. 6" x 8½" x 10". Wt. 15 lbs.

CITIZENS BAND TRANSCEIVERS

	Kit	Wired
Model 770: 117 VAC only	$ 79.95	$109.95
Model 771: 117 VAC, 6 VDC*	89.95	119.95
Model 772: 117 VAC, 12 VDC*	89.95	119.95

*Includes mounting bracket.

4-channel crystal-controlled transmitting chosen by channel-selector knob on front panel - Crystal-controlled receiving available on one transmit channel, continuous tuning over all 23 CB channels on the three other transmit channels - Press-to-talk button microphone: transmit-receive switching accomplished by high-quality relay with minimum capacity between contacts to prevent current leakages at RF frequencies. Superhet receiver with RF stage for high sensitivity and low s/n ratio; 1750 kc prealigned IF strip for unequalled image rejection and freedom from oscillator "pulling" on strong signals - Current metering jack in series in cathode circuit permits checking of input power to transmitter final, adjusting to FCC limit. 13-tube performance (4 dual function, 4 single function tubes, 1 germ. diode) - Adjustable squelch, automatic noise limiter - Built-in AVC - Built-in 3" x 5" oval PM speaker and detachable ceramic-element cartridge - Posi-Lock mounting bracket - 1 transmit xtal supplied; others available, with matched receiving xtals if desired. 6" x 8½" x 9". Wt. 12 lbs.

CITIZENS BAND WALKIE-TALKIE #740

Kit $54.95 **Wired $79.95**

Including nickel-cadmium battery and charger, plus transmit **and** receive crystals for 1 channel. US-made. Crystal controlled transmit and receive. Full superhet receiver with crystal-controlled local oscillator; and high-level AM type transmitter incorporating quality circuit boards, and 9 transistors. Rechargeable nickel-cadmium battery. 7⅛" x 2⅝" x 1⅝". Wt. 19 oz.

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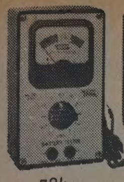
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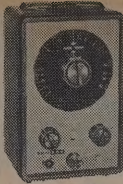
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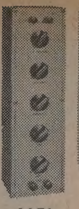
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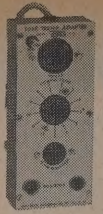
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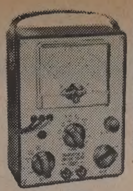
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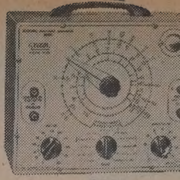
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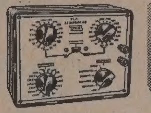
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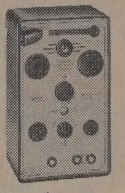
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1120

628

6 EICO VOLT-OHM MILLIAMMETERS

#565 — 20,000 OHMS/VOLT V-O-M

Kit $24.95 **Wired $29.95**

31 Full Scale Ranges - DC/AC/Output Volts: 0-2.5, 10, 50, 250, 1000, 5,000 - DC Current: 0-100 ua; 10, 100, 500 ma; 10 Amp. - Ohms: 0-2000, 200K, 20 meg. - 5 DB Ranges: −12 to +55. - Large 4½″ 50 ua Meter Movement. - High-Impact Bakelite case. 6¾″ x 5¼″ x 3″. Wt. 3 lbs.

#555 — 20,000 OHMS/VOLTS V-O-M

Kit $29.95 **Wired $34.95**

As above, with 1% precision resistors.

#566 — 1000 OHMS/VOLT V-O-M

Kit $16.95 **Wired $22.95**

Ranges: Same as Model 536 (see below), plus 7 output voltage ranges. Large 4½″ 400 ua meter movement. 6¾″ x 5¼″ x 3″. Wt. 3 lbs.

#556 — 1000 OHMS/VOLT V-O-M

Kit $18.95 **Wired $25.95**

Same as Model 566, with 1% precision resistors.

#536 — 1000 OHMS/VOLT V-O-M

Kit $14.95 **Wired $18.95**

31 1000 Full-Scale Ranges Ohms/Volt. - DC/AC Volts: Zero to 1, 5, 10, 50, 100, 500, 5000. - DC/AC Current: 0-1, 10 ma.; 0.1, 1 Amp. - Ohms: 0-5000, 100K, 1 meg. - 6 DB Ranges: −20 to +69 - Large 3″ 400 ua Meter Movement - High-Impact Bakelite case. 6¼″ x 3¾″ x 2″. Wt. 2 lbs.

#526 — 1000 OHMS/VOLT V-O-M

Kit $15.95 **Wired $19.95**

As above, with 1% precision resistors.

BATTERY TESTER #584

Kit $9.95 **Wired $12.95**

For accurate, true DYNAMIC test of all A and B portable radio batteries, lantern batteries, and other types — in or out of equipment. Test Positions (Volts): 1.5, 4.5, 6.0, 7.5, 9.0, 22.5, 45, 67.5, 75, 90 plus Spare Position. Test leads provided. High-impact Bakelite case and satin aluminum panel. 6¼″ x 3¾″ x 2″. Wt. 2 lbs.

READI-TESTER #540

Kit $12.95 **Wired $15.95**

For electrical and electronic servicing; for home and automotive repairs; an all-in-one multi-range ac/dc voltmeter, ammeter, ohmmeter, wattmeter and leakage checker. Instruction book contains an introduction to electricity, operating method, and repair procedures. 3¾″ x 6½″ x 3½″. Wt. 3 lbs.

DECADE RESISTANCE BOX #1171

Kit $24.95 **Wired $29.95**

Exceptionally accurate, wide-range, versatile instrument. 0-99,999 ohms in 1-ohm steps with 5 decades and ½% precision. 12″ x 3½″ x 3″. Wt. 3 lbs.

DECADE CONDENSER BOX #1180

Kit $17.95 **Wired $24.95**

Precision silver-mica capacitors (±1% accuracy, 500 VDC rated) arranged in 3 decades for extremely wide range of 100 mmf to 0.111 mf in steps of 100 mmf. Positive detent ceramic wafer switches, silverplated contacts. 9″ x 3½″ x 3½″. Wt. 3 lbs.

RESISTANCE SUBST. BOX #1100

Kit $7.95 **Wired $12.95**

Enables rapid substitution of wide range of EIA resistance values from 15 ohms to 10 megohms in decade multiples of 15, 22, 33, 47, 68, 100 ohms. Uses standard 1 watt, ±10% EIA resistors. 3¾″ x 6½″ x 3½″. Wt. 2 lbs.

CAPACITANCE SUBST. BOX #1120

Kit $6.95 **Wired $10.95**

Enables rapid substitution of a wide range of EIA capacitance values from 0.0001 to 0.22 mfd in an operating circuit. Minimum accuracy ±10%. Uses silver mica and molded plastic capacitors, conservatively rated at 600 volts. Convenient 5-way jack-top binding posts. 3¾″ x 6½″ x 3½″. Wt. 2 lbs.

SERIES/PARALLEL R-C COMBINATION BOX #1140

Kit $13.95 **Wired $19.95**

Combines Model 1100 and 1120 with switching facilities permitting selection of any R alone, any C alone, or 1350 combinations of same in series or parallel. Open and short circuit positions provided. Standard EIA values, 10% accuracy. Jack-top binding posts. 6¾″ x 5¼″ x 2⅜″. 3 lbs.

IN-CIRCUIT CAPACITOR TESTER #955

Kit $19.95 **Wired $39.95**

Tests capacitors in the circuit without unsoldering. Checks for shorts, (even in the presence of as little as 1 ohm shunt resistance). Checks open units (as little as 5mmf in the circuit). Measures capacitance with ±10% accuracy between 0.1mf and 50mf. Measures RC product, convertible into dissipation or power factor. Utilizes electron-ray tube EM84/6FG6 with sharp bar pattern. Line adjust control permits maximum sensitivity regardless of the line voltage variations. 8½″ x 5¾″ x 6″. Wt. 6 lbs.

R-C BRIDGE & R-C-L COMPARATOR #950B

Kit $19.95 **Wired $29.95**

Direct measurement of capacity **or** resistance over a wide range of values. For leakage testing of electrolytics, a continuously variable polarizing test voltage from 0 to 500 VDC (±10%) is provided. Bridge balance and leakage are both indicated by a sensitive electron-ray tube indicator. The bridge provides 4 capacitance ranges from 10 mmf to 5000 mf and 4 resistance ranges from 0.5 ohms to 500 megohms. A comparator range permits comparison measurement of capacitance, resistance, or induction against a standard. Transformer-operated power supply. 8″ x 10″ x 4¾″. Wt. 8 lbs.

DYNAMIC CONDUCTANCE TUBE AND TRANSISTOR TESTER #667

Kit $79.95 **Wired $129.95**

Combines mutual inductance test with peak emission test to give a single reading of tube quality. Spots bad transistors by gain and leakage tests. Tests almost all receiving tubes including 5- and 7- pin Nuvistor; 9-pin Novars; 12-pin compactrons; 7-, 9-, and 10-pin miniatures; 5-, 6-, 7-, and 8-pin subminiatures; octals; loctals; & many low-power transmitting & special purpose tubes, voltage regulators, cold-cathode regulators, electron ray indicators, ballast tubes, & pilot lamps. Tests are made under actual tube operating conditions. When one section of a multi-purpose is being tested all sections are drawing their full rated current. N-p-n & p-n-p transistors are checked in two steps: first for leakage, then for Beta. Both are read directly off the meter dial. Multi-circuit lever switch sets up plate, screen, and control grid voltages rapidly. 13 push-button switches insert alternate elements for rapid leakage testing. 200-ma 4½-inch D'Arsonval meter gives accurate readings even for tubes with low cathode current. 20 heater voltages cover all tube types. 12″ x 15″ x 4½″. Wt. 20 lbs.

TUBE TESTER #628

Kit $44.95 **Wired $59.95**

Simple test set-up procedure for checking emission, shorted elements, open elements, & continuity. 13 individual lever-type elements switches for complete flexibility. 4½″ meter with 3-color REPLACE-WEAK-GOOD scale, 0 to 100 scale for matching. Tests 7-9- & 10-pin miniatures, octal, loctal, 5- & 7-pin nuvistors, novars, and compactrons, series string, magic eye, VR's. Model CRU adapter available for testing all CRT's, both color & black & white. New, 3-column wide roll chart for extra tube listing capacity. Snap-out chart window. Pilot light test socket (contact type). Line adjust control. Protective overload lamp shows transformer overloads and acts as fuse. Continuous, full-time roll chart development at EICO insures issuance of new up-to-date roll charts as frequently as required. 9½″ x 12½″ x 4¼″. Wt. 8 lbs.

UNIVERSAL CRT TEST ADAPTER CRU

Wired $9.95

New color & black & white TV picture tube adapter for EICO models 667 and 628 has 12-pin socket for 70° and early 90° deflection black & white tubes. 3 additional back-to-back plug-socket adapters provide connectors for 7 & 8-pin 90° & 110° CRT's, & for color tubes. Adaptable to many other tube testers.

CRT TESTER & REJUVENATOR #632

Kit $54.95 **Wired $79.95**

In luggage-type carrying case with accessory compartment containing line cord & universal multi-socket cable that accommodates any CRT, black- & -white or color. Incorporates transformer-operated 1000 v dc supply for repairing CRT defects, a 150 v negative dc supply with a potentiometer providing continuously variable grid cut-off voltage to indicate contrast range of CRT, plus 25-watt rheostat & 3-range filament voltage selector providing precisely controlled filament voltage in 3 ranges 0-5, 5-10, 10-15. Both grid-cut-off & filament voltages are read on the 4½″ meter, as is beam current on a 3-color BAD-?-GOOD scale. Meter reading of filament voltage assures accuracy regardless of line voltage variation. Neon-lamp circuit is used for short-open testing. 6 push-buttons are used for short-open, beam current, gas, & life testing to enable instantaneous measurement that will not damage tube. Panel switch selects the red, green, & blue guns of color CRT's for individual testing as for black and white tubes. A spring return repair push-button is used to apply the 1000 vdc for rejuvenate-welding procedures or for removing inter-element shorts. The 632 is completely versatile & is designed to be applicable to both tube & transistor TV CRT's, either color or black & white. 9¾″ x 12″ x 5″. Wt. 8 lbs.

TRANSISTOR & CIRCUIT TESTER #680

Kit $25.95 **Wired $39.95**

Measures ICEO, ICBO & DCβ directly, ACβ indirectly, without charts or special settings — plus all dc volts, currents & resistances needed to service transistor equipment. Battery powered. 50ua, 3½″ face meter movement provides sensitivity & scale length necessary for accuracy. Built-in 20,000ΩV VOM facilities frees your other test equipment. 6¾″ x 5¼″ x 3″. Wt. 3 lbs.

TUBE TESTER ADAPTER #610

Kit $5.95 **Wired $11.95**

Adapts EICO models 625 or 666 tube testers for testing the following new tube types: nuvistor 5-pin; nuvistor 7-pin; novar; 10-pin miniature; compactron, 12-pin. Included are roll chart supplements for both 625 and 666 models. 1¼″ x 2½″ x 6″. Wt. 1 lb.

CATHODE RAY TUBE CHECKER #630

Kit $19.95 **Factory Wired $27.95**

Tests all TV picture and oscilloscope type C-R tubes — in set or carton. Measures peak beam current (proportional to screen brightness). Balance control calibrated directly in terms of tube condition. Detects open and shorted elements. 9½″ x 6½″ x 3″. Wt. 5 lbs.

TUBE & CRT FILAMENT TESTER #612

Kit $4.95 **Wired $6.95**

Includes batteries

Fast filament check of series string & all other TV & radio tubes (9-pin, octal, loctal, 7-pin); 14-pin, 12-pin, 8-pin CRT's; bayonet & screw-type pilot lamps; cartridge fuses. Just plug tube into tester socket, observe indicator lamp — no fiddling with controls or switches. Self-powered for convenience & safety. 7-pin & 9-pin miniature tube pin straighteners provided. 6¼″ x 3¾″ x 2″. Wt. 2 lbs.

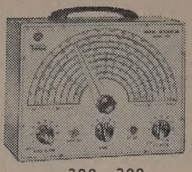
FLYBACK XFMR & YOKE TESTER #944

Kit $23.95 **Wired $34.95**

Rapid, positive check of all flybacks and yokes, in or out of set. Uses sensitive grid-dip principle—shows up even 1 shorted turn! **Exclusive** separate calibration for air and iron-core flybacks. Checks any inductance of not too low impedance; also usable for general continuity testing. 4½″ 50 ua meter, 3 separate colored scales. 7″ x 5″ x 4″. 5 lbs.

EICO® KITS and WIRED...TEST INSTRUMENTS·HI-FI·HAM GEAR

324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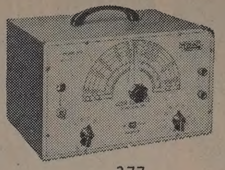
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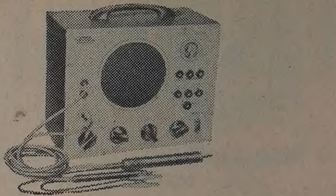
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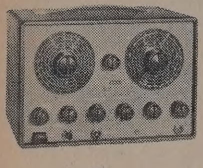
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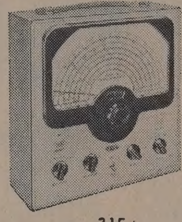
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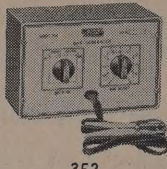
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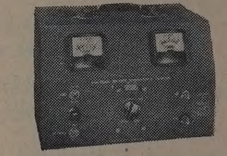
1050, 1060

RF SIGNAL GENERATOR #324

Kit $28.95 **Wired $39.95**

Extended frequency range: 150 kc to 145 mc on fundamentals in 6 bands; 111-435 mc on calibrated harmonics. ±1.5% frequency accuracy; 6:1 vernier tuning knob and excellent spread at most important alignment frequencies. Etched tuning dial, plexiglass windows, edge-lit hairlines. Colpitts RF oscillator, directly plate-modulated by cathode follower for improved modulation. Variable depth of internal modulation 0-50% by 400 cps Colpitts oscillator. Variable gain external modulation amplifier: only 3.0 volts needed for 30% modulation. Turret-mounted slug-tuned coils. Fine and Coarse (3-step) attenuators, 50-ohm output Z. RF and AF outputs respectively 100,000 uv and up to 10 V. Tubes: 12AU7, 12AV7, selenium rectifier, xfmr-operated. 5-way jack-top binding posts for AF in/out; coaxial connector and shielded cable for RF out. Satin aluminum panel and grey wrinkle steel case. 8″ x 10″ x 4¾″. Wt. 8 lbs.

TV-FM SWEEP & POST INJECTION MARKER GENERATOR #369

Kit $89.95 **Wired $139.95**

Feeds only sweep signal to circuit; picks off signal at output and feeds it to internal mixer where markers are added. So circuitry is not affected by marker; marker is not affected by circuit. All-electronic, controllable, inductor sweep circuit is independent of marker gen. Five fund ranges: 3.5-9 mc; 7.5-19 mc; 16-40 mc; 32-85 mc; and 75-216 mc. Retrace blanking obtained with tube that conducts during negative excursion. 3-stage AGC circuit keeps signal level constant, even at sweep width of 20 mc. Phasing control permanently adjusts horizontal sweep. Marker gen has four ranges, from 2-225 mc. 60-225 range is third harmonic of next lower; all others are funds. 8½″ x 12½″ x 7″. Wt. 16 lbs.

RF SIGNAL GENERATOR #320

Kit $24.95 **Wired $33.95**

Low-cost, high quality signal generator providing modulated or unmodulated RF. Separate 400 cps output with level control. For AM/FM alignment, and TV marker frequencies. Stable Hartley RF oscillator, vernier tuning capacitor, Colpitts audio oscillator. Five fundamental RF ranges from 150 cps to 34 mc. Two ranges of calibrated harmonics to 102 mc. 8″ x 10″ x 4¾″. Wt. 8 lbs.

RF SIGNAL GENERATOR #322

Kit $27.95 **Wired $38.95**

Identical to Model 320 but provided with 5 trimmers, one for each fundamental band, for increased frequency accuracy.

DELUXE RF SIGNAL GENERATOR #315

Kit $49.95 **Wired $69.95**

Laboratory-precision generator EICO Service-Engineered with 1% accuracy. Frequency range: 75 kc-150 mc in 7 calibrated ranges. Extremely stable. Illuminated hairline VERNIER TUNING. VR stabilized line supply. 400-cycle pure sine wave with less than 5% distortion. Tube complement: 6X5, 6SL7, 6C4, VR-150. Satin aluminum etched panel; rugged steel case. 115 V. 60 cycles AC. 13″ x 12″ x 7″. Wt. 18 lbs.

TV-FM SWEEP GENERATOR #360

Kit $39.95 **Wired $59.95**

Covers all TV-FM alignment frequencies, 500 kc 228 mc. Vernier-driven dial. Center of each of 13 TV channels marked on front panel. Sweep width variable 0-30 mc with mechanical inductive sweep — permits gain comparison of adjacent TV channels. Crystal marker oscillator, variable amplitude. Provides for injection of external marker. Phasing control. Complete with HF tubes. Less Crystal. 10″ x 8″ x 6¾″. Wt. 11 lbs.

EICO 5 MC and 4.5 MC Crystals — $3.95 ea.

SINE & SQUARE WAVE AUDIO OSCILLATOR #377

Kit $37.95 **Wired $54.95**

RC (Wein Bridge) oscillator incorporating 1% resistors and a 2-gang tuning capacitor providing sine wave frequencies from 20 cps to 200 kc in 4 bands. Sine wave distortion is less than 1%. Output amplitude is flat ±1.5 db from 60 cps to 150 kc. Square wave output is obtained from an overdriven clipper and the waveform is free of excessive tilt or rounding between 200 cps and 20 kc. A high degree of frequency stability is obtained after a very short warm-up, and calibration accuracy is the greater of ±3% or 1 cps. The output stage is a split-load cathode follower providing 10 V rms into a 1000-ohm load. The power supply employs full-wave rectifiers and a pi-type LC filter. Hum is less than 0.4% of rated output. 7⅛″ x 11⅝″ x 7⅝″. Wt. 13 lbs.

BAR GENERATOR #352

Kit $19.95 **Wired $29.95**

Produces 16 to 23 V bars and 13 to 22 H bars, adjustable in number to accommodate all screen sizes. Incorporates VHF osc., RF osc., and LF multivibrator. Adjustable from Channel 2 to 6. Deluxe 3-way antenna terminal clip fits any type antenna terminal including plug-in type. Output voltage: 100,000 microvolts. Tubes: 1-12AU7, 1-6C4; selenium rectifier. 5″ x 7½″ x 4½″. Wt. 4 lbs.

DELUXE MULTI-SIGNAL TRACER #147A

Kit $29.95 **Wired $44.95**

Entirely new 5-tube instrument provides high gain RF and low gain audio channels with both visual and aural monitors (electron-ray tube and 5″ speaker). Permits RF, IF and audio signal tracing in TV, FM and AM sets. Highly useful noise localizer circuit that applies DC test voltage thru probe to suspected component and simultaneously picks up and amplifies effect. Wattmeter circuit detects abnormal power consumption in TV and radio receivers. May be connected as test speaker, amplifier or output transformer, and has output for VTVM or scope. Excellent for gain-per-stage estimation, null detector, scope preamplifier, utility amplifier, small P.A. system. New satin finish etched panel; grey wrinkle steel case. 105-125 VAC, 50/60 cps. 8″ x 10″ x 4¾″. Wt. 10 lbs.

ALL PRICES 5% HIGHER IN THE WEST

LOW-COST MULTI SIGNAL TRACER #145A

Kit $23.95 **Wired $32.95**

More than enough RF gain to trace up to receiver input; signal heard through built-in 5″ PM speaker. Shielded RF crystal demodulator and direct probes supplied. Noise localizer circuit applies DC test voltage through probe to suspected component and simultaneously picks up and amplifies effect. 7¹³⁄₁₆″ x 5⁹⁄₁₆″ x 5¹⁄₁₆″. Wt. 7 lbs.

POWER & BIAS SUPPLY FOR TRANSISTORIZED EQUIPMENT #1020

Kit $23.95 **Wired $29.95**

Extremely low ripple DC power supply for hum-free operation of transistor radios, hearing aids, "walkie-talkie" transistor transceivers, transistor preamps and tuners, language lab transistor amplifiers, transistor test equipment, etc. May also be used in TV and radio service work as a bias supply to offset AVC and AGC voltages during alignment, and to cut off the color burst amplifier in color TV adjustments. May also be used as a variable bias supply in the development of transistor and tube circuits, including the supply of the DC bias for filaments or as a filament DC power supply within the current ratings. **Output Voltage Range:** 0-30 V DC, continuously variable. **Max. Output Current Capacity** (continuous): 150 ma from 0-12 V, 200 ma from 12-24 V, 300 ma from 24-30 V. **Ripple:** (120 cps): 0.005% at full load. **Power Requirements:** 117 V, 60 cps. 5″ x 4″ x 5½″. Wt. 5 lbs.

6V & 12V BATTERY ELIMINATOR AND CHARGER #1050

Kit $29.95 **Wired $38.95**

All the power you need for 6-volt and 12-volt battery charging and auto radio servicing. Two DC ranges: 0-8 V (10 amps continuous, 20 amps intermittent), 0-16 volts (6 amps continuous, 12 amps intermittent). Continuous voltage adjustment with variable-type transformer. Separate voltmeter and ammeter. Heavy duty selenium rectifiers. Fused primary; automatic reset circuit-breaker opens secondary circuit upon overload. Rugged, well-ventilated steel cabinet. 8¾″ x 10½″ x 7¾″. Wt. 13 lbs.

EXTRA-FILTERED 6V & 12V BATTERY ELIMINATOR AND CHARGER #1060

Kit $39.95 **Wired $49.95**

Combines Model 1050K Battery Eliminator and Model 1055 Filter in a single unit. Powers both transistor and conventional equipment. 8¾″ x 10½″ x 7¾″. Wt. 17 lbs.

6 & 12 VOLT BATTERY ELIMINATOR & CHARGER #1064

Kit $45.95 **Wired $54.95**

Heavy-duty 2-ranges for operating any mobile radio & transceiver including transistor or "hybrid" types. Also usable as charger for either 6 or 12 volt batteries. Variable transformer provides continuous output adustment. 2 meters simultaneously observe output voltage and current. Ratings: 0-8V: 10A continuous, 20A intermittent; 0-16V: 6A cont., 10A interm. AC ripple: 0-16V range: 0.3% @ 2A, 1% @ 6A. Heavy-duty selenium rectifiers, & automatic reset overload relay. 8½″ x 5¾″ x 7½″. Wt. 14 lbs.

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Tracks 'em Down Dead or Alive

ONLY THE VERSATILE

DESCO* Circuitracer*

GIVES YOU A 3-IN-1 ELECTRICAL TEST LABORATORY

LIST PRICE

$4.95 Weighs only 2½ ozs.

Satisfaction Unconditionally Guaranteed

DON'T SEND A MAN TO DO A BOY'S JOB!

Are the technicians in your laboratories and shops using expensive meters and instruments for sample continuity and voltage checks? Speed up production through the use of the tool specifically designed for this application. A meter should be used only when the value of voltage, resistance or current must be known. Under any other conditions a Circuitracer will provide the required information faster and easier than expensive, bulky meters.

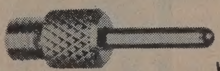
CIRCUIT TESTING WITH A CIRCUITRACER IS FASTER because the signal light is in the tip at the point of contact. This makes it possible to determine the existence of a circuit or voltage without removing the eyes from the test point to read a meter.

SAVE METER REPAIR MONEY BY USING DESCO CIRCUITRACERS. An overvoltage across a meter usually results in extensive damage which takes the meter out of service until repaired or replaced. The worst that can happen to your Circuitracer is a burned out lamp that can be replaced by the operator in less than a minute. Total cost, ten or fifteen cents for the lamp!

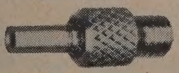
The CIRCUITRACER is the only electrical tester (other than expensive meters) that can test dead circuits, low voltage live circuits AND high voltage live circuits. It is made of the finest materials available and is designed for long life.

DESCO TEST PROBE ADAPTERS

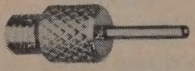
WS-12
Socket to fit 12 ga. connector pin



WP-12
Pin to fit 12 ga. connector socket

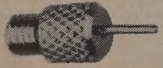


WS-16
Socket to fit 16 ga. connector pin



WP-16
Pin to fit 16 ga. connector socket

WS-20
Socket to fit 20 ga. connector pin



WP-20
Pin to fit 20 ga. connector socket

WRITE FOR CATALOG WITH FULL INFORMATION

*T.M. Reg.

INSURE CONNECTOR RELIABILITY

Manual probing of harness connectors while circuit testing can damage connectors and impair reliability. Desco Test Probe Adapters were developed to provide a test fitting identical to the pins and sockets in the connectors being tested. They make the same electrical and mechanical contact as the mating connector, and insure against scratching, bending and warping.

The adapters are made in three sizes to fit connectors using #12, #16 and #20 wire gauges. The sockets are gold plated copper with a brass sheath which retains a berylium copper spring. The pins are stainless steel to insure long life. All are made to rigid MIL-SPECS. The adapters will fit Desco Jumper Wires and the Desco Circuitracer* Tester interchangeably.

Several aircraft and missile manufacturers specify Desco Test Probe Adapters for most manual test connections. (names on request)

* DESCO

DESCO MFG. CO. ***Glendale 1, Calif.***

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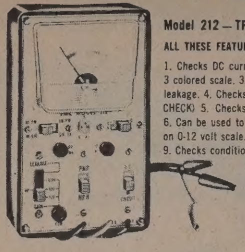
Transistor - Tube Testers



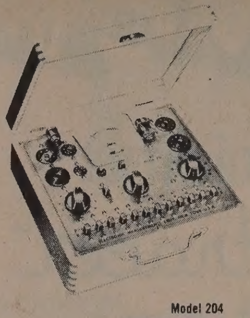
Model 212 — TRANSISTOR ANALYZER

ALL THESE FEATURES NOT AVAILABLE AT ANY PRICE!...

1. Checks DC current gain (BETA) in 3 ranges to 200. 2. Checks leakage on 3 colored scale. 3. Checks all transistors—high or low power for gain and leakage. 4. Checks all transistors as AC current amplifiers. (OSCILLATOR CHECK) 5. Checks all transistors in circuit without removing them. 6. Can be used to signal trace AF, IF or RF circuits. 7. Measure Battery Voltage on 0-12 volt scale. 8. Measures DC current drain on 0-80 milliampere scale. 9. Checks condition of diodes. 10. Supplied with 3 external leads as well as a socket for checking transistors. 11. Comes complete with instruction manual and transistor listing.

Wired . . . $18.50 Kit Form . . . **$13.50**

Size: 3¾" x 6¼" x 2". Weight 1½ lbs.



Model 213 — TUBE TESTER

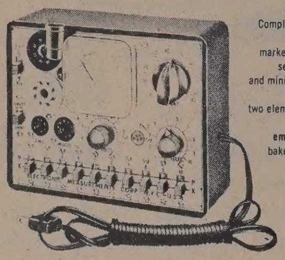
COMPLETELY MODERN! COMPLETELY FLEXIBLE! COMPLETELY NEW!...

Checks all the new 12 prong (Compactron), Nuvistor, Novar and 10 prong tubes, in addition to octal, loctal, miniature, and 9 prong tubes. Tests each tube for shorts, leakages intermittents, as well as for quality. Tube quality is indicated directly on a three color metal dial. Each section of a multi-purpose tube is checked separately.

Magic eye, Voltage Regulator and HI-FI tubes are also tested. Unique switching arrangement makes the checker obsolescent proof. Panel is etched for long wear. It comes complete with instructions and tube charts in ring bound manual.

MODEL 213 (in high impact bakelite case with strap) . . **Wired**	**$28.90**
MODEL 213 Kit	**18.90**
MODEL 213P (Illustrated in Wood Carrying Case)	**32.25**
MODEL 213P Kit	**21.90**
MODEL CRT picture tube adapter	**4.50**

Size: 8½" x 7½" x 4". Weight: 4½ lbs.



ALL NEW!... Model 211 — TUBE TESTER

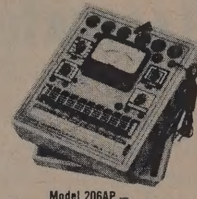
Completely flexible, obsolescent proof. We believe to be the smallest, lowest priced complete tube tester on the market today. It checks each section of multi-purpose tubes separately . . . checks all octal, loctal, 9 prong, nuvistor and miniature tubes for shorts, leakages, opens, intermittents as well as for quality. Shorts or leakages between any two elements in the tube can be detected. **Quality is indicated directly on a two color meter dial using the standard emission test.** It uses an etched panel and a high impact bakelite case. Comes complete with instructions and tube charts in ring bound manual.

Wired . . . $22.90 Kit . . . **$14.90**

EMC Model CRT (Picture Tube Adaptor) . . . **$4.50**

Size: 6¾" x 5¼" x 2¼" deep. Weight: 3 lbs.

Model 204
TUBE-BATTERY-OHM CAPACITY TESTER



An Emission Tube Tester, wth a completely flexible switching arrangement. Tests all tubes, including Noval and sub-miniatures. Checks batteries under rated load on "reject-good" scale. Tests all cold, cathode, magic eye, voltage regulator and ballasts. Uses 25W line voltage control. Checks condenser leakage to 1 meg. Checks resistance up to 4 megs. Checks capacity from .01 to 1 mfd.

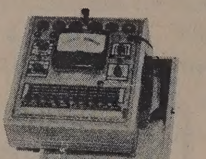
MODEL 204P — Illustrated	**$55.90**
MODEL CRA — Cathode Ray Tube Adaptor	**.4.50**

Model 205AP — TUBE TESTER

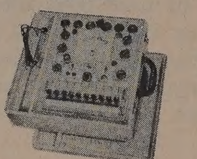
Uses standard emission test on all tubes, it checks all octal, loctal, noval, novar, nuvistor, 10 pin and compactron tubes. Completely flexible switching arrangement. Checks Voltage Regulators and ballasts Uses four position lever-type switches. Line voltage control compensates for line variations between 105 and 135 volts. Checks for shorts and leakages.

MODEL 205AP — Hand rubbed oak carring case (illustrated)	**$47.50**
MODEL 205PAPK — Kit Form	**36.20**
MODEL CRA — Cathode ray tube adaptor	**4.50**

Size: 4½" x 10¾" x 12⅝". Weight: 8½ lbs.



Model 206AP — DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER

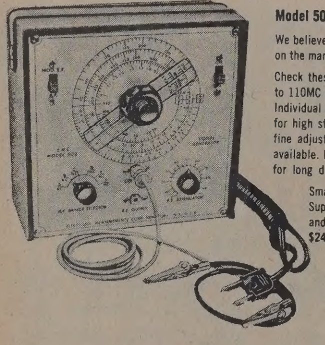


This completely flexible model, using lever-type switches, offers extremely accurate results with ease of operation. It will check all compactrons, novar, nuvister, 10 pin octal and loctal tubes. This instrument checks mutual conductance on a calibrated microhmo and "reject-good" scale. Checks tubes for gas content. Detects both shorted and open elements. Complete switching flexibility allows all present and future tubes to be tested. Tests tubes for radio frequency and other noise.

MODEL 206AP — With hand-rubbed oak carrying case	**$83.50**
MODEL CTA — Cathode ray tube adaptor for MODEL 206	**6.50**

Size: 6" x 14½" x 15". Weight 13½ lbs.

Signal Generator - Oscilloscope



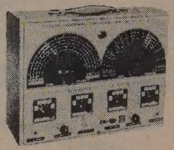
Model 502 — RF SIGNAL GENERATOR

We believe this is the smallest, lowest priced Signal Generator on the market today.

Check these outstanding features: Has 6 bands from 115KC to 110MC on fundamentals and up to 220MC on second harmonic. Individual slug tuned coils for each band. Colpitts RF oscillator for high stability. Planetary drive tuning condenser for fine adjustment of frequencies. 400 cycle internal modulation available. RF accuracy within 1½%. 2 color etched panel for long durability. Provision made for external modulation.

Small, compact-size, measures only 6⅝" x 6⅝" x 4" deep. Supplied with RF output lead. Cathode follower output and RF attenuator. Model 502 wired is priced at **$24.95** and in kit form **$17.95**. Weight 4 lbs.

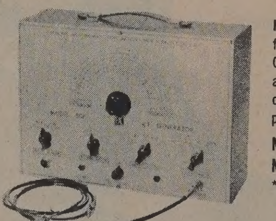
Model 700
RF-AF-CRYSTAL MARKER-TV BAR-GENERATOR



Complete coverage from 18 cycles to 108 megacycles on fundamentals. Bar generator for TV adjustment with a variable number of bars available for horizontal or vertical alignment. Square wave generator to 20 kilocycles. Wien Bridge AF oscillator with sine wave output from 18 cycles to 300 kilocycles. Crystal marker and amplitude control. Individually tuned coils. Constant RF output impedance. Stepped RF attenuator. Variable percentage of modulation.

MODEL 700 — Wired and Tested	**$55.90**

Weight: 11 lbs.

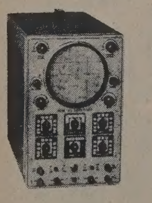


MODEL 501 — R.F. SIGNAL GENERATOR . . . A versatile signal generator. 6 bands from 115 kc to 110 mc on fundamentals. This significant new instrument has a Colpitts R.F. oscillator and cathode follower output, precision factory tuned coils, a variable gain external modulation amplifier, a 400 cycle Sine wave-variable depth output, R.F. output to 100,000 μV, frequency accuracy of ±1.5%, and provision for audio output to test amplifiers.

MODEL 501 — As Illustrated in hammertone metal case	**$37.90***
MODEL 501 — In easy-to-assemble Kit Form	**24.90**

*Completely wired and tested

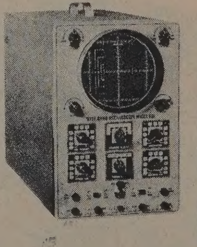
Model 600 — OSCILLOSCOPE Has these EXCLUSIVE FEATURES:



- Uses new 5UP1-5" scope tube for sharp focusing and good intensity.
- Retrace blanking amplifier eliminates confusion, gives clearer pictures.
- Has built-in 60 cycle phasing control and sweep for TV servicing.
- Uses astigmatism control for better focusing.
- Provision for Z axis input or intensity modulation.
- Synchronization available on positive or negative phase of input voltage, or from external source.
- Uses a 2 step compensated attenuator input.
- Has a 2 stage push-pull vertical amplifier with sensitivity of .02v per inch.
- Multivibrator sweep from 15 cycles to over 75 kilocycles.
- Direct connections to scope plates available.

Size: 8¾" side x 14" high x 15½" deep. Weight: 29 lbs.

MODEL 600 — Completely Wired and Tested	**$99.50**



Model 601 — WIDE BAND OSCILLOSCOPE...

For Color TV and Monochrome. Check these EXCLUSIVE EMC FEATURES: Full 5 mc bandwidth for color TV servicing. Push-pull vertical amplifier with sensitivity of .02 volts per inch. Retrace blanking amplifier eliminates confusion and gives clearer pictures. Multivibrator sweep from 15 cycles to over 75 kilocycles. 5UP1 cathode ray.

SWEEP GENERATOR — Multivibrator type. Frequency range 15 to over 75,000 cycles.

POWER REQUIREMENTS — 105-130 volts 50/60 cycles A6-50 watts.

VERTICAL AMPLIFIER — Maximum sensitivity: .02 volts RMS per inch. Frequency response: Flat within 1.5 DB from 15 cycles to 5 megacycles. Input Impedance: 2 megohms — 30 MMFD.

SYNCHRONIZATION — Positive or negative from vertical amplifier or from external source.

Size: 8¾" side x 14" high x 15½" deep. Weight: 29 lbs.

MODEL D — Direct Probe	**$3.95**
MODEL DEM — Demodulator Probe	**5.75**
MODEL LC — Low Capacity Probe	**5.75**
MODEL 601 — **Wired**	**117.90**

EMC

ELECTRONIC MEASUREMENTS CORPORATION
New York 12, New York

Net

© U.C.P., Inc.

Voltmeters - VTVM

Model 102 — VOLOMETER . . .

Features a 3½", 2% accurate—800 micro-amperes D'Arsonval type plastic front meter with 3 AC current ranges; and the same zero adjustment for both resistance ranges. A sturdy, durable pocket instrument from EMC's economy line is housed in a molded bakelite case.

AC VOLTAGE — 5 RANGES: 0 to 12-120-600-1200-3000 volts.
DC VOLTAGE — 5 RANGES: 0 to 6-60-300-600-3000 volts.
AC CURRENT — 3 RANGES: 0 to 30-150-600 ma.
DC CURRENT — 4 RANGES: 0 to 6-30-130 ma: 0 to 1.2 amps.
TWO RESISTANCE RANGES: 0 to 1000 ohms, 0 to 1 megohms.

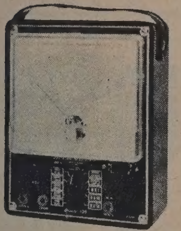
MODEL 102F — With Fused Meter	$15.55
MODEL 102FK — Kit Form	13.10
MODEL 102 — Wt. 1 lb. 5 oz. Size: 3¾" x 6¼" x 2"	14.90
MODEL 102K — Kit Form	12.50

Model 103 — VOLOMETER . . .

EMC's economy line offers another accurate and efficient instrument housed in a molded-bakelite case. This model features a 4½", 2% accurate-800 microamperes D'Arsonval type meter with 3 AC current ranges; and the same zero adjustment for both resistance ranges.

SPECIFICATIONS . . .
AC VOLTAGE — 5 RANGES: 0 to 12-120-600-1200-3000 volts.
DC VOLTAGE — 5 RANGES 0 to 6-60-300-600-3000 volts.
FIVE DB RANGES: —4 to +64 DB
AC CURRENT — 3 RANGES: 0 to 30-150-600 ma.
DC CURRENT — 4 RANGES: 0 to 6-30-120 ma; 0 to 1.2 amps.
TWO RESISTANCE RANGES: 0 to 1000 ohms, 0 to 1 megohms.

MODEL 103 — Wt. 2 lbs. 3 oz. Size: 5¼" x 6¾" x 2⅞"	$18.75
MODEL 103S — With plastic carrying strap	19.25
MODEL 103K — Kit Form	14.90
MODEL 103F — With fused meter	19.40
MODEL 103FK — Kit Form	15.50



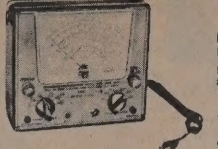
Model 109 — VOLOMETER . . .

Features 20,000 OHMS volts DC sensitivity and 10,000 OHMS per volt AC sensitivity. Uses a 4½, 40 microampere meter, with 3 AC current ranges, and 3 resistance ranges to 20 megohms.

DC VOLTAGE: 5 ranges (20,000 ohms per volt); 0 to 6-60-300-600-3000 volts.
AC VOLTAGE: 5 ranges (10,000 ohms per volt); 0 to 12-120-600-1200-3000 volts.
DC CURRENT: 3 ranges — 0 to 6-60-600 ma.
AC CURRENT: 3 ranges — 0 to 30-300 ma; 0 to 3 amps.
3 RESISTANCE RANGES: 0 to 20K, 0 to 200K, 0 to 20 megs.
5 DB RANGES: —4 to +67 DB.

MODEL 109 — With carrying strap, Wt. 2 lbs. 5 oz., Size: 5¼" x 6¾" x 2⅞"	$26.95
MODEL 109K — Kit Form	19.25
MODEL HVT — 30,000 Volt Probe for MODEL 109	7.95
MODEL 105 — (same as above but with 3" meter)	

Size. 6¼" x 3¾" x 1⅞". Weight: 1½ lbs.
Wired . . . $25.70 **Kit . . . $18.25**



MODEL 107A WIRED	$51.40
MODEL 107A KIT	36.50
MODEL RFP HIGH FREQUENCY . . . PROBE (useful to 200 megacycles)	6.95
PROBE HVP — 30,000 volt probe	8.75

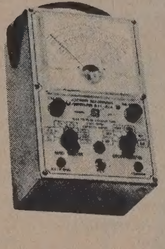
Size: 8¼" x 7¼" x 3½" deep. Weight: 4½ lbs.

Model 107A– A PEAK TO PEAK VACUUM TUBE VOLT-OHM CAPACITY METER . . .

Direct Peak to Peak Measurements of complex wave forms plus capacity and resistance measurements. 6" meter cannot burn out.

SPECIFICATIONS . . .

- **PEAK TO PEAK AC VOLTAGES** — 6 Ranges: 0 to 4, 28, 84, 280, 840, 2800 volts. Input resistance 1.5 megohms.
- **AC RMS VOLTAGES** — 6 Ranges: 0 to 1.5, 10, 30, 100, 300, 1000 volts. Input resistance 1.5 megohms.
- **CAPACITY** — 6 Ranges: .00005 to .005 mfd., .0005 to .05, .005 to .5, .05 to 5, 5 to 500, 50 to 5000 mfd.
- **RESISTANCE** — 6 Ranges: 0-1000, 10,000, 1 meg, 10 meg, 1000 megs, 10 megs center on 1000 megs range.
- **DC VOLTS** — 6 Ranges: 0 to 1.5, 10, 30, 100, 300, 1000 volts (up to 30,000 volts with accessory probe). Input resistance 16.5 megs or 1⅔ megohms per volt. 1 meg isolating resistor in probe.



Model 107 — VOLT-OHM CAPACITY METER . . .

A new, multi-function unit, which gives direct peak to peak measurements of complex wave forms, plus capacity and resistance.

SPECIFICATIONS . . .
PEAK TO PEAK AC VOLTAGES — 6 RANGES: 0 to 4, 28, 84, 280, 840, 2800 volts. Input resistance 1.5 megohms.
AC RMS VOLTAGES — 6 RANGES: 0 to 1.5, 10, 30, 100, 300, 1000 volts. Input resistance 1.5 megohms.
CAPACITY — 6 RANGES: .00005MFD to .005MFD, .005 to .05, .005 to .5, .05 to 5, 5 to 500, 50 to 5000MFD.
RESISTANCE — 6 RANGES: 0-1000,10,000, 1 meg, 10 megs, 1000 megs, 10 megs center on 1000 megs range.
DC VOLTS — 6 RANGES: 0 to 1.5, 10, 30, 100, 300, 1000 volts (up to 30,000 volts with accessory probe). Input resistance 16.5 megs or 1⅔ megohms per volt. 1 meg isolating resistor in probe.

MODEL 107 — Wired and Tested	$48.90
MODEL 107 — In Kit Form	34.50
MODEL RFP — High Frequency Probe (useful to 200 megs.)	6.95
MODEL HVP — 30,000 Volt Probe for MODEL 107	8.75

Size: 4" x 5½" x 8½". Weight 5½ lbs.

Model 106 VACUUM TUBE VOLTMETER

SPECIFICATIONS . . . AC VOLTAGE: 5 ranges, 0 to 1.5, 10, 100, 300, 1000 volts. Input resistance 2 megohms. Frequency response flat from: 25 to 100,000 cycles.
DC VOLTAGE: 5 ranges, 0 to 1.5, 10, 100, 300, 1000 volts (up to 30,000 volts with accessory probe). Input resistance 16.5 megs, or 1⅔ megohms per volt.
OHMS: 1000-10,000-100,000-10 megohms, 1000 megohms.

MODEL 106 — Illustrated	$35.90
MODEL 106 — In Kit Form	23.90
MODEL RFP — High Frequency Probe (useful to 200 megs.)	6.95
MODEL HVP — 30,000 Volt Probe for MODEL 106	8.75
MODEL IS — "Eye-Level" Instrument Stand	.98

Size: 2⅛" x 5¼" x 7⅛". Weight: 4 lbs.

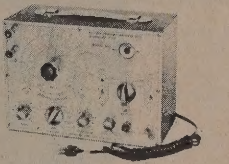
Special-Equipment

Model 801 — RESISTANCE-CAPACITANCE COMPARATOR BRIDGE AND IN-CIRCUIT CAPACITY CHECKER . . .

The Model 801 is a comprehensive resistance and capacity checker. It measures condensers for actual value, leakage, and power factor. In addition it measures condensers while still connected in their original circuits for opens, shorts or intermittents.

CHECK THESE FEATURES . . .

- As an in-circuit checker it detects open condensers above 50 mmfd not shunted by an excessively low resistance value.
- As an in-circuit checker it detects shorted condensers up to 20 mfd that are not shunted by less than 10 ohms.
- As an in-circuit checker it detects condensers that are intermittent in operation.
- Checks capacity values in 4 ranges from 10 mmfd to 5000 mfd.
- Checks resistance in 4 ranges from .5 ohm to 500 megs.
- Checks ratio between any two capacitors, inductors or resistors or transformer windings having a ratio of 20 to 1 or less.
- Checks power factor—from 0 to 60% on condensers between .1 mfd. and 5000 mfd.



- Checks leakage of all types of condensers at rated voltages between 0 and 500VDC.
- It uses a 2 color, deep etched, satin finish, aluminum panel.

Size: 10" x 7" x 5" deep. Weight: 7 lbs
Wired . . . $38.95 **Kit . . . $24.95**

Model 108 — HANDI-TESTER . . .

The only appliance and auto battery tester in its price class, which uses a D'Arsonval type meter instead of an iron vane type. This assures exclusive advantages of

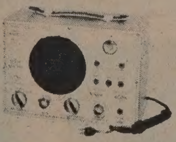
- Maximum Accuracy, meter is more than double the accuracy of iron vane types.
- Minimum Battery Replacement Cost, only ⅛th that of competitive models.

SPECIFICATIONS . . .
METER . . . 0-800 microamps — 2% accurate — 3½" plastic front
DC VOLTS . . . 0-15, 0-150, 0-300
AC VOLTS . . . 0-15, 0-150, 0-300
DC AMPS . . . 0-15
AC AMPS . . . 0-15
DC WATTS . . . 0-1500
AC WATTS . . . 0-1500
RESISTANCE . . . 0-2000 ohms
NEON LEAKAGE TEST . . . 0-5 megs
COMPACT SIZE . . . 6¼" x 3¾" x 2½"
HOUSED in a rugged, polished case, compact size.
LIGHT WEIGHT . . . only 1¼ lbs.

Comes complete with test leads and instruction manual.

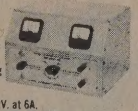
MODEL 108 — Wired and Tested	$15.95
MODEL 108 — In Kit Form	12.95

Model 802 SIGNAL TRACER AND GENERATOR



Model 802 is a combination signal tracer and generator. In the absence of a signal, it generates its own signal for audio, IF or RF testing. Model 802 also incorporates a noise locater circuit for checking noisy components. Provisions are made for using the instrument as a substitute speaker or amplifier. It can be used for checking and comparing magnetic, ceramic and crystal cartridges. It generates an audio signal of approximately 400 cycles for testing audio systems. It also generates a modulated signal of 455KC for testing IF's in radios using this IF frequency. The instrument is supplied complete with a shielded RF crystal demodulator probe and two shielded audio probes. Size: 10" x 7" x 5" deep. Weight: 7½ lbs.
Wired . . $38.95 Kit . . 24.95
Tube complement — 1-1629, 1-EZ81, 1-12AX7, 1-EL84, 1-6AB4.

Model 905 BATTERY ELIMINATOR and CHARGER

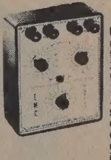


A must for audio radio service.
Check these EXCLUSIVE EMC FEATURES:

- Continuously variable voltage output
- Automatic overload relay self-resetting
- Either 6 or 12 volt operation
- Separate voltmeter and ammeter
- Continuous operation 6V. at 10A. or 12V. at 6A.
- Intermittant operation 6V. at 20A. or 12V. at 12A.

MODEL 905 — Wired (Weight 10 lbs.)	$37.50
MODEL 905 — In Kit Form	28.90
MODEL 907 — With extra filtering for transistor application (weight 13 lbs.)	44.00
MODEL 907K — Kit Form	34.90

Size: 7½" x 6½" x 10¾"



Model 900 RESISTANCE-CAPACITY SUBSTITUTION BOX . . .

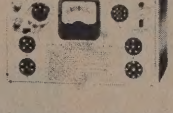
Now you can test the most modern combination resistor and capacitor circuits with this one, compact test instrument. Within 10% accuracy, provides for 36 standard RETMA 1W resistor values from 15 ohms to 10 megohms; to establish capacitance, provides 18 standard RETMA capacitance values from .0001 mfd. to .22 mfd. Here, at last, is the easy, sure way, to make proper substitutions. Model 900 eliminates trial and error substitution—prevents costly call-backs—increases your testing ability at a cost substantially lower than the conventional instruments. Uses separate 5 way binding post for resistance and capacity. Wired and Tested . . $17.90
In Kit Form . . 10.25
Size: 2⅛" x 5¼" x 6¾". Weight 1½ lbs.

Model 905-6A BATTERY ELIMINATOR and VIBRATOR CHECKER

A combination unit housed in a single sloping metal case. Contains identical features of both MODELS 905 and 906.

MODEL 905-6A — Wired	$67.90
MODEL 905-6A — In Kit Form	44.90

Model 906 VIBRATOR CHECKER

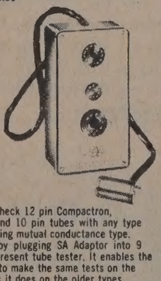


Checks both 6 and 12 volt vibrators. Reads condition of vibrator on "Bad-Good" scale. Checks both interrupter and self-rectifier type for proper starting point, as well as quality of operation. Operating instructions are printed on front panel. Can be used with any Battery Eliminator, such as EMC Model 905.

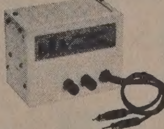
MODEL 906 — Wired	$31.80
MODEL 906 — In Kit Form	17.05

Size: 3" x 6½" x 10¼". Weight: 7 lbs.

Model SA SOCKET ADAPTOR



Enables user to check 12 pin Compactron, Nuvistor, Novar and 10 pin tubes with any type tube tester including mutual conductance type. Tests are made by plugging SA Adaptor into 9 prong socket of present tube tester. It enables the old tube checker to make the same tests on the new type tubes as it does on the older types.
Wired . . . $9.45 **Kit . . . $4.95**



Model BEA BATTERY ELIMINATOR ADAPTOR

This is a choke-condenser filter for reducing ripple. With the EMC Model BEA, you can use any battery eliminator for transistor radio testing. These include auto radios, as well as portables. No internal connection or changes need be made. Simply connect the two leads from the Model BEA to the output terminals of your battery eliminator. Then use the two binding posts of the Model BEA as output terminals.

MODEL BEA — Wired	$9.70

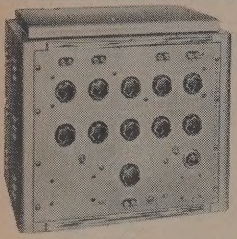
Size: 3" x 4" x 5". Weight: 2 lbs.

EMC

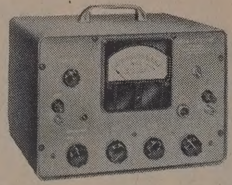
ELECTRONIC MEASUREMENTS CORPORATION
New York 12, New York

FREED LABORATORY TEST INSTRUMENTS

Set a new standard for performance, accuracy and dependability

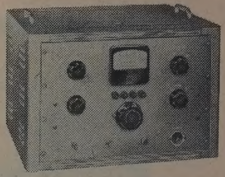


Incremental Inductance Bridges
Inductance to 1,000 HY
Superimposed D. C. to 30 Amperes

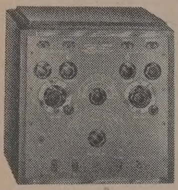


Null Detector Amplifier Type 1140-A
Sensitivity — 10 Microvolts —
20 Cycles to 20 KC.

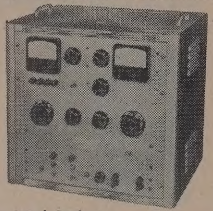
A. C. Supply Type 1180
0.01 to 130 Volts A. C. —
50-60 Cycles



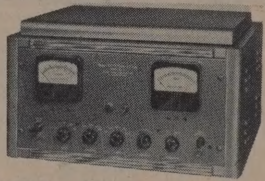
D. C. Supply Type 1170-A
1 Ampere — Regulated



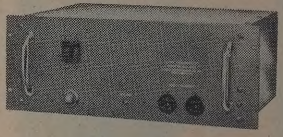
Universal Bridge Type 1150-A
Bridge Types: Maxwell, Hay, Series Owen, Parallel Owen, Resonance, Series Resistor Condensor, Parallel Resistor Condensor, Resistance.



Incremental Inductance Comparison Bridge Type 1870
Inductance: 25 MH to 100 HY —
D. C. to 500 ma.
A. C. to 135 Volts.

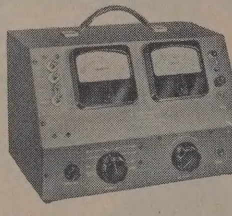


Null Detector and Vacuum Tube Voltmeter Type 1210-A
Frequency: 20 Cycles to 20 KC.
VTVM: 0.01 to 150 Volts
Null Detection Sensitivity:
10 Microvolts.

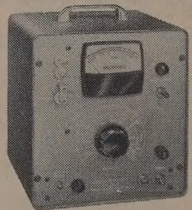


A. C. Line Voltage Regulator Type RAC-1.5/3
115 Volts — 60 or 400 Cycles Input
3KVA Output — Regulation ±0.25%

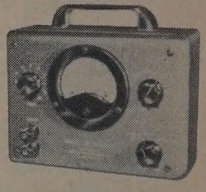
Battery Operated Portable Megohmmeter Type 2030
500 Volt D. C. Test
5 - 10 Million Megohms.



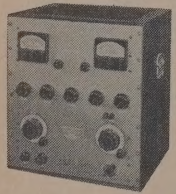
Variable Test Voltage Megohmmeters
5 to 2500 Volts D. C. Test
0.01 to 40 Million Megohms.



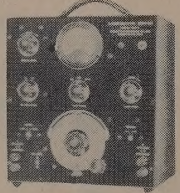
Megohmmeter Type 1020-C
50 - 100 - 500 Volts D. C. Test
0.1 to 2 Million Megohms.



Null Detector Type 2050
All Transistor — Battery Operated
20 Cycles — 50 KC. Sensitivity 100 Micro Volts

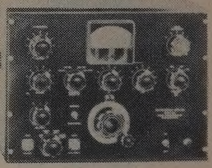


Low Frequency "Q" Indicator Type 1030-A
"Q" Range: 0.1 to .1000
20 Cycles to 200 KC.

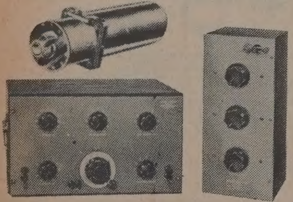


Comparison Limit Bridge Type 1010-A
Resistors — 1 OHM to 20 Megohms.
Capacitors — 100 MMF to 100 MF.
Inductors — 10 Micro Henries to 1,000 Henries

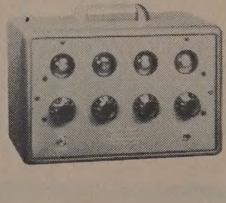
A. C. Differential Voltmeter Type 1560
0.3 to 100 Volts — 20 Cycles to 20KC.
−10% to +5% in 0.01% increments



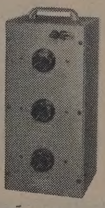
Wide Band and Carrier Frequency Distortion Meter Type 1410
20 KC. to 1 MC.



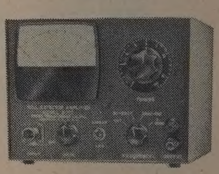
Decade Capacitors
100 MMF to 11.1111 MF —
0.001 HY to 1.00 HY



Industrial Electronic Counters



Decade Inductors
0.001 HY to 100 HY



Null Detector Type 2075

Write for New Instrument Catalog — also ask for New Transformer Catalog

FREED TRANSFORMER CO., INC. **Brooklyn (Ridgewood) 27, N. Y.**

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The Most Reliable Meters on Earth...or in Space!

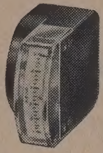
MODEL 1135*
Horizontal Mounting

MODEL 1145*
Horizontal Mounting

*Patented

EDGEWISE METERS

- GREATER READABILITY
- REDUCES PANEL AREA TO 1/3 OF CONVENTIONAL METERS OF SAME SCALE LENGTH
- HORIZONTAL OR VERTICAL MOUNTING



MODEL 1120
Vertical
Mounting

THREE SIZES AVAILABLE:

MODEL 1120 Scale length 1.2″.

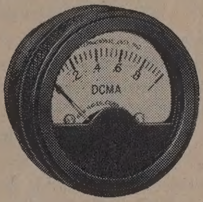
MODEL 1135 Scale length 2.1″. Front external zero adjuster.

MODEL 1145 Scale length 2.75″. Front external zero adjuster.

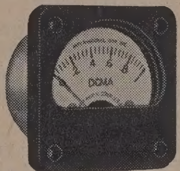
RUGGEDIZED METERS

1½″ SQUARE

Meets requirements of MIL-M-10304-B. Accurate within ±3% of full-scale deflection. Basic DC ranges 0-100 DCUA, 0-1 DCMA and 0-10 DCMV. VU meters and other ranges also available.



MODEL 150



MODEL 153

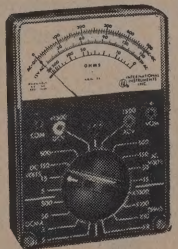
1½″ ROUND and SQUARE

1½″ barrel diameter. Full 90° scale arc, scale length 1.322″. Wide choice of ranges. Model 153 meets MIL-M-3823 requirements. Also self-contained VU and DB meters—illuminated meters with lamp housing attached.

MODEL 100

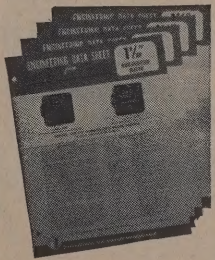
1″ ROUND

High sensitivity in minimum space. 1″ barrel diameter. Full 90° scale arc, scale length 1. 770″. Also VU, DB and illuminated meters with external accessory attached.



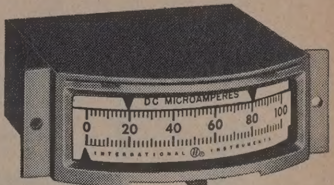
VOM-22 Multi-Tester

Pocket-sized, with three big scales and 18 ranges. Voltage: 5 to 1500 DC; 1,500 AC. Resistance: 2,000 to 2,000,000 ohms. DC from 0.5 to 500 MA. Movement resistance: 20,000 ohms per volt for DC, 15,500 ohms per volt for AC. Powered by two penlight batteries. Special requirements supplied. Moderately priced.

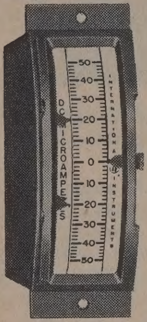


ENGINEERING DATA SHEETS COMPLETELY DESCRIBING THESE INSTRUMENTS ARE AVAILABLE. WRITE FOR YOUR COPIES TODAY.

CONTACTLESS ELECTRONIC CONTROL EQUIPMENT



Horizontal
Scale



Vertical
Scale

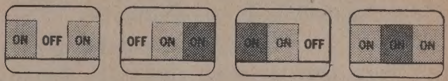
MODEL 2547

ELECTRONIC CONTROL METERS

Provide continuous output signal past selected control settings, with accurate, uninterrupted, full-scale indication at all times. No electrical contacts at control points, so no control-point problems. Models with single or double independent control-arm circuits, with scales for horizontal or vertical mounting, and with zero at center, left or right. Accuracy held to ±2% of full scale for DC, ±5% for AC.

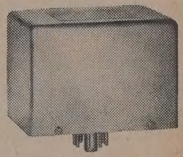
Patent Nos. 2,871,450 and 2,967,278

Choice of Four Control Outputs



ELECTRONIC CONTROLLER

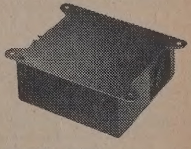
Same control function as the Electronic Control Meter, but without indication. Single- or double-arm positive screw internal adjustments, coarse and fine, readily accessible. All standard ranges, including zero center. Standard octal male plug.



MODEL 2600

POWER-PAC

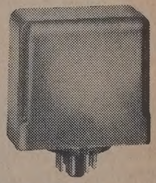
Converts AC voltage to 28 VDC for circuit operation of Electronic Control Meter or Electronic Controller. Relay switching output of 5 amps available at 115 VAC or 32 VDC. Plug-in connection with Electronic Control Meter is standard. Accessory cable with male and female octal plugs where separation of units required.



MARK 4000

POWER SUPPLY

Furnishes same circuit-operation output as Mark 4000, but without switching relays. Standard octal male plug.



MARK 5000

international instruments inc.
ORANGE, CONNECTICUT, CABLE "INTERINST"

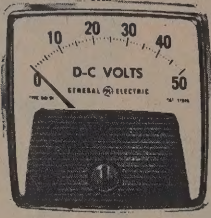
© U.C.P. Inc.

PANEL METERS

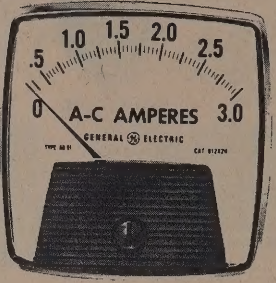
THE BIG LOOK® IN SMALL PANEL METERS

0
1
2
3
4
5
D-C
MILLIAMPERES
GENERAL ELECTRIC

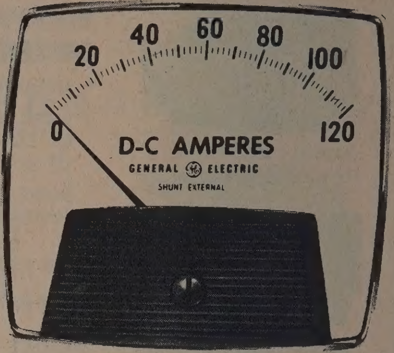
1½-inch design
Type DW-90



2½-inch design
Type DW-91 Voltmeter



3½-inch design
Type AO-91 Ammeter



4½-inch design
Type DO-92 Ammeter

General Electric's BIG LOOK panel meters offer such added values as distinctive appearance, excellent readability, and self-shielded d-c core-magnet mechanisms. And you get full-line selectivity with 1½-, 2½-, 3½-, or 4½-inch models . . . a-c, d-c, or Rectifier types, standard pivot and jewel or taut-band (d-c only) mechanisms.

Distinctive Appearance

BIG LOOK panel meters are designed specifically to meet industry's increasing demands for panel components that contribute to end-product eye appeal. BIG LOOK panel meters—with their distinctive and modern, but not radical design—offer an important added value by complementing the appearance of the finest equipment.

Excellent Readability

Big, clear, easy-to-read numerals are positioned **above** the scale divisions so that they cannot be obscured by the pointer. The absence of arc-lines and use of a slim, tapered pointer facilitates quick accurate readings. Functional cover design eliminates confusing shadows by admitting natural light from all sides.

Completely Sealed Cases on 2½- and 3½-inch Designs

General Electric quality is built in to stay. Gasketed construction on 2½- and 3½-in. models protect internal parts from dirt, dust, and water and helps assure extra-long, reliable life.

Snap-on, Snap-off Covers on 1½- and 4½-inch Designs

Snap-on, snap-off covers are supplied on all 1½- and 4½-in. BIG LOOK panel meters. Covers can be easily removed and replaced while meter remains in normal mounted position.

Electroluminescent Scale Plate

For illuminated instrument applications, an electroluminescent scale plate is now available for all 4½-inch a-c and d-c Big Look panel meters. Excited by a-c voltage, they give a soft, even, green light over entire surface of scale plate.

Mirror-backed Scale

Also available on the 4½-inch meter exclusively are mirror-backed scales (with knife-edge pointers, if desired) for more precise, antiparallax reading.

Taut-band Construction

Taut- band Construction is available on all d-c models. Order by rating, specify taut-band construction.

Expanded-scale Zener Diode

Available in 3½-inch (DO-91) and 4½-inch (DO-92) models:

	DO-91	DO-92
110-130 volts a-c	50-162071PNPN2	50-171071PNPN1
105-125 volts a-c	50-162071PTPT2	50-171071PTPT1
220-260 volts d-c	50-162091RTRT1	50-171091RTRT1
110-130 volts d-c	50-162091PNPN2	50-171091PNPN1
24-30 volts d-c	50-162091NNNN2	50-171091NNNN1

GENERAL SPECIFICATIONS

	D-C TYPES				A-C TYPES		
	DW-90	DW-91	DO-91	DO-92	AW-91	AO-91	AO-92
Accuracy (percent of full scale)*	2%	2%	2%	2%	2%	2%	2%
Scale length — pivot and jewel/taut-band	1.4"	2.1"/2.3"	2.9"/3.2"	3.93"/4.36"	2.0"	2.9"	3.93"

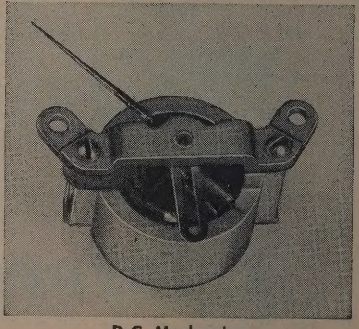
*Rectifier type accuracy: ±3% of F.S. @ 25°C, 60 cycle sine wave.

D-C PANEL METERS

Shelf-shielded D-C Mechanism

Core-magnet mechanisms with inherent self-shielding are used for all d-c ratings. This permits mounting on magnetic or non-magnetic panels without special calibration and cluster-mounting bezel-to-bezel without interaction.

Self-shielding also minimizes effects of stray magnetic fields. Weight is reduced, too. Because of these important added values, the core-magnetic mechanism has gained industry-wide acceptance. (General Electric pioneered in the development of the core-magnet mechanism.) The superior operating characteristics of BIG LOOK meters—excellent damping, a high torque-to-weight ratio and minimum burden—are the result of continuous progress in development and use of high-quality, modern materials.



D-C Mechanism

© U.C.P., Inc.

D-C PANEL METERS (Cont'd)

Scale and Rating	Approx. Terminal Resistance (Ohms)	DW-90 1½-inch		DW-91 2½-inch		DO-91 3½-inch		DO-92 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
D-C VOLTMETERS (Self-contained)									
0-1.0V	1000 ohms per volt	50-188011 LALA	$16.00	--------	-----	--------	-----	----------	-----
0-1.5V		50-188011 LCLC	16.00	517X84	$12.80	516X84	$13.60	50-171011 LCLC	$15.20
0-3V		50-188011 LJLJ	16.00	517X88	12.80	516X88	13.60	50-171011 LJLJ	15.20
0-5V		50-188011 LSLS	16.00	517X90	12.80	516X90	13.60	50-171011 LSLS	15.20
0-8V		50-188011 MJMJ	16.00	517X92	12.80	516X92	13.60	50-171011 MJMJ	15.20
0-10V		50-188011 MTMT	16.00	517X94	12.80	516X94	13.60	50-171011 MTMT	15.20
0-15V		50-188011 NDND	16.00	517X96	12.80	516X96	13.60	50-171001 NDND	15.20
0-30V		50-188011 NLNL	16.00	519X4	12.80	518X4	13.60	50-171011 NLNL	15.20
0-50V		50-188011 NTNT	16.00	519X6	12.80	518X6	13.60	50-171011 NTNT	15.20
0-80V		50-188011 PDPD	16.00	519X8	12.80	518X8	13.60	50-171011 PDPD	15.20
0-100V		50-188011 PKPK	16.00	519X10	12.80	518X10	13.60	50-171011 PKPK	16.00
0-150V		50-188011 PZPZ	16.00	519X12	12.80	518X12	13.60	50-171011 PZPZ	16.00
0-200V		50-188011 RLRL	16.00	519X14	12.80	518X14	13.60	50-171011 RLRL	16.00
0-250V		50-188011 RSRS	16.00	519X16	12.80	518X16	13.60	50-171011 RSRS	16.00
0-300V		50-188011 RXRX	17.00	519X18	13.60	518X18	14.40	50-171011 RXRX	16.80
0-500V		----------	-----	--------	-----	518X20	15.20	50-171011 SFSF	17.60
0-600V		----------	-----	--------	-----	518X22	15.20	50-171011 SJSJ	17.60
D-C VOLTMETERS (For use with external resistors—prices do not include resistors)									
0-500V Rated 0-1 MA	125 ohms	50-188111 FASF	$15.00	519X20	$12.00	-------	-----	----------	-----
0-600V		50-188111 FASJ	15.00	519X22	12.00	-------	-----	----------	-----
0-750V		50-188111 FASM	15.00	519X24	12.00	518X24	$12.80	50-171111 FASM	$16.00
D-C AMMETERS (Self-contained)									
0-1A	0.0500	50-188111 LALA	$15.00	513X58	$12.00	512X58	$12.80	50-171111 LALA	$14.40
0-1.5A	0.0333	50-188111 LCLC	15.00	513X60	12.00	512X60	12.80	50-171111 LCLC	14.40
0-2A	0.0250	50-188111 LELE	15.00	513X62	12.00	512X62	12.80	50-171111 LELE	14.40
0-3A	0.0167	50-188111 LJLJ	15.00	513X64	12.00	512X64	12.80	50-171111 LJLJ	14.40
0-5A	0.0100	50-188111 LSLS	15.00	513X66	12.00	512X66	12.80	50-171111 LSLS	14.40
0-10A	0.0050	50-188111 MTMT	15.00	513X70	12.00	512X70	12.80	50-171111 MTMT	14.40
0-15A	0.0033	----------	-----	513X72	12.00	512X72	12.80	50-171111 NDND	14.40
0-20A	0.0025	----------	-----	513X74	12.00	512X74	12.80	50-171111 NGNG	14.40
0-30A	0.00167	----------	-----	513X76	12.00	512X76	12.80	50-171111 NLNL	14.40
0-50A	0.00100	----------	-----	-------	-----	512X80	12.80	50-171111 NTNT	14.40
D-C AMMETERS (For use with 50 millivolt external shunts—prices do not include shunt or shunt leads)									
0-20A Rated 0-50 MV	12.5 ohms (Calibrated for use with 2-way lead resistance of 0.063 ohms)	----------	-----	--------	-----	--------	-----	----------	-----
0-30A		----------	-----	--------	-----	--------	-----	----------	-----
0-50A		50-188121 ECNG	$15.00	515X6	$12.00	514X6	$12.80	50-171121 ECNT	$14.40
0-75A		50-188121 ECNL	15.00	515X10	12.00	514X10	12.80	50-171121 ECPB	14.40
0-100A		50-188121 ECNT	15.00	515X14	12.00	514X14	12.80	50-171121 ECPK	14.40
0-150A		50-188121 ECPE	15.00	515X16	12.00	514X16	12.80	50-171121 ECPZ	14.40
0-200A		50-188121 ECPK	15.00	515X18	12.00	514X18	12.80	50-171121 ECRL	14.40
0-250A		50-188121 ECPZ	15.00	515X20	12.00	514X20	12.80	50-171121 ECRS	14.40
0-300A		50-188121 ECRL	15.00	515X22	12.00	514X22	12.80	50-171121 ECRX	14.40
0-400A		50-188121 ECRS	15.00	515X24	12.00	514X24	12.80	50-171121 ECSC	14.40
0-500A		50-188121 ECRX	15.00	515X26	12.00	514X26	12.80	50-171121 ECSF	14.40
0-600A		50-188121 ECSC	15.00	515X28	12.00	514X28	12.80	50-171121 ECSJ	14.40
0-800A		50-188121 ECSJ	15.00	515X30	12.00	514X30	12.80	50-171121 ECSN	14.40
0-1KA		50-188121 ECSN	15.00	515X32	12.00	514X32	12.80	50-171121 ECVA	14.40
0-1.2KA		50-188121 ECVA	15.00	515X34	12.00	514X34	12.80	----------	-----
0-1.5KA		50-188121 ECVC	15.00	515X36	12.00	514X36	12.80	----------	-----
0-2KA		50-188121 ECVE	15.00	515X38	12.00	514X38	12.80	----------	-----
D-C MICROAMMETERS									
0-20UA	3400	50-188111 CPCF	$28.00	513X2	$22.40	512X2	$23.20	----------	-----
0-50UA	1600	50-188111 CYCY	22.00	513X6	17.60	512X6	18.40	50-171111 CYCY	$20.80
0-100UA	1525	50-188111 DRDR	18.00	513X10	14.40	512X10	15.20	50-171111 DRDR	17.60
0-2000UA	690	50-188111 EAEA	16.00	513X14	12.80	512X14	13.60	50-171111 EAEA	16.00
0-500UA	220	50-188111 EMEM	15.00	513X18	12.00	512X18	12.80	50-171111 EMEM	14.40
D-C MILLIAMMETERS									
0-1MA	64	50-188111 FAFA	$15.00	513X22	$12.00	512X22	$12.80	50-171111 FAFA	$14.40
0-1.5MA	64	50-188111 FDFD	15.00	513X24	12.00	512X24	12.80	50-171111 FDFD	14.40
0-3MA	2.5	50-188111 FDFD	15.00	513X28	12.00	512X28	12.80	50-171111 FNFN	14.40
0-5MA	2.5	50-188111 FXFX	15.00	513X30	12.00	512X30	12.80	50-171111 FXFX	14.40
0-10MA	1.8	50-188111 GZGZ	15.00	513X32	12.00	512X32	12.80	50-171111 GZGZ	14.40
0-20MA	1.5	50-188111 HFHF	15.00	513X34	12.00	512X34	12.80	50-171111 HFHF	14.40
0-25MA	2.0	50-188111 HJHJ	15.00	513X36	12.00	512X36	12.80	50-171111 HJHJ	14.40
0-30MA	1.67	50-188111 HMHM	15.00	513X38	12.00	512X38	12.80	50-171111 HMHM	14.40
0-50MA	1.00	50-188111 HYHY	15.00	513X40	12.00	512X40	12.80	50-171111 HYHY	14.40
0-80MA	0.62	50-188111 JJJJ	15.00	513X42	12.00	512X42	12.80	50-171111 JJJJ	14.40
0-100MA	0.50	50-188111 JRJR	15.00	513X44	12.00	512X44	12.80	50-171111 JRJR	14.40
0-150MA	0.33	50-188111 JXJX	15.00	513X46	12.00	512X46	12.80	50-171111 JXJX	14.40
0-200MA	0.25	50-188111 KAKA	15.00	513X48	12.00	512X48	12.80	50-171111 KAKA	14.40
0-250MA	0.20	50-188111 KDKD	15.00	513X50	12.00	512X50	12.80	50-171111 KDKD	14.40
0-300MA	0.167	50-188111 KGKG	15.00	513X52	12.00	512X52	12.80	50-171111 KGKG	14.40
0-500MA	0.100	50-188111 KMKM	15.00	513X54	12.00	512X54	12.80	50-171111 KMKM	14.40
0-800MA	0.062	50-188111 KWKW	15.00	513X56	12.00	512X56	12.80	50-171111 KWKW	14.40

Mirror-backed, rectifier-type, and zero-center panel meters are available also. Refer to your General Electric Supplier.

A-C PANEL METERS

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
A-C VOLTMETERS (Self-contained)							
0-3V	11.1	613X68	$11.20	612X68	$12.00	50-171031 LJLJ	$14.40
0-5V	29	613X69	11.20	612X69	12.00	50-171031 LSLS	14.40
0-10V	110	613X72	11.20	612X72	12.00	50-171031 MTMT	14.40
0-15V	251	613X73	11.20	612X73	12.00	50-171031 NDND	14.40
0-30V	779	613X76	11.20	612X76	12.00	50-171031 NLNL	14.40
0-50V	2500	613X77	12.00	612X77	12.80	50-171031 NTNT	15.20
0-150V	15000	613X81	12.80	612X81	13.60	50-171031 PZPZ	16.00
0-300V	54000	613X85	14.40	612X85	15.20	50-171031 RXRX	17.60
0-500V	118000	------	----	612X87	19.20	50-171031 SFSF	21.60
0-600V	141000	------	----	612X88	19.20	50-171031 SJSJ	21.60
A-C VOLTMETERS (Transformer rated—prices do not include transformers)							
0-600V Rated 0-150 Volts	15000	613X90	$12.80	612X90	$13.60	50-171031 PZRX	$16.00
0-750V	15000	613X91	12.80	612X91	13.60	50-171031 PZSJ	16.00
0-3KV	15000	613X92	12.80	612X92	13.60	50-171031 PZSM	16.00
400-CYCLE A-C VOLTMETERS (Self-contained—for use at 400 cycles)							
0-150V	15000	817X1	$12.80	816X1	$13.60	50-171061 PZPZ	$16.00
0-300V	54000	817X2	14.40	816X2	15.20	50-171061 RXRX	17.60

* Manufacturer's suggested resale prices.

(Continued)

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GENERAL ELECTRIC

A-C PANEL METERS (Cont'd)

A-C AMMETERS (Self-contained)

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-1A	0.16	613X20	$12.00	612X20	$12.80	50-171141 LALA	$15.20
0-3A	0.015	613X24	12.00	612X24	12.80	50-171141 LJLJ	15.20
0-5A	0.007	613X25	12.00	612X25	12.80	50-171141 LSLS	15.20
0-8A	0.003	613X28	12.00	612X28	12.80	50-171141 MJMJ	15.20
O-10A	0.0024	613X29	12.00	612X29	12.80	50-171141 MTMT	15.20
0-15A	0.0016	613X31	12.00	612X31	12.80	50-171141 NDND	15.20
0-20A	0.001	613X32**	12.80	612X32**	13.60	50-172141 NGNG**	16.00
0-30A	0.0006	613X34**	12.80	612X34**	13.60	50-172141 NLNL**	16.00
0-50A	0.0004	------	----	612X35**	15.20	50-172141 NTNT**	17.60

A-C AMMETERS (Transformer rated—prices do not include transformers)

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91 Cat. No.	Net Price*	AO-91 Cat. No.	Net Price*	AO-92 Cat. No.	Net Price*
0-10A Rated 0-5 Amperes	0.007	613X36	$12.00	612X36	$12.80	50-171141 LSMT	$15.20
0-15A		613X37	12.00	612X37	12.80	50-171141 LSND	15.20
0-20A		613X38	12.00	612X38	12.80	50-171141 LSNG	15.20
0-30A		613X40	12.00	612X40	12.80	50-171141 LSNL	15.20
0-40A		613X41	12.00	612X41	12.80	50-171141 LSNP	15.20
0-50A		613X42	12.00	612X42	12.80	50-171141 LSNT	15.20
0-75A		613X44	12.00	612X44	12.80	50-171141 LSPB	15.20
0-80A		613X45	12.00	612X45	12.80	50-171141 LSPD	15.20
0-100A		613X46	12.00	612X46	12.80	50-171141 LSPK	15.20
0-150A		613X49	12.00	612X49	12.80	50-171141 LSPZ	15.20
0-200A		613X50	12.00	612X50	12.80	50-171141 LSRL	15.20
0-300A		613X52	12.00	612X52	12.80	50-171141 LSRX	15.20
0-400A		613X53	12.00	612X53	12.80	50-171141 LSSC	15.20
0-500A		613X54	12.00	612X54	12.80	50-171141 LSSF	15.20
0-600A		613X55	12.00	612X55	12.80	50-171141 LSSJ	15.20
0-800A		613X56	12.00	612X56	12.80	50-171141 LSSN	15.20

A-C LOAD INDICATORS—Rated 0-5A. Can be applied to any 60-cycle a-c motor when used with the variable-ratio Type JCH-0 current transformer

Scale and Rating	AW-91 Cat. No.	Net Price*	AO-91 Cat. No.	Net Price*	AO-92 Cat. No.	Net Price*
Scale legend: PERCENT MOTOR LOAD CURRENT Scale markings: 0-150; (red band 100-150)	------	----	612X98	$14.40	50-171141 LSPZ1-AAA	$16.80
0-150; (green band 0-100) (yellow band 100-125) (red band 125-150)	------	----	612X99	17.60	50-171141 LSPZ1-AAB	20.00

A-C MILLIAMMETERS

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91 Cat. No.	Net Price*	AO-91 Cat. No.	Net Price*	AO-92 Cat. No.	Net Price*
0-10MA	2158	613X4	$12.00	612X4	$12.80	50-171141 GZGZ	$15.20
0-25MA	341	613X7	12.00	612X7	12.80	50-171141 HJHJ	15.20
0-50MA	84	613X9	12.00	612X9	12.80	50-171141 HYHY	15.20
0-100MA	21	613X12	12.00	612X12	12.80	50-171141 JRJR	15.20
0-200MA	4.1	613X14	12.00	612X14	12.80	50-171141 KAKA	15.20
0-500MA	0.7	613X17	12.00	612X17	12.80	50-171141 KMKM	15.20

RECTIFIER-TYPE A-C VOLTMETERS (Self-contained)

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91 Cat. No.	Net Price*	AO-91 Cat. No.	Net Price*	AO-92 Cat. No.	Net Price*
0-10 V	1000 Ohms per Volt	50-152051MTMT2	$16.80	50-162051MTMT2	$17.60	50-171051MTMT1	$20.00
0-15 V		50-152051NDND2	16.80	50-162051NDND2	17.60	50-171051NDND1	20.00
0-20 V		50-152051NGNG2	16.80	50-162051NGNG2	17.60	50-171051NGNG1	20.00
0-25 V		50-152051NJNJ2	16.80	50-162051NJNJ2	17.60	50-171051NJNJ1	20.00
0-30 V		50-152051NLNL2	16.80	50-162051NLNL2	17.60	50-171051NLNL1	20.00
0-50 V		50-152051NTNT2	16.80	50-162051NTNT2	17.60	50-171051NTNT1	20.00
0-80 V		50-152051PDPD2	16.80	50-162051PDPD2	17.60	50-171051PDPD1	20.00
0-100 V		50-152051PKPK2	17.60	50-162051PKPK2	18.40	50-171051PKPK1	20.80
0-150 V		50-152051PZPZ2	17.60	50-162051PZPZ2	18.40	50-171051PZPZ1	20.80
0-200 V		---------------	------	50-162051RLRL2	18.40	50-171051RLRL1	20.80
0-250 V		---------------	------	50-162051RSRS2	18.40	50-171051RSRS1	20.80
0-300 V		---------------	------	50-162051RXRX2	19.20	50-171051RXRX1	21.60

RECTIFIER-TYPE A-C MICROAMMETERS

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91 Cat. No.	Net Price*	AO-91 Cat. No.	Net Price*	AO-92 Cat. No.	Net Price*
0-500 µA	985	50-152151EMEM2	$16.00	50-162151EMEM2	$16.80	50-171151EMEM1	$19.20
0-800 µA	655	50-152151EWEW2	16.00	50-162151EWEW2	16.80	50-171151EWEW1	19.20

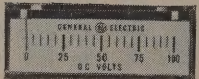
RECTIFIER-TYPE A-C MILLIAMMETERS

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91 Cat. No.	Net Price*	AO-91 Cat. No.	Net Price*	AO-92 Cat. No.	Net Price*
0-1 MA	570	50-152151FAFA2	$16.00	50-162151FAFA2	$16.80	50-171151FAFA1	$19.20
0-20 MA	62	50-152151HFHF2	16.00	50-162151HFHF2	16.80	50-171151HFHF1	19.20

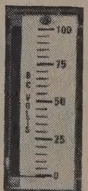
**Furnished with external magnetic shield assembled to meter base.

EDGEWISE PANEL METERS

The new space saving Type 185 edgewise panel meter has been designed for vertical or horizontal mounting. New slim-line design (2¼ in. by 0.91 in. by 3 in. deep) allows single mounting or space saving clusters of two, three, or more meters . . . easy to read, shadow-free 185 cover admits light from all sides for bright, even illumination, numerals are positioned so that they cannot be obscured by the pointer . . . rugged, one-piece molded cycolac case minimizes entry of moisture, dust, and dirt.



Horizontal



Vertical

Scale and Rating	Horizontal Scale Cat. No.	Vertical Scale Cat. No.	Net Price*
D-C VOLTMETERS (Zero-left, zero-bottom, self-contained)			
10V	50-185011MTMT	50-185013MTMT	$14.40
15V	50-185011NDND	50-185013NDND	14.40
30V	50-185011NLNL	50-185013NLNL	14.40
50V	50-185011NTNT	50-185013NTNT	14.40
100V	50-185011PKPK	50-185013PKPK	14.40
150V	50-185011PZPZ	50-185013PZPZ	14.40
300V	50-185011RXRX	50-185013RXRX	15.20
D-C VOLTMETERS (Zero-center, self-contained)			
15-0-15V	50-185012NDND	50-185014NDND	$14.40
50-0-50V	50-185012NTNT	50-185014NTNT	14.40
150-0-150V	50-185012PZPZ	50-185014PZPZ	15.20

*Manufacturer's suggested resale prices.

Scale and Rating	Horizontal Scale Cat. No.	Vertical Scale Cat. No.	Net Price*
D-C VOLTMETERS (Zero-left, zero-bottom) (For use with external resistor)			
500V	50-195111FASF	50-185113FASJ	$13.60
600V	50-185111FASJ	50-185113FASM	13.60
750V	50-1850111FASM	50-185113CFCF	13.60
D-C MICROAMMETERS (Zero-left, zero-bottom, self-contained)			
20UA	50-1850111CFCF	50-185113CYCY	$24.00
50UA	50-185111CYCY	50-185113DRDR	19.20
100UA	50-185111DRDR	50-185113EMEM	16.00
500UA	50-185111EMEM	50-185114CYCY	13.60
D-C MICROAMMETERS (Zero-center, self-contained)			
50-0-50UA	50-185112CYCY	50-185114EMEM	$16.00
500-0-500UA	50-185112EMEM	50-185113FAFA	13.60
D-C MILLIAMMETERS (Zero-left, zero-bottom, self-contained)			
1MA	50-185111FAFA	50-185113GZGZ	$13.60
5MA	50-185111FXFX	50-185113FXFX	13.60
10MA	50-185111GZGZ	50-185113HFHF	13.60
20MA	50-185111HFHF	50-185113HYHY	13.60
50MA	50-185111HYHY	50-185113JRJR	13.60
100MA	50-185111JRJR	50-185113KGKG	13.60
300MA	50-185111KGKG	50-185113KMKM	13.60
500MA	50-185111KMKM	50-185114FXFX	13.60

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EDGEWISE PANEL METERS (Cont'd)

Scale and Rating	Horizontal Scale Cat. No.	Vertical Scale Cat. No.	Net Price*
D-C MILLIAMMETERS (Zero-center, self-contained)			
5-0-5MA	50-185112FXFX	50-185114GZGZ	$13.60
10-0-10MA	50-185112GZGZ	50-185114HYHY	13.60
50-0-50MA	50-185112HYHY	50-185114KMKM	13.60
500-0-500MA	50-185112KMKM	50-185113LALA	13.60
D-C AMMETERS (Zero-left, zero-bottom, self-contained)			
1A	50-185111LALA	50-185113LSLS	$13.60
5A	50-185111LSLS	50-185113MTMT	13.60
10A	50-185111MTMT	50-185114LSLS	13.60
D-C AMMETERS (Zero-center, self-contained)			
5-0-5A	50-185112LSLS	50-185123ECNG	$13.60
D-C AMMETERS (50-millivont shunt rated, zero-left, zero bottom)			
20A	50-185121ECNG	50-185123ECNG	$13.60
50A	50-185121ECNT	50-185123ECNT	13.60
300A	50-185121ECRX	50-185123ECRX	13.60
500A	50-185121ECSF	50-185123ECSF	13.60

Scale and Rating	Horizontal Scale Cat. No.	Vertical Scale Cat. No.	Net Price*
A-C VOLTMETERS (Rectifier-type, self-contained)			
10V	50-185051MTMT	50-185053MTMT	$18.40
15V	50-185051NDND	50-185053NDND	18.40
30V	50-185051NLNL	50-185053NLNL	18.40
50V	50-185051NTNT	50-185053NTNT	18.40
100V	50-185051PKPK	50-185053PKPK	19.20
150V	50-185051PZPZ	50-185053PZPZ	19.20
A-C MICROAMMETERS (Rectifier-type, self-contained)			
500UA	50-185151EMEM	50-185153EMEM	$17.60
A-C MILLIAMMETERS (Rctifier-type, self-contained)			
1MA	50-185151FAFA	50-185153FAFA	$17.60
5MA	50-185151FXFX	50-185153FXFX	17.60
10MA	50-185151GZGZ	50-185153GZGZ	17.60
10MA	50-185151HFHF	50-185153HFHF	17.60

NOTE: Listed Type 185 meters are furnished without bezel or mounting bracket. It is possible to mount the meters by means of 4 through holes in the meter case.

If bezel and mounting bracket are required, they must be order by: Cat. No. 4149K16G778 for one meter, Cat. No. 4149K16G779 for two meters, Cat. No. 4149K16G780 for three meters.

TIME METERS

Time meters provide for proper servicing and preventive maintenance, or to indicate component life. General Electric time meters are the ideal indicators for these purposes:

Preventive Maintenance
- Operating Time
- Shut-down Time
- Total Operating Life
- Correct Intervals for Inspecting and Servicing Machines

Electronic Component Testing and Operation Life
- Radio Transmitters
- Power Supplies and Converters
- Radar, Sonar, Doppler and other Military Equipment
- Engine-Generator Test Stands
- Data Handling Systems
- Industrial and Nuclear Control Systems
- Test Equipment

TYPE 236 TIME METERS

MINUTES
1/10
GENERAL ELECTRIC

New Type 236 elapsed-time indicators, latest addition to G-E's BIG LOOK line of panel components, meet industry's need for instruments that enhance end-product eye appeal through compatible design. They now offer the same distinctive appearance and excellent readability found in G-E's BIG LOOK ammeters and voltmeters, plus outstanding operating accuracy and reliability.

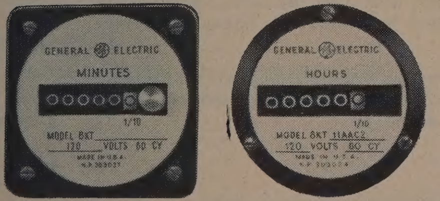
FEATURES

Reset device available.
Military sealed model available.
Extra-large counter numbers.
Water and dust-resistant case.
ASA panel-mounting dimensions.

STANDARD RATINGS—60 Cycles

Volts	Non-reset Type			Reset Type		
	Register		Net Price*	Register		Net Price*
	Minutes	Hours		Minutes	Hours	
	Cat. No.			Cat. No.		
2½-INCH COMMERCIAL CASE						
120	50-236401AAAA1	50-236402AAAA1	$17.60	50-236411AAAA1	50-236412AAAA1	$24.00
240	50-236401ABAA1	50-236402ABAA1	18.40	50-236411ABAA1	50-236412ABAA1	24.80
480	50-236401ACAA1	50-236402ACAA1	19.20	50-236411ACAA1	50-236412ACAA1	25.60
3½-INCH COMMERCIAL CASE						
120	50-236301AAAA1	50-236302AAAA1	$17.60	50-236311AAAA1	50-236312AAAA1	$24.00
240	50-236301ABAA1	50-236302ABAA1	18.40	50-236311ABAA1	50-236312ABAA1	24.80
480	50-236301ACAA1	50-236302ACAA1	19.20	50-236311ACAA1	50-236312ACAA1	25.60
2½-INCH SEALED CASE						
120	50-236421AAAA1	50-236422AAAA1	$20.00			
240	50-236421ABAA1	50-236422ABAA1	20.80			
480	50-236421ACAA1	50-236422ACAA1	21.60			
3½-INCH SEALED CASE						
120	50-236321AAAA1	50-236322AAAA1	$20.00			
240	50-236321ABAA1	50-236322ABAA1	20.80			
480	50-236321ACAA1	50-236322ACAA1	21.60			
2½-INCH CONDUIT CASE						
120	50-236431AAAD1	50-236432AAAD1	$20.80	50-236441AAAD1	50-236442AAAD1	$27.20
240	50-236431ABAD1	50-236432ABAD1	21.60	50-236441ABAD1	50-236442ABAD1	28.00
480	50-236431ACAD1	50-236432ACAD1	22.40	50-236441ACAD1	50-236442ACAD1	28.80
2½-INCH PORTABLE CASE						
120	50-236451AAAE1	50-236452AAAE1	$22.40	50-236461AAAE1	50-236462AAAE1	$28.80
240	50-236451ABAE1	50-236452ABAE1	23.20	50-236461ABAE1	50-236462ABAE1	29.60
480	50-236451ACAE1	50-236452ACAE1	24.00	50-236461ACAE1	50-236462ACAE1	30.40

TYPE KT TIME METERS



The Type KT time meter, with 6-digit counter as standard and the last digit in contrasting color to indicate tenths, can be supplied for minutes or hours in ratings of 120, 208, 240, and 480 volts; 60 or 50 cycles.

Complete line for every time-measuring application. Includes 2½- and 3½-inch sizes in either round or square case for panel mounting.

A special model is available for military applications.

STANDARD RATINGS—60 Cycles

Volts	Non-Reset Type			With Reset Knob		
	Register		Net Price*	Register		Net Price*
	Minutes	Hours		Minutes	Hours	
	Model No.			Model No.		
TYPE KT-11—2½-INCH ROUND CASE						
120	8KT11AAA1	8KT11AAA2	$17.60	8KT11AAB1	8KT11AAB2	$24.00
240	8KT11ABA1	8KT11ABA2	18.40	8KT11ABB1	8KT11ABB2	24.80
480	8KT11ALA1	8KT11ALA2	19.20	8KT11ALB1	8KT11ALB2	25.60
TYPE KT-11—2½-INCH SQUARE CASE						
120	8KT11BAA1	8KT11BAA2	$17.60	8KT11BAB1	8KT11BAB2	$24.00
240	8KT11BBA1	8KT11BBA2	18.40	8KT11BBB1	8KT11BBB2	24.80
480	8KT11BLA1	8KT11BLA2	19.20	8KT11BLB1	8KT11BLB2	25.60
TYPE KT-11—3½-INCH ROUND CASE						
120	8KT11CAA1	8KT11CAA2	$17.60	8KT11CAB1	8KT11CAB2	$24.00
240	8KT11CBA1	8KT11CBA2	18.40	8KT11CBB1	8KT11CBB2	24.80
480	8KT11CLA1	8KT11CLA2	19.20	8KT11CLC1	8KT11CLB2	25.60
TYPE KT-11—3½-INCH SQUARE CASE						
120	8KT11DAA1	8KT11DAA2	$17.60	8KT11DAB1	8KT11DAB2	$24.00
240	8KT11DBA2	8KT11DBA2	18.40	8KT11DBB1	8KT11DBB2	24.80
480	8KT12DLA1	8KT11DLA2	19.20	8KT11DLB1	8KT11DLB2	25.60

*Manufacturer's suggested resale prices.

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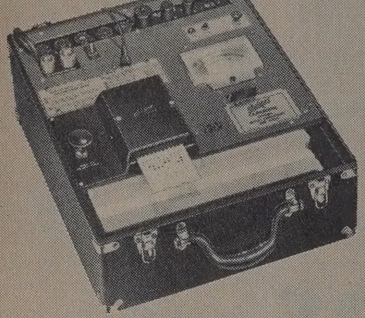
HICKOK TEST EQUIPMENT



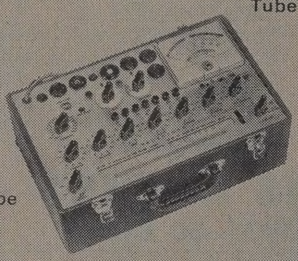
MODEL 123A
Cardmatic Automatic Tube Tester

NEW!

MODEL 539C
New Industrial and Laboratory Portable Tube Tester

NEW!

MODEL 752A
New Industrial and Communications Portable Tube Tester



MODEL 800
Service Technician's Portable Tube and Transistor Tester

NEW!

MODEL 6000A
Service Technician's Deluxe Portable Tube and Transistor Tester

MODEL 123A
Cardmatic® Automatic Tube Tester

Ideal for industrial and laboratory applications. A genuinely complete tube tester—card-programs complete "fringe" tests, saturation and cut-off tests, in addition to basic Gm measurement. Gm Ranges: 500-26,000 umhos: Current Ranges: 100ua to 510MA. Will test Nuvistors using SA-3 Nuvistor Adapter. Complete with pin straighteners, socket savers and 500 selected cards. In black leatherette portable case, 19½" x 16½" x 9¼". 105-125v, 50-60 cycles, 55 watts. Shipping weight, 57 lbs.

Model 123A Cardmatic Automatic Tube Tester—Net Each	**$585.00**
Model 121 Cardmatic® Automatic Tube Tester—Net Each	**$359.50**

NEW MODEL 752A
New Industrial and Communications Portable Tube Tester

Designed for use in maintaining communications equipment and industrial electronic apparatus. New voltage regular test circuit tests VR tubes to handbook specifications, including firing point, regulating voltage and current range. Tests Nuvistors, Compactrons, Novars, 10-pin types. Push button test for dual-section tubes speeds selection of tubes for balanced or matched characteristics. Covers 1500 to 30,000 umhos in five ranges. Interelement leakage read directly on the meter (Sensitivity to 10 megohms). Illuminated meter and roll chart. Complete with socket savers and pin-straighteners. In black leatherette portable case, 18⅜" x 16¾" x 7½". 105-125v, 50-60 cycles, 40-70 watts. Shipping weight, 27 lbs.

Model 752A Industrial and Communications Portable Tube Tester—Net Each	**$345.00**

MODEL 539C
New Industrial and Laboratory Portable Tube Tester

Tests VR tubes, low power thyratrons, "4 digit" types. VR test evaluates voltage regulator tubes under actual operating conditions. Tests Nuvistors, Novars, Compactrons, 10-pin types. Provision for separate monitoring of plate current. Panel terminals provide access to grid, plate, cathode and heater circuits, permitting direct measurement of voltages and current for "non-standard" or "tailored" tests. Covers 600 to 60,000 umhos in six ranges. Dual leakage readings: directly on meter or by neon short indicators (Sensitivity to 50 megohms). Complete with socket savers. In black leatherette portable case, 16¾" x 18⅜" x 7½". 105-125v, 50-400 cycles, 40 watts. Shipping weight, 35 lbs.

Model 539C Industrial and Laboratory Portable Tube Tester—Net Each	**$485.00**

NEW MODEL 6000A
Service Technician's Deluxe Portable Tube and Transistor Tester

Has replaceable socket plate for obsolescence protection. Sensitive, instantaneous inter-element leakage and shorts test (Sensitivity—in excess of 3 megohms) filament continuity test. Covers 3,000 to 15,000 umhos in 3 ranges. Tests Compactrons, Nuvistors, Novars and 10-pin types. Also tests transistors and diodes. In red leatherette portable case, 16¾" x 11¾" x 7½". 105-125v, 50-70 cycles, 40 watts. Shipping weight, 21 lbs.

Model 6000A Deluxe Portable Tube and Transistor Tester—Net Each	**$239.50**

MODEL 800
Service Technician's Portable Tube and Transistor Tester

Lowest priced tester with the Hickok Gm Circuit. Provides direct meter reading of inter-element leakage and shorts. Tests Nuvistors, transistors and diodes. New filament continuity test speeds test of series-string tubes. Tests Compactrons, 10-pin headers, Novars with Model CA-4 adapter listed below. 105-125v, 400 cycles—40 watts. In red leatherette portable case, 16¾" x 11¾" x 7½". Shipping weight, 21 lbs.

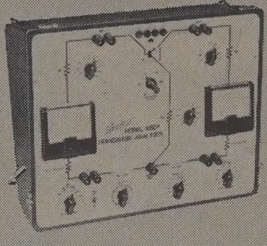
Model 800 Service Technician's Portable Tube and Transistor Tester—Net Each	**$179.50**
Model 800 Tube Tester with CRT Adapter, Replaceable Socket Savers and SA-2 Subminiature Socket Adapter—Net Each	**$220.95**
CA-4 Universal Adapter for testing Compactrons, Novars, Nuvistors and 10-pin types. For use with all current Hickok manual tube testers—Net Each	**$ 49.50**

HICKOK
Electrical Instrument Co.
Cleveland, Ohio

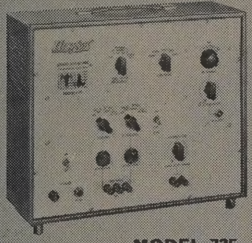
HICKOK TEST EQUIPMENT

MODEL 870
Dynamic Beta Transistor Tester

MODEL 890
Dynamic Beta In-Circuit Transistor Tester

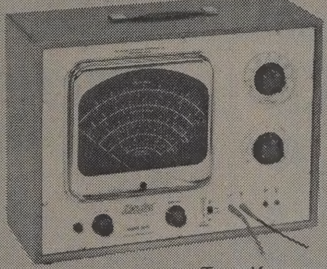


MODEL 850P
Engineer's Portable Transistor Analyzer



NEW!

MODEL 725
Stereo Standard FM Multiplex Generator



NEW!

MODEL 209B
True Vacuum Tube Volt-Ohm-Milliampere
and Capacitance Meter

MODEL 870
Dynamic Beta Transistor Tester

Measures AC and DC Beta. Collector test current variable up to 2 amperes, permitting Beta measurement on power transistors rated 5 amperes or more. Variable collector voltage and current permit tests according to manufacturers' specifications—Tests switching transistors, measures large signal DC Beta on power transistors—small signal AC Beta on low and medium power transistors. Icbo Ranges: 100ua, 1ma, 10ma; Beta Ranges: 0-100, 0-300. Complete with replaceable roll chart and test leads in black leatherette portable case 14⁹⁄₁₆" x 11¾" x 7⅞". 115v-60 cycles, 40 watts. Shipping weight, 22 lbs.

Model 870 DYNAMIC BETA Transistor Tester—Net Each . . $355.00

MODEL 890
Dynamic Beta In-Circuit Transistor Tester

Utilizes unique new test circuit to measure AC Beta in OR OUT of circuit with 5% accuracy. Measures these in-circuit parameters: AC Beta, Ic, Rin (transistor input impedance), Z Ohms (base-emitter circuit impedance). Measures AC Beta, Ic, Rin and Icbo out of circuit. Portable, completely self-contained, fully-transistorized—battery operated. 10¾" x 9" x 6½". Shipping weight 8 lbs.

Model 890 Dynamic Beta In-Circuit Transistor Tester—Net Each $137.50

MODEL 850P
Engineer's Portable Transistor Analyzer

Ideal for use as a "breadboard" in transistor circuit design and development. Checks basic transistor parameters in any of three configurations; common base, common emitter and common collector. Identical input and output meters cover 100ua to 1 ampere in 5 ranges. Battery operated. Furnished complete with leads in black leatherette portable case, 16½" x 8" x 13½". Shipping weight 20 lbs.

Model 850P Engineer's Portable Transistor Analyzer—Net Each $169.50

MODEL 725
Stereo Standard FM Multiplex Generator

NEW—STEREO STANDARD FM Multiplex Generator. Provides composite stereo signal per FCC specifications, correct for service and alignment of FM Stereo tuners and adapters. Pilot phase check feature assures proper separation; separation is 35 db or better. Choice of 5% or 10% pilot carrier level. Fully compensated to accept external modulation source, such as tape or record player. Shipping weight, 23 lbs.

Model 725 Stereo Standard Generator—Net Each $495.00

MODEL 209B
True Vacuum Tube Volt-Ohm-Milliampere and Capacitance Meter

100 millivolt sensitivity. Special "lo-ohms" range. Measures capacitance as low as 1 uuf and up to 1,000 uf; inductance, 50 mh to 100 henries (with conversion chart). 1% stability with ±10% variation in line voltage. Complete with AC and DC probe assemblies, test leads, low capacity-high frequency probe. Shipping weight, 26 lbs.

Model 209B True Vacuum Tube Volt-Ohm Milliampere and Capacitance Meter—Net Each $239.50

Hickok Electrical Instrument Co.
Cleveland, Ohio

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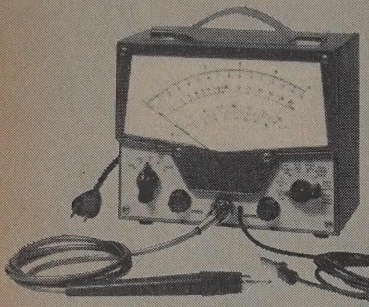
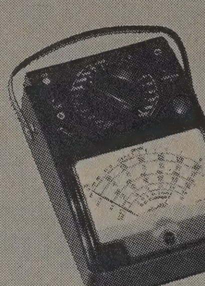
HICKOK TEST EQUIPMENT

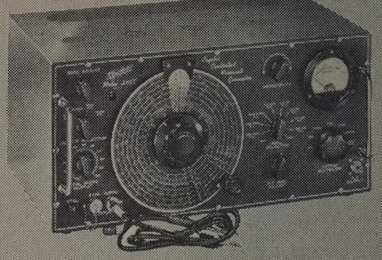


NEW!

MODEL 470A
Electronic Volt-Ohmmeter



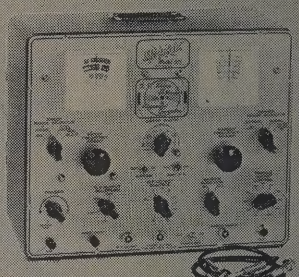
MODEL 455A
Burn-Out Proof Volt—Ohm—Milliammeter



MODEL 295X
Microvolt and Crystal Controlled Generator

NEW!

MODEL 288AX
Crystal Controlled AM-FM Sweep and Marker Generator



MODEL 615
Sweep and Marker Alignment Generator

MODEL 470A
Electronic Volt-Ohmmeter

A major advance in VTVM design, the 470A provides increased ranges in all functions—using just two basic scales to cover eight ranges. AC and DC values are read from the same scales—AC errors due to crowding are eliminated. Ranges: DC, AC rms and AC peak-to-peak, 0.5-1500v. New AC-DC—Ohms single unit probe eliminates the need for multiple leads. Ohmmeter: Center Scale, 10 Ohms, Ohms X1, X10, X100, X1000, X10,000, X100,000, X1M, X10M. Readability 0.2 ohms to 100 megohms. Input impedance DC volts 15 megohms, AC volts 15 megohms. DC resistance paralleled with approximately 150 uufd. 105-125v, 50-400 cycles, 15 watts, 6⅜″ x 7½″ x 4½″. Complete with single unit probe and test leads. Shipping weight, 8 lbs.

Model 470A Electronic Volt-Ohmmeter—Net Each . . . . . $ 79.50

MODEL 455A
Burn-Out Proof Volt—Ohm—Milliammeter

Has Hickok's exclusive overload cut-out and protection system providing complete safety against burn-outs for the meter and all multipliers, shunts and other components. 20,000 ohms/volt AC and DC. AC/DC Volts: 3, 15, 60, 150, 600, 1200v: Resistance, 0-100 megohms in 4 ranges: Center Scale Ranges: 5, 500, 5000, 500,000 ohms. Current Ranges: 50 ua, 1, 10, 100, 100 MA, 10 amperes. Attractive, streamlined case, large easy to read meter. Battery operated. 8½″L x 5⅞″W x 3″H tapering to 1¾″H. Complete with leads. Shipping weight (two per carton), 12 lbs.

Model 455A Burn-Out Proof Volt-Ohm-Milliammeter—Net Each $89.50

MODEL 295X
Microvolt and Crystal Controlled Generator

Provides continuous frequency coverage in 8 bands from 125KC to 175 MC. Calibrated, metered output from 0.1 to 100,000 microvolts. 1% Dial calibration accuracy. Built-in 1MC crystal standard. Precision step attenuator, direct reading, vernier tuning. 105-125v, 50-400 cycles, 90 watts in steel case 19″ x 12½″ x 9″. Complete with 1MC crystal, 48-inch output cable with 2 connectors. Shipping weight, 47 lbs.

Model 295X Microvolt and Crystal Controlled Generator—Net Each $655.00

MODEL 288AX
Crystal Controlled AM-FM Sweep and Marker Generator

A complete alignment instrument with built-in decibel meter and crystal frequency standard (100KC and 1000KC). Covers 35KC to 110MC in 8 bands frequency modulated and 35KC to 160MC in 8 bands amplitude modulated. Includes new ultrasonic range from 35KC to 125KC. Supplied with 100KC/1000KC crystal, cable assembly and meter leads. Case size, 16″ x 7″ x 13″, Shipping weight, 33 lbs.

Model 288AX Crystal Controlled AM-FM Sweep and Marker Generator—Net Each $315.00

MODEL 615
Sweep and Marker Alignment Generator

For complete TV, IF and RF alignment, including color TV alignment. Also provides harmonic output on UHF. All electronic Sweep with no moving parts. Amplitude modulation less than 0.1db/MC. 110-120v, 60 cycles, 40 watts. Furnished in steel carrying case, 16¼″ x 8″ x 13½″ complete with leads. Shipping weight 39 lbs.

Model 615 Sweep and Marker Alignment Generator—Net Each $359.50

Hickok Electrical Instrument Co.

Cleveland, Ohio

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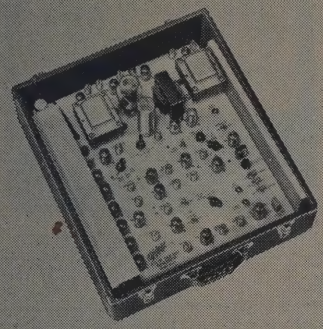
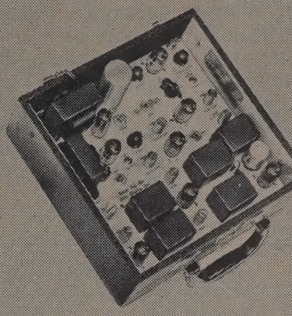
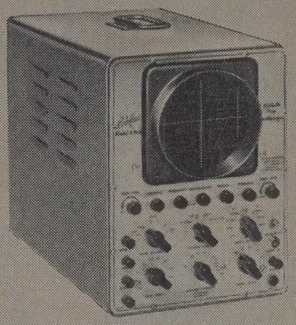
HICKOK TEST EQUIPMENT



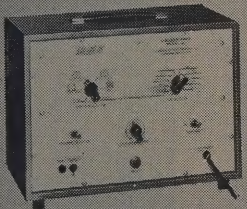
MODEL 656XC
Color Bar-White Dot Generator



MODEL 660
Crystal Controlled White Dot-Bar Color Display TV Generator

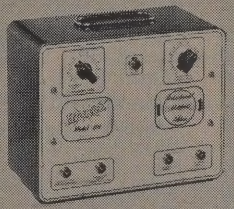


MODEL 675A
Wide Band, High Sensitivity Oscilloscope

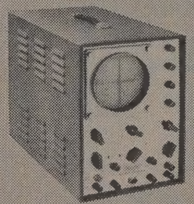


NEW!

MODEL 661
Chrom-Aligner Combined NTSC Color Bar-White Dot Generator



MODEL 691
Heterodyne Marker-Adder



NEW!

MODEL 677
Wide-Band Service Technicians 5″ AC Oscilloscope

MODEL 656XC
Color Bar-White Dot Generator

Produces 100% fully-saturated NTSC standard patterns. Provides complete range of signals for chroma alignment, including R-Y, B-Y, G-Y demodulation systems. 105-125v, 60 cycles, 40 watts. Furnished in black leatherette portable case, 16¾″ x 18⅜″ x 7¼″, complete with cable. Shipping weight, 48 lbs.

Model 656XC Color Bar-White Dot TV Generator—Net Each $549.50

MODEL 661
Chrom-Aligner NTSC Color Bar-White Dot Generator

Generates individual 100% saturated color bars to NTSC standards. Provides the following demodulator alignment signals: R-Y, B-Y, G-Y, G-Y at 90°, RF output on channels 3 or 4. Crystal-controlled chroma and sync. Separate video output. 110v, 60 cycles, 20 watts. Complete with leads and 3.58MC crystal. Shipping weight, 20 lbs.

Model 661 Chrom-Aligner Generator—Net Each $349.50

MODEL 660
White Dot/Color Display Generator

A stable, crystal-controlled white dot and crosshatch generator employing the same dot and sync generating circuitry as the Model 656XC described above. Color display is rainbow type. Lightweight and portable for installation, convergence and in-the-home service. 105-125v, 60 cycles, 40 watts. 10½″ x 10½″ x 5¼″, complete with crystal and output cable. Shipping weight, 21 lbs.

Model 660 White Dot/Color Display Generator—Net Each . $245.00

MODEL 691
Heterodyne Marker-Adder

Provides continuously visible marker (including trap points) that will not distort the receiver's response curve. Functions with any marker and sweep equipment with output capability of 0.5 volts, or more. 105-125v, 50-60 cycles, 25 watts. Furnished in steel case, 11¼″ x 7″ x 8¼″, complete with leads. Shipping weight, 16 lbs.

Model 691 Heterodyne Marker Adder—Net Each $129.50

MODEL 677
Wide-Band Service Technicians 5″ AC Oscilloscope

5 cps to 4.5MC within 3db. New 1-2-3 circuit approach simplifies peak-to-peak measurements. Pre-set horizontal and vertical sweep positions. Sharp, bright trace with astigmatic correction, facilitates detailed observations of TV sync wave forms, including 3.58MC color burst. Furnished complete with detailed application and instruction book and test leads. Shipping weight, 36 lbs.

Model 677 Wide-Band Service Technicians 5″ Oscilloscope—Net Each $199.50

MODEL 675A
Wide Band, High Sensitivity Oscilloscope

5″ scope with an illuminated, calibrated screen. Vertical amplifier response within 3 db, DC through 4.5MC, flat through 3.58MC color burst frequency. Astigmatic control provides a new standard of undistorted trace detail. 105-125v, 50-400 cycles, 125 watts. In steel case, 10″ x 16″ x 13″ complete with low capacity probe and ground lead. Shipping weight, 45 lbs.

Model 675A, Wide Band, High Sensitivity Oscilloscope—Net Each $299.90

Model 770 Industrial and Laboratory 5″ Oscilloscope: Response, DC to 5MC, within 3 db (Rise time 0.07 usec)—Net Each $470.00

Hickok Electrical Instrument Co.

Cleveland, Ohio

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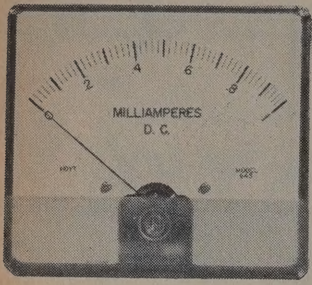
Hoyt SINCE 1904

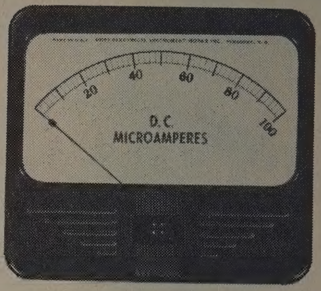
HOYT ELECTRICAL INSTRUMENTS

For Original Equipment and Replacement Applications



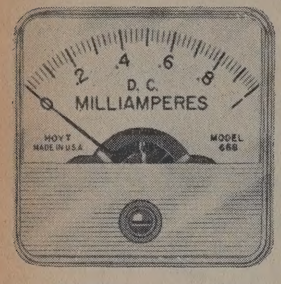
MODEL Nos. 641, 645, 653 and 649, D.C. 642, 646, 654 and 650, A.C. Clear Plastic Styrene Cases

HOYT moving-coil Meters are built on the D'Arsonval principle using carefully selected jewel bearings and polished steel pivots. Accuracy within 2%. Alnico Magnets with soft-iron pole-pieces of uniform flux density used in all movements. Permanently correct balance assured by HOYT "cross arm" spiral wire balance. High torque to weight ratio. Quick response and good damping under all conditions. Choice of "knife-edge" or "lance" type pointers. Full 100° movements standard on most models.

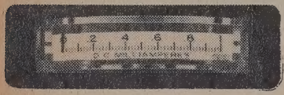


MODEL 647, D.C., and 648, A.C.

METER SIZE	MODEL DC	MODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	FLANGE	BODY DIAM. AC - DC	BODY DEPTH AC - DC
1½"	668	669R	Styrene Sq.	1.800"	1.740"	1.500"	1.000"
2½"	17/3	552	Bakelite Rd.	2.015"	2.690"	2.200"	1.375"
2½"	17/3	552	Metal Rd.	2.015"	2.547"	2.063"	1.297"
2½"	1025	1026	Styrene	2.500"	2.87" x 2.59"	2.16"	1.12"
2½"	635	636	Bakelite Sq.	2.015"	2.375"	2.200"	1.400"
2½"	649	650	Styrene Sq.	2.480"	2.625" x 2.375"	2.200"	1.125"
2½"	673	674	Styrene Edgewise	2.500"	3.25" x 1.00"	2.500"	3.210"
3½"	17/L	560	Metal Rd.	2.480"	3.219"	2.500"	1.500"
3½"	17/L	560	Metal Surf.	2.480"	3.063"	2.500"	—
3½"	582	584	Bakelite Rd.	2.720"	3.500"	2.750"	1.375"
3½"	1037	1038	Styrene	3.812"	3.500"	2.750"	1.125"
3½"	597	598	Bakelite Sq.	2.720"	3.000"	2.750"	1.375"
3½"	653	654	Styrene Sq.	3.435"	3.375" x 3.125"	2.750"	1.125"
3¾"	570	580	Metal Rd.	2.850"	3.750"	3.000"	1.688"
3¾"	570	580	Metal Surf.	2.850"	3.625"	3.000"	—
3¾"	607	610	Bakelite Sq.	2.850"	3.625" x 3.313"	2.250"	1.063"
4¼"	641	642	Styrene	4.250"	4.500" x 3.844"	2.750"	1.125"
4½"	574	617	Metal Rd.	3.875"	4.500"	3.750"	1.594"
4½"	574	617	Metal Surf.	3.875"	4.500"	3.750"	—
4½"	600	601	Bakelite Sq.	4.034"	4.500" x 4.000"	2.750"	1.063"
4½"	645	646	Styrene Sq.	4.470"	4.625" x 4.188"	2.750"	1.125"
4½"	647	648	Bakelite Sq.	4.470"	4.500" x 4.188"	2.750"	1.125"
4½"	1045	1046	Styrene	4.500"	4.81"	2.750"	1.125"
6"	1060	1061	Styrene	5.375"	6.000" x 4.500"	2.750"	1.100"



MODEL No. 668 DC 1½" Clear Plastic Square Styrene Case



MODEL No. 673 D.C. MODEL No. 674 A.C. Horizontal & Vertical Styrene Case

6¾"—8½" PANEL METERS # 583 #602

3" x 4" 5" x 4" PORTABLE METERS #578 #575

Prices on request.

D.C. MILLIAMMETERS

Range	Approx. Resist.	Size: 1½" #668	2½" #1025 #17/3 #635 #649	3½" #1037 #17L #653 #582 #597	3¾" #673 #570 #607	4½" #1045 #574 #641 #645 #600 #647	6" #1060
0/1	*60*	$11.40	$10.75	$11.40	$11.95	$12.60	15.10
0/25	*1.7*	11.70	11.05	11.70	12.25	12.90	15.55

Above prices (0/1) also apply to 0/3, 0/5, 0/10, 0/15 MA Standard ranges.

Above prices (0/25) also apply to 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA Standard ranges.

D.C. MICROAMMETERS

Range	Approx. Resist.	1½"	2½"	3½"	3¾"	4½"	6"
0/20	*3000*		$19.20	$19.90	$20.58	$21.10	—
0/50	*2000*		16.30	16.80	17.40	18.00	—
0/100	*2000*	14.70	14.20	14.70	15.30	15.90	18.45
0/200	*1000*	12.75	12.10	12.75	13.30	13.95	16.45
0/500	*200*	12.10	11.50	12.10	12.60	13.30	15.75

Zero center microammeters available for most models in 25/0/25, 50/0/50, 100/0/100, 500/0/500 UA. Prices on request.

D.C. MILLIVOLTMETERS

Range	Approx. Resist.	1½"	2½"	3½"	3¾"	4½"	6"
0/50	*3*	11.40	10.75	11.40	11.95	12.60	15.10

D.C. AMMETERS

Range	Approx. Resist.	1½"	2½"	3½"	3¾"	4½"	6"
0/1	*0.005*	11.40	10.75	11.40	11.95	12.60	15.10
0/5	*0.004*	11.75	11.20	11.75	12.35	13.00	15.85

Above prices for 0/5 amp. range also apply to standard ranges of 0/10, 0/15, 0/25, 0/30*, 0/50* amps on all models. No. 668 uses external shunt over 5 amps. See Shunt Table below for High Current Ammeter Ranges.

D.C. VOLTMETERS

Range	Approx. Resist.	1½"	2½"	3½"	3¾"	4½"	6"
0/1	*1000Ω/V.*	12.20	11.65	12.20	12.75	13.40	15.85
0/500	*2000Ω/V.*		12.20	12.85	13.40	14.05	16.55

Above prices (0/1) also apply to standard ranges of 0/3, 0/5, 0/10, 0/15, 0/25, 0/30*, 0/50*, 0/100, 0/150*, 0/300* volts on all models.

Above prices (0/500) also apply to standard ranges at 0/600, 0/750 volts on all models except #668.

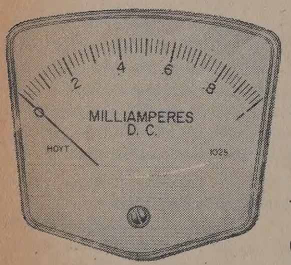
NOTE:

If "in-between" ranges are required, add $3.00 to price of next higher range listed. If "zero-center" ranges are required, add $5.00 to price of that range. For in-between ranges on moving-coil type Voltmeter 150 volts and up, add $5.00 to next higher range.

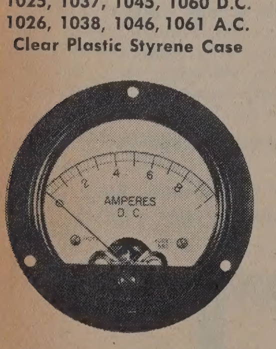
NOTE:

Please specify type of case on order from chart above. Unless specified, all meters are calibrated on non-magnetic panels. If steel panels are used, give thickness of steel and size of panel hole (No extra charge). All prices are net — subject to change or withdrawal without notice.

*These ranges carried IN STOCK . . . Models #582, 597, and 647 only. (Calibrated for non-magnetic panels)



MODEL Nos. 1025, 1037, 1045, 1060 D.C. 1026, 1038, 1046, 1061 A.C. Clear Plastic Styrene Case



MODEL Nos. 582 & 17/3, D.C. MODEL Nos. 584 and 552, A.C.

STANDARD SWITCHBOARD SHUNTS AND AMMETER RANGES

On High Current Ammeters, add 0/50 millivoltmeter price to external shunt price below. Shunts include 3 ft. leads. Standard Ammeter and Shunt Ranges on types 17/3, 582 and 547 only; others listed are special ranges at slight extra cost.

*0/25 —$.905
0/200—$7.95
0/30 —$9.05
0/300—$9.25
0/50 —$ 7.95
0/500—$13.90
0/75 —$ 7.95
0/600—$16.70
0/100—$ 7.95
0/800—$21.15
0/150 —$ 7.95
0/1000—$30.70

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Hoyt
SINCE 1904

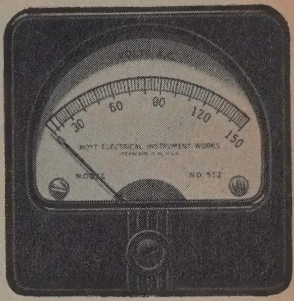
HOYT ELECTRICAL INSTRUMENTS

For Original Equipment and Replacement Applications

HOYT A.C. Meters for indicating 60 cycle Voltage and Current are of the repulsion type with pneumatic damping. Furnished in the same case styles and sizes as HOYT D.C. Meters, they match the D.C. meter where both types are used on the same panel. See DC-AC Specification Chart on opposite page.
Accuracy is 2%. A choice of pointers is available, and special shields can be supplied at additional cost.

VU METERS, with "A" scale, available in #649, #653, #645, and #647 case styles.
Prices on request.

NOTE: A.C. Meters calibrated at any special frequency. Prices on request.


MODEL Nos. 635 and 597, D.C.
MODEL Nos. 636 and 598, A.C.

PRICE LIST:

		PANEL MOUNTING					PORTABLE	
	Size:	2½"	3½"	3¾"	4½"	6"	3" x 4"	5" x 4"
Range	Approx. Resist.	#1026 #552 #636 #650	#560 #1038 #654 #584 #598	#580 #610	#617 #601 #648 #642 #646 #1046	#1061	#562	#517

Prices on request

A.C. MILLIAMMETERS

Range	Approx. Resist.	2½"	3½"	3¾"	4½"	6"	3" x 4"	5" x 4"
0/6	*6000*	$11.50	$12.35	$12.90	$13.70	—	—	—
0/10	*2700*	10.40	11.25	11.80	12.60	15.10	—	—

Prices for ranges: 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. for all models—same as 0/10 MA. range above.

A.C. AMMETERS

Range	Approx. Resist.	2½"	3½"	3¾"	4½"	6"	3" x 4"	5" x 4"
0/1	*0.271*	10.40	11.25	11.80	12.60	15.10	—	—

Above prices also apply to all models of standard single ammeter ranges—0/3, 0/5*, 0/10, 0/15, 0/25, 0/30*, 0/50* amps. A.C. Ammeters are self-contained to 50 amps.

For High Current Ranges—See Transformer Section below.

A.C. VOLTMETERS (Repulsion Type)

Range	Approx. Resist.	2½"	3½"	3¾"	4½"	6"	3" x 4"	5" x 4"
0/25	*1476*	10.75	11.25	11.95	12.60	15.10	—	—

Above prices also apply to all models in standard ranges of 0/30, 0/50, 0/100 volts.

Range	Approx. Resist.	2½"	3½"	3¾"	4½"	6"	3" x 4"	5" x 4"
0/150*	*25,000*	11.75	12.40	12.95	13.70	16.10	—	—
0/300*	*50,000*	11.75	12.40	12.95	13.70	17.35	—	—
0/500	*83,300*	—	17.85	18.40	19.00	21.55	—	—
0/600*	*99,960*	—	17.85	18.40	19.00	21.55	—	—

*These ranges carried IN STOCK on Models #584, #598 and #648 only (calibrated for non-magnetic panels).
NOTE: If "in-between" ranges are required, add $3.00 to next higher price as shown above (add $5.00, if above 150 volts). Standard calibration is for non-magnetic panels. Steel panel calibration at no extra charge if order specifies thickness of steel and size of panel hole. Please specify type of meter case.
DIAL COSTS: Standard range dials only—$1.00 each; special hand drawn single range dials Prices on Request; other custom dials on special order.

5% RECTIFIER TYPE VOLTMETERS

Available in the following ranges: 0/5, 0/10, 0/15, 0/25, 0/30, 0/50, 0/100, 0/150, 0/300 volts.

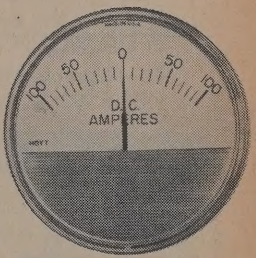
Above ranges apply to models #584-R, #598-R, #654-R at $17.00 ea.

Above ranges apply to models #642-R, #646-R, #648-R at $18.85 ea.

HIGH CURRENT DONUT TYPE TRANSFORMERS (In Stock)

For prices on HIGH CURRENT AC AMMETERS, add price of ammeter model above to transformer price below, plus an additional $4.00 except on model #552, #584, and #648. Transformers have 2-ft. leads and 2 VA burden. Other ranges available on request.

50/5	$9.60	100/5	$9.60	200/5	$9.60	500/5	$17.35
75/5	9.60	150/5	9.60	300/5	9.60	600/5	17.35

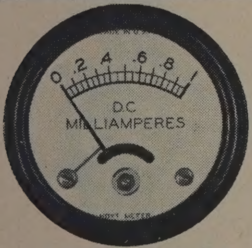


MODEL No. 740 D.C. Indicator.
2¼" Metal Case w/Plastic Cover

MOVING MAGNET INDICATORS

HOYT Moving Magnet Indicators have been used for many years by the leading manufacturers of electrical devices. Feature long scales and accuracy within 5%.
Attractive appearance is combined with a sturdy movement.

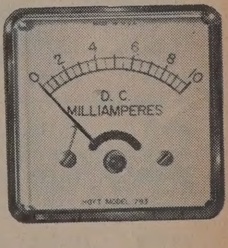
Furnished in round or square cases at low cost. Standard finish on metal cases is black. Chrome Plate is available at slight additional cost. Many types of mounting arrangements available.



MODEL No. 640, D.C.
2¼" Metal Case

NOTE: A.C. Vane Meters are furnished in quantity only. Prices on request.
NOTE: If in-between ranges are required—add $5.00 to next higher range price; for "zero-center" ranges, add $5.00 to same range price.
NOTE: DC Ammeters up to 100 amps. have internal shunts.

MODEL DC	MODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	FLANGE	BODY DIA. DC	BODY DEPTH DC
640	531AC	Nar. Metal Rd.	1.400"	2.281"	2.000"	1.078"
640	531AC	Metal Surface	1.400"	2.375"	2.000"	—
693	594	Metal Sq.	1.400"	2.625"	2.000"	0.563"
793	794	Plastic Sq.	1.715"	2.375"	2.000"	0.500"
740	741	Plastic Rd.	1.715"	2.375"	2.000"	0.520"



MODEL No. 793 D.C., 794 A.C.
2½" Metal Case with
Plastic Cover

D.C. MILLIAMMETERS

Range	Approx. Resist.	#640	#693	#740 #793
0/1	*1000*	$4.25	$4.30	$4.60
0/3	*700*	3.15	3.25	3.50
0/5	*480*	2.90	2.95	3.25
0/10	*180*	2.70	2.80	3.05
0/15	*130*	2.30	2.35	2.70

Prices for 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. ranges:

		$2.25	$2.30	$2.65

D.C. AMMETERS

Range	#640	#693	#740 #793
0/1	$2.25	$2.30	$2.65

Above prices also apply to 1/0/1, 3/0/3, 0/5, 5/0/5, 0/10, 10/0/10, 0/15 amp. ranges.

Range	#640	#693	#740 #793
20/0/20	2.85	2.90	3.15

Above prices also apply to 0/25, 0/30, 30/0/30 amp. ranges.

Range	#640	#693	#740 #793
0/50	3.05	3.10	3.40
50/0/50	3.05	3.10	3.40
0/75	3.50	3.60	4.00
0/100	4.10	4.20	4.50

D.C. VOLTMETERS

Range	Approx. Resist.	#640	#693	#740 #793
0/1		$2.25	$2.30	$2.65

Above prices also apply to 0/3, 0/5, 0/10, 0/15 volt ranges.

Range	Approx. Resist.	#640	#693	#740 #793
0/25	*1375*	2.65	2.70	3.00
0/30	*1650*	2.65	2.70	3.00
0/50	*2200*	2.85	2.90	3.15
0/100	*20,000*	2.85	2.90	3.15
0/150	*30,000*	2.90	2.95	3.25
0/300	*60,000*	3.90	4.00	4.30

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Net

Industrial Instruments:

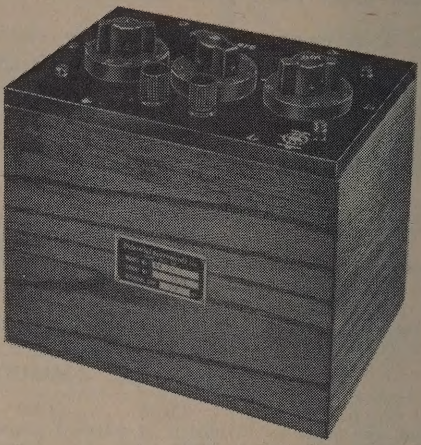
ELECTRICAL

RESISTANCE DECADES

• Available in a wide variety of standard models. Accuracy at 1.0 and 0.1 ohm steps is ±0.25%. Accuracy of all other resistors is ±0.1% of indicated value. Self-cleaning, molded nylon and silver plated brass switch mounted below panel. Zero resistance is less than .003 ohms per dial. Hardwood case. Models DR-1D to DR-4D, 8″ x 5½″ x 4½″. Weight 4 lbs. net, 6 lbs. shipping. Models DR-50D to DR-52D, 9″ x 6″ x 4½″ h. Weight 5 lbs. net, 7 lbs. shipping. Models DR-70D and DR-71D, 17¼″ x 5″ x 4½″ h. Weight 6 lbs. net, 8 lbs. shipping.

ELECTRICAL SPECIFICATIONS AND PRICES

Model No.	Total Resistance Ohms	Decade Steps	Accuracy	Price
DR-1D	1,110,000	10x(1,000+10,000 +100,000)	±0.1%	**$ 78.00**
DR-2D	111,000	10x(100+1,000 +10,000)	±0.1%	**67.00**
DR-3D	11,100	10x(10+100+1,000)	±0.1%	**65.00**
DR-4D	1,110	10x(1.+10+100)	±0.25 & ±0.1%	**65.00**
DR-50D	11,111	10x(.1+1+10+100 +1,000)	±0.25 & ±0.1%	**95.00**
DR-51D	111,110	10x(1+10+100 +1,000+10,000)	±0.25 & ±0.1%	**100.00**
DR-52D	1,111,100	10x(10+100+1,000 +10,000+100,000)	±0.1%	**112.00**
DR-70D	1,111,111	10x(.1+1+10+100 +1,000+10,000 +100,000)	±0.25 & ±0.1%	**165.50**
DR-71D	11,111,110	10x(1+10+100 +1,000+10,000 +100,000 +1,000,000	±0.25 & ±0.1%	**215.25**



CAPACITANCE DECADES

• These are 3-dial units with the sum of the dial settings indicating total capacity in microfarads. Mylar and silver-mica capacitors are used for high stability, low-loss characteristics. Polished hardwood case, engraved dial graduations.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	Decade Steps MF	Accuracy	Dielectric	P.F.	Peak Volts	Price
DK-2A	10x(.001+.01 +0.1)	±1%	Silver Mica	0.2%	700 (.001) (.01) 500 (.1)	**$175.00**
DK-4	10x(.001+.01 +0.1)	±1% (.001) (.01)	Silver Mica	0.2%	700	**80.00**
		±3% (0.1)	Mylar	1%	400	
DK-5A	10x(.01+0.1 +1.0)	±1% (.01)	Silver Mica	0.2%	700	
		±3% (0.1) (1.0)	Mylar	1%	400	**95.00**
DK-11A	10x(.01+0.1 +1.0)	±0.5% (.01) (0.1)	Silver Mica	0.2%	700 (.01) 500 (0.1)	**185.00**
		±2% (1.0)	Mylar	1%	400 (1.0)	
DK-10	10x(.0001 +0.001 +.01)	±0.5% or 10 mmf	Silver Mica	0.2% 2% (.0001)	700	**95.00**

PHYSICAL SPECIFICATIONS

	Overall Dimensions	Weight (Lbs.)	
		Net	Shipping
DK-2A, DK-4, DK-10	8 x 5½ x 7½	8	10
DK-5A, DK-11A	10¾ x 7¾ x 7½	10	12

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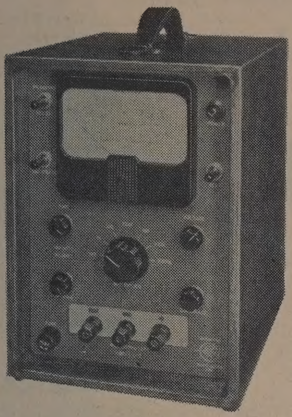
TEST EQUIPMENT



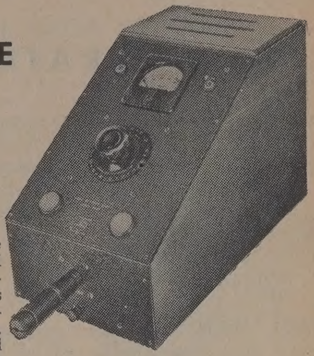
TYPE L MEGOHMMETERS

Type L Megohmmeters are used for both laboratory and high speed production testing of motor and transformer winding insulation, cable insulation, high value resistors, capacitor insulation, and for the measurement of surface and volume leakage of insulating materials. These instruments meet the requirements for testing insulation resistance in accordance with ASTM D-257, and Federal Specification LP-406B, Method 4041.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	TEST Voltage	RANGE Low in meg.	RANGE High in meg.	POWER Consumption	WEIGHT Net	WEIGHT Ship.	Size	Price
L-2A	200 fixed	1	100,000	40 Watts	12	**15**	15"x8"x10"	**$175.**
L-4A	200 and	1	100,000	52 Watts	14	**17**	15"x8"x10"	215.
	500 fixed	2.5	250,000					
L-6B	100 to 600*	1	100,000	82 Watts	15	**18**	15"x8"x10"	**310.**
L-7	100 to 600*	1	5×10^{13}	75 Watts	20	**24**	8"x10½" x11½"	**383.**

*Continuously variable, built-in voltmeter for accurate setting.



TYPE P—VOLTAGE BREAKDOWN TESTERS

The Type P Series Voltage Breakdown Testers are designed for safe, accurate and fast testing of materials, components and circuits both in the laboratory and on the production line. All types have self-contained metered high-voltage power supply with safety features including interlock switches and pilot warning lights. Load current is limited to values shown in table below. Output voltage continuously variable over range listed for each model.

ELECTRICAL SPECIFICATIONS AND PRICES

	VOLTAGE RANGE		CURRENT RANGE		
Model	**AC volts RMS**	**DC volts**	**AC**	**DC**	**Price**
P1		0-4000		5 ma (max)*	**$218.00**
P2	0-3000	0-4000	7 ma (max)	5 ma (max)*	**264.00**
P3B	0-8000	0-10,000	60 ma (max)	50 ma (max)*	**488.00**

*Models P1, P2 and P3B incorporate a variable series resistance which limits short circuit current independently of voltage.

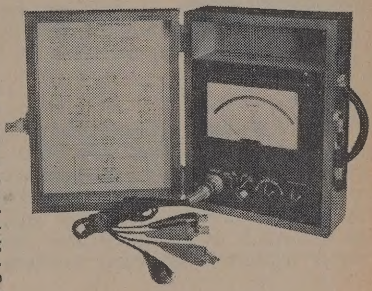
Other power supplies up to 100 KV can be supplied to your specifications. Send complete details for quotation.

WHEATSTONE BRIDGES TYPE RN

Universally used for the measurement of all types of resistance devices and circuits where high accuracy is required. Models available for performing Murray-Varley Loop tests.

Model	Total Resistance of Decade	Ratio Dial Settings	Circuits	Dimensions	Price
RN-1	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 100, 1000	....	9"x8"x6½"	**$176.50**
RN-2	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 100, 1000, M10, M100, M1000	Murray & Varley	9"x8"x6½"	**193.25**
RN-3	10x(1+10 +100) +9(1000)	1/1000, 1/100, 1/10, 1/9, 1/4, 1/1, 10/1, 100/1, M10, M100, M1000	Murray & Varley	9½"x8"x6½"	**226.00**

TYPE LRO-1 LOW RESISTANCE OHMMETER



The Type LRO-1 Low Resistance Ohmmeter is useful for the measurement of resistance of sensitive relay contacts, fuses, bus-bars and connections, rail joints, pipe or conduit, switch contacts, transformer windings, motor windings, bonding, grounding and similar applications. The current through the unknown resistance never exceeds 110 ma.

Price $148.85

FEATURES: Extreme accuracy for the most critical measurements. • Entirely self-contained, including 1½ volt flashlight battery • Ranges: .1 ohm, 1 ohm and 10 ohms. 100 meter scale divisions. • Accuracy of plus/minus 1½% on LRO-1 based on full scale values. • Full Scale Readings. • Maximum current through piece under test = 0.11 amp.

• Other electrical test equipment manufactured by Industrial Instruments can be found in current editions of ELECTRONIC ENGINEERS MASTER. For complete technical details and specifications on test equipments listed here and many others request a copy of Catalog 25.

Industrial Instruments

Industrial Instruments INC.

CEDAR GROVE, N. J.

INSTRUMENTS & TESTERS

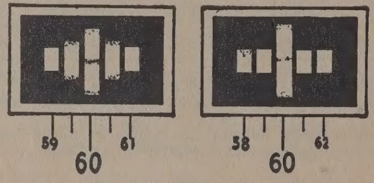
J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

VIBRATING REED FREQUENCY METERS (PATENTED)

- **USES** — J-B-T Vibrating Reed Frequency Meters are used extensively in radio, telephone, and television service, on engine generator sets, in laboratories, in many types of electronic equipment, on panel and control boards, in inspection set-ups—wherever constant or known frequency is important to efficient operation of equipment. More than 20 years of continuous experience covering many thousands of these instruments are your assurance of quality for both commercial and defense applications.

- **OPERATING PRINCIPLE** — The patented, simplified design used in the J-B-T meter operates on AC or interrupted DC. Each reed is adjusted to respond by resonance to but one frequency. As the current excites the driving coil, the reed "in tune" with the frequency in the coil will respond by vibrating rapidly because of permanent magnet polarization and induced magnetism from the coil. The instrument is adapted to specified operating voltage by a series resistor. To determine frequency, simply read the reed.

- **RESPONSE PATTERNS** — These patterns differ with the increments of frequency between reeds. For example, at 60 cycles, half-cycle steps give the broad response shown below at left, whereas full cycle steps bring the sharp response at right. In general, the lower the frequency the greater the amplitude, the higher the frequency the less the amplitude. Thus a 12 cycle reed normally will have substantially greater amplitude than a 1000 cycle reed.



- **ADVANTAGES** — Guaranteed accuracy at reference temperatures of 77°F is ±0.3% or better of the AC frequency being measured, unless otherwise stated. Accuracy on interrupted DC may be somewhat less. High fatique safety factor for continuous operation. Temperature compensations are not required as temperature coefficient of reeds is only approximately 75 parts per million per degree F., negative.

- **STABILITY** — All meters are permanently calibrated at the factory and do not require subsequent adjustment. J-B-T reeds have relatively high Q characteristics, an especially desirable factor in electronic circuits. Wave form or external fields do not ordinarily have an adverse effect. Built with no pivoted parts and with lock washers at every critical point, these rugged meters can take rougher treatment than many instruments.

- **TRUST THE METER** — If a meter plugged in on a 60-cycle AC power line does not indicate exactly 60 cycles, trust the meter! Power supply may momentarily be off-frequency due to changing load conditions. All J-B-T Frequency Meters are meticulously calibrated at the factory, entirely independent of frequency of power supply. Production and inspection equipment are checked regularly against National Bureau of Standards frequency signals.

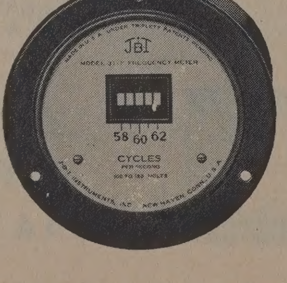
5 OR 7 REEDS

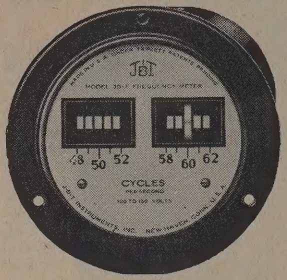
Used on standby power equipment. Handy for accurately measuring frequency of power source. 5 reeds (as illustrated), 58-62 cycles, or 7 reeds, 57-63 cycles, 100-130 volts. Other characteristics and accuracy same as Model 30-F. See Table of Dimensions, lines 4 and 5.

31-F, (illustrated) 58-62 cy., 5 reeds, 3-1/4" metal case **$26.65**

31-FX, 58-62 cy., 5 reeds, 3-1/2" Molded case, MIL-M-6B mtg.. **$23.65**

31-FX-7, 57-63 cy., 7 reeds, 3-1/2" Molded case, MIL-M-6B mtg.. **$25.85**





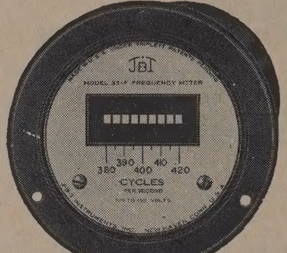
(Meter operating at 60 cycles)

10 REEDS

Range: 48-52 and 58-62 cycles. Double window for ease of reading either range. Often specified for export. 100-130 volts; 130 ohms per volt; 1 watt power consumption. Other voltages available on special order. Accuracy ±0.3% at reference temperature. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

30-F, (illustrated), 48-52 and 58-62 cy., 3¼" Metal Case.......... **$30.50**

30-FX, 48-52 and 58-62 cy., 3½" Molded Case, MIL-M-6B mtg.......... **$27.50**

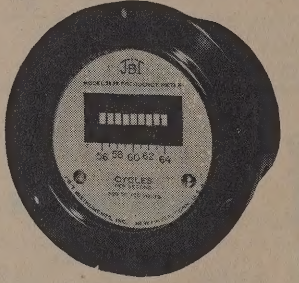


9 REEDS — 400 CY.

Used for measuring frequency of high-cycle power sources, particularly aircraft. Accuracy ±0.3% at reference temperature. Nine reeds, 380-420 cycle range. 100-130 volts; 90 ohms per volt; 1.5 watts power consumption. Other voltages available on special order. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

33-F, (illustrated). 380-420 cy., 3¼" Metal Case **$37.10**

33-FX, 380-420 cy., 3½" Molded Case, MIL-M-6B mtg. **$34.10**



9 REEDS — 60 CY.

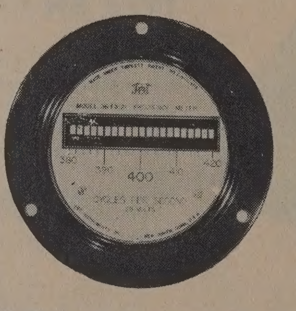
Covers a broad frequency band. Nine reeds, 56-64 cycles, or in half-cycle steps (accuracy ±0.2%) 58-62 cycles. 100-130 volts; 110 ohms per volt; 1 watt power consumption. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

34-F, 56-64 cy., 3¼" Metal Case 1-cycle steps. **$30.25**

34-FX, (illustrated). 56-64 cy., 3½" Molded Case, MIL-M-6B mtg. **$27.25**

34-F-Z, 58-62 cy., 3¼" Metal Case, ½-cycle steps. **$31.90**

34-FX-Z, 58-62 cy., 3½" Molded Case, MIL-M-6B mtg. **$28.90**



18 OR 21 REEDS

Advanced design offers 21 reeds as an interchangeable 3½" panel meter with 2-cycle intervals for close reading over the band of 380 to 420 cycles per second. Accuracy ±0.3% at reference temperature. The reed flag size is necessarily smaller than in a 9-reed 400-cycle meter, such as the model 33-FX, but the 21 reeds are located in an enlarged window 2" wide with flags 3/32" high x 1/16" wide to give maximum readability. A patented internal construction for mounting the reeds in one clamp assures ruggedness. This instrument and its variations are particularly useful where unusually close indication of frequency throughout the band is desirable. See Table of Dimensions, line 5.

36-FX-21, (as illustrated). 380-420 cycles, 21 reeds, 28 volts operation, 3½" Molded Case; 18 ohms per volt; 1.6 watts power consumption. **$43.75**

36-FX-21-115*, 380-420 cycles, 21 reeds, 100-130 volts; 90 ohms per volt; 1.5 watts power consumption **$45.00**

30-FX-18, (not illustrated). 46-54 and 56-64 cycles, 18 reeds in one window with two groupings, 100-130 volts; 320 ohms per volt; 0.35 watts power consumption **$47.50**

All have 3½" Molded Case, MIL-M-6B mounting. Meters marked (*) are normally stocked; others produced to order on reasonable schedules.

3" SQUARE-CASED FREQUENCY METERS

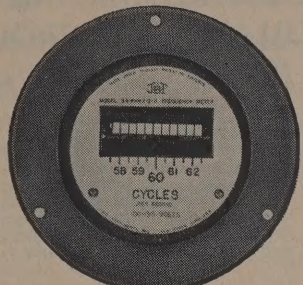
The meters described above are also available with square black molded cases designated as **FS series** per print SK-59, Rev. D. For example, 30-FS is same as 30-FX except for the case.

PRICES NET, F.O.B. New Haven, Conn., Individually Boxed, Domestic Packed, Effective September 1, 1963

.... INSTRUMENTS & TESTERS

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

3½" SEALED FREQUENCY METERS



FHXX TYPE Sealed meters, glass-to-metal construction, with solder terminals and detachable flange, supersede the former FHX sealed meters. While JAN-I-6, MIL-M-6B, and MIL-M-10304B (Type MR36) do not refer specifically to frequency indicators, the FHXX series uses the front mounting dimensions of these specifications, and meets or exceeds the sealing and electrical requirements including 3000 volt breakdown. Electrical characteristics and accuracy are the same as for corresponding F models without the HXX designation. Every meter is tested in water where the absolute pressure of the air above the water is reduced to 2.5 inches of mercury (approx. 57,000 ft. altitude) and is maintained for one minute. For dimensions, see Table, Line 8, and Print SK-51 Rev. E. Standard voltage is 100-130. Meters marked * are normally stocked; others are produced on order.

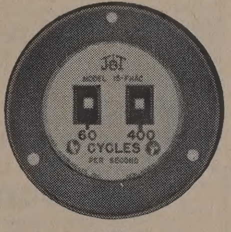
30-FHXX, 10 reeds, 48-52 cy. and 58-62 cy.	$34.30
31-FHXX, 5 reeds, 58-62 cy.	30.45
33-FHXX*, 9 reeds, 380-420 cy.	40.90
34-FHXX*, 9 reeds 56-64 cy.	34.05
34-FHXX-11, 11 reeds, 55-65 cy.	36.25
34-FHXX-Z-11, illustrated, 11 reeds, 57.5-62.5 cy.	37.90

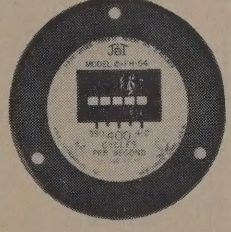
2½" SEALED METERS

J-B-T manufactures 2½" sealed frequency meters which are similar to the 3½" sealed above, except with dimensions per Line 3 of Table.

21-FHXX, 5 reeds, 58-62 cy., 100-130 volts	$34.85
23-FHXX, 5 reeds, 380-420 cy., 100-130 volts (normally stocked)	$39.80

1½" SEALED METERS





MODEL 15-FHAC. Widely used as the frequency standard on audio-oscillators, the model illustrated operates 2 reeds, 60 and 400 cycles, at approximately 8-10 volts on 0.04 watts for a cathode follower circuit. Accuracy ±0.5% at 77°F. Steel case has telephone black case, solder terminals. Barrel is 1½" diameter; 2-3/32" detachable flange FL-4 covers glass-to-metal seal. See Table of Dimensions, line 1

15-FHAC	$20.30

15-FH-5 METERS (lower photo) also use the 1½" black metal case with 2-3/32" detachable flange and glass-to-metal seal. The 15-FH-5 series features 5 reeds in a row for 100-130 volt operation. Specified where size and weight are important. Same 100% inspection for approx. 57,000 ft. altitude as FHXX types. Standard meters, but not regularly stocked. See Table of Dimensions, line 1.

15-FH-54, 5 reeds, 390-410 cycles, 1.25 watts power consumption	$25.85
15-FH-56, 5 reeds; 58-62 cycles, 0.25 watts power consumption	$21.45
15-FH-400, 5 reeds, 380-420 cy., 1.25 watts power consumption	$25.85

RUGGEDIZED AND ILLUMINATED METERS

Model with "RUG"—Sealed vibrating reed frequency meters and sealed elapsed time meters are available, when so ordered, to the intent of MIL-M-10304B, which covers ruggedization of other kinds of meters. This feature usually is specified only for extra-severe shock and vibration.

LL Construction—Requirements for lighted meter dials have led to illuminating the 3½" FHXX Series of sealed meters. Light from a source behind the panel is admitted through a sealed window built into the meter case. Inquiries are invited.

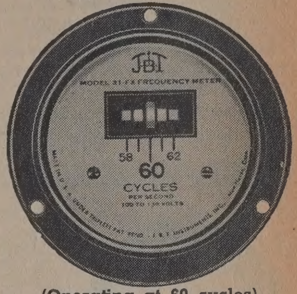
400 CYCLES, IN 1 CYCLE STEPS; 800 CYCLES

Among the non-cataloged variations which J-B-T produces on special order, are 21-reed, 390-410 cycles in 3½" case; and 11-reed 780-820 cycles with 5-cycle increments. Quotations on request.

NOTE ON METER VOLTAGE

J-B-T Vibrating Reed Frequency Meters of all sizes normally are made with two studs and are designed to be connected across one phase of a multi-phase line. The single phase voltage where the meter will be used thus becomes the voltage to be specified for the meter. Special meters with extra studs are made for the purpose of using at two or more voltages, not additional phases.

2½" METERS — 5 REEDS

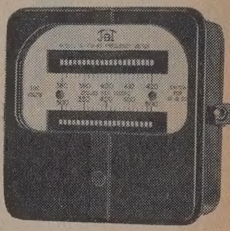


(Operating at 60 cycles)

MODEL 21-FX, 23-FX. Matches other 2½" panel instruments. Meets ASA C39.1-1951 and MIL-M-6B (Type MR 24 or MR 25) in depth of case and mounting dimensions. Weighs only 4½ ozs.; 5 reeds 58-62 cycles 500 ohms per volt, 0.25 watt power consumption. At 400 cycles, 170 ohms per volt, 0.7 watts power consumption. Flush panel mounting; see print MD-20, Rev. B, also Table of Dimensions, Line 2.

21-FX, 58-62 cy.; 2-11/16" Molded Case, 1 cy. steps	$22.55
23-FX-54, 390-410 cy., 2-11/16" Molded Case, 5 cy. steps	$27.50
23-FX, 380-420 cy., 2-11/16" Molded Case, 10 cy. steps	$27.50

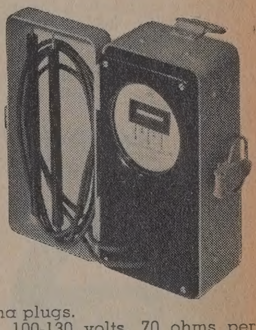
400 CYCLE BROAD AND VERNIER INDICATORS



MODEL 41-FX-42 (supersedes Model 41-FX) Widely used in commercial and military testing, this model provides two windows: for 300-500 cycles, 21 reeds in 10-cycle steps, and, for a vernier effect, 380-420 cycles with 21 reeds in 2-cycle steps. Black molded case, flush front is 4-3/64" wide x 4-3/64" high x 2-29/32" deep behind panel over studs. 100-130 volts is standard; also made with 4 studs for 200-240, 115 and 30 volts, 4.5 watts at 115 volts, 7.7 watts at 200 volts, 2 watts at 30 volts. For mounting, see Print MD-38-11

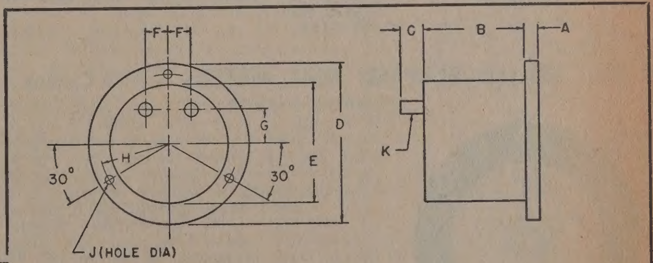
41-FX-42, 100-130 volts	$125.00
41-FX-42, 3 voltages, without switch.	$140.00

PORTABLE FREQ. TESTERS



FP SERIES, METAL OR MOLDED CASE. Accuracy of ±0.3% meets the exacting test requirements of aviation, signal, and communication equipment. **M-Types** use anodized gray aluminum case, 6⅜" long x 4" wide x 3-9/32" deep. Leads permanently attached. See Print SK-63-10. With pertinent name plate, **33-FP-9M** is known as **TS-328 A/U. L-Types,** sturdy molded case within top grain leather carrying case 6-3/32" x 4¼" x 2¾"; 4' leads with 5" test picks and banana plugs.

33-FP-9M, (illustrated) 380-420 cy., 9 reeds, 100-130 volts, 70 ohms per volt, 1.5 watts power consumption; com. quality and packing	$49.25
34-FP-9M, 56-64 cy., 9 reeds, 100-130 volts, 130 ohms per volt, 1 watt power consumption, com. quality and packing	$42.35
33-FP-9L, 380-420 cy., 9 reeds, 100-130 volts	$47.60
34-FP-9L, 56-64 cy., 9 reeds, 100-130 volts	$40.70



FREQUENCY AND FREQUENCY — TIME METERS, TABLE OF DIMENSIONS, INCHES

	MODEL	MIL-M-6B* MOUNTING	A	B	C	D	E	F	G	H	J	K	TERMINAL DESCRIPTION
Line 1	15-FH Series	—	1/8	1-9/16	3/8	2-3/32	1-1/2	3/8	3/8	0.875	0.125		Solder, 1/16" dia. hole
Line 2	21-FX and 23-FX Series	MR 24, MR 25	13/64	1-3/8	23/32	2-11/16	2-5/32	7/16	9/16	1.220	0.116		10-32 NF-2 studs
Line 3	21-FHXX, 23-FHXX	MR 26**	3/32	1-27/32	11/16	2-11/16	2-1/8	1/2	1/2	1.220	0.125		Solder, 3/32 hole
Line 4	30-F to 34-F Series	—	7/64	2-3/32	23/32	3-1/4	2-9/16	7/16	7/8	1.453	0.150		10-32 NF-2 studs
Line 5	30-FX to 36-FX Series	MR 34, MR 35	19/64	2	23/32	3-1/2	2-11/16	7/16	7/8	1.580	0.150		10-32 NF-2 studs
Line 6	31-FE Series	—	7/64	3-7/8	23/32	3-1/4	2-9/16	7/16	7/8	1.453	0.150		10-32 NF-2 studs
Line 7	31-FEX-1 Series	MR 34, MR 35	5/32	3-7/8	23/32	3-1/2	2-9/16	7/16	7/8	1.453	0.150		10-32 NF-2 studs
Line 8	30-FHXX to 34-FHXX Series	MR36**	3/32	2-1/4	5/8	3-1/2	2-11/16	1/2	3/4	1.580	0.150		Solder, 3/32 hole

*Also JAN-I-6 and ASA C39.1-1951 Mounting **Also MIL-M-10304B Mounting

PRICES NET, F.O.B. New Haven, Conn., Individually Boxed, Domestic Packed, Effective September 1, 1963

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J-B-T® INSTRUMENTS & TESTERS

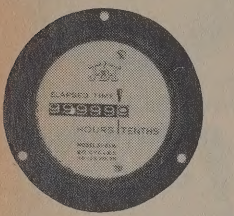
J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

ELAPSED TIME METERS; FREQUENCY-TIME METERS; REED RELAYS AND OSCILLATOR CONTROLS

• USES AND ADVANTAGES OF ELAPSED (OR RUNNING) TIME METERS

To record operating time of AC electrical and electronic equipment, these self-starting synchronous instruments normally register in 1/10th hour steps to 9,999.9 or 99,999.9 hours, then automatically reset. They are widely used for tube life, TV equipment, punch presses, conveyors, oil burners, ground support equipment, maintenance schedules, etc. J-B-T engineers recommend the AC type of elapsed time meter for superior accuracy, especially where voltage or ambient temperature vary widely.

New WIDE-NUMERAL ELAPSED TIME METERS



MODEL 31-EXW. The latest J-B-T elapsed time meter is Model 31-EXW, illustrated. Easily-read, wide 6-digit numerals register to 99,999.9 hours then automatically reset. Distinctive contemporary dial shows tenths in black on white, and units in white on black. The 3½" black molded case is interchangeable with Model 31-EX and FX types of frequency meters. Print SK-125 gives mounting information.

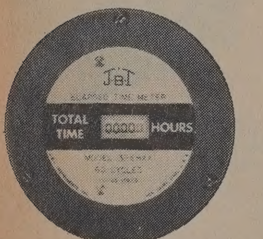
Model 31-EXW, 6-digits, 0-99,999.9 hours, 60 cy., 110-125 volts. **$16.95**

J-B-T
TOTAL TIME
HOURS

MODEL 31-ES. A square black molded case, matching other 3" x 3" meters, differentiates this model from the round 31-EX. Ask for Print SK-110, Rev. F showing standard rear mounting 2¼" bet. centers of molded-in studs, new rugged case with overall depth 3-11/32" behind flange, and electrical studs on center line. Variations can be made for 99,999 hours (suffix U), 230 volts, minutes, matte finish, or 50 cycles.

31-ES, 60 cy., 110-125 volts, 0-9,999.9 hours. **$17.05**

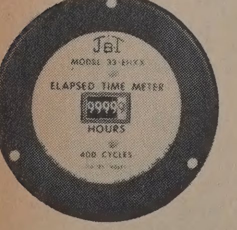
3½" SEALED ELAPSED TIME METERS — 60 Cycles



MODEL 31-EHXX. Where rugged requirements make a completely sealed elapsed time meter desirable, this glass-to-metal construction with flat glass front and 3½" diameter separable flange, often is specified. Heavy-duty solder terminals are supplied. Every instrument is checked in a vacuum chamber. Overall dimensions and appearances match the FHXX series sealed frequency meters. Maximum voltage between terminals and case, 1,000 volts, R.M.S. The meter registers in 1/10 hour steps to 9,999.9 hours, then automatically resets. Tenths indicator is red on white, all others in white on black. Mount according to SK-85, Rev. C.

31-EHXX, 60 cy., 110-125 volts.... **$19.75**

3½" SEALED ELAPSED TIME METERS — 400 Cycles



MODEL 33-EHXX. This stable, self-starting 400-cycle elapsed time meter is extensively used for preventive maintenance and for reliability testing and checking in a wide variety of equipment. The instrument is entirely enclosed in a 3½" flanged case, glass-to-metal sealed construction with separable flange; heavy-duty solder terminals; flat glass front. 1/10 hours are shown in red on white, all other numerals white on black. The external appearance matches FHXX frequency meter series. For dimensional details see SK-61, Rev. B.

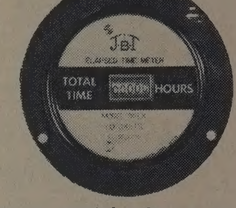
33-EHXX, 400 cy., 0-9,999.9 hours, 1/10 hour steps, 110-125 volts **$58.00**

2½" SEALED ELAPSED TIME METERS

MODEL 21-EHXX. A full size counter reading 9,999.9 hours in 1/10 hour steps and a rugged self-starting synchronous motor are built into this 2½" sealed meter. Its front mounting dimensions are the same as Type MR26 electrical indicating instruments in MIL-M-6B. Glass-to-metal seal makes the instrument completely tamper-proof. Ask for Print SK-68, Rev. G. (2½" 400-cycle meter, **Model 23-EHXX** also is made on special order.)

21-EHXX, 60 cy., 110-125 volts **$26.00**

Popular BASIC 3½" ELAPSED TIME METERS



MODEL 31-EX. First in popularity among all J-B-T elapsed time meters, this self-starting instrument registers to 9,999.9 hours in 1/10 hour steps before automatically resetting. Red numerals on white are used for tenths, all others are white on black. Black molded case matches FX series 3½" frequency meters and completely encloses all parts. This case, with centered terminals, meets type MR34 or MR35 mounting dimensions of MIL-M-6B, also JAN-I-6. Referring to line 5 of the Table of Dimensions on the preceding page, barrel depth (B) is 2½", stud height above center (G) is zero, and all other measurements are as shown. Types for 99,999 hours, or 50 cycles, or special voltages are available on special order.

31-EX, 60 cy., 110-125 volts **$15.95**
31-EX-200, 60 cy., 230 volts (not regularly stocked) **$17.05**

ELAPSED TIME METERS — Tenths of Minutes

MODEL 31-EXM, 60 cycles, 110-125 volts, reading 0-9,999.9 **minutes;** for short-run applications or readings at closer intervals than 31-EX. Tenths of minutes in red on white, minutes in white on black numerals, otherwise identical with 31-EX **$16.25**

CLEAR-PLASTIC ELAPSED TIME METERS

J-B-T
60 CYCLES
ELAPSED TIME METER
HOURS
MODEL 21-EPL

EPL TYPE. The modern clear-plastic front gathers light from every side and is compatible with many other instruments. A sturdy metal case with solder terminals is used behind the panel. The 2½" size is 2-19/32" wide x 2⅜" high with 2⅛" diam. meter barrel, per print SK-102, Rev. C. The 3½" is per print SK-108, Rev. C.

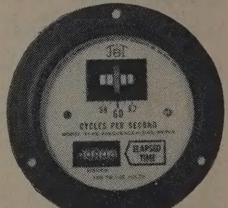
21-EPL, 2½" size (illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. **$25.75**

31-EPL, 3½" size (not illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. **$23.75**

RUGGEDIZED METERS TO MIL-M-7793C

This specialized specification at present omits the popular 3½" sealed sizes. J-B-T 2½" and 3½" round sealed and ruggedized types can be certified as to various test conditions under preceding MIL-M-7793C and General Meter Specification MIL-M-10304B. Inquiries are invited on smaller sizes to MIL-M-7793C and subsequent revisions as they are released.

ELAPSED TIME — FREQUENCY METERS

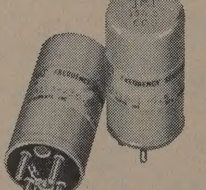


31-FE SERIES. To conserve panel space and centralize information, this panel instrument combines elapsed time or running time meter with frequency reeds. It is used on motor generator sets and on electrical equipment where maintenance routine calls for periodic servicing. The J-B-T design, proved by years of field experience, uses a separate exciting coil for the reeds to achieve close control of reed amplitude and frequency. Reads 0-9,999.9 hours and 58-62 cy. with 5 reeds, for 100-130 volt operation; self starting. Tenths shown in red on white, all other numerals in white on black. Black metal case with front mounting per Table of Dimensions, line 6. Power consumption is 4.7 watts. For variations having 7, 9, or 11 reeds, not regularly stocked, such as Model 34-FE, see print SK-45. Rev. D.

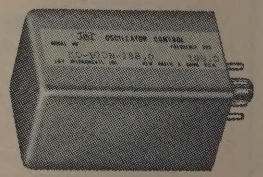
31-FE, 3¼" metal case 4-19/32" deep, ... **$33.00**

31-FEX-1, (per print SK-44 Rev. D—not regularly stocked) like Model 31-FE, except with 3½" metal flange permanently attached for MIL-M-6B front mounting per line 7, Table of Dimensions **$34.10**

RESONANT — REED RELAYS (Decoders) AND OSCILLATOR CONTROLS (Encoders)



Typical Frequency Sensitive Relays
RR-A11A-136.5



Typical Sealed Oscillator Control
RO-B10B-188.0

For full technical description of J-B-T frequency-sensitive electromechanical control devices, see Bulletin 162R; for typical models and prices, see Section 5100 of this book.

PRICES NET, F.O.B. New Haven, Conn., Individually Boxed, Domestic Packed, Effective October 1, 1963

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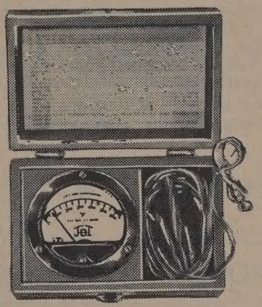
............INSTRUMENTS & TESTERS

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

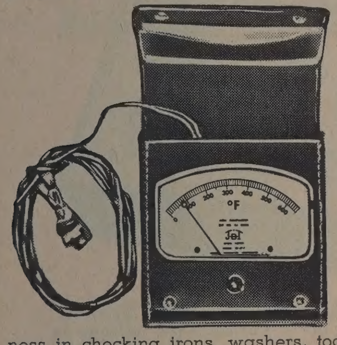
TEMPERATURE TESTERS AND ACCESSORIES FOR APPLIANCE SERVICING, QUALITY INSPECTION, AND LABORATORY SET-UPS

OVEN OR HEAT CHAMBER TESTERS

MODEL 23-JP-1. This popular portable indicating pyrometer saves time and furnishes reliable information in testing and setting thermostats on electric or gas ranges and other appliances by showing oven temperatures as they change. Standard size dial, 0-650°F., with 2⅜″ scale arc reading, is used but covered by clear-plastic instrument front. The indicator is mounted on a black metal panel affixed inside a pocket-sized, black top-grain leather case 4½″ x 2⅞″ x 4¼″ over hardware. Characteristic of more expensive pyrometers, the 23-JP-1 is automatically compensated for ambient temperature. Thus the tester eliminates calculations, avoids likelihood of serious error as temperature changes inside the instrument itself, and gives reliable direct readings. Supplied with attached SA-116, 5½′ calibrated thermocouple, clip, and convection shield **$26.00**

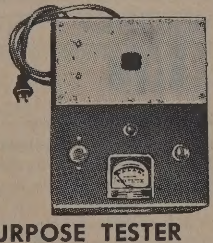


MODEL 32-JP-3. This time-tested model uses a rigid outer carrying case 6″ x 3⅞″ x 3¾″, covered in black leatherette. The glass-covered indicator shows 0-650°F. range in 10° divisions readable to 2½° on a 2⅜″ scale arc. Exceptionally fast, continuous response. Automatic compensation for ambient temperature is a valuable feature whether the tester is used for service work, sales demonstrations, or inspection. Attached SA-116, 5½′ thermocouple, clip for affixing to grill and convection shield included **$28.00**



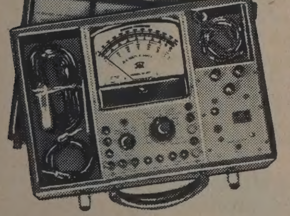
NEWEST MODEL 32-JP-7. Most versatile, and easiest to read of J-B-T temperature testers, Model 32-JP-7 offers a 650°F scale more than 4″ long. Automatic compensation for ambient temperature is included, so that temperatures are read directly and without calculations. The 32-JP-7 also provides color-coded external binding posts. These permit quick attachment or interchanging of various J-B-T thermocouples placed in one or more of the heat zones to be checked. An SA-116 5½′ thermocouple with attachment clip and convection shield is supplied and is left attached when the tester is carried. For maximum usefulness in checking irons, washers, toasters, clothes dryers, etc., use appropriate accessory thermocouples. Tester price includes stitched Ever-ready case, 5″ wide x 5½″ high x 2¾″ deep, of sturdy, scuff resistant black vinyl. **$29.50**

IRON TESTER



MODEL 32-JIT. Self-contained bench-type tester; checks all makes of irons; measures thermostat temperatures; shows open or short circuits. Automatically compensated for room temperature. Also indicates operating temperature of the sole plate (working surface) on non-electric or cordless irons. Black metal base; overall size 10″ x 12″ x 5½″, scale 0-650°F, 15 amp fuse, 6′ cord, 110 volt, 50-60 cycles. **$34.50**

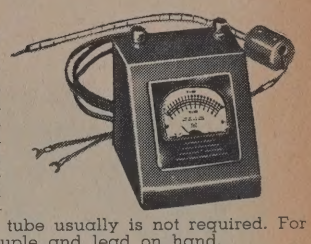
MULTI-PURPOSE TESTER



MODEL 61-JRT. A 9-in-1 tester to speed accurate temperature adjustment and electrical analysis of ranges, refrigerators, test apparatus, etc. Rapidly reads four cold zones —100°F, +80°F. up to 14′ distant; two heat zones 0-600°F. up to 5½′ distant; one voltage range 0-300 AC; and, with transformer, two current ranges, 0-30 and 0-60 amps, AC. Sturdy, polished walnut case, 15½″ x 10-3/16″ x 4¾″. Two color etched metal panel. Separate switches protect bulb and ammeter circuits. Requires one standard flashlight cell, replaceable in the field. Temperature accuracy ±2% of full scale; rectified AC readings ±5%. Accessories as listed may be added for testing appliances. Includes two SA-162 resistance bulbs, two SA-116 thermocouples, electrical leads, and AS-TR-2 built-in transformer. **$124.00**

MODEL 61-JRT (LESS TRANSFORMER). Same unit, same scales except no reading in amperes; AS-TR-2 transformer omitted. **$110.00**

HEAT INDICATORS



MODEL 32-J PYROMETER IN SN-7 STAND. Mounted in sloping front black metal stand, 4¼″ high x 4⅜″ deep x 4⅛″ wide. Compensated for ambient temperature. Medium resistance system, damped for quick reading on 2⅜″ scale, assures ruggedness and pointer stability. For ±2% accuracy, use only the type and resistance of thermocouple and lead provided; if extra length—coil it—to maintain calibration. A protection tube usually is not required. For convenience keep an extra thermocouple and lead on hand.

MODEL 32-J IN SN-7 STAND (Supersedes SN-3 Stand)

0° — 650°F-350°C, includes SA-91 thermocouple, SA-84 lead, and CB-1 connector block **$33.50**

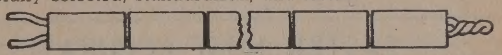
0°-1200°F-650°C, includes SA-87, SA-82, and CB-1 **33.50**

0°-2000°F-1100°C, includes SA-87, SA-82, and CB-1 **33.50**

MODEL 32-J IN SN-8 STAND (not illustrated). With 3 binding posts to accommodate flexible extra lead and thermocouple for hard-to-reach locations. 0°-650°F including SA-91 thermocouple, SA-84 lead, CB-1 connector block, and SA-86 flexible leads and thermocouple. **$37.50**

TEMPERATURE AND TESTER ACCESSORIES

THERMOCOUPLES . . . For J-B-T pyrometers and leads, thermocouples are carefully selected, standardized, and tested.



SA-87. 12″ #14 Ga. chromel-alumel, 2 hole ceramic beads, fits 5/16″ hole; welded tip **$3.40**

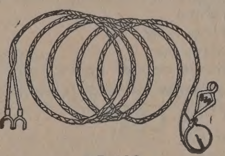
SA-88. Same construction as SA-87 but 24″ long **$4.25**

SA-89. 12″ No. 8 Ga. chromel-alumel, 2-hole ceramic beads, fits 7/16″ hole; welded tip **$3.40**

SA-90. Same as SA-89 but 24″ long **$4.25**

SA-91. 12″ #14 Ga. iron-constantan, 1938 calibration; 2 hole ceramic beads, fits 5/16″ hole; welded tip **$2.90**

SA-92. Same construction as SA-91 but 24″ long **$3.75**



SA-116

SA-116 with **SHIELD** and **CLIP.** Flexible No. 22 gauge iron constantan, asbestos insulated, 5½′, with attachment clip and convection shield for use with 23-JP-1, 32-JP-1, 32-JP-2, 32-JP-3, 32-JP-4, 32-JP-7, 60-JRT and 61-JRT Testers. (See SA-199 for extra quality glass insulated type) **$2.00**

SA-175 (PLAIN TIP). For roasters, waffle irons, etc., 5½′ #22 Ga. with small ball tip; use where clip and shield are unsuitable. **$1.60**

SA-176 (for **TOASTERS,** etc). Same as SA-175 except tip has special disc to collect heat **$3.00**

SA-188 (for **AUTOMATIC WASHER TEMPERATURES,** etc.). 3/16″ dia, copper tube, 4″ long, encloses couple; for use in pipe or sample of water; 5½″ lead **$4.50**

SA-199 (with **SHIELD** and **CLIP).** Same as SA-116 except duplex non-fraying glass braid construction; dia. .115″; for frequent use above 400°F. **$2.65**

SA-300 (for **SURFACE READINGS**). Spring-type I-C in Transite tip with handle and 5′ #22 Ga. lead for rapid reading; not regularly stocked **$8.00**

IT-1

ACCESSORY IRON TESTER, MODEL IT-1. This attachment is identical with 32-JIT except there is no meter. Attach to 32-JP-7 or 61-JRT. **$18.00**

LEAD WIRES SA-82. 6′ compensating lead for chromel-alumel thermocouples; duplex stranded, asbestos-insulated: outside moisture-proof and flame-proof (not interchangeable with SA-84) **$1.70**

SA-83. Same construction as SA-82 but 26′ long **$5.35**

SA-84. 6′ for iron constantan thermocouples **$1.70**

SA-85. Same construction as SA-84 but 26′ long **$5.35**

SA-86. 7′ Iron constantan thermocouple and lead combined; #20 Ga. twisted pair asbestos insulated **$2.05**

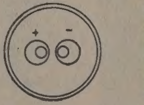
TRANSFORMERS. AS-TR-2. Attachment for 61-JRT to read 30 and 60 AC amp scales on tester; includes jumper lead and panel **$18.00**

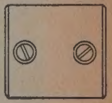
AS-TR-3 For 60-JRT tester. To read 30 and 60 AC amp by dividing volt scale by 10 or 5. Complete with attachments **$20.00**

RESISTANCE BULBS (for cold testing). **SA-142.** Bulb with 14′ polyethylene ribbon lead, for 60-JRT only. **$ 6.50**

SA-162. Bulb, with 14′ polyethylene ribbon lead, for 50-50 and 61-JRT testers **$ 6.50**

CONNECTOR BLOCK MODEL CB-1. Lava connector block, withstands high temperatures, accommodates all thermocouples. Heavy brass connectors keep contact resistance low. Useable with or without connector head **$1.85**





PRICES NET, F.O.B. New Haven, Conn., Individually Boxed, Domestic Packed, Effective September 1, 1963

J-B-T INSTRUMENTS, INC.
NEW HAVEN, CONN. 06508

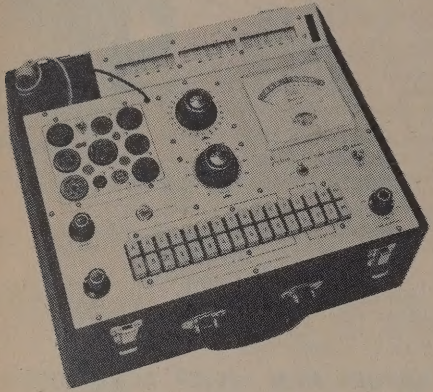
Electrical Instruments, Testers, Switches and Other Components

For other J-B-T Products, see Sec. 5100

"SERVICE ENGINEERED" TEST EQUIPMENT

Jackson ELECTRICAL INSTRUMENT COMPANY

Dayton, Ohio



Model 648S DYNAMIC TUBE TESTER

- Exclusive Color Keyed panel makes this unit faster to set up - easier to use - and applicable for "Do-It-Yourself" operations.
- Exclusive color coded chart - fastest moving types printed in red for faster selection of tube settings.
- Best for servicemen - faster more accurate and versatile for new tubes.
- First with push-button sequence switching - makes set-up time less than tube warm - up time.
- Semi-conductor rectifier for instant warm-up.
- 23 seperate heater voltages from .75 to line voltage.
- Variable sensitivity shorts test up to 2 megohms.
- Automatic line voltage indicator.
- Angled view zig-zag roll chart.

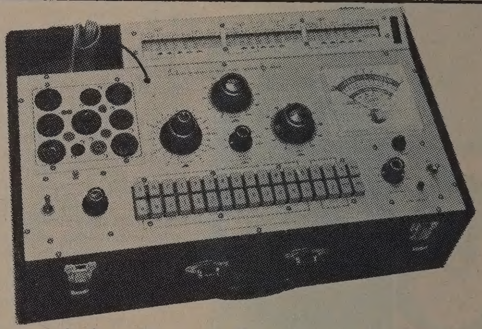
NET $169.95 SHIPPING WT. 21½ LBS.

............FASTER, MORE ACCURATE, CHECKS MORE TUBES, MORE PROFITABLE...........

Model 658A DYNAMIC OUTPUT TUBE TESTER

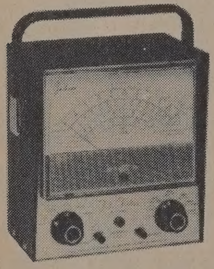
- Dynamic output merit test
- AC rectification test for diodes
- Accurate tests for all 12 volt hybrid tubes
- 231 heater voltages in 2% steps from .7 of a volt to line voltage
- Grid leakage checks up to 80 megohms
- Heater current test for series - string tubes
- Heater continuity check without warm-up
- Dynamic test for "eye" tubes - shows actual operation
- Shows striking point and operating range for regulator and reference tubes

NET $234.95 SHIPPING WT. 25 LBS.



DYNAMIC OUTPUT PRINCIPLE - A sensational new improvement on the time tested Jackson Dynamic Principle. In the Dynamic Output test, variable DC bias voltage, plus variable AC signal voltage are applied to the control grid. Variable DC voltage is applied to plate and screen. The metering circuit, a low impedence bridge type then reads only the AC component of the plate current. Obviously this is the most valid kind of test for amplifiers, it considers the entire output curve of the tube, not just a small portion.

..FREE! NEW TUBE INFORMATION AVAILABLE MONTHLY THROUGH YOUR DISTRIBUTOR..



NET $79.95

New Model 805 VTVM

The New Model 805 VTVM features the New Weston Taut Band Suspension Meter. Taut Band Suspension eliminates pivots and jewels, eliminating pivot friction and error due to pivot fall-over. No movement springs - spring-set hysteresis eliminated. It may be operated in any position without degrading performance and is 4 times more sensitive than conventional movements.

● Static free face ● DC accuracy 3% of full scale ● DC ranges 0 - 1 - 5 - 10 - 50 - 100 - 500 - 1000 ● Zero center reference for any DC range ● AC accuracy 5% of full scale ● Frequency 20 cycles to 4.5 mc ● RMS ranges 0 - 1 - 5 - 10 - 50 - 100 - 500 - 1000 ● P--P ranges 0 - 2.8 - 14 - 28 - 140 - 280 - 1400 - 2800 ● Ohmeter resistance ranges 0 - 1K - 10K 100K - 1meg - 10meg - 100meg - 1000meg ● Accuracy 3% of total scale length ● Direct probe - no probe switching necessary ● 6" meter face ● DC input impedence 10 megohms ● AC input impedence .2 megohms shunted by 150 mmf

New Model 605D AUDIO SINE/SQUARE WAVE OSCILLATOR

A new, precision audio generator with a choice of either sine wave or true square wave output. Square wave is NOT a clipped sine wave but is generated by a special Schmitt Trigger circuit. Features push-button range selection and variable output.

Range: 20 cycles to 200,000 cycles, sine or square wave in 4 ranges.

Accuracy: 3% or 1 cycle, whichever is greater.

Output: High Impedance, continuously variable. Sine wave 0 to 5.0 RMS Volts, Square Wave 20 mv to 7.0 P-P.

Sine Waveform: Less than 1% distortion.

Output Level Characteristic: ±1 db over full range.

Hum Level: Down more than 50 db at all output levels.

Square Wave Rise Time: Less than 0.2 μsec.

Square Wave Tilt: 5% at 60 cycles. Less than 1% above 200 cycles.

NET $144.95 SHIPPING WT. 17½ LBS.

© U.C.P., Inc.

Jackson

"SERVICE ENGINEERED" TEST EQUIPMENT

Jackson ELECTRICAL INSTRUMENT COMPANY

Dayton, Ohio

Model 800 COLOR BAR-DOT GENERATOR

- Exclusive push-button panel makes separate pattern or color selection easier—faster—clearly marked for error-free selection
  - Stand by • ON-OFF • Crosshatch • Horizontal Lines
  - Pattern • Sound • Vertical Lines • Dot Pattern
  - Eight different color combinations
- Convergence simplified—No deconvergence necessary speed up color alignment.
- Easy to set up—Only four simple wire connections necessary
- Front panel jacks allows easy access of video-sync or color demodulator signals.
- Video level control and video output jack provides either positive or negative video information.
- New modern functional styling—Vynal coated aluminum for long durable service.
- Color gun killer switch allows you to quickly and easily select any combinations of 3 color guns. No extra connections necessary.

NET $239.95 SHIPPING WT. 16 LBS.

COLOR SERVICE, CONVERGENCE FASTER, MORE PROFITABLE WITH PUSH BUTTON EASE

Model CRO-3 5-INCH WIDE-BAND HIGH SENSITIVITY OSCILLOSCOPE

Laboratory quality scope with highly stable circuitry and every feature for accurate TV work, color and black & white. Widely used, too, in many laboratory and industrial applications.

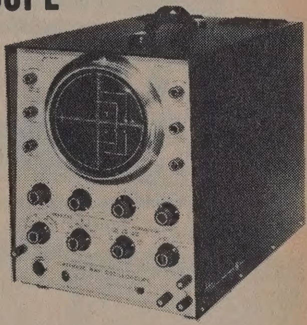
- Wide Band Amplifier, flat within 1 db 20 cycles to 4.5 mc.
- Two-range vertical deflection sensitivity from 0.018 rms volts-per-inch
- Highly stable amplifier circuits. No balancing required.
- Positive or negative internal horizontal sync.
- Linear sawtooth oscillator, 20 cycles through 50 kc.
- Input calibrating voltage, 10 volts peak-to-peak
- Vertical polarity reversal
- Variable sweep expansion
- Return trace blanking
- Z-axis modulation — internal, external or 60-cycle
- Direct connection to deflection plates when required

ACCESSORY PROBES

LC2-1P Low Capacity Probe. Cathode follower type. 2:1 attenuation. Not more than 8 uuf effective impedance

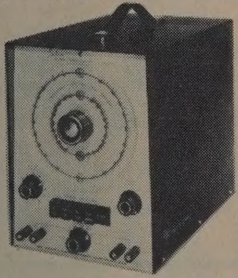
LC10-P High Voltage Low Capacity Probe. 10:1 attenuation ratio. For circuits where up to 1,000-volts is present

DEM-P Demodulation Probe. For RF or IF signal tracing



NET $234.95 SHIPPING WT. 23 LBS.

……………………FIRST FOR COLOR SERVICE - FIRST IN SALES……………………………

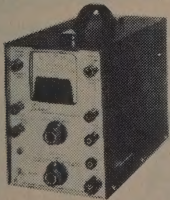


Model 655D WIDE RANGE AUDIO OSCILLATOR

- Push-button range selection
- Exceptionally stable RC tuned sine wave generator
- Frequency range 20 cycles to 200,000 cycles in 4 steps
- Up to 500 milliwatt output
- Output impedances of 10, 250, 500, or 5,000 ohms plus resistive output
- Frequency characteristic within 1 db 30 to 15,000 cycles on transformer output
- Accuracy, 3% or 1 cycle whichever is greater
- Sinusoidal Waveform
- Hum Level down 60 db at maximum output
- Logarithmic Calibration Curve
- Continuously variable output
- Factory-calibrated for guaranteed accuracy

NET $179.95 SHIPPING WT. 21½ LBS.

Model 607D VARIABLE REGULATED POWER SUPPLY



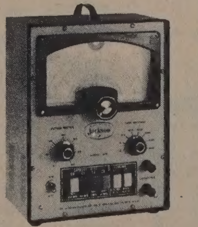
NET $79.95 SHIPPING WT. 11½ LBS.

- DC Regulated Output: Low Position 150 to 225 VDC, 0 to 100 ma. max. High Position 225 to 300 VDC, 0 to 100 ma. Regulation: Within 1.5%, no load to 100 ma. at 300 volts.
- Ripple Content: Bias Supply: Less than 0.003% at 20 ma. Regulated Supply: Less than 0.005% at 100 ma.
- Metered Output: For Bias and Regulated B+ Supply.

A complete laboratory power supply which provides heater, bias and regulated variable B+ voltages in one compact package.

- AC Heater Output: 6.3 VAC at 3 A max.
- DC Bias Output: 30 to 275 VDC, no load. 15 to 150 VDC at 20 ma.

Model 691 WIDE RANGE CAPACITY CHECKER



- Tests capacity from 10 uuf to 1000 uf in 4 ranges
- Color-coded range push-buttons match scale colors for easy selection
- Graduated leakage tests for both polarized and unpolarized capacitors
- Low voltage bridge for testing electrolytic capacitors in transistorized circuits with complete safety
- Graduated power factor test for electrolytics, 0 to 60%
- Electron-ray indicator tube for all tests
- Complete with test leads
- Factory-wired and calibrated for guaranteed accuracy

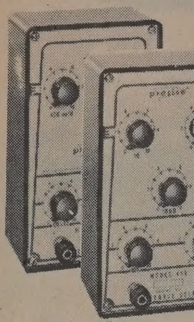
NET $69.95 SHIPPING WT. 11 LBS.

© U.C.P., Inc.

PRECISE TEST EQUIPMENT

KITS AND FACTORY WIRED

PRECISE ELECTRONICS & DEVELOPMENT CORP. Subsidiary of Designatronics, Inc., Mineola, N. Y.

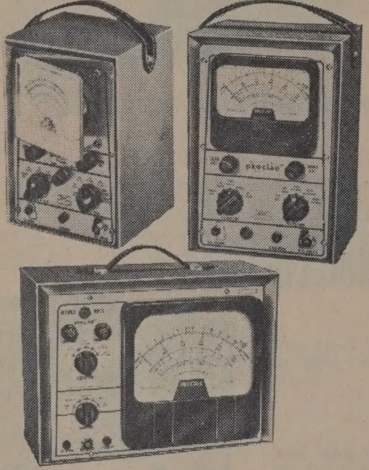


MODEL 478

CAPACITY DECADE BOX Reaches over 1 MFD in μμF steps at 1% accuracy. FOUR DECADES. All capacitors are within ±1% and are rated at 400 VDC minimum. Aluminum panel; rugged construction; complete with Simplified Construction Manual. Size 3¾" x 6¼" x 2". 478K. (kit) NET $21.85; 478W. (wired) NET $29.95.

MODEL 468

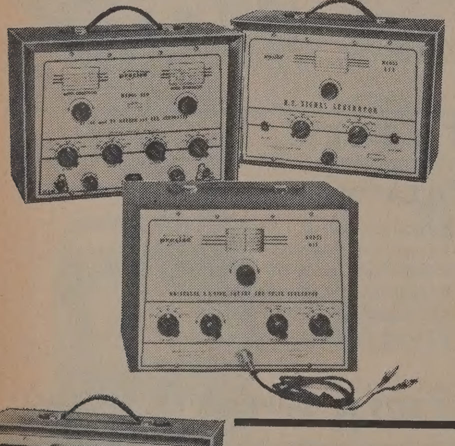
RESISTANCE DECADE BOX 5 Separate Switches, 11 Positions on Each; better than ± 1% for Extreme Accuracy; Readings from 10 OHM to 1,111,110 OHM in 5 Decades. Deeply etched Aluminum Panel; Rugged Construction; Complete with famous Precise Simplified Construction Manual. High impact Bakelite case 3¾" x 6¼" x 2". **Model 468K** (kit) NET **$21.85; Model 468W** (wired) **NET $29.95.**



MODEL 904 VACUUM TUBE VOLTMETER You can tilt the meter left, or right, or up, or down—or even straight ahead—so that it follows the user correcting for parallax all the way. Another Precise first is the "Lead Magician Switch"—which allows your leads to remain in any circuit while you short the VTVM for proper 'Zero Adjust' and open the leads for 'Infinite ohms Adjust'—all this without changing leads. Since three leads are provided, you can leave the 904 connected to both an AC and a DC voltage and take both measurements by rotating the FUNCTION switch and the Lead Magician Switch.
The 904 is fully B+ and B— regulated to maintain readings.
RANGES: AC-VOLTS: RMS 1.5, 5, 15, 50, 150, 500, 1,500 Peak to Peak 4, 14, 140, 400, 1,400, 4,000.
—DC VOLTS: 1.5, 5, 15, 50, 150, 500, 1500 +DC VOLTS: 1.5, 5, 15, 50, 150, 500, 1500
OHMS; Rx1; Rx10; Rx100; Rx1000; Rx10,000; Rx100,000; Rx1,000,000.
MODEL 904K. Kit. NET..........**$39.95; MODEL 904W.** Factory Wired. NET..........**$49.95**

MODEL 909 VACUUM TUBE VOLTMETER 1% Ceramic precision Resistors; Coax DC connector; FM zero alignment scale; burn-out proof circuit; 25 megohm input impedance on DC complete with test leads and internal battery. Rugged oversize 4½" meter. Wt. 10 lbs. 10" x 7" x 5".
RANGES: +DC: 0-5-25-250-500-1000 Volts; —DC: 0-5-25-250-500-1000 Volts; AC: 0-5-25-250-500-1000 Volts; Ohms: Rx1-Rx10-Rx1000-Rx10,000-Rx1,000,000 ohms; from .2 Ohms to 1 Billion Ohms: DB: From —20 to +55 DB.
MODEL 909K. Kit. NET..........**$29.95; MODEL 909W.** Factory wired. NET..........**$39.95**

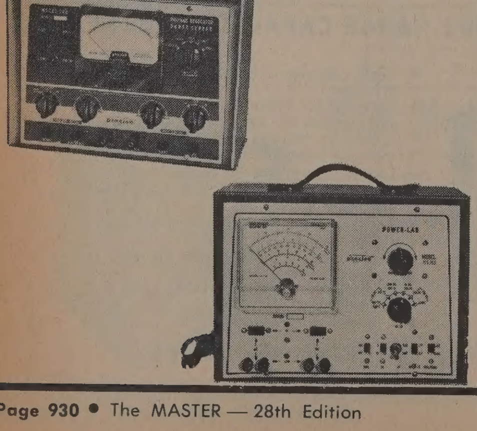
MODEL 9071 . . .VACUUM TUBE VOLTMETER WITH VR.
VR TUBE assures true, accurate and stable readings . . . no drift . . . no shift . . . large, rugged 7½" meter; 1% ceramic precision capacitors; separate 5V AC scale; 25 MEG input on DC; true zero center; deeply etched aluminum panel; sturdy steel case; step-by-step 3 color construction book. Wt.: 11 lbs. Size: 11" x 8" x 5".
(same ranges as Model 909) **MODEL 9071K.** Kit. NET.. **$39.95**
MODEL 9071W. Factory wired. NET.................................**$59.95**



MODEL 630-K. RF-AF AND TV MARKER GENERATOR
Reaches 110 mc on fundamentals; 330 mc on harmonics. Pre-assembled calibrated heads; audio, 20-20,000 cps; cathode follower output; variable percent modulation; speech amp.; crystal marker; RF, AF stand-by; Wien Bridge AF oscillator; Colpitts RF oscillator; coax fittings. Also has constant output impedance; Vernier tuning; separate RF section; individually tuned coils; full shielding; filtered line. Size 8x11x15". Has aluminum panel, leather carrying handle. For 110-120 v., 50-60 cycle AC.
MODEL 630K. Kit. NET..**$44.95**
MODEL 630-KA preassembled RF head. NET...**$47.50**
MODEL 630-W wired. NET...**$69.95**

MODEL 635 UNIVERSAL AF SINE, SQUARE AND PULSE GENERATOR
For accurate testing of audio and video circuits. 1% Ceramic precision resistors; Wien Bridge; variable Z and cathode-follower output; minimum overshoot and roundoff through 100,000 cycles; sine waves through 200 KC.
MODEL 635K Kit............................**$39.95 MODEL 635W. wired** **$54.95**

MODEL 610 RF SIGNAL GENERATOR
Same RF head as Model 630; 110 MC on fundamentals; 330 MC on harmonics; 60 and 400 cycle AF; Cathode-follower output; Ext. Mod.; Speech Amp.; Individually tuned coils.
MODEL 610KA (pre-assembled head) NET....**$34.95; MODEL 610K** (Kit) NET....**$27.50**
MODEL 610W (wired) NET...**$39.95**



MODEL 760 VOLTAGE REGULATED POWER SUPPLY Compact, Versatile. A must for every serviceman, ham and lab man. 140 Volts to over 450 Volts D.C. with 1% accuracy. Measures current up to 100 ma. depending on voltages. Unregulated variable D.C. from 450 to 1000 Volts, positive or negative. Unregulated A.C. 6.3 and 375 Volts.
MODEL 760 K. (kit) NET **$49.95**
MODEL 760 W. (wired) NET **$69.95**

MODEL 713 POWER LAB Most versatile bench-type power supply kit on the market. Combines variable low and high-voltage AC and DC supplies, wattmeter, voltmeter, AC and DC ammeter, and isolation transformer in one compact unit. DC power available is 0-30 v. at 10 amps and 120 to 200 v. at .75 amps. (1 amp intermittent) AC power: 0-24 v. at 20 amps: 90-140 v. at 10 amps continuous (1000 watts) and 20 amps intermittent (2000 watts) without isolation: 90-140 v. at 3 amps (300 watts) with isolation. Meter reads AC, DC current to 20 amps, AC, DC voltage to 180 v.; power to 2 KW. 12x8½x5¼". For 110-120 v., 60 cycle AC.
MODEL 713-K. (kit) (300 watts of isolation) NET **$69.95**
MODEL 713-W (wired) NET...**$89.95**
MODEL 711-K. (kit) (100 watts of isolation) NET **$59.95**
MODEL 711-W. (wired) NET..**$74.95**

Prices Slightly Higher West of Miss.

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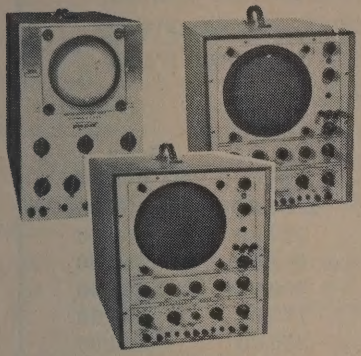
PRECISE TEST EQUIPMENT

KITS AND FACTORY WIRED

PRECISE ELECTRONICS & DEVELOPMENT CORP. Subsidiary of Designatronics, Inc., Mineola, N. Y.

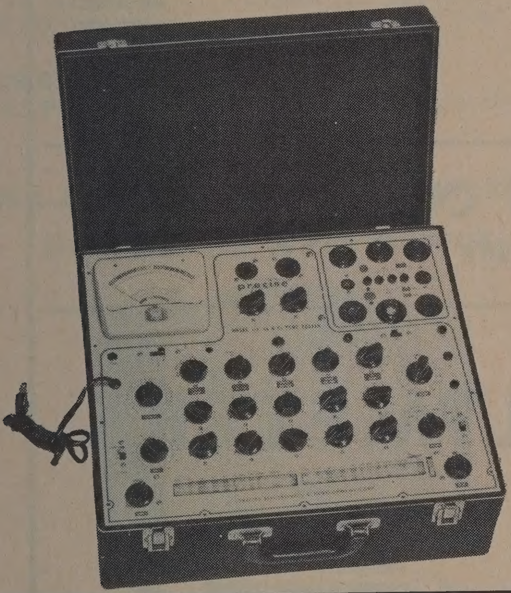


MODEL 300 7" COLOR OSCILLOSCOPE Vertical response ±3 DB.D.C. up to 5 mc. with a sensitivity of 10 millivolts per inch. Frequency compensated vertical and horizontal stepping attenuators. Horizontal sweep from 1 cycle to 80 Kc. Internal calibrator, special magnifier and triggered sweep circuits. Internal and external blanking plus sawtooth and pulse gate outputs. 11x4x7". For 110-120 v. 60 cycle AC. Wt. 35 lbs.
MODEL 300K. (kit) NET $169.95
MODEL 300W. (factory wired) NET $222.95

MODEL 308 DE LUXE 8½" COLOR OSCILLOSCOPE Contains all the general specifications of the Model 300, plus a larger CRT with anode intensifier, voltage regulation in the horizontal circuits, and a high, low, normal frequency switch, which is used in conjunction with sweep rate switch and synchronization controls 11x14x19". For 110-120 v. 50-60 cycle AC. Wt. 36 lbs.
MODEL 308K. (kit) NET $179.95
MODEL 308W. (factory wired) NET $249.50

MODEL 3151 5" COLOR OSCILLOSCOPE Usable to 9 mc, ±3 DB. at 5 mc. Vertical sensitivity 10 millivolts/cm. Push-pull vertical and horizontal amplifiers. Frequency compensated attenuators for both horizontal and vertical. Focus, intensity, and astigmatism controls.
MODEL 3151K. (kit) NET .... $ 89.95
MODEL 3151W. (factory wired) NET $137.95

MODEL 315 5" OSCILLOSCOPE Easy to use, general purpose oscilloscope with balanced push-pull vertical and horizontal circuits through 500 Kc. Horizontal and vertical attenuators.
MODEL 315K. (kit) NET .... $ 79.95
MODEL 315W. (factory wired) NET $113.95



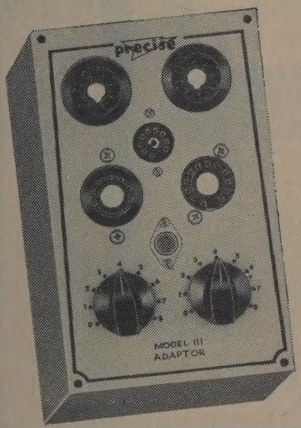
MODEL 111

DE LUXE MUTUAL CONDUCTANCE & EMISSION TUBE TESTER

Advanced design tube tester kit. Checks both emission and mutual conductance separately—direct scale reading in micromhos—roll chart indicates the most important single test for normal applications. Tests all receiving tubes, including transistors and diodes; also tests CRT's with PTA-K adaptor.

Features rotary type switches; gas check; single-switch short check; anti-backlash roll chart. Tests for inter-element shorts. Allows filament current and tube bias to be measured on meter. Sweeps from zero voltage through normal testing range when making measurements. Sizes: 14x16x6". For 110-120 v., 60 cycle AC. Shipping Weight, 25 lbs.

MODEL 111MK Kit, NET $115.95
MODEL 111MW Factory-wired. NET $199.95



NEW! PRECISE TUBE TESTER ADAPTOR—KIT OR WIRED

Model 111A Tube Tester Adaptor, Factory Fired .... Net: $22.95

A wired octal socket is supplied for simple installation into your Precise Model 111 for operating potentials. Instructions furnished.
Model 111AK Tube Tester Adaptor, Kit .... Net: $16.95

Complete with instructions for easy assembly similar to factory wired.
Model 111AKB Tube Tester Modification Kit .... Net: $13.95

(To be incorporated directly into your present Model 111 Tube Tester.)
(Greenlee punches or very large drill bits are required for this kit.)

DIMENSIONS: 7⅛" L., 4⅛" W., 1⅛" H.

MODEL 999 HIGH VOLTAGE PROBE Designed for high voltage measurements with special emphasis on safety, operational simplicity and rugged construction. Exclusive Features: Multiple Insulation, Mechanically Shockproof; Changeable tips; Swivel Connection; Interchangeable resistors.
Wired Only .... NET $11.45

MODEL 912 R.F. PROBE Frequency range RMS reading from AF through 250 mc. Built in 600 v. blocking capacitor. Individually calibrated at 75 mc. for accuracy, impedance and shunt capacity.
Wired Only .... NET $7.25
MODEL 912A (with Amphenol Connector) .... NET $7.25
MODEL 912T (with Phone Tip Connector) .... NET $7.25

MODEL 960 CAPACITY ATTENUATOR PROBE (For 300 & 308 Scopes) Reduces input C. and loading effects of an oscilloscope by 10 to 1. Adjustable for any scope. Frequency range thru 100 mc flat, input capacity less than 7 umfd. Wired Only .... NET $7.25

Net

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INSULATION TEST SETS

PRECISE MEASUREMENTS COMPANY
KILOVOLTS
DANGER HIGH VOLTAGE!

Used in testing insulation where AC voltages are desired. Dual instruments are also available which provide choice of AC or DC output. Includes kilovolt-meter, current meter and automatic overload limiter circuits.

Model	Voltage	VA	AC	Price AC and DC
3000	0 to 3,000	75	**$150.00**	**$ 250.00**
3010	0 to 3,000	300	**250.00**	**400.00**
3050	0 to 3,000	1,500	**500.00**	**650.00**
3100	0 to 6,000	3,000	**700.00**	**1,100.00**
5000	0 to 5,000	75	**175.00**	**300.00**
1000	0 to 10,000	75	**200.00**	**350.00**
1500	0 to 15,000	75	**250.00**	**AC only**
2500-AC	0 to 25,000	75	**400.00**	**AC only**
2500-AC	0 to 25,000		**DC only**	**400.00**
4000-DC	0 to 40,000		**DC only**	**600.00**

PRECISE MEASUREMENTS COMPANY

FLEMINGTON, NEW JERSEY

Kalpa KILOVOLTMETERS

Measures extra high voltages as easy as standard low voltage tests. Large 6 inch precision mirror scale rugged meter, ideal for use around lab or field testing. Completely transistorized with stabilized anti-drift circuitry results in sensitivity in the order of a few microamperes. Panel mounted trimmers allow for instant recalibration, should this ever be required. Special highly insulated probes supplied with instrument. Has a fast spike bypass circuitry and novel automatic coefficient compensator.

PRECISION STANDARD DIVIDER. For use with the Model 50 or Model 60 Kilovoltmeters where greater than usual accuracy is required. The MODEL 40 DIVIDER is used in place of the probes normally supplied with the instrument. Consists of a series of wire wound standard resistors in a spiral with a special shaped corona guard ring. Each resistor has a compensating condenser resulting in a wide frequency response from DC to over 10,000 cycles AC. Total DC resistance value adjusted for 100,000,000 ohms plus or minus 0.1%. May be used to measure up to 100,000 Volts AC or DC.

MODEL 40 PRECISION STANDARD DIVIDER Price $500.00

KILOVOLTS
CAUTION! HIGH VOLTAGE
KALPA SCIENTIFIC LABORATORIES, FLEMINGTON, N. J.

RANGES

0 to 5,000/10,000/50,000/
100,000
Volts DC. or 60 cycles AC.

Model 50-AC or DC $400.00
Model 60-DC only $300.00

KALPA SCIENTIFIC LABORATORIES • FLEMINGTON, NEW JERSEY

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-38A V-O-M (KIT or WIRED)

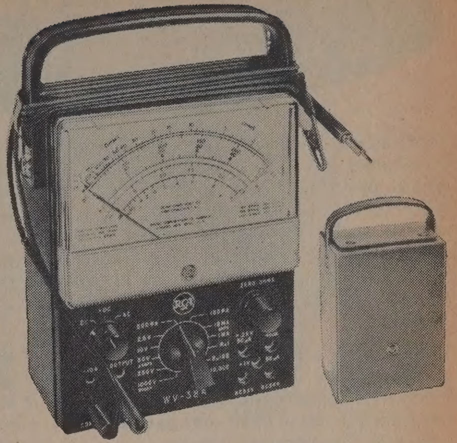
Ohms-divider network fuse-protected. Easier-to-read scales on extra-large 5¼ inch meter. Polarity reversal switch. Full-wave bridge rectifier. Less circuit loading. Standard dbm ranges.

Extra 1-volt and 0.25-volt (250 mv) ranges.

Handle clips accommodate probes and test leads for extra carrying convenience.

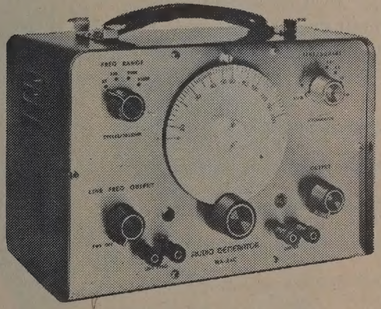
The WV-38A VOM has an input resistance of 20,000 ohms-per-volt on dc and 5,000 ohms-per-volt on ac and an accuracy of ±3% of full scale on dc, ±5% of full scale on ac. Regular scales: 2.5, 10, 50, 250, 1000, 5000 volts, ac and dc; 50 μamp, 1, 10, 100, 500 ma, 10 amps (dc); plus extra scales of 250 mv and 1-volt (dc)! Frequency response (ac), flat from 10 cps to 50 Kc with usable response at 500 Kc. Ohms—3 ranges—R x 1 (0-2,000 ohms), R x 100 (0-200,000 ohms), R x 10,000 (0-20,000,000 ohms). Dimensions: W 5¼″ x H 6⅞″ x D 3⅛″.

$29.95* WV-38A(K) VOM Kit
$43.95* WV-38A VOM (factory wired and calibrated)



WG-270A Accessory Carrying Case for WV-38A VOM **$4.95***

WA-44C AUDIO SIGNAL GENERATOR
SINE/SQUARE WAVE OUTPUT



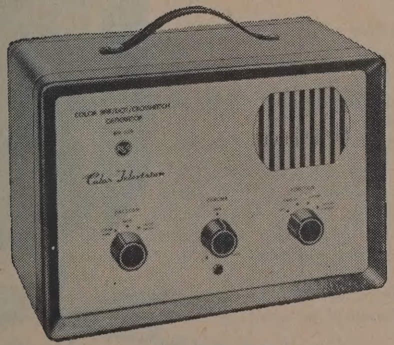
$98.50* Complete with 20 page instruction booklet.

The Compact WA-44C is ac operated from a 50-to-60 cycle, 105-125 volt source, and covers in four bands a range from 20 cps to 200,000 cps. Can be used for a wide variety of applications, including the measurement of frequency response characteristics of audio amplifiers, and the testing of loudspeakers and enclosures or finding the impedance of LC combinations. Width 10$^{11}/_{16}$″, Height 7″, Depth 6⅛″.

The circuit of the sine-wave function consists of a "Bridged-T" oscillator with a cathode follower output stage. The square-wave output is developed by using the sine-wave oscillator output to drive a clipping and shaping circuit. Produces a stable signal with an amplitude variation of not more than ±1.5 db. Total harmonic distortion is limited to 0.25% over the range of 30 cps to 15 kc.

- Switch selection for sinewave or squarewave output
- Simple one-scale dial
- Separate 60 cps output for intermodulation distortion measurements
- Wide frequency range, 20 cps to 200,000 cps.
- Less than ¼ of 1% distortion over the audio-frequency range

WR-64A COLOR-BAR/DOT/CROSSHATCH GENERATOR



$189.50*

Complete with RF output cable, cable-carrying bracket attachment and instruction booklet.

For checking over-all operation of Color-TV receivers. A "must" for adjusting and trouble-shooting color phasing and matrixing circuits. Generates signals for producing ten bars of different colors simultaneously. Also provides extremely stable fine-line crosshatch and dot patterns free from "jitter" and "crawl". Fixed number of bars and dots facilitate adjustment of over-scan (height and width) and linearity in both color and black-and-white sets.

The Color-Bar and Dot/Crosshatch generating functions require no external sync connections. All three patterns are RF outputs, factory set to channel 3 (can be set to channel 4). A sound carrier is provided to permit accurate adjustment of the fine-tuning control on the receiver.

The WR-64A features a chroma control helpful in checking color sync lock and color AFC alignment. The color sub-carrier frequency, the horizontal sync-pulse frequency, and the "bar" frequency are all crystal controlled. A shielded output cable is provided with the instrument. Width 13½″, Height 10″, Depth 7½″. Weight only 13 pounds.

**User Price (Optional)*

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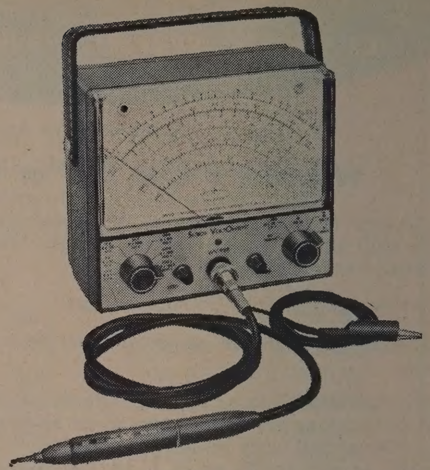
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-98C Senior VoltOhmyst®

(Kit or Wired)



Application: provides direct reading of peak-to-peak voltages of complex waveforms found in video, sync and deflection circuits. Includes an improved circuit providing ±3% accuracy full scale on both ac and dc measurements with less than 1% tracking error. Separate color-coded, peak-to-peak and rms-voltage scales in two distinctive colors simplify readings. Features die-cast aluminum case; high input resistance; electronic protection against burnout; rugged 200-microampere meter movement; precision multiplier resistors with accuracy of ±1% and 0.5-volt full-scale dc range for checking transistor circuits.

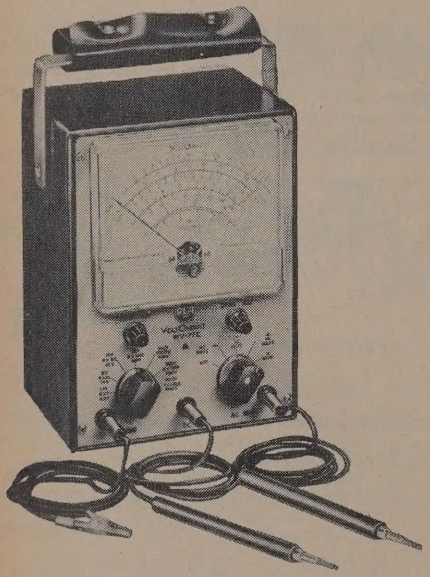
- **Large 6½" easy-to-read, full vision meter (26 sq. in.).**
- **Measures complex waveforms directly from 0.2 volt to 4200 volts peak-to-peak in 7 overlapping ranges.**
- **Measures rms values of sine waves from 0.1 volt to 1500 volts in 7 overlapping ranges.**
- **Measures from 0.02 volt to 1500 volts dc on two scales in 7 overlapping "3-to-1" ranges.**
- **INPUT RESISTANCE — 11 megohms on all dc ranges.**
- **Measures resistance from 0.2 ohm to 1000 megohms on single scale, with 7 overlapping ranges.**
- **FREQUENCY RESPONSE — 30 cps to 250 Mc with WG-301A Crystal-Diode Accessory Probe.**
- **Compact design: 7" wide, 3¾" deep, 6½" high.**

Kit features pre-assembled DC/AC-OHMS Probe

$57.95* WV-98C(k) Senior VoltOhmyst Kit.

$79.50* WV-98C Senior VoltOhmyst (Factory Wired).

WV-77E VoltOhmyst® (Kit or Wired)



The WV-77E features flat frequency response ±5% from 40 cps to 5 Mc on the 1.5, 5, and 15-volt rms ranges and the 4, 14, and 40-volt peak-to-peak ranges. The WV-77E measures dc from 0.02 volt to 1500 volts, rms ac from 0.1 volt to 1500 volts, peak-to-peak ac from 0.2 volt to 4000 volts, and resistance from 0.2 ohm to 1000 megohms—all in seven overlapping ranges! Full-scale accuracy is ±3% on dc and ±5% on ac. Meter is electronically protected against burnout. Separate scales are provided for low ac measurements. Input resistance is standard 11 megohms. Width 5⅝", Height 7¾", Depth 4⅜", Weight 5 lbs.

- **Sleeve on handle stores probes and cables**
- **Fuse in ohms circuit prevents accidental burnout**
- **Circuit minimizes effect of residual gas in bridge tube**
- **Color-coded scales for easier, faster readings**
- **Ultra-slim probes and extra-flexible cables**

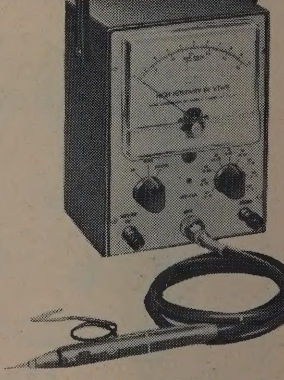
$29.95* WV-77E(K) VoltOhmyst Kit

$43.95* WV-77E VoltOhmyst (Factory-Wired)

(Prices for WV-77E(K) and WV-77E include d probe and cable, ac/ohms probe and cable, ground lead and clip, and instruction booklet. Assembly instruction sheet is provided with the WV-77E(K) VoltOhmyst Kit.)

WV-76A HIGH-SENSITIVITY AC VACUUM-TUBE VOLTMETER

(Kit or Wired)



This RCA high-sensitivity AC Vacuum-Tube Voltmeter is designed for audio application in industry, laboratories and schools. It is also useful in broadcast, design and development, production, and servicing applications. Typical uses include frequency response test of pre-amplifiers, power amplifiers and tone-control circuits; feedback circuit design, signal tracing, audio-level and power-level measurements, gain measurements, amplifier balancing application and general audio voltage measurements.

- **Nine overlapping AC voltage ranges — from 10 millivolts to 100 volts full scale. When the WG-300B input probe is set in the "Low-Cap" position, up to 500 volts or +56 db may be measured.**
- **Frequency response is flat from 10 cps to 500 Kc with "Low-Cap" probe, 10 cps to 1.5 Mc with "Direct" probe.**
- **May be used as preamplifier: 38 db maximum gain on 10-millivolt range**
- **High input impedance—permits measurements in circuits sensitive to loading**
- **Probe and cable shielded throughout its length—eliminates pick-up from stray fields**
- **Feedback loop from metering circuit provides additional stability and linearity**
- **Heavy filtering in power-supply section keeps hum to extremely low level**

EQUIPMENT SUPPLIED:
The RCA WG-300B shielded direct/low capacitance probe and cable is supplied with the WV-76A. A switch in the probe housing provides for switching from direct to low-capacitance input. In "DIRECT" position, probe measures up to 100 volts; in "LOW-CAP" position, probe can be used to measure up to 500 volts or +56 db.

$79.95* factory wired and calibrated.

$57.95* Kit

**User Price (Optional)*

Net

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RCA TEST EQUIPMENT

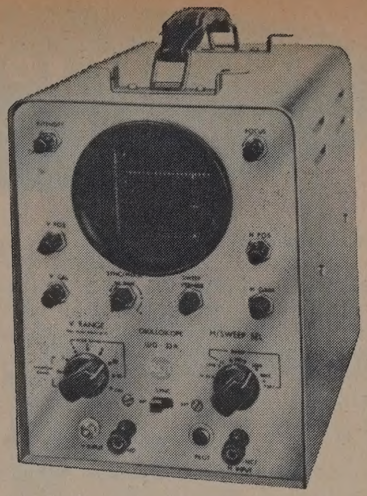
FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WO-33A OSCILLOSCOPE (Kit or Wired)

The WO-33A 3-inch Oscilloscope is the "all purpose" scope! All the bandwidth you need for servicing color-TV, video broadcast monitors and cameras; and for square-wave testing of audio and ultrasonic equipment! All the gain you need for low-level audio work — servicing pickups, microphones, preamps; plus signal-tracing radios, amplifiers—trouble shooting communications signaling systems, ham radio and hi-fi equipment, industrial electronics machinery and other applications.

With vertical amplifier in narrow-band position, sensitivity is 3 rms millivolts/inch; bandwidth within –3 db, 20 cps to 150 Kc. Wide band position: sensitivity 100 rms millivolts/inch; bandwidth within –3 db, 5.5 cps to 5.5 Mc. Sweep circuit: Sawtooth range from 15 cps to 75 Kc; sync — external, ± internal; line sweep — 160° adjustable phase; sync range—to 4.5 Mc.

- **for accuracy—voltage-calibrated frequency-compensated, 3-to-1 step attenuator**
- **for measurements—scaled graph screen and calibrating voltage source allows direct reading of peak-to-peak voltages**
- **for stability—"plus-minus" internal sync . . . holds sync to 4.5 Mc**
- **for completeness—shielded input cable with low-capacitance probe included**
- **for portability—compact size—W 6½" x H 8¾" x D 10¼"—weight only 14 lbs. Plus built-in brackets to hold power cord and cables**

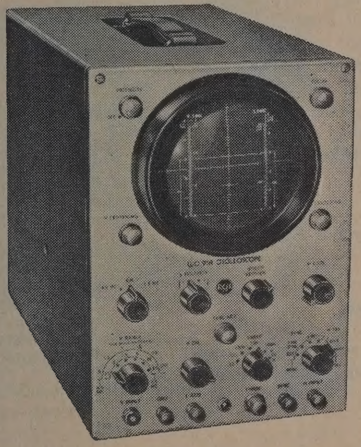


$79.95* —WO-33A(K) Oscilloscope Kit

$129.95* —WO-33A Oscilloscope

(Prices for the WO-33A(K) and WO-33A include Direct Low-Cap probe and cable, and instruction booklet.)

WO-91A 5" OSCILLOSCOPE



$249.50* complete with WG-300B two-way Direct/Low-Capacitance Probe and Cable, alligator clip and insulator, ground cable; green graph screen. Instruction booklet.

Application: for production and servicing both black-and-white and color TV receivers. Used to measure color burst signals and for trouble-shooting wide-band color circuits, signal tracing and aligning wide-band video amplifiers, and chrominance circuits. A multi-scale graph screen makes peak-to-peak voltage measurements as simple as with a VTVM. Response: Wide-band within ±1 db from 10 cps to 4.5 Mc; High sensitivity within –1 db from 10 cps to 0.5 Mc: within –6 db to 1.5 Mc. Sensitivity: 0.05 volt peak-to-peak per inch (0.018 volts rms) in high-sensitivity position; 0.15 volt peak-to-peak per inch (0.053 rms volts in wide-band position).

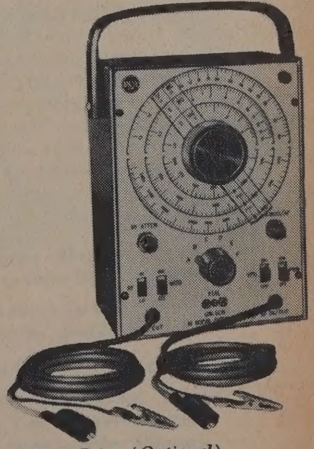
- **Voltage - calibrated, frequency - compensated, 3-to-1 step attenuator for "V" amplifier.**
- **Shielded vertical-input connector and shielded cable minimize hum, stray field pickup.**
- **Input Resistance—1 megohm shunted by 40$\mu\mu$f. Low capacitance position—10 megohm shunted by 11 $\mu\mu$f.**
- **Z-Axis input 12 volts for blanking.**
- **Preset "V" and "H" sweep positions.**
- **"Plus" or "Minus" internal-sync selector.**
- **Positive-lock internal sync.**
- **Sweep Frequency: 10 cps to 100 Kc.**
- **Maximum ac input: 600 volts peak-to-peak.**
- **Weight: 30 lbs. Size 13½" x 16½" x 9".**

WR-50A RF SIGNAL GENERATOR

The RCA WR-50A RF Signal Generator is a highly versatile, readily portable instrument designed for use in the shop, laboratory or classroom for general television and radio servicing and other applications requiring a continuous wave or modulated RF sine-wave signal in the range from 85 Kc to 40 Mc. The unit is particularly well suited for such applications as alignment and signal tracing of AM, FM, High-Fidelity and Citizens' Band Receivers, and signal tracing and trouble-shooting in television receivers.

- **Easy-to-read dial scale and pointer for variable oscillator**
- **Convenient switch and control locations on front panel**
- **Output cables permanently attached**
- **Built-in DC blocking capacitors**
- **Calibrating oscillator circuit with front panel socket for crystal**
- **400-cycle oscillator for internal modulation of AF output**
- **Shielded cables for RF and AF output**
- **Height 7¾", Width 5⅜", Depth 4¾", Weight 5 lbs.**

$59.95*



User Price (Optional)

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RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

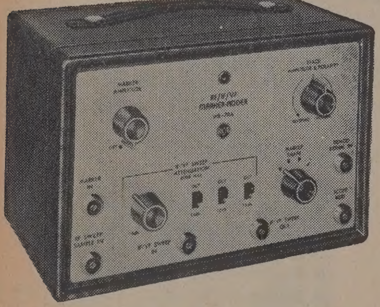
WR-99A CRYSTAL-CALIBRATED MARKER GENERATOR

Application: supplies a fundamental frequency rf carrier of crystal accuracy for use in aligning and trouble-shooting TV (color and black-and-white) and FM receivers, and other electronic equipment operating in the range of 19 to 260 Mc. Built-in crystal calibrator, heterodyne detector, amplifier and speaker provides calibrating beats at 1 Mc or 10 Mc intervals throughout entire tuning range which is covered by 8 bands. A built-in 4.5 Mc crystal provides necessary accuracy for alignment of intercarrier-if amplifiers and discriminators.

- **At least 0.1 volt output, into 95 ohms terminated.**
- **Provides signals for adjusting vertical or horizontal linearity.**
- **Precision matched impedance/resistance pad attenuator, 0-60 db in 5 db steps.**
- **Special modulation input available for re-transmission.**
- **Provision for use as Heterodyne Frequency Meter.**
- **Provides dual markers for band-width checks and rf alignment.**
- **Triple markers for sound-if alignment and band-width checks.**
- **Adjustable dial pointer for accurate registration with crystal-calibration check points.**

$242.50* complete with rf output cable, instruction booklet.

WR-70A RF/IF/VF MARKER ADDER



$74.50* complete with four coaxial cables and instruction booklet.

Application: for rf, if and video sweep alignment of both color and black-and-white TV receivers. Provides sharp, easy-to-read markers for alignment. A choice of four different marker shapes is available, permitting use of marker type best suited to the response curve. Designed for use with conventional marker and sweep generators, such as the RCA WR-39 and WR-89 series marker generators and the WR-59 and WR-69 series TV sweep generators. With the WR-70A, the marker signal is added to the sweep-response curve after the sweep signal is taken out of the receiver under test.

- **Eliminates or reduces distortion of sweep curve by the marker.**
- **Permits trap alignment without marker "suckout."**
- **Hi-Q markers — high in amplitude, narrow in width.**
- **Four marker choices — positive peak, negative peak, positive and negative peaks (wide band), positive and negative peaks (narrow band).**
- **Voltage stabilized for rock-steady trace display.**

SPECIFICATIONS

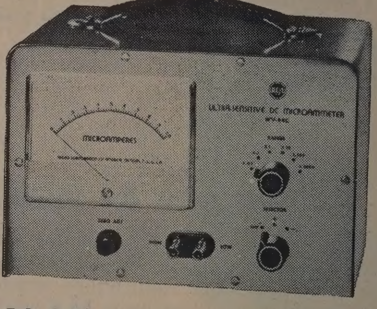
IF/VF sweep input — 50 Kc to 50 Mc. RF input — 50 Mc to 250 Mc.

MINIMUM INPUT VOLTAGES — IF/VF — 0.1 volts rms. RF Sweep sample input—0.005 volts rms. Marker input—0.1 volts rms. Maximum demodulator signal input—8 volts peak-to-peak.

MAXIMUM SIGNAL OUTPUT — Marker signal — 2.5 volts rms. Demodulator signal — 10 volts peak-to-peak. Input and output impedances all 100 ohms except demodulator signal input of 0.5 megohm.
Weight: 8 lbs. Size: 7½" x 10½" x 6¼".

WV-84C ULTRA-SENSITIVE DC MICROAMMETER

Application: a battery-operated vacuum tube microammeter designed for measuring minute direct currents, for making current and voltage measurements in electrolysis and corrosion investigations, and for checking currents in light meters, ultra-violet and infrared detectors, and spectrophotometric devices. Self-contained batteries permit use almost anywhere. Low-drain tubes extend battery life and protect the delicate meter against burnout due to accidental overloads. When used as a voltmeter, it is especially suited to measurements in circuits where loading is a critical factor. Can also be used as an ohmmeter to measure extremely high resistances, such as leakage and insulation resistance.



$110.00* includes 50- and 950-megohm multiplier resistors, instruction booklet. (less batteries)

- **Six direct-current ranges for measuring currents from 0.0002 to 1000 microamperes.**
- **Can be used as ohmmeter to measure resistance in the order of billions of ohms.**
- **Voltage drop for full-scale deflection only 0.5 volts.**
- **Input resistance of 100 megohms for measurement of voltages from 0.1 to 1 volt; 1000 megohms input resistance for voltages from 1 to 10 volts, 1005 megohms for voltages from 1 to 100 volts.**
- **Over-all microammeter accuracy on .01 range ±5% or better; accuracy on all other ranges ±4% or better.**
- **Size 7½" x 10½" x 6¼". Weight: 10 lbs. including batteries.**

*User Price (Optional)

© U.C.P., Inc.

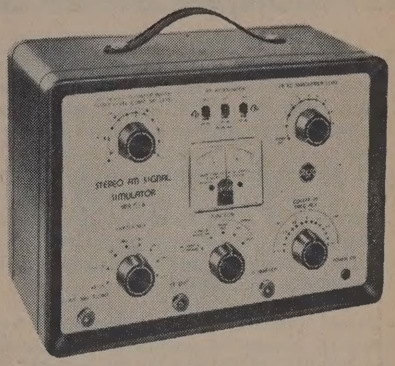
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-51A
STEREO FM SIGNAL SIMULATOR

The RCA WR-51A Stereo FM Signal Simulator is a compact, lightweight instrument designed to generate the signals necessary for complete service and maintenance of stereo multiplex FM receivers and adaptors.

- **Choice of 4 FM signals—Left Stereo, Right Stereo, Special Phase Test, Monaural FM**
- **Choice of 8 sine-wave frequencies (400 cps, 1 Kc, 5 Kc, 19 Kc, 28 Kc, 38 Kc, 48 Kc, 67 Kc) available separately or for modulating FM signals**
- **100 Mc carrier tuneable ± 0.8 Mc to permit selection of a quiet point in the FM band**
- **19 Kc subcarrier, crystal-controlled within ± 2 cps**
- **100 Mc sweep signal adjustable from 0 - 750 Kc at 60 cps rate**
- **Choice of 3 composite stereo output signals—Left Stereo, Right Stereo, Special Phase Test**
- **Choice of 3 sine-wave frequencies for composite stereo signals**
- **Crystal-controlled markers for receiver IF and RF alignment**
- **Zero-Center meter for checking the balance of stereo amplifier output**
- **Height 10″, Width 13½″, Depth 8″, Weight 14 lbs.**



$249.50*

WR-86A UHF SWEEP GENERATOR

UHF SWEEP GENERATOR

Invaluable for UHF TV application from 300 to 950 Mc, this UHF sweep generator combines a wide sweep range with a high output voltage of excellent amplitude linearity. A blanking circuit is included to provide a reference base line on an oscilloscope. Horizontal sweep frequency for the scope can be obtained from front-panel terminals. The WR-86A has 50-ohm output and will work into a 50-ohm unbalanced load or with the WG-296 padded balun provided into a 300-ohm balanced load. Use accessory WG-298A UHF Demodulator for visual observation and measurement of standing-wave ratio of termination on 300-ohm line. Width 13½″, Height 9¾″, Depth 7½″.

- **Output frequency continuously variable on center frequencies from 300 to 950 Mc.**
- **Sweep width is 10% of indicated dial frequency up to 750 Mc; 85 Mc width from 750 to 950 Mc.**
- **Adjustable piston-type attenuator gives 60 db range of attenuation.**
- **At least 0.6-volt output across either 50 ohms or 300 ohms.**
- **Amplitude variation at maximum sweep width no greater than 0-1 db/Mc.**
- **Lightweight and portable, attractively styled.**

EQUIPMENT SUPPLIED:

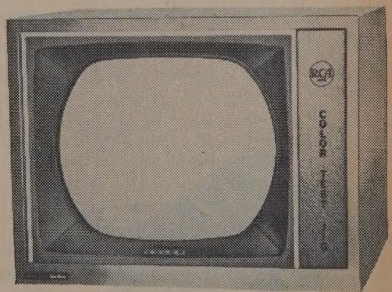
RF Output Cable — WG-227
50 to 300-ohm Padded Balun
Instruction Book

$137.50*

11A1015 COLOR TEST JIG

A "must" for any serviceman now servicing or planning to service Color TV receivers, the RCA Color Test Jig makes a one man service call out of costly two man cabinet pulling jobs. Eliminates necessity of removing picture tube from cabinet and of reconverging tube when chassis is returned. Convergence control panel provides dynamic as well as static convergence.

- Versatile—Can be used with CTC-4, 5, 7, 9, 10, 11 and 12 chassis.
- Safe—Supplied with factory-installed safety glass and kine mask.



SERVICE ACCESSORIES AVAILABLE FOR USE WITH RCA COLOR TEST JIG:

13A-100 High Voltage Extension Cable
13A-101 High Voltage Extension Cable
205-W1 Degaussing Coil
220-X1 Kinescope Socket Extension Cable
221-X1 Deflection Yoke Extension Cable
222-X1 Convergence Magnet Extension Cable
223-X1 High Voltage Extension Cable
224-X1 Convergence Magnet Extension Cable
225-X1 High Voltage Extension Cable
226-X1 Grid Shunt Switch & Cable
228-X1 Deflection Yoke Extension Cable
237-X1 Color Equalizer Magnet Kit

$135.00* Includes kit with all necessary components, hardware and instructions for installation of an RCA Tri-Color Kinescope (Kine not included)

**User Price (Optional)*

RCA TEST EQUIPMENT

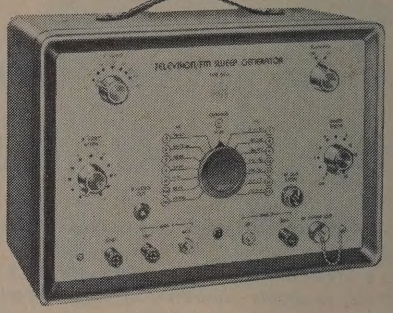
FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-69A

TELEVISION/FM SWEEP GENERATOR

Tops for visual alignment of both TV and FM receivers, the WR-69A has preset switch positions for all VHF TV channels, the FM broadcast band, and TV video, chrominance, and if frequencies. VHF output is on fundamental frequencies only; no beat notes or harmonics are used. Exceptionally good linearity is provided by a precision vibrator capacitor. Continuously adjustable sweep width and flat output make for accurate sweep response portrayals. The WR-69A is especially suited to alignment of color receivers. Special sample-voltage terminal on panel permits use with marker-adder units in alignment. Dual-piston attenuator provides smooth even attenuation over 60 db range. Width 13⅝″, Height 10″, Depth 7″.

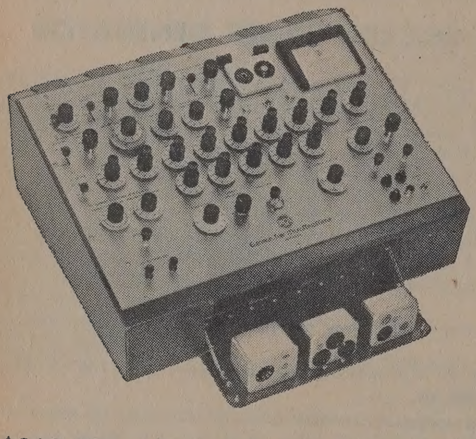
- **IF/Video output frequency continuously tunable from 50 Kc to 50 Mc.**
- **Sweep-frequency bandwidth continuously adjustable from 50 Kc to 20 Mc on if/video and fm - 12 Mc max. on TV channels.**
- **Return trace blanking.**
- **Two adjustable bias voltages available on front panel.**



$295.00*

(complete with RF Output cable, IF/Video Output cable and instruction booklet.)

WT-100A Electron-Tube MicroMhoMeter

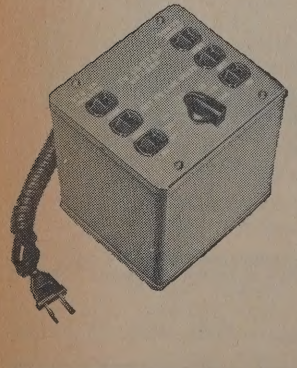


A precision laboratory measuring instrument which tests tubes under typical operating conditions as specified in the tube manufacturers' technical data manuals. It is particularly useful in production line testing, design and development work, pre-selecting for critical applications, quality control programs, and preventive maintenance. MEASUREMENTS PERFORMED: ac heater current from 0.02 ampere to 5 amperes • dc filament current up to 250 ma • voltage drop across rectifier tubes and semiconductor diodes • transconductance from 10 micromhos to 100,000 micromhos. Within the range of its facilities it will test: vacuum tubes—diodes, triodes, tetrodes, pentodes, heptodes, spetodes, octodes, and multi-unit types; gas tubes—thyratrons, voltage regulators, cold-cathode and hot cathode rectifiers; in these bases and envelopes—bases with 4, 5, and 6 pins, lock-in, miniature, sub-miniature, pencil and lighthouse; and semi-conductor diodes—small dry-disc rectifiers, germanium and silicon diode types. Size: W 23½″ x H 8″ x D 18½″. Weight: 50 lbs.

$989.00* Electron-Tube MicroMhoMeter

(complete with 4 multiple-socket plug-in units, instruction booklet.)

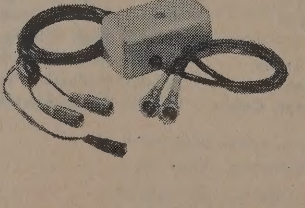
- **measures transconductance to an accuracy of better than ± 3%**
- **accurate measurement of "hybrid" auto receiver tube types under actual operating conditions**
- **built-in shorts test for any combination of tube elements**
- **measures transconductance up to 100,000 micromhos in six ranges**
- **measures both control-grid-to-plate and suppressor-grid-to-plate transconductance**
- **built-in calibrating circuit—no null meters or extra devices required**
- **meter completely burnout-proof**
- **regulated power supplies for dc plate and screen test voltages**



WP-25A
TV ISOTAP

Speeds up servicing, prevents damage to test equipment, minimizes shock hazard, cuts down costly returns. The WP-25A may be used as a high-medium-low voltage isolation transformer or as an auto-transformer for testing radio and TV receivers at various settings of line voltage. Supplies outputs of 130, 115, and 105 volts at maximum load and is tapped to match line voltages from 105 to 130 volts in six steps **$22.00***

WG-304B
RF MODULATOR



An accessory used to check the over-all frequency response of TV receivers from antenna to picture tube grid. The unit permits modulation of an rf marker signal from a marker generator (such as WR-89A or WR-99A) by a signal from a video sweep generator (such as WR-59C or WR-69A).

$16.50*

**User Price (Optional)*

Net

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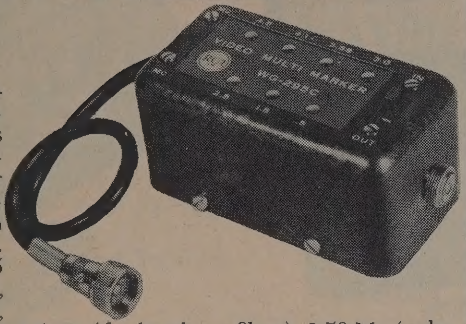
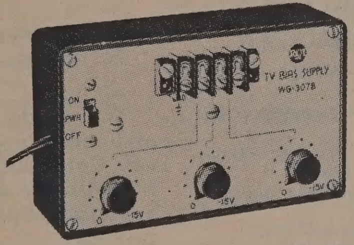
RCA TEST EQUIPMENT ACCESSORIES

WG-295C VIDEO MULTIMARKER



Provides seven simultaneous absorption-type markers at accurately preset frequencies for marking video response curves in color receivers. Markers are at 0.5 Mc (For (Q. R-Y, B-Y, G-Y filters), 1.5 Mc (for J filter), 2.5 Mc (for bandpass filter), 3.58 Mc (color subcarrier frequency), 3 and 4.1 Mc (video and bandpass amplifiers), and 4.5 Mc (sound-trap frequency). Each marker is identified simply by touching a corresponding contact on the WG-295C case. This reduces the amplitude of the particular marker. The WG-295C connects between the IF/VF output on the sweep generator and the video output cable. Equipped with shorting switch. With instruction booklet **$32.50***

WG-307B(K) TV BIAS SUPPLY KIT



Three separate dc output voltages each adjustable from 0 to −15 V. Panel isolated from all circuits. Measures 6⅛″ x 3¾″ x 2″. Weight: 22 ounces.

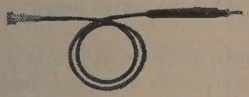
$11.95*

WG-301A CRYSTAL-DIODE PROBE

"Slip-on" type for use with the WG-299A, B or C DC/AC Ohms Probe and Cable extending the frequency range of VoltOhmysts® to 250 Mc.

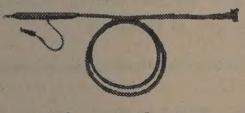
$7.75*

WG-299D DC/AC OHMS PROBE AND CABLE



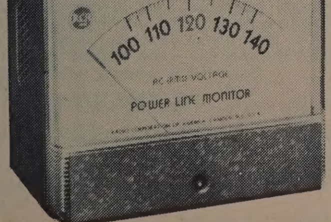
The WG-299D is a single-unit probe for use with Volt Ohmysts® except WV-77E. Switch provides instant selection of dc or ac/ohms operation. The WG-299D replaces the WG-299A, WG-299B and WG-299C. **$7.95***

WG-300B DIRECT/LOW CAPACITANCE PROBE AND CABLE



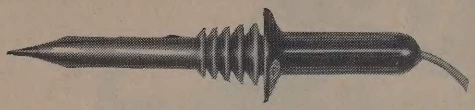
Designed for use with the RCA Scopes. Cable is 48″ long, completely shielded from microphone connector to probe tip to minimize hum and stray field pick-up. Built-in switch provides instant selection of direct or low-capacitance operation. Input characteristics: 10 megohms resistance, less than 12.5 $\mu\mu$f capacitance in low capacitance position. Includes ground lead and clip. **$9.95***

WV-120A POWER LINE MONITOR



For constant indication of power line voltage

Features: ● expanded scale 100 to 140 volts indicates true rms values ● accuracy ±2% at 120 volts, ±3% at 100 and 140 volts ● readable from 10 feet or more ● plugs in to power line outlet ● wide frequency range, 25 to 400 cps. H 3^15^⁄16″, W 5″, D 3¹⁄16″; Weight: 1½ lbs. **$14.95***



WG-289, WG-297 HIGH-VOLTAGE PROBES

The WG-289 extends the dc-voltage range of the WV-77A, WV-77B, WV-77C, WV-87A, WV-87B, WV-97A, WV-98A and WV-98B VoltOhmysts to 50,000 volts. The WG-297 extends the range of the WV-77E Volt-Ohmyst® and WV-38A volt-ohms-milliammeter to 50,000 volts dc.

The WG-289 is provided with a microphone-type connector, and the WG-297 is provided with banana-plugs for use with appropriate VoltOhmysts and other VTVM's, VOM's.

A choice of three multiplier resistors is available, enabling these probes to be used with many popular electronic and non-electronic volt-ohm-meters!

WG-206—1090-megohm multiplier resistor for VTVM's having 11-megohm input (multiplying factor 100).

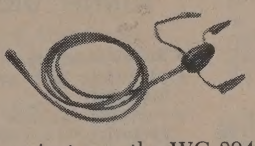
WG-210—900-megohm resistor multiplies 5000-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 10.

WG-211—495-megohm resistor multiplies 250-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 100.

WG-289 or WG-297, Probe Only	**$11.95***
WG-206, WG-210, or WG-211, Multiplier Resistor Only (each)	**$ 3.50***

*User Price (Optional)

WG-349A DIRECT/LOW-CAPACITANCE PROBE

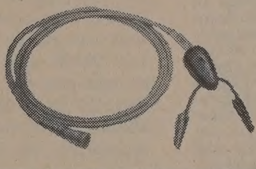


A 48-inch, small diameter, extremely flexible shielded cable designed for use with the WO-33A Oscilloscope. The probe consists of three short leads with alligator clips for ground, direct, and low-capacitance connections. For convenient use, the WG-394A eliminates the need for switching. It connects to the oscilloscope by means of a miniature-type microphone connector. Input characteristics: 10 megohms, 12 uuf capacjtance, when used with the WO-33A and WO-33A(K). **$5.95***

WG-302A RF/IF/VF SIGNAL TRACING PROBE

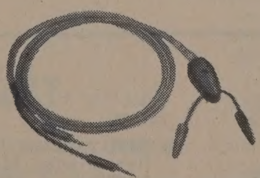
"Slip-on" type high-frequency probe designed for use with the WG-300A and B probe and cable to permit visual signal tracing for rapid isolation of trouble in radio receivers and in television if and video stages.............................$8.50*

WG-350A DEMODULATOR PROBE



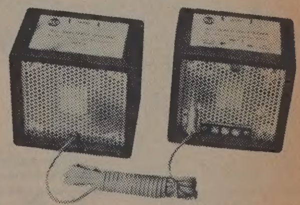
For use with the WO-33A Super-Portable Oscilloscope for demodulation and signal tracing of radio/TV rf and if signals. **$4.95***

WG-351A CRYSTAL DIODE PROBE



For extending the rf measuring capability of the WV-77E VoltOhmyst, and WV-77E(K) VoltOhmyst Kit, to over 100 Mc. **$4.95***

WG-360A PHASE CHECKER



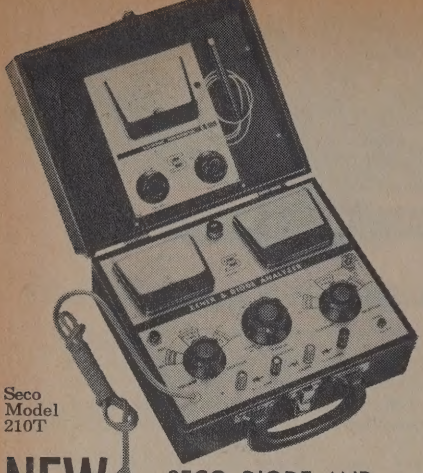
Used for a dynamic check of phasing in any audio system from input to the output of the speakers.

Features:

- sound powered; requires no external voltage source
- any VOM, VTVM, or oscilloscope may be used as the indicator

$14.95*

**User Price (Optional)*



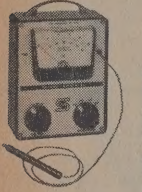
Seco
Model
210T

NEW... SECO DIODE AND ZENER ANALYZER

- 0-1-10-30 amp forward voltage drop test
- 0-150 V and 0-1500 V reverse current leakage test
- 0-30 V and 0-300 V zener saturation knee test
- −20° to 160° C temperature test

The Model 210T tests signal and power diodes from 20 MA to 30 amps and from 0-1500 volts. Zener diode test range is from a fraction of a volt to 300 volts and up to 100 MA. Selenium rectifier testing range is from a fraction of a volt forward drop to 300 volts. Temperature readings are continuous. This analyzer operates on standard 110 V 60 cycle AC current with two 1.5 V "C" cells powering the thermometer.

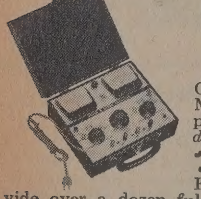
MODEL 210T . . . . . $274.95 NET
analyzer and thermometer in one unit.



SECO MODEL 212 ELECTRONIC THERMOMETER

Thermistor probe in unique bridge circuit gives accurate, continuous readings from anything it touches— -20° to 160° C range. Sensing tip is heat-insulated—can be held in hand or fastened to unit under test.

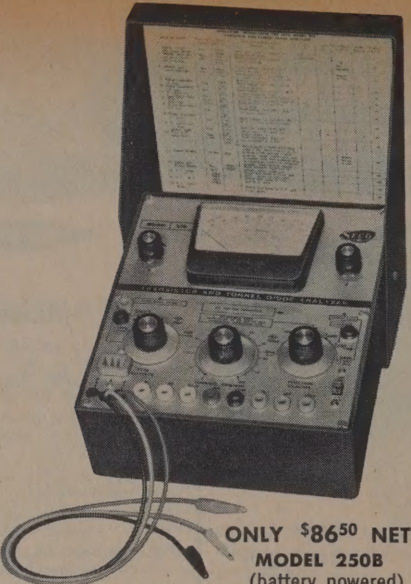
MODEL 212 $79.50 NET
thermometer only



SECO MODEL 210 DIODE AND ZENER ANALYZER

Gives you all features of Model 210T except temperature test. • *Tests zener diodes* • *Tests silicon diodes* • *Tests germanium diodes* • *Tests selenium rectifiers* Five sources of power provide over a dozen fully variable test voltages and currents—even a manually reset over-current relay. A practical test set for laboratory and engineer's use—or for incoming stock inspection.

MODEL 210 . . . . . . $199.50 NET
analyzer only



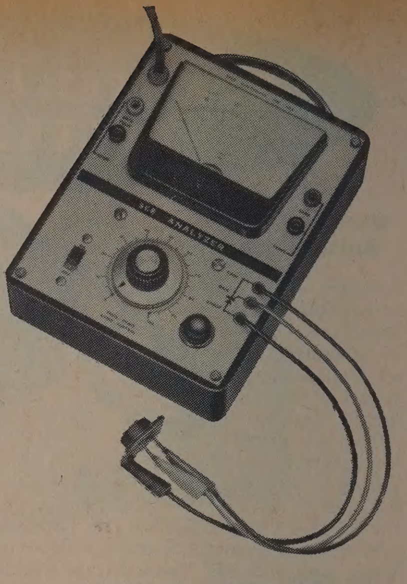
ONLY $86⁵⁰ NET
MODEL 250B
(battery powered)

Complete Transistor Lab

NEW TRANSISTOR AND TUNNEL DIODE ANALYZER

- **Requires no set-up data**
- **Identifies NPN and PNP transistors immediately**
- **Provides dynamic GO-No Go test without removing transistors from circuit**
- **Provides accurate DC analysis of transistors out of circuit**
- **Indicates transistor leakage and gain**
- **Matches transistors of similar types by AC dynamic test or DC analysis**
- **Tests signal and power transistors, also tunnel and zener diodes**
- **Indicates tunnel diode negative resistance characteristics**
- **Indicates diode forward conductance and reverse leakage current**
- **Includes VOM meter with appropriate ranges**

Here's the most rapid, complete and accurate semi-conductor test set in the medium priced field. You'd expect to pay much more for a set that — needs no setup data — includes a "speed test socket" —reads BOTH Icbo and Iceo leakage currents — subtracts Iceo leakage for TRUE gain readings. Available in two models: (1) the AC powered 250A at $98.50; and (2) the "B" battery powered 250B at $86.50. Choice of metal or wood case. Both include 24" test leads with slim line test prods.



MODEL 600 — $46.95 NET

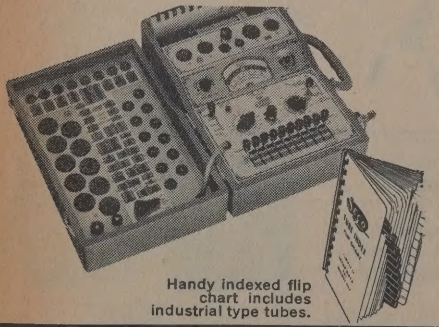
NEW SCR ANALYZER

Analyzes all SCR's, ½ to 225 amps, 25 to 600 volts

The Model 600 tests performance and characteristics of all types of Silicon Controlled Rectifiers which comply with the manufacturer's published specifications. No scope or charts needed!

- **Reveals gate conditions**
- **Reads anode current and phase angle**
- **Reads holding current direct**
- **Varies conduction angle from 0° to 160°**
- **Shows cathode current at varying gate pulse rates**

Sufficient gate pulse amplitude to fire all SCR's and not damage those requiring small gate currents. Special circuit protects Model 600 from shorted SCR and protects SCR if overload of gate current occurs. Unit can be used with scope to see phase angle across load and gate pulse, if desired.



Handy indexed flip chart includes industrial type tubes.

TESTS OVER 3,000 TUBE TYPES

- **GRID CIRCUIT TEST**—all tubes get 11 positive checks for leaks, shorts and grid emission. A Seco designed and patented "Electron-Eye" test.
- **DYNAMIC MUTUAL CONDUCTANCE TEST**—pre-wired chassis for effective testing of voltage amplifier and similar tube types.
- **CATHODE EMISSION TEST**—the best method for testing pulse amplifier, power output and damper type tubes.

Extremely accurate and easy to use, the Seco 107A "Tri-Tester" provides all essential tests. Guaranteed against obsolescences.

The "Tri-Tester" meets specifications for: FEDERAL STOCK CLASSIFICATION, Tube Tester Type 107-FSN-6625-713-9075.

This compact, portable unit is completely self-contained in a handsome, vinyl plastic carrying case. It is the finest, fastest, most complete tester on the market—at a popular price!

INDUSTRIAL & LAB MODEL 107A. . . . .$149.95 NET

SECO ELECTRONICS, INC.
MINNEAPOLIS, MINNESOTA
A DIVISION OF DI-ACRO CORPORATION

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Simpson

VOMs and ADAPTERS

All Prices Net

World Famous 260® VOM TWO NEW IMPROVED VERSIONS

- New Self-Shielded Movement
- New Higher Accuracy: 2% DC, 3% AC
- New Ruggedness from Spring-Backed Jewels
- Greater Repeatability
- Increased Linearity and Stability

OTHER FEATURES

- **Converts to 9 Different Testers (See Adapters Below)**
- **Over a Million Purchased . . . Recognized Reliability**
- **20,000 opv, DC; 5,000 opv, AC**
- **Adjust-A-Vue Handle**
- **Polarity Reversing Switch**
- **50 Microampere-250 Millivolt Range**
- **Easy-to-Read Scales:** Black and red, spread out for faster reading, less errors.
- **Popular DBM Ranges:** −20 Dbm to +50 DBM, one milliwatt in 600 ohms!
- **Improved Frequency Response in AC Measurements:** 5 to 500,000 cps.
- **Full-Wave Bridge Rectifier System.**

VOLTAGE RANGES

DC: 0-250mv; 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.
AC: 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.
AF: 0-2.5v; 0-10v; 0-50v; 0-250v.
DB (1MW—600Ω): −20 to +10 db; −8 to +22 db; +6 to +36 db; +20 to +50 db.

CURRENT RANGES

DC: 0-50ua; 0-1ma; 0-10ma; 0-100ma; 0-500ma; 0-10 amps.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ωctr.); 0-20 meg. (120KΩ ctr.)

FREQUENCY RESPONSE

Essentially flat through 50,000 cps.

ACCURACIES

DC Volts ±2% of full scale. DC current ±2% of full scale. AC Volts ±3% of full scale. DC resistance ±2% of arc length.
Size: 5¼" x 7" x 3⅛" . . . Net Wt.: 3½ lbs.
260 (Series 4) with Std. Scale complete with test leads No. 7500 and operator's manual . . . **$48.95**

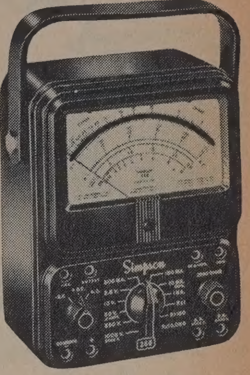
260 (SERIES 4M) with MIRROR SCALE complete with No. 7500 lead and operator's manual . . . **$50.95**

260 in roll top safety case, **260RT . . . $54.95**

ACCESSORIES

Leads, Probes and Cases	Part No.	Price
Banana plugs and alligator clip	7500	$ 2.10
Banana plugs and test prods	7538	2.50
10,000v High voltage probe....	0497	10.20
25,000v High voltage probe....	0247	11.50
50,000v High voltage probe....	0248	12.50
Leather Carrying Case	1818	8.50
Every-Redy Carry Case	4236	9.75
Roll top safety case only for 260, Series 3, 4, 4M, and model 261...............................	0249	9.95

Series 4
(Std. Scale)



Series 4M
(Mirror Scale)

260® VOM

NEW MODEL 261 VOM

ACCURACY (77°F): DCV, 0-1000 v, ±1½% F.S., 5000 v, ±2½% F.S.; DC MA & AMP, ±1½% F.S.; ACV, ±3%; ohms, ±2% of linear arc.

OTHER SPECIFICATIONS: See 260 VOM.

PRICE: Complete with leads and manual **$59.95**

NEW IMPROVED MODEL 270, SERIES 2 — HIGH ACCURACY VOM

- New High Flux, Self-Shielded Movement
- New Spring-Backed Jewels
- New Diode Overload Protection
- Special Calibration Circuit for Increased Accuracy
- Mirror Scale, Knife-Edge Pointer
- Gold Bonded Diodes for AC
- Excellent Repeatability
- Greater Accuracy Predictable Over a Wide Temperature Range
- DC Accuracy, 1¼%* Full Scale
- AC Accuracy, 1¾%* Full Scale
- Resistance Accuracy, ±1½° of Arc

*At an Ambient Temperature of 77°F

RANGES

DC Voltage (20,000 opv): 0-250 mv; 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AC Voltage (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AF Output Voltage (With .1 mfd. int. series capacitor): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v.
Volume Level, Decibels (Zero DB equal to 1 mw across a 600 ohm line): −20 to +10 DB; −8 to +22 DB; +6 to +36 DB; +20 to +50 DB.

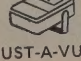
DC Resistance: 0-2000 ohms (12 ohms center); 0-200,000 ohms (1200 ohms center); 0-20 megohms (120,000 ohms center).

Direct Current: 0-50 mu a; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

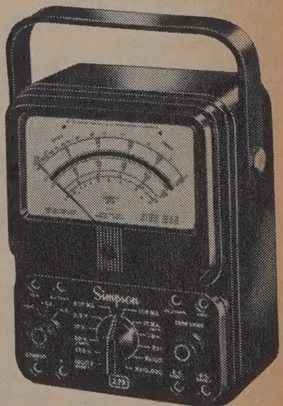
MODEL 270, Series 2, complete with test leads and Operator's Manual **$64.95**
MODEL 270 RT, in Roll-Top Case **$70.95**
See accessories under 260 VOM above.

270 SERIES 2 VOM

CONVERTS TO 9 DIFFERENT TESTERS WITH ADAPTERS BELOW

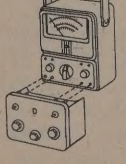


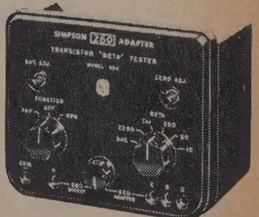
ADUST-A-VUE HANDLE



PLUG-IN ADAPTERS FOR 260® AND 270 VOMs ABOVE

Transistor Testers, Model 650	$26.95
DC VTVM, Model 651	32.95
Temperature Tester, Model 652	38.95
AC Ammeter, Model 653	18.95
Battery Tester, Model 656	19.95
Microvolt Attenuator, Model 655	$18.95
Audio Wattmeter, Model 654	18.95
Milliohmmeter, Model 657	39.95
DC Ammeter, Model 661	17.95





See your distributor or write for Bulletin 2064 giving specifications

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

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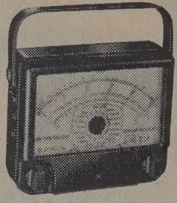
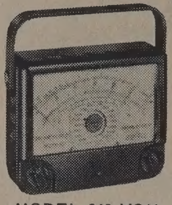
Simpson VOMs and TESTERS

All Prices Net

AC/DC VOLT-OHM-MILLIAMMETERS AND TESTERS*

MODEL 269 VOM
100,000 opv


MODEL 267 VOM
20,000 opv


MODEL 268 VOM
20,000 opv

MODEL 262 VOM
20,000 opv

MODEL 355
VOLT-OHMMETER

MODEL 269

VOLTAGE RANGES

DC: 1.6v; 8v; 40v; 160v; 400v; 1600v; 4000v.
AC: 3v; 8v; 40v; 160v; 800v.
AF: 3v; 8v; 40v; 160v.
DB: (1MW-600Ω): −12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 0-16ua; 0-160ua; 0-1.6ma; 0-16ma; 0-160ma; 0-1.6 amps; 0-16 amps.

RESISTANCE RANGES

0-2KΩ (18Ω ctr.); 0-20KΩ (180Ω ctr.); 0-200KΩ 1800Ω ctr.); 0-2 megΩ (18KΩ ctr.); 0-20 megΩ (180KΩ ctr.); 0-200 megΩ (1.8 megΩ ctr.).

FREQUENCY RESPONSE

Essentially flat through 50 kc.

ACCURACIES

DC Volts ±3% of full scale. **AC Volts** ±5% of full scale. **DC Resistance** ±3% of arc length.

Complete with test leads No. 8463, 4000 V DC probe extension and operator's manual.

$89.95

MODEL 267

DC Volts: 0-.25/2.5/10/50/250/500/1000.
AC Volts: 0-2.5/10/50/250/500/1000.
DC Microamperes: 0-50.
DC Milliamperes: 0-1/10/100/500.
DC Amperes: 0-10.
DB Scale: −20 +10, 1 mw, 600 ohms.
Output Ranges: AC volt ranges to 250 V with .1/mfd condenser in series.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg. (120KΩ ctr.)

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 KC ±5%
50 VAC 20 cps — 150 KC ±5%

ACCURACY

DC V, Milliamperes, Amperes ±3% F.S.; **DC Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohms** ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual **$54.95**

MODEL 262

VOLTAGE RANGES

DC: 1.6v; 8v; 40v; 160v; 400v; 1600v; 4000v.
AC: 3v; 8v; 40v; 160v; 800v.
AF: 3v; 8v; 40v; 160v.
DB: (1 MW-600Ω): −12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 80ua; 160ua; 1.6 ma; 16 ma; 1.6 amps; 16 amps.

RESISTANCE RANGES

DC: 0-500Ω (4.5Ω ctr.); 0-5KΩ (45Ω ctr.); 0-50KΩ (450Ω ctr.); 0-500KΩ (4,500Ω ctr.); 5 megΩ (45Ω ctr.); 0-50 megΩ (450KΩ ctr.).

FREQUENCY RESPONSE

Essentially flat through 50 kc.

ACCURACIES

DC Volts ±3% of full scale. **AC Volts** ±5% of full scale. **DC Resistance** ±3% of arc length Complete with test leads No. 8463, 4000 V DC probe extension and operator's manual.

$69.95

MODEL 268

AC Volts: 0-3/12/60/300/600/1200
DC Volts: 0-3/12/60/300/600/1200
DC Microamperes: 0-60.
DC Milliamperes: 0-1.2/12/120
DC Amperes: 0-12
DB Scale: −12 +11, 1 mw, 600 ohms

OUTPUT RANGES

AC Volt: Ranges to 300 V with .1/mfd condenser in series

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg (120KΩ ctr.)

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 kc ±5%; 50 VAC 20 cps — 150 kc ±5%

ACCURACY

DC V, Milliamperes, Amperes ±3% F.S.; **DC Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohms** ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual

$54.95

MODEL 355, MIDGETESTER®

10,000 Ohms per Volt AC-DC
Size: 2¾″ x 4½″ x 1″
Complete with test leads and operator's manual

$34.95

(WRITE FOR BULLETIN 2064)

*See "ACCESSORIES" Section for carrying cases, etc.

HAND-SIZE MICROTESTERS — DIMENSIONS, 3″ x 5⅞″ x 2½″

AC-DC Volt-Ohm-Milliammeter, Model 240 — 1000 ohms per volt, AC and DC.
AC Volts: 15, 150, 750, 3000.
DC Volts: 15, 75, 300, 750, 3000.
DC Milliamperes: 15, 150, 750.
Ohms: 0-3000 (center scale 30); 0-300,000 (center scale 3000). With Leads **$31.95**

AC-DC Volt-Ohm-Milliammeter, Model 230 — AC Volts: 10, 250, 1000 (400 ohms per volt) — DC Volts: 10, 50, 250, 1000 (1000 ohms per volt) — DC Milliamperes: 10, 50, 250 — Ohms: 0-1000, 0-100,000 — With Leads....**30.95**

DC Ammeter, Model 375 — 0-1, 2.5, 5, 10, 25 amps **21.95**

DC Milliammeter, Model 373 — 0-1, 5, 10, 25, 50, 100, 250, 1000 ma **21.95**

DC Microammeter, Model 374 — 0-50, 100, 250, 500, 1000 ua **24.95**

AC Ammeter, Model 370 — 0-1, 0-2.5, 0-5, 0-10, 0-25 amps **22.95**

AC Milliammeter (Self-contained transformer), Model 378 — 0-5, 25, 100, 250, 1000 ma **24.95**

DC Voltmeter (Res. 1000 ohms per volt), Model 377 — 0-1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 DC volts **22.95**

Millivoltmeter, Model 387 — 10, 30, 100, 1000 mv; with leads and manual....................**29.95**

AC Voltmeter (Rec. Type — 1000 ohms per volt), Model 376 — 0-5, 10, 25, 50, 100, 250, 500, 1000 AC volts **21.95**

AC Voltmeter, Model 371 — 0-150, 0-300, 0-600 volts **22.95**

Ohmmeter, Model 372 — 0-500 ohms (5 ohms center); 0-5000 ohms (50 ohms center); 0-50,000 ohms (500 ohms center); 0-500,000 ohms (5,000 ohms center); 0-5 meg. (50,000 ohms center); 0-50 meg. (500,000 ohms center) — with Leads **29.95**

Low Ohmmeter, Model 362 — 0-5, 0-25 ohms, with Leads and Manual **24.95**

AC Volt-Amp-Wattmeter, Model 390 — Volts: 0-150, 300 — Amps: 0-0.3, 15 — Watts: 0-300, 600, 1500, 3000 — with break-in plug and Leads **48.95**

AC-DC Volt-Wattmeter, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug **43.95**

AC-DC Volt-Wattmeter, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug **43.95**

Battery Tester, Model 379 — (Seperate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batteries) — with Leads **29.95**

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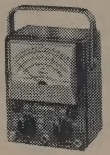
Simpson VTVMs and STANDARDS

All Prices Net

VACUUM TUBE VOLT-OHM-MILLIAMMETERS*


MODEL 311
AC-DC

MODEL 303
AC-DC

MODEL 715
AC ONLY

MODEL 311 VOLTAGE RANGES

DC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v. (22 megΩ input impedance)
AC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v; (RMS) (Min. 2.2 megΩ input impedance)
PP: 0-4v; 14v; 40v; 140v; 400v; 1400v; 4000v. (Min. 2.2 megΩ input impedance)
AF: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v. (30 cycles to 100Kc ±5%)
RF: 1.5v; 5v; 15v; 50v; 150v. with probe (50 cycles to 100mc, 0-150 VRMS)

RESISTANCE RANGES

1KΩ (10Ω center); 10KΩ (100Ω center); 100KΩ (1KΩ center); 1 megΩ (10KΩ center); 10 megΩ (100KΩ center); 100 megΩ (1 megΩ center); 1000 megΩ (10 megΩ center).

FREQUENCY RESPONSE

±5% to 100 kc (with RF probe, usable to 250 mc)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC Volts: ±3% of full scale.
AC Volts: ±5% of full scale.
DC Resistance: ±3% of arc length (resistance).

Model 311 with AC/DC ohms probe No. 0734, ground lead No. 0733 and operator's manual. **$69.95**

MODEL 303 VOLTAGE RANGES

AC-DC: 1.2v; 12v; 60v; 300v; 1200v.
AF: 1.2v; 12v; 60v.
RF: 20 volts maximum. (With RF Probe)
DB: −20 to +63 db in five ranges.

RESISTANCE RANGES

1KΩ (10Ω center); 100KΩ (1000Ω center); 1 megΩ (10KΩ center); 10 megΩ (100KΩ center); 1000 megΩ (10 megΩ center).

INPUT IMPEDANCE

10 megohms (all ranges) on DCV; 275K ohms shunted by 210 uuf on ACV.

FREQUENCY RESPONSE

AF: Flat to 100 Kc on the three low AC ranges
RF: 20 Kc to 100 Mc (with RF probe)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC Volts: ±3% of full scale.
AC Volts: ±5% of full scale.
DC Resistance: ±3% of arc length (resistance).

Model 303 with DCV probe No. 0067, ACV-ohm probe No. 0068, ground lead No. 0069 and operator's manual. **$73.95**

Model 303RT (in roll top safety case) **$82.95**

MODEL 715 RANGES

Volts: 0-.01/.03/.1/.3/1/3/10 30 100 300 rms.
Decibels: Total Range −52 to +52 DBM.
Zero DBM: 1 millivolt in 600 ohms.
Scale Markings: −12 to +2 DB.

ACCURACY

±5% of full scale.

TESTER SENSITIVITY

10 millivolts full scale on lowest range.

INPUT IMPEDANCE

Minimum 1 meg @ 1 KC shunted by 25 uuf.

INTERNAL MULTIPLIERS

±1% precision resistors.

FREQUENCY RESPONSE

10 cps to 400 KC ±1 DB.

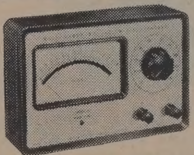
INPUT POWER REQUIREMENTS

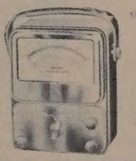
110 to 125 VRMS, 50/60 cps @ 10 watts.

Complete with operator's manual and shielded input cable. **$69.95**

*Also See "ACCESSORIES" Section.

PORTABLE STANDARDS


NEW
SERIES 1700
MULTI-RANGE


MODELS
9 & 10

MODEL
880

Accuracy: Model 9, ½ of 1% of Full Scale @ 77°F. Models 10 and 880, 1% of Full Scale @ 77°F. 4½″ Hand drawn scale, mirror; knife-edge pointer.

SPECIFICATIONS	DC Voltmeter MODEL 1700	DC Ammeter MODEL 1701	DC Milliammeter MODEL 1702	DC Microammeter MODEL 1703	DC Millivoltmeter MODEL 1704
RANGES	0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500	0-0.75, 1.5, 3.0, 7.5, 15, 30, 75	0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500	0-75, 150, 750, 1500	0-30, 75, 150, 750, 1500
ACCURACY	½ of 1% of Full Scale in Horizontal Position @ 25°C				
LOSS (Max.)	1 milliampere	45 mv (approx.)	50 to 150 mv	.160—.578 Volts	5 ma
EXT. TEMP. INFLUENCE	¼ of 1%	¼ of 1%	¼ of 1%	¼ of 1%	¼ of 1%
DIELECTRIC TEST	3000 V. RMS	3000 V. RMS	3000 V. RMS	3300 V. RMS	3300 V. RMS
MIRROR SCALE LENGTH	5.5″	5.5″	5.5″	5.5″	5.5″
DAMPING	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic
METER MOVEMENT	Deep Core Magnet Meter Movement (1-5/16″)				
SENSITIVITY	1000 Ω/V	—	—	—	200 Ω/V
ZERO ADJUSTER	External	External	External	External	External
SIZE	11⅜″ x 7⅜″ x 3¼″	11⅜″ x 7⅜″ x 3¼″	11⅜″ x 7⅜″ x 3¼″	11⅜″ x 7⅜″ x 3¼″	11⅜″ x 7⅜″ x 3¼″
PRICE	$160.00	$155.00	$135.00	$140.00	$150.00

Made to Conform to ASA C 39.1-1959

MODELS 9 & 10 — D'ARSONVAL (DC) AND IRON VANE (AC) METER MOVEMENTS

SINGLE RANGE	DC Model 9	AC Model 10	MULTIPLE RANGE	DC Model 9	AC Model 10
VOLTMETERS			**VOLTMETERS**		
50	$ 49.50	$43.95	15-150	$ 55.00	—
100	49.50	43.95	150-300	60.45	$55.00
150	49.50	43.95	300-750	66.00	60.45
300	55.00	49.50	15-150-300	63.75	—
			150-300-600	66.00	60.45
MILLIAMMETERS			**MILLIAMMETERS**		
1	57.15	—	10-100	55.00	—
50	49.50	43.95	25-250	55.00	—
100	49.50	43.95	100-500	55.00	—
500	49.50	43.95	—	—	—
AMMETERS			**AMMETERS**		
5	49.50	43.95	2.5-5	55.00	—
15	49.50	43.95	5-10	55.00	—
30	49.50	43.95	2.5-10-25	60.45	—
50	49.50	43.95	10-25-50	60.45	—
100	52.50	—	—	—	—
MICROAMMETERS					
5	71.55	—	—	—	—
100	67.00	—	—	—	—
200	64.95	—	—	—	—

MODEL 880 — AC-DC DYNAMOMETER TYPE METER MOVEMENT

WATTMETERS, SINGLE PHASE — Maximum Volts 150-300

Amperes Normal	Amperes Maximum	Watts Range Low	Watts Range High	Price
1	1.5	100	200	$60.45
2	3.0	200	400	60.45
5	7.5	500	1000	60.45
10	15.	1000	2000	60.45
20	30.	2000	4000	66.00
50	75.	5000	10000	66.00

WATTMETERS, DOUBLE CURRENT RANGE — Maximum Volts 150-300

2.5- 5	3.75- 7.5	250- 500-1000	$76.95
5-10	7.5 -15.0	500-1000-2000	76.95

VOLTMETERS — Single and Multiple Ranges

Maximum Volts	Price
0-150	$60.45
0-150-300	71.55
0-75-150-300	76.95
0-150-300-600	76.95

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Simpson TEST EQUIPMENT

All Prices Net

LABORATORY TYPE TEST EQUIPMENT

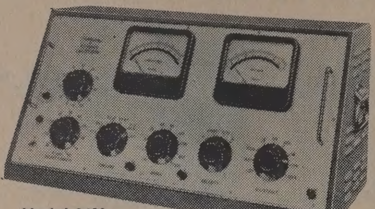
Model 1900

NEW DC DECADING VOLTMETER

MODEL 1900

- **Voltage Range: 1 through 1000 Volts D.C.**
- **Voltage Accuracy:** p/m .1% of reading at 25°C; p/m .25% of reading from 15°C to 35°C
- **Accuracy of Calibration Source:** p/m .05%
- **Accuracy of Decades:** p/m .05%
- **Sensitivity:** 1000 ohms per volt
- **External Power Requirements:** none
- **Internal Power Requirements:** 1-45 volt battery Eveready No. 482 or equivalent (used for the calibration circuit only)
- **Battery Life:** approx. 1 yr. (2 calib./day)
- **Size:** 17″ x 9″ x 6½″ **Weight:** 16½ lbs.

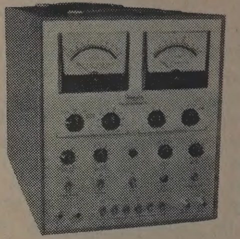
Price **$345.00**


Model 2600

SELF-POWERED LAB STANDARD CALIBRATOR MODEL 2600

A Self-Powered Calibrator for Electrical Instrument Maintenance and High Accuracy Testing. Two terminal connections cover all 49 ranges for unusually fast operation. DC accuracy is ±0.5% F.S.; AC, ±0.75% F.S. (at 77°F, 25°C). Separate meters (**self shielded** movements) for DC and AC readings. **Size:** 15″ x 31″ x 15″. **Power Requirement:** Approx. 50 watts. **Net Wt:** 132 lbs. @ 117.5 volts, 60 cps.

Price **$1620**

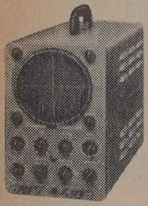

Model 2620

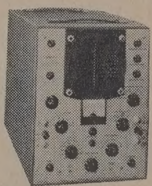
PULSE GENERATOR MODEL 2620

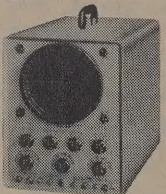
No Other Unit Offers Such Accuracy, Versatility, and Set-Up Speed Within This Price Range. Twin meters read pulse repetition frequency and pulse duration simultaneously. Rise time is 0.02 microseconds; decay time, 0.03 microseconds. Pulse duration, continuously variable from 0.1 to 1000 microseconds. Jitter, less than 0.005 microseconds. Pulse repetition rate, continuously variable from 10 to 100,000 pps in four ranges. **Size** 15½″ x 13¼″ x 21″. **Net Wt.** 66 lbs. 110v., 50/60 cycles.

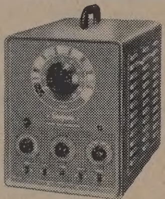
Price **$625**

WRITE FOR ADDITIONAL SPECIFICATIONS

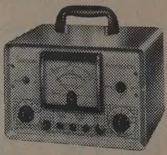

← Model 466 General Purpose Scope


Model 2610 Wide Band Scope →


← Model 458 Color Scope


Model 430 Color Bar Generator →

Model 434A White Dot Generator


Model 383A Capacitor Leakage Tester

Model 466 GENERAL PURPOSE SCOPE

Freq. Resp. of Vert. Ampl.: From 15 cycles/sec to 100 kc/sec, flat within ±1 db; 6 db down at 250 kc/sec; usable to 1 Mc/sec.
Maximum Vertical Deflection Sensitivity: 30 Millivolts RMS/inch.
Frequency Response of Horizontal Amplifier: From 15 cycles/sec to 20 Kc, flat within ±1 db; 6 db down at 100 Kc/sec.
Maximum Horizontal Deflection Sensitivity: 0.7 volt RMS/inch.
Z-Axis Sensitivity (Voltage Required to Extinguish Beam): 20 volts RMS.
Calibrating Voltage (at 117.5 VAC power source): 1 volt P-P ±10%.
Maximum Input Voltage: 400 volts peak.
Input Resistance: 0.1 Meg (at atten. x 1); 0.5 Meg (at atten. x 100).
Input Capacitance: 40 uuf (at atten. x 1); 35 uuf (at atten. x 100).
Sawtooth Sweep Range: 15 cps to 80 Kc/sec.
Size: 7⅞″ x 12¼″ x 16⅛″. **Net Wt:** 19 lbs.
For use on 110 volts, 60 cycles.
Complete with input cable No. 0100 and operator's manual . . . **$149.95**

Model 2610 WIDE BAND OSCILLOSCOPE

For the 1001 Jobs Where You Don't Need an Expensive Specialized Scope. Vertical sensitivity, 6 mv RMS/in. Vertical calibration accuracy, ±3%. Response (linear position): DC to 5.0 mc/sec, ±0.5 db; DC to 8.0 mc/sec, ±1.5 db. Response (transient position): DC to 3.5 mc/sec, −3 db, and −6 db at 5.0 mc/sec. Triggered and recurrent sweeps. Precalibrated triggered sweep positions of 5, 50, 500, 5000 microseconds. **Size:** 15″ x 11½″ x 20½″. Net Wt. 53 lbs. **Power Requirements:** Approx. 200 watts at 117.5 v., 50/60 cps. Price **$575.00**

WRITE FOR ADDITIONAL SPECIFICATIONS

MODEL 458 COLOR SCOPE

- 7″ Cathode Ray Tube.
- Wide band operation, the frequency response is flat within ±1.0 db to 4.5 Mc. Faithfully displays COLOR BURST frequency with a sensitivity greater than 40 Mv rms per inch of vertical deflection.
- Narrow band operation, the frequency response is flat within ±2 db from 10 cycles to 300 Kc with a sensitivity greater than 15 Mv rms per inch.
- Good square wave response provides accurate representation of sync pulses and composite wave-form pattern for trouble-shooting video, sync, and sweep circuits.
- Horizontal sweep, to 250 Kc, for expansion of high frequency wave-form detail and color burst.
- Vernier and Compensated Decimal Step Attenuator for better signal controls.
- Provision for Intensity Modulation of CRT.
- 1 volt peak calibrating voltage.

Line Voltage: 105/125v, 50/60 cycle.
Size: 11″ x 16½″ x 14½″. **Weight:** 29 lbs.
Complete with operator's manual . . . **$249.95**

Model 430 COLOR BAR GENERATOR

- 100% Saturated NTSC Signals • Outputs pictured on a single, master control . . . a color print of the signal output is featured at each position on the master control • Line Voltage 105/125 volts, 60 cycle only.

Outputs—Y; chroma; color bar (8 bars simultaneously); R-Y; B-Y; R-Y and B-Y simultaneously; I; Q; I and Q simultaneously; G-Y at 90°; sync and burst; horizontal sync; high level 3.58 megacycle output; high level modulated rf output; positive or negative video output. 4.5 Megacycle (crystal controlled) marker for proper tuning. **Chroma Level Switch** — Zero db for checking older style receivers and some current models; −6 db for video checks of newer receivers using vestigal color sideband alignment; −15 db for checking color sync lock under weak signal conditions. Variable chroma control position for other chroma levels.
Size: 19¼″ x 17½″ x 14″. **Shpg. Wt:** 26 lbs.

Complete with operator's manual and test leads . . . **$395.00**

Model 434A WHITE DOT GENERATOR

- White dot pattern with variable dot size 1 to 8 scanning lines, corresponding dot widths).
- Variable dot number (from 6 to 12 horizontal dots, and 6 to 14 vertical dots).

Horizontal and vertical sync pulses provided with adjustable vertical sync which can be operated at line frequency or off-line frequency. Also operates as a hum-check control. Modulated r-f output is available, operating on fundamentals from Channel 2 to Channel 6. Pos. or neg. video output is also available. **Line Voltage:** 105/125v, 60 cycles, 45 watts.
Complete with operator's manual . . . **$149.95**

Model 383A CAPACITOR LEAKAGE TESTER

- Measures the leakage resistance of defective paper, mica, or ceramic capacitors. Indicates directly the capacitance of good paper, mica, or ceramic capacitors over a range of 10.0 mmf to 10.0 mf.

Pulse technique detects many marginal capacitors. All measurements are made under load conditions. No adjusting of a bridge circuit and balancing controls. **Line Voltage:** 105/125 v, 60 cycle only. Complete with test leads and operator's manual . . . **$89.95**

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

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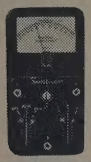
Simpson TEST EQUIPMENT and ACCESSORIES

All Prices Net

TEMPERATURE TESTERS


Model 385-3L

Models 388-3L
and 389-3L

MODEL 395-3L — Accuracy: ±1°F about center scale; ±2°F at either end. For measuring temperatures from +70°F to as low as −50°F. Available in 3 lead model only. Supplied with one No. 0010 15 ft. thermistor probe and operator's manual. **$33.95***

MODEL 388-3L — Therm-O-Meter — Measures Temperatures −50°F to +1000°F. **Accuracy:** +1½ scale divisions. Standard models have combination Fahrenheit and Centigrade scale. Sensing Element: Thermocouple (Iron-Constantan). Supplied with internal battery and one 8″ general purpose probe No. 0190, and operator's manual. Order additional probes as required. Model 388-3L: For three probes. **$67.95***

MODEL 389-3L — This dual range instrument provides a means for temperature measurements between −50°F and +100°F and between +100°F and +250°F. Accuracy is ±2°F. Supplied with internal battery and one 15′ thermistor type probe (No. 0010). Order additional probes as required. Model 389-3L (for 3 leads). **$62.95***

*See accessories below for other types of probe leads.

ACCESSORIES FOR SIMPSON TEST EQUIPMENT

CARRYING CASES

For Models	Cat. No.	Price
260, 270 — Leather	1818	$8.50
260, 270, 303 — Ever-Redy Leather	4236	9.75
262, 267, 268, 269, 388-3L, 389-3L— Ever-Redy Vinyl	5262	9.95
385-3L — Ever-Redy Leather	8073	8.75
391, 392 — Leatherette-Covered	3413	5.95
355 — Ever-Redy Leather	6355	3.95
All Microtesters — Ever-Redy Leather	4299	7.50
All Microtesters — Leatherette-Covered	3011	5.95
Roll Top Safety Case For 260-2, 9, 10, 880's	6192	9.95
Roll Top Safety Case for 260-3, 270	0249	9.95
Roll Top Safety Case For 303	6379	9.95
1700 Series — Every-Redy Leather	9808	18.90

LEADS

For Models		
260 Series 3, Banana plugs and alligator clip	7500	$2.10
260 Series 3, 267, 268 Banana plugs and test prods	7538	2.50
355 Test prods.	8600	1.85
385-3L, 389-3L Free Air Temperature Probe	0789	7.45
385-3L, 389-3L, 15 ft. Thermistor lead	0010	5.50
385-3L, 389-3L, 30 ft. Thermistor lead	0216	6.45
385-3L, 389-3L, 50 ft. Thermistor lead	0415	7.60
385-3L, 389-3L, 100 ft. Thermistor lead	0416	10.40
385-3L, 389-3L, 150 ft. Thermistor Lead	0417	12.90
388-3L Rugged Service Lead (8 ft.)	0496	5.25
388-3L General purpose thermocouple	0190	4.95
388-3L Surface temperature themocouple (300°F. Max.)	0187	8.90
389-3L Surface temperature probe	0790	5.95
650 Test Lead	7545	1.20
651 Ground Lead	7547	1.20
1704 — 0.26Ω leads for Millivolt Standard; spade lugs both ends	0105	2.95
466, 715 Input cable	0100	2.85
Test prods and elbow terminals 230/240/260-2/372	8381	2.50
Test prods and spade terminals — all microtesters	8379	2.50
Alligator clips and elbow terminals — 230/240/260-2/372	8375	1.75
Alligator clips and spade terminals — all microtesters	8376	1.75
Combination test prods with removable alligator clips and elbow terminals 262/269	8463	2.30

PROBES — High Voltage Types

For Models	Cat. No.	Price
221 (30,000v)	0009	$12.55
260 Series 2 (25,000v)	0007	10.75
260 Series 2 (50,000v)	0179	12.50
260 Series 3 (10,000v)	0507	10.20
260 Series 3 (25,000v)	0508	11.50
260 Series 3 (50,000v)	0509	12.50
262 (16,000v)	0172	11.95
262 (40,000v)	0180	12.50
267 2500 V DC Multiplier	8568	3.60
267 5000 V DC Multiplier	8569	3.60
267 2500 V AC Multiplier	8570	3.60
267 5000 V AC Multiplier	8571	3.60
267 10,000 V DC	0507	10.20
267 25,000 V DC	0508	11.50
267 50,000 V DC	0509	12.50
268 3000 V DC Multiplier	8572	3.60
268 6000 V DC Multiplier	8573	3.60
268 3000 V AC Multiplier	8574	3.60
268 6000 V AC Multiplier	0004	3.60
268 12,000 V DC	0510	10.95
268 30,000 V DC	0511	10.95
269 (16,000v)	0173	11.95
269 (40,000v)	0181	13.50
270 (10,000v)	0507	10.20
270 (25,000v)	0508	11.50
270 (50,000v)	0509	12.50
303 (30,000v)	0074	11.95

PROBES — Miscellaneous Types

For Models		
303 High frequency	0073	$8.75
303 AC Probe	0068	3.55
303 DC Probe	0067	3.55
303 Ground lead	0069	1.00
311 High Frequency	0731	11.50
311 High voltage	0732	11.75
311 DC-AC/OHMS	0734	8.50
311 Ground lead	0733	1.25
479, 480 High Frequency crystal probe and cable	0185	7.65
479, 480 Output cable 45 mc.	0046	4.25
Voltage Doubler	0740	14.65
Low Capacitance	0741	14.00
100:1 Voltage Divider	0742	15.20
Direct Resistive Dual Purpose	0743	11.55

OSCILLOSCOPE PROBE KIT — Model 739

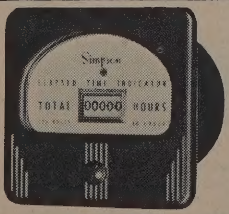
For use with Model 458 Oscilloscope. Includes *low capacity probe, voltage doubler, detector, 100:1 voltage divider and dual direct — resistive. (isolation)

Complete with 4 probes, plastic roll, and operator's manual......$45.15

*For Model 458 only.

3½″ ELAPSED TIME METERS

Model 55ET


Model 57ET

These meters use self-starting synchronous clock motors.

They indicate up to 9999.9, then recycle and begin again at 0000.0. Molded bakelite case depth, 2⁹⁄₁₆″.

Range	Model 55 ET	Model 57 ET
120V-60 cps	$18.85	$18.85
240V-60 cps	19.15	19.15

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

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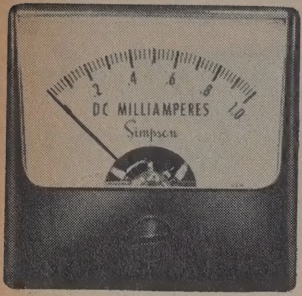
Simpson

1½", 2½", 3½", 4½" WIDE-VUE PANEL METERS

All Prices Net



WIDE-VUE SPECIFICATIONS

Size	Model No.	Accuracy	Scale Length
1½"	1212C	±2% of full scale	1.5" @ 90° Arc (38.1 mm)
	1214C	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
2½"	1227C 1257	±2% of full scale	2.5" (63.8 mm)
3½"	1327C 1337C	±2% of full scale	3.04" (77.2 mm)
	1347C	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1357	±2% of full scale	
4½"	1329C 1339C	±2% of full scale	3.93" (100 mm)
	1349C	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1359	±2% of full scale	

Calibration and Dials — All DC Wide-Vue meters listed below have the Simpson self-shielded core-type movement (Calibration not affected by stray magnetic fields). All AC Wide-Vue meters have the Simpson Iron-vane type movement. AC Milliammeters and Ammeters to 5 amps are calibrated for use on 25 through 800 cps; AC Ammeters (10 amps and up) and all AC Voltmeters are calibrated for use on 25 through 125 cps. For other specified frequencies up to 800 cps add $1.65 to the list price.

DC VOLTMETERS

Core Magnet Type Movement

Range	Resistance	1½" Model 1212C	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
0-5		$12.75	$13.80	$14.25	$15.75
0-8		—	—	14.25	15.75
0-10		12.75	13.80	14.25	15.75
0-15		12.75	13.80	14.25	15.75
0-25	1000	12.75	13.80	14.25	15.75
0-30	ohms	12.75	13.80	14.25	15.75
0-50	Per	12.75	13.80	14.25	15.75
0-100	volt	12.75	13.80	14.25	15.75
0-150		12.75	13.80	14.25	15.75
0-200		—	13.80	14.25	15.75
0-250		—	13.80	14.25	15.75
0-300		—	13.80	14.25	15.75
0-300	2000	12.75	—	—	—
0-500	ohms	16.05	14.25	15.00	16.20
0-750	per	—	17.55	15.00	16.20
0-1000	volt	—	17.85	18.60	19.80

External Multipliers, Model 183 on 1½" DC meters 500 volts or higher; on 2½" DC meters 750 volts or higher; and on 3½" and 4½" DC meters 1000 volts or higher. All others are self contained.

DC AMMETERS—Core Magnet Type Movement

0-1	.050	$12.75	$13.05	$13.65	$15.00
0-1.5	.033	—	13.05	13.65	15.00
0-2	.025	12.75	13.05	13.65	15.00
0-3	.0166	12.75	13.05	13.65	15.00
0-5	.010	12.75	13.05	13.65	15.00
0-10	.005	12.75	13.05	13.65	15.00
0-15	.0033	12.75	13.05	13.65	15.00
0-25	.0020	12.75	13.05	13.65	15.00
0-30	.0017	—	13.05	13.65	15.00
0-50	.001	12.75	13.05	13.65	15.00
0-100	10.0	—	13.05	13.65	15.00
0-150	10.0	—	13.05	13.65	15.00
0-200	10.0	—	13.05	13.65	15.00
0-300	10.0	—	13.05	13.65	15.00
0-500	10.0	—	—	13.65	15.00
15-0-15	.0033	—	—	14.55	—
30-0-30	.0017	—	—	14.55	—
50-0-50	.001	—	—	14.55	—

1½" DC Ammeters are self contained through 10 amps. 15 Amps and higher are supplied as 50 MV meters to be used with external shunts. 2½", 3½" and 4½" DC ammeters are self contained through 50 amps. Higher range DC ammeters are 50 MV meters to be used with external shunts.

DC MILLIAMMETERS

Core Magnet Type Movement

0-1	46	$12.30	$12.90	$13.50	$14.25
0-3	46	—	12.90	13.50	14.25
0-5	23	12.30	12.90	13.50	14.25
0-10	2.2	12.30	12.90	13.50	14.25
0-15	2.2	12.30	12.90	13.50	14.25
0-20	2.2	—	12.90	13.50	14.25
0-25	6.0	12.75	13.20	13.80	15.00

DC MILLIAMMETERS (Continued)

Range	(ohms) Approx. Resistance	1½" Model 1212C	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
0-50	3.0	12.75	13.20	13.80	15.00
0-100	1.5	12.75	13.20	13.80	15.00
0-150	1.0	12.75	13.20	13.80	15.00
0-200	.75	12.75	13.20	13.80	15.00
0-250	.60	12.75	13.20	13.80	15.00
0-300	.50	12.75	13.20	13.80	15.00
0-500	.30	12.90	13.20	13.80	15.00
0-750	.20	—	—	13.80	15.00
0-1000	.05	—	13.20	13.80	15.00

DC MICROAMMETERS

Core Magnet Type Movement

0-15‡	4500	—	—	$22.50	$24.60
0-25‡	2200	—	$19.20	20.10	22.20
0-50‡	2000	$16.20	16.65	17.10	18.45
0-100	2000	14.40	15.00	15.60	17.40
0-200	1000	13.05	13.65	14.25	15.75
0-500	200	12.80	13.50	13.95	15.15
25-0-25‡	2000	16.35	—	17.25	18.60
50-0-50	2000	14.55	15.15	15.75	17.55
100-0-100	1000	13.20	13.80	14.40	15.90
500-0-500	46	12.45	13.05	13.65	14.40

DC MILLIVOLTMETERS

Core Magnet Type Movement

0-50 10 7005 $12.75, 7010 $13.05, 7020 $13.65, 7030 $15.00

Simpson VU meters meet all the Electrical and Ballistic specifications established by Bell Laboratories and American Standards Association as required by broadcasting, communication and sound engineers. They are available with either type A or B scales. Type A scale stresses the level in VU for monitoring wire lines. Type B scale stresses per cent use of transmitter output and is the standard for broadcast service.

VOLUME LEVEL INDICATORS
DECIBEL METERS

Zero Power Level—6 MW. 500 Ohm Line—Core Magnet Type Movement

Range	1½" Model 1214C	2½" Model 1247C	3½" Model 1347C	4½" Model 1349C
General-Purpose 5000 ohms	---	$18.35	$19.60	$20.25

VOLUME LEVEL INDICATORS—V. U. METERS

Reference Level—1 MW. 600 Ohms Line. External Magnet Type Movement except Model 1214C which is core magnet type movement.

Range	1½" Model 1214C	2½" Model 1247	3½" Model 1347	4½" Model 1349
‡A—Scale	$19.80	$21.90	$22.50	$23.70
‡B—Scale	—	—	22.50	23.70

DC GALVANOMETERS

Core Magnet Type Movement

Scale	Sensitivity Micro-Amperes	Resistance (ohms)	1½" Model 1212C	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
50-0-50	500-0-500	46	$12.45	$12.90	$13.65	$14.40
50-0-50	75-0-75	2000	13.20	13.95	15.15	16.65

RF AMMETERS—Core Magnet Type Movement

Range Amperes	(ohms) Approx. Resistance	1½" Model 1212C	2½" Model 1237C	3½" Model 1337C	4½" Model 1339C
0-1	.343	—	—	$15.90	$18.15

RF AMMETERS (Continued)

0-1.5	.200	—	—	15.90	18.15
0-2	.120	—	—	15.90	18.15
0-2.5	.10	—	—	15.90	18.15
0-3	.08	—	—	15.90	18.15
0-5	.045	—	—	15.90	18.15
0-8	.031	—	—	15.90	18.15
0-10	.023	—	—	15.90	18.15

RF MILLIAMMETERS

0-500	.63	—	—	$18.75	$21.15

AC VOLTMETERS—Iron Vane Type Movement

Range	(ohms) Approx. Resistance	2½" Model 1257	3½" Model 1357	4½" Model 1359
0-5	33	—	$12.60	$14.40
0-10	133	$12.30	12.60	14.40
0-15	300	12.30	12.60	14.40
0-25	833	12.45	13.05	14.40
0-50	3,333	12.45	13.05	14.40
0-100	16,666	12.75	13.65	14.40
0-150	25,000	13.05	13.95	15.00
0-250	41,166	13.05	13.95	15.00
0-300	50,000	13.05	13.95	15.00
0-500	83,333	16.65	17.85	19.05

External Multipliers, Model 183 (Featured on back page) are furnished on AC meters having a range of 500 volts or higher. All others are self contained.

AC AMMETERS—Iron Vane Type Movement

0-1	.287	$11.70	$12.45	$14.55
0-1.5	.185	11.70	12.45	14.55
0-2	.115	—	12.45	14.55
0-3	.027	11.70	12.45	14.55
0-5	.012	11.70	12.45	14.55
0-10	.0031	11.70	12.45	14.55
0-15	.0022	11.70	12.45	14.55
0-25	.0003	12.30	12.90	15.00
0-30	.0003	12.30	12.90	15.00
0-50	.0006	12.30	12.90	15.00
0-75	.012	—	13.05	13.95
0-100	.012	11.70	12.45	14.55
0-150	.012	11.70	12.45	14.55
0-200	.012	11.70	12.45	14.55
0-300	.012	11.70	12.45	14.55

2½" AC ammeters are self contained through 50 amps. 3½" and 4½" AC ammeters self contained through 75 amps. Higher range AC ammeters are 5 amp meters to be used with external current transformer.

AC MILLIAMMETERS

Iron Vane Type Movement

0-10	2,000	$11.70	$12.45	$14.55
0-50	80	11.70	12.45	14.55
0-100	20	11.70	12.45	14.55
0-250	5	11.70	12.45	14.55
0-500	.9	11.70	12.45	14.55

AC VOLTMETERS—RECTIFIER TYPE

Core Magnet Type Movement

Range Volts	Resistance	1½" Model 1214C	2½" Model 1247C	3½" Model 1347C	4½" Model 1349C
0-5		$17.70	$16.50	$18.30	$20.10
0-10	1000	17.70	16.50	18.30	20.10
0-15	ohms	—	—	18.30	20.10
0-50	per	—	—	18.30	20.10
0-150	volt	17.70	16.50	18.30	20.10
0-300	2000	—	16.50	18.30	20.10
0-150	ohms per volt	—	—	19.05	20.85
	2000				
0-300	ohms per volt	18.30	—	—	—

Ranges listed without prices(—) are available on special order only. †1½" DC Milliammeters all self contained. Voltage drop 150 MV or less. ‡Has external magnet type movement except Model 1212C & 1214C which have core type meter movements. Resistance of Model 1212C 0-50 MIC Meter is 5300 ohms. Range 0-15 in models 1327 and 1329 and the 0125 MIC in model 1329 are high flux movements and cannot be recalibrated for use on steel panels. (—) Available on special order only.

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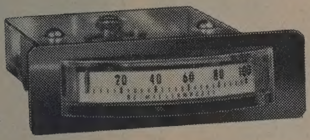
Simpson

METERS and METER RELAYS

All Prices Net

EDGEWISE METERS



Types: Direct Current and AC Rectifier. **Accuracy:** DC 2% of full scale; AC Rectifier, 5%. **Standard Scale:** Black numbers on white background; 1⅞″ long. **Terminals:** Solder or stud type. **Case:** Dust-proof, molded lucite.

DC MILLIAMMETERS

Range Milliamperes	Approx. Resistance	Model 1522C
0-1	20 ohms	$14.85
0-5	2.5 ohms	14.85
0-10	13.5 ohms	14.85
0-25	5.4 ohms	15.45
0-50	2.7 ohms	15.45
0-100	1.35 ohms	15.45
0-150	.9 ohms	15.45
0-200	.675 ohms	15.45
0-250	.54 ohms	15.45
0-300	.45 ohms	15.45
0-500	.27 ohms	15.45

VOLUME LEVEL INDICATORS—VU Meters

Range	Model 1542E
"A" SCALE	$24.75
"B" SCALE	24.75

AC VOLTMETERS—Rectifier Type

Range	Approx. Resistance	Model 1542C
0-150	1000 ohms	$19.20
0-300	per volt	19.20

DC VOLTMETERS

Range Volts	Approx. Resistance	Model 1522C
0-10	1000 ohms per volt	$15.00
0-15	1000 ohms per volt	15.00
0-25	1000 ohms per volt	15.00
0-50	1000 ohms per volt	15.00
0-150	1000 ohms per volt	15.00
0-300	1000 ohms per volt	15.00
0-500	2000 ohms per volt	15.15

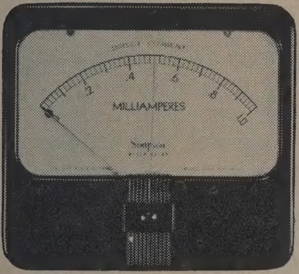
DC AMMETERS

Range	Approx. Resistance	Model 1522C
0-1	.050 ohms	$15.75
0-5	.010 ohms	15.75
0-10	.005 ohms	15.75
0-15	.0033 ohms	15.75
0-25	.002 ohms	15.75
0-50	.001 ohms	15.75

DC MICROAMMETERS

Range	Approx. Resistance	Model 1522C
0-25	3150 ohms	$22.20
0-50	1800 ohms	19.50
0-100	1100 ohms	17.40
0-200	290 ohms	15.75
0-500	90 ohms	15.30

4½″ METER RELAY — FRONT ADJUSTABLE — MODEL 29XA



General: Model 29XA Relays are of the D'Arsonval Type. Externally adjusted limit setting contacts are non-locking and intended for circuits with external locking provisions or for light duty non-locking applications.

Calibration: Accuracies ±2% of full scale.

Contacts: Platinum Alloy. For use @ 15 volts DC @ 10 milliamperes maximum on resistive or diode protected inductive loads.

Contact Adjustment: Contacts are externally adjustable over 95° of 100° scale arc, and within 5° of each other. The pointer will indicate the contact make position within 2° of actual contact intercept.

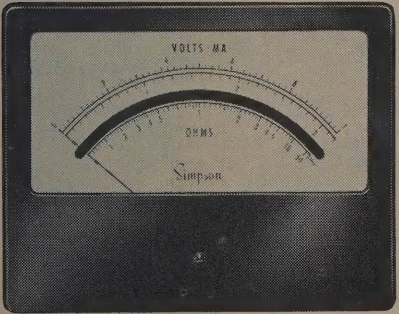
Contact Differential: Normally, contacts will close within 2% of full scale value and break within 10% of full scale value.

Insulation: Breakdown 300 volts AC from Relay contacts to meter circuit. 3 KV AC from Relay terminals to mounting panel. (All Tests at 60 cycles.)

Range	Description	Approx. Resistance (ohms)	Price
0-50	DC Microammeter	2500	$44.10
0-100	DC Microammeter	1800	42.15
0-200	DC Microammeter	1000	39.60
0-500	DC Microammeter	280	39.00
0-1	DC Milliammeter	140	38.10
0-50	DC Millivoltmeter	10	38.25

1% AND 2% PANEL METERS — 6″ SIZE

Red knife-edge pointers; ¼-28 studs; front surface glass mirrors on 1% meters; molded black phenolic case; scale length, 4.6″ (114.8 mm).



6 INCH RECTANGULAR PANEL METERS — 1% & 2% tolerance

Range	Approx. Resist.	DC Voltmeters[1] Model 1150E, 2%	Resist. (ohms)	DC Millivoltmeters[1] Model 1150E, 2%	Resist. (ohms)	DC Ammeters[1] Model 1150E, 2%
0-1		—	—	—	.050	$19.65
0-5		—	—	—	.010	19.65
0-10		$18.90	—	—	.005	19.65
0-15		—	—	—	.0033	19.65
0-25	1000	18.90	—	—	.0020	19.65
0-30	OHMS	—	—	—	.0016	19.65
0-50	PER	18.90	10	$19.65	.001	19.65
0-100	VOLT	18.90	—	—	—	—
0-150		18.90	—	—	—	—
0-200		—	—	—	—	—
0-300		18.90	—	—	—	—
0-500	2000 Ω/V	19.50	—	—	—	—

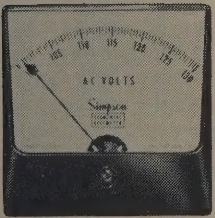
Range	Approx. Resist.	DC Milliammeters[1] Model 1150E, 2%	DC Milliammeters[1] Model 1150E-1 1%	Resist. (ohms)	DC Microammeters[2] Model 1150H, 2%	DC Microammeters[2] Model 1150H-1, 1%
0-1	46	$18.90	$23.85	—	—	—
0-10	10	18.90	—	—	—	—
0-15	—	—	—	5500	$29.95	—
0-25	—	—	—	5500	26.85	—
0-50	2.0	18.90	—	5000	24.45	$29.40
0-100	1.0	18.90	23.85	2800	23.40	23.35
0-200	—	—	—	1200	20.40	25.35
0-500	.2	18.90	23.85	200	19.80	24.75

[1] All ranges 1-5/16″ shallow core movement.

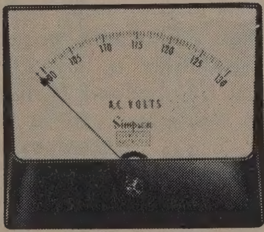
[2] Ranges 15 through 100 use high flux movements designated as Model 1150H and cannot be calibrated for use on steel panels. Ranges 200 through 500 use 1-5/16″ shallow core movement designated as 1150E.

†Supplied as Model 1150E which has 1-5/16″ shallow core meter movement. Ranges listed without prices (—) are available on special order only.

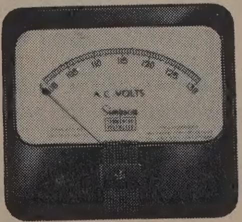
SEGMENTAL VOLTMETERS (Expanded Scale) 100 — 130 AC Volts



3½″ Model 1347C Wide-Vue



4½″ Model 1349C Wide-Vue



4½″ Model 49C Rectangular

Simpson Segmental AC Voltmeters improve meter accuracy and readability over most conventional type meters. Used primarily in monitoring line voltage, these segmental Voltmeters increase the efficiency, reliability and life of costly components.

WIDE-VUE

Size	Model	Price
3½″	1347C	$40.80
4½″	1349C	40.95

RECTANGULAR

Model	Price
—	—
49C	$40.50

MODEL NO.	1347C	1349C	49C
Scale Length	3.14″ (79.7 mm)	3.93″ (100 mm)	3.5″ (89.0 mm)
Operating Frequency Range	20-2000 cps		
Accuracy	±.5% of Center scale value at 25°C and 60 cps sine wave		
Movement Type	Core Magnet Meter Movement		
Frequency Influence	Less than 0.5% of Center scale value for temperature range of ±20° from 25°C.		
Sensitivity	160 to 100 ohms/volt end scale values. Sensitivity decreases as input voltage increases.		
Intermittent Input Voltage (max.)	150 volt RMS for 10 seconds		

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

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Simpson

2½, 3½, 4½ ROUND AND RECTANGULAR
PANEL METERS

All Prices Net

AC VOLTMETERS—RECTIFIER TYPE

Range	Ohms	2½" Models 145/147	3½" Models 45/47	4½" Model 49
0-1		—	18.75	20.55
0-3		—	18.75	20.55
0-5		—	18.75	20.55
0-10	2000 ohms per volt	—	18.75	20.55
0-15		—	18.75	20.55
0-50		—	18.75	20.55
0-100		—	18.75	20.55
0-150		—	18.75	20.55
0-300		—	18.75	20.55

AC MILLIAMMETERS—RECTIFIER TYPE

0-1	600	—	18.00	19.50
0-2	400	—	18.00	19.50
0-5	200	—	18.00	19.50

AC MICROAMMETERS—RECTIFIER TYPE

0-100	3400	—	20.55	22.05
0-200	2400	—	18.15	19.80
0-300	1800	—	18.00	19.50
0-500	1200	—	17.70	19.20

AC VOLTMETERS

Range	Approx. Resistance	2½" Models 155/157	3½" Models 55/57	4½" Model 59
0-1.5	3 ohms	$11.70	$12.45	$14.10
0-3	12	11.70	12.45	14.10
0-5	33	11.70	12.45	14.10
0-10	133	11.70	12.45	14.10
0-15	300	11.70	12.45	14.10
0-25	833	12.15	12.75	14.10
0-50	3,333	12.15	12.75	14.10
0-100	16,666	13.20	13.80	14.70
0-150	25,000	12.90	13.65	14.85
0-250	41,166	12.90	13.65	14.85
0-300	50,000	12.90	13.65	14.85
0-500	83,333	17.40	17.70	18.30
0-750	125,000	19.20	19.35	20.10
0-1000	166,666	20.70	20.85	21.75

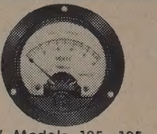
AC AMMETERS

†0-1	.287	$11.55	$12.15	$14.40
†0-1.5	.185	11.55	12.15	14.40
†0-2	.115	11.55	12.15	14.40
†0-3	.027	11.55	12.15	14.40
†0-5	.012	11.55	12.15	14.40
†0-10	.003	11.55	12.15	14.40
†0-15	.0022	11.55	12.15	14.40
†0-25	.0003	11.85	12.45	15.00
†0-30	.0003	11.85	12.45	15.00
†0-50	.0006	11.85	12.45	15.00
0-75	.012	11.55	12.15	14.40
†0-75	.012	—	13.20	14.55
0-100	.012	11.55	12.15	14.40
0-150	.012	11.55	12.15	14.40
0-200	.012	11.55	12.15	14.40
0-250	.012	11.55	12.15	14.40
0-300	.012	11.55	12.15	14.40
0-500	.012	11.55	12.15	14.40

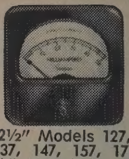
AC MILLIAMMETERS

0-10	2,000 ohms	$11.55	$12.15	$14.40
0-15	875	11.55	12.15	14.40
0-25	390	11.55	12.15	14.40
0-50	80	11.55	12.15	14.40
0-100	20	11.55	12.15	14.40
0-250	5	11.55	12.15	14.40
0-500	.9	11.55	12.15	14.40

ACCURACY: DC METERS OR AC IRON VANE TYPE METERS ±2% OF FULL SCALE; RECTIFIER TYPE ±3% OF FULL SCALE @ 25°C. AND 60 CYCLE SINE WAVE.



2½" Models 125, 135, 145, 155, 175
3½" Models 25, 35, 45, 55, 75



2½" Models 127, 137, 147, 157, 177
3½" Models 27, 37, 47, 57, 77

4½" Models 29, 39, 49, 59, 79, 142

All meters listed below, except wattmeters, have the Simpson external magnet meter movement, calibrated for non-magnet panel. When ordering these meters for use on steel panels, state panel thickness and add 1.65 to price shown below for re-calibration. Wattmeters listed below have the Simpson dynamometer movement calibrated for either magnetic or non-magnetic panels and for a frequency range of 25—125 cycles.

DC VOLTMETERS

External Magnet Meter Movement

Range	(ohms) Approx. Resistance	2½" Models 125/127	3½" Models 25/27	4½" Model 29
0-1.5	1000	$13.05	$13.50	$14.85
0-3	1000	13.05	13.50	14.85
0-5	1000	13.05	13.50	14.85
0-8	1000	13.05	13.50	14.85
0-10	1000	13.05	13.50	14.85
0-15	1000	13.05	13.50	14.85
0-25	1000	13.05	13.50	14.85
0-30	1000	13.05	13.50	14.85
0-50	1000	13.05	13.50	14.85
0-100	1000	13.05	13.50	14.85
0-150	1000	13.05	13.50	14.85
0-200	1000	13.05	13.50	14.85
0-250	1000	13.05	13.50	14.85
0-300	1000	13.05	13.50	14.85
0-500	2000	13.80	14.10	15.30
0-750	2000	16.65	14.10	15.30
0-1000	2000	16.95	17.55	19.20
0-1500	2000	—	17.85	19.50
0-2000	2000	17.55	18.15	19.80
0-2500	2000	—	18.45	20.10
0-3000	2000	18.15	18.75	20.40
0-4000	2000	—	19.05	20.70
0-5000	2000	—	19.35	21.00

DC MILLIAMETERS

External Magnet Meter Movement

0-1	46	$12.15	$12.75	$13.95
0-1.5	46	12.15	12.75	13.95
0-3	46	12.15	12.75	13.95
0-5	23	12.15	12.75	13.95
0-10	2.2	12.15	12.75	13.95
0-15	2.2	12.15	12.75	13.95
0-20	2.2	12.15	12.75	13.95
0-25	6.0	12.90	13.35	14.85
0-50	3.0	12.90	13.35	14.85
0-75	2.0	12.90	13.35	14.85
0-100	1.5	12.90	13.35	14.85
0-150	1.0	12.90	13.35	14.85
0-200	.75	12.90	13.35	14.85
0-250	.60	12.90	13.35	14.85
0-300	.50	12.90	13.35	14.85
0-500	.30	12.90	13.35	14.85
0-750	.20	12.90	13.35	14.85
0-1000	.05	12.90	13.35	14.85

DC AMMETERS

0-1	.050	$12.90	$13.35	$14.70
0-1.5	.033	12.90	13.35	14.70
0-2	.025	12.90	13.35	14.70
0-3	.0166	12.90	13.35	14.70
0-5	.010	12.90	13.35	14.70
0-10	.005	12.90	13.35	14.70
0-15	.0033	12.90	13.35	14.70
0-25	.0020	12.90	13.35	14.70
0-30	.0017	12.90	13.35	14.70
0-50	.001	12.90	13.35	14.70
0-75	10.0	12.45	12.90	14.40
0-100	10.0	12.45	12.90	14.40
0-150	10.0	12.45	12.90	14.40
0-200	10.0	12.45	12.90	14.40
0-250	10.0	12.45	12.90	14.40
0-300	10.0	12.45	12.90	14.40
0-500	10.0	12.45	12.90	14.40
0-750	10.0	12.45	12.90	14.40
0-1000	10.0	12.45	12.90	14.40
15-0-15	.0033	13.20	13.65	15.15
30-0-30	.0017	13.20	13.65	15.15
50-0-50	.001	13.20	13.65	15.15

DC MICROAMMETERS

0-15*	4500	—	$22.95	$25.05
0-25‡	2200	$19.65	20.55	22.65
0-50	2000	17.10	17.55	18.90
0-100	2000	14.85	15.45	17.25
0-200	1000	13.20	13.95	15.45
0-500	200	12.75	13.35	14.85
25-0-25	2000	17.35	17.70	19.05
50-0-50	2000	15.00	15.60	17.40
100-0-100	1000	12.90	14.10	15.75
500-0-500	46	12.30	12.90	14.10

DC MILLIVOLTMETERS

0-50	10	$12.45	$12.90	$14.40
0-100	20	12.45	12.90	14.40

RF AMMETERS — Internal Thermocouple Type

Range	Approx. Resistance	2½" Model 135/137	3½" Model 35/37	4½" Model 39
0-1	.343 ohms	$14.10	$15.00	$17.25
0-1.5	.200	14.10	15.00	17.25
0-2	.120	14.10	15.00	17.25
0-2.5	.10	14.10	15.00	17.25
0-3	.08	14.10	15.00	17.25
0-5	.045	14.10	15.00	17.25
0-8	.031	14.10	15.00	17.25
0-10	.023	14.10	15.00	17.25

RF MILLIAMMETERS ‡0-100 linear scale

‡0-115	4.0 ohms	—	28.35	29.85
0-150	4.5	—	18.00	20.40
0-250	3.5	—	18.00	20.40
0-500	.63	—	18.00	20.40

VOL. LEVEL INDICATORS — DECIBEL METERS

Zero Power Level — 6 MW 500 Ohm Line

Range	2½" Models 145/147	3½" Models 45/47	4½" Model 49
General Purpose Type −10 to +6 db 5000 ohms	$18.30	$18.45	$20.10
High Speed Type −10 to +6 db 5000 ohms	—	20.40	21.75
Low Speed Type −10 to +6 db 5000 ohms	—	20.25	21.15

VOLUME LEVEL INDICATORS — VU METERS

Reference Level — 1 MW 600 Ohm Line

Range Scale 3900 ohms	2½" Models 145/147	3½" Models 45/47	4½" Model 142
"A" Scale; Not Illuminated	—	$22.35	$24.15
"B" Scale; Not Illuminated	—	22.35	24.15
"A" Scale; Illuminated	—	—	26.70
"B" Scale; Illuminated	—	—	26.70

WATTMETERS — DYNAMOMETER TYPE

Single Phase

Range Watts	Max. Volts	Max. Amps.	2½" Model 175/177	3½" Model 75/77	4½" Model 79
0-70	150	1.0	$26.25	$27.60	$33.90
0-150	150	2.0	26.25	27.60	33.90
0-300	150	4.0	26.25	27.60	33.90
0-750	150	10.0	26.25	27.50	33.90
0-600	300	4.0	28.65	30.00	36.45
0-1500	300	10.0	28.65	30.00	36.45
0-3000	300	20.0	28.65	30.00	36.45

COMPENSATED WATTMETERS — Single Phase

0-10	300	.175	—	44.10	45.75
0-20	300	.400	—	44.10	45.75
0-20	500	.175	—	44.10	45.75
0-30	300	.650	—	44.10	45.75
0-30	500	.300	—	44.10	45.75
0-50	500	1.25	—	44.10	45.75

DC GALVANOMETERS

Scale	Sensitivity Micro-Amperes	Res. Ohms	2½" Models 125/127	3½" Models 25/27	4½" Model 29
50-0-50	75-0-75	2000	13.65	15.00	15.45
50-0-50	500-0-500	46	$12.75	$13.20	$14.85

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†AC ammeters are self-contained. Higher range AC ammeters can be supplied with external current transformers and include 2 foot leads. External current transformers should be ordered separately. DC ammeters are self-contained for ranges up to and including 50 amperes. Higher range DC ammeters (50MV) listed above can be supplied with external shunts and include 5 foot leads. *These meters use the Hi Flux magnet and cannot be recalibrated for use on steel panels. ‡The Model 29 meters in this range use the Hi Flux magnet and cannot be recalibrated for use on steel panels.

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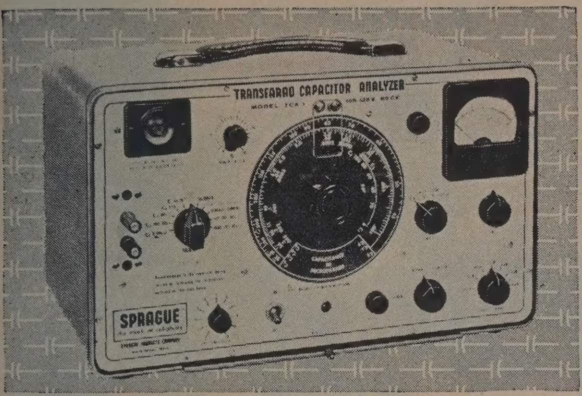
SPRAGUE TEST EQUIPMENT

TCA-1 TRANSFARAD®

THE FIRST ANALYZER SPECIFICALLY DESIGNED TO SAFELY TEST TRANSISTOR CIRCUIT CAPACITORS



The Transfarad is specifically designed to safely test all low-voltage, low-leakage aluminum, tantalum, film, paper, and ceramic capacitors used in transistorized circuits. A must for modern industrial laboratories and electronic service shops.

MODEL TCA-1 TRANSFARAD	**115 VAC/60cy**	**$197.50 net**
MODEL TCA-1S TRANSFARAD	**115/230 VAC, 50cy**	**$232.50 net**

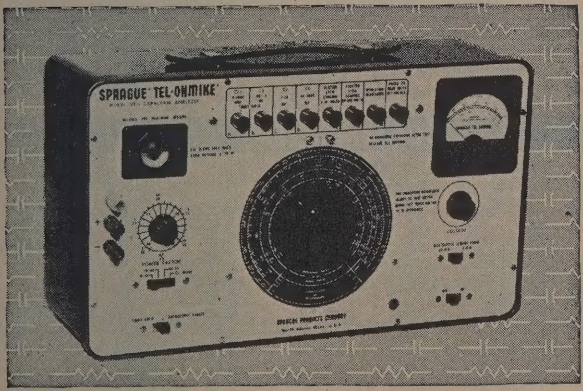
TRANSFARADS FOR RACK MOUNTING

Electrically identical to the above instruments, these models have a standard 19″w. x 10½″h. panel so that they can be mounted in the conventional relay rack.

MODEL TCA-1RM	**15VAC/60cy**	**$207.50 net**
MODEL TCA-1SRM	**115/230 VAC, 50cy**	**$242.50 net**

- **CAPACITANCE BRIDGE** measures $1 \mu\mu F$ to $2000 \mu F$ in five overlapping ranges. Only 0.5 volt is applied to the bridge from a continuously adjustable power supply. The voltage across the capacitor is less than this applied voltage, the amplitude depending on the capacitance being measured. No possibility of overheating or deforming any low voltage capacitor during measurements.
- **INSULATION RESISTANCE** directly read from 50 megohms to 20,000 megohms. Only 25v d-c is applied, permitting measurements on low voltage ceramic, mica, and film capacitors. IR of ceramics rated below 25v may be calculated from leakage current measurement at exact rated voltage.
- **LEAKAGE CURRENT** measured directly on meter at exact rated d-c voltage of capacitor. Sensitive circuit makes full scale measurements from 0.6 μa to $600 \mu a$ in seven ranges.
- **POWER FACTOR** measured by Wien bridge from 0 to 50 per cent.
- **MAGIC EYE** null detector in high-gain amplifier has sensitivity control permitting accurate measurement of small capacitors.
- **SHORT-TIME STABILITY** is assured by dual regulation of the power supply. Specially processed etched circuits and complete encapsulation of the critical bridge-null amplifier insure long-time stability.
- **BINDING POSTS** are shielded against strays, assuring greater accuracy during low capacitance measurements.
- **FOR SAFETY** the capacitor under test is automatically discharged after testing. Three wire line cord grounds instrument case.
- **OPERATING PROCEDURES** are clearly shown on convenient pull-out slide.

TO-5 TEL-OHMIKE® CAPACITOR ANALYZER

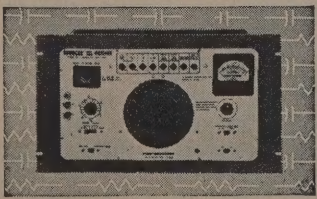


The TO-5 TEL-OHMIKE capacitor analyzer is a must for checking all capacitors except special low voltage transistor types. The TO-5 is a moderately priced instrument with laboratory quality and accuracy—the highest accuracy of any instrument of its type available to the service trade!

MODEL TO-5RM FOR RACK MOUNTING

Electrically identical to the standard instrument, Model TO-5RM has a standard 19″ wide x 10½″ high panel so that it can be mounted in standard relay racks.

Model TO-5RM........$102.50



- **CAPACITANCE BRIDGE** measures up to 2000 mf in five overlapping ranges. The special 1 mmf to 100 mmf range is exclusive with the Tel-Ohmike.
- **INSULATION RESISTANCE** directly read on large meter up to 20,000 meghoms for papers, ceramics, and micas. No guessing with neon lamps.
- **LEAKAGE CURRENT** of electrolytics measured directly on meter, with exact rated voltage up to 600v. applied from continuously adjustable power supply. Two ranges: 0-6-60 ma. No guessing on eye-width or counting lamp blinks!
- **POWER FACTOR** of electrolytics measured by Wien Bridge up to 55% in three ranges.
- **TURNS RATIO SCALE** to measure turns ratio of power and audio transformers.
- **MAGIC-EYE TUBE** simplifies bridge balancing for capacitance and power factor measurements.
- **PUSH-BUTTONS** for instant range selection, also discharge capacitors for safety upon release.
- **MODERN CASE** finished in two-tone gray; measures 8⅞″ high, 14⅝″ wide, 6⅛″ deep. Weight only 12½ pounds.

MODEL TO-5	**115 VAC/50-60 cy**	**$92.50 net**
MODEL TO-5X	**115-230 V/25-60 cy**	**98.75 net**

Copyright 1963, Sprague Products Company

REM-65-6224

All prices and sizes subject to change without notice.

Shurite® PANEL METERS

● **SHURITE Meters** are attractive, rugged, dependable instruments with accuracy well within ±5%, and have the ability to duplicate readings. DC meters are polarized-vane solenoid type, or moving-magnet construction when indicated; AC meters are double-vane repulsion type with jeweled bearing. The jewel construction costs more to build, but it pays off by providing continuing accuracy during a longer useful life. Models 550 and 950 fit 2 5/32″ hole, and Model 850 also fits any smaller size down to 2 1/16″. All are guaranteed.

FEATURES

GUARANTEE: Meters are guaranteed to users against defective workmanship and material, and will be repaired or replaced if sent to the factory postpaid with 50¢ handling charge within one year after purchase . . . **ALL METAL DIALS**—age and moisture resistant, lithographed in black on white for high visibility . . . **STURDY DESIGN**—with husky coil frames designed to prevent breakage, rigidly mounted in cases with anti-turning square head studs . . . **VISCOSITY DAMPING**—careful application of new silicone compound on bearing surfaces damps pointer overtravel . . . **WIDE SELECTION**—Shurite offers the broadest line of standard meters in the economy-priced field. Distributor stocks are backed by an extensive factory inventory.

★★★ **NEW PRODUCTS IN THIS CATALOG** — To combine rugged, dependable construction with the growing demand for more sensitive meters, Shurite introduced three 500 DC Microammeters last year. This year there are: (a) another 0-1 DC Milliammeter—Stock No. 8334, 800 ohms resistance, with Bridge-Type design to minimize the effects of external magnetic forces, (b) a new field strength meter, Stock No. 8903Z.

DC MICROAMMETERS

RANGE Ua.	RESIST. Approx. Ohms	Model 550* Stock No.	Model 950* Stock No.	Net Each	Model 850* Stock No.	Net Each
0-500**	1000	5902	9902	**$4.10**	8902	**$4.30**

* For zero adjuster, add 35c to price and Z to stock number
** Sensitive type, note internal resistance. DC bridge-type construction.

DC MILLIAMMETERS

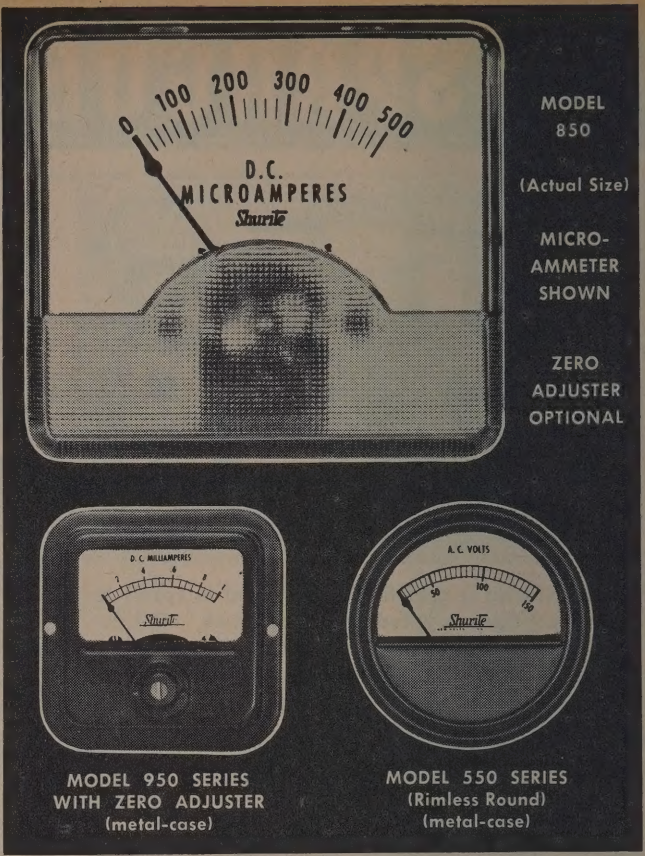
RANGE Ma.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	Net Each	MODEL 850* Stock No.	Net Each
0-1**	1000	5300Z	9300Z	**$4.00**	8300Z	**$4.15**
0-1#	800	—	—	—	8334	**3.95**
0-3L**	500	5332Z	9332Z	**4.00**	8332Z	**4.15**
0-3	4500	5301	9301	**3.10**	8301	**3.25**
0-5	3650	5302	9302	**2.85**	8302	**3.00**
0-10	920	5303	9303	**2.60**	8303	**2.75**
0-15	485	5304	9304	**2.40**	8304	**2.55**
0-25	172	5305	9305	**2.40**	8305	**2.55**
0-50	46	5306	9306	**2.40**	8306	**2.55**
0-100	10.4	5307	9307	**2.40**	8307	**2.55**
0-150	4.7	5308	9308	**2.40**	8308	**2.55**
0-200	2.8	5309	9309	**2.40**	8309	**2.55**
0-300	1.5	5310	9310	**2.40**	8310	**2.55**
0-400	.46	5311	9311	**2.40**	8311	**2.55**
0-500	.30	5312	9312	**2.40**	8312	**2.55**

* For zero adjuster, add 35¢ to price and Z to stock number.
**Sensitive type, moving-magnet construction, zero adjuster built-in.
# Bridge-type construction; internal magnet design minimizes effects of external magnetic forces. Price does not include zero adjuster.

AC MILLIAMMETERS

RANGE Ma.	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	Net Each	MODEL 850* Stock No.	Net Each
0-10	4800	5607	9607	**$3.75**	8607	**$3.90**
0-25	750	5601	9601	**3.60**	8601	**3.75**
0-50	150	5602	9602	**3.60**	8602	**3.75**
0-100	37	5603	9603	**3.60**	8603	**3.75**
0-250	5.4	5604	9604	**3.60**	8604	**3.75**
0-500	1.34	5605	9605	**3.60**	8605	**3.75**

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.



MODEL 850

(Actual Size)

MICRO-AMMETER SHOWN

ZERO ADJUSTER OPTIONAL

MODEL 950 SERIES WITH ZERO ADJUSTER (metal-case)

MODEL 550 SERIES (Rimless Round) (metal-case)

CLEAR PLASTIC INSTRUMENTS

. . . The 850 snap-on front of crystal-clear high temperature polystyrene 2-17/32″ wide by 2-15/16″ high, admits light from all sides and accentuates the appearance of the dial which has the longest scale arc in its field. The case back is black, but of similar high temperature, high impact material, to provide weight reduction and superior insulation.

TYPICAL USES

Amateur radio rigs . . . Citizens Band equipment . . . battery eliminators . . . battery chargers . . . volt-ohm-milliammeters and kits . . . model train equipment . . . tuning circuits for stereo and tape recorders . . . burglar, fire alarm, or emergency lighting systems . . . transistor testers . . . plating equipment . . . voltage regulators . . . demonstrators . . . many other applications.

DC AMMETERS

RANGE Amps.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	Net Each	MODEL 850* Stock No.	Net Each
0-1	.105	5201	9201	**$2.40**	8201	**$2.55**
0-3	.02 Max.	5202	9202	**2.40**	8202	**2.55**
0-5	.02 Max.	5203	9203	**2.40**	8203	**2.55**
0-8	.02 Max.	5204	9204	**2.40**	—	—
0-10	.02 Max.	5205	9205	**2.40**	8205	**2.55**
0-15	.02 Max.	5206	9206	**2.40**	8206	**2.55**
0-25	.02 Max.	5207	9207	**2.85**	8207	**3.00**
0-50	.02 Max.	5208	9208	**2.85**	8208	**3.00**
3-0-3	.02 Max.	5210	9210	**2.50**	—	—
5-0-5	.022 Max.	5211	9211	**2.50**	—	—
6-0-6	.02 Max.	5212	9212	**2.50**	—	—
10-0-10	.02 Max.	5213	9213	**2.85**	8213	**3.00**
20-0-20	.02 Max.	5214	9214	**2.85**	8214	**3.00**
30-0-30	.02 Max.	5215	9215	**2.85**	8215	**3.00**
50-0-50	.02 Max.	5216	9216	**3.00**	8216	**3.15**

* For zero adjuster, add 35c to price and Z to stock number.

AC AMMETERS

RANGE Amps	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	Net Each	MODEL 850* Stock No.	Net Each
0-1	.42 Max.	5501	9501	**$3.50**	8501	**$3.65**
0-3	.072 Max.	5502	9502	**3.50**	8502	**3.65**
0-5	.041 Max.	5503	9503	**3.50**	8503	**3.65**
0-10	.02 Max.	5504	9504	**3.50**	8504	**3.65**
0-15	.02 Max.	5508	9508	**3.50**	8508	**3.65**
0-30	.02 Max.	5505	9505	**3.60**	8505	**3.75**
0-50	.02 Max.	5506	9506	**4.00**	8506	**4.15**
0-80	.02 Max.	—	—	—	8507	**4.35**

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.

PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective September 1, 1963

© U.C.P., Inc.

DC VOLTMETERS

RANGE Volts	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1	10	5101	9101	**$2.40**	—	—
0-3	93	5102	9102	**2.40**	8102	**$2.55**
3-0-3	250	5103	9103	**2.40**	—	—
0-5	300	5104	9104	**2.40**	8104	**2.55**
0-6	390	5105	9105	**2.40**	—	—
0-8	600	5106	9106	**2.40**	8106	**2.55**
0-10	880	5107	9107	**2.40**	8107	**2.55**
0-15	2370	5108	9108	**2.40**	8108	**2.55**
0-20	3500	5121	9121	**2.40**	8121	**2.55**
0-25	1420	5109	9109	**2.70**	8109	**2.85**
0-25H**	5000	5110	9110	**3.10**	8110	**3.25**
0-50	2920	5122	9122	**2.65**	8122	**2.80**
0-50H**	10000	5111	9111	**3.35**	8111	**3.50**
0-75	4280	5112	9112	**2.70**	—	—
0-100	5740	5113	9113	**2.70**	—	—
0-100H**	20000	5114	9114	**3.25**	—	—
0-150	8500	5115	9115	**2.85**	8115	**3.00**
0-150H**	30000	5116	9116	**3.50**	8116	**3.65**
0-300H**†	60000	5117	9117	**3.60**	8117	**3.75**
0-500H**†	100000	5118	9118	**3.85**	8118	**4.00**
0-750H**†	154000	5119	9119	**4.35**	—	—

* For zero adjuster add 35c to price and Z to stock number.
** H denotes high resistance.
† Supplied with external resistors.

AC VOLTMETERS

RANGE Volts	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-4	11	5401	9401	**$3.65**	—	—
0-6	15.8	5402	9402	**3.65**	—	—
0-10	27	5403	9403	**3.65**	8403	**$3.80**
0-15	35	5404	9404	**3.65**	8404	**3.80**
0-25	53	5412	9412	**3.65**	8412	**3.80**
0-50	96	5405	9405	**3.85**	8405	**4.00**
0-150	100	5406	9406	**4.05**	8406	**4.20**
0-300**	100	5407	9407	**4.60**	8407	**4.75**
0-600**	100	5408	9408	**5.15**	—	—
0-750**	100	5409	9409	**5.75**	—	—

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850
*For zero adjuster add 35c to price and Z to stock number.
**Supplied with external resistors.

VU, S, and FIELD STRENGTH METERS

VU METERS—To measure volume levels in audio transmission circuits; range —20 to + 3 VU, red and black scale; AC rectifier type; pointer normally at —20 VU; 1400 Ohms ±5% internal resistance; see Bulletin VUS-63 for application circuitry.

STOCK NO. 8801Z, 850 series case, zero adjuster included **$5.85**

STOCK NO. 3801, 350 series edgewise case; zero adjuster not available **$5.50**

S METERS—To measure relative signal strength; range 0-40 db; black and red scale; basic movement is 0-5 Ma. DC with 1000 ohms internal resistance ±5%; for application notes and typical circuits, see Bulletin VUS-63.

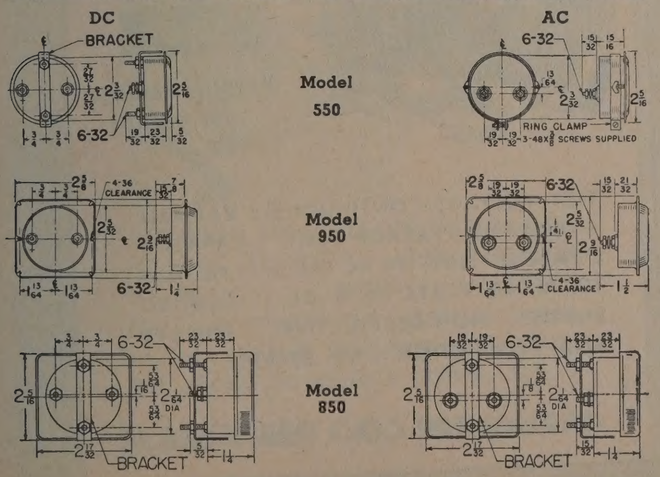
STOCK NO. 3333, 350 Series edgewise case, as illustrated, pointer normally at 40 .... **$3.45**

STOCK NO. 8333*, 850 Series case, pointer normally at 60 (Formerly supplied with pointer at zero) **$3.35**

*For zero adjuster, add 35c to price and Z to stock number.

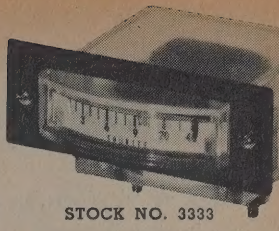
***** FIELD STRENGTH METER**—When this new meter—(a variation of a 0-1 D.C. Milliammeter)—is built into an elementary circuit such as described in Bulletin VUS-63, antenna systems may be easily checked, tuned, phased, or matched to transmission lines.

STOCK NO. 8903Z, 850 Series case; topside marked .1, .5, 1, 2, 3, 4, 5, 7, 10; bottom scale marked 2, 4, 6, 8, 10; zero adjuster included: meter only **$3.95**



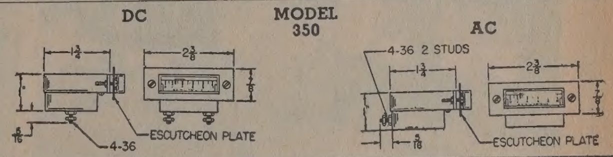
Shurite®

EDGEWISE
MODEL 350
Including S and VU Meters


STOCK NO. 3333

The high-temperature crystal polystyrene front of the Model 350 series adds beauty to panel designs and the 1.2″ scale length offers easy reading. Requires less than half the panel space of other Shurite meters. Horizontal mounting; weight under 2 ozs.; accuracy well within ± 5%; black escutcheon plate supplied.

RANGE	Resistance Approx. Ohms	Stock No.	Net Each
0-1 DC Milliamperes	500	3300	**$3.70**
0-5 DC Milliamperes	3100	3302	**3.45**
0-10 DC Milliamperes	700	3303	**3.45**
0-25 DC Milliamperes	150	3305	**3.35**
0-50 DC Milliamperes	28	3306	**3.35**
0-100 DC Milliamperes	7	3307	**3.35**
0-200 DC Milliamperes	3	3309	**3.35**
0-300 DC Milliamperes	2	3310	**3.35**
0-500 DC Milliamperes	1.5	3312	**3.35**
0-100 AC Milliamperes	32	3603	**3.45**
0-3 DC Amperes	.02 Max.	3202	**3.35**
0-5 DC Amperes	.02 Max.	3203	**3.35**
0-10 DC Amperes	.02 Max.	3205	**3.45**
10-0-10 DC Amperes	.02 Max.	3213	**3.55**
0-5 AC Amperes	.04	3503	**3.45**
0-5 DC Volts	725	3104	**3.35**
0-10 DC Volts	1200	3107	**3.35**
0-15 DC Volts	2200	3108	**3.35**
0-15 AC Volts	728	3404	**3.45**
0-150 AC Volts	14000	3406	**4.10**
VU Meter —20 to +3 VU	1400	3801	**5.50**
S Meter 0—40 db	1000	3333	**3.45**



RESISTANCE METERS

RANGE Ohms	Volts	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
10,000	4.5**	5701	9701	**$3.00**	8701	**$3.15**

*For zero adjuster add 35c to price and Z to stock number.
**Requires 3 flashlight cells for resistance readings but does not require resistor for voltage readings.

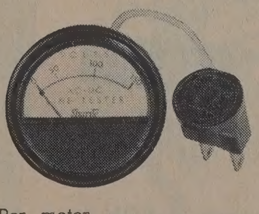
POCKET TYPE METERS

Please ask for Catalog 94-E which describes 12 types of battery testers (pocket meters). Their stock numbers begin with the digit 4. Typical is **Stock No. 4151,** 0-7 DC volts, approx. res. 670 ohms. **$3.00**

3-HOLE MOUNTING ADAPTER

To adapt any Model 550 (round) meter for 3-hole flange mounting (former Model 650) attach this 2¾″ flange from front of panel **Model 5-A,** standard black with hardware, each **$0.18**

HANDY AC-DC LINE VOLTAGE TESTER



STOCK NO. 5406-LT—Plug-in to read line voltage, then find (and demonstrate) voltage drop or inadequate wiring by plugging in TV set, iron, toaster, washer, air-conditioner, shop equipment, etc. Features of this tester: (a) attached plug-receptacle permits continuous reading while loads are changed; (b) reads 150 V AC or DC; (c) cord allows convenient angle for reading; (d) jewel bearing construction provides continuing accuracy. Standard package of 6 meters comes with convenient counter display.

Per meter **$4.25**

IMPORTANT — HOW TO ORDER

Give (1) Model Number, (2) Range, (3) Stock Number.
ZERO ADJUSTERS (Z) For DC meters, available only on Models 550, 850, and 950. For AC meters, available on Model 850. When ordering, add Z to stock number, as 5101Z, and 35¢ to price.
PANEL CALIBRATION (S) Meters are calibrated for non-magnetic panels. If steel panel mounting, specify thickness and overall size of panel; add -S to stock number, as 5101-S.
SEE YOUR DISTRIBUTOR Authorized Shurite distributors carry most models and can obtain your other needs promptly.

Shurite® METERS
NEW HAVEN, CONN. 06508

PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective September 1, 1963

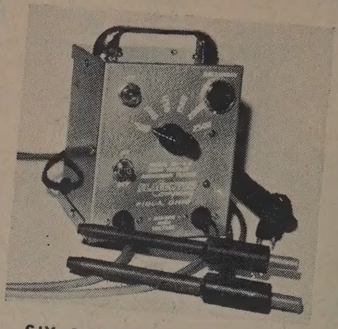
Insulation Testers

WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN . . . ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK . . . LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER CO.
PIQUA 3, OHIO

High-voltage Insulation Tester

with buzzer signal on breakdowns
...grounds
....shorts



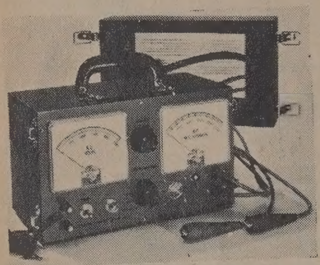
MODEL
101

Watch what you are doing . . . not the tester

SIX TEST VOLTAGES . . 500 to 2500 V.A.C. PRICED SO YOU CAN AFFORD TO SPOT A FEW ALONG YOUR ASSEMBLY LINES. FOR SAFETY

High-voltage Leakage Tester

checks insulation for...leakage
...grounds
.....arcing



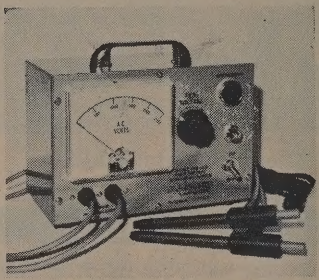
MODEL
122

16 lb. Portable for lab and field work

VARIABLE VOLTAGE RATINGS TO 5 KV AC & DC. DUAL RANGE LEAKAGE METER 0/100/1000 μa. . . .CAPACITY COMPENSATION. . . MEASURES INSULATION RESISTANCE, CAPACITY, POWER FACTOR.

Adjustable High-voltage Tester

with buzzer signal on breakdowns
...grounds
....shorts



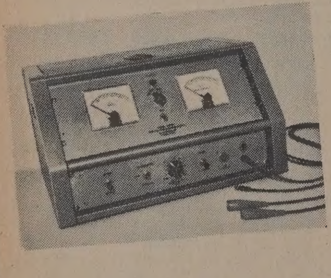
MODEL
106

Voltmeter shows actual Test Voltage

CONTINUOUSLY VARIABLE TEST VOLTAGE RATINGS TO 10,000 VOLTS AC & DC . . RECOMMENDED FOR BREAKDOWN TESTING AT FINAL ASSEMBLY AND INSPECTION

Automatic H-V Insulation Tester

for precision checking...breakdowns
...leakage
...grounds



MODEL
103-MP

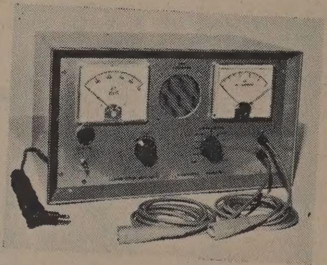
Automatic Test Cycle

FULLY AUTOMATIC TEST CYCLE. . . CONTROLLED RATE-OF-RISE. . . ADJUSTABLE TEST VOLTAGE, DWELL TIME, & LEAKAGE LIMIT. . . CAPACITY COMPENSATION ON AC TEST. . . FOR PRECISION TEST OF CRITICAL PARTS & ASSEMBLIES. . .

SLAUGHTER CO. • PIQUA 3, OHIO

High-voltage Leakage Tester

audibly signals excess leakage
...grounds
.....arcing



MODEL
103

Measures Leakage . . . not capacity current

TEST VOLTAGE CONTINUOUSLY VARIABLE ADJUSTABLE LEAKAGE LIMIT. . CAPACITY COMPENSATION ON AC TESTS. . .RATINGS TO 10,000 VOLTS AC & DC. . . . LIMITED ENERGY. . NON-DESTRUCTIVE. . . FOR LAB AND PRODUCTION LINE SERVICE. . . . . .

SLAUGHTER CO. • PIQUA 3, OHIO

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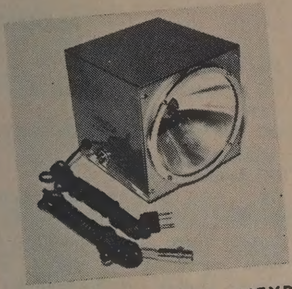
Stroboscopes

WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN . . . ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK . . . LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER CO.
PIQUA 3, OHIO

Inspection Stroboscope

.....with high intensity daylight lamp



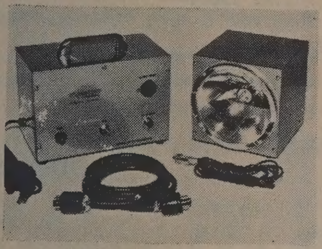
MODEL
161

0/2,000
Flashes per
Minute

LIGHT WEIGHT INEXPENSIVE TRIGGERED FLASH UNIT.....PUSH-TO-SEE SWITCH.... INTENSE WHITE LIGHT FOR INSPECTION ON —THE —GO

Inspection Stroboscope

...with extra high intensity daylight lamp



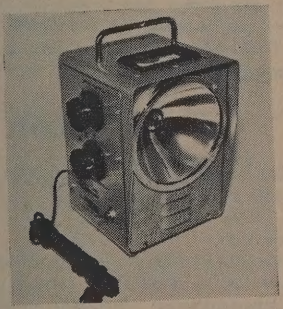
MODEL
167

0/600
Flashes per
Minute

SUPER INTENSITY TRIGGERED FLASH UNIT ... PUSH—TO—SEE SWITCH.... FOR INSPECTION ON-THE-GO UNDER HIGH AMBIENT LIGHT CONDITIONS.

Metered Precision Stroboscope

.....with high intensity daylight lamp



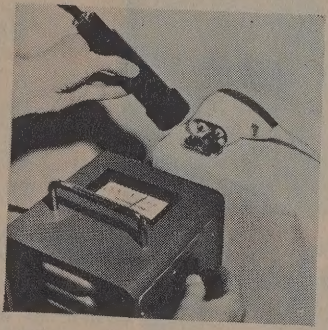
MODEL
165

50/16,000
Flashes per
Minute

PRECISION STROBOSCOPE TACHOMETER INSTANT STARTING. . .HIGH INTENSITY WHITE LIGHT. . . OPERATES FROM EXTERNAL CONTACTS OR INTERNAL OSCILLATOR. . EASILY SYNCHRONIZED. .OUTPUT JACKS TO COUPLE SCOPE, ETC....

SLAUGHTER CO. • PIQUA 3, OHIO

MIDGET STROBOSCOPE FLASH HEAD



MODEL
166

0/10,000
Flashes per
Minute

FOR WORK ON MINIATURIZED EQUIPMENT .... FOR PRINTING TRADES. . . . FOR BIO—MEDICAL WORK. . ADAPTS TO ANY SLAUGHTER STROBOSCOPE...

Universal Stroboscope

...with high intensity daylight lamp

MODEL
163

50/16,000
Flashes per
Minute

UNIVERSAL UNIT FOR MOTION STUDY & INSPECTION ON-THE-GO... INSTANT STARTING ... HIGH INTENSITY WHITE LIGHT .... TRIGGER EXTERNALLY OR OPERATE FROM INTERNAL OSCILLATOR

SLAUGHTER CO. • PIQUA 3, OHIO

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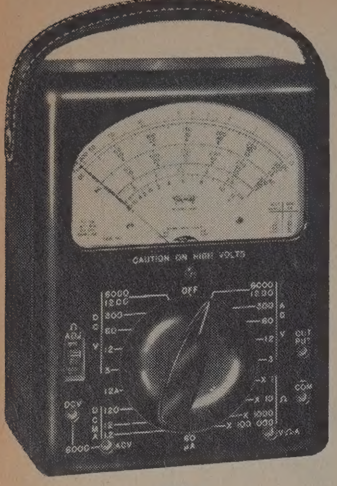
TRIPLETT TEST EQUIPMENT



630

Volt-Ohm-Milliammeter

MODEL 630

1. One selector switch minimizes chance of incorrect setting and burnout. **2.** 5,000 ohms per volt AC sensitivity; 20,000 DC. **3.** Four resistance ranges to 100 megohms.

Outstanding resistance ranges: low reading .1 ohm, high 100 megs. Fuse affords protection to the resistors in the ohmmeter circuit, especially the X1 setting.

Spring-backed instrument jewels for ruggedness. Accuracy 3% DC, 4% AC.

RANGES

DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.

AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.

Ohms: 0-1,000-10,000.

Megohms: 0-1-100.

DC Microamperes: 0-60 at 250 millivolts.

DC Milliamperes: 0-1.2-12-120 at 250 millivolts.

DC Amperes: 0-12.

DB: −20 to +77 (600 ohm line at 1 MW).

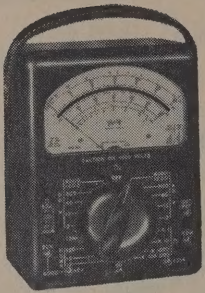
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges. **Usable with frequencies through 500 Kc.**

CASE—Molded, fully insulated, 3-7/32″ x 5½″ x 7½″.

MODEL 630—

Suggested U. S. A. *User Net....**$49.50**

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.



630-A

Volt-Ohm-Milliammeter

MODEL 630-A

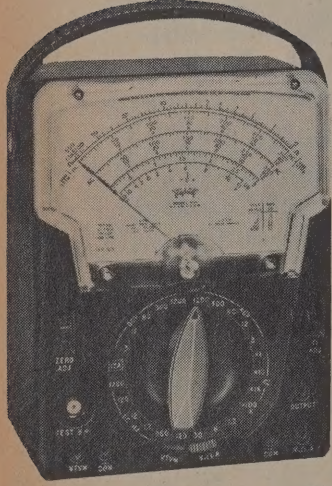
A laboratory type V-O-M with ½% resistors for greater accuracy.

Long range scale to eliminate parallax. Ranges and other features as described for Model 630, above. Accuracy 1½% DC, 3% AC.

MODEL 630-A—

Suggested U. S. A. *User Net **$59.50**

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.



631

Combination V-O-M and VTVM

MODEL 631

1. One selector switch. **2.** Complete V-O-M in combination with battery operated VTVM. **3.** 11 megohm input to VTVM.

Two fundamental units at the price of a single tester; VTVM stability assured by long life battery operation.

Sensitivity plus—sensitivity of the 1.2 volt (VTVM) range is equal to over nine million ohms per volt. Usable with frequencies through 500 Kc.

Large meter easy to read; unbreakable meter face.

Spring-backed instrument jewels for ruggedness. Accuracy 3% DC, 4% AC, VTVM 4%.

V-O-M RANGES

DC Volts: 0-3-12-60-300-1,200 (20,000 ohms per volt).

0-0.25 at 60 microamperes.

AC Volts: 0-3-12-60-300-1,200 (5,000 ohms per volt).

Ohms: 0-1,500-15,000.

Megohms: 0-1.5-150.

DC Microamperes: 0-60 at 250 MV.

DC Milliamperes: 0-1.2-12-120-1,200 at 250 MV.

DC Amperes: 0-12 at 250 MV.

DB: −20, +11, +23, +37, +51, +63. (600 ohm line at 1 MW).

Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.

VTVM RANGES

DC Volts: 0-1.2-6-30-120.

Case: Molded, fully insulated, 3-11/32″ x 5½″ x 7½″.

MODEL 631—

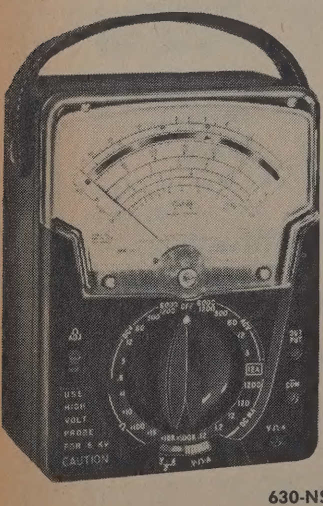
Suggested U. S. A. *User Net..................**$69.50**

RF PROBE FOR 631

With this probe and Model 631 RF measurements can be made up to 250 MC.

Pt. T-79A-145 ....***$7.70 Net**

Shipping wt. 5 lbs.



630-NS

Volt-Ohm-Milliammeter

MODEL 630-NS

1. 200,000 ohms per volt DC for greater accuracy on high resistance circuits. 20,000 ohms per volt AC. **2.** Suspension Meter Movement. No pivots, no bearings, no hairsprings; no rolling friction. Extremely rugged. Greater sensitivity and repeatability. **3.** 62 ranges. Temperature and frequency compensated.

The unit is precision designed to give maximum coverage, to withstand accidental overloads and to offer greater reading accuracy. Special precision resistors rigidly mounted and directly connected to the switch to form a simplified unit. Usable with frequencies through 100 Kc. Accuracy 1½% DC, 3% AC.

CASE—Molded, fully insulated, 3-11/32″ x 5½″ x 7½″. Shipping wt. 5 lbs.

RANGES

DC Volts: 0-0.6-3-12-60-300-1,200 at 100,000 Ohms/Volt.

0-0.3-1.5-6-30-150-600 at 200,000 Ohms/Volt.

0-0.150 at 60 microamperes.

AC Volt: 0-3-12-60-300-1,200 at 10,000 Ohms/Volt.

0-1.5-6-30-150-600 at 20,000 Ohms/Volt.

DB: −20 to +63 in 10 ranges.

DC Microamperes: 0-60-600 at 150 Mv. 0-5-120 at 300 Mv.

DC Milliamperes: 0-6-60-600 at 150 Mv. 0-1.2-12-120-1,200 at 300 Mv.

DC Amperes: 0-6 at 150 Mv. 0-12 at 300 Mv.

Ohms: 0-1K-10K-100K (4.4-44-440 at center scale).

Megohms: 0-1-10-100 (4400-44,000-440,000 Ohms center scale.).

Output: Condenser in series with AC Volt ranges:

MODEL 630-NS

Suggested U. S. A. *User Net..................**$99.50**

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TEST EQUIPMENT

TRIPLETT

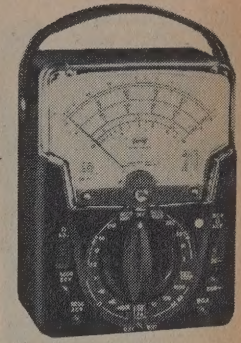
Volt-Ohm-Milliammeter

MODEL 630-PLK

1. Comprehensive overload protection. 2. One selector switch minimizes chance of incorrect settings. 3. Polarity reversing switch. Transistorized electronic switching circuit guards against accidental burnouts. Eliminate bent pointers, burned-out coils, changes in accuracy due to overheating, in fact nearly any need for repairs. Accuracy ±3% on DC, ±4% AC.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt. 0-0.25 at 100 microamperes.
AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt.
Decibels: −20 to +11, +21, +35, +49, +61, +75; "O" DB at 1MW on 600 ohm line.
DC Microamperes: 0-100 at 250 Mv.
DC Milliamperes: 0-10-100-1000 at 250 Mv.
DC Amperes: 0-10 at 250 Mv.
Ohms: 0-1,000-10,000 (4.4-44 at center scale).
Megohms: 0-1-100 (4,400-440,000 at center scale).
Output Volts (AC): 0-3-10-50-250-1,000, at 5,000 ohms/volt; jack with condenser in series with AC ranges.
Case: Molded, fully insulated; 3 11/32" x 5½" x 7½".
Suggested U.S.A. User Net..$79.50


630-PLK

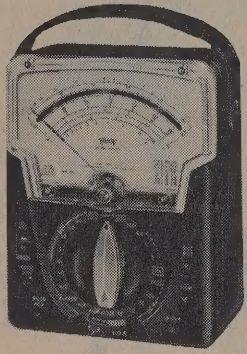
Volt-Ohm-Milliammeter

MODEL 630-NA

1. One selector switch. 2. 70 ranges; 1½% DC accuracy on meter; with mirror scale and overload protection. 3. Temperature and frequency compensation.
The super deluxe of V-O-Ms. Usable with frequencies through 500 Kc.
Spring-backed instrument jewels for ruggedness. Accuracy 1½% DC, 3% AC.

RANGES

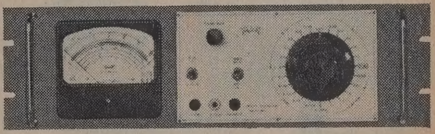
DC Volts: 0-.6-3-12-60-300-1,200-6,000 at 10,000 ohms per volt.
0-.3-1.5-6-30-150-600-3,000 at 20,000 ohms per volt.
0-0.120 at 60 microamperes.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
0-1.5-6-30-150-600-3,000 at 10,000 ohms per volt.
Ohms: 0-1K-10K-100K.
Megohms: 0-1-10-100.
DC Microamperes: 0-120 at 240 millivolts.
0-60-600 at 120 millivolts.
DC Milliamperes: 0-1.2-12-120-1,200 at 240 millivolts.
0-6-60-600 at 120 millivolts.
DC Amperes: 0-12 at 240 millivolts.
0-6 at 120 millivolts.
DB. −20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
Case—Molded, fully insulated. 3 11/32" x 5½" x 7½".
MODEL 630-NA—
Suggested U. S. A. *User Net........**$79.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.


630-NA

MODEL 630-NA-RM—RACK MOUNTED V-O-M

Rack mounted V-O-M with ranges same as Model 630-NA above, except no 3000 or 6000 AC or DC Volts. The heavy etched aluminum panel, 19" x 5¼" has two chrome plated handles for easy removal of the tester from the rack. The 4" meter has mirror scale and knife-edge pointer. Standard test leads come out the front. Accuracy 1½% DC, 3% AC. Also provision in the back for a three-lead connector. There is a DC reversing switch on the panel. Large, easy to turn single selector switch. Test components and wiring enclosed in aluminum housing. Shipping wt. 22 lbs.

MODEL 630-NA-RM—
Suggested U. S. A. *User Net........**$109.50**


630-NA-RM

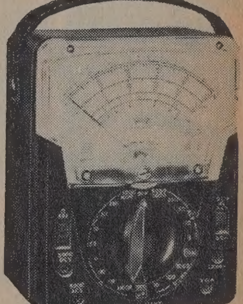
Volt-Ohm-Milliammeter

MODEL 630-PL

1. One selector switch minimizes chance of incorrect settings and burnouts. 2. Polarity reversing switch. 3 Usable with frequencies through 500 Kc. Unbreakable plastic window.
Outstanding resistance ranges: low reading .1 ohm; high to 100 megs. Fuse affords extra protection to the resistors in the ohmmeter circuit, especially the X1 setting.
Spring-backed instrument jewels for ruggedness.
High sensitivity: 5,000 ohms per volt AC; 20,000 ohms per volt DC.
Accuracy 3% DC, 4% AC.

RANGES

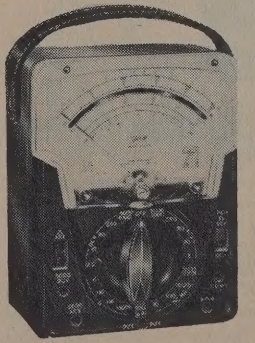
DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt.
0-0.25 at 100 microamperes.
AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt.
Decibels: −20 to +11, +21, +35, +49, +61, +75; "O" DB at 1 MW on 600 ohm line.
DC Microamperes: 0-100 at 250 millivolts.
DC Milliamperes: 0-10-100-1,000 at 250 millivolts.
DC Amperes: 0-10 at 250 millivolts.
Ohms: 0-1,000-10,000 (4.4-44 at center scale).
Megohms: 0-1-100 (4,400-440,000 at center scale).
Output V (AC): 0-3-10-50-250-1,00 at 5,000 ohms/volt, jack with condenser in series with AC ranges.
Case: Molded, fully insulated; 3 11/32" x 5½" x 7½".
MODEL 630-PL—
Suggested U. S. A. *User Net........**$49.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.


630-PL

Volt-Ohm-Milliammeter

MODEL 630-APL

Laboratory type V-O-M featuring ½% resistors and more accurate movement for greater accuracy. Long MIRROR scales to eliminate parallax in reading. RANGES and other features same as Model 630-PL above. Accuracy 1½% DC, 3% AC.
MODEL 630-APL—
Suggested U. S. A. *User Net........**$59.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.


630-APL

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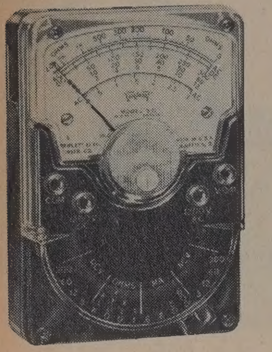
TEST EQUIPMENT

Volt-Ohm-Milliammeter

MODEL 310


MODEL 310

1. One selector switch. **2.** 20,000 ohms per volt DC sensitivity. **3.** Shirt pocket size VOM with provision for attaching AC clamp-on ammeter.

Self-shielded for checking in strong magnetic fields.

Rugged, high torque, bar-ring instrument.

Unbreakable plastic meter window.

Standard sensitivity 20,000 ohms per volt DC, and 5,000 ohms per volt AC.

Spring-backed instrument jewels for ruggedness.

Accuracy 3% DC, 4% AC.

RANGES

DC Volts: 0-3-12-60-300-1,200 (at 20,000 ohms per volt).

AC Volts: 0-3-12-60-300-1,200 (at 5,000 ohms per volt).

Ohms: 0-20,000-200,000. **Megohms:** 0-2-20.

DC Microamperes: 0-600 at 250 millivolts.

DC Milliamperes: 0-6-60-600 at 250 millivolts.

Weight—Approx. 14 oz., complete with batteries.

Case—Molded, fully insulated, 2¾" x 4¼" x 1$\frac{5}{16}$".

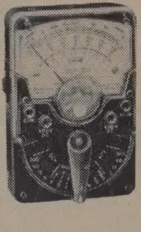
MODEL 310—

Suggested U. S. A. *User Net.................**$37.50**

Complete with leads, battery and instruction manual. Shipping wt. 2 lbs.

Volt-Ohm-Milliammeter

MODEL 310-C


MODEL 310-C

New 310-C is the same as Model 310, above, (except 600 volt ranges replace 1200 volt ranges of model 310) plus the following features:

1. Fully enclosed lever range switch.
2. 15,000 Ohms per volt AC (20,000 O/V DC same as 310)
3. Reversing switch for DC measurements. Handsize and lightweight, but wtih the features of a full size V-O-M.

MODEL 310-C

Suggested U. S. A. *User Net................**$44.50**

V-O-M AND CLAMP-ON AMMETER SET

MODEL 100

MODEL 100

Handsomely packaged set includes: Model 310 V-O-M, Model 10 Clamp-on Ammeter Adapter; Model 101 Line Separator; Model 379 Leather Case; Model 311 Leads. ($67.10 Value Separate Unit Purchase Price.)

MODEL 100, as above, you save **$2.60.** Shipping wt. 7 lbs.

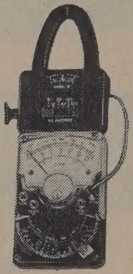
Suggested U. S. A. *User Net................**$64.50**

MODEL 100-C—Same as above but with Model 310-C. Suggested U. S. A. *User Net **$71.50**

CLAMP-ON ADAPTER

MODEL 10

MODEL 10



MODEL 10

CHECKS LINE LOADS WITH MODEL 310 OR 310-C

(Also can be used with Model 630, 630-A, 630-NA, 631, 630-PL, 630-APL, 630-NS by means of 611 leads.)

Checks all line loads instantly, accurately, safely — without breaking the circuit or interrupting work. Easy range switching. Six Model 10 Clamp-On Adapter AC Ammeter ranges: 0-6-12-30-60-120-300. Clips around single wire to read A.C. Amperes direct. Used with Adapter 101 to divide instantly two-conductor cords.

A lever securely locks the Model 10 to Model 310 when used in combination. Model 10 con be left attached to Model 310 when the latter tester is used as an AC-DC V-O-M only. The only change is to remove the lead plug from the Model 310 V-O-M jack and insert it in the jack provided in the Model 10 housing.

Case black molded plastic with engraved white markings.

MODEL 10—

Suggested U.S.A. *User Net....................**$15.50**

No. 611 LEADS

In addition to use with the Model 310, the No. 10 Adapter also can be used as a Clamp-On Ammeter with any Volt-Ohm-Milliammeter having a 3 AC Volt scale at 5,000 Ohms per Volt, such as Triplett Models 630, 630-A, 630-NA, 630-PL, 630-APL, 630-NS, 631, etc.

This is done by means of a long lead attachment (No. 611) making possible easy readings in difficult locations.

No. 611 leads—

Suggested U. S. A. *User Net................**$2.10**

No. 311 LEADS

The Model 10 can be separated from the Model 310 (in the same way as above) by using No. 311 lead attachment. This permits readings in difficult locations.

No. 311 leads—

Suggested U. S. A. *User Net................**$2.10**

LINE SEPARATOR

MODEL 101

MODEL 101

Plugs into AC outlet to divide instantly two-conductor cords. Increases ammeter sentitivity 10X and 20X. Use up to 30 AC Amperes from 0.3 to 30 in nine steps. Also has provision for Voltmeter prods for voltage measurements.

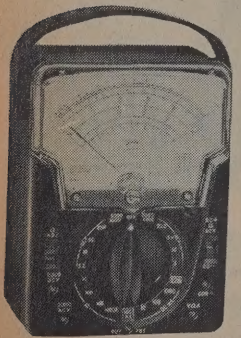
Case, black molded plastic with engraved markings.

MODEL 101—

Suggested U. S. A. *User Net....................**$6.00**

Volt-Ohm-Milliammeter

MODEL 630-L


MODEL 630-L

1. Two low power ohms ranges (X1 and X10). 140 Mv. ohmmeter circuit voltage. Important for semi-conductor circuitry. **2.** One selector switch minimizes chance of incorrect settings. **3.** Exclusive shielded Bar-Ring Movement. Mercury battery. Wired circuits.

Special low power ohmmeter circuit allows semi-conductor testing without destructive overloads.

Reads from .2 ohm to 100 megohms in four ranges.

Accuracy ±3% on DC, +4% on AC.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt.

AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt.

Decibels: −20 to +11, +21, +35, +49, +61, +75; "O" DB at 1 Mw on 600 ohm line.

DC Microamperes: 0-100 at 120 millivolts.

DC Milliamperes: 0-10-100-1,000 at 120 millivolts.

DC Amperes: 0-10 at 120 millivolts.

Ohms: 0-1,000-10,000 (13-130 at center scale).

Megohms: 0-1-100 (4,000-400,000 at center scale).

Output V (AC): 0-3-10-50-250-1,000 at 5,000 ohms/volt, jack with condenser in series with AC ranges.

Case: Black molded, fully insulated; 3$\frac{11}{32}$" x 5½" x 7½".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs.

MODEL 630-L

Suggested U. S. A. *User Net................**$54.50**

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TEST EQUIPMENT

TRIPLETT

Electronic Volt-Ohmmeter

MODEL 850

1. Long 7″ easy-to-read scale. **2.** .5 DCV range for transistor circuits. **3.** High stability —meter connected in cathode circuit of 12AU7. ELECTRICAL PROTECTION of meter against burnout. FREQUENCY RANGE —from 15 cps to 3 Megacycles. SEPARATE SCALE on easy-view meter for Peak-to peak reading. SINGLE UNIT PROBE — with built-in switch for AC/DC/OHMS. 11 MEGOHM INPUT RESISTANCE on all DC Voltage ranges. Line voltage: 115 VAC 50-60 cycles. Ground type plug.

Spring-backed instrument jewels for ruggedness.

Accurate within ±3% on AC and DC. Ohms accurate with ±3% of full scale based on DC scale.

RANGES

Eight DC Volts Ranges: 0-.5-1.5-5-15-50-150-500-1500. **Seven AC RMS Volts Ranges:** 0-1.5-5-15-50-150-500-1500. **Seven Peak-to-Peak Volts Ranges:** 0-4-14-40-140-400-1400-4000. **Seven Resistance Ranges:** 0-1000-10,000-100,-000-1 Meg-10 Meg-100 Megohms-1000 Megohms. **Frequency Range:** 15CPS to 3 MC; (Up to 250 MC with accessory diode probe available extra). **Input Impedance:** DC Volts 11 Megohms; AC Volts minimum of .83 Megohms.

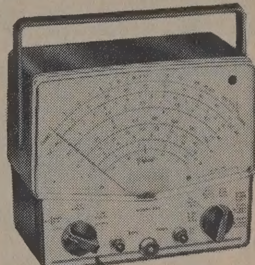
CASE—Molded black case completely insulated. 7⅝″ x 6 7/16″ x 3¾″. Carrying handle also can be used to place the tester at 35° angle for ease in reading. **PANEL**—Etched aluminum. Shipping wt. 7 lbs.

MODEL 850—

Suggested U. S. A. *User Net Price **$79.50**

Auxiliary Diode Probe for frequencies to 250 MC. Pt. T-79A-193 ....**$ 7.50**

High Voltage Probe for DC Voltages to 50 KV. Pt. 79B-196 ....**$20.50**


850

Versatile Volt-Ohm-Milliammeter

MODEL 800

1. 70 ranges with 1½% DC accuracy including DC Polarity Reversing Swtich. **2.** Overload protection of meter, fused, temperature and frequency compensated. **3** Long (7″) Mirror Scale —easily read.

3% AC ACCURACY to 1200 volts; mirror and knife-edge pointer to eliminate parallax; WIRED CIRCUIT (not printed); HIGH FLUX BAR-RING self shielded magnet; DUAL SENSITIVITY provides extra ranges, DC volts at 20,000 and 10,000 ohms per volt, AC at 10,000 and 5,000 ohms per volt. Shatterproof meter window, molded transparent plastic; fully antistat treated.

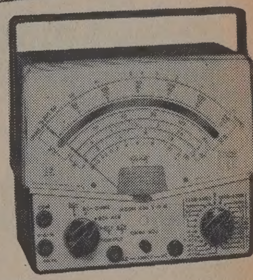
RANGES

DC Volts: 0-0.6-3-12-60-300-1200-6000 at 10,000 Ohms per vole. 0-0.3-1.5-6-30-150-600-3000 at 20,000 Ohms per Volt. 0-.120 at 60 Microamperes. **AC Volts:** 0-3-12-60-300-1200-6000 at 5,000 Ohms per Volt. 0-1.5-6-30-150-600-3000 at 10,000 Ohms per Volt. **DB:** −30 to +70 in 12 ranges. **DC Microamperes:** 0-60-600 at 120 MV. 0-120 at 240 MV. **DC Milliamperes:** 0-6-60-600 at 120 MV. 0-1.2-12-120-1200 at 240 MV. **DC Amperes:** 0-6 at 120 MV. 0-12 at 240 MV. **Ohms:** 0-1K-10K-100K (4.4-44-440 at center scale). **Megohms:** 0-1-10-100 (4400-44,000-440,000 Ohms center scale). **Output:** Condenser in series with AC volt range.

CASE—Heavy, molded case completely insulated, 7½″ x 6¼″ x 3⅞″, with an insulated, movable handle, which can also serve as a tester stand. Shipping wt. 7 lbs.

MODEL 800—

Suggested U. S. A. *User Net........................**$89.50**


800

Pocket Volt-Ohm-Milliammeter

MODEL 666-R

1. One selector switch. **2.** Three resistance ranges to 3 megohms. **3.** Five volt ranges to 5,000 AC & DC volts.

Hand-size — the ideal tester for electrical maintenance. Recessed range knob enables tester to fit in tool kit.

AC rectifier pre-calibrated unit for easy replacement.

RANGES

DC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

AC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

Ohms: 0-3,000-300,000. **Megohms:** 0-3.

DC Milliamperes: 0-10-100 at 250 MV.

DC Amperes: 0-1 at 250 MV.

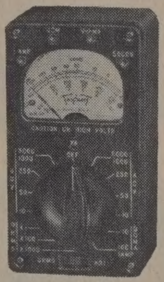
Output Volts: 0-10-50-250-1,000.

CASE—Black molded, streamlined, completely insulated. Handy pocket size, 3 1/16″ x 5⅞″ x 2 9/16″.

MODEL 666-R—

Suggested U. S. A. *User Net........................**$34.50**

Complete with leads, alligator clips, batteries and instruction manual. Shipping wt. 3 lbs.


666-R

Volt-Ohm-Milliammeter

MODEL 630-T

Specially designed for telephone maintenance. Accuracy 2% DC, 5% AC. Protected circuit prevents burnouts in the ohm ranges.

Banana jack connectors to eliminate all shock hazard.

Completely insulated case to protect instrument from ground.

RANGES

DC Volts: 0-.3-3-12-60-300-600 at 20,000 ohms per volt.

AC Volts: 0-3-12-60-300-600 at 3,000 ohms per volt.

Ohms: 0-1K-10K-100K.

Megohms: 0-1-10.

DC Microamperes: 0-60 at 150 millivolts.

DC Milliamperes: 0-1.2-12-120 at 150 MV.

DB: −20 to +75 (600 ohm line at 1MW).

CASE—Molded, completely insulated to protect instrument from ground, 3 7/32″ x 5½″ x 7½″.

WEIGHT—4 lbs.

MODEL 630-T—

Suggested U. S. A. *User Net........................**$59.50**

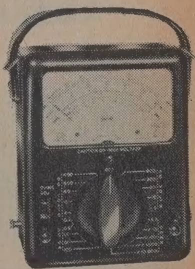
TESTER STAND

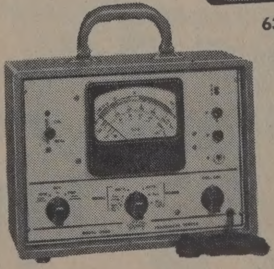
Metal stand holds Model 630, 630-A, 630-PL, 630-APL, 630-NA, 630-NS, 630-T, 631 or 650 tester in approximately a 45° angle; will enable you to make easier readings.

STAND ONLY—Pt. T-255-A-33

Suggested U. S. A. *User Net........................**$1.00**

Shipping wt. 1 lb.


630-T


2590

Transistor Tester

MODEL 2590

1. Tests Beta amplification ICBO, ICEO for both power and signal type transistors. Tests for shorts and leakage. Checks leakage and forward currents on diodes. **2** Simulated operating test conditions. **3.** Simple and straightforward operation. No roll chart or special data needed, always up-to-date.

A transistor socket and external leads permits use of Model 2590 with any basing arrangement. Calibrate adjustment control adjusts for full scale calibration after the transistor has been inserted. Accuracy 2%. **CASE** — Gray leatherette covered case, 11⅝″ x 8⅝″ x 5⅛″. RECESSED PANEL etched heavy gauge aluminum. Shipping wt. 9 lbs. Power — 115 volts, 50-60 cycle AC.

MODEL 2590—Suggested U. S. A. *User Net Price **$59.50**

FIVE SCALES

0-1 MA for Signal Transistor ICEO

0-100 MA for Power Transistor ICEO

0-500 Microamp for Signal Transistor ICBO

0-1 MA for Power Transistor ICBO

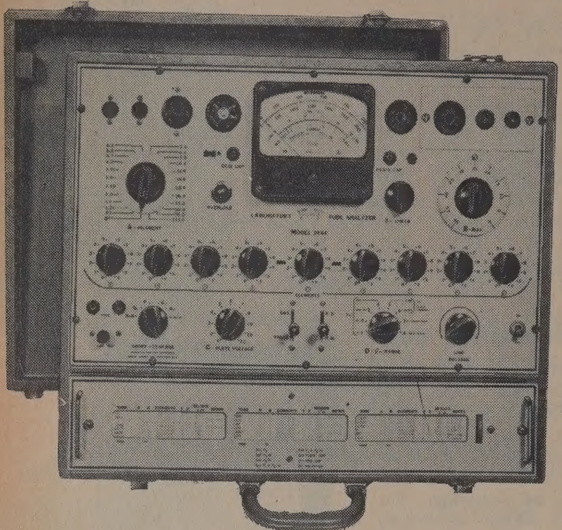
5-100 Beta Range; also shows on GOOD-?-BAD scale.

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE. MODELS SUBJECT TO REVISION.

TEST EQUIPMENT

TRIPLETT

TRUE DYNAMIC MUTUAL CONDUCTANCE TUBE ANALYZER—MODEL 344


MODEL 3444

The only tube tester under $1,000 that is simple and fast to operate and **1.** Will measure tube characterics at KNOWN readable potentials. **2.** Provides readings to: (a) Plot tube characteristic curves. (b) Measure grid current at known potentials. (c) Compare cut off characteristics of dual tubes. **3.** Reads directly in micromhos with a self checking Gm circuit.

This True Dynamic Mutual Conductance Analyzer speedily and accurately solves the most perplexing tube analysis problems in any field.

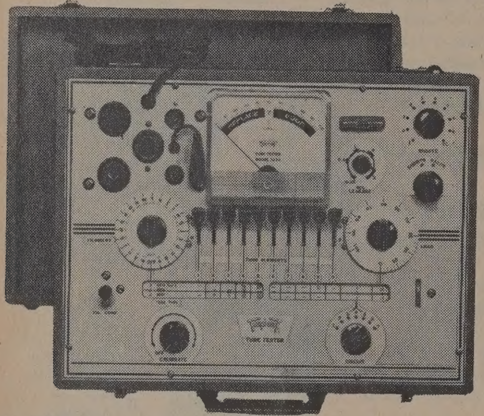
It measures true Gm without any extra compensating factors — using proper value DC electrode potentials, 5 KC-AC signal source and a vacuum tube microammeter (at a very low [33 ohm] plate impedance for best correlation). In addition it offers a combination of unique test advantages never before available in a Portable Analyzer, as follows: CHECKS PLATE current cutoff. CHECKS GAS under actual operating conditions (measures to approximately one UA of gas current). CHECKS RECTIFIERS under load. CHECKS THYRATRON firing voltage and grid current. CHECKS DUAL section tubes with only one lever movement. PROVIDES SHORTS and leakage measurements from 0-10 megohms using a filtered DC supply of 85 volts. PROVIDES cut off measurements on voltage amplifiers. **RECESSED SOCKET SAVER** (under-the-panel-mounted) are easily removable for replacement. **CASE**—Wood, gray leatherette covered, $15\frac{3}{16}$" x $18\frac{13}{16}$" x 7¾". Hinged removable lid, sloping panel, compartment for line cord, leads, acorn adapter, and removable roll chart. Chrome hardware including metal protective feet on case side and bottom. Shipping wt. 30 lbs.

MODEL 3444—Suggested U. S. A. *User Net..**$349.50**

CG ADAPTER may be used in cover or beside Model 3444 to test low power transmitting, industrial, special purpose tubes, etc.

Suggested U. S. A. *User Net..**$39.50**

FASTER, FLEXIBLE TUBE TESTER MODEL 3414


MODEL 3414

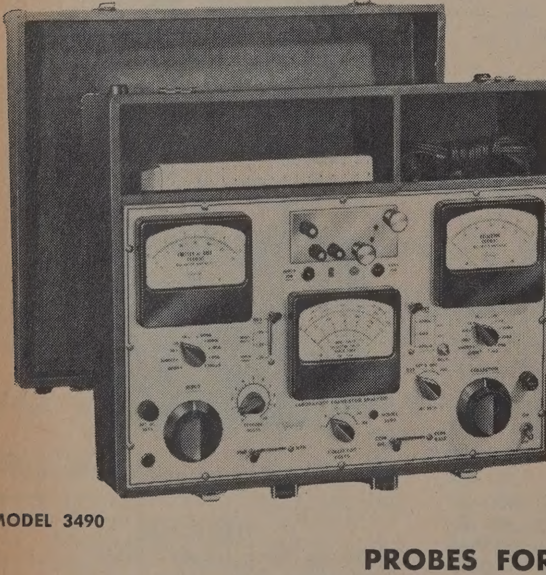
1. Rapid easy testing-setups can be made while tube is heating. **2.** Input filament continuity test. **3.** Modified circuit for better correlation on Gm. Rejects burned out tubes instantly without waiting for the filaments to heat. NEON INDICATOR SHORTS TEST, new, fast and accurate. Full range filament voltages — 0.65 to 117 in 23 steps. Improved lever switching for complete control of each tube element. Quick-change roll chart. TV picture tube test by means of adapter (available extra, see below) without removing tube from receiver. Large, clear-view meter has three-color GOOD-?-BAD scale.

COUNTER-PORTABLE TYPE CASE. Ultra-professional appearance; Wood, dark gray leatherette covered: 15⅞" x 11½" x 6½". Hinged removable cover. Chrome hardware and feet. Etched panel. Shipping wt. 17 lbs.

MODEL 3414—Suggested U. S. A. *User Net..**$109.50**

BV ADAPTER for Picture Tube tests with Models 3414, 3444 and 3423. Net **$7.20***

FOR COMPLETE TRANSISTOR ANALYSES MODEL 3490 TRANSISTOR ANALYZER


MODEL 3490

1. Analyzes both power & signal type at specified voltages and currents. **2.** Continuous current — up to 30 amp collector — and voltage control for all transistor supply electrodes. **3.** Tests DC Beta AC Beta at 1 KC, leakage ICEO & ICBO, Alpha Reach Through Voltage, Saturation Voltage, floating potential.

For the ultimate in Transistor Anaylsis, Model 3490 offers among other features: THREE INDEPENDENT Power Supplies — COLLECTOR currents to 30 Amperes — INPUT currents to 1 Ampere — SEPARATE Input and Collector meters (4½") monitor emitter or base — CONTINUOUSLY VARIABLE Tetrode Voltage — CONTINUOUS INSTRUMENT COVERAGE, no skips — ALSO HANDLES Punch Through; Saturation and Floating Potential Measurements. D.A.T.A. Transistor Tabulation included at no extra cost.

Case—Wood, gray leatherette covered, $18\frac{13}{16}$" x $15\frac{7}{16}$" x 8" with removable cover, and sloping etched aluminum panel.

Input Current (Emitter or Base)	0-300 Ua. 0-1-3-10-30-100-300 Ma, 0-1 Amp.
Collector Current	0-1-3-30 Amp, 0-1-3-10-30-100-300 Ma.
ICEO, ICO (ICBO)	0-60 Ma, 0-6 Ma, 0-600 Ua, 0-60 Ua.
Collector Voltage	0-120V, 0-60V, 0-30V, 0-12V, 0-6V, 0-3V.
Emitter or Base Voltage	0-12V, 0-1.2V
Tetrode	0-10V Calibrated Control

Shipping wt. 30 lbs.

MODEL 3490—Suggested U. S. A. *User Net..**$399.50**

PROBES FOR HIGH VOLTAGE TESTING

MODELS 630, 630-A, and 631

Completely insulated polystyrene test probe with guard-type handle. Probe is 11¾" long, with 48" hi-voltage wire lead with banana plug at tester end.

Part T-79-68....0-12,000 D.C. Volts........***$14.50**
Part T-79-69....0-12,000 A.C. Volts........* **14.50**
Part T-79-70....0-30,000 D.C. Volts........* **14.50**
Part T-79-71....0-30,000 A.C. Volts........* **14.50**

For Models 630-PL, 630-APL

Part T-79-83 ..0-10,000 D.C. Volts........***$14.50**
Part T-79-165..0-10,000 A.C. Volts........* **14.50**
Part T-79-130..0-25,000 D.C. Volts........* **14.50**
Part T-79-166..0-25,000 A.C. Volts........* **14.50**

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TEST EQUIPMENT

Signal Generator

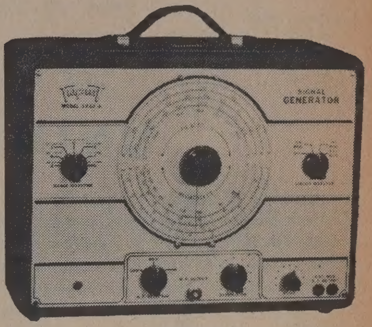
MODEL 3432-A

Complete frequency coverage 160 KC to 110 MC fundamental with seven bands (220 MC harmonics). R.F. circuits are double shielded with copper steel shields. Large easily read etched aluminum dial. Cathode follower output provides good stability by acting as a buffer to the oscillator. 400 cycle audio frequency with variable control for 0-100 per cent modulation.

Band	
A	160-370 KC
B	360-735 KC
C	715-1875 KC
D	1825-4950 KC
E	4.85-13 MC
F	12.5-35 MC
G	34-110 MC
G (Harmonics)	68-220 MC

CASE—Metal with black baked enamel suede finish, $15\frac{11}{32}''$ x $11\frac{1}{32}''$ x 6¼". Black leather strap handle, rubber feet. Shipping wt. 30 lbs.

MODEL 3432-A—
Suggested U. S. A. *User Net............**$119.50**


3432-A

Load Check

MODELS 660, 661

1. Low cost unit for servicing by looking through line cord. **2.** Saves time locating shorts and opens by using only soldering iron and pliers. **3.** Only tester of its kind. Helps prevent costly repair comebacks.

Quick way to locate hidden shorts and overloaded circuits.

Double meter indication provides simultaneous check of line voltage and power.

Double range on Watts meter permits one unit to serve from a 5-tube radio to the largest TV set.

Watts: DC-AC: 0-500-1,000.
Volts: DC-AC: 0-150.

CASE—Black molded, 2½" x 5½" x 6", insulated to protect instrument from ground. Removable black leather strap handle.

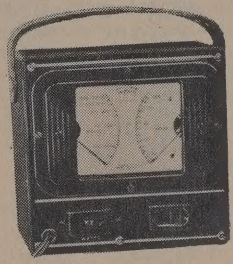
MODEL 660—
Suggested U. S. A. *User Net........................**$39.50**

Designed for radio and Low Wattage Appliances. Appearance and construction same as 660 with watt range 150-300.

MODEL 661

Watts: DC-AC: 0-150-300.
olts: DC-AC: 0-150.

MODEL 661—
Suggested U. S. A. *User Net......................**$39.50**
Shipping wt. 5 lbs. ea.


660, 661

Appliance Tester

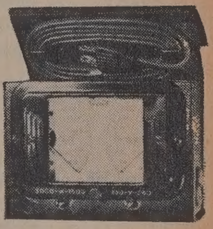
MODEL 2002

Shows power consumption of industrial equipment, radios, and household appliances under actual operating conditions, DC or AC 25 to 133 cycles. Permits Watts and Volts to be read simultaneously or independently. Shows if voltage remains within limits under operating loads. Assures ample current capacity for momentary tests on motor starting overloads. Shows faulty power lines.

Watts: DC-AC: 0-1,500-3,000.
Volts: DC-AC: 0-130-260.

CASE—Heavy leather and snap button cover and leather handle, 6½" x 4½" x 3¼".

MODEL 2002—
Suggested U. S. A. *User Net......................**$49.50**


2002

Leather Carrying Cases

MODEL 639-N
(For Testers 630, 630-A, 630-PL, 630-APL, 630-NA, 630-NS, 631, 630-T

639-N black cowhide leather carrying case. Center-cover flaps snap back allowing full view of scales. Tester stand is included at no extra cost.

MODEL 639-N (Case only)—
*Net **$9.90**

MODEL 639-OS

Black leather case, has built-in stand on back. Flaps open to permit use of tester in case. Compartment for accessories. (As 859-OP illustration).
Suggested U. S. A. *User Net........................**$12.10**

MODEL 639

Black leather case. For models 630, 630-A, 630-PL, 630-APL, 630-NA, 630-NS and 631 ....***$9.90**

MODEL 639-P

Model 639-P black cowhide leather carrying case lined with ⅜" sponge rubber.

MODEL 639-P—
Suggested U. S. A. *User Net........................**$14.90**

MODEL 629

Leather case for 625-NA, 660, 661, 690-A....***$7.20**

MODEL 859-OP

Black Leather Carrying Case, lined with sponge rubber. Flaps open to permit use of tester without removal from case. Model 859-OP. For Models 800 and 850. *Net..**$19.50**

MODEL 369

Handsome black cowhide leather carrying case for Model 310.

MODEL 369—
Suggested U. S. A. *User Net........................**$3.20**

MODEL 369-T

Neckstrap Carrying Case for Model 310....***$7.70**

MODEL 379

As above, large enough for 310-10 in combination. Has pocket for 101............................***$6.00**

MODEL 669

Black leather case for 666-R..........................***$6.90**

MODEL 669-OS

Black leather case for Model 666-R. Tester can be used in the case. (Similar to 859-OP.)
Case only ***$7.40**

639-N

369

639

859-OP

630 SERIES ACCESSORIES

EXTERNAL SHUNTS—For 630, 630-A
Pt. T-91-247 30 Amperes (Plug-in) ....***$ 9.90**
Pt. T-91-248 60 Amperes (Portable) ***$13.20**
Pt. T-91-255 120 Amperes (Portable) ***$13.20**

EXTERNAL SHUNTS FOR 631
Pt. T-91-248 60 Amperes (Portable) ***$13.20**
Pt. T-91-255 120 Amperes (Portable) **$13.20**

EXTERNAL SHUNTS FOR 630-NA
Pt. T-91-429 0-15-30 Amperes (Plug-in) ***$13.50**
Pt. T-91-430 0-30-60 Amperes (Portable) ***$18.00**
Pt. T-91-431 0-60-120 Amperes (Portable) ***$18.00**

EXTERNAL SHUNTS FOR 666-R, 666-HH, 630-PL, 630-APL
Pt. T-91-243 25 Amperes (Plug-in) ***$12.30**
Pt. T-91-244 50 Amperes (Portable) ***$13.20**
Pt. T-91-191 100 Amperes (Portable) ***$13.20**

REPLACEMENT LEADS

LEADS for Models 630, 630-A, 630-PL, 630-APL, 631, 666-HH, 666-R, 630-NA & 630-NS Rubber (T-79-127). *Net **$2.10**

REPLACEMENT LEAD for Model 630-T. T-79-136. *Net **$3.10**

REPLACEMENT LEADS for Model 310. T-79A-153. *Net **$2.10**

AC-DC—Ohms probe for model 850 Pt. #T-79A-192, lead assembly. U.S.A. *User net price **$6.10**

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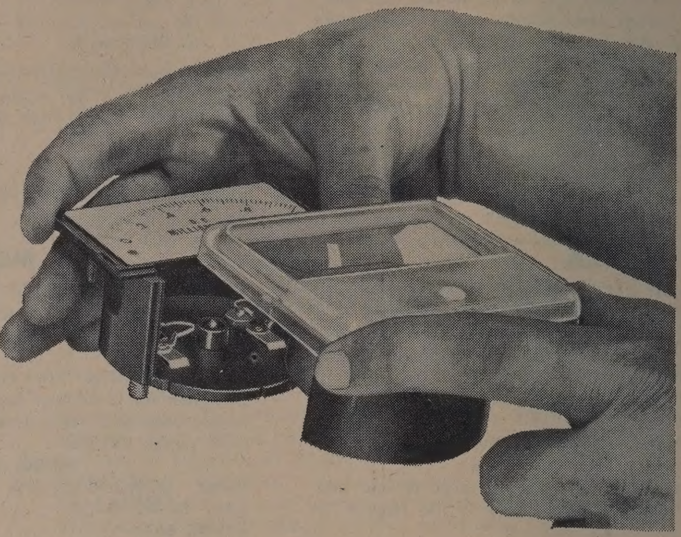
TRIPLETT INSTRUMENTS

UNIMETERS



An innovation in self-service meters these Select-Your-Range Unimeters consist of two basic meter movements, which can be combined with any one of a number of separate dial-component units for a wide variety of meter ranges. The basic meter movements and the Dial-Component units lock together simply; no soldering, no wiring, no opening of the dust-proof movement is required.

In two sizes, 327-U 3½″ rectangular and 420-U 4½″ rectangular with mirror scale for greater accuracy in reading. Also in handy kits, both sizes, as below. The triple-purpose kit case with handle provides handy portability; easy protective storage and attractive display.

UNIMETER PRICE LIST — BASIC MOVEMENTS

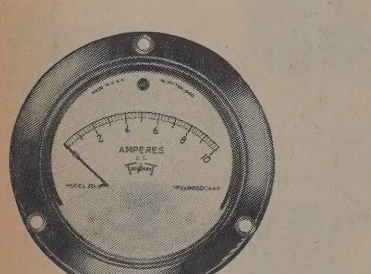
	Suggested U.S.A. User Net		Suggested U.S.A. User Net
Model 327-U 0-1 DC Milliammeter (50 MV)	$12.10	**Model 420-U** 0-1 DC Milliammeter (50 MV)	$13.20
Model 327-U 0-50 DC Microammeter (250 MV)	17.50	**Model 420-U** 0-50 DC Microammeter (250 MV)	18.70

DIAL-COMPONENT UNITS

Suggested U.S.A. User Net Price Each Unit (Specify for use with 327-U or 420-U) $2.75

DC-MA		DC-VM 1000 o/v Film Type	DC-AM	AC-VM Rectifier Type*	DC-UA
0-1	0-100	0-10	0-1	0-10	0-50
0-5	0-150	0-25	0-5	0-150	0-100
0-10	0-200	0-50	0-10	0-300	0-200

DC-MA		DC-VM 1000 o/v Film Type	DC-AM	AC-VM Rectifier Type*	DC-UA
0-15	0-250	0-150	0-15		0-500
0-25	0-300	0-300	0-25		
0-50	0-500	0-500	0-50	*500 o/v	



RUGGEDIZED INSTRUMENTS

A complete line of 2½″ and 3½″ ruggedized and sealed instruments designed to meet government specification MIL-M-10304A.

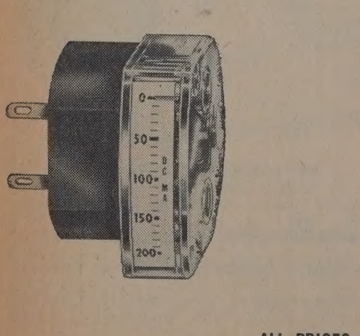
Triplett ruggedized instruments employ the unique and exclusive bar-ring construction so well adapted to ruggedization, that the addition of spring loaded jewels and an internal rubber mount (both designed for jewel protection) constitute the essential difference between the commercial and ruggedized movements.

The bar-ring construction is inherently self-shielding so that the heavy steel case does not affect instrument calibration nor does mounting in a steel panel of any thickness.

The unusually strong housing consists of a drawn steel case with heavy die cast window bezel. The bezel seals the window to the case with a simple gasket and screws. A tough plastic window is used instead of glass.

Husky gasket-sealed studs are used for electrical connections to provide additional protection over delicate glass sealed types.

Most catalog ranges of DC: MV, Volts, Mic. Ma, Amp and AC rectifier type can be supplied. Regular dials in accordance with MIL-M-10304A are supplied although special dials of all descriptions can be made up for special applications.



MINIATURE EDGEWISE PANEL INSTRUMENTS

If space on your panel is at a premium here is a miniature meter that will fit into even the most restricted area—yet give you the readability, performance and reliability you expect from the conventional 2½″ sizes.

Weighing only four ounces this meter also is of value to the user who has a weight limitation factor on his hands.

Accuracy—DC 2% of full scale; AC Rectifier type 5% of full scale.

Self-Shielded Bar-Ring Magnet—Not affected by magnetic panels. High torque, exceedingly rugged and accurate.

Mounting—Horizontal, zero at left and barrel down is standard.

Vertical mounting or other special adaptations in quantity orders.

Panel Hole Required—Only ⁹⁄₁₆″ x 1¹¹⁄₁₆″.

DC-MA	Suggested U.S.A. User Net
0-1	$10.90
0-10	10.90
0-25	11.30
0-50	11.30
0-100	11.30
0-150	11.30
0-200	11.30
0-300	11.30
0-500	11.30
DC-VM	
0-10	$11.80
0-50	11.80
0-150	11.80

DC-UA	Suggested U.S.A. User Net
0-50	$16.40
0-100	14.30
0-200	12.20
DC-AM	
0-10	$11.80
AC-VM (Rect. Type)	
0-150	$19.70
0-300	20.70
VU Meters	
A or B Scales	$21.90

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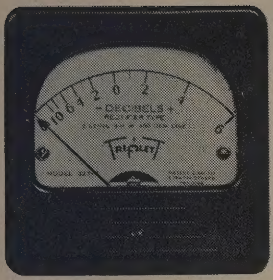
INSTRUMENTS TRIPLETT



DC 221-T, 321-T

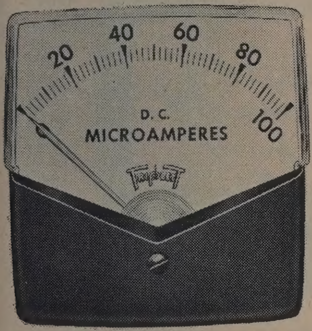
AC 231-S, 331-S

DC MILLIVOLTMETERS

Range	Approx. Res.	Approx. Res. "M" Series	Scale Div.	2½" Models 221-T 227-T	2½" Models 220-M 221-PL 227-PL	3½" Models 320-M 321-T 327-T	3½" Models 321-PL 327-PL	4½" Model 420	4½" Models 420-M 420-PL
0-50	6.5	6.25	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12.80
0-100	12.5	12.5	50	10.90	10.90	11.60	11.60	12.80	12.80
0-150	20	18.75	75(30)**	10.90		11.60		12.80	

DC VOLTMETERS (1000 Ohms per Volt) — FILM TYPE RESISTORS

Range	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Models 420-M, 420, 420-PL
0-10	50	$11.80	$11.80	$12.30	$12.30	$13.50
0-15	75(30)**	11.80	11.80	12.30	12.30	13.50
0-25	50	11.80	11.80	12.30	12.30	13.50
0-50	50	11.80	11.80	12.30	12.30	13.50
0-100	50	11.80	11.80	12.30	12.30	13.50
0-150	75(30)**	11.80	11.80	12.30	12.30	13.50
0-200	40	11.80	11.80	12.30	12.30	13.50
0-250	50	11.80	11.80	12.30	12.30	13.50
0-300	60(30)	11.80	11.80	12.30	12.30	13.50
0-500	50	14.10***	14.10***	13.00	13.00	14.20
0-750	75(30)**	14.60***	14.60***	13.00	13.00	14.20
0-1000	50	14.90	14.90	15.50	15.50	16.70
0-2000	40	15.50	15.50	16.20	16.20	17.40
0-3000	60(30)**	16.20	16.20	16.80	16.80	18.00
0-4000	40	16.50	16.50	17.20	17.20	18.40
0-5000	50	16.80	16.80	17.50	17.50	18.70



DC 220-M, 320-M, 420-M

DC VOLTMETERS (1000 Ohms per Volt) — WIREWOUND RESISTORS

Range	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Models 420-M, 420, 420-PL
0-1	50	$11.80	$11.80	$12.30	$12.30	$13.50
0-3	60(30)**	11.80	11.80	12.30	12.30	13.50
0-5	50	11.80	11.80	12.30	12.30	13.50
0-10	50	11.80	11.80	12.30	12.30	16.20
0-25	50	14.40	14.40	15.00	15.00	16.20
0-50	50	14.40	14.40	15.00	15.00	16.80
0-100	50	15.00	15.00	15.60	15.60	16.80
0-150	75(30)**	15.00	15.00	15.60	15.60	20.10
0-300	60(30)**	18.30	18.30	18.90	18.90	22.20
0-500	50	20.50***	20.50***	21.00	21.00	25.30
0-750	75(30)**	23.40***	23.40***	24.10	24.10	
The following supplied with external resistor boxes at prices shown:						
0-1000	50	41.30	41.30	42.00	42.00	43.10
0-2000	40	67.70	67.70	68.20	68.20	69.40

***Supplied with external resistors.

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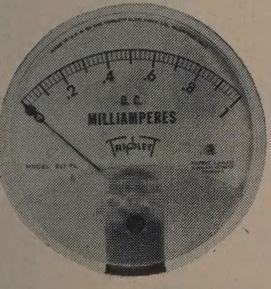
D.C.
MILLIAMPERES
Triplett

DC 227-PL, 327-PL

AC 237-PL, 337-PL

DC MICROAMMETERS

Range	Approx. Res.	Approx. Res. "M" Series	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Model 420	4½" Models 420-M, 420-PL
0-20	4750		40	$19.40	$19.40	$20.00	$20.00	$21.20	$21.20
0-50	2000	2000	50	16.40	16.40	16.90	16.90	18.20	18.20
0-100	825	2500	50	14.30	14.30	14.90	14.90	16.10	16.10
0-200	360	1250	40	12.20	12.20	12.90	12.90	14.10	14.10
0-500	156	500	50	11.70	11.70	12.20	12.20	13.40	13.40
50-0-50	825	2500	50	14.30	14.30	14.90	14.90	16.10	16.10
100-0-100		1250	50	12.20	12.20	12.90	12.90	14.10	14.10
500-0-500	55	250	50	10.90	10.90	11.60	11.60	12.80	12.80



DC 221-PL, 321-PL

AC 231-PL, 331-PL

DC MILLIAMMETERS

Range	Approx. Res.	Approx. Res. "M" Series	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Model 420	4½" Models 420-M, 420-PL
0-1	55	50	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12.80
0-1.5	30	100	75(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-3	14	50	60(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-5	8.5	30	50	10.90	10.90	11.60	11.60	12.80	12.80
0-10	3.1	5	50	10.90	10.90	11.60	11.60	12.80	12.80
0-15	6.6	3.3	75(30)**	10.90	10.90	12.00	12.00	13.20	13.20
0-25	4	2	50	11.30	11.30	12.00	12.00	13.20	13.20
0-50	2	1	50	11.30	11.30	12.00	12.00	13.20	13.20
0-75	1.3	.66	75(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-100	1	.5	50	11.30	11.30	12.00	12.00	13.20	13.20
0-150	0.6	.33	75(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-200	0.5	.25	40	11.30	11.30	12.00	12.00	13.20	13.20
0-250	0.4	.2	50	11.30	11.30	12.00	12.00	13.20	13.20
0-300	0.33	.166	60(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-400	0.25	.125	40	11.30	11.30	12.00	12.00	13.20	13.20
0-500	0.2	.1	50	11.30	11.30	12.00	12.00	13.20	13.20
0-750	0.13	.066	75(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-1000	0.1	.05	50	11.30	11.30				

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE, SPECIFICATIONS SUBJECT TO REVISION.

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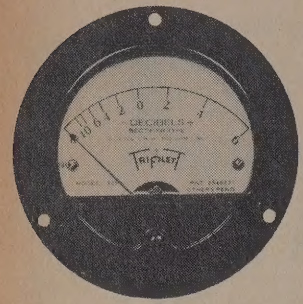
TRIPLETT INSTRUMENTS



DC AMMETERS

Range	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL		3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL		4½" Model 420	4½" Models 420-M, 420-PL
0-1	50	$10.90	$10.90		$11.60	$11.60		$12.80	$12.80
0-3	60(30)**	10.90	10.90		11.60	11.60		12.80	12.80
0-5	50	11.80	11.80		12.30	12.30		13.50	13.50
0-10	50	11.80	11.80		12.30	12.30		13.50	13.50
0-15	75(30)**	11.80	11.80		12.30	12.30		13.50	13.50
0-25	50	11.80	11.80		12.30	12.30		13.50	13.50
0-30	60(30)**	11.80	11.80	221-PL only	12.30	12.30	321-PL only	13.50	
0-50	50	11.80	11.80		12.30	12.30		13.50	

D.C. Ammeters are self-contained up to and including 50 Amperes. Shunts 75 Amperes (50 M.V.) and higher are switchboard type with 5 ft. leads.

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AC VOLTMETERS

Range	Approx. Ohms/Volt	Scale Div.	2½" Models 231-S, 237-S	2½" Models 231-PL, 237-PL	3½" Models 331-S, 337-S	3½" Models 331-PL, 337-PL	4½" Model 430	4½" Model 430-PL
0-1.5	1.33	75(30)**	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
0-3	3.33	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-5	4	50	11.40	11.40	12.10	12.10	12.80	12.80
0-10	10	50	11.40	11.40	12.10	12.10	12.80	12.80
0-15	16	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-25	20	50	11.40	11.40	12.10	12.10	12.80	12.80
0-50	50	50	11.40	11.40	12.10	12.10	12.80	12.80
0-100	91	50	11.40	11.40	12.10	12.10	12.80	12.80
0-150	125	75(30)**	12.50	12.50	13.10	13.10	13.80	13.80
0-250	144	50	13.10	13.10	13.80	13.80	14.40	14.40
0-300	144	60(30)**	13.80	13.80	14.30	14.30	15.00	15.00
0-500*	125	50	17.80	17.80	18.50	18.50	19.10	19.10
0-750*	125	75(30)**	20.60	20.60	21.20	21.20	21.90	21.90
0-1000*	125	50	22.20	22.20	22.90	22.90	23.50	23.50

These A.C. Voltmeters are for use on frequencies from 25 to 133 cycles. *Supplied with external resistor boxes at prices shown above. All other instruments are self-contained. Double-range Voltmeters are available on special order. Prices on request.

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AC AMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 231-PL, 237-PL	3½" Models 331-S, 337-S	3½" Models 331-PL, 337-PL	4½" Model 430	4½" Model 430-PL
0-1	.29	50	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
0-2	.19	40	11.40	11.40	12.10	12.10	12.80	12.80
0-3	.03	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-5	.015	50	11.40	11.40	12.10	12.10	12.80	12.80
0-10	.005	50	11.40	11.40	12.10	12.10	12.80	12.80
0-15	.002	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-25	.001	50	11.40	11.40	12.10	12.10	12.80	12.80
0-30	.001	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-50	.0005	50	11.40	11.40	12.10	12.10	12.80	12.80
0-75	.0003	75			13.30		14.50	

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AC MILLIAMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 231-PL, 237-PL	3½" Models 331-S, 337-S	3½" Models 331-PL, 337-PL	4½" Model 430	4½" Model 430-PL
0-10	3800	50	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
0-15	1600	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-25	460	50	11.40	11.40	12.10	12.10	12.80	12.80
0-50	115	50	11.40	11.40	12.10	12.10	12.80	12.80
0-100	35	50	11.40	11.40	12.10	12.10	12.80	12.80
0-200	12	40	11.40	11.40	12.10	12.10	12.80	12.80
0-250	3.8	50	11.40	11.40	12.10	12.10	12.80	12.80
0-500	1.2	50	11.40	11.40	12.10	12.10	12.80	12.80

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THERMO AMMETERS (R.F.)

Range	Approx. Res.	Scale Div.	2½" Models 241-T, 247-T	3½" Models 341-T, 347-T	3½" Models 341-PL, 347-PL	4½" Model 440	4½" Model 440-PL
0-.5 Amps	.93	50	$12.10	$12.80	$12.80	$14.00	$14.00
0-1 Amps	.35	50	12.10	12.80	12.80	14.00	14.00
0-1.5 Amps	.21	75(30)	12.10	12.80	12.80	14.00	14.00
0-2.5 Amps	.13	50	12.10	12.80	12.80	14.00	14.00
0-5 Amps	.06	50	12.10	12.80	12.80	14.00	14.00
0-10 Amps	.03	50	12.10	12.80	12.80	14.00	14.00

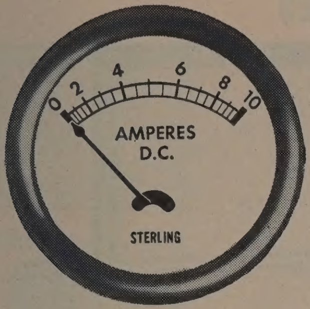
Internal couples are normally furnished at prices shown. If external couples are required, please specify on order, adding $6.10 net to price of instrument shown above. External couples only less meter, with leads, $7.30 net each.

**Scale divisions for 2-inch Models in parentheses.

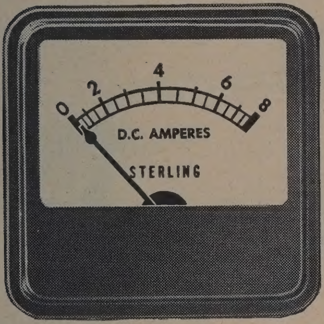
***Supplies with external resistors.

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE, SPECIFICATIONS SUBJECT TO REVISION.

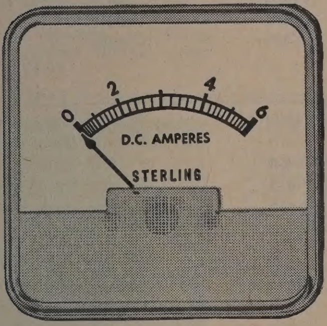
STERLING PANEL METERS



MODEL 80
2-5/32" dia. flange, flush case. Fits mounting hole 2-1/32" dia. Black clamp mounting. Black enamel finish.



MODEL 75
2-1/4" square flange, fits mounting hole 2-1/32" dia., Back clamp mounting. Black enamel finish.



MODEL 55
2-1/4" clear plastic face. Fits mounting hole 2-1/32" dia. Back clamp mounting.

All Sterling meters have rugged, time-proven linear-power movement. Calibration accuracy is within 5%.

PRICE LIST

D.C. AMMETERS

Range	Approximate Resist. Ohms	Model 80 Part No.	NET EACH	Model 75 Part No.	Model 55 Part No.	NET EACH
0-1	.02 Max.	80-855	$1.80	75-855	55-855	$2.05
0-3	.02 Max.	80-856	1.80	75-856	55-856	2.05
0-6	.02 Max.	80-857	1.80	75-857	55-857	2.05
0-8	.02 Max.	80-928	1.80	75-928	55-928	2.05
0-10	.02 Max.	80-858	1.80	75-858	55-858	2.05
0-15	.02 Max.	80-864	1.80	75-864	55-864	2.05
0-25	.02 Max.	80-865	1.80	75-865	55-865	2.05
0-50	.02 Max.	80-866	2.40	75-866	55-866	2.65
30-0-30	.02 Max.	80-867	1.80	75-867	55-867	2.05

D.C. MILLIAMMETERS

Range	Approximate Resist. Ohms	Model 80 Part No.	NET EACH	Model 75 Part No.	Model 55 Part No.	NET EACH
0-1	1000	80-834	$3.60	75-834	55-834	$3.85
0-2	4350	80-835	2.70	75-835	55-835	2.95
0-5	2175	80-836	2.25	75-836	55-836	2.55
0-10	750	80-837	2.10	75-837	55-837	2.40
0-15	319	80-838	1.80	75-838	55-838	2.05
0-25	130	80-839	1.80	75-839	55-839	2.05
0-50	33	80-840	1.80	75-840	55-840	2.05
0-100	8	80-841	1.80	75-841	55-841	2.05
0-150	3	80-842	1.80	75-842	55-842	2.05
0-200	2.4	80-843	1.80	75-843	55-843	2.05
0-300	1.3	80-844	1.80	75-844	55-844	2.05
0-500	.23	80-848	1.80	75-848	55-848	2.05

D.C. VOLTMETERS

Range	Approximate Resist. Ohms	Model 80 Part No.	NET EACH	Model 75 Part No.	Model 55 Part No.	NET EACH
0-1	15	80-801	$1.80	75-801	55-801	$2.05
0-3	130	80-802	1.80	75-802	55-802	2.05
0-5	210	80-804	1.80	75-804	55-804	2.05
0-10	1000	80-807	1.80	75-807	55-807	2.05
0-15	1580	80-808	1.80	75-808	55-808	2.05
0-25	1700	80-809	1.80	75-809	55-809	2.05
0-50	3340	80-811	1.80	75-811	55-811	2.05
0-150	10000	80-815	2.25	75-815	55-815	2.55
0-300	100000	80-817	3.00	75-817	55-817	3.30

A.C. AMMETERS

Range	Approximate Resist. Ohms	Model 80 Part No.	NET EACH	Model 75 Part No.	Model 55 Part No.	NET EACH
0-1	.7	80-886	$2.85	75-886	55-886	$3.15
0-3	.09	80-887	2.85	75-887	55-887	3.15
0-5	.04	80-888	2.85	75-888	55-888	3.15
0-10	.02	80-889	2.85	75-889	55-889	3.15
0-15	.02	80-917	2.85	75-917	55-917	3.15
0-30	.02	80-892	3.00	75-892	55-892	3.30

A.C. MILLIAMMETERS

Range	Approximate Resist. Ohms	Model 80 Part No.	NET EACH	Model 75 Part No.	Model 55 Part No.	NET EACH
0-100	104	80-882	$2.85	75-882	55-882	$3.15
0-250	16	80-883	2.85	75-883	55-883	3.15
0-500	3	80-884	2.85	75-884	55-884	3.15

A.C. VOLTMETERS

Range	Approximate Resist. Ohms	Model 80 Part No.	NET EACH	Model 75 Part No.	Model 55 Part No.	NET EACH
0-10	104	80-872	$2.85	75-872	55-872	$3.15
0-15	210	80-873	2.85	75-873	55-873	3.15
0-25	1750	80-910	2.85	75-910	55-910	3.15
0-50	2750	80-879	2.85	75-879	55-879	3.15
0-150	11500	80-874	3.60	75-874	55-874	3.90
0-300	19400	80-875	4.05	75-875	55-875	4.35

For meters with special scales, ranges or construction, contact the factory or local Sterling representative.

STERLING POCKET METERS

No. 10 Dual A and B for Hearing Aids. Has 2-0-2 and 50-0-50 scales **Net Price $3.30**

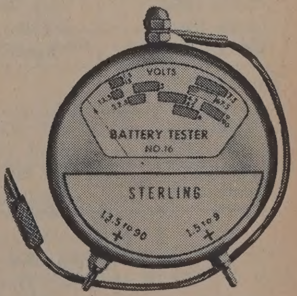
No. 13 Transistor Hearing Aid tester. Has 0-7 volt scale. **Net Price $3.00**

No. 24 Ammeter 0-35 amp. for No. 6 dry cells. Scale has 1 amp. divisions **Net Price $2.25**

No. 34 Voltmeter for "hot-shot" batteries. 0-10 volt scale with 1/5 volt divisions. **Net Price $2.40**

No. 16 General voltmeter. Has green color zones for batteries from 1.5 to 90 volts. **Net Price $4.05**

No. 44 Voltammeter. 0-35 amp. scale, 1 amp. divisions, 0-10 volt scale, 1/5 volt divisions. **Net Price $2.76**



NO. 16 GENERAL TESTER

SEND FOR CATALOGS OF OUR COMPLETE LINE OF POCKET METERS AND PORTABLE BATTERY TESTERS.

The STERLING Manufacturing Company

Cleveland, Ohio

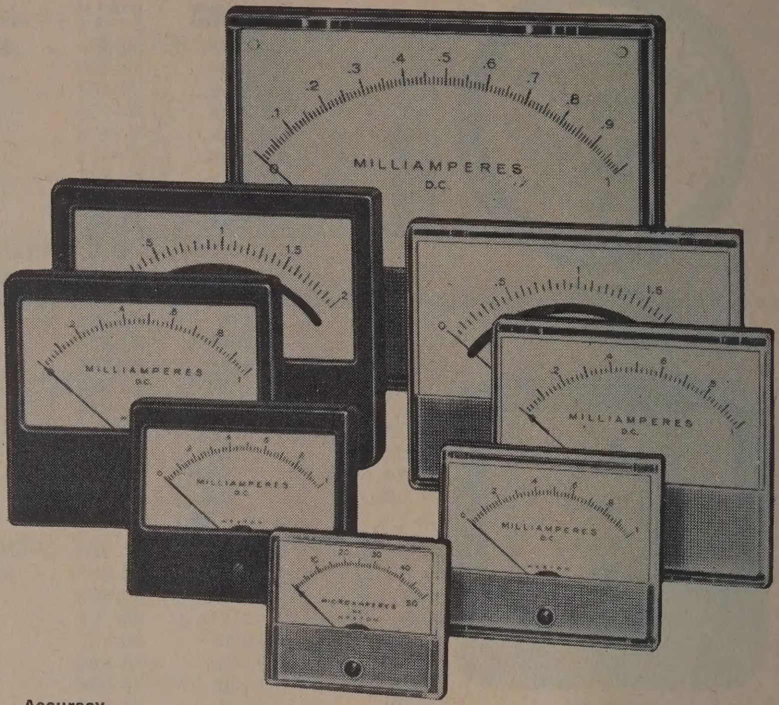
WESTON INSTRUMENTS

1900 PANEL INSTRUMENT SERIES

GENERAL

The 1900 Series is an integrated line of a-c and d-c panel instruments, providing a carefully selected choice of sizes, case styles, accuracies, pointers, scales and ranges. Particular attention has been paid to designing instruments that will present an overall appearance of harmony, even when random sizes are mounted side by side. Mounting bezels provide three types of mounting—recess, flush and conventional.

One of the many features of this new Weston series is the method of construction which provides quick interchangeability of fronts and easy access for adjustment or service, if ever required. From their spring-backed jewels to their unique fastening clips, the 1900 Series incorporate the fine workmanship and quality that has always been associated with Weston.



SPECIFICATIONS

2½″ SIZE	Function & Mechanism	Accuracy (Full scale value)	Scale Length (100° arc)	Pointer	Type Scale	Case Front
Model 1921	D-C CORMAG®	2%	2.3″	Lance	Plain	Plastic
Model 1922	Rect. CORMAG®	3%**	2.3″	Lance	Plain	Plastic
Model 1924	Iron Vane	2%	2.3″	Lance	Plain	Plastic
3½″ SIZE						
Model 1931	D-C CORMAG®	2%	2.7″	Lance	Plain	Plastic/Bakelite
Model 1932	Rect. CORMAG®	3%**	2.7″	Lance	Plain	Plastic/Bakelite
Model 1934	Iron Vane	2%	2.7″	Lance	Plain	Plastic/Bakelite
Model 1936	D-C Ext. Mag.	2%	2.7″	Lance	Plain	Plastic/Bakelite
Model 1938	Thermo. Ext. Mag.	2%	2.7″	Lance	Plain	Plastic/Bakelite
4½″ SIZE						
Model 1941	D-C CORMAG®	2%*	3.9″	Lance	Plain	Plastic/Bakelite
Model 1942	Rect. CORMAG®	2%**	3.9″	Lance	Plain	Plastic/Bakelite
Model 1944	Iron Vane	2%	3.9″	Lance	Plain	Plastic/Bakelite
Model 1946	D-C Ext. Mag.	1%	3.9″	Knife-edge	Mirrored	Plastic/Bakelite
Model 1948	Thermo. Ext. Mag.	2%	3.9″	Lance	Plain	Plastic/Bakelite
5½″ SIZE						
Model 1951	D-C CORMAG®	2%*	4.7″	Lance	Plain	Plastic/Bakelite
Model 1952	Rect. CORMAG®	2%**	4.7″	Lance	Plain	Plastic/Bakelite
Model 1954	Iron Vane	2%	4.7″	Lance	Plain	Plastic/Bakelite
Model 1956	D-C Ext. Mag.	1%	4.7″	Knife-edge	Mirrored	Plastic/Bakelite
Model 1958	Thermo. Ext. Mag.	2%	4.7″	Lance	Plain	Plastic/Bakelite
7½″ SIZE						
Model 1971	D-C CORMAG®	1%†	7.2″	Lance	Plain	Plastic
Model 1972	Rect. CORMAG®	2%††	7.2″	Lance	Plain	Plastic
Model 1976	D-C Ext. Mag.	1%†	7.2″	Lance	Plain	Plastic
Model 1977	Rect. Ext. Mag.	2%††	7.2″	Lance	Plain	Plastic

*1% when knife-edge pointer and mirrored scale is specified.

**on sine wave 60 cycle source at normal room temperature of 25 C.

†½% with knife-edge pointer and mirrored scale on special order ONLY.

††on sine wave 60 cycle source at normal room temperature; 1½% can be supplied on special order.

NOTE: If Models 1924, 34, 36, 44, 46, 54, 56 and 76 are used on steel panels, order should specify panel thickness to assure proper adjustment.

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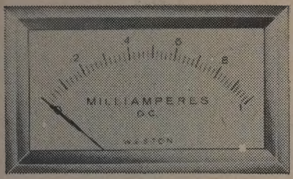
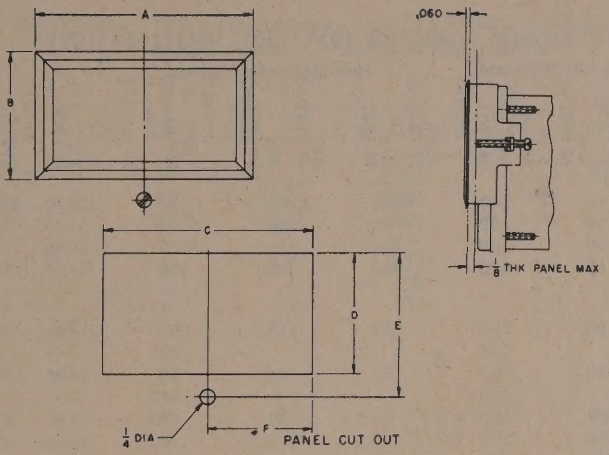
WESTON INSTRUMENTS

THREE TYPES OF MOUNTINGS

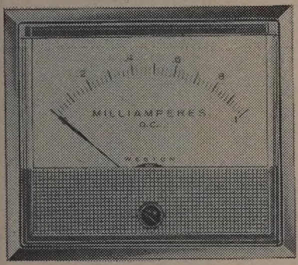

2
4
6
8
1
MILLIAMPERES
D.C.
WESTON

RECESS (Plastic front only)

Only the scale is visible since meter is mounted behind the panel . . . half bezel fits into window.

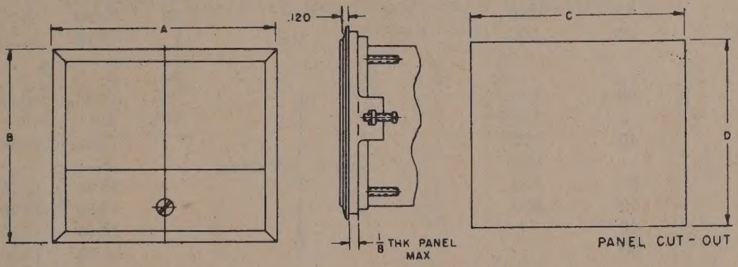

A
B
.060
C
D
E
1/4 DIA
F
PANEL CUT OUT
1/8 THK PANEL MAX

MODEL	A	B	C	D	E	F
1921 1922 1924	3.120	1.720	3.000	1 19/32	2.070	1 1/2
1931 1932 1934 1936 1938	3.860	2.265	3 23/32	2 5/32	2.550	1 55/64
1941 1942 1944 1946 1948	4.960	2.900	4 13/16	2 3/4	3.290	2 13/32
1951 1952 1954 1956 1958	6.060	3.300	5 7/8	3 5/32	3.950	2 15/16


2
4
6
8
1
MILLIAMPERES
D.C.
WESTON

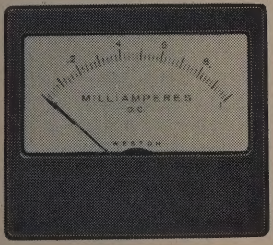
FLUSH (Plastic front only)

Full Bezel permits mounting flush with panel through rectangular cutout.


A
B
.120
1/8 THK PANEL MAX
C
D
PANEL CUT - OUT

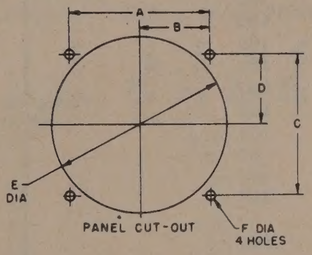
MODEL	A	B	C	D
1921 1922 1924	3.050	2.620	2 31/32	2 17/32
1931 1932 1934 1936 1938	3.830	3.320	3 11/16	3 3/16
1941 1942 1944 1946 1948	5.000	4.550	4 25/32	4 11/32

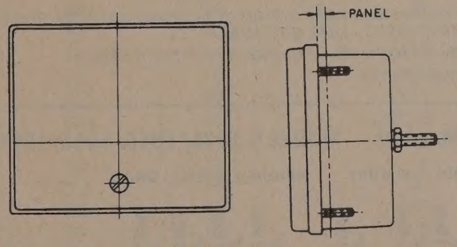
2
4
6
8
1
MILLIAMPERES
D.C.
WESTON


2
4
6
8
1
MILLIAMPERES
D.C.
WESTON

CONVENTIONAL

Use same dimensions, whether you choose a meter with taut band or pivot and jewel movement.


A
B
D
C
E DIA
PANEL CUT-OUT
F DIA 4 HOLES



MODEL	A	B	C	D	E	F
1921 1922 1924	1.880	.940	1.880	.940	2.220 DIA	.125 DIA
1931 1932 1934 1936 1938	2.250	1.125	2.250	1.125	2.820 DIA	.125 DIA
1941 1942 1944 1946 1948	4.000	2.000	3.560	2.020	2.820 DIA	.154 DIA
1951 1952 1954 1956 1958	5.250	2.625	3.000	2.150	2.820 DIA	.154 DIA
1971 1972	6.000	3.000	4 500	3.500	3.560 DIA	.156 DIA

WESTON 1900 T SERIES WITH TAUT BAND MECHANISMS

Available in Bakelite or static-free clear plastic cases in sizes from 3½″ through 7½″.

Taut-Band instruments are slightly higher in price than the 1900 Series with conventional pivot and jewel movements, but are completely interchangeable.

Taut-Band mechanisms are free from friction and inertia. They offer outstanding sensitivity, reliability and uniformity from zero to full scale.

Your distributor can provide complete information on Weston 1900 T Series with Taut Band Mechanisms.

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WESTON INSTRUMENTS

1900 PANEL INSTRUMENT SERIES

D-C (Cormag) — MODELS 1921/1931/1941/1951/1971

	Ranges		Scale Divisions		Nominal Resist. Ohms			PRICES				
	2½" M-1921 3½" M-1931 4½" M-1941 5½" M-1951	7½" M-1971	2½" M-1921 3½" M-1931 4½" M-1941 5½" M-1951	7½" M-1971	2½" M-1921 3½" M-1931	4½" M-1941 5½" M-1951	7½" M-1971	2½" M-1921	3½" M-1931	4½" M-1941	5½" M-1951	7½" M-1971
ua												
50	x	x	50	100	4800	2500	5160	$18.60	$19.10	$20.10	$30.40	$60.80
100	x	x	50	100	1225	2500	4640	17.40	17.90	18.80	28.70	45.20
200	x	x	40	100	600	850	1700	16.60	17.10	18.10	27.20	42.20
500	x	x	50	100	240	240	935	18.60	16.10	17.10	26.10	50.10
ma*												
1	x	x	50	100	88	115	93	14.60	15.10	16.10	24.30	40.30
1.5		x		150			93	——	——	——	——	48.90
2	x	x	40	100	45	16	69	17.80	15.10	16.10	24.30	48.90
3		x		150			33.5	——	——	——	——	48.80
5	x	x	50	100	8.5	11	12.6	14.60	15.10	16.10	24.30	48.90
10	x	x	50	100	2.5	2.7	3.36	14.60	15.10	16.10	24.30	48.90
20	x	x	40	100	2.2	2.7	1	17.80	15.10	16.10	24.30	48.90
30		x		150			1	——	——	——	——	48.90
50	x	x	50	100	2.0	2	1	14.60	15.10	16.10	25.20	48.90
100	x	x	50	100	1.0	1	.5	14.60	15.10	16.10	24.30	48.90
200	x	x	40	100	0.5	0.5	.25	17.80	15.10	16.10	24.30	48.90
500	x	x	50	100	0.2	0.2	.1	17.80	15.10	16.10	24.30	48.90
amps**												
1	x	x	50	100		Approx. MV Drop 50		14.60	15.10	16.10	25.20	48.90
1.5		x		150				——	——	——	——	48.90
2	x	x	40	100				14.60	15.10	16.10	25.20	48.90
3		x		150				——	——	——	——	48.90
5	x	x	50	100				14.60	15.10	16.10	25.20	48.90
10	x	x	50	100				14.60	15.10	16.10	25.20	48.90
20	x	†	40					14.60	15.10	16.10	25.20	——
30	x	†	60					14.60	15.10	16.10	25.20	——
volts												
1		x		100		Ohms Per Volt 1000		——	——	——	——	51.30
1.5		x		150				——	——	——	——	51.30
2	x	x	40	100				15.40	15.90	16.90	25.20	51.30
3		x		150				——	——	——	——	51.30
5	x	x	50	100				15.40	15.90	16.90	25.20	51.30
10	x	x	50	100				15.40	15.90	16.90	25.20	51.30
15	x	x	75	150				15.40	15.90	16.90	25.20	51.30
30	x	x	60	150				18.70	15.90	16.90	25.20	51.30
50	x	x	50	100				15.40	15.90	16.90	25.20	51.30
80		x		80				——	——	——	——	51.30
100	x	x	50	100				15.40	15.90	16.90	25.20	51.30
150	x	x	75	150				15.40	15.90	16.90	25.20	51.30
200	x		40					18.70	15.90	16.90	25.20	——
300	x	x	60	150				15.40	15.90	16.90	25.20	52.50
500	x	x	50	100				15.40	15.90	16.90	25.20	53.70

*NOTE: Range of 50 ma and up are shunted and have a drop of approximately 50 mv on Model 1971 and 100 mv on Models 1921, 1931, 1941 and 1951.

**For ranges above 30 amps use a 50 mv instrument, with required external shunt.

†For ranges above 10 amps use external shunts.

D-C (External Magnet) — MODELS 1936/1946/1956/1976

	Ranges			Scale Divisions		Nominal Resist. Ohms	PRICES			
	3½" M-1936	4½" M-1946 5½" M-1956	7½" M-1976	3½" M-1936 4½" M-1946 5½" M-1956	7½" M-1976	3½" M-1936 4½" M-1946 5½" M-1956 7½" M-1976	3½" M-1936	4½" M-1946	5½" M-1956	7½" M-1976
ua										
20	x	x*		40		5400	$27.80	$30.50	$35.40	$ ——
30			x		150		——	——	——	76.80
50	x	x	x	50	100	2180	27.80	30.50	35.40	56.40
100	x	x	x	50	100	870	26.90	29.80	34.70	48.60
200	x	x	x	40	100	550	26.40	29.00	33.70	45.70
500	x	x		50		120	25.90	28.30	32.20	——

*2% accuracy only.

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WESTON INSTRUMENTS

1900 PANEL INSTRUMENT SERIES

RECTIFIER TYPE A-C (Cormag) — MODELS 1922/32/42/52/72

	Ranges		Scale Divisions		Nominal Resist. Ohms		PRICES				
	2½" M-1922 3½" M-1932 4½" M-1942 5½" M-1952	7½" M-1972	2½" M-1922 3½" M-1932 4½" M-1942 5½" M-1952	7½" M-1972	2½" M-1922 3½" M-1932 4½" M-1942 5½" M-1952	7½" M-1972	2½" M-1922	3½" M-1932	4½" M-1942	5½" M-1952	7½" M-1972
ua											
100	x		50		4000		$22.50	$22.90	$23.90	$28.10	$ ——
200	x	x	40	100	2000	3000	22.50	22.90	23.90	28.10	51.50
500	x	x	50	100	800	1500	22.50	22.90	23.90	28.10	56.40
ma											
1	x	x	50	100	475	460	19.30	19.80	20.70	24.70	55.20
2	x		40		280		19.30	19.80	20.70	24.70	——
5	x	x	50	100	140	150	19.30	19.80	20.70	24.70	55.20
volts											
3	x		60		↑ Ohms Per Volt 1000 ↓		24.60	20.70	21.70	25.60	——
7.5	x		75				24.60	20.70	21.70	25.60	——
15	x	x	75	150			24.60	20.70	21.70	25.60	57.50
30	x	x	60	150			24.60	20.70	21.70	25.60	57.50
75	x	x	75	150			24.60	20.70	21.70	25.60	57.50
150	x	x	75	150			24.60	20.70	21.70	25.60	57.50
300	x	x	60	150			24.60	——	21.70	25.60	58.10
500	x	x	50	100			24.60	——	21.70	25.60	59.90

THERMO (Linear Scale ONLY) — MODELS 1938/1948/1958

	Ranges	Scale Divisions	PRICES		
	3½" M-1938 4½" M-1948 5½" M-1958	3½" M-1938 4½" M-1948 5½" M-1958	3½" M-1938	4½" M-1948	5½" M-1958
amps					
1	x	50	$61.30	$62.30	$77.10
1.5	x	75	61.30	51.30	63.50
2	x	40	61.30	62.30	77.10
3	x	60	61.30	51.30	63.50
5	x	50	61.30	62.30	63.50
7.5	x	75	61.30	51.30	63.50
10	x	50	61.30	62.30	77.10
15	x	75	61.30	51.30	63.50

A-C (Iron Vane) — MODELS 1924/1934/1944/1954

	Ranges	Scale Divisions		Approx. Resist. Ohms	PRICES			
	2½" M-1924 3½" M-1934 4½" M-1944 5½" M-1954	2½" M-1924	3½" M-1934 4½" M-1944 5½" M-1954	2½" M-1924 3½" M-1934 4½" M-1944 5½" M-1954	2½" M-1924	3½" M-1934	4½" M-1944	5½" M-1954
ma†								
10	x	20	50	2550	$19.10	$19.50	$20.50	$26.60
20	x	40	40	637	19.10	19.50	20.50	26.60
50	x	25	50	100	19.10	19.50	20.50	26.60
100	x	20	50	25	19.10	19.50	20.50	26.60
200	x	40	40	6.33	23.20	19.50	20.50	26.60
500	x	25	50	1.0	19.10	19.50	20.50	26.60
amps*								
1	x	20	50	.25	19.10	19.50	20.50	26.60
2	x	40	40	.062	19.10	19.50	20.50	26.60
5	x	25	50	.016	19.10	19.50	20.50	26.60
10	x	20	50	.0045	19.10	19.50	20.50	26.60
20	x	40	40	.0011	19.10	19.50	20.50	26.60
30	x	30	60	.00056	19.10	19.50	20.50	26.60
volts**								
3	x	30	60	6	20.00	20.50	21.50	27.60
7.5	x	37.5	75	37	20.00	20.50	21.50	27.60
15	x	30	75	150	20.00	20.50	21.50	27.60
30	x	30	60	600	20.00	20.50	21.50	27.60
75	x	37.5	75	3750	20.00	20.50	21.50	27.60
150	x	30	75	15,000	20.00	20.50	21.50	27.60
300	x	30	60	60,000	20.00	20.50	21.50	27.60
500	x	25	50	100,000	20.00	20.50	21.50	27.60

†Frequency: 25 to 500 cycles.

*Power consumption: 5 ampere range at 5 amperes, 0.45 watts; at 60 cycles, 0.45 volt-amperes.
Frequency: 25 to 500 cycles.

**Power consumption: 150 volt range at 115 volts, 1.15 watts, at 60 cycles, 1.15 volt-amperes.
Frequency: adjusted for use on frequencies of 25 to 125 cycles.

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WESTON INSTRUMENTS

201/301 PANEL INSTRUMENT SERIES

MODELS 201/301
D-C VOLTMETERS — 1000 OHMS PER VOLT

	Scale Div.		Price	
Range	201	301	201	301
1	20	50	$16.90	$18.10
1.5	30	75	16.90	14.90
3	30	60	13.90	14.90
5	25	50	13.90	14.90
8	40	40	16.90	18.10
10	20	50	13.90	14.90
15	30	75	13.90	14.90
30	30	60	13.90	14.90
50	25	50	13.90	14.90
80	40	40	16.90	18-10
100	20	50	13.90	14.90
150	30	75	13.90	14.90
200	40	40	14.40	15.40
250	25	—	14.40	——
300	30	60	14.40	15.40
500	25	50	14.90	15.40
800	—	40	——	17.90
1KV	—	50	——	19.80

MODELS 201/301 — D-C MILLIAMMETERS

	Scale Div.		Approx. Resis. Ohms			
Range	201	301	201	301	201	301
1	20	50	100	88	13.40	14.40
1.5	30	75	40	88	16.30	14.40
2	40	40	40	45	16.30	14.40
3	30	60	40	45	16.30	14.40
5	25	50	6	8	13.40	14.40
10	20	50	2.5	2.5	13.40	14.40
15	30	75	2.5	2.5	13.40	14.40
20	40	40	2.5	2.5	13.40	14.40
30	30	60	2.5	2.5	13.40	14.40
50	25	50	2	2	13.40	14.40
100	20	50	1	1	13.40	14.40
150	30	75	0.66	0.66	13.40	14.40
200	40	40	0.5	0.5	16.30	14.40
300	30	60	0.33	0.33	16.30	14.40
800	40	40	0.12	0.2	13.40	14.40
500	25	50	0.2	0.12	16.30	14.40
1000	20	50	0.05	0.05	16.30	17.50
1-0-1	40	40	40	45	13.40	14.40
10-0-10	—	50	—	2.5	——	14.40
50-0-50	50	50	2	2	16.30	14.40
100-0-100	40	40	1	1	13.40	14.40

MODELS 201/301 — D-C AMMETERS

	Scale Div.		Price	
Range	201	301	201	301
1	20	50	$13.40	$14.40
1.5	30	75	13.40	14.40
2	40	40	16.30	14.40
3	30	60	13.40	14.40
5	25	50	13.40	14.40
10	20	50	13.40	14.40
15	30	75	14.40	14.40
20	20	40	14.40	15.40
30	30	60	14.40	15.40
50	25	50	17.50	15.40
5-0-5	—	50	—	17.50
10-0-10	—	40	—	14.40
15-0-15	—	60	—	18.70
20-0-20	—	40	—	18.70
30-0-30	—	60	—	15.40
50-0-50	—	50	—	15.40

MODELS 201/301—206*/306* D-C MICROAMMETERS

	Scale Div.		Apporx Resis.				Price			
Range	201/ 206	301/ 306	201	206	301	206	210	206	301	306
10	20	50	—	3800	—	3800	$ —	$36.80	$ —	$38.00
20	40	40	—	1480	5500	1480	—	30.90	23.70	26.40
30	30	60	—	1480	5500	1480	—	29.70	22.50	30.90
50	25	50	4150	1175	4800	1175	19.30	23.40	20.30	23.40
100	20	50	870	660	1230	660	16.40	26.10	17.30	21.50
200	40	40	600	—	600	55	13.90	—	14.90	21.50
500	25	50	160	—	230	—	13.90	—	14.90	—
10-0-10	—	40	—	—	5500	—	—	—	23.70	—
25-0-25	—	50	4150	—	4800	—	16.40	—	20.30	—
50-0-50	20	50	870	—	1200	—	15.90	—	17.30	—
100-0-100	40	40	600	—	600	—	13.40	—	14.90	—
500-0-500	20	50	100	—	88	—	13.40	—	14.40	—

*External magnet type, unshielded

MODELS 202/302 RECTIFIER TYPE A-C VOLTMETERS

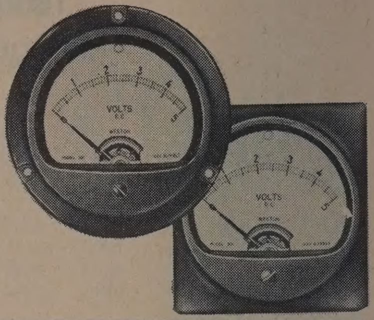
1000 ohms per volt

	Scale Div.		Price	
Range	202	302	202	302
3	—	60	$24.00	$20.70
5	—	50	24.00	20.70
10	—	50	24.00	20.70
15	—	75	24.00	20.70
30	—	60	24.00	20.70
50	—	50	24 00	20.70
100	—	50	24.00	20.70
150	—	75	24.00	20.70
300	—	60	24.00	21.30

2000 ohms per volt

	Scale Div.		Price	
Range	202	302	202	302
1	—	50	$24.60	$21.30
1.5	—	75	24.60	25.80
3	—	60	24.60	25.80
5	—	50	24.60	25.80
10	—	50	24.60	25.80
15	—	75	24.60	21.30
30	—	60	24.60	25.80
50	—	50	24.60	21.30
100	—	50	24.60	25.80
150	—	75	24.60	21.30

- 2½″ and 3½″ Sizes
- 2% Accuracy Full Scale
- Spring Back Jewels
- Long Term Stability
- Self Shielded Mechanism
- Cases Sealed Against Dust
- Minimum Power Consumption
- Minimum Response Time
- Note: Specify Round or Square Case



MODELS 202/302
RECTIFIER TYPE A-C MILLIAMMETERS

	Scale Div.		Approx. Resis.	Price	
Range	202	302	202-302	202	302
1	25	50	470	$24.00	$20.70
2	40	40	270	24.00	20.70
5	25	50	150	24.00	20.70
0.5	25	50	1030	24.00	25.20

MODELS 202/302
RECTIFIER TYPE A-C MICROAMMETERS

	Scale Div.		Approx Resis.	Price	
Range	202	302	202-302	202	302
100	20	50	3400	$28.50	$24.40
200	40	40	2400	27.00	28.20
300	30	60	2000	27.00	28.20
500	25	50	1030	24.00	20.70

MODELS 204/304—A-C VOLTMETERS—25-125 CYCLES

		OHMS/V		Price	
Range	Scale Div.	204	304	204	304
1.5	30	1.5	3	$20.80	$18.10
3	30	15	15	20.80	18.10
5	50	26	26	17.10	18.10
8	40	—	81	—	18.10
10	50	100	100	17.10	18.10
15	30	250	250	20.80	18.10
30	30	790	790	20.80	18.10
50	50	2124	2124	20.80	18.10
80	40	5712	5712	20.80	18.10
100	50	—	10065	—	18.10
130	26	13065	13065	21.40	18.50
150	30	20295	20295	17.60	18.50
250	25	56060	56060	22.60	23.70
300	30	81550	81550	19.10	20.10
500	50	131550	131550	26.10	21.50

MODELS 204/304—A-C AMMETER—25-500 CYCLES

	Amps Scale		Scale Div.		Approx. Resis.		Price	
Range	204	304	204	304	204	304	204	304
1	1	1	50	50	0.130	0.130	$16.60	$17.60
1.5	—	1.5	—	30	—	0.555	—	17.60
2	2	2	40	40	0.026	0.026	16.60	17.60
3	3	3	30	30	0.013	0.013	16.60	17.60
5	5	5	50	50	0.005	0.005	16.60	17.60
5 Amps.*	—	100	—	50	—	0.005	—	17.60
5 Amps.*	—	200	—	40	—	0.005	—	17.60
5 Amps.*	—	300	—	30	—	0.005	—	17.60
10	10	10	50	50	0.0014	0.0014	16.60	17.60
15	15	15	30	30	0.0015	0.0015	16.60	17.60
20	20	20	40	40	0.0005	0.0005	16.60	17.60
30	30	30	30	30	0.0004	0.0004	16.60	17.60
50	50	50	50	50	0.0002	0.0002	16.60	17.60

*For use with Current Transformer. Above prices do not include Transformer.

MODELS 204/304 — A-C MILLIAMMETERS

	Scale Div.		Approx. Resis.		Price	
Range	204	304	204	304	204	304
15	30	30	4.50	.54	$20.00	$21.40
50	50	50	.34	34	20.20	17.60
100	50	50	8.5	8.5	20.20	17.60
500	50	50	0.42	0.42	16.60	17.60

MODELS 208/308 — THERMO-AMMETERS

	Scale Div.		Price	
Range	208	308	208	308
1	20	50	$34.40	$37.10
1.5	30	—	34.40	—
2	40	—	34.40	—
3	30	60	34.40	37.10

	Scale Div.		Price	
Range	208	308	208	308
5	25	50	$28.40	$37.10
8	40	40	34.40	37.10
10	20	50	34.40	37.10
15	30	60	34.40	37.10
20	40	—	34.40	37.10

MODELS 208/308 — THERMO-MILLIAMMETERS

	Scale Div.		Approx. Resis.		Price	
Range	208	308	208	308	208	308
† 10	—	50	—	85	—	$64.50
† 50	—	50	—	5	—	64.50
100	20	50	5.2	8	39.20	33.20
200	—	40	—	2.7	—	33.20

†Vacuum Thermocouple Type.

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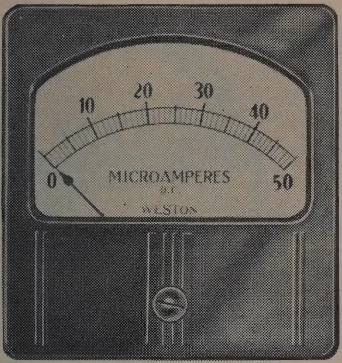
WESTON INSTRUMENTS

741-744 PANEL INSTRUMENT GROUP



741/744 PANEL INSTRUMENTS

These instruments are regularly supplied in flush, black Bakelite cases which can be mounted on panels up to ⅞″ thick. The adjustable mounting arrangement is invisible from the front of the panel. Illumination feature available if required.

Rated Accuracy: 1% of full scale value.

Overall Dimensions: 4″ x 4.25″ (101.6 x 107.9 mm)

Scale: 3.52″ (90 mm)

Model 741: Permanent Magnet Moving Coil Type

Model 744: Movable Iron Type

MODEL 741 D-C VOLTMETERS (1000 ohms/volt)

Range	Scale Div.	Price
10	50	$42.10
30	60	42.10
50	50	42.10
150	75	43.50
300	60	46.25

MODEL 741 D-C AMMETERS

Range	Scale Div.	Price
1	50	$42.10
5	50	42.10
10	50	42.10
25	50	42.10
50	50	42.10

MODEL 741 D-C MILLIAMMETERS

Range	Scale Div.	Approx. Resistance Ohms	Price
1	60	39	$42.10
10	50	2.8	42.10
25	50	1.06	42.10
50	50	2	42.10
100	50	1	42.10
200	40	0.5	42.10
300	60	0.33	42.10
500	50	0.2	42.10

MODEL 741 D-C MICROAMMETERS

Range	Scale Div.	Approx. Resistance Ohms	Price
30	60	1800	$58.80
50	50	720	57.20
100	50	290	56.05
200	40	475	44.65
500	50	98	44.65

MODEL 744 A-C VOLTMETERS (25-125 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
10	50	33	$48.40
15	75	98	48.40
30	60	362	48.40
130	65	7880	49.80
150	75	9100	49.80
*300	60	18200	57.90
*500	—	—	69.40

*Furnished with Exterior Resistor Type 51

MODEL 744 A-C AMMETERS (25-500 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
1	50	1.12	$48.40
3	60	0.112	48.40
5	50	0.0275	48.40
10	50	0.0135	48.40
15	75	0.0068	48.40
20	40	0.0026	48.40
30	60	0.0020	48.40
50	50	0.00070	48.40

MODEL 744 A-C MILLIAMMETERS (25-500 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
250	50	10.2	$48.40

PORTABLE INSTRUMENTS

MATCHED A-C AND D-C PORTABLE INSTRUMENTS

MODEL 433—A-C INSTRUMENTS

Scale Length 4.04″—Accuracy within ¾ of 1% — Movable Iron Type — Shielded Case Size 5⅙″ x 5¼″ x 3¼″—Weight 2½ lbs.—Hand Calibrated Mirror Scales Bakelite Case with Carrying Strap.

Note: These instruments are calibrated for use in a horizontal position.

A-C VOLTMETERS

Made with single, double and triple ranges. For use on frequencies from 25 to 125 cycles.

Range	Price
10, 15, 150, 250	$ 94.25
10/5, 20/10, 30/15	95.75
450/300/150	112.25
600/300/150	112.25
750/300/150	112.25

A-C MILLIAMMETERS

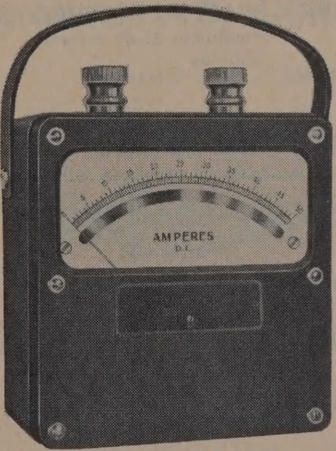
Made in single and double ranges only, for use on frequencies from 25 to 500 cycles.

Range	Price
15, 30, 150, 500	$ 85.75
300/150	100.25

A-C AMMETERS

Made in single, double and triple ranges for use on frequencies from 25 to 500 cycles. All instruments have two binding posts; double and triple range instruments are provided with a range selector switch.

Range	Price
1, 3, 5, 10	$ 89.25
15, 30, 50	89.25
2/1, 5/2.5, 10/5	102.25
3/1.5/0.75, 5/2.5/1, 10/5/1	140.25
20/5/2, 30/7.5/3, 50/20/5	140.25



MODEL 432—D-C AND SINGLE PHASE A-C WATTMETERS

Double voltage and single or double current ranges, self-contained up to 300 volts and 50 amperes, frequencies from 25 to 125 cycles.

Electrodynamometer Type

Accuracy ½ of 1%....Scale Length 4.04″

Case Size 5⅙″ x 5¼″ x 3¼″ ....Wt. 3¼ lbs.

Normal Volts	Normal Amps	Price
150/75	1	$192.25
Double Current Ranges		
300/150	5/2.5	$192.25

MODEL 931—D-C INSTRUMENTS

Scale Length 4.04″—Accuracy within ½ of 1% Core Magnet Moving Coil Type. Case Size: 5⅙″ x 5¼″ x 3¼″—Weight 2 lbs. — Hand Calibrated Mirror Scales — Bakelite Case with Carrying Strap.

Note: These instruments are calibrated for use in a horizontal position.

D-C VOLTMETERS

	Price	
Range	1,000 Ohms Per Volt	5,000 Ohms Per Volt
3, 15, 50	$ 87.25	$ 98.75
300/150/3	101.25	112.75
750/300/150	101.25	112.75

D-C AMMETERS

	Price
3, 5, 15, 50	$ 89.00
30/15/3	101.50
50/20/5	101.50

Self-contained up to 50 amperes inclusive, but can be supplied with external 50 mv shunts and 5 ft. leads.

D-C MILLIAMMETERS

Range	Price
15, 150	$ 85.50
1500/150/15	98.75
15/1.5/.15	110.50

Single range, Milliammeters with ranges above can be supplied with external 50 mv shunts and 30 ma are shunted and have a drop of 50 mv ±5%.

D-C MICROAMMETERS

	High Resistance		Low Resistance	
Range	Approx. Res. Ohms	Price	Approx. Res. Ohms	Price
30	2300	$110.50	490	$112.75
100	2000	98.75	60	110.50
200	600	94.00	15	98.75

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WESTON INSTRUMENTS

PORTABLE INSTRUMENTS

901-904 GROUP ¼-½% ACCURACY

Size: 7½" x 7¼" x 3⅝" **Scale Length: 5½"**

D-C 901, ¼% Accuracy, Self Shielded Permanent Magnet Moving Coil Type

A-C 904, ½% Accuracy, Movable Iron Type

These modern style instruments are used for general testing and for checking other meters in daily use in industry where easy reading and high shielding are desired. Long 5½" hand calibrated mirror scales combined with knife-edge pointers eliminate reading errors. Leather carrying cases are available, specify instrument model and range—Price $24.50.

Model 901

D-C VOLTMETER (7 RANGE)—Model 901

(5000 ohms per volt)

Range (Volts)	Price
750/300/150/75/30/15/3	$182.25

D-C AMMETER—Model 901

Range (Amperes)	Price
50 mv/20/5/2	$162.25

D-C MILLIAMMETERS (7 RANGE)—Model 901

Range (Ma)	Approx. Res. Ohms	Price
1000/500/200/100/50/20/10	.049/.099/.244/.475/.9/1.88/2.5	$172.25
100/50/20/10/5/2/1	1.49/2.96/7.28/14.1/26.4/52.5/60	172.25

A-C VOLTMETER—Model 904

Range (Volts)	Approx. Res. Ohms	Price
750/300/150/75/ 30/15/7.5/3**	117,500/18,400/5180/ 1145/182/46/11.1/1.76	$247.50

†Other frequency ranges available. Prices on request.
*Frequency 25-125 cps.
**Frequency 50-125 cps, accuracy ½%; 125-450 cps, accuracy 1%.

A-C MILLIAMMETERS—Model 904

(Frequency 25 to 500 cycles)

Range (Ma)	Approx. Res. Ohms	Price
150/75	16/64	$176.50
300/150*	4/16	176.50

*Also stocked for 25-1000 cycles at $191.50.

A-C AMMETERS—Model 904

Range (Amperes)	Price
200/100/50/20/10/5/2**	$222.50
(Frequency 25 to 1000 cycles)	
50/20/10/5/2/1	215.50

**Frequency is 50-450 cps.

D-C AND SINGLE PHASE A-C WATTMETERS—Model 905

(Frequency 25-60 cycles)

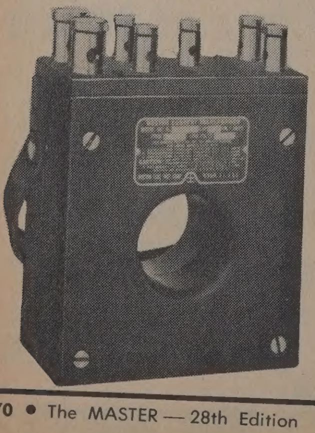
Volts		Amperes		Watts		
Normal	Max.	Normal	Max.	High Range	Low Range	Price
200/100	300/150	25	50	5 KW	2.5 KW	$197.50
		5	10	1 KW	.5 KW	197.50
		10/5	20/10	2/1 KW	1/.5 KW	212.50
		5/2.5	10/5	1000/500	500/250	212.50

CURRENT TRANSFORMERS

Model 461

Size: 7.97" x 6.63" x 2.75" **Weight: Type 1—8 lbs.; Type 2—8.4 lbs.** **Core Opening: 2.12"**

Models 461 are used with A-C instruments as multipliers. Four self-contained primary ranges are brought out to binding posts. A secondary short circuiting switch is provided. Black bakelite case.



Range (Amps)	Type*	Price
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	1	$117.25
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	2	147.25
1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	1	147.25

Range (Amps)	Type*	Price
1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	2	$147.25
500/250/100/ 50/25/10/5/ 2.5/1/0.5 Pri. to 5 Sec.	5	157.25

*Type 1—Primarily used for Ammeter applications.

Type 2—Primarily used for Wattmeter applications.

Type 5—Similar to Type 2 except for additional ranges.

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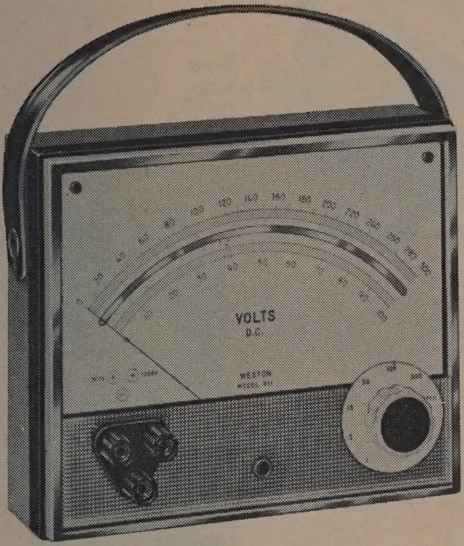
WESTON INSTRUMENTS

911/912 PORTABLE/PANEL INSTRUMENTS

Newly designed Weston Portable/Panel instruments now provide a combination of features never before offered in portable test equipment. Equally valuable in shop or field, these units feature high accuracy, long-scale length and modern styling. And, these instruments are designed for . . .
Panel or switchboard mounting without special adaptors or attachments! Simply remove meter from case and mount on panel . . . **all** hardware is supplied. The compact steel case may be attached behind panel when mechanical protection is required.



Model 911/912

SPECIFICATIONS

ACCURACY—±1% of full scale value on d-c voltmeters and milliammeters (±2% of full scale value on 300 and 1000 volts d-c).
±2% of full scale value on rectifier type a-c voltmeters 10 through 300 volts.
±3% of full scale value on rectifier type a-c voltmeters for 1000 volt range and 3 volt range above mid-scale.

COMPACT CASE—Modern designed instrument front of clear durable plastic provides unlimited natural illumination which, coupled with knife-edge pointers and mirror scale, provide unexcelled readability. The instrument is cased in heavy duty, grey finished steel. Handle can be swung under instrument so that it may be tilted for easy reading. Size: 7½" x 6½" x 2⅜".

COMPONENTS—Weston VAMISTOR® precision metal film resistors and other long-life components are used.
Adjustable resistors provide for easy calibration, if required.

BINDING POSTS—Screw type with captive heads can use all types of leads. Triangular base allows greater torque when securing leads. Wide ¾" spacing permits use of plug type leads. Cross hole located so fine wire is not cut.

SCALE—Large 7.2" mirror back with knife-edge pointer.

MECHANISM—CORMAG® self-shielding, with spring-backed jewels.

RANGE SWITCH—Large, sure-grip knob.

SIZE—7½" x 6½" x 2⅜".

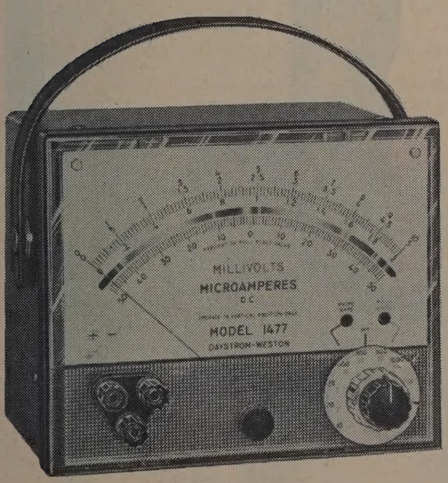
RANGES AND PRICES

Model 911 D-C VOLTMETER (20,000 ohms per volt) 1000/300/100/30/10/3/1 Volts	Price $68.50
Model 911 D-C AMMETER 10/3/1 amps., 300/100/30/10 ma	Price $68.50
Model 911 D-C MILLIAMMETER 100/30/10/3/1/.3/.1 milliamperes	Price $68.50
Model 912 A-C VOLTMETER (5,000 ohms per volt) 1000/300/100/30/10/3 Volts	Price $78.50

WESTON D-C MILLIVOLT/MICROAMMETER

D-C MILLIVOLT/MICROAMMETER—Model 1477

Size: 7½" x 6½" x 4⅜" **Weight: 5½ lbs.** **Scale Length: 7.2"**



A portable test instrument designed to measure potentials and currents in the low-level millivolt and microampere ranges. No energy is drawn from the input circuit during steady-state operation. Only with an initial input application is there a small current taken during the transient period prior to steady state indication.

D-C Input Ranges	
Millivolts	1/2/5/10/20/50/100/200/500/1000
Microamperes	10/20/50/100/200/500/1000
D-C Output **(Rear Terminals)**	1 MA DC for full scale input (into a load up to 5000 ohms)
Power Requirements	120 volts AC, 5 or 60 cycles, 19 watts
Accuracy	
Panel Indicator (Both Scales)	±1% of full scale value on ranges of 2-1000 MV and 20-1000 μA ±2% of full scale value on ranges of 1 MV and 10 μA
1 MA Output	±0.25% on ranges of 5-1000 MV and 50-1000 μA ±0.5% on ranges of 1-2 MV and 10-20 μA
Operating Position	Vertical
Price	$446.25

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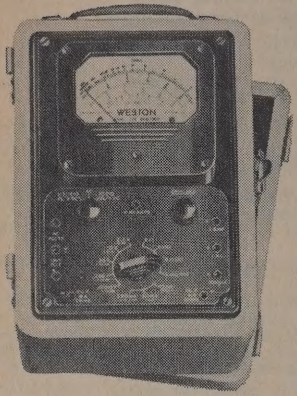
WESTON INSTRUMENTS

SUPER-SENSITIVE ANALYZER MODEL 779



Model 779 Type 1B
Price..........................$194.25

ACCURACY: A-C within 3%; D-C within 2% to 250 volts; 3% on 1,000 volt range.
Size: 6⅜″ x 9⅛″ x 4⅞″ (162 x 232 x 124 mm)
Approx. Wt.: 6 lbs. (2.72 kgs.)

A compact 26 range ultra-sensitive analyzer with five d-c voltage ranges at a sensitivity of either 1,000 or 20,000 ohms per volt. A-C temperature compensated; precision resistors throughout. Supplied in a rugged solid oak case with a removable cover and convenient carrying handle. Test leads are provided.

RANGES

Volts D-C	Volts A-C	Current D-C Only	Decibels	Ohms
2.5	2.5	.1 Ma	— 14 to + 2*	0-3000
10	10	1 Ma	— 2 to + 14*	0-30,000
50	50	10 Ma	+ 12 to + 28*	0-300,000
250	250	50 Ma	+ 26 to + 42†	0-30 Meg
1000	1000	250 Ma	+ 38 to + 54††	
		1 Amp	(6 milliwatts,	
		10 Amp	500 ohms, zero level)	

*Substantially flat to 10,000 cycles.
†Substantially flat to 3,000 cycles. ††Substantially flat to 1,000 cycles.

MODEL 799 INSULATION TESTER

ACCURACY: Within ⅛″ of scale length.
SCALE: 2.375″ (60.3 mm)
Size: 3$\frac{3}{16}$″ x 5¼″ x 5″ (86 x 133 x 127 mm)
Approx. Wt.: 3.8 lbs. (1.7 kgs.)

For leakage measurements up to 10,000 megohms at low voltage at a maximum test potential 50 volts. Test leads, tubes, batteries and oak case are supplied.

RANGES: 0-10,000 megohms (Logarithmic scale)

Price........................$108.75

LINE
SHIELD
GROUND
MEGOHMS
WESTON
MODEL 799
INSULATION TESTER
ZERO
ADJUSTER
PRESS
TO READ

Model 799

MARK II ANALYZER

The new thin-line Mark II is a highly sensitive and extremely rugged volt-ohm-milliammeter designed for a wide range of accurate test measurements in the electronic field.

Famous CORMAG® mechanism protects the instrument against false readings due to magnetic disturbances. Electrostatic shielding assures accurate measurements at high d-c voltages. Fuses in the low ohmmeter circuits prevent burnout if voltages are mistakenly applied. Interchangeable parts eliminate all need for parts selection in the event replacements are ever necessary. The breakproof case will withstand dropping and thus eliminate the major source of repair and maintenance costs.

FEATURES

- Modern Thin-Line Design
- Spring Back Jewels for Maximum Shock Resistance
- Fused Resistance Ranges
- Transit Switch Position to Dampen Movement During Transportation
- Fully Insulated Crack-proof Case
- Single Selector Knob for all Functions and Ranges
- Wide Angle Scale for Maximum Visibility
- Precision Components —No Parts Selection Required
- Single Board Etched Wiring Circuit for Easy Maintenance
- Static Shielded for Accurate High Voltage Measurement
- 4-Way Combination Tilt Stand and Protective Cover Available

SPECIFICATIONS

Accuracy: 2%, d-c; 3%, a-c.

Scale Length: 4.63″

Ranges:
  D-C Volts: 1.6, 8, 40, 160, 400, 800, 4000 . . . at 20,000 ohms/volt.
  A-C Volts: 1.6, 8, 40, 160, 400, 1600 . . . at 1,000 ohms/volt.
  DB Range: —15 db to +54 db (in six ranges).
  D-C Amperes: 8
  D-C Milliamperes: 1.6, 8, 80, 800.
  D-C Microamperes: 80.

Ohms Range	Center Scale	Full Scale
R x 1	25	1,000
R x 10	250	10,000
R x 100	2,500	100,000
R x 1,000	25,000	1 megohms
R x 10,000	250,000	10 megohms

Case: Black impact resistant plastic, with carrying strap.

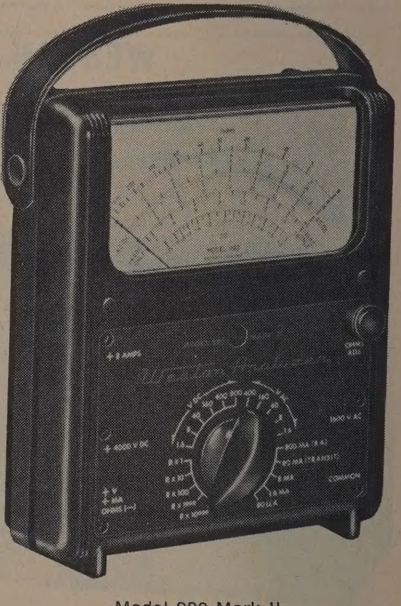
Panel: Black impact resistant plastic with engraved white markings.

Size: 6.25″ x 7.50″ x 2.25″.

Approx. Weight: 2.5 lbs.

Ohms: Four decade ranges: 1K to 10 meg full scale; 25 ohms to 250K center scale

High Voltage Probes: High voltage probes are available for measuring high voltages up to 20 kv at 50 microamperes or less. Probes have multiplier resistors encased in insulated handles. Multipliers are rated with a flash voltage of 30 kv.



Model 980 Mark II

Price....................................$53.50

Combination protective front cover and tilt stand $5.50

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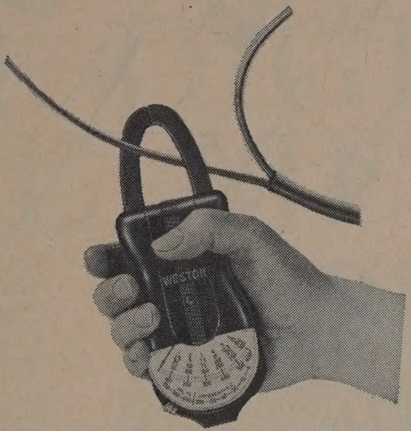
WESTON INSTRUMENTS

Model 749
Miniature Clamp Volt-Ammeter



Light weight and rugged pocket-size instrument for quick easy servicing. Has self-shielded core magnet mechanism with spring backed jewels, and shatter-proof Plexiglas window. Only one scale for all ranges and functions. Jaws take up to 1″ round, or 1¾″ x ⅜″ rectangular conductors. Furnished with test leads in scuff proof case.

Plug-In Adapter available for making both current and voltage measurements . . . has female receptacles on both sides for plugging in load without disturbing circuit being tested . . . convenient for lead insertion for voltage checks . . . serves as 10 to 1 divider for low current measurements.

RATED ACCURACY: (Model 749) ±3% full scale deflection.

RANGES: Current 300/150/60/30/15/6 amperes a-c.
Voltage 600/300/150 volts a-c.

Model 749—$51.50 complete Plug-In Adapter—$5.25

Model 633 Clamp Volt-Ammeter and Clamp-Ammeter

Model 633 Type VA-1

	Price
Model 633 Type VA-1 (Incl. Potential Leads)—1000/250/100/25/10 amperes a-c 700/350/175 volts a-c	$141.50
Model 633 Type A-3—2000/1000/500/250/100/50 amperes a-c	133.50
Model 9958, 50 foot Extension Cable, Plug & Receptacle for Model 633 Type A-3	79.25
Leather Carrying Case (Model 633 Types VA-1, A-3)	13.50
Leather Carrying Case (Model 9958—Cable, Plug and Receptacle)	22.50

NOTE—Model 633 instruments may be used for continuous duty up to 500 amperes.

Approximate Dimensions and Weights

Model 633 Types VA-1, A-3	13⅝″x4⅜″x2½″	3¼ lbs.
Leather Carrying Case (Types VA-1, A-3)	14½″x5½″x3⅝″	2¼ lbs.
Model 9958, 50 Foot Extension Cable, Plug & Receptacle		4¼ lbs.
Leather Carrying Case (Model 9958—Cable, Plug & Receptacle)	14″x8½″x3¾″	4¼ lbs.

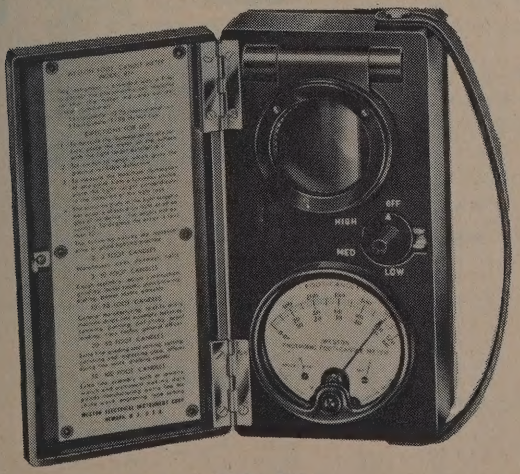
Foot-Candle Meters — Model 614

Size: 7⅜″ x 3⅜″ x 2¼″ Scale Length: 2.36″
Weight: 1 lb. 13 ozs.

This unit is ideal for general commercial lighting surveys where wide ranges of light values exxist. Completely self-contained, no outside power or batteries being required. Available for checking two different light situations.

†VISCOR filtered, 0-60/120/600 foot-candles, for visual correction for color ....Price $133.25

†VISCOR and Cosine correction filtered, 0-100/250/500 foot-candles for visual correction for color and direction correction. Price $136.25



Model 614

Sightmeters—Model 703

Size: 4⅝″ x 2⅝″ x 1⁵⁄₁₆″ Scale Length: 1.57″
Weight: 10 ounces

This pocket sized meter is ideal for checking illumination levels at work stations. It is available for checking three different light situations. Leather case available....Price $3.00

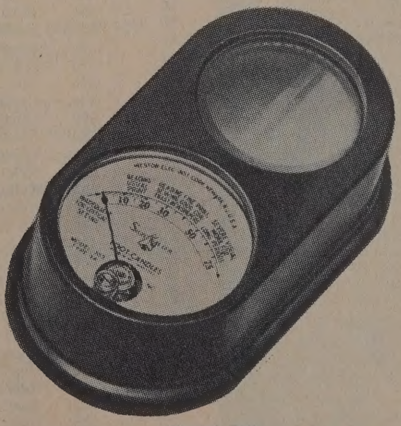
Unfiltered, Type 3A, 0-75 foot-candles. ....Price $48.50

†VISCOR filtered, Type 6A, 0-75 foot-candles for visual correction for color ....Price $60.50

†VISCOR and Cosine correction filters Type 7, 0-100 foot-candles for visual correction for color and direction correction. Price $63.75

Model 9924 Multiplier Disc fits Type 3A and Type 6A and multiplies scale readings by 10 ....Price $1.75

†VISCOR—A registered trademark.



Model 703

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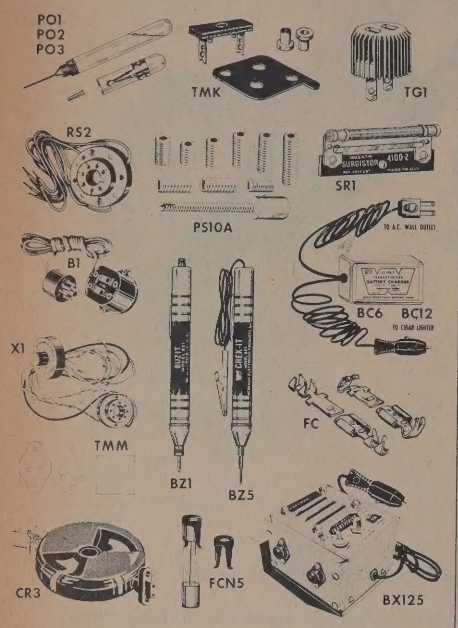
REPLACEMENT COMPONENTS

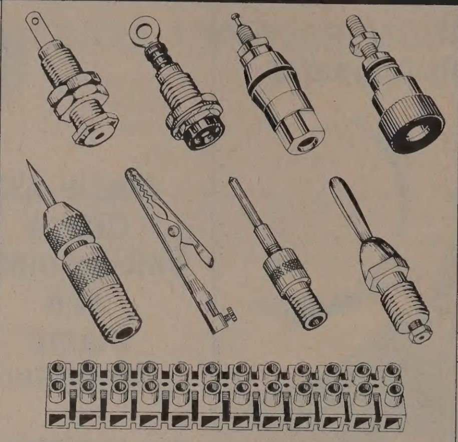
WORKMAN *Electronic* PRODUCTS, INC.
SARASOTA, FLORIDA

SERVICE AIDS



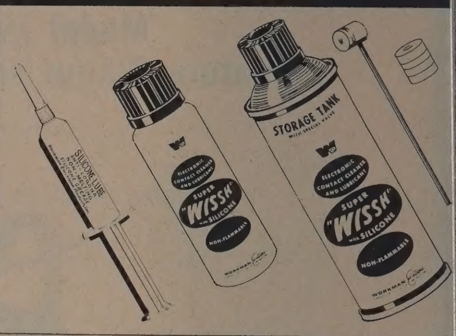
MODEL	DESCRIPTION	LIST	DLR.
B1	Bosipt	4.90	2.95
BC6	Battery Charger 6 volt	3.98	2.80
BC12	Battery Charger 12 volt	3.98	2.80
BX125	Transverter		[illegible]9.95
BZ1	Buzit	13.50	8.10
BZ5	Chek-It Circuit tester	2.49	1.49
CCL	Mounting Clips	.45	.27
CCS	Mounting Clips	.45	.27
CR1	Reel-It Cheater Cord	1.95	1.17
CR2	Reel-It Cheater Cord ext.	1.95	1.17
CR3	Reel-It A. C. ext. cord	1.95	1.17
D1	Conv. Stand.to Button	2.63	1.58
D2	Conv. Standard to Shell	2.63	1.58
D3	Conv. Shell to Button	2.63	1.58
D4	Conv. Button to Shell	2.63	1.58
D5	Conv. 23EP4 to Sylv. 8YP4	2.63	1.58
DS-7	Alignment tool 7"x1/8"	1.25	.75
DS-8	Alignment tool 8"x3/16"	1.25	.75
DS-12	Alignment tool 12"x1/3"	1.40	.85
DS-14	Alignment tool 14"x3/16"	1.65	1.00
DS-16	Alignment tool 16"x1/8"	1.65	1.00
FC	Faston Connectors	.75	.45
FCN5	Fuse Adaptors	.70	.42
GE12	G. E. No. 12 Lamp	.25	.15
HP	Handi Plug	.25	.15
NT	Hypodermic Needle	.70	.42
PO1	Precision Oiler	1.10	.66
PO2	Precision Graphiter	1.10	.66
PO3	Precision Greaser	1.10	.66
PS10A	Powered Iron Cores Kit	1.60	.96
RS1	110° Button Socket	1.00	.60
RS2	110° Shell Socket	1.00	.60
RS3	Standard Socket	1.00	.60
SMA	Speed-Mo Applicator	4.25	2.55
SO1	Printed Circuit Solder	.56	.34
SO2	Silver Solder	.56	.34
SO3	Ribbon Solder	.42	.25
SR1	Surgistor, 300 watt	1.95	1.17
SR2	Surgistor, 250-400w-50Ω	2.95	1.77
SR5	RCA#973913-1, #106542	3.75	2.25
SR7	Motorola#6C749855	3.75	2.25
SR8	Motorola#6K753334	3.75	2.25
ST1	Pin Straightener	.85	.51
TG1	Tube Guard	2.00	1.20
TMK	Power Trans. Mtg. Kit	.95	.57
TMM	Mica Collector Insulators	.65	.39
TMS	Dia. Base Trans. Socket	.48	.28
TH4	Touch 'n' Hold	3.25	1.95
WJ1	Wissh Jet	6.25	3.75
X1	Extends Button Base	2.15	1.29
X2	Extends Shell Base	2.15	1.29
X3	Extends Std. Duo-Decal	2.15	1.29
X9	Xtend-Shaft	.30	.18
10V	Boost-A-Volt	9.00	5.40
484	Tuner Shaft	1.00	.60

TEST ACCESSORIES



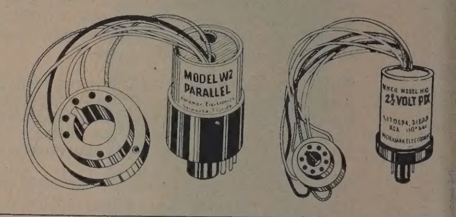
MODEL	DESCRIPTION	LIST	DLR.
300	Phone Plug, 2 cond. scr.	.80	.48
300-M	Phone Plug, metal handle	1.15	.69
301	Phone Plug. 2 cond. sold.	.75	.45
301-M	Phone Plug, metal handle	1.10	.66
302	Phone Plug, 3 cond. sold.	1.15	.69
302-M	Phone Plug, metal handle	1.40	.84
307	Phone Plug, min. 2 cond.	2 for 1.40	.84
311-2	Phone Jack, sub-min. cl.	2 for .90	.54
313-2	Phone Jack, sub-min. open	2 for .80	.48
336	Phone Jack, 2 cond., open	.40	.27
337	Phone Jack, 2 cond., closed	.50	.30
338	Phone Jack, 3 cond., open	.60	.36
339	Phone Jack, 3 cond., closed	.85	.51
740	Alligator Clip, solder type	2 for .24	.14
741	Alligator Clip, screw type	2 for .24	.14
742	Alligator Clip, solder type	2 for .60	.36
743	All. Clip, insul. screw type	2 for .60	.36
744	All. Clip, solderless, scr.	2 for .60	.36
745	All. Clip, fully insulated	2 for 1.80	1.08
801	Phone Tip, solder type	2 for .20	.12
802	Tip Plug, hvy. duty, solder	2 for .40	.24
805	Tip Plug, solderless, lg.	2 for .45	.27
806	Tip Plug, force fit, lg.	2 for .45	.27
807	Tip Plug, solderless, sm.	2 for .45	.27
808	Tip Plug, force fit, sm.	2 for .50	.30
810	Phone Tip Jack, non-insul.	2 for .45	.27
812	Banana Plug, solderless	2 for .65	.39
813	Banana Jack, non-insul.	2 for .45	.27
814	Banana Plug, midget, thrd.	2 for .85	.51
815	Banana Plug, thrd. shank	2 for .80	.48
819	Banana Plug, thrd. hole	2 for .65	.39
821	Banana Plug, 6-32 thrd.	2 for .65	.39
840	Banana Plug, insul. midget	2 for 1.00	.60
842	Phone Tip Jack, insul. 7/16"	2 for .65	.39
843	Phone Tip Jack, insul. 1/2"	2 for .75	.45
845	Banana Jack, insulated	2 for .60	.36
848	Combination, insul. jack	2 for .65	.39
852	Banana Plug, insul. screw	2 for .75	.45
853	Banana Plug, insul. sd'less	2 for .85	.51
855	Lg. Tip Plug, insul. sd'less	2 for .80	.48
856	Sm. Tip Plug, insul. sd'less	2 for .80	.48
857	Tip plug, insul. hvy.duty	2 for .60	.36
860	Banana Plug, insul. flex.	2 for 1.20	.72
862	Banana Plug, stack, flex.	2 for 1.30	.78
864	Banana Plug, insul. long	2 for 1.46	.88
866	Needle Tip and chuck	2 for .64	.40
868	Needle Tip and chuck, ins.	2 for .80	.48
870	Spade Lug, insulated	2 for .50	.30
876	Binding Post, wrap-around	2 for 1.65	.99
878	Binding Post, 5 way grd.	2 for 1.00	.60
879	Binding Post, fully insul.	2 for 1.00	.60
880	Binding Post, lock-wsh'r	2 for .80	.48
881	Binding Post, smooth hd.	2 for 1.00	.60
883	Nylon Tip Jack, wrap ar'd	2 for 1.10	.66
884	Nylon Tip Jack, spade trm.	2 for 1.80	1.08
885	Nylon Tip Jack, feed thru	2 for 1.60	.96
886	All nylon Tip Jack, wrap	2 for 1.10	.66
887	All nylon Tip Jack, spade	2 for 1.30	.78
888	All nylon Tip Jack, feed	2 for 1.60	.96
894	Test Prod, 3/16" opening	2 for 1.30	.78
895	Test Prod, 1/4" opening	2 for 1.30	.78
897	Tip Prod, hvy. duty 3/16"	2 for 1.20	.72
898	Tip Prod, hvy. duty 1/4"	2 for 1.30	.78
900-6	Push button 6 term.blk.	1.75	1.05
901	Needle tip and chuck 3/16"	2 for 1.50	.90
902	Needle tip and chuck 1/4"	2 for 1.90	.86
903	Test Prod, sm. tip 1/4"	2 for 1.60	.96
905	Flex. Terminal Block	4.00	2.40

CHEMICALS


SILICONE LUBE
SUPER "WISSH" with SILICONE
ELECTRONIC CONTACT CLEANER AND LUBRICANT
NON-FLAMMABLE
WORKMAN
STORAGE TANK

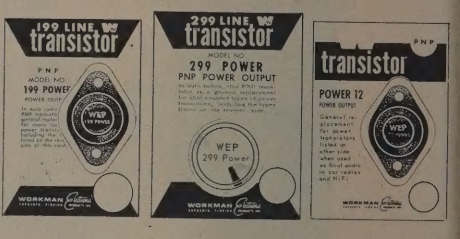
MODEL	DESCRIPTION	LIST	DLR.
H6	"Wissh" 6.oz cleaner	1.65	.99
H6A	"Wissh" Aerosol	2.05	1.23
H14	"Wissh" 16 oz. cleaner	3.25	1.95
H32	"Wissh" cleaner kit	5.42	3.25
S3	Super "Wissh" pocket sz.	1.30	.78
S6	Super "Wissh" 6 oz.	2.00	1.20
S24	Super "Wissh" 24 oz.	5.00	2.98
ET1	Ease-It	1.65	.99
SG6	Silicone-Lube	1.25	.75
HC	Speaker Conditioner	.95	.57

SUPER BRIGHTENERS



MODEL	DESCRIPTION	LIST	DLR.
W2	Standard Parallel	2.65	1.59
W3	Standard Series	2.90	1.74
W4	Standard Isolation	3.70	2.22
W5	110° Button Parallel	3.90	2.34
W6	110° Button Series	3.90	2.34
W7	110° Shell Parallel	3.90	2.34
W8	110° Shell Series	3.90	2.34
W9	Universal Standard	4.15	2.49
W10	110° Button Series 3-1/2v	3.50	2.10
W11	110° Shell Series	3.50	2.10
W12	110° Button Universal	4.50	2.70
P3	Series-Standard Base	1.50	.90
P5	Standard Parallel	1.25	.75
P7	Standard Universal	2.40	1.44

POWER TRANSISTORS



MODEL	DESCRIPTION	LIST	DLR.
99 Power	PNP output	1.65	.99
199 Power	PNP output	2.32	1.99
299 Power	PNP output	4.70	2.82
Power 12	PNP output	3.60	2.16
Power 25	PNP output	4.20	2.52
Power 40	PNP output	4.75	2.85
Power 60	PNP output	6.00	3.60
Power 80	PNP output	7.25	4.35
2N278	PNP output	8.20	4.92
2N277	PNP output	5.85	3.50
2N176	PNP output	4.00	2.40
2N235	PNP output	4.50	2.70
2N155	PNP output	2.50	1.50

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FOR A COMPLETE LISTING OF EXACT REPLACEMENT COILS ASK YOUR JOBBER FOR OUR COIL CROSS REFERENCE.

Trade Discount Applies To List Prices Only.

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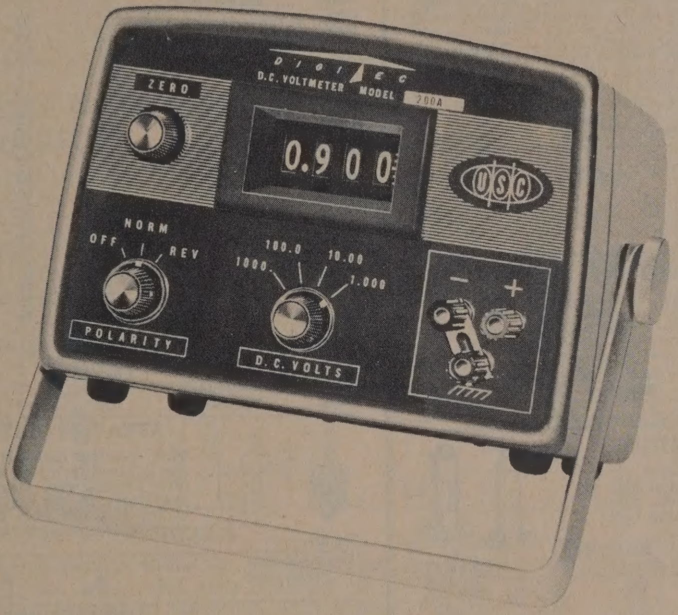
DIGITEC

DIGITAL VOLTMETER



36 standard models

base price 287^50

series 200

2.2 Megohm Input Impedance / 2 Sec. Average Reading Time / Zener or Mercury Cell Reference / 50 DB @ 60 CPS AC Rejection / Floating or Grounded Input / Illuminated Readings / Bi-Directional Tracking without Flicker / 1 Year Guarantee / Adaptors for Current Measurement from 0.1 Micro-Amp to 2 Amps / Portable, Panel and Flange Mounting or Special Configurations to your OEM Requirements

featuring:

- CHOICE OF 0.1% OR 0.2% FULL SCALE ACCURACY
- DIGITAL READINGS FROM .0001 TO 1000 V-DC.
- "4 RANGE" MODELS
  0 to 1.000, 10.00, 100.0 & 1000. VOLTS
  0 to 2.000, 20.00, 200.0 & 1000. VOLTS
  0 to 4.000, 40.00, 400.0 & 1000. VOLTS
- "SINGLE RANGE" MODELS: 0 to 100.0 MV

USC

UNITED SYSTEMS CORPORATION
Dayton 3, Ohio

...features

LOW COST. Outstanding performance is provided in a low cost instrument providing digital readout.

ACCURACY. Warranted accuracy is maintained for all internal contributing factors and the listed external conditions.
(1) Ambient Temperature—60° to 95° F.
(2) Power Source—100 to 125 V—50 to 60 CPS.

READING AMBIGUITY. There is no ambiguity or reading (even for small changes) and no allowance need be made. Bi-directional voltage variations are followed without distracting backtracking. Input voltage drift can be continuously observed.

RESOLUTION AND REPEATABILITY. The instrument can be easily read and is sensitive to small voltage changes. For short term observation, under stabilized ambient conditions, unit will repeat and is easily read to .05% or less. Thus, for many applications, the instrument can be used to a comparative accuracy of .05% full scale.

CALIBRATION EASE. High input impedance permits direct calibration with an "Eppley" standard cell. Under normal usage, recalibration is required only at 6 month intervals.

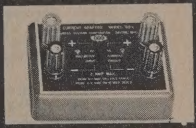
RELIABILITY. High reliability is achieved by a completely transistorized amplifier and the absence of stepping switches and relays. Normal overloads or incorrect polarity will not damage instrument.

READING SPEED. Instrument comes to reading balance quickly and without annoying creep. Average reading time is approximately 2 seconds.

INPUT. A 3-terminal color coded input group is furnished whereby choice is provided for grounded or floating input. A jumper link is furnished so that either negative or positive side of the input can be grounded.

DECIMAL POINT. Decimal points are illuminated by a single, long-life easy-to-replace bulb. The decimal point shifts with range selector.

OTHER USES. By use of compatible transducers, the DigiTec can be used to display readings of current, pressure, speed, position, flow, angle or any parameter. Current adaptors are available to provide readings of from .1 A to 2 AMP. (See Bulletin CA-1.)



READING RETENTION. A jack is located on the rear of the case to permit holding of a displayed voltage by means of an external switch. Suitable switches complete with cord and plug are available as optional accessories.

CARRYING HANDLE. For the portable models, the convenient carrying handle also serves to set the viewing angle for optimum readability.

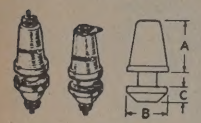
COLOR & TRIM. The front nomenclature panel—all models—is etched aluminum on a black background. Series 200 and Model 400 have a light grey front cover and dark grey rear cover. All flange and panel styles are dark grey.

Certificate of Accuracy furnished with each instrument (traceable to NBS)

Birnbach

FEEDTHRU • STEATITE PILLARS • CORRUGATED CERAMIC • STANDOFF INSULATORS

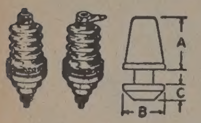
BIRNBACH FEEDTHRU INSULATORS



Made of highly vitrified, low absorption porcelain smoothly glazed to prevent accumulation of dust or dirt. Maximum strength is achieved by the proper proportions and flat mounting surfaces. Long insulating sleeves on the lower part of the insulator contribute much to their performance on high voltages. Brass nickel plated hardware.

Cat. No.	Height A	Std. Pkg.	Dimensions B	Dimensions C	Mounting Hole	Hardware
458	⅝″	50	11/16″	¼″	5/16″	6-32
478	1″	25	13/16″	5/16″	7/16″	10-32
478J	1″	25	13/16″	5/16″	7/16″	No. 403 Jack
4125	1¼″	25	⅞″	⅜″	7/16″	10-32
4125J	1¼″	25	⅞″	⅜″	7/16″	No. 403 Jack
4234	2¾″	10	2″	1″	1¼″	¼-20
4175	2¾″	10	1¼″	¾″	⅝″	¼-20
4175J	2¾″	10	1¼″	¾″	⅝″	No. 394 Jack

CORRUGATED FEEDTHRU INSULATORS



The six new corrugated type feedthru insulators have more than twice the leakage path of the straight type because of increased surface of the corrugations and recommends itself where a straight side insulator of equal height is not satisfactory because of its shorter leakage path. Brass nickel plated hardware and cork mounting washers supplied.

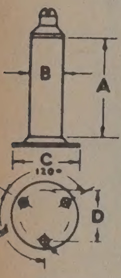
Cat. No.	Height A	Std. Pkg.	Dimensions B	Dimensions C	Mounting Hole	Hardware
479	1⅜″	25	1¼″	11/16″	9/16″	10-32
479J	1⅜″	25	1¼″	11/16″	9/16″	No. 403 Jack
4276	2¾″	10	1⅝″	1″	¾″	¼-20
4276J	2¾″	10	1⅝″	1″	¾″	No. 394 Jack
4452	4½″	5	2⅛″	1½″	1″	¼-20
4452J	4½″	5	2⅛″	1½″	1″	No. 394 Jack

HIGH VOLTAGE FEEDTHRU INSULATOR

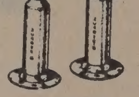
This insulator has been designed to meet the demand for an insulator having high dielectric and mechanical strength. The extra long leakage path is made possible by the corrugations on the top insulator. The bottom sleeve taper from a base dia. of 1-3/16″ where the electric stress is greatest.

Cat. No.	Height	Std. Pkg.	Base Dia.	Mounting Hole	Hardware
4233	1⅝″	10	2″	1¼″	¼-20

STEATITE PILLARS

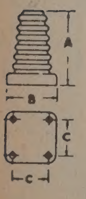


Have great tensile strength with extremely low losses at very high frequencies. Tapped on both ends; supplied with nickel plated mounting base and top hardware.

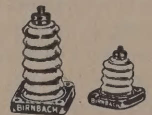


Cat. No.	Height A	Std. Pkg.	Dimen. B	Base Dia. C	D	Hardware
450	1″	10	½″	1⅛″	⅞″	6-32
450J	1″	10	½″	1⅛″	⅞″	No. 403 Jack
451	1½″	10	½″	1⅛″	⅞″	6-32
451J	1½″	10	½″	1⅛″	⅞″	No. 403 Jack
452	2½″	10	½″	1⅛″	⅞″	6-32
452J	2½″	10	½″	1⅛″	⅞″	No. 403 Jack
453	2½″	5	¾″	1-9/16″	1-3/16″	¼-20
453J	2½″	5	¾″	1-9/16″	1-3/16″	No. 395 Jack
454	4″	5	¾″	1-9/16″	1-3/16″	¼-20
454J	4″	5	¾″	1-9/16″	1-3/16″	No. 395 Jack

BIRNBACH METAL BASE INSULATORS



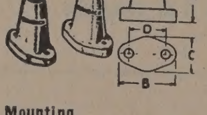
Corrugated surface provides long leakage path. Made of high tensile strength low absorption porcelain fully glazed. Supplied with nickel plated brass screws and nuts, cadmium plated drawn steel bases.



Cat. No.	Height A	Std. Pkg.	Base Dimension B	Base Dimension C	Mtg. Screw D	Hardware
867	1⅜″	25	1⅞″ x 1 5/16″	1½″	2 No. 8	10-32
867J	1⅜″	25	1⅞″ x 1 5/16″	1½″	2 No. 8	403 Jack
4176	2¾″	10	1¾″ x 1¾″	1⅜″	4 No. 10	¼-20
4176J	2¾″	10	1¾″ x 1¾″	1⅜″	4 No. 10	395 Jack
4451	4½″	5	2¼″ x 2¼″	1¾″	4 No. 10	¼-20
4451J	4½″	5	2¼″ x 2¼″	1¾″	4 No. 10	395 Jack

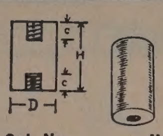
BIRNBACH STANDOFF INSULATORS

Made of highly vitrified low absorption glazed porcelain. No washers necessary — mounting surface is ground flat for No. 404. No. 966 it is advisable to use cork washers which are available. All brass nickel plated hardware supplied.



Cat. No.	Height A	Std. Pkg.	Base Dimension B	Base Dimension C	D	Mounting Holes	Hardware
405	⅝″	100	1″	17/32″	11/16″	5/32″	6-32
965	1″	50	1¼″	¾″	13/16″	5/32″	8-32
966	1″	50	1⅜″	⅞″	1″	5/32″	8-32
966J	1″	50	1⅜″	⅞″	1″	5/16″	No. 403 Jack
866	1½″	25	1¾″	1⅛″	1¼″	5/32″	10-32
866J	1½″	25	1¾″	1⅛″	1¼″	5/16″	No. 403 Jack
866SJ	1½″	10	1¾″	1⅛″	1¼″	5/32″	No. 395 Jack
4275	2¾″	10	2¾″	2″	2⅛″	¼″	¼-20
4275J	2¾″	10	2¾″	2″	2⅛″	¼″	No. 399 Jack
4450	4½″	5	3⅝″	2½″	2⅝″	9/32″	¼-20
4450J	4½″	5	3⅝″	2½″	2⅝″	9/32″	No. 399 Jack

BIRNBACH STEATITE PILLARS



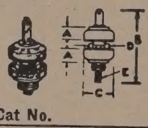
JAN-I-8 and JAN-I-10 SPECS.

(Less Hardware)

In many constructions, these unmounted threaded Steatite pillars will facilitate assembly because of the one hole mounting and parallel mounting surfaces. They are made of L5 glazed Steatite with threaded holes on both sides.

Cat. No.		Height	Diam.	Threaded Hole		Std. Pkg.
Cat. No.	Conforms to Type	H	D	Length of Thread	Thread	Std. Pkg.
441		¼″	¼″	All	6-32	100
441B		⅜″	¼″	5/32″	6-32	100
441A		½″	¼″	5/32″	6-32	100
444A		¾″	¼″	¼″	6-32	100
445A		1″	¼″	¼″	6-32	100
442		⅜″	⅜″	5/32″	6-32	100
442A	NS5W0104	½″	⅜″	5/32″	6-32	100
443A	NS5W0105	⅝″	⅜″	¼″	6-32	100
444B	NS5W0106	¾″	⅜″	¼″	6-32	100
445B	NS5W0108	1″	⅜″	⅜″	6-32	100
446B	NS5W0110	1¼″	⅜″	⅜″	6-32	100
446A	NS5W0112	1½″	⅜″	⅜″	6-32	100
446C	NS5W0116	2″	⅜″	⅜″	6-32	100
443		½″	½″	9/64″	6-32	100
444		¾″	½″	¼″	6-32	100
445		1″	½″	⅜″	6-32	100
446		1½″	½″	⅜″	6-32	100
447		2½″	½″	⅜″	6-32	100
440	NS5W0205	⅝″	½″	3/16″	8-32	100
440A	NS5W0206	¾″	½″	¼″	8-32	100
440B	NS5W0208	1″	½″	⅜″	8-32	100
440C	NS5W0210	1¼″	½″	⅜″	8-32	100
440D	NS5W0212	1½″	½″	⅜″	8-32	100
440E	NS5W0216	2″	½″	⅜″	8-32	100
440F	NS5W0220	2½″	½″	⅜″	8-32	100
444C		¾″	¾″	¼″	10-32	100
445C	NS5W0308	1″	¾″	⅜″	10-32	100
445D	NS5W0310	1¼″	¾″	⅜″	10-32	100
445E	NS5W0312	1½″	¾″	⅜″	10-32	100
445F	NS5W0316	2″	¾″	⅜″	10-32	100
445G	NS5W0320	2½″	¾″	⅜″	10-32	100
448		2½″	¾″	¾″	¼-20	50
449		4″	¾″	¾″	¼-20	50
447B	NS5W0412	1½″	1″	½″	¼-20	50
447D	NS5W0420	2½″	1″	⅝″	¼-20	50
447E	NS5W0424	3″	1″	⅝″	¼-20	50

STEATITE BUTTONS

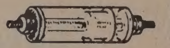


This specially designed Steatite button is intended for use to simplify wiring and to be used as a binding post or a binding post insulator. Attention is called to the uniqueness of the design which prevents either section of the insulator from turning in respect to the special screw. The specially designed screw locks both sections.

Cat No.	Std. Pkg.
457—Button	25

Dimensions	A	B	C	D	E
	5/16″	1⅜″	¾″	½″	6-32

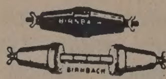
"LUCITE" FEEDTHRU INSULATORS



These feedthru insulators are ideal for bringing high frequency leads thru a panel. They are made of genuine Dupont Lucite. Because of its low loss at high frequency, it is well adapted to insulated elements of high frequency circuits. The ½″ dia. insulators have brass nickel plated 6-32 hardware and the ¾″ dia. insulators, 10-32 hardware.

Cat. No	Height Above Panel	Insulator Dia.	Mounting Hole	Bottom Height	Std. Pkg.
377	¼″	½″	5/16″	¼″	25
378	½″	½″	5/16″	¼″	25
379	1″	½″	5/16″	¼″	25
475	1½″	¾″	7/16″	½″	25
476	2″	¾″	7/16″	½″	25

BIRNBACH LEADIN INSULATORS

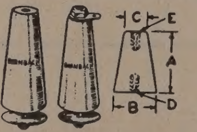


Each cone is 2¾″ high and made of low absorption, highly vitrified glazed porcelain. The Nos. 4237 and 4238 Leadin Insulators have sufficient insulating bushings to insulate the rod that goes through the wall. In addition, 2 bushings are included, ¼″ and ½″ long, allowing complete insulation of the threaded rod of any length in multiples of ¼″. They come complete with brass nickel plated hardware and lead and cork washers to permit a water-tight seal.

Cat. No.	Description	Std. Pkg
4235	10″ Rod	10
4236	15″ Rod	10
4237	10″ Rod with bushings	10
4238	15″ Rod with bushings	10

BIRNBACH CONE STANDOFF INSULATORS

(Steatite)



Made of low absorption high tensile strength Steatite with a smooth glaze. All heights except the No. 430 are available with a Jack or a threaded hole top. Available in a white glaze and are complete with screws, metal and cork washers.

Cat. No	Height A	Std. Pkg.	Base Dimensions B	Base Dimensions C	Threaded Holes D	Threaded Holes E	Mtg. Hole
430	⅝″	100	⅝″	7/16″	6-32	6-32	5/32″
431	1″	50	11/16″	½″	8-32	8-32	3/16″
431J	1″	50	11/16″	½″	8-32	No. 403 Jack	3/16″
432	1½″	50	⅞″	⅝″	10-32	10-32	7/32″
432J	1½″	50	⅞″	⅝″	10-32	No. 403 Jack	7/32″
433	2¾″	25	1¼″	¾″	¼-20	¼-20	9/32″
433J	2¾″	25	1¼″	¾″	¼-20	No. 395 Jack	9/32″

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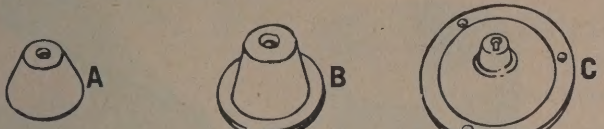
Birnbach GLAS-LINE CABLE

INSULATORS
ANTENNA • FEED-THRU
STAND-OFF

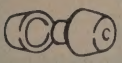
STEATITE FEEDTHRU INSULATOR

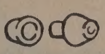
Useful in many constructions. Has high dielectric and mechanical strength. They are made of L-5 Glazed Steatite. No hardware is included.



Cat. No.	Figure	Height	Base Diam.	Max. Screw Size	Std. Pkg.
4200	A	7/8″	1¼″	10-32	25
4201	A	1⅛″	1¾″	¼-20	25
4202	B	1⅝″	2½″	⅜-16	25
4203	C	1″	3⅛″	8-32	12

STEATITE FEEDTHRU PANEL BUSHING INSULATORS

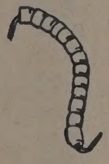




Made of L-5 Glazed Steatite. These Feedthrus have male and female (tops and bottoms) for feeding thru chassis, panels, shields, racks or panels. No hardware included. (100 to Std. Package)

Cat. No.	Top Height	Max. Dia.	Panel Hole	Panel Thickness	Max. Screw Sz.
4204	⅛″	½″	5/16″	To ⅛″	6-32
4205	7/32″	⅝″	7/16″	To ⅛″	8-32
4206	⅜″	½″	¼″	To 3/16″	6-32
4207	⅜″	⅝″	⅜″	To ⅜″	8-32
4208	¾″	1⅛″	¾″	To ⅜″	10-32
4209	1⅝″	1¼″	½″	To 2″	10-32

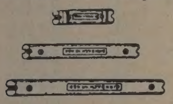
FISH SPINE BEADS



Made of L-5 Glazed Steatite. Useful for insulating Buss or Heavy Lines. Ball and Socket style interlocks permitting beads to follow bends and curves. Four Beads cover approx. 1″-Package of 100 covers 25″ of wire. Dimensions: 5/16″ O.D. ⅛″ I.D. Beads are treated with special Dow Corning treatment to prevent accumulation of surface moisture.

Cat. No.		Std. Pkg.
4215	FISH SPINE BEADS	100

BIRNBACH FEEDER SPREADERS



They have a cross section of ⅜″ x ½″. Made of highly vitrified, low absorption, high tensile strength porcelain with a smooth white glaze overall.

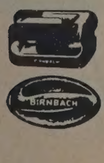
Cat. No.	Std. Pkg.
462—Spreader, 2″ long	25
464—Spreader, 4″ long	25
469—Spreader, 6″ long	25

BIRNBACH STEATITE AIRPLANE INSULATORS

A very small compression type Steatite insulator with small wind resistance: Fully glazed. It is 1½″ in length; 17/32″ in diameter; ¾″ line spacing.

Cat. No.	Std. Pkg.
463—Steatite Airplane Insulators	25

BIRNBACH AIRPLANE INSULATORS



They are used on mobile and aircraft and also with guy wire on TV installations. They are shaped for the least air resistance and have very high tensile strength, and low loss. Nos. 473 and 474 are made of white glazed low absorption porcelain. No. 472 is made of wet process glazed brown.

Cat. No.	Std. Pkg.
472—2¼″ (brown)	25
473—2″ (white)	100
474—1½″ (white)	100

NEW FROM BIRNBACH INSULATED *GLAS-LINE* CABLE

Provides complete isolation of any antenna system where support must be obtained from metallic objects such as towers, windmills, etc.

NON-INDUCTIVE • NON-CONDUCTING • NON-ABSORBING • NO SAG • NO ROT • NO SHRINK • FLEXIBLE • USE FOR DIRECTIONAL ARRAYS, BEAMS, RHOMBIC SYSTEMS, ETC.

This Birnbach non-metallic guy wire is not to be handled as regular wire. Do not twist around itself for solid joint; it must be knotted firmly in place (use bow line knot) — use coupling devices such as our Nos. 472, 473 or 474 insulators. Must not be abraided by constant friction — will wear and break line; avoid tight turns. An open thimble should be used to couple the Birnbach "Glas-Line" cable to an eye-bolt at mast or tree. Glass fibers conform to Mil 1140 Spec. and plastic jacket conforms to Mil-I-631C Spec.

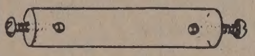
*The breaking strength indicated is applicable when "Glas-Line" cable is properly used.

DESCRIPTION: Fiberglass insulation with PVC insulation overall. Color coded per indicated tensile strength.

Cat. No.	Put-Up	*Tensile Strength	Color	Nom. O.D.
GL 1	100′, 500′, 1000′ 2500′	500 lbs.	Green	.125″
GL 2	100′, 500′, 1000′ 2500′	1000 lbs.	Gray	.2187″
GL 3	100′, 500′, 1000′ 2500′	2500 lbs.	White	.3125″

For greater strength — doubling or tripling the cable will double or triple the tensile strength.

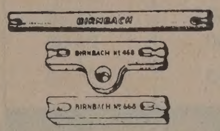
LUCITE SPREADERS



They are made of Dupont Lucite rod which has a very low loss at radio frequencies. It is water clear and has very low water absorption. The holes are drilled to take a No. 12 wire. A screw at the end of the spreader locks the wire in position.

Cat. No.	Wire-Spacing	Std. Pkg.
436	2″	25
437	4″	25
438	6″	25

BIRNBACH ANTENNA INSULATORS



These antenna insulators have exceptionally low moisture absorption. The leakage path is long and the cross section is small and is consistent with the strength required. Smooth white glaze overall prevents the accumulation of dirt or ice.

Cat. No.	Std. Pkg.
468—4½″ long Center Insulator	10
668—4¼″ long	25
470—7″ long	10
471—12″ long	5

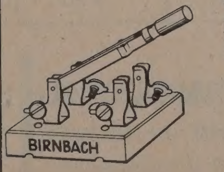
BEEHIVE STANDOFF

BIRNBACH No 766

Base measures 2-3/16″ diam. with 3 holes on 1-15/16″ circle for No. 6 screws. Height of base 1½″. Complete with 10-32 brass screw and nuts. No. 766J has a No. 403 Jack. Available in white glaze.

Cat. No.	Std. Pkg.
766 —Standoff Insulator, 10-32 Screws	10
766J—Jack Type with No. 403 Jack	10

BIRNBACH KNIFE SWITCHES



Made of special nickel plated spring brass on a rugged base. Screw terminals located conveniently for easy connections in circuit. Two mounting holes.

Cat. No.	Descrip.	Base	Std. Pkg.
6100	SPST	Por.	25
6101	SPDT	Bake.	20
6103	DPST	Por.	10
6104	DPDT	Bake.	10
6105	TPDT	Por.	10

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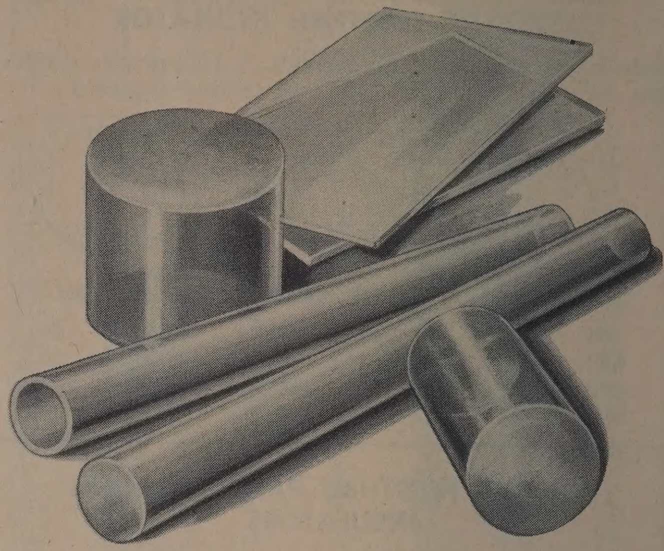
JB® Polystyrene

ROD TUBING SHEET



For radio and electronic applications, because of its very low loss factor at ultra high frequencies, Polystyrene is the ideal material for insulators, coil forms, shields, etc. It has excellent arc resistance, is non-tracking and has splendid insulating properties. Because its water absorption is practically zero it has excellent dimensional stability.

POLYSTYRENE ROD — Transparent

AVAILABLE IN 12″ OR 48″ LENGTHS

Catalog Number	Diameter	Net Price 12″ lgth.	48″ lgth.
JB-100	⅛″	$ .03	$ .12
JB-101	3/16″	.07	.28
JB-102	¼″	.12	.48
JB-103	5/16″	.18	.72
JB-104	⅜″	.26	1.04
JB-106	½″	.48	1.92
JB-107	⅝″	.72	2.88
JB-108	¾″	1.00	4.00
JB-109	⅞″	1.42	5.68
JB-110	1″	1.90	7.60
JB-111	1⅛″	2.50	10.00
JB-112	1¼″	3.00	12.00
JB-113	1⅜″	3.60	14.40
JB-114	1½″	4.30	17.20
JB-116	1¾″	6.00	24.00
JB-118	2″	7.50	30.00

POLYSTYRENE TUBING — Satin Finish

AVAILABLE IN 12″ OR 48″ LENGTHS

Catalog Number	O.D.	I.D.	Net Price 12″ lgth.	48″ lgth.
JB-201	¼″	⅛″	$ .10	$ .40
JB-202	5/16″	3/16″	.14	.56
JB-203	⅜″	¼″	.18	.72
JB-205	½″	⅜″	.26	1.04
JB-206	⅝″	½″	.32	1.28
JB-207	¾″	⅝″	.40	1.60
JB-208	1″	⅞″	.56	2.24
JB-220	1½″	1¼″	1.50	6.00
JB-222	2″	1¾″	2.20	8.80

POLYSTYRENE SHEET*

Catalog Number	Thickness	Sheet Size	Net Price
JB-125	1/16″	12″ x 12″	$ 4.15
JB-126	3/32″	12″ x 12″	4.80
JB-127	⅛″	12″ x 12″	5.50
JB-128	3/16″	12″ x 12″	7.15
JB-129	¼″	12″ x 12″	8.15
JB-245	1/16″	12″ x 24″	7.80
JB-246	3/32″	12″ x 24″	9.15
JB-247	⅛″	12″ x 24″	10.50
JB-248	3/16″	12″ x 24″	13.15
JB-249	¼″	12″ x 24″	15.65
JB-315	1/32″	24″ x 24″	9.65
JB-301	1/16″	24″ x 24″	11.15
JB-302	3/32″	24″ x 24″	13.00
JB-303	⅛″	24″ x 24″	14.80
JB-304	3/16″	24″ x 24″	18.75
JB-305	¼″	24″ x 24″	23.00
JB-316	5/16″	24″ x 24″	27.65
JB-309	⅜″	24″ x 24″	31.25
JB-311	½″	24″ x 24″	38.65
JB-317	⅝″	24″ x 24″	50.00
JB-318	¾″	24″ x 24″	69.25
JB-319	1″	24″ x 24″	94.15

*Sheets are all crystal clear with smooth surfaces fully protected against abrasion by masking paper on both sides.

JULIUS BLUM & CO., INC., CARLSTADT, NEW JERSEY JB®

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INTERNATIONAL RESISTANCE COMPANY

Service Accessories

IRC
PHILADELPHIA, PA.
3/4 IN. x 66 FT. ROLL
UL
VINYL ELECTRICAL TAPE
NO. 103

VINYL ELECTRICAL TAPE for fast, safe, one-hand insulating. This new IRC Type 103 vinyl electrical tape has everything engineers, technicians, servicemen and hobbyists want in an insulating tape.

- 2 to 18 times better dielectric strength than other tapes.
- Seals and insulates in one fast tape-and-tear operation . . . saves tape and time. UL approved as a single insulation for wire splices.
- Saves space in confined areas . . . ends "twice-around" wraps with bulky tapes.
- Provides a tight insulated plastic seal . . . resistant to abrasion, water, acids, alkalies, corrosion and aging.
- Gives a neater wrap . . . adheres readily to irregular surfaces and contours.
- Makes an excellent wrap for insulating tools.

TAPE-AND-TEAR DISPENSER. For fast, one-hand taping IRC Vinyl Electrical Tape comes in a sturdy tape-and-tear dispenser that keeps tape clean and prevents stretching. Cutting blade is shielded. Dispenser is loaded with 66 feet of ¾" tape.

Also available in cellophane wrapped rolls:

¾" wide by 20 feet long
⅜" wide by 20 feet long
⅜" wide by 36 yards long

IRC
Electronic Control
CLEANER
FOR
VOLUME CONTROLS
TUNERS
SWITCHES
PROVIDES LONG LASTING PROTECTION FROM CORROSION AND OXIDATION
Control Cleaner from a Control Manufacturer

ELECTRONIC CONTROL CLEANER. IRC's new Electronic Control Cleaner provides positive, long-lasting protection against damaging corrosion and oxidation. Sprayed on volume controls, tuners, switches and other sensitive components, it quickly removes dirt and clogging gum . . . deposits a non-drying film that lubricates contact surfaces.

INTERNATIONAL RESISTANCE CO.
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Philadelphia 8, Pa.

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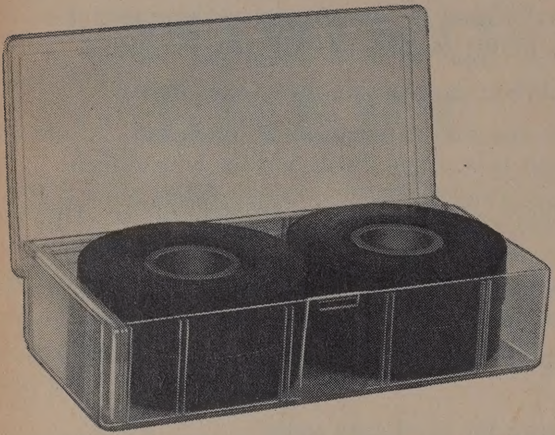
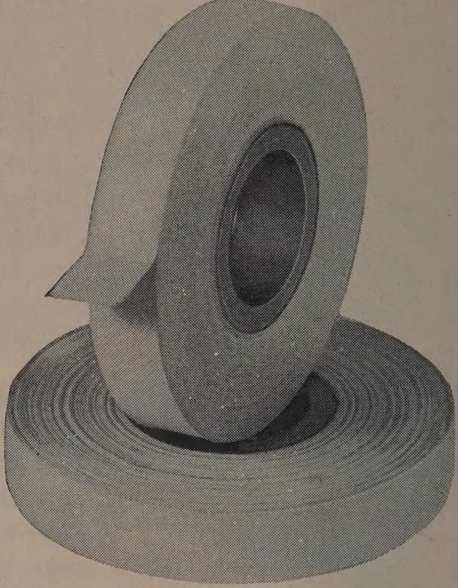
PERMACEL®
INSULATING TAPES



For insulating wire splices, harness wrapping, corrosion prevention—and as a protective tape on tool handles, sharp edges, etc. Now available in a free re-usable plastic parts box (illustrated)—four ¾″ x 66′ rolls per box. Order 29L or 295L. Also available in other sizes listed below.

PERMACEL® 29, PLASTIC ELECTRICAL TAPE		**PERMACEL® 295, ALL WEATHER, HEAVY DUTY PLASTIC ELECTRICAL TAPE**
Greater than 1000 volts per mil of thickness	**Dielectric strength**	Greater than 1000 volts per mil of thickness
7.0 mils	**Thickness**	8.5 mils
32 oz./in. width	**Adhesion**	28 oz./in. width
23 lbs./in. width	**Tensile Strength**	24 lbs./in. width
175%	**Elongation**	150%
29A ½″ x 150″ 29C ¾″ x 20′0″ 29D ¾″ x 66′0″	**Sizes**	295C ¾″ x 20′0″ 295D ¾″ x 66′0″



For shielding and insulation in sections and units of electronic equipment exposed to high operating temperatures.

PERMACEL® 21 PRESSURE SENSITIVE GLASS CLOTH ELECTRICAL TAPE, THERMOSETTING

Dielectric strength	3,000 volts
Thickness	7.5 mils
Adhesion	50 oz./in.
Tensile strength	130 lbs./in. width
Elongation	4%
Size	½″ x 66′0″

TWO MORE HELPFUL PRODUCTS FROM PERMACEL

PERMACEL
350
ELECTRICAL
EQUIPMENT
CLEANER

Permacel® 350 Electrical Equipment Cleaner Fast-drying, non-combustible aerosol. Contains no carbon tet.

Just spray on—dirt and grease disappear.

PERMACEL
JUNCTION BOX MOUNT
EPOXY ADHESIVE
NEW
PERMACEL

Permacel® 1041 Junction Box Mount An epoxy adhesive for easy, safe, inexpensive mounting of aluminum or steel to wood, metal, masonry, tile, plaster or glass.

PERMACEL

TAPES • ELECTRICAL INSULATING MATERIALS • ADHESIVES • NEW BRUNSWICK, NEW JERSEY

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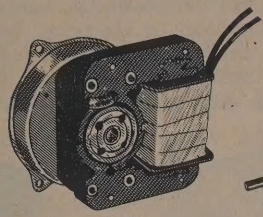
HEAVY DUTY SYNCHRONOUS MOTORS

Small Size, Low Cost Motors for Continuous Timing Applications Beyond the Capacity of Standard Clock Motors

Hurst Synchronous Motors were developed to fill the repeatedly expressed need for a timing unit of larger capacity than clock motors, at a practical low cost, light in weight and compact in size. In this middle area of size and price, Hurst motors provide outstanding quality and performance.



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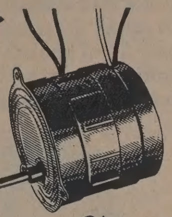
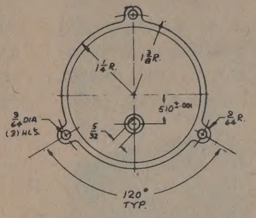
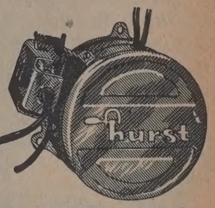


CA



Mounting Dimensions, all motors except PC Series

DA SM



PC-DA PC-SM
AR-DA AR-SM

Rugged synchronous motors for continuous duty applications. In a wide choice of output speeds for alarm systems, extra-large clocks, displays, railroad signaling equipment, process controls, code signal devices, time switches, program instruments, aircraft training devices, etc. Engineered for tough jobs requiring accurate timing. Will not overheat during continuous duty or in a stalled position. Gear trains are constructed to withstand considerably more than the motor's rated capacity. Mounting can be made in any plane with assurance of trouble-free service. Specifications common to all Hurst motors: Operating temperature, 40° to 105° C. Power required, 5 watts, 95-130 volts AC, 60 cycles. Shaft, stainless steel 3/16" dia. x 1" long flattened. Finest quality bronze bearings. Hardened steel pinions and wheel shafts. Brass gears lubricated for lifetime service. Completely enclosed cases, cadmium plated. Mounting, 3 No. 6 holes spaced 120°. Torque equals 1 RPM rating divided by speed.

150 INCH-OUNCE (EA Series — open frame) shaded pole. Completely accurate clockwise rotation. An extremely cool running timing motor with same gear units specified above. Torque, 150 inch-ounce at 1 RPM. Dimensions, 3¼" long x 2⅝" wide x 1⅝" high. Output shaft 3/16" dia. x 1" long flattened. (Exception: 3600 RPM speed has 3/32" output shaft x 1" long flattened. Shipping Wt. 1 lb. 3 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM. 3600 RPM.

EA	Net Each, Lots of		
	1-49	50-71	72-107
PRICE	$ 6.60	$ 5.94	$ 5.28
3600 RPM Only	$4.43	$3.99	$3.54

120 INCH-OUNCE REVERSIBLE. (DA Series) Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 100g shock resistance. Vibration resistant, accurate synchronization of 10-55 cps at .065" excursion. Good magnetic shielding. Torque, 120 inch-ounce at 1 rpm. Case dimensions, 2½" dia. x 1¾". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb. 1 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM.

DA	Net Each, Lots of		
	1-49	50-71	72-107
PRICE	$10.80	$9.72	$8.64

(Price includes capacitor)

POSITIVE CLUTCH DA SERIES. Basic DA motor with Positive Clutch and Instantaneous Brake. Starts in 10 milliseconds — stops 60 rpm shaft in 6°; 1 rpm, 1/10°. Shipping Wt. 1 lb. 5 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM.

PC-DA	Net Each, Lots of		
	1-49	50-71	72-107
PRICE	$14.92	$13.42	$11.94

(Price includes capacitor)

POSITIVE CLUTCH SM SERIES. Basic SM motor with Positive Clutch and Instantaneous Brake. Starts in 10 milliseconds — stops 60 rpm shaft in 6°; 1 rpm, 1/10°. Shipping Wt., 1 lb. 4 oz.

OUTPUT SPEEDS: ½, 1, 2, 3, 4, 5, 6, 10, 15, 30 and 60 RPM.

PC-SM	Net Each, Lots of		
	1-49	50-71	72-107
PRICE	$13.20	$11.88	$10.56

100 INCH-OUNCE REVERSIBLE. (CA Series) Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 1200 rpm rotor speed for quiet performance. Torque, 100 inch-ounce at 1 rpm. Case dimensions, 2½" dia. x 2⅛". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb. 2 oz. Most versatile and economical motor in its field!

OUTPUT SPEEDS: ⅓, ½, 1, 1½, 2, 2½, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 25, 30, 32, 33⅓, 40, 48, 50, 60, 64, 80, 100, 120, 150, 160, 200, 240, 400, 600, 800 and 1000 RPM.

CA	Net Each, Lots of		
	1-49	50-71	72-107
PRICE	$9.25	$8.33	$7.40

(Price includes capacitor)

40 INCH-OUNCE UNIDIRECTIONAL. (SM Series) Shaded pole. Clockwise rotation. Instant start at full torque at 40 inch-ounce at 1 rpm. 100g shock resistance. Vibration resistant, accurate synchronization at 10-55 cps at .065" excursion. Case dimensions, 2½" dia. x 1¾". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb.

OUTPUT SPEEDS: ½, 1, 2, 3, 4, 5, 6, 10, 15, 30 and 60 RPM.

SM	Net Each, Lots of		
	1-49	50-71	72-107
PRICE	$9.08	$8.17	$7.26

100 INCH-OUNCE REVERSIBLE (AR-DA Series) or 40 INCH-OUNCE UNIDIRECTIONAL (AR-SM Series) Each is an Automatic Reset motor when a return spring is attached to the output shaft. When clutch is de-energized the shaft is free for manual or automatic reset. Note: The clutch mechanism is lubricated and completely enclosed. AR Series is designed for heavy applications and will easily handle full torque on model SM or DA (either directional rotation). Physical size and appearance same as PC Series. Accurate within ⅕ second at 1 RPM and more accurate at higher speeds. Max. error in seconds $\frac{1.5625}{\text{RPM}}$. Case dimensions, 2½" dia. x 2 1/16". Cluch actuator ⅞" height x 1 3/16" width. Output shaft 3/16" dia. x 1" long flattened. Mounting same as standard motor shown in sketch. Shipping Wt., 1 lb. 6 oz.

OUTPUT SPEEDS: 1, 4, 6, 10, 30 and 60 RPM.

AR-DA	Net Each, Lots of		
	1-49	50-71	72-107
PRICE	$17.60	$15.84	$14.08

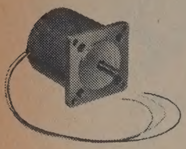
AR-SM	Net Each, Lots of		
	1-49	50-71	72-107
PRICE	$15.90	$14.30	$12.72

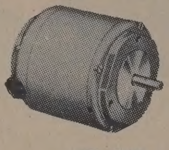
hurst MANUFACTURING CORP. PRINCETON, INDIANA

SLO-SYN® *Synchronous Motors*

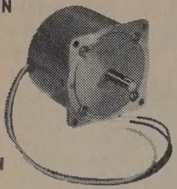
- **INSTANT STARTING, STOPPING, REVERSING**
- **72 RPM SHAFT SPEED WITHOUT GEARS**
- **CAN BE USED AS D-C STEPPING MOTORS**

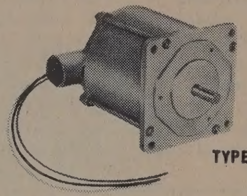
A SLO-SYN Synchronous Motor is a permanent magnet type a-c motor having instant start, stop and reverse characteristics and a basic shaft speed of 72 RPM with 60 cycles applied. Adaptable for use as a d-c stepping motor or incremental positioning device that can be stepped 200 times per revolution of the motor shaft. Compact and economical, has almost negligible overshoot, no ratchets or detents. A single-pole, three-position switch can give complete forward, reverse and "off" control because the motor has three leads only. Starts or stops in less than 0.025 second or approximately 1.5 cycles. No need for mechanical or electrical braking; stops in less than 5° of motor shaft rotation. Starting and operating currents are nearly identical; no excessive inrush current when motor is turned on. All types have lubricated-for-life bearings.

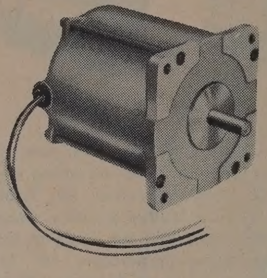

25 OZ-IN

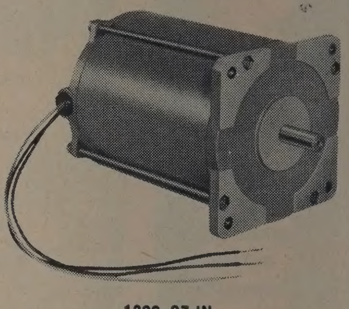

150 AND 250 OZ-IN

400 OZ-IN


50 OZ-IN

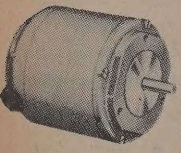

TYPE X250


1000 OZ-IN


1800 OZ-IN

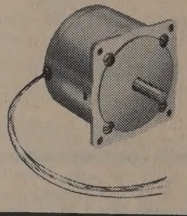
TORQUE (Oz-In)	VOLTS	MAXIMUM AMPERES	RESISTOR*	CAPACITOR*	TYPE	APPROXIMATE WEIGHT (POUNDS)	
						NET	SHIPPING
50/60 CYCLES, 1 PHASE, 72 RPM @ 60 CYCLES							
25	120	0.1	500 ohms ± 5%, 5W	.75 mfd ± 6%, 330VAC	SS25	1¼	1½
50	120	0.3	250 ohms ± 5%, 25W	2.6 mfd ± 6%, 330VAC	SS50 SS50M‡	3	3½
150	120	0.4	250 ohms ± 5%, 25W	3.75 mfd ± 6%, 330VAC	SS150 SS150M‡	6½	8
150	240	0.2	1200 ohms ± 5%, 25W	1.0 mfd ± 6%, 660VAC	SS152	6½	8
250	120	0.6	150 ohms ± 5%, 50W	6.5 mfd ± 6%, 330VAC	SS250 SS250M‡ X250§	6½ 6½ 7¾	8 8 9
250	240	0.3	750 ohms ± 5%, 50W	1.75 mfd ± 6%, 660VAC	SS252	6½	8
400	120	0.6	150 ohms ± 5%, 50W	6.5 mfd ± 6%, 330VAC	SS400	12¼	13¾
1000	120	3.0	65 ohms ± 5%, 160W	30.0 mfd ± 5%, 330VAC	X1000†§	31	33
1800	120	4.0	40 ohms ± 5%, 300W	60.0 mfd ± 6%, 330VAC	SS1800†	45	50

*External resistor and capacitor must be ordered separately †For 60 cycle operation only ‡Militarized §Explosion-proof



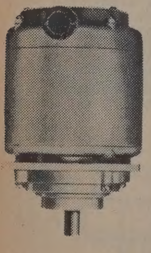
BIFILAR TYPES

Used for d-c stepping where use of push-pull circuitry and center-tapped power supply is not possible or where increased torque at high stepping speeds is required.



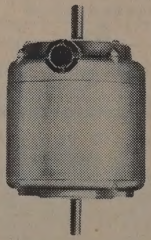
FOUR-LEAD TYPES

Designed to provide flexibility needed for use with equipment requiring isolated windings with no common connection.



PLANETARY GEAR TYPES

Basic 50 and 150 oz-in types and type X250 available with planetary gear assemblies in speeds of 16.6, 3.32, 0.665, 0.133 or 0.027 rpm; 16.6 rpm available in other 250 and on 400 oz-in types.



DOUBLE END TYPES

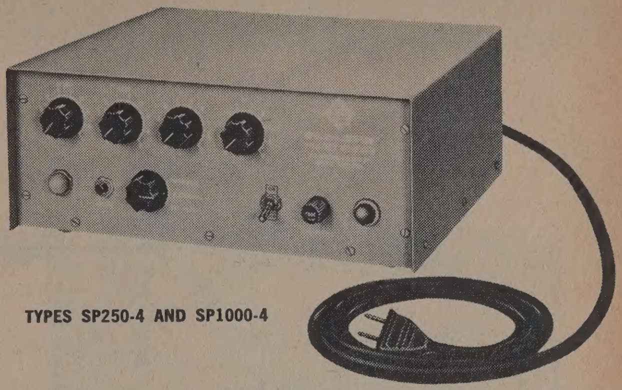
Three-lead, bifilar and four-lead types with output shaft at each end of motor available in all listed torque ratings. 50, 150 and 250 oz-in types available also with planetary gear assemblies in 16.6, 3.32, 0.665, 0.133 or 0.027 rpm speeds.

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.
SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100, 4000 AND 5600

© U.C.P., Inc.

SLO-SYN® Preset Indexers

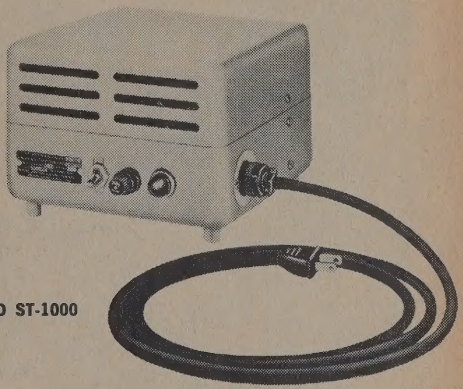
SLO-SYN Preset Indexers control indexing operations in applications using SLO-SYN Synchronous Motors for positioning. Automatically provide the correct switching sequence needed to drive SLO-SYN motors the required number of 1.8° steps. Types SP250-4 and SP1000-4 can control indexing movements up to 9,999 steps per cycle; other types to 99,999 steps per cycle on special order. Speed adjustable from 2 steps per second. Index cycle can be cycled automatically or initiated manually from panel or from an external switch.



TYPES SP250-4 AND SP1000-4

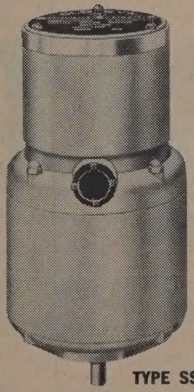
SLO-SYN® Translators

SLO-SYN Translators are pulse-to-step converters intended for use with appropriate bifilar type SLO-SYN Synchronous Motors. Convert low-level signal pulses or square waves into the correct switching sequence needed to drive the SLO-SYN motor at 200 discrete steps per revolution. Internal power supply allows alternate operation from an external shorting switch if desired. Used in programmed positioning, remote positioning, indexing and indicating operations.



TYPES ST-250 AND ST-1000

DC and 400 Cycle SLO-SYN® Motors



TYPE SSDC150

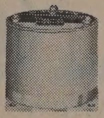
DC SLO-SYN® MOTORS

Offered in 72 rpm, 50 and 150 oz-in torque ratings for 28 volt d-c duty. Integrally mounted inverter changes d-c input to the 120 volt, 60 cycle a-c required. Phase-shifting resistor-capacitor network supplied. 16.6, 3.32, 0.665, 0.133 and 0.027 rpm planetary gear types available also.

TYPE SSR400

400 CYCLE SLO-SYN® MOTOR RECTIFIER

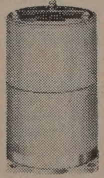
Designed for use with DC SLO-SYN Motors to permit operation from a 120 volt ±5%, 400 cycle a-c power source. Accepts any frequency between 200 and 1000 cycles.



TYPE SSIN50/150

400 CYCLE SLO-SYN® MOTOR INVERTER

Designed to operate 60 cycle SLO-SYN Synchronous Motor types SS50 and SS150 from a 28 volt d-c source. Phase-shifting resistor-capacitor network must be used.

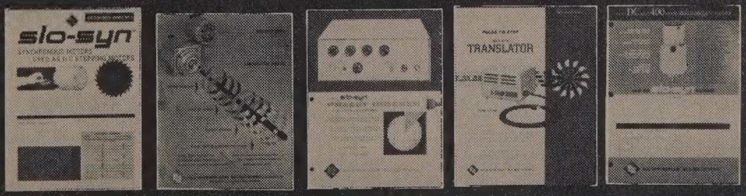


TYPE SSC400

400 CYCLE SLO-SYN® MOTOR CONVERTER

Used with SLO-SYN Synchronous Motor types SS50 and SS150 to permit operation from a 120 volt, 200-1000 cycle a-c source. Resistor and capacitor must be provided.

FOR MORE DETAILED INFORMATION about ratings, specifications and technical data on SLO-SYN motors and control equipment, request the complete SLO-SYN literature file including d-c stepping information.



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The
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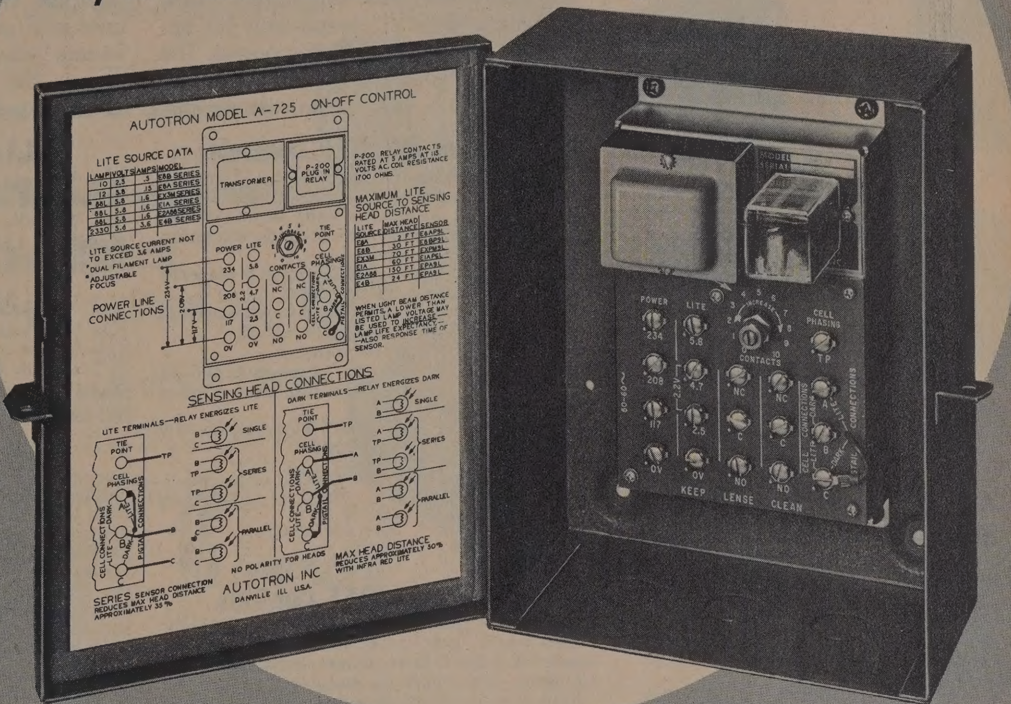
AUTOTRON Photoelectric Controls

AUTOTRON, INC Danville, Illinois

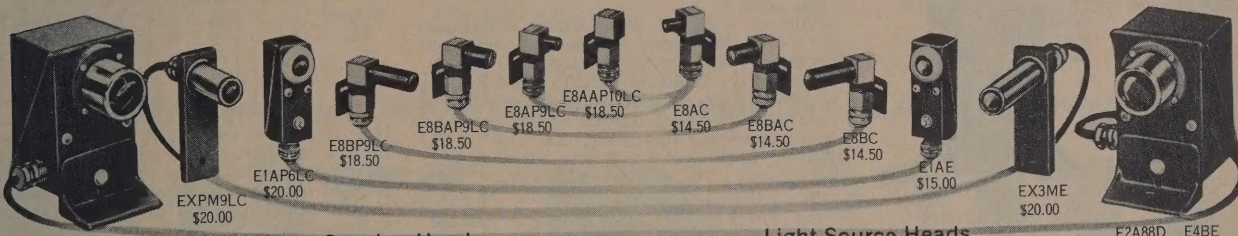
A725 ON/OFF Control and A750 Timing Control

Thousands of Control Uses

- Tension
- Registration
- Inspection
- Weighing
- Sorting
- Measuring
- Counting
- Die Protection
- Smoke Detection
- Jam-up
- Packaging
- Processing
- Spraying
- Traffic
- Conveyor
- Cut-off
- Limit
- Timing


AUTOTRON MODEL A-725 ON-OFF CONTROL
LITE SOURCE DATA
TRANSFORMER
P-200 PLUG IN RELAY
POWER LINE CONNECTIONS
MAXIMUM LITE SOURCE TO SENSING HEAD DISTANCE
SENSING HEAD CONNECTIONS
LITE TERMINALS—RELAY ENERGIZES LITE
DARK TERMINALS—RELAY ENERGIZES DARK
SINGLE
SERIES
PARALLEL
SERIES SENSOR CONNECTION REDUCES MAX HEAD DISTANCE APPROXIMATELY 35%
NO POLARITY FOR HEADS
MAX HEAD DISTANCE REDUCES APPROXIMATELY 50% WITH INFRA RED LITE
AUTOTRON INC DANVILLE ILL USA
POWER
LITE
CELL PHASING
CONTACTS
KEEP LENSE CLEAN

Choice of 7 standard sensing heads and 7 standard light source heads in any combination


EPA9LC
$20.00
EXPM9LC
$20.00
E1AP6LC
$20.00
E8BP9LC
$18.50
E8BAP9LC
$18.50
E8AP9LC
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E8AAP10LC
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E8AC
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E8BAC
$14.50
E8BC
$14.50
E1AE
$15.00
EX3ME
$20.00
E2A88D
$20.00
E4BE
$38.00
Sensing Heads
Light Source Heads

Features of A725 and A750

One connection changes from LIGHT- to DARK-energized operation (or vice versa).

5.8, 4.7, 3.3, 2.5, 2.2 and 1.1 Light Source Voltages makes available minimum suitable voltage for maximum lamp life and maximum speed of sensing cell response.

Rugged, 5-amp DPDT Plug-in Relay.
- a. **Plug-in mounting** permits replacement in seconds without special skill or tools
- b. **Transparent enclosure** protects against dust, physical injury and tampering.

Rectified output current for positive and QUIET operation of control relay.

Cad cells and transistors replace tubes.

Transistors protected from transient voltages.

Cad Cells are exceptionally well shielded from extraneous light.

All circuit components are securely mounted on a modern circuit board.

All contacts of the DPDT Relay wired to large, screw type terminals.

Operate at ambient temperatures to 115°F.

In JIC enclosures at $12.50 extra.

Operate from 234, 208 and 117 V, 50-60 c.

#Mounting bracket and cord grip are standard. Furnished with cord assembly potted inside housing, without mounting bracket at no extra charge when specified.

A725 ON/OFF Control

FAST ACTING — .025 sec. light time and .025 sec. dark time minimum.

SENSITIVE — Adjustment has shaft lock.

Power Consumption, 15 watts.

Energizes LIGHT connected to LIGHT terminals.

Energized DARK connected to DARK terminal.

A725 ON/OFF Control less heads............$69.50

A750 Timing Control

1 to 12 seconds adjustable time delay with 1% repeat accuracy. Time delay adjustment has shaft lock.

Energizes LIGHT and times out DARK connected to LIGHT terminal. Recycle time is almost instant (.015 sec. max.) and is independent of light level on the sensing cell. Timing control is voltage regulated and variation in timing between 100 and 130 volts is negligible.

Energizes DARK and times out LIGHT connected to DARK terminal. Recycle time is 50 milliseconds min. depending on light intensity on the sensing cell. For minimum recycle time reduce light intensity to minimum operating value.

A750 Timing Control less heads........Net $88.00

† Use of infrared filters reduces maximum distance between heads approximately 50% (see page 3).

Model Numbers			max. ft. between heads†	NET per set
Control	Sensing Head	Light Source		
A725	E8AAP10LC	E8AC	2	$102.50#
A725	E8AP9LC	E8AC	2	$102.50#
A725	E8BAP9LC	E8BAC	15	$102.50#
A725	E8BP9LC	E8BC	30	$102.50#
A725	EXPM9LC	EX3ME	70	$109.50
A725	E1AP6LC	E1AE	60	$104.50
A725	EPA9LC	E2A88E	150	$109.50
A725	EPA9LC	E4BE	24	$127.50
A750	E8AAP10LC	E8AC	1	$121.00#
A750	E8AP9LC	E8AC	1	$121.00#
A750	E8BAP9LC	E8BAC	7.5	$121.00#
A750	E8BP9LC	E8BC	15	$121.00#
A750	EXPM9LC	EX3ME	35	$128.00
A750	E1AP6LC	E1AE	30	$123.00
A750	EPA9LC	E2A88E	75	$128.00
A750	EPA9LC	E4BE	12	$146.00

DIMENSIONS

A725, A750—8-3/8 x 4-1/4 x 10-3/8
E8BA9LC, E8BAC—15/16 x 1-7/8 x 1-3/8
E8BP9LC, E8BC—15/16 x 2-21/32 x 1-3/8
E8AAP10LC, 15/16 x 1 x 1-3/8
E8AP9LC, E8AC—15/16 x 1-9/16 x 1-3/8
E1AP6LC, E1AE—1-7/16 x 1-3/8 x 3-5/8
EXPM9LC—1-1/2 x 3-3/4 x 4-3/4
EX3ME—1-1/2 x 5-1/4 x 4-3/4
EPA9LC. E2A88D. E4BE—3-15/16 x 5-5/16 x 5-1/4

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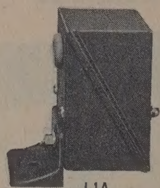
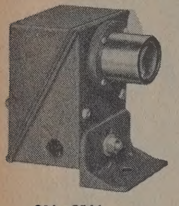
AUTOTRON Photoelectric Controls

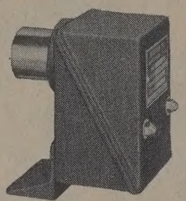
Self-Contained Photoelectric ON/OFF Controls and Light Sources

S1A, S4A1

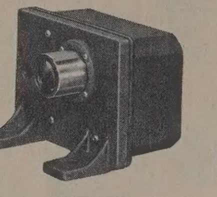

L1A

3-3/4 X 4 X 5-1/4

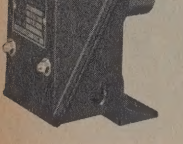

S2A, S5A1

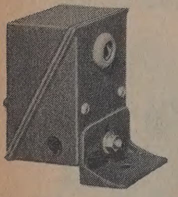

L2A

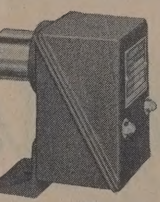
5-1/4 X 4 X 5-1/4


F1B, F2B

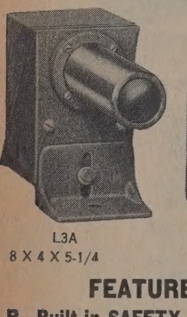
6 X 7-1/4 X 5-1/4


L2A

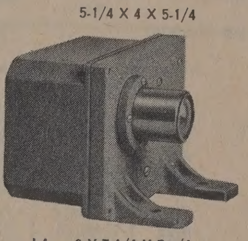

L1A


A579

5-1/4 X 4 X 5-1/4


L3A

8 X 4 X 5-1/4


L4 6 X 7-1/4 X 5-1/4

FEATURES and NOTES

R—Built-in SAFETY Relay (contacts SPDT, rated 5 amps. at 115 VAC)

In Control: Energizes when power comes on; de-energizes when tube filament burns out or power goes off.

In Light Source: Energizes when light comes on; de-energizes when lamp fails or power goes off.

Y—Built-in Light Beam Intensity Adjustment.

*Available with built-in heating element at $7.50 extra.

DARK Energized—Plate relay energizes when light beam is interrupted; de-energizes when the light beam is restored, when a tube filament fails or any tube loses emission.

LIGHT Energized—Plate relay energizes when

continued in column 3

Each self-contained unit includes sensing element or lamp with lenses, transformers and other components for operation direct from electric power. The illustrations show Controls and Light Sources in pairs or sets to illustrate their use. However any Control can be used with any Light Source if the Light Source provides, at the installed distance, the minimum light (candlepower) specified for the control.

S Series ON-OFF Controls

Rugged, industrial Photoelectric Controls, moderately sensitive, factory adjusted for use where object interrupts light beam 100%

Minimum dark time, .06 second; minimum light time, .06 seconds.

Plate Relay Contacts, SPDT, rated 8 amperes at 115 VAC non-inductive load.

Splashproof cast aluminum case with adjustable bracket; tapped for ½" conduit.

Power consumption 10 watts.

S1A and S4A1 have ¾" lens mounted in flexible neoprene—require 20 foot-candles minimum light.

S2A and S5A1 have 1½" lens—require 10 foot-candles minimum light.

Energized		50-60 cycles	Net Each
Dark	Light	volts	
S1A	S4A1	115/230	$38.75
S1AR	S4A1R	115 or 230 (specify)	50.75
S2A	S5A1	115/230	45.00
S2AR	S5A1R	115 or 230 (specify)	57.00

F Series ON/OFF Controls

"Fail Safe", sensitive, high speed. Widely used where "safe" relay action is required in case of tube failure, where light change is limited, and where photo-tube dark time or light time is short. Special, quick response DC circuit permits speeds to 1200 operations (cycles) per minute. Sensitivity adjustment inside case inhibits tampering. Shaftlock secures setting.

Minimum light, 5 foot-candles. Minimum phototube dark time, .025 second; minimum phototube light time, .025 second.

Plate Relay: Contacts DPDT, rated 8 amps at 115 VAC, non-inductive load. Splashproof cast aluminum case tapped for ½" conduit. Rigid mounting feet. Lens dia. 1½". 115/230 v., 50-60 cycles. Power 20 watts.

Energized		For 115/230 v., 50-60 Cycles	Net
†Dark	†Light	Description	Each
*F2B	*F1B	Photoelectric Control	$67.50
*F2BR	*F1BR	Above with R feature	79.50

A579 Transistor ON-OFF Control

Fast Acting, rugged industrial construction. Photoelectric Control.

.025 second light time; .025 second dark time (minimums).

Rugged, 8-ampere DPDT plug-in relay with transparent plastic enclosure.

No tubes. Cad Cell and Transistors replace tubes. Transistors protected from transient voltage. Cad Cell exceptionally well shielded from extraneous light by long lens tube and carefully designed mounting arrangement.

All components are securely mounted on modern printed circuit board.

All contacts of the 8-ampere DPDT Relay are wired to large, easily accessible screw type terminals, separated by high barriers.

Splashproof cast aluminum case with adjustable mounting bracket; tapped for ¾" conduit. Power consumption; 5 watts. Maximum ambient operating temperature 115°F.

Relay de-energizing time delay easily added by user; instructions included with control.

Requires 5 foot-candles minimum light. Operates from 115 or 230 v (specify) 50-60 cycles. Power consumption, 5 watts.

A579 LIGHT-ENERGIZED Transistor ON/OFF Photoelectric Control..............NET each $58.00

L1A Light Source

Has ¾" lens mounted in flexible Noeprene. Splashproof cast aluminum case tapped for ½" conduit. Adjustable mounting bracket.

Model	**L1A**	**L1AY**	**L1AR**	**L1ARY**
Net each	**$18.50**	**$23.50**	**$30.50**	**$35.50**

L2A Light Source

Has 1½" lens mounted in a brass lens tube. Splashproof cast aluminum case tapped for ½" conduit. Adjustable mounting bracket.

Model No.	**L2A**	**L2AY**	**L2AR**	**L2ARY**
Net each	**$21.80**	**$26.80**	**$33.80**	**$38.80**

L4 Light Source

Has prefocused, two-filament lamp, extra low voltage connection and 1½" OD straight fixed beam. The prefocused lamps permit replacement with minimum change in the light beam. The dual filaments provide protection against shutdowns—when one filament fails the other lights up and a signal light in the housing comes on indicating that the lamp should be replaced as soon as convenient. Splashproof cast aluminum case with rigid mounting feet, taped for ½" conduit.

L4 Light Source **Net each $49.50**

Model No.	FOOT CANDLES 20	10	5	2	Lens Diameter	NET each	Ship wt lbs.
	DISTANCE IN FEET						
L1A	8	12	15	18	¾	$18.50	2.5
L2A	13	20	30	45	1½	21.80	2.5
L4	N7 L2	12 4	— 6	— 12	1½	49.50	8

L3A Light Source

Has 1½" lens with light beam adjustment from a minimum focal length of 4¾" and corresponding focal size of 5/16 x ¼" to a straight light beam of 1½" O.D. Light output at twice the focal distance exceeds 30 foot-candles.

Increasing the focal length increases the focal size. For example at 6" focal length the focal size is ½ x ⅜" and at 12" focal length the focal size is 1½" (straight light beam).

Model No.	**L3A**	**L3AY**	**L3AR**	**L3ARY**
Net each	**$29.30**	**$34.30**	**$41.30**	**$46.30**

Control and Light Source Sets

(practically any light source can be used with any control)

MODEL NUMBERS energized DARK	LIGHT	max. ft. between lenses	Min. Dark Time	Min. Light Time	Net per Set
S1A-L1A	S4A1-L1A	8	.06	.06	$57.25
S2A-L1A	S5A1-L1A	12	.06	.06	63.50
S2A-L2A	S5A1-L2A	20	.06	.06	66.80
S2A-L4	S5A1-L4	N 12 L 4	.06	.06	94.50
F2B-L1A	F1B-L1A	15	.025	025	86 00
F2B-L2A	F1B-L2A	30	.025	.025	89.30
F2B-L4	F1B-L4	N — L 6	.025	.025	117.00
—	A579-L1A	15	.025	.025	76.50
—	A579-L2A	30	.025	.025	79.80
	A579-L4	N — L 6	.025	.025	107.50

continued from column 1

light beam is restored; de-energizes when light beam is interrupted, when tube filament fails or any tube loses emission.

Specified minimum dark and light time are based on the specified minimum foot-candles.

Net

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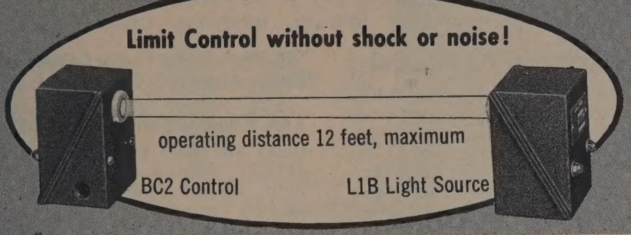
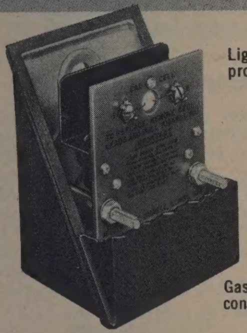
AUTOTRON Photoelectric Controls

BC2/L1B LIGHT-energized Limit Switch


Limit Control without shock or noise!
operating distance 12 feet, maximum
BC2 Control
L1B Light Source



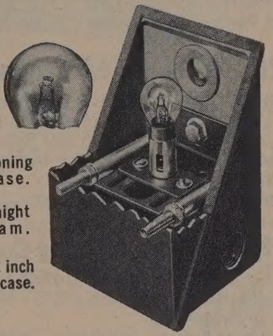
Light shield provides unusual protection against ambient light

Lamp has C-6 filament which is ideally suited for photoelectric work.

3-way adjustment for positioning lamp without moving case.

Lamp easily focused for a straight beam or a pinpoint beam.

Gasket sealed cast aluminum case tapped for 1/2 inch conduit. Three mounting holes in bottom of case.



BC2 Light-energized Limit Switch

The photosensing element is a cad cell.

Relay energizes when light is on cell.

¾″ lens mounted in flexible Neoprene.

Minimum dark time .06 second; minimum light time .06 second.

Contacts SPDT, 3-amps at 115 VAC, non-inductive.

Relay is protected by plastic enclosure.

Power consumption, 0.5 watts.

For 115 v. 50-60 cycle operation only.

BC2 Photoelectric Limit Switch................$24.75

L1B Light Source

¾″ lens mounted in flexible silicone rubber.

Low operating voltage extends lamp life to 5000 hours, approx.

High voltage tap for extremely dirty applications.

Mounting adjustment permits focusing lamp for a straight beam or a pinpoint beam.

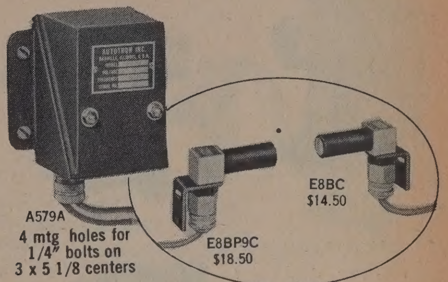
Mounting adjustment permits alignment of lamp without moving case.

For 115/230 v, 50-60 cycle operation.

L1B Light Source.............................Net $18.50

A650 Control Pak

(Transistor ON/OFF Control)



A579A Control, E8BP9C Photo Cell Sensing Head and E8BC Light Source Head, with 6-foot cable to each head. Max. distance between heads, 12 feet. Minimum light time, .025 second; Minimum dark time, .025 second. LIGHT-energized. Rugged, 5-ampere plug-in DPDT Relay with transparent cover.

Cad Cell and transistors instead of tubes.

Transistors protected from transient voltage.

Cad Cell exceptionally well shielded from extraneous light.

All circuit components securely mounted on a modern printed circuit board.

All contacts of the DPDT Relay wired to large easily accessible screw type terminals with high barriers.

Splash-proof, cast aluminum case, tapped for ¾″ conduit.

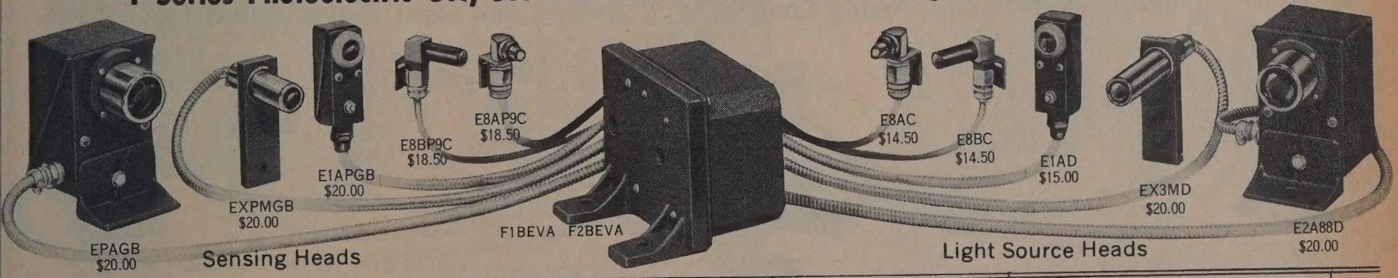
Power consumption—5 watts.

Time delay easily added by user.

AUTOTRON A650 Control Pak Net each $87.80 (includes A579A ON/OFF Control with E8BP9C and E8BC Remote Heads and connecting cables.)

P-204 E8B Infrared Filter Assembly....Net 3.45

F Series Photoelectric ON/OFF Controls with Remote Sensing and Light Source Heads



F Series ON/OFF Controls have a special quick response DC circuit which permits speeds to 1200 operations per minute. Sensitivity adjustment inside case inhibits tampering. Shaft lock secures setting.

Plate Relay: Contacts DPDT, rated 8 amps at 115 VAC, non-inductive load. Splashproof cast aluminum case, tapped for ½″ conduit. Power consumption, 20 watts.

DIMENSIONS

F1BEVA, F2BEVA	6 x 7-1/4 x 5-1/4
EPAGA, E2A88D	5-1/4 x 4 x 5-1/4
EXPMGA, EX3MD	3-3/4 x 1-1/2 x 4-3/4
E8BP9C, E8BC	2-3/4 x 7/8 x 1-1/8
E8AP9C E8AC	2 x 7/8 x 1-1/8

Model Number Control Sensing Head Light Source	Max. ft. between heads	Min. dark time	Min. light time	Price	With R Feature Model Number	With R Feature Price	Ship. Wt. lbs.
LIGHT ENERGIZED F Series Controls with Sensing and Light Source Heads (115/230 V, 50-60 C)							
F1BEVA-EPAGA-E2A88D	30	.025	.025	$117.50	F1BEVAR-EPAGA-E2A88D	$129.50	12
F1BEVA-E1APGA-E1AD	5	.025	.025	112.50	F1BEVAR-E1APGA-E1AD	124.50	9
F1BEVA-EXPMGA-EX3MD	focused	.025	.025	117.50	F1BEVAR-EXPMGA-EX3MD	129.50	9
F1B4EVE-E8AP9C-E8AC	1⅙	.05	.025	110.50	F1B4EVER-E8AP9C-E8AC	122.50	9
F1B4EVF-E8BP9C-E8BC	12	.025	.025	110.50	F1B4EVFR-E8BP9C-E8BC	122.50	9
DARK ENERGIZED F Series Controls with Sensing and Light Source Heads (115/230 V, 50-60 C)							
F2BEVA-EPAGA-E2A88D	30	.025	.025	117.50	F2BEVAR-EPAGA-E2A88D	129.50	12
F2BEVA-E1APGA-E1AD	5	.025	.025	112.50	F2BEVAR-E1APGA-E1AD	124.50	9
F2BEVA-EXPMGA-EX3MD	focused	.025	.025	117.50	F2BEVAR-EXPMGA-EX3MD	129.50	9
F2B4EVE-E8AP9C-E8AC	1⅙	.05	.025	110.50	F2B4EVER-E8AP9C-E8AC	122.50	9
F2B4EVF-E8BP9C-E8BC	12	.025	.025	110.50	F2B4EVFR-E8BP9C-E8BC	122.50	9

Models F1BEVA and F2BEVA have connections for operating remote sensing and remote light source heads.

The Sensing and Light Source Heads are listed in "matched" pairs. However, either light source may be used with either sensing head provided the light source has sufficient foot candle output at the installed distance.

Each AUTOTRON Remote Sensing Head and Light Source Head is equipped with 6-foot connecting cable.

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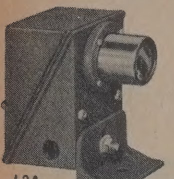
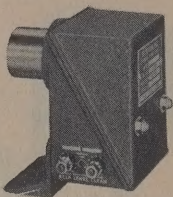
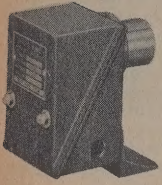
AUTOTRON Photoelectric Controls

Self-Contained Photoelectric Timing Controls *(for Light Sources see preceding page)*

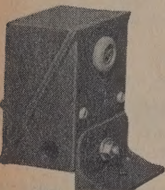
For applications requiring delayed plate relay response to light change, such as conveyor jam-up, spraying, processing, etc.

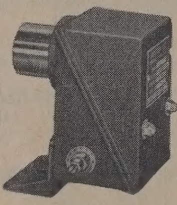

L2A
5-1/4 x 4 x 5-1/4


T1A
5-1/4 x 4 x 5-1/4


L2A

T2B, T3A, T5A
6 x 7-1/4 x 5-1/4


L1A
3-3/4 X 4 X 5-1/4


A579P
5-1/4 x 4 x 5-1/4

T1A Photoelectric Timing Control

Relay energizes DARK—unit times out DARK. Time delay with shaft lock adjustment from 1 to 10 seconds. Repeat accuracy 4%. Minimum light, 40 foot-candles. Plate relay: Contacts SPDT, rated 8 amps at 115 v. AC, non-inductive load. Splashproof aluminum case, tapped for ½" conduit. Adjustable mounting bracket. Lens dia. 1½". Power consumption, 10 watts. 115/230 v., 50-60 cycles.

T1A Photoelectric Timing Control. Net each $57.50

T2B, T3A and T5A Timing Controls

Plate Relay: Contacts DPDT, rated 8 amps at 115 v. AC, non-inductive load. Time delay adjustment has shaft lock. Splashproof cast aluminum case tapped for ½" conduit. Lens diameter 1½". 115/230 v., 50-60 cycles. Power consumption 20 watts.

T2B Photoelectric Timing Control

Relay energizes LIGHT—unit times out with DARK. Repeat accuracy 3%. Minimum light 20 foot-candles.

Timing Ranges (specify)		Min. Light Time
No. 1	1. to 3. sec.	.2 sec.
No. 2	2.5 to 8. sec.	.4 sec.
No. 3	4. to 15. sec.	.8 sec.

T2B Photoelectric Timing Control. Net each $72.50
T2BR—Above with Safety Relay. . Net each 84.50

T3A Photoelectric Timing Control

Relay energizes LIGHT—unit times out with LIGHT. Timing accuracy, 2%. Minimum light 10 foot candles.

T3A and T5A Timing Ranges (specify)

No. 0.1	.03 to .3 sec.	No. 1.	.6 to 15 sec.
No. 0.2	.06 to 3. sec.	No. 2.	1. to 25 sec.
No. 0.5	.1 to 6. sec.	No. 2.5	1.5 to 50
		No. 3.	30. to 300.

T3A Photoelectric Timing Control. Net each $72.50
T3AR—Above with Safety Relay. . Net each $84.50

T5A Photoelectric Timing Control

Relay energizes DARK—unit times out with DARK. Timing accuracy 2%. Minimum light, 10 foot candles. Timing ranges—same as T3A (specify).

T5A Photoelectric Timing Control. Net each $82.50
T5AR—Above with Safety Relay. . Net each $94.50

A579P Transistor Timing Control.

Photoelectric—Relay energizes LIGHT—unit times out with DARK. Cad Cell and Transistors replace tubes. Plug-in plate relay, with plastic dust cover; Contacts DPDT, rated 8 amps at 115 VAC, non-inductive load. Time delay adjustment has shaft lock. Splashproof cast aluminum case with adjustable mounting bracket, tapped for ¾" conduit. Repeat accuracy 4%. Power consumption, 5 watts. 115 or 230 v (specify) 50-60 cycles.

Adjustable timing ranges (specify) {No. .4: .1 to 5 sec.
{No. 2. : 1. to 20 sec.

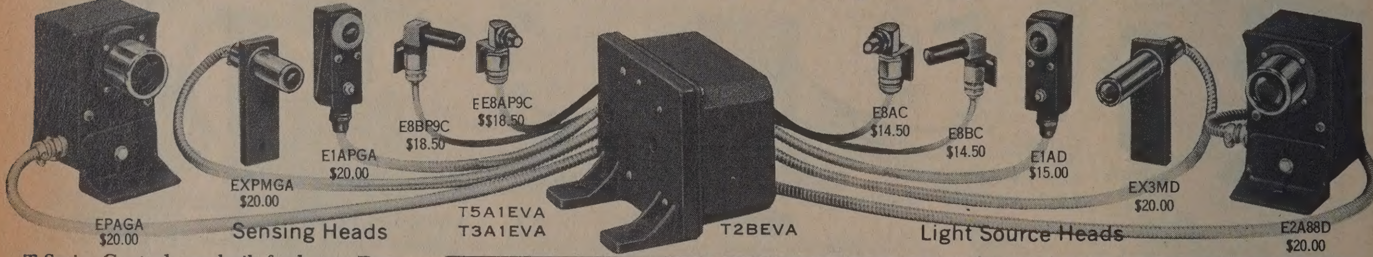
A579P Timing Control. . . . . Net each $67.00

Control and Light Source Sets

(practically any Light Source can be used with any Control)

Model Numbers	max. ft. between lenses	Min. dark time	Min. light time	Price per set.
T1A-L1A	5 ft	——	.5	$76.00
T1A-L2A	10 ft	——	.5	79.30
T3A-L1A	12 ft	.005	——	91.00
T3A-L2A	20 ft	.005	——	94.30
T5A-L1A	12 ft	——	.005	101.00
T5A-L2A	20 ft	——	.005	104.30
T2B-L1A	8 ft	——	.4	91.00
T2B-L2A	13 ft	——	.4	94.30
A579P-L1A	15 ft	——	.5	85.50
A579P-L2A	30 ft	——	.5	88.80

T Series Photoelectric Timing Controls with Sensing and Light Source Heads



T Series Controls are built for heavy Duty Industrial Service. Plate Relay Contacts: DPDT, Silver Cadmium Oxide, rated 8 amps at 115 VAC, non-inductive load.

Time Delay adjustment with shaftlock, inside case.

Timing Ranges same as self-contained models, page 2. H Feature available with all models—to order add Suffix "H" to Model Number and $7.50 to price.

The Sensing and Light Source Heads are listed in matched pairs for convenience. Other combinations are practical when required.

DIMENSIONS

A579A 6 1/4 x 3-1/2 x 5-1/2
A725, A750 8-3/8 x 4-1/4 x 10-3/8
T5A1EVA, T3A1EVA, T2BEVA 6 x 7-1/4 x 5-1/4
EPAGA, E2A88D 5-1/4 x 4 x 5-1/4
EXPMGA, EX3MD 3-3/4 x 1-1/2 x 4-3/4
E8BP9C, E8BC 2-3/4 x 7/8 x 1-1/8
E8AP9C, E8AC 2 x 7/8 x 1-1/8

Model Number	Max. Ft. Between Heads	Min. Dark Time	Min. Light Time	Price	With R Feature		Ship. Wt. Lbs.
Control Sensing Head Light Source					Control Sensing Head Light Source	Price	
DARK-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)							
T5A1EVA-EPAGA-E2A88D	23	delay	.005	$132.50	T5A1ERVA-EPAGA-E2A88D	$144.50	11
T5A1EVA-E1APGA-E1AD	5	delay	.005	127.50	T5A1ERVA-E1APGA-E1AD	139.50	9
T5A1EVA-EXPMGA-EX3MD	5	delay	.005	132.50	T5A1ERVA-EXPMGA-EX3MD	144.50	9
T5A4EVE-E8AP9C-E8AC	1.2	delay	.01	125.50	T5A4ERVA-E8AP9C-E8AC	137.50	9
T5A4EVF-E8BP9C-E8BC	5	delay	.005	125.50	T5A4ERVF-E8BP9C-E8BC	137.50	9
LIGHT-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)							
T3A1EVA-EPAGA-E2A88D	23	.005	delay	$132.50	T3A1ERVA-EPAGA-E2A88D	$144.50	11
T3A1EVA-E1APGA-E1AD	5	.005	delay	127.50	T3A1ERVA-E1APGA-E1AD	139.50	9
T3A1EVA-EXPMGA-EX3MD	5	.005	delay	132.50	T3A1ERVA-EXPMGA-EX3MD	144.50	9
T3A4EVE-E8AP9C-E8AC	1.2	.05	delay	125.50	T3A4ERVA-E8AP9C-E8AC	137.50	9
T3A4EVF-E8BP9C-E8BC	5	.025	delay	125.50	T3A4ERVF-E8BP9C-E8BC	137.50	9
LIGHT-ENERGIZED—DE-ENERGIZE DELAY (115/230 V, 50-60 C)							
T2BEVA-EPAGA-E2A88D	16	delay		$122.50	T2BERVA-EPAGA-E2A88D	$134.50	11
T2BEVA-E1APGA-E1AD	3	delay	See	117.50	T2BERVA-E1APGA-E1AD	129.50	9
T2BEVA-EXPMGA-EX3MD	3	delay	Chart	122.50	T2BERVA-EXPMGA-EX3MD	134.50	9

Net

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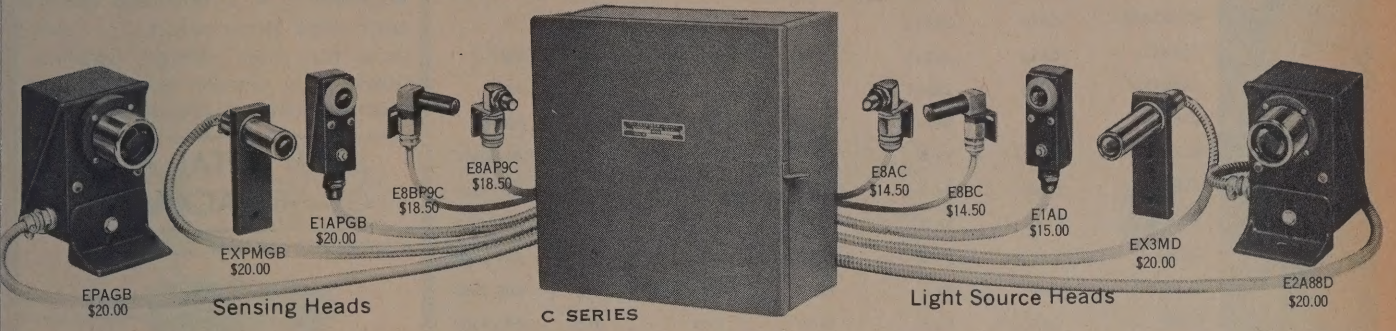
AUTOTRON Photoelectric Controls

C-Series Impulse Actuated Photoelectric Timing Controls



C Series Controls are triggered (ENERGIZED) by electric impulses. De-Energizing is controlled by adjustable time delay—the relay remains energized through the timing period for which the control is set. DARK-energized Controls time out with LIGHT; LIGHT-energized Controls time out with DARK.

When the "ENERGIZING" light change occurs *before the timing period expires* the relay remains energized through another complete timing period.

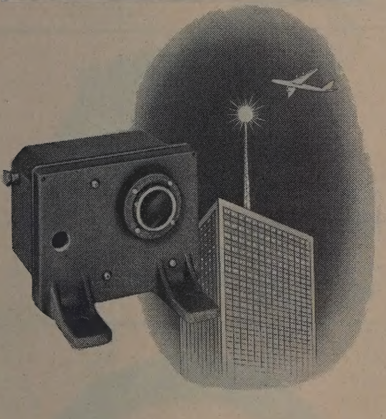
Quick "Light Change" is required. Objects should travel at near 60 feet per minute (unless specified). Timing repeat accuracy, 1%. Power consumption, 20 watts.

Plate Relay: SPDT contacts rated 15 ampere at 115 VAC, non-inductive load.

·Timing Range Numbers	0.6	1	2	3
Timing Range in Seconds	.05 to .5	0.1 to 1.0	0.5 to 5.0	1.0 to 10.0

Model Number Control	Sensing Head	Light Source	Max. Ft. Between Heads	Min. Dark Time	Min. Light Time	Price	Ship. Wt. Lbs.
DARK-ENERGIZED — DE-ENERGIZE Delay (115/230 V, 50-60 C)							
C3V-EPAGB-E2A88D			13	.00001	.001	$197.00	19
C3V-E1APGB-E1AD			10	.00001	.001	192.00	16
C3V-EXPMGB-EX3MD			10	.00001	.001	197.00	17
C3403V-E8AP9C-E8AC			1⅙	.00001	.001	190.00	16
C3403V-E8BP9C-E8BC			4	.00001	.001	190.00	16
LIGHT ENERGIZED — DE-ENERGIZE Delay (115/230 V, 50-60 C)							
C4V-EPAGB-E2A88D			13	.001	.00001	$197.00	19
C4V-E1APGB-E1AD			10	.001	.00001	192.00	16
C4V-EXPMGB-EX3MD			10	.001	.00001	197.00	17
C4403V-E8AP9C-E8AC			1⅙	.001	.00001	190.00	16
C4403V-E8BP9C-E8BC			4	.001	.00001	190.00	16

A2BX Solar ON/OFF Control



Automatically turns lights "ON" at preset light value—and turns lights "OFF" when light exceeds preset value.

DPDT Control Relay energizes when light exceeds intensity for which control is set; de-energizes when light falls below the preset level.

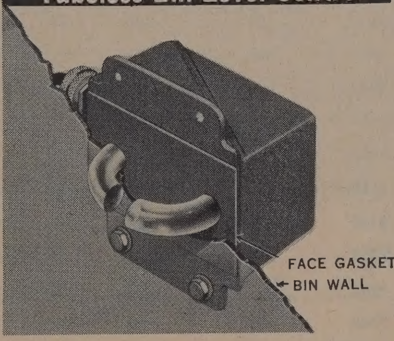
In case of tube failure the relay de-energizes; providing same control action as when light falls below preset level.

Dual Time Delays prevent operation by either momentary light flashes or shadows. Modern, simple circuitry uses one rugged, premium type power tube. Light intensity adjustment from outside of housing. Gasket-sealed cast aluminum housing, tapped for ½" conduit. For 115/230 v, 50-60 c. Available with three adjustment ranges:

No. A2BX-.2; 1 to 5 fc for street lighting, parking lots
No. A2BX-.5; 15 to 50 fc for signs, parking lots
No. A2BX-1; 20 to 150 fc for obstruction or tower lights

A2BX Solar Control (all models) Net $76.95

Tubeless Bin Level Control

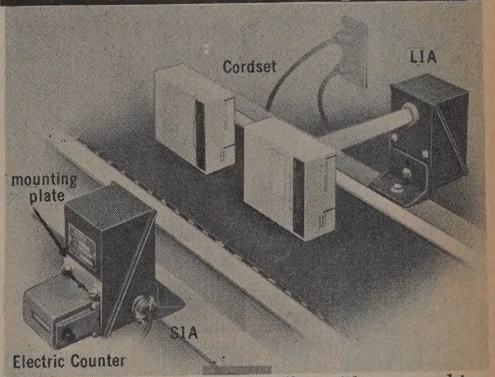


Tubeless Photoelectric actuation — unaffected by pressure of material in the bin. Only rigid, non-moving Lucite probes project into the bin. Cast aluminum, gasket-sealed housing mounts to bin wall as shown. Removal of cover makes all parts accessible. Dust-covered plug-in DPDT 8-ampere relay provides ON/OFF control for either high or low bin level. All wiring connections brought out of case in 3-foot oil proof cable. For 115/230V, 50-60 C.

A700 Bin Level Control..... Net each $68.00

(Includes 3-foot cable, face gasket and mounting template)

AUTOTRON Counting Eye



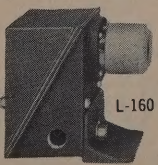
Counts anything—Automatically—without touching the object. Each object must interrupt the light beam .06 second or more. Space between objects must permit restoration of the light beam .06 second or more. Max. distance between lenses, 8 feet.

Counting Eye Components

S1A Photoelectric Control (see page 1)	$38.75
L1A Light Source (see page 1)	18.50
Cordset: two 6-foot rubber covered cords with plugs and attachment clamps	2.50
Plate and hardware for mounting counter (4 mounting holes on 3-15/16 x 1-23/64" centers)	1.50
CE-600AS602 Electric Counter (6-digit, knob reset)	$22.40

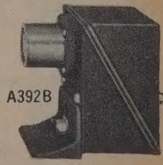
A-138 Counting Eye 115 v., 50-60 c ... **Net each $90.05**
(includes above items wired ready to plug in.)

Photoelectric Controls with Infrared Light Beams


L-160

For burglar alarms, safety applications, etc. Controls and Light Sources are designed for use in pairs as listed.

CONTROL No.	CONTROL Net Each	LIGHT SOURCE No.	LIGHT SOURCE Net Each	Max. ft. between lenses	CONTACTS combination	CONTACTS Rating amps.	Ship. wt. lbs.
A392B	$52.50	L-160	$30.65	15	SPDT	8	5½
A435	83.50	L-148	46.50	50	DPDT	10	14


A392B

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6 SERIES . . 47 STANDARD TYPES

CL Cell #	Sensitive Material	Enclosure (inches)	Pk. Spectral Response, A	Light Resistance[1]	Voltage Rating (Max.)	Power[4] (MW)
CL402S[5]	CdS	.265x1	5150	1M	300	75
CL403S[5]	CdSe	.265x1	7350	133K	300	75
CL403AS[5]	CdSe	.265x1	7350	75K	300	75
CL403ASL[5]	CdSe	.265x1	7350	3.5K	60	75
CL404S[5]	CdSe	.265x1	6900	30K	300	75
CL404SL[5]	CdSe	.265x1	6900	1.5K	60	75
CL407S[5]	CdS	.265x1	6150	133K	300	75
CL503	CdSe	.5x.5	7350	7.2K	250	500-250[2]
CL504	CdSe	.5x.5	6900	1.5K	250	500-250[2]
CL504L	CdSe	.5x.5	6900	0.25K	60	500-250[2]
CL505	CdS	.5x.5	5500	9K	250	500-250[2]
CL505L	CdS	.5x.5	5500	1.5K	60	500-250[2]
CL507	CdS	.5x.5	6150	7.2K	250	500-250[2]
CL602[3]	CdS	.25x.5	5150	1M	300	75
CL603[3]	CdSe	.25x.5	7350	133K	300	75
CL603A[3]	CdSe	.25x.5	7350	75K	300	75.
CL603AL	CdSe	.25x.5	7350	3.5K	60	75
CL604[3]	CdSe	.25x.5	6900	30K	300	75
CL604L	CdSe	.25x.5	6900	1.5K	60	75
CL605	CdS	.25x.5	5500	166K	300	75
CL605L	CdS	.25x.5	5500	7.5K	60	75
CL607[3]	CdS	.25x.5	6150	133K	300	75
CL702	CdS	TO-5 Case .36x.18	5150	1M	300	125
CL702L	CdS	.36x.18	5150	20K	60	125
CL703	CdSe	.36x.18	7350	133K	300	125
CL703L	CdSe	.36x.18	7350	2.7K	60	125
CL704	CdSe	.36x.18	6900	30K	300	125
CL704L	CdSe	.36x.18	6900	.6K	60	125
CL705	CdS	.36x.18	5500	166K	300	125
CL705L	CdS	.36x.18	5500	3.3K	60	125
CL707	CdS	.36x.18	6150	133K	300	125
CL707L	CdS	.36x.18	6150	2.7K	60	125
CL802	CdS	1.25x.28	5150	10.0K	300	2000-500[2]
CL803	CdSe	1.25x.28	7350	1.4K	300	2000-500[2]
CL804	CdSe	1.25x.28	6900	.3K	300	2000-500[2]
CL805	CdS	1.25x.28	5500	1.7K	300	2000-500[2]
CL807	CdS	1.25x.28	6150	1.4K	300	2000-500[2]
CL902	CdS	TO-18 Case .21x.15	5150	1M	250	50
CL902N	CdS	.21x.15	5150	500K	75	50
CL903	CdSe	.21x.15	7350	133K	250	50
CL903N	CdSe	.21x.15	7350	66K	75	50
CL904	CdSe	.21x.15	6900	30K	250	50
CL904N	CdSe	.21x.15	6900	15K	75	50
CL905	CdS	.21x.15	5500	166K	250	50
CL905N	CdS	.21x.15	5500	83K	75	50
CL907	CdS	.21x.15	6150	133K	250	50
CL907N	CdS	.21x.15	6150	66K	75	50

Operating temperature, all types, −50 to +75° C.

[1] Average DC resistance (±33⅓%). measured at 2 foot-candles, 2870° K. and 25° C ambient

[2] With and without heat sink.

[3] Designed to replace "400" Series end-view types.

[4] At 25° C ambient; derated linearly to zero at 75°C.

[5] S denotes side view cell.

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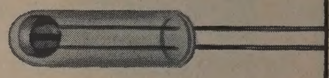
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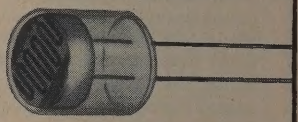
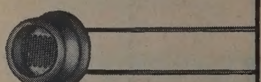

'500'

'600'


'700'

'800'

'900'

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OED

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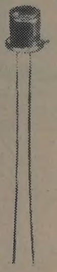
A broad selection of superior photoconductors allows you to choose from stock precisely the right cell for your photocontrol, instrumentation, switching or display circuit design requirements. OED offers the industry's FASTEST photoconductors; the HIGHEST SENSITIVITY; the SMALLEST packages; the GREATEST STABILITY, true solid-state RELIABILITY. Available in three rugged hermetically sealed transistor-type metal packages for easy mounting in standard transistor sockets and two low-cost wafer thin models with soft wire leads for use where available mounting depth is minimal.

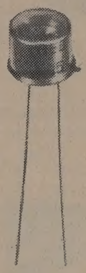
CHOOSE FROM AMONG THESE TYPES:



Tiny TO-18 type package. .200″ high x .185″ diameter. Gold plated Kovar.

OED-3L18
OED-3H18
OED-4L18
OED-4H18

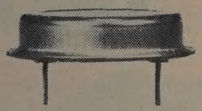
SERIES 3 PHOTOCONDUCTORS: The industry's fastest, most sensitive photocells. Dark resistance to illuminated resistance ratio of more than 10^6. Good match with either Tungsten incandescent or Neon lamps. Excellent for photochoppers, optical commutators, sensing, counting or switching circuits to 1KC rate. Available in tiny (3L18, 3H18) or heavier duty (3L5, 3H5) sizes.



Sturdy TO-5 type gold-plated Kovar package. .250″ high x .300″ diameter.

OED-3L5
OED-3H5
OED-4L5
OED-4H5

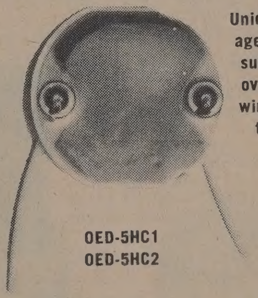
SERIES 4 PHOTOCONDUCTORS: Feature exceptional stability over a wide temperature range. Similar in other characteristics to Series 3 cells except for slightly slower fall-time. The ideal cell in applications where some trade-off of speed for temperature stability is possible. Available in all three basic transistor-type sizes.



Rugged stainless steel TO-6 package. .250″ high x 1.25″ diameter.

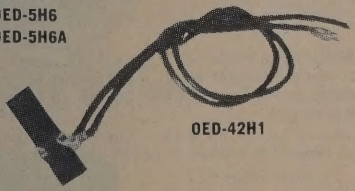
OED-4H6
OED-5H6
OED-5H6A

SERIES 5 PHOTOCONDUCTORS: For daylight sensing or other photocontrol applications where speed is not critical. Closely approximates human eye response curve. Exceptional temperature stability. These large area cells are capable of directly switching relays and solenoids to 10 watts. Available in both hermetically sealed and unique surface passivated wafer packages.



Unique wafer package. High alumina substrate, epoxy overcoated. Soft wire leads. .030″ thick x 1.00″ diameter.

OED-5HC1
OED-5HC2



OED-42H1

TYPE 42H1 PHOTOCONDUCTORS: Low cost, small size, high voltage cells designed specifically for switching electroluminescent elements. Exhibit high sensitivity, excellent temperature stability to 71°C and EL-compatible impedance levels and response times. .150″ x .500″ x .020″ thick with soft wire leads.

Cell Type (OED)	Peak Spectral Response (Angstroms)	Mean Light Resistance (R_l) (2870°K Tungsten) 100 f-c	10 f-c	2 f-c	2 ma Neon	Dark Resistance (Min.)	Rise Time (to $4R_l$) (@) (100 f-c)	Fall Time (From R_l) (@ 100 f-c) 10:1	100:1	Max. Allow. Voltage (RMS or DC)	Power Rating (@ 25°C.) (Max.)	Temp. Coeff. (—40+55°C)	Price 1-99	100 & up
SERIES 3														
3L5	7300	0.7KΩ	7.5KΩ	30KΩ	0.7KΩ	100MΩ	1.0ms	2.0ms	5.0ms	125V	250mw	3%/°C.	**2.90**	**1.95**
3L18	7300	3.5KΩ	35KΩ	150KΩ	3.5KΩ	100MΩ	1.0ms	2.0ms	5.0ms	125V	75mw	3%/°C.	**2.90**	**1.95**
3H5	7300	3.0KΩ	25KΩ	125KΩ	3.0KΩ	100MΩ	1.0ms	2.0ms	5.0ms	300V	250mw	3%/°C.	**2.90**	**1.95**
3H18	7300	6.0KΩ	60KΩ	250KΩ	6.0KΩ	100MΩ	1.0ms	2.0ms	5.0ms	300V	75mw	3%/°C.	**2.90**	**1.95**
SERIES 4												(—40+71°C)		
4H6	6800	0.1KΩ	1.0KΩ	5.0KΩ	0.1KΩ	100MΩ	1.0ms	3.0ms	15.0ms	300V	1 watt	1%/°C.	**2.90**	**1.95**
4L5	6800	0.5KΩ	5.0KΩ	25KΩ	0.5KΩ	100MΩ	1.0ms	3.0ms	15.0ms	125V	250mw	1%/°C.	**2.90**	**1.95**
4L18	6800	2.5KΩ	20KΩ	100KΩ	2.5KΩ	100MΩ	1.0ms	3.0ms	15.0ms	125V	75mw	1%/°C.	**2.90**	**1.95**
4H5	6800	2.5KΩ	20KΩ	100KΩ	2.0KΩ	100MΩ	1.0ms	3.0ms	15.0ms	300V	250mw	1%/°C.	**2.90**	**1.95**
4H18	6800	5.0KΩ	50KΩ	250KΩ	5.0KΩ	100MΩ	1.0ms	3.0ms	15.0ms	300V	75mw	1%/°C.	**2.90**	**1.95**
SERIES 42														
42H1	6200	5.0KΩ	50KΩ	250KΩ	5.0KΩ	50MΩ	1.0ms	10ms	50ms	300V	75mw	0.5%/°C.	**.85**	**.75**
SERIES 5														
5H6	5900	0.2KΩ	1.5KΩ	6.0KΩ	—	0.5MΩ	3.0ms	25ms	150ms	300V	1 watt	0.5%/°C.	**1.50**	**1.25**
5H6A	5900	0.5KΩ	5.0KΩ	20KΩ	—	2.0MΩ	3.0ms	25ms	100ms	300V	1 watt	0.5%/°C.	**1.50**	**1.25**
5HC2	5900	0.2KΩ	1.5KΩ	6.0KΩ	—	0.5MΩ	3.0ms	25ms	150ms	300V	600mw	0.5%/°C.	**.65**	**.45**
5HC1	5900	0.5KΩ	5.0KΩ	20KΩ	—	2.0MΩ	3.0ms	25ms	100ms	300V	600mw	0.5%/°C.	**.65**	**.45**

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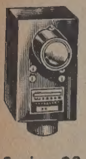
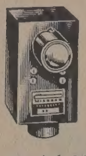

Series 33 Lt. Sources


Model 23 Photocell

Model 33 Series Light Sources are available in different units for distances listed below, each operating in conjunction with Photocells (Model 23 Series) as designated. Light Source and Photocell heads operate in pairs. Each pair is set supervising by an Amplifier chosen for the task to be performed.

The Light Source and Photocell heads are heavy duty solid cast metal size 3″ x 3″ x 4½″ plus lens. Equipped with ½″ conduit fitting. For 110/120 v. 50/60 cy. ac.

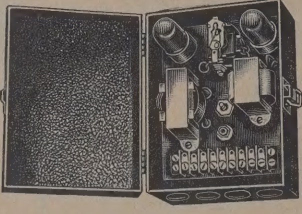
FOR CROSS-OVER BEAM, for supervision of small objects (under 2″ square) at high speed. Distances shown are from lens to point of supervision. (Moisture-proofed units.)

Model	Max. Distance	Each
33-3	Light Source— 3 inches	$25.05
33-6	Light Source— 6 inches	25.05
33-9	Light Source— 9 inches	25.05
33-12	Light Source—12 inches	25.05
23-3	Photocell. Use with Model 33-3 Light Source	28.05
23	Photocell for use with Models 33-6, 9 and 12 Light Sources	28.05

FOR DIRECTIONAL BEAM, for supervising objects over 2″ square. Distances shown cover area of supervision between units.

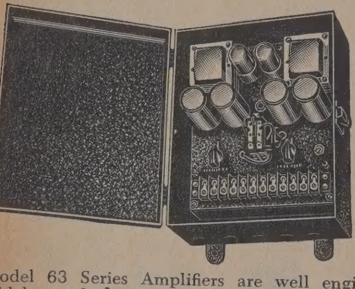
Model	Max. Distance	Each
33-10	Light Source— 1 to 10 ft.	$19.50
23-10	Photocell	28.05
	Moisture-proofed on order, slightly higher	
33-25	Light Source—10 to 25 ft.	30.00
33-25	Photocell (Moisture-proofed)	32.10

MODEL 64 AMPLIFIER



An efficient unit for industrial applications that do not require supervision of fine detection and where the Relay is not required to operate in excess of 450 times a minute. Will supervise above Series 33.23 heads. Size 6″ x 8″ x 5″. For 110/120 v. 50/60 cy. ac. (For fine precision at higher speeds, see Model 63 series.)

Model 64 Amplifier ....**Each $67.35**



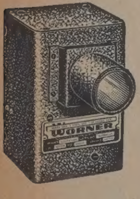
MODEL 63 SERIES AMPLIFIERS

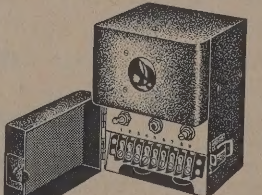
For fine precision at high speeds. Specially engineered to operate in conjunction with the above Model 33 Series Light Sources with Model 23 Photocells. All models, 9¼″ x 11½″ x 5″. For 110/120 v. 50/60 cy. ac.

Model 63 Series Amplifiers are well engineered, highest quality units, widely used. The relay will operate up to 650 times a minute under normal conditions. Will operate also from light sources such as bright daylight, artificial lights, radiant energy, etc. These characteristics are basic standards in all Amplifiers of this Series.

Model	Description	Each
Model 63,	as described above	Each $117.00
Model 63-A,	equipped with Time Delay Circuit giving delay from 0 to 45 seconds	Each 134.10
Model 63-B,	has added amplification to operate on less active change of light	Each 141.30
Model 63-C,	same as Model 63, but operates with "on" light	Each 117.00

TWO-UNIT SET for Indoor Use


Light Source


Amplifier

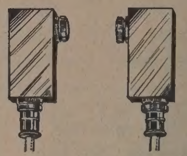
This Amplifier unit includes Photo-Cell, Relay and Components. Efficient for distances from a few inches to 75 ft., where Relay is not required to operate in excess of 400 times a minute, such as: Counting, sorting large objects; limit switches; start, stop operations; opening doors, etc.

Model 62 R & L "Two-Unit Set" ....**Per Set $82.50**

"MINIATURE" FOTOLECTRIC HEADS

Vertical Light Source
Model M-36

Vertical Photocell
Model M-26



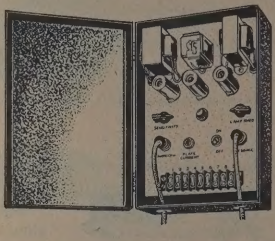
For Horizontal Installation, order Models M-37 and M-27

Size 1¼″ x 2½″ x ¾″, for space limitations, yet unsurpassed for precision control at any desired speed. Units are expertly machined out of solid aluminum blocks for indestructible one-piece construction. Equipped with 6′ cable with positive prong-type connectors, screw-band tightening collar. For 110/120 v., 50/60 cy. ac.

Model	Description	Price
Model M-36	Vertical Light Source	$24.96
Model M-26	Vertical Photo-cell Receiver	28.31
Model M-37	Horizontal Light Source	24.96
Model M-27	Horizontal Photo-cell Receiver	28.31

MODEL 66 SERIES AMPLIFIERS

For Use With Miniature Heads



Maximum speed ratings can be regulated on each unit provided that light falling upon photocell will have an "on-period" that equals the "off-period," provided conductor wires to photocell have zero (0) capacity. This insures positive, accurate performance. For 110/120 v. 50/60 cy. ac.

Model 67 Amplifier for applications where fine detection at high speeds is not a factor or Relay is not required to operate in excess of 450 times per minute ....**Each $69.90**

Model 66 Amplifier, operates up to 900 counts a minute. Double-pole, double-throw relay with contact rating 110 v. 60 cy. ac., 10 amp. non-inductive and 5 amp. inductive. Has light beam intensity control. **Each $131.10**

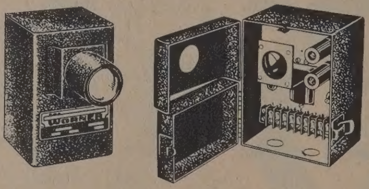
Model 66-A Amplifier, designed for use with ultra high speed electronic decade counters. Accurate counts of light beam interruption or variation of intensity up to 10,000 counts per minute. Output pulses up to 50 volts dc. regulated by the sensitivity control ....**Each $138.60**

Model 66-T Amplifier, same as Model 66 with a Time Delay circuit incorporated to give regulated time delay from 0 to 45 seconds. Efficient for synchronizing operations ....**Each $155.40**

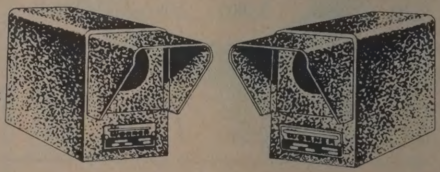
FOR INDOOR SMOKE DETECTION

SERIES 200 TWO-UNIT SETS. Choose either set according to distance to be supervised. Both sets are designed to detect smoke substantially before heat releases automatic sprinklers. Sets activate whatever remote alarm the user installs. Units should be installed high above floor traffic and several feet from walls; usually suspended from ceiling.

Each set comprises Light Source unit and unit combining Photocell, Amplifier, Relay. Model 201 Photocell-Amplifier unit has split door, top section removable. All units are 7 inches high. For 110/120 v. 50/60 cy. ac.


Model 201, Two Unit Set Supervises distance up to 75 feet.

Model 202 Two-Unit Set Supervises Distances from 75 to 500 feet.



Model	Description	Price
Model 201, Two Unit Smoke Detector Set	For supervising a distance up to 75 feet	$112.50
Model 202, Two Unit Smoke Detector Set	For supervising a distance from 75 to 500 feet	142.50

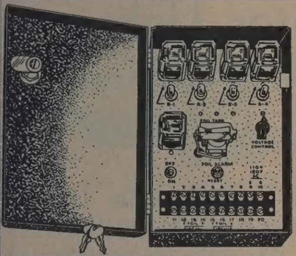
Prices slightly higher West of Rockies

FOTOLECTRIC® UNITS By ELECTRONIC DEVICES WORNER RANKIN, ILLINOIS NET PRICES

The Wholesaler Recommended Equipment. Easy to Stock, Easy to Install.

WORNER BURGLAR ALARM SYSTEMS

Each Unit Packaged With Easy-to-Follow Installation Instructions.
Engineering Bulletins on All Units Mailed Upon Request.



FOTOLECTRIC SETS

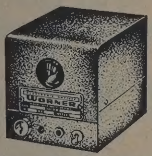
Consist of LIGHT SOURCE and PHOTOCELL units ordered in pairs according to distance to be covered and by Model Number as shown for each Series.

All Light Sources project infra-red (invisible) light beams.

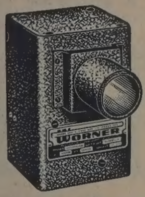
Sets for 100 and 150 ft. ranges are for indoor use. Sets for 75, 250 and 500 ft. ranges are weatherproof, for both indoor and outdoor use.

Sets for 75, 150, 250 and 500 ft. ranges have unwanted light rejector for maximum day-light efficiency.

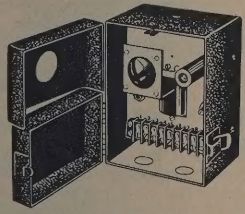
Cases of similar design house different components for the tasks listed.



For 100 Ft. Ranges Light Sources and Photocell Receivers have matching cases.



For 150-Ft. Range Light Source



For 150-Ft. Range Photo-cell Receiver

For 75, 250 and 500-Ft. Ranges, all units are Weatherproof. Light Sources and Photo-cell Receivers are externally the same.

MODEL 9000 SERIES—the Master Control System.

Consists of Model 9000-S Master Control Panel and can supervise ONE to FOUR Fotolectric (detection) Sets. Contains Relays which energize alarm circuits. Control Panel installed remotely. Size: 7″ x 10¼″ x 4⅜″. For 110-120 v. 50/60 cy. ac.

On a separate circuit, the Master Control Panel will also supervise foil tape, door traps and window switch systems. Both circuits operate independently and simultaneously. Sounds continuous alarm (until reset) when either of these detection circuits is opened or wiring of Fotolectric system is tampered with. Prevents false alarms should power fail or drop momentarily and resets automatically when power is restored. Also operates with any type electrical devices employed by professional burglar alarm companies.

Illustration shows FOUR Relay units plugged in to show plug-in location of 1, 2, 3 or 4 Relays as needed; one Relay for each Fotolectric (detection) Set used. Model 9000-S Master Control Panel list priced "less Relays," as ONE Relay is automatically supplied with each Model No. 9000 series Fotolectric Set ordered.

Model 9000-S Master Control Panel........**Each, $66.00**

Model	Range	Fotolectric Set	Per Set
9100	100 ft.	Master Tresp. Trap	**$105.15**
9150	150 ft.	Master Tresp. Trap	**120.30**
9075	75 ft.	Master Tresp. Trap	**123.60**
9250	250 ft.	Master Tresp. Trap	**130.80**
9500	500 ft.	Master Tresp. Trap	**146.25**

MODEL 7000 SERIES operates on No. 7000

series Fotolectric Sets with burglar alarm company's existing central office control, police signal or local alarm. The Relay may be connected either in series or parallel to meet circuit requirements. Does not interfere with the operation of foil tapes or window traps. For 110/120 v. or 24 v.

Model	Range	Fotolectric Set	Per Set
7100	100 ft.	Central Cont. Tresp. Trap	**$105.15**
7150	150 ft.	Central Cont. Tresp. Trap	**120.30**
7075	75 ft.	Central Cont. Tresp. Trap	**123.60**
7250	250 ft.	Central Cont. Tresp. Trap	**130.80**
7500	500 ft.	Central Cont. Tresp. Trap	**146.25**

MODEL 5000 SERIES is a TWO-PIECE set

comprising No. 5000 series Fotolectric sets. For 100 ft. and 150 ft. ranges for interior use only where a single beam is ample protection. Not intended for use with foil systems, etc. Photocell Receivers of both ranges combine relay and amplifier components. On-off switch, phone jack to test plate current, sensitivity control. Lock. Alarm can be turned off or trespass trap reset only by the possessor of the key. For 110/120 v. 50/60 cy. ac.

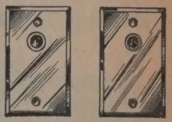
Model	Range	Fotolectric Set	Per Set
5100	100 ft.	Single Beam Tresp. Trap	**$105.15**
5150	150 ft.	Single Beam Tresp. Trap	**120.30**

FIRE PROTECTION

Institutions, schools, hospitals, hotels, etc., where fire originating in or drawn into ventilating or air conditioning ducts are fan driven to a succession of uncontrollable outbreaks throughout building. The Worner Fan Motor Stop installed on air duct minimizes this hazard by early detection, automatic stopping of fan and signaling of alarm. Meets requirements of National Board of Fire Underwriters and listed by Underwriters Laboratories. Write for Bulletin 650.

"MINIATURE" BURGLAR ALARM

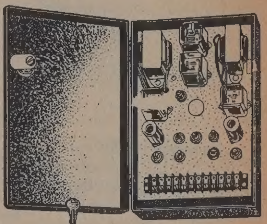
"In-Wall" Concealment



Light Source and Photo-cell Receiver units concealed in light-switch type face plates. Projects invisible light beam ranging up to 35 feet (indoors). Standard size wall plates concealing Fotolectric detection units are high finish stainless steel. Light bulb rated 2000 hours. For guaranteed efficiency Fotolectric sets must be used only with specially engineered amplifiers listed below.

Model 81	"In-Wall" Light Source, each	**$21.18**
Model 82	"In-Wall' Photocell Receiver, each	**22.92**

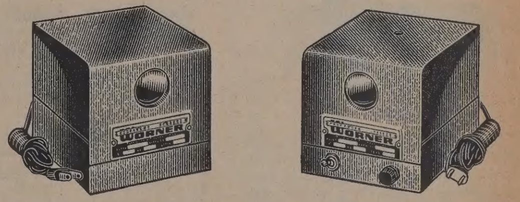
Amplifiers for above Fotolectric Sets



Two specially engineered units. Circuits with no-voltage control relay prevent false alarms due to line voltage irregularities and will sound alarm if tampered with. Standard alarm continuous, regulated warning signal "special" upon order. For 110/120 v., 60 cy. a.c.

Model 86-1 is a single channel Amplifier Panel that will amplify current flow of one Fotolectric Set. **each $115.50**

Model 86-2 is a dual channel Amplifier Panel that will amplify current flow of two Fotolectric Sets, guarding separate area. Will also supervise one Fotolectric Set, providing for future addition of a second Fotolectric Set. **each $178.50**

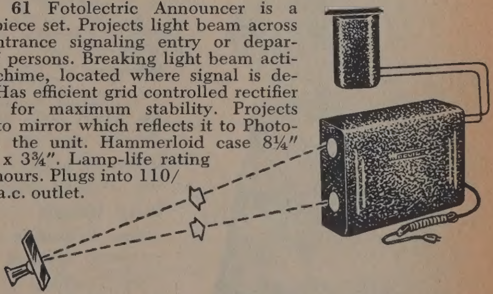


THE TWO-UNIT WORNER WATCHMAN

Exciter Lamp is equipped with removable infra-red filter. Provides invisible light beam ranging up to 50 ft. The Photocell Receiver combines Photocell and electrical components. Equipped with toggle switch for either continuous alarm or to sound only while light beam is broken. Extraneous light rejector maintains daylight range. Two-piece case construction enables removal of cover without unmounting. Identical cases 5″ x 5″ x 5½″ welded steel, mahogany hammerloid finish. For indoor use; 110-120V. 60 cycle A.C.

Model 4000 Two Unit Watchman ....**per set $63.00**

THE ELECTRONIC RECEPTIONIST



Model 61 Fotolectric Announcer is a three-piece set. Projects light beam across any entrance signaling entry or departure of persons. Breaking light beam activates chime, located where signal is desired. Has efficient grid controlled rectifier circuit for maximum stability. Projects beam to mirror which reflects it to Photo-cell in the unit. Hammerloid case 8¼″ x 6½″ x 3¾″. Lamp-life rating 1000 hours. Plugs into 110/120 v.a.c. outlet.

Model 61 Fotolectric Announcer........................**Per Set $40.50**

Model 61-T. Fully transistorized. Size: 7¾″ x 5¾″ x 3⅛″. Operates 6-volt Chime. Plugs into 110/120 v.a.c. outlet **Per Set $40.50**

Prices slightly higher West of Rockies

THE COMPLETE LINE OF

DIALCO® PILOT LIGHTS

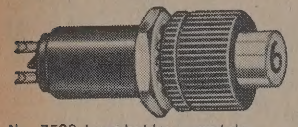
Foremost Manufacturer of Pilot Lights

DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

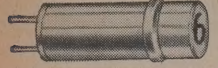
(Illustrations are approx. actual size)

DATALITES® – Ultra-Miniature Indicator Lights

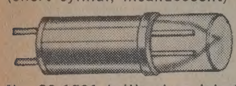
Mounts in ⅜″ Clearance Hole



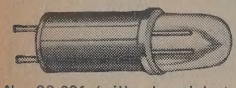
No. 7538 Lampholder complete with 39-6-1471 Lamp Cartridge



No. 39-6-1471 Lamp Cartridge (short cylind., incandescent)



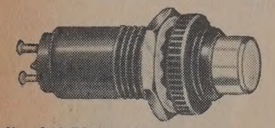
No. 38-1531 (without resistor)
No. 45-56K-1531 (with resistor)



No. 38-931 (without resistor)
No. 45-56K-931 (with resistor)

New—with Permanent 100,000 hour G-E Lamp

(Lamp conforms to MS24367)



No. 249-7851-1431

High-reliability 5 volt long-life lamp is permanently built-in. Units mount in ⅜″ clearance hole from back of panel. Lightweight, rugged aluminum construction. Choice of transparent or translucent lenses; available in 7 colors (including white and clear). Lenses may be hot-stamped with legends . . . For complete data, request *Supplement to L-160C.*

SAMPLES ON REQUEST AT ONCE — NO CHARGE

With DIALCO'S Plug-in Lamp Cartridges or with Permanent Lamps (built-in)

Designed for the computer-automation industries

Datalites are made in 2 basic styles: *Lampholders* with DIALCO'S own plug-in *replaceable Lamp Cartridges*, or with *Built-in Neon Lamps.* Shown above: Lampholder No. 7538 which accommodates either the No. 38- or the No. 39- cartridges. A similar, slightly longer Lampholder — No. 7545 — accommodates the No. 45- cartridges. Single units mount in ⅜″ clearance hole. Also available — *twin-lamp* assemblies which mount in ¾″ clearance hole . . . New long-life lamps are used in the plug-in cartridges. At most voltages, and for several current ratings, you may now specify 50,000 hour incandescent lamps. At higher voltages, where neon lamps may be used, 25,000 hour *minimum* may be attained with built-in resistors.

THE **T–1¾ INCANDESCENT LAMPS** used in **DIALCO Lamp Cartridges** can be supplied in a full range of voltages, as follows:

Voltage	Amperes	Hourly Rating
■ 1.35	0.06	500
■ 2.7	0.06	500
6♠	0.04	1000
6♠	0.20	500
■ 6.3	0.20	3000
■10♠	0.014	6000+
■10♠	0.04	
14	0.08	750
18	0.04	1000
28	0.04	1000

■Should not be used with translucent lenses.

♠Since there are **three 6 volt lamps** and **two 10 volt lamps**, when ordering it is necessary to specify voltage and ampere rating from chart above; e.g. 39–**604**–1471, 39–**6**–1471, 39–**6.3**–1471, 39–**10**–1431, 39–**1004**–1431.

NEON CARTRIDGE Catalog Numbers—with NE-2E Lamps

LENS COLOR (Transparent)	STOVEPIPE (Without built-in resistor)	LONG CYL. (Without built-in resistor)	STOVEPIPE (With built-in resistor)	LONG CYL. (With built-in resistor)
Red	38-931	38-1531	45-56K-931	45-56K-1531

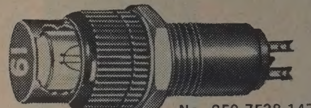
NOTE: To designate a unit with the **NE-2H** High Brightness lamp, add **H** to the Catalog Number; e.g., 38**H**-931 . . . 45**H**-22K-931 . . . 45**H**-33K-931.

INCANDESCENT CARTRIDGE Catalog Numbers

■LENS COLOR (Translucent)	■SHORT CYL. (Translucent)	■STOVEPIPE (Translucent)	■LONG CYL. (Translucent)	■FLAT (Translucent)
Red	39-6-1471	39-6-971	39-6-1571	39-6-371

■For **transparent** lenses, change next to last digit to **3**; e.g., 39-6-14**3**1. For **Volts**, change mid digit (-6-) per lamp chart above; e.g., 39-**28**-1471.

LENS COLOR: The *final figure* in Catalogue Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below . . . *Example:* 39-6-1476 (Light Yellow).
Red — 1 . . . Green — 2 . . . Yellow (Amber) — 3 . . . Blue — 4
White Trans. — 5 . . . Light Yellow — 6 . . . Clear (Colorless) — 7.



No. 250-7538-1471

"Data Cap" Indicator Lights

Mount in ⅜″ Clearance Hole

Series No. 250. Accommodates DIALCO'S own Lamp Cartridges — Short Cylindrical Incandescent, or Long Cylindrical Neon with or without built-in resistor.

Features: (1) A *rotatable* read-out Lens Cap Assembly with a cylindrical lens displaying a hot-stamped *legend* (see below) . . . (2) A Lampholder similar to *No. 7538* shown at left . . . (3) Accommodates a *clear* (colorless) Lamp Cartridge *without* a legend.

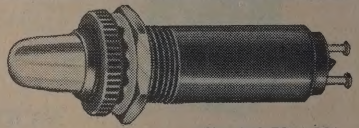
Advantages: If lamp fails, the Lamp Cartridge may be quickly replaced from front of panel. Since the Cartridge requires no hot-stamping, down time and costs are kept at a minimum . . . The Lens Cap is of the screw-on type. It is spring-mounted and *rotatable*, thus facilitating alignment of the legend *after* installation of the assembly. Choice of 7 lens colors; solder cup, turret, or Amp "53" terminals.

HOT STAMPED LEGENDS *(Digits, Letters or Symbols)*

SHORT and LONG CYLINDRICAL lenses can be hot-stamped with one to three digits of standard size, as follows:
1 DIGIT, 11/64″ high (14 pt. type) . . .
2 DIGITS, 7/64″ high (10 pt. type) . . .
3 DIGITS, 5/64″ high (8 pt. type) . . .
These standard sizes of Legends will be provided in a uniform manner per order ←i.e., the size of type will be determined by the longest legend indicated in each individual order.
Standard—BLACK letters; but white, red, green, or blue letters can be supplied to order . . . Available—colored legends on black or gray lenses.

DATALITES with PERMANENT LAMPS

Built-in (not replaceable): Neon Lamps *NE-2E* or *NE-2H* (high brightness) *and* required current-limiting *resistor* . . . Units mount in ⅜″ clearance hole from back of panel; two terminals; fully insulated; 5 lens colors; conform to applicable Mil. Specs. . . . Shown: No. 249-7841-931 *with built-in resistor* . . . Available—shorter unit, without resistor, No. 249-7840-931 . . . (For units with high brightness lamp, add *H* to Cat. No.; *Example:* 249-7841*H*-931)



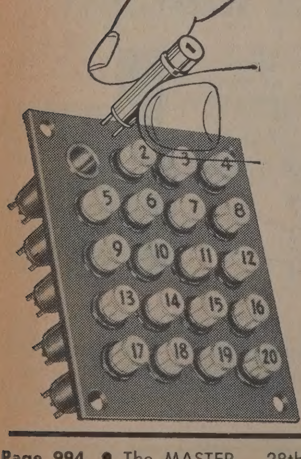
No. 249-7841-931 with built-in resistor

MULTIPLE INDICATORS in a Compact "Package"

Ready to install in a minimum of space

For Data-Processing Equipment, Computers, and Automation Applications

A Complete "Data Matrix" and "Data Strip" Manufacturing Service



To expedite installation of multiple-indicators, let DIALCO perform the following manufacturing services for you:

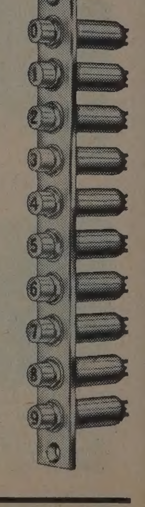
- **Fabricate** a "Data Matrix" or "Data Strip" panel to your specifications . . . **Punch** the necessary holes therein for DIALCO Lamp Holders and your fuses, switches, screws, etc.
- **Mount** the required number of Lamp Holders on the panel for vertical or horizontal reading . . .

Lamp Holders can be spaced on any center-to-center measuring from 7/16″ up. (½″ center-to-center spacing is standard, as shown on typical configurations illustrated) . . . **There is no basic or stock) item;** we can supply from 2 to 40 Lamp Holders on a panel or strip.

- **Insert** required Lamp Cartridge into Lamp Holders.
- **Hot Stamp** or engrave legends on lenses (see above).

Lamp holders accommodate DIALCO'S Neon or Incandescent Lamp Cartridges (see above) . . . Each Lamp Holder has 2 Solder Cup terminals and is completely insulated (without the use of insulating shoulder washers); Turret, or AMP "53" Terminals can also be furnished.

MATERIALS AND FINISHES: Lamp Holder housing, panel or strip, and cartridge sleeve are aluminum with clear anodized finish . . . Option: black anodized finish or to specifications.



◄ **"DATA MATRIX" No. DM-7538-20** (Approx. ½ actual size) **"DATA STRIP" No. DSV-7538-10** ►

For Complete Data, Request Catalog L-160C.

© U.C.P., Inc.

THE COMPLETE LINE OF

PILOT LIGHTS

DIALCO®

Foremost Manufacturer of Pilot Lights

DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

(Illustrations are approx. actual size)

Sub-Miniature Indicator Lights for NEON Lamps

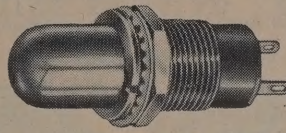
NE-2D *(regular)*
NE-2J *(high brightness)*
(See below)

TWO TERMINALS — FULLY INSULATED — Conform to all applicable military specifications

For FRONT of Panel Insertion in 15/32" Clearance Hole

With Built-in Resistor

(A patented DIALCO feature—
U.S. Pat No. 2,421,321)



Conform to MS25257

Accommodates a T-2 Neon Glow Lamp: NE-2D (MS25252) for 105-125 Volts A.C. or D.C.; *for Catalog Numbers see below* . . . **NE-2J** (High Brightness) for 110-125 Volts A.C. only; *for Catalog Numbers, see Brochure L-159C.*

DIALCO Cat. No. WITHOUT LAMP	MS No. WITHOUT LAMP*	MS No. WITH LAMP* MS25252–NE-2D	LENS COLOR
137–8836–933 ■	MS25257–2	MS25257–1	Aviation Yellow
137–8836–931 ■	MS25257–4	MS25257–3	Identification Red
137–8836–937 ■	MS25257–6	MS25257–5	Clear (Colorless)

■ With patented built-in resistor: 62K ± 10%.

***MARKING:** The Part No. marked on the assembly is the Part No. for the complete assembly less lamp.

Also: Similar Series not covered by MS25257: For NE-2D lamp, with standard 62K built-in resistor . . . For NE-2J *(high brightness)* lamp, with standard 18K built-in resistor. See *Brochure L-159C.*

The LIGHT SOURCE: Tiny Neon Glow Lamps NE-2D or NE-2J

These lamps have formed bulbs and midget flanged bases; designated as *NE-2D* for the regular lamp, and as *NE-2J* for the high brightness type which has higher voltage characteristic requiring 110 volts A.C. or 160 volts D.C. for reliable performance. A resistor (or other ballast) must be used. Since the current is never more than 3 m.a., the resistor may be the 1/3 watt type. Recommended values are as follows:

For NE-2D at 105-125 volts A.C. or D.C.

Bright light	Long life
62,000 ohms	100,000 ohms

For NE-2J (High Brightness) at 110-125 V. (A.C. only)

Bright light	Long life
22,000 ohms	33,000 ohms

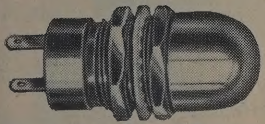
For FRONT of Panel Insertion in 15/32" Clearance Hole

Without Built-in Resistor

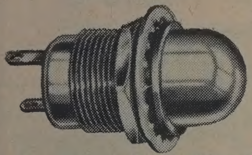
This Series is similar in size, general appearance, and construction to the Series shown at the left, except for the following: Has no built-in resistor or anti-rotation tab. *Catalogue Numbers,* with soldering terminals, are as follows:

Red	137-8536-931
Yellow (Amber)	137-8536-933
White	137-8536-935
Light Yellow	137-8536-936
Clear (Colorless)	137-8536-937

Sub-Miniature Indicator Lights for T-1¾ Bulbs



Mounts from Back of Panel in a 15/32" Clearance Hole.



Mounts from Front of Panel in a 17/32" Clearance Hole.

Transparent colors

Color	(Back insertion)	(Front insertion)
Red	101-3830-931	101-5030-931
Green	101-3830-932	101-5030-932
Yellow (Amber)	101-3830-933	101-5030-933
Blue	101-3830-934	101-5030-934
White (Opal)	101-3830-935	101-5030-935
Light Yellow	101-3830-936	101-5030-936
Clear (Colorl's)	101-3830-937	101-5030-937

Translucent colors

Color	(Back insertion)	(Front insertion)
Red	101-3830-971	101-5030-971
Green	101-3830-972	101-5030-972
Yellow (Amber)	101-3830-973	101-5030-973
Blue	101-3830-974	101-5030-974
White (Opal)	101-3830-975	101-5030-975
Light Yellow	101-3830-976	101-5030-976

These pilot lights are also available with *Taper-Tab* Terminals. Specify by changing the middle part of the catalog number "-3830-" to "-6330-", & "-5030-" to "-6530-".

Two Terminals—Fully Insulated

Conform to all applicable Mil. Specs.

RUGGED CONSTRUCTION
PHENOLIC INSULATION

Lamp, socket, and all connections are completely insulated from the bushing and panel to which it is attached. The use of phenolic material for military specification grade assures permanent isolation from ground.

These assemblies are solidly made to withstand usual vibration and corrosion resistance tests.

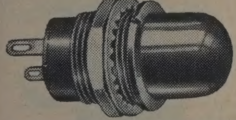
Order Complete with Lamp. Specify Lamp Number.

MIDGET FLANGED BASE INCANDESCENT

MANUFACTURER'S RATINGS

LAMP No.	MILITARY No.	VOLTS	AMPS	LIFE HOURS
331 *	——	1.3	.06	500
338 *	——	2.7	.06	500
328	MS25237	6.0	.20	1000
345	——	6.0	.04	1000
344 *	——	10.0	.015	100000
367 *	——	10.0	.04	40000
349	——	6.3	.20	3000
330	——	14.0	.08	750
327	MS25237	28.0	.04	1000
380 *	——	6.3	.04	50000
381	——	6.3	.20	50000
382	——	14.0	.08	50000

*Low candlepower types.
Useful in special situations only.



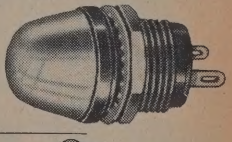
Front of Panel Insertion: Requires a single 15/32" Clearance Hole

Anti-rotation Tab on face of flange prevents rotation of unit while nut is being tightened.

DIALCO Catalog No.	MS No. WITHOUT LAMP*	MS No. WITH LAMP* MS25237–327	CAP COLOR
162–8430–933	MS25256–2	MS25256–1	Aviation Yellow
162–8430–932	MS25256–4	MS25256–3	Aviation Green
162–8430–931	MS25256–6	MS25256–5	Identification Red
162–8430–937	MS25256–8	MS25256–7	Aviation White
162–8430–975	MS25256–10	MS25256–9	Translucent White
162–8430–934	MS25256–12	MS25256–11	Aviation Blue

***MARKING:** The Part No. marked on the assembly is the Part No. for the complete assembly less lamp.

New WATER-TIGHT *Series*



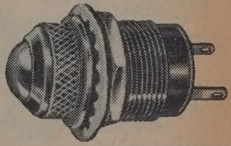
Series No. 177-8430-971 is designed to be water-tight, oil-tight, and dust-tight on face of panel. Mounts from front of panel in 15/32" clearance hole. Two 1/16" thick neoprene retained "O" rings assure absolute seal. Stovepipe lens; choice of 7 colors.

DIMMERS — MECHANICAL or POLAROID

Illustrated: Units for *Front* of Panel Insertion; require a 17/32" clearance hole. Units for *Back* of Panel Insertion require a 15/32" clearance hole.

DIMMING

Front of Panel Insertion



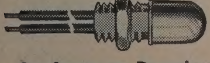
NON-DIMMING

CATALOGUE NUMBERS

	(*Back* insert.) Lens, unfrosted	(*Front* insert.) Lens, unfrosted
DIMMING		
Semi-blackout	109-3830-131	109-5030-131
Blackout	108-3830-131	108-5030-131
Polaroid	112-3830-131	112-5030-131
NON-DIMMING	111-3830-131	111-5030-131

For *"Lens, backfrosted,"* change series numbers ending in —131 to —*111*. For *"Lens, frosted all over,"* change series numbers ending in —131 to —*121*.

LENS COLOR: The *final figure* in Catalogue Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted (For example: 111-3830-135).
Red — 1 . . . Green — 2 . . . Yellow (Amber) — 3 . . . Blue — 4 . . .
White Trans. — 5 . . . Light Yellow — 6 . . . Clear (Colorless) — 7



Sub-Sub-Miniatures

New . . . Series 252-9951-971

Conforms to Drawing MS25446 . . . Requires only .193" Panel Mounting Clearance Hole . . . For complete data, refer to Catalog L-168A.

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(Illustrations are approx. actual size)

ASSEMBLIES with BUILT-IN RESISTORS (U. S. Patent No. 2,421,321)

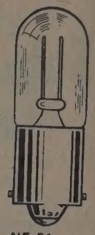
For the T-3¼ NEON GLOW LAMP FOR VOLTAGES UP TO 250

NOTE: To designate a unit for use with the High Brightness **NE-51H** lamp, add **H** to the Catalog Number. Example: 52408H–991

75W., 125V.

For operation on 105-125V. or 210-250V. . . . The required resistor is an integral part of the unit — BUILT IN. Also, simple external resistors for all higher voltages.

Assemblies Conform to All Applicable Military Specifications.



NE-51 or NE-51H (High Brightness)

PROPER CHOICE OF LAMP AND BUILT-IN RESISTOR VALUES: The NE-51 glow lamp types are shown with resistor tables. Lamps are the *standard NE-51* and the *new NE-51H*. The *high brightness lamp* may be operated at about three times the level of current that may be applied to the standard lamp and it will produce more than eight times as much light.

* The **NE-51H** Neon Glow Lamp is not recommended for use on **DC** circuits under 160 V.

BUILT-IN RESISTOR VALUES for the NE-51 TYPE GLOW LAMPS (Values in ohms)

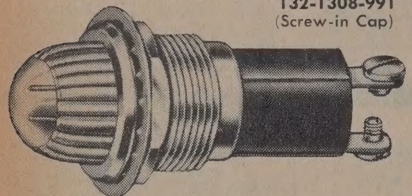
NE-51			New NE-51-H (high brightness)		
VOLTS	Applied to terminals 105-125 AC-DC	210-250 AC-DC	VOLTS	Applied to terminals 110-125 AC	210-250 AC-DC
BRIGHT LIGHT	■ 56,000	■ 180,000	BRIGHT LIGHT	■ 22,000	■ 68,000
MEDIUM LAMP LIFE	100,000	330,000		———	———
LONG LAMP LIFE	220,000	680,000	LONG LAMP LIFE	33,000	100,000

■ Standard values of patented built-in resistors. (Other values optional).

External resistors will be furnished which will permit use of these pilot lights on voltages higher than 250 volts.

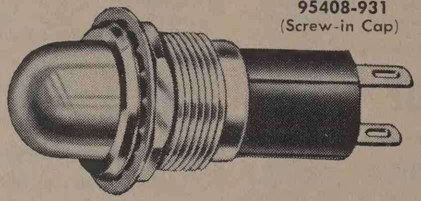
For Mounting in 11/16" Clearance Hole *(For Front of Panel Insertion)*

132-1308-991 (Screw-in Cap)



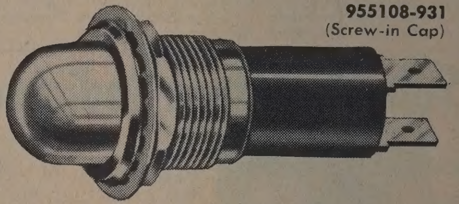
With SCREW TERMINALS

95408-931 (Screw-in Cap)



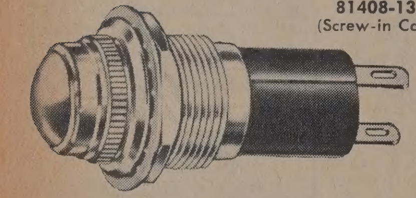
With SOLDERING TERMINALS

955108-931 (Screw-in Cap)

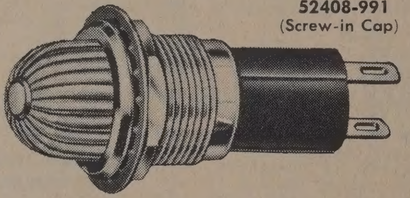


With QUICK-CONNECT TERMINALS

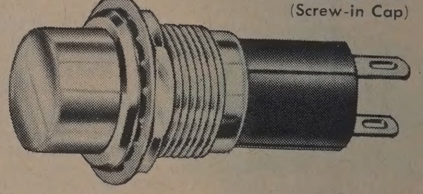
81408-131 (Screw-in Cap)



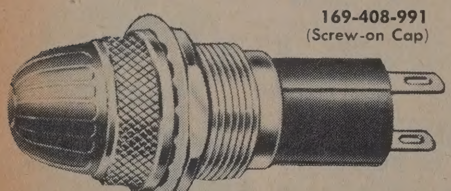
52408-991 (Screw-in Cap)



135-408-1431 (Screw-in Cap)



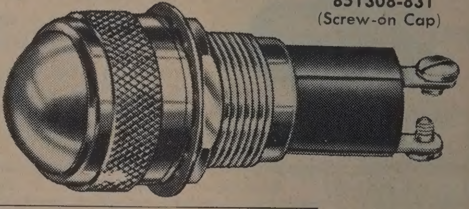
169-408-991 (Screw-on Cap)



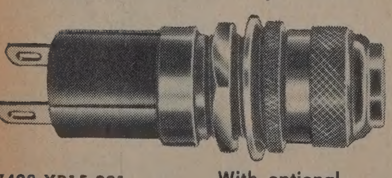
LENS COLOR: The *final figure* in the Catalog Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note: White lenses are translucent and are always furnished unfrosted. (For example: 37408-335).

Red—1; Yellow (Amber)—3;
White Translucent—5;
Light Yellow—6; Clear (Colorless)—7.

851308-831 (Screw-on Cap)



9/16" Assemblies mount from BACK of panel only

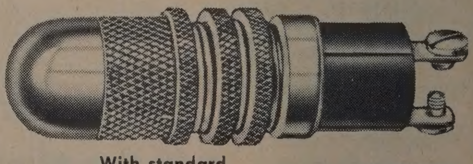


37408-XP15-331 (Screw-on Cap)

With optional hardware

Assemblies which mount in a 9/16" clearance hole are useful where close center-to-center spacing is required. *Standard Hardware* consists of 3 knurled rings . . . *Optional Hardware* consists of 1 ring, 1 lockwasher, and 1 mounting nut . . . Specify hardware desired.

For details, refer to Catalog L-161C.



With standard hardware

171308-931 (Screw-on Cap)

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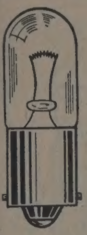


ASSEMBLIES for T-3¼ INCANDESCENT LAMP

2 to 55V. (No Higher)

For details, refer to Catalog L-161C.

With Miniature Bayonet Base

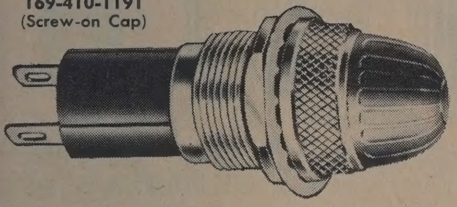
Conform to All Applicable Military Specifications

75W., 125V.

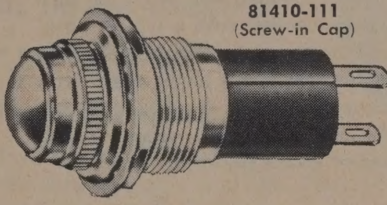
For Mounting in 11/16" Clearance Hole

For Front of Panel Insertion

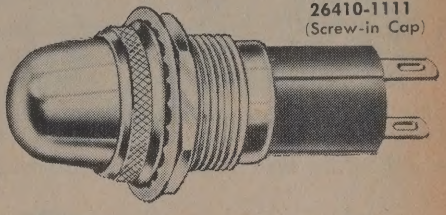
169-410-1191
(Screw-on Cap)



81410-111
(Screw-in Cap)



26410-1111
(Screw-in Cap)



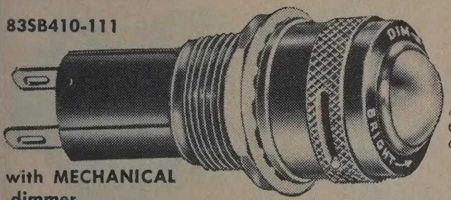
Mechanical and Polaroid Dimmers

Mount in 11/16" clearance hole

Any of the Dialco mechanical dimmers can be supplied either for *"Complete Blackout"* or for *"Semi-Blackout"*. Typical Catalogue Numbers are as follows:

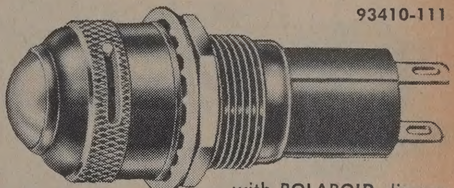
83B410-111 ("Complete Blackout")
83SB410-111 ("Semi-Blackout")

83SB410-111



with MECHANICAL dimmer

93410-111



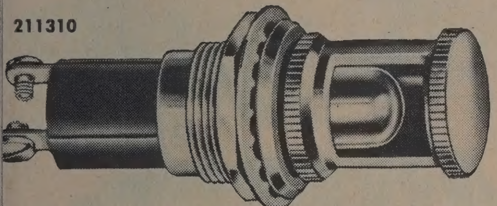
with POLAROID dimmer

Assemblies with Light Shield Caps

Mount in 11/16" clearance hole

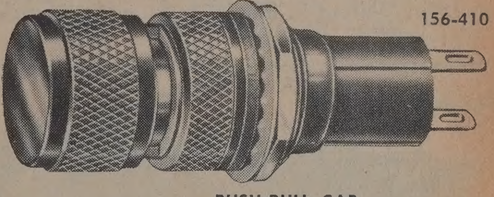
Complete Series available with the following Push-in Caps: With ONE opening 3/32" x 1/2", 3/16" x 1/2", 3/16" x 9/16", 1/2" x 1/2" . . . With TWO openings 1/2" x 1/2" . . . Also Screw-in Cap with opening 3/16" x 1/2", and Friction-Fit Cap with opening 1/8" x 1/2".

211310



PUSH-IN CAP with opening ½" x ½"
Typical Assembly. Other Catalog Nos. are assigned to cover other optional features.

156-410



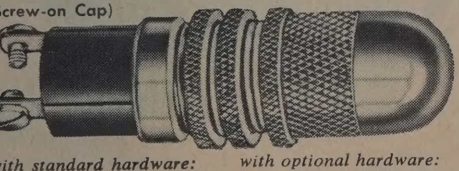
PUSH-PULL CAP
Variable Opening—from 0" to ¼" x ⅜"

For Mounting in 9/16" Clearance Hole

(from BACK of panel)

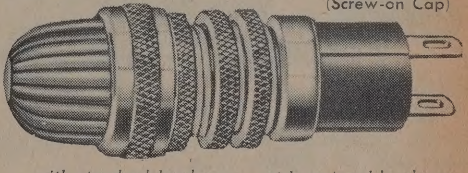
Standard Hardware consists of 3 knurled rings . . . *Optional Hardware* consists of 1 ring, 1 lockwasher, and 1 mounting nut . . . Specify hardware desired.

(Screw-on Cap)



with standard hardware: **171310-931**
with optional hardware: **171310-XP15-931**

(Screw-on Cap)

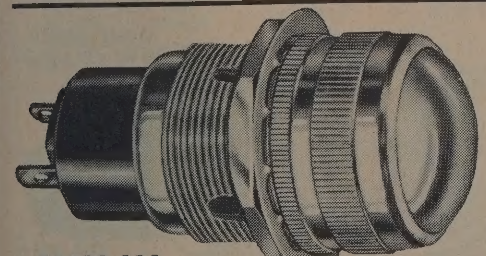


with standard hardware: **70410-1191**
with optional hardware: **70410-XP10-1191**

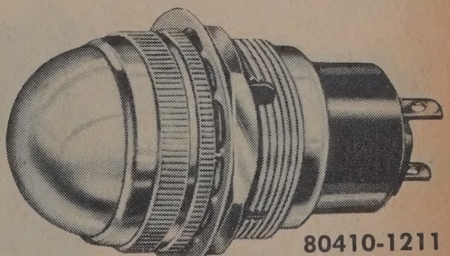
For Mounting in 1" Clearance Hole

Complete Series available with Screw-on Caps (as illustrated), Friction-Fit Caps, or Bayonet Caps. Choice of 9 Lens Types: Flat, Dome, Stovepipe, Faceted, Torpedo Faceted, Torpedo, Large Torpedo, Small Convex, Large Convex. 7 Lens Colors (see below).

GLASS LENSES: Plastic lenses are not recommended for use with lamps rated over 2 watts.



51410-111
(With Convex Lens)



80410-1211
(With Dome Lens)

LENS COLOR: The *final figure* in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted. (For example: 80410-1235.)

Red—1; Green—2; Yellow (Amber)—3; Blue—4; White Translucent—5; Light Yellow—6; Clear (Colorless)—7.

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ASSEMBLIES for INCANDESCENT LAMPS

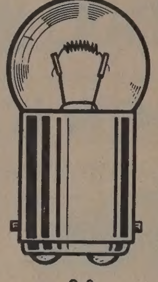
(with double contact bayonet base or candelabra screw base)

For details, refer to Catalog L-161C.

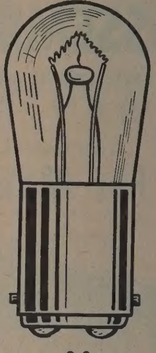
For Mounting in 1" Clearance Hole

75W., 125V.

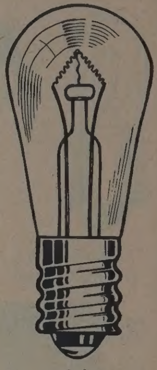
FEATURES: DIALCO makes the most extensive line of 1" enclosed assemblies for large incandescent lamps. 3 such styles of lamps are shown here together with 6 typical units. These units are available with Screw Terminals, Soldering Terminals, or Quick Connect Terminals (will mate with standard solderless female connectors) . . . 8 glass lens types are available, in 7 colors (see below). Plastic lenses are not recommended because of the high degree of heat that incandescent lamps generate.



G-6
D.C. Bay.
(32V. max.)

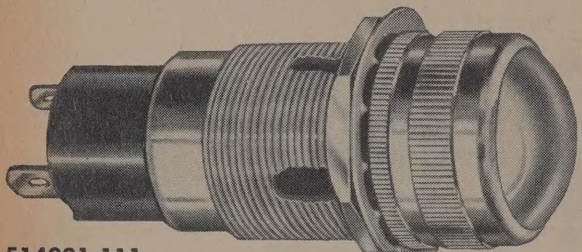


S-6
D.C. Bay.



S-6
Cand. Screw

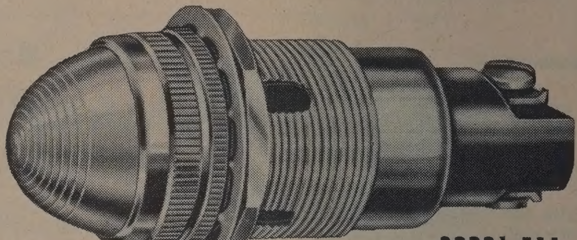
VOLTAGES (at 6 watts): 6, 12, 24, 32, 48, 70-80, 125, 130, 135, 145.



514001-111

Assembly with Screw-on Cap, Convex Lens, and Soldering Terminals. Similar units available with Quick Connect Terminals.

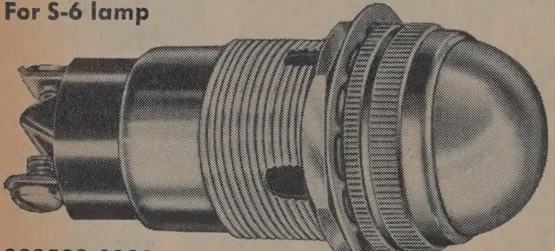
Typical assemblies for use with S-6 bulb with candelabra screw base



80901-511

Assembly with Screw-on Cap Torpedo Lens, and Screw Terminals in side position. Similar units available with screw terminals in protruding position.

For S-6 lamp

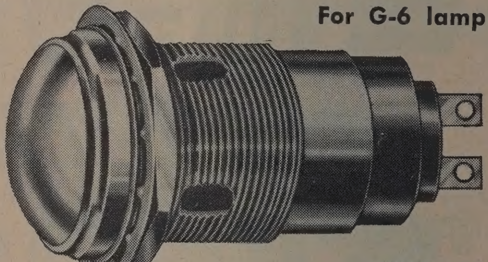


803502-1211

Assembly with Screw-on Cap, Dome Lens, and Screw Terminals. Terminals may be specified as *fixed* type or *movable* type.

Typical assemblies for use with double contact bayonet base incandescent lamps

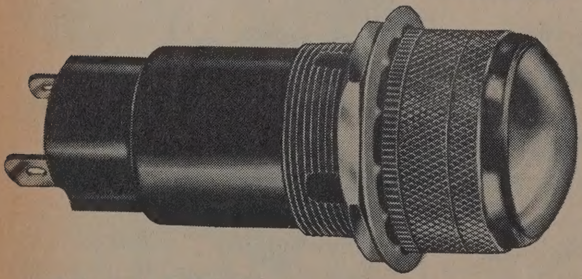
For G-6 lamp



31204-111

Assembly with Friction Cap, Convex Lens, and Soldering Terminals. 2 other types of soldering terminals are *fixed* or *movable.*

DIMMERS and LIGHT SHIELDS



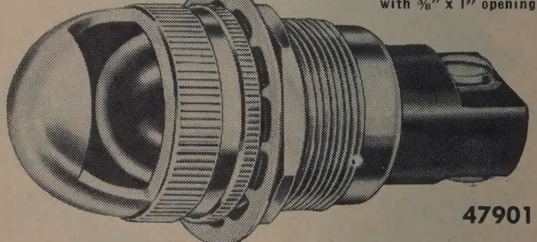
71B4001-111 Mechanical Dimmer

784001-111 Polaroid Dimmer

Typical assemblies for use with S-6 bulb with candelabra screw base

Shown are typical assemblies in a most extensive Series available only from DIALCO.

LIGHT SHIELD
with 3/8" x 1" opening



47901

LENS COLOR: The *final* figure in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that *white lenses* are translucent and are always furnished unfrosted. (For example: 80901-535).

Red—1; Green—2; Yellow (Amber)—3; Blue—4; White Translucent—5; Light Yellow—6; Clear (Colorless)—7.

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(Illustrations of pilot lights are approx. actual size)

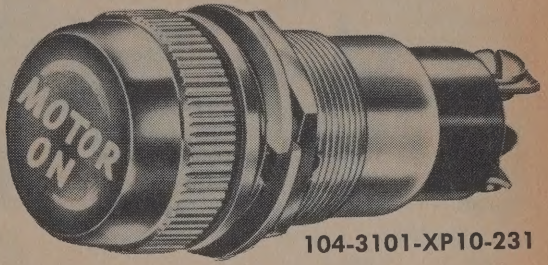
OIL-TIGHT INDICATOR LIGHTS

OIL TIGHT • WATER TIGHT • DUST TIGHT

75W., 125V.

WITH RETAINED "O" RING SEAL CONSTRUCTION
For HEAVY DUTY Industrial Applications
Rugged, designed for severe vibration conditions

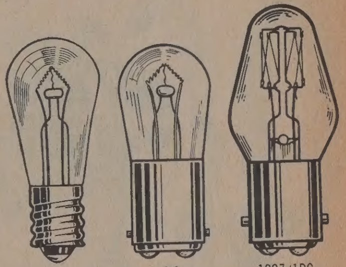
For complete details, refer to Catalog L-200C.



104-3101-XP10-231

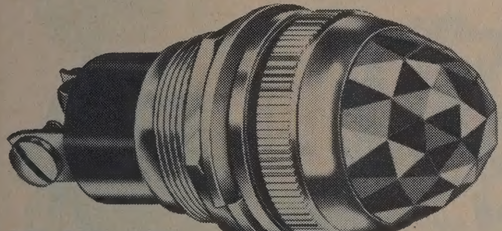
For Mounting in 1" Clearance Hole

FEATURES: Unlike the usual bulky Oil-Tight units, Dialco's assemblies have compact, streamlined design. Important construction features include: One-piece solid brass mounting bushing . . . Three retained oil-proof elastomer seals (1 gasket and 2 "O" Rings) . . . Has solid brass knurled lens holder with gasketed lens . . . High impact phenolic insulation . . . Have rugged terminals of the binding screw type . . . An Oil-Tight Adaptor Set (Cat. No. 1316-L) is available for mounting any 1" assembly in 1-3/16" clearance hole.



S-6 Cand. Screw — S-6 D.C. Bay. — 10C7/1DC D.C. Bay

3 types of Incandescent Lamps may be used: Especially recommended is the 10C7/1DC lamp which is designed to WITHSTAND SEVERE VIBRATION and SHOCK. (Lamps shown approx. 2/3 actual size).



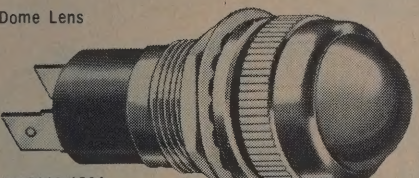
103-3101-1331

Five Lens Types: The oil-tight lens cap can be had with a choice of 5 permanent-color glass or plastic Lenses: Omni-directional Torpedo, Torpedo Faceted, Dome, Stovepipe, or Flat Lens. The *flat lens* can be used with *discs* inserted behind the lens to deliver specific messages—a significant safety feature in motor controlled equipment. Seven lens colors are available.

ASSEMBLIES for T-3¼ INCANDESCENT or NEON LAMPS

With Miniature Bayonet Base

Dome Lens

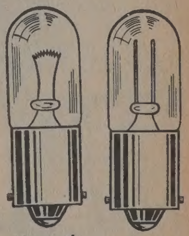


123-5110-1231

For Mounting in 11/16" Clearance Hole

In these Oil-Tight Indicator Lights, a high degree of resistance to shock and vibration is achieved by the use of the rugged *Neon* lamps on 120 and 240 V; and by choosing low voltage *Incandescent* lamps with short filaments, such as No. 44 or No. 1866 for circuits powered by transformers stepping down to 6.3 V.

Exclusive Features: Assemblies for use with NE-51 Neon Glow Lamps have *"built-in"* resistors—an exclusive *Dialco* feature (U.S. Pat. No. 2,421,321). *Options include:* binding screw, soldering or quick connect terminals. 7 lens colors are available; see bottom of page 997 for method of specifying color.



Incand. — **Neon NE-51 NE-51H (High Bright.)**

Assemblies for the **T-3¼ INCANDESCENT LAMP**

GLASS LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals	CATALOG NO. with SOLDERING terminals	CATALOG NO. with QUICK CONNECT terminals
DOME	unfrosted	123–1310–1231	123–410–1231	123–5110–1231
	back frosted	123–1310–1211	123–410–1211	123–5110–1211
STOVEPIPE	unfrosted	125–1310–1131	125–410–1131	125–5110–1131
	back frosted	125–1310–1111	125–410–1111	125–5110–1111
	inside fluted	125–1310–1191	125–410–1191	125–5110–1191

Also available with NE-51H (high brightness) Neon Lamps

Assemblies listed in the chart below may also be ordered for use with the NE-51H (High Brightness) Neon Glow Lamp on 110-125 V AC or 210-250 V AC-DC circuits. See page 996 for lamp data and chart of resistor values.

Stovepipe —plain

125-410-1131

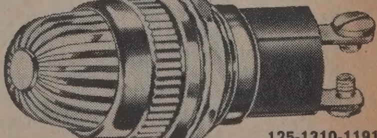
Assemblies with **Built-in Resistor** for the **NE-51 NEON GLOW LAMP****

LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals (105–125 V.)	CATALOG NO. with SOLDERING terminals (105–125 V.)	CATALOG NO. with QUICK CONNECT terminals (105–125 V.■)	CATALOG NO. with SCREW terminals (210–250 V.)	CATALOG NO. with SOLDERING terminals (210–250 V.)
DOME (plastic)	not matted	123–1308–831	123–408–831	123–5108–831	123–9308–831	123–9408–831
	matted	123–1308–841	123–408–841	123–5108–841	123–9308–841	123–9408–841
STOVEPIPE (plastic)	unfrosted	125–1308–931	125–408–931	125–5108–931	125–9308–931	125–9408–931
	inside fluted	125–1308–991	125–408–991	125–5108–991	125–9308–991	125–9408–991

■Can also be furnished for 210–250 V.

For assemblies to accommodate the **NE–51H High Brightness Lamp, add **H** to the Catalog Number. **Example:** 123–1308H-831

Stovepipe —fluted



125-1310-1191

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Foremost Manufacturer of Pilot Lights

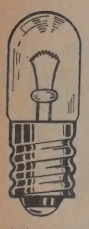
DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

(Illustrations are approx. actual size)

A SELECTION OF OPEN TYPES

For T-3¼ Low Voltage Incandescent Lamps

Typical assemblies for bayonet base lamp.
Available also for screw base type. See listing below.



Min. Screw Base (2-48V.)

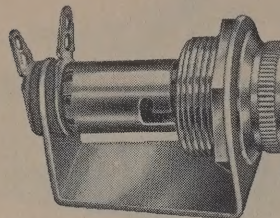
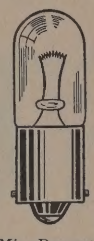


FIG. 29



Min. Bayonet Base (2-55V.)

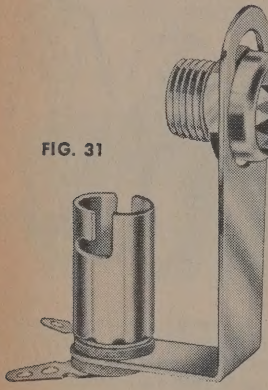


FIG. 31

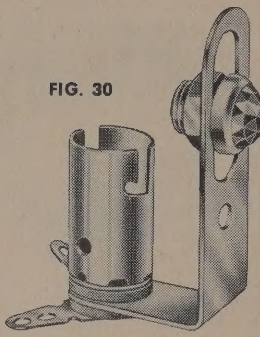


FIG. 30

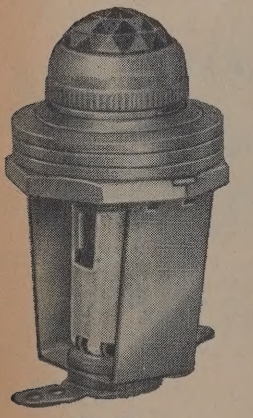


FIG. 32

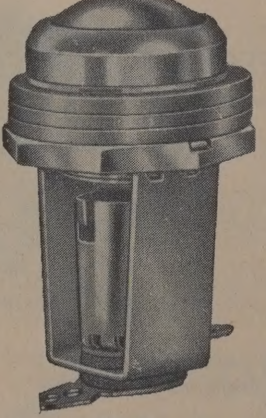


FIG. 33

CATALOGUE NUMBERS

Assemblies for T-3¼ miniature bayonet base lamps

No. 810B-431	Faceted	½″ lens.	For 11/16″ mounting hole.	Fig. 29
No. 710U-431	Faceted	½″ lens.	For 7/16″ mounting hole.	Fig. 31
No. 755U-431	Faceted	11/32″ lens.	For 9/32″ mounting hole.	Fig. 30
No. 857B-431	Faceted	½″ lens.	For 11/16″ mounting hole.	Fig. 32
No. 67B-111	Convex	¾″ lens.	For 13/16″ mounting hole.	Fig. 33

Assemblies for T-3¼ miniature screw base lamps

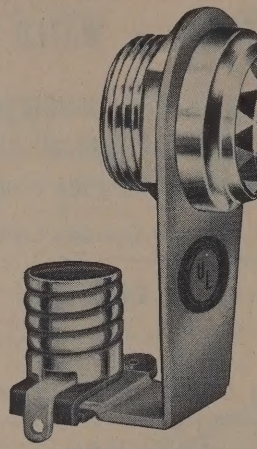
				Similar to
No. 810M-431	Faceted	½″ lens.	For 11/16″ mounting hole.	Fig. 29
No. 510-431	Faceted	½″ lens.	For 7/16″ mounting hole.	Fig. 31
No. 555-431	Faceted	11/32″ lens.	For 9/32″ mounting hole.	Fig. 30
No. 855-431	Faceted	½″ lens.	For 11/16″ mounting hole.	Fig. 32
No. 66M-111	Convex	¾″ lens.	For 13/16″ mounting hole.	Fig. 33

LENS COLOR: The **final figure** in the catalogue number indicates that lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted.

Red—1 Green—2 Yellow (Amber)—3 Blue—4
White Translucent—5 Light Yellow—6 Clear (Colorless)—7

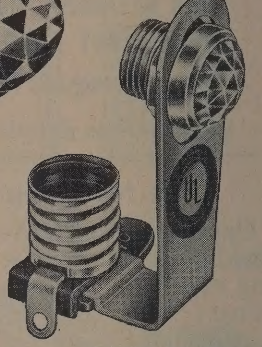
For Candelabra Screw Base Lamps

75W., 125V.



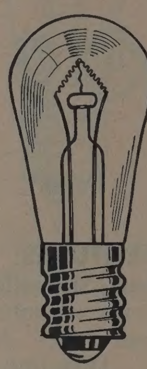
25-18-15-431

Tamper-proof lens holder. 5/8″ Faceted Lens. Requires 11/16″ mounting clearance hole.

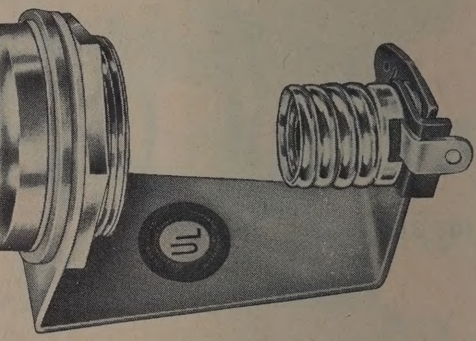


10-18-14-431

With elongated slot. 1/2″ Faceted Lens. Requires 7/16″ mounting clearance hole.

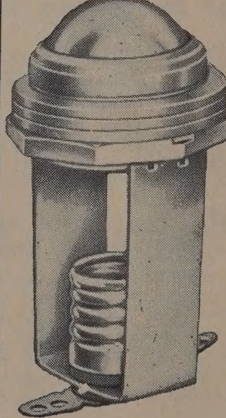


S-6 (6 to 145 V.)

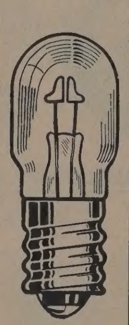


31-18-16-431

Friction-fit lens holder. 1″ Faceted Lens. Requires 1″ mounting clearance hole.



67BN-831

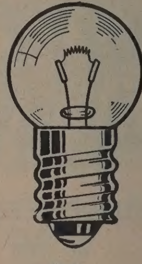


NE-45

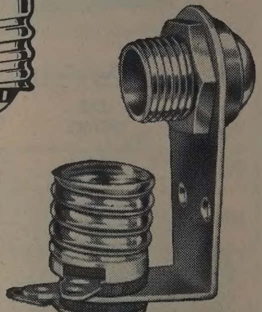
For NE-45 Neon Glow Lamps (105-125 V.)

Friction-fit lens holder. 3/4″ Plastic Dome Lens. Requires 13/16″ mounting clearance hole.

For details, refer to Catalog L-161C.



G-6



610-121

For G-6 Low Voltage Lamps (up to 32 V., no higher)

Tamper-proof lens holder. 1/2″ Convex Lens. Requires 7/16″ mounting clearance hole.

ORDER COMPLETE WITH LAMPS so that you will be assured of receiving the pilot lights and correct lamps at one time, ready for immediate use.

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Foremost Manufacturer of Pilot Lights

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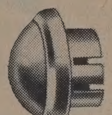
Lens Holders with Lenses for Panel Mounting

For details, refer to Catalog L-161C.

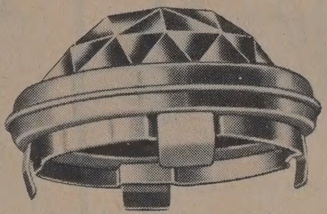
FRICTION FIT PUSH IN TYPES

4004-431
9/32″ hole
1/4″ shank

6004-631
9/32″ hole
1/4″ shank

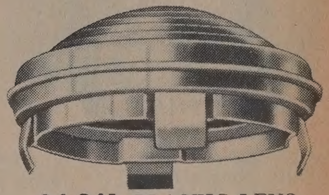


38003-631
3/8″ mtg. hole
3/16″ shank
Options: 1/8″, 3/32″

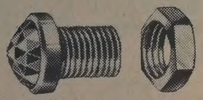


34-431 GLASS LENS

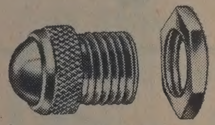
These Holders snap into a 1⅜″ hole



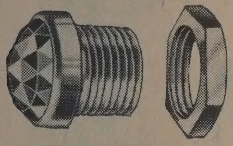
34-841 PLASTIC LENS



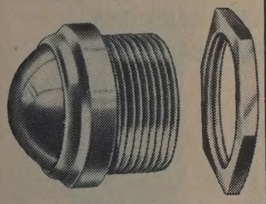
5006-431
9/32″—32 thread
3/8″ shank
(option 1/4″)



7005-631
3/8″—24 thread
5/16″ shank

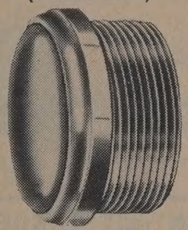


10006-431
7/16″—27 thread
3/8″ shank
(options: 1/4″, 5/8″)



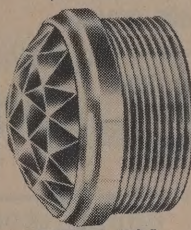
25006-111
11/16″—27 thread
3/8″ shank
(option 1/4″)

FLAT (frosted back)



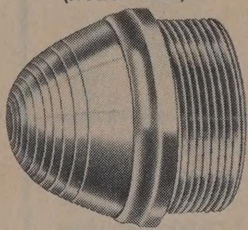
76006-211

FACETED (unfrosted)



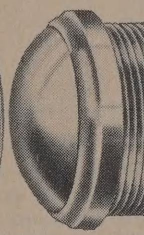
76006-431

TORPEDO (frosted back)

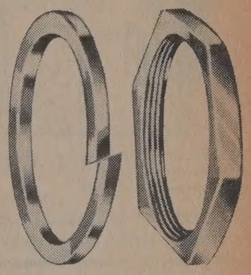


76006-511

CONVEX (frosted back)



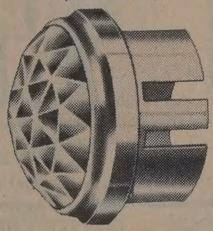
76006-111



1″—27 thread 3/8″ shank—tamper proof

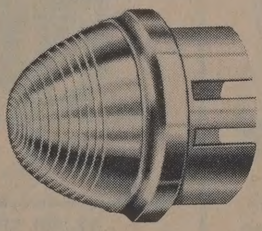
Mount in 1″ clearance hole

FACETED (unfrosted)



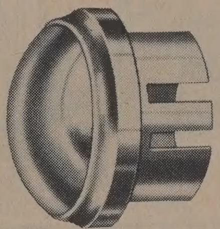
31-431

TORPEDO (frosted back)



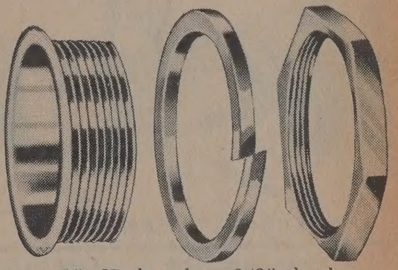
31-511

CONVEX (frosted back)



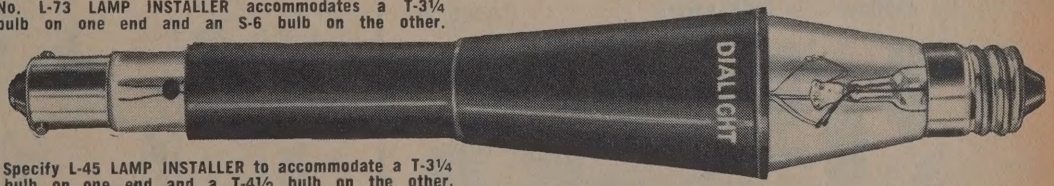
31-111

BUSHING 31246



1″—27 thread 3/8″ shank

No. L-73 LAMP INSTALLER accommodates a T-3¼ bulb on one end and an S-6 bulb on the other.



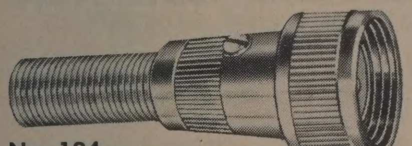
Specify L-45 LAMP INSTALLER to accommodate a T-3¼ bulb on one end and a T-4½ bulb on the other.

CONNECTORS FOR SINGLE CONDUCTOR CABLE

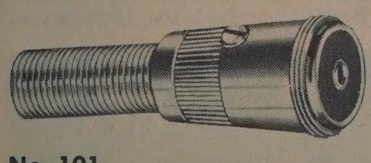
For Microphones, Speakers, Pick-ups, Jacks (using cable shield for second conductor). Female Cable Connector, Catalog No. 104. This unit has a spring protector to prevent sharp bending of cable. It solders to cable sheath, and is secured by a set screw. **Catalog No. 101** has the same general characteristics, but is a **male** connector.

Male Chassis Connectors . . . No. 50. Shell grounds to panel, or may be insulated by washers. Fits a ⅜″—24 threaded hole, or may be secured by nut. **No. 50P** is similar to No. 50, but is designed to force fit in hole in panel. Does not require a nut to fit in place. **No. 51 Connector** has a sprung center contact which grounds before cable connection is broken, preventing open circuit howls.

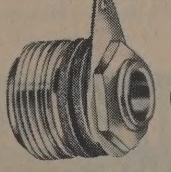
Cap and Chain, Catalog No. 103. To protect unused male connectors. Chain secured by screw prevents loss when removed to make connection.



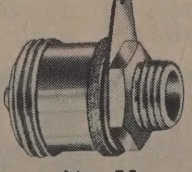
No. 104



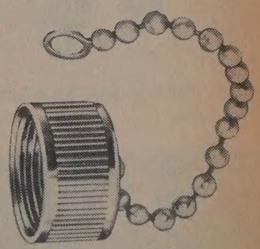
No. 101



No. 50



No. 51



No. 103

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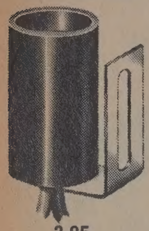
LEECRAFT® LAMPHOLDERS NEON PILOT LIGHTS SPECIAL ASSEMBLIES

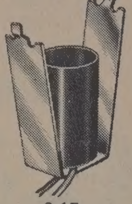
(All illustrations approx. actual size)

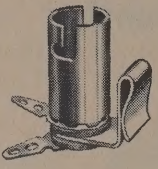
MINIATURE BAYONET

300 SERIES **200 SERIES** **700 SERIES**


3-05

See Figure 2 for typical mountings.


2-15

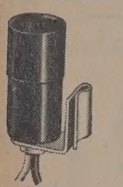

7-01

T-3¼

#49-2V
#47-6V
#1815-14V
#313-28V

See Figure 1 for typical mountings.

1700 SERIES


17-90

See Figure 1 for typical mountings.

GROUNDED SOCKETS

200-1 SERIES **200-1 SERIES**

2-90-1

Plug button for ⅝" hole.

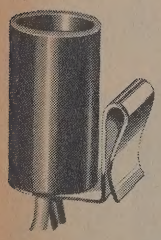
2-40-1

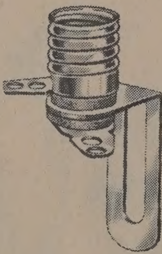
See Figure 1 for typical mountings.

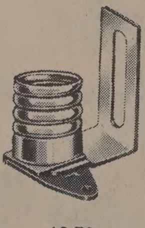
Grounded Sockets can be supplied with 1 wire lead or with 1 terminal, bracket grounded to shell, for use on grounded circuits.

CANDELABRA SCREW

400 SERIES **600 SERIES** **1800 SERIES**


4-45


6-06

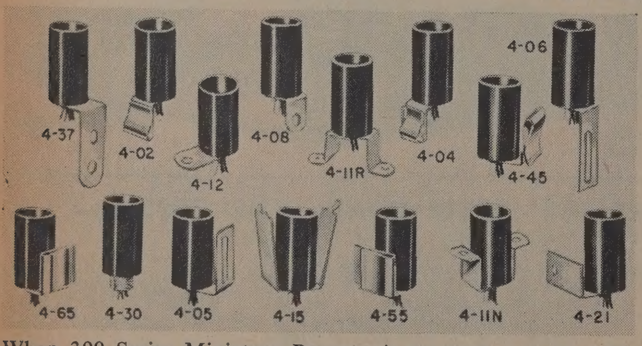

18-79

S-6

7C7-120V
10C7-120V

400 SERIES — CANDELABRA SCREW
300 SERIES — MINIATURE BAYONET

Brackets are applicable to both series. **(Figure 2)**

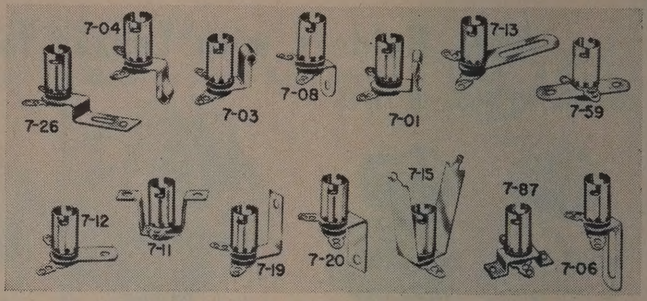

4-06
4-37
4-02
4-08
4-04
4-12
4-11R
4-45
4-65
4-30
4-05
4-15
4-55
4-11N
4-21

When 300 Series Miniature Bayonet is required, *specify* 3-37. 3-02, etc.

Write for Catalog.

700 SERIES — MINIATURE BAYONET

Brackets are applicable to the following series: 200, 500, 600, 1000, and 1700. **(Figure 1)**


7-04
7-13
7-26
7-03
7-08
7-01
7-59
7-12
7-11
7-19
7-20
7-15
7-87
7-06

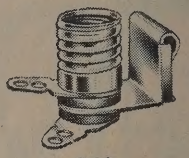
ALL SOCKETS ILLUSTRATED ABOVE HAVE 2 TERMINALS. EXAMPLE: If bracket attached to 7-12 *is required* with series mentioned, *specify:* 2-12, 5-12, 6-12, 7-12, 10-12, 17-12.

MINIATURE SCREW

500 SERIES:

SOLDERING TERMINALS or WIRE LEADS:

See Figure 1 for typical mountings.

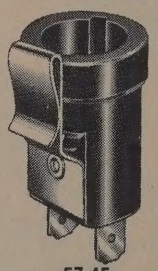

5-03

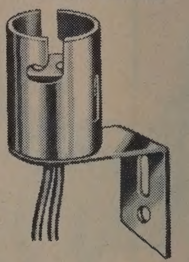
T-3¼

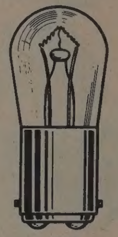
#48-2V
#46-6V
#1487-14V
#1821-28V

DOUBLE CONTACT CANDELABRA BAYONET

57-00 SERIES **12-200 SERIES**


57-45


12-272

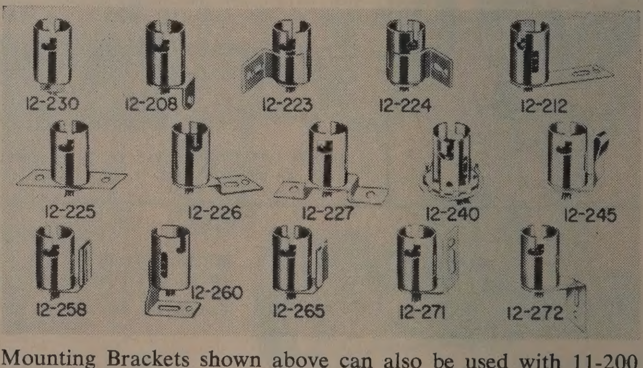

S-6

6S6DC-125V
10S6DC-230V-250V

See Figure 3 for typical mountings.

12-200 SERIES — DOUBLE CONTACT CAND. BAY.
11-200 SERIES — SINGLE CONTACT CAND. BAY.

(Figure 3)


12-230
12-208
12-223
12-224
12-212
12-225
12-226
12-227
12-240
12-245
12-258
12-260
12-265
12-271
12-272

Mounting Brackets shown above can also be used with 11-200 and 1200 Series. If the bracket attached to *12-272* is required, *specify* 11-272 for 11-200 Series, *or* 12-72 for 1200 Series.

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Long Island City 1, N. Y.

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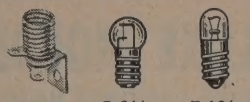
LAMPHOLDERS SNAPLITE NEON PILOT LIGHTS

MIDGET SCREW

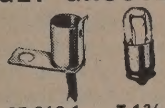
1600 SERIES
SOLDERING TERMINALS
16-200 SERIES
WIRE LEADS


16-08 P-2½ T-1¾

#335-28V
#1402-14V
#1767-2½V
#1768-6V
#1775-6.3V

MIDGET GROOVED

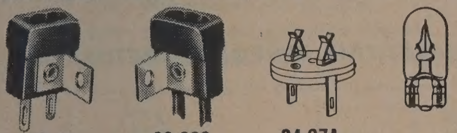
25-00 SERIES
SOLDERING TERMINALS
25-200 SERIES
WIRE LEADS


25-212-1 T-1¾

#337-6V
#336-14V
#334-28V
Also Lens End

WEDGE BASE

2300 SERIES 23-200 SERIES 2400 SERIES

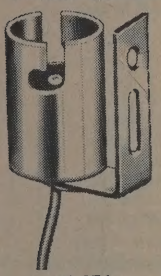

23-24 23-223 24-07A

#159-6V
#161-12V
#158-12V
#259-6.3V

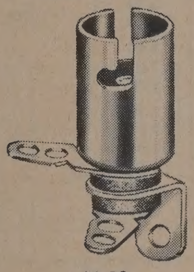
2300 SERIES — Molded housing terminal.
23-200 SERIES — Molded housing with wire leads.
2400 SERIES — Wafer type-terminals.

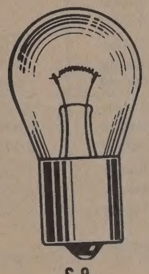
SINGLE CONTACT CANDELABRA BAYONET

11-200 SERIES


11-271
See Figure 3 for typical mountings.

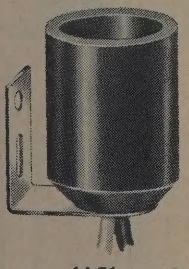
1000 SERIES


10-08
See Figure 1 for typical mountings.

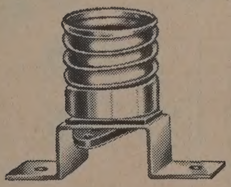

S-8
#87-6V #93-12V
#1129-6V #1141-12V

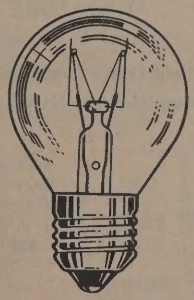
INTERMEDIATE SCREW

1400 SERIES


14-71

800 SERIES


8-81

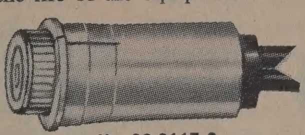

S-11
10S11N-30V
10S11N/3-60V
10S11N-120-120V

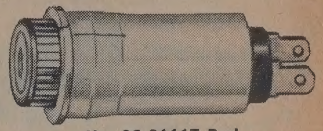
SAMPLES ON REQUEST AT ONCE — NO CHARGE

For complete information on our comprehensive line of SOCKETS and thousands of mounting brackets available from our large stockpile of tools and dies *send for* our complete *Catalogs* and *Data Sheets*. Your inquiries will be answered promptly. ORDER COMPLETE WITH LAMP so that you will be assured of receiving the proper socket and correct lamp at one time, ready for immediate use.

LEECRAFT *SNAPLITE* Neon Pilot Lights are available in four series designed for two circuit voltages. Either male tab or wire lead terminations can be had.

SNAPLITES contain long life neon lamps of the high brightness types. Within the housing are resistors chosen to suit the applied circuit voltage and to provide the required lamp life so that replacement of the lamp will be unnecessary during the life of the equipment.


No. 32-2117-6


No. 32-2111T Red

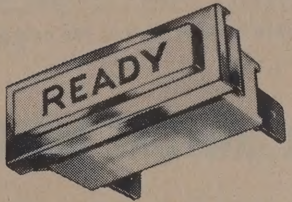
Leescraft Series	Volts	Terminations
3200	110-125	insulated wire leads
3500	210-250	insulated wire leads
3200T	110-125	.187 tab terminals
3500T	210-250	.187 tab terminals

1/3W, 125V
1/3W, 250V

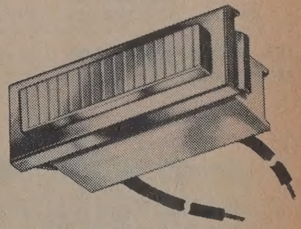
Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2111-6	35-2111-6	32-2111T	35-2111T
Amber	32-2113-6	35-2113-6	32-2113T	35-2113T
Clear	32-2117-6	35-2117-6	32-2117T	35-2117T
White (Translucent)	32-2115-6	35-2115-6	32-2115T	35-2115T

RECTANGULAR INDICATOR LIGHTS

Equipped with long life high brightness neon lamps, these pilot lights have decorative chrome bezels, and are furnished with insulated wire leads or male tab terminals. High-heat plastic lenses are available in a choice of transparent and translucent colors. BRAND NAMES, TRADE MARKS and appropriate legends can be clearly hot-stamped on the lens. Series 3100 (wire leads) and 3100T (tabs) are rated 110-125V. Series 3100H (wire leads) and 3100 HT (tabs) are rated 210-250V. UL and CSA listed and approved.

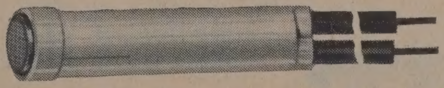


No. 31-2135TL


No. 31-2131-6 Red

Lens Color	3100 Series Wire Leads	3100H Series Wire Leads	3100T Series .250 Tabs	3100HT Series .250 Tabs
Red	31-2131-6	31H-2131-6	31-2131T	31H-2131T
Amber	31-2133-6	31H-2133-6	31-2133T	31H-2133T
Clear	31-2137-6	31H-2137-6	31-2137T	31H-2137T
White (Translucent)	31-2135-6	31H-2135-6	31-2135T	31H-2135T

TINEON INDICATOR LIGHTS


No. 36-2311-6 Red

• Long life High Brightness Neon Lamps • Press fit into 5⁄16″ hole • Rated 110-250V • Nylon housing in colors (white standard) • Speed nut furnished • Plastic lens in colors • Legends • Built-in Resistor • Insulated Leads.

36-2311-6 (Red); 36-2313-6 (Amber); 36-2315-6 (White); 36-2317-6 (Clear).

Cat. Nos. apply to units rated 110-125V. *Add* letter H *to* prefix for 210-250V; i.e. 36*H*-2311-6. For *Tineon* Indicators LESS RESISTOR (4100 Series) change prefix 36 to 41.

LEECRAFT MANUFACTURING CO., Inc.

Long Island City 1, N. Y.

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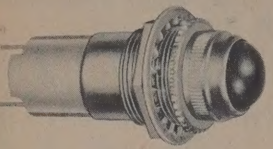
DRAKE

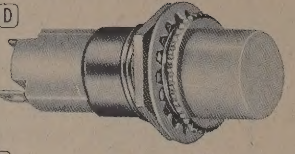
CHICAGO 31, ILLINOIS

INDICATOR LIGHTS

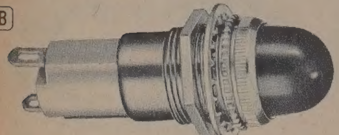
A



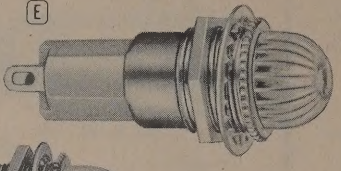
D



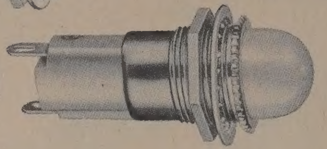
B



E



C



"DELUXE MOLDED" Series

MINIATURE BAYONET BASE INDICATOR LIGHTS

Polished chrome finish (MIL units are black nickel plated), molded Glaskyd housing give fine appearance, assure dependability. All "DELUXE MOLDED" units have Drake's E-Z-Tite flange for quick assembly with Drake No. 32 wrench. Install lamps and mount units from front of panel up to 13/32″ thick, in 11/16″ dia. mounting hole on 31/32″ centers. Units with built-in ¼ watt series resistors take neon lamps.

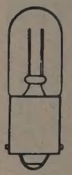
(ALL ILLUSTRATIONS APPROX. ¾ ACTUAL SIZE)

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
A	5200-222-101		½″	17/32″	1⅝″	Solder		$2.00
B	5200-222-301		⅝″	11/16″	1⅝″	Solder		2.40
C	5200-222-304		⅝″	½″	1⅝″	Solder		1.72
D	5200-222-604		⅝″	½″	1⅝″	Solder		1.72
	5200-228-101	LH75-LC14	½″	17/32″	1⅝″	Solder		2.07
B*	5200-228-301	LH75-LC15	⅝″	11/16″	1⅝″	Solder		2.43
	5200-229-101	LH62-BR2	½″	17/32″	1⅝″	Solder		1.94
C*	5200-229-303	LH62-PR5	⅝″	½″	1⅝″	Solder		1.68
	5200-232-103		½″	17/32″	1⅝″	Solder	22K	2.22
E	5200-232-323		⅝″	½″	1⅝″	Solder	22K	2.06
	5200-232-623		⅝″	½″	1⅝″	Solder	22K	2.06
	5200-242-103		½″	17/32″	1⅝″	Solder	100K	2.22
E	5200-242-323		⅝″	½″	1⅝″	Solder	100K	2.06
	5200-242-623		⅝″	½″	1⅝″	Solder	100K	2.06
	5200-248-100	LH76-LC14	½″	17/32″	1⅝″	Solder	100K	2.43
	5200-249-103	LH64-PR2	½″	17/32″	1⅝″	Solder	100K	2.20
C*	5200-249-303	LH64-PR5	⅝″	½″	1⅝″	Solder	100K	2.05

LEN DESCRIPTION CODE (last three Drake Number digits): See next page for explanation.

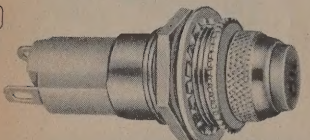
*Black Finish.

T-3¼ BULB
6.3 to 28V



LAMP NO.
NE51H — 125V
and 250V

F



"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHTS

with Friction Fit Lens Shank, for Easy Legend Alignment

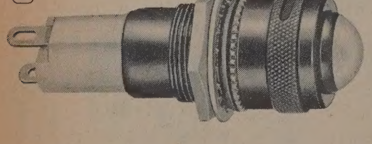
Other features are same as those of units listed above.

•
LAMPS SAME AS ABOVE
•

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
F	5203-222-550		½″	15/32″	1⅝″	Solder		$2.28
F	5203-232-544		½″	15/32″	1⅝″	Solder	22K	2.46

LENS DESCRIPTION CODE (last three Drake Number digits): See next page for explanation.

G



"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHTS

with Mechanical Dimmer Lens Assembly: Type 5207 for Complete Blackout, Type 5208 for Partial Blackout

Other features are same as those of units listed above.

•
LAMPS SAME AS ABOVE
•

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
G	5207-228-101	LH75-LC17	½″	27/32″	1⅝″	Solder		$3.45
G	5207-248-100	LH76-LC17	½″	27/32″	1⅝″	Solder	100K	3.79
G	5208-228-101	LH75-LC18	½″	27/32″	1⅝″	Solder		3.45
G	5208-248-100	LH76-LC18	½″	27/32″	1⅝″	Solder	100K	3.79

LENS DESCRIPTION CODE (last three Drake Number digits): See next page for explanation.

ALL PRICES LIST ★ ABOVE UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ ALWAYS SPECIFY LENS COLOR

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INDICATOR LIGHTS

DRAKE
CHICAGO 31, ILLINOIS

DRAKE LENS CODE NUMBER DATA

On all units illustrated and described, the last three digits of the DRAKE NUMBER identify the lens shape and other variants. These types are described below.

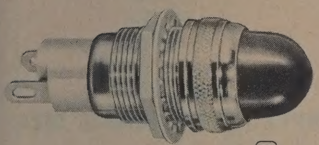
- **100 : Convex glass clear**
- **101 : Convex glass diffusing**
- **103 : Convex plastic clear**
- **110 : Convex glass faceted**
- **113 : Convex plastic faceted**
- **203 : Dome plastic clear**
- **204 : Dome plastic translucent**
- **301 : Macrodome glass diffusing**
- **303 : Macrodome plastic clear**
- **304 : Macrodome plastic translucent**
- **305 : Macrodome Lexan diffusing**
- **320 : Macrodome glass fluted**
- **323 : Macrodome plastic fluted**
- **410 : Beehive glass faceted**
- **430 : Beehive glass signal lined**
- **431 : Beehive glass diffusing**
- **500 : Flush glass clear**
- **503 : Flush plastic clear**
- **504 : Flush plastic translucent**
- **523 : Flush plastic fluted**
- **544 : Flush plastic translucent, imprinted**
- **550 : Flush glass clear, printed disc**
- **603 : Cylindrical plastic clear**
- **604 : Cylindrical plastic translucent**
- **623 : Cylindrical plastic fluted transparent**
- **624 : Cylindrical plastic fluted semi-transparent**
- **644 : Cylindrical plastic imprinted**
- **703 : Long Macrodome plastic clear**

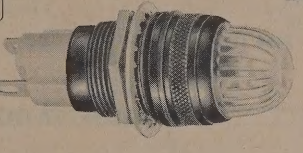
LENS COLORS: incandescent and neon—Red, Yellow (amber), White or Colorless;—incandescent only—Green or Blue

"DELUXE MOLDED" Series INDICATOR LIGHTS

MINIATURE BAYONET BASE

with 5/8" GLASS MACRODOME LENS (JEWEL)


H

J


Lens holder with female thread permits neon lamp to project all the way up into macrodome lens for maximum visibility. Other "DELUXE MOLDED" features as previous.

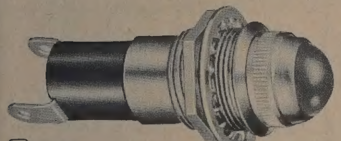
Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
H	5204-222-301		5/8"	27/32"	1 9/32"	Solder		$2.47
J*	5204-232-320		5/8"	27/32"	1 9/32"	Solder	22K	2.76
J	5204-238-320	LH78-LC20	5/8"	27/32"	1 9/32"	Solder	27K	2.90
J*	5204-242-320		5/8"	27/32"	1 9/32"	Solder	100K	2.76
J	5204-248-320	LH77-LC20	5/8"	27/32"	1 9/32"	Solder	100K	2.84

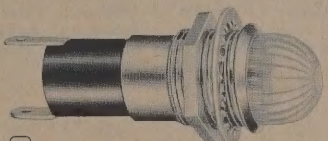
•
LAMPS
SAME AS FOR OTHER
"DELUXE MOLDED"
TYPES
•

LENS DESCRIPTION CODE (last three Drake Number digits): See above explanation.
***Polished Chrome Finish.**

"STANDARD" INDICATOR LIGHTS

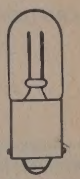
MINIATURE BAYONET BASE


K


L

Serviceable series, with nickel plated lens holder and flange. Lamp installed and units mounted from front of panels up to 13/32" thick, in 11/16" dia. mounting hole on 31/32" centers. Built-in ½ watt series resistors for neon lamps.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
K	5100-182-101		1/2"	17/32"	1 21/32"	Solder		$1.07
	5100-182-304		5/8"	1/2"	1 21/32"	Solder		.86
K	5100-192-103		1/2"	17/32"	1 23/32"	Solder	25K	1.17
L	5100-192-323		5/8"	1/2"	1 23/32"	Solder	25K	1.03
K	5100-202-103		1/2"	17/32"	1 23/32"	Solder	100K	1.17
L	5100-202-323		5/8"	1/2"	1 23/32"	Solder	100K	1.03

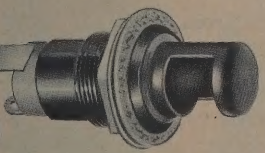


LAMP NOS.
NE51—125V
NE51H — 125 and 250V

LENS DESCRIPTION CODE (last three Drake Number digits): See above explanation.

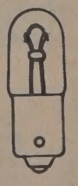
MINIATURE BAYONET BASE

INSTRUMENT LIGHT


M

Uses T-3¼ bulbs, inserted from front of panel up to 13/32" thick, in 11/16" dia. hole on 31/32" centers.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
M	168E			11/16"	1 3/8"	Solder		$2.36



T-3¼ BULB
6.3 to 28V

(ALL ILLUSTRATIONS APPROX. ¾ ACTUAL SIZE)

ALL PRICES LIST* ★ ABOVE UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ *ALWAYS SPECIFY LENS COLOR

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DRAKE

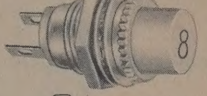
CHICAGO 31, ILLINOIS

INDICATOR LIGHTS

"TINYLITE" MIDGET SCREW BASE INDICATOR LIGHTS

SMALLEST INDICATOR LIGHTS WITH REPLACEABLE LAMP

A

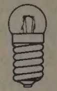

B

Fully enclosed. Supplied with midget lamp installed. Lamps replaced and units mounted from front of panels up to 9/32" thick, in 7/16" dia. mounting hole on 19/32" centers. Friction device prevents lamps from loosening in use.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lamp Voltage	Replace-ment Lamp No.	List Price
A	121- 7-204		7/16"	21/64" on all numbers	13/16"	7	765	$1.22
B*	121- 7-604		3/8"		13/16"	7	765	1.22
B	121- 7-644		3/8"		13/16"	7	765	1.36
A	121-14-204		7/16"		13/16"	14	1465	1.24
B*	121-14-604		3/8"		13/16"	14	1465	1.24
B	121-14-644		3/8"		13/16"	14	1465	1.38
A	121-28-204		7/16"		29/32"	28	335	2.00
B*	121-28-604		3/8"		29/32"	28	335	2.00
B	121-28-644		3/8"		29/32"	28	335	2.14

LENS DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.

*Unprinted


LAMP
NO. 765
7V
NO. 1465
14V

LAMP
NO. 335
28V

REPLACEMENT LAMPS

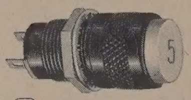
NO. 335 (28V)	NO. 765 (7V)	NO. 1465 (14V)
$0.83	$0.34	$0.36

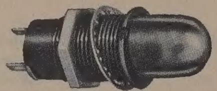
(ALL ILLUSTRATIONS APPROX. 3/4 ACTUAL SIZE)

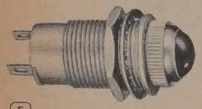
"MF" INDICATOR LIGHTS

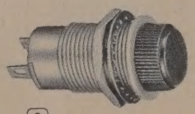
FOR USE WITH MIDGET FLANGE BASE LAMPS IN MIL STANDARD OR COMMERCIAL APPLICATIONS

C


D


E


F


G

Small but sturdy—only 9/16" max. dia. MIL units, black anodized finish; other units, clear finish. Lamps replaced and units mounted from front of panel, in 15/32" dia. mounting hole on 3/4" centers. Built-in series resistor takes NE2D neon lamp; other units take T-1¾ bulb.

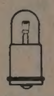
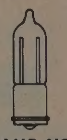
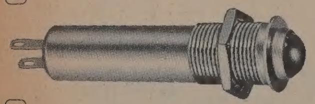
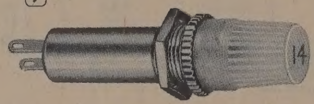

BULB NO.
T-1¾
1.2 to 28V

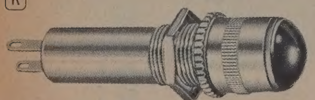
Fig. No.	Drake Number	MIL Style Number	MS Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Max. Panel Thickness	List Price
C	5131-038-303	LH73-LC12	MS25256	7/16"	29/64"	49/64"		9/32"	$1.81
C	5131-038-304	LH73-LC12		7/16"	29/64"	49/64"		9/32"	1.81
D	5132-038-544	LH73-LC11		15/32"	35/64"	49/64"		9/32"	2.42
E	5133-048-703	LH74-LC13	MS25257	7/16"	35/64"	1 1/64"	62K	15/32"	3.15
F	5130-032-101			5/16"	11/32"	1 1/64"		15/32"	1.86
G	5133-032-504			7/16"	3/16"	1 1/64"		15/32"	1.69


LAMP NO.
NE2D
115V

LENS DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.


H


J


K

"TELESLIDE" INDICATOR LIGHTS

FOR USE WITH TELEPHONE SLIDE BASE LAMPS

Recommended for voltages from 24 to 55. Lamps replaced from front of panel. Mount in 15/32" dia. hole on 23/32" centers. No. 135 replaces more expensive lampjack assembly.

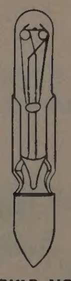

BULB NO.
T-2
6 to 55V

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Max. Panel Thickness	Mounting	Lens Fitting	Finish	List Price
H	135-101	5/16"	1/4"	2 7/32"	17/32"	Front	Friction	Plain Brass	$1.77
J	136-624	5/8"	13/16"	1 5/8"	7/32"	Front or Rear	Threaded	Nickel Plate	1.52
K	137-101	1/2"	25/32"	1 23/32"	5/16"	Front or Rear	Threaded	Nickel Plate	1.83

LENS DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.

ALL PRICES LIST* ★ ABOVE UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ *ALWAYS SPECIFY LENS COLOR

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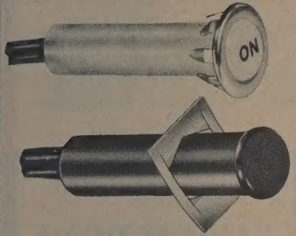
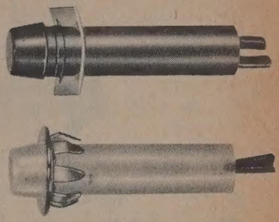
"GLO-LITES"

DRAKE

CHICAGO 31, ILLINOIS

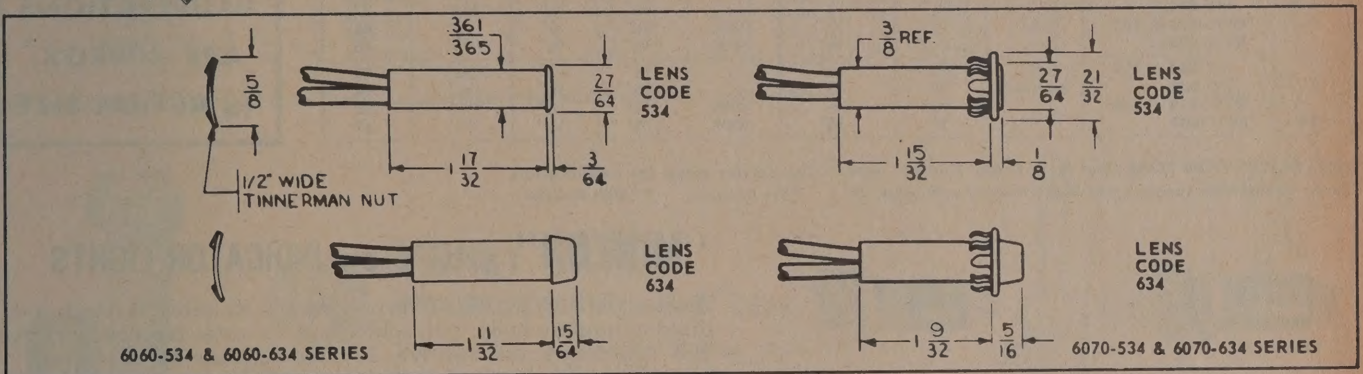
THE NEW LOOK IN NEON INDICATOR LIGHTS





SAVE MONEY WITH ONE-PIECE NYLON BODY and LENS

"Glo-Lites" are best suited for use in appliances . . . instruments . . . specialties . . . and other products where line voltage is available. Positive quality factors are many.



DRAKE NO.			DRAKE NO.				
TINNERMAN NUT			PLUG-IN			Circuit Voltage (AC) +	Built-In Resistance (ohms)
Flush	Cylindrical (Tapered)	List Price	Flush	Cylindrical (Tapered)	List Price		
6060-534	6060-634	.65	6070-534	6070-634	.71	—	None*
• 6061-534	• 6061-634	.65	• 6071-534	• 6071-634	.71	—	None**
6062-534	6062-634	.75	6072-534	6072-634	.80	125	100K
• 6063-534	• 6063-634	.75	• 6073-534	• 6073-634	.80	125	25K
6064-534	6064-634	.75	6074-534	6074-634	.80	250	330K
• 6065-534	• 6065-634	.75	• 6075-534	• 6075-634	.80	250	100K

*External series resistance required which will limit current to 0.6 ma.
**External series resistance required which will limit current to 1.7 ma.
+Starting Voltages: NE2E lamp; AC 65V, DC 90V. NE2H lamp (with bullets preceding part No.) AC 95V, DC 135V.

Choose between red, white or amber colors and between flush or tapered cylindrical lens styles—both are translucent and signal lined on the inside.

For a production plus, take either snap-in plug or Tinnerman nut to speed up assembly.

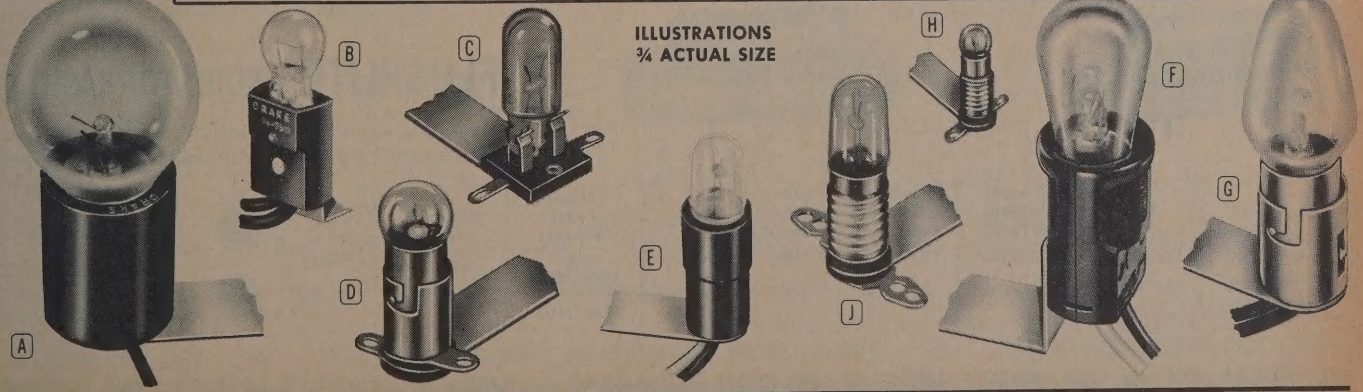
HI-BRIGHTNESS UNITS ARE RECOMMENDED FOR GREATER ILLUMINATION. (see chart above where bullet • precedes part number.)

Stock leads on all Glo-lites are 10" length, 22 ga. plastic insulation, available with asbestos insulation on special order. Details on Data Sheet 6210.

A FEW DRAKE LAMPHOLDERS

Ask for additional information about these and other styles

A: No. A1700 Intermediate Screw Base with Phenolic Housing
B: No. 1900 Miniature 2-Pin Base with Phenolic Housing
C: No. 4272 "WEDGE-GRIP" Miniature Wedge Base
D: No. 4080 Miniature Bayonet Base
E: No. N500 Miniature Bayonet Base with Nylon Housing
F: No. B1400 Candelabra Screw Base with Phenolic Housing
G: No. A1100 Double Contact Bayonet Base
H: No. 2100 Midget Screw Base
J: No. 100 Miniature Screw Base



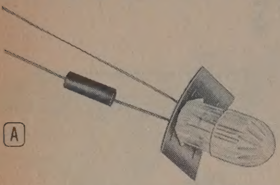
ILLUSTRATIONS ¾ ACTUAL SIZE

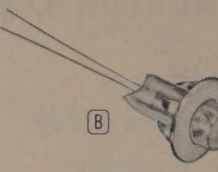
© U.C.P., Inc.

Trade Discount Applies To List Prices Only

DRAKE
CHICAGO 31, ILLINOIS

INDICATOR LIGHTS





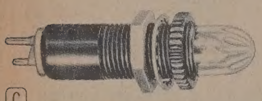
"ECONOGLO" NEON GLOW INDICATOR LIGHTS

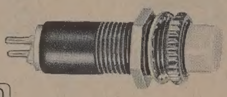
Excellent for LOW COST 115V applications or as D.C. circuit components. Available with or without series resistors. Mount from front of panel. Equipped with 2" wire leads. Plain macrodome also available; substitute lens code 303 for 323 when ordering.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
A*	116-323 or 303	11/32" on all numbers	3/8"	15/32"		5/16"	1/4"	17/32"	$ .37
	116-603		3/16"	11/16"		5/16"	7/16"	17/32"	.37
A	R116-323 or 303		3/8"	15/32"	100K	5/16"	1/4"	17/32"	.46
	R116-603		3/16"	11/16"	100K	5/16"	7/16"	17/32"	.46
	117-323 or 303		7/16"	13/32"		1/2"	1/16"	11/16"	.48
B	117-603		1/4"	5/8"		1/2"	1/16"	11/16"	.48
	R117-323 or 303		7/16"	13/32"	100K	1/2"	1/16"	11/16"	.57
B**	R117-603		1/4"	5/8"	100K	1/2"	1/16"	11/16"	.57

ALL ILLUSTRATIONS ARE APPROX. 3/4 ACTUAL SIZE

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.
For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H". * No Resistor ** With Resistor

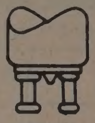




"MINEON" NEON GLOW INDICATOR LIGHTS

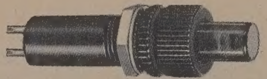
Similar to "ECONOGLO" types, except mounted in black anodized aluminum body with solder lugs or turret terminals. Drake E-Z-Tite facing nut, and No. 20 wrench, make assembly fast.

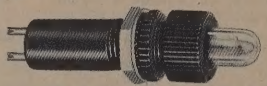
Fig. No.	Drake Number				Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers
	Pin Lugs	List Price	Turret Lugs	List Price							
C	118-323	$1.14	119-323	$1.63	11/32"	15/32"	1 3/16"		3/8"	3/8"	5/8"
D	118-604	1.14	119-604	1.63	11/32"	9/32"	1 3/16"		3/8"	3/8"	5/8"
C	R118-323	1.46	R119-323	2.07	11/32"	15/32"	1 3/16"	100K	3/8"	3/8"	5/8"
D	R118-604	1.46	R119-604	2.07	11/32"	9/32"	1 3/16"	100K	3/8"	3/8"	5/8"


DRAKE NO. 119 TURRET LUGS

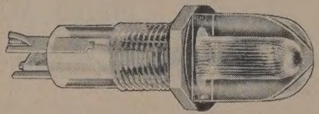
LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.
For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H".

FOR FULL DETAILS ABOUT DRAKE'S *COMPUTER INDICATOR LIGHTS,* INCLUDING
BI-PIN CARTRIDGE LIGHTS





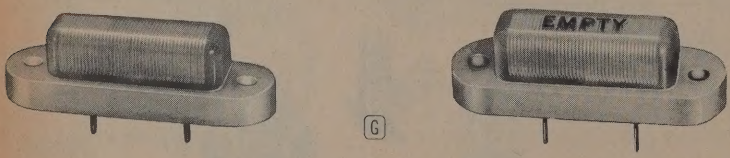
SEE SECTION 2000



"POSTLITE" INDICATOR LIGHTS

Unique all polystyrene neon indicator light with built-in series resistor. Extremely decorative.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	List Price
F	105	5/8" (Sq.)	3/4"	1 9/16"	100K	Std.	9/16"	7/8"	$1.13
F	105-025 (Hi-Brite)	5/8" (Sq.)	3/4"	1 9/16"	25K	Hi-Brite	9/16"	7/8"	1.13



"FLUSHLITE" INDICATOR LIGHTS

"One-of-a-kind" neon unit — all nylon with built-in series resistor. Exceptional appearance.

Fig. No.	Drake Number	Lens Size	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	List Price
G	110	13/32" x 1 1/4"	11/32" or 9/16"	17/32" or 5/16"	100K	NE2E	11/32" (Rear Mtd.)	9/16" or 1 7/8"	$ .83
G	110-022 (Hi-Brite)	13/32" x 1 1/4"	11/32" or 9/16"	17/32" or 5/16"	22K	NE2H	11/32" (Rear Mtd.)	9/16" or 1 7/8"	$ .83

ALL PRICES LIST ★ ALL ABOVE UNITS HAVE NON-REPLACEABLE LAMPS ★ *ALWAYS SPECIFY LENS COLOR*

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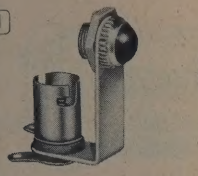
INDICATOR LIGHTS

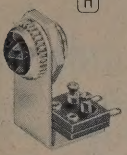
DRAKE

CHICAGO 31, ILLINOIS

J

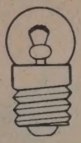


H

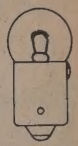


"MINISPACE" 5/16" Lens
MONEY SAVER INDICATOR LIGHTS

For practical economy. Lamp replacement from behind panel. Cadmium plated lens holder has Drake E-Z-Tite knurl, for fast assembly with Drake No. 14 wrench.



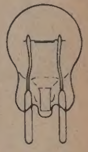
MIN. SCREW
BULB NO. G-3½
1.3 to 6.3V



MIN. BAY.
BULB NO. G-3½
63 to 28V

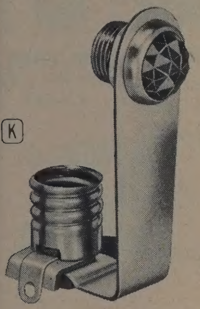
Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Back	Built-In Resistor (Ohms)	Bulb Size	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
	5-113	5/16"	Min. Screw	7/32"	29/32"		G-3½	5/16"	1/8"	5/8"	$ .39
J	5B-103	5/16"	Min. Bay.	7/32"	29/32"		G-3½	5/16"	1/8"	5/8"	.42
H	2005-IL-113	5/16"	Min. 2-Pin	7/32"	13/16"		G-3½	5/16"	1/8"	5/8"	.39
	5005-272-113	5/16"	Min. Wedge	7/32"	21/32"		T-3¼	5/16	1/8"	5/8"	.39

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.



2-PIN
BULB NO. G-3½
2.5 to 6.3V

K



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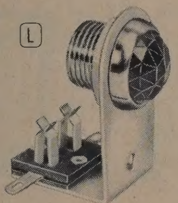
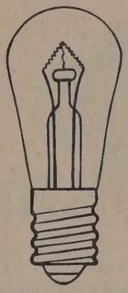
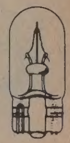


MONEY SAVER
INDICATOR LIGHTS—1/2" Lens

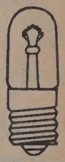
Popular low cost units. Lamps replaced from behind panel. Nickel plated lens holder.



LAMP NO. 6S6
120V



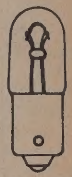
WEDGE BASE
BULB NO. T-3¼
6.3 to 14V



MIN. SCREW
BULB NO. T-3¼
2.5 to 6.3V

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Back	Built-In Resistor (Ohms)	Bulb Size	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
	10-113	1/2"	Min. Screw	9/32"	31/32"		T-3¼	7/16"	1/4"	23/32"	$ .35
K	10C-113	1/2"	Cand. Screw	9/32"	1"		S6	7/16"	1/4"	23/32"	.52
	10G-113	1/2"	Min. Bay.	9/32"	31/32"		G-3½	7/16"	1/4"	23/32"	.35
	10T-113	1/2"	Min. Bay.	9/32"	1 7/32"		T-3¼	7/16"	1/4"	23/32"	.35
L	5010-272-113	1/2"	Min. Wedge	9/32"	21/32"		T-3¼	7/16"	1/4"	23/32"	.43

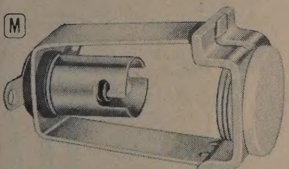
LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.
Drake No. 10C-113 is UL and CSA Listed.



MIN. BAY.
BULB NO. T-3¼
6.3 to 28V

(ALL ILLUSTRATIONS APPROX. ¾ ACTUAL SIZE)

M



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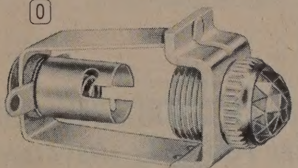
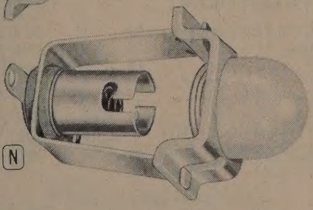




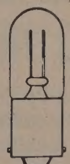
N

MONEY SAVER
MINIATURE BAYONET BASE
INDICATOR LIGHTS
with Snap-in Brackets

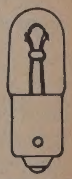
Available with attached ⅓ watt series resistor for NE51H Hi-Brightness neon lamp. Specify 100 K resistor for NE51 lamp. Lamps replaced from behind panel. No. 54 has nickel plated lens holder with Drake E-Z-Tite knurl for Drake No. 24 wrench.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Back	Built-In Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
M	52-504	11/16"	1/16"	1 1/2"		9/16"	3/32"	23/32"	$ .34
	N252-IL-503	11/16"	1/16"	1 1/2"	22K	9/16"	3/32"	23/32"	.71
N	53-304	5/8"	7/16"	1 7/32"		9/16"	3/32"	23/32"	.34
	N253-IL-323	5/8"	7/16"	1 7/32"	22K	9/16"	3/32"	23/32"	.71
O	54-113	1/2"	11/32"	1 13/32"		9/16"	5/16"	23/32"	.54
	N254-IL-103	1/2"	11/32"	1 13/32"	22K	9/16"	5/16"	23/32"	.85

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.
N252, N253, N254 are UL and CSA Listed.



LAMP NO.
NE51H
125 V



MIN. BAY.
BULB NO. T-3¼
6.3 to 28V

ALL PRICES LIST ★ ABOVE UNITS CAN BE ORDERED WITH LAMPS ★ ALWAYS SPECIFY LENS COLOR

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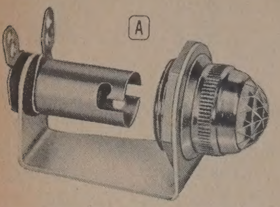
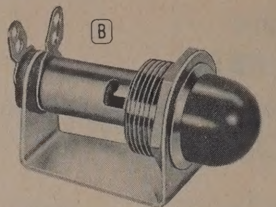
CHICAGO 31, ILLINOIS

INDICATOR LIGHTS





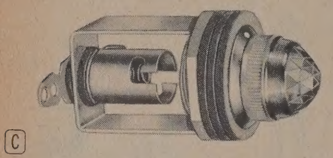
MONEY SAVER INDICATOR LIGHTS
HORIZONTAL MOUNTING

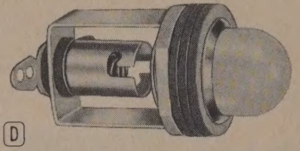
Plastic lens. Lamps replaced from front of panel. Nickel plated lens holder. Rated at 2 watts.

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Back	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
A	20-113	1/2″	Min. Bay.	17/32″	1 11/32″	11/16″	7/64″	1″	$ .53
	20S-113	1/2″	Min. Screw	17/32″	1 5/32″	11/16″	15/64″	1″	.54
B	21C-304	5/8″	Min. Bay.	1/2″	1 9/32″	11/16″	15/64″	1″	.44

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.

MIN. BAY.
BULB NO. T-3¼
6.3-28V





MONEY SAVER INDICATOR LIGHTS
FOR EASY PANEL THICKNESS ADJUSTMENT

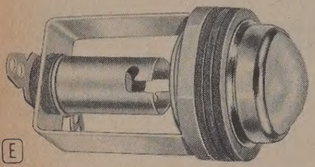
Supplied with three fiber spacing washers. Sturdily built. Plastic lens. Nickel plated lens holder. Lamps replaced from front of panel. Rated at 2 watts.

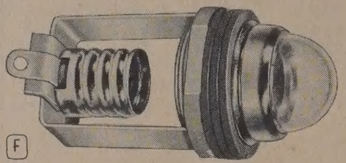
Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
C	50-113	1/2″	Min. Bay.	17/32″	1 9/32″	11/16″	1/4″	1″	$ .74
D	51-304	5/8″	Min. Bay.	1/2″	1 7/32″	11/16″	1/4″	1″	.63

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.

MIN. SCREW
BULB NO. T-3¼
2.5-6.3V

•
MIN. BAY.
AS ABOVE
•





"STANDARD" INDICATOR LIGHTS
FRONT LAMP REPLACEMENT

Smallest diameter units with front lamp replacement for 120 V incandescent lamps. Polished chrome friction lamp holder.

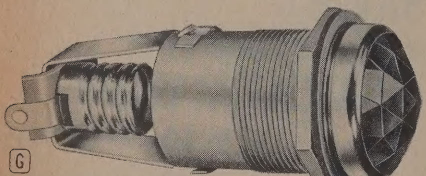
Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
E	60-101	3/4″	Min. Bay.	3/8″	1 1/2″	13/16″	1/4″	1 1/8″	$1.40
	A460N-IL-100	3/4″	Cand. Screw	3/8″	1 13/16″	13/16″	1/4″	1 1/8″	1.45
F	A461N-IL-203	3/4″	Cand. Screw	19/32″	1 1/4″	13/16″	1/4″	1 1/8″	1.42

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.

N460N-IL-100 and A461N-IL-203 are UL and CSA Listed.

LAMP NO. NE45
125V

LAMP NO.
6T4/3
120V



MONEY SAVER INDICATOR LIGHT
SLIP-FIT BEZEL FOR EASY INSTALLATION

Lamps may be replaced from front or rear of panel. Polished chrome friction lens holder.

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
G	75-110	1″	Cand. Screw	7/16″	2 1/4″	1″	1/2″	1 3/8″	$1.46

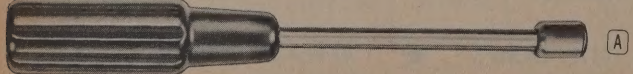
LENS DESCRIPTION CODE (last three Drake Number digits): see earlier page for explanation.

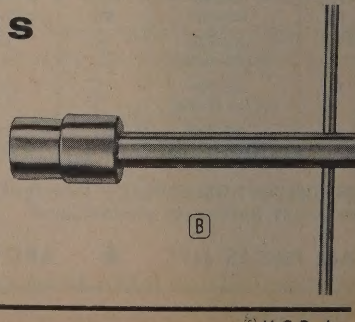
LAMP NO. 6S6
120V

DRAKE E-Z-TITE WRENCHES

Special Socket Wrenches to fit specially knurled mounting bushing flanges or nuts. Speeds up mounting of units. Number of required wrench given in unit descriptions.

Fig. No.	Drake Number	Size
A	651-14	7/16″ dia.
A	651-20	1/2″ dia.
A	651-24	5/8″ dia.
B	652-32	13/16″ dia.





Trade Discount Applies To List Prices Only

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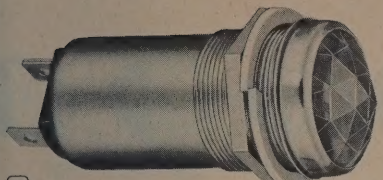
INDICATOR LIGHTS

DRAKE

CHICAGO 31, ILLINOIS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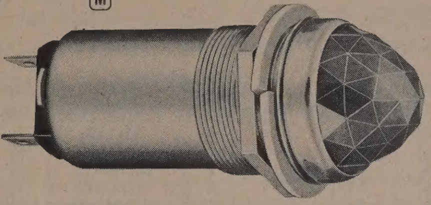
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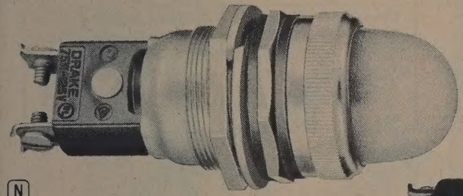
"STANDARD" INDICATOR LIGHTS

Practical, good-looking—polished chrome plated lens holder. Special feature: easy front replacement of pop-forward lamps. Snap-in lens assembly. Mount from front of panels up to ½" thick, in 1" dia. hole on 1⅜" centers.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Lamps	List Price
L	B1476L-ISE-110		1"	Cand. Screw	7/16"	2 9/16"	6S6 or 10C7	$1.95
M	B1476L-ISE-410		1"	Cand. Screw	¾"	2 5/16"	6S6 or 10C7	1.96

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.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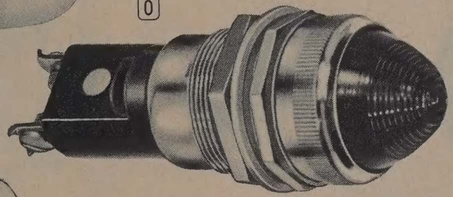
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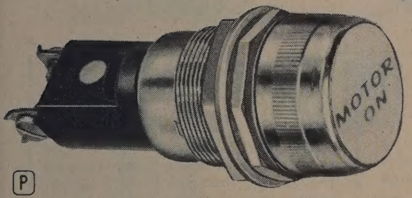

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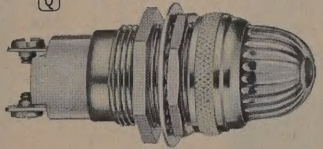

Q

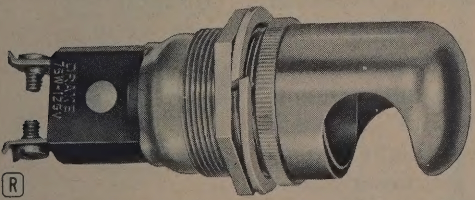
"TITELITE"

OIL-WATER-DUST PROOF INDICATOR LIGHTS

Neoprene gaskets seal out oil, water, dust, dirt. Ruggedly made for severe duty. Polished chrome plated screw-on lens holder (MIL types, black nickel plated); octagon nut for easier mounting. Pop-forward lamp on screw base units, easily replaced from front of panel. Mount from front or rear of panels up to 7/16" thick, in 1" dia. hole on 1⅜" centers. No. 5205-233 has built-in ¼ watt series resistor for NE51H lamp. Mounts from front or rear of panels up to ⅜" thick, in 11/16" dia. hole on 31/32" centers.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamps	List Price
N	B979S-IBE-305	LH80-LC22	1"	D.C. Cand. Bay.	1 9/32"	1 ⅞"		6S6DC	$3.27
	B979S-IBE-410		1"	D.C. Cand. Bay.	1 3/16"	2 ⅛"		6S6DC	3.23
O	B979S-IBE-430		1"	D.C. Cand. Bay.	1 3/16"	2 ⅛"		6S6DC	3.29
P	B979S-IBE-550		1"	D.C. Cand. Bay.	27/32"	2 ⅛"		6S6DC	3.48
	B1479S-IBE-305		1"	Cand. Screw	1 9/32"	1 9/16"		6S6 or NE45	3.51
	B1479L-IBE-410		1"	Cand. Screw	1 3/16"	1 27/32"		6S6 or 10C7	3.51
	B1479L-IBE-430		1"	Cand. Screw	1 3/16"	1 27/32"		6S6 or 10C7	3.51
	B1479L-IBE-550		1"	Cand. Screw	27/32"	2 1/32"		6S6 or 10C7	3.70
	5205-223-301		⅝"	Min. Bayonet	29/32"	1 7/32"		44	2.99
Q	5205-233-320		⅝"	Min. Bayonet	29/32"	1 7/32"	25K	NE51H	3.36

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.

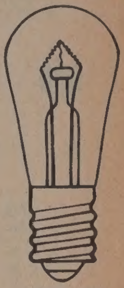

R

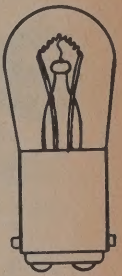
CANDELABRA SCREW BASE INSTRUMENT LIGHT

For 120V, 6S6 lamp. Nickel plated friction hood. Mounts from front or rear of panels up to ½" thick, in 1" dia. hole on 1⅜" centers.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Lamps	List Price
R	900-006			Cand. Screw	1 9/32"	1 29/32"	6S6	$2.17

(ALL ILLUSTRATIONS APPROX. ¾ ACTUAL SIZE)


LAMP NO. 6S6 120V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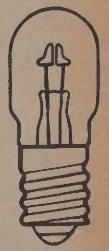
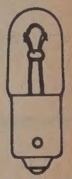
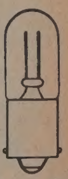

LAMP NO. NE45 120V


LAMP NO. T-3¼ 6.3 to 28V


LAMP NO. NE51H 125 to 250V

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LAMP SAME AS 6S6 ABOVE

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ALL PRICES LIST ★ ABOVE UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ ALWAYS SPECIFY LENS COLOR

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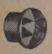
DRAKE

CHICAGO 31, ILLINOIS

LENSES & LENS SHAPES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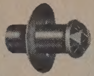
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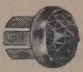
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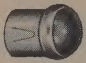
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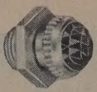
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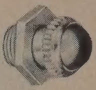
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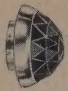
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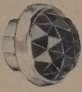
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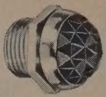
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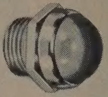
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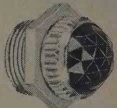
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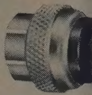
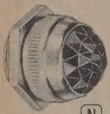

M

Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
A	615S-113	9/32″	.218	Solid	1/8″	$ .09
B	615L/1-113	9/32″	.218	Solid	1/2″	.12
C	24-113	5/16″	.278/.282	15/64″	1/4″	.11
D	36-101	5/16″	.324/.330	19/64″	5/16″	.41
E	14L-15-113	5/16″	5/16″—32 Thd.	15/64″	3/8″	.25
F	14L-15-103	5/16″	5/16″—32 Thd.	15/64″	3/8″	.28

Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
G	31-113	1/2″	.373/.377	11/32″	5/64″	.18
H	23-113	1/2″	.373/.377	11/32″	3/16″	.17
J	16-17-113	1/2″	7/16″—27 Thd.	11/32″	3/8″	.22
K	16-17-103	1/2″	7/16″—27 Thd.	11/32″	3/8″	.26
L	38-52B-110	1/2″	9/16″—27 Thd.	7/16″	3/8″	.39
M	103A-500	1/2″	.483/.485	15/32″	3/16″	.51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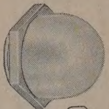
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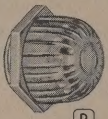
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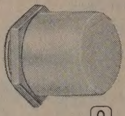
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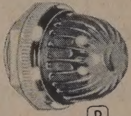
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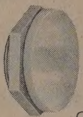
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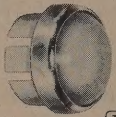
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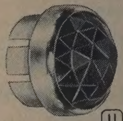
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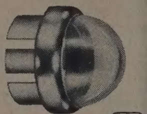
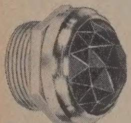

UU

Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
N	25-52B-110	1/2″	9/16″—27 Thd.	7/16″	3/16″	.35
O	25P-52B-304	5/8″	9/16″—27 Thd.	7/16″	3/16″	.22
P	25P-52B-323	5/8″	9/16″—27 Thd.	7/16″	3/16″	.22
Q	25P-52B-604	5/8″	9/16″—27 Thd.	7/16″	3/16″	.22

Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
R	25G4-52B-320	5/8″	9/16″—27 Thd.	7/16″	3/16″	.76
S	52A-B-504	11/16″	9/16″—27 Thd.	7/16″	3/16″	.22
T	60A-101	3/4″	.685/.687	5/8″	1/4″	.60
U	60A-110	3/4″	.685/.687	5/8″	1/4″	.57
UU	60A-203	3/4″	.685/.687	5/8″	1/4″	.55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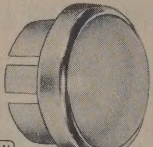
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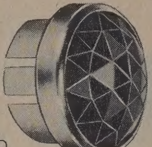
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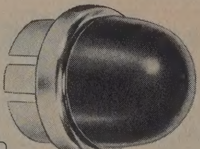
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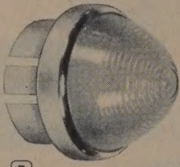
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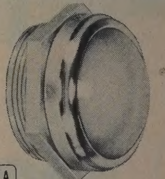
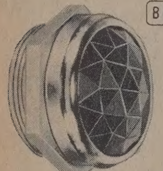

AA

Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
V	60A3-27-110	3/4″	11/16″—27 Thd.	37/64″	3/8″	.75
W	75A-101	1″	.887/.889	53/64″	5/16″	.65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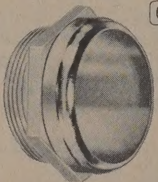
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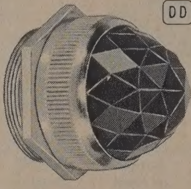
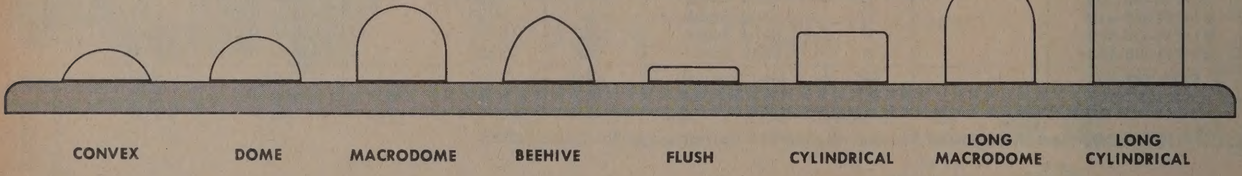

DD

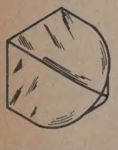
Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
X	75A-110	1″	.887/.889	53/64″	5/16″	.61
Y	75A-305	1″	.887/.889	53/64″	5/16″	.73
Z	75A-431	1″	.887/.889	53/64″	5/16″	.69
AA	75A3-C-101	1″	1″—27 Thd.	53/64″	3/8″	1.05
BB	75A3-C-110	1″	1″—27 Thd.	53/64″	3/8″	1.01
CC	75A3-C-500	1″	1″—27 Thd.	53/64″	3/8″	1.04
DD	75A4-C-410	1″	1″—27 Thd.	7/8″	5/16″	1.18

(ALL ILLUSTRATIONS APPROX. 3/4 ACTUAL SIZE)

★ ***ALWAYS SPECIFY LENS COLOR*** ★

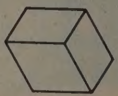
DRAKE LENS SHAPES AVAILABLE




PYRAMIDICAL LENS

The diagrams depict shapes of DRAKE Lenses, coded on an earlier page. The Rectangular and Pyramidical Lenses are special and are not included in the code. The Pyramidical is used on the DRAKE "Postlite". DRAKE has just added the Rectangular Lens to the "MF" Indicator Light Series, not catalogued. Write for Data Sheet 6204 which gives full description.

In ordering: The last 3 digits of part numbers show Lenses available; see the DRAKE Lens Code Number Data on an earlier page for description.


RECTANGULAR LENS

DRAKE MANUFACTURING COMPANY • **Chicago, Illinois**

SPECIALISTS IN MINIATURE LIGHTING

Trade Discount Applies To List Prices Only

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INDICATOR LIGHTS

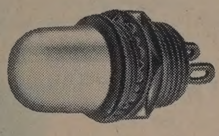
for every panel design by

CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa.

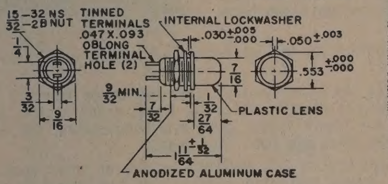
Shown below are only a few of the more than 50 basic standard types of indicator lights available from Control Switch Division. Actually, there are dozens of variations in color, mounting, appearance and circuitry possible for almost every basic style. For example, indicator lights are available for 6, 14, or 28 volt, D.C. and 110 V. A.C. circuits. So whatever your needs, there are ready-made, in-stock indicator lights to fit your panel.

(LIST PRICES BELOW ARE FOR UNITS WITHOUT LAMPS)

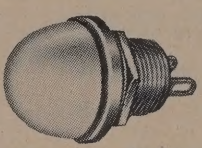
SERIES L14005B



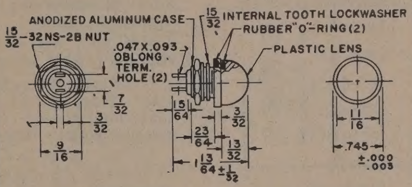
Conforms to MS-25256. Long plastic lens for 180° visibility. Front panel mounting (L14000) shown; also available for back mounting (L14200). Uses MS-25237 lamps. **LIST $0.98**


15/32-32 NS-2B NUT
TINNED TERMINALS
.047 X .093 OBLONG TERMINAL HOLE (2)
INTERNAL LOCKWASHER
.030 +.005 -.000
.050 ±.003
.553 +.000 -.000
PLASTIC LENS
ANODIZED ALUMINUM CASE

SERIES L5105



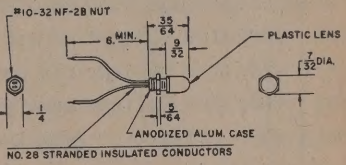
Watertight, front-of-panel mounting. Wide-angle visibility. 2-terminal circuit. Mounts in ½-inch hole. Uses MS-25237 lamps. Press-to-Test Model L16200 available. **LIST $1.62**


ANODIZED ALUMINUM CASE
15/32-32NS-2B NUT
INTERNAL TOOTH LOCKWASHER
RUBBER "O"-RING (2)
.047 X .093 OBLONG TERM. HOLE (2)
PLASTIC LENS
.745 +.000 -.003

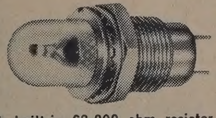
SERIES L10000

Supplied with 5V. Lamp

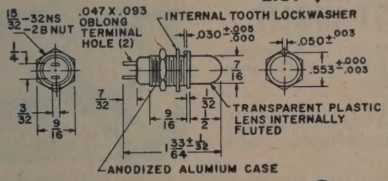
Sub-miniature, moisture-proof. Rated life of 60,000 continuous hours at 5 volts. Models available to mount flush with panel surface. **LIST $5.45**


#10-32 NF-2B NUT
6. MIN.
PLASTIC LENS
7/32 DIA.
ANODIZED ALUM. CASE
NO. 28 STRANDED INSULATED CONDUCTORS

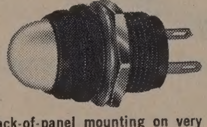
SERIES L15015B



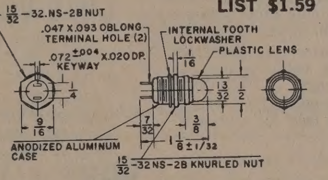
Neon indicator with built-in 62,000 ohm resistor for 115V circuits. Conforms to MS-25257. Available for front or back panel mounting. **LIST $1.71**


15/32-32NS-2B NUT
.047 X .093 OBLONG TERMINAL HOLE (2)
INTERNAL TOOTH LOCKWASHER
.030 +.005 -.000
.050 ±.003
.553 +.000 -.003
TRANSPARENT PLASTIC LENS INTERNALLY FLUTED
ANODIZED ALUMIUM CASE

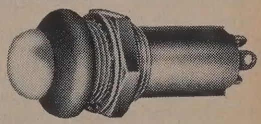
SERIES L14215



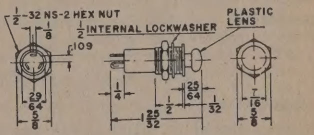
Special model for back-of-panel mounting on very compact panels. Mounting nut is tightened from front. Lens has knurled nut for easy removal of lens-lamp module. Uses MS-25237 lamps. **LIST $1.59**


15/32-32.NS-2B NUT
.047 X .093 OBLONG TERMINAL HOLE (2)
.072 +.004 X .020 DP. KEYWAY
INTERNAL TOOTH LOCKWASHER
PLASTIC LENS
ANODIZED ALUMINUM CASE
15/32-32 NS-2B KNURLED NUT

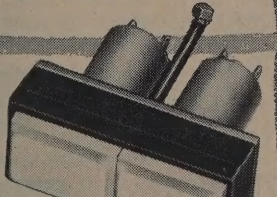
SERIES L3060



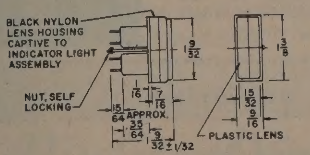
Moisture-proof push-to-test indicator light. Test lamp circuit by pushing plastic lens. Supplied with or without silicon rubber boot to seal panel. Lens has "O"-ring seal. Flange-type mounting in ½-inch hole. Uses MS-25237 lamps. **LIST $4.45**


1/2-32 NS-2 HEX NUT
1/2 INTERNAL LOCKWASHER
PLASTIC LENS
.109

SERIES L5915

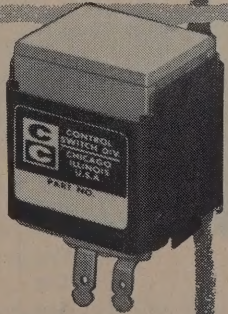


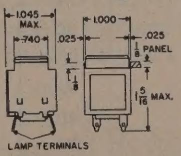
Miniature "billboard" placard contains two MS-25237 lamps. 2-color model shown (L5915), also available: 1-color (L5900) and Press-to-Test (L5200). All legends engraved (not hot-stamped). Self-indexing unit. Captive lens. **L5915: LIST $5.90**


BLACK NYLON LENS HOUSING CAPTIVE TO INDICATOR LIGHT ASSEMBLY
NUT, SELF LOCKING
APPROX.
PLASTIC LENS

SERIES C6

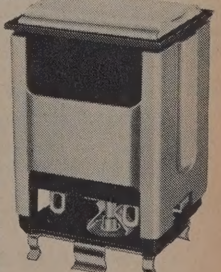
TWINLITE modular indicator light assembly with identical panel appearance and mounting configuration to Series C6 lighted push-buttons. Mounts with barriers in rows, in matrix, or individually: Contains two lamps on individual or common circuits. Split or solid color buttons available. With 6 V. or 28 V. lamps. **LIST $5.25**

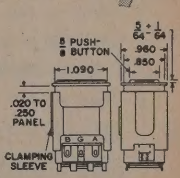

CONTROL SWITCH DIV. CHICAGO ILLINOIS U.S.A.
PART NO.


1.045 MAX.
.740
1.000
.025
.025 PANEL
5/16 MAX.
LAMP TERMINALS

NEW M-SERIES

Indicator version of new M-Series switchlites has four lamps with silicon rubber color filters, four lamp circuits. Relamps from front without tools. Mounts without hardware in single cut-out from front of any panel .020 to .250 thick. One piece legend button. Matrix-mounted assemblies, splash-proof model. Snap-on switch modules in DPDT and 4PDT, alternate or momentary action, or solenoid-hold. **LIST $7.50**




PUSH-BUTTON
.960
.850
1.090
.020 TO .250 PANEL
CLAMPING SLEEVE

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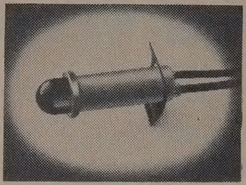
INDUSTRIAL DEVICES, Inc.

EDGEWATER, NEW JERSEY

OMNI-GLOW PILOT LIGHT



For use on instrument panels, appliances, switchboards, all electrical and electronic apparatus, OMNI-GLOW will last in excess of 10,000 to 25,000 hours of operating life.

With built-in glow lamp and current limiting resistor, all mechanical spring contacts are eliminated, providing a cost-saving, rugged unit relatively free from failure due to vibration or shock.

Easy mounting — only a $\frac{1}{2}$" hole required for any panel thickness. Instant fastening — speed nut assures permanent shock and vibration-proof attachment.

Drawing less than 1/10 watt at 115 volts; long life, high reliability operation is provided over the 75-150 volt range; can also be used at higher voltage with decreased life.

Nylon body and acrylic lens assembly is $1\frac{15}{16}$" long overall. Lens extends $\frac{17}{32}$" in front of panel. Black plastic (105°C) leads are $4\frac{1}{2}$" long, stripped and tinned $\frac{1}{2}$".

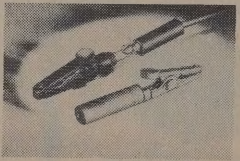
Four standard models have red (Model #1010A1), clear (Model #1010A2), amber (Model #1010A3), or white translucent (Model #1010A4) lenses.

Furnished complete with lamp and speed nut, OMNI-GLOW is UL approved—CSA Approval No. 13346.

Catalog Number	Description	List Price
1010A1	OMNI-GLOW Pilot Light (red lens)	$ .90
1010A2	OMNI-GLOW Pilot Light (clear lens)	$ .90
1010A3	OMNI-GLOW Pilot Light (amber lens)	$ .90
1010A4	OMNI-GLOW Pilot Light (white lens)	$ .90

SAFE-T-KLIP

(U. S. Patent 2,754,490)



New convenience and safety are realized through the use of 100% insulation on these test clips. Tough nylon insulation covers the entire clip, including the nose, without the bulkiness of rubber boots or insulating tape. Danger of short circuit due to clips touching each other or other components is eliminated, and test leads may be changed from one connection to another without cutting the power in the equipment.

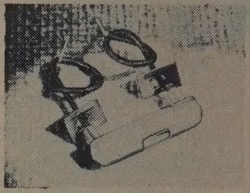
Available in pairs (one red, one black) SAFE-T-KLIP incorporates a cadmium plated steel alligator clip and provides shock-proof, short-circuit proof operation in excess of 600 volts. Width of the clips is $\frac{3}{8}$"; maximum height is $\frac{5}{8}$".

Four models are available. The #1410A is for use with a wire lead and provides either a soldered or screw terminal connection. The nylon sleeve is threaded to the clip for easy connection: Overall assembled length is $2\frac{13}{16}$". The #1410B, with overall length of $2\frac{11}{32}$", provides positive clip connection to all standard (.081 dia.) phone-tip test prods. The #1410C has a jack for standard banana plugs and an overall length of $2\frac{1}{16}$".

The 1410D is similar to 1410B except that the entrance hole is modified for Signal Corps. application.

Catalog Number	Description	List Price
1410A	SAFE-T-KLIP for use with lead wire provides screw terminal or solder	$1.80 pr.
	Color — black (Model No. 1410-A1)	.90 ea.
	Color — red (Model No. 1410-A2)	.90 ea.
1410B	SAFE-T-CLIP for use with standard .080" test prod	1.50 pr.
	Color — black (Model No. 1410-B1)	.75 ea.
	Color — red (Model No. 1410-B2)	.75 ea.
1410C	SAFE-T-KLIP for use with banana plug	1.20 pr.
	Color — black (Model No. 1410-C1)	.60 ea.
	Color — red (Model No. 1410-C2)	.60 ea.
1410D	SAFE-T-KLIP for Signal Corps use	1.40 pr.
	Color — black (Model No. 1410-D1)	.70 ea.
	Color — red (Model No. 1410-D2)	.70 ea.

TINY-GLOW PILOT LIGHT



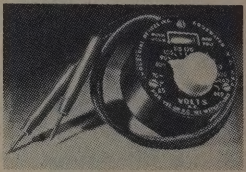
Midget Size. For use on instrument panels, switchboards, electrical and electronic aparatus. Neon lamp draws less than 1 milliampere at 110 volts. Over 25,000 hours of actual service, operates over a wide range, 75 to 250 volts. A.C. or D.C. TINY-GLOW outlasts the equipment that it serves.

Shock and vibration proof, no spring contacts, soldered connections. Requires less back-of-panel space than any other pilot light. Polished chrome plated housing, $\frac{3}{8}$" brass mounting studs. Mounts simply and easily with speed nuts on two $\frac{13}{64}$" holes, $1\frac{3}{8}$" apart. Furnished complete with lamp and speed nuts. Dimensions: $1\frac{1}{16}$" x $\frac{7}{16}$" x $\frac{3}{8}$".

Catalog Number	Description	List Price
300	TINY GLOW Pilot Light	$1.25

MINI-VOLT VOLTMETER

(U.S. Pat. 2,644,134)



MINI-VOLT is an "abuse-proof" voltmeter, sufficiently accurate to indicate a 2 or 3 volt drop on 110 volt line. Virtually burn-out proof, this rugged unit is used by electricians, radio and TV repairmen, refrigeratior and air conditioning servicemen, experimentors, lab technicians, handymen.

MINI-VOLT has wide application for all equipment whose proper operation requires correct voltage.

In addition to measuring the exact voltage over the range from 65 to 660 volts, Model #400B is used to identify AC or DC lines, check rectifiers, filter capacitors, chokes; test for blown fuses, grounded components, DC polarity, measure voltage drops with load, and 1001 other uses.

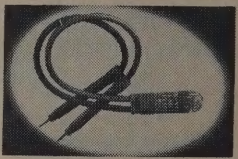
For use on AC (any frequency) or DC, MINI-VOLT, with an impedance of approximately $\frac{1}{2}$ megohm, draws negligible current and can therefore provide dependable voltage readings even on circuits used in electronic apparatus.

Will provide a lifetime of service — glow lamp is guaranteed for 25,000 hours of actual operation. Furnished complete with extra-heavy insulated 12-inch flexible test leads and test prods.

Lightweight impact resistant case and dial panel, thoroughly insulated. So rugged that instrument can be thrown into tool box or dropped to floor without damage. C.S.A. approval #8910.

Catalog Number	Description	List Price
400B	Range 65 to 660 volts	$3.75

LINE-VOLT TEST LIGHT



LINE-VOLT Model No. 1310 is a rugged, compact test light covering the wide range of 55-550 VAC or 90-600 VDC.

LINE-VOLT tells immediately whether there is power in the line, checks fuses, can identify AC or DC lines, grounded components, continuity of line circuits.

Leads are 12" long overall and are heavy-duty flexible wire terminating in $3\frac{1}{2}$" insulated prods with really sharp points—able to pierce insulation, paint, or oxidation. Bright lamp provides immediate positive indication.

14" long overall, diameter $\frac{5}{8}$".

Catalog Number	Description	List Price
1310	LINE-VOLT Test Lite (55-550 volts)	$1.50

GLO-DOT PILOT LIGHT

Small and attractive pilot light mounts in $\frac{5}{16}$" hole with speed nut (provided). Built-in resistor assures long life while strain-relief provides added protection. Entire series UL & CSA approved. $4\frac{1}{2}$" leads, 22 AWG stranded 105°C insulation supplied stripped $\frac{1}{2}$". Top ring is .340 dia. by .140" high while length of body under shoulder is $1\frac{31}{64}$" overall.

Catalog Number	Description	List Price
2110A-*	GLO-DOT w/(see note) lens	$ .85

*Note: (1) red, (2) clear, (3) amber, (4) white

INDUSTRIAL DEVICES, INC. EDGEWATER, NEW JERSEY

Trade Discount Applies to List Prices Only

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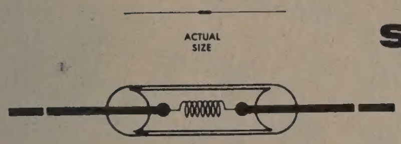
Pinlite® WORLD'S SMALLEST INCANDESCENT LAMPS

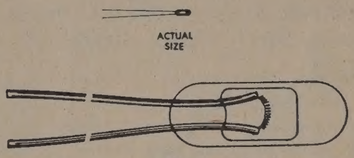
PINLITE FEATURES

- Smallest Size
- Fastest Response (Audio Range)
- Vibration & Shock Resistant
- Lowest Power Consumption
- Lowest Series "L" & Shunt "C"
- IR and UV Emission
- Built-in Lens Concentrates Light Beam Up to 10X Normal Intensity

SPECIFICATIONS



AXIAL LEADED TYPE



LENS TYPE

13-7	15-15	15-45	30-30		L12-3	L12-12	L15-30	L15-45
1.35	1.5	1.5	3	Operating Voltage .... (Volts)	1.25	1.2	1.5	1.5
6.75	15	45	30	Operating Current . (Milliamps)	3	12	30	45
.016	.016	.030	.030	Diameter .... (Inches)	.030	.030	.030	.030
.065	.065	.100	.100	Length .... (Inches)	.080	.080	.080	.080
38	13.5	4	11	Cold Resistance .... (Ohms)	80	16	5.5	4
200	100	33	100	Hot Resistance .... (Ohms)	400	100	50	33
4	5	10	7	Pulse Response .. (Milliseconds)	3	5	7	10
20	60	220	250	Total Light Output (Millilumens)	10	50	160	220
500	1000	1000	1000	Life Expectancy .... (Hours)	500	1000	1000	1000
3	3	5	5	Lead Diameter .... (Mils)	4	4	4	4
⅜	⅜	⅜	⅜	Lead Length .... (Inches)	⅜	⅜	⅜	⅜
Platinum				Lead Material	Platinum			
Tungsten				Filament Material	Tungsten			

PRICE*				QUANTITY	PRICE*			
7.95	4.75	4.00	4.00	1-9	10.00	5.00	5.00	5.00
7.50	4.25	3.60	3.60	10-49	8.20	3.95	3.95	3.95
7.00	3.85	3.25	3.25	50-99	7.50	3.25	3.25	3.25
6.40	3.45	2.90	2.90	100-499	6.85	2.85	2.85	2.85
5.70	3.10	2.60	2.60	500-999	6.25	2.35	2.35	2.35
4.95	2.80	2.35	2.35	1000-4999	5.75	1.95	1.95	1.95
4.45	2.50	2.00	2.00	5000	5.25	1.75	1.75	1.75

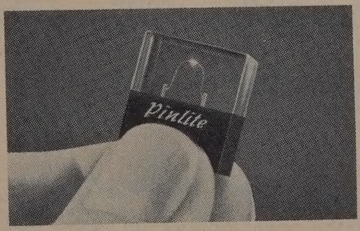
*f.o.b. Pine Brook. All prices subject to 10% Fed. Ex. Tax.

DELIVERY — Most quantities from stock.

PINLITE APPLICATIONS

- Transistor Indicators
- Microwave Noise Sources
- Modulated Light Source
- Microwave Bolometers
- Optical Point Sources
- Medical & Industrial Light Probes
- Remote Electronic Attenuators
- Read Out Devices
- Pointer & Meter Scale Illuminators
- Photometric Instrumentation
- Light Actuated Switches

NEW Pinlite Test Component



"THUMB-THING"

Here is your opportunity to test the PINLITE without fear of losing or mishandling this incredibly tiny lamp.

The Thumb-Thing consists of a PINLITE embedded in a clear plastic container, together with a microminiature battery and a switching arrangement. Provides engineers with a practical, easy-to-handle method of testing PINLITES. Battery is easily removed, exposing two sturdy leads which can be connected to an external power source or test signal.

Model 15 Contains Type 15-15 Pinlite
Model 12 Contains Type L12-12 Pinlite
Price: $10.00 each Fed. Excise Tax and Battery Incl.

Pinlite Division
KAY ELECTRIC CO.

Manufacturers of The World's Smallest Incandescent Lamps

PINE BROOK, NEW JERSEY

PORTABLE — Plug-in Type

INVERTERS

Specially Designed for Operating Standard A.C. Dictating Machines, Record Players, Incandescent Lamps, Electric Razors, Electronic Test Equipment, and Other Small Electrical and Electronic Devices from D.C. Voltages in Automobiles, Buses, Trucks, Boats, Planes, Trains, and D.C. Districts.

ATR
ATR VIBRATOR POWER SUPPLY
ATR MANUFACTURING CO. INC.

Illustrates ATR Mighty Midget (DME) Model Inverter having Cigarette Lighter Plug Attachment.

ATR Portable Inverters are light-weight plug-in units for applications as recommended above. These Inverters feature instant starting, frequency stability, and high efficiency and reliability. Inverters have partial RF filtering which is only suitable for small insensitive type radios. For sensitive radio sets, ATR Universal Inverters, catalog sheet 657U, must be used. The 6 and 12-volt units are equipped with cigarette lighter cord set to plug into dash receptacle; whereas, the other higher input voltage units are equipped with standard two-blade plug-in cord sets. With ATR Inverters the need for special equipment is eliminated. They are designed for quiet, long-life operation. All ATR Models indicated are equipped with ATR plug-in Inverter Vibrators. Models RME and RMF come equipped with a four-point voltage regulator which makes possible the correct output voltage for minimum to maximum loads. The battery current consumption required is normally less than that drawn by one ordinary automobile headlight. The operating efficiency is approximately 75%. To figure battery current consumption see catalog sheet 657U. These Inverters are recommended only for use with loads having power factors in excess of 80% and should be used only for the applications as outlined above and on the reverse side of this sheet. **These Portable Inverters are not recommended for tape recorder operation, except as specified in (2) below.**

ATR
ATR INVERTER
VOLTAGE REGULATOR
A.C. OUTPUT
FUSE
ON

Illustrates ATR Medium (RME and RMF) Model Inverter having Four-Point Voltage Regulator and Cigarette Lighter Plug Attachment.

EASY TO INSTALL
EASY TO OPERATE

Illustrates Under-Dash Mounting for ATR Models RME and RMF. See Page 1019 for available accessories.

Ideal for Emergency Lighting Applications for Civil Defense, Red Cross, Rescue Work, etc., Simply Using Extension Cords.

TYPE	INPUT D.C. VOLTS	A.C. OUTPUT 60 CYCLES	OUTPUT WATTAGE Int.	OUTPUT WATTAGE Cont.	SHIPPING WEIGHT	DEALER PRICE
6-DME (1)	6	110 Volts	40	30	5 lbs.	$16.63
6C-DME (1)	6/12	110	40	30	5	19.30
6-RMF (2)	6	110	80	60	12	33.00
6C-RMF (2)	6/12	110	80	60	12	36.64
12-DME (1)	12	110	50	40	5	16.63
12T-RME (2) (3)	12	110	125	90	12	33.00
*28-RME (2)	28	110	100	80	12	46.34
32-RME (2)	32	110	100	80	12	46.34
110-RME (2)	110	110	150	100	12	39.67

* Recommended for 24-Volt Battery Systems.

For Inverters having larger or smaller output capacities, or for operation on other D.C. input voltages, please consult available ATR Inverter catalog sheets.

All models designated above are housed in attractively finished grey-hammerloid metal cabinets. Dimensions of Medium (RME and RMF) Model Inverters, 8⅜'' x 8'' x 3¾''; shipping weight, 12 lbs. Dimensions of Mighty Midget (DME) Model Inverters, 5¼'' x 4¾'' x 2¾''; shipping weight, 5 lbs. For correct replacement vibrator, consult Inverter Vibrator Guide.

(1) These Inverters primarily recommended for Edison VP dictating machines. May also be used with Model 200 Soundscriber (with engine of car not running).

(2) Primarily recommended for Dictaphone's Time Master, Gray Audograph and DeJur Stenorette dictating machines, or other similar types. Also, highly recommended for Norelco Tape Recorder Model EL-3516 and Geloso Model G255-S.

(3) THIS INVERTER SPECIALLY DESIGNED AND RECOMMENDED ALSO FOR USE WITH RCA 8½'' PORTABLE TV SET OR G.E. 9'' PORTABLE TV SET IN AN AUTOMOBILE.

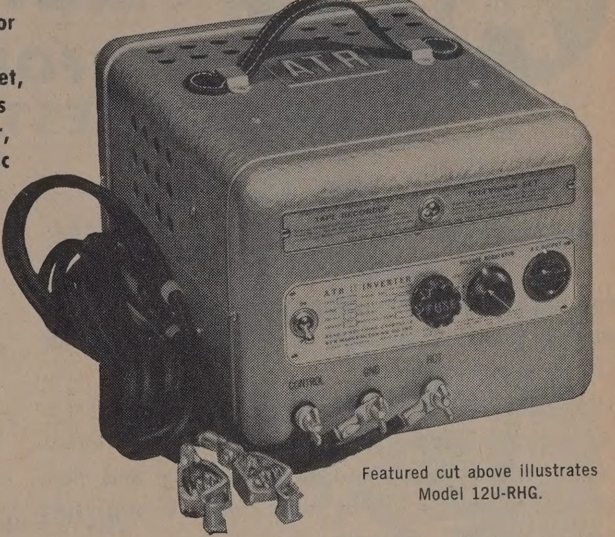
JOBBERS ATTENTION: See Page 1019 in this ATR Section and Page 607 in Section 1900 for your Catalog Needs!

© U.C.P., Inc.

ATR UNIVERSAL INVERTERS

Specially Designed for Operating Standard A.C. Tape Recorder, Television Set, Dictating Machine, Radio Set, Ham Gear, Public Address System, Amplifier, Record Player, Electric Razor, Food Mixer, Vacuum Cleaner, Sewing Machine, Business Machine, Electric Drill, Fluorescent and Incandescent Lamp, and Electronic Test Equipment from D.C. Voltages in Automobiles, Buses, Trucks, Boats, Trains, Planes, and D.C. Districts. Ideal for Emergency Lighting Applications for Civil Defense, Red Cross, Rescue Work, etc., Simply Using Extension Cords.

ATR Universal Inverters are actually a combination of 4 Inverter designs in one unit! These Inverters are especially recommended for applications as mentioned above and feature complete RF frequency interference suppression, instant starting, frequency stability, and built-in power factor corrector utilizing a simple toggle switch. With ATR Inverters, the need for special equipment is eliminated. They are designed for quiet, long-life operation at high efficiency and maximum reliability. All models indicated are equipped with ATR heavy duty plug-in Inverter Vibrators. These Inverters also come equipped with four-point voltage regulator which make possible the correct output voltage for minimum to maximum loads and also help compensate for input voltages which are lower or higher than normal. The operating efficiency is in excess of 75%. To figure approximate current consumption from storage battery, divide the rated input wattage of the recorder (or load) being operated by the storage battery voltage and further divide this answer by .75 which will give the actual current consumption based on the actual load and efficiency. The battery current consumption required for a tape recorder is normally less than that drawn by ordinary automobile headlight(s). These Universal Inverters are recommended only for use with loads having power factors in excess of 70%.



Featured cut above illustrates Model 12U-RHG.

ATR Inverters should be used only for the applications as outlined.

"—P" models equipped with cigarette lighter cord set to plug into dash receptacle.

All ATR Universal Inverters are housed in attractively finished grey-hammerloid metal cabinets.

Dimensions of Standard (RSF) Model Universal Inverters, 8½" x 9⅞" x 5¼"; shipping weight 22 lbs.

Dimensions of Heavy Duty (RHG) Model Universal Inverters, 6⅞" x 11¼" x 8½"; shipping weight 27 lbs.

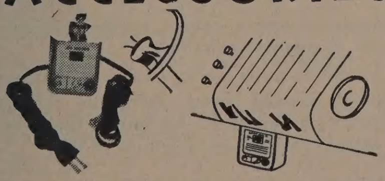
Dimensions of Super Heavy Duty (HSJ) Model Universal Inverters 6½" x 12⅞" x 8½"; shipping weight 37 lbs.

For correct replacement Vibrator, consult Inverter Vibrator Guide.

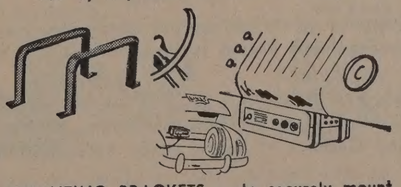
Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	Dealer Price
6U-RSF	6	110 Volts	100	80	22 lbs.	$ 50.00
6U-RSF-P	6	110	100	80	22	50.00
6U-RHG	6	110	150	125	27	66.34
6U-HSJ	6	110	175	150	37	83.34
12U-RSF	12	110	125	100	22	50 00
12U-RSF-P	12	110	125	100	22	50.00
12U-RHG	12	110	175	150	27	66.34
12U-HSJ	12	110	250	200	37	83.34
*28U-RSF	28	110	125	100	22	59 97
*28U-RHG	28	110	175	150	27	79.67
*28U-HSJ	28	110	250	200	37	96.67
32U-RSF	32	110	150	100	22	59.97
32U-RHG	32	110	200	180	30	70.50
32U-HSJ	32	110	325	225	37	96.67
50U-RSF	50	110	150	100	22	59.97
50U-RHG	50	110	225	200	27	79.67
110U-RSF	110	110	250	150	22	50.00
110AU-RHG	110	110	325	250	27	59.97
110BU-RHG	110	110	450	350	30	70.50
110U-HSJ	110	110	600	400	37	96.67
220U-RSF	220	110	250	150	22	53.00
220U-RHG	220	110	325	250	27	66.34
220U-HSJ	220	110	500	300	37	103.34

* Recommended for 24 volt battery systems.

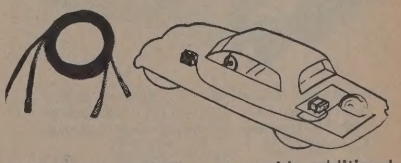
ACCESSORIES for 6, 12, and 28 Volt D.C. Input Inverters.



REMOTE CONTROL UNIT — for under-dash mounting permitting installation of Inverter in auto-trunk compartment. Dealer Price $5.97



MOUNTING BRACKETS — to securely mount Inverter in trunk compartment of car or under-dash, as illustrated. Dealer Price $3.30 pr.



EXTENSION CABLES — to provide additional cable lengths for installation of Inverter in trunk compartment. Dealer Price $6.63 pr.

JOBBERS ATTENTION: See Page 1019 in this ATR Section and Page 607 in Section 1900 for your Catalog Needs!

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Net

ATR

"A" BATTERY ELIMINATORS

. . . FOR DEMONSTRATING AND TESTING AUTO RADIOS

6 VOLT OR 12 VOLT!

TRANSISTOR or VIBRATOR OPERATED!

LOW RIPPLE!!

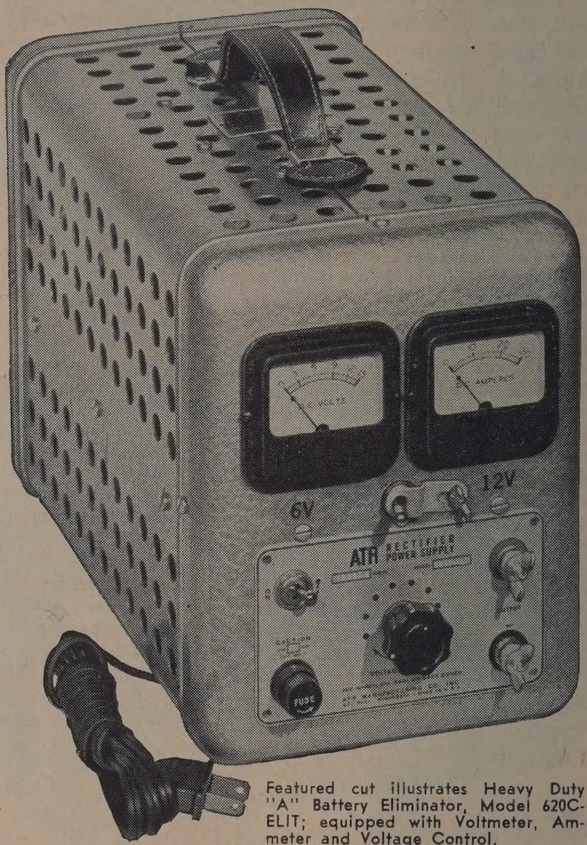
Specially Designed for Testing and Operating Auto Radios and D.C. Electrical Apparatus on Regular A.C. Lines, 105-125 Volts, 50-60 Cycles.

SUGGESTED USES:

As a power supply for radio sets, aircraft instruments, relays, motors and other electrical and electronic equipments. In the laboratory, for supplying various low D.C. voltages.

Battery Eliminators may be treated as batteries in the sense that they can be connected in series for higher voltages at the same current output per unit or in parallel for the same output voltage per unit at higher currents.

- ✓ **Eliminates Storage Batteries and Battery Chargers.**
- ✓ **Operates the Equipment at Maximum Efficiency at All Times.**
- ✓ **Delivers Filtered Direct Current at the Correct Voltage for Proper Operation.**
- ✓ **Minimum Ripple**
- ✓ **Fully Automatic and Fool-Proof**
- ✓ **Adjustable Voltage Control**



Featured cut illustrates Heavy Duty "A" Battery Eliminator, Model 620C-ELIT; equipped with Voltmeter, Ammeter and Voltage Control.

Illustrates Standard "A" Battery Eliminator, Model 610C-ELIF; equipped with Voltmeter, Ammeter and Voltage Control.

Equipped with Full-Wave Dry Disc Selenium Rectifier, Assuring Noiseless, Interference-Free Operation and Extreme Long Life and Reliability.

TYPE 610C-ELIF—Rated output 6 volts at 10 amperes continuous or 12 volts at 6 amperes continuous. Size 6½" x 9⅛" x 8½". Shipping weight, 22 lbs. Code word "SELIT." USER NET PRICE $49.95

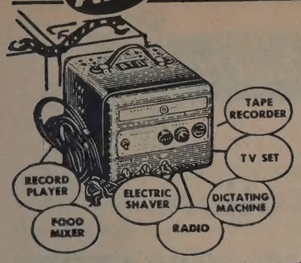
TYPE 620C-ELIT—Rated output 6 volts at 20 amperes continuous or 12 volts at 10 amperes continuous. Uses dual rectifiers. Sizes 6½" x 12⅞" x 8½". Shipping weight, 33 lbs. Code word "HELIT." USER NET PRICE $66.95

Either 6 or 12 volt output obtainable by means of simple output toggle switching arrangement having locking device to prevent accidental switching.

All ATR Eliminators have as standard equipment: On-Off Switch, 8-Position Voltage Control, Meter(s), Fuse Protection, Rubber Mounting Feet, 6-ft. All-Rubber Cord Set and Cabinet of heavy gauge metal having attractive grey-hammerloid finish.

JOBBERS ATTENTION: See Page 1019 in this ATR Section and Page 607 in Section 1900 for your Catalog Needs!

ATR *Inverters, Vibrators, "A" Eliminators, etc.*



ATR DC TO AC UNIVERSAL INVERTERS

New, universal inverters for operating 110-v., 60 cycle AC equipment from DC voltages in autos, buses, trucks, boats, trains, planes and DC districts. Designed especially for standard 110-volt AC tape recorders, TV sets, radios, PA systems, electric razors, test equipment, etc. Units are carefully engineered and ruggedly constructed to provide long life operation. All feature complete RF interference suppression and exceptional frequency stability. Have operating efficiency in excess of 75%. Four-point voltage regulator corrects output voltage for minimum and maximum loads, and also helps compensate for input voltages lower or higher than normal. Inverters are recommended for use with loads having power factors in excess of 70%. Built-in toggle switch selects most efficient operation for use with TV sets or tape recorders. Inverters are not recommended for use with large motor driven appliances such as refrigerators, washing machines, etc. All have ON-Off switches. Housed in attractive gray hammerloid metal cabinet with convenient leather carrying strap. Sizes: Standard Model RSF, 8½x9⅞x5¼"; Heavy-Duty Model RHG 6⅞x11¼x8½", Extra-Heavy-Duty Model HSJ, 6½x12⅞x8½". With battery clips for instant connection to power source. Models with "P" suffix equipped with adapter cord for use in auto cigarette lighter receptacles. *Recommended for24 volt battery operation. **Before ordering, check wattage of equipment with which inverter will be used.**

Stock No.	Mfr's Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	List Price	Net Price
	6U-RSF	6	110 Volts	100	80	22 lbs.	$75.00	**$50.00**
	6U-RSF-P	6	110	100	80	22	75.00	**50.00**
	6U-RHG	6	110	150	125	27	99.50	**66.34**
	6U-HSJ	6	110	175	150	37	125.00	**83.34**
	12U-RSF	12	110	125	100	22	75.00	**50.00**
	12U-RSF-P	12	110	125	100	22	75.00	**50.00**
	12U-RHG	12	110	175	150	27	99.50	**66.34**
	12U-HSJ	12	110	250	200	37	125.00	**83.34**
	* 28U-RSF	28	110	125	100	22	89.95	**59.97**
	* 28U-RHG	28	110	175	150	27	119.50	**79.67**
	* 28U-HSJ	28	110	250	200	37	145.00	**96.67**
	32U-RSF	32	110	150	100	22	89.95	**59.97**
	32U-RHG	32	110	200	180	30	105.75	**70.50**
	32U-HSJ	32	110	325	225	37	145.00	**96.67**
	50U-RSF	50	110	150	100	22	89.95	**59.97**
	50U-RHG	50	110	225	200	27	119.50	**79.67**
	110U-RSF	110	110	250	150	22	75.00	**50.00**
	110AU-RHG	110	110	325	250	27	89.95	**59.97**
	110BU-RHG	110	110	450	350	30	105.75	**70.50**
	110U-HSJ	110	110	600	400	37	145.00	**96.67**
	220U-RSF	220	110	250	150	22	79.50	**53.00**
	220U-RHG	220	110	325	250	27	99.50	**66.34**
	220U-HSJ	220	110	500	300	37	155.00	**103.34**

ATR PORTABLE PLUG-IN TYPE INVERTERS

SPECIALLY DESIGNED FOR OPERATING STANDARD A. C. DICTATING MACHINES, RECORD PLAYERS, INCANDESCENT LAMPS, ELECTRIC RAZORS, ELECTRONIC TEST EQUIPMENT, AND OTHER SMALL ELECTRICAL AND ELECTRONIC DEVICES FROM D. C. VOLTAGES IN AUTOMOBILES, BUSES, TRUCKS, BOATS, PLANES, TRAINS, AND D. C. DISTRICTS.

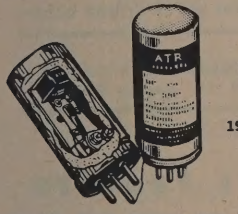
Lightweight inverters for operating 110 v. AC equipment from DC voltage sources. Feature excellent frequency stability and high efficiency. 6 and 12-volt units plug into cigarette lighter receptacle of any vehicle; others are equipped with standard 2-prong plugs. All are designed especially for use with dictating machines; record players, electric razors, test equipment, etc. Not recommended for tape recorders and large motor driven appliances such as refrigerators, washing machines, etc. Gray Hammerloid case with leather carrying strap. Sizes: DME, 5¼x4¾x2¾"; RME and RMF, 8⅜x8x3¾". *Recommended for 24-volt operation. **Check wattage rating of equipment before ordering. RMF/RME Model Inverters equipped with voltage regulator.**

Stock No.	Mfr's Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	List Price	Net Price
	6-DME (1)	6	110 Volts	40	30	5 lbs.	$24.95	**$16.63**
	6C-DME (1)	6/12	110	40	30	5	28.95	**19.30**
	6-RMF (2)	6	110	80	60	12	49.50	**33.00**
	6C-RMF (2)	6/12	110	80	60	12	54.95	**36.64**
	12-DME (1)	12	110	50	40	5	24.95	**16.63**
	12T-RME (2) (3)	12	110	125	90	12	49.50	**33.00**
	* 28-RME (2)	28	110	100	80	12	69.50	**46.34**
	32-RME (2)	32	110	100	80	12	69.50	**46.34**
	110-RME (2)	110	110	150	100	12	59.50	**39.67**

(1) These Inverters primarily recommended for Edison VP dictating machines. May also be used with Model 200 Sound-scriber (with engine of car not running).

(2) Primarily recommended for Dictaphone's Time Master, DeJur Stenorette, and Gray Audograph dictating machines or other similar types. Also recommended for use with Norelco tape recorder Model EL-3516 and Geloso Model G 255-S tape Recorder.

(3) **This Inverter specially designed and recommended also for use with RCA 8½" portable TV set or G.E. 9" portable TV set in an automobile.**



ATR VIBRATORS

FOR ALL AUTO RADIO SETS SINCE 1954 USE ONE OF THE ATR VIBRATORS LISTED BELOW . . . ATR VIBRATORS FEATURE

Ceramic Stack Spacers with Two-Bolt Stack construction.

Instant Starting—as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.

Large Oversize Tungsten Contacts having Full Wiping Action—for greater reliability and longer life.

Perforated Reed of Highest Quality Swedish Spring Steel.

Highest Precision Construction and Workmanship—Practically all parts used are held to within a tolerance of 0.0005 of inch.

Value Plus—as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship. Available in TEN-PAK.

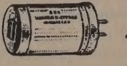
ATR No. 1400 (Bulk), 4-Prong, 6-Volt For All 6-Volt Sets Since 1954. . . . . **Net $1.19**

ATR No. 1843 (Bulk), 3-Prong, 12-Volt For All 12-Volt General Motors Since 1954. . . . . . **Net $1.25**

ATR No. 1843 also used in following automobiles: 1956 Ford (Philco), Lincoln (Bendix), and Mercury (Bendix); 1956 Chrysler (Philco); 1955-57 Packard; 1956-57 Plymouth (Philco); 1956 Studebaker (Philco) and 1957 Mercury (Philco)

ATR No. 1840 (Bulk), 4-Prong, 12-Volt For 12 Volt Cars other Than GM Since 1954. . . . . . **Net $1.25**

Vibration Prices subject to Excise Taxes, if applicable.

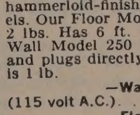


ATR ELECTRONIC TUBE PROTECTOR

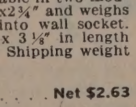
A "MUST" FOR EVERY TV HOME! WILL DOUBLE OR TRIPLE THE LIFE OF ALL TYPES OF ELECTRONIC TUBES, INCLUDING TV PICTURE TUBE. Automatic in operation, for use with any electronic equipment having input wattage of 100 to 300 watts. Fuse protected; rugged construction; and enclosed in interior decorator's golden brown hammerloid-finish metal case. Available in two models. Our Floor Model 300 is 4"x2⅝"x2¾" and weighs 2 lbs. Has 6 ft. cord set to plug into wall socket. Wall Model 250 is 1 - 15/16" OD x 3⅛" in length and plugs directly into wall socket. Shipping weight is 1 lb.

—Wall Model 250
(115 volt A.C.). . . . . **Net $2.63**

—Floor Model 300
(115 volts A.C.) . . . . **Net $3.30**

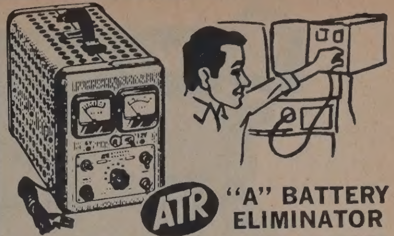


ATR SHAV-PAKS



Every man should have this lightweight ATR Inverter in his car for that "Keep Clean-Shaved Look." Will operate standard A.C. Electric Shavers from your CAR or Boat*. Complete with 3 ft. cord set. Plugs into cigarette lighter receptacle. Fuse protected, rugged construction, and attractively housed in grey hammerloid-finish steel case. Size 4"x2⅝"x 2¾". Shipping weight 2½ lbs.

Model 6-SPB (6 volt) . . . . **Net $7.97**
Model 12-SPB (12 volt) . . . . **Net $7.97**



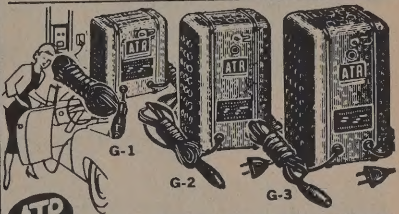
ATR "A" BATTERY ELIMINATOR

FOR DEMONSTRATING AND TESTING TRANSISTOR OR VIBRATOR-TYPE AUTO RADIOS. Designed for testing D.C. Electrical Apparatus on regular 110 volt A. C. lines . . . equipped with full-wave dry disc-type rectifier, assuring noiseless, interference-free operation. Fully Automatic and Fool-Proof; has voltmeter, ammeter, and 8-position voltage control. Fuse protected, and housed in heavy gauge grey hammerloid-finish metal case. 6 ft. cord set included. Size: Model 610C-ELIF, 6½"x9⅛"x8½"—shipping weight 22 lbs.; Model 620C-ELIT, 6½"x12⅞"x8½"—shipping weight 33 lbs.

IDEAL AS A POWER SUPPLY FOR MODEL RAILROAD TRAINS, RADIO SETS, ELECTRO PLATING OUTFITS, AND OTHER 6 OR 12 VOLT, D.C. EQUIPMENT. MAY ALSO BE USED AS A BATTERY CHARGER.

—Model 610C-ELIF (6 volt at 10 amps. or 12 volt at 6 amps.) . . . . **Net $49.95**

—Model 620C-ELIT (6 volt at 20 amps. or 12 volt at 10 amps.) . . . . **Net $66.95**



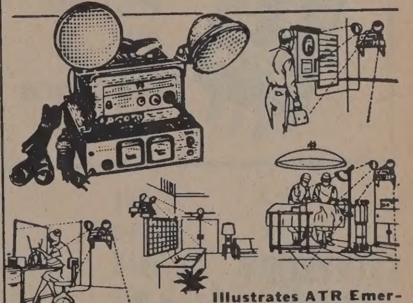
ATR AUTO PLUG-IN, HOME-TYPE PORTABLE BATTERY CHARGERS

No installation . . . just plug into cigarette lighter receptacle! Makes motor starting easy! Keeps your car battery fully charged in your own garage. Operates directly from standard 110 volt A.C. Household Current. Available in three portable sizes for both 6 or 12 volt cars. Light in weight, rugged in construction, economical, and built to last. Each battery charger is housed in grey hammerloid-finish metal case. Complete with cord sets. Size of G1 is 5⅜"x4⅞"x2¾"—shipping weight is 6 lbs.; G2 is 8½"x5½"x3⅞"—shipping weight is 8 lbs.; and G3 is 8½"x5½"x5¼"—shipping weight is 10 lbs.

(G-1) 6 or 12 volt **—Model 612CA4** (4 amp.) . . . . **Net $19.46**

(G-2) 6 or 12 volt **—Model 612CA6** (6 amp.) . . . . **Net $22.46**

(G-3) 6 or 12 volt **—Model 612CA10** (10 amp.) . . . . **Net $27.71**



Illustrates ATR Emergency Lighting and Power Unit, Model ETS complete with lamps.

ATR EMERGENCY LIGHTING and POWER UNIT

Completely Automatic Standby-Power Units Specially Designed to Permit the Instantaneous Continued Operation of Critical Lighting Equipment, PA Systems, Amplifiers, Intercom Systems, Burglar Alarms, Fire Alarms, Synchronous Electric Clocks, Electric Time and Recording Clocks, Incubators, Gas Valves, Telephone and Test Equipment, and Similar Critical Devices in the Event of 115 Volt AC Commercial Power Line Failure. For Use: In Hospitals, Banks, Hotels, Theatres, Factories, Office Buildings, Schools, Homes, and Many Other Areas of Operation.

Type	*Storage Battery Input	A.C. Output 60 Cycles	Output Wattage Int.	Output Wattage Cont.	Net With Lamps
661-ETM	6-volts	110-volts	80	60	**$102.67**
662-ETS	6	110	100	80	**119.67**
663-ETH	6	110	150	125	**136.00**
1232-ETS	12	110	125	100	**119.67**
1233-ETH	12	110	175	150	**136.00**
1234-ETJ	12	110	250	200	**153.00**

For Units Without Lamps Deduct $13.33 Net

INSIST on ATR VIBRATORS-*Get the Best!!*

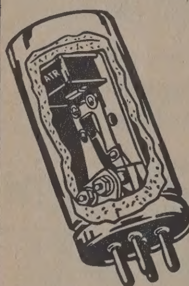
ATR Replacement Vibrator Specifications

FOR COMPLETE INFORMATION ON AUTO RADIO VIBRATORS FOR AUTOMOBILES MANUFACTURED PRIOR TO AND IN 1954 SEE ATR VIBRATOR MANUAL NO. 554. THIS MANUAL ALSO CONTAINS INFORMATION ON HOUSEHOLD, 2-WAY COMMUNICATION SETS AND:

- VIBRATOR LISTINGS BY RECEIVER NAME AND MODEL NUMBER.
- BUFFER REFERENCE CIRCUITS.
- SUBSTITUTION CHART ON DISCONTINUED VIBRATORS.
- VIBRATOR SPECIFICATIONS.
- VIBRATOR EQUIVALENT CHARTS.
- CROSS REFERENCE LISTINGS.
- AUTO BATTERY GROUND CHARTS.
- INSTALLATION NOTES.
- SERVICING PROCEDURE FOR AUTO RADIO VIBRATORS.

FOR ALL AUTO RADIO SETS SINCE 1954 USE ONE OF THE ATR VIBRATORS LISTED BELOW

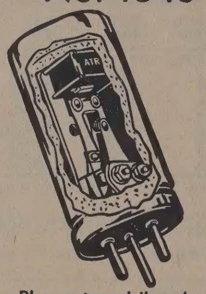
No. 340 (Boxed)
No. 1400 (Bulk)



4-Prong
6-Volt

For all 6-Volt Sets Since 1954

No. 1343 (Boxed)
No. 1843 (Bulk)

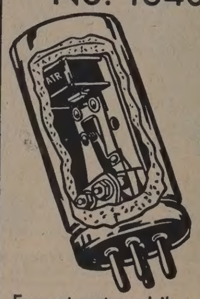


3-Prong
12-Volt

FOR ALL 12-VOLT GENERAL MOTORS SINCE 1954

Plus automobiles shown in box below.

No. 1340 (Boxed)
No. 1840 (Bulk)



4-Prong
12-Volt

For 12 Volt Cars other Than GM Since 1954

Except automobiles shown in box below.

ATR Type 1343 and 1843 also used in following automobiles: 1956 Ford (Philco), Lincoln (Bendix), and Mercury (Bendix); 1956 Chrysler (Philco); 1955-57 Packard; 1956-57 Plymouth (Philco); 1956 Studebaker (Philco) and 1957 Mercury (Philco).

EVERYBODY AGREES ATR AUTO-RADIO VIBRATORS *are* TOPS

Here's why-

ATR Vibrators, the heart of vibrator-operated power supplies, are proven units of the highest quality engineered to perfection. They are backed by more than thirty-one years of vibrator design and research, development and manufacturing — ATR pioneered in the vibrator field.

All ATR Products incorporate only the best materials and workmanship and are carefully manufactured under rigid engineering inspections and tests making them the finest that can be built.

...ATR Vibrators Feature

- ✓ **Ceramic Stack Spacers** with Two-Bolt Stack Construction — for adjustment permanency under any operating condition.
- ✓ **Instant Starting** — as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.
- ✓ **Large Oversize Tungsten Contacts** having Full Wiping Action — for greater reliability and longer life.
- ✓ **Perforated Reed** of Highest Quality Swedish Spring Steel — for uniform flexibility and prevention of reed breakage.
- ✓ **Highest Precision Construction and Workmanship** — Practically all parts used are held to within a tolerance of 0.0005 of inch.
- ✓ **Value Plus** — as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship.

JOBBERS ATTENTION: See Page 1019 in this ATR Section and Page 607 in Section 1900 for your Catalog Needs!

© U.C.P., Inc.

Communication Vibrators for SUPER SERVICE

ATR COMMUNICATION VIBRATORS eliminate the problem of short-life call-backs on those tough two-way communication rigs. Yes, Sir! these ATR COMMUNICATION VIBRATORS deliver SUPER SERVICE.

ATR SUPER HEAVY DUTY VIBRATORS FEATURE:

- Ceramic Stack Spacers
- ¼" Diameter Power Contacts
- Driver-Type Coil Construction
- Special Reed Hinge and Wiring
- Power Capability Up To 15 Amperes

ATR VIBRATORS are proven units of the highest quality, engineered to perfection. They are backed by more than 31 years of vibrator design and research, development and manufacturing.

ATR pioneered in the vibrator field.

ATR
ATR
VIBRATOR
348
35404
For use only on approved
6 volt D.C. Circuits.
PATENTS PENDING
ATR MFG. CO., INC.
ST. PAUL, MINNESOTA
MADE IN U.S.A.

The World's Finest Communication VIBRATORS

COMPARISON CHART

MALLORY	C-D/RADIART	ATR STANDARD HEAVY DUTY	LIST PRICE	ATR SUPER HEAVY DUTY	LIST PRICE
G1501/G4501	6715	12432	5.45	1348	8.95
G1502/G4502	6721	12433	5.45	1349	8.95
G1601/G859	6301/6326	*1340	4.45	1348	8.95
G1602	6330	*1343	4.45	—	—
G1801	6805	*1525	7.70	*1548	8.95
G1807	6820	*1524	7.70	1574	8.95
1501/4501	5715/5515	6432	5.45	348	8.95
1512	5721	6433	5.45	349	8.95
1513/4513	5725	64325	5.45	3485	8.95
1514	5715/5515	—	—	348	8.95
1601/859	5300/5301	*340	4.45	348	8.95
1701	5722	No Repl.	—	No Repl.	—
1751	5718/5518	—	—	3491	8.95
1752	——	—	—	3485	8.95
1801/4549	5805	*525	7.70	*548	8.50
1807	5820/5620	5241	7.70	574	8.95
1808/4546	5821	*522	7.70	549	8.95
1813/4549	5805	*525	7.70	548	8.50
1852	5820/5620	5241	7.70	574	8.95

* These Vibrators are of the shunt-coil type; whereas, all other Vibrators listed are of the series-drive type.

All ATR Super Heavy-Duty Communication Vibrators of the series-drive type incorporate eight (8) ¼" diameter power contacts and two (2) series-drive contacts.

The ATR Standard Heavy Duty Communication Vibrators incorporate 3⁄16" power contacts.
All ATR 6 and 12-volt Vibrators, as listed, are housed in cans 1½" OD x 2⅞" in length. Frequency, 115 cycles.

JOBBERS ATTENTION: See Page 1019 in this ATR Section and Page 607 in Section 1900 for your Catalog Needs!

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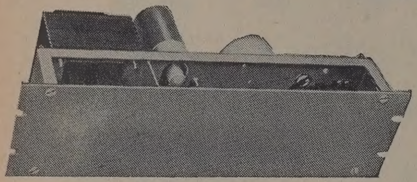
Trade Discount Applies To List Prices Only

POWER SUPPLIES
CONSTANT VOLTAGE STABILIZERS
MAGNETIC AMPLIFIERS
VOLTAGE ADJUSTORS

Acme ACME Electric
ENGINEERED FOR QUALITY

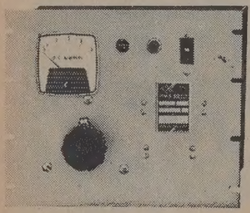
DC REGULATED POWER SUPPLIES



Continuous duty magnetic power supplies. No tubes. Output voltage adequately maintained. Rapid recovery from input line variations and/or sudden load changes. Current limited. Units feature constant voltage transformer, resonant capacitor, electrolytic filter, silicon rectifiers, adequate bleeder. Bulletin 174.

100-130 volt, 60 cycles; Less than 1% ripple voltage RMS.

Catalog No.	Watts	Amps	D.C. Volts	Approx. Efficiency
PS-41423	150	6.25	24	76
PS-41424	200	4.15	48	81
PS-41425	250	2.0	125	86
PS-41426	300	2.0	150	86
PS-41427	200	1.0	200	80
PS-41428	250	1.0	250	85



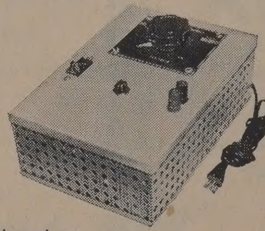
UNFILTERED, NON REGULATED POWER SUPPLIES

Sturdily built, economically priced, manual regulation, silicon rectifiers provide full-wave d-c output. Bulletin 174.

Input 100-120 volts, 60 cycles.

Catalog No.	Watts	D.C. Volts	Amps
PS-39887	300	0-100	3
PS-39888	500	0-100	5
PS-39889	1000	0-100	10
PS-39890	2000	0-100	20

ADJUSTABLE DC POWER SUPPLIES
Portable or Rack Models

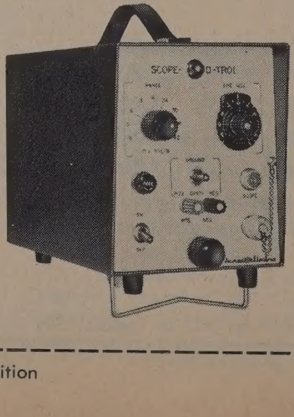


95-130 volts, 60 cycle. Direct current output stabilized and adjustable from 0-45 volts, current outputs 0.2.5 amp. and 0-5 amps. Voltage regulation approximately 5% between full load and no load.

Available in portable, plug-in model or standard rack type. Bulletin 17.

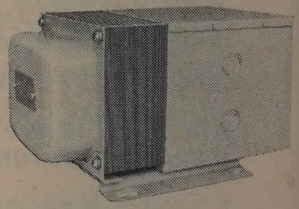
SCOPE-O-TROL

Operates from 115 volt, 60 cycle circuit. Regulated output range from 0 to 300 volts d-c, stabilized at any desired setting. Coarse adjustment, 75 volt steps, fine adjustment .25/degree. Less than 1 millivolt ripple RMS. Current limiting and short circuit protection. Bulletin 17.



CONSTANT VOLTAGE STABILIZERS

VA Output Capacity	Catalog Number	Input Voltage	Output Voltage ±1%
15	T-19700	95-130	6.3
15	T-19701	95-130	120
25	T-19703	95-130	6.3
25	T-19704	95-130	120
50	T-19706	95-130	6.3
50	T-19707	95-130	120
100	T-31901	95-130	120
200	T-31902	95-130	120
300	T-31903	95-130	120
500	T-31905	95-130	120
1000	T-31908	95-130	120
2000	T-31909	95-130	120
100	T-31921	190-260	120
200	T-31922	190-260	120
300	T-31923	190-260	120
500	T-31925	190-260	120
1000	T-31928	190-260	120
2000	T-31929	190-260	120
100	T-31911	190-260	240
200	T-31912	190-260	240
300	T-31913	190-260	240
500	T-31915	190-260	240
1000	T-31918	190-260	240
2000	T-31919	190-260	240



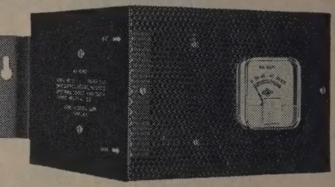
Standard units stabilize output voltage ±1% while input voltage may vary ±15% of nominal rating. Voltage correction response within 2 cycles. Automatic overload and short circuit protection. Write for Bulletin 09.

SPECIAL FOR TV RECEIVERS AND SIMILAR USE

200 va capacity, fully automatic, noiseless operation. Corrects 95-130 volts fluctuation to normal ±2% within 1/30th second. Automatic secondary disconnect when not loaded. Supplied with primary cord and receptacle for output connection. Bulletin 091.

MAGNETIC AMPLIFIERS

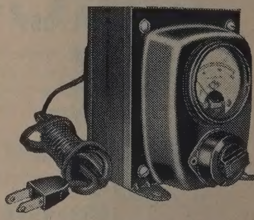
Combine solid state electronic components with magnetic reactors and advanced circuitry. Bias control winding is converted from input line to provide self saturation of core. Independent gain control operates from 0-5 ma signal. Independent potentiometers permit individual adjustment of bias or gain control.



Catalog No.	Watts	Dc Output Volts	Amps	AC Input
MA-42900	5	24	0.21	120
MA-42901	40	80	0.5	120
MA-42902	80	80	1.0	120
MA-42903	125	80	1.6	120
MA-42904	250	80	3.2	120
MA-42905	500	80	6.4	120
MA-42906	500	160	3.2	240
MA-42907	1000	80	12.8	120
MA-42908	1000	160	6.4	240

MANUAL VOLTAGE ADJUSTORS

An inexpensive voltage adjustor that increases a low voltage or reduces a high voltage condition to 115 volts. Seven steps of adjustment from 95 to 125 volts input to approximately 115 volts output. Units supplied with integrally mounted tap-switch, cord and plug and plug-in receptacle for outlet connection. Write for Bulletin 091.



ACME ELECTRIC CORPORATION
Cuba, New York
In Canada: Acme Electric Corp. Ltd., 50 Northline Rd.,
Toronto, Ont.

SAA-3581-2034

Acme ACME Electric

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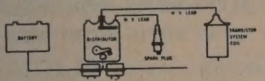
Lifetime System!

NOT 1, BUT 2 HIGH POWER TRANSISTORS

Many transistorized ignition systems have only one transistor. But the TRANS-POWER IGNITION SYSTEM has *two* extremely high power transistors.

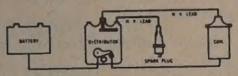
NEW TRANS-POWER SYSTEM



TRANSISTORS DO ALL THE WORK

90% of current flows through the 2 transistors by-passing points. Ends bluing of points; cannot cause pitting or burning.

OLD CONVENTIONAL SYSTEM



POINTS CARRY THE CURRENT FLOW

Without the transistors, over-worked points can mean ignition problems and costly maintenance and service work.

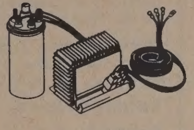
Never Stranded!

EXCLUSIVE CONVERSION CONNECTOR!

10-Second "Quik-Twist" Connector

EXCLUSIVE "Quik-Twist" connector allows you to switch from your TRANS-POWER IGNITION SYSTEM to your original system at any time. Does not obsolete your present system. This 2-way, double safety feature adds greater value to your car and guarantees peace of mind.

Only 4 connections



DO-IT-YOURSELF!

Installed in less than ½ hour

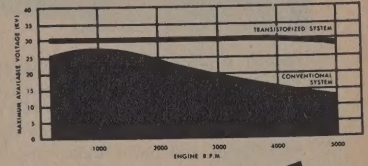
Factory prewired cable harness has only 4 connections to make. Leave your old system intact — no rewiring, no wires to cut. 9 simple steps shown in detailed, easy-to-understand instructions.

Double Power!

SPLIT-PRIMARY HIGH RATIO COIL

Maintains 30,000 volts of power

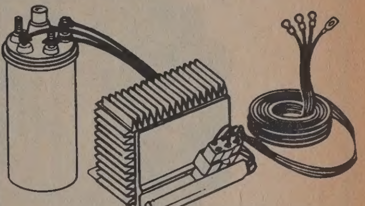
Revolutionary, new circuit concept provides sufficient firing voltage at highest r.p.m. — assures a voltage supply at the plugs well above the minimum firing requirements even with a "run-down" battery.



TRANS-POWER TRANSISTORIZED IGNITION SYSTEM

Factory Tested as a complete operating system

For Cars
Boats
Trucks
Fleet
Owners!



✓ Look at the FEATURES! ✓ Look at the QUALITY!

Save Money!

FEWER ENGINE TUNE-UPS

Tune-ups stay adjusted for peak performance • ends cleaning of spark plugs • increases life of spark plugs and points will last to 100,000 miles • eliminates distributor-condenser breakdowns • superior to the magneto ignition system (for boats) • proven performance in racing cars • over 3 years of research • each unit individually wired and pretested at the factory under overload conditions.

Save Gasoline!

BOOSTS ENGINE EFFICIENCY

Faster and smoother acceleration with no misfiring at top speeds • more efficient at higher speeds • increases gasoline mileage to 10% • reduces battery drain with no hard starting (especially for winter mornings) • complete engine combustion from hotter spark • no ignition overheat problems in slow city driving • eliminates radio interference caused by distributor.

Customized!

EFFICIENT ENCLOSED HEAT SINK

"Gold Anodized"

Fool-proof "gold anodized" heat sink offers maximum protection of components; not embedded in epoxy. Waterproof and shockproof for all environments. Advanced-styled customized appearance. Heat sink and other parts last the lifetime of your car.

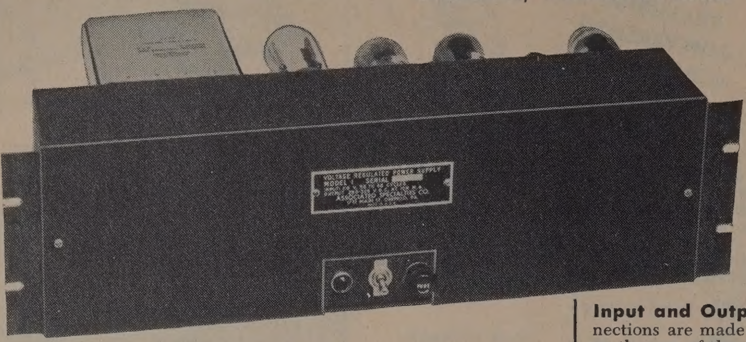
3 MONTHS UNCONDITIONAL GUARANTEE

PALCO ELECTRONIC PRODUCTS, INC.
Lawrence, Mass.

© U.C.P., Inc.

Associated Specialties Co.

OREFIELD, PENNSYLVANIA



ELECTRONICALLY REGULATED D.C. CONSTANT VOLTAGE POWER SUPPLIES

RELAY RACK MOUNTING TYPES $52.50

MODEL 1-BK (BLACK RIPPLE FRONT PANEL)

MODEL 1-GR (GRAY RIPPLE FRONT PANEL)

Input: 105-125 volts AC. 50-60 cycles.

DC Output Voltage: Continuously variable from 200 to 325 volts DC for load currents 0 to 100 ma.

Regulation of DC Voltage: Better than 1% for loads of 0 to 100 ma. and line voltage variations from 105 to 125 volts.

Ripple Output: Less than 10 millivolts rms.

Isolated Output: Both positive and negative sides of the output are isolated from ground. Either side may be grounded or the output may be left floating.

AC Output for Filaments: An isolated AC voltage of 6.3 volts AC at 3 amperes is available at the output terminal connections.

Overload Protection: A fuse mounted on the front panel protects supply against external overloads or internal failure.

Input and Output Connections: All input and output connections are made to a single terminal strip conveniently located on the rear of the chassis.

Dimensions: Standard 19″ relay rack mounting. Panel width: 19 inches; Panel Height: 5¼ inches; Depth Behind Panel: 7¼ inches.

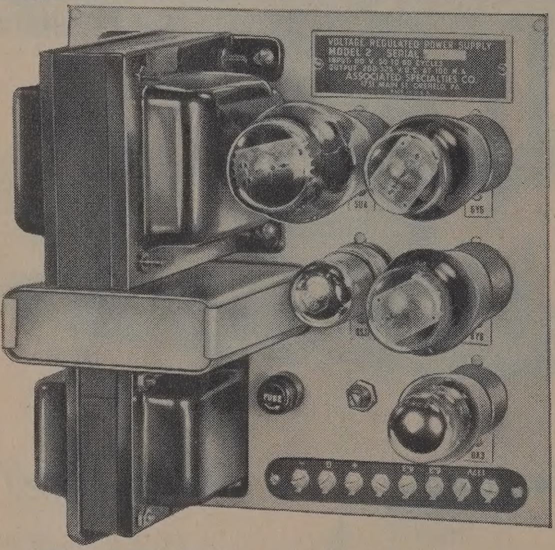
Cabinet Finish: Standard Black ripple enamel.

Controls: Rear Chassis—DC output voltage control. Front Panel—Pilot light, input power switch, and fuse.

Weight: Net weight is approximately 20 pounds.

High Quality Components: Only components of the highest quality are used in this equipment insuring you years of trouble-free dependable operation.

Accessibility: By removing two small screws, the front panel may be removed while the supply stays mounted on a relay rack or cabinet. This allows quick and easy inspection.



MODEL 2 SUB-CHASSIS MOUNTING $49.50

Sub-chassis mounting type regulated power supplies are designed to save space and money. They can be mounted on a chassis along with other components and thereby save space which would be used by a relay rack mounting supply. Savings are made in the size and cost of the cabinet required for a job along with the lower cost of the sub-chassis mounting supplies.

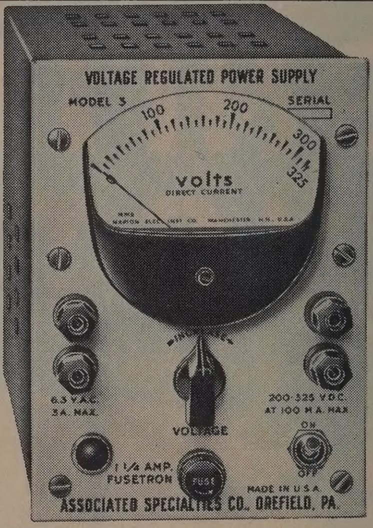
SAME AS MODEL 1 EXCEPT

Dimensions: 9″ wide, 8¾″ long, 4¾″ high above chassis, 1¾″ clearance required below chassis. Size of cut-out required, 8¼″ wide x 8″ high. Location of four mounting holes: 8⅝″ wide x $8\frac{11}{32}$″ high.

Chassis Finish: Aluminum.

Controls: DC output voltage control adjustable from the top side of the chassis.

Weight: Net weight is approximately 14½ lbs.



MODEL 3 CABINET MOUNTING $69.50

An ideal unit for bench work or assembly into equipment.

SAME AS MODEL 1 EXCEPT

Input Connections: A line cord at rear of cabinet.

Output Connections: 5 way binding posts.

Dimensions: 5″ wide, 7″ high, 16″ deep.

Panel Finish: Aluminum.

Cabinet Finish: Gray enamel.

Controls: D.C. output voltage on front panel.

Meters: Output voltage.

Weight: Net weight is approximately 20 pounds.

MODEL P2 PANEL $9.00

Mounts two Model 2 or 12 power supplies side by side in a 19 inch relay rack space 8¾″ high.

OUTPUT	MOUNTING	SIZE	COLOR	MODEL	PRICE
200-325 V.D.C., 0-100 M.A. REGULATION LINE BETTER THAN 1% LOAD BETTER THAN 1% RIPPLE LESS THAN 10 MILLIVOLTS R.M.S.	RACK MOUNTED	SEE ABOVE	GRAY COVER	1-GR	$52.50
	RACK MOUNTED	SEE ABOVE	BLACK COVER	1-BK	$52.50
	SUB-CHASSIS MOUNTING	SEE ABOVE	ALUMINUM CHASSIS	2	$49.50
	CABINET	SEE ABOVE	GRAY	3	$69.50
75-200 V.D.C., 0-100 M.A. REGULATION LINE BETTER THAN 1% LOAD BETTER THAN 1% RIPPLE LESS THAN 5 MILLIVOLTS R.M.S.	RACK MOUNTED	SAME AS 1-GR	GRAY COVER	11-GR	$69.50
	RACK MOUNTED	SAME AS 1-BK	BLACK COVER	11-BK	$69.50
	SUB-CHASSIS MOUNTING	SAME AS 2	ALUMINUM CHASSIS	12	$66.50
	CABINET	SAME AS 3	GRAY	13	$79.50

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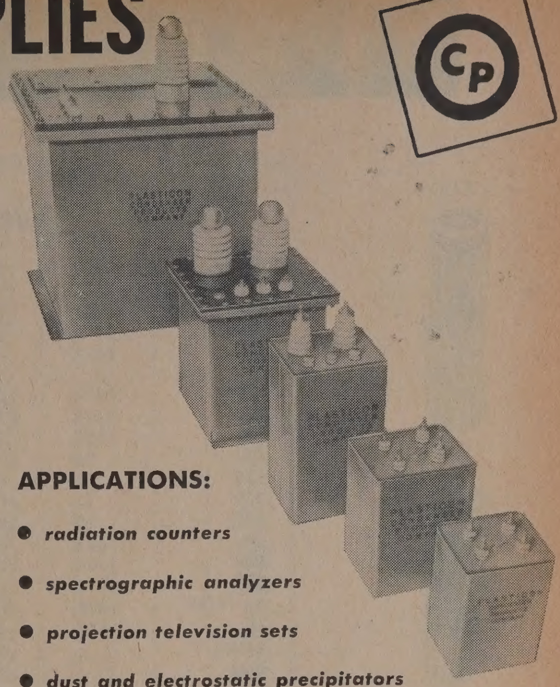
PLASTICON POWER SUPPLIES



HI VOLT POWER SUPPLIES

These hermetically-sealed, self-contained power supplies are designed for Hi Voltage low current DC for many applications. Our exclusive engineering techniques and oil-filled construction assure smaller, lighter, more reliable units.

HI VOLT POWER SUPPLIES FEATURE —

- Hermetically sealed oil filled construction **to assure small size and light weight.**
- Variable output voltage when the input voltage is supplied through an auto transformer **to assure flexibility.**
- High quality components safely rated and carefully assembled **to assure reliability.**
- Neutral case which may also be made either positive or negative **to assure safety.**

APPLICATIONS:

- ***radiation counters***
- ***spectrographic analyzers***
- ***projection television sets***
- ***dust and electrostatic precipitators***
- ***oscilloscopes***
- ***display tubes***

STANDARD POWER SUPPLIES

Model No.	Output Voltage KVDC	Rated Output Current Ma.	Max. Output Current Ma.	% Ripple At Rated Current	Circuit	Case Size	Weight Pounds
PS2-2M60	2	2.0	5.0	1.5	Half Wave	3¾ x 3⁵⁄₁₆ x 5½″ Hi.	4.5
PS5-3M60	5	3.0	3.75	.6	Half Wave	3¾ x 4⁹⁄₁₆ x 6″	9.0
PS5-5M60	5	5.0	5.75	.8	Half Wave	3¾ x 4⁹⁄₁₆ x 6″	9.0
PS10-1M60V	0-12	1.0	1.75	2.0	Full Wave Doubler	3¾ x 4⁹⁄₁₆ x 8″	11.5
PS10-5M60V	0-10	5.0	5.25	3.0	Full Wave Doubler	3¾ x 4⁹⁄₁₆ x 8″	11.5
PS15-1M60V	0-15	1.0	1.75	2.0	Full Wave Doubler	3¾ x 4⁹⁄₁₆ x 8″	12.0
PS15-5M60V	0-15	5.0	5.25	3.0	Full Wave Doubler	3¾ x 4⁹⁄₁₆ x 9″	12.0
PS30-1M60V	0-30	1.0	1.5	3.0	Full Wave Doubler	7 x 7 x 7¾″	25.0
PS50-2M60VT	0-50	2.0	4.0	1.5	Full Wave Tripler	12½ x 12½ x 12½″	80.0

NOTES:

1. The case can be made either positive or negative.
2. The PS50 Supply has a separate accessible compartment for the rectifier tubes.
3. Hi Volt Supplies are rated at 118 V AC input, 60 cycles.
4. Hi Volt Supplies for 400 cycle operation are also available for aircraft use — built to military specifications.
5. Hi Volt Supplies are engineered for various applications. Send us your requirements.

NEW! SUB-MINIATURE SOLID-STATE POWER SUPPLIES

Model No.	Output Voltage KVDC	Rated Output Current MA.	Max. Output Current MA.	% Ripple At Rated Current	Circuit	Case Dimensions	Approx. Weight Pounds
PST2-2M60	0-2.	2.	3.00	0.5	Half Wave	3¾ x 2¼ x 3½″ Hi	2.5
PST5-2M60	0-5.	2.	3.00	0.5	Full Wave Doubler	3¾ x 2¼ x 3½″ Hi	2.5
PST10-1M60	0-10.	1.	1.75	1.0	Full Wave Doubler	3¾ x 3⁵⁄₁₆ x 4″ Hi	4.5
PST15-1M60	0-15.	1.	1.75	1.0	Full Wave Doubler	4⁹⁄₁₆ x 3¾ x 5½″ Hi	8.5
PST20-1M60	0.20.	1.	1.75	1.0	Full Wave Doubler	4⁹⁄₁₆ x 3¾ x 5½″ Hi	8.5

NOTES:

1. The case is neutral — Output has reversible polarity.
2. Input rated @ 115 V AC ±5% from 60 to 400 cycle operation.
3. Case is standard CP70 Type Container.
4. Finish on all units consists of Zinc Chromate Primer & Secondary Coat of Grey Lacquer.
5. Terminals are Ceramic Solder Seal Type with No. 8-32 Threaded Studs except Model PST15-1M60 which has No. 10-32 Threaded Studs on output terminals.
6. Units can be mounted in any position.

CONDENSER PRODUCTS has designed and built high voltage D.C. power supplies for:

- ***Airborne Equipment***
- ***Shipboard Installation***
- ***380 to 1,000 CPS Applications***
- ***High voltage output from 1 to 50 KV with current ratings up to 50 ma.***
- ***and many other varied applications***
- ***Let CONDENSER PRODUCTS engineers solve your high voltage power supply problems.***

CP

Condenser Products Company

See Sect. 1500 for Capacitors

MANUFACTURERS

- *Glassmike Capacitors*
- *Plasticon Capacitors*
- *HiVolt Power Supplies*
- *Pulse Forming Networks*

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BURGESS BATTERIES

P6

2U6

Hg-9

2

Y

4FH

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
BURGESS ACTIVATORS FOR TRANSISTOR CIRCUITS										
NE	--------	--------	1 1/2	Flashlight	7/16	(diam.)	1 11/64	6	1/8	$ .125
XX9	1900	239	9, 13 1/2	Socket	1 9/32	29/32	2 17/32	1	1/8	1.50
D6	1603	276	9	Snap Type	2 9/16	2	3 5/32	1	1	1.80
2N6	1602	246	9	Snap Type	1 3/8	1 3/8	2 3/4	1	3/10	1.85
4D4	1400	274	6	Snap Type	2 17/32	2	7 5/16	1	2 1/2	4.75
2U6	1604	216	9	Snap Type	1	39/64	1 7/8	12	1	.69
A4	--------	--------	6	Flat Contacts	1 9/32	1 9/32	2 11/32	1	1/4	1.00
D6PI	1601	2506	3, 6, 9	Socket	2 19/32	1 7/16	7 27/32	1	1 3/8	2.50
C6X	1612	2356	9	Snap Type	2 5/16	1 1/32	6 1/16	1	5/8	1.60
P6	1600	226	9	Snap Type	1	(diam.)	1 15/16	12	1 3/8	.89
D5	26	707	7 1/2	Snap Type	2 9/16	2	2 23/32	1	7/8	1.50
130	14	635	1 1/2	Flashlight	63/64	(diam.)	1 15/16	12	1 3/8	.25
230	13	A100	1 1/2	Flashlight	1 21/64	(diam.)	2 25/64	24	5 1/4	.25
930	15	1015	1 1/2	Flashlight	35/64	(diam.)	1 31/32	12	1/2	.25
M6	1605	266	9	Snap Type	1 13/16	1 13/16	2 7/16	1	2/5	1.50
D6S	1608	2761	9	Socket	2 1/4	1 1/4	7 29/32	1	1 1/8	1.95
2Z3	1610	243	4 1/2	Snap Type	1 3/8	1 3/8	2 3/4	1	3/10	1.59
Y6 (YL6)	1606	E177	9	Snap Type	3/5	3/5	1 9/10	12	1/2	1.20
L6	1611	206	9	Flat Contacts	47/64	(diam.)	1 31/32	12	1	.75
2MN6	--------	216	9	Snap Type	1	39/64	1 7/8	12	1	.98
PM6	--------	226	9	Snap Type	1	(diam.)	1 15/16	6	5/8	1.19
PM8	1810	228	12	Snap Type	1	(diam.)	2 7/16	1	1/8	1.35
BURGESS MERCURY ACTIVATORS Information on additional Mercury Batteries not listed below is available.										
Hg-1		--------	1.4	Flat	5/8	(diam.)	21/32	4	.13	.65
Hg-1R		E1	1.35	Flat	5/8	(diam.)	21/32	4	.13	.65
Hg-3R		E3	1.35	Flat	1	(diam.)	21/32	4	.30	1.05
Hg-4R		E4	1.35	Flat	1 13/64	(diam.)	21/32	4	.45	1.35
Hg-9		E9	1.4	Flat	17/32	(diam.)	1 31/32	12	.90	.75
Hg-12		--------	1.4	Flat	5/8	(diam.)	2	2	.25	1.10
Hg-12R		E12	1.35	Flat	5/8	(diam.)	2	2	.25	1.25
Hg-42R		E42	1.35	Flat	1 13/64	(diam.)	2 3/8	1	.50	2.75
H113R		E113	4.05	Flat	43/64	(diam.)	27/32	2	.15	2.55
H114R		E114	5.4	Flat	43/64	(diam.)	1 3/32	2	.15	2.30
H115R		E115	6.75	Flat	43/64	(diam.)	1 21/64	2	.15	2.50
H126		E126	8.4	Flat	41/64	(diam.)	1 63/64	12	1.00	1.50
H132R		E132	2.7	Flat	43/64	(diam.)	1 5/16	2	.15	1.35
H133		E133	4.2	Flat	21/32	(diam.)	2	12	1.20	1.50
H133R			4.05	Flat	21/32	(diam.)	2	2	.20	1.75
H134R		E134	5.4	Flat	43/64	(diam.)	2 5/8	2	.25	2.15
H135R		E135	6.75	Flat	43/64	(diam.)	3 9/32	2	.30	2.80
H136R		E136	8.1	Flat	43/64	(diam.)	3 15/16	2	.35	3.20
H137R		E137	9.45	Flat	43/64	(diam.)	4 19/32	1	.20	3.85
H145		E145	7.0	Flat	21/32	(diam.)	1 13/64	2	.15	2.30
H146		E146	8.4	Snap	1	19/32	1 7/8	6	.50	1.50
H152R		E152	2.7	Flat	31/32	(diam.)	1 9/64	2	.075	1.15
H153R		E153	4.05	Flat	31/32	(diam.)	1 45/64	2	.075	1.95
H162R		E162	2.7	Flat	43/64	(diam.)	57/64	2	.15	1.30
H163		E163	4.2	Flat	21/32	(diam.)	1 5/16	2	.15	1.50
H163R		E163	4.05	Flat	21/32	(diam.)	1 5/16	2	.15	1.60
H164		E164	5.6	Flat	21/32	(diam.)	1 3/4	12	.80	1.75
H164R			5.4	Flat	21/32	(diam.)	1 3/4	2	.20	1.95
H165		E165	7.0	Flat	21/32	(diam.)	2 13/64	2	.20	2.25
H165R			6.75	Flat	21/32	(diam.)	2 13/64	2	.20	2.45
H177		E177	9.8	Snap	35/64	(diam.)	1 29/32	12	.30	1.75
H233		E233	4.2	Flat	1 1/64	(diam.)	1 31/32	1	.20	2.75
Hg-312		E312	1.4	Flat	5/16	(diam.)	9/64	6	.024	.35
Hg-400			1.4	Flat	29/64	(diam.)	9/64	6	.024	.30
Hg-400R		E400	1.35	Flat	29/64	(diam.)	9/64	6	.024	.45
Hg-401		E401	1.4	Flat	29/64	(diam.)	1 1/8	3	.09	.50
Hg-401R			1.35	Flat	29/64	(diam.)	1 1/8	2	.05	.55
Hg-450R		E450	1.35	Flat	29/64	(diam.)	9/16	4	.01	.70
Hg-502R		E502	1.35	Flat	17/32	(diam.)	1 31/32	2	.16	.96
Hg-520		E520	1.40	Flat	1/2	(diam.)	9/32	6	.024	.25
Hg-575			1.4	Flat	29/64	(diam.)	1/8	6	.05	.34
Hg-601R		E601	1.35	Flat	5/8	(diam.)	1 9/64	2	.16	1.30
Hg-625			1.4	Flat	5/8	(diam.)	1/4	4	.05	.45
Hg-625R		E625	1.35	Flat	5/8	(diam.)	1/4	4	.05	.50
Hg-630		E630	1.4	Flat	5/8	(diam.)	1/4	4	.05	.45
Hg-630R		--------	1.35	Flat	5/8	(diam.)	1/4	4	.05	.65
Hg-640		E640	1.4	Flat	5/8	(diam.)	7/16	4	.15	.45
Hg-640R			1.35	Flat	5/8	(diam.)	7/16	4	.15	.50
Hg-675		E675	1.4	Flat	29/64	(diam.)	13/64	6	.022	.40
302157			1.35	Socket	2 7/16	1 5/16	4 3/16	1	.844	15.75
303145			8.4	Snaps	2 1/8	13/16	4 3/8	1	.551	8.95

Trade Discount Applies To List Prices Only

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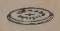
BURGESS BATTERIES

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions			Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
					L	W	H			
BURGESS SEALED RECHARGEABLE NICKEL CADMIUM CELLS AND BATTERIES Information on additional Nickel Cadmium Batteries not listed below is available.										
CD1			1.25		.460 (diam.)		.225	1		$ 1.66
CD2			1.25		.610 (diam.)		.236	1		1.16
CD8			1.25		.984 (diam.)		.232	1		1.29
CD8L	*(L indicates types		1.25		.984 (diam.)		.257	1		1.41
CD3			1.25		.984 (diam.)		.275	1		1.38
*CD3L	with solder lugs		1.25		.984 (diam.)		.300	1		1.50
CD4			1.25		.984 (diam.)		.350	1		1.36
*CD4L	on terminals).		1.25		.984 (diam.)		.375	1		1.73
CD5			1.25		1.700 (diam.)		.300	1		2.10
*CD5L			1.25		1.700 (diam.)		.325	1		2.29
CD6(AA)			1.25		.560 (diam.)		1.950	1		2.75
CD6L(AA)			1.25		.560 (diam.)		2.275	1		3.15
CD9			1.25		.550 (diam.)		3.680	1		4.30
CD7(D)			1.25		1.310 (diam.)		2,425	1		5.00
CD7L(D)			1.25		1.310 (diam.)		2.775	1		5.35
CD10(D)			1.25		1.300 (diam.)		2.425	1		9.25
CD10L(D)			1.25		1.300 (diam.)		2.775	1		9.75
CD11(D)			1.25		1.300 (diam.)		2.425	1		6.50
CD12 (short C)			1.25		.876 (diam.)		1.672	1		4.35
CD13 (half D)			1.25		1.273 (diam.)		1.440	1		6.65
CD21			6		1.065 (diam.)		1.525	1		8.50
CD22			6		1.065 (diam.)		1.975	1		8.43
CD23			6		1.800 (diam.)		1.725	1		14.50
CD24			9.6		1.065 (diam.)		2.650	1		13.90
CD25			9.6		1.065 (diam.)		3.200	1		13.68
CD25L			9.6		1.065 (diam.)		3.200	1		13.54
CD26			9.6		1.800 (diam.)		2.575	1		22.50
CD27			12		1.065 (diam.)		2.925	1		17.20
CD28			12		1.065 (diam.)		3.600	1		17.08
CD29			12		1.800 (diam.)		3.100	1		27.95
CD30			6		1½	1½	3 13/16	1		28.53
CD31			6		3 13/16	1 17/32	3⅝	1		34.00
CD100			1.25		1.36	.75	3.36	1		10.30
CD101			1.25		1.36	1.36	2.40	1		10.20
CD102			1.25		1.36	1.36	3.36	1		11.80
CD103S			1.25		1.57	.92	4.01	1		17.71
CD104			1.25		1.67	1.93	3.13	1		17.75
CD105			1.25		1.67	1.93	3.65	1		18.95
CD106S			1.25		1.57	1.48	4.01	1		20.18
CD107			1.25		1.67	1.93	4.25	1		17.60
CD108			1.25		1.05	3.56	4.90	1		21.65
CD109			1.25		1.34	3.56	4.90	1		26.80
CD110			1.25		1.66	3.56	4.90	1		31.35
CD111			1.25		1.97	3.56	4.90	1		42.10
BURGESS PORTABLE RADIO "A"										
Z4	2	724	6	Flat Contacts	1 3/16	1 3/16	2 7/32	1	⅕	1.00
F3	3	736	4½	Socket	4	1 7/16	4⅛	1	1	1.35
4F	4	742	1½	Socket	2⅝	2⅝	4 3/32	1	1⅖	1.65
F4P1	6	744	6	Socket	2 21/32	2 21/32	4⅛	6	9	1.65
G3	7	746	4½	Socket	4 1/16	1⅞	4 11/16	1	1⅕	1.50
B5	8	713	7½	Socket	3 29/32	⅞	2 27/32	1	½	2.25
C5	9	717	7½	Socket	2 7/32	1 15/16	3 1/32	6	4¾	1.50
T5	10	W360	7½	Socket	2 17/32	2 19/32	3 29/32	3	4	1.90
2R	13	950	1½	Flashlight	1 21/64 (diam.)		2 25/64	48	11	.20
2D	18	720	1½	Socket	2 9/16	1 9/32	2 31/32	1	⅖	1.20
D3	19	726	4½	Socket	3⅞	1 5/16	2 15/16	1	¾	1.35
21R	20	964	1½	Flashlight	1 21/64 (diam.)		4⅛	1	⅖	.45
BURGESS PORTABLE RADIO "B" BATTERIES										
P45	211P	477	67½	Snap Type	1 29/32	1	5 9/32	6	3¾	3.10
XX45	200	467	67½	Snap Type	2¾	1 11/32	3 43/64	1	¾	3.50
XX30	201	455	45	Snap Type	2 17/32	31/32	3 21/32	1	½	2.75
M30	202	482	45	Socket	3 9/16	1¾	5½	1	2	3.85
K45	203	457	67½	Snap Type	2 11/16	1 5/16	2¼	1	½	3.45
XX50	212	437	75	Snap Type	1 27/32	1 5/16	6 5/16	6	5¼	4.50
U30	213	415	45	Snap Type	1 3/32	19/32	3 17/32	1	⅛	2.50
P60	214	479	90	Snap Type	1 29/32	1	7 13/32	6	5	3.95
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	1.15
U15	215	412	22½	Flat Contact	1	39/64	1 31/32	1	1 oz.	1.50
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.75
UX45	217	416	67½	Snap Type	1 7/32	31/32	3 31/32	1	¼	2.95
N60X	216	495	90	Snap Type	1⅞	1 11/32	7⅛	1	1	4.95
D30	--------	487	45	Socket	5 1/16	2 1/32	7 5/16	1	4½	4.95
V45	200	468	67½	Snap Type	2¾	1 11/32	3 43/64	6	4½	3.50
V60	--------	--------	90	Snap Type	3 23/32	1 9/32	3 11/16	1	1-3/10	4.50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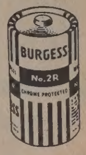
CD25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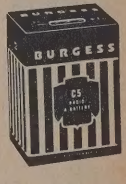
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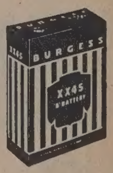
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U10

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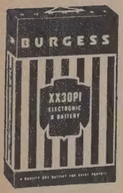
BURGESS BATTERIES

F6A60

F2BP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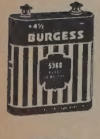
5360

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions			Unit Pkg. Quant.	Wgt. Unit Pkg. in Lbs.	List Price Each
					L	W	H			
BURGESS PORTABLE RADIO "A & B" BATTERIES										
G6B60	400	752	9A, 90B	Recessed Plug	13 29/32	2 13/16	4 21/32	1	6 3/10	$8.25
F6A60	401	753	7½, 9A, 90B	Socket	9 5/16	2 21/32	4 5/16	1	5⅖	7.75
T5Z50	403	755	6, 7½A, 75B	Socket	8½	3 11/32	2⅜	1	3½	7.25
T5Z50P	431	785	7½A, 75B	Recessed Plug	8½	3 11/32	2⅜	1	3½	6.90
F6A60P	406	757	9A, 90B	Recessed Plug	9 7/16	2¾	4 11/32	1	5 3/10	7.95
T6Z60	405	756	7½, 9A, 90B	Socket	8 15/16	2 3/16	3 13/16	1	4 3/10	6.95
T6Z60P	428	727	9A, 90B	Recessed Plug	8 15/16	2 3/16	3 13/16	1	4 3/10	7.45
4TZ60	425	729	1½A, 90B	Socket	7⅝	2⅛	3¾	1	3⅘	6.25
BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR BATTERIES ("A" TYPES)										
5R	. . .	. . .	1½	Flashlight	49/64 (diam.)		2 15/64	12	¾	.36
8R	23	960P	1½	Socket	1 3/32 (diam.)		3 15/16	1	¼	.85
9R	. . .	1015E	1½	Flashlight	35/64 (diam.)		1 63/64	12	½	.17
37	. . .	. . .	1½	Flashlight	1 5/16 (diam.)		6⅛	1	9/16	.98
2F	11	W353	1½	Socket	2 19/32	1⅜	4¼	1	¾	1.10
2Z	. . .	1016E	1½	Flashlight	1⅛	19/32	1 63/64	10	¾	.45
2FBP	700	W354	1½	Binding Post	2 21/32	1⅜	4 1/32	5	3½	1.15
F2BP	701	W352	3	Binding Post	2 21/32	1⅜	4 1/32	5	4	1.15
F4BP	915	510S	6	Binding Post	2⅝	2⅝	4	1	1½	1.19
2F2H	703	W356	3	Binding Post	2⅝	2⅝	4 1/16	5	7	1.55
422	704	750	3	Brass Straps	1 11/32	23/32	2 5/16	10	1⅕	.85
432	705	751	4½	Brass Straps	1 31/32	21/32	2¼	10	2	1.00
532	706	703	4½	Brass Straps	2 15/32	13/16	2 23/32	1	3/10	1.02
44	. . .	. . .	1½	Binding Post	1 29/32 (diam.)		4 5/32	1	⅞	2.61
2BBP	. . .	. . .	1½	Binding Post	1 19/32	27/32	2 11/16	1	¼	1.65
B2BP	. . .	. . .	3	Binding Post	1⅝	13/16	2 11/16	1	¼	1.40
2F2BP	. . .	. . .	3	Binding Post	5 3/16	1 5/16	4 5/32	1	1⅘	3.20
F4X	. . .	. . .	6	Binding Post	5 5/16	1 13/32	4⅛	1	1¾	3.79
2F4	1	718	6	Socket	4	2 13/16	5 7/16	1	2½	3.90
6F	5	743	1½	Socket	4 3/32	2¾	4 1/16	1	2⅙	2.75
8F	17	741	1½	Socket	3 29/32	2 23/32	5½	1	3	3.45
BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR BATTERIES ("B" TYPES)										
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	1.15
U15	215	412	22½	Flat Contact	1	39/64	1 31/32	1	1 oz.	1.50
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.75
W30	------	------	45	Binding Post	3	1¼	3 25/32	1	⅗	3.15
XX15	------	425P	22½	Socket	1 11/32	15/16	3⅞	1	¼	1.95
XX22	------	433P	33	Socket	2 17/32	31/32	3⅛	1	⅓	2.45
XX30PI	------	455P	45	Socket	2 17/32	31/32	4 1/32	1	½	3.00
Y10	220	504	15	Flat Contact	19/32	19/32	1 23/64	1	1 oz.	1.15
Y15	221	505	22½	Flat Contact	19/32	19/32	1 31/32	1	1 oz.	1.50
Y20	223	506	30	Flat Contact	1 3/16	19/32	1 13/32	1	1 oz.	1.85
Y20S	222	507	30	Flat Contact	19/32	19/32	2 9/16	1	1 oz.	1.85
Z30NX	711	W350	45	Binding Post	3 1/32	1⅞	4 19/32	5	7⅗	3.85
U200	722	493	300	Pin Jacks	2¾	2 9/32	3⅞	1	1	11.95
Z30T	------	------	45	Socket	3	2 5/16	4⅛	1	1 3/10	3.75
W30BPX	------	W358	45	Binding Post	3	1¼	3 25/32	1	⅗	3.55
Z30BP	------	W351	45	Binding Post	3 11/16	2 11/32	3 7/16	1	1⅗	7.55
Z96P (9968)	------	------	144	Binding Post	2⅝	2⅝	13 5/16	1	3¾	26.00
5156PI	721	768	22½	Socket	4 7/64	2⅜	2 55/64	1	1⅗	4.45
A60	------	------	90	Socket	4 7/16	3⅜	4½	1	3⅓	7.95
W20PI	------	------	30	Socket	1 5/16	1 13/16	3 7/32	1	½	2.47
XX69	227	W361	103½	Flashlight	1 11/32	1 11/32	11 23/32	1	1	6.57
Z30	205	738	45	Socket	3	2 5/16	4 1/16	2	2¾	3.95
A30	206	W359	45	Socket	3 9/16	2¼	4 5/16	2	3½	3.55
B30	207	484	45	Socket	4 1/16	2 17/32	5 5/16	2	4½	4.70
4156	710	763	22½	Binding Post	3 17/32	2⅛	2 29/32	1	1	2.35
5156SC	708	778	22½	Spring Clip	4⅛	2½	2¾	5	8	4.45
5308	709	762S	45	Binding Post	4 1/16	2 9/16	5⅛	1	2½	4.35
K10	224	417	15	Flat Contact	1¼	⅞	1 17/32	1	2 ozs.	1.65
K15	225	420	22½	Flat Contact	1¼	⅞	2 9/32	1	2 ozs.	1.75
K20	226	430	30	Flat Contact	1¼	15/16	2 23/32	1	3 ozs.	2.15
BURGESS INDUSTRIAL AND ELECTRONIC "C" BATTERIES										
2370PI	718	771	4½	Socket	4 1/64	1 27/64	2 63/64	5	3⅖	2.25
2370	712	761T	4½	Binding Post	3 15/16	1⅜	2⅞	5	3 7/10	1.90
5540	713	773	7½	Bndg Post Neg	4	⅞	2¾	5	1 9/10	2.35
5360	714	781	4½	Binding Post	2 13/32	27/32	2 21/32	10	2⅗	1.25
W5BP	------	W362	7½	Binding Post	2 31/32	23/32	1¾	6	⅘	2.10
A3BPX	------	------	4½	Binding Post	1 31/32	23/32	2¼	1	¼	2.50
A8BP	------	------	12	Binding Post	2 25/32	1 25/64	2 15/32	1	½	6.22
2156	702	766	22½	Spring Clips	6 21/32	4 1/16	2 31/32	6	17½	6.25
BURGESS FARM RADIO "A", "B", AND "A" & "B" BATTERIES										
20F2(PI)	720	X-125	3	Socket	11½	4	6⅛	1	13 9/10	11.00
20F	719	740	1½	Socket	7⅝	2 9/16	6 15/16	1	6⅘	9.85
21308PI or SC	727 or 715	W364P or F	45	Socket or Spring Clip	8⅛	4 15/32	7 9/32	1	12⅘	7.65
10308PI or SC	726 or 716	W363P or F	45	Socket or Spring Clip	8 1/32	4 1/32	7 3/16	1	12	6.90
2308PI or SC	717 or 723	W365P or F	45	Socket or Spring Clip	8 3/32	2 31/32	7¼	1	7⅘	5.50
17GD60	413	759	1½A, 90B	Socket	15 11/16	4⅜	7 1/16	1	19	10.65

Trade Discount Applies To List Prices Only

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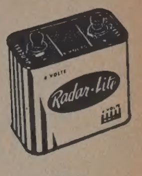
BURGESS BATTERIES

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions			'nit Pkg. Quant.	Wgt. Unit Pkg. in Lbs.	List Price Each
					L	W	H			
BURGESS FLASHLIGHT AND LANTERN BATTERIES										
2 (24V)	13	950	1½	Flashlight	1 21/64 (diam.)		2⅜	48	10½	$ .20
2 (50 Bulk)	13	950	1½	Flashlight	1 21/64 (diam.)		2⅜	50	10½	.20
210 (24V)	------	1050	1½	Flashlight	1 21/64 (diam.)		2⅜	48	11	.25
210 (50 Bulk)	--------	1050	1½	Flashlight	1 21/64 (diam.)		2⅜	50	10¾	.25
1	14	935	1½	Flashlight	63/64 (diam.)		1 15/16	24	2⅝	.20
Z	15	915	1½	Flashlight	35/64 (diam.)		1 31/32	12	½	.15
7	24	912	1½	Flashlight	13/32 (diam.)		1¾	12	¼	.15
N (Bare)	910	904	1½	Flashlight	7/16 (diam.)		1 11/64	12	⅕	.125
F4H	908	509	6	Spring	2⅝	2⅝	4⅜	12	18	1.19
F4M	908	509	6	Spring	2⅝	2⅝	4⅜	12	19	1.19
TW1	918	731	6	Binding Post	5⅜	2⅞	4 15/16	1	3⅕	2.75
TW2	926	-----	12	Binding Post	5⅜	2⅞	4 15/16	1	3⅕	2.75
BURGESS IGNITION - TELEPHONE AND PROTECTIVE SYSTEM BATTERIES * Battery also available with spring clip terminals ** Battery also available with screw terminals										
4FH	900	735	1½	Screw Terminal	2⅝	2⅝	4	12	16	1.25
4F2H	901	W357	3	Spring Clip	3 29/32	2 11/16	5 13/32	1	2⅗	2.05
4F4H	902	706	6	Binding Post	8 5/16	2 13/16	5 13/16	1	6⅕	4.98
4F5H	903	715	7½	Binding Post	7 3/16	3 31/32	5 13/16	1	7⅖	7.25
4F6H	904	716	9	Binding Post	8½	3 31/32	5 13/16	1	9	8.25
***6 Ign.**	905	6 Ign.	1½	Screw Terminal	2½ (diam.)		6⅝	12	21 3/10	1.25
****6 Tel.**	906	6 GL	1½	Spring Clip	2½ (diam.)		6⅝	12	24⅗	1.25
6 Ind.	911	6 Ind.	1½	Screw Terminal	2½ (diam.)		6⅝	12	25	1.35
S461	907	1461	6	Binding Post	10½	2¾	7 13/32	6	53½	4.98
BURGESS PHOTO-FLASH BATTERIES										
120	. . .	835	1½	Flashlight	1 (diam.)		1 15/16	24	2¼	.25
220	. . .	850	1½	Flashlight	1 11/32 (diam.)		2 25/64	12	2½	.25
920	. . .	815	1½	Flashlight	35/64 (diam.)		1 31/32	24	1	.20
U15	215	412	22½	Flat Contact	31/32	9/16	1 31/32	1	1 oz.	1.50
Y10	220	504	15	Flat Contact	19/32	19/32	1 23/64	1	1 oz.	1.15
Y15	221	505	22½	Flat Contact	19/32	19/32	1 31/32	1	1 oz.	1.50
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	1.15
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.75
XX150	. . .	489	225	Pin Jacks	4¼	2⅝	4¼	1	2½	9.95
U160	. . .	491	240	Flat Contact	2 9/16	1 5/16	4 13/32	1	⅘	7.95
N150	. . .	492	225	Pin Jacks	3 9/16	2¾	4¾	1	2½	8.75
U320	. . .	497	510	Flat Contact	2 15/16	1 17/32	5 7/16	1	1½	15.95
K30P-K			45	Battery & Bulb				1	⅖	2.50
BURGESS ALKALINE BATTERIES										
AL-1	814	E93	1½	Flat Contact	63/64 (diam.)		1 15/16	6	1	.75
AL-133	1306	333	4½	Flat Contact	21/32 (diam.)		2	12	1	1.00
AL-2		E95	1½	Flat Contact	1 21/64 (diam.)		2 13/32	24	8	.95
AL-7			1½	Flat Contact	13/32 (diam.)		1¾	12	¼	.45
AL-9	815	E91	1½	Flat Contact	17/32 (diam.)		1 31/32	12	1	.50
AL-N	910	E90			29/64 (diam.)		1⅛	3	1 oz.	.35



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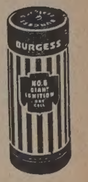

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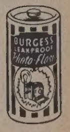

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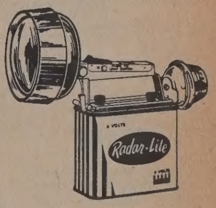
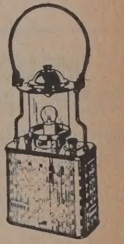


TW3

BURGESS RADAR LIGHTS

NOTICE: All Radar Lights are packed in individual cartons complete with battery.

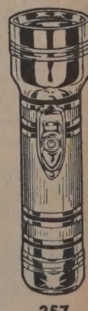
BURGESS Number	Description	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	LIST PRICE EACH		
				Head Only	Battery	Complete
TW3	Radar-Lite Spot-Flasher (Lamp 4546, 407)	1	5 1/10	$10.20	$2.75	$12.95
TW4	Radar-Lite Spot-Without Flasher (Lamp 4546)	1	4¾	7.75	2.75	10.50
TW7	Radar-Lamp Chrome-Finish (Lamp 1651)	1	4⅕	6.50	2.75	9.25
TW8	Radar-Lamp Copper-Finish (Lamp 1651)	1	4⅕	6.50	2.75	9.25
TW9	Radar Bearcat Focusing Lantern (Lamp 425 or 502)	1	4⅛	4.50	2.75	7.25
TW11	Radar-Lite (Bulb Reflector Model) (Lamp 425)	1	4¾	6.20	2.75	8.95
TW12	12 Volt Radar-Lite (Uses TW2 Battery) (Lamp 965)	1	5	8.20	2.75	10.95
TW4E	Power Failure Operated Lantern (Spot Beam) (Lamp 4546)	1	6	17.50	2.75	20.25
TW6E	Power Failure Operated Lantern (Flood Beam) (Lamp 4512)	1	6	17.50	2.75	20.25
TW34	Radar-Flash (Lamp 407)	1	4	3.95	2.75	6.70



TW7

BURGESS RADAR-MATE and FLASHLIGHTS (less batteries)

BURGESS Number	Description (Batteries not included)	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	List Price Each
JR1	4½ Volt Radar-Mate Lantern. Uses 3 No. 2 (Size D) batteries (Lamp PR3)	6	7½	$4.98
161	Magnet Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	3	1.99
163	Tuffy-Plastic Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	1⅝	.99
257	Satellite Torch—2 Cell Junior Prefocused (Lamp PR2 or PR4)	3	1	1.75
357	Satellite Torch—2 Cell Prefocused (Lamp PR2 or PR4)	6	2¾	1.95
152	Penlight—Tu-Tone Colors (Lamp 224)	12	⅞	.88
263	2 Cell Magnet-Tough Plastic Industrial Flashlight (Lamp PR2)	6	2½	1.99
453	2 Cell Industrial—Safety Light (Lamp PR2)	1	½	5.00
P92	Penlight (Heavy Duty) Assorted Colors (Lamp 222)	6	½	.88



357

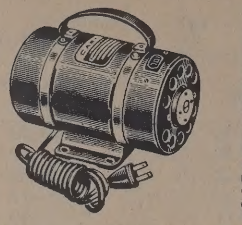
© U.C.P., Inc.

Carter Motor

GENEMOTORS, DC-AC CONVERTERS FREQUENCY CHANGERS

6 TO 230 VOLT INPUT

Up to 250 watt sine wave output. Available with manual frequency control.



MARK II SUPER CONVERTERS

New, long life design increases brush life and assures dependable service. Smooth, quiet, ball bearing operation. Standard 100% P.F. models change DC to AC for operating amplifiers, office equipment, test instruments, radios and other high-power-factor equipment. Also available in 70% P.F. models to operate popular tape recorders from DC input. Many other catalog models available promptly from factory stock. A converter can be furnished to operate any tape recorder. Continuous duty. Size: 8¼″ x 4½″ x 5″ high. Weight, 13 lbs.

STANDARD 100% PF CONVERTERS

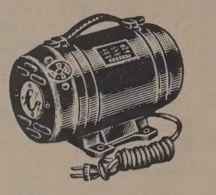
Carter No.	DC Input		Watts, AC at 60 cps, 115 v.	List Price
	Volts	Amps		
D1040CB	115	.7	40	$126.50
D1010CB	115	1.7	100	129.80
D1015CB	115	2.0	150	130.90
B1040CB	12	8	40	116.60
B1010CB	12	15	100	119.90
B1015CB	12	23	150	121.00

Mark II Heavy Duty Super Converter. Continuous duty, less filter, 10¼″ long, 4½″ wide, 5″ high. Weight, 19 lbs.

Carter No.	Volts	Amps	Watts	List Price
D1020CB	115	2.6	200	$145.20
D1025CB	115	3.2	250	145.20
B1020CB	12	30	200	135.30
B1025CB	12	34	250	135.30

IDEAL POWER

For Industrial and Marine Communications. 12 to 250 volt input. 300 to 750 watt output models. Manual frequency control available.



CUSTOM CONVERTERS

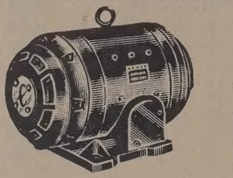
Dependable rotary power for operating office business machines, professional tape recorders, railroad, mobile and marine radio and radar equipment. Finest construction. Sealed ball bearings require no lubrication. Long life, continuous duty, high efficiency on all models. Only popular models listed here. For 50-cycle output, add **$5.50** to list prices. All models 100% power factor. Size: 200 watts, 12⅝″ w. x 6¾″ d. 7¼″ h.; 210 and 300 watts, 11⅝″ w.; 500 watts, 12⅝″ w: 750 watts, 13⅞″ w.

Carter Number	DC Inp.		List Price	Carter Number	DC Inp.		List Price
	V.	A.			V.	A.	
DS1020C5P	115†	2.6†	$231.00	D1030CP	115§	4.6§	$209.00
HS1020C5P	64†	5†	234.85	E1050CP	24#	33#	240.35
CS1020C5P	32†	9†	234.85	C1050CP	32#	25#	240.35
BR1021CP*	12‡	29‡	286.00	D1050CP	115#	7#	236.50
B1030CP	12§	45§	209.00	C1075CP	32^	32^	270.60
E1030CP	24§	22§	209.00	D1075CP	115^	8.8^	270.60
C1030CP	32§	19§	209.00				....

Watts At 115 v. AC, 60 cps: †200 ‡210 §300 #500 ^750
*Equipped with manual frequency control. For frequency control on all other models, add **$82.50** to list prices. Filter available; add **$44.00** to list prices.

HEAVY DUTY POWER

1000 - 1500 and 2000 watt output, 24 to 230 volt input models.



MONARCH CONVERTERS

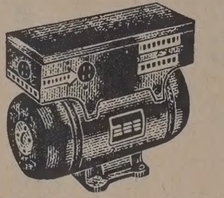
The Monarch series is ideal for heavy-duty industrial service, marine, mine, crane and railroad communications. Slow speed (1800 rpm.), long life, 4-pole design; ball bearing equipped. **No filter is necessary for most applications.** Size: 19″ x 11″ x 12″ high. Three-phase output available at no extra charge. 24 and 28 v. input available.

Carter Number	DC Input		Watts*	List Price
	Volts	Amps		
C10150M	32	69	1500	$704.00
W10200M†	48	60	2000	759.00
H10200M†	64	45	2000	759.00
D10200M‡	115	25	2000	759.00
K10200M‡	230	12.5	2000	759.00

†Reduced voltage starters necessary, add **$159.50** to list price.
‡Reduced voltage starters necessary, add **$103.40** to list price.
*At 115 v. AC, 60 cps.

OPERATES REFRIGERATORS

and freezers up to 1/6 HP. Has handy AC outlet to run most appliances from DC.



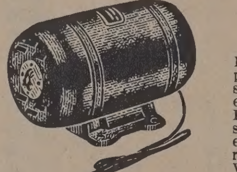
MARINE REFRIGERATOR-APPLIANCE CONVERTERS

Operates standard refrigerators, compressors (up to 1/6 hp only), vacuum cleaners and other appliances from DC; for use aboard commercial and pleasure boats. Converter operates only when power is called for. Input, from 24 to 230 v. DC. Size: 14″ x 6¾″ x 11″ high. Net Weight, 65 lbs.

Carter Number	DC Input	List Price
RF24	24 v.	$493.90
RF28	28 v.	493.90
RF32	32 v.	493.90
RF48	48 v.	493.90
RF64	64 v.	493.90
RF115	115 v.	493.90
RF230	230 v.	493.90

IDEAL POWER

For operating two-way radio from wide input range. Isolated output.



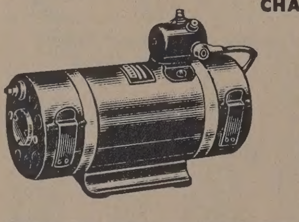
CARTER CUSTOM DYNAMOTORS

For railroad and marine radio-telephone, industrial communications systems, locomotives, telephone emergency standby power, etc. Heavy duty construction. Low rpm speed, small temperature rise assure extra long life. Filter not normally required. **Size:** 12⅝″ x 6¹¹⁄₁₆″ x 7¼″. Weight, 47 lbs.

Carter Number	Input Range	Output Volts	Output Recv.	Amps Trans.	List Price
DS1220P	118-132	12.8	5	18	$253.00
HS1220P	67-74	12.8	5	18	253.00
CS1220P	33-37	12.8	5	18	253.00
WS1220P	45-50	12.8	5	18	253.00
DS640P	118-132	6.3	15	40	253.00
HS640P	67-74	6.3	15	40	253.00
CS640P	33-37	6.3	15	40	253.00

OPERATES TWO-WAY RADIO

From "non-standard" DC input. Common windings.



CHANGE-A-VOLT DYNAMOTORS

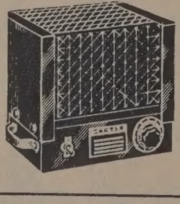
Operate 6 volt 2-way radio equipment from 12 volt systems without rewiring. Supplied complete with starting relay and switch, 12 volt fuse block and wiring to directly convert a 12 volt battery to a 6 volt radio supply. B615V delivers 15 amps continuously and 45 amps intermittent. 65% efficiency. Can also serve as battery equalizer when operating low voltage equipment. Size: 11⅛″ x 4½″ x 7¹⁄₁₆″ high. Weight, 25 lbs.

Carter No.	Input*		List Price	Carter No.	Input†		List Price
	Volts	Amps			Volts	Amps	
B615V	12	11.5	$129.80	E128V	24	6.0	$129.80
E615V	24	5.7	129.80	J128V	28	5.3	129.80
J615V	28	5.0	129.80	C128V	32	4.6	129.80
C615V	32	4.3	129.80	HS128V	70	2.2	129.80
HS615V	70	2.1	129.80	D128V	115	1.3	129.80
D615V	115	1.2	129.80				

*Output 6 volts, 15 amps. †Output 12 volts, 8 amps.

DELIVERS 60 CYCLE OUTPUT

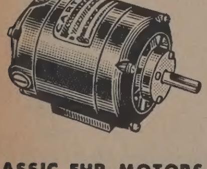
From 25 to 400 cycle input in capacities 20 to 2000 watts. 50 cycle output available.



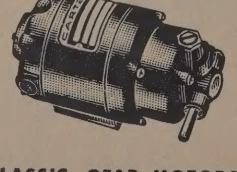
AC TO AC FREQ. CHANGERS

Produces 115 v., 50 or 60 cycle AC output from 25 to 400 cycle input. For operating standard equipment on non-standard frequencies. Standard units are for single phase input and output. Three-phase output available on order. 70% PF models to run tape recorders, optional at no extra cost. For frequency control (meter), add **$44.00** to list price.

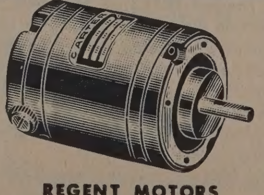
Carter No.	Output Watts	List Price	Carter No.	Output Watts	List Price
FC1020L	20	$271.70	FC1025CP	250	$533.50
FC1040L	40	272.80	FC1050CP	500	566.50
FC1060L	60	273.90	FC1075CP	750	599.50
FC1080C	80	348.70	FC10100M	1000	1094.50
FC1010C	100	349.80	FC10150M	1500	1144.00
FC1015C	150	350.90	FC10200M	2000	1204.50
FC1020C	200	365.20			



CLASSIC FHP MOTORS



CLASSIC GEAR MOTORS



REGENT MOTORS

QUALITY "CLASSIC" UNIVERSAL AND SHUNT MOTORS

Available up to 1/7 HP. Gearmotors available from 1 to 750 RPM up to 7 in. lbs. torque con. duty. New Regent Universal motors deliver ½ HP at 10000 RPM. Shunt models up to 1/6 HP.

© U.C.P., Inc.

"RB-500" Regulated DC Power Supply **$395**

Regulated 500 Volt, 250 MA Supply under $400!

Compare with others . . .

High Voltage Output: 0-500VDC, 0-250MA.

Regulation: 0.03% (or 0.15V, whichever is greater) for combined line (105-125V) and load (no-load to full-load) variations.

Ripple: 5MV, RMS, maximum.

Bias Output: 0-150 volts.

Filament Outputs: Two 6.3V, 5 amps, for series (12.6V@ 5A) or parallel (6.3V@10A) operation.

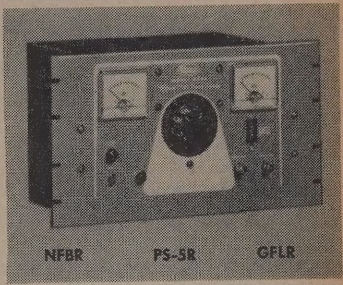
Meters: 0-500/0-150V, 0-250MA.

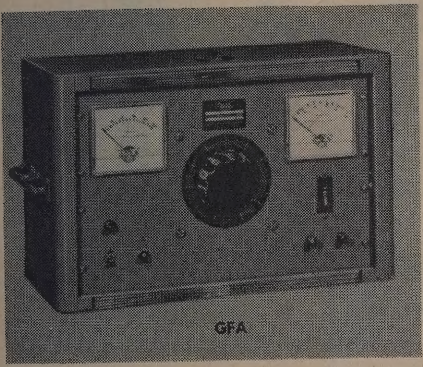
Size: 12 x 8 x 14 in.

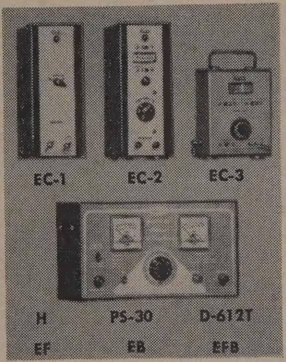
Weight: 32 lbs. net.

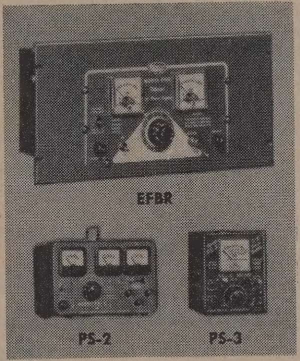
Electro CHICAGO

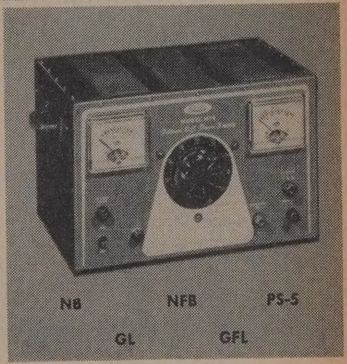
REGULATED & SEMI-REGULATED DC POWER SUPPLIES











Output, filtering for every need, from $19.95 . . . guaranteed performance, long service life

Model	Voltage Output	Amperage Output	Regulation (V/A)	Maximum Ripple (%)	Meters	DC Impedance (ohms)	Size (HxWxD) (inches)	Weight (lbs. net)	Price (net)
EC-1	12 (adjustable)	0-5	1.4 (0-5A)	0.5	———	1.4 (0-5A)	10¾ x 4⅜ x 6½	10	$ 29.95
H	12 (adjustable) 6 (adjustable)	0-10 0-20	0.23 (3-10A) 0.15 (3-20A)	5 5	0-20V, 0-30A	0.23 (3-10A) 0.15 (3-20A)	7 x 12 x 8½	29	86.00
PS-30	12 (adjustable)	0-30	2.7 (6-30A)	1	0-20V, 0-50A	0.27 (0-30A)	9¼ x 16¾ x 13	56	195.00
EC-2	0-16	0-5	1.8 (0-5A)	0.5	0-20V/10A	1.8 (0-5A)	10¾ x 4⅜ x 6½	9	39.95
D612T	0-16 0-8	0-10 0-10	0.44 (3-10A) 0.3 (3-10A)	0.5@ 5A, 2 @10A	0-20V, 0-10A	0.44 (3-10A) 0.3 (3-10A)	7 x 12 x 8½	20	59.95
EC-3	0-24 (0-7 bias)	0-100MA	———	1.5	0-24V/100MA	———	6¼ x 5 x 3½	3	19.95
PS-2	0-16 0-20	0-5A 0-75MA	1.6 (0-5A)	0.5 0.15	0-20V, 0-10A, 0-75MA	1.6 (0-5A)	6 x 8½ x 8	12	56.00
PS-3	0-15 15-25	0-200MA 0-100MA	100MV (0-.2A) 100MV (0-.1A)	1MV	0-25V/100MA/200 MA	0.5 (0-.2A) 0.5 (0-.1A)	6¼ x 5 x 6	3½	79.50
EF	0-28 0-14	0-5 0-5	0.9 (1-5A) 0.6 (1-5A)	1 1	0-50V, 0-6A	0.9 (1-5A) 0.6 (1-5A)	7 x 12 x 8½	21	98.00
EB	0-32 0-16	0-4 0-8	1.25 (0-4A) 1.0 (0-8A)	5 5	0-40/20V, 0-10A	1.25 (0-4A) 1.0 (0-8A)	7 x 12 x 8½	23	115.00
EFBR	0-32 0-16	0-4 0-8	1.25 (0-4A) 1.0 (0-8A)	0.1 0.1	0-40/20V, 0-10A	1.25 (0-4A) 1.0 (0-8A)	8¾ x 19 x 8½	34	160.00
EFB	0-32 0-16	0-4 0-8	1.25 (0-4A) 1.0 (0-8A)	0.1 0.1	0-40/20V, 0-10A	1.25 (0-4A) 1.0 (0-8A)	7 x 12 x 8½	31	140.00
NB	0-32	0-15	0.3 (0-15A)	5.0	0-50V, 0-20A	0.3 (0-15A)	9¾ x 14¼ x 14¼	61	225.00
NFBR	0-32	0-15	0.3 (0-15A)	0.75	0-50V, 0-20A	0.3 (0-15A)	10½ x 19 x 14¼	82	275.00
NFB	0-32	0-15	0.3 (0-15A)	0.75	0-50V, 0-20A	0.3 (0-15A)	9¾ x 14¼ x 14¼	71	250.00
PS-5R	0-55	0-10	0.8 (0-10A)	0.5	0-75V, 0-10A	0.8 (0-10A)	10½ x 19 x 14¼	71	275.00
PS-5	0-55	0-10	0.8 (0-10A)	0.5	0-75V, 0-10A	0.8 (0-10A)	9¾ x 14¼ x 14¼	60	250.00
GL	0-125	0-5	1.5 (0-5A)	5.0	0-150V, 0-5A	1.5 (0-5A)	9¾ x 14¼ x 14¼	65	255.00
GFLR	0-125	0-5	1.5 (0-5A)	0.5	0-150V, 0-5A	1.5 (0-5A)	10½ x 19 x 14¼	79	297.00
GFL	0-125	0-5	1.5 (0-5A)	0.5	0-150V, 0-5A	1.5 (0-5A)	9¾ x 14¼ x 14¼	75	275.00
GFA	0-125	0-10	1.6 (0-10A)	1.0	0-150V, 0-10A	1.6 (0-10A)	14¼ x 22 x 15¾	150	575.00

Stocked at Your Electronic Distributor. Write for Catalog PS-562R. Prices subject to change without notice.

Electro CHICAGO

ELECTRO PRODUCTS LABORATORIES, Inc. Chicago 48 (Niles), Illinois

Since 1936—Pioneers in Low Voltage Power Supplies

3129

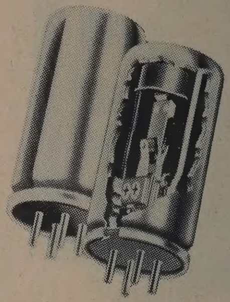
Net

© U.C.P., Inc.

CLASS

250.01 Standard and Special Purpose
250.20 Communications Vibrators

CDE



Designed for reliable service and long shelf life. "Seal-Vent" protected until placed in service. "Seal-Vent" protected on the shelf and "Breathes" in service.

Beveled counterweights provide quicker starting and smoother operating.

Ceramic block insulators are precision ground, permitting perfect contact alignment.

STANDARD AND SPECIAL PURPOSE

INTERRUPTER

6 Volt		
Type No.	List Price	Net Price
5301	$4.70	$2.82
5314	4.90	2.94
5335	4.90	2.94
5343	4.90	2.94
5370	4.90	2.94
5435	7.70	4.62

6 Volt		
Type No.	List Price	Net Price
5454	$8.55	$5.13
5506	7.55	4.53
5510	7.55	4.53
5513	8.10	4.86
5560	9.05	5.43
5604	7.70	4.62

12 Volt		
Type No.	List Price	Net Price
6301	$4.70	$2.82
6330	4.70	2.82
6370	4.70	2.82
6371	4.70	2.82
6372	4.70	2.82
6511	8.10	4.86
6513	8.10	4.86
6514	10.45	6.27
6517	8.10	4.86
6605	10.45	6.27
Other Voltages		
5300-32	$7.15	$4.29
5314-4	4.90	2.94
5513-4	8.10	4.86
5514-4	8.10	4.86

SYNCHRONOUS

6 Volt		
Type No.	List Price	Net Price
5400	$7.70	$4.62
5408	7.70	4.62
5409	7.70	4.62
5411	7.70	4.62

6 Volt		
Type No.	List Price	Net Price
5426	$7.70	$4.62
5607	9.05	5.43
5610	7.70	4.62
5830	7.70	4.62
5831	7.70	4.62

12 Volt		
Type No.	List Price	Net Price
6609	$9.95	$5.97
6610	8.55	5.13
6614	8.55	5.13
6615	6.35	3.81
6616	10.45	6.27
Other Voltages		
5468-2	$11.30	$6.78
5469-2	10.30	6.18
5615-24	9.05	5.43

UNIVERSAL REPLACEMENT TYPES

Type No.	List Price	Net Price	Voltage	Pins
C1A	$2.35	$1.41	6	4
C3A	2.45	1.47	12	3
C4A	2.45	1.47	12	4

VIBRATORS FOR FOREIGN CAR RADIOS

Type No.	Blaupunkt Part No.	Voltage	List Price	Net Price
5730	SM0702-01Z	6 Volts	$6.15	$3.69
6730	SM0702-02Z	12 Volts	6.15	3.69

COMMUNICATIONS TYPES

INTERRUPTER

6 Volt		
Type No.	List Price	Net Price
5715	$6.90	$4.14
5718	9.80	5.88
5721	6.90	4.14
5722/6722	9.60	5.76
5725	6.90	4.14
5821	7.70	4.62

12 Volt		
Type No.	List Price	Net Price
6715	$6.90	$4.14
6718	9.80	5.88
6719	7.25	4.35
5722/6722	9.60	5.76

12 Volt		
Type No.	List Price	Net Price
6721	$6.90	$4.14
6725	6.90	4.14
6715S	6.90	4.14

SYNCHRONOUS

6 Volt		
Type No.	List Price	Net Price
5805	$8.55	$5.13
5820	9.70	5.82
5822	9.05	5.43
5824	9.70	5.82

12 Volt		
Type No.	List Price	Net Price
6805	$8.55	$5.13
6820	9.70	5.82
6821	7.70	4.62

12 Volt		
Type No.	List Price	Net Price
6822	$9.05	$5.43
6824	9.70	5.82
6820S	9.70	5.82

All above prices subject to 8% Federal Excise Tax.

© U.C.P., Inc.

CORNELL-DUBILIER ELECTRONICS

CLASS
250.40
250.50

Heavy Duty Vibrators

CDE

SPECIFICATIONS

POPULAR TYPES IN STANDARDIZED SERIES

Vibrator	Voltage	Frequency	*D.C. Amps.	Base	Type	Size	List Price	Net Price
6VB6H	6	60 ± 2	15	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	$14.20	**$8.52**
6VD6H	6	60 ± 2	30	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3⅜	24.70	**14.82**
6VL6H	6	60 ± ½	12	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**
6VL10	6	100 ± 3	10	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
12VB6H	12	60 ± 2	10	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
12VD6H	12	60 ± ½	20	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3⅜	24.70	**14.82**
12VL6H	12	60 ± ½	9	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**
12VL10	12	100 ± 3	8	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
28VB6H	28	60 ± 2	8	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
28VD6H	28	60 ± ½	15	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3⅜	24.70	**14.82**
28VL6	28	60 ± 2	7	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
28VL10	28	100 ± 3	6	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
32VB6H	32	60 ± ½	6	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
32VD6H	32	60 ± ½	12	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3⅜	24.70	**14.82**
32VL6H	32	60 ± ½	6	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**
32VL10	32	100 ± 3	5	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
110VB6H	110	60 ± ½	3	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
110VC6H	110	60 ± ½	6	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3⅜	24.70	**14.82**
110VL6H	110	60 ± 1	3	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**

POPULAR OLD TYPES (Not directly replaceable by Standardized Series)

Vibrator	Voltage	Frequency	*D.C. Amps.	Base	Type	Size	List Price	Net Price
427	6	60 ± 2	12	HF	Vert. Single	2 3/16 Dia. x 4 11/16	$12.90	**$7.74**
490	6	60 ± 3.0	25	HL	Horiz. Tandem	2 23/32 x 5 15/16 x 3⅜	24.70	**14.82**
491	6	60 ± 2	20	HL	Horiz. Tandem	2 5/32 x 5⅜ x 3 7/16	24.70	**14.82**
1315H	110	60 ± ½	3	HH	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	15.25	**9.15**

SMALL VIBRATORS USED IN VIPOWERS

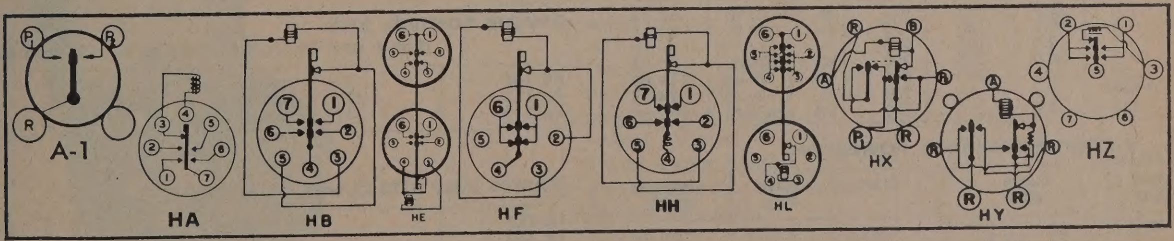
Vibrator	Voltage	Frequency	*D.C. Amps.	Base	Type	Size	List Price	Net Price
2522	110	60 ± 3	5	HX	Vert. ARV	1½ Dia. x 2⅞	$9.10	**$5.46**
2529	6	60 ± 5	5	None	Wire-in	1 x 1 x 2⅜	4.40	**2.64**
2530	12	60 ± 5	3	None	Wire-in	1 x 1 x 2⅜	4.40	**2.64**
2531	6	60 ± 3	10	A-1	Vert. ARV	1½ Dia. x 2⅞	8.10	**4.86**
2532	12	60 ± 3	5	A-1	Vert. ARV	1½ Dia. x 2⅞	8.10	**4.86**
2533	110	60 ± 5	6	None	Wire-in	1 x 1 x ⅜	4.40	**2.64**
2563	6	60 ± 3	15	HZ	Vert. ARV	1½ Dia. x 2⅞	10.90	**6.54**
2564	28	60 ± 3	5	HZ	Vert. ARV	1½ Dia. x 2⅞	10.90	**6.54**
2565	110	60 ± 3	8	HY	Vert. ARV	1½ Dia. x 2⅞	10.90	**6.54**

POPULAR OLD TYPES (Directly replaceable by Standardized Series)

Old	New	Old	New	Old	New
2989	**32VB6H**	**3079**	**110VC6H**	**3103**	**6VB6H**
3047	**12VD6H**	**3087**	**12VB6H**	**4123**	**6VD6H**

*D.C. Ampere rating is based upon measurement made with a D.C. ammeter in primary lead. Circuit must be properly designed for load being handled. Technical advice is available through CDE Vibrator Department, Fuquay Varina, N. C.

BASE DIAGRAMS



OBSOLETE TYPES

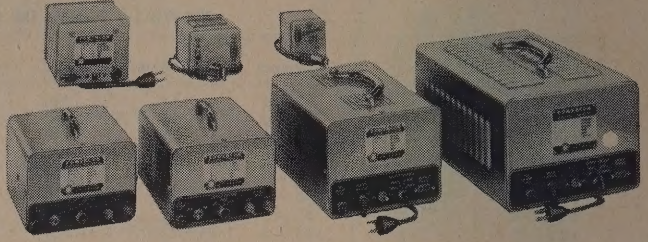
It is entirely impractical to continue to stock the hundreds of different heavy-duty vibrators that have been supplied in past years for a large variety of uses. Every attempt is made to maintain equipment in service, even though it originally used vibrators which have generally become obsolete. Some obsolete vibrator types are still carried in limited stock at the factory. In a great many cases, simple instructions are available so that a radio technician can change wiring, sockets, or other minor features in an old design to adapt it for use with new standard vibrators.

For information regarding a possible replacement for obsolete vibrators, send details including model number of equipment, original vibrator type number, voltage and frequency to the CDE Vibrator Department, Fuquay Varina, N. C.

POWERCON®

Vibrator and Solid State

POWER CONVERTERS



POWERCON CONVERTERS listed here provide 115v AC 60 cps output from batteries or other direct current sources such as 110v DC power lines and local generator plants.

Principal applications of these converters are the operation of television sets, radio receivers and transmitters, record players, shavers, tape recorders and dictating machines. Also, portable alarm systems, portable test equipment, portable hand tools, safety equipment, photo-electric systems, and certain small motor-driven appliances.

Maximum continuous-power ratings range from 150 VA for 6v input, 250 VA for 12v, 24v and 32v inputs, to 400 VA for 110v and 220v inputs. Much higher outputs are possible on intermittent duty-cycle operation. These output ratings are conservative, assuring highly reliable operation with extremely good life characteristics.

For operation of mobile radio transmitter-receivers and similar equipment, a group of DC input to high-voltage DC output POWERCON Converters is also listed.

Various mounting kits, wire lead kits containing various lengths, fuse kits, and remote control kits, are available for aiding the user in the proper installation of these POWERCON units.

REGULAR POWERCONS — SQUARE-WAVE OUTPUT

Model No.	Input (Nominal)		Output (Nominal) Volts-Amperes		CLASS	List Price	Suggested Resale
	Volts DC	Amps	Continuous	Intermittent			
6SP2	6	5.0	20	20	**SP**	11.85	**7.90**
6L6	6	15.0	60	80	**L**	47.05	**31.35**
6S8	6	20.0	80	100	**S**	59.65	**39.75**
6H10	6	25.0	100	125	**H**	68.85	**45.90**
6SH15	6	38.0	150	175	**SH**	95.40	**63.60**
6/12D6	6 or 12	14.0 or 7.0	60	75	**L**	52.05	**34.70**
12SP2	12	2.5	20	20	**SP**	11.85	**7.90**
12L8-1	12	10.0	80	100	**L**	47.05	**31.35**
12S10	12	12.5	100	125	**S**	71.20	**47.45**
12H15	12	20.0	150	175	**H**	95.65	**63.75**
12SH22	12	29.0	225	250	**SH**	118.60	**79.05**
28S10	28	5.0	100	125	**S**	88.50	**59.00**
28H15	28	7.5	150	175	**H**	113.65	**75.75**
28SH22	28	11.0	225	250	**SH**	150.75	**100.50**
32S12	32	5.0	100	125	**S**	88.50	**59.00**
32H18	32	7.5	180	200	**H**	113.65	**75.75**
32SH22	32	10.0	225	275	**SH**	150.75	**100.50**
110L10	110	1.1	100	150	**L**	56.65	**37.25**
110S15	110	1.7	150	200	**S**	71.55	**47.70**
110H25	110	2.8	250	325	**H**	85.65	**57.10**
110H35	110	4.0	350	450	**H**	133.65	**89.10**
110SH40	110	4.5	400	600	**SH**	141.15	**94.10**
220S15	220	0.85	150	200	**S**	82.50	**55.00**
220H25	220	1.4	250	325	**H**	125.10	**83.40**
220SH40	220	2.2	400	600	**SH**	175.95	**117.30**

SINE-WAVE OUTPUT — WITH VOLTAGE REGULATION

6SW8	6	20.0	80	100	**H**	102.90	**68.60**
6SW15	6	40.0	150	175	**SH**	126.20	**84.15**
12SW10	12	12.5	100	125	**H**	114.75	**76.50**
12SW25	12	33.0	250	300	**SH**	135.40	**90.25**
28SW25	28	14.0	250	300	**SH**	179.40	**119.60**
110SW15	110	1.7	150	200	**H**	126.25	**84.15**
110SW25	110	3.0	250	300	**SH**	179.40	**119.60**

BATTERY ELIMINATOR POWERCONS

Model No.	Input Volts	Output Volts	Class	List Price	Suggested Resale
110B6	110	6A - 12V. DC 10A - 6V. DC	**H**	75.75	**50.50**
110B12	110	10A - 12V. DC 20A - 6V. DC	**H**	100.95	**67.30**

DC INPUT TO HIGH-VOLTAGE DC OUTPUT, FILTERED

Model No.	Input (Nominal)		Output (Nominal)		List Price	Suggested Resale
	Volts DC	Amps	Volts DC	Volts-Amps (Cont.)		
12TP3*	12	3.0	300	30	59.95	**40.00**
12TP12*	12	12.0	500	120	79.95	**53.35**

*Have taps at one-half rated voltage.

POWERCON ACCESSORIES

Model No.	Description	List Price	Suggested Resale
LEAD KITS			
LK 605	DUAL #6 — 5 ft.	8.05	**5.37**
LK 612	DUAL #6 — 12 ft.	14.85	**9.90**
LK 616	DUAL #6 — 16 ft.	18.45	**12.30**
LK 805	DUAL #8 — 5 ft.	5.60	**3.75**
LK 812	DUAL #8 — 12 ft.	9.60	**6.45**
LK 816	DUAL #8 — 16 ft.	11.70	**7.80**
LK 1005	DUAL #10 — 5 ft.	4.70	**3.15**
LK 1012	DUAL #10 — 12 ft.	7.65	**5.10**
LK 1015	DUAL #10 — 15 ft.	9.25	**6.15**
LK 1016	DUAL #10 — 16 ft.	9.25	**6.15**
MOUNTING KITS			
MK 3544-1	FOR L & S CASES	4.95	**3.30**
MK 3544-2	FOR H CASE ONLY	5.40	**3.60**
MK 3544-3	FOR SH CASE ONLY	6.75	**4.50**
REMOTE CONTROL KITS **(For 6 and 12 Volt Models in L, S, H and SH Cases)**			
RK 105	5 ft. Extension Cable	8.10	**5.40**
RK 112	12 ft. Extension Cable	9.90	**6.60**
RK 116	16 ft. Extension Cable	10.80	**7.20**
MASTER FUSE KITS (2 inch Cartridge)			
FK 220	20 Ampere	3.15	**2.10**
FK 230	30	3.15	**2.10**
FK 240	40	4.05	**2.70**
FK 250	50	4.05	**2.70**
FK 260	60	4.05	**2.70**

All models are housed in cases of similar design and appearance. The class designation signify approximate size and weight as follows:

SP — Shaver Pack—2⅝ x 2½ x 3⁷⁄₃₂ .... 2 lbs.
L — Lightweight—5½ x 6¼ x 8 .... 12 lbs.
S — Standard—5½ x 6¼ x 9 .... 14 lbs.
H — Heavy—6½ x 7½ x 11 .... 20 lbs.
SH — Super Heavy—8 x 9½ x 13 .... 35 lbs.

Trade Discount Applies to List Prices Only

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CORNELL-DUBILIER ELECTRONICS

"POWERCON" Power Supplies

CLASS
251.00

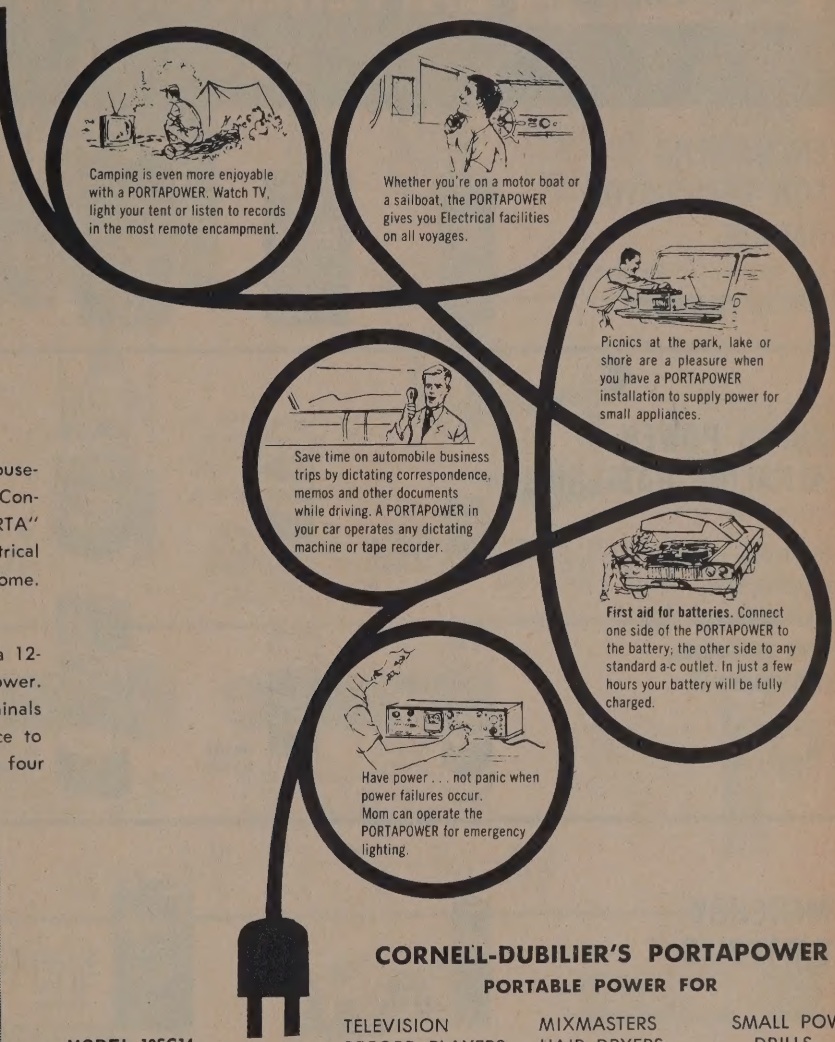
Now take your household

POWER

anywhere

Cornell-Dubilier's PORTAPOWER® makes household power available anytime, anywhere. Connect any 117-volt, 150-watt device to a "PORTA" installation and **presto** — you have the electrical conveniences of your home — away from home.

The PORTAPOWER® converts the power of a 12-volt storage battery to standard household power. Connect the battery leads to the proper terminals on the unit; then plug-in any 117-volt device to the output receptacle. Now you have up to four hours of available a-c power.



Camping is even more enjoyable with a PORTAPOWER. Watch TV, light your tent or listen to records in the most remote encampment.

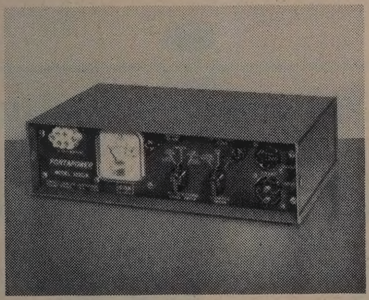
Whether you're on a motor boat or a sailboat, the PORTAPOWER gives you Electrical facilities on all voyages.

Picnics at the park, lake or shore are a pleasure when you have a PORTAPOWER installation to supply power for small appliances.

Save time on automobile business trips by dictating correspondence, memos and other documents while driving. A PORTAPOWER in your car operates any dictating machine or tape recorder.

First aid for batteries. Connect one side of the PORTAPOWER to the battery; the other side to any standard a-c outlet. In just a few hours your battery will be fully charged.

Have power . . . not panic when power failures occur. Mom can operate the PORTAPOWER for emergency lighting.



MODEL 12SC14

$65.00

USER NET

(includes charging cord)

CORNELL-DUBILIER'S PORTAPOWER

PORTABLE POWER FOR

TELEVISION
RECORD PLAYERS
TAPE RECORDERS
INTERCOMS
DICTATING MACHINES
MIXMASTERS
HAIR DRYERS
PAGING SYSTEMS
TYPEWRITERS
SHAVERS
NIGHT LIGHTS
SMALL POWER DRILLS
RADIOS
JUICE BLENDERS
SPOT LIGHTS

Also available from CDE is a sturdy, "easy-to-carry", double-sectioned metal case. The lower section holds the Model 12SC14 inverter, and the top section houses a 12-volt battery. This complete PORTAPOWER package truly represents the longest extension cord in the world.

MODEL 12PP14
(less battery)

$75.00

USER NET

For year-round family fun, at home or away, order your your PORTAPOWER now!

ORDER INFORMATION

(1) **Model 12PP14,** includes Inverter 12SC14 Carrying Case A-2734 Lead Kit LK-1401	**$75.00** USER NET
(2) **Model 12SC14,** includes Inverter 12SC14 Charging cord A-2599	**$65.00** USER NET
(3) **Accessory Kit AK-127,** includes Carrying case A-2734 Lead it LK-1401 (wire and clamps)	**$10.00** USER NET
(4) **Lead Kit LK-1016,** includes Two leads, 16' #10 wire with terminals for use with Model 12SC14 when not in case.	**$6.15** USER NET

Models and Kits can be ordered separately.

EVEREADY® BATTERIES with *POWER TO SPARE*

(See complete line listing for prices)

ENERGIZERS FOR TRANSISTOR RADIOS

and other electronic applications

EVEREADY
ENERGIZER

No. 206
9 Volts

No. 216
EVEREADY
ENERGIZER

No. 216
9 Volts

No. 226
9 VOLTS
EVEREADY
ENERGIZER

No. 226
9 Volts

EVEREADY
ENERGIZER

No. 333
4½ Volts

SPECIAL
EVEREADY
ENERGIZER
ELECTRONIC APPLICATIONS

No. 635
Size C
1½ Volts

EVEREADY
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No. 1015
Size AA
1½ Volts

SUPER POWER ALKALINE BATTERIES

for radios, cameras, toys, flashlights, and high drain applications, rechargeable TV

EVEREADY
ALKALINE BATTERY

No. E90
Size N
1½ Volts

EVEREADY
ALKALINE BATTERY

No. E91
Size AA
1½ Volts

EVEREADY
ALKALINE BATTERY
UP TO 10 TIMES MORE SERVICE

No. E93
Size C
1½ Volts

EVEREADY
ALKALINE BATTERY
UP TO 10 TIMES MORE SERVICE

No. E94
Size ½D
1½ Volts

EVEREADY
ALKALINE BATTERY
UP TO 10 TIMES MORE SERVICE

No. E95
Size D
1½ Volts

EVEREADY
ALKALINE BATTERY

No. E177
9 Volts

EVEREADY
ALKALINE BATTERY

No. 523
4½ Volts

EVEREADY
ALKALINE BATTERY
Rechargeable

No. 560
7½ Volts

EVEREADY
Rechargeable
ALKALINE BATTERY

No. 561
15 Volts

MERCURY BATTERIES

No. E9
1.4 Volts

No. E146 8.4 VOLTS
EVEREADY
MERCURY ENERGIZER
TRANSISTOR RADIO
ELECTRONIC APPLICATIONS

No. E146
8.4 Volts

No. E133
EVEREADY
MERCURY ENERGIZER

No. E133
4.2 Volts

SEALED NICKEL CADMIUM RECHARGEABLE BATTERIES

No. N24
EVEREADY

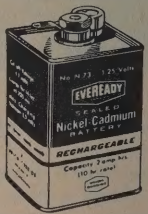
No. N24
1.25 Volts

EVEREADY
Nickel Cadmium

No. N46
1.25 Volts

1.25 VOLTS
EVEREADY
SEALED
Nickel-Cadmium
BATTERY
RECHARGEABLE
HIGH RATE

No. N57
1.25 Volts


EVEREADY
SEALED
Nickel-Cadmium
BATTERY
RECHARGEABLE

No. N73
1.25 Volts

LANTERN BATTERIES

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Weatherproof
LANTERN BATTERY

No. 509 — Spring
No. 510S — Screws
No. 510F — Fahnestock
6 Volts

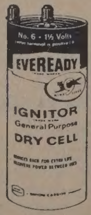
Weatherproof
EVEREADY
BATTERY
for marine·utility lighting

No. 731
6 Volts
No. 732
12 Volts

Weatherproof
EVEREADY
Alkaline Battery

No. 520
6 Volts
Alkaline

OTHER BATTERIES


No. 6 · 1½ Volts
EVEREADY
IGNITOR
General Purpose
DRY CELL

No. 6 "Ignitor"
1½ Volts

EVEREADY
Weatherproof
HOT SHOT

"HOT SHOT"
No. 1461 6 Volts
No. 1462 6 Volts
No. 1463 12 Volts
No. 1562 7½ Volts
No. 1662 9 Volts

EVEREADY
Weatherproof
BATTERY

EMERGENCY LIGHTING
No. 715 7½ Volts
No. 706 6 Volts
No. 716 9 Volts

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FLASHLIGHTS, LANTERNS and BATTERIES

the world's most trusted brand for over 50 years!

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LEAKPROOF
FLASHLIGHT BATTERY
NINE LIVES
ENERGIZED
For Super Service

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AA

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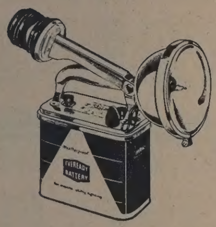
Heavy-Duty D

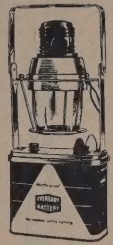
Famous "Eveready" Leakproof Guarantee shown on label.

WEATHERPROOF LANTERNS



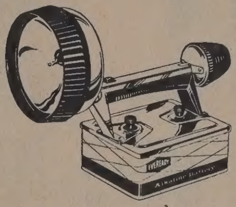
No. 100 "Big Jim" Lantern w/flasher. Uses 1 No. 731 Battery, No. 4546 Lamp, No. 407 Signal Lamp.

No. 101 Same without flasher.



No. 105 "Big Jim" Camp and Emergency Lantern. Uses 1 No. 731 Battery, No. PR13 Lamp, No. 407 Signal Lamp.

No. 106 Same without flasher.



No. 150 "Captain" Stainless Steel Lantern. Uses 1 No. 520 Alkaline Battery and No. 4618 1 ampere Lamp for Double Brilliance, Longer Service, No. 407 Signal Lamp.

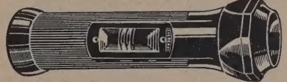
No. 151 Same without flasher.

	No. 100	No. 101*	No. 105	No. 106*	No. 150	No. 151*
List Each	$10.75	$8.00	$10.75	$8.20	$14.00	$12.00
Sugg. List	6.45	4.80	6.45	4.92	8.39	7.19

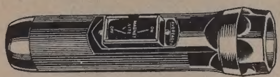
*without Flasher

"CORDAHIDE" polyethylene FLASHLIGHTS —

Insulated, Withstand Abuse, Resist Oils, Greases, Most Chemicals.

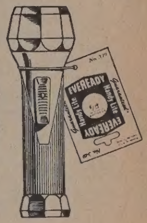


No. 330 Utility Lite. Uses 2 No. 950, D99 or E95 Batteries, No. PR2 Lamp. Available individually boxed (**No. 330**) or in display of 12 (**No. 33**).



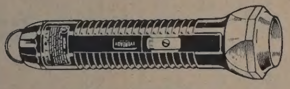
No. 337 Magnet Utility Lite. Uses 2 No. 950, D99 or E95 Batteries, No. PR2 Lamp. Available individually boxed (**No. 337**) or in display of 12 (**No. 51**) in colors.

No. 349 Handy Lite. Uses 2 No. 935 or E93 Batteries, No. PR4 Lamp. Available in assortment of 6 (**No. 49**) in colors.



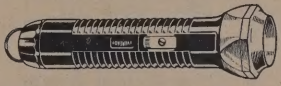
	No. 330	No. 33	No. 337	No. 51	No. 49
List Each	$0.99	$11.88	$1.39	$16.68	$7.14
Sugg. Dealer	.70	8.28	.94	11.16	4.68

INDUSTRIAL and SPECIAL PURPOSE LITES



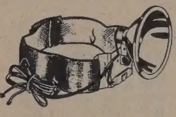
Industrial Flashlights

No. 1251 — 2 Cell, No. PR6 Lamp. **No. 1351** — 3 Cell, No. PR7 Lamp. Uses Nos. 950, 1050, D99 or E95 Batteries. Will not shatter crack or dent.

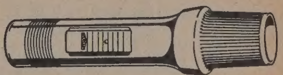


Safety Flashlights

No. 1259 — 2 Cell, No. PR6 Lamp. **No. 1359** — 3 Cell, No. PR7 Lamp. Uses Nos. 950, 1050, D99 or E95 Batteries. Approved by U. S. Bureau of Mines, Listed by Underwriters' Laboratories, Inc.



No. 3452 Head-Lite. Uses 1 No. 510S Battery and No. PR13 Lamp. Rainproof pouch also available (No. 1348). For both, order **No. 34.**

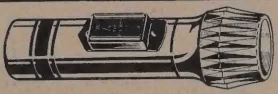


Torch Lite

No. 2T3 — 3" wand. **No. 2T5** — 5" wand. Uses 2 No. 950, D99 or E95 Batteries and No. PR2 Lamp.

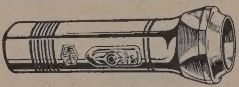
	No. 1251	No.1351	No. 1259	No. 1359	No. 34	No. 273	No. 275
List Each	$2.89	$3.29	$4.15	$4.35	$3.98	$1.49	$1.59
Sugg. Dealer	1.93	2.19	2.74	2.89	2.60	.99	1.05

HEAVY-GUAGE, CHROME-PLATED METAL FLASHLIGHTS



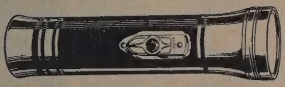
Magnet Lites

No. 5MF — 2 Cell, No. PR2 Lamp. **No. 7MF** — 3 Cell, No. PR3 Lamp. Use Nos. 950, D99 or E95 Batteries. Available individually boxed. No. 5MF available in display of 6 with Selling Tags (**No. 6-5MF**) or display of 6 with Counter Card (**No. 14**).



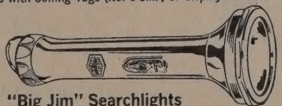
"Masterlite"

No. 7231P — C Cell, Uses 2 No. 935 or E93 Batteries, No. PR4 Lamp. **No. 7251P** — D Cell. Uses 2 No. 950, D99 Batteries, No. PR2 Lamp. Available individually boxed.



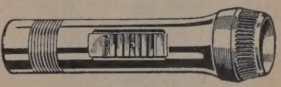
America's Standard

No. 2251 — 2 Cell, No. PR2 Lamp. **No. 2351** — 3 Cell, No. PR3 Lamp. Use Nos. 950, D99 or E95 Batteries. Available individually boxed.



"Big Jim" Searchlights

No. 7352P — 3 Cell, No. PR3 Lamp. **No. 7552P** — 5 Cell, No. PR12 Lamp. Use Nos. 950, D99 or E95 Batteries. Available individually boxed.

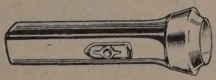


All American

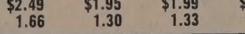
Uses 2 No. 950, D99 or E95 Batteries and No. PR2 Lamp. Available in Counter Display of 14 Lites — 2 FREE (**No. 130B**).

	No. 5MF	No. 6-5MF	No. 14	No. 7MF	No. 7231P	No. 7251P	No. 2251	No. 2351	No. 7352P	No. 7552P	No. 130B
List Each	$1.99	$11.94	$11.94	$2.49	$1.95	$1.99	$1.95	$2.35	$3.95	$4.95	$16.66
Sugg. Dealer	1.33	7.98	7.98	1.66	1.30	1.33	1.30	1.57	2.64	3.31	9.84

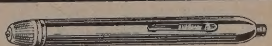
MINIATURE FLASHLIGHTS



"Little Jim" Pocket Lite. Uses 1 No. 915 or E91 Battery and No. 112 Lamp. Available in Counter Display of 12 (**No. 15**).



Slim Penlite. Uses 2 No. 912 or E92 Batteries and No. 224 Lamp. Available individually boxed (**No. 212**) or in Counter Display of 12 (**No. 21C**).



Heavy-Duty Penlite. Uses 2 No. 915 or E91 Batteries and No. 222 Lamp. Available individually boxed (**No. 230**) or in Counter Display of 12 (**No. 23**).

	No. 15	No. 212	No. 210	No. 230	No. 23
List Each	$9.48	$0.98	$11.76	$0.98	$11.76
Sugg. Dealer	6.30	0.67	7.80	.67	7.80

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COMPLETE LINE SPECIFICATIONS

"Eveready" Battery Number	NEDA Number	Overall Dimensions in inches L W H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Price Each	Major Use
E1	1100	0.625 Diam. x 0.650	Flat Contacts—, +1.40		0.43	4	0.42	0.65	
E1N		0.625 Diam. x 0.650	Flat Contacts—, +1.35		0.43	4	0.43	0.65	Meters, Instruments, Signal Lights, Miniature Radios
E3		0.985 Diam x 0.660	Flat Contacts—, +1.35		0.93	4	0.67	1.05	
E4		1.195 Diam. x 0.660	Flat Contacts—, +1.35		1.6	4	0.86	1.35	
EPX-4		0.662 Diam. x 1.965	Flat Contacts—, +5.40		1.16	1	1.35	1.95	Camera
No. 6 "Ignitor" Gen. Purpose	905 914	2⅝ Diam. x 6⅝	**Screw—, +1½	2	2	1	0.84	1.25	Ignition, Lighting
No. 6 "Gray Label" Telephone	906	2⅝ Diam. x 6⅝	***Fahnestock—, +1½	2	2	1	0.84	1.25	Telephone
No. 6 Railroad & Industrial	911	2⅝ Diam. x 6⅝	**Screw—, +1½	2	2	1	0.90	1.35	Ignition, Telephone
EPX-6		0.662 Diam. x 4.090	Flat Contacts—, +5.40, +12.15		1.6	1	2.75	3.95	Camera
E9	1103	0.550 Diam. x 1.968	Flat Contacts—, +1.40		1.05	4	0.51	0.75	Transistor Applications
E9N		0.550 Diam. x 1.968	Flat Contacts—, +1.40		1.05	2	0.60	0.85	Transistor Radio
E12	1101	0.640 Diam. x 1.968	Flat Contacts—, +1.40		1.4	2	0.75	1.10	Instruments, Miscellaneous
E12N		0.640 Diam. x 1.968	Flat Contacts—, +1.35		1.4	2	0.82	1.25	Meters, Instruments
EPX-13		0.610 Diam. x 0.233	Flat Contacts—, +1.35		15	5	0.35	0.50	
EPX-14		0.655 Diam. x 0.614	Flat Contacts—, +2.7		0.3	1	0.75	1.10	
N22		0.449 Diam. x 0.201	Flat Contacts—, +1.25		0.04	1	1.05	1.50	
N24		0.610 Diam. x 0.235	Flat Contacts—, +1.25		0.12	1	0.70	1.00	
N26		0.988 Diam. x 0.230	Flat Contacts—, +1.25		0.32	1	0.75	1.10	
N26T		0.988 Diam. x 0.230 (plus tabs)	Solder Tabs—, +1.25		0.32	1	0.84	1.20	
N28		0.988 Diam. x 0.252	Flat Contacts—, +1.25		0.4	1	0.78	1.15	
N28T		0.988 Diam. x 0.252 (plus tabs)	Solder Tabs—, +1.25		0.4	1	0.87	1.25	
N32		0.988 Diam. x 0.343	Flat Contacts—, +1.25		0.44	1	0.83	1.20	
N32T		0.988 Diam. x 0.343 (plus tabs)	Solder Tabs—, +1.25		0.44	1	0.91	1.30	Instruments, Hobby, Transistor Applications, Miscellaneous
N33		0.988 Diam. x 0.347	Flat Contacts—, +1.25		0.46	1	0.98	1.40	
N33T		0.988 Diam. x 0.347 (plus tabs)	Solder Tabs—, +1.25		0.46	1	1.05	1.50	
N36		1.697 Diam. x 0.286	Flat Contacts—, +1.25		1.16	1	1.47	2.10	
N36T		1.697 Diam. x 0.286 (plus tabs)	Solder Tabs—, +1.25		1.16	1	1.54	2.20	
N38		1.355 Diam. x 0.380	Flat Contacts—, +1.25		1.0	1	1.75	2.50	
N38T		1.355 Diam. x 0.380 (plus tabs)	Solder Tabs—, +1.25		1.0	1	1.82	2.60	
N39		1.984 Diam. x 0.394	Flat Contacts—, +1.25		2.0	1	2.66	3.80	
N40		1.984 Diam. x 0.394	Flat Contacts—, +1.25		2.0	1	2.80	4.00	
N40T		1.984 Diam. x 0.394 (plus tabs)	Solder Tabs—, +1.25		2.0	1	2.87	4.10	
N41		1.984 Diam. x 0.719	Flat Contacts—, +1.25		3.4	1	4.69	6.70	
N41T		1.984 Diam. x 0.719 (plus tabs)	Solder Tabs—, +1.25		3.4	1	4.76	6.80	Novelties
S41		0.455 Diam. x 0.165	Flat Contacts—, +1.5		0.06	6	0.24	0.35	
E42		1-9/32 Diam. x 2.390	Flat Contacts—, +1.40		5.85	1	1.64	2.50	
E42N		1-9/32 Diam. x 2.390	Flat Contacts—, +1.35		5.85	1	1.85	2.75	
N43		1.984 Diam. x 0.988	Flat Contacts—, +1.25		4.8	1	5.70	8.15	
N43T		1.984 Diam. x 0.988 (plus tabs)	Solder Tabs—, +1.25		4.8	1	5.78	8.25	
N45		17/32 Diam. x 1-31/32	Solder Tabs—, +1.25		0.8	1	2.10	3.00	
N46		17/32 Diam. x 1-31/32	Flat Contacts—, +1.25		0.8	1	1.93	2.75	
N52		17/32 Diam. x 3-35/64	Solder Tabs—, +1.25		1.4	1	3.17	4.55	Instruments, Hobby, Transistor Applications, Miscellaneous
N54		61/64 Diam. x 1-55/64	Flat Contacts—, +1.25		3.0	1	5.64	8.05	
N56		1-11/32 Diam. x 2-13/32	Flat Contacts—, +1.25		4.5	1	3.50	5.00	
N57		1-11/32 Diam. x 2-13/32	Flat Contacts—, +1.25		6.0	1	6.50	9.25	
N67		1-15/32 x 1-15/32 x 3-25/32	Wire Leads—, +6		8.3	1	18.46	26.40	
N70		3-53/64 x 1-35/64 x 3⅝	Wire Leads—, +6	1	12	1	29.62	42.30	
N73		1-23/64 x 1-23/64 x 2-13/32	Nut & Stud; Tab—, +1.25		5.9	1	6.05	8.65	
N74		1-23/64 x 1-23/64 x 3-25/64	Nut & Stud; Tab—, +1.25		9.2	1	7.12	10.15	
N75		1-23/32 x 2 x 3-5/32	Nut & Stud—, +1.25		12.3	1	9.35	13.35	
N76		1-23/32 x 2 x 3-45/64	Nut & Stud—, +1.25		15.2	1	10.21	14.60	Novelties
S76		0.455 Diam. x 0.200	Flat Contacts—, +1.50		0.08	6	0.26	0.40	
N77		1-23/32 x 2 x 4-¼	Nut & Stud—, +1.25	1	1.6	1	11.17	15.95	
N78		31/32 x 2-15/64 x 3-29/32	Nut & Stud—, 1.25		12.5				
N79		1-1/16 x 3-37/64 x 4-15/16	Nut & Stud—, +1.25	1	12	1	13.79	19.70	Instruments, Hobby, Transistor Applications, Miscellaneous
N81		1-25/64 x 3-37/64 x 4-15/16	Nut & Stud—, +1.25	2	2.9	1	16.78	23.95	
N-82		3-1/32 x 1-3/16 x 4-17/32	Nut & Stud—, 1.25						
N83		1-45/64 x 3-37/64 x 4-15/16	Nut & Stud—, +1.25	2	9.6	1	19.90	28.45	
N85		2-1/64 x 3-37/64 x 4-15/16	Nut & Stud—, +1.25	3	1.6	1	22.94	32.75	Radio, Electronic
E90	910	0.470 Diam. x 1.130	Flat Contacts—, +1.5		0.35	3	0.24	0.35	Radio Electronic
E91	15	9/16 Diam. x 1-31/32	Flat Contacts—, +1.5		0.75	12	0.325	0.50	Radio, Electronic
E92		0.4 Diam. x 1.735	Flat Contacts—, +1.5		0.4	12	0.31	0.45	
E93	14	1-1/32 Diam. x 1-15/16	Flat Contacts—, +1.5		2.0	12	0.39	0.60	
E94	927	1-11/32 Diam. x 1-7/32	Flat Contacts—, +1½		1.8	12	0.325	0.50	Electronic Photoflash
E95		1-11/32 Diam. x 2-13/32	Flat Contacts—, +1½		4.1	12	0.49	0.75	Communication Equipment
E97S		1-11/32 Diam. x 5-7/32	Ins. Screw—, +1½		9	12	0.73	1.10	Hobby
†D99		1-11/32 Diam. x 2-13/32	Flat Contacts—, +1½		3.3	48	0.155	0.25	Flashlight, Toys
A100	13	1-11/32 Diam. x 2-13/32	Flat Contacts—, +1½		3.3	48	0.155	0.25	Portable Radio "A", Transistor
E113		0.660 Diam. x 0.845	Flat Contacts—, +4.05		0.45	1	1.65	2.55	Instruments
E114		0.660 Diam. x 1.080	Flat Contacts—, +5.40		0.59	1	1.50	2.30	Instruments
E115		0.660 Diam. x 1.40	Flat Contacts—, +7		0.73	1	1.49	2.25	Instruments
E115N		0.660 Diam. x 1.40	Flat Contacts—, +6.75		0.73	1	1.64	2.50	Instruments
E126	1611	0.724 Diam. x 2	Flat Contacts—, +8.4		1.65	1	1.05	1.50	Transistor Radio
E132	1200	0.662 Diam. x 1.315	Flat Contacts—, +2.80		0.9	2	0.84	1.25	Transistor Applications
E132N		0.662 Diam. x 1.315	Flat Contacts—, +2.70		0.9	2	0.92	1.35	Transistor Applications
E133	1304	0.662 Diam. x 1.965	Flat Contacts—, +4.2		1.4	2	1.05	1.50	Transistor Applications
E133N	1304	0.665 Diam. x 1.965	Flat Contacts—, +4.05		1.4	2	1.18	1.75	Transistor Applications
E134		0.662 Diam. x 2.620	Flat Contacts—, +5.60		1.9	2	1.32	1.95	Transistor Applications
E134N		0.662 Diam. x 2.620	Flat Contacts—, +5.40		1.9	2	1.45	2.15	Transistor Applications
E135		0.662 Diam. x 3.275	Flat Contacts—, +6.75		2.4	1	1.64	2.50	Instruments
E135N		0.662 Diam. x 3.275	Flat Contacts—, +6.75		2.4	1	1.85	2.80	Instruments
E136		0.662 Diam. x 3.930	Flat Contacts—, +8.40		2.9	1	2.00	2.95	Instruments
E136N		0.662 Diam. x 3.930	Flat Contacts—, +8.10		2.9	1	2.18	3.20	Instruments
E137		0.662 Diam. x 4.585	Flat Contacts—, +9.80		3.1	1	2.35	3.50	Instruments
E137N		0.662 Diam. x 4.585	Flat Contacts—, +9.45		3.1	1	2.60	3.85	Instruments
E145		21/32 Diam. x 1-3/16	Flat Contacts—, +7		0.7	1	1.55	2.30	Electronic
E146	1604	1-1/32 x ⅝ x 2	Min.Snap—, +8.40		1.6	6	1.05	1.50	Transistor Radio
E152		0.485 Diam. x 1.140	Flat Contacts—, +2.80		0.42	1	0.75	1.10	Instruments
E152N		0.485 Diam. x 1.140	Flat Contacts—, +2.70		0.42	1	0.78	1.15	Instruments
E153		0.485 Diam. x 1.708	Flat Contacts—, +4.2		0.4	1	0.95	1.40	Instruments
E153N		0.485 Diam. x 1.708	Flat Contacts—, +4.05		0.4	1	1.25	1.95	
E162		0.662 Diam. x 0.887	Flat Contacts—, +2.70		0.58	1	0.87	1.30	Instruments
E163		0.662 Diam. x 1.327	Flat Contacts—, +4.20		0.87	2	1.05	1.50	Transistor Applications

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

△Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W365P.

†Flashlight types.

††Shipped from factory only.

Trade Discount Applies To List Prices Only

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EVEREADY

COMPLETE LINE SPECIFICATIONS

EVEREADY

"Eveready" Battery Number	NEDA Number	Overall Dimensions in inches L W H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Price Each	Major Use
E163N		0.662 Diam. x 1.327	Flat Contacts—, +4.05		0.87	2	1.10	1.60	Transistor Applications
E164		0.662 Diam. x 1.767	Flat Contacts—, +5.6		1.16	2	1.25	1.75	Transistor Applications
E164N		0.662 Diam. x 1.767	Flat Contacts—, +5.4		1.16	2	1.32	1.95	Transistor Applications
E165		0.662 Diam. x 2-7/32	Flat Contacts—, +7.00		1.45	2	1.60	2.25	Transistor Applications
E165N		0.662 Diam. x 2-7/32	Flat Contacts—, +6.75		1.45	2	1.66	2.45	Transistor Applications
E169		0.662 Diam. x 3-63/64	Flat Contacts—, +12.6		4.2	1	3.50	4.95	Instruments
E175		1/2 Diam. x 1-3/32	Flat Contacts—, +7.0		1.0	10	1.05	1.50	Transistor Radio
E177	1606	35/64 Diam. x 1-29/32	Min. Snap—, +9.8		0.67	1	1.15	1.75	Transistor Radio
206	1611	3/4 Diam. x 2	Flat Contacts Neg. Recessed—, +9		1.2	1	0.53	0.75	Transistor Radio
216	1604	1-1/32 x 11/16 x 1-29/32	Min Snap—, +9		1.3	12	0.48	0.69	Transistor Radio
226	1600	1 Diam. x 1-15/16	Snap Type—, +9		2.0	6	0.62	0.89	Transistor Radio
228		1 Diam. x 2-7/16	Snap Type—, +12		2.3	1	1.05	1.50	Transistor Radio
E233	1300	1-1/64 Diam. x 1-31/32	Flat Contacts—, +4.2		3.0	1	1.90	2.75	Transistor Radio
E233N		1-1/64 Diam. x 1-31/32	Flat Contacts—, +4.05		3.0	1	2.00	2.95	Instrument
E234		1-1/64 Diam. x 2-5/8	Flat Contacts—, +5.60		3.88	1	2.20	3.25	Instruments
E234N		1-1/64 Diam. x 2-5/8	Flat Contacts—, +5.4		3.88	1	2.44	3.75	Instrument
E235N		1.015 Diam. x 3-1/4	Flat Contacts—, +6.75		4.85	1	2.93	4.50	Instrument
E236N		1.015 Diam. x 3-7/8	Flat Contacts—, +8.1		5.82	1	3.64	5.50	Instrument
239	1900	1-21/64 x 1-1/32 x 2-11/16	Socket—, +9, +13-½		3	1	1.05	1.50	Transistor Radio
243	1610	1-13/32 x 1-11/32 x 2¾	Min. Snap—, +4½		4.5	1	1.19	1.70	Transistor Radio
246	1602	1-13/32 x 1-11/32 x 2¾	Min. Snap—, +9		4.5	1	1.30	1.85	Transistor Radio
266	1605	1-13/16 x 1-13/16 x 2-7/16	Snap Type—, +9		7	1	1.05	1.50	Transistor Radio
274	1400	2-9/16 x 2-1/32 x 7-29/32	Snap Type—, +6	2	7	1	3.33	4.75	Transistor Radio
276	1603	2-9/16 x 2-1/32 x 3-5/32	Snap Type—, +9		15	1	1.26	1.80	Transistor Radio
E286		1.0 Diam. x 1-15/16	Snap Type—, +8.4		2.6	6	1.35	1.95	Transistor Radio
E289		1.0 Diam. x 2-13/32	Snap Type—, +12.6		3.6	6	2.05	2.95	Transistor Radio
E312		0.310 Diam. x 0.140	Flat Contacts—, +1.40		0.02	6	0.24	0.35	Instruments
333	1306	0.662 Diam. x 1.965	Flat Contacts—, + 4.5		0.9	1	0.53	0.75	Transistor Radio
W-350	711	3-1/32 x 1⅞ x 4-31/32	Ins. Screw—, +22½, +45		14.5	1	2.69	3.85	Radio, Transceivers, Instruments
W-351		3⅝ x 2¼ x 3-11/16	Screw—, +22½, +45	1	5.5	1	5.28	7.55	Radio, Transceivers, Instruments
W-352	701	2-21/32 x 1-11/32 x 4-9/16	Ins. Screw—, +3		12.5	1	0.87	1.25	Electronic Devices, Instruments
W-353	11	2-19/32 x 1⅜ x 4¼	Socket—, +1½		12.5	1	0.77	1.10	Portable Radio
W-354	700	2-21/32 x 1-11/32 x 4⅜	Screw—, +1½		12.2	1	0.87	1.25	Instruments
W-356	*	2⅝ x 2⅝ x 4-9/16	Ins. Screw—, +3	1	6	1	1.08	1.55	Radio and Electric Devices
W-357	901	3⅞ x 2-11/16 x 5-13/16	Fahnestock—, +3	2	12	1	1.45	2.05	Model Ignition, Telephone
W-358		2-15/16 x 1-3/16 x 4⅛	Ins. Screw—, +45		8.75	1	2.49	3.55	Industrial
W-359	206	3-9/16 x 2¼ x 4½	Socket—, +45	1	11.8	1	2.49	3.55	Portable "B"
W-361	227	1-11/32 x 1-11/32 x 11-23/32	Flat Contacts—, +103½	1	4	1	4.60	6.57	Portable "B"
W-362		2-15/16 x 11/16 x 1¾	Screw+, —4½, —7½		1.5	1	1.47	2.10	Radio "C"
△W363F	*	8-1/32 x 4-1/16 x 7-5/8	Fahnestock—, +22½, +45	11	5	1	4.84	6.90	Heavy Duty Radio "B"
△W364F	*	8-1/8 x 3-7/16 x 1-11/16	Fahnestock—, +22½, +45	11	14	1	5.36	7.65	Heavy Duty Radio "B"
△W-365F	723	8-1/16 x 2-15/16 x 7⅝	Fahnestock—, +22½, +45	7	7.5	1	3.84	5.50	Industrial "B"
W-366	407	9-1/32 x 2-1/32 x 4-23/32	Socket—"A", +1½ "A", —"B", +63 "B"	4	4	1	6.16	8.80	Portable Radio "A-B"
W-367	408	9⅛ x 2¾ x 4-7/16	Socket—"A", +7½ "A", —"B", +63 "B"	4	5	1	6.45	9.20	Portable Radio "A-B"
W-368	*	9-1/32 x 2-23/32 x 3-9/16	Recessed Plug—"A", +6 "A", —"B", +75 "B"	4		1	6.65	9.50	Portable Radio "A-B"
W-369	410	9-15/16 x 2-¼ x 4-23/32	Socket—"A", +1½ "A", —"B", +90 "B"	4	5	1	5.48	7.85	Portable Radio "A-B"
W-371		1-5/32 x 1-5/32 x 2-9/16	Socket (including plug)—, +3		2.2	1	0.68	0.95	Model Ignition
E400	1106	0.455 Diam. x 0.135	Flat Contacts—, +1.40		0.04	6	0.21	0.30	Transistor Applications
E400N		0.455 Diam. x 0.135	Flat Contacts—, +1.35		0.04	6	0.29	0.45	Transistor Applications
E401	1102	0.470 Diam. x 1.130	Flat Contacts—, +1.40		0.4	3	0.33	0.50	Transistor Applications
E401N		0.470 Diam. x 1.130	Flat Contacts—, +1.35		0.4	1	0.36	0.55	Transistor Applications
411	208	1-1/32 x ⅝ x 1-29/64	Flat Contacts—, +15		0.8	1	0.81	1.15	Pocket Radio "B", Instruments
412	215	1-1/32 x ⅝ x 2	Flat Contacts—, +22½		1.2	1	1.05	1.50	Pocket Radio "B", Instruments
413	210	1-1/32 x ⅝ x 2-9/16	Flat Contacts—, +30		1.4	1	1.23	1.75	Pocket Radio "B", Instruments
415	213	1-3/64 x ⅝ x 3-11/16	Min. Snap—, +45		2.5	1	1.75	2.50	Pocket Radio "B"
416	217	1-21/64 x 63/64 x 3½	Min. Snap—, +67½		4	1	2.07	2.95	Portable Radio "B"
417	224	1-5/16 x 31/32 x 1-9/16	Flat Contacts—, +15		1.8	1	1.16	1.65	Pocket Radio "B", Instruments
420	225	1-5/16 x 31/32 x 2-3/16	Flat Contacts—, +22½		2.5	1	1.23	1.75	Pocket Radio "B", Instruments
425P		1-23/64 x 1-1/32 x 3-15/16	Socket—, +22½		4.1	1	1.37	1.95	Instruments
430	*	1-5/16 x 1 x 2-13/16	Flat Contacts—, +30		3.2	1	1.51	2.15	Pocket Radio "B", Instruments
430P		1-23/64 x 1-1/32 x 3-11/32	Socket—, +30		3.2	1	1.51	2.15	Instruments
433P		2-21/32 x 1-1/64 x 3-1/16	Socket—, +33		6	1	1.72	2.45	Instruments
437	212	1-15/16 x 1-15/32 x 6-15/32	Snap Type—, +75		14.8	1	3.15	4.50	Portable Radio "B"
E450		0.455 Diam. x 0.570	Flat Contacts—, +1.35		0.18	4	0.44	0.70	Instruments
455	*	2-21/32 x 1 x 3-11/16	Snap Type—, +45		7.8	1	2.08	2.95	Portable Radio "B"
455P		2-21/32 x 1-1/64 x 3-29/32	Socket—, +45		8.6	1	2.10	3.00	Instruments
457	203	2-13/16 x 1⅜ x 2½	Snap Type—, +67½		7.4	1	2.42	3.45	Portable Radio "B"
460K		1-29/64 x 1-3/8 x 2.344	Flat Contacts—, +45		5.3	6	1.67	2.50	Photoflash
467	200	2-13/16 x 1⅜ x 3-45/64	Snap Type—, +67½		12	1	2.45	3.50	Portable Radio "B"
468	200	2-13/16 x 1-3/8 x 3-45/64	Snap Type—, + 67-1/2		12	1	2.77	3.95	Radio Electronic
477	211	1-29/32 x 63/64 x 5-7/16	Snap Type—, +67½		8.6	1	2.27	3.25	Portable Radio "B"
479	214	1-31/32 x 1-1/32 x 7-15/32	Snap Type—, +90		12	1	2.77	3.95	Portable Radio "B"
482	202	3-19/32 x 1-27/32 x 5½	Socket—, +45	1	15	1	2.70	3.85	Portable Radio "B"
484	207	3-31/32 x 2-17/32 x 5-5/16	Socket—, +45	3	2	1	3.29	4.70	Fluorescent Lantern
487		5⅛ x 2-1/16 x 7¼	Socket—, +22½, +45	4	2	1	3.47	4.95	Farm Radio "B"
489		4-11/32 x 2-11/16 x 4-3/16	Socket—, +225	2	12	1	6.96	9.95	Electronic Photoflash
490	204	3-23/32 x 1⅜ x 3-45/64	Snap Type—, +90		15	1	3.15	4.50	Portable Radio "B"
491		2-19/32 x 1-5/16 x 4½	Flat Recessed & Socket—, +240		13	1	5.56	7.95	Electronic Photoflash
492		3-9/16 x 2-29/32 x 4-29/32	Socket—, +180, +225	2	8	1	6.13	8.75	Electronic Photoflash
493	722	2-11/16 x 2-7/32 x 3-29/32	Pinjacks—, +300		14.5	1	8.37	11.95	Geiger Counter
495	*	1-15/16 x 1-15/32 x 7⅛	Snap Type—, +90	1		1	3.47	4.95	Portable Radio "B"
497		3 x 1-19/32 x 5⅝	Flat Recessed—, +180, +510	1	10	1	11.16	15.95	Electronic Photoflash
E502		0.550 Diam. x 1.968	Flat Contacts—, +1.35		1.05	2	0.62	0.95	Transistor Applications
504	220	⅝ x 19/32 x 1⅜	Flat Contacts—, +15		0.6	1	0.81	1.15	Pocket Radio "B", Instruments
505	221	⅝ x 19/32 x 1-63/64	Flat Contacts—, +22½		0.8	1	1.05	1.50	Pocket Radio "B", Instruments
506	223	1-13/64 x ⅝ x 1-27/64	Flat Contacts—, +30		0.9	1	1.30	1.85	Pocket Radio "B", Instruments
507	222	⅝ x 19/32 x 2.605	Flat Contacts—, +30		0.9	1	1.30	1.85	Pocket Radio "B", Instruments
509	908	2⅝ x 2⅝ x 4-13/32	Coil Springs—, +6	1	5.5	1	0.79	1.19	Lanterns
510F	917	2⅝ x 2⅝ x 4-13/32	Fahnestock—, +6	1	4	1	0.79	1.19	Miscellaneous
510S	*	2⅝ x 2⅝ x 4⅜	Screw—, +6	1	7	1	0.79	1.19	Miscellaneous

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

△Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W365P.

†Flashlight types.

††Shipped from factory only.

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EVEREADY

COMPLETE LINE SPECIFICATIONS

EVEREADY

"Eveready" Battery Number	NEDA Number	Overall Dimensions in inches L W H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Price Each	Major Use
515	*	35/64 Diam. x 1-31/32	Flat Contacts—, +1.5		0.5	24	0.095	0.15	Flashlights, Toys
520	930	5-17/32 x 4-21/32 x 2-21/32	Ins. Screw—, +6	2	8	1	3.31	4.95	Lanterns, Electronics
E520		0.495 Diam. x 0.286	Flat Contacts—, +1.4		0.07	6	0.16	0.25	Transistor Applications
523		0.662 Diam. x 1.965	Flat Contacts—, 4.5		1.1	1	0.70	1.00	Transistor Radio
531		0.662 Diam. x 2.290	Snap Type—, +4.5		1.25	1	0.82	1.25	Photographic
560		2-21/32 x 1-17/32 x 7-5/32	Socket—, +7½	1	10	1	3.50	5.25	Portable Television
561		8-5/16 x 2-13/16 x 5-7/8	Socket—, +15	6		1	9.94	14.95	Portable Television
563		1-23/63 Diam. x 7-5/32	Flat Contacts—, +4.5		15	3	2.50	3.75	
564		8-5/16 x 2-13/16 x 5⅞	Socket—, +13.5		5.8	1	9.30	13.95	
E601		0.627 Diam. x 1.40	Flat Contact—, +1.35		1.22	1	0.83	1.30	Instruments
621		2-9/16 Diam. x 13	Screw—, +3	4	10	12	2.61	3.90	Fishing Buoy
E625		0.615 Diam. x 0.238	Flat Contacts—, +1.4		0.14	4	0.30	0.45	Transistor Applications
E625N		0.615 Diam. x 0.238	Flat Contacts—, +1.35		0.14	4	0.34	0.50	Transistor Applications
E630	1104	0.615 Diam. x 0.238	Flat Contacts—, +1.40		0.17	4	0.30	0.45	Transistor Applications
E630N		0.615 Diam. x 0.238	Flat Contacts—, +1.35		0.17	4	0.42	0.65	Transistor Applications
635	14	1-1/32 Diam. x 1-15/16	Flat Contacts—, +1½		1.4	12	0.155	0.25	Portable Radio "A" Transistor
E640	1105	0.625 Diam. x 0.440	Flat Contacts—, +1.40		0.38	4	0.30	0.45	Transistor Applications
E640N		0.625 Diam. x 0.440	Flat Contacts—, +1.35		0.38	4	0.34	0.50	Transistor Applications
E675		0.455 Diam. x 0.210	Flat Contacts—, +1.40		0.07	6	0.26	0.40	Instruments
702		2-17/32 x ⅞ x 3⅛	Socket—, +4½		5	1	1.57	2.25	Shot Firing
703	*	2-7/16 x 27/32 x 3-1/16	Spring—, +4½		5	1	0.84	1.25	Instruments
704		2-11/16 x 1-11/32 x 4⅜	Socket—, +3		11.8	1	1.73	2.50	Shot Firing
706	902	8-5/16 x 2-13/16 x 6-7/16	Ins. Screw—, +6	5	14	1	4.01	5.98	Ignition, Emergency Lighting
707	26	2-9/16 x 2-1/32 x 2-13/16	Snap Type—, +7½		12	1	1.05	1.50	Portable Radio "A"
708		2⅝ x 2¾ x 4-13/16	Socket—, +22½	1	11	1	3.84	5.50	Shot Firing
711		2⅝ x 1-5/16 x 4⅛	Screw—, +1.5		12	1	0.79	1.15	
713	8	3-29/32 x 53/64 x 2-27/32	Socket—, +7½		6.3	1	1.92	2.75	Portable Radio "A"
714		3-31/32 x 1-11/32 x 3½	Screw—, +4½		14.5	1	1.36	1.95	Telephone Test Sets
715	903	7¼ x 4-1/16 x 6-7/16	Ins. Screw—, +7½	7	10	1	4.86	7.25	Ignition, Emergency Lighting
716	*	8-37/64 x 4-1/16 x 6-7/16	Ins. Screw—, +9	8	8	1	5.53	8.25	Ignition, Emergency Lighting
717	9	2-5/32 x 1-15/16 x 3-1/32	Socket—, +7½		8	6	1.15	1.65	Portable Radio "A"
††718	1	3-29/32 x 2¾ x 5-7/16	Socket—, +6	2	4	1	2.87	4.10	Portable Radio "A"
720	18	2-25/32 x 1-13/32 x 3-1/32	Socket—, +1½		6.5	1	1.02	1.45	Portable Radio "A"
724	2	1-7/32 x 1-7/32 x 2-11/32	Flat Contacts—, +6		2.5	1	0.77	1.10	Portable Radio "A"
726	19	4-3/32 x 1-7/16 x 2-15/16	Socket—, +4½		10.5	1	0.95	1.35	Portable Radio "A"
727	428	8⅞ x 2⅛ x 3-25/32	Recessed Plug—"A", +9 "A", —"B", +90 "B"	2	14	1	5.22	7.45	Portable Radio "A-B"
††729	*	3-27/32 x 2-7/32 x 7-13/16	Socket—"A", +1½ "A", —"B", +90 "B"	2	7	1	4.38	6.25	Portable Radio "A-B"
731	918	5-11/32 x 2-27/32 x 4-15/16	Ins. Screw—, +6	3	4	1	1.83	2.75	Lantern
732		5-11/32 x 2-27/32 x 4-15/16	Ins. Screw—, +12	3	4	1	1.83	2.75	
735	900	2⅝ x 2⅝ x 4⅜	Screw—, +1½	1	7	1	0.84	1.25	Model Ignition "Glo-Plug"
736	3	3-15/16 x 1-5/16 x 4-3/32	Socket—, +4½	1		1	0.95	1.35	Portable Radio "A"
738	205	3 x 2-5/16 x 4⅛	Socket—, +22½, +45	1	3	1	2.76	3.95	Portable Radio "B"
††740	719	4-19/32 x 3⅞ x 7¾	Socket—, +1½	6		1	7.65	10.95	Farm Radio "A"
††741	17	3⅞ x 2-11/16 x 5⅜	Socket—, +1½	2	10	1	2.42	3.45	Portable Radio "A"
742	4	2⅝ x 2⅝ x 3-27/32	Socket—, +1½	1	6	1	1.15	1.65	Portable Radio "A"
††743	5	3-13/16 x 2⅝ x 4-1/32	Socket—, +1½	1	15	1	2.28	3.25	Portable Radio "A"
744	*	2⅝ x 2⅝ x 3-27/32	Socket—, +6	1	6	1	1.16	1.65	Portable Radio "A"
746	7	3-15/16 x 1-5/16 x 4-21/32	Socket—, +4½	1	3	1	1.26	1.80	Portable Radio "A"
750	*	1-11/32 x 11/16 x 2-21/32	Spring—, +3		2	1	0.65	0.95	Instruments
751	705	2 x 11/16 x 2-21/32	Spring—, +4½		3	1	0.74	1.10	Instruments
752	400	14-1/16 x 2-11/16 x 4-1/16	Recessed Plug—"A", +9 "A", —"B", +90 "B"	6	2	1	5.78	8.25	Portable Radio "A-B"
752W	*	14-1/16 x 2-11/16 x 4-1/16	Recessed Plug—"A", +9 "A", —"B", +90 "B", —, +1½	6	8	1	6.48	9.25	Portable Radio "A-B"
753	401	9-7/32 x 2-23/32 x 4-5/16	Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	4	12	1	5.43	7.75	Portable Radio "A-B"
754	402	10-15/32 x 3¼ x 4	Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	6	1	1	6.62	9.45	Portable Radio "A-B"
755	403	8-9/16 x 3¾ x 2-7/16	Socket—"A", +6 "A", +7½ "A", —"B", +75 "B"	3	9	1	5.08	7.25	Portable Radio "A-B"
756	*	8⅞ x 2⅛ x 3-25/32	Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	2	14	1	4.87	6.95	Portable Radio "A-B"
757	406	9-7/32 x 2-23/32 x 4-7/32	Recessed Plug—"A", +9 "A", —"B", +90 "B"	4	12	1	5.57	7.95	Portable Radio "A-B"
759	*	15-11/16 x 4-1/32 x 6-15/16	Socket—"A", +1½ "A", —"B", +90 "B"	16	4	1	7.95	10.65	Farm Radio "A-B"
761T	712	4-1/16 x 1-15/32 x 3½	Screw—, +1½, +3, +4½		14	1	1.57	2.25	Telephone Test Sets
762S	709	4-3/32 x 2-9/16 x 5-7/16	Ins. Screw—, +22½, +45	2	12	1	3.05	4.35	Instruments
763	710	3½ x 2-3/32 x 2-15/16	Screw—, +22½		14	1	1.61	2.35	Instruments
766T	*	6¾ x 4⅛ x 3-15/16	Fahnestock—, +16½, +18, +19½, +21, +22½	4	10	1	4.87	6.95	Switchboard Testing
771	*	3-29/32 x 1⅜ x 3-1/16	Socket+, —3, —4½		13	1	1.93	2.75	Radio "C"
773	*	3-29/32 x ⅞ x 3⅛	5 Screw; 1 wire+, —1½, —3, —4½, —6, —7½		9	1	1.65	2.35	Radio "C"
776	*	7-27/32 x 4⅛ x 9⅞	Socket & Recessed Plug—"A", +7½ "A", +9 "A", —"B", +90 "B"	14	12	1	10.47	14.95	Home Receiver "A-B"
778	*	4⅛ x 2-17/32 x 3-7/16	Fahnestock+, —3, —4½ —6, —9, —10½, —16½, —22½	1	8	1	3.47	4.95	Instruments
781	*	2-15/32 x 55/64 x 3	Screw+, —4½		5	1	0.99	1.40	Instruments
785	431	8⅜ x 3⅝ x 2¼	Socket—"A", +7½ "A", —"B", +75 "B"	2	12	1	4.83	6.90	Portable Radio "A-B"
789		5-9/32 x 1-7/16 x 3¼	Flat—, +3	1	1.5	1	2.21	3.25	Finger Print Camera
799		8-5/32 x 4¼ x 8-19/32	Fahnestock—, +22½, +45, +49½	13	5	1	9.45	13.50	Camera Cranking
812		13/32 Diam. x 1-3/4	Flat Contacts—, +1.5		0.3	12	0.13	0.20	Photoflash
815		9/16 Diam. x 1-31/32	Flat Contacts—, +1½		0.6	24	0.16	0.25	Photoflash
835		1-1/32 Diam. x 1-15/16	Flat Contacts—, +1½		1.4	24	0.16	0.25	Photoflash
850		1-11/32 Diam. x 2-13/32	Flat Contacts—, +1½		3.3	12	0.16	0.25	Photoflash
†904	910	0.445 Diam. x 1.180	Flat Contacts—, +1½		0.22	6	0.08	0.125	Flashlight, Novelties
†912	24	13/32 Diam. x 1¾	Flat Contacts—, +1½		0.3	12	0.095	0.15	Flashlight, Toys
†915		9/16 Diam. x 1-31/32	Flat Contacts—, +1½		0.6	24	0.13	0.20	Flashlight, Toys
†935	814	1-1/32 Diam. x 1-15/16	Flat Contacts—, +1½		1.4	24	0.13	0.20	Flashlight, Toys
†950	813	1-11/32 Diam. x 2-13/32	Flat Contacts—, +1½		3	48	0.13	0.20	Flashlight, Toys
960P	23	1-11/32 Diam. x 4-1/16	Socket—, +1½		5	1	0.67	0.95	Portable Radio "A"
964	20	1-11/32 Diam. x 4-3/16	Flat Contacts—, +1½		5.9	12	0.32	0.45	Portable Radio "A"
1015	15	9/16 Diam. x 1-31/32	Flat Contacts—, +1½		0.6	24	0.155	0.25	Transistor Portable
1016		1-9/64 x 19/32 x 2-1/64	Flat Contacts—, +1½		1.1	1	0.32	0.45	Pocket Radio "A"
1052P		1-1/8 Diam. 3-29/32	Socket—, + 1.5		4	1	0.56	0.80	Instrument

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

△Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W365P.

†Flashlight types.

††Shipped from factory only.

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COMPLETE LINE SPECIFICATIONS

"Eveready" Battery Number	NEDA Number	Overall Dimensions in inches L W H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Price Each	Major Use
E1438N		1.462 Diam. x 0.390	Flat Contacts—, +1.35		1.40	1	1.20	1.85	Underwater Instruments
E1450N		1.462 Diam. x 0.513	Flat Contacts—, +1.35		1.85	1	1.37	2.15	Underwater Instruments
1461	907	10-13/32 x 2-25/32 x 7-9/32	Ins. Screw—, +6	9	9	1	3.34	4.98	Ignition, Fence Controllers
1462		5⅜ x 5⅜ x 7¼	Ins. Screw—, +6	9	7	1	4.01	5.98	Ignition, Fence Controllers
1463	922	10-13/32 x 2-25/32 x 7-9/32	Ins. Screw—, +12	7	8	1	4.01	5.98	Toy Cars
1562	*	7-15/16 x 5 x 7½	Ins. Screw—, +7½	11	10	1	4.86	7.25	Ignition, Searchlights
1662	918	7-27/32 x 5-9/32 x 7-9/32	Ins. Screw—, +9	14	1	1	5.53	8.25	Ignition, Searchlights
2314	2400	1-21/64 x 1-1/32 x 2⅞	Socket+, —12, —21		3	1	1.58	2.25	Transistor Portable
2356	1612	2-3/16 x 1-5/32 x 6¼	Snap Type—, +9	1	1	1	1.10	1.60	Transistor Radio
2506	1601	8 x 2-13/16 x 1-9/16	Socket—, +3, +6, +9	1	8	1	1.76	2.50	Transistor Portable
E2550N		2.55 Diam. x 0.56	Flat Contacts—, +1.35		6.0	1	3.95	6.00	Underwater Instruments
2709	1613	1-13/32 x 47/64 x 4-11/16	Snap Type—, +9		4.5	1	1.05	1.50	Transistor Portable
2713	1403	1-13/32 x 47/64 x 4-11/16	Min. Snap—, +6		4	1	0.71	1.00	Transistor Portable
2731	1303	2-13/16 x 1¾ x 8-11/32	Socket—, +4½	2	11	1	1.93	2.75	Transistor Radio
2744	920	2-21/32 x 2-21/32 x 3⅞	Socket—, +6	1	14	1	1.10	1.60	Safety Flasher, Miscellaneous
2745	924	2-21/32 x 2-21/32 x 4-7/16	Coil Springs—, +6	1	14	1	1.10	1.60	Safety Flasher, Lantern
2746	925	2-21/32 x 2-21/32 x 4⅜	Screw—, +6	1	14	1	1.10	1.60	Lighting, Miscellaneous
2761	1608	2-9/32 x 1¼ x 7-31/32	Socket—, +9	1	9	1	1.58	2.25	Transistor Portable
2762	1609	2-13/16 x 1¾ x 8-11/32	Socket—, +9	2	11	1	1.93	2.75	Transistor Radio
2780	923	5-11/32 x 2-27/32 x 4-5/32	Socket—, +12	3	8	1	2.37	3.40	Safety Flasher, Miscellaneous
E302125		1-11/32 Diam. x 3-1/32	Wire Leads—, +7.00		3.9	1	5.25	8.20	Fire Alarm
E302157		2½ x 1⅜ x 4¼	Socket—, +1.35		13.5	1	10.35	15.50	Radiation Equipment
E302158		3¼ x 1⅜ x 4¼	Socket—, +47.25	1	3	1	24.38	37.00	Radiation Equipment
E302227		11/16 Diam. x 15/16	Tabs—, +4.05		0.5	1	2.05	3.20	Meter
E302229		11/16 Diam. x 1-7/32	Tabs—, +5.40		0.62	1	2.15	3.35	Meter
E302240		2-1/4 x 1-3/8 x 5-9/32	Wire Leads—, +24.3	1	3.0	1	22.50	34.60	Instruments
E302249		23/32 Diam. x 1-15/32	Tabs—, +6.75		0.75	1	2.28	3.50	Radiation Equipment
E302250		11/16 Diam. x 1-29/32	Tabs—, +9.45		1.0	1	2.45	3.75	Radiation Equipment
E302257		1-5/16 Diam. x 2-7/16	Spec. Leads—, +1.35		6.4	1	9.15	14.25	Test Equipment
E302271		45/64 Diam. x 4-5/8	Wire Leads—, +1.35, +13.5		3.0	1			Instruments
E302351		1-1/16 Diam. x 2⅝	Flat Contact—, +5.40		4.5	1	3.28	5.10	Fire Alarm
E302354		3/4 Diam. x 1-1/4	Wire Leads—, +5.40		0.50	1	2.18	3.40	Radiation Equipment
E302358		3/4 Diam. x 2-5/32	Wire Leads—, +10.8		0.87	1	3.48	5.45	
E302360		3/4 Diam. 2-11/16	Wire Leads—, +13.5		1.0	1	4.50	7.00	
E302362		23/32 Diam. x 3-5/32	Wire Leads—, +16.2		1.13	1	4.75	7.40	
E302424		11/16 Diam. x 3-15/32	Tabs—, +6.75		2.5	1	3.54	4.95	Instruments
E302425		2-13/16 x 1 x 2-25/32	Snap—, +48.6		8.0	1	20.40	31.75	"B" Battery
E302435		11/16 Diam. x 1-1/2	Flat Contacts—, +6.75		0.75	1	2.80	4.40	Radiation Equipment
E302437		11/16 Diam. x 1-31/32	Flat Contacts—, +9.45		1.0	1	2.83	4.40	Radiation Equipment
E302462		2-13/16 x 1-17/32 x 6-3/8	Wire Leads—, +97.2	2		1	32.34	49.75	Transmitter "B"
E302463		2-1/8 Diam. x 2-5/16	Wire Leads—, +1.35		8.0	1	7.50	11.65	Geophysical
E302464		2-1/8 Diam. x 2-5/16	Wire Leads—, +6.75		8.0	1	9.05	14.10	Geophysical
E302465		2-3/16 Diam. x 3-3/4	Wire Leads—, +47.25	1	1.0	1	19.20	30.00	Geophysical
E302467		11/16 Diam. x 2-7/8	Tabs—, +5.40		2.0	1	2.29	3.60	Test Equipment
E302478		1-9/32 Diam. x 3⅝	Flat Contacts—, +9.80		9.0	1	5.27	8.20	Wire Recorder
E302497		1-1/16 Diam. x 4-1/8	Screw—, +6.75		6.0	1	5.10	8.00	Test Equipment
E302499		2-3/4 x 1-3/8 x 3-21/32	Wire Leads—, +64.8	1		1	36.20	56.30	Missile
E302502		2-3/32 Diam. x 2-31/32	Wire Leads—, +94.5		10.5	1	26.50	38.50	Geophysical
E302506		1-3/8 x 3/4 x 2-1/8	Wire Leads+, —16.2, +4.05		3.0	1	9.17	14.10	Telemetry
E302510		2-7/32 x 2-25/32 x 2-5/32	Screw—, +1.35	1	5.0	1	19.00	29.65	Computer
E302519		2-3/4 x 1-7/16 x 2-11/32	Wire Leads—, +5.40		15.0	1	14.10	22.00	Test Equipment
E302527		2-5/32 x 1-15/32 x 3-3/8	Wire Leads—, +97.2		10.0	1	32.90	51.20	"B" Batttery
E302539		1-3/8 x 3/4 x 3-1/32	Socket—, +21.6		2.35	1	12.10	18.85	Instruments
E302540		1-13/64 Diam. x 2-25/64	Tabs—, +1.35		6.0	1	3.50	5.50	Test Equipment
E302554		2-5/32 x 1-15/32 x 3-5/8	Snap—, +97.2		10.0	1	26.50	38.50	"B" Battery
E302558		2-3/4 x 1-3/8 x 3-21/32	Wire Leads—, +35.1, +64.8		15.0	1	25.50	37.50	Missile
E302579		1-13/32 x 3/4 x 3-3/16	Wire Leads—, +29.7		5.0	1	10.85	16.70	Test Equipment
E302580		2-23/32 x 2-23/32 x 3-29/32	Socket—, +27.0	2	6.0	1	21.40	32.15	Instruments
E302589		1-7/16 x 1-7/16 x 1-15/16	Socket—, +21.6		2.35	1	15.20	23.75	Instruments
E302642		1-9/32 Diam. x 2⅝	Flat Contacts—, +7.00		5.0	1	3.40	5.25	Fire Alarm
E302650		1-5/16 Diam. x 3-23/32	Solder Tabs—, +1.35		6.0	1	3.77	5.80	Computer-Voltage Reference Cell
E302651		1-5/16 Diam. x 2-7/16	Spec. Leads—, +1.35		6.14	1	3.90	5.75	Instruments
E302667		6-15/32 x 1-15/32 x 2-23/32	Wire Leads—, +6.75	1	14.7	1	22.37	34.40	Instruments
E302702		1-1/8 Diam. x 1-5/8	Wire Leads—, +2.70		2.0	1	2.67	4.10	Geophysical
E302795		1-7/16 x 1-7/16 x 4-29/32	Socket—, +10.8		11.8	1	18.95	29.60	Instruments
E302800		2-3/4 x 1-7/16 x 5	Snap—, +75.6	1	9.3	1	34.40	53.80	Instruments
E302830		3-15/32 x 7/8 x 6-1/2	Socket—, +6.75, +12.15		24	1	19.25	29.50	Instruments
E302896		2-9/16 x 1-13/16 x 2-1/4	3 Neg. Snap—, +9.45, +1.35		11.8	1	19.50	30.40	Recorder
E302904		1-11/32 Diam. x 2-31/32	Wire Leads—, +5.40		6.0	1	4.32	6.65	Meter
E302905		1-11/32 Diam. x 3-19/32	Wire Leads—, +6.75		9.0	1	6.95	10.85	Test Equipment
E302907		1-5/16 Diam. x 4-7/8	Wire Leads—, +9.45		11.6	1	8.40	13.10	Instruments
E302908		1-11/32 Diam. x 5-9/16	Wire Leads—, +10.8		12.0	1	9.35	14.60	Radiation Equipment
E302933		1.250 Diam. x 2-1/16	Flat Contacts—, +5.60		5.0	1	2.39	3.65	Tape Recorder
E302934		2-5/32 x 1-15/32 x 3-3/8	Wire Leads—, +97.2, 48.6		10.0	1	36.40	56.80	Instruments
E303021		2-5/16 x 1-5/16 x 5-7/8	Screw—, +24.30	2		1	40.20	62.25	Instruments
E303035		1-9/32 Diam. x 4-1/32	Flat Contacts—, +8.10		10.0	1	6.26	9.75	Instruments
E303053		11/16 Diam. x 5-5/8	Flat Contacts—, +6.75		6.5	1	4.15	6.30	Instruments
E303101		0.671 Diam. x 5-7/8	Flat Contacts—, +4.05		5.3	1	2.90	4.50	Transistor Tester Equipment
E303102		0.671 Diam. x 5-27/32	Flat Contacts & Holes—, +2.7, 5.4, 12.1		5.2	1	4.10	6.45	Transistor Tester Equipment
E303113		6-1/2 x 1-1/16 x 3-1/2	Screw—, +1.35, 2.7, 4.05, 5.4, 6.75, 8.1, 9.45, 10.8	2		1	25.85	39.50	Voltage Reference Cell
E303177		2-23/32 x 2-3/32 x 4-5/8	Socket—, +97.20	2		1	40.25	63.00	Missile
E303178		2-3/32 x 1-7/16 x 4-5/8	Socket—, +48.60	1		1	23.40	36.00	Instruments
E303186		1-9/32 Diam. x 2-13/16	Solder Tabs—, +16.20		1.5	1	7.20	11.25	Instruments
E303198		1-1/4 Diam. x 6-5/8	Flat Contacts—, +13.5		17.0	1	9.60	15.00	Instruments
E303211		2-1/16 Diam. x 2-5/16	Wire Leads—, +24.3		8.0	1	7.90	12.25	Moisture Meter
E303212		1/2 Diam x 2	Flat Contacts—, +12.6		0.80	1	1.99	3.10	Remote Control Instruments
E303219		1/2 Diam. x 1-9/16	Flat Contacts—, +9.8		0.60	1	1.79	2.80	Auto Radio Converter (FM)
E303226		.66 Diam. x 6.4	Flat Contacts—, +13.5		5.5	1	3.81	6.00	Test Instruments
E303232		21/32 x 1-1/2 x 2-5/16	Screw—, +6.75		8.0	1	6.28	9.75	Test Instruments
E303243		1-1/4 Diam. x 1-13/32	Flat Contacts—, +2.7		3.5	1	1.78	2.75	Medical Instruments
E303244		1-1/4 Diam. x 2-21/32	Flat Contacts—, +5.4		7.0	1	3.51	5.50	Medical Instruments

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

△Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W365P.

†Flashlight types.

††Shipped from factory only.

SILICON POWER RECTIFIER

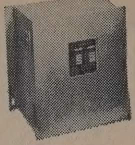
For transistor circuits & electronic equipment
MODEL G92F

INPUT: 115 volts AC 60 cycles, 1 phase
OUTPUT: 0-30. Volts DC, 0-10 Amperes D.C. continuous duty
REGULATION: No load to full load 15%
RIPPLE: Less than 0.5% RMS
METERS: 2% Accuracy

PRICE: $145.00 NET

*Also available in 5 Amperes
PRICE: $95.00 NET

INDUSTRIAL POWER UNITS

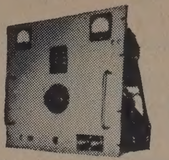


MODEL A10

INPUT 115 or 230 AC Volts, 60 cycles—Single Phase.
DC OUTPUT 115 Volts DC 125 Watts
APPLICATION: Power sources for operating DC Motors, Relays, Solenoids, Magnetic Chucks.
DIMENSIONS: 11" H x 9" W x 6½" D

PRICE $63.00 NET

SILICON INDUSTRIAL POWER UNIT



MODEL #G30-40F

INPUT: 115 Volts AC, 60 cycles, single phase.
OUTPUT: 0-32 Volts DC, 0-40 Amperes DC, continuous duty
RIPPLE: 1% RMS
DIMENSIONS: 12¼"Hx19"Wx13"D
REGULATION: D.C.V. at full load: 32 minimum D.C.V. at 1/10 load: 35 maximum

PRICE: $385.00

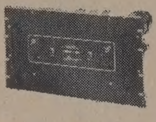
SILICON POWER RECTIFIER

MODEL G30.10FR

INPUT: 115 Volts AC, 60 Cycles, Single Phase
OUTPUT: 0-30 Volts DC, 0-10 Amperes, continuous duty
CONTROL: Continuously variable over entire range
REGULATION: 6% No Load to Full Load
RIPPLE: 0.2% RMS
METERS: 2% Accuracy
DIMENSIONS: 19"Wx13"Dx10½"H

PRICE: $185.00 NET

SILICON RACK MOUNT SUPPLY

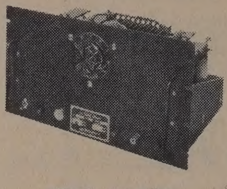


MODEL #GX30-10

INPUT: 115 Volts AC 60 Cycles, Single Phase
OUTPUT: 30 Volts DC 0-10 Amperes Continuous Duty
REGULATION: 10% No Load to Full Load
RIPPLE: Below 0.5% RMS
DIMENSIONS: 8¾" H x 19" W x 10" D

PRICE: $137.50 NET

SELENIUM POWER SUPPLY

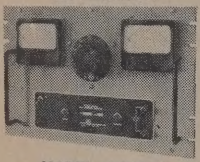


MODEL G48-6FM

INPUT: 115 Volts AC 60 Cycles—Single Phase
OUTPUT: 0-48 Volts DC, 0-6 Amperes
CONTROL: Continuously variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 19" W x 13" D x 10½" H, Fits RETMA, Western Electric racks

PRICE: $190.00 NET

AIRCRAFT BATTERY ELIMINATOR

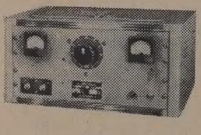


MODEL #G101F

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 0-30 Volts DC, 0-20 Amperes, continuous duty
RIPPLE: 0.5% RMS
Unique overload device prevents needle slam and shows overload condition
REGULATION: D.C.V. at full load: 30
D.C.V. at 1/10 load: 35
METERS: 2% Accuracy

PRICE: $200.00 NET
May be used for Rack or Bench

SILICON POWER SUPPLY

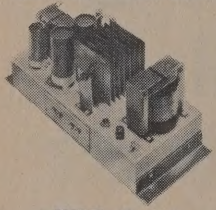


MODEL #GS 14-15F

INPUT: 115 Volts AC, 1 Phase, 60 cycles
OUTPUT: 0-14 Volts DC, 0-15 Amperes, continuous duty
RIPPLE: Less than 1% RMS
METER ACCURACY: 2%
DIMENSIONS: 9" H x 17½" W x 9" D

PRICE: $125.00 NET

SELENIUM POWER SUPPLY

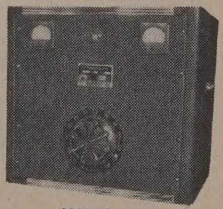


MODEL GX 30-5

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 30 Volts DC, 0-5 Amperes, DC Continuous Duty
REGULATION: 12% No Load to Full Load
RIPPLE: Below 1% RMS
DIMENSIONS: 5" W x 13½" L x Overall Height 10"

PRICE: $75.00 NET

SILICON GENERAL PURPOSE RECTIFIER

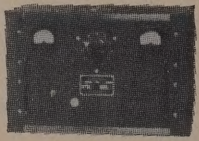


MODEL G-115

INPUT: 115 Volts AC 60 cycles, 1 Phase
OUTPUT: 0-32 Volts DC, 0-50 Amperes DC, Continuous duty variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 22"H x 19"W x 15"D

PRICE: $475.00 NET

DC POWER SUPPLY

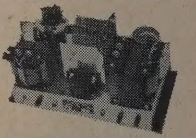


MODEL G94F

INPUT: 115 Volts AC 60 cycles, 1 Phase DC
OUTPUT: 0-300 Volts DC Continuous Variable 0-1 Amperes.
RIPPLE: 100 MV RMS
DIMENSIONS: Rack 8¾" H x 19" L x 9½" D
CABINET: 10½"Hx22"Lx12"D

PRICE: $240.00

SILICON POWER SUPPLY



MODEL GX30-20

INPUT: 115 Volts, 1 Phase, 60 cycles
OUTPUT: 0-34, Volts, DC
0-20 Amperes, continuous duty
REGULATION: No load to full load: 18%
RIPPLE: Below 1%
Silicon Rectifiers, High Efficiency
DIMENSIONS: 10" x 17" x 3"

PRICE: $185.00 NET

HIGH CURRENT POWER SUPPLIES

MODEL G 300 Output 300A, 24-30V, Saturable Reactor
MODEL G 500 Output 500A, 24-30V, Saturable Reactor
MODEL G 1000 Output 1000A, 24-30V, Saturable Reactor

HIGH VOLTAGE D.C. POWER SUPPLIES .0-125 VDC
1% ripple, good regulation

MODEL GP 125-3: Output 3A, 0-125V, Powerstat. Meters........**$225.00**
MODEL GP 125-5: Output 5A, 0-125V, Powerstat. Meters........**$275.00**
MODEL GP 125-10: Output 10A, 0-125V. Powerstat. Meters........**$375.00**
MODEL GP 125-20: Output 20A, 0-125V. Powerstat. Meters........**$495.00**
MODEL GP 60-6: Output 6A, 0-60V. Powerstat. Meters........**$225.00**
MODEL GP 60-12: Output 12A, 0-60V. Powerstat. Meters........**$320.00**

MAGNETIC AMPLIFIER POWER SUPPLIES

MDOEL GM 20-32, Output 20A, 24-30V, 5% reg
MODEL GM 25-32, Output 25A, 24-30V, 5% reg
MODEL GM 30-32, Output 30A, 24-30V, 5% reg

12 VOLT POWER SUPPLIES

MODEL GS 12-1, Output 1A, 12V
MODEL GS 12-5, Output 5A, 12V
MODEL GS 10-12, Output 10A, 12V
MODEL GS 12-15, Output 15A, 12V

MANY OTHER MODELS ARE AVAILABLE

See Components In Section 4800

GATES
ELECTRONIC CO. INC.
BRONX NEW YORK

Net

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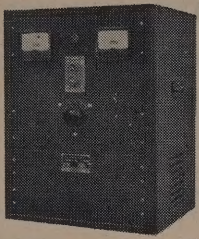
SILICON POWER RECTIFIER

Model G50-50R



INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-50 volts DC, 0-50 amperes continuous duty

RIPPLE: 0.5% RMS

REGULATION: No Load to Full Load 8%

METERS: 2% Accuracy

SILICON INDUSTRIAL POWER UNIT

Model G30-100

INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-30 Volts DC, 0-100 amperes continuous duty

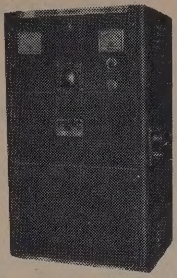
RIPPLE: 4% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and at maximum output voltage setting

METERS: 2% Accuracy

SILICON AIRCRAFT BATTERY ELIMINATOR

Model G30-200



INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-30 Volts DC, 0-200 amperes continuous duty

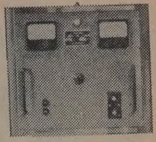
RIPPLE: 4% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and maximum output voltage setting

METERS: 2% Accuracy

SILICON REGULATED POWER SUPPLY

Model G530-40M



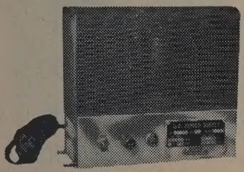
INPUT: 115 Volts AC, 60 cycles, 1 phase

OUTPUT: 5-30 Volts DC, 0-40 amperes

RIPPLE: 1% RMS

REGULATION: ±1% from no load to full load

METERS: 2% Accuracy

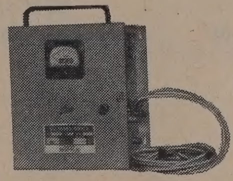


SILICON POWER SUPPLY

Model GX24-1

INPUT: 115 Volts AC, 60 cycles, 1 phase
OUTPUT: 24 Volts DC, 0-1 ampere DC, continuous duty
RIPPLE: 0.4% RMS
REGULATION: 10% no load to full load

PRICE: $50.00



PORTABLE SILICON BATTERY CHARGER

Model G612-20

INPUT: 115 volts AC, 60 cycles, 1 phase
OUTPUT: 6/12 Volts DC, 20 amperes continuous duty
METER: Amp. meter 2% Accuracy
DIMENSIONS: 11"H x 9"W x 6½"D

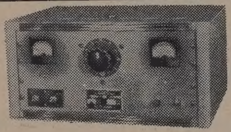
PRICE: $45.00

BENCH PLATING RECTIFIER

Model G10-8

INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 10 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy volt meter, amp. meter

PRICE: $75.00



BENCH PLATING RECTIFIER

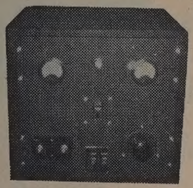
Model G30-8

INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 30 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $115.00

BENCH PLATING RECTIFIER

Model G50-8

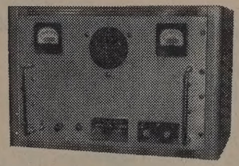


INPUT: 115 volts, 50-60 cycles, 1 phase
OUTPUT: 50 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METER: 2% Accuracy, volt meter, amp. meter

PRICE: $175.00

BENCH PLATING RECTIFIER

Model G100-8



INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 100 amperes, 0-8 Volts DC

RECTIFIER: Full wave selenium rectifier

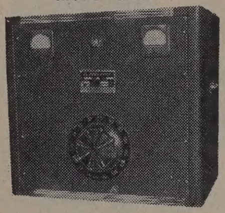
VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $275.00

BENCH PLATING RECTIFIER

Model G200-6

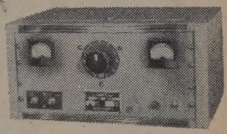


INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 200 amperes, 0-6 Volts DC
RECTIFIER: Full wave selenium rectifiier
COOLING: Fan
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $395.00

BENCH PLATING RECTIFIER

Model G50-15



INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 50 amperes, 0-15 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $210.00

ECONOMY RANGE D.C. POWER SUPPLIES

1% ripple, good regulation

MODEL GT 12-15:	Output 0-12V,	15A	$122
MODEL GT 12-25:	Output 0-12V,	25A	$133
MODEL GT 12-100:	Output 0-12V,	100A	$286
MODEL GT 14-20:	Output 0-14V,	20A	$113
MODEL GT 14-30:	Output 0-14V,	30A	$276
MODEL GT 14-40:	Output 0-14V,	40A	$231
MODEL GT 16-5:	Output 0-16V,	5A	$129
MODEL GT 16-10:	Output 0-16V,	10A	$133
MODEL GT 16-25:	Output 0-16V,	25A	$180
MODEL GT 28-5:	Output 0-28V,	5A	$111
MODEL GT 28-12:	Output 0-28V,	12A	$184
MODEL GT 28-24:	Output 0-28V,	24A	$273
MODEL GT 32-5:	Output 0-32V,	5A	$178
MODEL GT 32-5:	Output 0-32V,	5A	$168
MODEL GT 32-12:	Output 0-32V,	12A	$109
MODEL GT 32-15:	Output 0-32V,	15A	$194
MODEL GT 32-24:	Output 0-32V,	24A	$162
MODEL GT 32-30:	Output 0-32V,	30A	$354
MODEL GT 32-50:	Output 0-32V,	50A	$297
MODEL GT 32-60:	Output 0-32V,	60A	$561
MODEL GT 48-5:	Output 0-48V,	5A	$138
MODEL GT 48-10:	Output 0-48V,	10A	$164
MODEL GT 130-2:	Output 0-130V,	2A	$124
MODEL GT 130-5:	Output 0-130V,	5A	$223
MODEL GT 120-5:	Output 0-120V,	5A	$277
MODEL GT 130-10:	Output 0-130V,	10A	$286
MODEL GT 200-10:	Output 0-220V,	10A	$382

GATES
ELECTRONIC CO. INC.
BRONX NEW YORK

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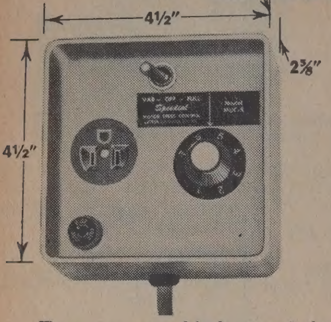
LUTRON CONTROLS

"SPEEDIAL" MOTOR SPEED CONTROLS



ALL SOLID STATE CIRCUITRY

Allows you to vary motor speed from zero to full speed. Feedback maintains torque, so that motor will not stall.

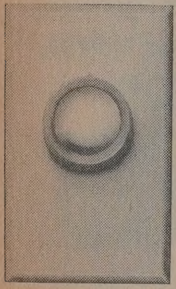
- **Motors in the Factory and Laboratory** — Mixers, Variable Speed drives, Winding machines.
- **Electric Drills** — Plastics, Wood, Steel, Masonry. Saves its cost in bits.
- **Electric Saws** — Plastics, Wood, Steel.
- **Electric Sanders** — Coarse and fine finish.

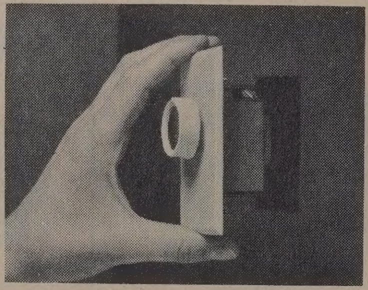
For use on Universal (AC-DC) and D.C. Motors only. May also be used for clutches and brakes requiring variable D.C. voltage.

Model	Max. Amps	50-60 cps Input Volts	Max. Output RMS Volts D.C.	Weight Pounds	Trade Net
MK-5	5	120	85	2.0	19.50
MK-10	10	120	85	2.0	29.96
MK-15	15	120	85	2.3	42.90
MK-250-5	5	208-250	185	2.0	24.00
MK-250-10	10	208-250	185	2.0	36.00
MK-250-15	15	208-250	185	2.3	51.75

Light, rugged, solid state units, fused for overload.

CAPRÍ LIGHT CONTROLS





Residential-Commercial-Industrial Dimming Controls.

Attractive SCR Dimming Controls for any application.

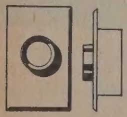
LUTRON'S CAPRÍ IS QUICKLY AND SIMPLY INSTALLED

Fits standard depth wall box. Installs in the same manner as an ordinary switch. Designed for single or multi-gang installations.

ALL 6 MODELS INSTALL AS EASILY AS REGULAR SWITCHES

D-6P
Incandescent only. 600 Watts. Push-on, Push-off. Fits single wall box.
$11.85 Net

D-6
Incandescent only. 600 Watts. Fits single wall box. For mass residential use.
$11.20 Net

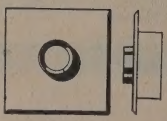


D-600 UL LISTED
Incandescent only. 600 Watts. Fits single wall box. Deluxe unit for residential and commercial use.
$18.00 Net

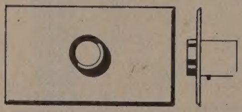
FD-600
Fluorescent and Incandescent. 600 Watts. Control both together or separately. Up to 12 Fluorescent lamps. Fits single wall box.
$24.75 Net

Dimming Ballast: Advance #DIM-140-L
Universal #535

Fluorescent dimming units for more than 12 lamps and semi-custom equipment, available on special order.



D-1000
Incandescent only. 1000 Watts. Fits single wall box. Conservatively rated. For residential and commercial use.
$29.95 Net



D-1800
Incandescent only. 1800 Watts. Fits double gang wall box. Conservatively rated. For commercial use.
$63.75 Net

All our dimmers are fully guaranteed

LUTRON ELECTRONICS, INC.
EMMAUS, PENNSYLVANIA
Affiliate of Rodale Mfg. Co., Inc.

© U.C.P., Inc.

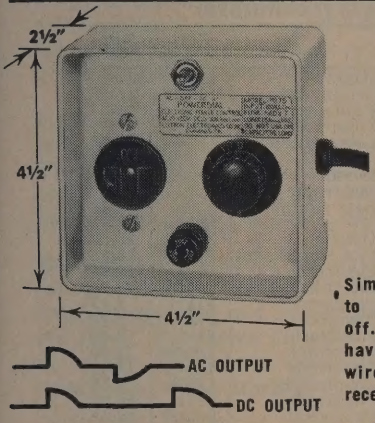
LUTRON "POWERDIAL"

*SCR POWER CONTROLS

*Silicon Controlled Rectifier

OUTPUT IS CONTINUOUSLY ADJUSTABLE AC OR DC

Rugged solid state circuitry — 1/10 the weight, 1/2 the size of conventional variable auto-transformer controls. No brush burn-out or wear. Powerdial controls: Motors, Lamps, Temperature, Voltage, Current, Solenoids, Brakes, Electroplaters, Electric Punches and Actuators.



• Simply switch to AC, DC or off. All units have fuse, 3 wire cord and receptacle.

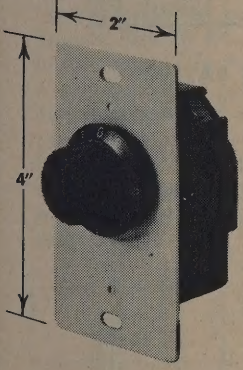
PD SERIES — DATA & PRICES

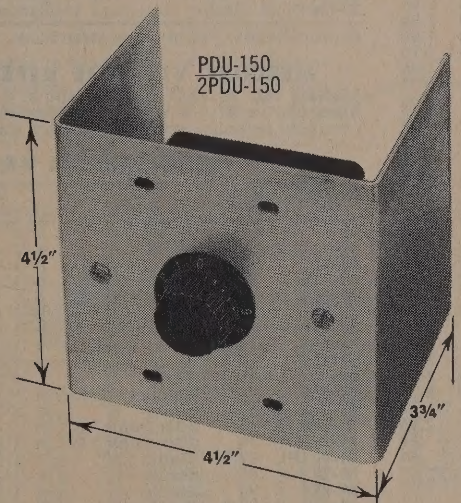
MODEL	RMS. AMPS. AC OUT	RMS AMPS. DC OUT	AC INPUT VOLTS	AC OUTPUT VOLTS	RMS - DC OUTPUT VOLTS	WEIGHT LB.	TRADE NET
PD-50	0-5	0-5	120	0-120	0-85	2.0	24.00
PD-75	0-7.5	0-7.5	120	0-120	0-85	2.0	27.00
PD-100	0-10	0-7.5	120	0-120	0-85	2.3	30.00
PD-150	0-15	0-10	120	0-120	0-85	2.6	60.00
PD-250	0-25	0-15	120	0-120	0-85	3.3	105.00
2PD-50	0-5	0-5	240	0-240	0-170	2.0	33.00
2PD-75	0-7.5	0-7.5	240	0-240	0-170	2.0	36.00
2PD-100	0-10	0-7.5	240	0-240	0-170	2.3	39.00
2PD-150	0-15	0-10	240	0-240	0-170	2.6	81.00
2PD-250	0-25	0-15	240	0-240	0-170	3.3	127.50

PDU SERIES — DATA & PRICES

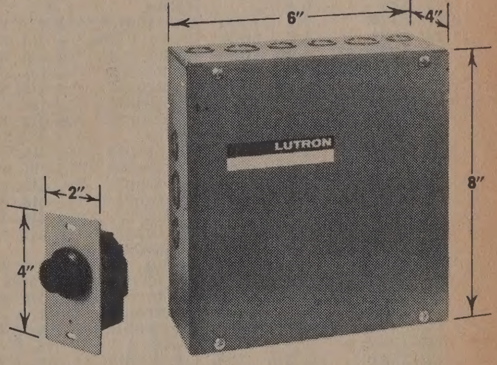
PDU Series are suitable for panel mounting. May be wired for AC or DC output. Two wire connection.

PDU-50
2PDU-50

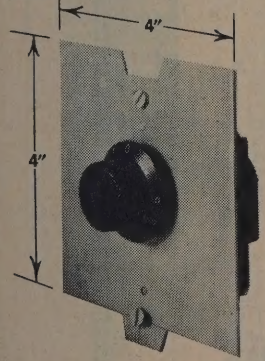




PDU-300
2PDU-300



PDU-75
2PDU-75
PDU-100
2PDU-100



MODEL	RMS AMPS. AC	RMS Amps. DC	AC INPUT VOLTS	AC OUTPUT VOLTS	RMS - DC OUTPUT VOLTS	WEIGHT LB.	TRADE NET
PDU-50	0-5	0-5	120	0-120	0-85	.25	15.75
PDU-75	0-7.5	0-7.5	120	0-120	0-85	.34	18.75
PDU-100	0-10	0-7.5	120	0-120	0-85	.53	30.00
PDU-150	0-15	0-10	120	0-120	0-85	1.0	60.00
PDU-300	0-30	0-20	120	0-120	0-85	6.0	127.50
2PDU-50	0-5	0-5	240	0-240	0-170	.25	30.00
2PDU-75	0-7.5	0-7.5	240	0-240	0-170	.34	33.00
2PDU-100	0-15	0-7.5	240	0-240	0-170	.53	39.00
2PDU-150	0-15	0-10	240	0-240	0-170	1.0	78.00
2PDU-300	0-30	0-20	240	0-240	0-170	6.0	162.00

NOTE: Above units are 60 cycle service. Please send 400 cycle or other special unit inquiries to our Engineering Dept.

LUTRON ELECTRONICS, INC.
EMMAUS, PENNSYLVANIA
Affiliate of Rodale Mfg. Co., Inc.

© U.C.P., Inc.

Net

P. R. MALLORY & CO. Inc. MALLORY Batteries

MANGANESE ALKALINE BATTERIES

Mallory	Volts	Use	Oz.	Net
Mn1300	1.5	All Purpose "D"	5 1/4	**65c**
Mn1306	4.5	Transistor radio	1 1/3	**70c**
Mn1400	1.5	All Purpose "C"	2 1/3	**51c**
Mn1500	1.5	All Purpose "AA"	.82	**33c**
Mn1604	9	Transistor radio	1 1/3	**70c**
Mn2400	1.5	All Purpose "AAA"	.4	**31c**
Mn9100	1.5	All Purpose "N"	.34	**24c**

MERCURY BATTERIES

Flat terminals, unless otherwise noted.

Mallory Number	Volts	Cap., MAH	Use	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
RM-1	1.4	1000	Electronic	5/8 dia. x 21/32	0.75	**$0.42**
RM-1R	1.35	1000	Electronic	5/8 dia. x 21/32	0.75	**.44**
RM-1RT†	1.35	1000	Electronic	5/8 dia. x 21/32	0.75	**.49**
RM-1RT2‡	1.35	1000	Electronic	5/8 dia. x 21/32	0.75	**.53**
RM-3R	1.35	2200	Electronic	1 dia. x 21/32	0.93	**.67**
RM-4R	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	**.86**
RM-4RT†	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	**.91**
RM-4Z	1.4	2400	Electronic	1.2 dia. x 1/2	1.2	**.58**
RM-12	1.4	3600	Electronic	5/8 dia. x 2	2.0	**.75**
RM-12R	1.35	3600	Electronic	5/8 dia. x 2	2.0	**.82**
RM-12RT†	1.35	3600	Electronic	5/8 dia. x 2	2.0	**.87**
RM-12RT2‡	1.35	3600	Electronic	5/8 dia. x 2	2.0	**.92**
RM-42	1.4	14000	Electronic	1.2 dia. x 2 3/8	5.9	**1.70**
RM-42R	1.35	14000	Electronic	1.2 dia. x 2 3/8	5.9	**1.85**
RM-42RT†	1.35	14000	Electronic	1.2 dia. x 2 3/8	5.9	**1.90**
RM-42RT2‡	1.35	14000	Electronic	1.2 dia. x 2 3/8	5.9	**1.95**
RM-312	1.4	36	Electronic	5/16 dia. x 9/64	0.01	**.24**
RM-400R	1.35	75	Electronic	29/64 dia. x 9/64	0.04	**.29**
RM-401	1.35	800	Electronic	29/64 dia. x 1 1/8	0.4	**.34**
RM-411	14	120	Electronic	1 x 17/32 x 1 3/32	1	**2.00**
RM-412	22.4	120	Electronic	1 x 17/32 x 1 5/16	1	**2.55**
RM-413	28	120	Electronic	1 x 17/32 x 2 1/2	1.5	**3.25**
RM-415§	42	120	Electronic	1 x 17/32 x 3 1/2	2.5	**5.10**
RM-450R	1.35	350	Electronic	29/64 dia. x 9/16	0.18	**.44**
RM-502R	1.35	2400	Electronic	1/2 dia. x 1 31/32	1.05	**.62**
RM-520	1.4	130	Electronic	1/2 dia. x 9/32	0.07	**.16**
RM-601R	1.35	1800	Electronic	5/8 dia. x 1 5/32	1.2	**.83**
RM-625R	1.35	350	Electronic	5/8 dia. x 1/4	0.15	**.34**
RM-625RT†	1.35	350	Electronic	5/8 dia. x 1/4	0.15	**.39**
RM-625RT2‡	1.35	350	Electronic	5/8 dia. x 1/4	0.15	**.44**
RM-630	1.4	350	Electronic	5/8 dia. x 1/4	0.17	**.30**
RM-640*	1.4	500	Electronic	5/8 dia. x 7/16	0.38	**.30**
RM-640RT2‡	1.35	500	Electronic	5/8 dia. x 7/16	0.38	**.40**
RM-675	1.4	175	Electronic	29/64 dia. x 13/64	0.07	**.26**
TR-113R	4.05	250	Electronic	21/32 dia. x 53/64	0.45	**1.65**
TR-114R	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	**1.50**
TR-114RT2‡	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	**1.60**
TR-115R	6.75	250	Electronic	21/32 dia. x 1 5/16	0.73	**1.70**
TR-126	8.4	.....	Radio	3/4 dia. x 1 15/16	1.6	**1.05**
TR-132R	2.7	1000	Electronic	21/32 dia. x 1 5/16	1	**.92**
TR-133*	4.2	1000	Radio, Pag.	21/32 dia. x 2	1.4	**1.05**
TR-133R	4.05	1000	Radio, Pag.	21/32 dia. x 2	1.4	**1.18**
TR-134R	5.4	1000	Electronic	21/32 dia. x 2 39/64	1.9	**1.45**
TR-135R	6.75	1000	Electronic	21/32 dia. x 3 1/4	2.4	**1.85**
TR-136R	8.1	1000	Electronic	21/32 dia. x 3 29/32	2.9	**2.18**
TR-145	7	250	Electronic	21/32 dia. x 1 3/16	0.58	**1.55**
TR-146§*	8.4	350	Radio	1 x 19/32 x 1 15/16	1.6	**1.05**
TR-152R	2.7	350	Electronic	15/32 dia. x 1 1/8	0.42	**.78**
TR-153R	4.05	350	Electronic	15/32 dia. x 1 11/16	0.6	**1.25**
TR-162R	2.7	500	Electronic	21/32 dia. x 7/8	0.58	**.87**
TR-163	4.2	500	TV tuner	21/32 dia. x 1 5/16	0.87	**1.05**
TR-164*	5.6	500	Radio	21/32 dia. x 1 3/4	1.16	**1.25**
TR-165	7	500	TV tuner	21/32 dia. x 2 3/16	1.45	**1.60**
TR-169	12.6	.....	Electronic	....	2.88	**3.50**
TR-175	7	350	Radio	31/64 dia. x 1 3/32	1	**1.05**
TR-177§*	9.8	250	Radio	35/64 dia. x 1 29/32	1	**1.25**
TR-233	4.2	2200	Radio	1 1/64 dia. x 1 31/32	3	**1.90**
TR-234R	5.6	2200	Electronic	1 dia. x 2 19/32	3.88	**2.50**
TR-235R	6.75	2200	Electronic	1 dia. x 3 1/4	4.63	**2.93**
TR-286§	8.4	750	Radio	1 dia. x 1 15/16	1.6	**1.35**
TR-289§	12.6	750	CB Radio	1 dia. x 2 25/64	3.6	**2.05**
DM-9N	1.4	2400	Radio	1/2 dia. x 1 31/32	1	**.60**
ZM-9*	1.4	2400	Radio	1/2 dia. x 1 31/32	1	**.51**

*Available in plastic jewel box, add suffix **P**, e.g., TR-146**P.** †1 tab, 1 flat terminal. ‡2 tab terminals. §Snap terminals.

MERCURY POWER-PAK BATTERIES

Mallory Number	Volts	Cap., MAH	Use	Ter-minals	Net Each
302125-M	7.0	2400	Fire alarm	Flat	**$ 5.25**
302157	1.35	28000	Radiation eqpt.	Sckt	**10.35**
302158	22.95, 2.7 47.25, 5.4	500	Radiation eqpt.	Sckt	**24.38**
302227	4.05	250	P.H. meter	Tabs	**2.05**
302229	5.4	250	P.H. meter	Tabs	**2.15**
302240	24.3	2400	Instruments	Leads	**22.50**
302249	6.75	250	Radiation eqpt.	Tabs	**2.28**
302250	9.45	250	Radiation eqpt.	Tabs	**2.45**
302257	1.35	14400	Test equipment	Leads	**9.15**
302271-M	1.35-13.5	3600/250	Electronic	Leads	**5.18**
302351-M	5.4	2200	Fire alarm	Flat	**3.28**
302354	5.4	250	Radiation eqpt.	Leads	**2.18**
302358	10.8	250	Radiation eqpt.	Leads	**3.48**
302360	13.5	250	Radiation eqpt.	Leads	**4.50**
302362	16.2	250	Radiation eqpt.	Leads	**4.75**
302424	6.75	1000	Instruments	Tabs	**3.54**
302425	48.6	250	"B"	Snaps	**20.40**
302435	6.75	250	Radiation eqpt.	Flat	**2.80**
302437	9.45	250	Radiation eqpt.	Flat	**2.83**
302462	97.2	1000	Transmitter "B"	Leads	**32.34**
302464	6.75	3600	Geophysical	Leads	**9.05**
302465	47.25	1000	Geophysical	Leads	**19.20**
302467	5.4	1000	Test equipment	Tabs	**2.29**
302478-M	9.8	2400	Recorder	Flat	**5.27**
302497	6.75	2200	Test equipment	Posts	**5.10**

MALLORY
MALLORY
Mercury Battery
FOR RADIO AND TRANSISTOR APPLICATIONS
TR-146
8.4 VOLTS
MALLORY
FLASHLIGHT RADIO PHOTOFLASH
MALLORY
ALL PURPOSE
Manganese
ALKALINE BATTERY
Longer Life

MERCURY POWER-PAKS (CONTINUED)

Mallory Number	Volts	Cap., MAH	Use	Ter-minals	Net Each
302499	64.8	500	Missile	Leads	**$36.20**
302502	94.5	250	Geophysical	Leads	**26.50**
302506	16.2, 4.05	250	Telemetry	Leads	**9.17**
302510	1.35	43200	Computer	Posts	**19.00**
302519	5.4	7200	Test equipment	Leads	**14.10**
302527	97.2	250	"B"	Leads	**32.90**
302530	10.8	14000	Missile	Posts	**38.48**
302539	21.5	250	Electronic	Sckt	**12.10**
302540	1.35	14000	Test equipment	Tabs	**3.50**
302554	97.2	250	"B"	Snaps	**26.50**
302558	64.8, 34.1	500	Missile	Leads	**25.50**
302579	29.7	250	Test equipment	Leads	**10.85**
302580	27	3400	Electronic	Sckt	**21.40**
302589	21.5	250	Electronic	Sckt	**15.20**
302604	5.4	250	Electronic	Flat	**1.37**
302609	12.15	250	Electronic	Flat	**2.70**
302642	7.0	2400	Fire alarm	Flat	**3.40**
302651	1.35	14000	Electronic	Leads†	**3.90**
302667	6.7	14000	Electronic	Leads	**22.37**
302702	2.7	2200	Geophysical	Leads	**2.67**
302795	10.75	3600	Electronic	Sckt	**18.95**
302800	75.6	1000	Electronic	Snaps	**34.40**
302830	12.06-6.7	1000/7200	Electronic	Sckts	**19.25**
302896	9.4, 1.35	3600	Recorder	Snaps‡	**19.50**
302904	5.4	3400	Meter	Leads	**4.32**
302905	6.75	3400	Test equipment	Leads	**6.95**
302907	9.45	3400	Electronic	Leads	**8.40**
302908	10.8	3400	Radiation eqpt.	Leads	**9.35**
303145	8.4	3600	Depth finder	Snap	**6.25**
303203	4.05	2200	Electronic	Flat	**1.80**
303219	9.8	175	Electronic	Flat	**1.80**
303314	16.8	....	Forestry	Leads†	**8.56**

†Special leads. ‡Three negative leads.

MERCURY VOLTAGE REFERENCE BATTERY

Mallory No. 303113—Eight outputs, 0–10.80 v. in 1.35 v. steps. **Size:** 6 1/2" x 2 5/8" x 1". In lined leatherette case with complete technical information. Net Each........... **$39.50**

ZINC-CARBON BATTERIES

Mallory No.	Nom. Volts	Use	T*	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
M-4	1.5	Radio "A"	a	2 11/16x2 11/16x4 7/16	20	**$1.16**
M-9	7.5	Radio 'A"	a	2 7/32x1 15/16x3 1/32	31	**1.15**
M-13F	1.5	Flashlight "D"	b	1 11/32 dia. x 2 13/32	3.3	**.13**
M-13R	1.5	Radio "D"	b	1 11/32 dia. x 2 13/32	3.3	**.155**
M-13X	1.5	Industrial "D"	b	1 11/32 dia. x 2 13/32	3.3	......
M-14F	1.5	Flashlight "C"	b	1 1/32 dia. x 1 15/16	1.5	**.13**
M-14R	1.5	Radio "C"	b	1 1/32 dia. x 1 15/16	1.5	**.155**
M-15F	1.5	"AA" penlight	b	9/16 dia. x 1 31/32	0.5	**.13**
M-15R	1.5	Radio penlight	b	9/16 dia. x 1 31/32	0.5	**.155**
M-20	1.5	Radio "A"	b	1 3/8 dia. x 4 11/64	6	**.32**
M-24F	1.5	Junior penlight	b	13/32 dia. x 1 3/4	0.3	**.095**
M-200	67.5	Radio "B"	c	2 13/16x1 3/8x3 45/64	12	**2.45**
M-208	15	Electronic "B"	b	1 1/32x5/8x1 29/64	0.8	**.81**
M-210	30	Electronic "B"	b	1 1/32x5/8x2 9/16	1.4	**1.23**
M-211P	67.5	Radio "B"	c	1 29/32x63/64x5 7/16	8.5	**2.27**
M-213	45	Radio "B"	c	1 3/64x5/8x3 11/16	3	**1.75**
M-214	90	Radio "B"	c	1 31/32x1 1/32x7 15/32	12	**2.77**
M-215	22.5	Radio "B"	b	1 1/32x5/8x2	1.5	**1.05**
M-504	15	Electronic "B"	b	5/8x19/32x1 3/8	0.6	**.81**
M-505	22.5	Electronic "B"	b	5/8x19/32x1 63/64	0.6	**1.05**
M-506	30	Electronic "B"	b	1 13/64x5/8x1 27/64	0.9	**1.30**
M-507	30	Electronic "B"	b	5/8x19/32x2 39/64	0.9	**1.30**
M-900	1.5	Ignition	e	2 5/8x2 5/8x4 9/32	20	**.84**
M-903	7.5	Lighting	e	7 1/4x4 1/16x6 7/16	122.0	**4.86**
M-905	1.5	Ignition	e	2 5/8 dia. x 6 5/8	34	**.84**
M-906	1.5	Telephone	f	2 5/8 dia. x 6 5/8	34	**.84**
M-907	6	Industrial	e	10 13/32x2 25/32x7 9/32	153	**3.34**
M-908	6	Metal lantern	g	2 11/16x2 11/16x4 7/16	21	**.79**
M-910F	1.5	Flashlight "N"	b	29/64 dia. x 1 3/16	0.22	**.08**
M-911	1.5	R.R., Indust.	e	2 5/8 dia. x 6 5/8	34	**.90**
M-914	1.5	Ignition	f	2 5/8 dia. x 6 5/8	34	**.84**
M-915	6	Lighting	e	2 11/16x2 11/16x4 5/32	21	**.79**
M-916	6	R.R. lantern	g	2 11/16x2 11/16x4 11/16	21	**.79**
M-918	6	Lighting	e	5 11/32x2 27/32x4 15/16	52	**1.83**
M-920	6	Flasher	a	2 11/16x2 11/16x4 7/16	21	......
M-1600	9	Radio	c	1 dia. x 1 15/16	1.8	**.62**
M-1602	9	Radio	c	1 13/32x1 11/32x2 3/4	4.5	**1.30**
M-1603	9	Radio	c	2 9/16x2 1/32x3 5/32	15	**1.26**
M-1604	9	Radio	c	1 1/32x11/16x1 29/32	1.3	**.48**
M-1605	9	Radio	c	1 13/16x1 13/16x2 7/16	7	**1.05**
M-1608	9	Radio	a	2 9/32x1 1/4x7 31/32	25	**1.58**
M-1611	9	Radio	b	3/4 dia. x 2	7	**.53**
M-1612	9	Radio	c	2 9/32x1 1/4x6 1/4	17	**1.10**
M-9200	6	Flasher	a	2 21/32x2 21/32x3 7/8	30	**1.10**
M-9240	6	Flasher	g	2 21/32x2 21/32x3 7/8	20	**1.10**
M-9250	6	Flasher	e	2 21/32x2 21/32x3 7/8	20	**1.10**

*Terminals: **a**—Socket. **b**—Flat. **c**—Snap. **e**—Screw. **f**—Fahnestock clip. **g**—Coil spring.

HIGH VOLTAGE POWER PACKS

COMPACT "M" SERIES 2 TO 75 KVDC

The "M" series Power Packs are a completely new design. Long life and a small package directed the use of the latest techniques and advanced materials. Many features have been incorporated with the highest quality materials, at the same time maintaining economy of cost.

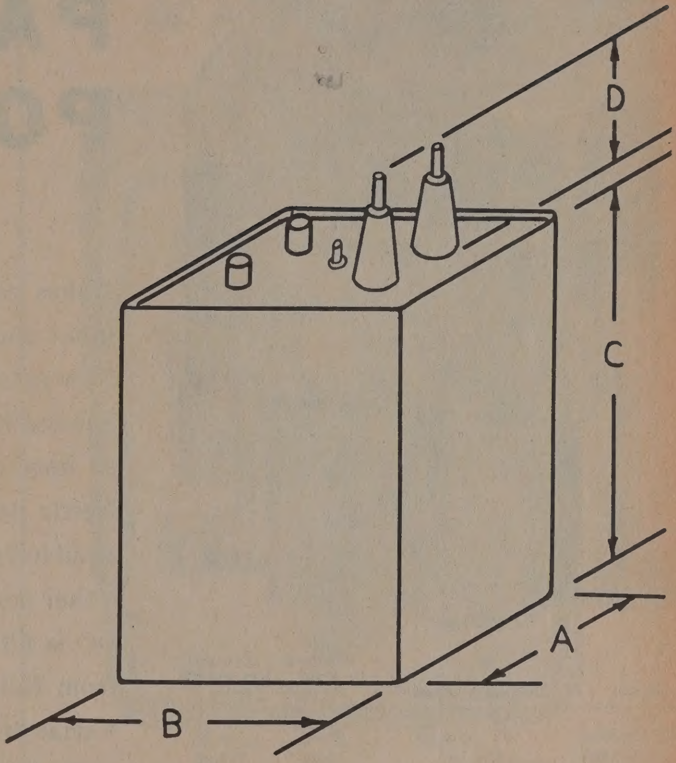
Input line voltage standard is 118 volts 50 to 500 cycles per second. Also available as a standard is an input voltage of 230 volt input, at 50 to 500 cycles per second. For a 230 volt input, add suffix A to the part number. All items can be modified for input voltages over a wide range as a special type.

The output is filtered DC and standard potentials and current ratings are listed below. All units can be modified for any required potential and current below the values specified in the listing. The output potential can be varied from zero to the rated voltage and load by means of a variable auto transformer at the primary.

Design life is 40,000 hours at 35°C and 5,000 hours at 85°C.

Case finish is light blue gray lacquer per MIL L 7178.

All units except the 75 KV, have two output terminals isolated from the container, permitting either terminal to be operated from ground if an intermediate point between them is tied to ground. The 75 KV unit has a single high voltage terminal for the output. The Power Pack is normally furnished to deliver a positive output potential relative to ground. If a negative output is desired it can be shipped as such from the factory upon request. The polarity can be easily reversed as required by opening the top access port and reversing the selenium rectifier board. The remaining output terminal at low potential is left ungrounded so that the load current be monitered if required.



PART NUMBER	OUTPUT POTENTIAL KVDC	OUTPUT CURRENT MA	CASE SIZE (INCHES)				WT. LBS.	RIPPLE % PK-PK	APPROX. IMPEDANCE K OHMS
			A	B	C	D			
HV20-502M	2.0	5.0	2 1/4	3 3/4	3 3/8	3/8	2 1/2	2.7	110
HV25-103M	2.5	10.0	2 1/4	3 3/4	3 3/4	3/8	3 1/4	3.0	70
HV50-502M	5.0	5.0	2 1/4	3 3/4	3 3/4	5/8	3 1/4	2.7	280
HV50-103M	5.0	10.0	4 9/16	3 3/4	5 7/8	5/8	8 1/8	3.0	145
HV100-502M	10.0	5.0	4 9/16	3 3/4	5 7/8	1 1/16	8 1/8	2.7	480
HV100-103M	10.0	10.0	4 9/16	3 3/4	8	1 1/16	12 1/8	3.0	250
HV150-502M	15.0	5.0	4 9/16	3 3/4	6 1/8	1 11/16	9 1/8	2.7	520
HV150-103M	15.0	10.0	6	4 11/16	8 1/2	1 11/16	19	3.0	300
HV200-502M	20.0	5.0	4 9/16	3 3/4	8	2 1/8	12 1/8	2.7	880
HV250-103M	25.0	10.0	7 11/32	5 5/8	12 3/16	3 1/4	27	3.0	500
HV300-102M	30.0	1.0	4 9/16	3 3/4	7 3/8	3 1/4	13	1.7	900
HV300-502M	30.0	5.0	6	4 11/16	8 1/2	3 1/4	19	2.7	1,040
HV500-502M	50.0	5.0	7 11/32	5 5/8	12 3/16	4 5/16	27	2.7	1,400
HV750-502M	75.0	5.0	11 1/8	14 1/16	16 1/4	7 1/2	85	2.7	2,600

SEE SECTION 1500, PAGES 484-486

HIGH & LOW VOLTAGE CAPACITORS

Plastic Capacitors, Inc.

CHICAGO 14, ILLINOIS
Cable Address: PLASCAPINC, Chicago

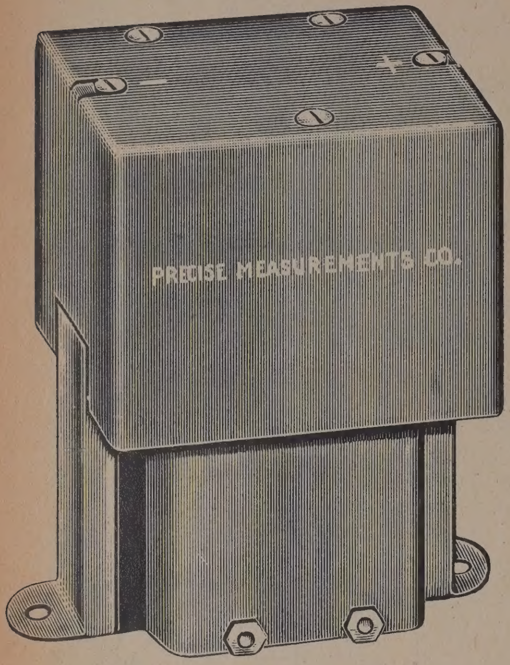
© U.C.P., Inc.

The First New...

MOLDED ROCK

PACKAGED POWER SUPPLY

COMPLETELY SOLID STATE



Model	Output Voltage	Standard Type Price	Zener Regulated Price
05-KV-5MA	500 Volts DC	50.00	75.00
1-KV-5MA	1-KV-DC	60.00	100.00
2-KV-5MA	2-KV-DC	70.00	115.00
3-KV-5MA	3-KV-DC	80.00	125.00
5-KV-5MA	5-KV-DC	95.00	150.00
7.5-KV-5MA	7.5-KV-DC	110.00	—
10-KV-5MA	10-KV-DC	125.00	—
15-KV-5MA	15-KV-DC	140.00	—
20-KV-5MA	20-KV-DC	235.00	—
30-KV-5MA	30-KV-DC	300.00	—

Makes your DC voltage problems easy. Just wire in the two input and output connections and you are ready to operate. New patent applied for features, greatly improve reliability. Service if it should ever be required is a matter of minutes to unscrew the old top and replace with a new element. Newly designed H.V. transformer has special insulation for trouble-free performance. Output is completely isolated and either post may be grounded or operated as a floating supply. DC is filtered for 5% or less ripple. Output may be varied from full ratings down to zero by simply inserting a small Variac in input. All units rated for 5 Ma. current. Power packs 7.5 KV and higher have slightly modified construction. 115 volt, 60 cycle input. Zener regulated models offer closely stabilized fixed output voltages against line or load changes. Twenty output terminal taps enable selection of any regulated voltage.

LOW VOLTAGE PACKS

Now take advantage of the same type of design in your low voltage, high isolation circuit requirements. 10,000 Volts insulation to ground. All utilize Silicon rectifiers and finest filtering networks. Input 115 Volts, 60 to 400 Cycles.

MODEL	OUTPUT VOLTAGE	CURRENT	PRICE
AF-2	Dual 1.2 Volts	500 Ma.	60.00
AF-3	2.5 Volts	3 amps.	60.00
AF-5A	5 Volts	3 amps.	70.00
AF-6A	6 Volts	2 amps.	67.50
AF-12	12 Volts	1 amp.	65.00
AF-25	25 Volts	500 Ma.	65.00
AF-100	100 Volts	100 Ma.	60.00
AF-200	200 Volts	50 Ma.	60.00

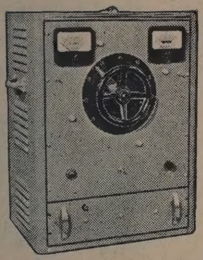
PRECISE MEASUREMENTS COMPANY

FLEMINGTON, NEW JERSEY

© UCP., Inc.

PRECISE MEASUREMENTS COMPANY

heavy duty... POWER SUPPLIES

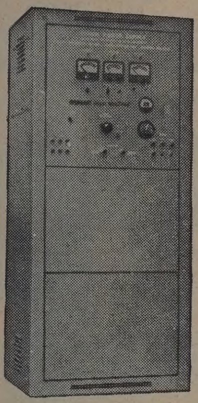


These industrial type power supplies are built for service and efficiency. All are of the transformer type and employ husky components that have been selected for their power handling capacity. Controls are arranged so that operation is greatly simplified and a number of safety features are built in for maximum protection of personnel and equipment. Output is continuously variable from zero to full rated value. Polarity reversing models (as illustrated) can be had at additional cost.

Model	Voltage	Current	Price
F-100V	0-100	10 Amp	$650.00
F-500V	0-500	3 Amp	800.00
F-6001	0-1000	2 Amp	975.00
F-6002	0-2000	1 Amp	985.00
F-6003-AI	0-3000	100 MA	375.00
F-6003-AV	0-3000	500 MA	550.00
F-6003-AK	0-3000	1 Amp	1100.00
F-6005-AI-H	0-5000	100 MA	550.00
F-6005-AV	0-5000	500 MA	750.00
F-6005-AIK	0-5000	1 Amp	1200.00
F-6010-AI	0-10,000	100 MA	800.00
F-6010-AV	0-10,000	500 MA	3000.00
F-6020-A05	0-20,000	50 MA	975.00
F-6030-A3	0-30,000	300 MA	5000.00
F-6050-T	0-50,000	½ MA	600.00
F-6100-T	0-100,000	.1 MA	1100.00

Standard ripple 5% or less. .01% to 1% available. All power supplies have automatic overload cutout control circuits. Regulated models available on special order.

3 ɸ HEAVY DUTY POWER SUPPLIES

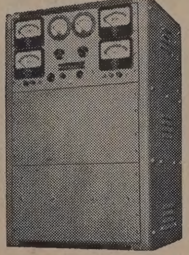


For use in applications where high voltages at extra high currents are required. Either fixed or fully variable types are available. Automatic circuits protect against over-current conditions, turning off main power in a split second. Used for Plasma research, Electron beam furnaces, plate power and condenser charging.

Model	Voltage	Current Amps	Price
A 1-A	0 to 100	100	$ 2,000.00
A 1-B	0 to 100	1000	12,500.00
A 10A	0 to 1,000	5	2,500.00
A 10B	0 to 1,000	10	3,700.00
A 30A	0 to 3,000	5	4,500.00
A 31	0 to 3,000	10	6,750.00
A 32	0 to 3,000	20	7,850.00
A 50	0 to 5,000	5	5,900.00
A 51	0 to 5,000	10	8,350.00
A 72	0 to 7,500	10	9,250.00
A 100	0 to 10,000	5	10,250.00
A 110	0 to 10,000	10	14,575.00
A 200	0 to 20,000	5	16,450.00
A 300	0 to 30,000	5	19,200.00
A 500	0 to 50,000	5	27,500.00

CONSTANT CURRENT POWER SUPPLIES

Designed for application where output current must remain constant regardless of loading resistance changes. Used for magnet fields, plating applications, gaseous lamps. Dependable magnetic current stabilizer has no moving parts, no tubes, no transistors to replace. Simply set current to desired level, no balancing or other adjustments needed. Ideal for lamp operation since operating state ionizing voltage in no way affects lamp current. Standard hum level 5%. Lower hum levels available on order.

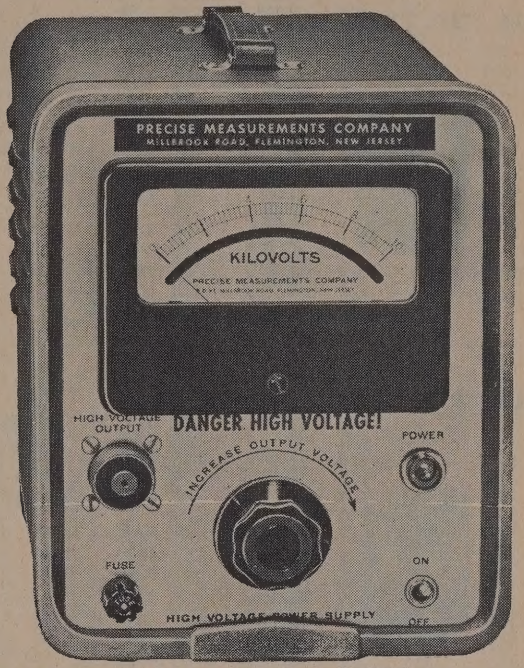


Dual 500 V - 500 V, 10 Ampere Power Supply. — Illustrated

Model	Max. Voltage	Current	Price
C-25-100	25 V.	100 Amp.	$ 980.00
C-70-70	70 V.	70 Amp.	1,700.00
C-500-10	500 V.	10 Amp.	1,700.00
C-Dual 500-10	500 or 1000 V.	10 or 20 Amp.	2,750.00
C-1000-5	1000 V.	5 Amp.	3,000.00
C-3000-1	3000 V.	1 Amp.	2,500.00
C-5000-1	5000 V.	1 Amp.	3,450.00
C-10K-5H	10 KV.	500 Ma.	3,850.00

PORTABLE HIGH VOLTAGE

DC POWER SUPPLIES


PRECISE MEASUREMENTS COMPANY
MILLBROOK ROAD, FLEMINGTON, NEW JERSEY
KILOVOLTS
PRECISE MEASUREMENTS COMPANY
DANGER HIGH VOLTAGE!
HIGH VOLTAGE OUTPUT
INCREASE OUTPUT VOLTAGE
POWER
FUSE
ON
OFF
HIGH VOLTAGE POWER SUPPLY

New Mirror Scale Instrument Illustrated

One of the most popular power supplies on the market. Completely redesigned for greater ruggedness and convenience of operation. Widely used for powering electronic equipment and for routine breakdown and insulation testing. Output voltage is well filtered D.C. which is adjustable with convenient front panel control. Input is 115 Volt, 60 cycle A.C. Larger 6" precision 1% mirror scale movement available on order. Regulated models offer closely stabilized output voltage regardless of line or load changes.

Model	Max. Voltage	R.F. OSC. Regulated 100 Microamps	Trans. Type Unregulated 1 MA.	Trans. Type Unregulated 5 MA.
6000-1	1,000		$150.00	$200.00
6000	2,500	120.00	175.00	225.00
6005	5,000	135.00	200.00	250.00
6010	10,000	145.00	225.00	275.00
6015	15,000	155.00	250.00	300.00
6025	25,000	205.00	275.00	350.00

Note. Regulated power supplies are of the radio frequency type and adjust from approximately 20% to full rated voltage. The 1 and 5 milliampere types are transformer operated and have a range of zero to full voltage output. These are recommended for industrial service applications.

Mirror Scale Higher Accuracy Meter. Recommended for more exact calibration or test purposes. Add $50.00 to any meter equipped power supply.

For additional built-in current meter (both meters are 3 inch size), including automatic meter protector circuit, add $50.00 to any power supply.

PRECISE MEASUREMENTS COMPANY

FLEMINGTON, NEW JERSEY

RCA BATTERIES

RADIO • FLASHLIGHT
FARM • TRANSISTOR
INDUSTRIAL • PHOTO FLASH

JULY 1, 1963

PORTABLE "A" TYPES

Type	Dist*. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS004	1.15	1.65	1½	0-1000	2⅝	2⅝	3 27/32	12	17	4	742	4F	M4
VS009	1.16	1.65	6	0-250	2⅝	2⅝	3 27/32	12	17	6	744	F4P1	M6
VS034A♦	.13	.20	1½	0-25	—	9/16	1 31/32	144	5.3	815	915	Z	M15F
VS035A♦	.13	.20	1½	0-80	—	1 1/32	1 15/16	240	24	814	935	1	M14F
VS036♦	.13	.20	1½	0-150	—	1 11/32	2 13/32	192	37.5	813	950	2 or 2R	M13M or F
VS065	1.15	1.65	7½	0-70	2 5/32	1 15/16	3 1/32	12	7.8	9	717	C5	M9
VS067	.95	1.35	4½	0-250	3 15/16	1 5/16	4 3/32	6	5.9	3	736	F3	M3
VS068♦	.77	1.10	6	0-25	1 7/32	1 7/32	2 11/32	6	1	2	724	Z4	M2
VS069	1.02	1.45	1½	0-300	2 25/32	1 13/32	3 1/32	6	3	18	720	2D	M18
VS070	.67	.95	1½	0-250	—	1 11/32	4 1/16	6	2.3	23	960P	8R	M23
VS072	.95	1.35	4½	0-150	4 3/32	1 7/16	2 15/16	3	2.1	19	726	D3	M19
VS129	1.92	2.75	7½	0-50	3 29/32	27/32	2 27/32	6	2.5	8	713	B5	M8
VS141	.77	1.10	1½	0-500	2 19/32	1⅜	4¼	6	4.5	11	W353	2F	M11
VS236♦	.32	.45	1½	0-300	—	1 11/32	4 3/16	48	18	20	964	21R	M20
VS315▲	1.05	1.50	7½	0-80	2 9/16	2 1/32	2 13/16	6	4.7	26	707	D5	M26
VS734♦	.16	.25	1.5	0-25	—	9/16	1 31/32	144	6	—	815	920	M15F
VS735♦	.16	.25	1.5	0-80	—	1 1/32	1 15/16	72	7	—	835	120	—
VS736♦	.16	.25	1.5	0-150	—	1 11/32	2 13/32	72	13	—	850	220	—

* Available on special order only. • National Electronic Distributors Association. ♦ Flashlight-type terminals.
▲ 2 snap-fasteners. * Optional.

PORTABLE "B" TYPES

Type	Dist*. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS012	3.29	4.70	45	0-70	3 31/32	2 17/32	5 5/16	6	19.3	207	484	B30	M207
VS013	2.70	3.85	45	0-40	3 19/32	1 27/32	5½	6	12.6	202	482	M30	M202
VS014	2.49	3.55	45	0-40	3 9/16	2¼	4½	5	9.5	206	W359	A30	M206
VS015	2.76	3.95	22½,45	0-25	3	2 5/16	4⅛	5	6.5	205	738	Z30	M205
VS016▲	2.45	3.50	67½	0-10	2 13/16	1⅜	3 23/32	12	10	200	467	XX45	M200
VS055▲	2.08	2.95	45	0-10	2 21/32	1	3 11/16	12	6.7	201	455	XX30	M201
VS082▲	2.42	3.45	67½	0-6	2 13/16	1⅜	2½	12	6.4	203	457	K45	M203
VS084♦	1.05	1.50	22½	0-2.5	1 1/32	⅝	2	12	1.1	215	412	U15	M215 or RM412
VS086▲	1.75	2.50	45	0-4	1 1/16	⅝	3 11/16	12	2	213	415	U30	M213 or RM415
VS090▲	3.15	4.50	90	0-10	3 23/32	1⅜	3 23/32	12	13	204	490	N60	M204
VS217▲	3.15	4.50	75	0-10	1 15/16	1 15/32	6 15/32	12	12.6	212	437	XX50	M212
VS218▲	2.27	3.25	67½	0-8	1 29/32	1	5 7/16	12	6.4	211P	477	P45M P45	M211P
VS219▲	2.77	3.95	90	0-8	1 31/32	1 1/32	7 15/32	12	9.1	214	479	P60	M214
VS316▲	3.47	4.95	90	0-10	1 15/16	1 15/32	7⅛	6	6.5	216	495	N60X	M216
VS318▲	2.07	2.95	67½	0-3	1 11/32	1	3½	6	1.5	217	416	UX45	M217

• National Electronic Distributors Association. ▲ 2 snap-fasteners. ♦ Flashlight-type terminals.
* Optional.

PORTABLE "A-B" TYPES

Type	Dist*. Resale Price Ea.*	List Price Ea.*	Volts A	Volts B	Current Range Ma. A	Current Range Ma. B	L.	W. or Dia.	Overall Ht.	Units	Lbs. (Appr.)	NEDA• Type No.	Eveready	Burgess	Mallory
VS019	5.43	7.75	7½,9	90	0-50	12-15	9 7/32	2 23/32	4 5/16	1	5.1	401	753	F6A60	M401
VS047	5.78	8.25	9	90	0-50	12-15	14 1/16	2 11/16	4 1/16	1	6.6	400	752	G6B60	M400
VS050	5.08	7.25	6,7½	75	0-50	0-12	8 9/16	2 7/16	3¾	1	3.8	403	755	T5Z50	M403
VS057W	4.87	6.95	7½,9	90	0-50	8-12	8⅞	2⅛	3 25/32	1	3.1	405	756	T6Z60	M405
VS058	5.57	7.95	9	90	0-50	12-15	9 7/32	2 23/32	4 7/32	1	5.2	406	757	F6A60P	M406
VS059	5.22	7.45	9	90	0-50	8-12	8⅞	2⅛	3 25/32	1	3.3	428	727	T6Z60P	M428
VS060	4.83	6.90	7½	75	0-50	0-12	8⅜	3⅝	2¼	1	3	431	785	T5Z50P	M431
VS064	4.38	6.25	1½	90	0-300	10-14	3 27/32	2 7/32	7 13/16	1	2.8	425	729	4TZ60	M425

TYPES FOR TRANSISTOR APPLICATIONS

Type	Dist*. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS143♦▲	.42	.65	1.4	0-100	—	0.625	0.650	40	2	1100	E1	Hg1	RM1R
VS144♦▲	.75	1.10	1.4	0-250	—	0.640	1.968	10	1¼	1101	E12	Hg12	RM12R
VS145♦▲	.21	.30	1.4	0-7	—	0.455	0.135	60	½	1106	E400	Hg400	RM400R
VS147♦▲	.30	.45	1.4	0-20	—	0.615	0.238	40	½	1104	E630	Hg630	RM630
VS148♦▲	.85	1.25	2.8	0-100	—	0.662	1.315	10	¾	1200	E132	H132	TR132R
VS149♦▲	1.05	1.50	4.2	0-100	—	0.662	1.965	24	2.3	1304	E133	H133	TR133
VS150▲♦	.30	.45	1.4	0-50	—	0.625	0.440	20	¾	1105	E640	Hg640	RM640
VS163♦▲	1.05	1.50	4.2	0-50	—	0.662	1.327	10	¾	1305	E163	H163	TR163
VS164▲♦	1.25	1.75	5.6	0-50	—	0.662	1.767	10	1	1404	E164	H164	TR164
VS165♦▲	1.60	2.25	7	0-50	—	0.662	2.217	10	1	1500	E165	H165	TR165R
VS300A	.62	.89	9	0-9	—	1	1 15/16	36	4.5	1600	226	P6M	M1600
VS301	1.76	2.50	3,6,9	0-150	8	2 13/16	1 9/16	6	8	1601	2506	D6P1	M1601
VS304	1.05	1.50	9,13½	0-10	1 11/32	1 1/32	2 11/16	12	2.3	1900	239	XX9	M1900
VS305	1.30	1.85	9	0-15	1 13/32	1 11/32	2¾	12	3.8	1602	246	2N6	M1602
VS306	1.26	1.80	9	0-30	2 9/16	2 1/32	3 5/32	6	5.6	1603	276	D6	M1603
VS309A▲	1.25	1.75	9.8	0-10	—	9/16	1 29/32	24	1	1606	E177	H177	TR177
VS312▲	1.05	1.50	8.4	0-30	1 1/32	⅝	2	12	1¼	1604	E146	H146	TR146
VS313♦▲	.51	.75	1.4	0-200	—	0.550	1.968	36	7	1103	E9	930	ZM9
VS321	1.93	2.75	4½	0-200	2 13/16	1¾	8 11/32	12	34	1303	2731	—	—
VS322	1.05	1.50	9	0-20	1 13/16	1 13/16	2 7/16	12	5.5	1605	266	M6	M1605
VS323	.48	.69	9	0-8	1 1/32	11/16	1 29/32	72	5.9	1604	216	2U6	M1604
VS324	1.19	1.70	4½	0-40	1 13/32	1 11/32	2¾	12	3.5	1610	243	—	M1610
VS325	.71	1.00	6	0-25	1 13/32	¾	4 11/16	6	2	1403	2713	—	—
VS326	1.05	1.50	9	0-20	1 13/32	¾	4 11/16	6	1.8	1613	2709	—	—
VS327♦	.53	.75	9	0-7	—	¾	2	12	1	1611	206	H126	M1611
VS328♦▲	1.05	1.50	8.4	0-50	—	¾	2	24	2	1611	E126	H126	TR126
VS329	1.05	1.50	12	0-9	—	1	2 7/16	12	1.7	1810	228	—	TR829
VS334♦	.155	.25	1½	0-25	—	9/16	1 31/32	144	5.2	15	1015	930	M15R
VS335♦	.155	.25	1½	0-80	—	1 1/32	1 15/16	72	7	14	635	130	M14R
VS336♦	.155	.25	1½	0-150	—	1 11/32	2 13/32	192	40	13	A100	230	M13R
VS400▲	1.90	2.75	4.2	0-60	—	1 1/32	1 31/32	10	2.5	1300	E233	H233	TR233R
VS401♦▲	.34	.50	1.4	0-50	—	0.460	1.130	24	1	1102	E401	Hg401	RM401

• National Electronic Distributors Association. ♦ Flashlight Type Terminals. ▲ Mercury Types.
* Optional.

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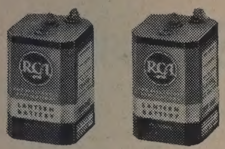
RCA BATTERIES

RADIO • FLASHLIGHT
FARM • TRANSISTOR
INDUSTRIAL • PHOTO FLASH

LANTERN TYPES



Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches L.	W. or Dia.	Overall Ht.	Standard Package Units	Lbs. (Appr.)	NEDA• Type No.	Replaces Eveready	Burgess	Mallory
VS034A♦	.13	.20	1½	0-25	—	9/16	1 31/32	144	5.3	815	915	Z	M15F
VS035A♦	.13	.20	1½	0-80	—	1 1/32	1 15/16	240	24	814	935	I	M14F
VS036♦	.13	.20	1½	0-150	—	1 11/32	2 13/32	192	37.5	813	950	2R	M13F
VS040C	.79	1.19	6	0-250	2⅝	2⅝	4 13/32	12	17	908	509	F4H	M908
VS040S	.79	1.19	6	0-250	2⅝	2⅝	4⅜	12	18	915	510S	F4BP	M915
VS073	.08	.125	1½	0-20	—	0.445	1.180	96	1½	910	904	N	M910F
VS074	.095	.15	1½	0-20	—	13/32	1¾	120	2,5	24	912	7	M24F
VS138	1.45	2.05	3	0-1000	3⅞	2 11/16	5 13/16	5	13.5	901	W357	4F2H	M901
VS317	1.83	2.75	6	0-500	5 11/32	2 27/32	4 15/16	6	20	918	731	TW1	M918

FARM TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts A	Volts B	Current Range Ma. A	Current Range Ma. B	L.	W. or Dia.	Overall Ht.	Units	Lbs. (Appr.)	NEDA• Type No.	Eveready	Burgess	Mallory
VS022	7.95	10.65	1½	90	0-300	8-12	15 11/16	4 1/32	6 15/16	3	50.5	413	759	17GD60	M413
VS119	10.47	14.95	7½,9	90	0-50	10-12	7 27/32	4⅛	9⅞	3	45.6	415	776	S6D60	M415

•National Electronic Distributors Association.
*Optional.

INDUSTRIAL and SPECIAL-PURPOSE TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts A	Volts B	Volts C	Suggested Current Range Ma.	L.	W. or Dia.	Overall Ht.	Units	Lbs. (Appr.)	NEDA• Type No.	Eveready	Burgess	Mallory
VS006C	.84	1.25	1½	—	—	0-1500	—	2⅝	6 21/32	12	26	906	6GL	—	M906
VS006S	.84	1.25	1½	—	—	0-1500	—	2⅝	6 21/32	12	25	905	6IGN.	6 IGN.	M905
VS028	.99	1.40	- -	—	—4½	0-50	27/16	27/32	3	10	3.6	714	781	5360	M714
VS029§	1.65	2.35	—	—	—7½	0-50	3 29/32	27/32	3	10	6	713	773	5540	M713
VS039	3.34	4.98	6	—	—	0-1500	10 7/16	2 23/32	7 7/32	4	38	907	1461	S461	M907
VS040C	.79	1.19	6	—	—	0-250	2⅝	2⅝	4 13/32	12	17	908	509	F4H	M908
VS040S	.79	1.19	6	—	—	0-250	2⅝	2⅝	4⅜	12	18	915	510S	F4BP	M915
VS070	.67	.95	1½	—	—	0-250	—	1 11/32	4 1/16	6	2.3	23	960P	8R	M23
VS083♦	.81	1.15	—	15	—	0-2.5	1 1/32	⅝	1 15/32	6	0.5	208	411	U10	M208
VS084♦	1.05	1.50	—	22½	—	0-2.5	1 1/32	⅝	2	12	1.1	215	412	U15	M215
VS085♦	1.23	1.75	—	30	—	0-2.5	1 1/32	⅝	2 9/16	12	1.4	210	413	U20	M210
VS093	8.37	11.95	—	300	—	0-2.5	2 11/16	2 7/32	3 29/32	3	3.7	722	493	U200	—
VS100	.87	1.25	3	—	—	0-250	2 21/32	1 11/32	4 9/16	5	4	701	W352	F2BP	M701
VS101	.87	1.25	1½	—	—	0-500	2 21/32	1 11/32	4⅜	5	4	700	W354	2FBP	M700
VS102	1.61	2.35	—	22½	—	0-40	3½	2 3/32	3 1/16	5	4.7	710	763	4156	M710
VS103	4.01	5.98	6	—	—	0-1000	8 5/16	2 13/16	6 7/16	4	26	902	706	4F4H	M902
VS106	.84	1.25	1½	—	—	0-1000	2⅝	2⅝	4⅜	12	18	900	735	4FH	M900
VS112	3.05	4.35	—	22½,45	—	0-50	4 3/32	2 9/16	5 7/16	5	15.3	709	W376	5308	M709
VS114	2.69	3.85	—	22½,45	—	0-20	3 1/32	1⅞	4 31/32	5	5	711	W350	Z30NX	M711
VS127W	4.84	6.90	—	22½,45	—	0-250	8 1/32	4 1/16	7⅝	4	44	724	W363F	10308SC	M716
VS130	1.57	2.25	—	—	—4½	0-150	4 1/16	1 13/32	3 1/32	5	4.5	712	761T	2370ST	M712
VS131	3.47	4.95	—	—	—22½	0-50	4	2 7/16	3⅛	4	6.5	708	778	5156SC	M708
VS133	.84	1.25	4½	—	—	0-50	2 7/16	27/32	3 1/16	10	3	706	703	532	M706
VS134	.65	.95	3	—	—	0-25	1 7/32	⅝	2 21/32	10	1	704	750	422	M704
VS136*	1.08	1.55	3	—	—	0-500	2⅝	2⅝	4 9/16	5	7.5	703	W356	2F2H	—
VS138	1.45	2.05	3	—	—	0-1000	3⅞	2 11/16	5 13/16	5	13.5	901	W357	4F2H	M901
VS139	4.86	7.25	7½	—	—	0-1000	7¼	4 1/16	6 7/16	4	31½	903	715	4F5H	M903
VS140*	5.53	8.25	9	—	—	0-1000	8 19/32	4 1/16	6 7/16	4	37	904	716	4F6H	M904
VS142*	.74	1.10	4½	—	—	0-25	1 25/32	⅝	2 21/32	10	1.5	705	751	432	M705
VS157W*	5.53	7.90	—	22½,45	—	0-300	8⅛	4 7/16	7 11/16	4	51	715	W364F	21308SC	—
VS317	1.83	2.75	6	—	—	0-500	5 11/32	2 27/32	4 15/16	6	20	918	731	TW1	M918

§ 5-Screw terminals and 1 pigtail.
* Available on special order only.
• National Electronic Distributors Association.
* Optional.
♦ Flashlight-type terminals.

PHOTO FLASH

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	L.	W. or Dia.	Overall Ht.	Units	Lbs. (Appr.)	NEDA• Type No.	Eveready	Burgess	Mallory
VS704	.81	1.15	15	0-1.5	⅝	19/32	1⅜	12	0.37	220	504	Y10	M504
VS705	1.05	1.50	22½	0-1.5	⅝	19/32	1 63/64	12	0.5	221	505	Y15	M505
VS734♦	.16	.25	1½	0-25	—	9/16	1 31/32	144	6	—	815	920	—
VS735♦	.16	.25	1½	0-80	—	1 1/32	1 15/16	72	7	—	835	120	—
VS736♦	.16	.25	1½	0-150	—	1 11/32	2 13/32	72	13	—	850	220	—

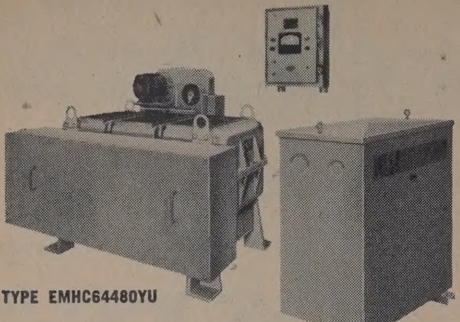
♦ Flashlight-type terminals.
• National Electronic Distributors Association.
* Optional.

ALKALINE TYPES

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	L.	W. or Dia.	Overall Ht.	Units	Lbs. (Appr.)	NEDA• Type No.	Eveready	Burgess	Mallory
VS1073	.24	.35	1½	0-150	—	0.470	1.130	72	2	910	904	AL-N	Mn9100
VS1074	.31	.45	1½	0-200	—	0.40	1.735	12	1¼	—	—	—	Mn2400
VS1149♦	.70	1.00	4½	0-100	—	0.662	1.965	24	2	1306	333	AL-133	Mn1306
VS1334	.33	.50	1½	0-300	—	0.550	1.960	48	2.8	815	E91	AL-9	M 500
VS1335	.51	.75	1½	0-500	—	1 1/32	2	24	4	814	E93	AL-1	Mn1400
VS1336	.65	.95	1½	0-1000	—	1 5/16	2⅜	72	25	813	E95	AL-2	Mn1300

♦ Alkaline types specially designed for transistor radios.
* Optional.

STABILINE® automatic VOLTAGE REGULATORS



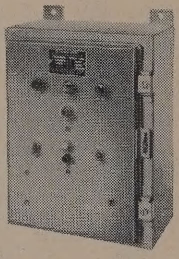
TYPE EMHC64480YU

EMHC series

For heavy-duty applications to 480 KVA. Feature zero waveform distortion, efficiency as high as 99%. Patented re-entry rings and helical coils on variable transformer component permit extremely fine voltage adjustment with very low voltage drop.

DC Regulator Control

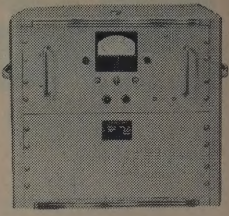
Provides automatically regulated d-c voltage adjustable from 25 to 100% of maximum with an input variation of ±10% in a-c line voltage at 50/60 cycles. Accuracy is ±1% of 100% voltage setting. Designed for use with a motor-driven POWERSTAT Variable Transformer and associated d-c components supplied by the user. Supply can be from either a single-phase full-wave or a 3-phase full-wave unfiltered source. Error detection requires either 1 milliampere, 300 kilohms or 10 milliamperes, 15 kilohms supplied from the d-c output.



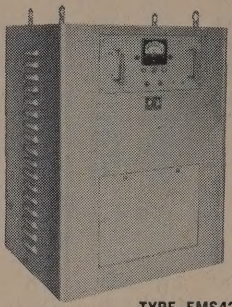
TYPE CB5001

EMT series

Electro Mechanical Transistorized types in ratings from 2 to 100 KVA. Control circuit is completely transistorized. Speed of response sufficiently fast for most applications.



TYPE EMT4115



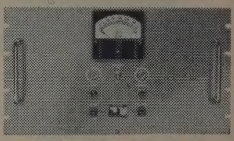
TYPE EMS42100

EMS series

Electro Mechanical Transistorized types for single or three phase duty with ratings from 25 to 275 KVA. Several types available with individual line control for greater application flexibility.

EMK series

Electro Mechanical high speed, high accuracy assemblies in ratings of 2.5/5.0 KVA. Accuracy ±1.0% of nominal output voltage.



TYPE EMK4105R

RATINGS AND SPECIFICATIONS

EMT SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 50/60 Cycle, Single Phase Operation						
115	95-115	110-120	52	6.0	.12	EMT10228
	95-135	110-120	17.5	2.0	.075	EMT4102†
	95-135	110-120	52	6.0	.075	EMT4106B§
	105-125	110-120	104	12.0	.15	EMT4112B*§
	95-135	110-120	130	15.0	.125	EMT4115
120	108-137	110-120	35	4.2	.1	EMT4104†† EMT4104U†† EMT4104UT††
230‡	195-255	220-240	32.5	7.5	.083	EMT4207
	195-255	220-240	87	20.0	.083	EMT10138
	205-250	220-240	120	27.5	.111	EMT4228B
240‡	228-256	220-240	35	8.4	.1	EMT4104†† EMT4104U†† EMT4104UT††
460	400-520	440-480	15	6.6	.041	EMT4407
	400-520	440-480	40	17.6	.041	EMT4418
For 50/60 Cycle, Three Phase Operation						
230‡	195-255	220-240	25	10.0	.083	EMT6210Y
			38	15.0	.083	EMT6215Y
			50	20.0	.083	EMT6220Y
			113	45.0	.25	EMT6245Y
			175	70.0	.25	EMT6270D
460	400-520	440-480	16	12.5	.041	EMT6412Y
			22	17.5	.041	EMT6417Y
			33	25.0	.041	EMT6425Y
			66	50.0	.125	EMT6450Y
			100	75.0	.125	EMT6475Y
460	420-500	440-480	131	100.0	.188	EMT64100Y

See Footnotes on Facing Page

EMS SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 60 Cycle, Single Phase, 2 Wire, Single Control Operation						
115	103.5-126.5	110-120	833	100	.65	EMS41100
230**	218.5-241.5	220-240	435	100	.22	EMS42100**
For 50/60 Cycle, Single Phase, 3 Wire, Individual Line Control Operation						
240/120	204-276/102-138	230-250/115-125	104	25	.06/.03	EMSI4225
	204-276/102-138	230-250/115-125	250	60	.06/.03	EMSI4260
	228-252/114-126	220-240/110-120	417	100	.21/.10	EMSI42100††
For 50/60 Cycle, Three Phase, Single Control Operation						
230**	203-257	220-240	339	135	.28	EMS62135Y**
460	445-495	440-480	230	180	.30	EMS64180Y
			347	275	.30	EMS64275Y
For 50/60 Cycle, Three Phase, Individual Line Control Operation						
208/120	177-239/102-138	191-217/115-125	250	90	.08/.14	EMSI6290Y
	165-233/95-135	191-217/115-125	525	190	.22/.37	EMSI62190Y††

EMK SERIES

For 50/60 Cycle, Single Phase Operation						
115	95-135	110-120	21.5	2.5	.02	EMK4105†
	105-125	110-120	43	5.0	.04	

EMHC SERIES

For 50/60 Cycle, Three Phase Operation						
460	380-520	440-480	300	240	.28	EMHC64240YU
			600	480	.28	EMHC64480YU

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100, 3500 AND 5600

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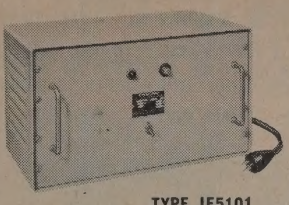
STABILINE® *automatic VOLTAGE REGULATORS*

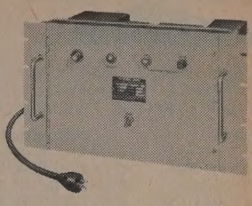
IE series

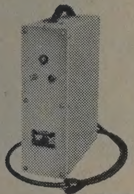
Instantaneous Electronic types have no moving parts. Hold output voltage to within ±0.1% for wide line variations, within ±0.15% for any load current change or power factor change from .5 lagging to unity.


TYPE IE5101

TM series

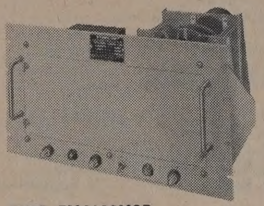
Tubeless Magnetic types have no tubes, transistors or moving parts. Response time for ordinary line and/or load changes is within ½ second; accuracy is within a 1.0 volt bandwidth. Waveform distortion is 4% or less.


TYPE TM7101R


TYPE IET51002

IET series

Instantaneous Electronic Transistorized types in ratings from 0.25 to 1.0 KVA. Output voltage remains within a 0.5 volt bandwidth for any and all variations in line voltage, load current and load power factor.

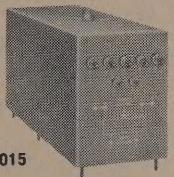

TYPE EM4108MCR

MILITARIZED

Standard Instantaneous Electronic, Electro Mechanical and Electro Mechanical Transistorized types that meet requirements of applicable military specifications. Type EMTH41007MH is 3½ x 6 x 4½″; others fit standard 19″ relay rack.

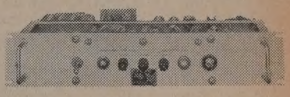
MR series

Provide the constant RMS voltage required to maintain proper tube filament temperature. Response time will not exceed 0.6 second under most adverse line or load changes.


TYPE MR6F015

400 CYCLE

Instantaneous Electronic types in ratings of 1.0 and 5.0 KVA. Maximum waveform distortion is 3.5% under all input line and most load conditions. Other 400 cycle types listed under MR Series and Militarized types.


TYPE IEH5101R

RATINGS AND SPECIFICATIONS

IE SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
For 60 ± 10% Cycle Operation					
115	95-135	110-120	2.2	0.25	IE51002†
			4.5	0.5	IE51005†
			8.5	1.0	IE5101†
			22	2.5	IE5102†
			43.5	5.0	IE5105†
			87	10.0	IE5110
230	195-255	220-240	1.1	0.25	IE52002†
			2.2	0.5	IE52005†
			4.5	1.0	IE5201†
			11	2.5	IE5202†
			22	5.0	IE5205†
			43.5	10.0	IE5210
For 50 ± 10% Cycle Operation					
115	95-135	110-120	4.5	0.5	IEL51005†
			8.5	1.0	IEL5101†
			43.5	5.0	IEL5105†
			87	10.0	IEL5110
230	195-255	220-240	2.2	0.5	IEL52005†
			4.5	1.0	IEL5201†
			11	2.5	IEL5202†
			22	5.0	IEL5205†
			43.5	10.0	IEL5210

IET SERIES

For 60 ± 5% Cycle Operation					
115	95-135	110-120	2.2	0.25	IET51002†
			4.5	0.5	IET51005†
			8.5	1.0	IET5101†

TM SERIES

For 60 ± 5% Cycle Operation					
115	95-135	110-120	8.5	1.0	TM7101†
			43.5	5.0	TM7105B.†

MR SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	FREQUENCY (cycles)	LOAD RANGE IN AMPERES	RATED OUTPUT	TYPE
6.3	120V. RMS ± 10%	6.0-6.5	60 ± 10%	8 -25	150 VA	MR6F015
6.3	120V. RMS ± 10%	6.0-6.5	400 ± 5%	2.5-8.2	50 VA	MRH6F005

IEH 400 CYCLE TYPES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
For 400 ± 5% Cycle Operation					
115	95-130	110-120	8.5	1.0	IEH5101R
			43.5	5.0	IEH5105†

MILITARIZED TYPES IE5101MR AND IEH5101MR

For 60 ± 5% Cycle, Single Phase Operation					
120	105-135	115-125	8.3	1.0	IE5101MR
For 400 ± 5% Cycle, Single Phase Operation					
120	105-135	115-125	8.3	1.0	IEH5101MR

MILITARIZED TYPES EM4108MCR AND EMTH41007MH

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 45-66 Cycle, Single Phase Operation						
120	105-135‡‡	115-125	66.6	8.0	0.1	EM4108MCR
For 380-420 Cycle, Single Phase Operation						
115	103.5-126.5	115	6	0.69	0.23	EMTH41007MH

FOOTNOTES (all charts)

†Also available as rack models (suffix R when ordering). ††For 60 cycle operation only.

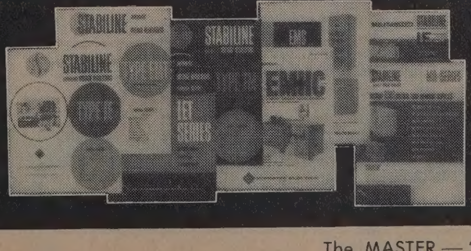
*Can also be operated on an input range of 95 to 135 volts with a rating of 52.0 amperes, 6.0 KVA and a correction rate of .075 seconds per volt.

**Can also be operated at nominal 208 volts output with proportional changes in input and output voltage ranges.

‡Units can be converted for 208 volt operation by simple tap changes. Input and output voltage ranges change in proportion.

‡‡At 120 volt output. Shifts proportionally with output voltage setting. §Also available as rack (suffix R when ordering) or wall mounted (suffix W when ordering) models.

FOR MORE DETAILED INFORMATION about ratings, specifications and technical data on STABILINE automatic voltage regulators, request either the complete STABILINE literature file or individual bulletins describing the series that meet your particular requirements.



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TABTRON

TECHNICAL APPARATUS BUILDERS

NEW YORK 6, N. Y., U.S.A.

Write for all DC Power Requirements
Eng. Dept. Specialists in Design. Mfgrs. of D.C.
Power Supplies. "TABTRON"®, "TABPAK"®,
"REG-O-TAB"®, "REG-O-VAC"®, "TABSTAT"® "TABGLO"®, "TABLITE"®, "VARITAB"®, "AMPTAB"®.

PACKAGED AC & DC POWER

"TABTRON" VARIABLE DC POWER SUPPLIES, COMPLETELY BUILT, DESIGNED FOR CONTINUOUS SERVICE, READY TO USE. "VARIAC"® TYPE VARIABLE TRANSFORMER, ISOLATION RECTIFIER TRANSFORMER, FULL WAVE BRIDGE RECTIFIER. METERS, VOLT AND AMP., PILOT LIGHT, SWITCH, TERMINALS AND FUSE. CABINET OR RACK MT'D (RP). STD 115V/60Cy INPT. OTHER INPTS TO ORDER.

Model	Description D.C. Volts & Amps Ripple! Regulation	Code Word	Ship. Wgt.	Price	Fig.
T12V15ARM	0 to 12VDC @ 15Amp/1% Ripple ±5% Regulation	CAMCA	50 LBS	$198	2
T14V30ARM	0 to 14VDC @ 30Amp/1% Ripple ±5% Regulation	CRYPT	100 LBS	354	2A
T14V40ACT(RP)	0 to 14VDC @ 40Amp/0.1% Ripple 14Mv Max	AGINN	100 LBS	396	2C
T32V5A	0 to 32VDC @ 5Amps Non-Filtered	ABBRE	28 LBS	63	1
T32V5ACC	0 to 32VDC @ 5Amps/1% Ripple 320Mv Max	ABDIC	39 LBS	93	1
T32V5A2CC	0 to 32VDC @ 5Amps/.1% Ripple 30Mv Max	ABAME	30 LBS	135	1
T32V12A	0 to 32VDC @ 12Amp Non-Filtered	ABETS	50 LBS	153	1
T32V12ACC	0 to 32VDC @ 12Amp/1% Ripple 320Mv Max	ABIDE	81 LBS	180	2A
T32V12A2CC	0 to 32VDC @ 12Amp/.1% Ripple 30Mv Max	AMBLE	90 LBS	225	2A
T32V15ARM	0 to 32VDC @ 15Amp/0.5% Ripple ±5% Regulation	CLOCK	50 LBS	225	2A
T32V24A	0 to 32VDC @ 24Amps Non-Filtered	ABLED	95 LBS	174	2
T32V24ACC	0 to 32VDC @ 24Amp/0.5% Ripple 160Mv Max	ABUND	100 LBS	234	2A
T32V30ARM	0 to 32VDC @ 30Amp/1% Ripple ±5% Regulation	COLOR	95 LBS	369	2A
T32V50A	0 to 32VDC @ 50Amp Non-Filtered	ABYSM	150 LBS	360	3
T32V50ACC	0 to 32VDC @ 50Amp/1% Ripple 320Mv Max	ACADE	196 LBS	450	3
T32V60ARM	0 to 32VDC @ 60Amp/1% Ripple ±5% Reg.(3 phase)	CUNEO	220 LBS	666	3
T48V10ARM	0 to 48VDC @ 10Amp/1% Ripple/480Mv; ±5% Regulation	CLICK	120 LBS	333	2A
T60V10ARM	0 to 60V @ 10A/1% Rip 600Mv Max. ±5% Regulated	CAMEO	135 LBS	342	3
T90V10ARM	0 to 90V @ 10A/1% Ripple 900Mv Regulation ±5%	CAMBE	160 LBS	444	3
T130V2ACC	0 to 130V @ 2Amp/1% Ripple 1.3V Max	AMYEL	60 LBS	183	2
T120V5ACC	0 to 120V @ 5Amp/.5% Ripple 600Mv Max	ACEDA	150 LBS	270	2A
T130V10ACC	0 to 130V @ 10Amp/1% Ripple 1.3V Max	ACORN	230 LBS	439	3
MRT32V25ACC	0 to 32VDC @ 25A/1% Rip ±1% Reg. 25 to 28V, ±5% 0-32	AFRAY	125 LBS	423	2A

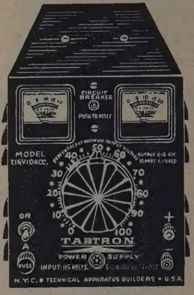


Fig. 1
(7¾H x 6½W x 12D)

LO-PRICED BASIC DC SUPPLIES — BUILT, VENTILATED ENC. OR CABINET

Model	Description	Code Word	Ship. Wgt.	Price	Fig.
B12V15ACM	12VDC @ 15Amp/1% Rip 120Mv ±2% Regulated	CRISP	52 LBS	$190	5
B12V24A	12VDC @ 24 Amps	ADJON	65 LBS	126	5
B12V24ACC	12VDC @ 24Amp/1% Rip 120Mv Max	ADJUR	78 LBS	164	5
B28V1ACC	28VDC @ 1Amp/1% Rip 280Mv Max	ACOOT	8 LBS	26	8
B28V2ARC	28VDC @ 2Amp/.05% Rip 10Mv Max	ALBET	7 LBS	50	7
B28V5A	28VDC @ 5Amp	ACOUS	20 LBS	54	5
B28V5ACC	28VDC @ 5Amp/1% Rip 280Mv Max	ACROB	65 LBS	75	5
B28V5ARC	28VDC @ 5Amp/.01% Rip 3Mv Max	ALBIN	30 LBS	108	
B28V12A	28VDC @ 12 Amps	ACCEN	49 LBS	94	5
B28V12ACC	28VDC @ 12Amps/1% Rip 280Mv Max	ADDER	68 LBS	149	5
B28V15ARM	28VDC @ 15Amp/1% Rip 280Mv ±5% Regulated	CAJOL	48 LBS	189	5
B28V24A	28VDC @ 24Amp	ADDLE	90 LBS	135	5
B28V24ACC	28VDC @ 24Amp/1% Rip 280Mv Max	ADAGE	125 LBS	200	5
B28V30ARM	28VDC @ 30Amp/1% Rip 280Mv, ±5% Regulated	COPYS	98 LBS	333	5
B28V50ARM	28VDC @ 50Amp/1% Rip ±5% Regulated	COALS	135 LBS	423	3
B115V2A	115VDC @ 2Amp Magnetic Chuck (230 Watts)	AHERS	40 LBS	68	7
B115V5A	115VDC @ 5Amp	ADEPT	90 LBS	144	5
B115V5ACC	115VDC @ 5Amp 1% Rip	AHITE	140 LBS	239	5
B115V10A	115VDC @ 10Amp	ADPER	150 LBS	200	5
B115V10ACC	115VDC @ 10Amp/1% Rip	ADMES	180 LBS	369	3

B220V5A $243; B220V5ACC $378; B220V10A $360; B220V10ACC $459; B440V5A $396; B440V5ACC Write for Quote!

BASIC SUPPLIES
Fig. 3A—19Hx22Wx15D
Fig. 5—13Hx17Wx9D
Fig. 7—6Hx5Wx9D
Fig. 8—4Hx5Wx6D

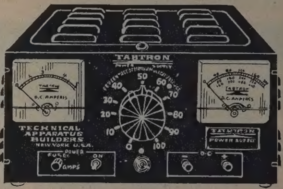
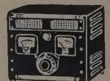


Fig. 2—9Hx15Wx7D
Fig. 2A—10½Hx22Wx15D
Fig. 2C—12¼Hx19Wx13D
Fig. 3—19Hx22Wx15D

LO-PRICED RELAY-PAKS SIZES FROM 12 TO 220VDC!

B12VER	12-16V @ 2A	$10	B48VAR	48-56V @ 1A	$24
B12VGR	12-16V @ 2A	22	B48VER	48-56V @ 2A	36
B12VNR	12V @ 24A	60	B48VJR	48-56V @ 6A	58
B24VAR	24V @ 1A	10	B60VAR	60-68V @ 1A	30
B24VER	24-28V @ 2A	17	B60VER	60-68V @ 2A	57
B24VJR	24-28V @ 6A	32	B80VAR	80-90V @ 1A	39
B24VLR	24-28V @ 12A	57	B115VAR	115V @ 1A	54
B36VAR	24-28V @ 1A	18	B220VAR	220V @ 1A	102

Fig. 3



19¼H x 21½W x 15D

BATTERY CHARGERS, NICKEL CADMIUM, LEAD, SILVER, ALKALI, MANGANESE TRUCK—AUTO—INDUSTRIAL—AERO—MARINE—SEMI & FULL AUTOMATIC UNITS. WRITE!

NBC2V	NICAD 2 Cells up to 50Ma	$ 6
NBC40F	NICAD 1 to 40 Cell up to 3A/3000Ma, up to 12V	36
BC612VT4A	6 & 12V @ up to 4Amp/Full Charge & Trickle	20
BC612VT10A	6 & 12V @ up to 10Amp/Full Charge & Trickle	45
BC12CS35A	Car-Start & 12V Chrgr up to 40A	69
BC12/24VT5A	12 & 24V @ up to 5Amp/Full Charge & Trickle	$ 40
BC12/24VT10A	12 & 24V @ up to 10Amp/Full Charge & Trickle	72
BC12/24VT15A	12 & 24V @ up to 15Amp/Full Charge & Trickle	118
BC12V70A	Industrial Truck Automatic 12V/200-360AH in 8 Hrs.	288
BC60V12A	Charges from 0 to 48V @ 12Amps, VARIAC® Control	160
BC66RB33B1	TUNGAR 115V/60C, 3 to 18/2V Cells @ 6Amp/36V	$ 69
BC66RB33B2	TUNGAR 115V/60C, 3 to 36/2V Cells @ 6Amp/72V	81
BC66RB6B1	TUNGAR 115V/60C, up to 72V @ 6A, or 36V @ 12A	202
BC66RB6B5	TUNGAR 115V/60C, up to 144V @ 6A, or 72V @ 12A	243

TRANSISTORIZED INVERTERS, CONVERTERS & REGULATED SUPPLIES

IJ25A	Inverter 6VDC input to 300 & 150VDC @ 150Ma	$ 45
IL50B	Inverter 12VDC input to 500 & 250VDC @ 200Ma	48
IL60B	Inverter 12VDC input to 600 & 300VDC @ 200Ma	52
IN50B	Inverter 28VDC input to 500 & 250VDC @ 200Ma	69
CL225Q	Converter 12VDC input to 115VAC up to 225 Watts	$ 39
BCL200Q	Converter & 4A Charger! 12VDC to 115VAC @ 225 Watts	79
TR612Q	Inverter 6VDC to 12VDC @ 4Amps	39
VT28V4AQ	0.5 to 30 VDC @ 4Amp Ripple & Regulation Max. 250Mv	207
P25V3AQ	25VDC @ 3Amp Ripple & Regulation Max. 250Mv	93
VT50V1.5AH	0 to 50 VDC @ 1.5Amps Ripple & Regulation Max. 150Mv	180

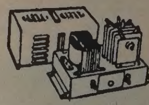
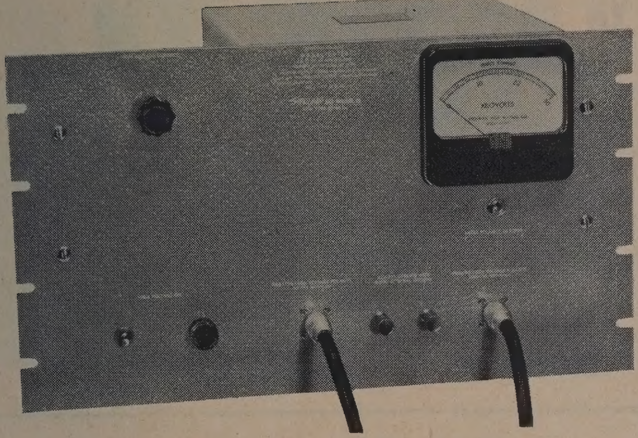


Fig. 5

We reserve the right to change specifications and prices without notice. We build all power supplies to your specs & quantity.

SPELLMAN **POWER SUPPLIES**

HIGH VOLTAGE
RF TYPE - DC



MODEL PN-30

REVERSIBLE POLARITY
Continuously Variable 1-30 KV
Unregulated DC Power Supply

A light, compact unit in wide use for insulation testing, condenser charging, precipitators and laboratory research. Polarity reversible from front panel. Current output — 2 milliamperes at 20 KV: 1 ma. at 30 KV. Input — 117V AC 60 cycles. Dimensions: 19" x 10½" x 13". .... **$275 net**
Less meter .... **$225 Net**

MODEL PN-30C — Same as above except automatic overload and reset button provided. Adjustable sensitivity 0.5 ma. to 2.5 ma.

With meter .... **$325 net**
Less meter .... **$275 net**

MODEL 2040

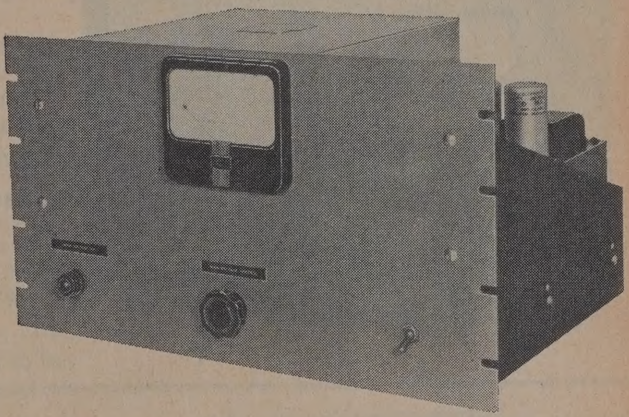
40 KV DC POWER SUPPLY

A ruggedly built RF type power supply which is in constant use in laboratories and industrial plants throughout the world for condenser charging, electrostatic paint spraying and insulation testing, electrostatic flocking, etc. In wide use for spot knocking by TV tube manufacturers. Designed for constant use and will stand severe abuse. Available with either positive or negative 40 KV output. Voltage range is approx. 12 to 40 KV continuously variable. The 12 to 40 KV variance in voltage is controlled through a knob on the front panel. Voltage supplied through a 6 ft. HV Safety Cable. Specify desired polarity when ordering. Specifications: Continuously variable 12 to 40 KV. 1 ma. at 30 KV Input: 117V — 60 cycles. 19" wide x 12¼" high x 13" deep.

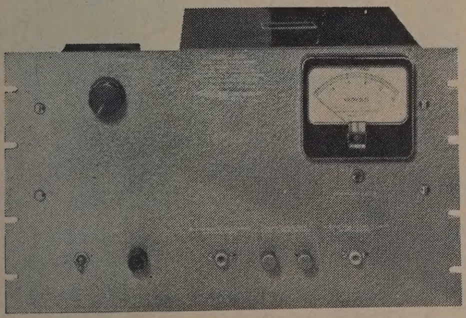
With meter on front panel .... **$215 net**
Less meter .... **$165 net**

MODEL 2040C — Same as above except automatic overload cutout and reset button provided. Adjustable sensitivity 0.5 ma. to 2 ma.

With meter .... **$265 net**
Less meter .... **$215 net**



MODEL PN-15

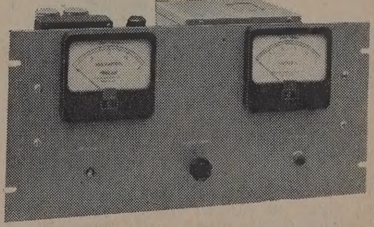


FLOATING REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 1 TO 15 KV UNREGULATED DC POWER SUPPLY

The high voltage output available through Alden HV connectors on front panel. Reversible and floating secondary — either positive or negative can be grounded or left floating. Current output 2 ma. at 15 KV. Voltage continuously variable through knob on front panel. Dimensions 8¾" high x 19" wide x 11" deep.

Complete with meter .... **$250 net**

MODEL LAB-10



CONTINUOUSLY VARIABLE 0-10 KV
REGULATED DC SUPPLY

Output current 2 ma. Regulations better than 0.5%. Complete with HV and current meters 19" W x 8¾" H x 13" D .... **$275 net**

SPELLMAN HIGH VOLTAGE CO., INC. | **BRONX 69, N. Y.**

SPELLMAN **POWER SUPPLIES**

HIGH VOLTAGE
RF TYPE - DC

MODEL RG-30

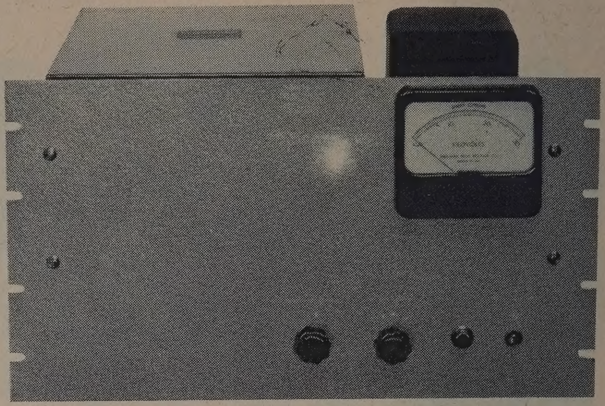
CONTINUOUSLY VARIABLE 15-30 KV REGULATED DC POWER SUPPLY WITH REGULATED FOCUS VOLTAGE TAP

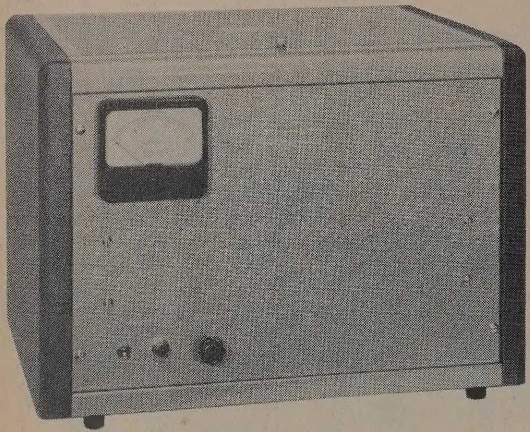
A continuous duty DC supply with highly filtered outputs and regulations better than 0.5% at 1 ma. — no load to full load. A variable focus tap 4-6 KV for use with 5WP11, 5TP4 and flying spot tubes. Dimensions: 19″ wide x 10½″ high x 13″ deep.

With HV meter $375 Net **Less meter $325 Net**

MODEL RG-40 is a 20-40 KV unit with focus tap designed for use with 5AZP4 projection tube. In wide use in projection television systems. Same specifications as RG-30 except .7 ma. at 40 KV.

With meter $375 Net **Less meter $325 Net**





MODEL LAB-30PN

DC POWER SUPPLY REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 1 TO 30 KV

Regulated DC Power Supply with regulations of 0.5% at 2 milliamperes. Polarity reversible from front panel.

Standard Rack Model — 19″ wide x 12″ high x 13″ deep.
Standard Bench Model — 21″ wide x 14″ high x 15″ deep.

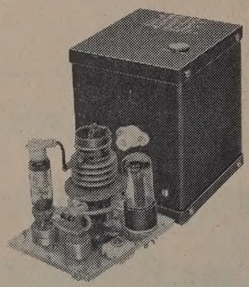
With HV meter $645 Net **Less Meter $595 Net**

MODEL LAB-30 is a positive polarity output regulated High Voltage DC Power Supply with same electrical characteristics and dimensions as the LAB-30PN. Available in either positive or negative polarity.

With meter $545 Net **Less meter $495 Net**

SPECIAL MODELS up to 5 ma. output AVAILABLE

MODEL 4575



5 KV — 1 ma. DC POWER SUPPLY

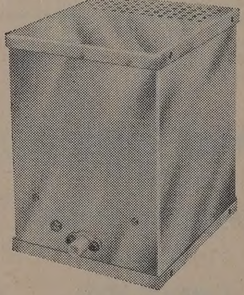
For an output voltage of 5 KV DC at 1 milliampere, the low voltage input requirement is 250 V at 50 milliamperes. By varying the DC input the output voltage can be varied from approx. 1 KV to 7½ KV. Dimensions: 5⅝″ high x 5″ deep x 4¼″ wide. In completely enclosed metal housing. **$32.50 net**

MODEL 4575-2 — same as above with 2 ma. output at 5 KV .... **$42.50 net**

MODEL 4575PN — Reversible polarity. High voltage secondary floating or can be grounded. 1 ma. at 5 KV .... **$42.50 net**

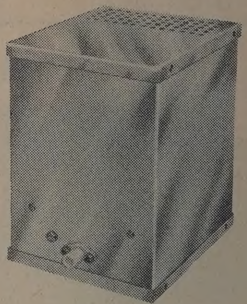
MODEL 4575-2PN — Reversible polarity. 2 ma. at 5 KV .... **$52.50 net**

MODEL 7512



12KV — 1 ma. DC Power Supply — Voltage output of approx. 7.5 to 12 KV. 1 ma. of current may be drawn throughout the voltage range. To obtain an output voltage of 7.5 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. By varying the DC input, the output voltage can be increased. Maximum input voltage of 425 V at 100 ma. will give an output of 12 KV at 1 ma. 5¾″ W., 8¼″ H., 6¾″ D. ....**$42.50 net**

MODEL 7516



20 KV — .5 ma. DC POWER SUPPLY

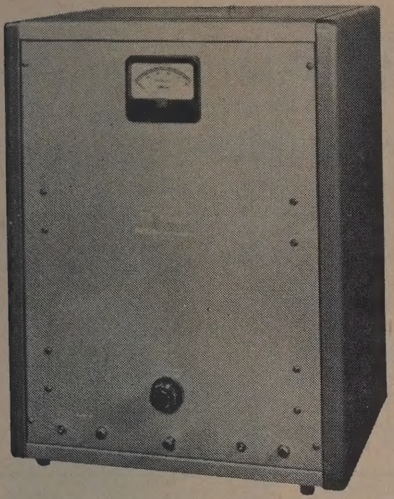
Voltage output of approx. 10 to 20 KV. To obtain output voltage of 10 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. Maximum input voltage of 425 V at 100 ma. will give an output of 20 KV at .5 ma. 5¾″ W., x 8¼″ H., x 6¾″ D.

MODEL 7516..**$48.50 net**

SPELLMAN HIGH VOLTAGE CO., INC. | **BRONX 69, N. Y.**

SPELLMAN POWER SUPPLIES

HIGH VOLTAGE
RF TYPE - DC



MODEL LAB-90
0-90 KV REGULATED DC POWER SUPPLY

Continuously variable 0 to 90 KV DC Power Supply. Ideal for kinematic electron diffraction equipment and high voltage condenser charging. Output current .7 ma. at 90 KV. 1 ma. at 80 KV. 2 ma. from 40 KV down. Voltage regulations better than 1% throughout entire range. Dimensions in cabinet: 28″ high x 21¾″ wide x 18″ deep.

LAB-90 Complete with HV meter .... **$900 Net**
Specify polarity output — positive or negative.

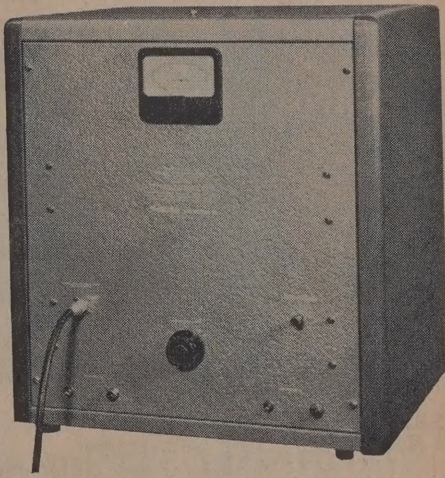
MODEL LAB-90C—Same as above except automatic overload cutout and reset button provided. Adjustable sensitivity. .5 ma. to 2.5 ma. .... **$950 Net**

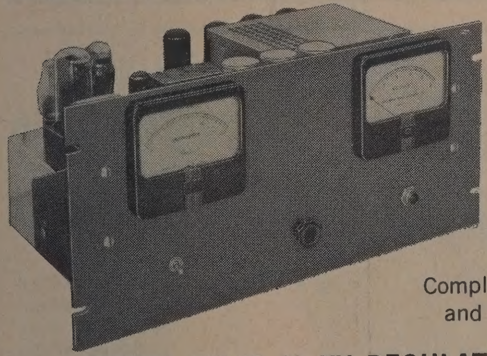
MODEL LAB-60PN
REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 0-60 KV DC REGULATED POWER SUPPLY

Current output 1 ma. at 60 KV 2 ma. may be drawn from 50 KV down. Regulations — no load to full load 1% at 1 ma. 21¾″ wide x 22¾″ high x 18″ deep. Dimensions in cabinet: 22¾″ high x 21″ wide x 18″ deep.

LAB-60PN — Reversible polarity — either positive or negative output controlled through switch on front panel. .... **$820 Net**

LAB-60 — Same as above not reversible. Specify polarity when ordering.. **$765 Net**





MODEL RG-5
2-5 KV REGULATED DC POWER SUPPLY

Output current 2 ma. Regulated against line and load 1%. Variable 4 to 6 KV.

Complete with Current and Volt Meters............. **$250 Net**

MODEL RG-10 10 KV REGULATED DC POWER SUPPLY

Output current 2 ma. Regulated against line and load 1%. Variable 8 to 12 KV.

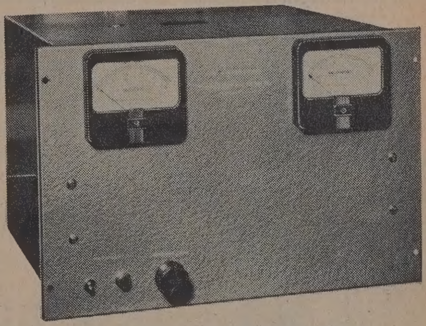
Complete with Current and Volt Meters.................................. **$260 Net**

MODEL RG-15 15 KV REGULATED DC POWER SUPPLY

Output current 2 ma. Regulated against line and load 1%. Variable 13 to 17 KV.

Complete with Current and Volt Meters................................ **$275 Net**

DIMENSIONS: Panel Height 8¾″, Width 19″, Depth 11″.



0-20 KV REGULATED
MODEL LAB-20

CONTINUOUSLY VARIABLE 0-20 KV REGULATED RF TYPE DC POWER SUPPLY

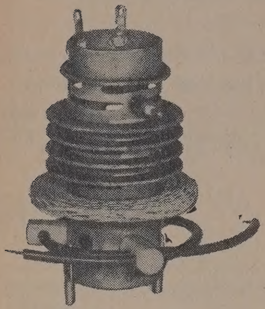
Current output: 4 ma. @ 20 KV; 10 ma. from 10 KV down. Regulations better than 1% against line and load changes across entire range. Complete with HV and current meters. 19″ W. x 12¼″ H. x 15″ D.

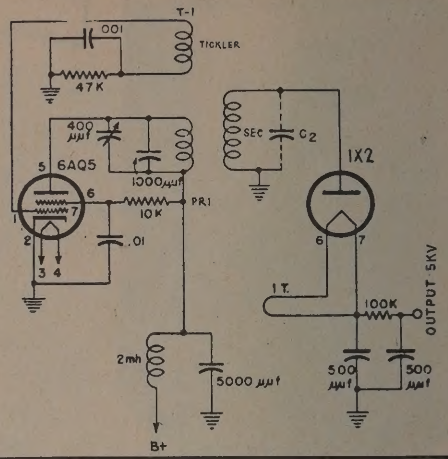
MODEL LAB-20........................... **$525 Net**

SPELLMAN HIGH VOLTAGE CO., INC. | **BRONX 69, N. Y.**

SPELLMAN HIGH VOLTAGE STEP-UP COILS

FOR RF POWER SUPPLIES

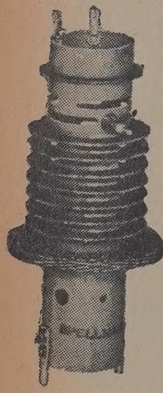



T-1
.001
TICKLER
47K
400 µµf
6AQ5
1000µµf
PRI
10K
.01
SEC
C2
1X2
1T.
100K
OUTPUT 5KV
2mh
5000 µµf
500 µµf
500 µµf
B+

COIL MODEL 5 KV

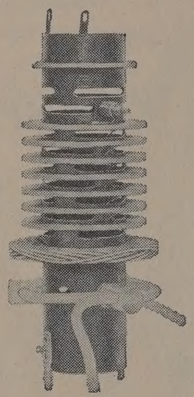
Secondary Height	3½"
Secondary Windings Consisting of 4 Pie Windings	1¾"
Primary Diameter	2¼"
Secondary Voltage Output	5 KV
Secondary Current	2 Milliamperes
Approx. Frequency	300 KC
5KV Coil	**$7.70 Net**

COIL MODEL 10-15 KV

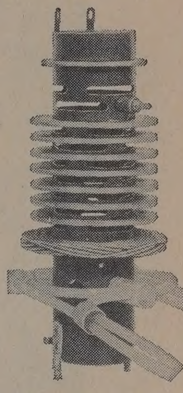


10-15 KV
$13.20 Net

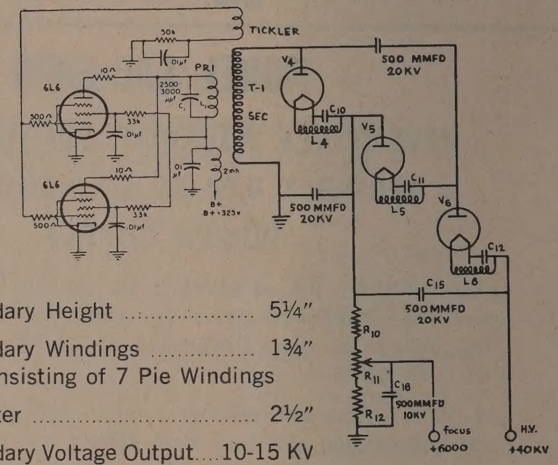
COIL MODEL 10-15 KV-1



COIL MODEL 10-15 KV-2

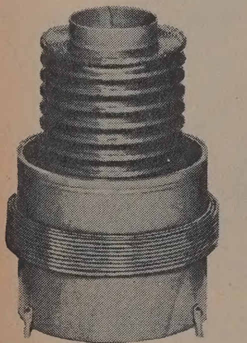


.10-15 KV-1 with filament winding for single 1B3 rectifier .... **$13.75 Net**
10-15 KV-2 with 2 filament windings for two 1B3 rectifiers .... **$14.30 Net**


TICKLER
6L6
6L6
PRI
T-1
SEC
V4
V5
V6
C10
C11
C12
L4
L5
L6
500 MMFD 20KV
500 MMFD 20KV
500 MMFD 20KV
C15
R10
R11
R12
C16
500MMFD 10KV
2mh
B+ +325v
focus +6000
H.V. +40KV

Secondary Height	5¼"
Secondary Windings Consisting of 7 Pie Windings	1¾"
Diameter	2½"
Secondary Voltage Output	10-15 KV
Secondary Current	2 Milliamperes
Approx. Frequency	175 KC

L4, L5, L6 are Spellman RF Filament Transformers



TECHNICAL INFORMATION AND CIRCUIT DIAGRAMS FURNISHED WITH EACH COIL

COIL MODEL 35 KV

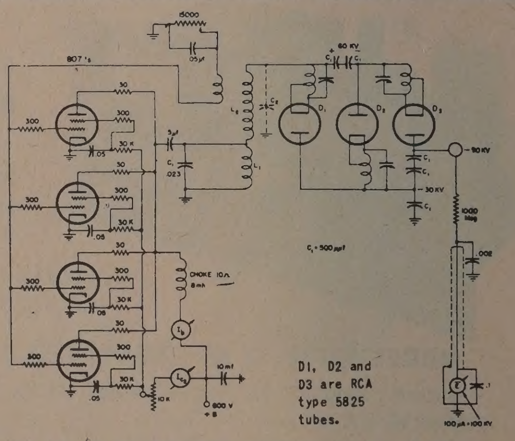
Secondary Height	7"
Secondary Windings Consisting of 10 Pie Windings	3" dia.
Primary (separate from secondary)	
Height	4"
Diameter	4¼"
Secondary Voltage Output	35 KV
Secondary Current	5 Milliamperes
Approx. Frequency	70 KC
35KV Coil	**$46.20 Net**

25KV—Same as 35 KV except

Secondary Height	6"
25KV Coil	**$39.60 Net**

70KV—Same as 35KV except Sec. height 10", 12 pie windings 4" dia., Primary height 4", Diameter 5", Approx. Frequency 70 KC.

70KV Coil	**$82.50 Net**


807's
15000
300
30
30 K
CHOKE 10Λ 8mh
D1
D2
D3
90 KV
30 KV
C1 = 500 µµf
1000 Meg
.002
800 V + B
100 µA = 100 KV

D1, D2 and D3 are RCA type 5825 tubes.

L4, L5, L6 are Spellman RF Filament Transformers

RF FILAMENT TRANSFORMERS

A self-resonant auto transformer for use with type 1B3 Rectifier tube. Complete with instructions.

Will operate with Spellman HV coils	**$1.65**
Tuning Padder for Filament Transformer	**.58**

SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N. Y.

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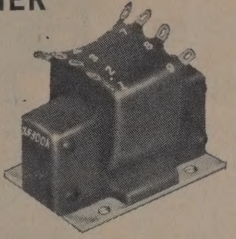
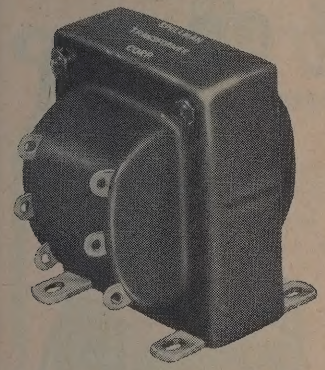
SPELLMAN HIGH VOLTAGE TRANSFORMERS

HIGH VOLTAGE TRANSFORMER FOR TRANSISTORIZED 7KV DC POWER SUPPLY



For a transistorized full wave DC to DC Converter. For 25 Volt DC input. Output voltage 7KV DC at .5 ma. may be obtained. Supplied with operating circuit diagram. Completely encapsulated. 2" H x 2¾" W x 1¾" D.

MODEL T-7A .... **$24.00 Net**

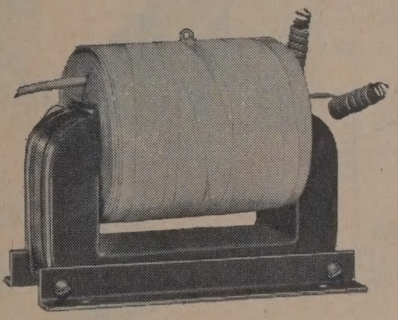


TRANSISTORIZED HIGH VOLTAGE TRANSFORMER

Designed for input voltage from 11 to 15 Volts DC. Input current from 2 to 10 amps. Output voltage from single rectifier stage 10 KV at 2 ma. Supplied with operating circuit diagram showing transistors and rectifier for an operational power supply. Completely encapsulated. 4"H x 3¼" W x 4" D.

MODEL T-10 .... **$28.00 Net**

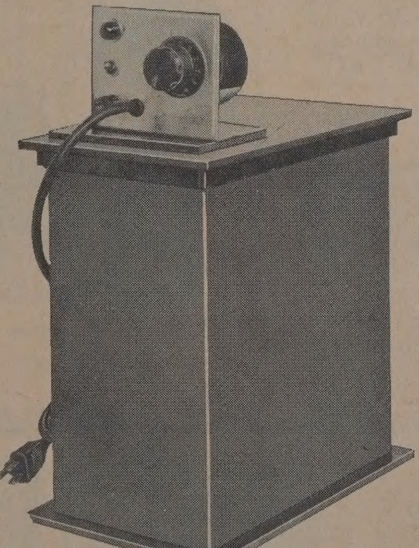
HYPERSIL CORE OIL INSULATED HIGH VOLTAGE TRANSFORMER



Voltage input 110 Volts AC. Output 20 KV Rms. Suitable for use in 50 KV DC 10 ma. Power Supply.

MODEL HV-20 .... **$51.00 Net**

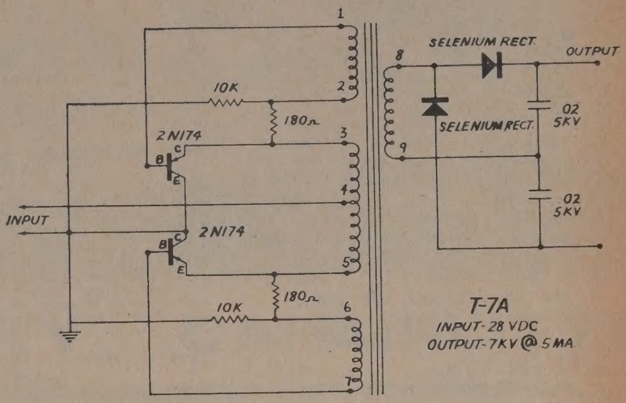
0-100 KV HIGH VOLTAGE DC POWER SUPPLY

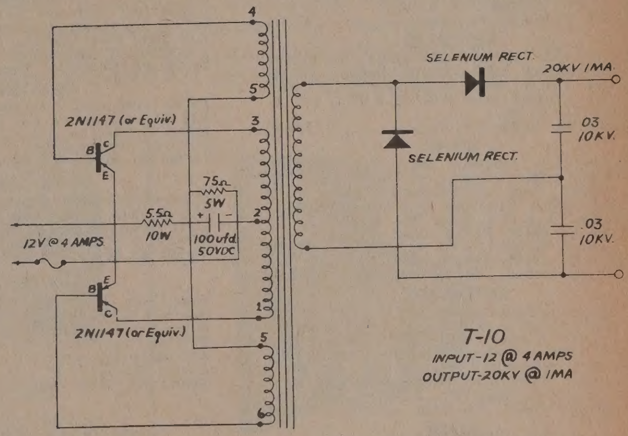


0-100 KV @ 25 microamperes. This solid state encapsulated DC power supply is available in either positive or negative output. Designed for insulation testing, electrostatic paint spray systems, powder separation, detearing, etc.

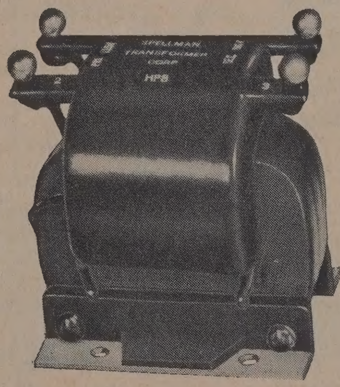
Shown less case. Dimensions: 12½" high x 11½" deep x 6½" wide.

MODEL P-110 ....**$695 Net**


1
2
3
4
5
6
7
8
9
10K
180Ω
2N174
B
C
E
INPUT
2N174
10K
180Ω
SELENIUM RECT.
OUTPUT
SELENIUM RECT.
.02 5KV
.02 5KV
T-7A
INPUT-28 VDC
OUTPUT-7KV @ 5MA


4
5
3
2
1
5
6
2N1147 (or Equiv)
B
C
E
75Ω 5W
5.5Ω 10W
100ufd 50VDC
12V @ 4 AMPS
2N1147 (or Equiv)
SELENIUM RECT.
20KV 1MA
SELENIUM RECT.
.03 10KV.
.03 10KV.
T-10
INPUT-12 @ 4 AMPS
OUTPUT-20KV @ 1MA

HIGH VOLTAGE TRANSFORMER



Voltage input 110 volts 60 cycles.
Output 8 KV Rms. 10 ma.
Dimensions: 5" wide x 5" high x 4¼" deep.
Suitable for use in 20 KV doubler circuit.

MODEL HP-8 ....**$30.00 Net**

SEND FOR COMPLETE INFORMATION

SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N. Y.

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terado DC-AC Inverters, Chargers, Relays, Voltage Adjusters

INVERTERS

Change battery current to 110 volt, 60 cycle AC. Frequency stable within ½ cycle, with change in load and input voltage.

DUAL CONTINENTAL
(Transistorized, 600 watts)

Converts 12 v. D.C. to 110 v., 60 cycle 550 to 600 watts. Complete with battery cables and remote control with variable A.C. output. Filtered for tape recorders. Frequency stable within ½ cycle with changing input voltage and load. **Size** 10¾″ w. x 13″ d. x 6″ h. Shpg. Wt., 60 lbs.
Terado No. 50202—Net Each $279.77

CONTINENTAL (Transistorized, 300 watts)

Same features as DUAL above, but has capacity of 275 to 300 watts. **Size** 10¾″ x 6″ x 6″. Shpg. Wt., 30 lbs.
Terado No. 50191—Net Each $139.13

ATLAS (Transistorized, 200 watts)

Same features as CONTINENTAL above. but has capacity of 175 to 200 watts. **Size** 10¾″ x 6″ x 6″ Shpg. Wt., 21 lbs.
Terado No. 50200—Net Each $104.13

TITAN (Transistorized, 175 watts)

Same features as ATLAS above less remote control, but with on-off switch and A.C. receptacle in case. Capacity 150 to 175 watts. **Size** 10¾″ x 6″ x 6″. Shpg. Wt., 20 lbs.
Terado No. 50201—Net Each $91.41

SUPREME

Converts 12 v. DC to AC; power output, 175-200 watts, filtered. Remote control has variable AC output switch and signal light indicating proper AC output voltage. Steel case. **Size:** 10¾″ w. x 6″ d. x 6″ h. Shpg. Wt., 25 lbs.
Terado No. 50153—Net Each $77.00

RECORDER

150-175 watt version of SUPREME, less remote control. Plugs into cigarette lighter. Hi-low voltage selector switch to maintain proper ouput voltage. Filtered. **Size:** 10¾″ w. x 6″ d. x 6″ h. Shpg. Wt., 21 lbs.
Terado No. 50175—Net Each $69.69

CHIEF

Operates tape recorders, power tools, dictation machines, mixers, blenders, etc. Direct connection to battery. Front AC receptacle. Toggle switch output control. Ventilated steel case. **Size:** 3½″ w. x 6½″ d. x 4″ h. Shpg. Wt., 8 lbs.
Terado No. 50137—Voltage input, 6 v.
AC Power Output, 75-100 watts. Net $49.00
Terado No. 50138—Voltage input, 12 v.
AC Power Output, 100-125 watts. Net $49.00

AUTOMATIC

Operates automatically from 6 or 12 v. DC without vibrator change or switching (6 v., 55-75 watts; 12 v., 85-110 watts). Easy installation into cigarette lighter. For dictation machines, radios, tape recorders, phonographs, heating pads, etc. Steel case. Seal brown baked enamel. **Size:** 3½″ w. x 6½″ d. x 4″ h. Shpg. Wt., 8 lbs.
Terado No. 50134—Net Each $40.58

SUPER

Single input version of AUTOMATIC. **Size:** 3½″ w. x 6½″ d. x 4″ h. Shpg. Wt., 8 lbs.
Terado No. 50126—Voltage input, 6 v.
AC Power Output, 60-75 watts. Net $34.98
Terado No. 50127—Voltage input, 12 v.
AC Power Output, 75-100 watts. Net $34.98

MASTER

Operates some dictation machines and tape recorders, radios and phonographs, emergency lighting, etc. Easy to install into cigarette lighter. Steel case. Seal brown baked enamel. **Size:** 3½″ w. x 6½″ d. x 4″ h. Shpg. Wt., 6 lbs.
Terado No. 50122—Voltage input, 12 v.
AC Power Output, 60-75 watts. Net $29.06

ELECTRAL

Glove comparent size inverter, available in 6 v. or 12 v. input. Easy installation into cigarette lighter. Vinyl coated steel case with leatherette appearance. **Size:** 3″ w. x 2¼″ d. x 5½″ h. Shpg. Wt., 3 lbs.
Terado No. 50167—Voltage input, 12 v.
AC Power Output, 42-52 watts. Net $18.87

SENIOR

Operates radios, lights, phonographs and small tape recorders. Available in 6 v. or 12 v. input. Simple to install into cigarette lighter. Aluminum case. Seal brown baked enamel. **Size:** 2½″ w. x 4½″ d. x 2¼″ h. Shipping Weight, 3 lbs.
Terado No. 50115—Voltage input, 6 v.
AC Power Output, 35-40 watts. Net $16.77
Terado No. 50116—Voltage input, 12 v.
AC Power Output, 40-50 watts. Net $16.77

DYNAMO

Permits operating AC radios on 12 v. DC battery source, such as cars or boats. Can also operate electric shavers. Plugs into cigar lighter. Includes generator condenser and ignition suppressor. Power output, 25-30 watts. **Size:** 2″ x 2″ x 3¾″ Shpg. Wt., 2 lbs.
Terado No. 50196—For 12 v. batteries only.
Net Each $9.05

AUTO SHAVER

Operate all electric shavers. Available in 6 v. or 12 v. input. Plugs into cigarette lighter. Polyethylene non-breakable case. **Size:** 3⅝″ w. x 2¼″ d. x 4¼″ h. Shpg. Wt., 2 lbs.
Terado No. 50103—Input, 12 v.
AC Power Output, 15-20 watts. Net Each...... $9.31

QUIK SHAVE

Speeds up electric shaver; cuts shaving time in half. Changes AC to DC.
Terado No. 50184—Net Each............................ $3.93

TERADO CORPORATION
St. Paul, Minnesota

BATTERY CHARGERS

Electronically engineered full wave silicon rectifier chargers. Miniaturization with full power charge rate.

DYN-A-MITE

Baked seal brown paint over aluminum case. Charge rate 1 amp, both 6 and 12 volts. **Size:** 1¾″ x 1¾″ x 3¼″. Wt., 1 lb.
Terado No. 50186—Net Each $5.90

TINY GIANT

Copper clad steel case. Charge rate 1½ amps, both 6 and 12 volts. Warning buzzer for improper connection. Size: 2-1/16″ x 3″ x 5½″. Weight, 1½ lbs.
Terado No. 50185—Net Each $7.66

LEADER

Copper clad steel case. Charge rate 3 amps, 12 volts only. Warning buzzer for improper connection. **Size:** 2¼″ x 3″ x 5½″. Weight, 2 lbs.
Terado No. 50187—Net Each $10.47

HI-WAY CHARGER

Charge your boat battery while travelling! For any American 12 volt car. Charges 6 or 12 volt batteries without removing battery from boat. Charges up to 10 amps. No installation—just plug into cigar lighter. Large dial indicator shows state of charge. 30 ft. extension cord with battery clamps.
Terado No. 50193—Net Each $12.57

CHAMPION

Copper clad steel case. Charge rate 4 amps, both 6 and 12 volts. Automatic circuit breaker protection. **Size:** 2¼″ x 3″ x 5½″. Weight, 2 lbs.
Terado No. 50188—Net Each $13.27

HI-POWER

Copper clad steel case. Charge rate 5 amps, 12 volts only. Cigarette lighter plug-in. Charge indicator light shows condition of battery. **Size:** 2¼″ x 3″ x 5½″. Weight, 3 lbs.
Terado No. 50180—Net Each $13.97

CHALLENGER

Brown baked enamel, ventilated steel case. Charge rate 6 amps, both 6 and 12 volts. Charge rate meter. Brackets for coiling wire provided. **Size:** 4″ x 5″ x 6″. Weight, 5 lbs.
Terado No. 50189—Net Each $20.27

SUPER CHARGER

Brown baked enamel, ventilated steel case. Charge rate 10 amps, both 6 and 12 volts. Color coded meter shows condition of battery and charge rate. **Size:** 4″ x 5″ x 6″. Weight, 7½ lbs.
Terado No. 50181—Net Each $25.87

POWERHOUSE

Heavy duty, heavy copper clad, ventilated steel case with handle. Full fast 20 amp charge rate on either 6 or 12 volt batteries, plus trickle charge. Full wave type with 4 silicon rectifiers. Complete with charge rate meter and 6 ft. cable with battery clamps. **Size:** 11″ x 6″ x 6″. Ship. Wt., 20 lbs.
Terado No. 50183—Net Each $48.97

VOLTAGE ADJUSTERS

For TV, hi-fi and AC motorized equipment. Change high or low voltage over range of 95-135 volts to normal. Input: 110 volt AC line. **Size:** 5½″ v 3″ x 2¼″.

PLANET

Cap. 150 w. const., 300 w. int. Wt., 2 lbs.
Terado No. 50203—Net Each $7.80

POLARIS

Cap. 300 w. const., 500 w. int. Wt., 3 lbs.
Terado No. 50204—Net Each $9.20

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Designed to speed up or slow down electric hand tools. Light dimming range 0 to 140 volts. Cap. 300 w. const., 500 w. int., Wt. 3 lbs.
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Built-in visible AC voltmeter. Cap. 300 w. const., 500 w. int. Wt. 3 lbs.
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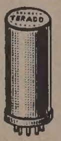
SERIES 6000 MICRO-RELAYS

60 MILLIWATT OPERATING POWER



Hermetically sealed, single pole double throw (Form C) silver contacts, rated at 1 amp at 24 v. non-inductive load. Operating temperature range —55°C to +85° C. Insulation: 500 v. at any terminal to ground. Excellent vibration characteristics due to short armature. Base fits 7-pin miniature tube socket. **Size:** ¾″ x 1-11/16″ long.

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Terado No.	Coil Resistance	Operating Volts DC	Net Each*
B1330	24 ohms	1.5	$8.42
B1331	300 ohms	6	8.55
B1332	2,000 ohms	12	8.94
B1333	5,000 ohms	24	9.71
B1249†	8,000 ohms	20	10.55
B1334	8,000 ohms	24-28	10.55
B1335	10,000 ohms	32	10.91

*Write for quantity prices. †Used in most TV cameras. Special relays available. Write for quotations.

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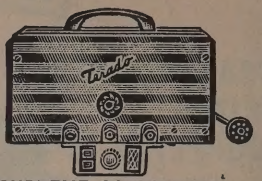
BATTERY CHARGERS



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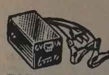

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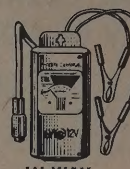

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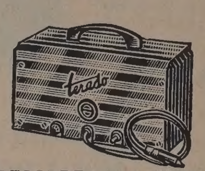

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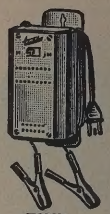

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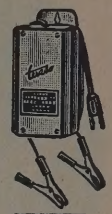

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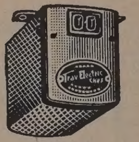

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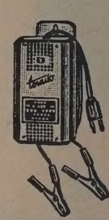

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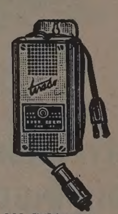

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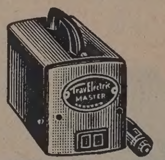

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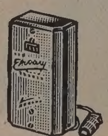

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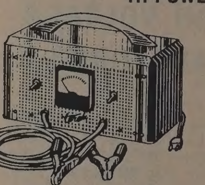

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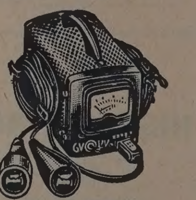

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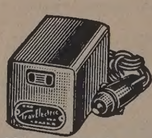

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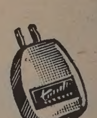

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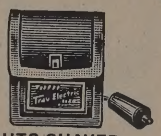

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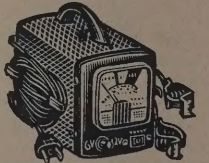

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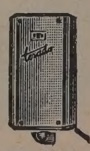

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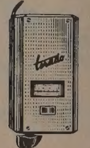

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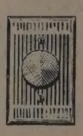

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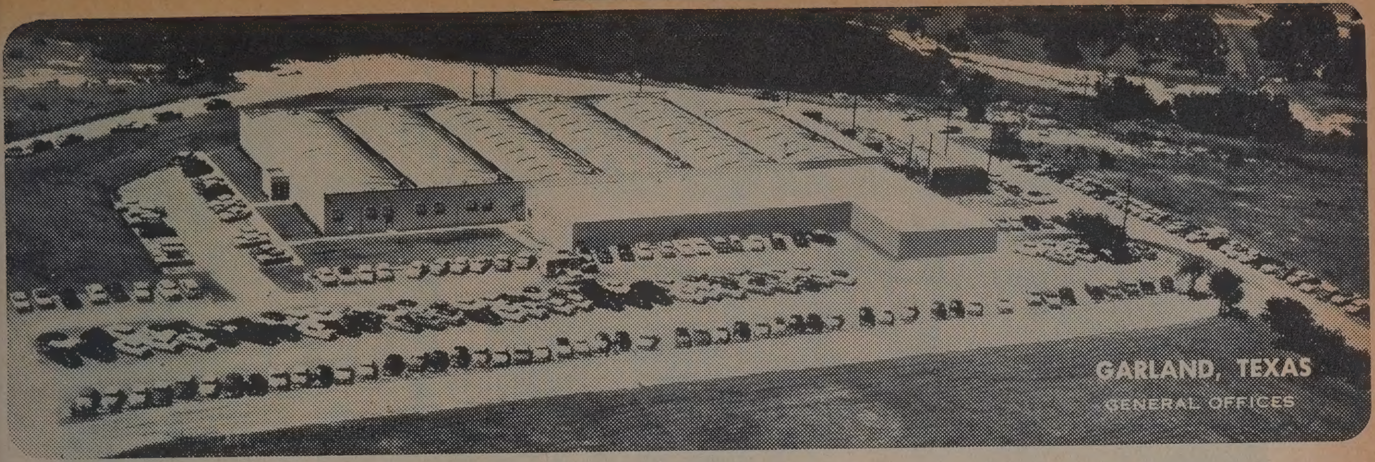

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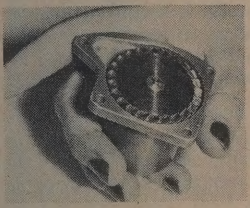

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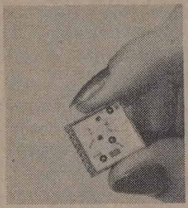

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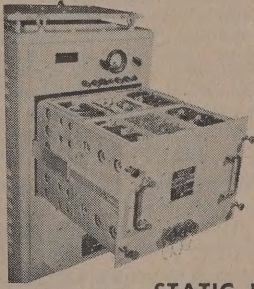

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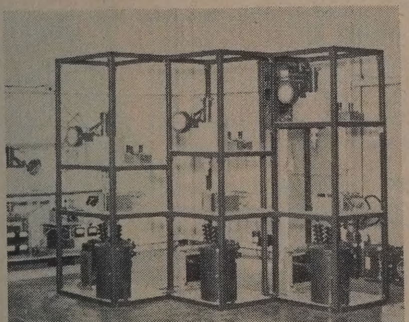

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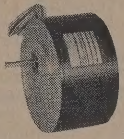

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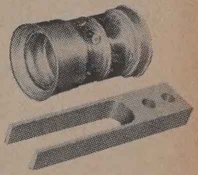

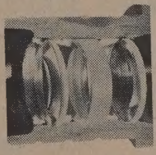

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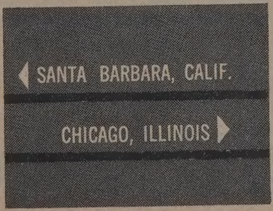

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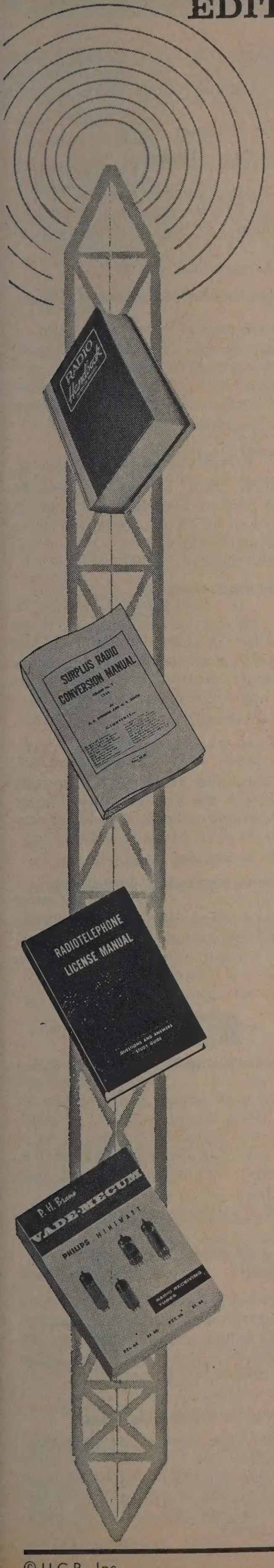
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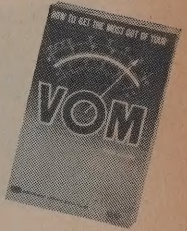

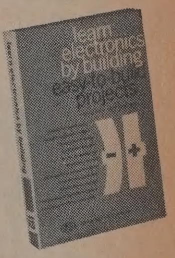

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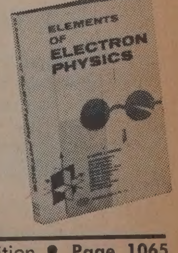

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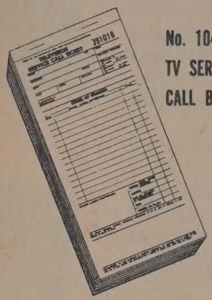

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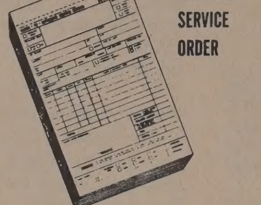

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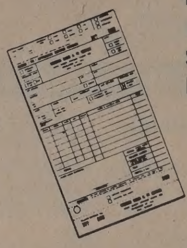

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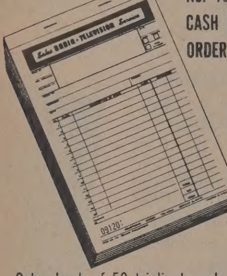

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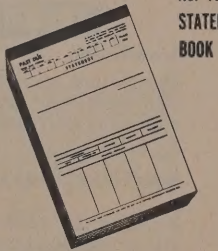

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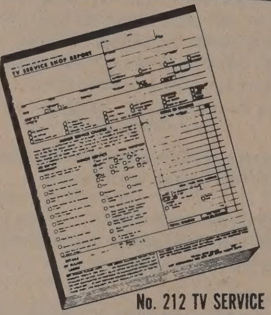

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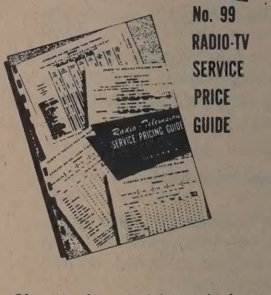

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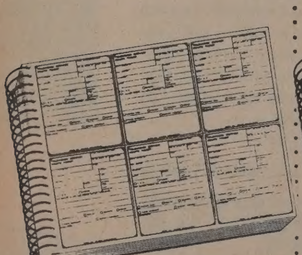

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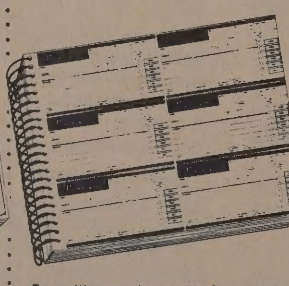

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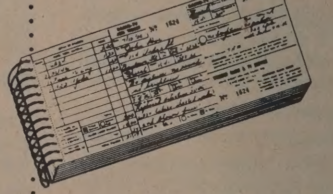

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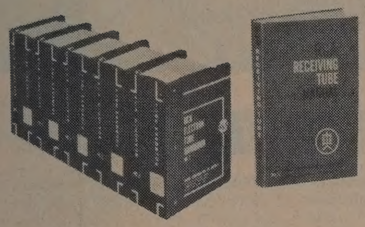

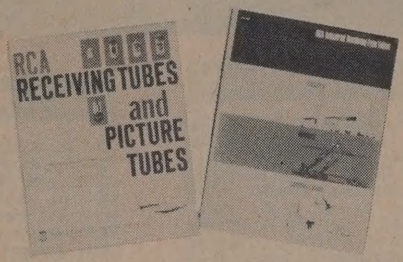

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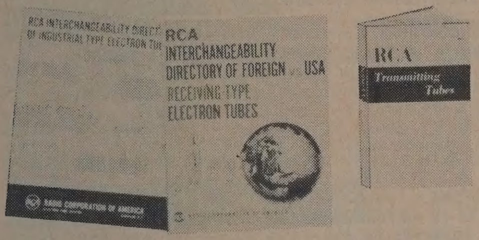

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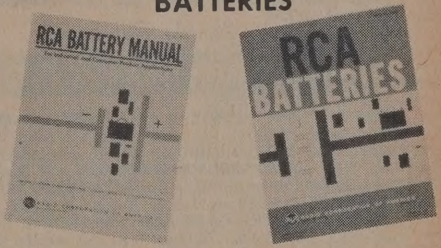

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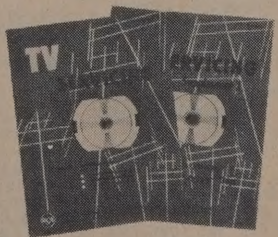

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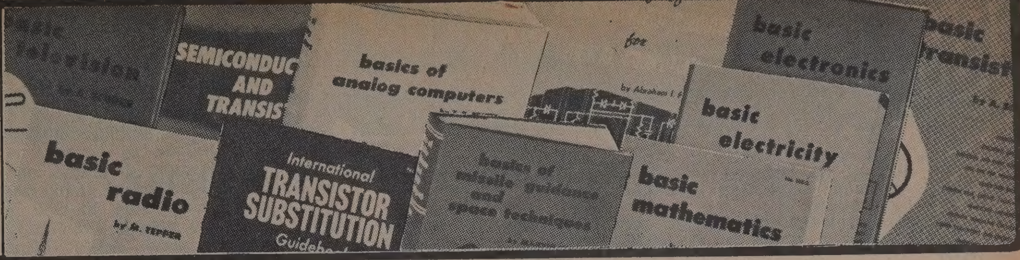

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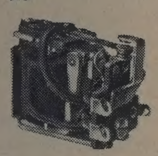
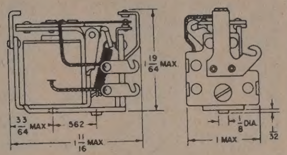
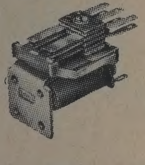
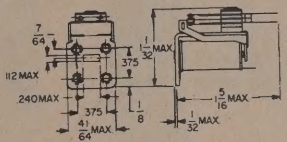
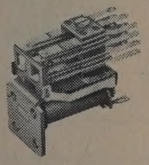
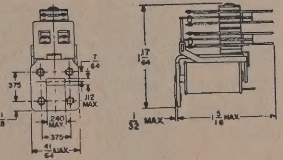
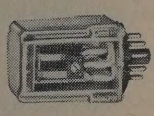
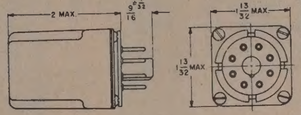
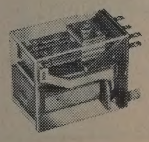
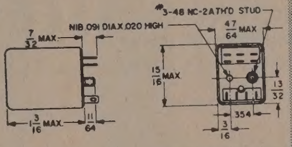
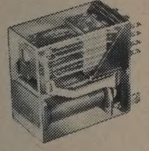
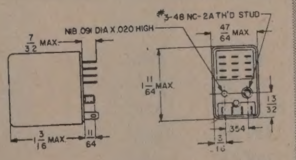
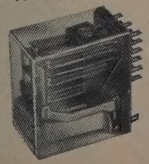
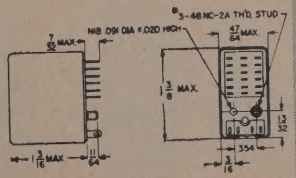
ALLIED CONTROL

ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

GENERAL PURPOSE RELAYS

	RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
AS 	AS-3A	115v a-c	SPDT	5	3.5 va	850	$3.75	 1 19/64 MAX 33/64 MAX 562 1 11/16 MAX 1/8 DIA 1 MAX 1/32	Compact design, single hole mounting, terminal board on the front and contacts on top for easy inspection. **Terminals:** .078 x .107 hook **Weight:** 2.0 ounces max. **Mounting:** (1) 6-32 NC-2B tapped hole 7-32 deep
	AS-3D	26.5v d-c	SPDT	5	1.3 w	528	3.40		
TAT-2C 	TAT-2C	6v d-c	DPDT	2	700 mw	52	$2.85	 7/64 112 MAX 375 240MAX 375 41/64 MAX 1/8 1 1/32 MAX 1 5/16 MAX 1/32 MAX	Subminiature with the performance of a miniature plus extra long life **Terminals:** Elongated holes .080 x .040 **Weight:** 0.70 ounces max. **Mounting:** (4) 4-48 NF-2B tapped holes
	TAT-2C	12v d-c	DPDT	2	700 mw	185	2.85		
	TAT-2C	24v d-c	DPDT	2	700 mw	700	2.85		
	TAT-2C	48v d-c	DPDT	2	700 mw	2500	2.85		
	TAT-2C	115v d-c	DPDT	2	700 mw	15000	4.20		
TAT-4C 	TAT-4C	6v d-c	4PDT	2	700 mw	52	$3.21	 7/64 375 112 MAX 1/8 240 MAX 375 41/64 MAX 1 17/64 1/32 MAX 1 5/16 MAX	Subminiature with the performance of a miniature plus extra long life **Terminals:** Elongated holes .080 x .040 **Weight:** 0.75 ounces max. **Mounting:** (4) 4-48 NF-2B tapped holes
	TAT-4C	12v d-c	4PDT	2	700 mw	185	3.21		
	TAT-4C	24v d-c	4PDT	2	700 mw	700	3.21		
	TAT-4C	48v d-c	4PDT	2	700 mw	2500	3.21		
	TAT-4C	115v d-c	4PDT	2	700 mw	15000	4.56		
TFMDO 	TFMDO-2C	6v d-c	DPDT	5	700 mw	52	$5.58	 2 MAX. 9/16 ± 1/32 1 13/32 MAX. 1 13/32 MAX	Enclosed in a transparent polycarbonate cover and rigidly secured to base. **Enclosure:** Dust cover **Weight:** 2.5 ounces **Socket:** Any std. RETMA or EIA octal
	TFMDO-2C	12v d-c	DPDT	5	700 mw	185	5.58		
	TFMDO-2C	24v d-c	DPDT	5	700 mw	700	5.58		
	TFMDO-2C	115v d-c	DPDT	5	700 mw	15000	6.93		
TF154-2C 	TF154-2C	6v d-c	DPDT	5	700 mw	52	$3.27	 #3-48 NC-2A TH'D STUD NIB .091 DIA X .020 HIGH 7/32 MAX. 47/64 MAX 15/16 MAX. 13/32 354 1 3/16 MAX. 11/64 3/16	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
	TF154-2C	12v d-c	DPDT	5	700 mw	185	3.27		
	TF154-2C	24v d-c	DPDT	5	700 mw	700	3.27		
	TF154-2C	48v d-c	DPDT	5	700 mw	2500	3.27		
	TF154-2C	115v d-c	DPDT	5	700 mw	15000	4.62		
TF154-4C 	TF154-4C	6v d-c	4PDT	5	700 mw	52	$3.75	 #3-48 NC-2A TH'D STUD NIB .091 DIA X .020 HIGH 7/32 MAX. 47/64 MAX 1 11/64 MAX 13/32 354 1 3/16 MAX 11/64 3/16	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
	TF154-4C	12v d-c	4PDT	5	700 mw	185	3.75		
	TF154-4C	24v d-c	4PDT	5	700 mw	700	3.75		
	TF154-4C	48v d-c	4PDT	5	700 mw	2500	3.75		
	TF154-4C	115v d-c	4PDT	5	700 mw	15000	5.10		
TF154-6C 	TF154-6C	6v d-c	6PDT	5	1.5 w	25	$4.79	 #3-48 NC-2A TH'D. STUD NIB .091 DIA x .020 HIGH 7/32 MAX. 47/64 MAX. 1 3/8 MAX. 13/32 354 1 3/16 MAX 11/64 3/16	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 1.0 ounces max. **Socket:** Allied type 30055-20
	TF154-6C	12v d-c	6PDT	5	1.5 w	90	4.79		
	TF154-6C	24v d-c	6PDT	5	1.5 w	430	4.79		
	TF154-6C	48v d-c	6PDT	5	1.5 w	1550	4.79		
	TF154-6C	115v d-c	6PDT	5	1.5 w	9000	5.64		

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ALLIED CONTROL

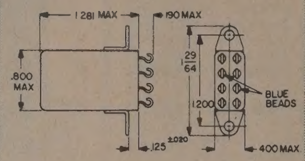
ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

SENSITIVE and PLATE CIRCUIT RELAYS

JSH

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE
JSH-3D	3.2 ma d-c	SPDT	2	25 mw	2500	$13.52
JSH-3D	2.2 ma d-c	SPDT	2	25 mw	5000	13.52
JSH-3D	1.6 ma d-c	SPDT	2	25 mw	10000	15.46
JSH-6D	4.0 ma d-c	DPDT	2	40 mw	2500	14.49
JSH-6D	2.8 ma d-c	DPDT	2	40 mw	5000	14.49
JSH-6D	2.0 ma d-c	DPDT	2	40 mw	10000	16.43

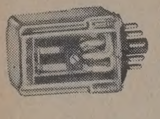
OUTLINE DRAWING


1.281 MAX
.190 MAX
.800 MAX
1 29/64
1.200
BLUE BEADS
.125 ±.020
.400 MAX

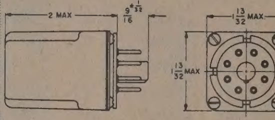
DESCRIPTION

Vibration: 15g to 2000 cps
Shock: 50g operational
Operate: 15 milliseconds
Release: 10 milliseconds
Temp: −65°C to +125°C
Weight: 1.1 ounces max.
Mounting :(2) 0.125 dia. holes

TFMDO

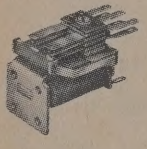


RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE
TFMDO-2C	9.5 ma d-c	DPDT	5	220 mw	2500	$5.87
TFMDO-2C	7.0 ma d-c	DPDT	5	250 mw	5000	6.33
TFMDO-2C	5.5 ma d-c	DPDT	5	300 mw	10000	7.22

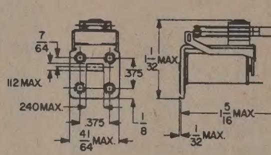

2 MAX
9/16 ±1/32
1 13/32 MAX
1 13/32 MAX

Inclosed in a transparent polycarbonate cover and rigidly secured to base.
Enclosure: Dust cover
Weight: 2.5 ounces max.
Socket: Any std. RETMA or EIA octal

TFT



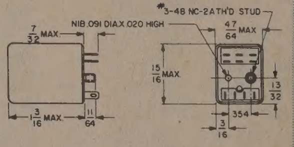
RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE
TFT-2C	9.5 ma d-c	DPDT	5	220 mw	2500	$3.26
TFT-2C	7.0 ma d-c	DPDT	5	250 mw	5000	3.72
TFT-2C	5.5 ma d-c	DPDT	5	300 mw	10000	4.61


7/64
112 MAX
.375
240 MAX.
.375
41/64 MAX.
1/8
1 1/32 MAX
1 5/16 MAX
1/32 MAX.

Subminiature with small size moving parts resulting in quick release and exceptional contact rating.
Terminals: Elongated holes .080 x .040
Weight: 0.70 ounces max.
Mounting: (4) 4-48NF 2B tapped holes

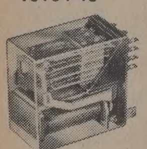
TS154-2C

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE
TS154-2C	5.8 ma d-c	DPDT	1	85 mw	2500	$3.44
TS154-2C	4.1 ma d-c	DPDT	1	85 mw	5000	3.90
TS154-2C	3.1 ma d-c	DPDT	1	85 mw	10000	4.79

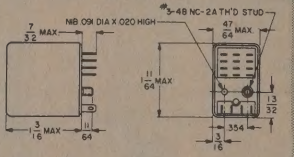

#3-48 NC-2A TH'D STUD
NIB .091 DIA X .020 HIGH
7/32 MAX.
47/64 MAX
15/16 MAX.
13/32
1 3/16 MAX.
11/64
354
3/16

Features no internal wiring. Contact arms extend to form combination solder and plug in terminals.
Terminals: Elongated holes .080 x .040
Enclosure: Dust cover
Weight: 0.80 ounces max.
Socket: Allied type 30055-1

TS154-4C



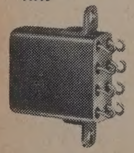
RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE
TS154-4C	8.4 ma d-c	4PDT	1	175 mw	2500	$3.83
TS154-4C	6.2 ma d-c	4PDT	1	175 mw	5000	4.29
TS154-4C	4.5 ma d-c	4PDT	1	175 mw	10000	5.18


#3-48 NC-2A TH'D STUD
NIB .091 DIA X .020 HIGH
7/32 MAX.
47/64 MAX.
1 11/64 MAX.
13/32
1 3/16 MAX.
11/64
354
3/16

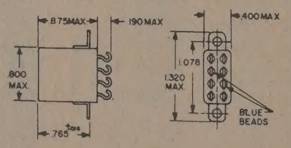
Features no internal wiring. Contact arms extend to form combination solder and plug in terminals.
Terminals: Elongated holes .080 x .040
Enclosure: Dust cover
Weight: 0.95 ounces max.
Socket: Allied type 30055-2

SUBMINIATURE TYPE RELAYS

KHJ

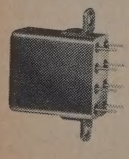


RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE
KHJ-6D	6v d-c	DPDT	2	1.5 w	39	$12.64
KHJ-6D	12v d-c	DPDT	2	1.5 w	147	12.64
KHJ-6D	26.5v d-c	DPDT	2	1.5 w	612	12.64
KHJ-6D	48v d-c	DPDT	2	1.5 w	2370	14.44
KHJ-6D	115v d-c	DPDT	2	1.5 w	10000	18.14

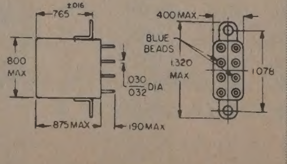

.875 MAX
.190 MAX
.400 MAX
.800 MAX.
1.078
1.320 MAX.
BLUE BEADS
.765 ±.016

Vibration: 20g to 2000 cps
Shock: 100g operational
Operate: 5 milliseconds
Release: 3 milliseconds
Temp: −65°C to +125°C
Weight: 0.5 ounces max.
Mounting :(2) 0.120 dia. holes

KHJO



RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE
KHJO-6D	26.5v d-c	DPDT	2	1.5 w	612	$12.64


.765 ±.016
.400 MAX
BLUE BEADS
.800 MAX
.030/.032 DIA
1.320 MAX
1.078
.875 MAX
.190 MAX

Vibration: 20g to 2000 cps
Shock: 100g operational
Operate: 5 milliseconds
Release: 3 milliseconds
Temp: −65°C to +125°C
Weight: 0.5 ounces max.
Mounting :(2) 0.120 dia. holes
Socket: Armel type HRC-1 or equiv.

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ALLIED CONTROL

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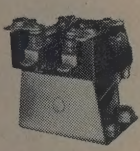
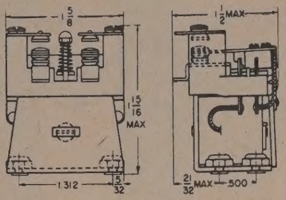
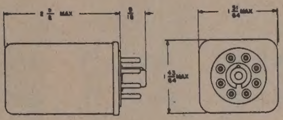
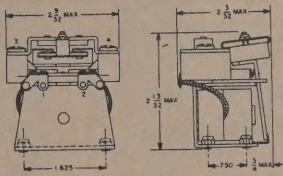
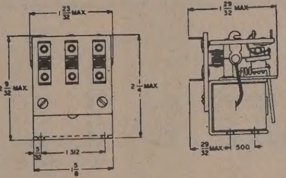
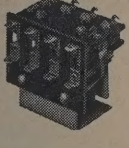
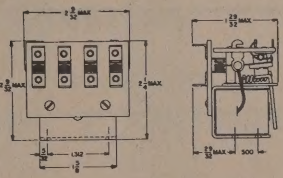
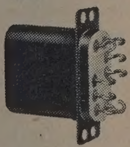
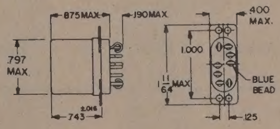
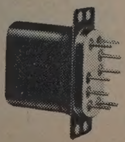
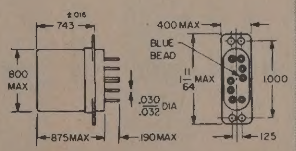
POWER RELAYS

	RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
BO 	BO-6A	6v a-c	DPDT	15	5.0 va	1.07	$4.93		Compact, rugged design with contacts and terminals, readily accessible on top of relay **Terminals:** .096 diameter holes, tin dipped **Weight:** 5.5 ounces max. **Mounting:** (4) 6-32 elastic stop nuts
	BO-6A	24v a-c	DPDT	15	5.0 va	17	4.93		
	BO-6A	115v a-c	DPDT	15	5.0 va	445	5.08		
	BO-6A	220v a-c	DPDT	15	5.0 va	1700	5.19		
	BO-6D	6.3v d-c	DPDT	15	2.5 w	14.2	4.60		
	BO-6D	13.2v d-c	DPDT	15	2.5 w	70	4.60		
	BO-6D	26.5v d-c	DPDT	15	2.5 w	230	4.66		
	BO-6D	115v d-c	DPDT	15	2.5 w	5000	5.17		
BOHRO	BOHRO-6A	115v a-c	DPDT	15	5.0 va	445	$10.46		**Vibration:** 10-55 cps at .062" double amplitude **Shock:** 30g operational **Temp:** −55°C to +71.5°C **Weight:** 9.5 ounces max. **Socket:** Any std. RETMA or EIA octal
	BOHRO-6D	26.5v d-c	DPDT	15	2.5 w	230	10.04		
CNA	CNA-13A	115v a-c	SPST NO DB	25	10.5 va	145	$7.00		Heavy duty, compact relay with double break contact construction eliminating pigtails **Terminals:** Coil (1 & 2) 3-32 dia. holes Contacts (3 & 4) 10-32 screw type **Weight:** 9.5 ounces max. **Mounting:** (4) 6-32 elastic stop nuts
	CNAS-13A	115v a-c	SPST NO DB	50	10.5 va	145	8.15		
PO-9	PO-9A	24v a-c	3PDT	15	10.5 va	8.0	$5.54		Low cost, compact, multi pole **Terminals:** .079 x .164 hook, tin dipped **Weight:** 7.5 ounces max. **Mounting** : (4) 6-32 tapped holes
	PO-9A	115v a-c	3PDT	15	10.5 va	145.0	5.54		
	PO-9D	13.2v d-c	3PDT	15	2.5 w	70	5.18		
	PO-9D	24.0v d-c	3PDT	15	2.5 w	230	5.18		
	PO-9D	115.0v d-c	3PDT	15	2.5 w	5000	5.80		
PO-12 	PO-12A	115v a-c	4PDT	15	10.5 va	145	$6.16		Low cost, compact, multi pole **Terminals:** .079 x .164 hook, tin dipped **Weight:** 8.0 ounces max. **Mounting** : (4) 6-32 tapped holes
	PO-12D	13.2v d-c	4PDT	15	2.5 w	70	5.80		
	PO-12D	24.0v d-c	4PDT	15	2.5 w	230	5.80		

SUBMINIATURE TYPE RELAYS

	RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
KHY 	KHY-6D	6v d-c	DPDT	2	1.5 w	34	$12.64		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** −65°C to +125°C **Weight:** 0.5 ounces max. **Mounting** :(4) 0.096 dia. holes
	KHY-6D	12v d-c	DPDT	2	1.5 w	155	12.64		
	KHY-6D	26.5v d-c	DPDT	2	1.5 w	615	12.64		
	KHY-6D	48v d-c	DPDT	2	1.5 w	1920	14.44		
	KHY-6D	115v d-c	DPDT	2	1.5 w	8120	17.24		
KHYO 	KHYO-6D	26.5v d-c	DPDT	2	1.5 w	615	$12.64		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** −65°C to +125°C **Weight:** 0.5 ounces max. **Mounting** :(4) 0.096 dia. holes **Socket:** Armel type HRK-1 or equiv.

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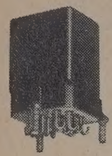
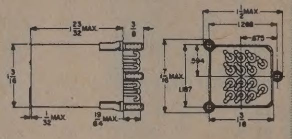
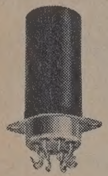
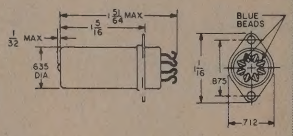
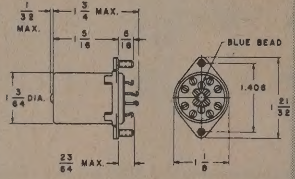
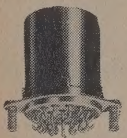
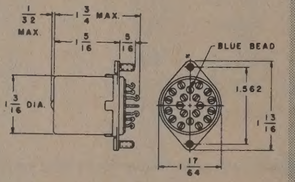
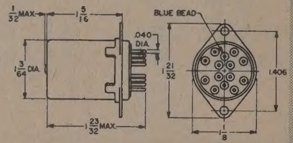
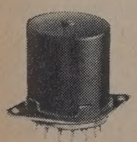
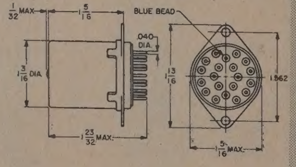
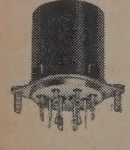
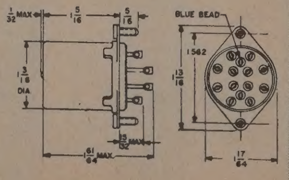
MINIATURE TYPE RELAYS

	RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
CH 	CH-12D	26.5v d-c	4PDT	10	4.0 w	180	$30.00		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 15 milliseconds **Release:** 10 milliseconds **Temp:** −65°C to +125°C **Weight:** 5.0 ounces max. **Mounting** : (3) 6-32 NC-2A thd. studs
MH-6 	MH-6D MHB-6D	26.5v d-c 26.5v d-c	DPDT DPDT	5 5	1.75 w 1.25 w	400 325	$14.25 14.25		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 8 milliseconds **Release:** 5 milliseconds **Temp. MH:** −55°C to +85°C **MHB:** −65°C to +125°C **Weight:** 2.0 ounces max. **Mounting** : (2) 0.125 dia. holes
MH-12 	MH-12D MHB-12D	26.5v d-c 26.5v d-c	4PDT 4PDT	5 5	2.5 w 3.0 w	300 250	$20.90 20.90		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp. MH:** −55°C to +85°C **MHB:** −65°C to +125°C **Weight:** 3.0 ounces max. **Mounting** : (2) 6-32 NC-2A thd. studs
MH-18 	MH-18D MHB-18D	26.5v d-c 26.5v d-c	6PDT 6PDT	5 5	3.0 w 3.5 w	240 200	$23.75 23.75		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp. MH:** −55°C to +85°C **MHB:** −65°C to +125°C **Weight:** 4.2 ounces max. **Mounting** : (2) 6-32 NC-2A thd. studs
MHUO-12 	MHUO-12D	26.5v d-c	4PDT	5	2.5 w	300	$20.90		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** −55°C to +85°C **Weight:** 3.0 ounces max. **Mounting** : (2)0.156 dia. holes **Socket:** Allied type 16188-1
MHUO-18 	MHUO-18D	26.5v d-c	6PDT	5	3.0 w	240	$23.75		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** −55°C to +85°C **Weight:** 4.2 ounces max. **Mounting** : (2) 0.152 dia. holes **Socket:** Allied type 16189-1
MHY 	MHY-12D	26.5v d-c	4PDT	10	3.5 w	200	$25.41		**Vibration:** 20g to 500 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** −65°C to +125°C **Weight:** 4.2 ounces max. **Mounting** : (2) #6-32 NC-2A thd. studs

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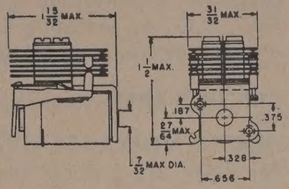
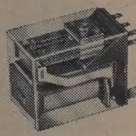
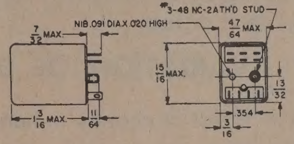
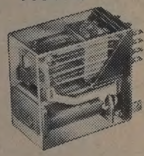
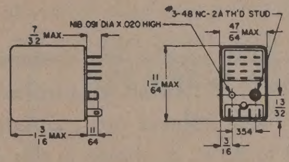
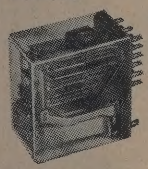
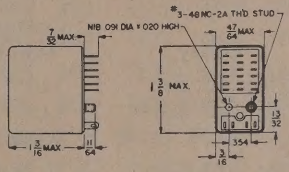
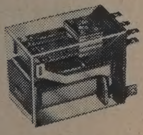
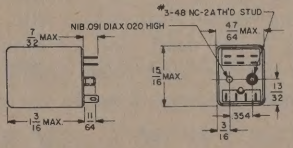
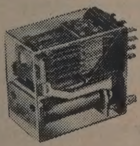
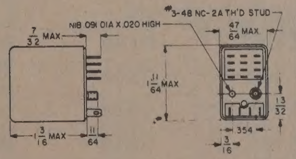
TELEPHONE TYPE RELAYS

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS		COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
		FORMS	AMPS					
SK 							 1 15/32 MAX. 31/32 MAX. 1 1/2 MAX. .187 27/64 MAX .375 7/32 MAX DIA. .328 .656	Miniature size for front of panel wiring with an efficient metal to metal hinge. **Terminals:** elongated holes .062 x .125 **Weight:** 2.5 ounces max. **Mounting:** (2) 4-40 NC-2B thd.
SK-4C	24v d-c	4PDT	2	1.5 w	425	$3.94		
T154-2C 							 #3-48 NC-2A TH'D STUD NIB .091 DIA X .020 HIGH 7/32 MAX. 47/64 MAX 15/16 MAX. 13/32 1 3/16 MAX. 11/64 .354 3/16	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
T154-2C	6v d-c	DPDT	2	700 mw	52	$3.15		
T154-2C	12v d-c	DPDT	2	700 mw	185	3.15		
T154-2C	24v d-c	DPDT	2	700 mw	700	3.15		
T154-2C	48v d-c	DPDT	2	700 mw	2500	3.15		
T154-2C	115v d-c	DPDT	2	700 mw	15000	4.50		
T154-4C 							 #3-48 NC-2A TH'D STUD NIB .091 DIA X .020 HIGH 7/32 MAX. 47/64 MAX 1 11/64 MAX 13/32 1 3/16 MAX 11/64 .354 3/16	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
T154-4C	6v d-c	4PDT	2	700 mw	52	$3.51		
T154-4C	12v d-c	4PDT	2	700 mw	185	3.51		
T154-4C	24v d-c	4PDT	2	700 mw	700	3.51		
T154-4C	48v d-c	4PDT	2	700 mw	2500	3.51		
T154-4C	115v d-c	4PDT	2	700 mw	15000	4.86		
T154-6C 							 #3-48 NC-2A TH'D STUD NIB .091 DIA x .020 HIGH 7/32 MAX 47/64 MAX 1 3/8 MAX. 13/32 1 3/16 MAX 11/64 .354 3/16	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 1.0 ounces max. **Socket:** Allied type 30055-20
T154-6C	6v d-c	6PDT	2	1.5 w	25	$4.43		
T154-6C	12v d-c	6PDT	2	1.5 w	90	4.43		
T154-6C	24v d-c	6PDT	2	1.5 w	430	4.43		
T154-6C	48v d-c	6PDT	2	1.5 w	1550	4.43		
T154-6C	115v d-c	6PDT	2	1.5 w	9000	5.28		

BIFURCATED CONTACTS

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS		COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
		FORMS	AMPS					
T-163-2C 							 #3-48 NC-2A TH'D STUD NIB .091 DIA X .020 HIGH 7/32 MAX 47/64 MAX 15/16 MAX. 13/32 1 3/16 MAX 11/64 .354 3/16	Same as T-154-2C except for bifurcated contacts and gold plated terminals and contacts for longer shelf life
T-163-2C	6v d-c	DPDT	2	700 mw	52	$3.52		
T-163-2C	12v d-c	DPDT	2	700 mw	185	3.52		
T-163-2C	24v d-c	DPDT	2	700 mw	700	3.52		
T-163-2C	48v d-c	DPDT	2	700 mw	2500	3.52		
T-163-2C	115v d-c	DPDT	2	700 mw	15000	4.87		
T-163-4C 							 #3-48 NC-2A TH'D STUD NIB .091 DIA X .020 HIGH 7/32 MAX 47/64 MAX 1 11/64 MAX 13/32 1 3/16 MAX 11/64 .354 3/16	Same as T-154-4C except for bifurcated contacts and gold plated terminals and contacts for longer shelf life
T-163-4C	6v d-c	4PDT	2	700 mw	52	$3.92		
T-163-4C	12v d-c	4PDT	2	700 mw	185	3.92		
T-163-4C	24v d-c	4PDT	2	700 mw	700	3.92		
T-163-4C	48v d-c	4PDT	2	700 mw	2500	3.92		
T-163-4C	115v d-c	4PDT	2	700 mw	15000	5.27		

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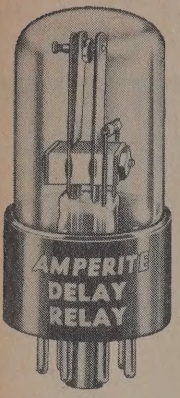
THERMOSTATIC **AMPERITE** DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT



STANDARD

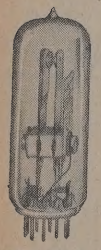
AMPERITE THERMOSTATIC DELAY RELAYS

Amperite Thermostatic Delay Relays are actuated by a heater . . . can therefore be used on A.C., D.C., or pulsating current. Being hermetically sealed, Amperite Relays are not affected by altitude, moisture, or other atmospheric conditions. **REPLACED AS EASILY AS A RADIO TUBE.**

CIRCUITS SPST: Available only — normally open or normally closed.

HEATER VOLTAGES AVAILABLE: 2.5, 5.0, 6.3, 12.6, 26, 50, 115V. For 220V use a 6500 ohm-5 watt resistor in series with 115V heater.

HEATER WATTAGE: Standard and Miniature Relays—all voltages—2w prox. All heaters may be operated continuously. Heaters will not be damaged by a 50% voltage overload for duration of 1 hour or less.



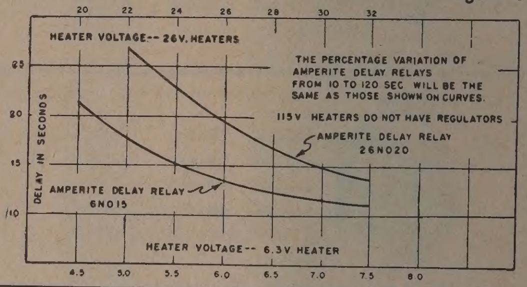
MINIATURE

VARIATION OF DELAY WITH HEATER VOLTAGE

FIGURE 1 — Effect of change in heater voltage on delay in seconds. Only low voltage heaters (2.5 to 26 V.) incorporate heater voltage regulations as shown in this diagram.

For 22 to 30 V. supply: We recommend Amperite Delay Relays with 26 V. heaters for airplanes and similar power supplies. These heaters are regulated for battery variation of 22 to 30 V. as shown in this diagram.

Figure 1



CONTACT RATING

	Delay	Contact Rating Non-Inductive	DC Voltage Breakdown Contact-to-Contact	DC Voltage Breakdown Heater-to-Contact
STANDARD	2 to 10 Sec.	115V — 3a AC	250V	500V
RELAYS	15 to 180 Sec.	115V — 3a AC	800V	800V
		220V — 1a AC	800V	800V
MINIATURE	2 to 10 Sec.	115V — 2a AC	250V	500V
RELAYS	15 to 180 Sec.	115V — 2a AC	800V	800V
		220V — 1a AC	800V	800V
FLASHERS		—½a AC	250V	500V

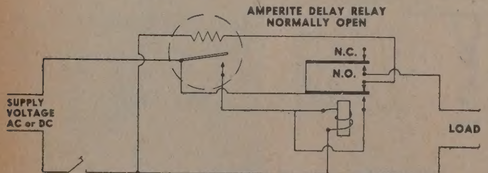
AMBIENT TEMPERATURES: Relays are compensated for temperatures of — 55° to + 80°C. (Relays can be operated from — 80°C to + 125°C without damage). Ambient temperature tolerances depend on type. Low voltage heaters 26V or less have better ambient compensation than relays with 115V heaters. If the relays are actually to be used over ambients of — 55°C to + 80°C it is advisable to have each relay tested at the factory over the ambient. A nominal charge is made for this service.

DELAYS AVAILABLE: From 2 to 180 seconds. Relays can be used in series to obtain longer delays. The delay of any individual relay can be increased up to 50% by using a resistor in series with the heater. Relays with short delays such as 2 to 5 seconds can be increased 100%.

CONTACT DROP: —0.1V — Prox. at 1A.

LIFE of any individual relay will depend on the service the contacts are subjected to. With a 115 V. — 2A A.C. non inductive load the contacts will withstand at least 250,000 operations. SHELF LIFE of Amperite Delay Relays is over 10 years.

INDUCTIVE A.C. LOADS: When breaking an inductive A.C. load, use a condenser of .01 to .1 mfd. across contacts.



INSTANTANEOUS RECYCLE: This can be obtained by using a normally open Amperite Delay Relay in conjunction with a DPDT Magnetic Relay as shown at left. If normally closed is required — use a **normally open** Amperite Delay Relay — and use the NC contacts on the magnetic relay. Choose the Amperite Delay Relay for the voltage required and the delay required (e.g. — 115N030 — would be used on 115 volt supply — for a 30 second delay).

LONG RECYCLE RELAYS: are also available. For example, Amperite Delay Relay 115N07T has a delay in closing of 3 to 8 seconds. After heater is disconnected, contacts will remain closed for 30 seconds minimum. Write us about your requirements.

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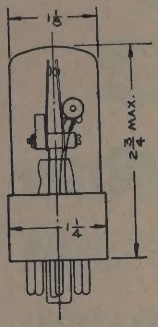
THERMOSTATIC AMPERITE DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT

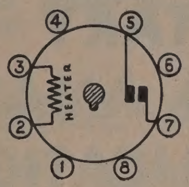
BREAKING D.C. CURRENT: When Relay contacts open D.C. Current above 50 volts, a condenser with a resistor in series with the condenser must be connected across the contacts. The following condenser values are approximate.

	50 V. D.C.	115 V. D.C.	230 V. D.C.
0 to .5 Amp.	None	.1 MF	.25 MF
.5 to 1.5 Amps.	″	.25 ″	.25 ″
1.5 to 3 Amps.	.25 MF	1 ″	.5 ″

SPECIFICATIONS:



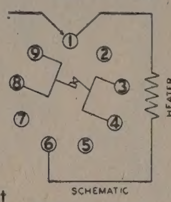
Standard Octal Base



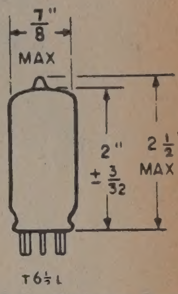
Bottom View
Schematic Diagram

Base Wiring:
Standard Radio Octal:
Prongs 2-3-heater;
Prongs 5-7-contacts.

Base Wiring:
9-Pin Miniature:
Prongs 1-6 heater;
Prongs 3-4, 1 contact;
Prongs 8-9, 2nd contact



Bottom View
Schematic Diagram



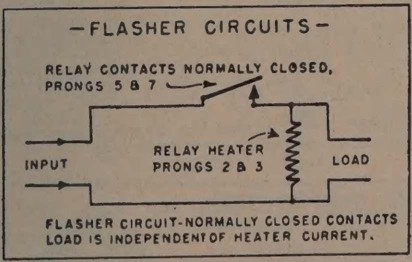
9-Pin Miniature Base

STANDARD AND MINIATURE TYPES OF AMPERITE DELAY RELAYS AND FLASHERS . . . Net $2.40 each

6.3V HEATER RELAYS — Available in both **STANDARD** and **MINIATURE** types for **2 to 180** Seconds Delay. All other **MINIATURE** type relays designated by letter T (e.g. 6N05T) are available in **2-120** seconds delay only. All **STANDARD** octal base types are available in **2-180** seconds delay.

Types shown in Bold type in the chart below are more popular relays, and are more readily available.

Delay-Seconds	Tolerance Seconds at 20°C	NORMALLY OPEN CONTACTS							NORMALLY CLOSED CONTACTS						
		HEATER VOLTAGES							HEATER VOLTAGES						
		2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.	2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.
2	± 1½	2N02	5N02	6N02	12N02	26N02	50N02	115N02	2C2	5C2	6C2	12C2	26C2	50C2	115C2
3	± 1½	2N03	5N03	**6N03**	12N03	**26N03**	50N03	**115N03**	2C3	5C3	**6C3**	12C3	**26C3**	50C3	**115C3**
5	± 2½	2N05	5N05	**6N05**	12N05	**26N05**	50N05	**115N05**	2C5	5C5	**6C5**	12C5	**26C5**	50C5	**115C5**
8	± 3	2N08	5N08	**6N08**	12N08	**26N08**	50N08	**115N08**	2C8	5C8	**6C8**	12C8	**26C8**	50C8	**115C8**
10	± 4	2N010	5N010	**6N010**	12N010	**26N010**	50N010	**115N010**	2C10	5C10	**6C10**	12C10	**26C10**	50C10	**115C10**
15	± 4	2N015	5N015	**6N015**	12N015	**26N015**	50N015	**115N015**	2C15	5C15	**6C15**	12C15	**26C15**	50C15	**115C15**
20	± 5	2N020	5N020	**6N020**	12N020	**26N020**	50N020	**115N020**	2C20	5C20	**6C20**	12C20	**26C20**	50C20	**115C20**
30	±10	**2N030**	**5N030**	**6N030**	**12N030**	**26N030**	50N030	**115N030**	2C30	5C30	**6C30**	12C30	**26C30**	50C30	**115C30**
45	±10	2N045	5N045	**6N045**	12N045	**26N045**	50N045	**115N045**	2C45	5C45	**6C45**	12C45	**26C45**	50C45	**115C45**
60	±15	**2N060**	5N060	**6N060**	12N060	**26N060**	50N060	**115N060**	2C60	5C60	**6C60**	12C60	**26C60**	50C60	**115C60**
75	±15	2N075	5N075	**6N075**	12N075	**26N075**	50N075	**115N075**	2C75	5C75	**6C75**	12C75	**26C75**	50C75	**115C75**
90	±20	2N090	5N090	**6N090**	12N090	**26N090**	50N090	**115N090**	2C90	5C90	**6C90**	12C90	**26C90**	50C90	**115C90**
120	±35	2N0120	5N0120	**6N0120**	12N0120	**26N0120**	50N0120	**115N0120**	2C120	5C120	**6C120**	12C120	**26C120**	50C120	**115C120**
150	±35	2N0150	5N0150	**6N0150**	12N0150	**26N0150**	50N0150	**115N0150**	2C150	5C150	**6C150**	12C150	**26C150**	50C150	**115C150**
180	±45	2N0180	5N0180	**6N0180**	12N0180	**26N0180**	50N0180	**115N0180**	2C180	5C180	**6C180**	12C180	**26C180**	50C180	**115C180**


—FLASHER CIRCUITS—
RELAY CONTACTS NORMALLY CLOSED, PRONGS 5 & 7
INPUT
RELAY HEATER PRONGS 2 & 3
LOAD
FLASHER CIRCUIT-NORMALLY CLOSED CONTACTS LOAD IS INDEPENDENT OF HEATER CURRENT.

Flashers operate approximately ⅓ on, ⅔ off. The percentage time on can be increased by reducing the voltage of the heater.

Normally closed flashers are standard, and are indicated by the letter "F." The number following letter "F" denotes flashes per minute. *For example a 6F30 flasher,* has 6.3V heater, normally closed 30 FPM with a ± 15 flashes per minute tolerance. A 6F30T, would be the same type but in 9-pin miniature. Flashers are available from *30 to 90 Flashes per minute* with tolerances as shown in the chart below:

FLASHERS have contact rating of ½a 115V AC, non-inductive.

Tol. FPM — 20°C	Standard Flashers Available		
10 ± 5	6F10	26F10	115F10
30 ± 15	6F30	26F30	115F30
45 ± 15	6F45	26F45	115F45
60 ± 20	6F60	26F60	115F60
75 ± 20	6F75	26F75	
90 ± 25	6F90	26F90	

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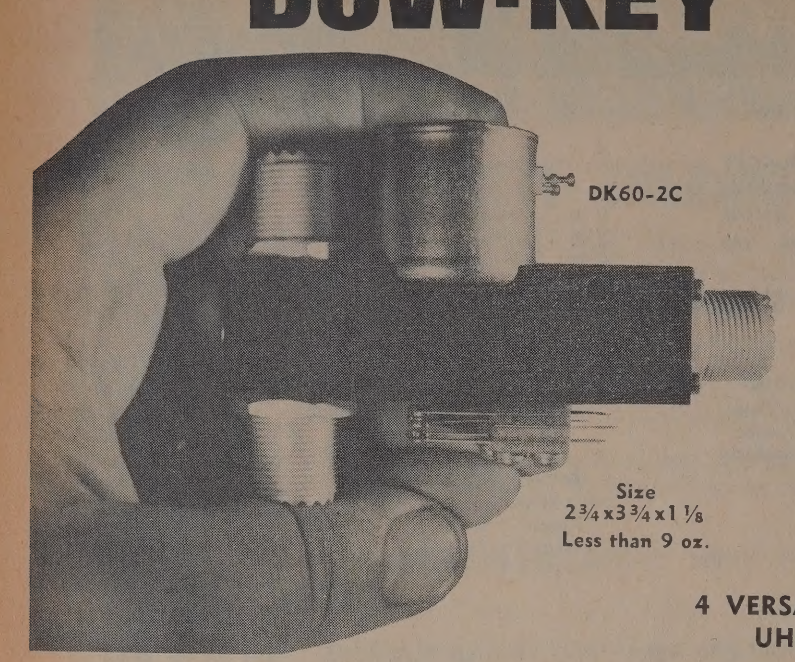
DOW-KEY

DK60 SERIES

INDUSTRIAL MILITARY AND AMATEUR APPLICATION



Size
2¾ x 3¾ x 1⅛
Less than 9 oz.

4 VERSATILE MODELS, AC or DC OPERATION
UHF, N, BNC, TNC or C CONNECTORS

UNCONDITIONAL GUARANTEE
(We will repair if faulty within 1 year)

STANDARD RELAYS, WITH TYPE UHF CONNECTORS, INCLUDE:

- **DK60** — SPDT r.f. switch **each $12.45**
- **DK60-G** — SPDT r.f. switch with special "isolated" connector in de energized position **each $13.70**
- **DK60-2C** — SPDT r.f. switch with DPDT auxiliary contacts **each $14.35**
- **DK60-G2C** — SPDT r.f. switch with DPDT auxiliary contacts and special "isolated" connector in de-energized position **each $15.65**

Weather proof model available for exterior installation.

r.f. SPECIFICATIONS:

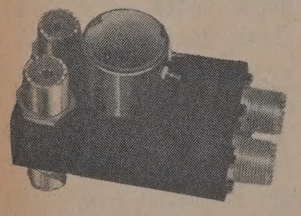
Low VSWR: Less than 1.15:1 from 0 to 500 mc — **Low Losses:** Pure silver contacts. All other parts used in crucial positions are plated with fine silver. (Gold plating available at extra cost, special order.) — **Low Cross-Talk:** (greater than 80 db) in DK60-G and DK60-G2C through the use of a patented "isolated connector" arrangement which opens the disconnected conductor and simultaneously provides an electrostatic shield between it and the rest of the circuit. — **High Power Rating:** (a) one kilowatt through straight connectors, (b) to 10 watts through "isolated connector" — excellent for video switching.

MECHANICAL SPECIFICATIONS:

High Contact Pressures: Long-Life Expectancy greater than one million operations. — **Continuous Duty:** Teflon feed-through terminals used on coil to provide connection ease. — **Small, Compact:** Only 2¾" x 3¾" x 1⅛". — **Light-weight:** Less than 9 ounces.

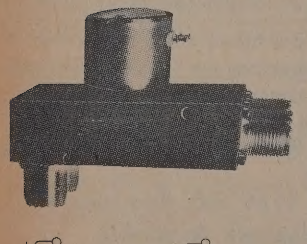
ELECTRICAL SPECIFICATIONS:

Wide variety of coil voltages: 6, 12, 24, 28, 32, 48, 110, 220 D.C. volts at 2.0 watts: 6, 12, 24, 110, 220 A.C. Volts at 6 volt-amps 50-60 cps. (special voltage or resistances available on request.) — **Less than 50 degrees C temperature rise above ambient:** Maximum ambient temperature is 75 degrees C. Auxiliary contacts available for power control — DPDT at 5a. 100 v a.c. on DK60-2C and DK60-G2C.



DK2-60 Double Pole Double Throw Switch

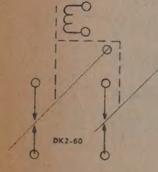
DK2-60 DPDT r.f. switch — for switching two coaxial lines simultaneously.

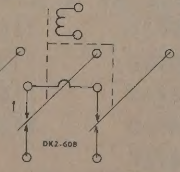


DK2-60B r. f. By Pass Switch

DK2-60B r.f. Bypass switch. Ideal for switching in and out a power amplifier between an exciter and an antenna.

Specifications: Similar to DK60 series except — size: 2¾" x 3¾" x 1¾". Weight — less than 12 ounces.





Standard Relays with UHF Connectors:

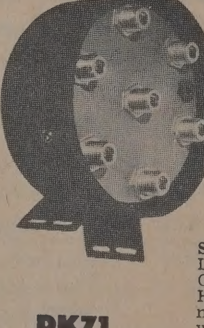
DK2-60	$19.00
DK2-60B	$19.00
DK2-60-2C with DPDT aux. contacts	$20.95
DK2-60B-2C with DPDT aux. contacts	$20.95

Also available with BNC, N, TNC, & C at slightly higher cost.

DK71

FOR REMOTE SELECTION OF r.f. SOURCES

SINGLE POLE, SIX THROW MULTI-POSITION SWITCH



DK71
with UHF Connector
$49.50

Specifications:
Low VSWR: Less than 1.1:1 at 100 mc — Cross-talk: greater than 45 db at 100 mc — High power rating: 1 kw — Coaxial connectors: UHF is standard, but available also with N, BNC, TNC and C at slightly higher cost — 50 ohm impedance — weatherproof — continuous duty, over 1,000,000 operations — size 5¾" x 2¾" — weight 3 pounds — available in all standard A.C. and D.C. operating voltages.

UHF CONNECTORS

PANEL MOUNT
Durable, silver plated, precision made. Only ⅝" hole is needed, no screws.
DK60-P . . .70

DOUBLE MALE
Favorite everywhere. Precision made, rugged locking type. Silver plated.
DKF-2 95

Manufactured by DOW-KEY COMPANY, Thief River Falls, Minnesota

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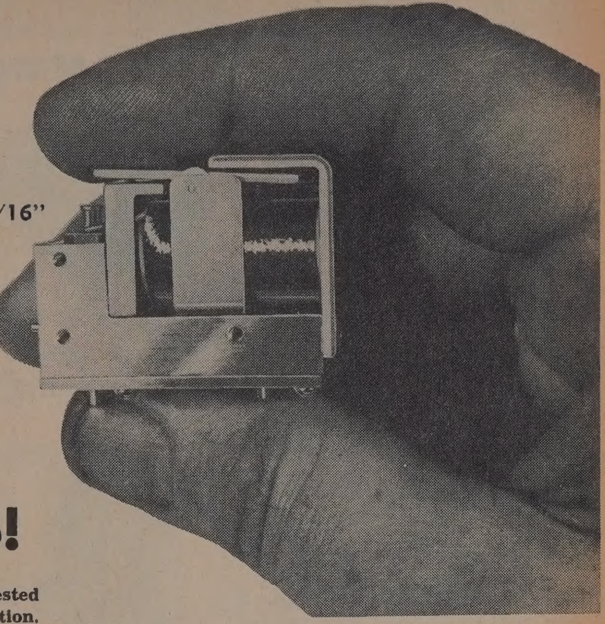
HIGH PERFORMANCE SPDT

DK61 SERIES



DK61
Actual Size
11/16" x 1-3/16" x 1-9/16"

INDUSTRIAL AND MILITARY APPLICATIONS!

A compact, superb new DOW-KEY relay specifically designed, thoroughly tested and proven, for the rugged requirements of industrial and military application.

R. F. SPECIFICATIONS:

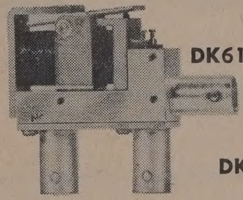
Low VSWR: Less than 1.10:1 from 0 to 400 mc. Less than 1.20:1 from 0 to 1000 mc. Contact material available for low and high power levels. — **Cross-Talk:** Greater than 40 db @ 400 mc. — **Power Rating:** 100 watts. — **Connectors Available:** Connectors shown are std., available in BNC, TNC, and other miniature connectors.

ELECTRICAL SPECIFICATIONS:

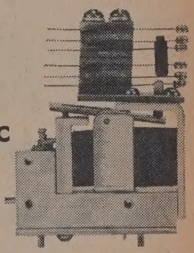
Coil Voltages: 6, 12, 24, 28, 48, 110 or 220 V DC at less than 3.0 watts — **Operating Time:** Less than 15 ms. **Auxiliary SPDT or DPDT** contacts available for power control rated at 3 a at 150 V DC.

ENVIRONMENTAL AND MECHANICAL SPECIFICATIONS:

Operating Temperature Range: -65 degrees C., to 125 degrees C. — **Duty Cycle:** Continuous. — **Life Expectancy:** Greater than 500,000. — **Vibration:** Withstands vibration tests in accordance with MIL-STD-202B, test condition B. — **Finish:** Silver Plated per Mil Spec QQ-S-365 and cadmium plated per QQ-P-416 to withstand salt spray and humidity tests. — **Weight:** less than 4 ounces.



DK61-BNC



DK61-2C

MODELS AVAILABLE

DK61: With Dow-Key solder type connectors
DK61-BNC: BNC Connectors
DK61-TNC: TNC Connectors
Available with SPDT (add 1c to model No.) and DPDT (add 2c to model No). auxiliary contacts.

DK67 SERIES

The Dow-Key DK67 series are adaptable, high performance coaxial relays. The relays can be obtained with non-shorting, shorting, or resistor terminated contacts and four different connector configurations.

Coil Ratings: Available in 6, 12, 24, 28, 32, 48, 110 and 220 A.C. and D.C. Power consumption D.C. — 2 watts; A.C. — 6VA.

R.F. Ratings: 100 watts power rating to 2000 mc.

VSWR: Less than 1.3:1 @ 2000 mc; Less than 1.1:1 @ 400 mc.

Isolation: Greater than 40 db @ 2000 mc and greater than 60 db @ 400 mc in DK67 with shorting contacts.

Contacts: 3/32 fine silver are standard; other types available per request.

Life Expectancy: Over 500,000 cycles at rated load when operated at a rate of less than 2 cycles per second.

Operating Time: Less than 15 milliseconds D.C. types. Less than 25 milliseconds A.C. types.

Operating Temperature Range: —65° C to +85° C.

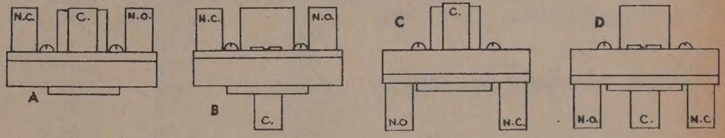
R.F. Connectors: BNC or TNC.

Finish: Silver per MIL-QQ-S-365, Cadmium per MIL-QQ-P-416.

Salt Spray: MIL-STD-202, 48 hr. test condition B.

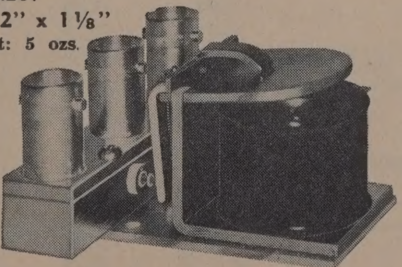
Humidity: MIL-STD-202, 10 day.

Vibration: Type I per MIL-STD-167.

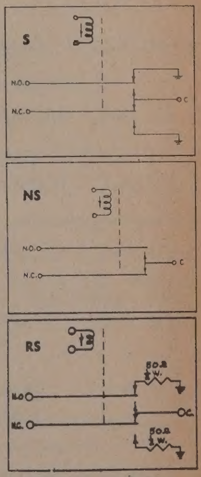


Connector Configurations

Size:
2¼" x 2" x 1⅛"
Weight: 5 ozs.



CONTACT TYPES



ORDER SPECIFICATIONS and DESIGNATION:

SERIES
CONNECTOR CONFIGURATION
CONTACT TYPE
CONNECTOR TYPE
IF SWITCH REQUIRED
VOLTAGE
DK67 - A - NS - BNC - DPDT - 28 V DC

Also available with DPDT auxiliary switches.

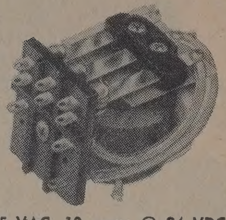
DOW-KEY products available at your local distributor or write:

Manufactured by DOW-KEY COMPANY, Thief River Falls, Minnesota

GLOBE RELAYS

MIDGET SERIES

TYPE "W" MIDGET GENERAL PURPOSE



This relay offers high reliability at a minimum cost. The silver cadmium-oxide contacts are mounted on beryllium copper blades.** There is good contact wiping action. This unit operates well in ambient temperatures up to 125° C.

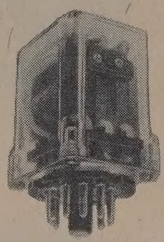
** Fine silver contacts for 5 amp applications.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC.

MOUNTING: One 6-32 screw and keying boss to prevent turning.

TYPE "WC" MIDGET GENERAL PURPOSE WITH DUSTITE ENCLOSURE



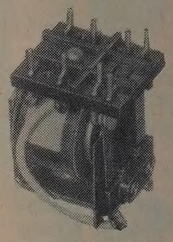
Relay is identical to type "W." However, the unit provides a clear dust-proof polystyrine case on Octal type plug-in base. Operating temperatures up to 85° C ambient. Variation of base or a hermetically sealed can, can be provided on request. This unit comes in standard Globe wiring. For special wiring to meet existing installations specify "WZ" wiring.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC.

MOUNTING: Octal plug-in.

TYPE "WP" MIDGET PRINTED CIRCUIT



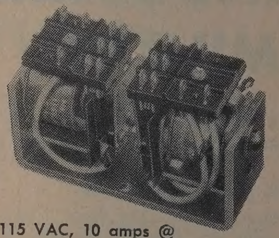
Relay is identical to the "W" type using the same integrally moulded parts. The terminals are designed for direct mounting into printed circuit boards. They will fit into .050 inch diameter holes and project 1/32 inch beyond an 1/8 inch thick circuit board. Base plate area on the board is only 1.070 x .890 inches. Dimensional artwork for hole configuration is available.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 120 VAC.

MOUNTING: Soldered into printed circuit boards.

TYPE "WL" MIDGET LATCHING



This latching relay may be had with either coil to operate at any specified voltage. It is designed that either coil may be used to operate the contacts into a latched position. The other coil will latch or unlatch the contacts into the opposite position.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC.

COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC on either coil.

MOUNTING: 2 holes for #6 screws in center of frame.

PRICES (SUBJECT TO CHANGE)

Coil			5 Ampere Contacts				10 Ampere Contacts			
		D-C	"W," "WP" Open		"WC" Dustite		"W," "WP" Open		"WC" Dustite	
Voltage	Current	Resistance	Part No.	Price (Net)	Part No.	Price (Net)	Part No.	Price (Net)	Part No.	Price (Net)
PLATE	9 to 30MA	2,500 Ω	1W1	$3.50	1WC1	$5.50	1W20	$3.75	1WC20	$5.80
			2W1	4.20	2WC1	6.60	2W20	4.45	2WC20	6.75
			3W1	4.90	3WC1	8.10	3W20	5.95	3WC20	8.55
PLATE	7 to 20MA	5,000 Ω	1W2	3.95	1WC2	5.95	1W21	4.20	1WC21	6.25
			2W2	4.60	2WC2	7.00	2W21	4.85	2WC21	7.15
			3W2	5.45	3WC2	8.45	3W21	5.70	3WC21	8.90
PLATE	4 to 14MA	10,000 Ω	1W3	4.35	1WC3	6.35	1W22	4.60	1WC22	6.65
			2W3	5.00	2WC3	7.40	2W22	5.25	2WC22	7.55
			3W3	5.85	3WC3	8.85	3W22	6.10	3WC22	9.30
6V. D-C	200MA	30 Ω	1W4	3.05	1WC4	5.10	1W23	3.50	1WC23	5.55
			2W4	3.35	2WC4	5.65	2W23	3.80	2WC23	6.10
			3W4	3.75	3WC4	6.95	3W23	4.40	3WC23	7.60
12V. D-C	120MA	100 Ω	1W5	3.05	1WC5	5.10	1W24	3.50	1WC24	5.55
			2W5	3.35	2WC5	5.65	2W24	3.80	2WC24	6.10
			3W5	3.75	3WC5	6.95	3W24	4.40	3WC24	7.60
24V. D-C	53MA	450 Ω	1W6	3.05	1WC6	5.10	1W25	3.50	1WC25	5.55
			2W6	3.35	2WC6	5.65	2W25	3.80	2WC25	6.10
			3W6	3.75	3WC6	6.95	3W25	4.40	3WC25	7.60
115V. D-C	15MA	8,000 Ω	1W7	3.55	1WC7	5.65	1W26	4.00	1WC26	6.05
			2W7	3.85	2WC7	6.15	2W26	4.30	2WC26	6.60
			3W7	4.55	3WC7	7.45	3W26	5.20	3WC26	8.40
6V. A-C	400MA	5 Ω	1W8	3.05	1WC8	5.15	1W27	3.50	1WC27	5.60
			2W8	3.55	2WC8	5.75	2W27	4.00	2WC27	6.40
			3W8	4.05	3WC8	7.05	3W27	4.70	3WC27	7.70
12V. A-C	150MA	20 Ω	1W9	3.05	1WC9	5.15	1W28	3.50	1WC28	5.60
			2W9	3.55	2WC9	5.75	2W28	4.00	2WC28	6.40
			3W9	4.05	3WC9	7.05	3W28	4.70	3WC28	7.70
24V. A-C	120MA	70 Ω	1W10	3.05	1WC10	5.15	1W29	3.50	1WC29	5.60
			2W10	3.55	2WC10	5.75	2W29	4.00	2WC29	6.40
			3W10	4.05	3WC10	7.05	3W29	4.70	3WC29	7.70
115V. A-C	25MA	1,500 Ω	1W11	3.05	1WC11	5.15	1W30	3.50	1WC30	5.60
			2W11	3.55	2WC11	5.75	2W30	4.00	2WC30	6.40
			3W11	4.05	3WC11	7.05	3W30	4.70	3WC30	7.70
230V. A-C	8MA	8,000 Ω	1W12	3.55	1WC12	5.75	1W31	4.00	1WC31	6.10
			2W12	4.05	2WC12	6.25	2W31	4.50	2WC31	6.90
			3W12	4.25	3WC12	7.55	3W31	5.20	3WC31	8.20

globe electrical mfg. co.
gardena,
california

Write for technical information and complete catalog of Globe Relays.

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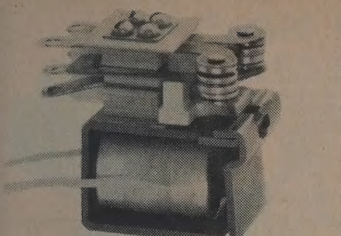


TYPE "U" POWER RELAY

Heavy-duty power relay with 25 ampere contacts, designed primarily for switching applications where high surge current is a primary factor. Large pure silver contacts assure high reliability and long operating life under severe power loads. Operating life in excess of 5 million cycles. High grade annealed mag iron frame for heavy duty service.

CONTACTS: 25 amps @ 6-115 VAC or 6-115 VDC resistive load. DPDT or DPST, also available as SPDT in 35 amp. in double contact version.

COIL: Up to 115 VDC and up to 115 VAC heavy-duty molded bobbin coil. Breakdown resistance 1000 VRMS.

CONFIGURATION: Open construction with two screw mounting with #4-40 thread.

PRICES (SUBJECT TO CHANGE)

Voltage	Contacts	Part No.	Price (Net)
6 VDC	DPDT	2 U 1	$7.05
12 VDC	DPDT	2 U 2	7.05
24 VDC	DPDT	2 U 3	7.05
115 VDC	DPDT	2 U 4	7.60
6 VAC	DPDT	2 U 5	7.10
12 VAC	DPDT	2 U 6	7.10
24 VAC	DPDT	2 U 7	7.10
115 VAC	DPDT	2 U 8	7.20

TYPE "V" MINIATURE COMPACT RELAY

Ultra-compact, miniature relay available with standard solder lugs or plug-in socket. Ideally suited for applications requiring high reliability, limited space and easy serviceability. Standard size blades fit straight through the base to the terminal without wiring or may be used with plug-in socket for ease of replacement. All units supplied with dust cover. Plug-in socket includes clamp to secure the unit firmly. Measures 1.450" x 1.187" x .750". Available in 2 or 4 pole contacts of fine silver, rated at 5 amp resistive load. Lifetime in excess of 6 million cycles.

CONTACTS: 5 amperes @ 6-115 VDC resistive load. 2 or 4 pole configurations, indicated by first digit of part number.

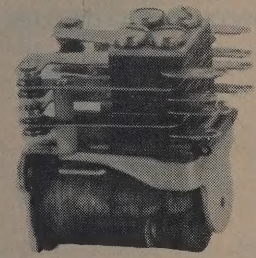
COIL: 6-115 VDC.

MOUNTING: Dustite Cover supplied with all units. Available with standard solder connections or "S" type plug-in socket with clamp.

PRICES (SUBJECT TO CHANGE)

Coil Voltage	Current	D.C.Resistance	Part No. & Net Price
Plate	9-12 ma	2,500 Ohms	2V1 — $3.30 4V1 — $3.75
Plate	6-9 ma	5,800 Ohms	2V2 — 3.40 4V2 — 3.85
Plate	5-7 ma	10,500 Ohms	2V3 — 4.50 4V3 — 4.95
6 VDC	120 ma	50 Ohms	2V4 — 3.15 4V4 — 3.60
12 VDC	60 ma	200 Ohms	2V5 — 3.20 4V5 — 3.65
24 VDC	34 ma	700 Ohms	2V6 — 3.25 4V6 — 3.70
115 VDC	12 ma	10,500 Ohms	2V7 — 4.50 4V7 — 4.95

"S" Type plug-in sockets: 2 pole-S2 — $.60; 4 pole-S4 — $.65



TYPE "P" MINIATURE TELEPHONE RELAY

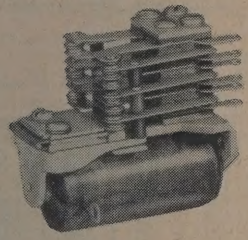
A compact design incorporating a floating hinged armature mount for maximum resistance to shock and vibration. It offers proved dependability and long life through millions of cycles of trouble free operation. Available for both D-C, and A-C applications with the use of rectifiers. Ambient temperatures up to 125° C. Choice of single or bifurcated pattern blades with a variety of precious or semi-precious contact materials.

CONTACTS: Bifurcated Pattern — 3 amps resistive @ 28 VDC or 115 VAC, 1P ST thru 4P DT. Single Pattern — 10 amps @ 28 VDC or 115 VAC resistive or inductive, 1P ST thru 4P DT.

COIL: Up thru 120 VDC, up thru 230 VAC 60 or 400 cycles (w/ rectifier).

CONFIGURATION: Hermetically sealed, Dustite enclosures or open construction.

PRICES UPON REQUEST



TYPE "Q" SENSITIVE MINIATURE TELEPHONE RELAY

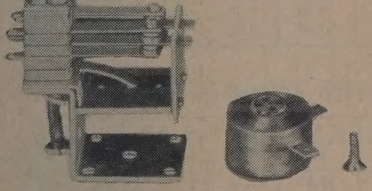
Designed with 30 to 50 per cent more coil ampere turns, which provides greater sensitivity than conventional types. Even with this greater built-in power, the unique construction allows these units to fall in a miniature class. Available for both D.C. and A.C. applications with the use of rectifiers. Ambient temperatures up to 125° C. Choice of single or bifurcated pattern blades with a variety of precious or semi-precious contact materials.

CONTACTS: Bifurcated Pattern — 3 amps resistive @ 28 VDC or 115 VAC 1P ST thru 6P DT. Single Pattern — 10 amps @ 28 VDC or 115 VAC resistive or inductive, 1P ST thru 6P DT.

COIL: Up thru 120 VDC, up thru 230 VAC 60 or 400 cycles (w/ rectifier).

CONFIGURATION: Hermetically sealed, Dustite enclosures or open construction.

PRICES UPON REQUEST



TYPE "X" DO IT YOURSELF ALL PURPOSE RELAY

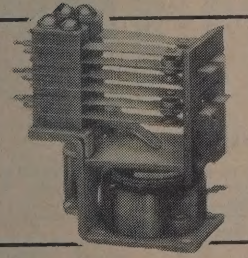
An ideal relay for bread-boards, experiments and prototypes. Easily interchangeable coils with one screw installation. Relay is factory adjusted and has rugged construction. A limited selection of contact assemblies and coils provide a multitude of variations.

CONTACTS: 5 amps, 10 amps and 15 amps, 28 VDC or 115 VDC. Arrangements SPDT, DPDT, 4 PDT.

COIL: 6 VDC thru 120 VDC, 6 VAC thru 230 VAC.

MOUNTING: Single screw in coil center.

PRICES UPON REQUEST



TYPE "A" INDUSTRIAL RELAY

Employing the time-tested "clapper" design; its simple manufacturing process permits use where low cost is a determining factor. It is recommended for application on stationary industrial equipment and qualifies for U.L. approval. When speed and positive action of snap-action switches are required, this relay may be supplied in either 2P DT 10 amp or a 1P DT 15 amp. Also available in mechanical latching relays up to a 4P DT arrangement.

CONTACTS: 5, 10 & 15 amp @ 28 VDC or 115 VAC resistive or inductive, 1P ST thru 6P NO. Snap-action switches — 15 amp 1P DT or 10 amp 2P DT.

COIL: Up thru 120 VDC, up thru 230 VAC.

CONFIGURATION: Open construction.

PRICES UPON REQUEST

globe electrical mfg. co. gardena, california

Write for technical information and complete catalog of Globe Relays.

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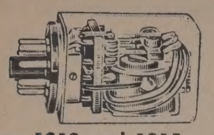
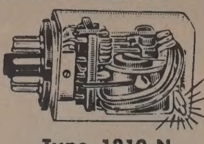
GUARDIAN RELAYS

ENCLOSED PLUG-IN AC-DC RELAYS



Type 1210 and 1215



Type 1210-N

Type 1210—Small size relay in Lucite‡ enclosure for efficient, dust-free, and trouble-free operation. This transparent, lightweight Lucite‡ case has high impact strength, unaffected by weather and is resistant to temperatures of 200° F. Relay is powerful and economical. Available with 8 pin octal plug for DPDT and 11 pin for 3 PDT. Contacts rated for 8 amperes, 60 cycles, 115 v. AC non-inductive. **Type 1210-N**—Plug-in relay utilizes a miniature neon lamp connected across coil terminals. The lamp lights each time the coil is energized, or indicates a circuit fault when lamp is "dark." Ideal for detecting circuit faults in relay banks, mass relay arrangements, or where relays are visibly located at intermediate switching points of the circuitry. Precludes the use of circuit testers. Available with 8 pin octal plug for DPDT and 11 pin for 3 PDT. Contact rated 8 amperes at 115 v. AC, 60 c., non-inductive load. Size 1210 and 1210-N: 2 23/32" x 1 3/8" x 1 3/8". Shpg. Wt. 3.5 oz.

‡Registered DuPont trademark.

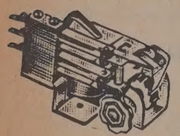
ENCLOSED PLUG-IN RELAYS—AC-DC

Guardian Number	Volts	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
1210-N-G115	115AC	DPDT	$6.30	$5.67	$5.36	$5.04	$4.41
1210-N-GC115	115AC	3DPT	7.70	6.93	6.55	6.16	5.39
1210-G6	6AC	DPDT	5.70	5.13	4.85	4.56	3.99
1210-GC6	6AC	3PDT	7.10	6.39	6.04	5.68	4.97
1210-G24	24AC	DPDT	5.70	5.13	4.85	4.56	3.99
1210-GC24	24AC	3PDT	7.10	6.39	6.04	5.68	4.97
1210-G115	115AC	DPDT	5.70	5.13	4.85	4.56	3.99
1210-GC115	115AC	3PDT	7.10	6.39	6.04	5.68	4.97
1210-G230	230AC	DPDT	5.95	5.36	5.06	4.76	4.17
1210-GC230	230AC	3PDT	7.35	6.62	6.25	5.88	5.15
1215-G6	6DC	DPDT	5.80	5.22	4.93	4.64	4.06
1215-GC6	6DC	3PDT	7.25	6.53	6.16	5.80	5.08
1215-G12	12DC	DPDT	5.80	5.22	4.93	4.64	4.06
1215-GC12	12DC	3PDT	7.25	6.53	6.16	5.80	5.08
1215-G24	24DC	DPDT	5.80	5.22	4.93	4.64	4.06
1215-GC24	24DC	3PDT	7.25	6.53	6.16	5.80	5.08
1215-G110	110DC	DPDT	6.05	5.45	5.14	4.84	4.24
1215-GC110	110DC	3PDT	7.50	6.75	6.38	6.00	5.25

ENCLOSED PLATE CIRCUIT PLUG-IN RELAYS—DC

Guardian Number	Coil Res.	Comb. Cont.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
1215-G2.5	2500	DPDT	$6.00	$5.40	$5.10	$4.80	$4.20
1215-GC2.5	2500	3PDT	7.00	6.30	5.95	5.60	4.90
1215-G5	5000	DPDT	6.10	5.49	5.19	4.88	4.27
1215-GC5	5000	3PDT	7.20	6.48	6.12	5.76	5.04
1215-G10	10000	DPDT	6.40	5.76	5.44	5.12	4.48
1215-GC10	10000	3PDT	7.50	6.75	6.38	6.00	5.25

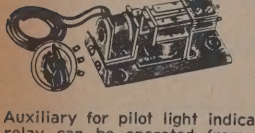
IMPULSE RACHET RELAYS—AC



Type 670—For on/off control of lighting, motors, appliances and speaker applications, among others. Highly reliable operation over 1,000,000 steps. Each impulse (up to 10 steps per second) reverses contact. Contact arrangements of SPDT and DPDT; ratings to 12½ amps resistive load at 115 v., 60 cycles. Intermittent duty coil with voltage of 115 v. AC, 60 cycles. Size, 3" x 1¾" x 2 1/16". Shipping Weight, 7.5 ounces.

Guardian Number	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
670-C115	SPDT	$5.75	$5.18	$4.89	$4.60	$4.03
670-G115	DPDT	5.85	5.27	4.97	4.68	4.10

DC ELECTRICAL RESET OVERLOAD RELAY



Type **X-300-ER**—Applicable for use in industrial panel installation, for remote protection of machines and replacing fuses. Provides precise protection from current surges and continuous overloads. Remote panel installation of the control potentiometer simplifies adjustment of relay to operate on any current value from 250 to 750 milliamperes. Auxiliary for pilot light indication of "overload" or "clear" position. Reset relay can be operated from any point convenient to operator. Insulation between coil and ground rated at 3,000 volts. Size, 4¾" x 2" x 1 15/16".

Guardian Number	Shipping Weight	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
X-300-ER	13 oz.	$8.85	$7.97	$7.52	$7.08	$6.20

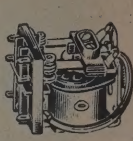
ENGINEER'S SWITCH KIT

GUARDIAN ELECTRIC
ENGINEERS
CONTACT SWITCH
KIT

Indispensable to those who design, build or test electrical controls. Contains large assortment of switch blades, contacts, separators, adapters, fish paper, bushings, etc.

Engineer's Switch Kit—Net Ea. $10.95

MEDIUM POWER AC-DC RELAYS



Type 1200—Rated at 8 amps, 60 cycles, 115 v. non-inductive load. Heavy solder lug type terminals molded in phenolic block, with barriers for over-surface insulation, built to meet U/L specifications. Applicable to automation, communications, remote control, selectors, switching devices and experimental uses. Size, 1⅝" x 1" x 1¼". Shipping Weight, 2.5 oz.

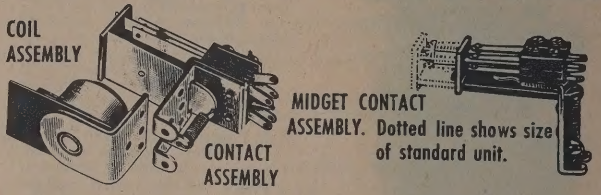
60 CYCLES—AC COILS

Guardian Number	Volts	Cont. Comp.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
1200-G6	6	DPDT	$3.60	$3.24	$3.06	$2.88	$2.52
1200-GC6	6	3PDT	4.00	3.60	3.40	3.20	2.80
1200-G24	24	DPDT	3.60	3.24	3.06	2.88	2.52
1200-GC24	24	3PDT	4.00	3.60	3.40	3.20	2.80
1200-C115	115	SPDT	3.50	3.15	2.98	2.80	2.45
1200-G115	115	DPDT	3.60	3.24	3.06	2.88	2.52
1200-GC115	115	3PDT	4.00	3.60	3.40	3.20	2.80
1200-G230	230	DPDT	3.85	3.47	3.27	3.08	2.70
1200-GC230	230	3PDT	4.25	3.83	3.61	3.40	2.98

DC COILS

Guardian Number	Volts	Cont. Comp.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
1205-G6	6	DPDT	$3.30	$2.97	$2.81	$2.64	$2.31
1205-GC6	6	3PDT	3.70	3.33	3.15	2.96	2.59
1205 G12	12	DPDT	3.30	2.97	2.81	2.64	2.31
1205-GC12	12	3PDT	3.70	3.33	3.15	2.96	2.59
1205-C24	24	SPDT	3.20	2.88	2.72	2.56	2.24
1205-G24	24	DPDT	3.30	2.97	2.81	2.64	2.31
1205-GC24	24	3PDT	3.70	3.33	3.15	2.96	2.59
1205-G110	110	DPDT	3.55	3.20	3.02	2.84	2.49
1205-GC110	110	3PDT	3.95	3.56	3.36	3.16	2.77

SERIES 200 RELAY WITH COMPLETELY INTERCHANGEABLE COIL AND CONTACT ASSEMBLIES


COIL ASSEMBLY
MIDGET CONTACT ASSEMBLY. Dotted line shows size of standard unit.
CONTACT ASSEMBLY

Two basic parts—a coil assembly and a contact switch assembly—comprise this simple, yet versatile Guardian relay. The coil assembly consists of the coil and field piece; the contact assembly consists of switch blades, armature, return spring and mounting bracket. The Guardian Midget Contact Assembly is **Interchangeable** with the standard Series 200 coil assembly. Available with SPDT, DPDT or 4PDT contact switch assemblies, each **interchangeable** with all AC or DC coils.

SERIES 200 RELAY

Guardian Number	Volts	Coil	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
200-6A	6	AC	$1.75	$1.58	$1.49	$1.40	$1.22
200-12A	12	AC	1.75	1.58	1.49	1.40	1.22
200-24A	24	AC	1.75	1.58	1.49	1.40	1.22
200-115A	115	AC	2.05	1.85	1.74	1.64	1.43
200-230A	230	AC	2.70	2.43	2.30	2.16	1.89
200-6D	6	DC	1.90	1.71	1.62	1.52	1.33
200-12D	12	DC	1.90	1.71	1.62	1.52	1.33
200-24D	24	DC	1.90	1.71	1.62	1.52	1.33
200-32D	32	DC	1.90	1.71	1.62	1.52	1.33
200-110D	110	DC	2.50	2.25	2.13	2.00	1.75
200-5,000D	....	†	2.20	1.98	1.87	1.76	1.54
200-10,000D	....	†	2.50	2.25	2.13	2.00	1.75

†Plate

CONTACT SWITCH ASSEMBLIES

Guardian Number	Type	*	Cont. Comb.	Net Each, Lots of 1-24	25-49	50-99	100-249	250 up
200-1	Standard	8	SPDT	$1.50	$1.35	$1.26	$1.20	$1.05
200-2	Standard	8	DPDT	2.00	1.80	1.70	1.60	1.40
200-4	Standard	12.5	DPDT	2.25	2.03	1.91	1.80	1.57
200-5	Standard	8	4PDT	3.50	3.15	2.98	2.80	2.45
200-M1	Midget	10	SPDT	1.40	1.26	1.19	1.12	.98
200-M2	Midget	10	DPDT	1.75	1.58	1.49	1.40	1.22
200-M5	Midget	8	4PDT	2.85	2.57	2.42	2.28	1.99

*Contact Amps.

CONTACT SWITCH PARTS

Use contact switch parts 200-3 for adding poles to contact switch assemblies 200-1 and 200-2. Use midget contact switch parts 200-M3 to add poles to midget contact switch assemblies 200-M1 and 200-M2.

Guardian Number	Net Each, Lots of 1-24	25-49	50-99	100-249	250-up
200-3	$1.50	$1.35	$1.28	$1.20	$1.05
200-M3	1.50	1.35	1.28	1.20	1.05

Net

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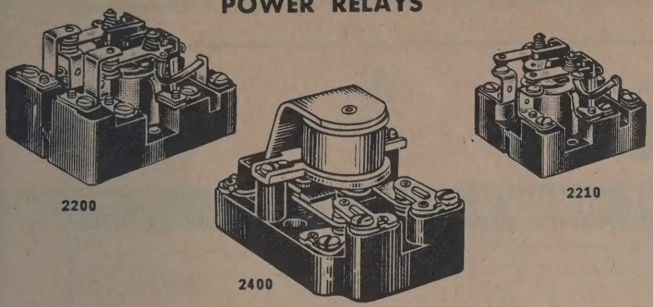
GUARDIAN RELAYS

POWER RELAYS



SERIES 2200 AND 2210—25 AMPS

2200 (DPDT) and 2210 (DPST-NO) power relays have 25 ampere contacts and interchangeable coil assemblies for either relay. See list below. Replaceable contact switch parts (see lists) available for Series 2200 only. Mounting: 2 holes .196" dia. holes on 1⅞" centers. Size: 2200—3⅜" l. x 2½" w. x 2$\frac{3}{16}$" h. Shpg. Wt., 11 oz.; 2210—2$\frac{11}{16}$" l. x 2½" w. x 2$\frac{3}{16}$" h. Shpg. Wt., 10 oz.

Guardian Number	Volts AC	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 up
2200-DPDT-6	6	$6.10	$5.49	$5.19	$4.88	$4.27
2200-DPDT-24	24	6.10	5.49	5.19	4.88	4.27
2200-DPDT-115	115	6.10	5.49	5.19	4.88	4.27
2200-DPDT-230	230	6.50	5.85	5.53	5.20	4.55
2210-DPST-NO-6	6	5.25	4.73	4.46	4.20	3.68
2210-DPST-NO-24	24	5.25	4.73	4.46	4.20	3.68
2210-DPST-NO-115	115	5.25	4.73	4.46	4.20	3.68
2210-DPST-NO-230	230	5.60	5.04	4.76	4.48	3.92

REPLACEMENT COILS FOR EITHER RELAY

2200-6A	6	$2.25	$2.03	$1.91	$1.80	$1.57
2200-24A	24	2.25	2.03	1.91	1.80	1.57
2200-115A	115	2.25	2.03	1.91	1.80	1.57
2200-230A	230	2.50	2.25	2.13	2.00	1.75

REPLACEMENT CONTACT SWITCH PARTS

For Series 2200 only. No solder required. Includes one NO and one NC contact bracket, moving blade and terminal. "Right" or "Left" determined by viewing relay from armature hinge end with contacts up.

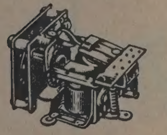
Guardian Number	Type	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 up
CS-2200	Left	$1.85	$1.67	$1.57	$1.48	$1.29
CS-2200	Right	1.85	1.67	1.57	1.48	1.29

SERIES 2400 AC AND 2405 DC—15 AMPS

Both series have standard DPDT contacts rated for 15 amps non-inductive or 1 hp at 115/230 v., 60 cycles. Inverted coil construction protects armature and contacts to insure long life, reliable operation. Screw type terminals easily accessible for top or bottom connections. Armature extension permits manual circuit testing. Mounting: Two .196" dia. holes on 1⅞" centers. Size, 3$\frac{5}{16}$" x 2½" x 2$\frac{1}{16}$". Shipping Weight, 8 oz.

Guardian Number	Volts	Amps	Net Each, Lots of				
			1-24	25-49	50-99	100-249	250 up
2400-DPDT-6	6*	15	$5.40	$4.86	$4.59	$4.32	$3.78
2400-DPDT-24	24*	15	5.40	4.86	4.59	4.32	3.78
2400-DPDT-115	115*	15	5.40	4.86	4.59	4.32	3.78
2400-DPDT-230	230*	15	5.70	5.13	4.85	4.56	3.99
2405-DPDT-6	6†	15	5.60	5.04	4.76	4.48	3.92
2405-DPDT-12	12†	15	5.60	5.04	4.76	4.48	3.92
2405-DPDT-24	24†	15	5.60	5.04	4.76	4.48	3.92
2405-DPDT-110	110†	15	5.90	5.31	5.02	4.72	4.13
2400-SPDT-AUX Aux. Swch	....	10	1.35	1.21	1.15	1.08	.94

*AC. †DC.

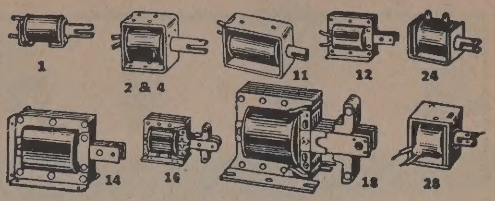


ELECTRICAL RESET STEPPER
M.E.R.

Type M.E.R.—A direct drive (steps on energization) electrical reset stepper with positive mechanical reset interlock actuated by the reset magnet and unlocked on the first energization of the step magnet. This device assures positive reset on as short a pulse as one-hundredth of a second or even from its own selection contacts. Unit is capable of counting in groups up to 21, then resetting automatically. By interconnecting two or more Steppers, count can be increased to any desired total counting by tens or by any other convenient multiple. Unit can be used to control a sequence of operation and then automatically reset to the initial or starting position. Maximum steps per second, 20. 24 points; 22 active contacts. Coil, 115 v. AC; will operate satisfactorily at 15% below or 10% above this voltage. Stepping coil rated 30 VA, 18 w.; reset coil rated 9 VA, 7 w. Size, 3¼" lg. x 2$\frac{3}{16}$" w. x 3¼" h. Shpg. Wt., 11½ oz.

Guardian Number	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250 up
MER-115	$14.00	$12.60	$11.90	$11.20	$9.80

AC-DC SOLENOIDS



Available in both intermittent and continuous duty types. Intermittent types should not be energized for more than 5 consecutive minutes, or be permitted to rise more than 85°C. above 24° C. ambient rating without giving sufficient time to cool between operation cycles. Continuous duty types are designed so they will not rise more than 85° C. above the 24° C. ambient temperature rating when operated at rated load. Plunger has slotted end with ⅛" diameter hole for coupling. In chart, (I) indicates intermittent duty type, (C) indicates continuous duty type.

AC ASSEMBLIES

AC No.	V.	*	Ohms	Lift Oz.†	Net Each, Lots of				
					1-24	25-49	50-99	100-249	250 up
1A1	115A	I	300	8	$2.80	$2.52	$2.38	$2.24	$1.96
1A1	115A	C	675	3	2.80	2.52	2.38	2.24	1.96
2	115A	I	60	27	3.20	2.88	2.72	2.56	2.24
2	115A	C	166	10.5	3.20	2.88	2.72	2.56	2.24
4	115A	I	37	24.	3.80	3.42	3.23	3.04	2.66
4	115A	C	133	6	3.80	3.42	3.23	3.04	2.66
11	24A	I	5.1	20	2.70	2.43	2.30	2.16	1.89
11	24A	C	12	8	2.70	2.43	2.30	2.16	1.89
11	115A	I	125	20	2.70	2.43	2.30	2.16	1.89
11	115A	C	300	8	2.70	2.43	2.30	2.16	1.89
12	115A	I	100	32	4.15	3.74	3.53	3.32	2.90
12	115A	C	150	22	4.15	3.74	3.53	3.32	2.90
14	115A	I	11	110	5.50	4.95	4.68	4.40	3.85
14	115A	C	18	65	5.50	4.95	4.68	4.40	3.85
16	115A	I	41	96	3.20	2.88	2.72	2.56	2.24
16	115A	C	85	55	3.20	2.88	2.72	2.56	2.24
16	230A	I	200	96	3.40	3.06	2.89	2.72	2.38
16	230A	C	350	55	3.40	3.06	2.89	2.72	2.38
18	115A	I	8.8	304	4.50	4.05	3.83	3.60	3.15
18	115A	C	19.7	145	4.50	4.05	3.83	3.60	3.15
18	230A	I	45	304	4.70	4.23	4.00	3.76	3.29
18	230A	C	78	145	4.70	4.23	4.00	3.76	3.29
24	115A	I	310	19	2.95	2.66	2.51	2.36	2.06
24	115A	C	500	12	2.95	2.66	2.51	2.36	2.06
28	24A	I	7.5	35	2.70	2.43	2.30	2.16	1.89
28	24A	C	17.4	20	2.70	2.43	2.30	2.16	1.89
28	115A	I	220	35	2.90	2.61	2.46	2.32	2.03
28	115A	C	400	20	2.90	2.61	2.46	2.32	2.03

DC ASSEMBLIES

DC No.	V.	*	Ohms	Lift Oz.†	Net Each, Lots of				
					1-24	25-49	50-99	100-249	250 up
1A1	24D	I	42.6	5	$2.50	$2.25	$2.13	$2.00	$1.75
1A1	24D	C	74.4	2	2.50	2.25	2.13	2.00	1.75
1A1	115D	I	803	5	3.00	2.70	2.55	2.40	2.10
1A1	115D	C	2070	2	3.00	2.70	2.55	2.40	2.10
4	24D	I	15	57	3.80	3.42	3.23	3.04	2.66
4	24D	C	50	20	3.80	3.42	3.23	3.04	2.66
4	115D	I	346	57	4.00	3.60	3.40	3.20	2.80
4	115D	C	1210	20	4.00	3.60	3.40	3.20	2.80
11	6D	I	2	39	2.70	2.43	2.30	2.16	1.89
11	6D	C	5	21	2.70	2.43	2.30	2.16	1.89
11	24D	I	32	39	2.70	2.43	2.30	2.16	1.89
11	24D	C	72	21	2.70	2.43	2.30	2.16	1.89
22	6D	I	4.7	24	2.60	2.34	2.21	2.08	1.82
22	6D	C	9	13	2.60	2.34	2.21	2.08	1.82
22	24D	I	60	24	2.60	2.34	2.21	2.08	1.82
22	24D	C	144	13	2.60	2.34	2.21	2.08	1.82
28	6D	I	3.3	41	2.60	2.34	2.21	2.08	1.82
28	6D	C	7.7	35	2.60	2.34	2.21	2.08	1.82
28	12D	I	13	41	2.60	2.34	2.21	2.08	1.82
28	12D	C	27	35	2.60	2.34	2.21	2.08	1.82
28	24D	I	50	41	2.60	2.34	2.21	2.08	1.82
28	24D	C	104	35	2.60	2.34	2.21	2.08	1.82

*Duty. †Max.; obtained during cold operation when plunger is down.

SIZE, WEIGHT AND STROKE

Type		Adjustable Stroke		Size, Inches L. x W. x H.	Shpg. Wt., Oz.
		Inter.	Cont.		
1A1	AC	⅛"—½"	⅛"—⅜"	1¾ x $\frac{15}{16}$ x 1$\frac{1}{16}$	4.5
1A1	DC	⅛"—⅜"	⅛"—¼"	1¾ x $\frac{15}{16}$ x 1$\frac{1}{16}$	4.5
2	AC	⅛"—⅞"	⅛"—⅞"	1$\frac{9}{16}$ x 1$\frac{7}{16}$ x 1⅝	10
4	AC	⅛"—1"	⅛"—½"	2 x 1$\frac{7}{16}$ x 1⅝	14.5
4	DC	⅛"—1"	⅛"—⅞"	2 x 1$\frac{7}{16}$ x 1⅝	14.5
11	AC	⅛"—1"	⅛"—1"	1$\frac{5}{16}$ x 1$\frac{27}{32}$ x 1$\frac{3}{16}$	7.5
11	DC	⅛"—⅞"	⅛"—⅝"	1$\frac{5}{16}$ x 1$\frac{27}{32}$ x 1$\frac{3}{16}$	7.5
12	AC	⅛"—1"	⅛"—⅞"	1⅝ x 1$\frac{3}{16}$ x 1$\frac{7}{16}$	6
14	AC	⅛"—1½"	⅛"—1½"	2$\frac{7}{16}$ x 1$\frac{7}{16}$ x 2$\frac{1}{16}$	19
16	AC	⅛"—¾"	⅛"—⅝"	1⅝ x 1⅛ x 1$\frac{7}{16}$	7.5
18	AC	⅛"—1"	⅛"—1"	2½ x 1$\frac{13}{16}$ x 2$\frac{1}{16}$	16.5
22	DC	$\frac{1}{16}$"—⅜"	$\frac{1}{16}$"—¼"	1⅛ x ¾ x ¾	2.5
24	AC	$\frac{1}{16}$"—⅝"	$\frac{1}{16}$"—⅝"	1¼ x $\frac{27}{32}$ x $\frac{59}{64}$	3
28	AC	$\frac{1}{16}$"—½"	$\frac{1}{16}$"—½"	1⅛ x $\frac{15}{16}$ x 1$\frac{3}{16}$	3.5
28	DC	$\frac{1}{16}$"—½"	$\frac{1}{16}$"—⅜"	1⅛ x $\frac{15}{16}$ x 1$\frac{3}{16}$	3.5

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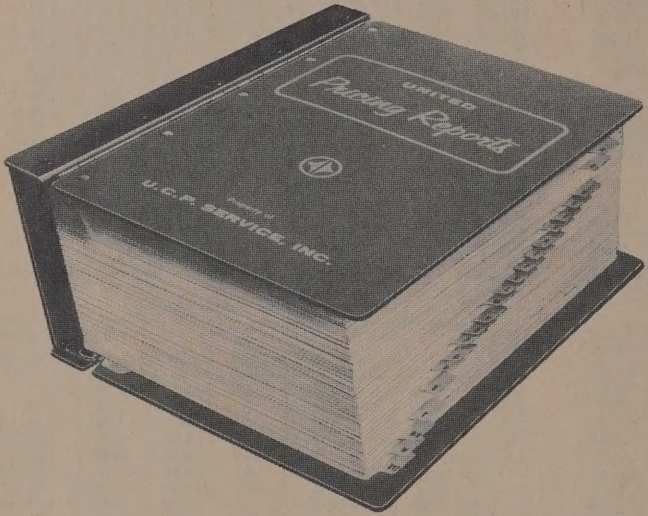

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Jennings® VACUUM TRANSFER AND COAXIAL RELAYS

Vacuum Transfer Relays

Jennings Type	RA Series	RB7B	RB1D	RB2A	RB3	RB4	RE6B
Contact arrangement	1, 2, 3 & 4PDT	2PDT	SPDT	2PDT	2PDT	4PDT	SPDT
Rated operating voltage— dc or 60 cycle 16 mc	300 v	7 kv 3 kv	12 kv 8 kv	20 kv 10 kv	12 kv 8 kv	20 kv 10 kv	25 kv 12 kv
Test voltage—60 cycle peak	2000 v	9 kv	18 kv	25 kv	15 kv	25 kv	30 kv
Continuous current—rms amps— 60 cycle	30, 40 amps	14 amps	15 amps	20 amps	30 amps	20 amps	25 amps
2.5 mc		9 amps	10 amps	12 amps	10 amps	10 amps	11 amps
16 mc		4 amps	6 amps	6 amps	6 amps	6 amps	9 amps
Contact resistance	.01 ohms max.	.01 ohms max.	.012 ohms max.	.01 ohms max.	.01 ohms max.	.01 ohms max.	.01 ohms max.
Contact capacitance	17 mmfd nom.	1 mmfd nom.	0.5 mmfd nom.	1 mmfd nom.	1 mmfd nom.	1 mmfd nom.	1 mmfd nom.
Capacitance to ground	11 mmfd	2 mmfd	1.5 mmfd	2.5 mmfd	2.5 mmfd	2.5 mmfd	2.5 mmfd
Operate times	25 msec max.	15 msec max.	18 ms max.	20 ms max.	20 ms max.	45 ms max.	25 ms max.
Release times	9 msec max.	4 msec max.	8 ms max.	10 ms max.	8 ms max.	10 ms max.	10 ms max.
DC actuating coil—resistance+10%	225 ohms	270 ohms	265 ohms	225 ohms	120 ohms	131 ohms	120 ohms
voltage	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc
Shock	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms
Vibration	20G to 2000 cps	10G to 2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 500 cps	10G to 400 cps

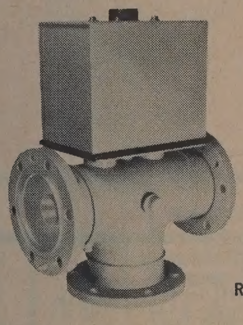
NOTE: Most of the rf voltage and current ratings can be increased approx. 30% by the use of special brass terminals.

Vacuum Coaxial Relays

FOR 50 OHM 3⅛ LINES

MECHANICAL CHARACTERISTICS

ELECTRICAL CHARACTERISTICS



RC21

TYPE RC21 SPDT LATCHING VACUUM RELAY

Size: 3⅛ inch

Fittings: "EIA," Swivel Flange type

Inner Connector: Anchor type. "EIA" Bullet to Jennings spring type.

Configuration "T": May be installed in place of "EIA" 50 ohm standard elbow without modification of existing coaxial line.

Actuation: Electro-mechanical latching type. Momentary energize to open/close. 26.5 or 115 V DC. May be obtained with 24 V DC bi-stable electro-mechanical actuator. Optional manual actuation is available with the bi-stable actuator. Also available for 115 V AC operation, self de-energizing.

Indicator: Auxiliary Contacts 2PDT (two each)

Transfer time: Less than 50 millisec.

Weight: 18 lbs. (approx.)

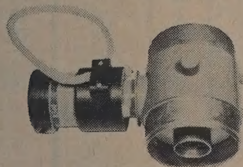
Impedance: 50 ohms

Frequency: (0-600 mc)—Crosstalk—VSWR

200 mc —47.12 db—1.03
225 mc —46.1 db—1.04
250 mc —45.0 db—1.05
300 mc —43.6 db—1.05
400 mc —41.2 db—1.06
500 mc —39.2 db—1.07
600 mc —37.5 db—1.09

Power Rating: 20 kw average at 600 mc. 3 megawatt pk. (special order)

Insertion Loss: 0.01 db max.



RC10

TYPE RC10 SPST LATCHING VACUUM RELAY

Size: 3⅛ inch

A SPST latching relay for use at frequencies up to 100 mc. Simple fittings are available that permit assembling multiple units in crossbar networks in a minimum of space. As an example a 4 x 5 (4 inputs, 5 outputs) network can be assembled occupying less than 9 cu. ft. of space.

Characteristic Impedance: 50 ohms

Power Rating: 50 kw average to 60 mc

Frequency Range: 0 to 100 mc

VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc

Crosstalk: Greater than 60 db isolation at 60 mc

Actuating Voltage: 26.5 V DC

Actuator: Latching type

Position Indicators: DPDT Auxiliary Contacts

FOR 50 OHM 1⅝ LINES

RC5

TYPE RC5 SPST LATCHING VACUUM RELAY

Size: 1⅝ inch

A SPST latching relay for use at frequencies up to 100 mc. The RC 5 relay has been designed to provide an extremely flexible means of remotely switching coaxial lines. Simple fittings are available for assembly of multiple units in crossbar networks in a minimum of space.

Characteristic Impedance: 50 ohms

Power Rating: 25 kw cw average at 30 mc

Frequency Range: 0 to 100 mc

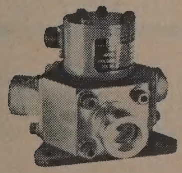
VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc

Crosstalk: Greater than 60 db isolation at 30 mc

Actuation: Intermittent duty latching type electrical/manual

Actuating Voltage: 26.5 V DC

Position Indicators: DPDT Auxiliary Contacts



RC43

RC40 SERIES VACUUM COAXIAL RELAYS

These are SPDT relays for use at frequencies up to 600 mc. The RC40 series utilizes type RB1 transfer relays in specially designed and compensated housings. Three different sizes are available to accomodate a variety of standard coaxial connectors. Housings are available with the following connectors: BNC, TNC, N, UHF, C, SC, and LC.

MODEL RC43

Characteristic Impedance: 50 ohms

Power Rating: 15 kw peak, 1 kw average at 600 mc, 3 kw average at 30 mc

Frequency Range: 0 to 600 mc

VSWR: 1.05: 1 max.

Crosstalk: Greater than 30 db isolation at 400 mc

Insertion Loss: 0.05 db max.

Actuating Voltage: 26.5 or 100 V DC

Height: 3¼ inches

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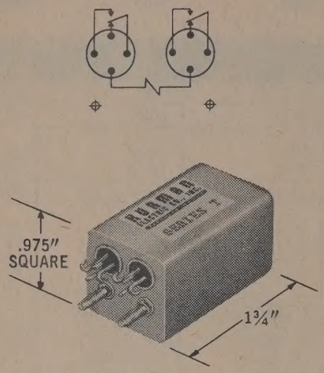
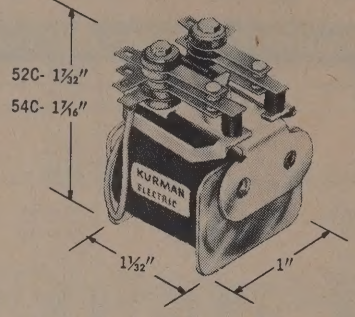
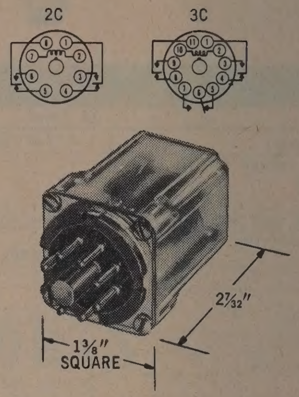
KURMAN

SENSITIVE RELAYS

Per MIL-R-5757D







SERIES T

DPDT

Sub-miniature relay for military use. DPDT 2-amp silver contacts. Current actuated: 40 milliwatts. Hermetically sealed, nitrogen / helium filled. Solder hook terminals. Mounting. Two ¼" #4-40 studs on ½" centers. Weight: 3 oz.

SERIES 52C and 54C

DPDT and 4PDT

Small, light weight plate circuit relay combining features of telephone pile-up construction with sensitive coil. Current actuated: 200 milliwatts for DPDT, 400 milliwatts for 4PDT. 5-amp silver contacts. Pierced solder terminals. Mounting: Two #6-32 tapped holes on 0.437" centers. Weight: 2 oz.

SERIES 5D2C and 5D3C

DPDT and 3PDT

Plate circuit relay enclosed in clear high-heat polystyrene cover. Current actuated: 200 milliwatts for DPDT, 300 milliwatts for 3PDT. 5-amp silver contacts. Mounting: 8-pin octal for DPDT; 11-pin octal type for 3PDT. Weight: 3 oz.

SEE KURMAN PAGE 7 FOR AVAILABLE VARIATIONS

ALL SHADED AREAS ARE APPROXIMATE VALUES

DC

Series	Relay No.	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS						Oper. Time† (milli-secs)		Contact Rating (amps)•		Coil Impreg.	Price net 1-10 ▲
				Current (ma)			Approx. Voltage* (volts)								
				Pull In	Max.	Drop out	At Pull In I	at Max. I	at Drop Out I	at †† Nom. I	at Max. I	28 VDC	115 VAC		
T	T002-2000	2000	DPDT	4.5	35	1.5	9	70	3.0	20-40	5	2	2	no	$15.10
	T002-5000	5000	DPDT	2.8	22	1.0	14	100	5	20-40	5	2	2	no	16.25
	T002-8000	8000	DPDT	2.3	18	0.8	18	128	6.4	20-40	5	2	2	no	16.75
52C	52C-500	500	DPDT	20	63	1.2	10	32	0.6	8-16	3-8	5	5	no	5.60
	52C-2500	2500	DPDT	8.8	28	0.5	22	70	1.3	8-16	3-8	5	5	yes	5.60
	52C-5000	5000	DPDT	6.3	20	0.3	32	100	1.9	8-16	3-8	5	5	yes	5.90
	52C-8000	8000	DPDT	5.0	16	0.3	40	128	2.4	8-16	3-8	5	5	yes	6.10
	52C-10000	10000	DPDT	4.4	14	0.2	44	140	2.6	8-16	3-8	5	5	yes	6.20
54C	54C-500	500	4PDT	28.2	63	2.8	14.2	32	1.4	8-16	3-8	5	5	no	6.95
	54C-2500	2500	4PDT	12.6	28	1.3	32	70	3.2	8-16	3-8	5	5	yes	6.95
	54C-5000	5000	4PDT	8.9	20	0.9	45	100	4.5	8-16	3-8	5	5	yes	7.15
	54C-8000	8000	4PDT	7.0	16	0.7	56	128	5.6	8-16	3-8	5	5	yes	7.45
	54C-10000	10000	4PDT	6.3	14	0.6	63	140	6.3	8-16	3-8	5	5	yes	7.65
5D2C	5D2C-500	500	DPDT	20	63	1.2	10	32	0.6	8-16	3-8	5	5	no	6.60
	5D2C-2500	2500	DPDT	8.8	28	0.5	22	70	1.3	8-16	3-8	5	5	yes	6.60
	5D2C-5000	5000	DPDT	6.3	20	0.3	32	100	1.9	8-16	3-8	5	5	yes	6.80
	5D2C-8000	8000	DPDT	5.0	16	0.3	40	128	2.4	8-16	3-8	5	5	yes	7.10
	5D2C-10000	10000	DPDT	4.4	14	0.2	44	140	2.6	8-16	3-8	5	5	yes	7.20
5D3C	5D3C-500	500	3PDT	24.4	63	2.5	12.2	32	1.2	8-16	3-8	5	5	no	7.70
	5D3C-2500	2500	3PDT	10.9	28	1.1	27.2	70	2.8	8-16	3-8	5	5	yes	7.70
	5D3C-5000	5000	3PDT	7.7	20	0.7	39	100	3.9	8-16	3-8	5	5	yes	8.00
	5D3C-8000	8000	3PDT	6.0	16	0.6	48	128	4.8	8-16	3-8	5	5	yes	8.30
	5D3C-10000	10000	3PDT	5.4	14	0.5	54	140	5.4	8-16	3-8	5	5	yes	8.40

All figures are based on 20°C. ambient temperature operation.
* Voltage rating of current operated relays is specified at nominal resistance and may vary directly with actual resistance.
† When energized from a high impedance power source.
†† For timing purposes, nominal current is considered 5% above pull-in current.
• All ratings are for 100,000 operations minimum, with resistive load.

▲ QUANTITY DISCOUNTS

1-10, Net
11-25, Less 5%
26-50, Less 10%
51-75, Less 15%
76-100, Less 30%
101-250, Less 40%
251-500, Less 45%
501-1000, Less 47½%
1001 or more, Less 50%

All prices and specifications are subject to change without notice.

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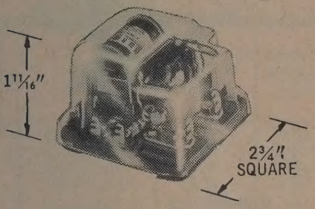
SENSITIVE RELAYS

Per MIL-R-5757D

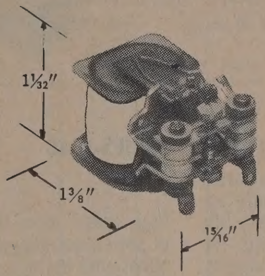
SEE KURMAN PAGE 7 FOR AVAILABLE VARIATIONS



SERIES 310 and 321

SPDT

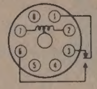
Ultra-sensitive relay, 2 milliwatts. Ideal for all low power input circuits where available current is at a premium. Typical applications include high speed keying, remote control, or battery operated devices. 1-amp silver contacts. May be field adjusted to handle currents up to 3 amps at reduced sensitivity. Transparent plastic dust cover. Screw terminals. Mounting: Two 0.196″ clearance holes on 2⅛″ centers. Weight: 8 oz.

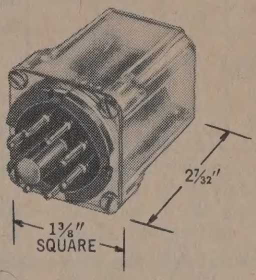


SERIES 51C

SPDT

Small, light weight plate circuit relay with adjustable self-wiping contacts. Current actuated, DC: 10 milliwatts except 51CB44D—5 milliwatts. Voltage actuated, AC: 0.3 VA. 2-amp silver contacts. Solder terminals. Mounting: Two #6-32 tapped holes on 0.437″ centers. Weight: 2 oz.





SERIES 5D1C

SPDT

All operating characteristics same as Series 51C. High-heat polystyrene enclosure. Easily removable case permits field readjustment without special equipment. Mounting: 8-pin octal. Weight: 3 oz.

DC

Series	Relay No.	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS						Oper. Time† (milli-secs)		Contact Rating (amps)●		Coil Impreg.	Price net 1-10 ▲
				Current (ma)			Approx. Voltage* (volts)								
				Pull In	Max.	Drop out	At Pull In I	at Max. I	at Drop Out I	at †† Nom. I	at Max. I	28 VDC	115 VAC		
310	310DC35	470	SPDT	2.1	65	0.2	1.0	31	0.09	10-20	2-3	0.5	1	no	$ 8.85
	310DC37	1200	SPDT	1.3	41	0.13	1.56	49	0.15	10-20	2-3	0.5	1	no	8.85
	310DC40	4680	SPDT	0.65	20	0.06	3.0	98	0.3	10-20	2-3	0.5	1	yes	8.85
	310DC42	11700	SPDT	0.41	13	0.04	4.8	152	0.48	10-20	2-3	0.5	1	yes	10.75
	310DC44	29250	SPDT	0.26	8	0.02	7.6	243	0.7	10-20	2-3	0.5	1	yes	12.40
51C	51CA37D	500	SPDT	4.5	63	0.45	2.2	31.5	0.22	10-20	2-3	2	2	no	5.20
	51CA40D	2000	SPDT	2.3	32	0.22	4.5	63	0.45	10-20	2-3	2	2	yes	5.20
	51CA42D	5000	SPDT	1.4	20	0.14	7.0	100	0.7	10-20	2-3	2	2	yes	5.70
	51CA43D	8000	SPDT	1.2	16	0.11	9	126	0.9	10-20	2-3	2	2	yes	5.70
	51CB44D	13000	SPDT	0.6	12	0.06	8.2	161	0.8	10-20	2-3	1	1	yes	6.20
5D1C	5D1CA37D	500	SPDT	4.5	63	0.45	2.2	31.5	0.22	10-20	2-3	2	2	no	6.20
	5D1CA40D	2000	SPDT	2.3	32	0.22	4.5	63	0.45	10-20	2-3	2	2	yes	6.20
	5D1CA42D	5000	SPDT	1.4	20	0.14	7.0	100	0.7	10-20	2-3	2	2	yes	6.70
	5D1CA43D	8000	SPDT	1.2	16	0.11	9	126	0.9	10-20	2-3	2	2	yes	6.70
	5D1CB44D	13000	SPDT	0.6	12	0.06	8.2	161	0.8	10-20	2-3	1	1	yes	7.20

ALL SHADED AREAS ARE APPROXIMATE VALUES

AC

Series	Relay No.	Resistance (ohms) ± 10%	Contact Arrangements	OPERATE CHARACTERISTICS				Oper. Time† (milli-secs)		Contact Rating (amps)●		Coil Impreg.	Price Net 1-10 ▲
				Approx. AC Current (ma) at Nom. Volt.	AC Voltage (volts)								
					min.	nom.	max.	Nom. V	Max. V	28 VDC	115 VAC		
321	321DC78	19	SPDT	59	5.2	6	17	16	16	2	2	no	$9.25
	321DC81	73	SPDT	29	10	12	33	16	16	2	2	no	9.25
	321DC84	292	SPDT	15	20	24	66	16	16	2	2	no	9.25
	321DC91	7300	SPDT	3.2	95	115	300	16	16	2	2	yes	9.50
51C	51C83A	32	SPDT	64	4.7	6	9.1	16	16	2	2	no	5.60
	51C86A	125	SPDT	32	9.3	12	18	16	16	2	2	no	5.60
	51C89A	500	SPDT	16	18.5	24	36	16	16	2	2	no	5.60
5D1C	5D1C83A	32	SPDT	64	4.7	6	9.1	16	16	2	2	no	6.60
	5D1C86A	125	SPDT	32	9.3	12	18	16	16	2	2	no	6.60
	5D1C89A	500	SPDT	16	18.5	24	36	16	16	2	2	no	6.60

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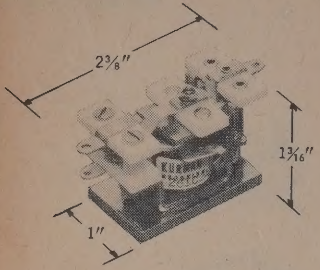
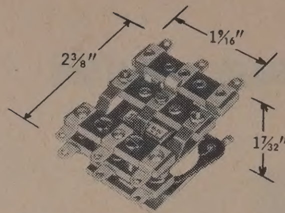
POWER RELAYS

Per MIL-R-5757D

SEE KURMAN PAGE 7 FOR AVAILABLE VARIATIONS





SERIES 261C

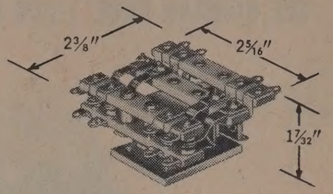
SPDT

Both space and cost economy have been carefully balanced in this heavy duty power relay. Voltage actuated, DC: 1 watt—AC: 4 VA. ¼″ self-wiping, 20-amp silver contacts. Pierced solder terminals — contact terminals will accept AMP Series 187 Fast-On (.02 thick) or equivalent. Mounting: Two #6-32 tapped holes on 1³⁄₁₆″ centers. Weight: 3 oz.

SERIES 262C and 263C

DPDT and 3PDT

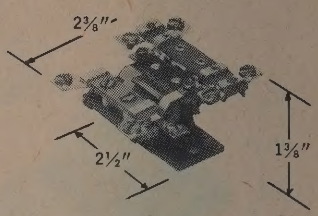
High speed relay for wide range of power and general purpose applications. Voltage actuated, DC: 1 watt for DPDT, 1½ watts for 3PDT—AC: 4 VA. ¼″ self-wiping, 20-amp silver contacts. Pierced solder terminals—contact terminals will accept AMP Series 187 Fast-On (.02 thick) or equivalent. Mounting: Four #6-32 tapped holes on ¹³⁄₁₆″ x 1³⁄₁₆″ centers. Weight: 3.5 oz. (See relay #26S01 and #26S20 for hermetic sealing)



SERIES 264C

4PDT

High speed relay for wide range of power and general purpose applications. Voltage actuated, DC: 2 watts. ¼″ self-wiping, 10-amp silver contacts. Pierced solder terminals—contact terminals will also accept AMP Series 187 Fast-On (.02 thick) or equivalent. Mounting: Four #6-32 tapped holes on ¹³⁄₁₆″ x 1³⁄₁₆″ centers. Weight: 3.5 oz.



SERIES 26L

DPDT

Heavy duty industrial control relay for all applications requiring high speed operation, long life, and reliable high current contacts. Voltage actuated, DC: 1 watt—AC: 4 VA. ¼″ self-wiping, 30-amp silver contacts. Heavy duty screw terminals. Mounting: Two ³⁄₁₆″ dia. holes on 1⅞″ centers. Weight: 4 oz.

DC

Series	Relay No.	Resistance (ohms) ± 10%	Contact Arrangements	OPERATE CHARACTERISTICS							Oper. Time† (milli-secs)		Contact Rating (amps)•		Coil Impreg.	Price net 1-10 ▲
				Approx DC Current ** (ma)			Approx DC Voltage (volts)									
				at Pull In V	at Nom. V	at Drop Out V	Pull In	Nom.	Max.	Drop Out	Nom. V	Max. V	28 VDC	115 VAC		
261C	261C6DC	43	SPDT	108	140	10.8	5	6	13	0.5	10-15	5-10	20	20	no	$5.45
	261C12DC	170	SPDT	56	71	5.6	9.5	12	26	1.0	10-15	5-10	20	20	no	5.45
	261C24DC	680	SPDT	26	35	2.6	18	24	52	2.0	10-15	5-10	20	20	no	5.45
	261C110DC	6800	SPDT	10.4	16	1.0	70	110	165	10	10-15	5-10	20	20	yes	6.00
262C	262C6DC	27	DPDT	185	222	18.5	5	6	10	0.5	10-15	5-10	20	20	no	6.45
	262C12DC	108	DPDT	88	112	8.8	9.5	12	21	1.0	10-15	5-10	20	20	no	6.45
	262C24DC	428	DPDT	42	56	4.2	18	24	41	2.0	10-15	5-10	20	20	no	6.45
	262C110DC	6800	DPDT	12	16	1.1	80	110	165	10	10-15	5-10	20	20	yes	7.00
263C	263C6DC	17	3PDT	265	350	29	4.5	6	8	0.5	10-15	5-10	20	20	no	6.95
	263C12DC	68	3PDT	147	176	14.7	9.5	12	16	1.0	10-15	5-10	20	20	no	6.95
	263C24DC	270	3PDT	78	89	7.8	20	24	33	2.0	10-15	5-10	20	20	no	6.95
	263C110DC	6800	3PDT	12.5	16	1.25	85	110	165	10	10-15	5-10	20	20	yes	7.50
264C	264C6DC	11	4PDT	454	556	45.4	5	6	6.6	0.5	10-15	5-10	20	20	no	8.55
	264C12DC	43	4PDT	233	279	23.3	10	12	13	1.0	10-15	5-10	20	20	no	8.55
	264C24DC	170	4PDT	118	141	11.8	20	24	26	2.0	10-15	5-10	20	20	no	8.55
	264C110DC	4280	4PDT	22.2	25.7	2.2	95	110	130	9.5	10-15	5-10	20	20	yes	9.15
26L	26L2C6DC	27	DPDT	185	222	18.5	5	6	10	0.5	10-15	5-10	30	30	no	7.20
	26L2C12DC	108	DPDT	88	112	8.8	9.5	12	21	1.0	10-15	5-10	30	30	no	7.20
	26L2C24DC	428	DPDT	48	56	4.8	20	24	41	2.0	10-15	5-10	30	30	no	7.20
	26L2C110DC	6800	DPDT	12	16	1.2	80	110	165	10	10-15	5-10	30	30	yes	7.75

ALL SHADED AREAS ARE APPROXIMATE VALUES

AC

Series	Relay No.	Resistance (ohms) ± 10%	Contact Arrangements	OPERATE CHARACTERISTICS				Oper. Time† (milli-secs)		Contact Rating (amps)•		Coil Impreg.	Price net 1-10 ▲
				Approx. AC Current (ma) at Nom. Volt.	AC Voltage (volts)								
					min.	nom.	max.	Nom. V	Max. V	28 VDC	115 VAC		
261C	261C6AC	2.7	SPDT	835	5.2	6	7	16	16	20	20	no	$5.45
	261C12AC	11	SPDT	417	9.5	12	14	16	16	20	20	no	5.45
	261C24AC	43	SPDT	208	20	24	28	16	16	20	20	no	5.45
	261C115AC	1080	SPDT	44	95	115	130	16	16	20	20	no	5.45
	261C230AC	4280	SPDT	22	190	230	260	16	16	20	20	yes	6.00
262C	262C6AC	2.5	DPDT	675	5.5	6	6.9	16	16	20	20	no	6.45
	262C12AC	10	DPDT	335	10	12	14	16	16	20	20	no	6.45
	262C24AC	39	DPDT	170	21	24	27	16	16	20	20	no	6.45
	262C115AC	980	DPDT	35	95	115	130	16	16	20	20	no	6.45
	262C230AC	3900	DPDT	17	195	230	270	16	16	20	20	yes	7.00
263C	263C6AC	2.5	3DPT	675	5.5	6	6.9	16	16	20	20	no	6.95
	263C12AC	10	3DPT	335	10.5	12	14	16	16	20	20	no	6.95
	263C24AC	39	3PDT	170	21	24	27	16	16	20	20	no	6.95
	263C115AC	980	3PDT	35	95	115	130	16	16	20	20	no	6.95
	263C230AC	3900	3PDT	17	190	230	270	16	16	20	20	yes	7.50
26L	26L2C6AC	2.5	DPDT	675	5.5	6	6.9	16	16	30	30	no	7.20
	26L2C12AC	10	DPDT	335	10	12	14	16	16	30	30	no	7.20
	26L2C24AC	39	DPDT	170	21	24	27	16	16	30	30	no	7.20
	26L2C115AC	980	DPDT	35	95	115	130	16	16	30	30	no	7.20
	26L2C230AC	3900	DPDT	17	190	230	270	16	16	30	30	yes	7.75

All figures are based on 20°C. ambient temperature operation.
**Current rating of voltage operated relays is specified at nominal resistance and may vary inversely with actual resistance.
†When energized from a high impedance power source.
•All ratings are for 100,000 operations minimum, with resistive load.

▲ QUANTITY DISCOUNTS

1-10, Net	51-75, Less 15%	251-500, Less 45%
11-25, Less 5%	76-100, Less 30%	501-1000, Less 47½%
26-50, Less 10%	101-250, Less 40%	1001 or more, Less 50%

All prices and specifications are subject to change without notice.

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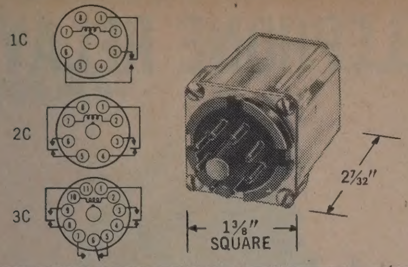


POWER RELAYS

Per MIL-R-5757D

SERIES 26D — SPDT, DPDT, and 3PDT

Low cost, 10-amp, multi-contact power relay. Enclosed in high-heat polystyrene cover. Voltage actuated, DC: 1 watt for SPDT and DPDT, 1½ watts for 3PDT—AC: 4 VA. 3/16" self-wiping, 10-amp silver contacts. Reinforced keyway. Mounting: 8-pin octal for SPDT and DPDT; 11-pin octal type for 3PDT. Weight: 3 oz.

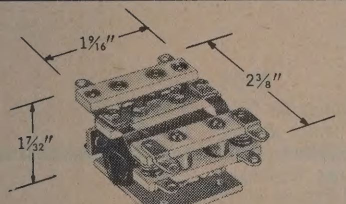
DC

Series	Relay No.	Resistance (ohms) ±10%	Contact Arrangements	Approx DC Current ** (ma) at Pull In V	Approx DC Current ** (ma) at Nom. V	Approx DC Current ** (ma) at Drop Out V	Approx DC Voltage (volts) Pull In	Approx DC Voltage (volts) Nom.	Approx DC Voltage (volts) Max.	Approx DC Voltage (volts) Drop Out	Oper. Time† (milli-secs) Nom. V	Oper. Time† (milli-secs) Max. V	Contact Rating (amps)• 28 VDC	Contact Rating (amps)• 115 VAC	Coil Impreg.	Price net 1-10 ▲
26D	26D1C6DC	27	SPDT	185	222	18.5	5	6	9	0.5	10-15	5-10	10	10	no	$5.45
	26D1C12DC	108	SPDT	84	112	8.8	9	12	18	1.0	10-15	5-10	10	10	no	5.45
	26D1C24DC	428	SPDT	42	56	4.2	18	24	36	2.0	10-15	5-10	10	10	no	5.45
	26D1C110DC	6800	SPDT	11	16	1.1	75	110	140	10	10-15	5-10	10	10	yes	5.95
	26D2C6DC	27	DPDT	185	222	18.5	5	6	9	0.5	10-15	5-10	10	10	no	6.45
	26D2C12DC	108	DPDT	88	112	8.8	9.5	12	18	1.0	10-15	5-10	10	10	no	6.45
	26D2C24DC	428	DPDT	47	56	4.7	20	24	36	2.0	10-15	5-10	10	10	no	6.45
	26D2C110DC	6800	DPDT	12	16	1.2	80	110	140	10	10-15	5-10	10	10	yes	7.00
	26D3C6DC	17	3PDT	294	350	29	5	6	7	0.5	10-15	5-10	10	10	no	7.95
	26D3C12DC	68	3PDT	147	176	15	10	12	14	1.0	10-15	5-10	10	10	no	7.95
	26D3C24DC	270	3PDT	74	89	7.4	20	24	28	2.0	10-15	5-10	10	10	no	7.95
	26D3C110DC	6800	3PDT	13	16	1.3	90	110	140	10	10-15	5-10	10	10	yes	8.50

ALL SHADED AREAS ARE APPROXIMATE VALUES

AC

Series	Relay No.	Resistance (ohms) ±10%	Contact Arrangements	Approx. AC Current (ma) at Nom. Volt.	AC Voltage (volts) min.	AC Voltage (volts) nom.	AC Voltage (volts) max.	Oper. Time† (milli-secs) Nom. V	Oper. Time† (milli-secs) Max. V	Contact Rating (amps)• 28 VDC	Contact Rating (amps)• 115 VAC	Coil Impreg.	Price net 1-10 ▲
26D	26D1C6AC	3	SPDT	675	5.5	6	6.8	16	16	10	10	no	$5.45
	26D1C12AC	12	SPDT	335	9.5	12	13.5	16	16	10	10	no	5.45
	26D1C24AC	49	SPDT	170	21	24	27	16	16	10	10	no	5.45
	26D1C115AC	1200	SPDT	35	90	115	130	16	16	10	10	no	5.45
	26D1C230AC	4900	SPDT	17	190	230	260	16	16	10	10	yes	6.15
	26D2C6AC	3	DPDT	675	5.5	6	6.8	16	16	10	10	no	6.45
	26D2C12AC	12	DPDT	335	9.5	12	13.5	16	16	10	10	no	6.45
	26D2C24AC	49	DPDT	170	21	24	27	16	16	10	10	no	6.45
	26D2C115AC	1200	DPDT	35	95	115	130	16	16	10	10	no	6.45
	26D2C230AC	4900	DPDT	17	190	230	260	16	16	10	10	yes	8.00
	26D3C6AC	3	3PDT	675	5.5	6	6.8	16	16	10	10	no	7.95
	26D3C12AC	12	3PDT	335	10.5	12	13.5	16	16	10	10	no	7.95
	26D3C24AC	49	3PDT	170	22	24	27	16	16	10	10	no	7.95
	26D3C115AC	1200	3PDT	35	95	115	130	16	16	10	10	no	7.95
	26D3C230AC	4900	3PDT	17	195	230	260	16	16	10	10	yes	8.50



ANTENNA RELAYS

Per MIL-R-5757D

SERIES 252C and 253C — DPDT and 3PDT

Powerful antenna change-over relay capable of transferring high current RF loads. Voltage actuated, DC: 1 watt for DPDT, 1½ watts for 3PDT—AC: 4 VA. ¼" self-wiping silver contacts. Pierced solder terminals—contact terminals will accept AMP Series 187 Fast-On (.02 thick) or equivalent. Mounting: Four #6-32 tapped holes on 13/16" x 1 3/16" centers. Weight: 3.5 oz.

DC

Series	Relay No.	Resistance (ohms) ±10%	Contact Arrangements	Approx DC Current ** (ma) at Pull In V	Approx DC Current ** (ma) at Nom. V	Approx DC Current ** (ma) at Drop Out V	Approx DC Voltage (volts) Pull In	Approx DC Voltage (volts) Nom.	Approx DC Voltage (volts) Max.	Approx DC Voltage (volts) Drop Out	Oper. Time† (milli-secs) Nom. V	Oper. Time† (milli-secs) Max. V	Contact Rating (amps)• 28 VDC 115 VAC	Coil Impreg.	Price net 1-10 ▲
252C	252C6DC	27	DPDT	185	222	18.5	5	6	10	0.5	10-15	5-10	1.5 KW RF or 20 amps at 28VDC/115VAC	no	$7.50
	252C12DC	108	DPDT	88	112	8.8	9.5	12	21	1.0	10-15	5-10		no	7.50
	252C24DC	428	DPDT	42	56	4.2	18	24	41	2.0	10-15	5-10		no	7.50
	252C110DC	6800	DPDT	12	16	1.1	80	110	165	10	10-15	5-10		yes	8.10
253C	253C6DC	17	3DPT	265	350	29	4.5	6	8	0.5	10-15	5-10		no	8.50
	253C12DC	68	3DPT	140	176	14.7	9.5	12	16	1.0	10-15	5-10		no	8.50
	253C24DC	270	3DPT	74	89	7.4	20	24	33	2.0	10-15	5-10		no	8.50
	253C110DC	6800	3DPT	12.7	16	1.3	85	110	165	10	10-15	5-10		yes	8.60

ALL SHADED AREAS ARE APPROXIMATE VALUES

AC

Series	Relay No.	Resistance (ohms) ±10%	Contact Arrangements	Approx. AC Current (ma) at Nom. Volt.	AC Voltage (volts) min.	AC Voltage (volts) nom.	AC Voltage (volts) max.	Oper. Time† (milli-secs) Nom. V	Oper. Time† (milli-secs) Max. V	Contact Rating (amps)• 28 VDC 115 VAC	Coil Impreg.	Price net 1-10 ▲
252C	252C6AC	2.5	DPDT	675	5.5	6	6.9	16	16	1.5 KW RF or 20 amps at 28VDC/115VAC	no	$7.50
	252C12AC	10	DPDT	335	10	12	14	16	16		no	7.50
	252C24AC	39	DPDT	170	21	24	27	16	16		no	7.50
	252C115AC	980	DPDT	35	95	115	130	16	16		no	7.50
253C	253C6AC	2.5	3PDT	675	5.5	6	6.9	16	16		no	8.00
	253C12AC	10	3PDT	335	10.5	12	14	16	16		no	8.00
	253C24AC	39	3PDT	170	21	24	27	16	16		no	8.00
	253C115AC	980	3PDT	35	95	115	130	16	16		no	8.00

SAME DAY SHIPMENT OF ALL ORDERS RECEIVED BY 2 P.M.

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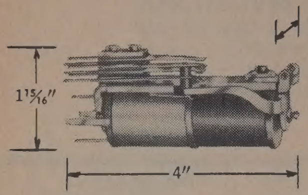
KURMAN TELEPHONE RELAYS

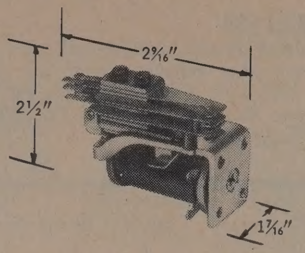
Per MIL-R-5757D



SERIES A

4PDT

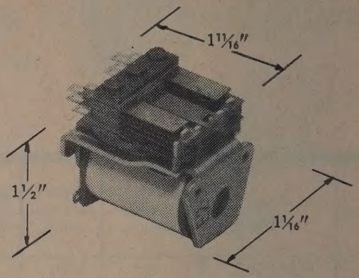
Fast acting, long life relay with heavy duty hinge. Non-loosening knurled armature pin. Voltage actuated, DC: 1 watt. 3-amp palladium contacts. Tinned solder terminals. Mounting: Two #8-32 tapped holes on ¾″ centers. Weight: 10 oz.



SERIES E

4PDT

Short form relay with standard reliable long contact arms. Voltage actuated, DC: 1 watt. 3-amp palladium contacts. Tinned solder terminals. Mounting: Four #8-32 tapped holes on ⅝″ x ¾″ centers. Weight: 7.5 oz.

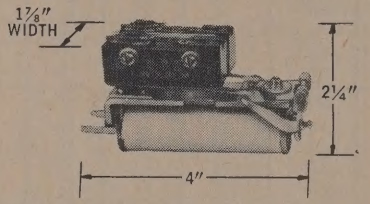


SERIES M

4PDT

Ideal for applications where space, weight and economy are factors. Short contact springs provide fast action, reliability and long life. Voltage actuated, DC: 1 watt. 3-amp silver palladium contacts. Pierced solder terminals. Mounting: Two #4-40 tapped holes on ¾″ centers. Weight: 3.5 oz. (See relay #SM004E and #SM004F for hermetic sealing)

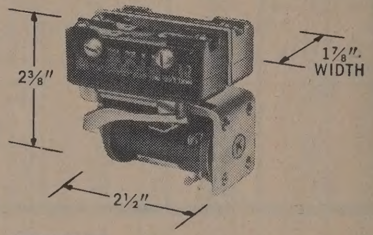
SEE KURMAN PAGE 7 FOR AVAILABLE VARIATIONS



SERIES AS

DPDT

Special version of Series A with two snap action switches. Voltage actuated, DC: 1 watt. Standard 15-amp BZ2RL micro-switches. Pierced solder terminals. Mounting: Two #8-32 tapped holes on ¾″ centers. Weight: 11 oz.



SERIES ES

DPDT

Short coil version of Series AS. Voltage actuated, DC: 1.5 watts approx. Standard 15-amp BZ2RL micro-switches. Pierced solder terminals. Mounting: Four #8-32 tapped holes on ⅝″ x ¾″ centers. Weight 8 oz.

ALL SHADED AREAS ARE APPROXIMATE VALUES

Series	Relay No.	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS							Oper. Time† (milli-secs)		Contact Rating (amps)●		Coil Impreg.	Price net 1-10 ▲
				Approx DC Current ** (ma)			Approx DC Voltage (volts)									
				at Pull In V	at Nom. V	at Drop Out V	Pull In	Nom.	Max.	Drop Out	Nom. V	Max. V	28 VDC	115 VAC		
A	A004-6	40	4PDT	125	150	25	5	6	20	1.0	15-20	5-10	3	3	no	$8.65
	A004-12	140	4PDT	68	86	14	9.5	12	37	1.9	15-20	5-10	3	3	no	9.10
	A004-24	600	4PDT	33	40	6.6	20	24	77	4	15-20	5-10	3	3	no	9.20
	A004-110	10K	4PDT	9.5	11	1.9	95	110	300	19	15-20	5-10	3	3	no	10.30
E	E004-6	40	4PDT	125	150	25	5	6	15	1.0	15-20	5-10	3	3	no	7.65
	E004-12	145	4PDT	65	83	13	9.5	12	30	1.9	15-20	5-10	3	3	no	8.10
	E004-24	590	4PDT	34	41	6.8	20	24	60	4	15-20	5-10	3	3	no	8.20
	E004-110	10K	4PDT	9.5	11	1.9	95	110	240	19	15-20	5-10	3	3	no	9.30
M	M004-6	30	4PDT	166	200	33	5	6	11	1.0	15-20	5-10	3	3	no	6.30
	M004-12	120	4PDT	79	100	16	9.5	12	22	1.9	15-20	5-10	3	3	no	6.30
	M004-24	480	4PDT	42	50	8.4	20	24	44	4	15-20	5-10	3	3	no	6.30
	M004-110	12K	4PDT	8	9.2	1.6	95	110	220	19	15-20	5-10	3	3	yes	7.25
AS	AS2-6	40	DPDT	125	150	12.5	5	6	20	0.5	15-20	5-10	6	15	no	12.00
	AS2-12	140	DPDT	68	86	6.8	9.5	12	37	0.9	15-20	5-10	6	15	no	12.45
	AS2-24	600	DPDT	33	40	3.3	20	24	77	2.0	15-20	5-10	6	15	no	12.55
	AS2-110	10K	DPDT	9.5	11	0.95	95	110	300	9.5	15-20	5-10	6	15	no	13.70
ES	ES2-6	23	DPDT	218	260	22	5	6	12	0.5	15-20	5-10	6	15	no	11.50
	ES2-12	92	DPDT	98	130	10	9.5	12	24	0.9	15-20	5-10	6	15	no	11.95
	ES2-24	370	DPDT	54	65	5.4	20	24	47	2.0	15-20	5-10	6	15	no	12.05
	ES2-110	8250	DPDT	10.5	13.4	1.1	95	110	220	9.5	15-20	5-10	6	15	no	13.20

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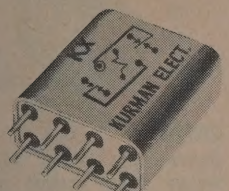
MICRO-MINIATURE RELAYS

Per MIL-R-5757D

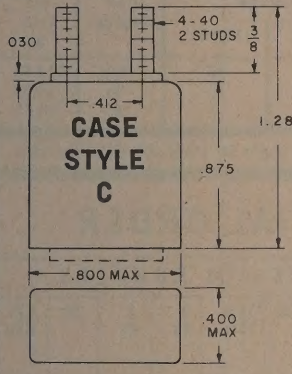


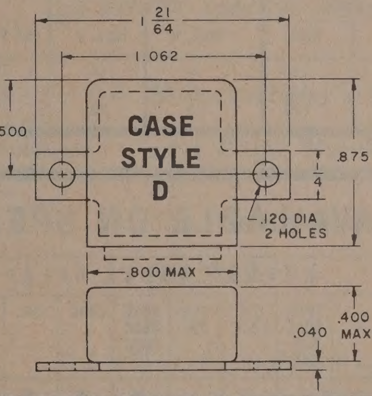
ALL SHADED AREAS ARE APPROXIMATE VALUES

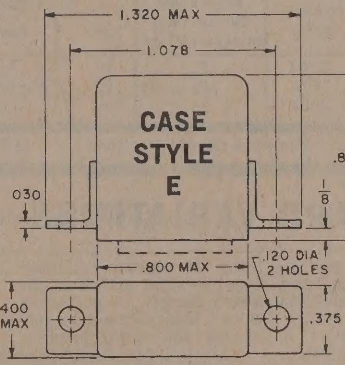
SERIES KX1 DPDT

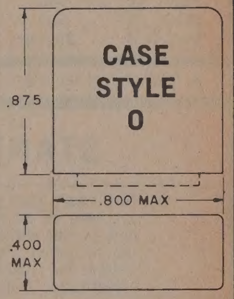
Micro-miniature relay featuring 0.2″ grid spaced header arrangement. Withstands 50G operational shock and 20G vibration up to 2000 cps without contact opening. Ambient temperatures from —65°C to +125°C. Voltage actuated, DC: 250 milliwatts pull-in. Special gold-flashed contacts rated to carry any load from dry circuit up to 2 amps, 28VDC resistive. Contact resistance less than 50 milliohms. High pot breakdown of 750 VAC between open contacts and 1000 VAC between all other points. Insulation resistance in excess of 10,000 megohms. Hermetically sealed, nitrogen/helium filled. Terminals: Plug-in or solder hook. Mounting: Plug-in, brackets, or studs. Weight: 18 grams max.

Relay No.	Case Style, Terminals	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS						Oper. Time† (milli-secs)		Contact Rating (amps)●		Coil Impreg.	Price net 1-10 ▲
				Approx. DC Current ** (ma)		Approx. DC Voltage (volts)									
				at Pull In V	at Drop Out V	Pull In	Nom.	Max.	Drop Out	Nom. V	Max. V	28 VDC	115♦ VAC		
KX1P20 KX1H2C KX1H2D KX1H2E } -6	O, Plug-In C, Solder D, Solder E, Solder	35	DPDT DPDT DPDT DPDT	92	9.2	3.4	6	7.2	0.3	5	3-5	2	1	no	$15.95 16.20 16.20 16.20
KX1P20 KX1H2C KX1H2D KX1H2E } -12	O, Plug-In C, Solder D, Solder E, Solder	150	DPDT DPDT DPDT DPDT	45	4.5	6.7	12	14.5	0.7	5	3-5	2	1	no	15.95 16.20 16.20 16.20
KX1P20 KX1H2C KX1H2D KX1H2E } -24	O, Plug-In C, Solder D, Solder E, Solder	600	DPDT DPDT DPDT DPDT	21	2.1	13	24	30	1.3	5	3-5	2	1	no	15.95 16.20 16.20 16.20



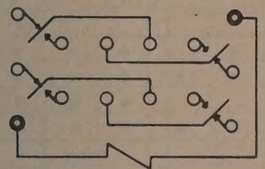


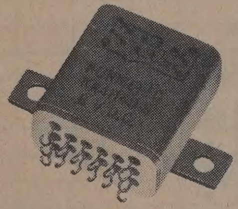




4PDT MICRO-MINIATURE ASTRORELAY

Per MIL-R-5757D





ALL SHADED AREAS ARE APPROXIMATE VALUES

SERIES KX4

The ASTRORELAY will withstand 100G shock and 40G vibration up to 2000 cps without contact opening. Ambient temperatures from —65°C to +125°C. Voltage actuated, DC: 250 milliwatts pull-in. Silver magnesium nickel gold-flashed contacts rated to carry any load from dry circuit up to 2 amps, 28 VDC resistive. Contact resistance less than 50 milliohms. High pot breakdown of 750 VAC between open contacts and 1000 VAC between all other points. Insulation resistance in excess of 10,000 megohms. Hermetically sealed, nitrogen/helium filled. Solder hook terminals. Mounting bracket: Two 0.120 dia. holes on 1.062 centers. Weight: 18 grams max.

Relay No.	Case Style, Terminals	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS						Oper Time† (milli-secs)		Contact Rating (amps)●		Coil Impreg.	Price net 1-10 ▲
				Approx. DC Current ** (ma)		Approx. DC Voltage (volts)									
				at Pull In V	at Drop Out V	Pull In	Nom.	Max.	Drop Out	Nom. V	Max. V	28 VDC	115♦ VAC		
KX4H4D-6	D, Solder	35	4PDT	92	9.2	3.4	6	7.2	0.3	5	4	2	1	no	$26.00
KX4H4D-12	D, Solder	150	4PDT	45	4.5	6.7	12	14.5	0.7	5	4	2	1	no	26.00
KX4H4D-24	D, Solder	600	4PDT	21	2.1	13	24	30	1.3	5	4	2	1	no	26.00

All figures are based on 20°C. ambient temperature operation.
**Current rating of voltage-operated relays is specified at nominal resistance and may vary inversely with actual resistance.
†When energized from a high-impedance power source.
●All ratings are for 100,000 operations minimum, with resistive load.
♦With case not grounded.

▲ QUANTITY DISCOUNTS

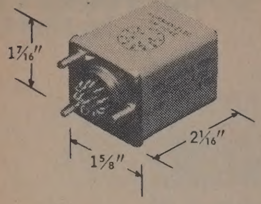
1-10, Net	51-75, Less 15%	251-500, Less 45%
11-25, Less 5%	76-100, Less 30%	501-1000, Less 47½%
26-50, Less 10%	101-250, Less 40%	1001 or more, Less 50%

All prices and specifications are subject to change without notice.

SAME DAY SHIPMENT OF ALL ORDERS RECEIVED BY 2 P.M.

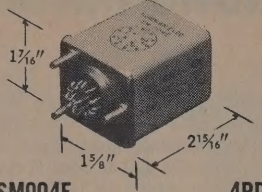
HERMETICALLY SEALED RELAYS

Per MIL-R-5757



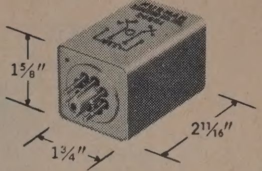
SM004E **4PDT**

Hermetically sealed (nitrogen/helium filled) version of Series M. Designed to operate over normal 18-32 VDC input range. Voltage actuated, DC: 1 watt. 3-amp silver palladium contacts. Solder hook terminals. Mounting: Three #6-32 studs on 1⁵⁄₁₆″ x 1³⁄₁₆″ centers. Weight: 6 oz.



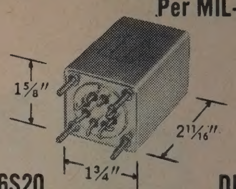
SM004F **4PDT**

Hermetically sealed (nitrogen/helium filled) special version of Series M. Equipped with internal rectification. Designed to operate at 115 VAC nominal at any frequency from 47 to 440 cps. DC coil resistance: 3000 ohms ±10%. 3-amp silver palladium contacts. Solder hook terminals. Mounting: Three #6-32 studs on 1⁵⁄₁₆″x1³⁄₁₆″ centers. Weight: 6.5 oz.



26S01 **DPDT**

Hermetically sealed (nitrogen/helium filled) version of relay #262C115AC. Voltage actuated, AC: 4 VA. ¼″ self-wiping, 20-amp silver contacts derated to 10—amps due to plug-in socket limitation. Mounting: 8-pin octal. Weight: 6.5 oz.



26S20 **DPDT**

Hermetically sealed (nitrogen/helium filled) version of relay #262C115AC with heavy duty, ¼″ self-wiping 25-amp silver contacts. Voltage actuated, AC: 4VA. Can be externally wired for double make or double break arrangements. Flat pierced solder terminals. Mounting: Four #6-32 studs on 1¼″ x 1⅛″ centers. Weight: 7 oz.

DC

Relay No.	Resistance (ohms) ±10%	Contact Arrange-ments	OPERATE CHARACTERISTICS: Approx DC Current ** (ma) at Pull In V	at Nom. V	at Drop Out V	Approx DC Voltage (volts) Pull In	Nom.	Max.	Drop Out	Oper. Time† (milli-secs) Nom. V	Max. V	Contact Rating (amps)● 28 VDC	115 VAC	Coil Impreg.	Price net 1-10 ▲
SM004E	300	4PDT	60	89	10	18	26.5	35	3	15-20	10-15	3	3	no	$12.10

ALL SHADED AREAS ARE APPROXIMATE VALUES

AC

Relay No.	Resistance (ohms) ±10%	Contact Arrange-ments	OPERATE CHARACTERISTICS: Approx. AC Current (ma) at nom. voltage	AC Voltage (in volts) min.	nom.	max.	Oper. time† (milli-secs) Nom. V	Max. V	Contact Rating (amps)● 28 VDC	115 VAC	Coil Impreg.	Price net 1-10 ▲
26S01	980	DPDT	35	95	115	130	16	16	10	10	no	$12.85
26S20	980	DPDT	35	95	115	130	16	16	25	25	no	14.80
SM004F	3000■	4PDT	20	100	115	130	20	20	3	3	no	13.85

■ Two internal rectifiers—use caution when checking resistance.

See preceding pages for other specification notes

STANDARD VARIATIONS—AVAILABLE ON SPECIAL ORDER

This chart indicates the wide range of standard variations available on all Kurman stock relays, **at slight extra cost per unit — but without additional tooling charges.** In addition to the variations shown, design and cost proposals will be submitted for special units of virtually **any** configuration or performance specifications.

		KURMAN STOCK RELAY SERIES NUMBERS: T	5D2C 5D3C 52C 54C	51C 5D1C	310 321	261C 262C 263C	264C	26L	26D	252C 253C	A AS	E ES	M	KX1 KX4
CONTACT MATERIAL	Silver cadmium oxide contacts					●	●	●	●	●				
	W E #1 Gold alloy contacts	●	●	●							●	●	●	
	Gold Flashed-silver contacts	●	●	●	●	●	●	●	●	●	●	●	●	
	Other special contact alloys	●	●	●	●	●	●	●	●	●	●	●	●	
CONTACT ARRANGM'T.	Up to 6PDT (open, dust protected or sealed)		●								●	●	●	
	Up to 10PDT or 15PST										●			
	Twin contacts												●	
TERMINALS	Miniature plug-in header (Herm. sealed)	●	●	●					●		●	●	●	●
	Solder terminal header (Herm. sealed)	●	●	●		●	●	●	●	●	●	●	●	●
	3″ leads (Herm. sealed)	●	●	●							●	●	●	●
	8, 9, 11, 12 or 20-pin octal type plug-in	●	●	●		●			●	●	●	●	●	
HERMETIC SEALING	Hermetically sealed enclosure #5 1⁷⁄₁₆″ x 1⁵⁄₈″ x 2¹⁄₁₆″ high		●	●									●	
	Hermetically sealed enclosure #5A 1⁷⁄₁₆″ x 1⁵⁄₈″ x 2⁵⁄₁₆″ high		●	●					●				●	
	Hermetically sealed enclosure #6 1⁵⁄₈″ x 1³⁄₄″ x 2¹¹⁄₁₆″ high					●		●	●	●				
	Other hermetically sealed special enclosures	●	●	●		●	●	●	●	●	●	●	●	●
DUST COVER	Dust protected in enclosure #5		●	●									●	
	Dust protected in enclosure #5A		●	●					●				●	
	Dust protected in enclosure #6					●		●	●	●				
	Dust protected in other special enclosures		●	●		●			●	●	●	●	●	
MISC.	Neon or incandescent indicator lamp		●	●		●			●					
	Rectified AC operation 47-440 CPS	●	●	●	●	●	●	●	●	●	●	●	●	●
	Universal mounting bracket										●			
	Plug-in mating socket													●

KURMAN INSTRUMENTS CORP. • BROOKLYN 22, N. Y.

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1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

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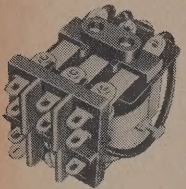
LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

GENERAL PURPOSE RELAYS

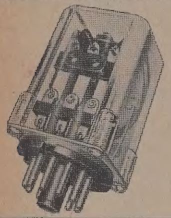


MINIATURE OPEN TYPE (SERIES MK)

Open type relay in standard contact arrangements up to 3PDT. 5 or 10 amp contact rating. Voltages up to 230 volts, A.C. or D.C. Factory adjusted to pull in at 75% max. of nominal voltage D.C. and 80% max. of nominal voltage A.C. Designed to pass 1,000 volt A.C. Hipot test between all elements.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MK1A SPDT	$3.10	$3.55
	MK2A DPDT	3.75	4.15
		6, 12, 24V	110V
DC	MK1D SPDT	$3.05	$3.45
	MK2D DPDT	3.40	3.85

All models available 3PDT, and in 10 amp contact rating.
DIMENSIONS: 1-11/16 × 1-3/16 × 29/32

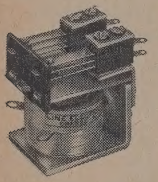


MINIATURE PLUG-IN (SERIES MKP)

Plug-in type relay, same factory tested, quality features as above. Will operate continuously in ambient temperature ranges of 45° to 75°C. for D.C. coils and —45° to 55°C. for A.C. coils. Metal or polystyrene dust cover.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKP1A SPDT	$5.45	$5.90
	MKP2A DPDT	6.05	6.45
		6, 12, 24V	110V
DC	MKP1D SPDT	$5.40	$5.85
	MKP2D DPDT	6.00	6.40

All models available 3PDT, and in 10 amp contact rating.
DIMENSIONS: 2-1/4 × 1-5/8 × 1-3/8

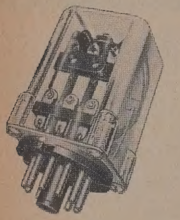


MINIATURE MULTIPLE LEAF (SERIES MW)

A small, versatile relay available in a variety of contact configurations consisting of forms A, B, C or D (make before break), up to a maximum of 12 springs. Coils can be supplied for operation on D.C. or A.C. 60 cps. Operation on 400 cps. source is available with self-contained rectifiers on relays with covers.

	10 amp contact rating	6, 12, 24, 115V	220V
AC	MW1A SPDT	$2.70	$3.10
	MW2A DPDT	3.30	3.75
		6, 12, 24V	110V
DC	MW1D SPDT	$2.60	$3.10
	MW2D DPDT	3.25	3.65

All models available 3PDT and 4PDT.
DIMENSIONS: 1-17/32 × 1-21/32 × 1-0

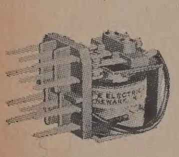


SPOTLIGHT RELAYS (SERIES A)

High quality, general purpose plug-in relay with built-in circuit indicator lamp. Available in colored cases for circuit identification and in metal can. Saves panel space, reduces costly labor.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	A-1A SPDT	$6.40	$6.85
	A-2A DPDT	7.00	7.40
	A-3A 3PDT	8.45	8.85
		6, 12, 24V	110V
DC	A-1D SPDT	$6.35	$6.75
	A-2D SPDT	6.95	7.35
	A-3D 3PDT	8.40	8.80

All models available in 10 amps.
DIMENSIONS: 2-1/4 × 1-3/8 × 1-3/8

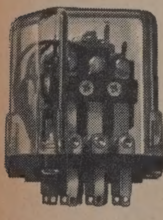


PRINTED CIRCUIT or TAPER TAB (SERIES MKT)

Printed circuit type relay incorporating coil, frame and load contacts of standard Series MK. Connector lugs fit standard amp terminal #41355. Series MKTE is the MKT with plastic dust cover. Available with studs for chassis mount or taper tab connectors. Price same as MKTR below.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKT1A SPDT	$3.25	$3.65
	MKT2A DPDT	3.95	4.35
		6, 12, 24V	110V
DC	MKT1D SPDT	3.20	$3.60
	MKT2D DPDT	3.60	4.05

All models available 3PDT, and in 10 amp contact rating.
DIMENSIONS: 2-1/32 × 1-7/32 × 29/32



New!

MINIATURE PLUG-IN *LOW PROFILE LOW COST*

(SERIES MKTR)

Despite its compact size this new totally enclosed, low cost, low profile miniature relay has not compromised the high quality of its progenitor the Series MK open relay. The low mounting profile (dust cover included) has been made possible by incorporating the frame of the relay with the connector-header. Thus a certain basic hardware has been eliminated resulting in important size reduction. Versatility is also assured since the standard terminals can be used with Amp snap-on connectors, printed circuits, or plug-in receptacles. Also available with studs for chassis mounting. Termination can be used for soldered connections. The plug-in-receptacle is true 10 ampere construction. Lugs can be used for either solder or snap-on connections.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKTR1A SPDT	$4.25	$4.65
	MKTR2A DPDT	4.95	5.35
	MKTR3A 3PDT	5.40	5.85
		6, 12, 24V	110V
DC	MKTR1D SPDT	$4.20	$4.60
	MKTR2D DPDT	4.60	5.05
	MKTR3D 3PDT	5.10	5.50

AVAILABLE 3 WAYS: Plate circuit relay. Spotlight relay (with or without colored dust cover). Hermetic seal or any combination.
DIMENSIONS: 1-3/16 x 1-3/8 x 1-3/8.

92-67 RECEPTACLE .30 net.

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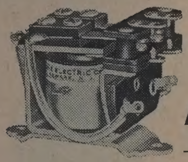
GENERAL PURPOSE RELAYS



MEDIUM POWER RELAY OPEN TYPE (SERIES LR)

Open type, heavy-duty type relay designed for many applications. Standard fine silver contacts rated at 10 amperes, optional Silver Cadmium load contacts rated at 15 amps. Ambient temperature operating range, continuous duty: A.C., —45° to 55°C.; D.C., —45° to 75°C.

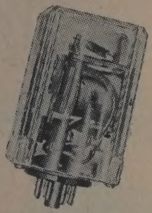
AC

10 amp contact rating	6, 12, 24, 115V	220V
LR1A SPDT	$4.00	$4.20
LR2A DPDT	4.85	5.05
LR12A SPDT-DB	5.05	5.25

DC

10 amp contact rating	6, 12, 24V	110V
LR1D SPDT	$4.65	$5.10
LR2D DPDT	5.05	5.45
LR12D SPDT-DB	4.85	5.05

All above available SPDT-DB (15 amp). DIMENSIONS: 2-3/8 × 1-1/2 × 1-21/32



MEDIUM POWER RELAY PLUG-IN TYPE (SERIES LRP)

This relay is available in either metal or plastic enclosures, equipped with a standard octal plug in header for single and double pole types. Eleven pin headers are also available. The standard LPR plastic enclosure is a clear hi-impact polystyrene, colors are available at no extra charge. Female sockets for 8 and 11 pin headers are also available.

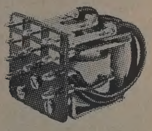
AC

10 amp contact rating	6, 12, 24, 115V	220V
LRP1A SPDT	$7.00	$7.10
LRP2A DPDT	8.20	8.50
LRP12A SPDT-DB	8.80	9.00

DC

10 amp contact rating	6, 12, 24V	110V
LRP1D SPDT	$6.80	$7.00
LRP2D DPDT	8.00	8.40
LRP12D SPDT-DB	8.70	8.80

All above available SPDT-DB (15 amp). DIMENSIONS: 3-1/8 × 1-15/16 × 1-15/16



HEAVY DUTY RELAY OPEN TYPE (SERIES LG)

Open type relay, specifically designed for extremely heavy-duty applications. Standard Fine Silver load contacts are rated at 15 amps. with optional Silver Cadmium Oxide contacts where larger inrush loads are encountered. Loads are rated at 115/60 non-inductive. All load contacts are factory gold-flashed to prevent contact oxidation prior to use.

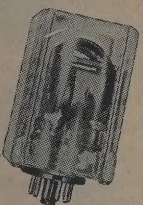
AC

15 amp contact rating	6, 12, 24, 115V	220V
LG1A SPDT	$4.30	$4.50
LG2A DPDT	4.85	5.05
LG3A 3PDT	5.40	5.60

DC

15 amp contact rating	6, 12, 24V	110V
LG1D SPDT	$4.20	$4.40
LG2D DPDT	4.75	4.95
LG3D 3PDT	5.30	5.60

All models available 3PDT. DIMENSIONS: 1-1/2 × 2-3/8 × 13/16



HEAVY DUTY RELAY PLUG-IN TYPE (SERIES LGP)

Plug-in type relay, with same quality features as above. Also available in either metal or clear plastic enclosure. Ambient temperature operating range, continuous duty; A.C., —45° to 55°C.; D.C., —45° to 75°C.

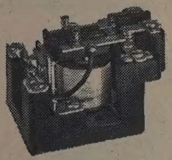
AC

15 amp contact rating	6, 12, 24, 115V	220V
LGP1A SPDT	$7.30	$7.50
LGP2A DPDT	7.85	8.05
LGP3A 3PDT	8.40	8.60

DC

15 amp contact rating	6, 12, 24V	110V
LGP1D SPDT	$7.20	$7.40
LGP2D DPDT	7.75	8.05
LGP3D 3PDT	8.40	8.60

All models available 3PDT.

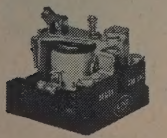


NEW! HEAVY DUTY POWER RELAYS (SERIES ST)

A 25 amp. power relay ideally suited for starting motors up to 1 hp, elevator controls, and many other applications which require high current or high voltage switching with maximum dependability. One piece molded base, sturdy two-hole mounting. Top removable coil.

	25 amp contact rating	6, 12, 24, 115V	220V
AC	ST2A DPDT	$6.55	$6.85
		6, 12, 24VDC	110VDC
DC	ST2D DPDT	$6.55	$6.85

DIMENSIONS: 2-5/16 × 3-1/8 × 2-1/2



HEAVY DUTY POWER RELAYS (SERIES STM)

Same quality features as Series ST above, but assembled on a compact base.

AC

25 amp contact rating	6, 12, 24, 115V	220V
STM1A SPDT	$4.25	$4.75
STM4A SPDT NO	3.90	4.40
STM5A DPST NO	4.65	5.15
STM7A SPST NC	3.90	4.40
STM10A SPST NO DB	4.15	4.65

DC

25 amp contact rating	6, 12, 24, 110V
STM1D SPDT	$4.25
STM4D SPDT NO	3.90
STM5D DPST NO	4.65
STM7D SPST NC	3.90
STM10D SPST NO DB	4.15

DIMENSIONS: 2-1/2 X 2-5/16 X 2-1/16.

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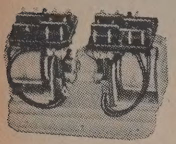
MECHANICAL LATCH RELAYS



OPEN TYPE (SERIES RL)

Open type for use where a sustained relay closure is required, and current drain of a relay coil is to be eliminated. Incorporates two coils, one to close load contacts, the other to reset them. Requires only momentary electrical contact to operate or release. Provides positive mechanical latch, eliminating chatter during sustained relay closure.

AC

5 amp contact rating	6, 12, 24, 115V	220V
RL1A SPDT	$7.15	$8.00
RL2A DPDT	8.25	9.00
RL3A 3PDT	9.15	9.95
RL14A 4PDT	10.45	11.30
RL15A 5PDT	11.45	12.30
RL16A 6PDT	12.55	13.35

DC

5 amp contact rating	6, 12, 24V	110V
RL1D SPDT	$6.50	$7.75
RL2D DPDT	7.50	8.75
RL3D 3PDT	8.50	9.75
RL14D 4PDT	9.50	10.75
RL15D 5PDT	10.50	11.75
RL16D 6PDT	11.50	12.75

Available in 10 amp contact rating. DIMENSIONS: 2-11/16 × 1-3/4 × 1-3/4

PLUG-IN TYPE (SERIES RLP)

Plug-in type, same factory-tested quality features as above. Available in transparent closure up to 5PDT.

AC

5 amp contact rating	6, 12, 24, 115V	220V
RLP1A SPDT	$9.40	$10.25
RLP2A DPDT	10.50	11.30
RLP3A 3PDT	14.75	15.60
RLP14A 4PDT	16.15	17.00
RLP15A 5PDT	17.25	18.00

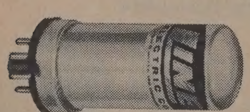
DC

5 amp contact rating	6, 12, 24V	110V
RLP1D SPDT	$8.75	$10.05
RLP2D DPDT	9.85	11.15
RLP3D 3PDT	14.10	15.40
RLP14D 4PDT	15.55	16.80
RLP15D 5PDT	16.65	17.90

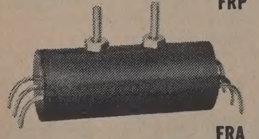
All models available 3PDT, 4PDT, 5PDT, and in 10 amp contact rating.

REED RELAYS — 5 STANDARD TYPES

FR



FRP



FRA

FT

FRB

In computer, data processing and guidance system development, design engineers are enthusiastically applying dry reed relays in place of switching diodes. The reasons: miniature profile—life expectancy exceeding 100,000,000 operations—less heat generated compared with switching diodes—3 millisecond operating time and very high resistance in the open contact stage.

To efficiently serve the growing demand for dry reed relays in these and other applications, Line Electric now stocks these 5 standard types for immediate delivery in prototype quantities.

Open Coil Type—Series FR

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FR1-SPDT, $ 5.50 ea.	FR4-SPST NO, $3.30 ea.
FR2-2PDT, $ 9.00 ea.	FR5-2PST NO, $4.50 ea.
FR3-3PDT, $12.75 ea.	FR6-3PST NO, $5.50 ea.

Plug-In Type—Series FRP

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FRP1-SPDT, $ 8.50 ea.	FRP4-SPST NO, $6.00 ea.
FRP2-2PDT, $12.00 ea.	FRP5-2PST NO, $7.50 ea.
FRP3-3PDT, $16.00 ea.	FRP6-3PST NO, $8.50 ea.

Lug Mount Type—Series FRA

6 VDC & 12 VDC & 24 VDC. 2 Contact Arrangements

FRA1-SPDT, $7.50 ea.	FRA4-SPST NO, $4.50 ea.

Printed Circuit Type—Series FT

6 VDC & 12 VDC & 24 VDC 6 Contact Arrangements

FT1-SPDT, $ 8.25 ea.	FT4-SPST NO, $5.25 ea.
FT2-2PDT, $12.00 ea.	FT5-2PST NO, $6.50 ea.
FT3-3PDT, $15.75 ea.	FT6-3PST NO, $8.50 ea.

Encapsulated Type—Series FRB

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FRB1-SPDT, $ 7.00 ea.	FRB4-SPST NO, $4.50 ea.
FRB2-2PDT, $10.50 ea.	FRB5-2PST NO, $6.00 ea.
FRB3-3PDT, $14.50 ea.	FRB6-3PST NO, $7.00 ea.

SPECIFICATIONS

CONTACT RATING
10 volt-amperes resistive
3 watts D.C. resistive

MAXIMUM CURRENT
0.5 amperes

DIELECTRIC STRENGTH
250 volts
60 cps R.M.S.

MAXIMUM VOLTAGE
110 volts

LIFE EXPECTANCY
Rated load - - -
1 x 10^6 operations
Dry circuit - - -
100 x 10^6 operations

OPERATE TIME
3 milliseconds maximum, including bounce

CONTACT RESISTANCE
50 milliohms

INSULATION RESISTANCE
1000 megohms minimum

RELEASE TIME
5 milliseconds maximum, including bounce

LINE ELECTRIC COMPANY

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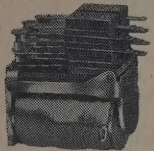
MINIATURE TELEPHONE RELAYS



(SERIES GT)

Fast acting miniature telephone type relay. Highly versatile, supplied in contact arrangements up to 6PDT, and in a variety of styles including open, dust cover, and hermetically sealed. Factory will supply enclosure details.

AC

	6, 12, 24V	115V
GT1A SPDT	$5.55	$5.95
GT2A DPDT	6.50	6.75
GT3A 3PDT	7.00	7.45
GT14A 4PDT	7.40	7.85
GT15A 5PDT	8.10	8.50
GT16A 6PDT	8.80	9.30

DC

	6, 12, 24V	110V
GT1D SPDT	$3.55	$4.00
GT2D DPDT	4.50	4.75
GT3D 3PDT	5.00	5.45
GT14D 4PDT	5.40	5.85
GT15D 5PDT	6.10	6.50
GT16D 6PDT	6.80	7.30

DIMENSIONS: Max. 1-9/16 × 17/32 × 3/4

BUZZERS D.C. - A.C.

BD

BDH

VARIABLE SOUND AND PITCH D.C. - A.C.

The series BD buzzers are designed for use in offices, plants, etc., where quality, good appearance and dependable operation is demanded. Three sizes of buzzers are available, each size varying in tone and volume of sound. However, the volume of sound and pitch of each size buzzer can be varied by means of double, locking adjustments. The three sizes of buzzers are equipped with phospher bronze springs and pure hard-drawn silver contacts. They are bug and dust-proof with tight-fitting polished chrome covers.

Model No.	6-8VDC	12VDC	24VDC	48VDC
BD-0	$3.25	$3.50	$3.75	$5.25
BD-1	3.15	3.25	3.40	4.80
BD-2	3.25	3.50	3.75	5.20

(BD-0 Low tone, BD-1 Medium tone, BD-2 Loud tone)

Hermetic Seal				
BDH	8.50	9.00	9.50	10.00

DIMENSIONS:
BD0—1-5/8 × 1-1/8 ×1-1/2
BD1—2-1/8 × 2 × 11/16
BD2—2-7/8 × 2-1/2 × 1
BDH—1-9/16 × 3-13/16 × 2-13/16

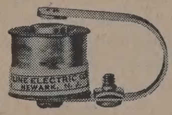
MD

MB

AC BUZZERS

Available for 6, 12, 24, 115, 220, and 140 volts A.C. 60 cps operation, these buzzers are ideally suited for paging, warning, starting and dismissal signals. These buzzers are a non-contact type therefore suitable for continuous duty, providing a clear, penetrating signal.

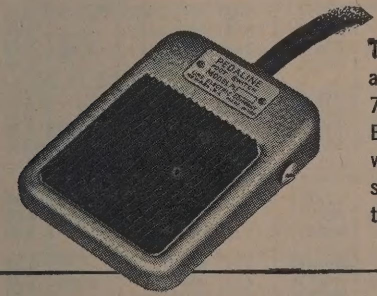
MC



MA

	6, 12, 24, 115 VAC/60 cy	220VAC/60 cy
MA	$2.25	$2.80
MB	2.50	3.05
MC	3.15	3.70
MD	1.60	2.40
MCH Hermetic Seal	10.00	11.00

PEDALINE FOOT SWITCH



The Pedaline is a compact light weight foot operated switch. The single switch type weighs only 7 ounces; the double switch type 7½ ounces. Baked on light gray hammertone enamel finish with black foot pad. Available with a single pole snap action switch or two single pole double throw switches which operate in sequence.

#PL1 single switch only	$3.15
#PL-1C single switch w/line cord	$4.45
#PL5 double switch	$4.80
#PL-5C double switch w/line cord	$5.65

DIMENSIONS: 3-1/2 × 2-5/8 × 1

LINE ELECTRIC CO. Orange, New Jersey

Division of Industrial Timer Corporation

IN CANADA: Sperry Gyroscope Ottawa Ltd. • Ottawa, Ontario

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Net

MAGNECRAFT
The relays you can rely on

Immediate Delivery from
STOCKING DISTRIBUTORS

All prices and specifications effective July 1, 1963 and subject to change without notice.

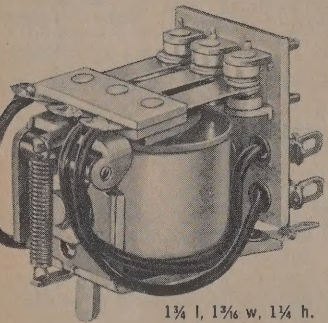
All contact ratings are based on 115 volts, 60 cycles, non-inductive load.

ORDER BY CATALOG NUMBER. All Stock Relay Carton Labels carry Catalog Number; Contact Combination and Rating; Coil Voltage or Current.

All enclosed relays are identified by catalog number and wiring diagram.

NOTE: Order MAGNECRAFT STOCK RELAYS from STOCKING DISTRIBUTORS. Their supplies are supplemented by complete stocks maintained at the MAGNECRAFT plant in Chicago.

Cat. No. W88AX1
contacts 10 amps SPDT
coil 6 VAC
MAGNECRAFT RELAY
MAGNECRAFT RELAYS



1¾ l, 1³⁄₁₆ w, 1¼ h.

Class 88
Small AC-DC General Purpose Relay

Open Type Relay. Has 10 ampere silver alloy contacts. Tinned solder terminals, spaced for easy wiring. One #6-32 tapped mounting hole with locating boss. Weight, 2 ounces.

The General Purpose Relay with Telephone Type Reliability

The MAGNECRAFT 88 Relay is an abrupt departure in clapper type relay design. Dimensionally interchangeable with relays made by others the 88 has been developed to **provide Telephone Type Relay reliability at general purpose relay prices.**

Unique in relays of this type MAGNECRAFT 88 Relays have **rugged, precision-built hinge-pin armature bearings** with oversize bearing surfaces—the same construction used in the finest telephone type relays for **lowest friction** and **maximum contact effectiveness** with **stabilized adjustment over long life.**

Glass insulation provides **great di-electric strength unaffected by humidity and temperature changes.**

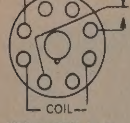
Molded Nylon bobbins with ruggedized coil terminal inserts **eliminate possibility of shorts.**

Built-in contact wipe with riveted contacts further **advance reliability through long life.**

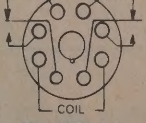
The many refinements, plus MAGNECRAFT Quality Control and Inspection Standards **give you hidden values beyond price**—unseen values that keep making friends through years of dependable service.

When you inspect and compare you will soon see that many MAGNECRAFT 88 **extra values are not hidden.**

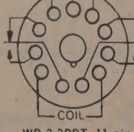
Wiring Diagrams for Class 88 Plug-in Mounted Relays



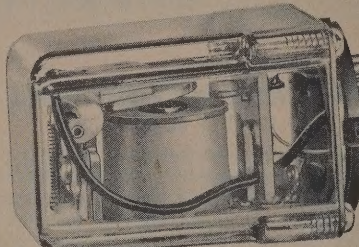
†WD-1 SPDT, 8-pin



WD-2 DPDT, 8-pin



WD-3 3PDT, 11-pin



Class 88CP
Small AC-DC Plug-in Relay with "see-thru" plastic cover

See wiring diagrams at lower left

1⅜ x 1⅜ x 2⅛ h*

Enc. **40-279** polystyrene dust cover housing Class **88** all purpose relay with 8- or 11-pin standard octal plug. Silver alloy contacts, 10 ampere rating. Weight, 3 ounces.

contact arrangement	COIL			10 ampere silver alloy contacts				
				OPEN RELAY		WITH ENCLOSURE 40-279		
	volt. or current	res. ohms	nominal power	Cat. No.	NET	Cat. No.	Plug	NET
alternating current voltage actuated								
SPDT †WD-1	6VAC	—	3 VA	W88AX1	3.35	W88ACPX1	8-pin	5.50
	12VAC			W88AX2	3.35	W88ACPX2		5.50
	24VAC			W88AX3	3.40	W88ACPX3		5.55
	115VAC			W88AX4	3.55	W88ACPX4		5.70
DPDT WD-2	6VAC	—	3 VA	W88AX5	3.95	W88ACPX5	8-pin	6.24
	12VAC			W88AX6	3.95	W88ACPX6		6.24
	24VAC			W88AX7	4.00	W88ACPX7		6.29
	115VAC			W88AX8	4.15	W88ACPX8		6.44
	230VAC			W88AX32	4.60	W88ACPX32		6.99
3PDT WD-3	6VAC	—	3 VA	W88AX9	4.35	W88ACPX9	11-pin	7.66
	12VAC			W88AX10	4.35	W88ACPX10		7.66
	24VAC			W88AX11	4.40	W88ACPX11		7.81
	115VAC			W88AX12	4.55	W88ACPX12		7.96
direct current voltage actuated								
SPDT †WD-1	6VDC	25	1.5W	W88X2	3.20	W88CPX1	8-pin	5.35
	12VDC	100		W88X3	3.20	W88CPX2		5.35
	24VDC	400		W88X4	3.25	W88CPX3		5.40
	110VDC	8000		W88X5	3.80	W88CPX4		5.95
DPDT WD-2	6VDC	25	1.5W	W88X6	3.55	W88CPX5	8-pin	5.84
	12VDC	100		W88X7	3.55	W88CPX6		5.84
	24VDC	400		W88X8	3.60	W88CPX7		5.89
	110VDC	8000		W88X9	4.15	W88CPX8		6.44
3PDT WD-3	6VDC	25	1.5W	W88X10	3.95	W88CPX9	11-pin	7.21
	12VDC	100		W88X11	3.95	W88CPX10		7.21
	24VDC	400		W88X12	4.00	W88CPX11		7.26
	110VDC	8000		W88X13	4.55	W88CPX12		7.81
DC current actuated for plate circuit operation								
SPDT †WD-1	7.2 MA	2500	125MW	W88X14	3.75	W88CPX13	8-pin	5.90
	5.0 MA	5000		W88X15	3.85	W88CPX14		6.00
	3.6 MA	10000		W88X16	4.25	W88CPX15		6.40
DPDT WD-2	10 MA	2500	250MW	W88X17	4.01	W88CPX16	8-pin	6.30
	7.2 MA	5000		W88X18	4.11	W88CPX17		6.40
	5 MA	10000		W88X19	4.51	W88CPX18		6.80
3PDT	2.3 MA	2500	375MW	W88X20	4.44	W88CPX19	11-pin	7.70
	8.7 MA	5000		W88X21	4.54	W88CPX20		7.80
	6.1 MA	10000		W88X22	4.94	W88CPX21		8.20

†WD is abbreviation for Wiring Diagram

h* is overall dimension above socket

MAGNECRAFT ELECTRIC CO., Chicago 30, Illinois

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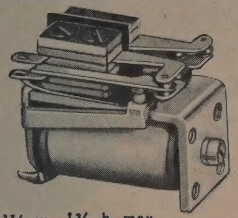
MAGNECRAFT Telephone Type Relays

page 2

Sub-miniature—DC—3 amps.

33



1¹¹⁄₃₂ l, ¹¹⁄₁₆ w, 1³⁄₆₄ h, max.

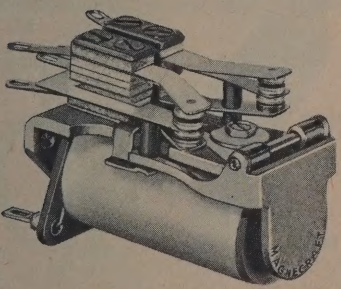
Class **33** midget sub-miniature; the smallest telephone type MAGNECRAFT Relay and one of the smallest telephone type relays on the market. Class 33 is also the fastest operating and inherently more shock resistant and vibration resistant. Long life, reliability and accuracy fit Class 33 relays for a wide range of small space requirements. They are extensively used for aircraft, computer and mobile applications where small size, light weight and resistance to shock and vibration are essential.

Palladium contacts; 3 ampere rating. Four 4-40 tapped mounting holes on ⅜ x ⅜ centers. Weight, 1 ounce.

contacts 3 amps	voltage DC	res. ohms	nominal power	Cat. No.	NET
DPDT	6VDC	17	2.0W	W33X237	4.87
	12VDC	75		W33X238	4.87
	24VDC	280		W33X239	4.92
	110VDC	6500		W33X240	5.50
4DPT	6VDC	17	2.0W	W33X241	6.58
	12VDC	75		W33X242	6.58
	24VDC	280		W33X243	6.63
	110VDC	6500		W33X244	7.23

Small—Power—AC-DC—10 amps.

22R



2¹⁄₁₆ l, 1³⁄₃₂ w, 1¾ high, max.

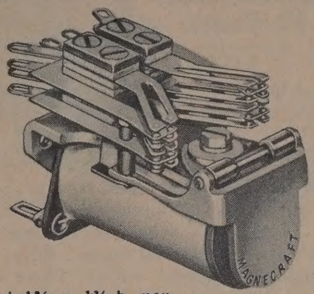
Class **22R** small size, high reliability, long life relay with heavy duty 10 ampere silver alloy contacts and same pin type armature hinge as Class 22T

All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 10 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
DPDT	6VAC	2.0	5VA	W22ARX38	6.25
	24VAC	20		W22ARX39	6.25
	115VAC	500		W22ARX40	6.30
DPDT	6VDC	20	2.5W	W22RX67	6.00
	12VDC	88		W22RX68	6.00
	24VDC	225		W22RX69	6.05
	110VDC	5000		W22RX70	6.63
4PDT	6VDC	20	2.5W	W22RX71	8.79
	12VDC	80		W22RX72	8.79
	24VDC	225		W22RX73	8.84
	110VDC	5000		W22RX74	9.42

Small—AC-DC—Twin Contacts

22T



2¹⁄₁₆ l, 1³⁄₃₂ w, 1¾ h, max.

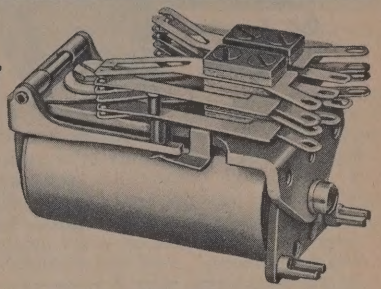
Class **22T** —miniature long form relay with accuracy reliability and long life equal and sometimes superior to larger relays. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long, flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
alternating current voltage actuated					
DPDT	115VAC	500	5VA	W22ATX12	5.94
direct current voltage actuated					
4PDT	6VDC	20	2.0W	W22TX267	8.44
	12VDC	80	2.0W	W22TX268	8.44
	24VDC	375	1.5W	W22TX269	8.49
	110VDC	8000	1.5W	W22TX270	9.97
6PDT	6VDC	12	3.0W	W22TX271	11.87
	12VDC	50		W22TX272	11.87
	24VDC	225		W22TX273	11.92
	110VDC	5000		W22TX274	12.91
DC current actuated for plate circuit operation					
SPDT	4.5 MA	5000	100MW	W22TX276	5.91
	6.0 MA	2700		W22TX277	5.24
	3.2 MA	10000		W22TX278	6.18
DPDT	4.5 MA	10000	200MW	W22TX275	6.93

Medium—AC-DC—Twin Contacts

66T



2⅜ l, 1³⁄₃₂ w, 2 high, max.

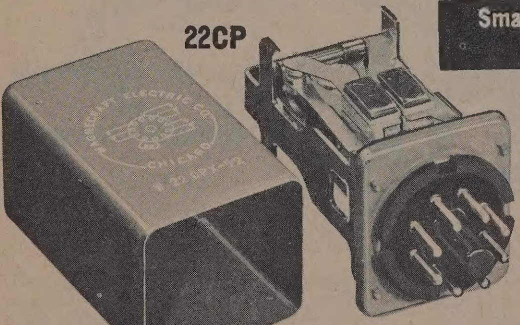
Class **66T** —similiar to 22T except has larger coil for greater sensitivity and/or effective switching of more circuits. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
alternating current voltage actuated					
4PDT	115VAC	300	6VA	W66ATX2	7.72
direct current voltage actuated					
4PDT	6VDC	30	1.0W	W66TX23	7.59
	12VDC	135		W66TX24	7.59
	24VDC	540		W66TX25	7.64
8PDT	6VDC	20	2.0W	W66TX29	13.21
	12VDC	85		W66TX30	13.21
	24VDC	250		W66TX31	13.26
	110VDC	5750		W66TX32	13.84
DC current actuated for plate circuit operation					
4PDT	5.3 MA	11000	300MW	W66TX26	8.96
6PDT	6.75 MA	11000	500MW	W66TX27	12.64
8PDT	8.5 MA	11000	800MW	W66TX28	14.25

Small—AC-DC—Plug-in with removable dust cover

22CP



1⁷⁄₁₆ x 1⅝ x 2¹¹⁄₁₆ h*

40-284 enclosure with removable dust cover housing Class 22 relay with 8- or 11-pin standard octal plug. Internal bracket supports cover and protects relay. One screw holds cover in place. Silver alloy contacts, 5 ampere rating. Weight, 6 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
alternating current voltage actuated					
DPDT WD-5	115VAC	500	5VA	W22CPX60	10.23
direct current voltage actuated					
SPDT †WD-4	6VDC	20	2.0W	W22CPX44	8.73
	12VDC	80	2.0W	W22CPX45	8.73
	24VDC	375	1.5W	W22CPX46	8.78
	110VDC	8000	1.5W	W22CPX47	10.02
DPDT WD-5	6VDC	20	2.0W	W22CPX48	9.85
	12VDC	80	2.0W	W22CPX49	9.85
	24VDC	375	1.5W	W22CPX50	9.90
	110VDC	8000	1.5W	W22CPX51	11.14

contacts 5 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
direct current voltage actuated					
3PDT WD-6	6VDC	20	2.0W	W22CPX52	11.87
	12VDC	80	2.0W	W22CPX53	11.87
	24VDC	375	1.5W	W22CPX54	11.92
	110VDC	8000	1.5W	W22CPX55	13.16
DC current actuated for plate circuit operation					
SPDT †WD-4	4.5 MA	5000	100MW	W22CPX57	9.36
	6.0 MA	2700		W22CPX58	9.02
	3.2 MA	10000		W22CPX59	10.02
DPDT WD-5	4.5 MA	10000	200MW	W22CPX56	11.14

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MAGNECRAFT

Sealed and Dustcover Enclosed Telephone Type Relays

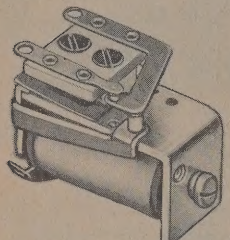
Hermetically Sealed Sub-miniature DC 5 amps.

33HS

31/32 x 1 11/32 x 1 41/64 h*

40-157 enclosure, hermetically sealed, housing Class 33 miniature relay with 8- or 14-pin high compression, glass insulated, solder terminal header. Silver alloy contacts, 5-ampere rating. Three 4-40 tapped mounting holes on ½ x 1 centers. Weight, 3 ounces.

contacts 5 amps.	voltage DC	res. ohms	nominal power	Cat. No.	NET
DPDT †WD-8	6VDC	17	2.0W	W33HSX177	13.21
	12VDC	75		W33HSX178	13.21
	24VDC	280		W33HSX179	13.26
	110VDC	6500		W33HSX180	13.87
4PDT WD-9	6VDC	17	2.0W	W33HSX181	16.65
	12VDC	75		W33HSX182	16.65
	24VDC	280		W33HSX183	16.70
	110VDC	6500		W33HSX184	17.36



Class 33F RF Switching Subminiature

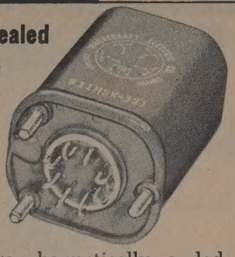
Class 33 telephone type relay designed especially for lowest capacitance between springs and minimum losses at high frequencies. Suitable for antenna change-over switching. Contact springs have ceramic insulation. Contacts are Palladium, 2 ampere rating.

Tinned solder terminals. Four #4-40 tapped mounting holes on ⅜ x ⅜ centers. Weight, 1 ounce.

contacts 2 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
SPDT	6VDC	28	1.5W	W33FX20	4.06
	12VDC	100		W33FX21	4.11
	24VDC	500		W33FX22	4.16
	110VDC	6500		W33FX23	4.69

Hermetically Sealed Miniature DC 5 amps.

11HS



1⅝ x 1¾ x 2 1/16 h*

40-102 enclosure, hermetically sealed, housing Class 11 miniature relay with 8- or 14-pin high compression, glass insulated, solder terminal header. Silver alloy contacts, 5-ampere rating. Three #6-32 NC-2 threaded mounting studs on 15/16 x 1 3/16 centers. Weight, 6 ounces.

contacts 5 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
4PDT WD-9	6VDC	25	1.5W	W11HSX321	15.92
	12VDC	100		W11HSX322	15.97
	24VDC	400		W11HSX323	15.97
	110VDC	9000		W11HSX324	17.06
DC current actuated for plate circuit operation					
DPDT WD-8	5 MA	10000	250MW	W11HXS325	13.70

Hermetically Sealed Miniature DC 5 amps.

11HS

1 15/64 x 1 47/64 x 2⅜ h*

40-188 enclosure, hermetically sealed, housing Class 11 miniature relay with 20-pin high compression glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on ½ x 1 13/32 centers. Weight, 6 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
6PDT WD-10	6VDC	13	2.5W	W11HSX326	19.91
	12VDC	56.		W11HSX327	19.91
	24VDC	280		W11HSX328	19.96
	110VDC	5000		W11HSX329	20.18

Hermetically Sealed Plug-in Mounted Small—4 amps. AC and DC

88HP

1-21/32 diameter x 2-11/32 h*

40-101 enclosure, hermetically sealed, housing Class **88** high reliability relay (see page 1) with standard 8-pin octal plug. Silver alloy contacts, 4 ampere rating. Weight, 5 ounces.

contacts 4 amps.	voltage	res. ohms	nominal power	catalog number	NET
alternating current voltage actuated					
DPDT WD-2 See page 1	6VAC	—	3VA	W88AHPX-4	8.59
	12VAC	—		W88AHPX-5	8.59
	24VAC	—		W88AHPX-6	8.64
	115VAC	—		W88AHPX-7	8.79
direct current voltage actuated					
DPDT WD-2 See page 1	6VDC	25	1.5W	W88HPX-3	8.19
	12VDC	100		W88HPX-4	8.19
	24VDC	400		W88HPX-5	8.24
	110VDC	8000		W88HPX-6	9.29

All Prices are net for 1 to 9 relays. Quantity Prices on Request.

Hermetically Sealed small AC-DC 5 amps.

22HS

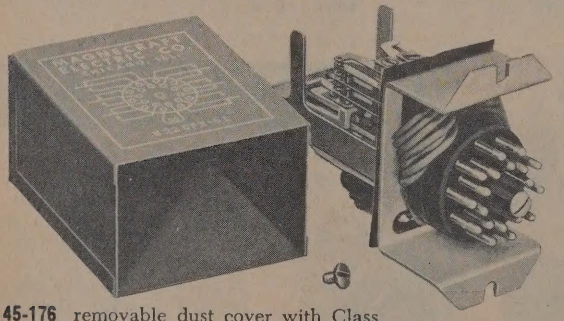
1 7/16 x 1⅝ x 2 11/16 h*

40-158 enclosure, hermetically sealed, housing Class 22 relay with 14-pin glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 threaded mounting studs on 15/16 x 1 3/16 centers. Weight, 7 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
alternating current voltage actuated					
4PDT WD-9	115VAC	500	5VA	W22AHSX32	17.30
direct current voltage actuated					
4PDT WD-9	6VDC	20	2.0W	W22HSX144	17.00
	12VDC	80	2.0W	W22HSX145	17.00
	24VDC	375	1.5W	W22HSX146	17.05
	110VDC	8000	1.5W	W22HSX147	18.03

22CP

Small—DC—Plug-in with removable dust cover

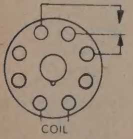


1 9/16 x .2 11/16 x 3 13/32 h*

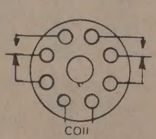
45-176 removable dust cover with Class 22 relay and 20-pin octal plug. Hold-down bracket permits mounting in any position. Internal bracket supports cover. One screw holds cover. Rubber gasket seals out dust. Silver alloy contacts, 5 ampere rating. Hold down bracket has two mounting holes for 6-32 screws on 2 21/32 centers. Weight, 8 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
6PDT WD-7	6VDC	12	3.0W	W22CPX61	16.72
	12VDC	50		W22CPX62	16.72
	24VDC	225		W22CPX63	16.77
	110VDC	5000		W22CPX64	17.35

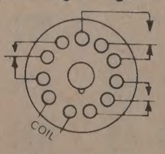
Plug-in Header †Wiring Diagrams



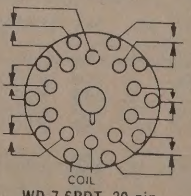
†WD-4 SPDT, 8-pin



WD-5 DPDT, 8-pin

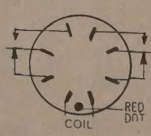


WD-6 3PDT, 11-pin

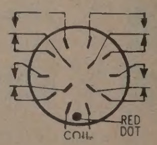


WD-7 6PDT, 20-pin

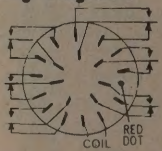
Solder Terminal Header †Wiring Diagrams



†WD-8 DPDT, 8-hook



WD-9 4PDT, 14-hook



WD-10 6PDT, 20-hook

†WD is abbreviation for Wiring Diagram

h* is overall dimension above mounting base or socket.

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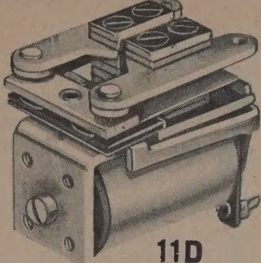
MAGNECRAFT

Power, Latch-in and Special Purpose Relays

Miniature Power DC 50 amps SPST-NO-DB


11D

1⅝ l, 15⁄16 w, 1 7⁄16 h.

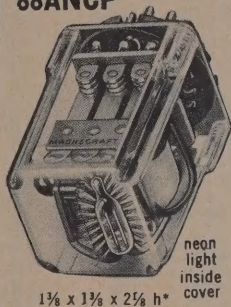
Class **11D** miniature telephone type relay with heavy brass contact arms and large 50-ampere silver alloy, single pole, single throw, normally open, double break contacts. The Class 11 is a small size relay with big relay reliability, accuracy and long life.

Solder terminals, spaced for easy wiring. Four 4-40 tapped mounting holes on ⅜ x 7⁄16 centers. Weight, 3 ounces.

contacts 50 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
SPST NO double break	6VDC	25	1.5W	W11DX38	5.39
	12VDC	100		W11DX39	5.45
	24VDC	400		W11DX40	5.45
	110VDC	9000		W11DX41	6.08

Small AC 10 amp. plug-in relay with neon "ON" light

88ANCP



1⅜ x 1⅜ x 2⅝ h*

Enc. 40-279 polystyrene dust cover with 8- or 11-pin standard octal plug housing Class **88** high reliability relay (see page 1) *with built-in neon circuit indicator light.* Indicator light comes on when coil is energized.

- *Eliminates need for expensive pilot lamp assemblies*
- *Saves panel space*
- *Circuit condition can be seen at a glance*

Silver alloy contacts, 10 ampere rating. Weight, 3 ounces.

contacts 10 amps.	wiring diagrams	volt. AC	nominal power	catalog number	NET
SPDT	WD-1*	115	3VA	W88ANCPX-1	6.64
DPDT	WD-2*	115		W88ANCPX-2	7.29
3PDT	WD-3*	115		W88ANCPX-3	8.81

*See page 1.

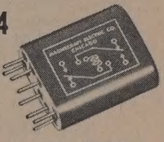
Micro-Miniature Rotary Relays

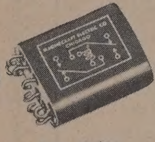
MAGNECRAFT Class 44 Rotary Relays have been developed to provide increased reliability in the crystal can size. Here are a few of many areas in which improvement has been made:

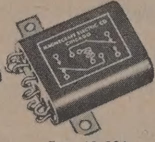
1. Frame and header assembly of rugged bridge-type construction—assures greatly increased resistance to distortion from shock, vibration and temperature—to military specification requirements
2. Balanced armature—minimizes the effect of gravity, shock and vibration on operating reliability.
3. Hinge design—oversize, instrument type bearings at *BOTH* ends.
   a. Minimizes friction for increased sensitivity and greater contact pressure.
   b. Increases operating reliability and life.
4. The latest and finest developments in high temperature insulation.
5. Hermetically sealed in inert gas for maximum protection against severe ambient conditions.

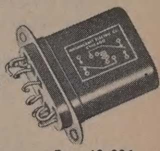
Contact combination: Double Pole, Double Throw
Contact rating: 2 amperes at 28 VDC or 115 VAC, non-inductive.
Operate Time: 5 milliseconds maximum with nominal voltage
Release Time: 3 milliseconds maximum.

44

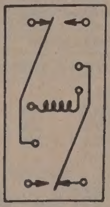

Enc. 40-227
plug-in header
no bracket


Enc. 40-222
solder terminals
no bracket


Enc. 40-224
solder terminals
side bracket


Enc. 40-234
solder terminals
flange bracket

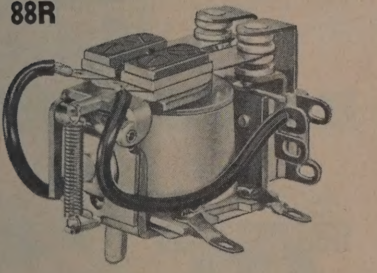
Case — .875 x .797 x .359 (excluding bracket)


Standard wiring diagram for Class 44 Relays

DC voltage	res. ohms	nominal power	catalog number	NET	catalog number	NET
			Enc. 40-227		Enc. 40-222	
6.5	34	1.2W	W44HPX-34	17.60	W44HSX-103	17.60
11	92		W44HPX-35	17.60	W44HSX-104	17.60
26.5	552		W44HPX-36	17.60	W44HSX-105	17.60
38.5	1278		W44HPX-37	18.00	W44HSX-106	18.00
76	5000		W44HPX-38	19.90	W44HSX-107	19.90
			Enc. 40-224		Enc. 40-234	
6.5	34	1.2W	W44HSX-108	17.95	W44HSX-113	17.95
11	92		W44HSX-109	17.95	W44HSX-114	17.95
26.5	552		W44HSX-110	17.95	W44HSX-115	17.95
38.5	1278		W44HSX-111	18.35	W44HSX-116	18.35
76	5000		W44HSX-112	20.25	W44HSX-117	20.25

Small—Power—AC-DC—15 amps.

88R



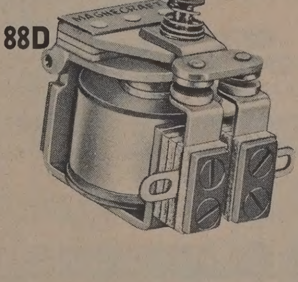
1⅞ l, 1 15⁄32 w, 1 5⁄32 high

Class **88R** extra quality, high reliability clapper type relay with 15 ampere heavy duty silver alloy contacts for industrial control applications. Has the exclusive quality features of Class 88 relays described on page one. Tinned solder terminals. One #6-32 tapped mounting hole and locating boss. Weight 3 ounces.

contacts 15 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
DPDT	6VAC	—	3VA	W88ARX1	5.97
	12VAC	—		W88ARX2	5.97
	24VAC	—		W88ARX3	6.02
	115VAC	—		W88ARX4	6.17
DPDT	6VDC	25	1.5W	W88RX1	5.90
	12VDC	100		W88RX2	5.90
	24VDC	400		W88RX3	5.95
	110VDC	8000		W88RX4	6.40

Power - AC and DC - 50 amps.

88D



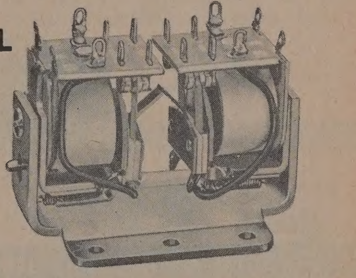
1-13/16 x 1-1/4 (less soldering tabs) x 1-7/16 high

The popular high reliability Class 88 Relay (see page 1) specially designed with 50-ampere SPST, Double Break, Normally Open contacts. Developed especially for switching heavy current in minimum space reliably and economically. Unique contact structure provides positive wiping action. One 6-32 tapped mounting hole and locating boss. Weight, 3 ounces.

contacts 50 amps.	voltage	res. ohms	nominal power	Cat number	NET
50 amperes SPST	24VAC	—	3VA	W88ADX-1	5.15
	115VAC	—		W88ADX-2	5.25
	230VAC	—		W88ADX-3	5.70
Double BREAK, Normally Open	6VDC	25	1.5W	W88DX-1	4.65
	12VDC	100		W88DX-2	4.65
	24VDC	400		W88DX-3	4.70
	110VDC	8000		W88DX-4	5.94

Latch-In - AC and DC - Small

88L



2-11/16 max. x 1¾ x 1-15/16 high max.

Two class 88 relays (see page 1) with interlocking latch-in levers mounted on a common base. Each armature latches when pulled in. Energizing one armature releases (resets) the other. Each relay is complete with independent operating coil. Contacts are silver alloy, 10 ampere rating. Relay coils are designed for continuous duty operation. Weight 6½ ounces.

contacts 10 amps.	voltage	res. ohms	nominal power	catalog number	NET
4PDT	6VAC	—	6VA prox	W88ALX-2	10.60
	24VAC	—		W88ALX-3	10.60
	115VAC	—		W88ALX-4	10.60
6PDT	6VAC	—	6VA prox.	W88ALX-5	12.80
	24VAC	—		W88ALX-6	12.80
	115VAC	—		W88ALX-7	12.80
4PDT	6VDC	12	3W	W88LX-1	9.65
	12VDC	50		W88LX-2	9.65
	24VDC	200		W88LX-3	9.65
	110VDC	400		W88LX-4	10.85
6PDT	6VDC	12	3W	W88LX-5	11.75
	12VDC	50		W88LX-6	11.75
	24VDC	200		W88LX-7	11.75
	110VDC	4000		W88LX-8	12.95

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MAGNECRAFT

Ultra High Reliability MAGNEREED Relays

These **Dry Reed Relays** by MAGNECRAFT have pre-adjusted GOLD contacts completely protected from dust, contamination and tampering by hermetic sealing in an atmosphere of inert gas, inside a glass capsule. The isolated switching contacts are actuated by a coil around the glass capsule.

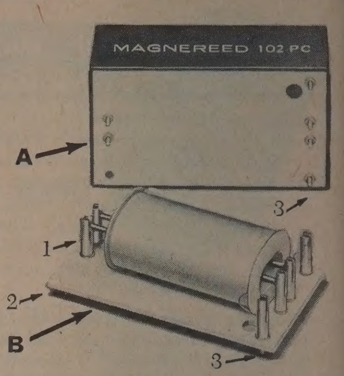
MAGNEREED Relays **bridge the gap between electromechanical relays and complex, costly solid state switching devices** through stabilized contact resistance; high speed positive switching; sensitive operation; and adaptability to complex logic circuits plus ability to **better withstand over-voltage transients and higher ambient temperatures.**

Encapsulated MAGNEREED Relay Assemblies with Printed Circuit "plug-in" terminal pins. (see hand with circuit board at lower left)

Illustration "A" at right shows the "plug-in" terminal pins of an Encapsulated MAGNEREED assembly. Illustration "B" shows the relay on the Epoxy mounting board before encapsulation. The rugged terminal posts (1) extend through the mounting board (2) to form the terminal pins (3).

The leads from the capsule are soldered to the rigid terminal posts with the capsule and coil in position; stresses created when leads are bent that transmit to contacts inside the capsule are completely avoided.

Encapsulation eliminates breakage, protects coil, leads and terminals against mechanical injury and atmospheric change; provides fast and economical circuit board mounting.



101—SPST-NO Miniature Magnereed

Contacts: Gold—rated 12VA at .250 amp. max. or 100 VAC max.

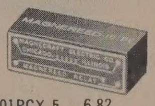
Operate time: Less than 1 millisecond
Release time: Less than ½ millisecond
Nominal power, 200MW
Life Expectancy:
At max. rating, 5 million cycles
½ max. rating, 20 million cycles

CLASS 101 MAGNEREED

Overall length, 1½; glass length, ¾; outside diameter, 7/16; weight, 1 oz.

direct current		res. ohms	catalog number	NET each.
current	volts			
46MA	6V	100	W101X-1	4.38
30MA	12V	250	W101X-2	4.38
20MA	24V	500	W101X-3	5.14
9MA	—	2500	W101X-4.	5.67

101PC
SPST-NO
1½ x ½ x 9/16 h
weight, 2 oz.



—	6V	65	W101PCX-5	6.82
—	12V	250	W101PCX-6	6.88
—	24V	1000	W101PCX-7	7.01
8MA	—	5000	W101PCX-8	7.57

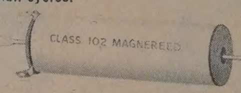
101PC
DPST-NO
1½ x 11/16
x 9/16 h
weight, 3 oz.

—	6V	40	W101PCX-9	9.54
—	12V	150	W101PCX-10	9.58
—	24V	650	W101PCX-11	9.65
8MA	—	5000	W101PCX-12	10.26

102—SPST-NO Standard Magnereed

Contacts: Gold—rated 15VA at 1 amp. max. or 250 VAC max.

Operate time: less than 1 millisecond.
Release Time: less than ½ millisecond.
Nominal Power. 100MW
Life Expectancy:
At max. rating, 20 million cycles
½ max. rating, 100 million cycles
Low load (1/10 amp. at 12V.) 200 million cycles.

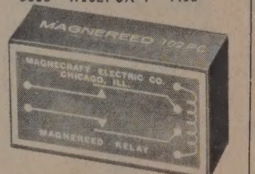


Overall length, 3¼; glass length, 1 15/16, outside diameter, ½; weight, 2 oz.

direct current		res. ohms	catalog number	NET each
current	volts			
32MA		100	W102X-1	3.21
23MA	6V	200	W102X-2	3.21
14.5MA	12V	500	W102X-3	3.21
7.5MA	24V	2000	W102X-4	3.38
4.6MA		5000	W102X-5	4.06

102PC
SPST-NO
2¼ x 21/32 x ⅝ h
weight 3 oz.

—	6V	100	W102PCX-1	6.36
—	12V	400	W102PCX-2	6.44
—	24V	1500	W102PCX-3	6.50
6.5MA	—	5000	W102PCX-4	7.10



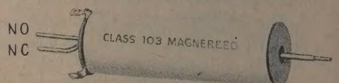
102PC
DPST-NO
2¼ x 1¼
x ¾ h
weight 4 oz.

—	6V	50	W102PCX-5	8.30
—	12V	200	W102PCX-6	8.38
—	24V	800	W102PCX-7	8.44
9MA	—	5000	W102PCX-8	9.04

103—SPDT (Form C) Magnereed

Contacts: Gold—rated 10 watts resistive load, 1 amp or 250 VAC max.

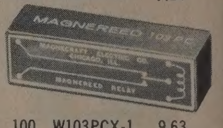
Operate time: Less than 1 millisecond
Release time: Less than 1 millisecond
Contact Bounce: 2 milliseconds maximum on release (N/C contact)
Nominal Power 100 MW
Life Expectancy:
At max. rating, 25 million cycles
½ max. rating, 50 million cycles
Low load rating, 100 million cycles



Overall length, 3½; glass length, 2⅛; outside diameter, ½; weight, 2 oz.

direct current		res. ohms	catalog number	NET
current	volts			
32MA	—	100	W103X-8	5.68
23MA	6V	200	W103X-9	5.94
14.5MA	12V	500	W103X-10	6.42
7.5MA	24V	2000	W103X-11	7.08
4.6MA	—	5000	W103X-12	7.24

103PC
SPDT
2¼ x 21/32 x ⅝ h
weight 3 oz.

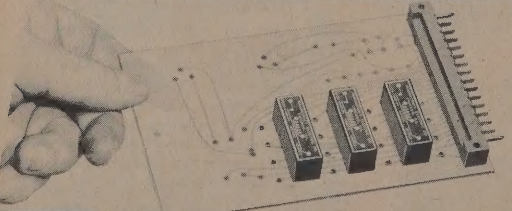


—	6V	100	W103PCX-1	9.63
—	12V	400	W103PCX-2	9.69
—	24V	1500	W103PCX-3	9.76
6.5MA	—	5000	W103PCX-4	10.35

103PC
DPDT
2¼ x 1¼
x ¾ h
weight 4 oz.

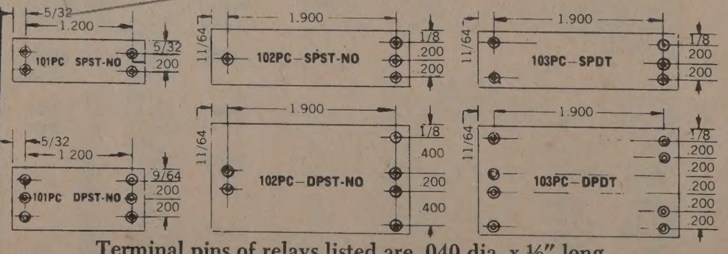
—	6V	50	W103PCX-5	14.36
—	12V	200	W103PCX-6	14.39
—	24V	800	W103PCX-7	14.46
9MA	—	5000	W103PCX-8	15.08

Installation of Encapsulated MAGNEREED Relay Assemblies



Circuit board with 3 of 7 Class 101PC assemblies plugged into place. Spaces for the other four relays with the sockets for the terminal pins are visible.

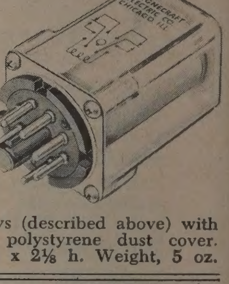
Terminal pin spacings for the six printed circuit MAGNEREED assemblies shown above.



Terminal pins of relays listed are .040 dia. x ⅛" long.

103CP MAGNEREED

Plug-in Assemblies with Plastic Dust Cover



Each assembly includes two or three MAGNEREED Class 103 SPDT Relays (described above) with plug-in mounting in polystyrene dust cover. Dimensions: 1⅜ x 1⅜ x 2⅛ h. Weight, 5 oz.

	direct current		res. ohms	catalog number	1 to 9
contacts	current	volts			
	—	6V	75	W103CPX-7	14.36
DPDT	—	12V	300	W103CPX-8	14.39
WD-2	—	24V	1000	W103CPX-9	14.46
	8MA	—	5000	W103CPX-10	15.08
	—	6V	40	W103CPX-11	18.63
3PDT	—	12V	150	W103CPX-12	18.70
WD-3	—	24V	650	W103CPX-13	18.83
	10MA	—	5000	W103CPX-14	19.44

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MAGNECRAFT

Class 110 Air Dashpot Time Delay Relays

Operate Time Delay adjustable 0.2 to 45 sec.

The new MAGNECRAFT Class 110 Relay has been developed to provide, in a small, inexpensive Time Delay Relay, the high reliability and the great life users have learned to expect from MAGNECRAFT Relays.

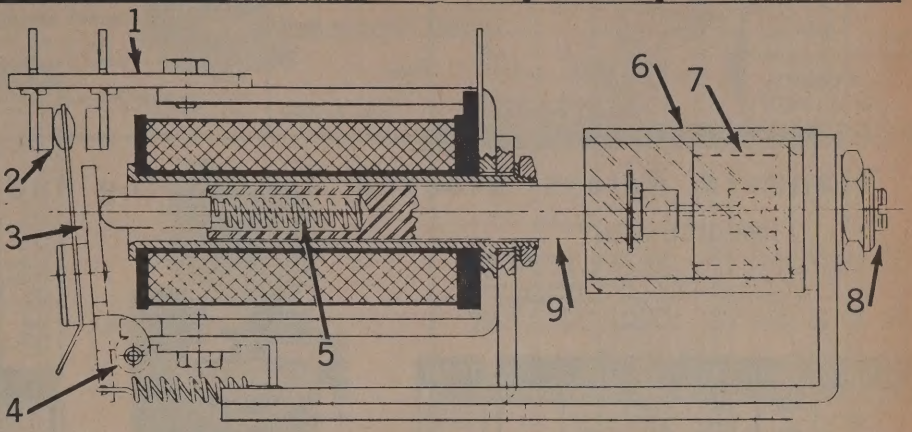
In this unique development, **proven high reliability relay contacts and switching mechanism are merged with a precision-built air dashpot timer.** The result is a masterpiece of simplicity and a minimum number of moving parts that sets new standards of compactness and long life reliability.

The Air Dashpot Timer is built of **non-aging inert materials** to provide the last word in reliability through long life. The cylinder is tempered glass, precision ground to dimensions and polished for lowest friction. The precision fitted piston is of dimensionally stable, low friction graphite. All metal parts are corrosion resistant.

The Solenoid Assembly is unique; a new patent-applied-for invention. When the operating coil is energized the Solenoid pulls out the dashpot piston at the rate for which the timing adjustment is set. Through the timing period, the relay contacts remain in the de-energized (normal) position, **completely free from any tendency to make premature or faltering contact.**

At the end of the timing period (when the Dashpot piston travel is complete) the Solenoid Plunger **instantaneously** completes the magnetic circuit which **snaps in** the Relay Contacts and **holds them under full magnetic power until the coil is de-energized.**

When the coil is de-energized relay contact dropout is **instantaneous and positive;** the Solenoid Plunger Spring helps the relay release spring snap the contacts to the de-energized position.

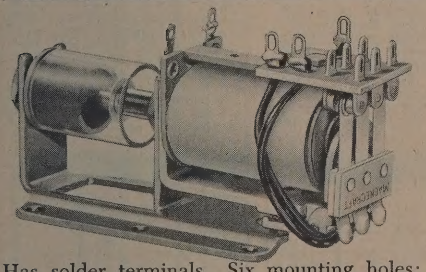


1. Terminal Board.
2. Heavy Duty Relay Contacts have built-in contact wipe.
3. Ruggedized relay armature.
4. Pin type armature hinge. The same precision built hinge used in the finest telephone type relays.
5. Compression Spring—Compresses when solenoid pulls out dashpot piston: when coil is de-energized, helps snap contacts to normal position and returns piston to start position.
6. Air Dashpot Cylinder—Specially treated glass, precision ground and polished.
7. Graphite Piston—Controls travel of solenoid plunger through setting of timing adjustment.
8. Timing adjustment screw—Provides stepless adjustment from 0.2 to 45 seconds.
9. Solenoid Plunger—When coil is energized the plunger pulls out dashpot piston; at end of travel the plunger instantaneously completes magnetic circuit that pulls in contacts and maintains full contact pressure until coil is de-energized.

Some of the Features

1. **High Reliability through long life:**
   a. Proven high reliability relay contacts and switching mechanism.
   b. Precision-built Air Dashpot of inert, non-aging, low friction materials.
   c. Solenoid assembly completes magnetic circuit instantaneously for positive switching action; protects contacts from chattering and frying.
   d. All metal parts protected from corrosion.
   e. Extreme simplicity — few moving parts; none subjected to distortion.
2. **0.2 to 45 seconds Timing Adjustment with a single screw.**
3. **Instantaneous release.** Air Dashpot reaches "start" position within 0.2 second.
4. **Operates in any position.** Timing should be set in installed position.
5. **Timing Repeat Accuracy ± 10%.**
6. **Temperature Range, —65 to +165°F.**
7. **AC and DC operation.** *AC models rectified for DC reliability from AC service.
8. **Low Power Consumption.** DC, 4 watts; AC, 7 volt amperes.

Open—solder terminals

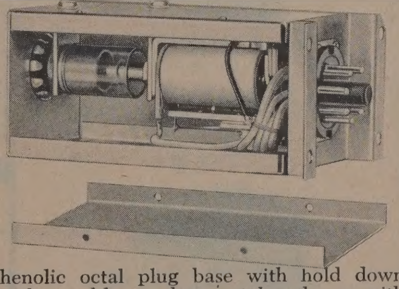


Has solder terminals. Six mounting holes: two holes 6-32 thread, located diagonally, spaced 1-3/16 x 2-1/4; two holes .156 dia., located diagonally, spaced 1-3/16 x 2-1/4; two holes .156 dia., spaced 1-3/16. Dimensions; 3-13/16 long, 1-15/16 high, 1-7/16 wide. Weight; 6 ounces.

Magnecraft Number	Voltage	Res. Ohms	Time Delay	Contacts		Price
				Comb.	Rat.	1-9
W110X-9	24VDC	100	0.1 to 45 Sec.	DPDT	10 amps.	$19.72
W110X-10	110VDC	2500				20.38
W110AX-9	115VAC*	—				23.23

*AC models rectified for DC reliability from AC service.

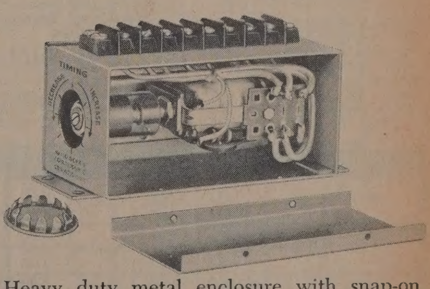
with 40-347 Plug-in Cover



Phenolic octal plug base with hold down bracket and heavy duty metal enclosure with snap-on cover which permits quick access to relay. Snap-on cap provides access to timing screw. Permanently identified with wiring diagram, contact combination, contact rating, part number and coil operating voltage. Hold down bracket has four mounting holes, .177 diameter on 1-1/2 x 2-5/8 centers. Dimensions: 3 x 2-5/32 x 4-5/8. Weight, 15 ounces.

Magnecraft Number	Voltage	Res. Ohms	Time Delay	Contacts		Price
				Comb.	Rat.	1-9
W110CPX-10	24VDC	100	0.1 to 45 Sec.	DPDT WD-2	10 amps.	26.78
W110CPX-11	110VDC	2500				27.44
W110ACPX-9	115VAC*	—				29.79

with 40-348 Dust Cover



Heavy duty metal enclosure with snap-on cover which permits quick access to relay. Snap-on cap provides access to timing screw. Has molded phenolic barrier screw type terminal block. Permanently identified with wiring diagram, contact combination, contact rating, part number and coil operating voltage. Four mounting holes, .177 diameter on 4-5/8 x 1-1/8 centers. Dimensions: 5 x 2-3/8 x 2-17/32. Weight, 15 ounces.

Magnecraft Number	Voltage	Res. Ohms	Time Delay	Contacts		Price
				Comb.	Rat.	1-9
W110CSX-1	24VDC	100	0.1 to 45 Sec.	DPDT	10 amps.	28.56
W110CSX-2	110VDC	2500				29.22
W110ACSX-1	115VAC*	—				30.07

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Net

MILWAUKEE RELAYS, INC.

Cedarburg, Wisconsin

"A" BULLETIN
CONDENSED

Complete data, Engineering Sheets and the "A" Bulletin, listing our entire line of relays, can be obtained from leading distributors.

KEY TO DESCRIPTIVE DATA ON MILWAUKEE RELAY LABELS

SERIES — CONTACT RATING IN AMPS
100 DPDT 10A 115VAC
CONTACT ARRANGEMENT — COIL RATING

CONTACT DESCRIPTION

S — Single; D — Double; P — Pole; T — Throw; N — Normally; O — Open; C — Closed; B — Break; M — Make.

Relay contacts are rated at 115VAC, 60 cycle, non-inductive load.

Standard Relays Stocked by Leading Industrial Distributors

100U/101U Series

Small general purpose relay with molded phenolic barriers for U/L and CSA listings. All AC and DC models carry U/L and CSA label. 100U: ⅛" dia., silver cadmium oxide contacts, gold flashed, 5 amps. 101U: 3⁄16" dia., silver cadmium oxide contacts, gold flashed, 10 amps. Mounting: 6-32 stud and self-locking locator tab.

100U Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	101U 10 amps. other data identical NET
SPDT	5A	6VAC 12VAC 24VAC 48VAC 115VAC 230VAC	5.3 21 82 354 2,250 9,100	2.0VA	3.00 3.00 3.00 3.05 3.05 3.35	3.05 3.05 3.05 3.10 3.10 3.40
DPDT	5A	6VAC 12VAC 24VAC 48VAC 115VAC 230VAC	4.7 19 74 280 1,800 6,800	2.2VA	3.50 3.50 3.50 3.60 3.60 3.90	3.75 3.75 3.75 3.80 3.80 4.10
3PDT	5A	6VAC 12VAC 24VAC 48VAC 115VAC 230VAC	4.7 19 74 280 1,800 6,800	2.2VA	3.90 3.90 3.90 3.95 3.95 4.25	4.05 4.05 4.05 4.10 4.10 4.40

100LW Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	101LW
4PDT	5A	6VAC 12VAC 24VAC 115VAC 230VAC	1.7 7.5 32 1,000 4,100	5.VA	9.35 9.35 9.35 9.45 10.00	9.65 9.65 9.65 9.75 10.35
6PDT	5A	6VAC 12VAC 24VAC 115VAC 230VAC	1.3 5.3 21 600 2,250	7.8 VA	10.85 10.85 10.85 11.05 11.65	11.55 11.55 11.55 11.75 12.15

105 Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	105
SPDT	5A	6VAC 12VAC 24VAC 48VAC 115VAC 230VAC	5.3 21 82 354 2,250 9,100	2.0VA	5.00 5.00 5.00 5.05 5.05 5.35	5.10 5.10 5.10 5.15 5.15 5.45
DPDT	5A	6VAC 12VAC 24VAC 48VAC 115VAC 230VAC	4.7 19 74 280 1,800 6,800	2.2VA	5.65 5.65 5.65 5.70 5.70 6.10	5.75 5.75 5.75 5.80 5.80 6.10
3PDT	5A	6VAC 12VAC 24VAC 48VAC 115VAC 230VAC	4.7 19 74 280 1,800 6,800	2.2VA	5.95 5.95 5.95 6.00 6.00 6.30	6.20 6.20 6.20 6.25 6.25 6.50

105 Series

General purpose plug-in relay. Light transparent blue buturate dust cover. Available with B-3 hold-down spring for special mountings. ⅛" dia. silver cadmium oxide contacts, gold flashed. 5 amps., 3⁄16" dia. silver cadmium oxide contacts, gold flashed, 10 amps. Mountings: Standards 8 and 11 pin plugs.

BZ BUZZER

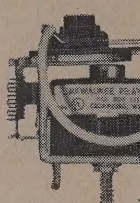
Continuous or intermittent duty buzzer. Operates on AC voltage 50/60 cycle. Mounting: No. 6-32 tapped core.

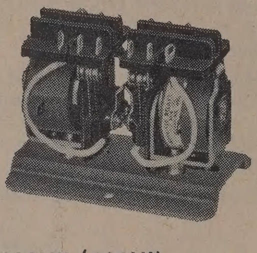
105T Series DC Plate Circuit

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPDT	5A	7.2MA 5MA 3.6MA	2.5K 5K 10K	125MW	5.35 5.50 6.00
DPDT	5A	10MA 7.2MA 5MA	2.5K 5K 10K	250MW	5.90 6.00 6.30
3PDT	5A	12.3MA 8.7MA 6.1MA	2.5K 5K 10K	375MW	7.00 7.10 7.75

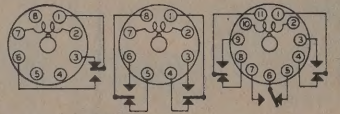
BZ BUZZER

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
		6VAC 12VAC 24VAC	8 32 130	3.0 VA	1.70 1.70 1.70


100U /101U


100LW / 101LW

105 105T



BZ BUZZER

100LW/101LW Series

Latching relay, operates on momentary impulse to either coil. Molded phenolic barriers for U/L and CSA listings. All AC and DC models carry U/L and CSA label. 100LW: ⅛" dia., silver cadmium oxide contacts, gold flashed, 5 amp. 101LW: 3⁄16" dia., silver cadmium oxide contacts, gold flashed, 10 amp. Mounting: Two 5⁄32" dia. holes on 1⅜" centers.

100U Series DC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	101U 10 amps. other data identical NET
SPDT	5A	6VDC 12VDC 24VDC 48VDC 110VDC	32 130 490 1,800 10,000	1.2W	2.95 2.95 2.95 3.00 3.00	3.00 3.00 3.00 3.05 3.05
DPDT	5A	6VDC 12VDC 24VDC 48VDC 110VDC	32 130 490 1,800 10,000	1.2W	3.30 3.30 3.30 3.40 3.40	3.70 3.70 3.70 3.80 3.80
3PDT	5A	6VDC 12VDC 24VDC 48VDC 110VDC	32 130 490 1,800 10,000	1.2W	3.60 3.60 3.60 3.65 3.65	3.75 3.75 3.75 3.80 3.80

100LW Series DC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	101LW
4PDT	5A	6VDC 12VDC 24VDC 48VDC 110VDC	13 47 210 840 5,000	2.7 W	8.90 8.90 8.90 9.10 9.10	9.20 9.20 9.20 9.30 9.30
6PDT	5A	6VDC 12VDC 24VDC 48VDC 110VDC	13 47 210 840 5,000	2.7 W	9.90 9.90 9.90 10.00 10.00	10.50 10.50 10.55 10.65 10.65

105 Series DC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	105
SPDT	5A	6VDC 12VDC 24VDC 48VDC 110VDC	32 130 490 1,800 10,000	1.2W	4.95 4.95 4.95 5.00 5.00	5.05 5.05 5.05 5.10 5.10
DPDT	5A	6VDC 12VDC 24VDC 48VDC 110VDC	32 130 490 1,800 10,000	1.2W	5.60 5.60 5.60 5.65 5.65	5.70 5.70 5.70 5.75 5.75
3PDT	5A	6VDC 12VDC 24VDC 48VDC 110VDC	32 130 490 1,800 10,000	1.2W	6.00 6.00 6.00 6.05 6.05	6.15 6.15 6.15 6.35 6.35

105T Series

General purpose plate circuit relays. Sensitivity 125MW single pole; 250MW double pole; 375MW three pole. Light transparent blue buturate dust cover. ⅛" dia., silver cadmium oxide, gold flashed contacts; rated 5 amps. Mountings: Standard 8 and 11 pin plugs.

210T Series

Sensitive plate circuit relay. 115 milliwatts for single pole, 125 milliwatts for 2 pole, 275 milliwatts for 4 pole. 3⁄16" dia., silver cadmium oxide, gold flashed contacts, 5 amp. Mounting: No. 8-32 tapped core and locating boss.

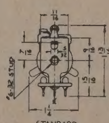
210T Series DC Plate Circuit

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPDT	5A	6.8MA 4.8MA 3.4MA	2,500 5,000 10,000	115MW	3.30 3.45 3.95
DPDT	5A	7MA 5MA 353MA	2,500 5,000 10,000	125MW	3.85 4.25 5.25
4PDT	5A	10.5MA 7.4MA 5.25MA	2,500 5,000 10,000	275MW	5.45 5.60 6.00

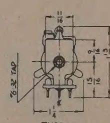
BZ BUZZER

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
		115VAC 230VAC	4500 10,000	3.0 VA	1.70 1.70

BASE VARIATIONS



STANDARD



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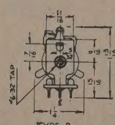

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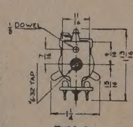

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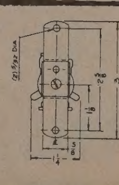

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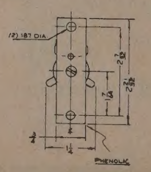

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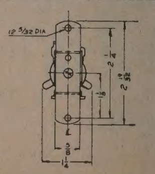

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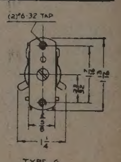

TYPE G

Prices and specifications subject to change without notice.

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100 Series

Low cost, general purpose relay, designed for long, touble-free life. Exclusive with nylon encapsulated coil. Rugged construction features a positive armature stop. 100: ⅛″ dia., silver cadmium oxide, gold flashed contacts, 5 amp. [illegible]: 3⁄16″ dia., silver cadmium oxide, gold flashed contacts, 10 amp. Mounting: 6-32 mounting stud and self-locking locator tab.

200 Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	201 10 amps. other data identical NET
DPDT	5A	6VAC	1.7	6VA	3.00	3.10
		12VAC	6.75		3.00	3.10
		24VAC	24		3.00	3.10
		115VAC	720		3.00	3.10
		230VAC	2,950		3.20	3.55
3PDT	5A	6VAC	1.7	6VA	3.20	3.35
		12VAC	6.75		3.20	3.35
		24VAC	24		3.20	3.35
		115VAC	720		3.20	3.35
		230VAC	2,950		3.40	3.70
4PDT	5A	6VAC	1.7	6VA		3.60
		12VAC	6.75		3.45	3.60
		24VAC	24		3.45	3.60
		115VAC	720		3.45	3.60
		230VAC	2,950		3.65	4.00

100 Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	100
SPDT	5A	6VAC	5.3	2.0VA	2.95	3.00
		12VAC	21		2.95	3.00
		24VAC	82		2.95	3.00
		48VAC	354		3.00	3.00
		115VAC	2,250		3.00	3.00
		230VAC	9,100		3.30	3.35
DPDT	5A	6VAC	4.7	2.2VA	3.40	3.60
		12VAC	19		3.40	3.60
		24VAC	74		3.40	3.60
		48VAC	280		3.50	3.65
		115VAC	1,800		3.50	3.65
		230VAC	6,800		3.80	3.95
3PDT	5A	6VAC	4.7	2.2VA	3.80	4.00
		12VAC	19		3.80	4.00
		24VAC	74		3.80	4.00
		48VAC	280		3.85	4.05
		115VAC	1,800		3.85	4.05
		230VAC	6,800		4.15	4.35

100RF

Antenna switching relay. Features glass base stationary contact panel for minimum RF loss. Designed for 300 ohm line. ⅛″ dia. contacts, silver cadmium oxide, gold flashed. 5 amps. Mounting: 6-32 mounting stud and self locking locator tab.

100D/100F

Medium duty power relay. 100D mounted on two 5⁄32″ dia. holes on 2⅝″ centers. 100F mounted on two 5⁄32″ dia. holes on 2¼″ centers. Contacts: 3⁄16″ dia. silver cadmium oxide, gold flashed, rated 8 amps.

100RF Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
DPDT	5A	6VAC	4.7	2.2VA	3.20
		12VAC	19		3.20
		115VAC	1,800		3.25

100D/100F Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPST-NC	8A	24VAC	55	3.2VA	3.00
SPST-NO DB	10A	6VAC	3.0		3.55
SPST-NO DB	10A	24VAC	55		3.55
SPST-NO DB	10A	115VAC	1,350		3.55
SPDT	8A	6VAC	3.0	3.2VA	3.25
		12VAC	14		3.25
		24VAC	55		3.25
		115VAC	1,350		3.25
		230VAC	5,300		3.45
DPDT	8A	6VAC	3.0	3.2VA	4.60
		12VAC	14		4.60
		24VAC	55		4.60
		115VAC	1,350		4.60
		230VAC	5,300		4.85
3PDT	8A	6VAC	3.0	3.2VA	5.40
		12VAC	14		5.40
		24VAC	55		5.40
		115VAC	1,350		5.40
		230VAC	5,300		6.00

120 Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPDT	15A	6VAC	3.0	3.2VA	4.20
		12VAC	14		4.20
		24VAC	55		4.20
		115VAC	1,350		4.20
		230VAC	5,300		4.65
SPST-NO-DM	20A	6VAC	3.0	3.2VA	4.00
		12VAC	14		4.00
		24VAC	55		4.00
		115VAC	1,350		4.00
		230VAC	5,300		4.20

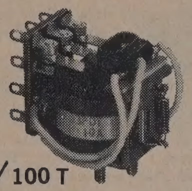
130 Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPDT	25A	6VAC	1.5	4.5VA	4.35
		12VAC	6.0		4.35
		24VAC	25.0		4.35
		115VAC	600		4.35
		230VAC	2,500		4.75
SPST-NO-DM	35A	6VAC	1.5	4.5VA	4.25
		12VAC	6.0		4.25
		24VAC	25.0		4.25
		115VAC	600		4.25
		230VAC	2,500		4.65

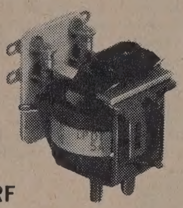
220 Series AC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPDT	15A	6VAC	1.7	6VA	3.20
		12VAC	6.25		3.20
		24VAC	24		3.20
		115VAC	720		3.20
		230VAC	2,950		3.40
DPDT	15A	6VAC	1.7	6VA	4.05
		12VAC	6.25		4.05
		24VAC	24		4.05
		115VAC	720		4.05
		230VAC	2,950		4.25
4PDT	15A	6VAC	1.7	6VA	6.45
		12VAC	6.25		6.45
		24VAC	24		6.45
		115VAC	720		6.45
		230VAC	2,950		6.65

200/201



100 / 100 T



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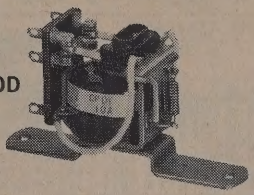

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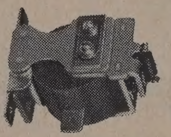

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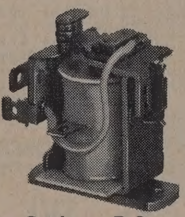

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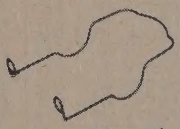
Hold Down Spring B-3



B-3 net .10

130 Series

Rugged, small size, heavy duty power relay. Available as SPDT or SPST-NO-DM contact configuration. SPDT: ¼″ dia., silver cadmium oxide, gold flashed contacts, rated 25 amp. SPST-NO-DM: 5⁄16″ dia., silver cadmium, gold flashed contacts, rated 35 amp. Terminals: combination .250 quick connect and solder hole.

220 Series

Multiple contact, medium duty power relay. Long movable contact arms. ¼″ dia., silver cadmium oxide, gold flashed contacts, rated 15 amp. Mounting: 8-32 tapped core with locating boss.

100 T DC Plate Circuit

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPDT	5A	7.2MA	2.5K	125MW	3.35
		5MA	5K		3.45
		3.6MA	10K		4.05
DPDT	5A	10MA	2.5K	250MW	3.40
		7.2MA	5K		3.50
		5MA	10K		4.10
3PDT	5A	12.3MA	2.5K	375MW	3.55
		8.7MA	5K		3.65
		6.1MA	10K		4.25

200 Series

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	201 10 amps. other data identical NET
DPDT	5A	6VDC	18	2W	2.70	2.80
		12VDC	72		2.70	2.80
		24VDC	285		2.70	2.80
		110VDC	6,050		3.40	3.55
3PDT	5A	6VDC	18	2W	2.95	3.05
		12VDC	72		2.95	3.05
		24VDC	285		2.95	3.05
		110VDC	6,050		3.65	3.75
4PDT	5A	6VDC	18	2W	3.80	3.90
		12VDC	72		3.80	3.90
		24VDC	285		3.80	3.90
		110VDC	6,050		3.90	4.00

100 Series DC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET	100
SPDT	5A	6VDC	32	1.2W	2.85	2.90
		12VDC	130		2.85	2.90
		24VDC	490		2.85	2.90
		48VDC	1,800		2.90	2.95
		110VDC	10,000		2.90	2.95
DPDT	5A	6VDC	32	1.2W	3.20	3.40
		12VDC	130		3.20	3.40
		24VDC	490		3.20	3.40
		48VDC	1,800		3.30	3.40
		110VDC	10,000		3.30	3.50
3PDT	5A	6VDC	32	1.2W	3.60	3.80
		12VDC	130		3.60	3.80
		24VDC	490		3.60	3.80
		48VDC	1,800		3.60	3.80
		110VDC	10,000		3.65	3.85

120 Series

Rugged, small size, medium duty power relay. Available as SPDT or SPST-NO-DM contact configuration. ¼″ dia., silver cadmium, gold flashed contacts, rated 15 amp SPDT, 20 amp DM configuration. Terminals: combination .250 quick connect and solder hole.

200/201 Series

Available to 4PDT in shelf stock inventory. Tinned, pierced solder type terminals. 200: ⅛″ dia., silver cadmium oxide, gold flashed contact, 5 amp. 201: 3⁄16″ dia., silver cadmium oxide, gold flashed contacts, 10 amp. Mounting: No. 8-32 tapped core and locating boss.

100RF Series DC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
DPDT	5A	6VDC	32	1.2W	3.15
		12VDC	130	1.2W	3.15

100D/100F Series DC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPST-NO DB	10A	6VDC	24	1.5W	3.20
SPST-NO DB		12VDC	96		3.20
SPST-NO DB		24VDC	360		3.20
SPDT	8A	6VDC	24	1.5W	3.00
		12VDC	96		3.00
		24VDC	360		3.00
		110VDC	8,000		3.50
DPDT	8A	6VDC	24	1.5W	4.35
		12VDC	96		4.35
		24VDC	360		4.35
		110VDC	8,000		4.80
3PDT	8A	6VDC	24	1.5W	5.05
		12VDC	96		5.05
		24VDC	360		5.05
		110VDC	8,000		5.70

120 Series DC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPDT	15A	6VDC	24	1.5W	4.05
		12VDC	96		4.05
		24VDC	360		4.05
		110VDC	8,000		4.75
SPST-NO-DM	20A	6VDC	24	1.5W	4.00
		12VDC	96		4.00
		24VDC	360		4.00
		110VDC	8,000		4.50

130 Series DC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPDT	25A	6VDC	18	2W	4.35
		12VDC	72		4.35
		24VDC	288		4.35
		110VDC	6,050		4.95
SPST-NO-DM	35A	6VDC	18	2W	4.25
		12VDC	72		4.25
		24VDC	288		4.25
		110VDC	6,050		4.85

220 Series DC

Contact Poles	Rating in Amps	Coil Voltage or Current	Resistance in Ohms	Nominal Power	NET
SPDT	15A	6VDC	18	2W	3.20
		12VDC	72		3.20
		24VDC	285		3.20
		110VDC	6,050		3.45
DPDT	15A	6VDC	18	2W	4.05
		12VDC	72		4.05
		24VDC	285		4.05
		110VDC	6,050		4.50
4PDT	15A	6VDC	18	2W	6.40
		12VDC	72		6.40
		24VDC	285		6.40
		110VDC	6,050		6.90

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MODEL "GPR" GENERAL PURPOSE RELAYS

Simple, rugged, low cost relays handling substantial power for small size. Uncomplicated design provides unusual flexibility for making and changing connections and mounting. Stock includes relays in versatile enclosures, some with indicator light, also plate and latching versions. Wide commercial and industrial use where economy and versatility are important.

Basic (Unenclosed) Relay: All connections terminate on barrier-type terminal panel on combination solder-quick-connect (push-on) lugs which accept AMP 110 female connectors. Fixed contacts are integral inlay on the terminal itself. Terminal panel design permits use of relay in printed circuit assemblies.

Contact Ratings: Two ratings—fine silver contacts, 5 amps at 115VAC or 32VDC; silver cadmium fixed contacts, silver cadmium oxide movable contacts, 10 amps.

Contact Combinations: As shown in stock tables. (Also see GPR "Latching Relay" following for larger combinations.) Others made to order.

Insulation: Tested at 1000 VAC.

Coil Wattage: 1.4 watts DC operation; 1.60 watts (2.0 volt-amperes) AC (except see "Latching Relays")

Coil Operating Voltage: Up to 230 VAC 60 cycles or 115 VDC.

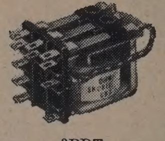
Weights—shown below stock tables, are based on 3PDT relays. Relays with fewer poles weigh slightly less.

Enclosed Relays (GPRTA-, GPRTT-, GPRTP-) Three types of clear plastic enclosures as follows:

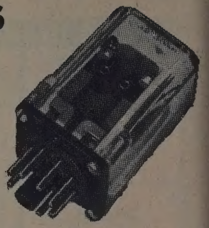
Chassis Mounting Types: "GPRTA"—("Terminals-Above-Chassis" type) has terminal panel opposite to mounting flange; "GPRTT" — ("Terminals-Through-Chassis" type) has terminal panel on same end as mounting flange, requires chassis cutout.

Plug Mounting Type: "GPRTP"—employs octal plug for 1 and 2 pole relays; 11-pin plug for 3-pole. The octal plug base is integral with relay for rigidity—is **designed with recessed pins which meet UL spacing requirements (150V).**

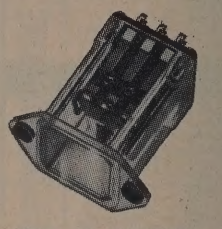
Indicator Relay: Incorporates light bulb to indicate energized condition of coil. Stocked only in GPRTP enclosures described above. Neon bulb furnished with coil ratings 115 volts and above; incandescent bulbs for coil ratings below 115 volts.



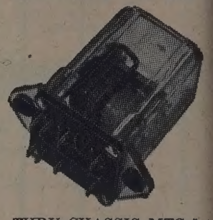
3PDT
1$\frac{5}{16}$" x 1$\frac{25}{32}$" x 1$\frac{3}{16}$"



OCTAL PLUG BASE
(GPRTP) 2⅛"x1⅜"x1⅜"



ABOVE CHASSIS MTG.*
(GPRTA) 2$\frac{21}{64}$"x2¼"x1$\frac{13}{32}$"



THRU-CHASSIS MTG.*
(GPRTT) 2¼" x 1⅜"
Extends 1$\frac{15}{16}$" above chassis

* MULTI-USE TERMINALS: Can be soldered, inserted into a PC board, or will take AMP Style 110 push-on terminals.

STOCK GPR RELAYS—5 AMP AND 10 AMP

Contacts	COIL DATA Volts	Amps	Ohms	5 AMP CONTACTS Unenclosed GPR	Net $ 1-24	Enclosed Above Chassis GPRTA	Net $ 1-24	Enclosed Thru-Chassis GPRTT	Net $ 1-24	Enclosed Plug Base GPRTP	Net $ 1-24	10 AMP CONTACTS Unenclosed GPR	Net $ 1-24	Enclosed Plug Base GPRTP	Net $ 1-24	Indicator Plug Base GPRTP	Net $ 1-24
SPDT	6VAC	.334	4.2	GPRX-3T	3.19	GPRTAX-3T	5.19	GPRTTX-3T	5.19	GPRTPX-3T	5.43	GPRX-203T	3.23	GPRTPX-203T	5.52	—	
DPDT	6VAC	.334	4.2	GPRX-6T	3.84	GPRTAX-6T	5.84	GPRTTX-6T	5.84	GPRTPX-6T	6.03	GPRX-206T	3.93	GPRTPX-206T	6.22	GPRTPX-291T	7.11
3PDT	6VAC	.334	4.2	GPRX-9T	4.24	GPRTAX-9T	6.74	GPRTTX-9T	6.74	GPRTPX-9T	7.48	GPRX-209T	4.38	GPRTPX-209T	7.77	—	
SPDT	12VAC	.167	17	GPRX-12T	3.19	GPRTAX-12T	5.19	GPRTTX-12T	5.19	GPRTPX-12T	5.43	GPRX-212T	3.23	GPRTPX-212T	5.52	—	
DPDT	12VAC	.167	17	GPRX-15T	3.84	GPRTAX-15T	5.84	GPRTTX-15T	5.84	GPRTPX-15T	6.03	GPRX-215T	3.93	GPRTPX-215T	6.22	GPRTPX-292T	7.11
3PDT	12VAC	.167	17	GPRX-18T	4.24	GPRTAX-18T	6.74	GPRTTX-18T	6.74	GPRTPX-18T	7.48	GPRX-218T	4.38	GPRTPX-218T	7.77	—	
SPDT	24VAC	.084	65	GPRX-21T	3.19	GPRTAX-21T	5.19	GPRTTX-21T	5.19	GPRTPX-21T	5.43	GPRX-221T	3.23	GPRTPX-221T	5.52	—	
DPDT	24VAC	.084	65	GPRX-24T	3.84	GPRTAX-24T	5.84	GPRTTX-24T	5.84	GPRTPX-24T	6.03	GPRX-224T	3.93	GPRTPX-224T	6.22	GPRTPX-293T	7.11
3PDT	24VAC	.084	65	GPRX-27T	4.24	GPRTAX-27T	6.74	GPRTTX-27T	6.74	GPRTPX-27T	7.48	GPRX-227T	4.38	GPRTPX-227T	7.77	—	
SPDT	115VAC	.0174	1600	GPRX-30T	3.19	GPRTAX-30T	5.19	GPRTTX-30T	5.19	GPRTPX-30T	5.43	GPRX-230T	3.23	GPRTPX-230T	5.52	—	
DPDT	115VAC	.0174	1600	GPRX-33T	3.84	GPRTAX-33T	5.84	GPRTTX-33T	5.84	GPRTPX-33T	6.03	GPRX-233T	3.93	GPRTPX-233T	6.22	GPRTPX-294T	7.11
3PDT	115VAC	.0174	1600	GPRX-36T	4.24	GPRTAX-36T	6.74	GPRTTX-36T	6.74	GPRTPX-36T	7.48	GPRX-236T	4.38	GPRTPX-236T	7.77	—	
SPDT	230VAC	.0087	7000	GPRX-39T	3.58	GPRTAX-39T	5.58	GPRTTX-39T	5.58	GPRTPX-39T	5.82	GPRX-239T	3.62	GPRTPX-239T	5.91	—	
DPDT	230VAC	.0087	7000	GPRX-42T	4.23	GPRTAX-42T	6.23	GPRTTX-42T	6.23	GPRTPX-42T	6.42	GPRX-242T	4.32	GPRTPX-242T	6.61	GPRTPX-295T	7.50
3PDT	230VAC	.0087	7000	GPRX-45T	4.63	GPRTAX-45T	7.13	GPRTTX-45T	7.13	GPRTPX-45T	7.87	GPRX-245T	4.77	GPRTPX-245T	8.16	—	
SPDT	6VDC	.23	26	GPRX-48T	3.04	GPRTAX-48T	5.04	GPRTTX-48T	5.04	GPRTPX-48T	5.38			GPRTPX-248T	5.47	—	
DPDT	6VDC	.23	26	GPRX-51T	3.39	GPRTAX-51T	5.39	GPRTTX-51T	5.39	GPRTPX-51T	5.98			GPRTPX-251T	6.17	GPRTPX-296T	7.06
3PDT	6VDC	.23	26	GPRX-54T	3.84	GPRTAX-54T	6.34	GPRTTX-54T	6.34	GPRTPX-54T	7.43			GPRTPX-254T	7.72	—	
SPDT	12VDC	.114	105	GPRX-57T	3.04	GPRTAX-57T	5.04	GPRTTX-57T	5.04	GPRTPX-57T	5.38			GPRTPX-257T	5.47	—	
DPDT	12VDC	.114	105	GPRX-60T	3.39	GPRTAX-60T	5.39	GPRTTX-60T	5.39	GPRTPX-60T	5.98			GPRTPX-260T	6.17	GPRTPX-297T	7.06
3PDT	12VDC	.114	105	GPRX-63T	3.84	GPRTAX-63T	6.34	GPRTTX-63T	6.34	GPRTPX-63T	7.43			GPRTPX-263T	7.72	—	
SPDT	24VDC	.060	400	GPRX-66T	3.04	GPRTAX-66T	5.04	GPRTTX-66T	5.04	GPRTPX-66T	5.38			GPRTPX-266T	5.47	—	
DPDT	24VDC	.060	400	GPRX-69T	3.39	GPRTAX-69T	5.39	GPRTTX-69T	5.39	GPRTPX-69T	5.98			GPRTPX-269T	6.17	GPRTPX-298T	7.06
3PDT	24VDC	.060	400	GPRX-72T	3.84	GPRTAX-72T	6.34	GPRTTX-72T	6.34	GPRTPX-72T	7.43			GPRTPX-272T	7.72	—	
SPDT	110VDC	.0110	10,000	GPRX-75T	3.63	GPRTAX-75T	5.63	GPRTTX-75T	5.63	GPRTPX-75T	5.97			GPRTPX-275T	6.06	—	
DPDT	110VDC	.0110	10,000	GPRX-78T	3.98	GPRTAX-78T	5.98	GPRTTX-78T	5.98	GPRTPX-78T	6.57			GPRTPX-278T	6.76	GPRTPX-299T	7.65
3PDT	110VDC	.0110	10,000	GPRX-81T	4.43	GPRTAX-81T	6.93	GPRTTX-81T	6.93	GPRTPX-81T	8.02			GPRTPX-281T	8.31	—	
Approx. weight ⟶				2.5 oz.		3.0 oz.		3.0 oz.		3.5 oz.		2.5 oz.		3.5 oz.		3.5 oz.	

STOCK "GPR" PLATE CIRCUIT RELAYS—5 AMP CONTACTS

Contacts	COIL DATA Ohms	Pull-in max. ma.	Unenclosed GPR	Net $ 1-24	Enclosed Above-Chassis GPRTA	Net $ 1-24	Enclosed Thru-Chassis GPRTT	Net $ 1-24	Enclosed Plug-Base GPRTP	Net $ 1-24
SPDT	2500	7.2	GPRX-82T	3.62	GPRTAX-82T	5.52	GPRTTX-82T	5.52	GPRTPX-82T	5.86
DPDT	2500	10	GPRX-83T	4.15	GPRTAX-83T	5.67	GPRTTX-83T	5.67	GPRTPX-83T	6.26
3PDT	2500	12.3	GPRX-84T	4.75	GPRTAX-84T	6.62	GPRTTX-84T	6.62	GPRTPX-84T	7.71
SPDT	5000	5	GPRX-85T	3.72	GPRTAX-85T	5.62	GPRTTX-85T	5.62	GPRTPX-85T	5.96
DPDT	5000	7.2	GPRX-86T	4.25	GPRTAX-86T	5.77	GPRTTX-86T	5.77	GPRTPX-86T	6.36
3PDT	5000	8.7	GPRX-87T	4.85	GPRTAX-87T	6.72	GPRTTX-87T	6.72	GPRTPX-87T	7.81
SPDT	10,000	3.6	GPRX-88T	4.12	GPRTAX-88T	6.02	GPRTTX-88T	6.02	GPRTPX-88T	6.36
DPDT	10,000	5	GPRX-89T	4.65	GPRTAX-89T	6.17	GPRTTX-89T	6.17	GPRTPX-89T	6.76
3PDT	10,000	6.1	GPRX-90T	5.25	GPRTAX-90T	7.12	GPRTTX-90T	7.12	GPRTPX-90T	8.21
Approx. weight ⟶			2.5 oz.		3.0 oz.		3.0 oz.		3.5 oz.	

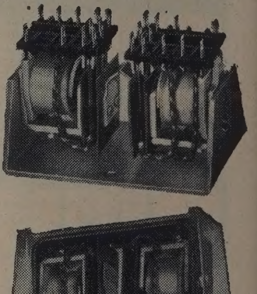
Plate Relays—Feature same physical construction as standard general purpose relays but are adjusted for greater sensitivity and can be used as electronic circuit controls, i.e., in the plate circuits of vacuum tubes.

Latching Relay—Consists of two GPR relays with armatures linked so that the n.o. contacts of one are mechanically latched in closed position when, and after, this relay is energized. When 2nd relay is energized, first relay restores and latches 2nd. Permits switching of twice the number of circuits and holding without coil current. Coil rating is higher than non-latching types, 3.70 volt-amperes. Unenclosed type "GPRLE". Enclosed type "GPRLETP" in clear plastic case with Jones plug P-324-SB. Plug fits Jones S-324-AB socket.

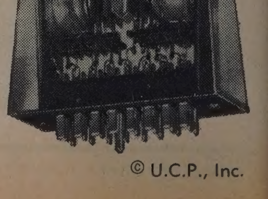
STOCK "GPR" LATCHING RELAYS—5 AMP CONTACTS

Total Contacts	COIL DATA—(Each Coil) Volts	Amps.	Ohms	Unenclosed GPRLE	Net $ 1-24	Enclosed Plug-Base GPRLETP	Net $ 1-24
4PDT	6VAC	.650	2.5	GPRLEX-1T	10.47	GPRLETPX-1T	16.47
6PDT	6VAC	.650	2.5	GPRLEX-2T	12.57	GPRLETPX-2T	19.57
4PDT	12VAC	.309	10.0	GPRLEX-3T	10.47	GPRLETPX-3T	16.47
6PDT	12VAC	.309	10.0	GPRLEX-4T	12.57	GPRLETPX-4T	19.57
4PDT	24VAC	.155	40.0	GPRLEX-5T	10.47	GPRLETPX-5T	16.47
6PDT	24VAC	.155	40.0	GPRLEX-6T	12.57	GPRLETPX-6T	19.57
4PDT	115VAC	.0325	1000	GPRLEX-7T	10.47	GPRLETPX-7T	16.47
6PDT	115VAC	.0325	1000	GPRLEX-8T	12.57	GPRLETPX-8T	19.57
4PDT	230VAC	.0147	4000	GPRLEX-9T	11.25	GPRLETPX-9T	17.25
6PDT	230VAC	.0147	4000	GPRLEX-10T	13.35	GPRLETPX-10T	20.35
4PDT	6VDC	.23	26	GPRLEX-11T	9.42	GPRLETPX-11T	15.42
6PDT	6VDC	.23	26	GPRLEX-12T	11.42	GPRLETPX-12T	18.42
4PDT	12VDC	.114	105	GPRLEX-13T	9.42	GPRLETPX-13T	15.42
6PDT	12VDC	.114	105	GPRLEX-14T	11.42	GPRLETPX-14T	18.42
4PDT	24VDC	.060	400	GPRLEX-15T	9.42	GPRLETPX-15T	15.42
6PDT	24VDC	.060	400	GPRLEX-16T	11.42	GPRLETPX-16T	18.42
4PDT	110VDC	.0110	10,000	GPRLEX-17T	10.60	GPRLETPX-17T	16.60
6PDT	110VDC	.0110	10,000	GPRLEX-18T	12.60	GPRLETPX-18T	19.60
Approx. weight ⟶				7.0 oz.		11.3 oz.	

LATCHING
(GPRLE)
2⅞"x1¾"x1⅞"



ENCLOSED
LATCHING
(GPRLETP)
3$\frac{11}{16}$"x3"x1½"



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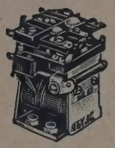
ALL-PURPOSE RELAYS (Also see Model GPR Relays)



MODEL DO RELAY

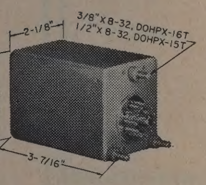
AC or DC OPERATION

Ideal for mobile equipment applications where severe shock and vibration are encountered. Coil drain: 3-watts DC, 6 watts 60 cycle AC. Contact ratings: 10 amps. at 115 v. AC; 32 volt DC non-inductive load. Insulation tested at 1500 v. AC. Size, (4 pole) 2¼ x 2¹⁄₁₆ x 1¹³⁄₁₆"; (3 pole) 2¼ x 1⅝ x 1¹³⁄₁₆".

Stock No.	Type	Coil Data		Net 1-24	Stock No.	Type	Coil Data		Net 1-24
		†V.A.C.	Amps.				V.D.C.	Amps.	
DOX-50T	3PDT	6	2.10	8.65	**DOX-145T**	3PDT	6	.487	7.47
DOX-183T	4PDT	6	2.10	9.85	**DOX-186T**	4PDT	6	.487	8.65
DOX-49T	3PDT	12	1.13	8.65	**DOX-51T**	3PDT	12	.231	7.47
DOX-184T	4PDT	12	1.13	9.85	**DOX-102T**	4PDT	12	.231	8.65
DOX-181T	3PDT	24	.57	8.65	**DOX-141T**	3PDT	24	.105	7.47
DOX-185T	4PDT	24	.57	9.85	**DOX-137T**	4PDT	24	.105	8.65
DOX-226T	‡DPST*	115	.110	8.60	**DOX-93T**	3PDT	110	.022	8.07
DOX-227T	‡3PST	115	.110	7.84	**DOX-187T**	4PDT	110	.022	9.25
DOX-46T	3PDT	115	.110	8.65	**DOX-182T**	3PDT	220	.014	8.75
DOX-228T	‡4PST	115	.110	8.80	**DOX-188T**	4PDT	220	.014	9.93
DOX-53T	4PDT	115	.110	9.85					
DOX-61T	3PDT	230	.060	9.05					
DOX-130T	4PDT	230	.060	10.25					

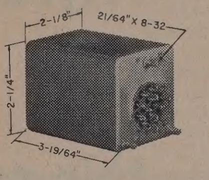
‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts — 20 Amp.

DO RELAYS IN HERMETIC ENCLOSURES



DOHPX-16T, 3PDT, 11 Prongs
DOHPX-15T, 4PDT, 20 Prongs

Stock DO relays with 115 volt coil in hermetically sealed metal enclosures, filled with dry nitrogen. Both 3 and 4-pole DO relays are supplied in these enclosures with plug (DOHPX-) or solder terminal (DOHX-) connectors as illustrated. **Weights:** 3-pole hermetic relay approx. 14 oz.; 4-pole approx. 15 oz.

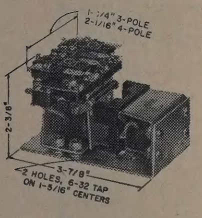


DOHX-22T, 3PDT, 14 Terminals
DOHX-23T, 4PDT, 14 Terminals

10 AMP. CONTACTS

Stock No.	Type	Coil Data		Net 1-24
		Volts	Amps.	
DOHPX-16T	3PDT	115VAC	.110	21.95
DOHPX-15T	4PDT	115VAC	.110	27.95
DOHX-22T	3PDT	115VAC	.110	21.31
DOHX-23T	4PDT	115VAC	.110	22.90

MODEL DO LATCHING RELAY (DOLEX-)



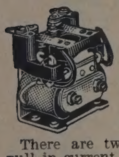
Consists of Model DO relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relays and reset coils) are 115VAC. Available with 3 or 4-pole relays. **Weights:** 3-pole—16.5 oz.; 4-pole—17 oz.

DOLEX-3T, 3PDT
DOLEX-5T, 4PDT

10 AMP. CONTACTS

Stock No.	Type	Coil Data†		Net 1-24
		Volts	Amps.	
DOLEX-3T	3PDT	115VAC	.110	15.17
DOLEX-5T	4PDT	115VAC	.110	16.37

† Coil data applies to relay part of latching assembly. Reset magnet operates on 115VAC, 60 cycle also.



MODEL DOSY RELAY

FOR PLATE CIRCUIT OPERATION

The high operating sensitivity makes the DOSY relay adaptable to a wide range of electronic control circuits, such as plate circuit controls, etc.

The insulation is of high grade, molded phenolic material. At 115 v. AC or 32 v. DC. non-inductive load, Model DOSY relay has a contact rating of 15 amperes.

There are two DPDT types, one having 10,000 ohms coil resistance (maximum pull-in current of 8 ma. DC); the other having 5,000 ohms coil resistance. Dimensions are same as for Model DOS next column.

Stock No.	Type	Coil Data		Net Each 1-24
		D.C. Ohms	Max. Pull-in Current	
DOSYX-67T	DPDT	10,000	8 MA	6.09
DOSYX-68T	DPDT	5,000	11 MA	6.09
DOSYX-69T	SPDT	10,000	5 MA	5.62
DOSYX-70T	SPDT	5,000	7 MA	5.62

MODEL DOS RELAY

AC or DC OPERATION

Quality, general-purpose relays originally designed to meet rigorous aircraft specs. Extremely compact yet rugged. Coil drain: 2.5 watts DC, 3 watts at 60 cycles AC. Contact ratings: DP, 15 amps. at 115 v. AC or 32 v. DC non-inductive load; SP, 25 amps. Molded phenolic insulation; tested at 1500 v. AC. 1⅞ x 1⅝ x 1¹³⁄₃₂".

Stock No.	Type	Coil Data		Net 1-24	Stock No.	Type	Coil Data		Net 1-24
		†V.A.C.	Amps.				V.D.C.	Amps.	
DOSX-229T	‡SPST*	6	.650	4.84	**DOSX-158T**	DPDT	6	.550	4.96
DOSX-230T	‡DPST	6	.650	4.94	**DOSX-66T**	DPDT	12	.210	4.96
DOSX-30T	DPDT	6	.650	5.46	**DOSX-9T**	DPDT	24	.105	4.96
DOSX-16T	DPDT	12	.380	5.46	**DOSX-237T**	‡SPST*	110	.022	4.99
DOSX-231T	‡SPST*	24	.166	4.84	**DOSX-238T**	‡DPST	110	.022	5.09
DOSX-232T	‡DPST	24	.166	4.94	**DOSX-59T**	DPDT	110	.022	5.56
DOSX-162T	DPDT	24	.166	5.46	**DOSX-177T**	DPDT	220	.013	6.14
DOSX-233T	‡SPST*	115	.043	4.84					
DOSX-234T	‡DPST	115	.043	4.94					
DOSX-7T	DPDT	115	.043	5.46					
DOSX-235T	‡SPST*	230	.030	5.24					
DOSX-236T	‡DPST	230	.030	5.34					
DOSX-12T	DPDT	230	.030	5.86					

‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts — 25 Amp.

MODEL DOS PLUG-IN & ENCL. TYPES

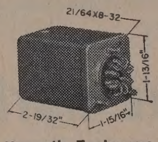
DOSPX-1T

DOSEPX-5T

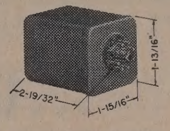
Model DOS, DPDT relay with standard octal plug base, unenclosed or enclosed types. Enclosed dust-proof type has drawn aluminum cover. Overall dimensions, exclusive of plug: DOSPX-1T—1⅝ x 2 x 1¹⁵⁄₁₆"; DOSEPX-5T—2⅛ x 2½ x 2⅛". Contacts—15 amps. Similar to DOSX-7T shown under "DOS Relays" above.

Stock No.	Type	Coil		Net 1-24
		V.A.C.	Amps.	
DOSPX-1T Unenclosed	DPDT	115	.043	7.26
DOSEPX-5T Enclosed	DPDT	115	.043	8.30

DOS RELAYS IN HERMETIC ENCLOSURES



Hermetic Enclosures with 8 Terminals
DOSHX-39T, 115VDC
DOSHX-40T, 115VAC



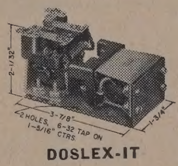
Hermetic Enclosures with Octal Plugs
DOSHPX-46T, 115VDC
DOSHPX-47T, 115VAC

Hermetically Sealed non-removable enclosures, filled with dry nitrogen, are also available to provide protection under adverse ambient conditions. DOS relays with 115 volt AC or DC coils are provided in these enclosures with either octal plug (DOSHPX-) or solder-terminal (DOSHX-) connectors as illustrated. **Weights:** 8 oz. each approx.

15 AMP. CONTACTS

Stock No.	Type	Coil Data		Net 1-24
		Volts	Amps.	
DOSHX-40T	DPDT	115VAC	.043	13.58
DOSHPX-47T	DPDT	115VAC	.043	13.66
DOSHX-39T	DPDT	110VDC	.022	13.68
DOSHPX-46T	DPDT	110VDC	.022	13.76

MODEL DOS LATCHING RELAY (DOSLEX-)



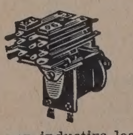
DOSLEX-1T

Consists of Model DOS relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relay and reset magnet) are 115VAC. **Weight:** 14.2 oz.

15 AMP. CONTACTS

Stock No.	Type	Coil Data †		Net 1-24
		Volts	Amps.	
DOSLEX-1T	DPDT	115VAC	.043	11.98

† Coil data applies to relay part of latching assembly. Reset magnet operates on 115VAC, 60 cycle also.



MODEL CRU RELAY

AC or DC OPERATION

Precision-engineered, general-application relays. Used in recorders, vending machines, etc. Features small size and extremely rugged construction. Designed for long life performance. Has nickel-silver springs and pure silver contacts. Coil drain: 2.75 watts DC, 5.6 watts 60 cycle AC. Contact ratings: 5 amps. at 115 v. AC; 32 v. DC non-inductive load. Insulation tested at 750 v. AC between all insulated metal parts and between insulated metal parts and ground. Size 2⁷⁄₁₆ x 2 x 1³⁄₃₂".

Stock No.	Type	Coil Data		Net 1-24	Stock No.	Type	Coil Data		Net 1-24
		†V.A.C.	Amps.				V.D.C.	Amps.	
CRUX-192T	SPDT	6	1.20	3.15	**CRUX-198T**	SPDT	6	.40	2.94
CRUX-193T	DPDT	6	1.20	3.70	**CRUX-199T**	DPDT	6	.40	3.47
CRUX-171T	4PDT	6	1.20	4.81	**CRUX-133T**	4PDT	6	.40	4.52
CRUX-194T	SPDT	24	.38	3.15	**CRUX-200T**	SPDT	24	.10	2.94
CRUX-195T	DPDT	24	.38	3.70	**CRUX-201T**	DPDT	24	.10	3.47
CRUX-196T	4PDT	24	.38	4.81	**CRUX-165T**	4PDT	24	.10	4.52
CRUX-197T	SPDT	115	.075	3.15	**CRUX-202T**	SPDT	110	.022	3.81
CRUX-175T	DPDT	115	.075	3.70	**CRUX-145T**	DPDT	110	.022	4.34
CRUX-163T	4PDT	115	.075	4.81	**CRUX-137T**	4PDT	110	.022	5.39

† AC Voltage is 60 cycle.

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KEY TO SUFFIXES

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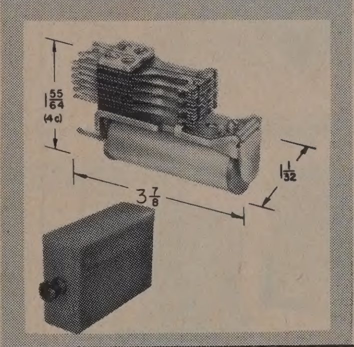
G	— Silver Cad.-Oxide Contacts	KRP5AG	S	— Sealed in can	PW5DS, SM5DS
L	— Plate Circuit	SM5L	T	— Sealed in "T" can	MG11DT
M	— Sealed in "M" can	MH17DM	Y	— U/L Listed	AB11AY

See ordering information on page 11.

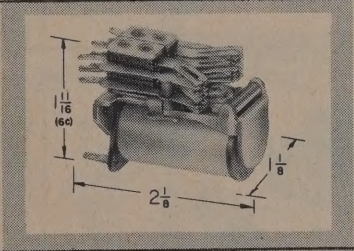
BS SERIES Long coil telephone type. Suited for computer and automatic test equipment applications requiring large numbers of poles. Tinned, pierced solder type terminals for rear panel wiring. Mounting: Two No. 8-32 NC 2B tapped holes on ¾" centers. Contacts arms: Bifurcated with $\frac{1}{16}$" dia. twin palladium contacts. Weight: Approximately 9 ozs.

BS DUST COVER Two sizes of sheet metal enclosures: Small size for BS relays up to 6 Form C (6PDT, BS23), measures: H: $2\frac{3}{16}$", W: 1¼", L: $3\frac{27}{32}$" exclusive ⅝" knob; weight: 6.5 ozs. Medium size for up to 10 Form C, measures: H: 2⅝", other dimensions same as small size; weight: 7 ozs.

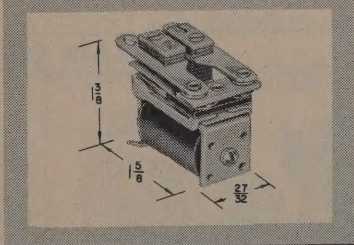
35D188, Small size	NET $1.80
35D189, Medium size	NET $1.80



LS SERIES Short springs and light weight armature provide fast action without sacrificing reliability and long life. Stainless steel hinge bearing designed to give 100 million operations. Tinned, pierced solder type terminals. Mounting: Two No. 6-32 tapped holes on ¾" centers. Bifurcated contact arms with $\frac{1}{16}$" dia. twin palladium contacts. Weight: Approximately 4 ozs.



MB SERIES Miniature DC contactor. Designed for very high current applications. Extra rugged construction insures long life. Handles 150 ampere surges for 0.3 sec. Contact arms: Stationary, heavy brass, ¼" dia. silver contacts pierced solder terminals. Movable, ¼" x $1\frac{3}{16}$" silver bar contact. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Weight: 2 ozs.



TELEPHONE TYPE RELAYS

TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
BS17A	**115V**	**71**	**17.9VA**	**4PDT**	**4**	**$ 9.00**
BS17D	24V	1,000	576MW	4PDT	4	7.40
BS17D	110V	6,500	1.8W	4PDT	4	8.00
BS17L	5.5MA	10,000	300MW	4PDT	4	8.00
BS23A	115V	71	17.9VA	6PDT	4	10.50
BS23D	24V	1,000	576MW	6PDT	4	8.95
BS23D	110V	6,500	1.8W	6PDT	4	9.50
BS23L	7.6MA	10,000	600MW	6PDT	4	9.50
LS17D	**24V**	**300**	**1.8W**	**4PDT**	**4**	**5.60**
LS17D	48V	1,300	1.8W	4PDT	4	5.75
LS17D	110V	8,000	1.8W	4PDT	4	6.00
LS23D	24V	300	1.8W	6PDT	4	6.80
LS23D	48V	1,300	1.8W	6PDT	4	6.95
LS23D	110V	8,000	1.8W	6PDT	4	7.20
MB3D	**6V**	**13.3**	**2.7W**	**SPST-NO-DB**	**60**	**$ 5.40**
MB3D	12V	62.3	2.7W	SPST-NO-DB	60	5.50
MB3D	24V	245	2.7W	SPST-NO-DB	60	5.50
MB3D	110V	5,000	2.7W	SPST-NO-DB	60	5.90

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

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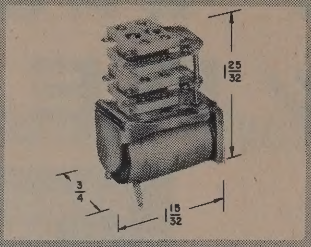
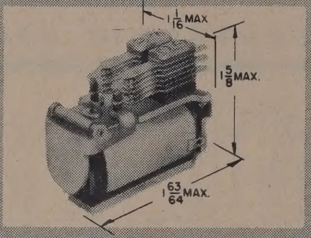
TELEPHONE TYPE RELAYS

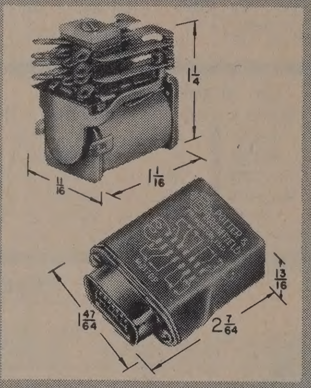
MC SERIES Built with ceramic contact spaces for RF switching to minimize losses at high frequencies. Intercontact capacitance 1.5 mmfd. max. Tinned, pierced solder type terminals. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Contacts: 3/32" dia. palladium. Weight: 2 ozs.



MF SERIES Unusually low coil temperature rise is an inherent feature of this efficient AC miniature telephone type relay. The rise does not exceed 20°C for a 4 Form C relay with continuous operation at 115V AC 50/60 cycles @ 25°C. The MF is economical since even a large number in an enclosed chassis require no costly cooling, and less costly circuit components, such as transformers, can normally be used. Sensitivity: 2.3VA (4 Form C). Two mountings: Two 6–32 tapped holes on ¾" centers; four 4–40 tapped holes on ⅜" x ⅜" centers. Weight: 3 ozs. maximum.

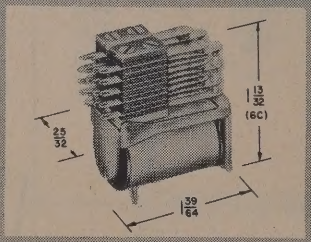


MG SERIES Sub-miniature telephone type relay for aircraft, computer and other applications requiring good shock and vibration characteristics. Furnished open, sealed or in nylon dust cover. Mounting: Open model has four No. 3-48 tapped holes on ⅜" x ⅜" centers. Sealed model has three No. 4-40 threaded studs on 1" x ½" centers. Dust cover model has plug-in header that fits Amphenol receptacle No. 57-20140 or similar. Contacts: 3/32" dia. silver. Weight: Open 1.2 ozs.; Dust cover 2.0 ozs.; Sealed 2.75 ozs.

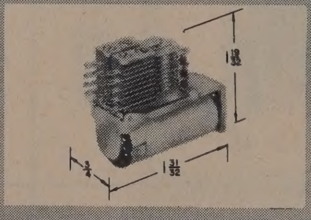


MH SERIES MINIATURE TYPE

Ideal for miniature program applications where space and weight are factors. Mounting: Open model, MH11L, one No. 6-32 threaded stud 11/32" long plus locating boss. All other open models have four No. 3-48 holes on ⅜" x ⅜" centers. Sealed models, M enclosures, three 6-32 NC 2 threaded studs on 1¼" x ½" centers. D enclosures, three 6-32 threaded studs on 1 3/16" x 15/16" centers. All sealed models have hook end solder terminals. All models have ⅛" dia. gold-flashed silver contacts. Weight: Open models 2½ oz. max. Sealed models 5 ozs. max.



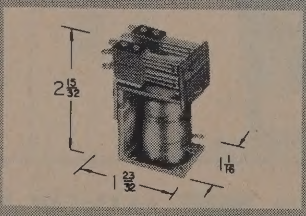
ML SERIES A small telephone type relay having excellent sensitivity with outstanding switching capabilities. Ideal for transistorized computor networks, telephone systems and battery powered communications equipment. Single contact arms have ⅛" dia. gold-flashed silver contacts rated at 3 amps for 100,000 operations. Pierced solder terminals. Mounting: Four 3-48 holes on ⅜" centers. Weight: 2.5 ozs.



TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
MC5A	**115V**	**800**	**4.6VA**	**SPDT**	**1**	**5.00**
MC5D	12V	96	1.6W	SPDT	1	4.40
MC5D	24V	365	1.6W	SPDT	1	4.40
MC11A	115V	800	4.6VA	DPDT	1	6.90
MC11D	12V	96	1.6W	DPDT	1	6.35
MC11D	24V	365	1.6W	DPDT	1	6.35
MC11D	110V	6,200	1.6W	DPDT	1	6.85
MF11AM†	**24V**	**44.2**	**1.5VA**	**DPDT**	**5**	**12.25**
MF11AM†	115V	886	1.5VA	DPDT	5	12.25
MF17A	6V	2.5	2.3VA	4PDT	5	9.25
MF17A	24V	33.7	2.3VA	4PDT	5	9.25
MF17A	115V	580	2.3VA	4PDT	5	9.25
MG11D	**6V**	**23**	**1.6W**	**DPDT**	**2**	**5.20**
MG11D	12V	90	1.6W	DPDT	2	5.20
MG11D	24V	365	1.6W	DPDT	2	5.20
MG11D	110V	7,560	1.6W	DPDT	2	5.65
MG11DT†	24V	365	1.6W	DPDT	2	10.50
MG17D	6V	23	1.6W	4PDT	2	6.95
MG17D	12V	90	1.6W	4PDT	2	6.95
MG17D	24V	365	1.6W	4PDT	2	6.95
MG17D	110V	7,560	1.6W	4PDT	2	7.40
MG17DP§	6V	23	1.6W	4PDT	2	11.55
MG17DP§	12V	90	1.6W	4PDT	2	11.55
MG17DP§	24V	365	1.6W	4PDT	2	11.55
MG17DP§	110V	7,560	1.6W	4PDT	2	12.15
MG17DT†	24V	365	1.6W	4PDT	2	12.60
MG17DT†	110V	7,560	1.6W	4PDT	2	13.20
MH11L	**4.5MA**	**10,000**	**200MW**	**DPDT**	**3**	**5.45**
MH11LM†	**4.5MA**	**10,000**	**200MW**	**DPDT**	**3**	**9.20**
MH17D	**6V**	**23**	**1.6W**	**4PDT**	**5**	**5.45**
MH17D	**12V**	**96**	**1.6W**	**4PDT**	**5**	**5.45**
MH17D	**24V**	**365**	**1.6W**	**4PDT**	**5**	**5.45**
MH17DM†	**6V**	**23**	**1.6W**	**4PDT**	**5**	**11.00**
MH17DM†	**12V**	**96**	**1.6W**	**4PDT**	**5**	**11.00**
MH17DM†	**24V**	**365**	**1.6W**	**4PDT**	**5**	**11.00**
MH17AMR†	**115V**	**6,200**	**2VA**	**4PDT**	**5**	**17.95**
MH23D	**6V**	**13.3**	**2.5W**	**6PDT**	**5**	**6.85**
MH23D	**12V**	**62.3**	**2.5W**	**6PDT**	**5**	**6.85**
MH23D	**24V**	**245**	**2.5W**	**6PDT**	**5**	**6.85**
MH23D	**110V**	**5,000**	**2.5W**	**6PDT**	**5**	**7.30**
MH23DD†	**12V**	**62.3**	**2.5W**	**6PDT**	**5**	**14.60**
MH23DD†	**24V**	**245**	**2.5W**	**6PDT**	**5**	**14.60**
MH23DD†	**110V**	**5,000**	**2.5W**	**6PDT**	**5**	**15.15**
ML11D	**4.0MA**	**2,500**	**40MW**	**DPDT**	**3**	**6.05**
ML11D	2.83MA	5,000	40MW	DPDT	3	6.20
ML11D	2.0MA	10,000	40MW	DPDT	3	6.50
ML17D	5.65MA	2,500	80MW	4PDT	3	7.20
ML17D	4.0MA	5,000	80MW	4PDT	3	7.35
ML17D	2.83MA	10,000	80MW	4PDT	3	7.65
ML23D	6.93MA	2,500	120MW	6PDT	3	8.15
ML23D	4.9MA	5,000	120MW	6PDT	3	8.30
ML23D	3.46MA	10,000	120MW	6PDT	3	8.60

PLATE CIRCUIT and SENSITIVE RELAYS

GB SERIES (See GA series for similar voltage actuated relays.) Sensitivity 115 milliwatts for single pole and 275 milliwatts for 4 pole. Medium cost, high quality relay. Pull-in is not adjustable. Mounting: No. 8-32 tapped core and locating boss. Contacts: 3/16" dia. silver. Weight: Approximately 5 ozs.



TYPE	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	NET
GB5D	**6.8MA**	**2,500**	**115MW**	**SPDT**	**5**	**3.45**
GB5D	4.8MA	5,000	115MW	SPDT	5	3.60
GB5D	3.4MA	10,000	115MW	SPDT	5	4.10
GB11D	7MA	2,500	125MW	DPDT	5	4.85
GB11D	5MA	5,000	125MW	DPDT	5	4.95
GB11D	3.53MA	10,000	125MW	DPDT	5	5.50
GB17D	10.5MA	2,500	275MW	4PDT	5	5.80
GB17D	7.4MA	5,000	275MW	4PDT	5	5.95
GB17D	5.25MA	10,000	275MW	4PDT	5	6.40

†Sealed Relay
§Enclosed Relay

See ordering information on page 11.

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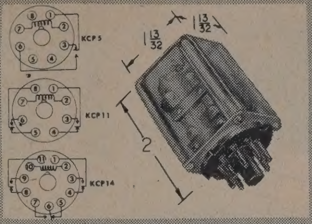
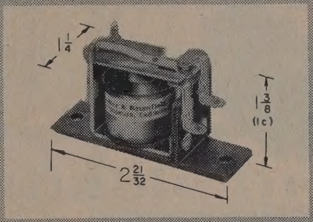
Potter & Brumfield Relays

PLATE CIRCUIT and SENSITIVE RELAYS

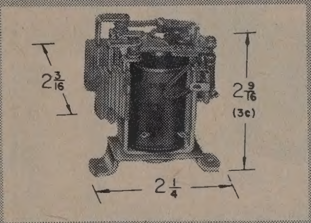
KCP SERIES Low cost plate circuit relay enclosed in clear cellulose acetate cover. Sensitivity 125 mw single pole; 250 mw double pole; 375 mw three pole. Mounting: Standard octal plug-in type. Eight pin for KCP5 and KCP11. Eleven pin for KCP14. Contacts: ⅛″ dia. gold-flashed silver. Weight: Approximately 3 ozs. Use KCP-KRP hold down spring when vibration, inverted or horizontal mounting are factors (see page 6).



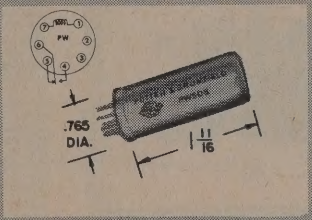
LB SERIES Designed for top performance, long life at an unusually low cost. Each coil is wound with a given coil resistance and factory adjusted to operate on minimum current requirements. Mounting: Two 3/16″ dia. holes on 2 7/32″ centers. Contacts: ⅛″ dia. silver. Weight: Approximately 2 ozs.



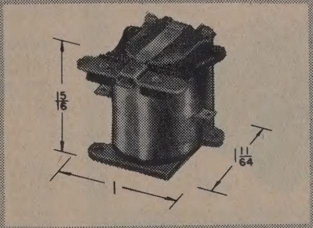
LM SERIES (See KL for similar voltage actuated relays.) Sensitivity 100 milliwatts for single pole and 200 milliwatts for double pole. Medium cost, high quality relay with 7/32″ dia. silver contacts. Pull-in adjustable by tail spring adjusting screw. Mounting: Two No. 6-32 tapped holes on 1 13/16″ centers. Weight: Approximately 5 ozs. DC Coils only.



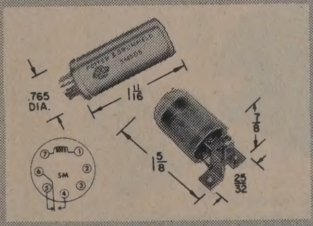
PW SERIES (In both voltage and current actuated models.) Sensitivity 40 mw for current actuated models. 180 mw for voltage actuated models. Precision, light weight, hermeticaly sealed relay for aircraft and missile applications. Will withstand 10G vibration to 500 cps. Mounting: Standard 7-pin miniature tube base. Weight: Approx. 1 oz.



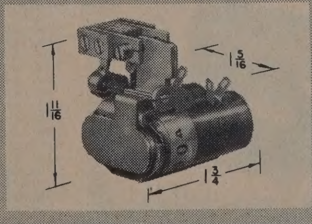
RS SERIES (In both voltage and current actuated models.) 60 mw. sensitivity. Low-cost, small, light weight, sensitive relay for radio-sonde, light dimmer and model applications. Mounting: Two No. 4-40 tapped holes on diagonal ¾″ x ⅝″ centers. Contacts: Bar palladium. Weight: 1½ ozs.



SM SERIES (In both voltage and current actuated models.) Sensitivity 75 mw for current actuated models. Medium cost, light weight, dust covered (right) or hermetically sealed (left) relay for light contact loads found in computers, model airplanes and similar applications. Extremely long mechanical life because of reed armature. Mounting: Sealed, standard 7-pin miniature tube socket; dust cover, two 3/32″ dia. holes on 17/32″ centers. Contacts: Stationary silver; movable rhodium. Weight: 1 oz. max.



SS SERIES Ultra sensitive precision relay. 10 mw sensitivity. Dual series-connected coils with balanced armature on needle-point bearings for all low energy circuits such as instruments and bridge balancing. May also be used as a differential relay by connecting the two coils in separate circuits. Mounting: Two No. 6-32 tapped holes on 23/32″ centers. Contacts: ⅛″ dia. silver. Weight: Approx. 3½ ozs.



TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KCP5§	**7.2MA**	**2,500**	**125MW**	**SPDT**	**2**	**$ 5.90**
KCP5§	5MA	5,000	125MW	SPDT	2	6.00
KCP5§	3.6MA	10,000	125MW	SPDT	2	6.40
KCP11§	10MA	2,500	250MW	DPDT	2	6.30
KCP11§	7.2MA	5,000	250MW	DPDT	2	6.40
KCP11§	5MA	10,000	250MW	DPDT	2	6.80
KCP14§	12.3MA	2,500	375MW	3PDT	2	7.75
KCP14§	8.7MA	5,000	375MW	3PDT	2	7.85
KCP14§	6.1MA	10,000	375MW	3PDT	2	8.25
LB5	**9MA**	**2,500**	**200MW**	**SPDT**	**5**	**2.45**
LB5	6.3MA	5,000	200MW	SPDT	5	2.65
LB5	4.5MA	10,000	200MW	SPDT	5	2.85
LM5	**6.3MA**	**2,500**	**100MW**	**SPDT**	**5**	**3.90**
LM5	4.5MA	5,000	100MW	SPDT	5	4.10
LM5	3.2MA	10,000	100MW	SPDT	5	4.40
LM11	9MA	2,500	200MW	DPDT	5	5.55
LM11	6.3MA	5,000	200MW	DPDT	5	5.75
LM11	4.5MA	10,000	200MW	DPDT	5	6.30
PW5DS†	**6V**	**202**	**180MW**	**SPDT**	**1**	**10.25**
PW5DS†	12V	810	180MW	SPDT	1	10.25
PW5DS†	24V	3,240	180MW	SPDT	1	10.25
PW5LS†	2.8MA	5,000	40MW	SPDT	1	10.60
PW5LS†	2.0MA	10,000	40MW	SPDT	1	11.00
RS5D	**6V**	**335**	**110MW**	**SPDT**	**2**	**2.60**
RS5D	12V	1,350	110MW	SPDT	2	2.75
RS5D	5MA	2,500	60MW	SPDT	2	2.85
RS5D	3.5MA	5,000	60MW	SPDT	2	3.15
RS5D	2.5MA	10,000	60MW	SPDT	2	3.60
SM5DS†	**6V**	**80**	**500MW**	**SPDT**	**.25**	**6.25**
SM5DS†	12V	360	500MW	SPDT	.25	6.25
SM5DS†	24V	900	500MW	SPDT	.25	6.25
SM5LS†	3.9MA	5,000	75MW	SPDT	.25	6.55
SM5LS†	2.7MA	10,000	75MW	SPDT	.25	7.00
SS5D	**1MA**	**10,000**	**10MW**	**SPDT**	**2**	**12.60**

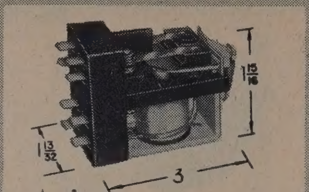
SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

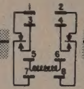
†Sealed Relay
§Enclosed Relay

See ordering information on page 11.

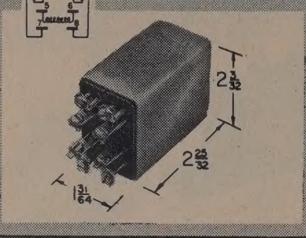
Potter & Brumfield Relays

AB SERIES For appliance and general purpose applications where rugged construction, long life and quiet operation are required. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L and CSA* labels. Mounting: Two No. 8-32 tapped holes, on 1¾" centers. Weight: Approx. 5 ozs. Silver contacts.

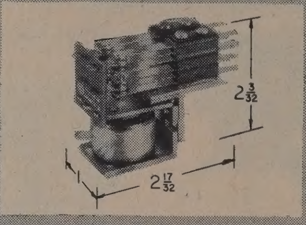




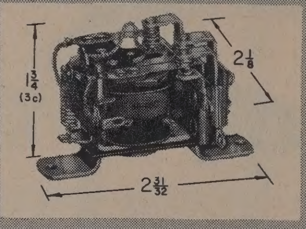
ABC SERIES Medium duty power relay with dust cover. For small motors, industrial control and similar applications. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L and CSA* labels. Mounting: One No. 8-32 threaded stud ⅜" long and locating tab on 9/16" centers. Contacts: ¼" dia. silver. Weight: Approx. 7 ozs.



GF SERIES Medium duty power relay for industrial control applications. Long contact arms have ¼" dia. silver contacts rated at 10 amps at 115V AC or 28V DC resistive. Contacts have excellent wipe or self-cleaning action. Tinned, pierced solder terminals. Mounting: 8-32 tapped core with locating boss. Weight: 4.75 ozs. (See GA series for similar voltage actuated relays.)



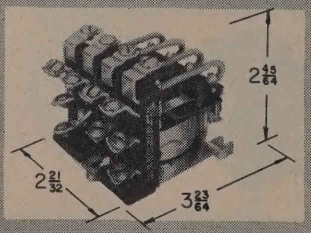
MR SERIES A medium duty power relay that can handle small motors, transmitters, and general purpose applications. Mounting: Two 5/32" dia. holes on 2¼" centers for MR3 and 11, 2⅝" centers for MR2, 5 and 14. Contacts: 7/32" dia. silver. Weight: 4 ozs. Enclosure: See MS/MR dust cover.



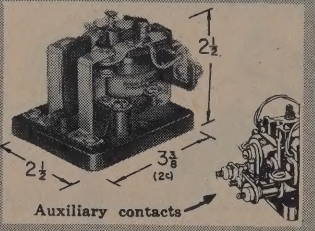
PM SERIES A compact heavy duty 4PDT power relay for polyphase and heavy duty switching applications. Screw terminals. Has ¼" silver-cadmium-oxide contacts rated at 25 amps at 115V., 25 amps at 230V. 50/60 cycle resistive AC, 1 HP per movable arm at 120V. or 240V. AC single phase, U/L and CSA* listed, except 440V. Mounts by one front key-hole and two rear channel slots for 8-32 screws on 2" x 2½" triangular centers. Weight: 14 ozs.

9PM1 Adapter plates for mounting PM on PR mounting holes. Box of 10 Net $1.50

For metal enclosure see below.

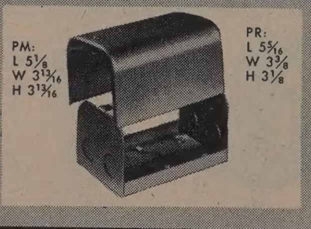


PR SERIES Heavy duty relay for industrial control applications requiring long life and fast action. Heavy duty screw type terminals. All AC and DC models except PR11AL5 carry U/L labels. Only AC models except PR11AL5 carry CSA* labels also. Mounting: Two 3/16" dia. holes on 1⅞" centers. Weight: 11 ozs. max. Contacts: 5/16" dia. silver. Enclosure: See "PR" cover. The PR11AL5 relay is equipped with 3/16" dia. silver SPDT auxiliary contacts rated at 5 amps.



PM and PR DUST COVERS These dust covers have a sheet metal base with knockouts for ½" dia. conduit and an aluminum cover fitted with two screws. Finished in gray baked enamel. Mounting: Three No. 10 holes on 1⅞" x 4⅛" centers. Approx. weight: 1 lb.

35D227 Metal cover for PM only NET $3.00
35D013 Metal cover for PR only NET $3.00



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*Canadian Standards Association

POWER TYPE RELAYS

TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
AB11AY	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**$5.30**
AB11AY	24V	23	6.4VA	DPDT	10	5.30
AB11AY	115V	510	6.4VA	DPDT	10	5.30
AB11AY	230V	2,050	6.4VA	DPDT	10	5.70
AB11D	12V	72	2.0W	DPDT	10	5.20
AB11D	24V	288	2.0W	DPDT	10	5.20
AB11D	110V	6,050	2.0W	DPDT	10	5.70
ABC11AY§	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**6.40**
ABC11AY§	24V	23	6.4VA	DPDT	10	6.40
ABC11AY§	115V	510	6.4VA	DPDT	10	6.40
ABC11AY§	230V	2,050	6.4VA	DPDT	10	6.80
ABC11D§	6V	18	2.0W	DPDT	10	6.30
ABC11D§	12V	72	2.0W	DPDT	10	6.30
ABC11D§	24V	288	2.0W	DPDT	10	6.30
ABC11D§	110V	6,050	2.0W	DPDT	10	6.80
GF17A	6V	1.7	6VA	4PDT	10	6.65
GF17A	12V	6.8	6VA	4PDT	10	6.65
GF17A	24V	24	6VA	4PDT	10	6.65
GF17A	115V	690	6VA	4PDT	10	6.65
GF17A	230V	2,950	6VA	4PDT	10	7.05
GF17D	6V	18	2.0W	4PDT	10	6.65
GF17D	12V	72	2.0W	4PDT	10	6.65
GF17D	24V	288	2.0W	4PDT	10	6.65
GF17D	110V	6,050	2.0W	4PDT	10	7.10
MR3A	**6V**	**2.75**	**3.25VA**	**SPST-NO-DB**	**10**	**3.85**
MR3A	24V	50	3.25VA	SPST-NO-DB	10	3.85
MR3A	115V	1,250	3.25VA	SPST-NO-DB	10	3.85
MR3D	6V	24	1.6W	SPST-NO-DB	10	3.50
MR3D	12V	96	1.6W	SPST-NO-DB	10	3.50
MR3D	24V	360	1.6W	SPST-NO-DB	10	3.50
MR5A	6V	2.75	3.25VA	SPDT	8	3.45
MR5A	12V	13.25	3.25VA	SPDT	8	3.45
MR5A	24V	50	3.25VA	SPDT	8	3.45
MR5A	115V	1,250	3.25VA	SPDT	8	3.45
MR5A	230V	4,600	3.25VA	SPDT	8	3.85
MR5D	6V	24	1.6W	SPDT	8	3.20
MR5D	12V	96	1.6W	SPDT	8	3.20
MR5D	24V	360	1.6W	SPDT	8	3.20
MR5D	110V	8,000	1.6W	SPDT	8	3.70
MR11A	6V	2.75	3.25VA	DPDT	8	4.85
MR11A	12V	13.25	3.25VA	DPDT	8	4.85
MR11A	24V	50	3.25VA	DPDT	8	4.85
MR11A	115V	1,250	3.25VA	DPDT	8	4.85
MR11A	230V	4,600	3.25VA	DPDT	8	5.25
MR11D	6V	24	1.6W	DPDT	8	4.60
MR11D	12V	96	1.6W	DPDT	8	4.60
MR11D	24V	360	1.6W	DPDT	8	4.60
MR11D	110V	8,000	1.6W	DPDT	8	5.10
MR14A	6V	2.75	3.25VA	3PDT	8	5.80
MR14A	12V	13.25	3.25VA	3PDT	8	5.80
MR14A	24V	50	3.25VA	3PDT	8	5.80
MR14A	115V	1,250	3.25VA	3PDT	8	5.80
MR14A	230V	4,600	3.25VA	3PDT	8	6.20
MR14D	6V	24	1.6W	3PDT	8	5.45
MR14D	12V	96	1.6W	3PDT	8	5.45
MR14D	24V	360	1.6W	3PDT	8	5.45
MR14D	110V	8,000	1.6W	3PDT	8	5.95
PM17AY	**6V**	**.37**	**14VA**	**4PDT**	**25**	**12.35**
PM17AY	12V	1.4	14VA	4PDT	25	12.35
PM17AY	24V	5.0	14VA	4PDT	25	12.35
PM17AY	115V	120	14VA	4PDT	25	12.35
PM17AY	230V	587	14VA	4PDT	25	12.75
PM17A	440V	1,790	14VA	4PDT	25	13.60
PR1AY	**24V**	**12**	**9.8VA**	**SPST-NO**	**25**	**4.05**
PR3AY	6V	0.86	9.8VA	SPST-NO-DB	25	4.15
PR3AY	12V	3.2	9.8VA	SPST-NO-DB	25	4.15
PR3AY	24V	12	9.8VA	SPST-NO-DB	25	4.15
PR3AY	115V	290	9.8VA	SPST-NO-DB	25	4.15
PR3AY	230V	1,200	9.8VA	SPST-NO-DB	25	4.50
PR3DY	6V	18	2.0W	SPST-NO-DB	25	4.15
PR3DY	12V	71	2.0W	SPST-NO-DB	25	4.15
PR3DY	24V	288	2.0W	SPST-NO-DB	25	4.15
PR3DY	110V	6,050	2.0W	SPST-NO-DB	25	4.75
PR5AY	6V	0.86	9.8VA	SPDT	25	4.35
PR5AY	12V	3.2	9.8VA	SPDT	25	4.35
PR5AY	24V	12	9.8VA	SPDT	25	4.35
PR5AY	115V	290	9.8VA	SPDT	25	4.35
PR5AY	230V	1,200	9.8VA	SPDT	25	4.75
PR5DY	6V	18	2.0W	SPDT	25	4.35
PR5DY	12V	71	2.0W	SPDT	25	4.35
PR5DY	24V	288	2.0W	SPDT	25	4.35
PR5DY	110V	6,050	2.0W	SPDT	25	4.95
PR7AY	6V	0.86	9.8VA	DPST	25	4.90
PR7AY	12V	3.2	9.8VA	DPST	25	4.90
PR7AY	24V	12	9.8VA	DPST	25	4.90
PR7AY	115V	290	9.8VA	DPST	25	4.90
PR7AY	230V	1,200	9.8VA	DPST	25	5.35
PR7DY	6V	18	2.0W	DPST	25	4.90
PR7DY	12V	71	2.0W	DPST	25	4.90
PR7DY	24V	288	2.0W	DPST	25	4.90
PR7DY	110V	6,050	2.0W	DPST	25	5.50
PR11AY	6V	0.86	9.8VA	DPDT	25	6.45
PR11AY	12V	3.2	9.8VA	DPDT	25	6.45
PR11AY	24V	12	9.8VA	DPDT	25	6.45
PR11AY	115V	290	9.8VA	DPDT	25	6.45
PR11AY	230V	1,200	9.8VA	DPDT	25	6.95
PR11AY	440V	4,500	9.8VA	DPDT	25	7.80
PR11AL5	6V	0.86	9.8VA	DPDT	20	8.15
PR11AL5	12V	3.2	9.8VA	DPDT	20	8.15
PR11AL5	24V	12	9.8VA	DPDT	20	8.15
PR11AL5	115V	290	9.8VA	DPDT	20	8.15
PR11AL5	230V	1,200	9.8VA	DPDT	20	8.55
PR11DY	6V	18	2.0W	DPDT	25	6.45
PR11DY	12V	71	2.0W	DPDT	25	6.45
PR11DY	24V	288	2.0W	DPDT	25	6.45
PR11DY	110V	6,050	2.0W	DPDT	25	7.05

§Enclosed Relay

See ordering information on page 11.

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CHOOSE from the NEW COMPLETE LINE of P&B *Mercury-Wetted Contact Relays*

POTTER & BRUMFIELD
Mercury Wetted Contact
RELAY
JM1 119 11
MADE IN U.S.A.

Now available in three series:

NON-BRIDGING FORM C	**JML**	*SENSITIVE*	single-side-stable bi-stable chopper
BRIDGING FORM D	**JMP**	*POLARIZED*	single-side-stable bi-stable chopper
BRIDGING FORM D	**JM-**	*1 CAPSULE*	*SPDT* single coil dual coil
		2 CAPSULES	*DPDT* single coil
		3 CAPSULES	*3PDT* single coil
		4 CAPSULES	*4PDT* single coil

DEPENDABILITY

Rare long life, high speed, and versatile application with unvarying dependability—all are the result of an unusual combination of advantages found only in mercury-wetted contact relays. The basic component of these relays is a glass capsule containing the contact arrangement and a small reservoir of mercury sealed hermetically under a high pressure hydrogen atmosphere. This arrangement does away with contact bounce, chatter, pits and welds. Make or break is positive—every time.

LONG LIFE

The use of mercury assures renewal of a film of mercury on all contact surfaces for every operation—the major reason why you can think in terms of billions of operations when you consider P&B mercury-wetted contact relays. Proper application, of course, is a requisite.

HIGH SPEED

The operate time of JML relays is from 3 milliseconds to 1.1 ms, depending upon coil power. Contingent on the adjustment of the permanent magnets, the operate time of JMP relays is approximately 3 ms. Single capsule JM relays have an operate time of just less than 3ms using 2 watts of power. Their release time is about 3.2 ms.

TWO TYPES OF CAPSULES

The capsule used in JML relays has a SPDT, break-before-make, (Form C), non-bridging contact arrangement. It utilizes two fixed contacts, one normally closed and one normally open interposed by the armature which serves as the movable contact. Each capsule used in JMP, JM1, JM2, JM3 and JM4 relays has a SPDT, make-before-break, (Form D), bridging contact arrangement. Its contact assembly consists of two normally open and two normally closed contacts with the reed extension of the armature interposing and acting as the movable contact.

JML SERIES-JMP SERIES

Both JML and JMP relays achieve a high rate of sensitivity by permanent magnet biasing.

Single-Side-Stable

The magnets are factory-adjusted so that the relay will release (open its normally open contacts) when the coil current is reduced to less than must release value.

Bi-Stable

The magnets are factory-adjusted so that the armature remains in the last operated position until opposite polarity is applied.

Chopper

The magnets are factory-adjusted for approximately equal dwell on the normally open and closed contacts when the coil is driven by 60 cps sine waves.

JM1-JM2-JM3-JM4 SERIES

JM1 contains a single capsule with a single or dual wound coil. JM2, JM3 and JM4 have single coils containing 2, 3 or 4 capsules, providing DPDT, 3PDT or 4PDT, respectively.

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QUALITY SPECIFICATIONS

CONTACT RATINGS:

JML: 500V max., and 2 amps max., 100 VA max.*
JMP and JM1 to JM4: 500V max., and 5 amps max., 250 VA max.*

*With contact protection unless low level current is applied. Details of simple circuit consisting of resistor and capacitor in series are packed with each relay.

SENSITIVITY:

Minimum sensitivities are
JML: 27.3 ampere turns
JMP: 70 ampere turns
JM1: 190 ampere turns
JM2 and 3: 250 ampere turns
JM4: 260 ampere turns

TIMING:

JML: 200 operations per sec.
JMP and JM1: 100 operations per sec.
JM2, 3 and 4: 60 operations per sec.

SHOCK RESISTANCE:

All series: 30G for 11 milliseconds, non-operating. Vibrations up to 10G, 10-500 cps.

TEMPERATURES:

All series: —39°C (mercury freezes), 107°C internal (potting compound softens).

TERMINATIONS:

All series: Octal style plugs, except figures 23, 32, and 42 (Hook Solder), figure 41 (14-pin miniature plug).

ENCLOSURES:

Five steel case sizes, one each for JML, JMP, JM1, JM2 and 3, and JM4. Required mounting position: Vertical.

TERMINATIONS

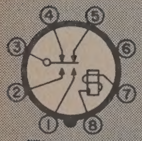
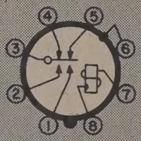


Figure 11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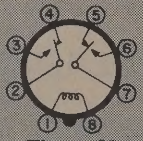
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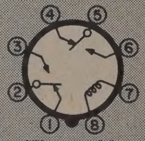
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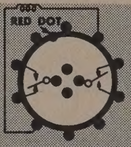
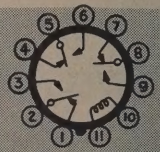


Figure 23
Hook Solder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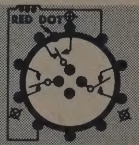


Figure 32
Hook Solder

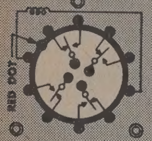


Figure 41
14 Pin Miniature Plug

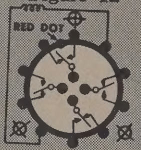
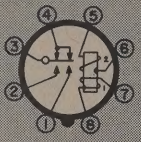


Figure 42
Hook Solder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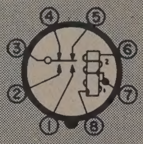
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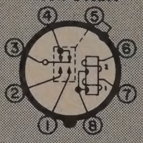
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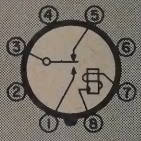
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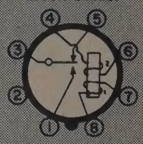
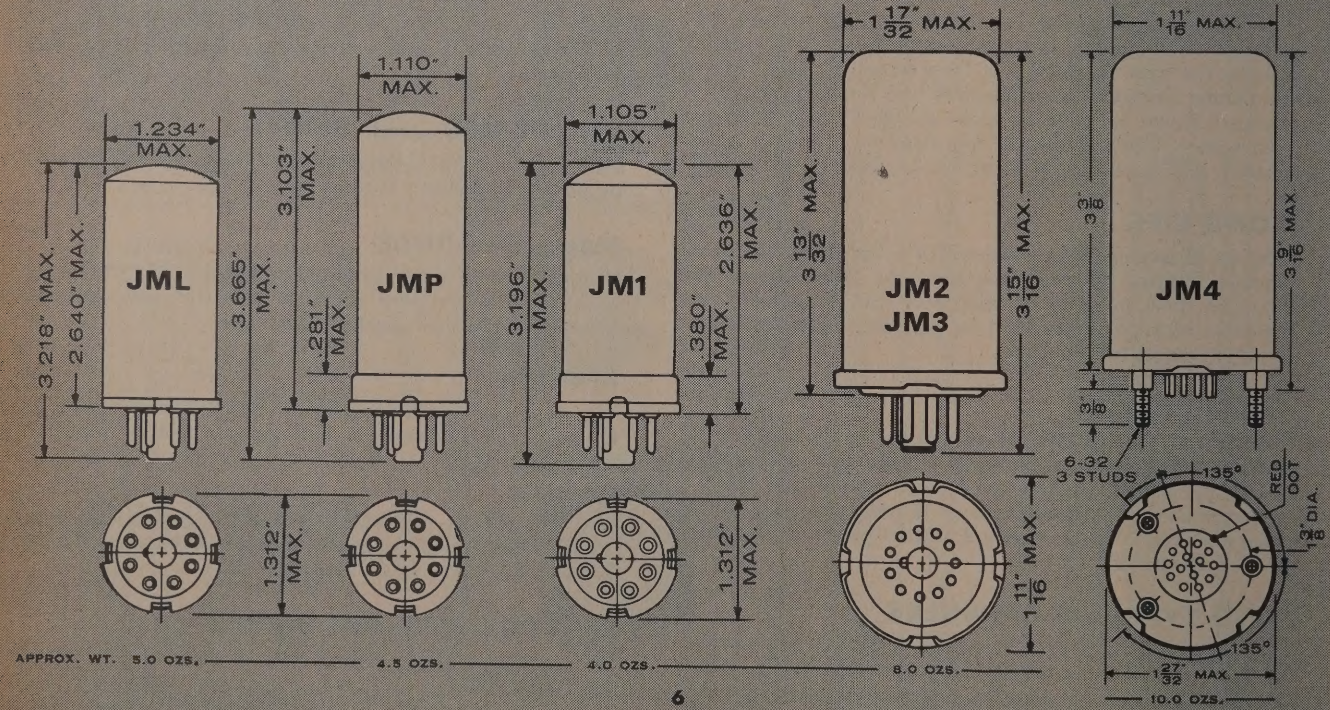


Figure 82

OUTLINE DIMENSIONS


JML
1.234" MAX.
3.218" MAX.
2.640" MAX.
JMP
1.110" MAX.
3.665" MAX.
3.103" MAX.
.281" MAX.
1.312" MAX.
JM1
1.105" MAX.
3.196" MAX.
2.636" MAX.
.380" MAX.
1.312" MAX.
JM2
JM3
1 17/32" MAX.
3 13/32" MAX.
3 15/16" MAX.
1 11/16" MAX.
JM4
1 11/16" MAX.
3 3/8"
3 9/16" MAX.
3/8
6-32 3 STUDS
135°
135°
RED DOT
1/8" DIA.
1 27/32" MAX.
APPROX. WT. 5.0 OZS.
4.5 OZS.
4.0 OZS.
8.0 OZS.
10.0 OZS.
6

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AVAILABLE FROM STOCK FOR FAST DELIVERY

	SERIES			COIL CHARACTERISTICS				NET PRICE
	Capsule	Coil	Terminal Fig. No.	RESISTANCE (Ohms ±10%)	SOAK* ma DC	MUST OPERATE ma DC	MUST RELEASE ma DC	
JML Sensitive	**SINGLE-SiDE-STABLE**							
	JML	1061	81	40	36.0	9.75	1.68	$11.60
	JML	1110	81	350	13.1	3.56	0.61	11.60
	JML	1160	81	1000	8.1	2.21	0.38	11.60
	JML	1190	81	2500	4.0	1.43	0.17	12.40
	JML	1200	81	4000	3.4	1.25	0.25	12.40
	JML	1260	81	25000	1.9	0.52	0.09	12.40
	JML	1440	82	(1) 4000 (2) 800	2.7	0.86 11.60	0.10	13.60
	BI-STABLE							
	JML	5160	81	1000		+1.24	−1.24	12.10
	JML	5200	81	4000		+0.53	−0.53	12.40
	JML	5430	82	(1) 1100 (2) 1100		+1.76	−1.76	13.60
	CHOPPER					Voltage RMS 60cps		
	JML	8130	81	600		6.3V		12.10
JMP Polarized	**SINGLE-SIDE-STABLE**							
	JMP	1081	11	90	46.25	16.0	1.3	15.20
	JMP	1160	11	1000	16.2	5.60	0.40	15.20
	JMP	1200	11	4000	8.55	2.96	0.24	16.30
	JMP	1260	11	25000	3.77	1.32	0.15	16.30
	JMP	1340	52	(1) 700 (2) 3300	33.80	14.20 5.70	2.80	17.25
	JMP	1470	53	(1) 1020 (2) 970	25.2	14.0 16.0	6.0	18.95
	BI-STABLE							
	JMP	5200	11	4000		+1.5	−1.5	16.30
	JMP	5340	52	(1) 700 (2) 3300		+6.0 +2.4	−6.0 −2.4	17.75
	CHOPPER					Voltage RMS 60cps		
	JMP	8120	12	500		6.3V		15.70
	JMP	8200	12	4000		18.5V		16.80
	JMP	8240	11	11000		117.0V with 12000 ohm (±5%) ½ watt resistor in series with coil		16.80

*Current to be applied to the coil winding for at least 2 seconds just prior to current flow tests.

	SERIES			COIL CHARACTERISTICS				NET PRICE
					MUST OPERATE			
	Capsule	Coil	Terminal Fig. No.*	RESISTANCE (Ohms ±10%)	Current ma DC	Voltage DC @ 25°C	MAX. VOLTAGE (at 35°C.)	
JM1 Single Capsule	**SPDT Single Coil**							
	JM1	106	12	40	67.7	2.98	9.0	14.05
	JM1	109	12	130	38.8	5.55	16.1	14.05
	JM1	112	11	500	20.1	11.10	31.6	14.05
	JM1	114	11	700	20.0	15.40	37.4	14.05
	JM1	114	12	700	20.0	15.40	37.4	14.05
	JM1	118	11	2500	10.1	27.80	70.7	14.30
	JM1	119	11	4000	8.1	35.60	89.5	8.15 (ANY QTY)
	JM1	119	12	4000	8.1	35.60	89.5	14.80
	JM1	120	11	7000	6.0	46.20	117.0	14.80
	JM1	121	11	11000	5.0	60.50	148.0	14.80
	JM1	123	11	25000	3.6	99.00	224.0	14.80
	SPDT Dual Coil							
	JM1	405	51	(1) 700 (2) 3300	(1) 32.0 (2) 12.3		(1) 37.4 (2) 81.0	16.20
JM2 2 Capsules	**DPDT Single Coil**							
	JM2	104	22	50	110.0	6.04	12.25	22.80
	JM2	109	22	315	44.0	15.30	30.7	22.80
	JM2	110	22	500	34.8	19.20	38.7	22.80
	JM2	111	22	700	30.5	23.50	45.8	22.80
	JM2	112	22	1250	22.1	30.40	61.2	22.80
	JM2	112	23	1250	22.1	30.40	61.2	22.80
	JM2	115	21	5000	11.3	62.10	122.0	22.80
	JM2	115	22	5000	11.3	62.10	122.0	22.80
	JM2	115	23	5000	11.3	62.10	122.0	22.80
JM3 3 Capsules	**3PDT Single Coil**							
	JM3	109	31	315	44.0	15.30	30.7	29.50
	JM3	110	31	500	34.8	19.20	38.7	29.50
	JM3	111	31	700	30.5	23.50	45.8	29.50
	JM3	112	31	1250	22.1	30.40	61.2	29.50
	JM3	115	31	5000	11.3	62.10	122.0	29.50
	JM3	115	32	5000	11.3	62.10	122.0	29.50
JM4 4 Capsules	**4PDT Single Coil**							
	JM4	106	41	65	100.0	7.15	15.1	38.00
	JM4	110	41	390	42.0	18.00	37.0	38.00
	JM4	110	42	390	42.0	18.00	37.0	38.00
	JM4	112	41	700	35.4	27.20	49.5	38.00
	JM4	114	41	1400	23.0	35.40	70.0	38.00
	JM4	114	42	1400	23.0	35.40	70.0	38.00
	JM4	117	41	4000	15.6	68.50	118.0	38.00
	JM4	117	42	4000	15.6	68.50	118.0	38.00
	JM4	118	41	6500	10.5	75.00	151.0	38.00
	JM4	118	42	6500	10.5	75.00	151.0	38.00
	JM4	119	41	10000	8.6	94.30	187.0	38.00
	JM4	119	42	10000	8.6	94.30	187.0	38.00

*Octal style plugs, except Fig. 23, 32, 42 (Hook Solder), Fig. 41 (14-Pin miniature plug).

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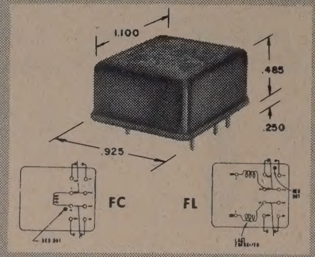
Potter & Brumfield High Performance Relays

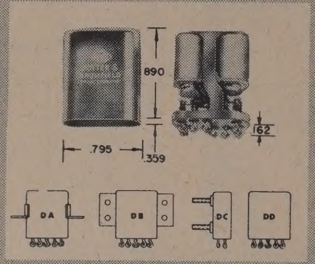
FC SERIES Conventional micro-miniature relay lies flat on printed circuit board. Withstands 100g shock, 400g linear acceleration, 30g vibration to 2000 cps. Ambient temperature range: −65° to +125°C. Hermetically sealed. Bifurcated contacts. Plugs in on .2″ grid. Meets applicable sect. MIL-R-5757D, and ABMA #PD-R-187. Weight: .75 ozs.

FL SERIES Dual-coil latching relay has same specs as above, except operates by pulsing each coil alternately (observing coil polarity); or connecting the coils in series from a reversing (polarized) source. Remains latched without coil power.



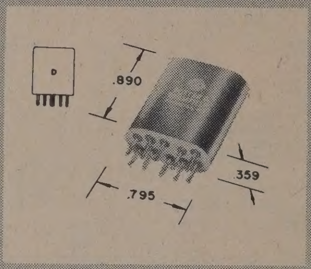
SC SERIES Micro-miniature permanent magnet relay for low power, high shock/vibration applications. 100g shock, 30g vibration to 2000cps with no contact openings. Ambient temperature range: −65°C. to +125°C. Features single coil action and conforms to standard micro-miniature coil operation except polarized connections because of magnetic circuit. Positive terminal marked with red dot. Mounting: SC11D°°, SCG11D −DA, −DB, DC and DD correspond to similarly designed SL mountings. Weight: ¾ oz.

°°Cinch No. 54A20730 and Armel No. HRK-1, 8-pin receptacles available from distributors for plug-in applications.

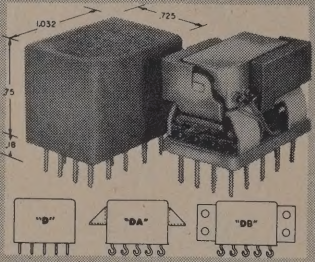


SL SERIES Dual coil micro-miniature magnetic latching relay with same shock/vibration, resistance and ambient temperature range as SC. Coils may be connected in series for polar operation. Mounting: SL11D° for plug-in applications: —DA has shoulder flangers with two .104″ x .136″ holes on a 1.062″ center; —DB has a welded bracket with four .125″ dia. holes on 1.062″ x .281″ centers; —DC has two No. 4-40 NC 2A threaded studs on .488″ x .220″ diagonal centers; —DD has plain case with hook end solder terminals. SCG-SLG11D have plug-in terminals on .2″ grid.

°Viking No. P/N VB10/3DV 1 10-pin receptacles available from distributors for plug-in applications.



TL SERIES High performance 4PDT micro-miniature magnetic latching relay for severe environments. Encapsulated and hermetically sealed coils within hermetically sealed relay case can't contaminate contacts by outgassing. Strong permanent magnetic forces keep contacts locked in desired position when relay is de-energized. Approx. 0.5ms transfer time. Temperature range: −65°C to 125°C. Meets or exceeds applicable sections MIL-R-5757D and ABMA-PD-R-187. Weight: Approx. 1¼ ozs. Mountings: D = plain case, plug-in header. DA = shoulder bracket .300″ from base, hook-end solder. DB = flat plate, .593″ wide x 1.60″ long, 4—.125″ dia. holes on .281″ x 1.30″ centers, hook-end solder.



TYPE Hermetically Sealed	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate * in Amps	
FC11D	**6V**	**60**	**.65W**	**DPDT**	**3**	**$ 16.00**
FC11D	12V	210	.65W	DPDT	3	16.00
FC11D	24V	900	.65W	DPDT	3	16.00
FL11D	**6V**	**67.5**	**.65W**	**DPDT**	**3**	**18.00**
FL11D	12V	230	.65W	DPDT	3	18.00
FL11D	24V	1,000	.65W	DPDT	3	18.00
SC11D	**6V**	**35**	**1W**	**DPDT**	**3**	**15.75**
SC11D	12V	135	1W	DPDT	3	15.75
SC11D	24V	550	1W	DPDT	3	15.75
SC11DA	6V	35	1W	DPDT	3	15.75
SC11DA	12V	135	1W	DPDT	3	15.75
SC11DA	24V	550	1W	DPDT	3	15.75
SC11DB	6V	35	1W	DPDT	3	15.75
SC11DB	12V	135	1W	DPDT	3	15.75
SC11DB	24V	550	1W	DPDT	3	15.75
SC11DC	24V	550	1W	DPDT	3	15.75
SC11DD	24V	550	1W	DPDT	3	15.75
SCG11D	**24V**	**550**	**1W**	**DPDT**	**3**	**15.75**
SL11D	**6V**	**40**	**1W**	**DPDT**	**3**	**17.25**
SL11D	12V	160	1W	DPDT	3	17.25
SL11D	24V	630	1W	DPDT	3	17.25
SL11DA	6V	40	1W	DPDT	3	17.25
SL11DA	12V	160	1W	DPDT	3	17.25
SL11DA	24V	630	1W	DPDT	3	17.25
SL11DB	6V	40	1W	DPDT	3	17.25
SL11DB	12V	160	1W	DPDT	3	17.25
SL11DB	24V	630	1W	DPDT	3	17.25
SL11DC	24V	630	1W	DPDT	3	17.25
SL11DD	24V	630	1W	DPDT	3	17.25
SLG11D	**24V**	**630**	**1W**	**DPDT**	**3**	**17.25**
TL17D	**24V**	**600**	**1W**	**4PDT**	**3**	**25.00**
TL17DA	24V	600	1W	**4PDT**	3	25.00
TL17DB	24V	600	1W	**4PDT**	3	25.00

* @28VDC

POTTER & BRUMFIELD

Specialists in RELAYS for a third of a century

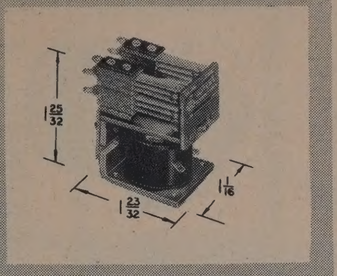
Three modern plants in the United States are devoted solely to engineering and producing electromagnetic relays. Manufacturing methods, processes and equipment are constantly re-evaluated and kept current with every technical advance. Augmenting P&B's own facilities are the vast research and financial resources of our parent organization, American Machine & Foundry Company.

Potter & Brumfield Relays

GENERAL PURPOSE RELAYS

GA SERIES Low cost, all purpose, multiple contact, voltage switching relay. Used for many industrial control applications. Tinned, pierced solder type terminals. Contacts: 3/16" dia. silver, designed for maximum self-cleaning action. Mounting: No. 8-32 tapped core with locating boss. Weight: 3½ ozs.

See GF series for similar relays having 15 amp ratings.



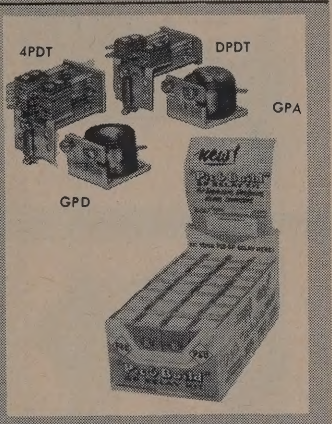
SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

GP SERIES Separate AC and DC coils to match with 2PDT or 4PDT switches. AC coils (GPA) available in 6, 12, 24, 115 and 230 volts. DC coils (GPD) available in 6, 12, 24 and 110 volts; current coils: 2,500, 5,000 and 10,000 ohms. Contacts: 3/16" dia. silver.

GP11	Switch Assembly	DPDT	5 amps	$1.70
GP17	Switch Assembly	4PDT	5 amps	2.95

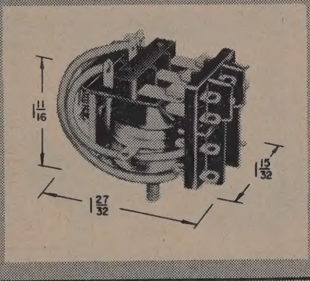
GP-100 A complete kit of GP Series coils and switches consisting of the following: AC coils: Two 6 V., two 12 V., four 24 V., six 115 V., two 230 V. DC coils: Two 6 V., two 12 V., two 24 V., four 110 V. Also two 2,500 and four 10,000 ohm coils; eighteen DPDT switch assemblies. Fourteen 4PDT switch assemblies. The complete kit is ideal for experimenters, school and industrial laboratories.

NET $133.65



KA SERIES A small, low cost, highly efficient general purpose relay for handling light power loads such as small motors, solenoids and other relays, and general automation work. All AC models carry U/L labels; DC coil-operated models as listed. Only AC models are CSA* listed. Mounting: One No. 6-32 threaded stud and locating tab. Contacts: Movable, 1/8" dia. gold-flashed silver; stationary, 5/32" dia. wide silver overlay. Weight 2 ozs.

"G" suffix indicates silver-cadmium-oxide contacts on movables rated 10 amps.

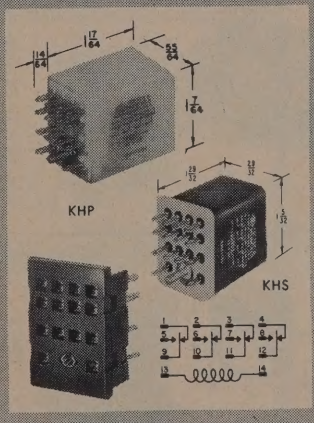


KHP and KHS SERIES Small, rugged, 4PDT, available for AC or DC operation. KHP has Nylon dust cover; KHS is hermetically sealed in metal enclosure. These relays are designed to meet the exacting requirements of data processing, computer and process control applications. Contacts are 3/32" gold-flashed silver and are rated 3 amps @ 30V DC or 115V AC resistive for 100,000 operations. Mounting: Solder terminals with a 3–48 stud 23/64" long. Adaptable to sockets (below) with printed circuit or solder lug terminals. Weights without sockets: KHP 1⅛ ozs; KHS 1⅝ ozs.

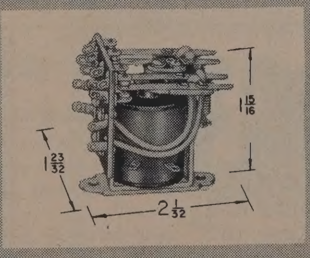
9KH1 Solder terminal sockets and retainers, Single $0.60 Box of 10 Net $6.00

9KH2 Printed circuit terminal sockets, Single $0.60 Box of 10 Net $6.00

Weight per box: 4 ozs.



KL SERIES Multiple contact relay. Varied contact combinations and high dielectric phenolic insulation affords extreme versatility and utility. Widely used in such applications as industrial controls, elevator controls, communications equipment and electronic measuring devices. Mounting: All models—Two No. 6-32 tapped holes on 1 7/16" centers. Contacts: 1/8" dia. gold-flashed silver. Weight: 5 ozs.



TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
GA11A	6V	1.7	6VA	DPDT	5	$3.35
GA11A	12V	6.8	6VA	DPDT	5	3.35
GA11A	24V	24	6VA	DPDT	5	3.35
GA11A	115V	690	6VA	DPDT	5	3.35
GA11D	6V	18	2.0W	DPDT	5	3.35
GA11D	12V	72	2.0W	DPDT	5	3.35
GA11D	24V	288	2.0W	DPDT	5	3.35
GA11D	110V	6,050	2.0W	DPDT	5	3.80
GA14A	24V	24	6VA	3PDT	5	4.05
GA14A	115V	690	6VA	3PDT	5	4.05
GA14D	24V	288	2.0W	3PDT	5	4.05
GA17A	6V	1.7	6VA	4PDT	5	4.85
GA17A	12V	6.8	6VA	4PDT	5	4.85
GA17A	24V	24	6VA	4PDT	5	4.85
GA17A	115V	690	6VA	4PDT	5	4.85
GA17A	230V	2,950	6VA	4PDT	5	5.25
GA17D	6V	18	2.0W	4PDT	5	4.85
GA17D	12V	72	2.0W	4PDT	5	4.85
GA17D	24V	288	2.0W	4PDT	5	4.85
GA17D	110V	6.050	2.0W	4PDT	5	5.30
GPA	6V	1.7	6VA	None	-	1.65
GPA	12V	6.8	6VA	None	-	1.65
GPA	24V	24	6VA	None	-	1.65
GPA	115V	690	6VA	None	-	1.65
GPA	230V	2,950	6VA	None	-	2.10
GPD	—	2,500	—	None	-	1.50
GPD	—	5,000	—	None	-	1.75
GPD	—	10,000	—	None	-	2.10
GPD	6V	18	2.0W	None	-	2.10
GPD	12V	72	2.0W	None	-	2.10
GPD	24V	288	2.0W	None	-	2.10
GPD	110V	6,050	2.0W	None	-	3.15
KA5AY	6V	5.1	2VA	SPDT	5	3.20
KA5AY	12V	21	2VA	SPDT	5	3.20
KA5AY	24V	75	2VA	SPDT	5	3.20
KA5AY	115V	2,250	2VA	SPDT	5	3.20
KA5AY	230V	9,110	2VA	SPDT	5	3.60
KA5AG	6V	5.1	2VA	SPDT	10	3.25
KA5AG	12V	21	2VA	SPDT	10	3.25
KA5AG	24V	75	2VA	SPDT	10	3.25
KA5AG	115V	2,250	2VA	SPDT	10	3.25
KA5AG	230V	9,110	2VA	SPDT	10	3.65
KA5DY	6V	32.1	1.2W	SPDT	5	3.05
KA5DY	12V	120	1.2W	SPDT	5	3.05
KA5DY	24V	472	1.2W	SPDT	5	3.05
KA5DY	110V	10,000	1.2W	SPDT	5	3.65
KA5DG	6V	32.1	1.2W	SPDT	10	3.10
KA5DG	12V	120	1.2W	SPDT	10	3.10
KA5DG	24V	472	1.2W	SPDT	10	3.10
KA5DG	110V	10,000	1.2W	SPDT	10	3.70
KA11AY	6V	5.1	2VA	DPDT	5	3.85
KA11AY	12V	21	2VA	DPDT	5	3.85
KA11AY	24V	75	2VA	DPDT	5	3.85
KA11AY	115V	2,250	2VA	DPDT	5	3.85
KA11AY	230V	9,110	2VA	DPDT	5	4.25
KA11AG	6V	5.1	2VA	DPDT	10	3.95
KA11AG	12V	21	2VA	DPDT	10	3.95
KA11AG	24V	75	2VA	DPDT	10	3.95
KA11AG	115V	2,250	2VA	DPDT	10	3.95
KA11AG	230V	9,110	2VA	DPDT	10	4.35
KA11DY	6V	32.1	1.2W	DPDT	5	3.40
KA11DY	12V	120	1.2W	DPDT	5	3.40
KA11DY	24V	472	1.2W	DPDT	5	3.40
KA11DY	110V	10,000	1.2W	DPDT	5	4.00
KA11DG	6V	32.1	1.2W	DPDT	10	3.50
KA11DG	12V	120	1.2W	DPDT	10	3.50
KA11DG	24V	472	1.2W	DPDT	10	3.50
KA11DG	110V	10,000	1.2W	DPDT	10	4.10
KA14AY	6V	5.1	2VA	3PDT	5	4.25
KA14AY	12V	21	2VA	3PDT	5	4.25
KA14AY	24V	75	2VA	3PDT	5	4.25
KA14AY	115V	2,250	2VA	3PDT	5	4.25
KA14AY	230V	9,110	2VA	3PDT	5	4.65
KA14AG	6V	5.1	2VA	3PDT	10	4.40
KA14AG	12V	21	2VA	3PDT	10	4.40
KA14AG	24V	75	2VA	3PDT	10	4.40
KA14AG	115V	2,250	2VA	3PDT	10	4.40
KA14AG	230V	9,110	2VA	3PDT	10	4.80
KA14DY	6V	32.1	1.2W	3PDT	5	3.85
KA14DY	12V	120	1.2W	3PDT	5	3.85
KA14DY	24V	472	1.2W	3PDT	5	3.85
KA14DY	110V	10,000	1.2W	3PDT	5	4.45
KA14DG	6V	32.1	1.2W	3PDT	10	4.00
KA14DG	12V	120	1.2W	3PDT	10	4.00
KA14DG	24V	472	1.2W	3PDT	10	4.00
KA14DG	110V	10,000	1.2W	3PDT	10	4.60
KHP17A11	6V	10.5	1.2VA	4PDT	3	5.85
KHP17A11	12V	43	1.2VA	4PDT	3	5.85
KHP17A11	24V	160	1.2VA	4PDT	3	5.85
KHP17A11	115V	3,900	1.2VA	4PDT	3	6.25
KHP17D11	6V	40	900MW	4PDT	3	4.80
KHP17D11	12V	160	900MW	4PDT	3	4.80
KHP17D11	24V	650	900MW	4PDT	3	4.80
KHP17D11	48V	2,600	900MW	4PDT	3	5.00
KHP17D11	90V	9,000	900MW	4PDT	3	5.60
KHP17D11	110V	11,000	900MW	4PDT	3	5.60
KHS17A11	6V	10.5	1.2VA	4PDT	3	10.60
KHS17A11	12V	43	1.2VA	4PDT	3	10.60
KHS17A11	24V	160	1.2VA	4PDT	3	10.60
KHS17A11	115V	3,900	1.2VA	4PDT	3	11.00
KHS17D11	6V	40	900MW	4PDT	3	7.75
KHS17D11	12V	160	900MW	4PDT	3	7.75
KHS17D11	24V	650	900MW	4PDT	3	7.75
KHS17D11	110V	11,000	900MW	4PDT	3	8.55
KL5A	115V	760	2.9VA	SPDT	5	3.85
KL5D	12V	140	1.1W	SPDT	5	3.60
KL5D	24V	600	1.1W	SPDT	5	3.60
KL11A	12V	7.8	2.9VA	DPDT	5	4.80
KL11A	24V	33	2.9VA	DPDT	5	4.80
KL11A	115V	760	2.9VA	DPDT	5	4.80
KL14A	24V	33	2.9VA	3PDT	5	5.35
KL14A	115V	760	2.9VA	3PDT	5	5.35
KL14D	24V	600	1.1W	3PDT	5	5.15
KL14D	110V	10,000	1.1W	3PDT	5	5.75
KL17A	24V	33	2.9VA	4PDT	5	6.30
KL17A	115V	760	2.9VA	4PDT	5	6.30
KL17D	12V	140	1.1W	4PDT	5	6.00
KL17D	24V	600	1.1W	4PDT	5	6.00
KL17D	110V	10,000	1.1W	4PDT	5	6.60

See ordering information on page 11.

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*Canadian Standards Association

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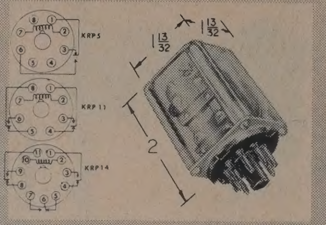
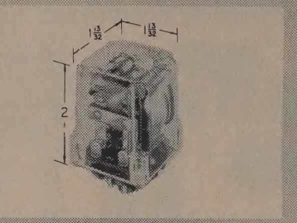
Potter & Brumfield Relays

KRP SERIES Versatile, multi-contact arrangement. Enclosed in a clear cellulose acetate dust cover. Standard 8-pin octal-type plug for KRP5 and KRP11, 11-pin for KRP14. Weight: Approx. 3 ozs. Contacts: 5 amp, 3/16" dia. gold-flashed silver. 10 amp 3/16" dia. silver cadmium-oxide. See KCP-KRP hold down spring for special mounting applications. See KRP indicator lamp relay for current monitoring applications.

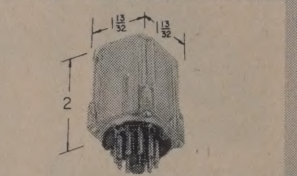


KRP-N INDICATOR LAMP RELAY A general purpose relay incorporating a lamp to indicate current or voltage availability in power circuit. Contacts: 3/16" dia. silver cadmium-oxide. Enclosure: Clear cellulose acetate dust cover. Mounting: Standard octal plug. Weight: Approx. 3 ozs. See KCP-KRP Hold Down Spring for special mountings.



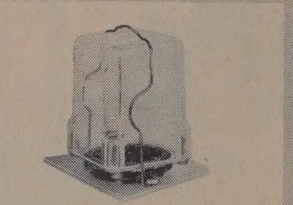
"P"— CASE A clear cellulose acetate case for mounting rectifiers, capacitors, resistors or a combination of these. Available with octal-type plug with 8 or 11-pins. Comes complete with four screws. Weight: .5 ozs. each. See KCP-KRP Hold Down Spring for special mounting applications.

35DO70 Case (8-pin plug) NET $.55
35DO72 Case (11-pin plug) NET $.70

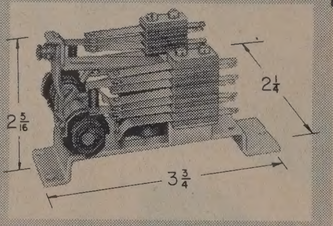


KCP-KRP HOLD DOWN SPRING
Designed to insure secure mounting of relay in any position. Fits all KCP or KRP plug-in relays. Durable stainless steel spring can be moved aside for relay removal or installation. Mounting: Two 5/32" dia. holes on 15/16" centers; will accommodate machine screws or rivets. Available in quantities of 50 per box. Weight: 3 ozs. per box.

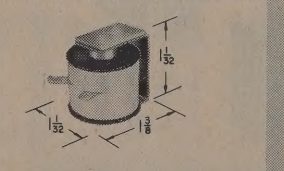
9-KR-15 NET $5.00



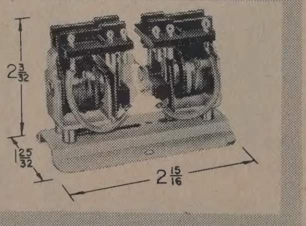
AP SERIES RATCHET, IMPULSE
A reliable compact unit for applications requiring on-off or reversing action on alternate operations. Positive ratchet operation at all speeds on impulses as short as 60 ms. Intermittent operation only. Mounting: Three 5/32" dia. holes on 3 3/8" x 7/8" triangular centers. Contacts: 3/16" dia. silver. Weight: 7 ozs.



BU BUZZER AC operated coil with a spring steel armature which buzzes when coil is energized. Used extensively in test equipment, laboratories and a host of other applications where a small light weight, dependable buzzer is required. Weight: 1 5/8 ozs. Mounting: No. 6-32 tapped core..



KB SERIES LATCHING RELAY
Both release and trip coils must be for the same voltage. One coil operates relay to set latch and other coil releases it. Ideal for memory work and overload applications. Operates on momentary impulse to either coil. Mounting: Two 5/32" dia. holes on 1 3/8" centers. Weight: 6 ozs. Contacts: 1/8" dia. silver rated 5 amps; "G" suffix indicates silver cadmium-oxide contacts on movables rated 10 amps. AC relays with 5 amp. contacts carry U/L and CSA* labels.



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*Canadian Standards Association

GENERAL PURPOSE RELAYS

TYPE	COILS Voltage or Current	COILS Resistance in Ohms	COILS Nominal Power	CONTACTS Arrangement	CONTACTS Rate in Amps	NET
KRP5A§	**6V**	**5.1**	**2VA**	**SPDT**	**5**	**$ 5.45**
KRP5A§	24V	75	2VA	SPDT	5	5.45
KRP5A§	115V	2,250	2VA	SPDT	5	5.45
KRP5AG§	6V	5.1	2VA	SPDT	10	5.55
KRP5AG§	24V	75	2VA	SPDT	10	5.55
KRP5AG§	115V	2,250	2VA	SPDT	10	5.55
KRP5D§	6V	32.1	1.2W	SPDT	5	5.40
KRP5D§	12V	120	1.2W	SPDT	5	5.40
KRP5D§	24V	472	1.2W	SPDT	5	5.40
KRP5D§	110V	10,000	1.2W	SPDT	5	6.00
KRP5DG§	6V	32.1	1.2W	SPDT	10	5.50
KRP5DG§	12V	120	1.2W	SPDT	10	5.50
KRP5DG§	24V	472	1.2W	SPDT	10	5.50
KRP5DG§	110V	10,000	1.2W	SPDT	10	6.10
KRP11A§	6V	5.1	2VA	DPDT	5	6.05
KRP11A§	12V	21	2VA	DPDT	5	6.05
KRP11A§	24V	75	2VA	DPDT	5	6.05
KRP11A§	115V	2,250	2VA	DPDT	5	6.05
KRP11A§	230V	9,110	2VA	DPDT	5	6.45
KRP11AG§	6V	5.1	2VA	DPDT	10	6.25
KRP11AG§	12V	21	2VA	DPDT	10	6.25
KRP11AG§	24V	75	2VA	DPDT	10	6.25
KRP11AG§	115V	2,250	2VA	DPDT	10	6.25
KRP11AG§	230V	9,100	2VA	DPDT	10	6.65
KRP11D§	6V	32.1	1.2W	DPDT	5	6.00
KRP11D§	12V	120	1.2W	DPDT	5	6.00
KRP11D§	24V	472	1.2W	DPDT	5	6.00
KRP11D§	110V	10,000	1.2W	DPDT	5	6.60
KRP11DG§	6V	32.1	1.2W	DPDT	10	6.20
KRP11DG§	12V	120	1.2W	DPDT	10	6.20
KRP11DG§	24V	472	1.2W	DPDT	10	6.20
KRP11DG§	110V	10,000	1.2W	DPDT	10	6.80
KRP14A§	6V	5.1	2VA	3PDT	5	7.50
KRP14A§	12V	21	2VA	3PDT	5	7.50
KRP14A§	24V	75	2VA	3PDT	5	7.50
KRP14A§	115V	2,250	2VA	3PDT	5	7.50
KRP14A§	230V	9,110	2VA	3PDT	5	7.90
KRP14AG§	6V	5.1	2VA	3PDT	10	7.80
KRP14AG§	12V	21	2VA	3PDT	10	7.80
KRP14AG§	24V	75	2VA	3PDT	10	7.80
KRP14AG§	115V	2,250	2VA	3PDT	10	7.80
KRP14AG§	230V	9,100	2VA	3PDT	10	8.20
KRP14D§	6V	32.1	1.2W	3PDT	5	7.45
KRP14D§	12V	120	1.2W	3PDT	5	7.45
KRP14D§	24V	472	1.2W	3PDT	5	7.45
KRP14D§	110V	10,000	1.2W	3PDT	5	8.05
KRP14DG§	6V	32.1	1.2W	3PDT	10	7.75
KRP14DG§	12V	120	1.2W	3PDT	10	7.75
KRP14DG§	24V	472	1.2W	3PDT	10	7.75
KRP14DG§	110V	10,000	1.2W	3PDT	10	8.35
KRP11AN§	**6V**	**5.1**	**2VA**	**DPDT**	**10**	**7.15**
KRP11AN§	12V	21	2VA	DPDT	10	7.15
KRP11AN§	24V	75	2VA	DPDT	10	7.15
KRP11AN§	115V	2,250	2VA	DPDT	10	7.15
KRP11AN§	230V	9,110	2VA	DPDT	10	7.55
KRP11DN§	6V		1.2W	DPDT	10	7.10
KRP11DN§	12V	120	1.2W	DPDT	10	7.10
KRP11DN§	24V	420	1.2W	DPDT	10	7.10
KRP11DN§	110V	10,000	1.2W	DPDT	10	7.70
KRP14AN§	6V	5.1	2VA	3PDT	10	8.70
KRP14AN§	12V	21	2VA	3PDT	10	8.70
KRP14AN§	24V	75	2VA	3PDT	10	8.70
KRP14AN§	115V	2,250	2VA	3PDT	10	8.70
KRP14AN§	230V	9,110	2VA	3PDT	10	9.10

SPECIAL PURPOSE RELAYS

AP11A	**6V**	**0.6**	**18.5VA**	**DPDT**	**5**	**8.70**
AP11A	12V	2.28	18.5VA	DPDT	5	8.70
AP11A	24V	8.8	18.5VA	DPDT	5	8.70
AP11A	115V	240	18.5VA	DPDT	5	8.70
AP11A	230V	900	18.5VA	DPDT	5	9.15
AP11D	6V	4.0	9.0W	DPDT	5	8.70
AP11D	24V	65	9.0W	DPDT	5	8.70
AP11D	110V	1,350	9.0W	DPDT	5	9.35
AP17A	24V	8.8	18.5VA	4PDT	5	10.50
AP17A	115V	240	18.5VA	4PDT	5	10.50
AP17D	12V	15.5	9.0W	4PDT	5	10.50
AP17D	24V	65	9.0W	4PDT	5	10.50
AP17D	110V	1,350	9.0W	4PDT	5	11.15
BU	**6V**	**2.75**	**4.6VA**	-	-	**1.70**
BU	12V	13.25	4.6VA	-	-	1.70
BU	24V	50	4.6VA	-	-	1.70
BU	115V	1,250	4.6VA	-	-	1.70
KB17AY	**6V**	**2.3**	**5VA**	**4PDT**	**5**	**10.50**
KB17AY	12V	10	5VA	4PDT	5	10.50
KB17AY	24V	42	5VA	4PDT	5	10.50
KB17AY	115V	1,030	5VA	4PDT	5	10.50
KB17AY	230V	4,100	5VA	4PDT	5	11.30
KB17AG	6V	2.3	5VA	4PDT	10	10.60
KB17AG	12V	10	5VA	4PDT	10	10.60
KB17AG	24V	42	5VA	4PDT	10	10.60
KB17AG	115V	1,030	5VA	4PDT	10	10.60
KB17AG	230V	4,100	5VA	4PDT	10	11.40
KB17D	6V	13.1	2.7W	4PDT	5	9.45
KB17D	12V	52.0	2.7W	4PDT	5	9.45
KB17D	24V	230	2.7W	4PDT	5	9.45
KB17D	110V	4,560	2.7W	4PDT	5	10.65
KB17DG	6V	13.1	2.7W	4PDT	10	9.65
KB17DG	12V	52.0	2.7W	4PDT	10	9.65
KB17DG	24V	230	2.7W	4PDT	10	9.65
KB17DG	110V	4,560	2.7W	4PDT	10	10.85
KB23DG	24V	230	2.7W	6PDT	10	11.75

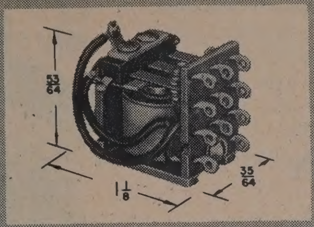
§Enclosed Relay

See ordering information on page 11.

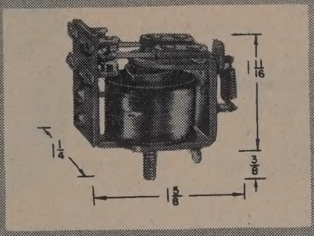
Potter & Brumfield Relays

SPECIAL PURPOSE RELAYS

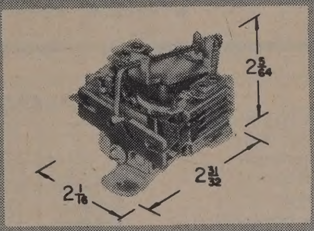
KM SERIES Subminiature relay for applications requiring unusually small relays with up to 3-poles. 3/32" dia. silver contacts. Withstands 30g mechanical shock and .06" excursion 10 to 55 cps mechanical vibration. Used extensively in small business machines, alarm systems, automatic toys and communications systems. Mounting: One 2-56 tapped core and locating half-punch. Solder terminals. Weight: .58 ozs.



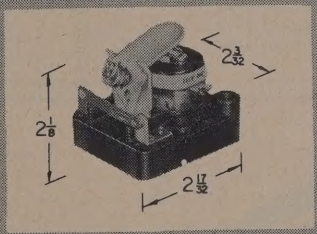
KT SERIES ANTENNA SWITCHING RELAY Glass base insulation for minimum RF loss to switch 300 ohm line. Mounting: One No. 6-32 threaded stud. Contacts: 1/8" dia. gold-flashed silver. Weight: 1½" ozs.



PC SERIES Single coil impulse latching relay for on-off and current reversal switching on alternate pulses. Operates on 30 millisecond pulses to the coil. Mounting: Two 5/32" dia. holes on 2⅝" centers. Weight: 5 ozs. Contacts: ⅛" dia. gold-flashed silver cadmium-oxide.

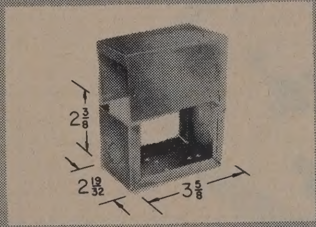


MS SERIES MOTOR STARTING RELAYS For starting capacitor start, induction-run motors. Operates on back EMF of start winding. Armature gap can be altered to change pull-in. Meets all U/L spacing requirements. Mounting Two 5/32" dia. holes on 1 9/16" centers. Contacts. ¾ HP, 7/32" dia. fine silver 3 HP, 7/32" dia. silver cadmium. Weight: 5 ozs. max. Enclosure: See "MS/MR" cover.

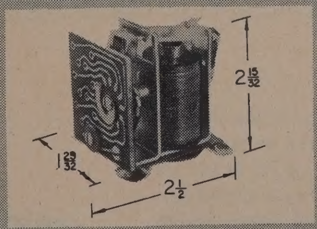


"MS/MR" COVER Provides neater installation, easier maintenance; minimizes broken leads, protects against dust, dirt, solder shorts and accidental jars. Sealed knockout holes for standard conduit fittings. Relay mounts on pre-drilled base. Fits MS and MR relays. Weight: 7.5 ozs.

35D130 NET $1.90



SA SERIES STEPPING SWITCH A twelve position stepping relay with printed circuit strips to switch currents up to 250 milliamps. Armature-driven pawl operates a ratchet wheel to drive the movable contact in steps of 30 degrees over 12 positions. Used widely for audio-level switching in TV remote control units, scoreboards and process controls. Mounting: Two 6-32 holes on 1 13/16" centers. Weight: 4 ozs.



TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KM5D	**6V**	**36**	**1.1W**	**SPDT**	**2**	**$ 3.35**
KM5D	12V	144	1.1W	SPDT	2	3.35
KM5D	24V	500	1.1W	SPDT	2	3.35
KM11D	6V	36	1.1W	DPDT	2	3.70
KM11D	12V	144	1.1W	DPDT	2	3.70
KM11D	24V	500	1.1W	DPDT	2	3.70
KM14D	6V	36	1.1W	3PDT	2	4.25
KM14D	12V	144	1.1W	3PDT	2	4.25
KM14D	24V	500	1.1W	3PDT	2	4.25
KT11A	**6V**	**5.1**	**2VA**	**DPDT**	**5**	**3.70**
KT11A	115V	2,250	2VA	DPDT	5	3.70
KT11D	6V	32 1	1 2W	DPDT	5	3.70
KT11D	12V	120	1.2W	DPDT	5	3.70
PC11A	**6V**	**0.6**	**18.5VA**	**DPDT**	**7.5**	**5.50**
PC11A	12V	2 28	18.5VA	DPDT	7.5	5.50
PC11A	24V	8.8	18.5VA	DPDT	7.5	5.50
PC11A	115V	240	18.5VA	DPDT	7.5	5.50
PC11D	6V	4.0	9.0W	DPDT	7.5	5.35
PC11D	12V	15.5	9.0W	DPDT	7.5	5.35
PC11D	24V	65 0	9.0W	DPDT	7.5	5.35
PC17A	24V	8.8	18.5VA	4PDT	7.5	7.60
PC17A	115V	240	18.5VA	4PDT	7.5	7.60
PC17D	24V	65	9.0W	4PDT	7.5	7.45
MS2AY	**115V**	**530**	**5.9VA**	**SPST-NC**	**¾HP**	**3.55**
MS2AY	230V	2,100	5.9VA	SPST-NC	¾HP	3.95
MS4AY	115V	530	5.9VA	SPST-NC-DB	3HP	4.15
MS4AY	230V	2,100	5.9VA	SPST-NC-DB	3HP	4.55
SA-1N-12A	**115V**	**140**	**20VA**	**12-steps**	**.25**	**6.60**

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

POTTER & BRUMFIELD

IS A MEMBER OF THE

NATIONAL ASSOCIATION OF RELAY MANUFACTURERS

ORDERING INSTRUCTIONS —— File-O-Matic Sec. 23

All relay contacts are rated at 115 volt-60 cycle, non inductive load.

When ordering specify relay type and coil voltage or resistance.

Example: PR5AY, 115 Volts AC, 60 cycles or LB5, 2500 ohms resistance.

To operate 110V DC relays on 220V DC use a 5 watt wire-wound resistor of a value approximately the relay coil resistance in series with the relay coil.

CONTACT LEGEND: S-Single; D-Double; P-Pole; T-Throw; N-Normally; O-Open; C-Closed; B-Break; M-Make.

Prices and Specifications subject to change without notice. For latest prices refer to United Pricing Service.

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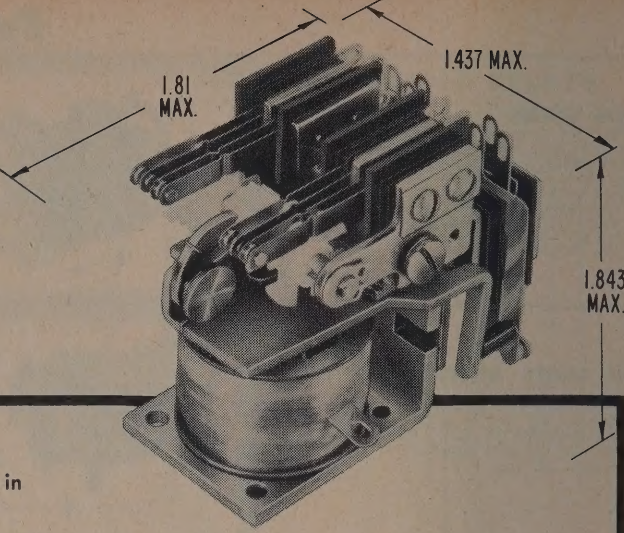
NEW!

RELIABLE IMPULSE/SEQUENCING RELAY

GM SERIES. Versatile single-coil relay for sequence switching. Choice of relays with 2 or 4 Form C contacts.



BROAD RANGE OF APPLICATIONS

- Any application relating to contact closures or openings from one to six operations per shaft revolution.
- Off/on/volume controls in TV circuits.
- Self-interrupting and homing devices
- Vending machines.
- Coin counting devices.

GM SERIES Unusually versatile switching makes this impulse/sequencing relay especially suitable for many applications where single coil latching is desirable. The 2 Form C contact arrangement is switched alternately by cams. Positive switching is by indirect action during drop-out of the armature. It can also be furnished with additional 2 Form C auxiliary contacts (designated by "L") operated directly by the armature. All contacts are rated at 3 amps, 115V AC (non-inductive). Available with AC or DC coils. AC version operates on a 50% coil duty cycle (5 min. max.). Mounting: 8-32 tapped core with a locating boss. Weight: With aux. contacts 4¾ ozs. Without aux. contacts 4 ozs.

SPECIAL PURPOSE RELAYS

TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
GM11A	24V	16	9.4VA	DPDT	3	$ 7.15
GM11A	115V	425	9.4VA	DPDT	3	7.15
GM11AL11	24V	16	9.4VA	DPDT / DPDT	3	10.20
GM11AL11	115V	425	9.4VA	DPDT / DPDT	3	10.20
GM11D	12V	36	4W	DPDT	3	6.90
GM11D	24V	144	4W	DPDT	3	6.90
GM11D	110V	3025	4W	DPDT	3	7.35
GM11DL11	12V	36	4W	DPDT / DPDT	3	10.00
GM11DL11	24V	144	4W	DPDT / DPDT	3	10.00
GM11DL11	110V	3025	4W	DPDT / DPDT	3	10.45

SEE INSERT FEATURING
COMPLETE LINE OF P&B
Mercury-Wetted Contact Relays

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SELECTION GUIDE TO SIGMA SENSITIVE RELAYS AND ELECTROMAGNETIC PRODUCTS

The checkerboard below is designed to help you select the Sigma relay or electromagnetic device most suitable for *your* application — without wading through *all* the information on *all* products just to find the one or two you're most interested in. Look down the left column and pick the key characteristics you need, then read across to see which products have the best combination of these characteristics. Further information and data on a specific relay or product Series number can then be found on the following pages or in the complete Sigma catalog. Blocks with the letter "C" in them indicate the catalog sections where detailed bulletins may be found (e.g., 11 AC relays are described in the catalog section entitled "AC Relays").

APPLICATION CHARACTERISTICS—CATALOG PRODUCT CLASSIFICATIONS

SIGMA PRODUCT SERIES

RELAYS	4	5	6	7	8	8PL2	9A	9B	9C	11	22	23	26	32	33	41	42	46	61	72	73	121	200	4500	8000	8200	8300	OVERLOAD INTERRUPTER
AC RELAYS		C								C						C	C	C										▨
COMMERCIAL	▨	▨								▨			▨			▨	▨	▨	▨				▨			▨		▨
DC RELAYS (NON-POLARIZED)	C	C								C	C		C			C	C	C										▨
DIFFERENTIAL OPERATION		▨	▨	▨								▨		▨					▨	▨	▨		▨			▨	▨	
DRY CIRCUIT SWITCHING											▨			▨	▨							▨						
EXTRA SENSITIVE (UNDER 10 MW.)		▨	▨	▨								▨	▨							▨	▨		▨			▨	▨	
GENERAL PURPOSE	▨	▨		▨						▨	▨		▨			▨	▨	▨										
HEAVY DUTY SWITCHING																▨		▨	▨									▨
HIGH SPEED														▨	▨	▨				▨		▨	▨					▨
HIGH VIBRATION IMMUNITY											▨			▨	▨						▨	▨				▨	▨	▨
IMPULSE OPERATION																						▨						
LOW COST	▨									▨						▨	▨	▨										
MINIATURE											▨		▨								▨	▨						
POLARIZED CENTER-OFF RELAYS (SIGMA FORM X)			C	C								C								C	C							
POLARIZED MAGNETICALLY BIASED RELAYS (SIGMA FORM Y)			C	C								C			C				C	C	C							
POLARIZED MAGNETIC LATCHING RELAYS (SIGMA FORM Z)			C	C										C					C	C	C		C					
PULSE OPERATION			▨	▨										▨					▨	▨	▨	▨	▨					
SUBMINIATURE														▨	▨													
TELEGRAPHY, HIGH SPEED PULSE REPETITION																▨				▨			▨					
WIDE OPERATING TEMPERATURE RANGE											▨	▨	▨	▨	▨						▨	▨						▨
ELECTROMAGNETIC PRODUCTS																												
PHOTORELAYS					C	C																						
PLUG-IN PHOTORELAY RECEIVER					▨																							
LIGHT SOURCE & PHOTORELAY RECEIVER SYSTEM						▨																						
MAGNETIC AMPLIFIERS																									C	C	C	
60-CYCLE UNITS																										▨		
400-CYCLE UNITS																											▨	
TEMPERATURE CONTROLS																									▨			
MAGNETIC STEPPING MOTORS, SWITCHES & COUNTERS							C	C	C																			
UNIDIRECTIONAL & BIDIRECTIONAL STEPPING MOTORS							▨																					
HIGH SPEED COUNTERS								▨																				
HIGH SPEED ROTARY STEPPING SWITCHES									▨																			
TEST EQUIPMENT																								C				
TEST SET FOR POLARIZED RELAYS																								▨				
SPECIAL PURPOSE UNITS																						C						C
IMPULSE RELAY																						▨						
OVERLOAD INTERRUPTER																												▨

C Catalog Product Classification

if you don't like tables . . .

. . . and would rather just tell us what you need in a sensitive relay, switching device or other electromagnetic product and what you want it to do, we will be happy to say exactly what we have or perhaps can build for your requirements and what performance you can expect of it. In fact, this procedure would have mutual benefits even though you may have already narrowed the field to a particular Sigma product by using the data in this folder. Capable, experienced application engineering on our part saves everyone's time, frequently prevents misunderstandings, and in general gets the job done to everyone's satisfaction. It will pay you not to overlook its advantages.

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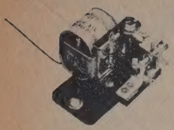
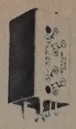

1⅝" x 1½" x 1 5/32" h.

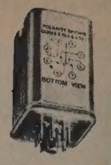
1 5/16" x 1¾" x 1 11/16" h.

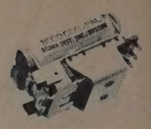
1⅞" x 3 7/16" x 2" h.

1⅝" sq. x 2 9/16" h. above chassis

1 3/16" x 1 7/32" x 1 1/16" h.


1" sq. x 1¾" h. above chassis


1⅝" sq. x 2 9/16" h. above chassis


1⅞" x 1" x 1 1/16" h.

	4	5	6	7	11	22	23	26
Contact arrangement	SPDT	SPDT	up to 4PDT	SPDT	SPDT	SPDT, DPDT	SPDT, DPDT	SPDT
Switching form*	......	......	X, Y, Z Polarized	X, Y, Z Polarized	......	......	X, Y Polarized	......
Contact rating (amp.) at 28VDC/120VAC, resistive load, for 100,000 operations	0.5–2.5	0.25–3	0.2–5	0.5–2.0	0.5–5	0.5–2	2	0.5–2
Mechanical life (no. operations; no load)	10^8	5×10^6	10^7	10^8	10^8	10^6	10^8	7×10^8
Contact material available	silver, palladium, tungsten	silver, palladium	silver, palladium	silver, palladium	silver, palladium	silver, palladium, gold alloy	silver	silver, palladium gold alloy
Operate sensitivity (approx. mw. unless otherwise specified)	20 or 50 DC	1–1 watt	8–450 DC	1–13 DC	0.3v-a. (60 cps.) 50 or 200 AC & DC	12–40 SPDT 20–80 DPDT DC	6 or 12 SPDT 12 or 24 DPDT DC	4–20 DC
Release sensitivity (approx. mw. unless otherwise specified)	4 or 10	0.16–100	0.5–1	0.25–0.55	......	1.25–5 SPDT 2.25–10 DPDT	1 SPDT, 2 DPDT	1.2–10
Coil arrangement	single	single or dual	single or dual	single or dual	single	single	single or dual	single
Coil resistance range (ohms)	0.012–12,000	0.10–26,000	10–25,000 single 5–12,000 dual	1–12,000 single 10–5,500 dual	2.5–9,000	50–12,000	10–15,000 single 40–5,700 dual	50–17,000
Operate temperature (°C., min. & max. in Relay Series)	−65; +85	−65; +125	−55; +100	−55; +85	−20; +50	−65; +125	−65; +100	−65; +125
Coil dissipation (for 40°C. rise unless otherwise specified)	1 watt	2 watts	1.6 watts	1 watt	1 watt	1 watt	1.4 watts	1 watt
Shock (non-operating)	75 g	100 g	75 g	100 g	75 g	100 g	75 g	100 g
Vibration, max. (10-55 cps.)	10 g	10 g	10 g	10 g	10 g	15 g to 500 cps. 5 g to 2,000 cps.	10 g	15 g
Enclosure	unenclosed, dust cover, hermetic seal	unenclosed, dust cover, hermetic seal	unenclosed, hermetic seal	dust cover, hermetic seal	unenclosed	hermetic seal	hermetic seal	unenclosed, hermetic seal
Mounting	screw, stud, plug-in	screw, stud, plug-in	screw, stud	stud, plug-in	screw	flange, stud, plug-in	stud, plug-in	stud, screw
Connection	solder terminals, plug-in	solder terminals, plug-in	solder terminals	plug-in	solder terminals	solder terminals, plug-in	solder terminals, plug-in	solder terminals
Weight range (oz.)	2¼–4¼	4¼–7¼	10–14½	6–7½	1–1.3	3–3¼	8⅝	2–3
Price range	$3.00–13.15	$4.15–25.85	$12.65–43.65	$9.90–33.50	$0.88–3.05	$5.95–23.00	$26.10–63.00	$3.75–18.75

*See first page for exploration of Forms X, Y & Z

NOTE: where ...... appears, data does not apply or is available by consulting factory.

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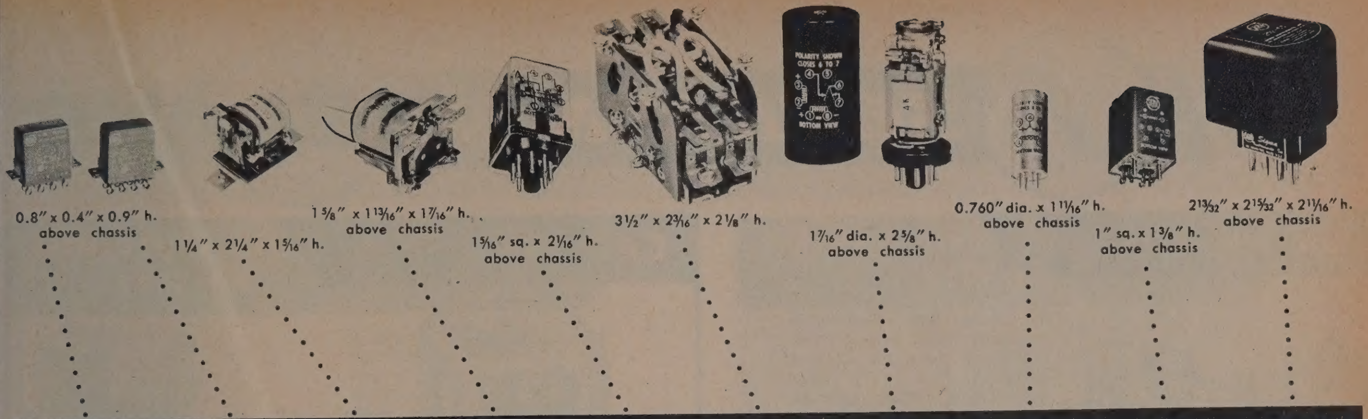
0.8″ x 0.4″ x 0.9″ h. above chassis
1¼″ x 2¼″ x 1⁵⁄₁₆″ h.
1⅝″ x 1¹³⁄₁₆″ x 1⁷⁄₁₆″ h. above chassis
1⁵⁄₁₆″ sq. x 2¹⁄₁₆″ h. above chassis
3½″ x 2³⁄₁₆″ x 2⅛″ h.
1⁷⁄₁₆″ dia. x 2⅝″ h. above chassis
0.760″ dia. x 1¹¹⁄₁₆″ h. above chassis
1″ sq. x 1⅜″ h. above chassis
2¹³⁄₃₂″ x 2¹⁵⁄₃₂″ x 2¹¹⁄₁₆″ h. above chassis

32	33	41	42	46	61	72	73	121	200†
DPDT	DPDT	SPDT	DPDT	DPDT	up to 4PST	SPDT	SPDT	SPDT	SPDT
Z Polarized	Y Polarized	......	......	......	Y, Z Polarized	X, Y, Z Polarized	X, Y, Z Polarized	......	Z Polarized
2	2	1–10	1–5	5 DC 10 AC (5 x 10^5 operations)	20	0.1–2	1.5	2 (200,000 ops.)	2
more than 2 x 10^6	more than 2 x 10^6	10^9	10^9	10^7	......	5 x 10^8	2 x 10^7	......	10^9
silver, gold alloy	silver, gold alloy	silver, tungsten, palladium, gold alloy	silver, tungsten, palladium, gold alloy	silver	silver	silver, tungsten, copper, palladium, gold alloy	silver	silver, gold alloy	tungsten, carbide
50 single coil 100 dual coil DC	100 or 200 DC	0.06 — 0.40 v-a (60 cps.), 1.3 v-a (400 cps.), AC & 32-200 DC	0.30 or 0.50 v-a (60 cps.), 1.3 v-a (400 cps.), AC & 100-200 DC	.100–1 watt DC, 4 v-a (60 cps.) AC	250–500 DC	0.3–40 DC	6–90 DC	1000 microjoules (e.g., 200 mw. for 5 ms.) DC	5–15 DC
......	2	0.4–65 (DC)	1–18 (DC)	......	2.5	0.25–8	1–2	......	......
single or dual	single	single	single	single	single or dual	single or dual	single or dual	single	dual or 4-coil
1.3–25,000 single coil 10–6,800 dual coil	1.3–25,000	0.012–12,000	0.012–14,000	1.7–6,500	50–25,000 single or dual	0.2–31,000 single 0.1–15,000 dual	1,000–7,000 single 500–5,000 dual	......	101 & 139
−65; +125	−65; +125	−55; +85	−65; +85	−65; +70	−55; +100	−55; +85	−65; +125	−65; +125	−10°F.; +120°F.
0.5 watt: 50° rise–single coil, 55° rise–dual coil	0.5 watt, 50° rise	1 watt	1 watt	4 watts DC 5 v-a. AC	1.6 watts	1.2 watts	1 watt	......	1 watt
100 g	100 g	100 g	100 g	normal industrial	75 g	......	100 g	100 g	......
30 g to 5,000 cps.	30 g to 5,000 cps.	10 g	10 g	normal industrial	10 g	......	10 g (to 500 cps.)	30 g to 5,000 cps.	......
hermetic seal	hermetic seal	unenclosed, dust cover, hermetic seal	unenclosed, dust cover, hermetic seal	dust cover	unenclosed, hermetic seal	dust cover, hermetic seal	hermetic seal	hermetic seal	dust cover
flange, stud, plug-in	flange, stud, plug-in	screw, stud, plug-in	stud, plug-in	plug-in	screw, stud	stud, plug-in	flange, plug-in	stud	flange, plug-in
solder terminals, plug-in, wire leads	solder terminals, plug-in, wire leads	solder terminals, plug-in	solder terminals, plug-in	plug-in	screw terminals, solder terminals	solder terminals, plug-in	solder terminals, plug-in	solder terminals	plug-in
18 grams	18 grams	2½-5¼	2½-5¼	5	10 or 15	3½ or 4	1.6	2¼	14
$11.50–33.50	$8.75–27.50	$1.75–13.00	$2.30–15.70	$3.00–6.80	$11.25–33.15	$16.50–54.45	$16.50–41.75	$22.00–45.00	up to $19.50

†Mfd. under license from Western Union Telegraph Co.

See first page for General Selection Guide.

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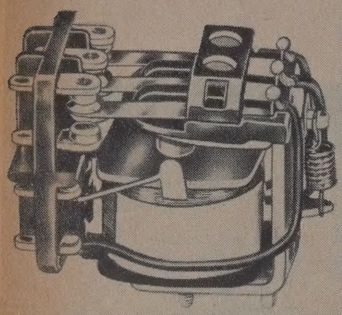
SCHRACK RELAYS

CA Series:

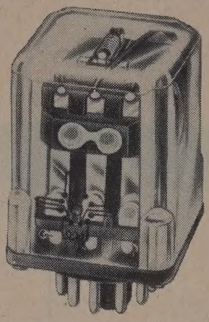


A robust and dependable open-type relay, with pierced solder lug terminals. Contact rating: 5 amps or 10 amps; according to contact material. Standard coils available: 6, 12, 24, 115, 230 volts a.c.; 6, 12, 24, 110 volts d.c.

Standard versions include 1, 2, or 3 Form C contacts. Optional: solder lugs for printed circuit boards or taper tabs for AMP-Connectors.
All relays are available with A.M.P. contacts

Contacts	5 Amp. Rating SPDT	DPDT	3PDT	10 Amp. Rating SPDT	DPDT	3PDT
Relay Type	CA5A5	CA11A5	CA14A5	CA5A10	CA11A10	CA14A10
6 volts a.c. 12 volts a.c. 24 volts a.c. 115 volts a.c.	$2.70	$3.15	$4.05	$2.75	$3.20	$4.10
230 volts a.c.	$3.10	$3.55	$4.45	$3.15	$3.60	$4.50
Relay Type	CA5D5	CA11D5	CA14D5	CA5D10	CA11D10	CA14D10
6 volts d.c. 12 volts d.c. 24 volts d.c.	$2.70	$3.15	$4.05	$2.75	$3.20	$4.10
110 volts d.c.	$3.10	$3.55	$4.45	$3.15	$3.60	$4.50

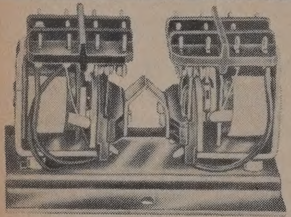
CAD Series



Same basic design as CA series; however, with clear plastic dust cover and octal-type plug-in base. Ideal for all applications requiring easy mounting and fast replacement of relays.

Contacts	5 Amp. Rating SPDT	DPDT	3PDT	10 Amp. Rating SPDT	DPDT	3PDT
Relay Type	CAD5A5	CAD11A5	CAD14A5	CAD5A10	CAD11A10	CAD14A10
6 volts a.c. 12 volts a.c. 24 volts a.c. 115 volts a.c.	$4.90	$5.50	$6.70	$4.95	$5.55	$6.75
230 volts a.c.	$5.45	$5.90	$7.10	$5.50	$5.95	$7.15
Relay Type	CAD5D5	CAD11D5	CAD14D5	CAD5D10	CAD11D10	CAD14D10
6 volts d.c. 12 volts d.c. 24 volts d.c.	$4.90	$5.50	$6.70	$4.95	$5.55	$6.75
110 volts d.c.	$5.45	$5.90	$7.10	$5.50	$5.95	$7.15

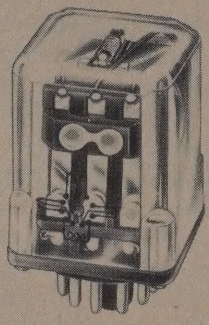
CB Series:



A dual coil, mechanical latching relay built up of two CA type relays. Contact rating 10 amps. Available with 4 Form C or 6 Form C contacts.

Contacts	10 Amp. Rating 4 PDT	6 PDT
Relay Type	CB17A10	CB23A10
6 volts a.c. 12 volts a.c. 24 volts a.c. 115 volts a.c.	$10.60	$12.80
230 volts a.c.	$11.40	$13.60
Relay Type	CB17D10	CB23D10
6 volts d.c. 12 volts d.c. 24 volts d.c.	$9.65	$11.75
110 volts d.c.	$10.85	$12.95

CSD Series



A plate circuit relay, similar to the CAD Type; however with increased sensitivity (125 MW per movable arm).

Contacts	2 Amp. Rating SPDT	DPDT	3PDT
Relay Type	CSD5	CSD11	CSD14
2500 ohms	$5.20	$5.60	$6.80
5000 ohms	$5.30	$5.70	$6.90
10,000 ohms	$5.70	$6.10	$7.30

SEND FOR DISCOUNT SCHEDULES

For further information, ask for Catalog A64

SCHRACK ELECTRICAL SALES CORPORATION

NEW YORK 28, N. Y.

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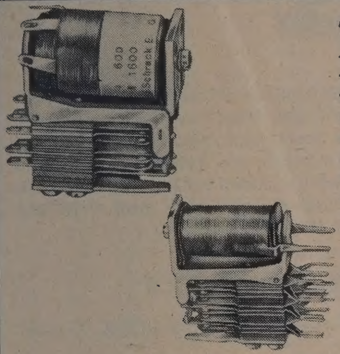
SCHRACK RELAYS

MINIATURE RELAY TYPE RK

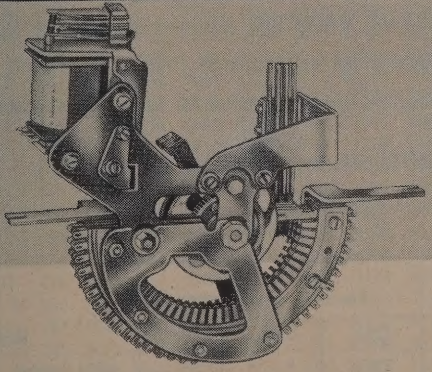


A small and reliable, fast-acting open-type relay for a wide field of applications, including telephone equipment. May be fitted with a maximum of 18 contact springs (6 Form C or any other combination not exceeding 6 movable arms). A.C. and D.C. coils are available, using approximately 400 mW (500 mVA) per movable arm. Contacts are fine silver. Optional: solder lugs for printed circuit boards.

For further information, ask for Catalog A402A.

Contacts	3 Amp. Rating 4PDT	6PDT
Relay Type	RK 17D	RK 23D
6 volts d.c. 12 volts d.c. 24 volts d.c.	$5.15	$6.45
110 volts d.c.	on request	$7.00
A.C. Relays:	on request	

ROTARY STEPPING SWITCH TYPE RW

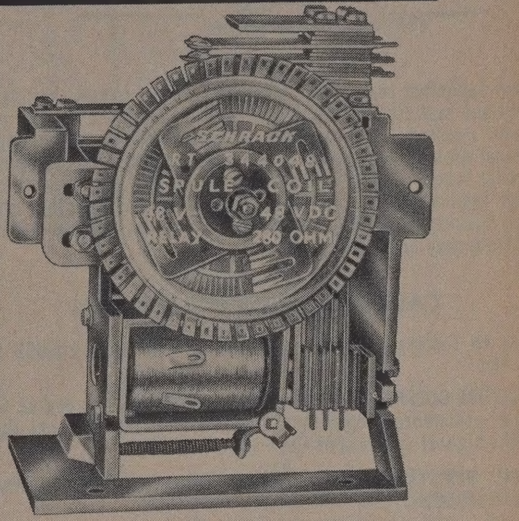


This is a large-capacity industrial control device, also suitable for telephone applications. Its conventional design has an open metal frame so that any number of contact banks, up to a maximum of 8, can be built up. Each bank level has 35 points plus one zero position. By using wipers in alternate levels, the stepper can be made fit for 70-point operation. Cam-operated contacts (maximum 2 cams, 8 springs) are optional. Driving coils from 12 volts d.c. to 60 volts d.c. are available.

This stepping switch is eminently suitable for applications requiring close adaptation to special requirements (number of bank levels, auxiliary springs, etc.) without restrictions of space and power.

Inquiries are invited.

ROTARY STEPPING SWITCH TYPE RT



Compact, versatile and reliable, this rotary stepping switch provides 48 contact points arranged in 4 groups of 12 points each, with 4 wipers—equal to a 4-bank, 12-point stepper, however with minimal dimensions. Further design details are:

Clear plastic dust cover to protect contact points

Sturdy die-cast light metal frame for easy mounting

Solderless taper tabs on contact points, suitable for AMP connectors

Cam-operated off-normal contacts and relay operated contacts (both with 6 amp. rating) are standard equipment

Optional features:

— Mechanical reset version, with a separate coil and spring arrangement which returns wiper assembly to home position when energized.

— Rectifier attachment for a.c. operation of stepping switch.

Standard coil voltages available: 12, 24, 60, 115 and 220 volt d.c.

Applications, counting, sequencing, programming or memory storage operations, where available space and power are limited.

Over-all dimensions: normal version 3.7 X 2.25 X 4.25 inches, with reset coil 3.7 X 2.25 X 4.75 inches

For further information, ask for Catalog A401A

Design	without reset coil	with reset coil
Switch Type	RT 344	RT 354
12 volts d.c. 24 volts d.c. 48 volts d.c. 60 volts d.c. 110 volts d.c.	$17.85	$22.10

SEND FOR DISCOUNT SCHEDULE

SCHRACK ELECTRICAL SALES CORPORATION

NEW YORK 28, N. Y.

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AEROVOX

RESISTORS

±1% PRECISION ®CARBOFILM AND ®CARBOMOLD RESISTORS

CARBOFILM PRECISION RESISTORS

Precision deposited carbon resistors designed for circuits calling for the accuracy and stability of wire-wound resistors with the marked economy of carbon resistors. The exclusive Aeroglaze conformal coating offers mechanical protection superior to any other coating eliminating the need for special tubes, sleeves and jackets. Aeroglaze coating will meet all moisture requirements of MIL-R-10509B. Carbofilm resistors offer outstanding stability, low voltage coefficient, low capacitance and inductance in high frequency applications.

CARBOFILM CHARACTERISTICS

TESTING: All Tests conducted in accordance with MIL-R-10509B requirements.

TEMPERATURE COEFFICIENT: Approximately 200 ppm per degree C in the lower resistance ranges and not exceeding 500 ppm per degree C in the highest values specified by MIL-R-10509B.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509B.

LOAD LIFE: When tested for more than 1,000 hours at full load operation in 40°C ambient temperature, maximum changes are less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is an average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated working voltage, but not exceeding 2 times the maximum rated voltage for 5 seconds, changes are less than 0.25% with an average change of 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%.

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C. (77°F.)

AGING: Due to manufacturing process and control, changes attributed to aging are negligible. The average change in resistance for self-aging is approximately 0.2% per year.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

CARBOMOLD PRECISION RESISTORS

A superior molded carbon-deposited resistor manufactured under the most exacting quality control standards and specifications assuring excellent performance under the most adverse operating conditions. Resistors are encapsulated in a strong reinforced moisture and heat resistant plastic for added stability, precision and reliability. Rated for full load operation at 70°C and linearly derated to zero load at 150°C. Will meet or exceed insulation resistance requirements of MIL-R-10509D.

CARBOMOLD CHARACTERISTICS

TESTING: All tests conducted in accordance with MIL-R-10509C requirements.

TEMPERATURE COEFFICIENT: Extends from approximately 200 ppm per degree C in the lower resistance ranges to and not exceeding 500 ppm per degree C at the highest values specified by MIL-R-10509D.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509D.

LOAD LIFE: When tested for more than 1000 hours at full load operation in 70°C ambient temperature, maximum changes less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is an average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated working voltage, but not exceeding 2 times the maximum rated voltage for 5 seconds, changes are less than 0.25% with an average change of 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%.

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C.

AGING: Average change in resistance for self-aging, approximately 0.2% in a year.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

For full technical information request Bulletin NPJ-115-16 Rev.

CARBOFILM

TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEGOHMS	Availability		MIL-R-10509B Max DC Voltage	Equiv. to MIL-R-10509B			MARKING
				Comm. Value	MIL-BELL Value		Type	Char.	Tol.	
CPSX½	.203 x 19/32	10	2.2	✓	✓	350	RN20	X	1%	RN20 Number
CPX½	.260 x 23/32	2,210,000	5.0	✓		350	- - - -	- -	- - -	Type, Value, Tolerance
CPLX½	.260 x 1	5,100,000	7.5	✓		500	- - - -	- -	- - -	Type, Value, Tolerance
*CPX 1	.328 x 15/16	10	15	✓	✓	500	RN25	X	1%	Type, Value, Tolerance and RN25 Number
**CPX 2	.328 x 2 1/16	50	100†	✓		750	RN30	X	1%	Type, Value, Tolerance and RN30 Number

† Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.
* Values from 10.1 meg to 15 meg will be furnished at ±2% only.
** Values from 30.1 meg to 100 meg will be furnished at ±2% only.

CARBOMOLD

Carbomold Stocked In Mil-Bell Values Only

TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEGOHMS	MIL-R-10509D Max. DC Volt.	Equiv. to MIL-R-10509D			MARKING
					Type	Char.	Tol.	
CPM-⅛	.140 x .395	10	1.0	250	RN60	B	F	RN60 Number
CPM-¼	.220 x .590	10	2.0	300	RN65	B	F	RN65 Number
CPM½	.250 x .745	10	2.49	350	RN70	B	F	Type, Value, Tolerance, RN70 Number
CPM-1	.375 x 1 7/64	10	5.11	500	RN75	B	F	Type, Value, Tolerance, RN75 Number
CPM-2	.375 x 2 7/32	30	10.0	750	RN80	B	F	Type, Value, Tolerance, RN80 Number

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AEROVOX

RESISTORS

±1% PRECISION ® CARBOFILM AND ® CARBOMOLD RESISTORS

COMMERCIAL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
10.0	36	82	300	820	2950	7000	20,000	62,000	220,000	650,000	2.0	6.2	27.0
11.0	39	85	330	850	3000	7450	22,000	65,000	225,000	680,000	2.2	6.5	30.0
12.0	40	89.5	350	900	3300	7500	22,500	68,000	240,000	700,000	2.225	6.8	33.0
12.5	43	90	360	910	3500	8000	24,000	70,000	250,000	750,000	2.4	7.0	36.0
13.0	44.5	91	390	1000	3600	8200	25,000	75,000	270,000	800,000	2.5	7.5	39.0
14.5	45	99.5	400	1100	3900	8500	27,000	80,000	300,000	820,000	2.7	8.0	43.0
15.0	47	100	430	1200	4000	8950	30,000	82,000	330,000	850,000	3.0	8.2	47.0
16.0	50	110	450	1250	4300	9000	33,000	85,000	350,000	900,000	3.3	8.5	50.0
17.5	51	120	470	1300	4450	9100	35,000	90,000	360,000	910,000	3.5	9.0	100.0†
18.0	55	130	500	1450	4500	9950	36,000	91,000	390,000		3.6	9.1	
20.0	56	150	510	1500	4700	10,000	39,000	100,000	400,000	**MEGOHMS**	3.9	10.0	
22.0	59.5	160	550	1600	5000	11,000	40,000	110,000	430,000		4.0	12.0	
22.5	60	175	560	1750	5100	12,000	43,000	120,000	450,000	1.0	4.3	12.5	
24.0	62	180	600	1800	5500	12,500	45,000	125,000	470,000	1.1	4.5	13.0	
25.0	65	200	620	2000	5600	13,000	47,000	130,000	500,000	1.2	4.7	15.0	
27.0	68	220	650	2200	5950	13,500	50,000	150,000	510,000	1.25	5.0	16.0	
29.5	70	225	680	2250	6000	15,000	51,000	160,000	550,000	1.3	5.1	18.0	
30.0	74.5	240	700	2400	6200	16,000	55,000	175,000	560,000	1.5	5.5	20.0	
33.0	75	250	750	2500	6500	17,500	56,000	180,000	600,000	1.6	5.6	22.0	
35	80	270	800	2700	6800	18,000	60,000	200,000	620,000	1.8	6.0	25.0	

†Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.

AEROGLAZE® CARBOFILM ± 1% RESISTORS MIL-BELL VALUES**

	Net Price*
CPSX½ (RN20X)	
10 ohms to 49.9 ohms	.64
50 ohms to 2.2 meg	.54
CPX½	
2.21 meg to 5.0 meg	.83
CPLX½	
5.1 meg to 7.5 meg	.90
CPX-1 (RN25X)	
10 ohms to 99.9 ohms	.94
100 ohms to 5.0 meg	.81
5.01 meg to 10.0 meg	.89
10.1 meg to 15.0 meg*	1.03
CPX-2 (RN30X)	
50 ohms to 199 ohms	1.20
200 ohms to 10.0 meg	.97
10.1 meg to 30.0 meg	1.13
30.1 meg to 50.0 meg*	1.25
100 meg*	1.62

*All new production will be furnished at ± 2% only for values in these ranges.

MIL-BELL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
10.0	23.2	53.6	124	287	665	1540	3570	8250	19100	44200	102000	237000	549000	1.13	2.61	6.04
10.2	23.7	54.9	127	294	681	1580	3650	8450	19600	45300	105000	243000	562000	1.15	2.67	6.19
10.5	24.3	56.2	130	301	698	1620	3740	8660	20000	46400	107000	249000	576000	1.18	2.74	6.34
10.7	24.9	57.6	133	309	715	1650	3830	8870	20500	47500	110000	255000	590000	1.21	2.80	6.49
11.0	25.5	59.0	137	316	732	1690	3920	9090	21000	48700	113000	261000	604000	1.24	2.87	6.65
11.3	26.1	60.4	140	324	750	1740	4020	9310	21500	49900	115000	267000	619000	1.27	2.94	6.81
11.5	26.7	61.9	143	332	768	1780	4120	9530	22100	51100	118000	274000	634000	1.30	3.01	6.98
11.8	27.4	63.4	147	340	787	1820	4220	9760	22600	52300	121000	280000	649000	1.33	3.09	7.15
12.1	28.0	64.9	150	348	806	1870	4320	10000	23200	53600	124000	287000	665000	1.37	3.16	7.32
12.4	28.7	66.5	154	357	825	1910	4420	10200	23700	54900	127000	294000	681000	1.40	3.24	7.50
12.7	29.4	68.1	158	365	845	1960	4530	10500	24300	56200	130000	301000	698000	1.43	3.32	7.68
13.0	30.1	69.8	162	374	866	2000	4640	10700	24900	57600	133000	309000	715000	1.47	3.40	7.87
13.3	30.9	71.5	165	383	887	2050	4750	11000	25500	59000	137000	316000	732000	1.50	3.48	8.06
13.7	31.6	73.2	169	392	909	2100	4870	11300	26100	60400	140000	324000	750000	1.54	3.57	8.25
14.0	32.4	75.0	174	402	931	2150	4990	11500	26700	61900	143000	332000	768000	1.58	3.65	8.45
14.3	33.2	76.8	178	412	953	2210	5110	11800	27400	63400	147000	340000	787000	1.62	3.74	8.66
14.7	34.0	78.7	182	422	976	2260	5230	12100	28000	64900	150000	348000	806000	1.65	3.83	8.87
15.0	34.8	80.6	187	432	1000	2320	5360	12400	28700	66500	154000	357000	825000	1.69	3.92	9.09
15.4	35.7	82.5	191	442	1020	2370	5490	12700	29400	68100	158000	365000	845000	1.74	4.02	9.31
15.8	36.5	84.5	196	453	1050	2430	5620	13000	30100	69800	162000	374000	866000	1.78	4.12	9.53
16.2	37.4	86.6	200	464	1070	2490	5760	13300	30900	71500	165000	383000	887000	1.82	4.22	9.76
16.5	38.3	88.7	205	475	1100	2550	5900	13700	31600	73200	169000	392000	909000	1.87	4.32	10.0
16.9	39.2	90.9	210	487	1130	2610	6040	14000	32400	75000	174000	402000	931000	1.91	4.42	
17.4	40.2	93.1	215	499	1150	2670	6190	14300	33200	76800	178000	412000	953000	1.96	4.53	
17.8	41.2	95.3	221	511	1180	2740	6340	14700	34000	78700	182000	422000	976000	2.00	4.64	
18.2	42.2	97.6	226	523	1210	2800	6490	15000	34800	80600	187000	432000		2.05	4.75	
18.7	43.2	100	232	536	1240	2870	6650	15400	35700	82500	191000	442000		2.10	4.87	
19.1	44.2	102	237	549	1270	2940	6810	15800	36500	84500	196000	453000	**MEGOHMS**	2.15	4.99	
19.6	45.3	105	243	562	1300	3010	6980	16200	37400	86600	200000	464000		2.21	5.11	
20.0	46.4	107	249	576	1330	3090	7150	16500	38300	88700	205000	475000		2.26	5.23	
20.5	47.5	110	255	590	1370	3160	7320	16900	39200	90900	210000	487000	1.00	2.32	5.36	
21.0	48.7	113	261	604	1400	3240	7500	17400	40200	93100	215000	499000	1.02	2.37	5.49	
21.5	49.9	115	267	619	1430	3320	7680	17800	41200	95300	221000	511000	1.05	2.43	5.62	
22.1	51.1	118	274	634	1470	3400	7870	18200	42200	97600	226000	523000	1.07	2.49	5.76	
22.6	52.3	121	280	649	1500	3480	8060	18700	43200	100000	232000	536000	1.10	2.55	5.90	

CARBOMOLD ± 1% RESISTORS MIL-BELL VALUES**

	Net Price*
CPM ⅛ (RN60B)	
10 ohms to 24.9 ohms	1.78
25 ohms to 49.9 ohms	1.18
50 ohms to 500 ohms	1.02
501 ohms to 500 K ohms	.96
501 K ohms to 1 meg	1.02
CPM ¼ (RN65B)	
10 ohms to 49.9 ohms	.99
50 ohms to 500 K ohms	.94
501 K ohms to 1.0 meg	.99
1.01 meg to 2.0 meg	1.08
CPM ½ (RN70B)	
10 ohms to 49.9 ohms	.91
50 ohms to 2.2 meg	.85
2.21 meg to 2.49 meg	1.03
CPM 1 (RN75B)	
10 ohms to 99.9 ohms	1.36
100 ohms to 5.0 meg	1.28
5.01 meg to 5.11 meg	1.42
CPM 2 (RN80B)	
30 ohms to 199 ohms	1.99
200 ohms to 10 meg	1.65

**Prices listed are for MIL-BELL values only. For commercial standard values listed in catalog IDC 563 add 10% to the above prices in the appropriate columns. For prices on any values other than MIL-BELL or catalog commercial standard values contact your authorized Aerovox Industrial Distributor.

PACKAGING:

Commercial Stock Values—Small quantities packaged individually in sealed plastic tubes. Also available in larger quantities, protected by paper sleeves and packed in bulk.

Mil Bell Stock Values—Small quantities packaged individually in sealed plastic tubes. Also available in larger quantities packed in bulk.

*Request OEM Price in quantities of 25-99, 100-249, 250-499 and 500-999

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Net

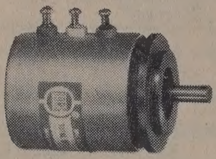
TRIMMERS, POTENTIOMETERS, DIALS AND MOTORS

MICROPOT® TRIMMING POTENTIOMETERS

Borg produces 10 complete series of Micropot trimmers—from subminiature square trimmers to standard sizes. Borg trimmers are offered in general purpose, humidity-proof, high temperature, or humidity-and-high-temperature models, in a wide choice of resistance ranges and end terminals. Borg trimmers have a 40-turn adjustment screw for an extremely fine degree of selectivity. Wire-wound resistance elements are up to 50% longer than competitive types.

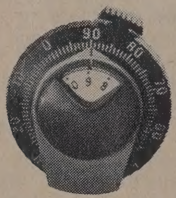
MICROPOT® CARBON TRIMMERS

Borg's Micropot carbon trimmers provide infinite resolution with a wide range of resistance values.



MICROPOT® PRECISION POTENTIOMETERS

Borg offers a complete line of Micropot potentiometers for precision application—military and commercial—ranging from ½-inch to 3-inches. They are available in single-turn or multi-turn models with high resolution and a wide range of resistance values.

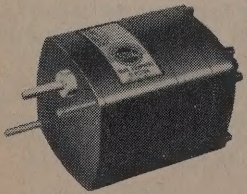


MICRODIAL® CONCENTRIC DIALS

Engineers consider the Borg Microdial line the most comprehensive in the industry. Concentric scale Microdials are available in three basic series. Each features epicyclical gearing to eliminate ambiguity, and large numerals for high readability. Each dial is available with or without brake. Most Microdial models are offered in a choice of color combinations for coding.

MICRODIAL® DIGITAL DIALS

Borg's digital Microdial line includes three, four, or five digit models. The 1300 Series has optional 10, 100, or 1000 turns. The 10-turn 1330 Microdial has internal illumination, convex lens, and is available with or without brake. Borg dials offer 1000:1 indexing accuracy, and are virtually free from accidental setting changes.



SUB-FRACTIONAL MOTORS

Borg's line of sub-fractional h.p. motors includes synchronous, induction, or low inertia types, in two or four pole models. Borg motors speed/torque ratios meet the most exacting requirements of instruments, controls, and related products.

AMPHENOL-BORG Distributor Division / Amphenol-Borg Electronics Corporation

BROADVIEW, ILLINOIS

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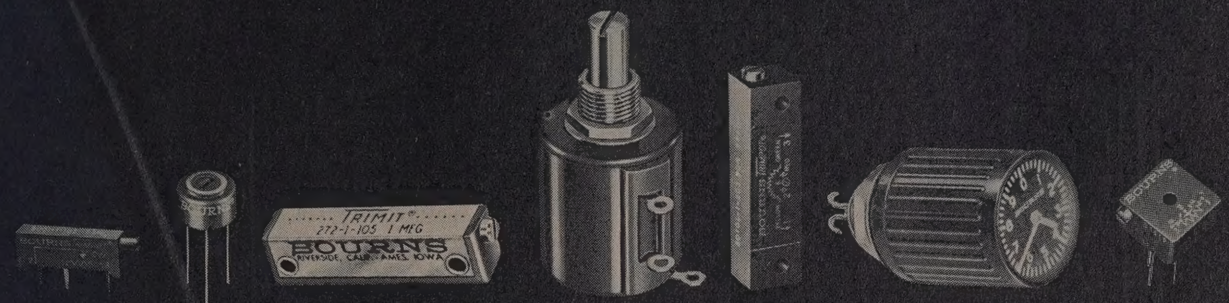


BOURNS TRIMPOT® POTENTIOMETERS

- THE INDUSTRY'S LARGEST SELECTION OF ADJUSTMENT POTENTIOMETERS
- PRECISION POTENTIOMETERS
- MICROMINIATURE RELAYS

32 Standard Models / 4 Terminal Types / 3 Mounting Styles

Military ▪ Industrial ▪ Commercial ▪ Wirewound ▪ RESISTON® Carbon
Rectangular ▪ Square ▪ Precision Rotary ▪ Humidity-Proof ▪ High-Temperature ▪ Special-Purpose

Only Bourns Trimpot Potentiometers Give You All Of These Outstanding Features

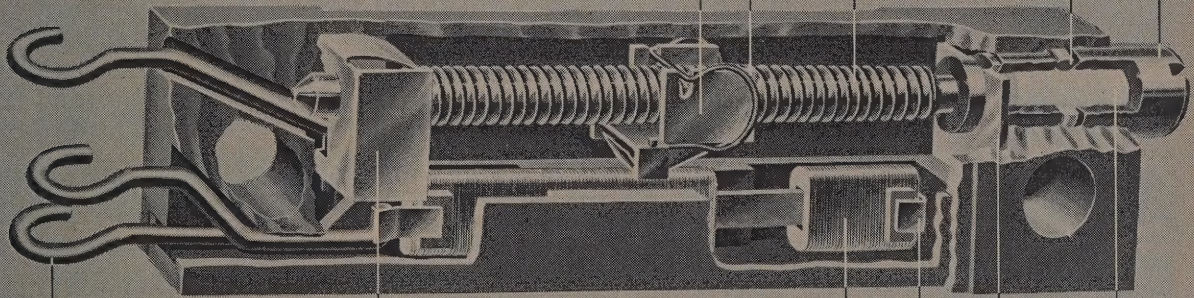
SPRING—Carriage spring provides positive no-slip performance during rotation plus a reliable idling feature at mechanical limits of travel.

WIPER CARRIAGE—Gold-plated carriage is welded to precious metal wiper for low noise.

LEADSCREW—Stainless steel leadscrew is corrosion-resistant, withstands salt spray.

O-RING—Silcone rubber O-ring seals potentiometer against humidity, withstands high temperature.

SHAFT HEAD—Stainless steel with machined slot for screwdriver adjustment. Meets military salt spray requirements.



SOLDER TERMINALS—Tinned terminals are compact, yet large enough for easy soldering. Teflon-insulated leads and printed circuit pins are also available.

PICK-OFF—Gold-plated beryllium copper pick-off maintains constant pressure on leadscrew.

SILVERWELD® TERMINATION—This exclusive Bourns feature is unequalled in ruggedness. There is a metal-to-metal bond from the terminal to the resistance wire.

ELEMENT—Special ceramic element card for maximum reliability is precision wound with low-temperature-coefficient resistance wire.

SHAFT RETAINER—Shaft is locked in place for top performance under extreme shock, vibration and acceleration.

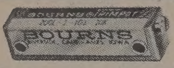
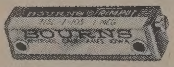
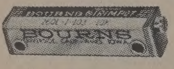
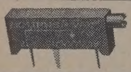
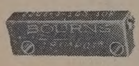
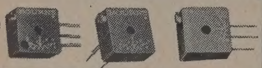
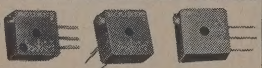
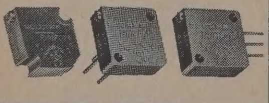
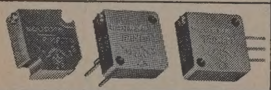
SHAFT INSULATOR—High-dielectric-strength, ceramic insulator isolates shaft head from internal circuits.

This cutaway of Model 224 shows the typical high quality to be found in all Bourns Trimpot potentiometers, although some features may vary from model to model.

Indestructible Termination
The exclusive Bourns Silverweld® termination, alloyed with multiple turns of the resistance element, is indestructible under thermal or mechanical stress. It eliminates termination breakage, a major cause of potentiometer failure.

Turn Page for Complete Listing→

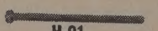
BOURNS TRIMPOT® ADJUSTMENT POTENTIOMETERS—

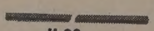
Description	Name	Model	Resistances (Ohms) ③	Terminals ①	End Settings (%)	Tolerance (%) ⑥	Power Rating (Watts)	Max. Oper. Temp. (°C)	Adjustment Turns	Humidity Proof (Mil Specs) ⑦	Size (Inches)			Standard Resistances (Ohms)	Prices, U.S.A. ②		
											H	W	L		1–9	10–24	25–49
TRIMPOT MULTI-TURN POTENTIOMETERS, UNSEALED																	
General-Purpose Wirewound 	TRIMPOT ⑨	200	10Ω to 50K	L*,S*,P	0-0.7④	±10	0.25	105	25	No	5/16	¼	1¼	10 to 10K 20K - 25K 50K	$4.86 6.48 7.56	$4.50 6.00 7.00	$4.05 5.40 6.30
			100K	L*	0-5.0									100K	9.18	8.50	7.65
General-Purpose RESISTON⑨ Carbon 	TRIMPOT	215	20K to 1 Meg	L*,S*,P	0-1.0	±20	0.25	125	22	No	5/16	¼	1¼	20K to 1 Meg	4.86	4.50	4.05
High-Temperature Wirewound 	TRIMPOT	260	10Ω to 50K	L*,S*,P	0-0.2④	±10	1.0	175	25	No	5/16	¼	1¼	10 to 10K 20K - 25K 50K	5.94 7.56 8.10	5.50 7.00 7.50	4.95 6.30 6.75
			100K	L*	0-5.0									100K	9.72	9.00	8.10
TRIMPOT HUMIDITY-PROOF POTENTIOMETERS																	
Micro-Miniature High-Temperature Wirewound	TRIMPOT	3000	50Ω to 20K	P	0-0.1⑤	±10	0.5	175	15	Yes	5/16	5/32	¾	50 - 10K 20K	9.72 10.80	9.00 10.00	8.10 9.00
High-Temperature RESISTON Carbon 	TRIMPOT	3001	20K to 1 Meg	P	0-1.0	±20	0.20	150	15	Yes	5/16	5/32	¾	20K to 1 Meg	9.18	8.50	7.65
Sub-Miniature High-Temperature Wirewound 	TRIMPOT	220	100Ω to 30K	L*,W*	0-0.1⑤	±10	1.0	175	15	Yes	5/16	3/16	1	100 to 10K 20K to 30K	8.64 10.26	8.00 9.50	7.20 8.55
High-Temperature Wirewound	TRIMPOT	224	10Ω to 50K	L*,S*,P	0-0.1④	±5	1.0	175	22	Yes	5/16	3/16	1¼	10 to 10K 20K - 25K 50K	7.02 8.64 9.18	6.50 8.00 8.50	5.85 7.20 7.65
			100K	L*,S*,P	0-5.0									100K	11.34	10.50	9.45
High-Temperature RESISTON Carbon	TRIMPOT	3051	20K to 1 Meg	L*,S*,P	0-1.0	±20	0.25	150	22	Yes	5/16	3/16	1¼	20K to 1 Meg	7.02	6.50	5.85
High-Temperature Wirewound	TRIMPOT	3010	10Ω to 50K	L*,P*	0-0.2⑤	±10	1.0	175	25	Yes	5/16	9/32	1¼	10 to 10K 20K - 25K 50K	7.02 8.64 9.18	6.50 8.00 8.50	5.85 7.20 7.65
			100K	L*,P*	0-5.0									100K	11.34	10.50	9.45
High-Temperature RESISTON Carbon	TRIMPOT	3011	20K to 1 Meg	L*,P*	0-1.0	±20	0.25	150	22	Yes	5/16	9/32	1¼	20K to 1 Meg	7.02	6.50	5.85
Micro-Miniature Wirewound 	TRIMPOT	3280	100Ω to 50K	L,P,W	0-0.1⑤	±5	1.0	175	25	Yes	13/64	⅜	⅜	100 - 10K 20K - 25K 50K	7.56 9.18 9.72	7.00 8.50 9.00	6.30 7.65 8.10
Micro-Miniature RESISTON Carbon 	TRIMPOT	3281	20K to 1 Meg	L,P,W	0-1.0	±20	0.25	150	25	Yes	13/64	⅜	⅜	20K to 1 Meg	7.56	7.00	6.30
Sub-Miniature High-Temperature Wirewound 	TRIMPOT	3250	100Ω to 50K	L	0-0.1⑤	±5	1.0	175	25	Yes	3/16	½	½	100 to 10K 20K - 25K 50K	6.71 7.56 10.01	6.22 7.00 9.27	5.60 6.30 8.34
				P,W							7/32	½	½	100 to 10K 20K - 25K 50K	7.23 7.97 10.53	6.69 7.38 9.75	6.02 6.64 8.78
Square High-Temperature RESISTON Carbon 	TRIMPOT	3251	20K to 1 Meg	L	1.0	±20	0.50	150	25	Yes	3/16	½	½	20K to 1 Meg	7.83	7.25	6.53
				P,W							7/32	½	½				

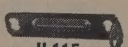
	add to price of basic unit		
209	2.16	2.00	1.80
All others	.81	.75	.68

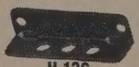
PANEL MOUNTING

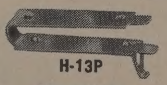
*Models so designated are available with the added convenience of panel mounting. Unique design permits quick factory conversion of "off-the-shelf" units. Clip brackets, mounting brackets and mounting screws are available for other mounting requirements.

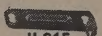

H-01

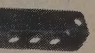

H-02

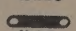

H-11E


H-12S


H-13P


H-21E


H-22S


H-25

H-26S

TRIMPOT® POTENTIOMETER MOUNTING HARDWARE

Mounting screws, mounting brackets, and clip brackets are available from factory or local distributor stock to adapt Bourns potentiometers to virtually any mounting situation. H-01 Screw • H-02 Rod Stock • H-11E End Bracket, 1" Centers • H-12S Side Bracket, 1" Centers • H-13P Clip in Bracket • H-21E End Bracket, ¾" Centers • H-22S Side Bracket, ¾" Centers • H-25 Stacking Straps/Sq. Units, .520 Centers • H-26S Side Bracket/Sq. Units, .520 Centers.

Net

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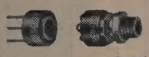
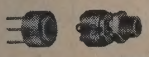
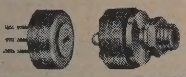
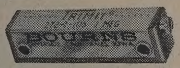
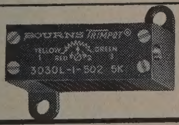
LARGEST SELECTION, LONGEST RECORD OF RELIABILITY

Description	Name	Model	Resistances (Ohms) ③	Terminals ①	End Settings (%)	Tolerance (%) ⑥	Power Rating (Watts)	Max. Oper. Temp. (°C)	Adjustment Turns	Humidity Proof (Mil Specs)	Size (Inches)			Standard Resistances (Ohms)	Prices, U.S.A. ②		
											H	W	L		1–9	10–24	25–49
TRIMPOT SINGLE-TURN POTENTIOMETERS																	
Micro-Miniature High-Temperature Humidity-Proof Wirewound  Panel Mounting	TRIMPOT	3300	50Ω to 20K	P S	0–1.0	±5	0.5	175	1	Yes	5/16 dia. x 3/16 5/16 dia. x 7/32			50 to 10K 20K 50 to 10K 20K	5.94 7.56 8.91 10.53	5.50 7.00 8.25 9.75	4.95 6.30 7.43 8.78
Micro-Miniature High-Temperature Humidity-Proof Resiston Carbon  Panel Mounting	TRIMPOT	3301	10K to 1 Meg	P S	0–1.0	±20	0.25	150	1	Yes	5/16 dia. x 3/16 5/16 dia. x 7/32			10K to 1 Meg	Contact Factory		
Sub-Miniature Single-Turn Wirewound  Panel Mounting	TRIMPOT	3367	100Ω to 20K	P S	0–1.0	±5	0.5	105	1	Steady State Only	½ dia. x 15/64 ½ dia. x 17/64			100 to 20K 100 to 20K	4.86 5.67	4.50 5.25	4.05 4.73
Sub-Miniature Single-Turn RESISTON Carbon Panel Mounting	TRIMPOT	3368	20K to 1 Meg	P S	0–1.0	±20	0.25	105	1	Steady State Only	½ dia. x 15/64 ½ dia. x 17/64			20K to 1 Meg 20K to 1 Meg	5.94 6.75	5.50 6.25	4.95 5.63
COMMERCIAL POTENTIOMETERS																	
Commercial Wirewound	TRIMIT⑨	271 273 275	100Ω to 10K	L* S* P	0–2.0	±10	0.25	85	25	No	5/16	¼	1¼	100 to 10K	3.18	2.95	2.65
Commercial RESISTON Carbon 	TRIMIT	272 274 276	20K to 1 Meg	L* S* P	0–7.5	±20	0.2	85	25	No	5/16	¼	1¼	20K to 1 Meg	3.78	3.50	3.15
Commercial Wirewound	E–Z–TRIM⑨	3067	50Ω to 20K	S,P	0–1.0	±10	0.5	85	15	Steady State Only	23/64	9/32	1	50 to 20K	1.65	1.53	1.37
Commercial RESISTON Carbon	E–Z–TRIM	3068	20K to 1 Meg	S,P	0–5.0	±20	0.2	85	15	Steady State Only	23/64	9/32	1	20K to 1 Meg	1.65	1.53	1.37
SPECIAL-PURPOSE POTENTIOMETERS																	
High-Power (2-Watt) High- Temperature Wirewound	TRIMPOT	207	100Ω to 100K	L*	0-0.2⑤	±10	2.0	175	25	No⑧	13/16	9/32	1¼	100 to 50K 100K	10.26 11.88	9.50 11.00	8.55 9.90
High-Power (3¾-Watt) Humidity-Proof Wirewound	TRIMPOT	3020	100Ω to 50K	L*	0–0.1⑤	±5	3.75	200	25	Yes	21/64	¼	1¼	100 to 10K 20K - 25K 50K	14.04 15.66 16.20	13.00 14.50 15.00	11.70 13.05 13.50
Dual- Element Wirewound	TWINPOT⑨	209	10Ω to 50K	L*	0–0.2④	±10	0.25 (each element)	105	25	No⑧	5/16	½	1¼	10 to 10K 20K - 25K 50K	12.96 14.58 16.20	12.00 13.50 15.00	10.80 12.15 13.50
High-Power (15-Watt) High- Temperature Wirewound 	TRIMPOT	3030	10Ω to 10K	L	0–5.0	±10	15	265	25	No	1-5/64	33/64	1-17/64	10 to 10K	12.96	12.00	10.80

① Key to terminal types:
L =Insulated stranded leads.
S =Solder lugs (includes 3367S & 3300S, panel mounting bushing only)
P =Printed circuit pins.
W=Uninsulated wires (side mounting 3250, 3251, 3280)

② Franchised local distributors quote factory prices through 500 pieces. Contact factory for prices in higher quantities.

③ The following resistances are standard if they fall within the limits listed: 10, 20, 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K, 25K (wirewound only), 50K, 100K, 200K, 500K, 750K, 1 Meg. Other resistances available on special order.

④ Or 0 to 0.5 ohms, whichever is greater.

⑤ Or 0 to 1.0 ohms, whichever is greater.

⑥ Closer tolerances available on request, except commercial models.

⑦ All models are sealed against sand and dust.

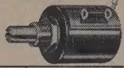
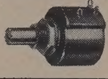
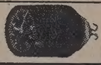
⑧ Humidity-proof version available on special order. Contact factory for part number, price and delivery.

⑨ TRIMPOT, TWINPOT, TRIMIT, and E-Z-TRIM are registered trademarks of Bourns, Inc. Other products made by Bourns, Inc., are identified by trademarks, which include BOURNS, TRIMISTOR®, TRIMM®, KNOBPOT®, SILVERWELD®, RESISTON®, PALIRIUM®, and RESISTALOY®.

BOURNS

BOURNS, INC., TRIMPOT DIVISION
RIVERSIDE, CALIF.

BOURNS PRECISION POTENTIOMETERS

Description	Name	Model	Resistances (Ohms)	Terminals ①	Tolerance (%) ②	Power Rating (Watts)	Max. Oper. Temp. (°C)	Adjustment Turns	Humidity Proof (Mil Specs)	Size (Inches)		Price		
										Dia.	L	1–9	10–24	25–49
TRIMPOT PRECISION POTENTIOMETERS														
10-Turn Bushing Mount Wirewound 	— —	3500	500Ω to 125K	S	±3	2	125	10	Yes③	7/8	1	11.99	11.39	10.79
5-Turn Bushing Mount Wirewound 	— —	3520	200Ω to 75K	S	±3	1.5	125	5	Yes③	7/8	.678	13.50	13.10	12.30
3-Turn Bushing Mount Wirewound	— —	3510	200Ω to 50K	S	±3	1	125	3	Yes③	7/8	.549	14.99	14.24	13.49
10-Turn, ½" Dia. Bushing Mount Wirewound	— —	3700	500Ω to 100K	S	±5	1	125	10	Yes③	1/2	1	24.50	23.28	22.05
Read Out, Wirewound 	KNOBPOT®	3600	1KΩ 100KΩ	S	±5	1.5	85	10	Steady State	3/4	1	20.52	19.00	17.10

① Solder Lugs ② Closer tolerances available ③(A) to order units that meet steady-state humidity, specify standard part numbers 3500S-1-(RC) (RC–Resistance Code).
(B) To order units that meet cycling humidity, specify the special part number 3500S-20-(RC).

KNOBPOT POTENTIOMETER ACCESSORIES

COLORED SNAP-RINGS to color-control panels or impart higher style to equipment design.

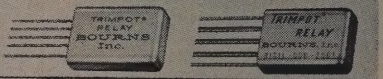
COLORED MIL-SPEC SLIP-OVER KNOBS for function, for style. Standard 1" Mil-Spec diameter.

STAINLESS STEEL SKIRTS for a finishing touch of high-polish attractiveness.

LOCKING DEVICE (BRAKE) to prevent accidental jarring of settings. Easy to install—simply snaps into place between the potentiometer and the panel.

TURNS-COUNTING DIALS/Easy-to-read dials requiring only 1" of panel space are available for all Bourns precision potentiometers except KNOBPOT units, which incorporate their own dials. Locking device optional. Anodized finish, black or clear.

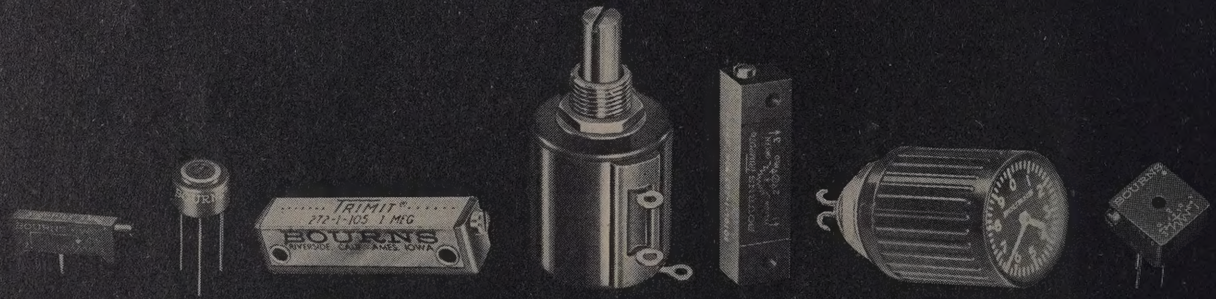
TRIMPOT® RELAYS



Description	Model	Size	Contacts	Contact Rating	Pick-up Sensitivity	Coil Resistances (Ohms)	Nominal Voltages DC	Environmental Specifications	Terminal Styles
Microminiature SPDT	3100	.2x.4x.6"	SPDT	1.0 amp. resistive, 26.5 VDC	100mw	50 to 2000	4.2-26.5	MIL-R-5757D	plug-in pins, solder hook, 1½" straight leads
Microminiature DPDT	3101	.2x.4x.6"	DPDT	1.0 amp. resistive, 26.5 VDC	160mw	65 to 2000	6.0-33.4	MIL-R-5757D	plug-in pins, solder hook, 1½" straight leads

For prices, contact factory

IMMEDIATE DELIVERY, TECHNICAL SERVICE — UNITS STOCKED THROUGHOUT THE WORLD



BOURNS TRIMPOT® POTENTIOMETERS

- THE INDUSTRY'S LARGEST SELECTION OF ADJUSTMENT POTENTIOMETERS
- PRECISION POTENTIOMETERS
- MICROMINIATURE RELAYS

32 Standard Models / 4 Terminal Types / 3 Mounting Styles

Military ■ Industrial ■ Commercial ■ Wirewound ■ RESISTON® Carbon
Rectangular ■ Square ■ Precision Rotary ■ Humidity-Proof ■ High-Temperature ■ Special-Purpose

BOURNS

BOURNS, INC., TRIMPOT DIVISION
RIVERSIDE, CALIF.

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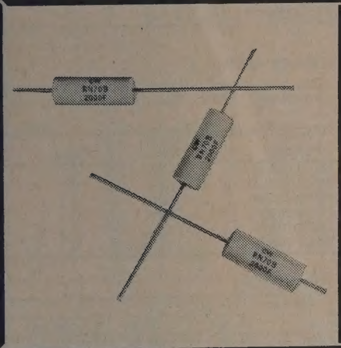
Precision Film Resistors, Potentiometers, Spark Suppressors, Carbon Resistors, Switches and Specialties

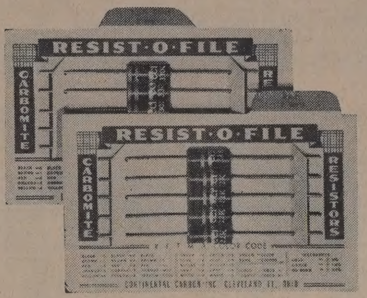
CONTINENTAL WIRT

There's long life and superior performance behind every C-W component —meeting highest quality and reliability standards at a moderate cost.



Molded Deposited Carbon Precision Film Resistors

C-W molded carbon film resistors are designed and manufactured to meet or exceed performance requirements of MIL-R-10509D. Available: ⅛ W. thru 1 W.; 10 ohms thru 50 megohms. Request Bulletin 2023-61.

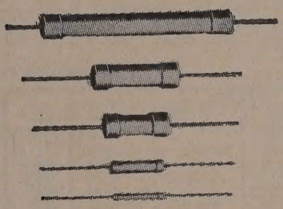


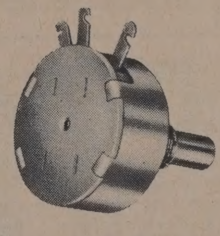
Carbomite Resistors

Insulated fixed composition resistors for replacement and service applications, ¼ thru 2 watts. Available as Type "M" packaged in bulk. Also, Type "MR" consisting of five Type "M" resistors of one resistance value and tolerance mounted on one 3x5 index card, ten cards per package. File drawers and storage cabinets for Type "MR" resistors available. Request Bulletin 2047.

Coated Deposited Carbon Precision Film Resistors

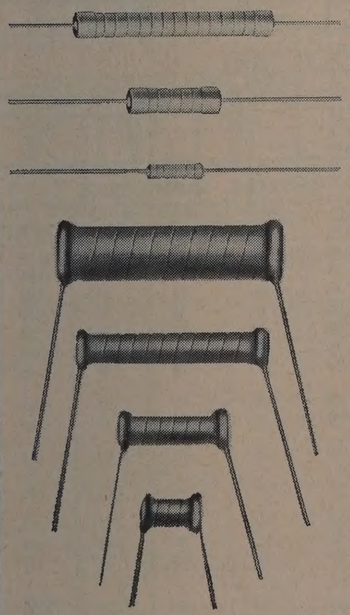
C-W coated deposited carbon film resistors — while being designed and manufactured to meet or exceed characteristic "X" requirements of MIL-R-10509, are more modestly priced than molded resistors. Available: ¼ W. thru 2 W; 10 ohms thru 100 megohms. Request Bulletin 307-A-60.





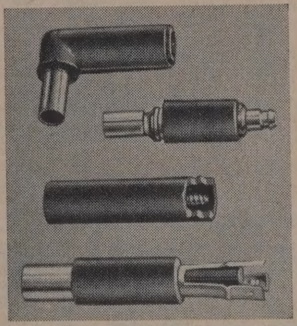
Wire-Wound Controls

Available from ¾" O.D., 1½ watt trimmer control thru 5 watt phenolic housed controls. Available with conventional single or dual element for "L" pad and similar applications. Shafts, bushings, mounting hardware and other features available to meet your specific requirements. Request Bulletin 2009, Drawings F-889, F-890, and E-1000.



Nobeloy and Nobelette Metal Film Precision Resistors

For applications where fine precision and good stability must be complemented with low extremes in resistance range, or, low noise characteristics, at a moderate cost. Metallic resistance element deposited on low loss ceramic core, is protected by rugged vitreous enamel coating. Available: ½ W. thru 5 W.; less than 1 ohm thru 15 megohms. Request Bulletin 302-60.

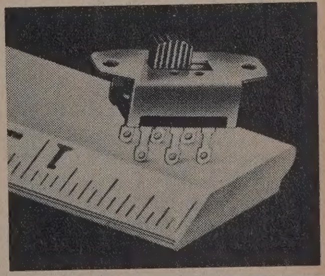


Automotive and Oil Burner Spark Suppressors

For suppression of radio and television noise interference due to ignition spark discharge at plugs and high tension distributor; and due to ignition discharge action of oil burner igniting coil. Complete line of resistive type suppressors. Request Bulletin 125-61.

Slide Switches

Full line of slide switches in current ratings from .5 amp thru 6.0 amps; one pole thru 4 poles; 2 position thru 4 position; detent action or spring return. Also midget "swidget" where space is limited. Request Bulletin 2039 for full technical details.



Your C-W distributor can supply prices, and bulletins mentioned above — also details on the convenient RESIST-O-FILE stocking plan for composition resistors.

CONTINENTAL WIRT

CONTINENTAL WIRT-ELECTRONICS CORP.
Philadelphia 44, Pa. 19144

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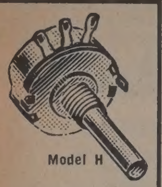
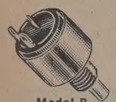
Centralab.

Controls, Attenuators



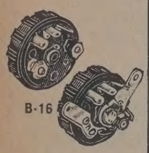
Model H

Model N



Model P

Model T



B-16

SM

HOT-MOLDED CARBON POTENTIOMETERS

Offer greatly increased high voltage stability due to wide clearance between bushing and collector track. Free from contamination of dirt due to elevated resistance track. Exceptionally long noise-free operation.

MODEL 12 (2-WATT) HOT MOLDED POTENTIOMETERS

Centralab RV4 Style Hot Molded Composition Potentiometers are manufactured to meet the requirements of Mil-R-94B. These "HOT MOLDED" Potentiometers offer greatly increased high voltage stability due to wide clearance between bushing and collector track; greater freedom from contamination from dirt due to elevated resistance track and exceptionally long noise-free operation. Completely enclosed construction permits encapsulation or potting without affecting operation. **CERTIFIED TEST DATA AND LOT IDENTIFICATION AVAILABLE UPON REQUEST.**

MODEL—HMP, HMS, HML (RV4 STYLE)

Molded composition resistance element; Rated 2.25 watts @ 70°C, 500 volts. Tolerance ±10% (except (*) which are ±20%) 1 3/32″ diameter, 37/64″ deep; mechanical rotation 312•±3°.

HML SERIES

Shaft ¼″ diameter, full round, stainless steel, screwdriver slot for locking bushing, ⅝″ long from mtg. surface. Bushing ⅜″-32 NEF-2A thd., nickel plated brass, ½″ long locking type. Shipping wt. 4 oz. Linear taper on all units.

Ohms	Catalog No.	MIL Desig.	Ohms	Catalog No.	MIL Desig.
		RV4LAYSA	35K	HML—35K	353A
50	HML—50	500A	50K	HML—50K	503A
100	HML—100	101A	75K	HML—75K	753A
150	HML—150	151A	100K	HML—100K	104A
250	HML—250	251A	150K	HML—150K	
350	HML—350	351A	250K	HML—250K	
500	HML—500	501A	350K	HML—350K	
750	HML—750	751A	500K	HML—500K	
1000	HML—1000	102A	750K	HML—750K *	
1500	HML—1500	152A	1 MEG	HML—1 MEG *	
2500	HML—2500	252A	1.5 MEG	HML—1.5 MEG *	
3500	HML—3500	352A	2 Meg	HML—2 MEG *	
5000	HML—5000	502A	2.5 MEG	HML—2.5 MEG *	
7500	HML—7500	752A	3.5 MEG	HML—3.5 MEG *	
10K	HML—10K	103A	5 MEG	HML—5 MEG *	
15K	HML—15K	153A			
25K	HML—25K	253A			

HML SERIES—INDUSTRIAL NET PRICES

Net Each, Lots of				
1-9	10-24	25-49	50-99	100-249
$2.55	$2.30	$2.13	$1.92	$1.35

HMP SERIES

Shaft ¼″ diameter, full round, stainless steel with screwdriver slot, ⅞″ long from mounting surface. Bushing ⅜″-32 NEF-2A thd. nickel plated brass, ⅜″ long. Linear taper on all units.

Ohms	Catalog No.	MIL Desig.	Ohms	Catalog No.	MIL Desig.
		RV4NAYSE	25K	HMP—25K	253A
50	HMP—50	500A	35K	HMP—35K	353A
100	HMP—100	101A	50K	HMP—50K	503A
150	HMP—150	151A	75K	HMP—75K	753A
250	HMP—250	251A	100K	HMP—100K	104A
350	HMP—350	351A	150K	HMP—150K	
500	HMP—500	501A	250K	HMP—250K	
750	HMP—750	751A	350K	HMP—350K	
1000	HMP—1000	102A	500K	HMP—500K	
1500	HMP—1500	152A	750K	HMP—750K *	
2500	HMP—2500	252A	1 MEG	HMP—1 MEG *	
3500	HMP—3500	352A	1.5 MEG	HMP—1.5 MEG *	
5000	HMP—5000	502A	2 MEG	HMP—2 MEG *	
7500	HMP—7500	752A	2.5 MEG	HMP—2.5 MEG *	
10K	HMP—10K	103A	3.5 MEG	HMP—3.5 MEG *	
15K	HMP—15K	153A	5 MEG	HMP—5 MEG *	

HMS SERIES

Shaft ¼″ diameter, full round, slotted stainless steel. 2½″ long from mtg. surface. Bushing ⅜″-32 NEF-2A thd. nickel plated brass, ⅜″ long, includes mtg. nut and lockwasher. Linear taper on all units.

Ohms	Catalog No.	MIL Designation	Ohms	Catalog No.	MIL Designation
50	HMS—50	RV4NAYSK500A	35K	HMS—35K	353A
100	HMS—100	101A	50K	HMS—50K	503A
150	HMS—150	151A	75K	HMS—75K	753A
250	HMS—250	251A	100K	HMS—100K	104A
350	HMS—350	351A	150K	HMS—150K	
500	HMS—500	501A	250K	HMS—250K	
750	HMS—750	751A	350K	HMS—350K	
1000	HMS—1000	102A	500K	HMS—500K	
1500	HMS—1500	152A	750K	HMS—750K *	
2500	HMS—2500	252A	1 MEG	HMS—1 MEG *	
3500	HMS—3500	352A	1.5 MEG	HMS—1.5 MEG *	
5000	HMS—5000	502A	2 MEG	HMS—2 MEG *	
7500	HMS—7500	752A	2.5 MEG	HMS—2.5 MEG *	
10K	HMS—10K	103A	3.5 MEG	HMS—3.5 MEG *	
15K	HMS—15K	153A	5 MEG	HMS—5 MEG *	
25K	HMS—25K	253A			

HMP & HMS SERIES—INDUSTRIAL NET PRICES

Net Each, Lots of				
1-9	10-24	25-49	50-99	100-249
$1.95	$1.76	$1.63	$1.47	$1.20

¾-WATT COMPOSITION MODEL N

Composition potentiometer rated ¾ watt. Plain round shaft 2½″ long FMS. Tolerance ±10%. Only 23/32″ dia. x ½″ d. behind panel. Bushing ⅜″-32 NEF-2A thread x ⅜″ long.

CRL Number	Resis., Ohms	Taper	CRL Number	Resis., Ohms	Taper
NCP9-501-U	500	C-1	NCP9-104-U	100K	C-1
NCP9-102-U	1000	C-1	NCP9-104-A	100K	C-2
NCP9-252-U	2500	C-1	NCP9-254-U	250K	C-1
NCP9-502-U	5000	C-1	NCP9-254-A	250K	C-2
NCP9-103-U	10K	C-1	NCP9-504-U	500K	C-1
NCP9-103-B	10K	C-3	NCP9-504-A	500K	C-2
NCP9-253-U	25K	C-1	NCP9-105-M*	1 meg.	C-1
NCP9-253-B	25K	C-3	NCP9-105-R*	1 meg.	C-2
NCP9-503-U	50K	C-1	NCP9-255-M*	2.5 meg.	C-1
NCP9-503-B	50K	C-3			

*Tolerance, ±20%.

MIL-R-94B STYLE RV6

½-WATT COMPOSITION MODEL P

Composition ½-watt potentiometer meets MIL-R-94B specifications, Style RV6. Complete sealed shaft and case. Slotted shaft ⅞″ long FMS. Tolerance, ±10%. Only ½″ dia. x 15/32″ d. behind panel. Bushing ¼″-32 NEF-2A thread x ¼″ long.

CRL Number	Resis., Ohms	Taper	CRL Number	Resis., Ohms	Taper
PNS7-501-U	500	C-1	PNS7-503-U	50K	C-1
PNS7-102-U	1000	C-1	PNS7-104-U	100K	C-1
PNS7-252-U	2500	C-1	PNS7-254-U	250K	C-1
PNS7-502-U	5000	C-1	PNS7-504-U	500K	C-1
PNS7-103-U	10K	C-1	PNS7-105-M*	1 meg.	C-1
PNS7-253-U	25K	C-1	PNS7-255-M*	2.5 meg.	C-1

*Tolerance, ±20%.

COMPOSITION TRIMMER MODEL T

Composition trimmer potentiometer rated ⅓ watt with special U-shaped shaft. Extremely resistant to shock, vibration and acceleration. Tolerance, ±20%. Mounts by threaded stud through center of unit. Only 19/32″ dia. x 11/32″ d.

CRL Number	Resis., Ohms	Taper	CRL Number	Resis., Ohms	Taper
TMX0-501-M	500	C-1	TMX0-503-M	50K	C-1
TMX0-102-M	1000	C-1	TMX0-104-M	100K	C-1
TMX0-252-M	2500	C-1	TMX0-254-M	250K	C-1
TMX0-502-M	5000	C-1	TMX0-504-M	500K	C-1
TMX0-103-M	10K	C-1	TMX0-105-M	1 meg.	C-1
TMX0-253-M	25K	C-1	TMX0-255-M	2.5 meg.	C-1

INDUSTRIAL NET PRICES

All Values CRL Type	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
NCP Potentiometers	$2.10	$1.89	$1.75	$1.66	$1.58
PNS Potentiometers	5.10	4.59	4.25	4.04	3.83
TMX Trimmer Pots	2.10	1.89	1.75	1.66	1.58

1/10 WATT CONTROLS

Designed for transistorized hearing aids, miniature radios and similar applications. **Model B16 Miniature:** Can be reduced to ⅝″ dia. by removing knob; with knob is 23/32″. Plain type is stud mounted, using two 1-72NF-2thd. x .140″ studs on .427″ centers. Switch type is bracket mounted. **Model SM Subminiature:** Measures 19/32″ with knob, reduced to .502″ without knob. Mount is standard 0-80NF-2A thd. x .134″ long brass studs on .285″ centers. Switch type only. **Tolerance:** ±20% except Types B16-124, B16-127, B16-128, B16-224, and B16-228, ±30%.

MINIATURE TYPE B16 SERIES

CRL No.		Max. Ohms	Taper	CRL No.		Max. Ohms	Taper
Plain	Switch			Plain	Switch		
B16-107		500	C1	B16-119		50K	C1
B16-109		1000	C1	B16-121		100K	C1
B16-111		2500	C1	B16-123		250K	C1
B16-112	B16-212	2500	C2	B16-118	B16-218	½ meg.	C2
B16-113		5000	C1	B16-120	B16-220	1 meg.	C2
B16-114	B16-214	5000	C2	B16-122	B16-222	2 meg.	C2
B16-115		10000	C1	B16-124	B16-224	3 meg.	C2
B16-116	B16-216	10000	C2	B16-127		5 meg.	C1
B16-117	B16-217	25000	C2	B16-128	B16-228	5 meg.	C2
B16-125		25000	C1				

SUBMINIATURE TYPE SM SERIES

CRL No.	Max. Ohms	Taper	CRL No.	Max. Ohms	Taper
SM2-252-S	2500	C2	SM2-103-S	10000	C2
SM2-502-S	5000	C2	SM2-253-S	25000	C2

INDUSTRIAL NET PRICES

All Models Type	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
B16-107 thru -128	$1.50	$1.35	$1.25	$1.19	$1.13
B16-212 thru -228	2.40	2.16	2.00	1.90	1.80
SM	3.75	3.38	3.13	2.97	2.82

ADASHAFT® SHAFTS, COUPLERS, EXTENSIONS

CRL No.	Description	Net Per Package of 5, Lots of				
		1-9	10-24	25-49	50-99	100-249
AK-1	⅜″ lg. fingertip knurl sd slot	$0.90	$0.81	$0.75	$0.71	$0.68
AK-2	1¾″ lg., .078″ w. slot	.90	.81	.75	.71	.68
AK-7	3″ lg., full lgth. flat	.90	.81	.75	.71	.68
AK-9	¼″ dia., full rd., 3¼″ lg.	.90	.81	.75	.71	.68
AK-10	10″ lg., flat .216″ x 4 5/16″	.90	.81	.75	.71	.68
AK-11	Univ., 4″ lg.	.90	.81	.75	.71	.68
AK-16	Cplr: two ¼″ or ¼″ to a 3/16″ shft.	.90	.81	.75	.71	.68
AK-19	Insul. 2 1/16″ lg.	.90	.81	.75	.71	.68
AK-21	Shft. ext., 4″ lg., ¼″ dia., .218″ flat	.90	.81	.75	.71	.68
AK-22	Shft. ext., 4″ lg., ¼″ dia., .154″ flat	.90	.81	.75	.71	.68
AK-23	Shft. ext., 4″ lg., 3/16″ dia., .172″ flat	.90	.81	.75	.71	.68
AK-24	½″ lg., ¼″ dia., full round	.90	.81	.75	.71	.68
AK-25	½″ lg., ¼″ dia., .218″ flat	.90	.81	.75	.71	.68
AK-26	Auto adptr. bshg. ⅜″-32 to 7/16″-28, 1⅝″ lg.; nuts & lockwasher	.45*	.41*	.38*	.36*	.34*
AK-28	Auto adptr. bshng ⅜″-32 to ½″-28, 2¼″ lg.; nuts & lockwasher	.45*	.41*	.38*	.36*	.34*
AK-29	2 9/16″ lg., .235″ dia., full rd.	.90	.81	.75	.71	.68
AK-30	Ground lug	.45†	.41†	.38†	.36†	.34†
AK-31	Adptr. bshg., ⅜″-32 thrd.; extends to 1″	.45*	.41*	.38*	.36*	.34*
AK-33	.187″ dia. aluminum double grooved shaft	.90	.81	.75	.71	.68
AK-37	Phenolic ⅜″-32 adptr. bush adjusts to 1″	.45*	.41*	.38*	.36*	.34*
AK-38	Twist-Tab Mtg. Plate	.90	.81	.75	.71	.68
AK-39	PC Mtg. Brkt.	.45*	.41*	.38*	.36*	.34*

*Net each. †Per package of 12.

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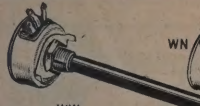
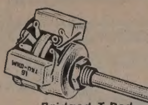
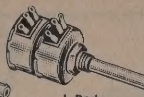
Centralab. Quality Controls

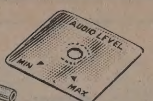

WW

WN

BX

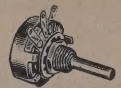

Bridged T-Pad

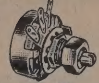

L-Pad



AK-36

KC-10


JMP - JWP


JML, JWL

TT

WIRE-WOUND CONTROLS

5-WATT WIRE-WOUND CONTROLS

Packs 5-watt capacity into a 2-watt size unit; linear taper, 1 13/32″ diam. x 9/16″ deep. Model WW has full round aluminum shaft ¼″ dia. x 3″ long. Model WN has fingertip knurled, slotted shaft ¼″ diam. x ¾″ long. Breakdown, 900 v. AC rms to ground. Specify by using WN or WW as prefix. Shipping Weight, 4 oz.

Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-
1	**010**	25	**250**	400	**401**	7500	**752**
2	**020**	30	**300**	500	**501**	10K	**103**
3	**030**	40	**400**	750	**751**	15K	**153**
4	**040**	50	**500**	1000	**102**	20K	**203**
5	**050**	60	**600**	1500	**152**	25K	**253**
6	**060**	75	**750**	2000	**202**	30K	**303**
8	**080**	100	**101**	2500	**252**	40K	**403**
10	**100**	200	**201**	3000	**302**	50K	**503**
15	**150**	250	**251**	4000	**402**	75K	**753**
20	**200**	300	**301**	5000	**502**	100K	**104**

INDUSTRIAL NET PRICES

Values	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
1 thru 15K	$1.14	$1.03	$0.95	$0.91	$0.86
20K, 25K, 30K	1.50	1.35	1.25	1.19	1.13
40K, 50K	1.80	1.62	1.50	1.43	1.36
75K, 100K	2.46	2.22	2.05	1.95	1.86

L-PAD, T-PAD, AND STEREO ATTENUATORS

Constant impedance L-pads and bridged T-pads provide optimum sound reproduction quality without altering frequency response. Rated 20 watts, audio: 5 watts DC and sine-wave. Breakdown, 900 volts AC rms to ground. Anti-backlash design with force-fit shaft interlock to prevent relative motion between contact springs of front and rear units: assures smooth attenuation in either direction without deterioration. Full round brass shaft, ¼″ dia. x 1⅞″ lg. from mounting surface. Bushing ⅜″ lg. x ⅜″-32 thread with nut and lockwasher; can be extended up to 1″ adding AK-31 or AK-37 adapter bushing. Size: 1 5/32″ dia. x 1 13/64″ behind panel. Complete with AK-36 brushed gold-anodized dial plate and KC-10 black pointer knob with set screw.

L-PAD ATTENUATORS

Controls audio level of speakers in PA, intercom and hi-fi sound systems. Shipping Weight, 5 oz.

CRL No.	Imped. Ohms	CRL No.	Imped. Ohms	CRL No.	Imped. Ohms
WL-4	4	**WL-500**	500	**WL-1250**	1250
WL-8	8	**WL-600**	600	**WL-2000**	2000
WL-16	16	**WL-1000**	1000	**WL-2500**	2500

Any Model—Net Each, Lots of 1-9, **$2.97**; 10-24, **$2.67**; 25-49, **$2.48**; 50-99, **$2.36**; 100-249, **$2.23**.

BRIDGED T-PAD ATTENUATORS

Speaker audio level control and sound mixer control for mikes and other circuits requiring constant impedance between input and output circuits. Shipping Weight, 7 oz.

CRL No.	Imped. Ohms	CRL No.	Imped. Ohms	CRL No.	Imped. Ohms
WDT-4	4	**WDT-16**	16	**WDT-600**	600
WDT-8	8	**WDT-500**	500		

Any Model—Net Each, Lots of 1-9, **$3.57**; 10-24, **$3.21**; 25-49, **$2.98**; 50-99, **$2.83**; 100-249, **$2.68**.

STEREO ATTENUATORS

Designed for installation in standard junction or switch boxes where a conventional four-section L-Pad will not fit. Rated at 10 watts, audio; 5 watts, DC. Same basic construction and appearance as L-Pads. Shipping Weight, 5 oz.

CRL No.	Used with*	Net Each, Lots of				
		1-9	10-24	25-49	50-99	100-249
WST-200	4-ohm speaker	$2.97	$2.67	$2.48	$2.36	$2.23
WST-400	8-ohm speaker	2.97	2.67	2.48	2.36	2.23
WST-800	16-ohm speaker	2.97	2.67	2.48	2.36	2.23

*Can also be used as conventional twin wire-wound controls, linear taper—10% tolerance, 20, 40, and 80 ohms respectively.

ACCESSORIES

CRL No.	Description	Net Each
KC-10	Pkge 5 black set-screw pointer knobs	$0.90
AK-34	4½″ x 2¾″ brushed gold wall-plate	.90
AK-35	4½″ x 2¾″ brushed aluminum wall-plate	.90
AK-36	2″ x 2″ brushed gold dial-plate; pkge. of 5	1.44

MIL-R-94B STYLE RV1
1/5 -WATT COMPOSITION CONTROLS

Meet MIL-R-94B requirements. Element completely enclosed, permitting further sealing or encapsulation. Linear taper. Rated 1/5 watt at 70°C; derate to 0 watt at 120°C. Resistance tolerance, ±10%. Breakdown, 900 volts AC rms to ground at atmospheric pressure. Only 43/64″ dia. **Model JMP:** Stainless steel, screwdriver-slotted shaft ⅛″ dia. x ⅞″ lg. from mounting surface. Left side locating lug. Mechanical rotation. 260° ±3°. Bushing, ¼″-32 NEF-2A threaded x ¼″ lg. from mounting surface; with mounting nut and lockwasher. **Model JML:** Same as above, except shaft is ½″ long from mounting surface and bushing is ⅜″ lg. from mounting surface with shaft-locking nut supplied.

Ohms	Stock Values Model JMP		Stock Values Model JML	
	CRL No.	MIL-R-94B Number	CRL No.	MIL-R-94B Number
500	**JMP-501**	RV1NAXSD501A	**JML-501**	RV1LAXSB501A
1000	**JMP-102**	RV1NAXSD102A	**JML-102**	RV1LAXSB102A
1500	**JMP-152**		**JML-152**	
2500	**JMP-252**	RV1NAXSD252A	**JML-252**	RV1LAXSB252A
5000	**JMP-502**	RV1NAXSD502A	**JML-502**	RV1LAXSB502A
7500	**JMP-752**		**JML-752**	
10K	**JMP-103**	RV1NAXSD103A	**JML-103**	RV1LAXSB103A
10K	**JMP2-103***	RV1NAXSD103C		
25K	**JMP-253**	RV1NAXSD253A	**JML-253**	RV1LAXSB253A
50K	**JMP-503**	RV1NAXSD503A	**JML-503**	RV1LAXSB503A
100K	**JMP-104**	RV1NAXSD104A	**JML-104**	RV1LAXSB104A
250K	**JMP-254**	RV1NAXSD254A	**JML-254**	RV1LAXSB254A
500K	**JMP-504**	RV1NAXSD504A	**JML-504**	RV1LAXSB504A
500K	**JMP2-504***	RV1NAXSD504C		
1 meg.	**JMP-105**	RV1NAXSD105A	**JML-105**	RV1LAXSB105A
2500K	**JMP-255**		**JML-255**	

*Audio taper C2.

MODELS JMP AND JML INDUSTRIAL NET PRICES

All Values CRL Type	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
JMP	$4.20	$3.78	$3.15	$2.52	$2.27
JML	4.50	4.05	3.38	2.70	2.43

NOTE: Items requiring certified test data and government source inspection are special; prices and information supplied upon request.

COMPOSITION SNAP-TITE* CONTROLS

For hidden or rear TV controls, rated ½ watt. Installs simply: Push into mounting hole, turn until locating lugs fit in holes provided; may be used where no locating lugs are needed. Breakdown, 900 v. AC rms to ground. Size: 15/16″ diam. x 7/16″ deep. ¼″ diam. molded plastic shaft ½″ long, knurled and slotted. Linear (C1) taper. *Trademark.

CRL No.	Ohms	Net Each, Lots of				
		1-9	10-24	25-49	50-99	100-249
BX-10	5K	51c	46c	43c	41c	39c
BX-31	50K	51c	46c	43c	41c	39c
BX-40	100K	51c	46c	43c	41c	39c
BX-46	200K	51c	46c	43c	41c	39c
BX-59	500K	51c	46c	43c	41c	39c
BX-69	1 meg.	51c	46c	43c	41c	39c
BX-742	1.5 meg.	51c	46c	43c	41c	39c
BX-75	2 meg.	51c	46c	43c	41c	39c
BX-83	2.5 meg.	51c	46c	43c	41c	39c
BX-84	3 meg.	51c	46c	43c	41c	39c

TYPE "TT" TWIST TAB CONTROLS

For rear service adjust TV controls and other shock hazard uses. U/L Approved. Phenolic shaft ⅜″ lg. from mounting surface, knurled full length; screwdriver slot on either end. Composition element rated ½ watt; 15/16″ dia. x 7/16″ d. Breakdown, 900 v. AC rms to ground. Includes 2″ polyethylene shaft extension. Shipping Weight, 2 oz.

CRL No.	Ohms	CRL No.	Ohms	CRL No.	Ohms	CRL No.	Ohms
TT-2	200	**TT-26**	25K	**TT-60***	500K	**TT-84**	3 meg.
TT-4	500	**TT-31**	50K	**TT-66**	750K	**TT-86**	4 meg.
TT-411	750	**TT-35**	75K	**TT-69**	1 meg.	**TT-87**	5 meg.
TT-511	1500	**TT-40**	100K	**TT-70***	1 meg.	**TT-90**	7½ meg.
TT-8	3000	**TT-46**	200K	**TT-742**	1½ meg.		
TT-10	5000	**TT-50**	250K	**TT-75**	2 meg.		
TT-14	10K	**TT-59**	500K	**TT-83**	2½ meg.		

*C2 taper; all others, C1.

INDUSTRIAL NET PRICES

All Values CRL Type	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
TT Controls	60c	54c	50c	48c	45c

MINIATURE WIRE-WOUND 1½-WATT CONTROLS

Rugged quality for military and industrial uses. Meet MIL-R-19A specifications. Conservatively rated 1½ watts at 40° C; derate to 0 watt at 125° C. Breakdown, 900 volts AC rms at atmospheric pressure. Enclosed resistance element permits further sealing or encapsulation. Resistance tolerance, ±5%. Linear taper. Left side locating lug. Mechanical rotation, 250° ±3°. Only 43/64 ″ dia. With mounting nut and lockwasher. **Model JWP:** Plain type with stainless steel, screwdriver slotted shaft ⅛″ dia. x ⅞″ lg. from mounting surface. Bushing, ¼″-32 NEF-2A threaded x ¼″ long. **Model JWL:** Same, but shaft is 7/16″ lg. from mounting surface and bushing is ⅜″ lg. with shaft locking nut supplied.

Ohms	Model JWP CRL No.	Model JWL CRL No.	Net Each, Lots of				
			1-9	10-24	25-49	50-99	100-249
50	**JWP-500**	**JWL-500**	$6.00	$5.40	$4.50	$3.60	$3.24
100	**JWP-101**	**JWL-101**	6.00	5.40	4.50	3.60	3.24
200	**JWP-201**	**JWL-201**	6.00	5.40	4.50	3.60	3.24
300	**JWP-301**	**JWL-301**	6.00	5.40	4.50	3.60	3.24
500	**JWP-501**	**JWL-501**	6.00	5.40	4.50	3.60	3.24
750	**JWP-751**	**JWL-751**	6.00	5.40	4.50	3.60	3.24
1000	**JWP-102**	**JWL-102**	6.00	5.40	4.50	3.60	3.24
1500	**JWP-152**	**JWL-152**	6.00	5.40	4.50	3.60	3.24
2000	**JWP-202**	**JWL-202**	6.00	5.40	4.50	3.60	3.24
2500	**JWP-252**	**JWL-252**	6.00	5.40	4.50	3.60	3.24
3000	**JWP-302**	**JWL-302**	6.00	5.40	4.50	3.60	3.24
4000	**JWP-402**	**JWL-402**	6.00	5.40	4.50	3.60	3.24
5000	**JWP-502**	**JWL-502**	6.00	5.40	4.50	3.60	3.24
7500	**JWP-752**	**JWL-752**	6.00	5.40	4.50	3.60	3.24
10K	**JWP-103**	**JWL-103**	6.00	5.40	4.50	3.60	3.24
15K	**JWP-153**	**JWL-153**	8.40	7.56	6.30	5.04	4.54
20K	**JWP-203**	**JWL-203**	8.40	7.56	6.30	5.04	4.54
25K	**JWP-253**	**JWL-253**	8.40	7.56	6.30	5.04	4.54
30K	**JWP-303**	**JWL-303**	10.11	9.10	7.59	6.07	5.46

KNOBS FOR SERIES JM and JW

Knobs have pointer, are 11/16″ dia. Specify color desired: KC-3, black; KC-4, white; KC-5, red.

	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
KC Knob	18c	17c	15c	15c	14c

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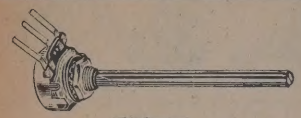
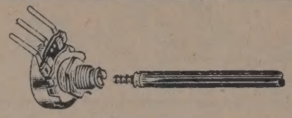
Centralab.

Composition Controls

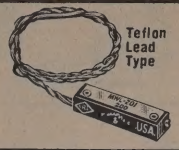
UNIVERSAL AND ADASHAFT® CONTROLS



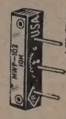
"B" Control



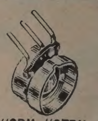
"AB" and Shaft



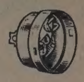
Teflon Lead Type



Printed Circuit Lead Type



"SR", "STR"



"KR"

MODEL "B" SWITCH-TYPE CONTROLS

Universal DPST switch type units. Switch rating: 3A., 125V. AC.

CRL No.	Max. Ohms	Taper	Use For
B-60-S	½ meg.	C2	SPST, DPST or 3-wire
B-70-S	1 meg.	C2	SPST, DPST or 3-wire

SINGLE TAPPED "BT" AND "ABT" CONTROLS

Ohms	Taper	Tap	Type B CRL No.	Type AB CRL No.	Ohms	Taper	Tap	Type B CRL No.	Type AB CRL No.
50,000	C-11	25K	BT-33	ABT-33	½ meg.	C-17	50K‡	BT-62	ABT-62
100,000	C-11	50K	BT-39	ABT-39	1 meg.	C-11	500K	BT-71	ABT-71
200,000	C-11	100K	BT-47	ABT-47	1 meg.	C-12	200K	BT-72	ABT-72
250,000	C-11	125K	BT-53	ABT-53	1 meg.	C-13	300K	BT-73	ABT-73
250,000	C-12	50K	BT-54	ABT-54	1 meg.	C-16	500K*	BT-74	ABT-74
250,000	C-13	75K	BT-55	ABT-55	1 meg.	C-17	100K	BT-7417	ABT-7417
250,000	C-16	125K*	BT-56	ABT-56	2 meg.	C-11	1 meg.	BT-78	ABT-78
350,000	C-12	70K	BT-57	ABT-57	2 meg.	C-12	400K	BT-79	ABT-79
½ meg.	C-11	250K	BT-65	ABT-65	2 meg.	C-13	600K	BT-80	ABT-80
½ meg.	C-12	100K	BT-66	ABT-66	2 meg.	C-15	200K	BT-81	ABT-81
½ meg.	C-13	150K	BT-67	ABT-67	2 meg.	C-16	1 meg.*	BT-82	ABT-82
½ meg.	C-15	50K†	BT-63	ABT-63	3 meg.	C-15	300K†	BT-8515	ABT-8515
½ meg.	C-16	250K*	BT-64	ABT-64	3 meg.	C-17	300K‡	BT-8517	ABT-8517

*62½% rotation. †50% rotation. ‡37½% rotation.

TYPE "KR" FASTATCH® SWITCHES

For Model B, AB, SR and FASTACH II controls.

CRL No.	Use	Amps	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
KR-1	SPST	5	42c	38c	35c	34c	32c
KR-2	DPST	3	51c	46c	43c	41c	39c
KR-3	DP*	3	51c	46c	43c	41c	39c
KR-4	SPST	15#	66c	60c	55c	53c	50c
KR-6	SPST†	15#	66c	60c	55c	53c	50c
KR-7	DPST	15#	66c	60c	55c	53c	50c
KR-8	SPST**	5	60c	54c	50c	48c	45c

*One pole "off," one "on;" can be used for SPDT. †With dummy lug. #10 v. DC switches; all others 125 v. AC. **Push-pull.

DESCRIPTION OF TAPERS

C-1—Linear; uniform resistance change from either end. **C-2**—Semi-log, (audio) 10% center. **C-3**—Right hand semi-log. Reversed C-2. **C-4**—Modified log, 20% center. **C-5**—Right hand mod. log. Reversed C-4. **C-6**—Mod. log., 40% center. **C-7**—Symet. straight line; slow change. **C-11**—Tapped 50% rotation, 50% resis. **C-12**—Tapped 37½% rotation, 20% resis. **C-13**—Tapped 50% rotation, 30% resistance. **C-14**—Tapped 62% rotation, 30% resistance. **C-15**—Tapped 50% rotation, 10% resistance. **C-16**—Tapped 62% rotation, 50% resistance. **C-17**—Tapped 37½% rotation, 10% resistance.

DUAL TAPPED "BT" AND "ABT" CONTROLS

Ohms	Taps	Type B CRL No.	Type AB CRL No.
15,000	5K and 10K	BT-154	ABT-154
250,000	50K and 125K	BT-155	ABT-155
250,000	41K and 82K	BT-156	ABT-156
½ meg.	82K and 165K	BT-159	ABT-159
½ meg.	100K and 250K	BT-160	ABT-160
1 meg.	165K and 330K	BT-164	ABT-164
1 meg.	200K and 500K	BT-165	ABT-165
1.5 meg.	250K and 500K	BT-167	ABT-167
2 meg.	250K and 500K	BT-174	ABT-174
2 meg.	400K and 1 meg.	BT-175	ABT-175
2.5 meg.	300K and 625K	BT-176	ABT-176
3.3 meg.	330K and 1650K	BT-180	ABT-180

INDUSTRIAL NET PRICES

All Values Type	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
B Plain	$1.02	$0.92	$0.85	$0.81	$0.77
AB Plain	.84	.76	.70	.67	.63
B Switch	1.44	1.30	1.20	1.14	1.08
BT Tapped	1.35	1.22	1.13	1.07	1.02
ABT Tapped	1.26	1.14	1.05	1.00	.95
KR-5 Sw. Shield*	.72	.65	.60	.57	.54

*Priced per package of 5; for use with switch type units only, where AC shielding is needed or specified by U/L.

"SR" AND "STR" ADD-ON CONTROLS

Snap-on rear units provide ganged twin controls for stereo applications. Added to "B" or "AB" controls. Convert to switch type by using snap-on "KR" Fastatch® switches.

TYPE SR

CRL No.	Ohms	Taper	CRL No.	Ohms	Taper
SR-4	500	C-1	SR-59	500K	C-1
SR-6	2000	C-1	SR-60	500K	C-2
SR-13	7500	C-1	SR-613	500K	C-3
SR-26	25K	C-1	SR-58	500K	C-4
SR-25	25K	C-2	SR-617	500K	C-7
SR-31	50K	C-1	SR-69	1 meg.	C-1
SR-32	50K	C-2	SR-70	1 meg.	C-2
SR-323	50K	C-3	SR-68	1 meg.	C-5
SR-40	100K	C-1	SR-75	2 meg.	C-1
SR-41	100K	C-2	SR-76	2 meg.	C-2
SR-42	100K	C-3	SR-84	3 meg.	C-1
SR-50	250K	C-1	SR-85	3 meg.	C-2
SR-51	250K	C-2	SR-87	5 meg.	C-1
SR-513	250K	C-3	SR-88	5 meg.	C-2

TYPE STR TAPPED

CRL No.	Ohms	Taper, Tap	CRL No.	Ohms	Taper, Tap
STR-53	250K	C-11,125K	STR-82	2 meg.	C-16, 1 meg.
STR-56	250K	C-16,125K	STR-159	500K	82K & 165K
STR-65	500K	C-11,250K	STR-160	500K	100K & 250K
STR-66	500K	C-16,250K	STR-167	1.5 meg.	250K & 500K
STR-64	500K	C-12,100K	STR-174	2 meg.	250K & 500K
STR-71	1 meg.	C-11,500K	STR-175	2 meg.	400K & 1 meg.
STR-74	1 meg.	C-16,500K	STR-180	3.3 meg.	330K & 1650K

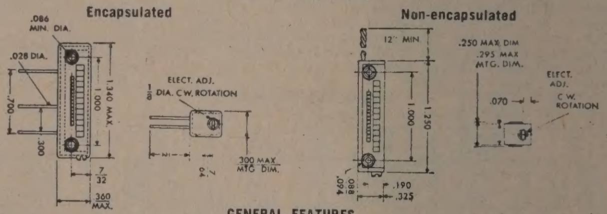
INDUSTRIAL NET PRICES

All Values Type	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249
SR "Add-ons"	$1.14	$1.03	$0.95	$0.91	$0.86
STR Tapped	1.14	1.03	.95	.91	.86

MODEL 7 MINIATURE LINEAR MOTION VARIABLE RESISTORS

Unique design of contact arm, wiper carriage and constant torque adjustment screw result in electrically stable, smooth, noise-free unit. Capable of operating under the most severe commercial or military requirements. Assembled under a microscope. Custom adjusted to guarantee no contact bounce when subjected to vibration test of 20-2000 cps at 10G for 10 minutes in each of three planes. Constant quality vigilance from raw stock to final testing guarantees reliability under adverse environments. Reliability in excess of the highest current military specifications, MIL-STD-202A and MIL-R-94B. Used since 1956 for airborne guidance and other military applications. Now available for a wide range of commercial uses.

PHYSICAL DIMENSIONS



Encapsulated

Non-encapsulated

GENERAL FEATURES

Insulation Resistance: 5000 megs min. at 500 v. DC at 25° C and less than 50% RH. **Dielectric Strength:** 1000 v. rms at sea level at 3.4" Hg, 350 v. rms at 50,000 feet for 1 minute. **Stop Strength:** 15 in.-oz. **Temperature Cycling:** No discontinuity or permanent resistance change of more than 5%, −55° C to 85° C. Method 102, Condition A. **No. of Turns:** 25, screw adjustment. **Volume:** .11 cu. in. component density. **Weight:** 16 oz. average, including three 12" leads.

CRL Type	Description	Terminals	Resistance Range	Max. End Resis.	Power Watts	Max. Oper. Temp.	Tol.	Size, Inches H. x W. x L.
GCL	Gen. Purpose Composition	Teflon'' leads	10K ohms-2.5 meg.	1% of total	0.25 at 50° C	+125° C	±20%	5/16x ¼x1¼
GCP	Gen. Purpose Composition	P-C leads	10K ohms-2.5 meg.	1% of total	0.25 at 50° C	+125° C	±20%	5/16x ¼x1¼
GWL	Gen. Purpose Wire-wound	Teflon'' leads	10-20K ohms	1% of total	0.25 at 50° C	+125° C	±10%	5/16x ¼x1¼
GWP	Gen. Purpose Wire-wound	P-C leads	10-20K ohms	1% of total	0.25 at 50° C	+125° C	±10%	5/16x ¼x1¼
MWL*	High Temp. Wire-wound	Teflon'' leads	10-20K ohms	1% of total	1 at 70° C	+175° C	±10%	23/64x19/64x1 11/32
MWP*	High Temp. Wire-wound	P-C leads	10-20K ohms	1% of total	1 at 70° C	+175° C	±10%	23/64x19/64x1 11/32

*Encapsulated humidity-proof types. ''Registered Dupont Trademark.

TYPES GCL, GCP GENERAL PURPOSE COMPOSITION UNITS

Type GCL: Has stranded teflon leads. **Type GCP:** Has printed circuit leads.

Centralab No. Leads Teflon	P-C	Resis., Ohms	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249	250-499	500-999
GCL-103	GCP-103	10K	$4.86	$4.50	$4.05	$3.85	$3.60	$3.42	$3.24
GCL-203	GCP-203	20K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-503	GCP-503	50K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-104	GCP-104	100K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-204	GCP-204	200K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-504	GCP-504	500K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-105	GCP-105	1 meg.	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GCL-255	GCP-255	2.5 meg.	4.86	4.50	4.05	3.85	3.60	3.42	3.24

TYPES GWL, GWP GENERAL PURPOSE WIRE-WOUND UNITS

GWL-100	GWP-100	10	$4.86	$4.50	$4.05	$3.85	$3.60	$3.42	$3.24
GWL-200	GWP-200	20	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-500	GWP-500	50	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-101	GWP-101	100	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-201	GWP-201	200	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-501	GWP-501	500	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-102	GWP-102	1000	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-202	GWP-202	2000	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-502	GWP-502	5000	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-103	GWP-103	10K	4.86	4.50	4.05	3.85	3.60	3.42	3.24
GWL-203	GWP-203	20K	6.48	6.00	5.40	5.13	4.80	4.56	4.32

TYPES MWL, MWP ENCAPSULATED, HIGH TEMPERATURE WIRE-WOUND UNITS

MWL-100	MWP-100	10	$7.56	$7.00	$6.30	$5.98	$5.60	$5.32	$5.04
MWL-200	MWP-200	20	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-500	MWP-500	50	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-101	MWP-101	100	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-201	MWP-201	200	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-501	MWP-501	500	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-102	MWP-102	1000	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-202	MWP-202	2000	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-502	MWP-502	5000	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-103	MWP-103	10K	7.56	7.00	6.30	5.98	5.60	5.32	5.04
MWL-203	MWP-203	20K	9.18	8.50	7.65	7.27	6.80	6.46	6.12

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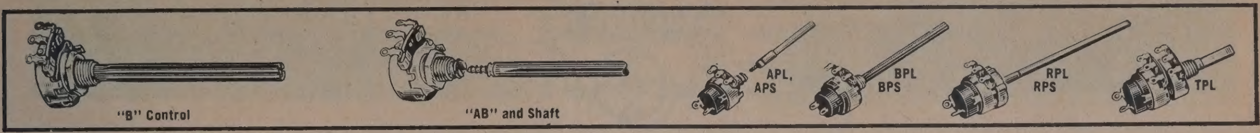
Centralab.

Controls and Accessories


"B" Control

"AB" and Shaft

FASTATCH® II PLAIN TYPE CONTROLS

Complete exact replacement control coverage for dual concentric single or tandem twins. Snap together assembly, with snap in, permanent locking shafts. Controls are carbon, ½ watt, 1⁵⁄₁₆" dia. Rear control ⅞" deep. Front control 7⁄16" deep, bushing mtd. ¼" 1. x .32 thd. Supplied with mtg. nut and universal terminals replacing printed circuit, wire-wrap and hole type terminals. Shafts and switches not included. Anti-backlash construction on duals and twins.
CRL Fastatch® II Dual Controls—Front or rear unit plain. Net Each 90c

Number preceding dash (-) indicates taper. Number after dash (-) indicates number of ohms in resistance.

CRL No.		CRL No.		CRL No.	
Front Unit	**Rear Unit**	**Front Unit**	**Rear Unit**	**Front Unit**	**Rear Unit**
F1-100	R1-100	F5-10K	R5-10K	F1-1MEG	R1-1MEG
F1-200		F1-15K		F2-1MEG	R2-1MEG
F1-300		F1-25K	R1-25K	F3-1MEG	R3-1MEG
F1-500	R1-500	F2-25K	R2-25K	F7-1MEG	R7-1MEG
F4-500		F1-50K	R1-50K	F1-1.5MEG	R1-1.5MEG
F5-500		F2-50K	R2-50K	F1-2MEG	R1-2MEG
F1-750		F3-50K	R3-50K	F2-2MEG	R2-2MEG
F5-750	R5-750	F1-75K	R1-75K	F3-2MEG	R3-2MEG
F1-1000	R1-1000	F1-100K	R1-100K	F7-2MEG	R7-2MEG
F5-1000	R5-1000	F2-100K	R2-100K	F1-2.5MEG	R1-2.5MEG
F1-1500	R1-1500	F3-100K	R3-100K	F1-3MEG	R1-3MEG
F5-1500	R5-1500	F1-150K	R1-150K	F2-3MEG	R2-3MEG
F1-2500	R1-2500	F1-200K	R1-200K	F3-3MEG	R3-3MEG
F2-2500		F1-250K	R1-250K	F1-4MEG	
F5-2500	R5-2500	F2-250K	R2-250K	F1-5MEG	R1-5MEG
F1-5000	R1-5000	F3-250K	R3-250K	F2-5MEG	R2-5MEG
F2-5000	R2-5000	F1-500K	R1-500K	F3-5MEG	R3-5MEG
F5-5000		F2-500K	R2-500K	F7-5MEG	R7-5MEG
F1-7500	R1-7500	F3-500K	R3-500K	F1-7.5MEG	R1-7.5MEG
F1-10K	R1-10K	F7-500K	R7-500K	F1-10MEG	R1-10MEG
F2-10K	R2-10K	F1-750K	R1-750K		

CRL FASTACH® II Single Tap Controls—Net Each $1.26

CRL No.			CRL No.		
Front Unit	**Rear Unit**	**Tap**	**Front Unit**	**Rear Unit**	**Tap**
F51-750		500	F11-1MEG	R11-1MEG	500K
	R14-7500	2500	F12-1MEG	R12-1MEG	200K
F51-2000		1500	F14-1MEG	R14-1MEG	300K
F52-2500		625	F16-1MEG	R16-1MEG	500K
F51-30K		20K	F17-1MEG	R17-1MEG	100K
F53-30K		10K	F11-2MEG	R11-2MEG	1 meg.
F11-250K	R11-250K	125K	F12-2MEG	R12-2MEG	400K
F14-250K	R14-250K	75K	F14-2MEG	R14-2MEG	600K
F16-250K	R16-250K	125K	F16-2MEG	R16-2MEG	1 meg.
F11-500K	R11-500K	250K	F17-2MEG	R17-2MEG	200K
F12-500K	R12-500K	100K	F16-3MEG	R16-3MEG	1.5 meg.
F14-500K	R14-500K	150K	F54-3MEG	R54-3MEG	900K
F16-500K	R16-500K	250K			
F17-500K	R17-500K	50K			

CRL Fastatch® II Dual Tap Controls—Net Each $1.26

Front Unit	Rear Unit	Taps, Ohms
F60-2000		250Ω and 500Ω
F55-15K		5K and 10K
F56-500K	R56-500K	100K and 250K
F55-1MEG	R55-1MEG	350K and 620K
F56-1MEG	R56-1MEG	200K and 500K
F57-1.5MEG	R57-1.5MEG	250K and 500K
F56-2MEG	R56-2MEG	400K and 1 meg.
F58-2MEG	R56-2MEG	250K and 500K
F59-3.3MEG	R59-3.3MEG	330K and 1650K

FASTATCH® II SHAFTS

Front (sleeve): FFS—Flatted and slotted; **FS**—Double slot; **FK**—Knurled; **FU**—Universal, flatted and slotted.
Any Model—Net Each 27c

CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.
FFS008	.5	FFS106	1.375	FFS204	2.250	FFS304	3.250	FS109	1.562
FFS009	.562	FFS107	1.437	FFS205	2.312	FFS306	3.375	FS113	1.812
FFS010	.625	FFS108	1.5	FFS206	2.375	FFS308	3.500	FS200	2.000
FFS011	.687	FFS109	1.562	FFS207	2.437	FFS310	3.625	FS204	2.250
FFS012	.750	FFS110	1.625	FFS208	2.500	FFS312	3.750	FS212	2.750
FFS013	.812	FFS111	1.687	FFS209	2.562	FFS314	3.875	FSP014	.875
FFS014	.875	FFS112	1.75	FFS210	2.625	FFS400	4.000	FSP111	1.687
FFS015	.937	FFS113	1.812	FFS211	2.687	FFS402	4.125	FK008	.500
FFS100	1.000	FFS114	1.875	FFS212	2.750	FFS404	4.250	FK010	.625
FFS101	1.062	FFS115	1.937	FFS213	2.812	FS006	.375	FK013	.812
FFS102	1.125	FFS200	2.000	FFS214	2.875	FS010	.625	FK101	1.062
FFS103	1.187	FFS201	2.062	FFS215	2.937	FS015	.937	FK105	1.312
FFS104	1.250	FFS202	2.125	FFS300	3.000	FS101	1.062	FK112	1.750
FFS105	1.312	FFS203	2.187	FFS302	3.125	FS107	1.437	FU404	4.250

Rear (inner shaft): RFS—Flatted and slotted; **RK**—Knurled; **RP**—Push-Pull, flatted & slotted, .187" dia.; **RPU**—Push-Pull, universal, flatted & slotted, .187" dia.; **RU**—Universal. Single Controls (solid shaft): **SS**—Slotted, .25" dia., steel; **SN**—Same as SS, nylon; **SK**—Slotted and knurled, .25" dia., steel; **SFS**—Flatted and slotted, .187" dia., steel; **SU**—Universal, steel. Tandem Twin (solid shaft, .187" dia.): **TU**—Universal, steel; **TFS**—Flatted and slotted.
Any Model—Net Each 27c

No. RFS	Lgth. In.	No. RFS	Lgth. In.	No. RFS	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.
014	.875	112	1.750	210	2.625	RFS311	3.687	RK203	2.187	RP213	2.812
015	.937	113	1.812	211	2.687	RFS314	3.875	RK205	2.312	RP215	2.937
100	1.000	114	1.875	212	2.750	RFS400	4.000	RK206	2.375	RPU408	4.500
101	1.062	115	1.937	213	2.812	RFS404	4.250	RK207	2.437	RU413	4.812
102	1.125	200	2.000	214	2.875	RFS407	4.437	RP111	1.687	SFS212	2.75
103	1.187	201	2.062	215	2.937	RFS413	4.812	RP113	1.812	SK010	.625
104	1.250	202	2.125	300	3.000	RK012	.750	RP114	1.875	SN010	.625
105	1.312	203	2.187	301	3.062	RK014	.875	RP200	2.00	SN104	1.250
106	1.375	204	2.250	302	3.125	RK100	1.000	RP202	2.125	SS006	.375
107	1.437	205	2.312	303	3.187	RK104	1.250	RP204	2.250	SS008	.500
108	1.500	206	2.375	304	3.250	RK106	1.375	RP205	2.312	SU204	2.250
109	1.562	207	2.437	306	3.375	RK109	1.562	RP207	2.437	SU308	3.500
110	1.625	208	2.500	307	3.437	RK110	1.625	RP209	2.562	SU500	5.000
111	1.687	209	2.562	309	3.562	RK114	1.875	RP211	2.687	TU304	3.250
										TFS212	2.750

PUSH-PULL, PUSH-PUSH SWITCH CONTROLS

Switch type controls for radio, TV and hi-fi applications. Rated ½ watt, breakdown 900 v. AC rms to ground. Switch rated 3 amps, 125 v. AC; SPST type. Size 1⁵⁄₁₆" dia. x 2⁹⁄₃₂" deep, push-push type; 1³⁄₁₆ deep, push-pull type. Mount using ⅜" lg. x ⅜"-32 threaded bushing with mounting nut except Fastatch types RPL and RPS.

ADASHAFT® TYPE

Any Model $1.44

UNIVERSAL SHAFT

Any Model .... Net Each $1.53

Resis., Ohms	Taper	CRL Number		Resis., Ohms	Taper	CRL Number	
		Push-Pull	**Push-Push**			**Push-Pull**	**Push-Push**
2500	C2	APL-702		2500	C2	BPL-702	
250K	C2		APS-51	250K	C2		BPS-51
500K	C1	APL-59		500K	C1	BPL-59	
500K	C2	APL-60		500K	C2	BPL-60	
500K	*	APL-91		500K	*	BPL-91	
500K	÷	APL-64		500K	÷	BPL-64	
500K	‡	APL-159		500K	‡	BPL-159	
1 meg.	C2	APL-70		1 meg.	C2	BPL-70	
1 meg.	C7	APL-697	APS-697	1 meg.	C7	BPL-697	BPS-697
1 meg.	*	APL-72		1 meg.	*	BPL-72	
1 meg.	§	APL-74		1 meg.	§	BPL-74	
2 meg.	C2	APL-76	APS-76	2 meg.	C2	BPL-76	BPS-76
2 meg.	#	APL-82		2 meg.	#	BPL-82	

*37% tap, 200K, ÷62% tap, 250K. ‡37% tap, 82K; 62% tap, 165K. §62% tap, 500K. #62% tap, 1 meg.

FASTATCH® TYPE

Any Model—Net Each $1.74

TWIN TYPE

Any Model—Net Each $2.67

Resis., Ohms	Taper	CRL Number		Resis., Ohms	Taper	Push-Pull	CRL No.
		Push-Pull	**Push-Push**				**Push-Push**
500K	C2	RPL-41		250K		88K, 155K	TPL-101
500K	÷	RPL-44		500K	C1		TPL-102
500K	‡	RPL-46		500K		82K, 165K	TPL-103
1 meg.	C2	RPL-52	RPS-52	1 meg.	C1		TPL-104
1 meg.	§	RPL-57	RPS-57	1 meg.	C2		TPL-105
2 meg.	C1	RPL-67	RPS-67	5 meg.	C2		TPL-106
2 meg.	C2	RPL-68	RPS-68	500K	*		TPL-107
2 meg.	#	RPL-75	RPS-75				
3 meg.		RPL-80					

*Front, C2; rear, C3. ÷37% tap, 100K. ‡62% tap, 250K. §37% tap, 200K. #62% tap, 1 meg. •62% tap, 1.5 meg.

5-WATT WIRE-WOUND FRONT SECTION CONTROLS

5-Watt WW Fastatch Front Units—Taper, C-1, 1³⁄₃₂" diameter. Net Each $1.35

CRL No.	Max. Ohms	CRL No.	Max. Ohms	CRL No.	Max. Ohms
FW-250	250	FW-1000	1000	FW-2500	2500
FW-300	300	FW-1500	1500	FW-3000	3000
FW-500	500	FW-2000	2000	FW-5000	5000
FW-750	750	FW-2250	2250	FW-10K	10K

MODELS "B" AND "AB" CONTROLS

Model B and AB controls are rated at ½ watt. **Size:** 1⁵⁄₁₆" diameter, 7⁄16" deep. **Breakdown:** 900 v. AC rms to ground. Mounting: ⅜" long ⅜"-32 thread bushing; equipped with mounting nut. Any model converts easily to switch type by merely snapping on "KR" switch. **Model B Shaft:** ¼" dia. x 3⅜" long from mtg. surface. Universal fluted knurled type; fits split knurl, shallow flat, deep flat, slotted, or round applications. **Model AB Shaft:** Patented stub, screwdriver slot shaft 9⁄16" from mtg. surface. May be extended by adding AK shafts (on another page). Type KR switches may be snapped on B & AB controls. Shpg. Wt., 3 oz.

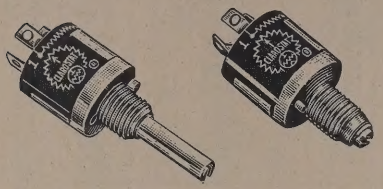
B AND AB CONTROLS—INDUSTRIAL NET PRICES

	Net each, Lots of				
	1-9	**10-24**	**25-49**	**50-99**	**100-249**
B plain	$1.02	$.92	$.85	$.81	$.77
AB plain	.84	.76	.70	.67	.63

Ohms	Taper	Specify No. B- or AB-	Ohms	Taper	Specify No. B- or AB-	Ohms	Taper	Specify No. B- or AB-	Ohms	Taper	Specify No. B- or AB-
100	C-1	1	10,000	C-4	18	100,000	C-1	40	1 meg.	C-5	68
200	C-1	2	10,000	C-5	17	100,000	C-2	41	1 meg.	C-7	697
500	C-1	4	10,000	C-6	16	150,000	C-1	43	1.5 meg.	C-1	742
750	C-5	415	15,000	C-5	19	150,000	C-2	44	2 meg.	C-1	75
1,000	C-1	5	15,000	C-6	20	200,000	C-1	46	2 meg.	C-2	76
1,000	C-5	505	20,000	C-1	22	250,000	C-1	50	2 meg.	C-5	77
1,500	C-5	515	20,000	C-5	23	250,000	C-2	51	2.5 meg.	C-1	83
2,000	C-1	6	20,000	C-6	24	250,000	C-5	52	3 meg.	C-1	84
2,500	C-1	7	25,000	C-1	26	500,000	C-1	59	3 meg.	C-2	85
2,500	C-2	702	25,000	C-2	25	500,000	C-2	60	3 meg.	C-5	855
2,500	C-5	705	25,000	C-4	29	500,000	C-3	613	4 meg.	C-1	86
3,000	C-1	8	25,000	C-5	27	500,000	C-4	58	4 meg.	C-2	862
4,000	C-1	9	25,000	C-6	28	500,000	C-5	61	5 meg.	C-1	87
5,000	C-1	10	50,000	C-1	31	500,000	C-6	616	5 meg.	C-2	88
5,000	C-2	11	50,000	C-2	32	500,000	C-7	617	7 meg.	C-7	89
5,000	C-5	12	50,000	C-5	34	750,000	C-1	66	7.5 meg.	C-1	90
7,500	C-1	13	75,000	C-1	35	1 meg.	C-1	69	10 meg.	C-1	98
10,000	C-1	14	75,000	C-5	36	1 meg.	C-2	70			
10,000	C-2	15				1 meg.	C-4	744			

SERIES 57M & 57EJ

½″ Single Turn Potentiometers

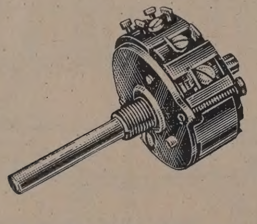


High performance potentiometer packaged in a ½″ diameter housing. Quality construction throughout. Available in two models; Series 57M rated at 1.5 watts at 40°C and Series 57EJ rated at 2 watts at 70°C. The high-temperature Series 57EJ features glass-sealed terminals. Both units are corrosion resistant.

SERIES 57M & 57M9 Stock Values	SERIES 57EJA & 57EJB Stock Values	Resistance Ohms	Resolution 100/Total Turns
50 Ω	50 Ω	50,000	0.16%
100 Ω	100 Ω	20,000	0.19%
200 Ω	200 Ω	10,000	0.26%
500 Ω	500 Ω	5,000	0.30%
1000 Ω	1000 Ω	1,000	0.35%
5000 Ω	5000 Ω	500	0.45%
10,000 Ω	10,000 Ω	200	0.58%
20,000 Ω	20,000 Ω	100	0.70%
50,000 Ω	50,000 Ω	50	0.91%

SERIES 42-900

High Versatility Single-Turn Potentiometer



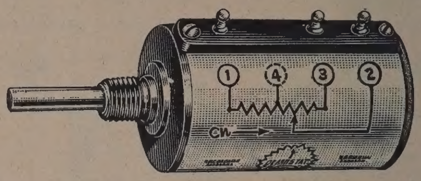
Used and approved by the millions in all types of applications ranging from ultra-critical military systems to ultra-dependable hard-working industrial equipment. Extra tap affords greater electrical versatility. Shaft extension through rear of unit permits addition of switching or other functions actuated by single shaft.

Stock Values	***Terminal Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	± 0.25%	.053%	± .00002 Ω/Ω/°C
50,000	± 0.25%	.056%	± .00002 Ω/Ω/°C
20,000	± 0.25%	.105%	± .00002 Ω/Ω/°C
10,000	± 0.25%	.125%	± .00002 Ω/Ω/°C
5,000	± 0.25%	.167%	± .00002 Ω/Ω/°C
2,500	± 0.25%	.148%	± .00002 Ω/Ω/°C
1,000	± 0.25%	.191%	± .00002 Ω/Ω/°C
500	± 0.50%	.174%	.00017 Ω/Ω/°C
100	± 0.50%	.351%	.00017 Ω/Ω/°C
50	± 0.50%	.435%	.00017 Ω/Ω/°C

***Terminal Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the actual effective rotation.

SERIES 59-14JA

10-Turn Precision Potentiometers

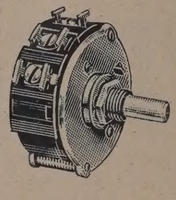


An advanced multi-turn potentiometer offering greater winding length and resolution for its diameter. Fits all standard multi-turn read-out indicators. Extra-long bushing to meet all mounting needs. Extra precise mechanical design and construction combined with tight electrical tolerances provides high degree of accuracy in quantitative functions.

SERIES 59-14JA Stock Values	Resistance Ohms	Resolutions 100/Total Turns
500 Ω	100,000	.009%
1000 Ω	50,000	.010%
2000 Ω	30,000	.014%
5000 Ω	20,000	.015%
10,000 Ω	10,000	.018%
20,000 Ω	5,000	.025%
30,000 Ω	2,000	.023%
50,000 Ω	1,000	.029%
100,000 Ω	500	.024%

SERIES 42JA

Single Turn Potentiometer



All the same fine qualities and performance tolerances of the Series 42-900, with the exception of the additional tap, and shaft extension. The ideal unit for extra-dependable potentiometer requirments.

Stock Values	***Absolute Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	± 0.5%	.051%	± .00002 Ω/Ω/°C
50,000	± 0.5%	.074%	± .00002 Ω/Ω/°C
20,000	± 0.5%	.10%	± .00002 Ω/Ω/°C
10,000	± 0.5%	.12%	± .00002 Ω/Ω/°C
5,000	± 0.5%	.17%	± .00002 Ω/Ω/°C
2,500	± 0.5%	.14%	± .00002 Ω/Ω/°C
1,000	± 0.5%	.19%	± .00002 Ω/Ω/°C
500	± 0.5%	.18%	.00017 Ω/Ω/°C
100	± 1.0%	.28%	.00017 Ω/Ω/°C
50	± 1.0%	.35%	.00017 Ω/Ω/°C

***Absolute Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the theoretical effective rotation.

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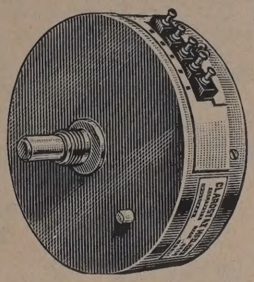
SERIES 54-48JA

3″ Dia. Vari/Phase Single Turn Potentiometer

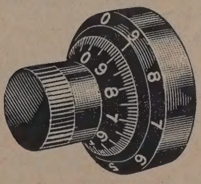


Permits external phasing of electrical rotation to mechanical rotation. Ultra precise unit for professional use. Exclusive Clarostat design eliminates bulky, hard-to-adjust clamping rings. Anodized aluminum housings for minimum weight. Widely used in aircraft instrumentation.

Stock Values	Resolution 100/Total Turns
250,000	.023%
100,000	.031%
50,000	.040%
10,000	.061%
1,000	.083%

CLARODIALS

Ten-Turn Concentric Scale Dials

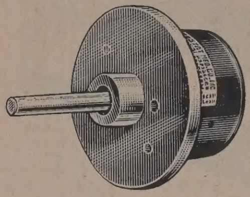


Calibrated dials designed for multi-turn potentiometers up to 10 turns or other rotary devices. CLARODIALS require only one inch of panel space. The knob attaches directly to the shaft, and the body of the dial is mounted rigidly to the panel. As a result, accurate readings with a ratio 1000:1 for ten turns are provided with zero backlash and no reading error. CLARODIALS are made of anodized aluminum for years of attractive use. Mounting requirements are ¼″ shaft and ⅜″-32 NEF-2A bushing. Adapters for ⅛″ dia. shafts are available.

Cat. No.	Description
411	Commercial 10 turn, black anodize ¼″ shaft, no lock
412	Commercial 10 turn, black anodize ¼″ shaft, with lock
461	Commercial 10 turn, clear anodize ¼″ shaft, no lock
462	Commercial 10 turn, clear anodize ¼″ shaft, with lock

SERIES SC42-970 SINE-COSINE

Single-Turn Potentiometer



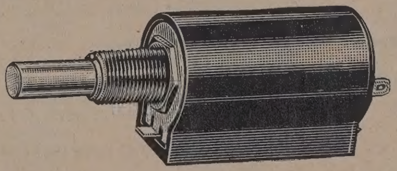
Used in radar, computer and servomechanisms, or any application requiring two output voltages accurately proportioned to the sine and cosine rotation angle. Due to functional use, units are designed and built for exceptionally long rotational life.

SPECIFICATIONS

FUNCTION: Sine-Cosine.
TOTAL RESISTANCE: 16,000 Ω ± 10%.
POWER RATING: 2.46 watts @ 40°C.
(198 volts R.M.S.)
ROTATION: (Eff., Elec., Mech) 360° (Cont.)
MAXIMUM SPEED
RECOMMENDED: 30 RPM (20 gm. contact pressure)
EXPECTED LIFE: 500,000 Cycles.
RESOLUTION: 0.14% maximum of peak to peak voltage.
CONFORMITY: Standard, ± 1% peak to peak voltage.
(Available, ± ½% peak to peak voltage.
Not stocked — must be ordered special price and information on request.)
SHAFT TORQUE: 1 oz. in.
WEIGHT: 6 oz.

SERIES 62JA

Commercial Multi-turn Potentiometer

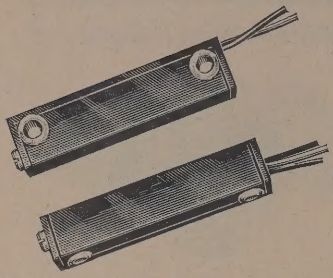


A 10-turn potentiometer offering electrical operating characteristics comparable to units costing far more. Designed specifically for the industrial instrumentation market, the Series 62JA has the inherent advantages of far greater resolution in trimming, better instrument control and settings for all types of electronic equipment. Brief specifications include: ⅞″ diameter, 1 9/16″ deep behind panel, bushing and shaft or split-locking bushing with screwdriver slot, 2 watts @ 25°C, derated to zero @ 85°C, 1000 to 100K ohms standard — others available, absolute linearity of ±0.25% standard, closer on order.

Stock Values	Resolution %	Stock Values	Resolution %
100,000	.012	10,000	.024
50,000	.013	5,000	.026
30,000	.016	2,000	.029
20,000	.019	1,000	.030

© U.C.P., Inc.

SERIES 56 "PADOHM" TRIMMING POTENTIOMETER



A precision potentiometer for pad or trim resistance functions. The "Padohm" is especially intended for extreme ambient conditions of temperature, moisture, shock and vibration. The body material provides for high insulation as well as high temperature operation. The Series also features precision-metal contacts and welded single-turn end connections. A positive clutching and de-clutching mechanism insures release of wiper at end of rotation.

SPECIFICATIONS

Power Rating 0.8 watts @70°C. Derated linearly to zero power @150°C.

Working Voltage 200 volts, maximum.

Resistance Range 100 to 20,000 Ω, higher or low values available. Specify.

Resistance Tolerance ±10% or closer, specify.

Temperature Coefficient of Wire ±0.00002 Ω/Ω/°C.

Independent Linearity ±2% of the total resistance.

Minimum Resistance 1% of the total resistance or 1 Ω whichever is greater.

Effective Travel 95% minimum of the mechanical travel.

Mechanical Travel 25 turns ±2 turns with slip-drive mechanism at extreme ends of mechanical rotation.

Shaft Backlash ¼ turn maximum.

Torque 0.2 to 8.0 oz. In.

Lead or Terminal Strength 1 lb. pull in all three planes.

Lead Wires Teflon leads, MIL-W-16878, Type E.

Weight .010 lb.

TERMINAL CODE

Wire Leads-1	Solder Lug-2	Printed Circuit-3	
56JA-1	56JA-2	56JA-3	Low Temp 105°C
56JB-1	56JB-2	56JB-3	Hi Temp 150°C Not Sealed

EXAMPLE

Catalog No. 56JA-2-100: Indicates Series 56 with Solder Lug Terminals 100 Ω.

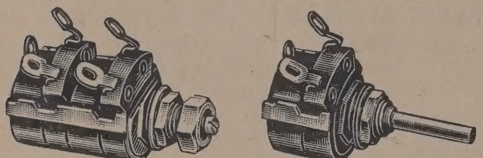
STOCK VALUES 56JA-56JB

10	200	5K
20	500	10K
50	1K	20K
100	2K	25K
		50K

MINIATURIZED POTENTIOMETERS

Consistent with miniaturization in Military and Commercial equipment, such as; Guided Missiles, Aircraft Electronics, Mobile Radio and Radar, Computers, Range Finders, Pocket Radios and Hearing Aids; Clarostat offers miniaturized composition element Series 48M and wire-wound Series 49M Potentiometers, and a Rotary Selector Switch designated as Series BHM to meet the switching requirements of the above mentioned and other applications.

SERIES 48M — 0.2 WATT COMPOSITION ELEMENT



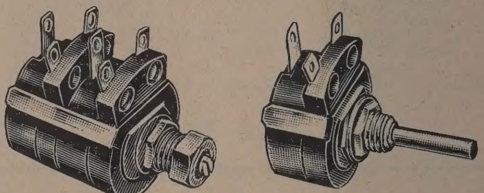
Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have ¼″ x 32 NEF-2A x ¼″ long bushing and ⅛″ dia. x ½″ long shaft beyond bushing.

Shaft locking bushing potentiometers have ¼″ x 32 NEF-2A x ⅜″ long bushing and ⅛″ dia. x 1/16″ long screwdriver slotted shaft.

All potentiometers furnished with mounting nut 1/16″ thick x 5/16″ across flats, and one internal tooth lockwasher. Potentiometers with split locking bushings furnished with jam nut also.

Insulation:	Breakdown test between terminals and ground for 1 minute 1000v.a.c.; 350v.a.c. @ 3.4″ Hg.
Resistance Range (Ohms):	Linear 200 to 5 Meg. Tapered 1500 to 2.5 Meg.
Resistance Tolerance:	Linear ±10%. Above 100,000 ohms ±20%. Tapered ±20% all values.
Tapers:	Linear Left hand — 10% resistance at 50% rotation. "Z"
Mechanical and Electrical Rotation:	300° ±3°
Effective Rotation:	300° ±3°
Torque (oz.-in.):	0.5 to 6
Dual Construction:	Available

SERIES 49M — 1.5 WATT WIRE-WOUND



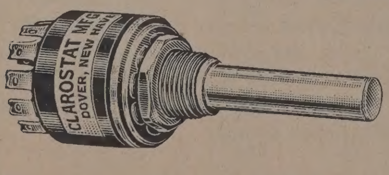
Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have ¼″ x 32 NEF-2A x ¼″ long bushing and ⅛″ dia. x ½″ long shaft beyond bushing.

Shaft locking bushing potentiometers have ¼″ x 32 NEF-2A x ⅜″ long bushing and ⅛″ dia. x 1/16″ long screwdriver slotted shaft. All potentiometers furnished with mounting nut 1/16″ thick x 5/16″ across flats, and one internal tooth lock-washer. Potentiometers with shaft locking bushings furnished with jam nut also.

Fabricated in accordance with MIL-R-19

Insulation:	Breakdown test between terminals and ground for 1 minute. 1000v.a.c.; 500v.a.c. @ 3.4″ Hg.
Resistance Range (Ohms):	Linear 1 to 20,000
Resistance Tolerance:	Linear ±5% Tapered Linear only
Mechanical and Electrical Rotation:	300° ±3°
Effective Rotation:	300° ±3°
Torque (oz.-in.):	0.3 to 6
Dual Construction:	Available

SERIES BHM ROTARY SWITCHES



Series BHM switches are rated at 50 ma. at 300 V. a.c. or d.c., and 500 ma. at 30 V. a.c. or d.c. All moving parts and contact mechanism are totally enclosed, and the switch assembly is sealed for protection from dust and atmospheric conditions. They are particularly adapted to portable radios, receivers and transmitters, X-ray and medical instruments, calculating machines and computers.

Current Rating:	50 Milliamps. at 300 volts a.c. or d.c. 500 Milliamps. at 30 volts a.c. or d.c.
Protection:	All moving parts and contact mechanisms are totally enclosed and switch is sealed, which protects it from dust and a mospheric conditions.
Shaft:	¼″ diameter round 1″ beyond bushing.
Finish:	Nickel Plating.
Bushing:	⅜″ x 32 NEF-2 Thread. ⅜″ Long.
Torque:	30 to 50 oz. in.

BHM-SP12P-S	Single Pole 12 Positions — Shorting
BHM-SP12P-NS	Single Pole 12 Positions — Non Shorting
BHM-2P6P-S	2 Pole 6 Positions — Shorting
BHM-2P6P-NS	2 Pole 6 Positions — Non-Shorting
BHM-3P4P-S	3 Pole 4 Positions — Shorting
BHM-3P4P-NS	3 Pole 4 Positions — Non-Shorting
BHM-4P3P-S	4 Pole 3 Positions — Shorting
BHM-4P3P-NS	4 Pole 3 Positions — Non-Shorting

Meets or exceeds test paragraph 4.5.3 thru 4.5.13 of MIL-S-3786.

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PRODUCTS OF
THE HOUSE OF RESISTORS®
CLAROSTAT®
RESISTORS • CONTROLS
RESISTANCE DEVICES

MILITARY POTENTIOMETERS

ITEMS IN STOCK FOR IMMEDIATE DELIVERY

RA10 per MIL-R-19 1 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 49M

RA10NASD150A
RA10NASD250A
RA10NASD500A
RA10NASD750A
RA10NASD101A
RA10NASD151A
RA10NASD201A
RA10NASD251A
RA10NASD351A
RA10NASD501A
RA10NASD751A
RA10NASD102A
RA10NASD152A
RA10NASD202A
RA10NASD252A
RA10NASL150A
RA10NASL250A
RA10NASL500A
RA10NASL750A
RA10NASL101A
RA10NASL151A
RA10NASL201A
RA10NASL251A
RA10NASL351A
RA10NASL501A
RA10NASL751A
RA10NASL102A
RA10NASL152A
RA10NASL202A
RA10NASL252A
RA10LASD150A
RA10LASD250A
RA10LASD500A
RA10LASD750A
RA10LASD101A
RA10LASD151A
RA10LASD201A
RA10LASD251A
RA10LASD351A
RA10LASD501A
RA10LASD751A
RA10LASD102A
RA10LASD152A
RA10LASD202A
RA10LASD252A
RA10LASM150A
RA10LASM250A
RA10LASM500A
RA10LASM750A
RA10LASM101A
RA10LASM151A
RA10LASM201A
RA10LASM251A
RA10LASM351A
RA10LASM501A
RA10LASM751A
RA10LASM102A
RA10LASM152A
RA10LASM202A
RA10LASM252A

RA20 per MIL-R-19 2 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 43M

RA20NASA3R0A
RA20NASA6R0A
RA20NASA8R0A
RA20NASA100A
RA20NASA150A
RA20NASA200A
RA20NASA250A
RA20NASA350A
RA20NASA500A
RA20NASA750A
RA20NASA101A
RA20NASA151A
RA20NASA201A
RA20NASA251A
RA20NASA351A
RA20NASA501A
RA20NASA751A
RA20NASA102A
RA20NASA152A
RA20NASA202A
RA20NASA252A
RA20NASA352A
RA20NASA502A
RA20NASA752A
RA20NASA103A
RA20NASA153A
RA20NASD3R0A
RA20NASD6R0A
RA20NASD8R0A
RA20NASD100A
RA20NASD150A
RA20NASD200A
RA20NASD250A
RA20NASD350A
RA20NASD500A
RA20NASD750A
RA20NASD101A
RA20NASD151A
RA20NASD201A
RA20NASD251A
RA20NASD351A
RA20NASD501A
RA20NASD751A
RA20NASD102A
RA20NASD152A
RA20NASD202A
RA20NASD252A
RA20NASD352A
RA20NASD502A
RA20NASD752A
RA20NASD103A
RA20NASD153A
RA20LASB3R0A
RA20LASB6R0A
RA20LASB8R0A
RA20LASB100A
RA20LASB150A
RA20LASB200A
RA20LASB250A
RA20LASB350A
RA20LASB500A
RA20LASB750A
RA20LASB101A
RA20LASB151A
RA20LASB201A
RA20LASB251A
RA20LASB351A
RA20LASB501A
RA20LASB751A
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RA20LASB152A
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RA20LASB502A
RA20LASB752A
RA20LASB103A
RA20LASB153A
RA20LASD3R0A
RA20LASD6R0A
RA20LASD8R0A
RA20LASD100A
RA20LASD150A
RA20LASD200A
RA20LASD250A
RA20LASD350A
RA20LASD500A
RA20LASD750A
RA20LASD101A
RA20LASD151A
RA20LASD201A
RA20LASD251A
RA20LASD351A
RA20LASD501A
RA20LASD751A
RA20LASD102A
RA20LASD152A
RA20LASD202A
RA20LASD352A
RA20LASD502A
RA20LASD752A
RA20LASD103A
RA20LASD153A

RA30 per MIL-R-19 4 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 58M

RA30NASA3R0A
RA30NASA6R0A
RA30NASA8R0A
RA30NASA100A
RA30NASA150A
RA30NASA200A
RA30NASA250A
RA30NASA350A
RA30NASA500A
RA30NASA750A
RA30NASA101A
RA30NASA151A
RA30NASA201A
RA30NASA251A
RA30NASA351A
RA30NASA501A
RA30NASA751A
RA30NASA102A
RA30NASA152A
RA30NASA202A
RA30NASA252A
RA30NASA352A
RA30NASA502A
RA30NASA752A
RA30NASA103A
RA30NASA153A
RA30NASA203A
RA30NASA253A
RA30NASD3R0A
RA30NASD6R0A
RA30NASD8R0A
RA30NASD100A
RA30NASD150A
RA30NASD200A
RA30NASD250A
RA30NASD350A
RA30NASD500A
RA30NASD750A
RA30NASD101A
RA30NASD151A
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RA30NASD202A
RA30NASD252A
RA30NASD352A
RA30NASD502A
RA30NASD752A
RA30NASD103A
RA30NASD153A
RA30NASD203A
RA30NASD253A
RA30LASB3R0A
RA30LASB6R0A
RA30LASB8R0A
RA30LASB100A
RA30LASB150A
RA30LASB200A
RA30LASB250A
RA30LASB350A
RA30LASB500A
RA30LASB750A
RA30LASB101A
RA30LASB151A
RA30LASB201A
RA30LASB251A
RA30LASB351A
RA30LASB501A
RA30LASB751A
RA30LASB102A
RA30LASB152A
RA30LASB202A
RA30LASB252A
RA30LASB352A
RA30LASB502A
RA30LASB752A
RA30LASB103A
RA30LASB153A
RA30LASB203A
RA30LASB253A

RV4 per MIL-R-94 2 WATT CARBON POTENTIOMETERS — Commercial Equivalent — Series 53M

RV4NAYSB101A
RV4NAYSB251A
RV4NAYSB501A
RV4NAYSB102A
RV4NAYSB252A
RV4NAYSB502A
RV4NAYSB103A
RV4NAYSB253A
RV4NAYSB503A
RV4NAYSB104A
RV4NAYSB254A
RV4NAYSB504A
RV4NAYSB105A
RV4NAYSB255B
RV4NAYSB505B
RV4NAYSD101A
RV4NAYSD251A
RV4NAYSD501A
RV4NAYSD102A
RV4NAYSD252A
RV4NAYSD502A
RV4NAYSD103A
RV4NAYSD253A
RV4NAYSD503A
RV4NAYSD104A
RV4NAYSD254A
RV4NAYSD504A
RV4NAYSD105A
RV4NAYSD255B
RV4NAYSD505B
RV4NAYSK101A
RV4NAYSK251A
RV4NAYSK501A
RV4NAYSK102A
RV4NAYSK252A
RV4NAYSK502A
RV4NAYSK103A
RV4NAYSK253A
RV4NAYSK503A
RV4NAYSK104A
RV4NAYSK254A
RV4NAYSK504A
RV4NAYSK105A
RV4NAYSK255B
RV4NAYSK505B
RV4LAYSA101A
RV4LAYSA251A
RV4LAYSA501A
RV4LAYSA102A
RV4LAYSA252A
RV4LAYSA502A
RV4LAYSA103A
RV4LAYSA253A
RV4LAYSA503A
RV4LAYSA104A
RV4LAYSA254A
RV4LAYSA504A
RV4LAYSA105A
RV4LAYSA255B
RV4LAYSA505B
RV4LAYSD101A
RV4LAYSD251A
RV4LAYSD501A
RV4LAYSD102A
RV4LAYSD252A
RV4LAYSD502A
RV4LAYSD103A
RV4LAYSD253A
RV4LAYSD503A
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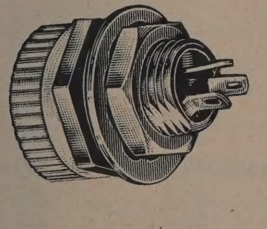
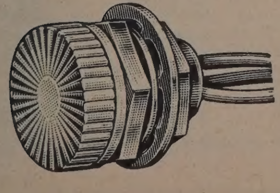
RV4LAYSD254A
RV4LAYSD504A
RV4LAYSD105A
RV4LAYSD255A
RV4LAYSD505B

SERIES 60 MJA AND 60 MJB





A unique potentiometer design. The CapPot is a sealed unit that mounts on the operating side of the mounting surface. It is ideal for use in applications requiring a waterproof, explosion-proof, quality component. It may be used in pressurized equipment without the need of expensive bellows or other pressure-sealing devices.

STOCK VALUES (ohms)

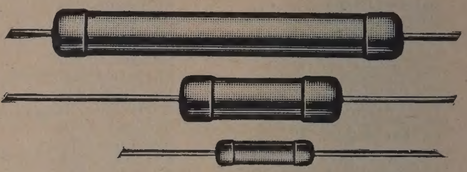
Type 60MJA — Solder lug
Type 60MJB — Wire lug

10	250	2.5K
25	500	5K
50	1K	10K
100		

SPECIFICATIONS

Power Rating 0.8 watts @ 40°C, derated linearly to zero power @ 105°C.
Resistance Range Linear functions, 5 Ω min. to 10,000 Ω max. employing temperature coefficient wire of ± .002%/°C.
Resistance Tolerance ± 10% or closer, specify.
Absolute Minimum Resistance 1% of total or 5 Ω, whichever is greater, (Resistance measured between contact arm terminal and end terminal with the contact arm positioned so as to give a minimum value.)
Effective Rotation 300° ± 5°.
Mechanical & Electrical Rotation 310° ± 5°.
Dielectric Strength 900V RMS at sea level for 1 minute. 450V RMS at 3.4 in-Hg. (50,000 ft.) for 1 minute.
Torque 0.2 to 8.0 oz-in.
Stop Strength 32 oz-in.
Typical Weight 0.20 oz.
Buishing Flatted bushing is standard unless otherwise specified. Flat relationship to contact in extreme CCW position shall be shown.
Hardware Internal tooth lockwasher, and hex nut supplied.
Knob Color Options Black is standard. (Other colors available.)

"FIXTOHM*" PRECISION RESISTORS



±1% TOLERANCE

SERIES CVF **MIL Style RN20X** **½ WATT**	50 ohms to 2 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CVC **MIL Style RN25X** **1 WATT**	100 ohms to 4.99 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CVD **MIL Style RN30X** **2 WATT**	200 ohms to 10 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CML **MIL Style RN60B** **⅛ WATT** **(MOLDED BODY)**	50 ohms to 5 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMH **MIL Style RN65B** **¼ WATT** **(MOLDED BODY)**	50 ohms to 5 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMF **MIL Style RN70B** **½ WATT** **(MOLDED BODY)**	50 ohms to 2.2 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMD **MIL Style RN80B** **2 WATT** **(MOLDED BODY)**	200 ohms to 10 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.

Resistance tolerances available from ½ to 10%.
Hermetically sealed resistors available on special order.
Also available—Series CEL ⅛ watt and Series CEH ¼ watt.
Prices and information on request.

MILITARY DECADE VALUES

10.0	13.3	17.8	23.7	31.6	42.2	56.2	75.0
10.2	13.7	18.2	24.3	32.4	43.2	57.6	76.8
10.5	14.0	18.7	24.9	33.2	44.2	59.0	78.7
10.7	14.3	19.1	25.5	34.0	45.3	60.4	80.6
11.0	14.7	19.6	26.1	34.8	46.4	61.9	82.5
11.3	15.0	20.0	26.7	35.7	47.5	63.4	84.5
11.5	15.4	20.5	27.4	36.5	48.7	64.9	86.6
11.8	15.8	21.0	28.0	37.4	49.9	66.5	88.7
12.1	16.2	21.5	28.7	38.3	51.1	68.1	90.9
12.4	16.5	22.1	29.4	39.2	52.3	69.8	93.1
12.7	16.9	22.5	30.1	40.2	53.6	71.5	95.3
13.0	17.4	23.2	30.9	41.2	54.9	73.2	97.6

Other values may be found by using proper decade multiplier.

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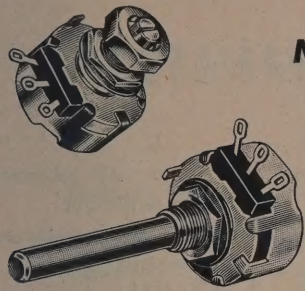
PRODUCTS OF THE HOUSE OF RESISTORS® CLAROSTAT® RESISTORS • CONTROLS RESISTANCE DEVICES



MOLDED COMPOSITION-ELEMENT POTENTIOMETERS

A 2-watt Molded Composition Element Potentiometer totally enclosed and sealed against moisture and other environmentals. Meets the need for a high quality resistance device incorporating high-stability under extreme climatic and operational conditions. For use in critical applications, such as, test equipment, military requirements, computers, servo systems and industrial metering devices. 1-1/16″ diameter and 9/16″ deep, wiper assembly of one piece construction. Carbon to carbon contact insures exceptionally low noise level. Stainless steel shaft. Gold plated terminals.

Electrical tolerances are plus/minus 10% for all values up to 1 meg. 1 meg. and above plus/minus 20%.

Cat. No. 53C1	Cat. No. 53C2	Res. Ohms	Taper
53C1-50-S	53C2-50-S	50	S
53C1-100-S	53C2-100-S	100	S
53C1-250-S	53C2-250-S	250	S
53C1-500-S	53C2-500-S	500	S
53C1-750-S	53C2-750-S	750	S
53C1-1000-S	53C2-1000-S	1000	S
53C1-1500-S	53C2-1500-S	1500	S
53C1-2000-S	53C2-2000-S	2000	S
53C2-2500-S	53C2-2500-S	2500	S
53C1-5000-S	53C2-5000-S	5000	S
53C1-7500-S	53C2-7500-S	7500	S
53C1-10K-S	53C2-10K-S	10K	S
53C1-15K-S	53C2-15K-S	15K	S
53C1-20K-S	53C2-20K-S	20K	S
53C1-25K-S	53C2-25K-S	25K	S
53C1-50K-S	53C2-50K-S	50K	S

Cat. No. 53C1	Cat. No. 53C2	Res. Ohms	Taper
53C1-75K-S	53C2-75K-S	75K	S
53C1-100K-S	53C2-100K-S	100K	S
53C1-150K-S	53C2-150K-S	150K	S
53C1-200K-S	53C2-200K-S	200K	S
53C1-25 K-S	53C2-250K-S	250K	S
53C1-500K-S	53C2-500K-S	500K	S
53C1-750K-S	53C2-750K-S	750K	S
53C1-1 Meg-S	53C2-1 Meg-S	1 Meg	S
53C1-1.5 Meg-S	53C2-1.5 Meg-S	1.5 Meg	S
53C1-2 Meg-S	53C2-2 Meg-S	2 Meg	S
53C1-2.5 Meg-S	53C2-2.5 Meg-S	2.5 Meg	S
53C1-3 Meg-S	53C2-3 Meg-S	3 Meg	S
53C1-4 Meg-S	53C2-4 Meg-S	4 Meg	S
53C1-5 Meg-S	53C2-5 Meg-S	5 Meg	S
53C1-10 Meg-S	53C2-10 Meg-S	10 Meg	S

Standard Packing — Individual Carton.

53C1 NET PRICE $2.01 53C2 NET PRICE $2.55

"Z" TAPER

53C1-100K-Z	100K
53C1-250K-Z	250K
53C1-500K-Z	500K
53C1-1 Meg-Z	1 Meg-Z
53C1-2.5 Meg-Z	2.5 Meg-Z

NET PRICE $2.25

REVERSED "Z" TAPER

53C1-10K-RZ	10K
53C1-25K-RZ	25K
53C1-50K-RZ	50K

NET PRICE $2.25

DUAL POTENTIOMETERS

D53C1 10K-S
D53C1 25K-S
D53C1 50K-S
D53C1 100K-S
D53C1 250K-S
D53C1 500K-S
D53C1 1 Meg-S

NET PRICE $5.85

Standard Packing—Ind. Carton.

Items not listed are special. Prices and information supplied upon request.

SERIES "43C1" and "43C2" 2-WATT CONTROLS

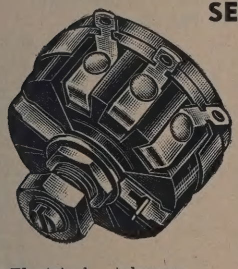
Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 2%. All controls rated 2 watts.

43C1 Cat. No.	43C2 Cat. No.	Res. Ohms
43C1-5	43C2-5	5
43C1-10	43C2-10	10
43C1-20	43C2-20	20
43C1-25	43C2-25	25
43C1-30	43C2-30	30
43C1-40	43C2-40	40
43C1-50	43C2-50	50
43C1-75	43C2-75	75
43C1-100	43C2-100	100
43C1-150	43C2-150	150
43C1-200	43C2-200	200
43C1-300	43C2-300	300
43C1-400	43C2-400	400
43C1-500	43C2-500	500
43C1-750	43C2-750	750
43C1-1000	43C2-1000	1000
43C1-1500	43C2-1500	1500
43C1-2000	43C2-2000	2000
43C1-2500	43C2-2500	2500
43C1-3000	43C2-3000	3000
43C1-4000	43C2-4000	4000
43C1-5000	43C2-5000	5000
43C1-7500	43C2-7500	7500
43C1-10K	43C2-10K	10K
43C1-15K	43C2-15K	15K
43C1-20K	43C2-20K	20K
43C1-25K	43C2-25K	25K
43C1-30K	43C2-30K	30K
43C1-40K	43C2-40K	40K
43C1-50K	43C2-50K	50K

NET PRICES

43C1-5 to 43C1-10K	$1.35
43C1-15K to 43C1-25K	1.80
43C1-30K to 43C1-50K	$2.01
43C2-5 to 43C2-10K	2.25
43C2-15K to 43C2-25K	$2.55
43C2-30K to 43C2-50K	3.00

SERIES 58C1 AND 58C2 3-WATT CONTROLS



Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 1% All controls rated 3 watts.

58C1 Cat. No.	58C2 Cat. No.	Res. Ohms
58C1-1	58C2-1	1
58C1-2	58C2-2	2
58C1-4	58C2-4	4
58C1-6	58C2-6	6
58C1-10	58C2-10	10
58C1-15	58C2-15	15
58C1-20	58C2-20	20
58C1-25	58C2-25	25
58C1-30	58C2-30	30
58C1-40	58C2-40	40
58C1-50	58C2-50	50
58C1-60	58C2-60	60
58C1-75	58C2-75	75
58C1-100	58C2-100	100
58C1-200	58C2-200	200
58C1-300	58C2-300	300
58C1-400	58C2-400	400
58C1-500	58C2-500	500
58C1-750	58C2-750	750
58C1-1000	58C2-1000	1000
58C1-1500	58C2-1500	1500
58C1-2000	58C2-2000	2000
58C1-2500	58C2-2500	2500
58C1-3000	58C2-3000	3000
58C1-5000	58C2-5000	5000
58C1-7500	58C2-7500	7500
58C1-10K	58C2-10K	10K
58C1-15K	58C2-15K	15K
58C1-20K	58C2-20K	20K
58C1-25K	58C2-25K	25K
58C1-30K	58C2-30K	30K
58C1-40K	58C2-40K	40K
58C1-50K	58C2-50K	50K

NET PRICES

58C1-1 to 58C1-10K	$1.35
58C1-15K to 58C1-25K	1.80
58C1-30K to 58C1-50K	2.01
58C2-1 to 58C2-10K	$2.25
58C2-15K to 58C2-25K	2.55
58C2-30K to 58C2-50K	3.00

SERIES "10C1" and "10C2" 4-WATT CONTROLS

Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity to plus/minus 1%. All controls rated 4 watts. 1 to 50K ohms available on special order. Prices and information on request.

10C1 Cat. No.	10C2 Cat. No.	Res. Ohms
10C1-75K	10C2-75K	75K
10C1-100K	10C2-100K	100K

Net Prices

10C1	2.75
10C2	3.60

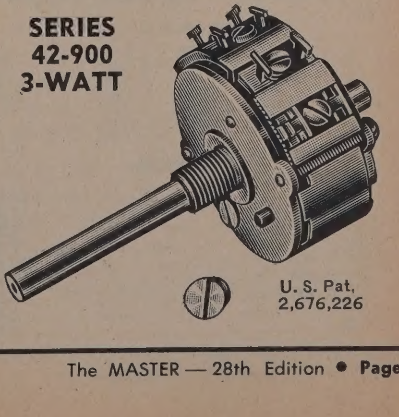
WIRE-WOUND PRECISION POTENTIOMETERS

Series 42-900 is a superlative-grade precision potentiometer with such features as selection of either limited or continuous rotation by simple manipulation; gold-plated bushings, terminals, screws; front and rear plates of green anodized aluminum; rear shaft extension for coupling to other potentiometers, switch, servos, etc. Wiring diagram on rear plate indicates terminal connections. Especially intended to meet the needs of your prototypes, laboratory testing, instrument-grade assemblies, etc.

Exceeds MIL-R-19 specifications where applicable.

42-900—100K ohms
42-900— 50K ohms
42-900— 20K ohms
42-900— 10K ohms
42-900—5000 ohms
42-900—2500 ohms
42-900—1000 ohms
42-900— 500 ohms
42-900— 100 ohms
42-900— 50 ohms

SERIES 42-900 3-WATT



U. S. Pat. 2,676,226

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"GREENOHM V"™ VITREOUS-ENAMEL RESISTORS

Based on years of research and engineering development, these vitreous-enamel wire-wound power resistors offer superlative performance and life as proved by countless tests. "Greenohm V" resistors provide all the outstanding quality which made Clarostat "Greenohm" cement-coated units famous, *plus* a glass-smooth vitreous-enamel coating in a handsome bluish-green for maximum eye appeal. Made to MIL-R-26C specifications.

- Fixed and adjustable
- 5-watt to 200 watt sizes
- ± 5% tolerance, 50 ohms and over. ± 10% tolerance, 49.9 ohms and under. ± 10% for adjustable.

"GREENOHM V" ™ FIXED RESISTORS (VITREOUS ENAMEL)

5-WATT SERIES VPR-5-F

Core: 1" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

1, 1.5, 2, 3, 4, 5, 7.5, 10, 12, 15, 20, 25
30, 35, 40, 50, 75, 100, 125, 150, 200, 225, 250, 300
350, 400, 450, 500, 600, 700, 750, 800, 900, 1000, 1100, 1200
1250, 1500, 1750, 2000, 2250, 2500, 3000, 3500, 4000, 4500, 5000, 6000
7000, 7500, 8000, 9000, 10K, 12.5K, 15K, 17.5K, 20K, 22.5K, 25K

NET PRICES:

1 to 1K	$0.51
1100 to 5K	.54
6K to 10K	.57
12.5K to 15K	.60
17.5K to 20K	.63
22.5K to 25K	.66

10-WATT SERIES VPR-10-F

Core: 1¾" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

0.4, 1, 1.2, 1.3, 1.5, 2, 3, 4, 5, 7.5, 10, 12, 15, 20, 25
30, 35, 40, 50, 75, 100, 125, 150, 200, 225, 250, 300, 350, 400, 450
500, 600, 700, 750, 800, 900, 1000, 1100, 1200, 1250, 1500, 1750, 2000, 2250, 2500
3000, 3500, 4000, 4500, 5000, 6000, 7000, 7500, 8000, 8500, 9000, 10K, 11K, 12K, 12.5K
13.5K, 14.3K, 15K, 16K, 17.5K, 18K, 20K, 22.5K, 25K, 30K, 35K, 40K, 45K, 50K

Standard Packaging — 10 per Carton

NET PRICES:

0.4 to 1K	$0.57
1100 to 5K	.60
6K to 10K	.69
11K to 20K	.78
22.5K to 25K	.81
30K to 50K	.90

100-WATT SERIES VK-100-N

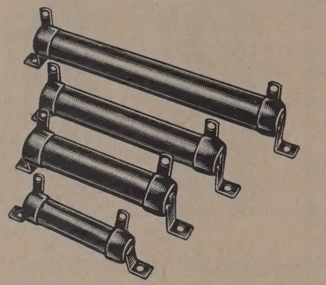
Core: 6½" x ¾"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1, 2, 3, 4, 5, 10, 25
50, 75, 100, 125, 150, 250, 500
750, 1000, 1500, 2000, 2500, 3000, 5000
7500, 10K, 15K, 20K, 25K, 30K, 40K
50K, 60K, 75K, 100K

NET PRICES:

1 to 3	$2.22
4 to 1K	1.59
1500 to 5K	1.68
7500 to 10K	1.80
15K to 20K	1.98
25K to 40K	2.13
50K to 60K	2.22
75K	2.43
100K	2.73



20-WATT SERIES VPR-20-H

Core: 2" x 7/16"
Terminals, wire lead and lug

Resistance Ohms

0.4, 0.6, 0.8, 5, 10, 25, 50, 75, 100, 150, 200, 250, 300
350, 400, 500, 650, 700, 750, 800, 850, 1000, 1200, 1250, 1500, 1750
1850, 2000, 2250, 2400, 2500, 2750, 3000, 3500, 4000, 4500, 5000, 6000, 7000
7500, 8000, 9000, 10K, 12.5K, 15K, 20K, 25K, 30K, 35K, 40K, 45K, 50K
55K, 60K, 65K, 70K, 75K, 80K, 85K, 90K, 95K, 100K

Standard Packing — 5 per Carton

NET PRICES:

0.4 to 1K	$0.66
1200 to 5K	.69
6K to 10K	.81
12.5K to 20K	.84
25K to 40K	.99
45K to 60K	1.14
65K to 80K	1.35
35K to 100K	1.56

160-WATT SERIES VK-160-W

Core: 8½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1, 2, 3, 4, 5, 10, 25
50, 75, 100, 125, 150, 250, 500
750, 1000, 1500, 2000, 2500, 3000, 5000
7500, 10K, 15K, 20K, 25K, 30K, 40K
50K, 60K, 75K, 100K

NET PRICES:

1 to 5	$3.18
10 to 1K	2.28
1500 to 5K	2.31
7500 to 10K	2.52
15K to 20K	2.70
25K to 40K	2.79
50K to 60K	2.88
75K	3.06
100K	3.24

25-WATT SERIES VP-25-K

Core: 2" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1, 2, 3, 4, 5, 10, 15, 25
50, 75, 100, 150, 200, 250, 500, 750
800, 1000, 1500, 2000, 2500, 3000, 3500, 4000
5000, 6000, 7500, 10K, 12K, 15K, 20K, 25K
30K, 35K, 40K, 50K, 60K, 70K, 80K, 100K

Standard Packing — Individually Boxed

NET PRICES:

1 to 1K	$0.72
1500 to 10K	.75
6K to 10K	.84
12K to 20K	.90
25K to 40K	1.02
50K to 60K	1.20
70K to 80K	1.41
100K	1.62

50-WATT SERIES VP-50-K

Core: 4" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1, 2, 3, 4, 5, 10, 25, 50
75, 100, 150, 200, 250, 500, 750, 800
1000, 1500, 2000, 2500, 3000, 4000, 5000, 7500
8000, 10K, 12K, 15K, 20K, 25K, 35K, 50K
75K, 100K, 125K, 150K, 175K, 200K, 225K, 250K

Standard Packing — Individually Boxed

NET PRICES:

1	$1.53
2 to 1K	1.11
1500 to 5K	1.14
7500 to 10K	1.26
12K to 20K	1.38
25K to 35K	1.53
50K	1.71
75K	1.95
100K	2.13
125K	2.55
150K	2.70
175K	2.79
200K	2.88
225K	3.24
250K	3.24

200-WATT SERIES VK-200-W

Core: 10½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1, 2, 3, 4, 5, 10, 25
50, 75, 100, 150, 250, 500, 750
1000, 1500, 2000, 2500, 3000, 5000, 7500
10K, 15K, 20K, 25K, 30K, 40K, 50K
60K, 75K, 100K

NET PRICES:

1 to 5	$3.42
10 to 1K	2.46
1500 to 5K	2.52
7500 to 10K	2.70
15K to 20K	2.88
25K to 40K	2.97
50K to 60K	3.06
75K	3.24
100K	3.45

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PRODUCTS OF
THE HOUSE OF RESISTORS®
CLAROSTAT®
RESISTORS • CONTROLS
RESISTANCE DEVICES

"GREENOHM V"™ ADJUSTABLE RESISTORS (VITREOUS ENAMEL)

10-WATT SERIES VP-10-FA

Core: 1¾" x 5/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	25	350	1500	5000
2	50	400	2000	6000
3	75	500	2250	7000
5	100	600	2500	7500
7.5	150	750	3000	8000
10	200	800	3500	8500
15	250	1000	4000	9000
20	300	1250	4500	10K

NET PRICES:

1 to 1K	$1.14
1250 to 5K	1.17
6000 to 10K	1.26

Standard Packing — 10 per Carton

25-WATT SERIES VP-25-KA

Core: 2" x 9/16"

Lug terminals — Mtg. brackets furnished

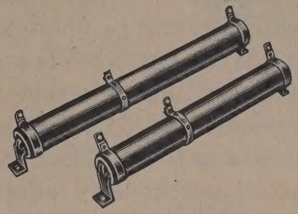
Resistance Ohms

1	50	750	3500	9000
2	75	800	4000	10K
3	100	1000	4500	12K
5	150	1250	5000	15K
7.5	200	1500	6000	20K
10	250	2000	7000	25K
15	300	2250	7200	
20	400	2500	7500	
25	500	3000	8000	

NET PRICES:

1 to 1K	$1.29
1250 to 5K	1.32
6K to 10K	1.41
12K to 20K	1.47
25K	1.59

Standard Packing — Individually Boxed



50-WATT SERIES VP-50-KA

Core: 4" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	150	1500	7000	30K
2	200	2000	7200	40K
3	250	2250	7500	50K
4	300	2500	8000	60K
5	400	3000	9000	80K
10	500	3500	10K	100K
25	750	4000	12K	
50	800	4500	15K	
75	1000	5000	20K	
100	1250	6000	25K	

NET PRICES:

1 ohm	$2.10
2 to 1K	1.68
1250 to 5K	1.71
6K to 10K	1.80
12K to 20K	1.92
25K to 40K	2.10
50K to 60K	2.28
80K	2.52
100K	2.70

Standard Packing — Individually Boxed

75-WATT SERIES VP-75-KA

Core: 6" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	200	2000	7200	35K
2	250	2250	7500	40K
3	300	2500	8000	45K
4	400	3000	9000	50K
5	500	3500	10K	60K
10	750	4000	12K	80K
15	800	4500	15K	100K
25	1000	5000	20K	
50	1250	6000	25K	
100	1500	7000	30K	

NET PRICES

1 to 2	$2.37
3 to 1K	1.86
1250 to 5K	1.92
6000 to 10K	2.01
12K to 20K	2.13
25K to 40K	2.31
45K to 60K	2.52
80K	2.76
100K	2.91

Standard Packaging — Individually Boxed

100-WATT SERIES VK-100-NA

Core: 6½" x ¾"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 3	$3.00
4 to 1K	2.37
1500 to 5K	2.43
10K	2.55
15K to 20K	2.70
25K to 40K	2.88
50K	3.00
75K	3.12
100K	3.27

Standard Packing — Individually Boxed

160-WATT SERIES VK-160-WA

Core: 8½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	$4.05
10 to 1K	3.15
1500 to 5K	3.18
10K	3.39
15K to 20K	3.57
25K to 40K	3.66
60K	3.75
75K	3.93
100K	4.14

Standard Packing — Individually Boxed

200-WATT SERIES VK-200-WA

Core: 10½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	$4.32
10 to 1K	3.33
1500 to 5K	3.42
10K	3.57
15K to 20K	3.75
25K to 40K	3.84
50K	3.96
75K	4.14
100K	4.32

Standard Packing — Individually Boxed

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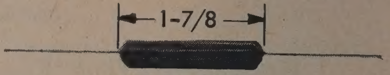
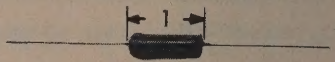
AXIAL LEAD VITREOUS RESISTORS

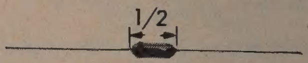
Available in three sizes 3, 5 and 10 watts, Series VC3D, VC5E and VC10F. Axial lead resistors are particularly adapted to printed circuit, terminal board, and point-to-point wiring applications. These resistors save considerable space because of the elimination of mounting brackets and terminal lugs. Standard resistance tolerance is ± 5% for 1 ohm and higher and tolerance below 1 ohm is ± 10%. Attractively packaged in a newly designed carton particularly adapted to this new axial lead resistor, beautifully finished with Clarostat's new vitreous shade of teal green.



Series VC10F



Series VC5E



Series VC3D

Lead Length: 1½″ Lead Diameter: .032

SERIES VC3D

RESISTANCE OHMS

1	20	200	750	2.25K	8K
1.5	25	225	800	2.5K	9K
2	30	250	900	3K	10K
3	35	300	1K	3.5K	K
4	40	350	1.1K	4K	K
5	50	400	1.2K	4.5K	K
7.5	75	450	1.25K	5K	K
10	100	500	1.5K	6K	K
12	125	600	1.75K	7K	K
15	150	700	2K	7.5K	K

Net Prices

1	to 1K	$ .51
1.1K	to 5K	.54
6K	to 10K	.95

Standard Packing—10 per Carton.

SERIES VC5E

RESISTANCE OHMS

1	20	200	750	2.25K	8K
1.5	25	225	800	2.5K	9K
2	30	250	900	3K	10K
3	35	300	1K	3.5K	12.5K
4	40	350	1.1K	4K	15K
5	50	400	1.2K	4.5K	17.5K
7.5	75	450	1.25K	5K	18K
10	100	500	1.5K	6K	20K
12	125	600	1.75K	7K	22.5K
15	150	700	2K	7.5K	25K

Net Prices

1	to 1K	$ .54
1.1K	to 5K	.57
6K	to 10K	.60
12.5K	to 20K	.72
22.5K	to 25K	.75

Standard Packing—10 per Carton.

SERIES VC10F

RESISTANCE OHMS

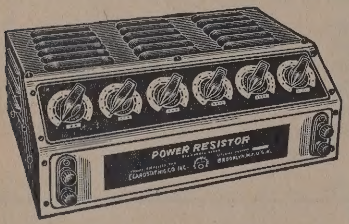
1	20	200	750	2.25K	8K	17.5K
1.5	25	225	800	2.5K	8.5K	18K
2	30	250	900	3K	9K	20K
3	35	300	1K	3.5K	10K	22.5K
4	40	350	1.1K	4K	11K	25K
5	50	400	1.2K	4.5K	12K	30K
7.5	75	450	1.25K	5K	12.5K	35K
10	100	500	1.3K	6K	13.5K	40K
12	125	600	1.75K	7K	15K	45K
15	150	700	2K	7.5K	16K	50K

Net Prices

1	to 1K	$ .60
1.1K	to 5K	.63
6K	to 10K	.72
11K	to 20K	.81
22.5K	to 40K	.84
45K	to 50K	.96

Standard Packing—10 per Carton.

POWER RESISTOR DECADE BOX



POWER RESISTANCE DECADE
CLAROSTAT

The Resistance Decade Box, Model 240-C for bench use — Model 250 for rack mounting, provides any resistance from 1 to 999,999 ohms for working circuits at the flip of a switch. Six front-panel dials enable selection in 1 ohm increments, the total value being read directly from the dial. Each decade has a power rating of 225 watts maximum, 1,000 VDC or 660 VAC maximum.

Resistance changing switches are of the type that prevent a resistance breakdown between steps, thus protecting delicate meters and measuring instruments in the circuit. Knobs indicate the resistance value being used at a glance.

Clarostat GREENOHM Power Resistors are used throughout. These components are wire-wound power resistors on ceramic tubes and coated with an exclusive Clarostat inorganic cold-setting cement, providing the most rugged, long-lasting, trouble-free power resistor available. The resistors are mounted in rigid metal supports.

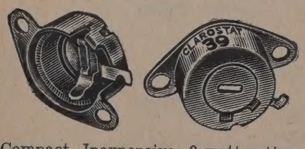
Overall length: 240C: 13″ long x 8½″ deep x 5¾″ high, weight 11½ lbs. 250: 19″ long x 13¾″ deep x 7″ high (fits in standard 19″ relay rack), weight 18½ lbs.

SUGGESTED USES: Resistance determination, Load Resistance, Meter Multiplier, Calibrating Meters, Providing any desired ohmage as a universal power resistor.

Decade No.	1	2	3	4	5	6
Max. Current Rating (amps)	5	1.5	.5	.15	0.5	.005
Resistance Tolerance	5%	2%	2%	2%	2%	2%

NET PRICE: Model 240C $110.00, Model 250 $150.00

SERIES 39 "HUMDINGER"* WIRE-WOUND CONTROLS



Compact. Inexpensive. 2-watt rating. Screwdriver adjusted by slot in drive plate. Mounting ears. For hum balance, centering, hold and locking, linearity, AGC sensitivity, etc.

NET PRICE $0.42

Standard Packing: 10 per Carton.

Cat. No.	Total Res Ohms	Min. Res. Ohms	Cat. No.	Total Res. Ohms	Min. Res. Ohms	Cat. No.	Total Res. Ohms	Min Res. Ohms
39-5	5	——	39-500	500	——	39-1000-100	1,000	100
39-8	8	——	39-500-100	500	100	39-1500	1,500	——
39-50	50	——	39-600	600	——	39-2000	2,000	——
39-75	75	——	39-650	650	——	39-2000-100	2,000	100
39-100	100	——	39-700	700	——	39-3000	3,000	——
39-125	125	——	39-700-200	700	200	39-3000-700	3,000	700
39-150	150	——	39-800	800	——	39-4000	4,000	——
39-200	200	——	39-800-50	800	50	39-4000-350	4,000	350
39-300	300	——	39-1000	1,000	——	39-4000-1000	4,000	1,000
						39-5000	5,000	——

*Reg. U. S. Pat. Off.

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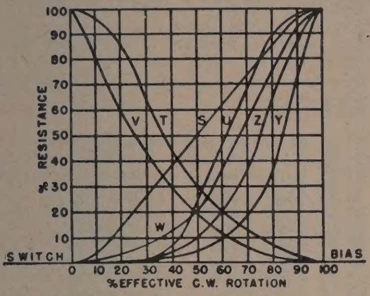
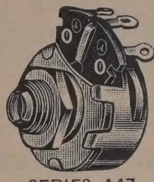
COMPOSITION-ELEMENT CONTROLS



Graph Explanation:
Taper S—Straight or uniform resistance change with rotation.
Taper T — Right-hand 30% resistance at 50% of C.C.W. rotation.
Taper U — Left-hand 1% resistance at 33⅓% of C.W. rotation.
Taper V — Right-hand 20% resistance at 50% of C.C.W. rotation.
Taper W—Left-hand 20% resistance at 50% of C.W. rotation.
Taper Z—Left-hand (Log. audio) 10% resistance at 50% of C.W. rotation.
Taper Y — Left-hand 5% resistance at 50% of C.W. rotation.

SERIES "A47" ½-WATT CONTROLS

Composition-element controls in the popular 15/16" dia. size. Series "A47" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type shaft desired when ordering. Example: 47-100K-S with FKS-¼ shaft.



SERIES A47
(INDUSTRIAL)
SERIES 47

CAT No.	OHMS	TAPER
A47-500-S	500	S
A47-750-S	750	S
A47-1000-S	1000	S
A47-1500-S	1500	S
A47-2000-S	2000	S
A47-2500-S	2500	S
A47-3000-S	3000	S
A47-4000-S	4000	S
A47-5000-S	5000	S
A47-7500-S	7500	S
A47-10K-S	10K	S
A47-10K-V	10K	V
A47-10K-W	10K	W
A47-10K-Z	10K	Z
A47-15K-S	15K	S
A47-15K-V	15K	V
A47-15K-W	15K	W
A47-20K-S	20K	S
A47-25K-S	25K	S
A47-25K-W	25K	W
A47-25K-V	25K	V
A47-30K-S	30K	S
A47-40K-S	40K	S
A47-50K-S	50K	S
A47-50K-W	50K	W
A47-50K-Z	50K	Z
A47-75K-S	75K	S
A47-75K-V	75K	V
A47-100K-S	100K	S
A47-100K-Z	100K	Z
A47-150K-S	150K	S
A47-200K-S	200K	S
A47-250K-S	250K	S
A47-250K-Z	250K	Z
A47-300K-S	300K	S
A47-500K-S	500K	S
A47-500K-Z	500K	Z
A47-750K-S	750K	S
A47-750K-Z	750K	Z
A47-1 Meg-S	1 Meg.	S
A47-1 Meg-Z	1 Meg.	Z
A47-1.5 Meg-S	1.5 Meg.	S
A47-2 Meg-Z	2 Meg.	Z
A47-2 Meg-S	2 Meg.	S
A47-2.5 Meg-S	2.5 Meg.	S
A47-3 Meg-S	3 Meg.	S
A47-3-Meg.-Z	3 Meg.	Z
A47-4 Meg-S	4 Meg.	S
A47-4 Meg-Z	4 Meg.	Z
A47-5 Meg-Z	5 Meg.	Z
A47-5 Meg-S	5 Meg.	S
A47-7.5 Meg-S	7.5 Meg.	S
A47-10 Meg-S	10 Meg.	S

NET PRICE $.93 Standard Packing—10 per Carton.

SERIES "AD47" ½-WATT DUAL CONTROLS

These are the same as "A47" except that they are dual controls.

Cat. No.	Panel	Taper	Rear	Taper
AD47-50-S	50K	S	50K	S
AD47-100K-S	100K	S	100K	S
AD47-250K-S	250K	S	250K	S
AD47-250K-Z	250K	Z	250K	Z
AD47-500K-Z	500K	Z	500K	Z
AD47-1 Meg.-S	1 Meg.	S	1 Meg.	S
AD47-1 Meg.-Z	1 Meg.	Z	1 Meg.	Z
AD47-2 Meg.-S	2 Meg.	S	2 Meg.	S
AD47-2 Meg.-V	2 Meg.	V	2 Meg.	V
AD47-5 Meg.-S	5 Meg.	S	5 Meg.	S

NET PRICE $2.25 Standard Packing — Individual Carton.

SERIES "C47S" ½-WATT CONTROLS WITH PUSH-PULL SWITCH

Cat. No.
C47S-250K-S
C47S-250K-Z
C47S-500K-S
C47S-500K-Z
C47S-750K-S

Cat. No.
C47S-750K-Z
C47S-1 Meg.-S
C47S-1 Meg.-Z
C47S-2 Meg.-S
C47S-2 Meg.-Z

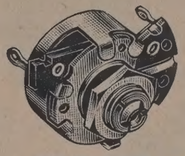
Net Price $1.53 Standard Packing—10 per Carton.

SERIES "C47SF" (TAPPED)

Cat. No.	
C47SF-500K	Tap 250K
C47SF1-500K	Tap 150K
C47SF-1 Meg.	Tap 500K
C47SF1-1 Meg.	Tap 250K

Net Price $1.95 Standard Packing—10 per Carton.

SERIES "A47F"



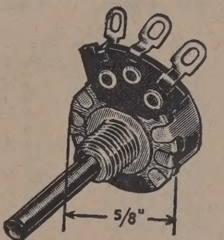
SERIES A47F
(INDUSTRIAL)
SERIES 47F

Series "A47F" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. "A47F" controls have taps 1, 2, 3 located at 40%, 50% and 60% of rotation, double taps at 35 and 65% of electrical position. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type of shaft desired when ordering. Example: 47F-200K with FS-3 shaft.

Cat. No.	Res. Ohms.	Tap No. 1 30%	Tap No. 2 50%	Tap No. 3 70%
A47F-15K	15K	5K		10K
A47F-50K	50K		25K	
A47F-200K	200K			100K
A47F-250K	250K			50K
A47F1-250K	250K		125K	
A47F2-250K	250K	60K		125K
A47F-350K	350K	75K		
A47F1-350K	350K		75K	
A47F-500K	500K			100K
A47F1-500K	500K	25K		
A47F2-500K	500K			200K
A47F3-500K	500K		100K	
A47F4-500K	500K		50K	
A47F5-500K	500K		250K	
A47F6-500K	500K	100K		300K
A47F-1 Meg.	1 Meg.	250K		
A47F1-1 Meg.	1 Meg.			200K
A47F2-1 Meg.	1 Meg.		50K	
A47F3-1 Meg.	1 Meg.		100K	
A47F4-1 Meg.	1 Meg.		225K	
A47F5-1 Meg.	1 Meg.		500K	
A47F-1.5 Meg.	1.5 Meg.	250K		500K
A47F-2 Meg.	2 Meg.	20K		
A47F1-2 Meg.	2 Meg.	5000		
A47F2-2 Meg.	2 Meg.	15K		
A47F3-2 Meg.	2 Meg.		1 Meg.	
A47F4-2 Meg.	2 Meg.		200K	
A47F5-2 Meg.	2 Meg.		400K	
A47F6-2 Meg.	2 Meg.		500K	
A47F7-2 Meg.	2 Meg.	250K		1 Meg.
A47F-2.5 Meg.	2.5 Meg.	250K		500K
A47F-3 Meg.	3 Meg.		250K	

NET PRICE $1.35. Standard Packing—10 per Carton. *Reg. U.S. Pat. Off.

SERIES 44 — 0.02 WATT CONTROLS



Composition Element Controls rated at 0.2 watt, designed specifically for miniaturized applications such as transistorized circuits, pocket radios, hearing aids, etc. Stocked controls have Clarostat "W" taper (20% log audio). Other tapers available on special order. Series 44 is without switch, while Series 44S has factory-attached 0.5 am. 25 v.d.c. DPST switch. Other ohmages available on special order. 200 ohms to 5 meg. linear; 1500 to 2.5 meg. tapered. Also available on special order, controls with 0.5 a. 25 v.d.c. SPST switch. Items not listed are special. Prices and information on request.

Without Switch Cat. No.
44-500-W
44-1K-W
44-5K-W
44-10K-W
44-15K-W
44-25K-W
44-50K-W
44-100K-W
44-250K-W
44-500K-W
44-1 Meg-W

LIST PRICE $1.55

With SPST Switch Cat. No.
44S-500-W
44S-1K-W
44S-5K-W
44S-10K-W
44S-15K-W
44S-25K-W
44S-50K-W
44S-100K-W
44S-250K-W
44S-500K-W
44S-1 Meg-W

LIST PRICE $2.55
Standard Packing — 10 Per Carton

SERIES B47 ½-WATT TAB-MOUNT

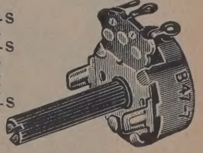
Composition element controls designed for radio and TV applications, where bushingless controls are required. Phenolic shaft insures insulation if control is used on a "hot" chassis. Items not listed are special, for which information and prices will be supplied on request.

Cat. No.
B47-500-S
B47-750-S
B47-1500-S
B47-2500-S
B47-3000-S
B47-5000-S

Cat. No.
B47-10K-S
B47-25K-S
B47-50K-S
B47-100K-S
B47-150K-S
B47-200K-S

Cat. No.
B47-250K-S
B47-330K-Z
B47-500K-S
B47-500K-Z
B47-1 Meg-S
B47-1 Meg-Z

Cat. No.
B47-1.5 Meg-S
B47-2 Meg-S
B47-2.5 Meg-S
B47-3 Meg-S
B47-5 Meg-S
B47-5 Meg-Z
B47-7.5 Meg-S



NET PRICE $.60
Standard Packing—10 per Carton.

SERIES B47S ½-WATT TAB MOUNT WITH SWITCH

Cat. No.
B47S-250K-S
B47S-250K-Z
B47S-500K-S
B47S-500K-Z

Cat. No.
B47S-1 Meg-S
B47S-1 Meg-Z
B47S-2 Meg-S
B47S-2 Meg-Z

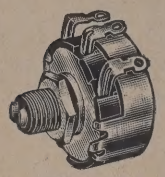
Net Price $1.20
Standard Packing—10 per Carton.

PRODUCTS OF
THE HOUSE OF RESISTORS® CLAROSTAT® RESISTORS • CONTROLS
RESISTANCE DEVICES

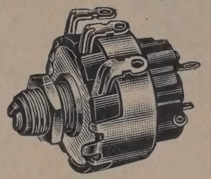
WIRE-WOUND CONTROLS

These are "Pick-A-Shaft"* controls which take any one of 12 shafts listed on page R-24 including High Voltage Coupler and insulated shaft. Your choice of any one of the 12 shafts listed (this does not include insulated shaft) with each control. Tolerances of these controls are in accordance with EIA standards. Overall resistance tolerance of plus/minus 10% for all values. All controls are linear. Available with factory-assembled shafts at no extra charge, by omitting the prefix "A" from the catalog number and designating the type of shaft desired when ordering. Example: 43-500 with FKS-¼ shaft, or 43S-10K with FS-3 shaft and SPST switch.

SERIES "A43" and "A43S" 2-WATT CONTROLS



SERIES A43
(INDUSTRIAL)
SERIES 43



SERIES A43S
(INDUSTRIAL)
SERIES 43S

"A43" is without switch, while "A43S" has factory-attached SPST switch. When ordering "A43S" controls, specify type of switch. Controls with other than SPST switch are special. Prices and information on request.

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A43-5	A43S-5	5
A43-10	A43S-10	10
A43-20	A43S-20	20
A43-25	A43S-25	25
A43-30	A43S-30	30
A43-40	A43S-40	40
A43-50	A43S-50	50
A43-75	A43S-75	75
A43-100	A43S-100	100
A43-150	A43S-150	150
A43-200	A43S-200	200
A43-300	A43S-300	300
A43-400	A43S-400	400
A43-500	A43S-500	500
A43-750	A43S-750	750

Standard Packing: 10 per Carton.

Without Switch Cat. No	With SPST Switch Cat. No.	Res. Ohms
A43-1,000	A43S-1,000	1,000
A43-1,500	A43S-1,500	1,500
A43-2,000	A43S-2,000	2,000
A43-2,500	A43S-2,500	2,500
A43-3,000	A43S-3,000	3,000
A43-4,000	A43S-4,000	4,000
A43-5,000	A43S-5,000	5,000
A43-7,500	A43S-7,500	7,500
A43-10K	A43S-10K	10K
A43-15K		
A43-20K		
A43-25K		
A43-30K		
A43-40K		
A43-50K		

NET PRICES: (Without Switch)

5 to 10KΩ	**$ .93**
15K to 25KΩ	**1.20**
30K to 50KΩ	**1.62**

(With Switch)

5 to 10KΩ	**$1.47**

SERIES "A58" and "A58S" 3- WATT CONTROLS

"A58" is without switch, while "A58S" has factory-attached SPST switch. Available with factory-assembled shafts, at no extra charge, by omitting prefix "A" from catalog number, and designating type of shaft desired when ordering. Example: 58-50K with KSS-3 shaft, or 58S-25K with RS-3 shaft and SPST switch. Controls with other than SPST switch are special. Prices and information on request.

Without Switch Cat. No.	Res. Ohms
A58-1	1
A58-2	2
A58-4	4
A58-6	6
A58-10	10
A58-15	15
A58-20	20
A58-25	25
A58-30	30
A58-40	40
A58-50	50
A58-60	60
A58-75	75
A58-100	100
A58-200	200
A58-300	300
A58-400	400
A58-500	500
A58-750	750
A58-1,000	1,000
A58-1,500	1,500
A58-2,000	2,000
A58-2,500	2,500
A58-3.000	3,000
A58-4000	4,000
A58-5,000	5,000

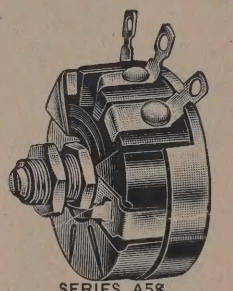
Standard Packing: 10 per Carton.

Without Switch Cat. No.	Res. Ohms
A58-7,500	7,500
A58-10K	10K
A58-15K	15K
A58-20K	20K
A58-25K	25K
A58-30K	30K
A58-40K	40K
A58-50K	50K

NET PRICES:

1 to 10KΩ	**$ .93**
15K to 25KΩ	**1.20**
30K to 50KΩ	**1.62**

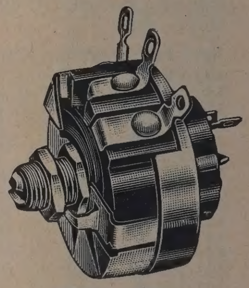
With SPST Switch Cat. No.	Res. Ohms
A58S-1	1
A58S-2	2
A58S-4	4
A58S-6	6
A58S-10	10
A58S-15	15
A58S-20	20
A58S-25	25
A58S-30	30
A58S-40	40



SERIES A58
(INDUSTRIAL)
SERIES 58

With SPST Switch Cat. No.	Res. Ohms
A58S-50	50
A58S-60	60
A58S-75	75
A58S-100	100
A58S-200	200
A58S-300	300
A58S-400	400
A58S-500	500
A58S-750	750
A58S-1,000	1,000
A58S-1,500	1,500
A58S-30K	30K
A58S-40K	40K
A58S-50K	50K

Standard Packing: 10 per Carton.



SERIES A58S
(INDUSTRIAL)
SERIES 58S

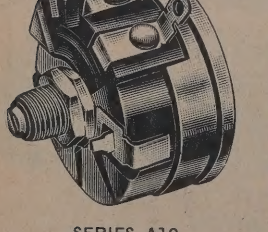
A58S-2,000	2,000
A58S-2,500	2,500
A58S-3,000	3,000
A58S-4,000	4.000
A58S-5,000	5,000
A58S-7,500	7,500
A58S-10K	10K
A58S-15K	15K
A58S-20K..	20K
A58S-25K	25K

NET PRICES:

1 to 10KΩ	**$1.47**
15K to 25KΩ	**1.71**
30K to 50KΩ	**2.16**

SERIES "A10" and "A10S" 4-WATT CONTROLS

"A10" is without switch, while "A10S" has factory-attached SPST switch. Also available with factory-assembled shaft at no extra charge, by omitting prefix "A" from catalog number. See above for examples. Controls with other than SPST switch are special. Price and information on request.



SERIES A10
(INDUSTRIAL)
SERIES 10

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A10-1	A10S-1	1
A10-2	A10S-2	2
A10-4	A10S-4	4
A10-6	A10S-6	6
A10-10	A10S-10	10
A10-15	A10S-15	15
A10-20	A10S-20	20
A10-25	A10S-25	25
A10-30	A10S-30	30
A10-40	A10S-40	40
A10-50	A10S-50	50
A10-60	A10S-60	60
A10-75	A10S-75	75
A10-100	A10S-100	100
A10-200	A10S-200	200
A10-300	A10S-300	300
A10-400	A10S-400	400
A10-500	A10S-500	500

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A10-750	A10S-750	750
A10-1,000	A10S-1,000	1,000
A10-1,500	A10S-1,500	1,500
A10-2,000	A10S-2,000	2,000
A10-2,250		2,250
A10-2,500	A10S-2,500	2,500
A10-3,000	A10S-3,000	3,000
A10-4,000	A10S-4,000	4,000
A10-5,000	A10S-5,000	5,000
A10-7,500	A10S-7,500	7,000
A10-10K	A10S-10K	10K
A10-15K	A10S-15K	15K
A10-20K	A10S-20K	20K
A10-25K	A10S-25K	25K
A10-30K	A10S-30K	30K
A10-40K	A10S-40K	40K
A10-50K	A10S-50K	50K
A10-75K	A10S-75K	75K
A10-100K	A10S-100K	100K

Standard Packing: 10 per Carton.

NET PRICES

(Without Switch)

1 to 10KΩ	**$1.35**
15K to 25KΩ	**1.59**
30K to 50KΩ	**2.01**
75K to 100KΩ	**2.46**

(With SPST Switch)

1 to 10KΩ	**$1.89**
15K to 25KΩ	**2.10**
30K to 50KΩ	**2.55**
75K to 100KΩ	**2.97**

*Reg. U. S. Pat. Off.

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PRODUCTS OF
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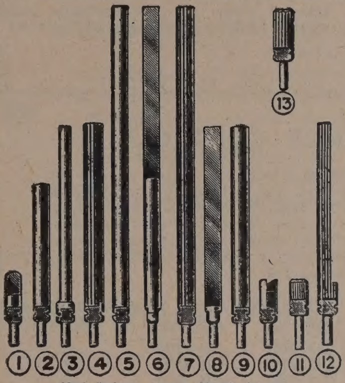
RESISTANCE DEVICES

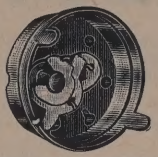
SHAFTS FOR "PICK-A-SHAFT"* CONTROLS

For use with all Clarostat "Pick-A-Shaft"* controls, either carbon or wirewound. Your choice of shaft furnish with each control.



Net Price, Each Shaft $0.33

(1) SS-3/8″ length—(Male) to take female fitting.
(2) RS-2 — Round shaft, 2″ long.
(3) RS-3/16 — Round shaft 3/16″ dia., 3″ long.
(4) KSS-3—Knurled, split shaft, 3″ long.
(5) RS-5—Round shaft, 5″ long.
(6) FS-5—Flatted, 5″ long.
(7) KSS-5—Knurled, split shaft, 5″ long.
(8) FS-3 — Flatted shaft, 3″ long.
(9) RS-3 — Round shaft, 3″ long.
(10) DFS-½—Double flatted Philco Type, ½″ long.
(11) FKS-¼—Fine knurled slotted shaft, ¼″ long.
(12) KFS-3—Knurled flatted shaft, 3″ long.
(13) FKS-½—Fine knurled slotted shaft, ½″ long.



U.S. PAT. 2,642,506

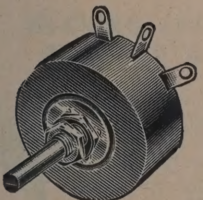
SERIES "SWE" SWITCHES FOR "AD-A-SWITCH"* CONTROLS

For use with "A47" and "A47F" controls. Underwriters' Laboratories Inc. approved.

Cat. No.	Wiring	Net Price
SWE-12	S.P.S.T. — Single Pole Single Throw, 5A.-125V. A.C.	$0.45
SWE-13	S.P.S.T. — Single Pole Single Throw, 15A.-10V. D.C.	.66
SWE-20	D.P.S.T. — Double Pole Single Throw, 3A.-125V. A.C.	.51
SWE-21	Mod. D.P.S.T. one pole on, one off or with Jumper S.P.D.T., 3A.-125V. A.C.-D.C.	.51
SWE-23	D.P.S.T., 15A.-10V. D.C.	.66

(Mod. DPST has one pole "on', one pole "off" or with Jumper it is SPDT.)

Standard Packing: 10 per Carton.



POWER RHEOSTATS

Clarostat Power Rheostats maintain their full power rating at settings as low as one-third rotation without excessive temperature rise. Standard overall resistance tolerance plus/minus 10%. Closer tolerances are available upon special order.

AN Types (aircraft type) are basically the same units mechanically and electrically except that they are encased in a metal housing (versus ceramic). Terminals are screw type lugs to prevent corrosion. Approved under MIL-R-6749.

Units mount through a single hole, a locking pin is provided for rear panel mounting.

SERIES 25 — 25-WATT

Cat. No.	Total Res. Ohms	Net Price
25-1	1	$3.87
25-2	2	3.42
25-3	3	3.42
25-6	6	3.42
25-8	8	3.42
25-10	10	3.42
25-15	15	3.42
25-25	25	3.42
25-35	35	3.42
25-50	50	3.42
25-75	75	3.42
25-100	100	3.42
25-125	125	3.42
25-175	175	3.42
25-250	250	3.42
25-350	350	3.42
25-500	500	3.42
25-750	750	3.42
25-1,000	1,000	3.87
25-1,500	1,500	3.87
25-2,500	2,500	3.87
25-3,500	3,500	4.08
25-5,000	5,000	4.29

SERIES 50 — 50-WATT

Cat. No.	Total Res. Ohms	Net Price
50-0.5	0.5	$4.25
50-1	1	4.25
50-2	2	4.25
50-4	4	3.87
50-6	6	3.87
50-8	8	3.87
50-12	12	3.87
50-16	16	3.87
50-22	22	3.87
50-35	35	3.87
50-50	50	3.87
50-80	80	3.87
50-125	125	3.87
50-150	150	3.87
50-225	225	3.87
50-300	300	3.87
50-500	500	3.87
50-800	800	4.08
50-1,000	1,000	4.08
50-1,600	1,600	4.08
50-2,500	2,500	4.08
50-3,500	3,500	4.29
50-5,000	5,000	4.29
50-8,000	8,000	5.16
50-10K	10K	5.16

AN-3155-25** — 25 WATTS

Cat. No.	Total Res. Ohms	Net Price
AN-3155-25-10	10	$4.80
AN-3155-25-11	11	4.80
AN-3155-25-15	15	4.80
AN-3155-25-25	25	4.80
AN-3155-25-50	50	4.80
AN-3155-25-75	75	4.80
AN-3155-25-100	100	4.80
AN-3155-25-200	200	5.61

AN-3155-50** — 50 WATTS

Cat. No.	Total Res. Ohms	Net Price
AN-3155-50-5	5	5.61
AN-3155-50-8	8	5.61
AN-3155-50-10	10	5.61
AN-3155-50-25	25	5.46
AN-3155-50-30	30	5.46
AN-3155-50-50	50	5.46
AN-3155-50-75	75	5.46
AN-3155-50-100	100	5.46
AN-3155-50-150	150	6.12
AN-3155-50-200	200	6.12

Prices include AN-3220 — 2 knob

Standard Packing: Individual Carton.

**25 and 50 watt Power Rheostats when encased in metal housing are derated 50%.

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PRODUCTS OF
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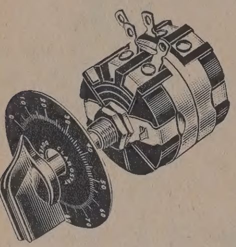
RESISTORS · CONTROLS
RESISTANCE DEVICES

®

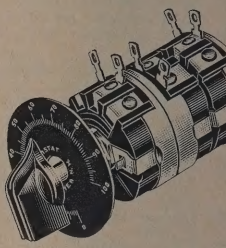
SOUND-SYSTEM CONTROLS

For proper control of volume and tone alike, Clarostat offers a choice of several controls, such as L- and T-pads, output attenuators, and individual-speaker volume controls as used for drive-in theatre installations. These are not ordinary radio controls but rather sound-system controls designed and built for critical requirements.

CONSTANT-IMPEDANCE CONTROLS



Self-compensating volume controls known as L-pads and T-pads for use in sound systems. Rated at 2½ watts DC, but will handle up to 10 watts audio. Continuous range from 0.5 to 30 decibels attenuation in 90% rotation. Last 10% affords infinite attenuation. With Clarostat constant-impedance L-pads and T-pads the input and output impedances of associated circuits can be kept within the limits of a constant required value. Knob and dial plate furnished with each control.



U. S. Pat. 2,434,248

CIT Cat. No.	CIL Cat. No.	Res. Ohms	CIT Cat. No.	CIL Cat. No.	Res. Ohms
CIT-4	CIL-4	4	CIT-200	CIL-200	200
CIT-6	CIL-6	6	CIT-250	CIL-250	250
CIT-8	CIL-8	8	CIT-500	CIL-500	500
CIT-15	CIL-15	15	CIT-600	CIL-600	600
CIT-50	CIL-50	50	CIT-1,000	CIL-1,000	1,000
CIT-100	CIL-100	100	CIT-2,000	CIL-2,000	2,000

CIT—NET PRICE $3.13 **CIL—NET PRICE $2.79** Standard Packing: Individual Carton.

CONSTANT IMPEDANCE OUTPUT ATTENUATORS

Series "CIB" rated at 10 watts, but will handle up to 30 watts in audio circuit. Linear attenuation provided in 3 decibel steps up to 24db, then 30db followed by infinity. Equipped with dial plate and bar knob. One-hole mounting, ⅜" bushing diameter. 1" shaft. This control has been developed to meet the need for a constant-impedance attenuator capable of handling considerable power without measurable insertion loss. Recommended as an output level control for power amplifiers, or as an input attenuator for individual or for a group of speakers in a public address system.

Cat. No.	Res. Ohms	Cat. No.	Res. Ohms
CIB-6	6	CIB-200	200
CIB-8	8	CIB-250	250
CIB-15	15	CIB-500	500
CIB-50	50	CIB-600	600

NET PRICE $7.70 Standard Packing: Individual Carton.

SPECIAL DRIVE-IN THEATRE L-PAD

To meet the needs of theater sound systems, more especially those of drive-in theaters, a special 8 ohm L-Pad is now available, containing two separate windings of 5 ohms and 40 ohms. Also 50 ohm linear rheostat and 35 ohm tapered rheostat, as listed. Units have ⅜-32 bushing ⅜" long, and 1½" round shaft.

Cat. No. CM8727-1 8 ohm L-Pad

Net Price $1.80

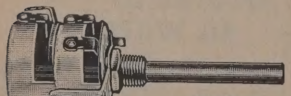
Cat. No. CM17083 50 ohm linear rheostat **Price $1.32**

Cat. No. CM17084 35 ohm tapered rheostat **Net Price $1.32**

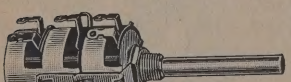
SPACE-SAVER CONSTANT-IMPEDANCE ATTENUATORS

Characterized by reduced depth and diameter, these attenuators are ideal for use in remote control of speakers since they are small enough to be installed in standard electrical boxes in the home, office, stockroom, etc.

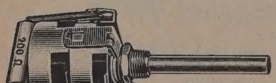
These controls are rated 2 watts D.C., but will handle up to 4 watts of audio, depending upon the type signal being handled. (As the frequency becomes constant, wattage reduces to 2 watts or the same as the D.C. rating).



CIL43



CIT43



CIBT43

Cat. No. CIL43 (L-Pad)	Cat. No. CIT43 (T-Pad)	Cat. No. CIBT43 (Bridged T-Pad)	Impedance
CIL43-4	CIT43-4	CIBT43-4	4 ohms
CIL43-6	CIT43-6	CIBT43-6	6 ohms
CIL43-8	CIT43-8	CIBT43-8	8 ohms
CIL43-15	CIT43-15	CIBT43-15	15 ohms
CIL43-50	CIT43-50	CIBT43-50	50 ohms
CIL43-100	CIT43-100	CIBT43-100	100 ohms
CIL43-200	CIT43-200	CIBT43-200	200 ohms
CIL43-250	CIT43-250	CIBT43-250	250 ohms
CIL43-500	CIT43-500	CIBT43-500	500 ohms

NET PRICE CIL43 $2.79 **NET PRICE CIT43 $3.13**

NET PRICE CIBT43 $3.63
Standard Packing — Individual Carton

- Attenuation range of 0 to 30 db over 90% of rotation, 60 db in remaining 10% of rotation. Attenuation will increase approximately linearly to 30 db with counter-clockwise rotation.
- Insertion loss less than 0.5 db.
- Input impedance within plus/ minus 20%.
- The CIT43 and CIBT43 (Bridged T Pad) have constant input and output impedances, while the CIL43 has constant impedance in the input only.
- Shafts and bushings are insulated from the circuit elements.
- Pads have ⅜-32 x ⅜" long bushing.
- ¼" dia. round shafts 1½" long beyond bushing.
- All pads supplied with bar knob and dial plates, as shown above.
- Dia. 1⅛". Depth of body from mounting surface: CIL43 — 1 5/32"; CIT43 — 1¾"; CIBT43 — 1½".

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PRODUCTS OF
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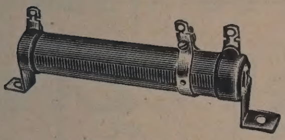
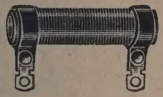
RESISTANCE DEVICES

"GREENOHM"* WIRE-WOUND RESISTORS

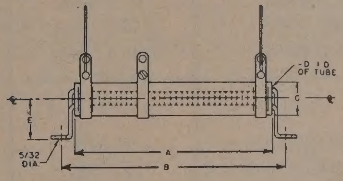




FIXED TYPES Wire-wound resistors for most rugged applications. Will withstand tremendous overloads and temperature changes without alterating resistance values or appearance. Wire windings on high grade ceramic tubing and coated with special inorganic cement. In accordance with EIA standards, overall tolerances are ± 5% for resistors of 50 ohms and higher. For resistors of 49.9 ohms and lower, overall tolerances are ± 10%.

ADJUSTABLE TYPES Same electrically and mechanically as Fixed types, but incorporating sliding band or bands for tapping any desired resistance values. Slider band tightened by means of screw. In accordance with EIA standards, overall tolerances are ± 10%.

DIMENSIONS BY TYPES



SERIES	WATTS	A	B	C	D	E
PR-5-F	5	1	1-7/16	5/16	3/16	7/16
PR-10-F	10	1-3/4	2-3/16	5/16	3/16	7/16
PR-10-FA	10	1-3/4	2-3/16	5/16	3/16	7/16
PR-20-K	20	2	2-1/2	9/16	3/8	9/16
P-25-K	25	2-1/2	3	9/16	3/8	9/16
P-25-KA	25	2-1/2	3	9/16	3/8	9/16

FIXED RESISTORS

5-WATT SERIES PR-5-F

These resistors conform to E1A specification for type RRW-125 and 128.

Ohms	Ohms	Ohms	Ohms
1	75	800	5,000
2	100	900	6,000
3	125	1,000	7,000
4	150	1,100	7,500
5	200	1,200	8,000
7.5	225	1,250	8,500
10	250	1,500	9,000
12	300	1,750	10K
15	350	2,000	
20	400	2,250	
25	450	2,500	
30	500	3 000	
35	600	3,500	
40	700	4,000	
50	750	4,500	

NET PRICE $0.33
Standard Packing — 10 per Carton.
Mounting brackets supplied at extra cost.

25-WATT SERIES P-25-K

Ohms	Ohms	Ohms	Ohms
1	750	10K	
2	800	12K	
3	1,000	15K	
5	1,250	20K	
7.5	1,500	25K	
10	2,000	30K	
15	2,250	35K	
20	2,500	40K	
25	3,000	45K	
50	3,500	50K	
75	4,000	60K	
100	4,500	70K	
150	5,000	75K	
200	6,000	80K	
250	7,000	85K	
300	7,500	90K	
400	8,000	100K	
500	9,000		

NET PRICES:

1 ohm to 5,000	$0.51
6,000 to 15K ohms	.57
20K to 50K ohms	.66
60K ohms	.75
70K ohms	.84
75K ohms	.87
80K ohms	.90
85K ohms	.99
90K ohms	1.05
100K ohms	1.17

Mounting brackets at no extra cost.
Standard Packing — individually Boxed.

10-WATT SERIES PR-10-F

These resistors conform to military specifications for type RW29, and E1A type RRW-126 and 129.

Ohms	Ohms	Ohms	Ohms
1	200	2,000	14.5K
2	225	2,250	15K
3	250	2,500	16K
4	300	3,000	17.5K
5	350	3,500	18K
7.5	400	4,000	20K
10	450	4,500	22.5K
12	500	5,000	25K
15	600	6,000	30K
20	700	7,000	35K
25	750	7,500	40K
30	800	8,000	50K
35	900	8,500	
40	1,000	9,000	
50	1,100	10K	
75	1,200	11K	
100	1,250	12K	
125	1,500	12.5K	
150	1,750	13.5K	

NET PRICE $0.36

Mounting brackets supplied at extra cost.
Standard Packing — 10 per Carton.

20-WATT SERIES PR-20-K

These resistors conform to E1A specifications for type RRW-127.

Ohms	Ohms	Ohms	Ohms
5	850	7,000	70K
10	1,000	7,500	75K
25	1,200	8,000	80K
50	1,250	9,000	85K
75	1,500	10K	90K
100	1,750	12.5K	95K
150	1,850	15K	100K
200	2,000	20K	
250	2,250	25K	
300	2,500	30K	
350	2,750	35K	
400	3,000	40K	
500	3,500	45K	
650	4,000	50K	
700	4,500	55K	
750	5,000	60K	
800	6,000	65K	

NET PRICES:

5 ohms to 15K ohms	$0.42
20K to 50K ohms	.57
55K to 100K ohms	.72

Mounting brackets supplied at extra cost.
Standard Packing — 5 per Carton.

ADJUSTABLE RESISTORS

These resistors conform to military specification for type RW-29 and E1A specification for type RRW-226.

10-WATT SERIES PR-10-FA

Res.	Res.	Res.	Res.
1	75	750	4,000
2	100	800	4,500
3	150	1,000	5,000
5	200	1,250	6,000
7.5	250	1,500	7,000
10	300	2,000	7,500
15	350	2,250	8,000
20	400	2,500	8,500
25	500	3,000	9,000
50	600	3,500	10K

NET PRICE $0.57

25-WATT SERIES P-25-KA

Res.	Res.	Res.	Res.
1	75	1,000	5,000
2	100	1,250	6,000
3	150	1,500	7,000
5	200	2,000	7,500
7.5	250	2,250	8,000
10	300	2,500	9,000
15	400	3,000	10K
20	500	3,500	12K
25	750	4,000	15K
50	800	4,500	20K
			25K
			50K

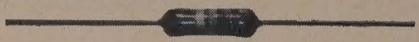
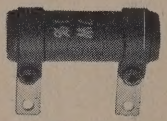
NET PRICES:

1 ohm to 5,000 ohms	$0.63
6,000 to 15K ohms	.72
20K to 25K ohms	.84
50K ohms	.99

Above adjustable resistors supplied with mounting brackets at no extra cost. Extra slider bands — 30¢ each. Standard Packing — individually boxed.

CORNING GLASS/METAL OXIDE FILM RESISTORS

Fuse a tin oxide coating into glass, cut a helix in the coating, attach leads and you have a simple, rugged, exceptionally reliable CORNING resistor. Its TC is guaranteed from ±0.015% to ±0.050% depending on type. Overload change is less than 1%; noise level typically less than 0.1 uv/v. It is non-inductive above 280 ohms. Standard values from 1.00 to 9.76, except for C resistors whose values run from 10 to 91 on standard decade tables, are the same as standard decade values in applicable military specifications.

	TYPE AND MIL SPEC	MODEL/MIL MODEL	RESISTANCE (ohms)	WATTAGE	TOLERANCE
C	General purpose, low-cost film type. Prices and sizes comparable to carbon composition type, but with film resistor performance characteristics MIL-R-22684A (Navy) 	C07/RL07AD C20/RL20AD C32/RL32AD C42S/RL42AD C42	51 to 150K 10 to 470K 10 to 1 meg. 10 to 1.5 meg. 10 to 1.5 meg.	¼ @ 70°C ½ @ 70°C 1 @ 70°C 2 @ 70°C 2 @ 70°C	2%, 5% 2%, 5% 2%, 5% 2%, 5% 10%
N	Insulation coating. Typical load-life resistance change less than 0.5%. MIL-R-10509D, meets Char. B. New N55 meets MIL-R-10509D, Char. D.	N55/RN55D N60/RN60B N65/RN65B N70/RN70B	51.1 to 150K 10 to 133K 10 to 499K 10 to 1 meg.	⅛ @ 70°C ⅛ @ 70°C ¼ @ 70°C ½ @ 70°C	1% 1% 1% 1%
N-20	Proven stability in 40,000 hrs. testing. Uninsulated. MIL-R-10509B. Char. X	N12 N20/RN20 N25/RN25 N30/RN30	100 to 133K 10 to 500K 10 to 1.5 meg. 30 to 4.2 meg.	¼ @ 70°C ½ @ 70°C 1 @ 70°C 2 @ 70°C	1, 2, and 5% 1, 2, and 5% 1, 2, and 5% 1, 2, and 5%
NF	Glass encapsulation is fusion sealed. MIL-R-10509D, Char. G or B	NF60/RN60G or B NF65/RN65G or B	100-200K 100-348K	⅛ @ 70°C ¼ @ 70°C	1% 1%
S	Fixed-film type for high-temperature operation. Silicone baked lacquer. MIL-R-11804D. Char. P.	S20/RD60P S25/RD65P S30/RD70P	10 to 500K 10 to 1.54 meg. 30.1 to 4.22 meg.	130°C 25°C ½ 1 1 2 2 4	1, 2, 5, 10% 1, 2, 5, 10% 1, 2, 5, 10%
R	Power type, essentially noninductive in high-frequency operations. MIL-R-11804D. 	R31/RD31P R33/RD33P R35/RD35P R37/RD37P R39/RD39P	10 to 70K 19.6 to 150K 19.6 to 301K 19.6 to 500K 30.1 to 1 meg.	7 @ 25°C 13 @ 25°C 25 @ 25°C 55 @ 25°C 115 @ 25°C	2, 5, 10% 2, 5, 10% 2, 5, 10% 2, 5, 10% 2,5 , 10%

STANDARD VALUES*

N, N INSULATED, NF, S, R, RESISTORS 1, 2, and 5% Tolerances												C RESISTORS	
1%	2%	5%	1%	2%	5%	1%	2%	5%	1%	2%	5%	±2% & ±5%	±10%†
1.00	1.00	1.00	1.78	1.78	1.78	3.16	3.16	3.16	5.62	5.62	5.62	10	10
1.02			1.82			3.24			5.76			11	—
1.05	1.05		1.87	1.87		3.32	3.32		5.90	5.90		12	12
1.07			1.91			3.40			6.04			13	—
1.10	1.10	1.10	1.96	1.96	1.96	3.48	3.48	3.48	6.19	6.19	6.19	15	15
1.13			2.00			3.57			6.34			16	—
1.15	1.15		2.05	2.05		3.65	3.65		6.49	6.49		18	18
1.18			2.10			3.74			6.65			20	—
1.21	1.21	1.21	2.15	2.15	2.15	3.83	3.83	3.83	6.81	6.81	6.81	22	22
1.24			2.21			3.92			6.98			24	—
1.27	1.27		2.26	2.26		4.02	4.02		7.15	7.15		27	27
1.30			2.32			4.12			7.32			30	—
1.33	1.33	1.33	2.37	2.37	2.37	4.22	4.22	4.22	7.50	7.50	7.50	33	33
1.37			2.43			4.32			7.68			36	—
1.40	1.40		2.49	2.49		4.42	4.42		7.87	7.87		39	39
1.43			2.55			4.53			8.06			43	—
1.47	1.47	1.47	2.61	2.61	2.61	4.64	4.64	4.64	8.25	8.25	8.25	47	47
1.50			2.67			4.75			8.45			51	—
1.54	1.54		2.74	2.74		4.87	4.87		8.66	8.66		56	56
1.58			2.80			4.99			8.87			62	—
1.62	1.62	1.62	2.87	2.87	2.87	5.11	5.11	5.11	9.09	9.09	9.09	68	68
1.65			2.94			5.23			9.31			75	—
1.69	1.69		3.01	3.01		5.36	5.36		9.53	9.53		82	82
1.74			3.09			5.49			9.76			91	—

*Standard resistance values are obtained from the decade table by multiplying by multiples of 10. As an example, 1.33 can represent 13.3 ohms, 133 ohms, 1.33k, 13.3k, 133k, 1.33 megohm.

*Values not listed are considered non-standard.
†C42 only.

See our complete line of fixed glass capacitors and trimmer capacitors in Section 1500. For more technical data or for fast delivery on top-reliability CORNING resistors, call your CORNING distributor, or contact us directly.

CORNING
ELECTRONICS

A DIVISION OF CORNING GLASS WORKS
RALEIGH, N. C.

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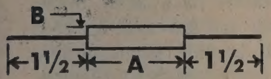
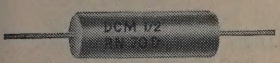
Precision Products

PRECISION RESISTORS • CARBON & METAL FILM

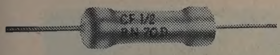
The precision carbon and metal film resistors listed below are available as aged or power conditioned units — to customer specifications. Aged resistors are burned in for 100 hours at rated power and operating temperature with a failure reference of 0.1%ΔR. Power conditioned units are stressed for 6 hours up to 6.25 times rated power (depending on size) at 25°C with a failure reference of 0.5%ΔR. Electra's complete line features cap construction for positive termination and rugged handling. Coated units are conformally covered with new Impervium coatings, which achieve a MIL level moisture barrier. Catalogs detailing complete technical information will be sent on request.



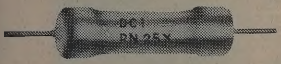
TYPE DCM
(CARBON FILM)
MOLDED



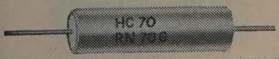
TYPE CF
(CARBON FILM)
HIGH TEMPERATURE



TYPE DC
(CARBON FILM)
CONFORMAL COATED

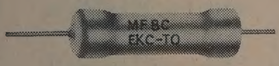


TYPE HC
(CARBON FILM)
HERMETICALLY SEALED



TYPE MF
(METAL FILM)
MOLDED

TYPE MFC
(METAL FILM)
CONFORMAL COATED



ELECTRA PART NUMBER	MIL EQUIVALENT	ELECTRA RESISTANCE RANGE 500 PPM/°C	RATED WATTAGE		MAX. RATED VOLTAGE	BODY LENGTH A	BODY DIAMETER B	LEAD AWG. NO.
			MIL@ 70°C	ELECTRA@ 125°C				
DCM 1/10	RN55 D	*10Ω to 301K	1/8	1/10	250	.260±.010	.125±.010	22
DCM 1/8	RN60 D/B	*10Ω to 1 Meg.	1/4	1/8	300	.400±.015	.135±.010	22
DCM 1/4	RN65 D/B	*10Ω to 2 Meg.	1/2	1/4	350	.595±.015	.215±.010	22
DCM 1/2	RN70 D/B	*10Ω to 2.49 Meg.	1	1/2	500	.755±.015	.260±.010	20
DCM 1	RN75 B	*10Ω to 5.11 Meg.	1		500	1.110±.015	.390±.010	20
DCM 2	RN80 B	*30.1Ω to 10 Meg.	2		750	2.240±.015	.400±.010	20
*SAME AS MIL RESISTANCE RANGE								
CF 1/10	RN55 D	*10Ω to 301K	1/8	1/10	250	.250±.031	.093±.010	22
CF 1/8A	RN60 D/B	*10Ω to 1 Meg.	1/4	1/8	300	.382±.031	.150±.015	22
CF 1/4	RN65 D/B	*10Ω to 2 Meg.	1/2	1/4	350	.609±.031	.210+.031 −.015	22
CF 1/2	RN70 D/B	*10Ω to 2.49 Meg.	1	1/2	500	.750±.062	.234+.031 −.015	20
*SAME AS MIL RESISTANCE RANGE								
DC 1/8A		10Ω to 309K		†1/8	250	.312±.031	.093±.031	22
DC 1/4A	*RN10X	10Ω to 825K		†1/4	300	.468±.031	.093±.031	22
DC 1/2A	*RN20X	10Ω to 2.49 Meg.		†1/2	350	.625±.031	.171±.031	20
DC 1/2C	*RN15X	10Ω to 1.7 Meg.		†1/2	350	.500±.031	.171±.031	20
DC 1	*RN25X	10Ω to 6.49 Meg.		†1	500	.937±.062	.297±.031	20
DC 2	*RN30X	30Ω to 17 Meg.		†2	1000	2.095±.070	.297±.031	20
*OBSOLETE MIL STYLES					†NOMINAL RATED POWER @ 70°C			
HC-60	RN60 G/B	*10Ω to 1 Meg.	1/8	NA	250	.433±.005	.158±.010	22
HC-65	RN65 G/B	*10Ω to 2 Meg.	1/4	NA	300	.640±.015	.243±.010	22
HC-70	RN70 G/B	*10Ω to 2.49 Meg.	1/2	NA	500	.833±.010	.250±.010	20
HC-75	RN75 G/B	*10Ω to 5.11 Meg.	1	NA	500	1.115±.010	.400±.010	20
HC-80	RN80 G/B	*30.1Ω to 10 Meg.	2	NA	1000	2.240±.010	.400±.010	20
*SAME AS MIL RESISTANCE RANGE								
MF 1/10	RN55 C/E RN55 D	*49.9Ω to 100K 30.1Ω to 301K	†1/10		200	.260±.010	.125±.010	22
MF 1/8	RN60 C/E RN60 D	*49.9Ω to 499K 30.1Ω to 1 Meg.	†1/8		250	.406±.015	.135±.010	22
MF 1/4	RN65 C/E/F RN65 D	*49.9Ω to 1 Meg. 49.9Ω to 1 Meg.	†1/4,1/2		300	.594±.015	.210±.015	22
MF 1/2	RN70 C/E/F RN70 D	*24.9Ω to 1 Meg. 49.9Ω to 1.5 Meg.	†1/2, 1		350	.750±.020	.265±.015	20
MF 1	RN75 C/E	*49.9Ω to 2 Meg.	†1		500	1.105±.020	.395±.020	20
MF 2	NA	100Ω to 10 Meg.	†2		750	2.239±.020	.395±.020	20
*SAME AS MIL RESISTANCE RANGE			†RATED POWER @ 125°C					
MF3C	NA	30.1Ω to 100K		1/20	200	.130±.015	.048±.010	26
MF4C	NA	30.1Ω to 301K		1/10	250	.250±.031	.093±.010	22
MF5C	NA	30.1Ω to 499K		1/8	250	.312±.031	.093±.010	22
MF6C	NA	49.9Ω to 1 Meg.		1/4	300	.495±.031	.146±.010	22
MF7C	NA	49.9Ω to 1.5 Meg.		1/2	350	.600±.031	.160±.010	20
MF8C	NA	49.9Ω to 4 Meg.		1	500	.965±.031	.295±.015	20
MF9C	NA	100Ω to 10 Meg.		2	750	2.070±.080	.270±.025	20

NOTE: FOR RESISTANCE RANGE AND TEMPERATURE CHARACTERISTICS SEE METAL FILM CATALOG

ELECTRA MANUFACTURING COMPANY | INDEPENDENCE, KANSAS

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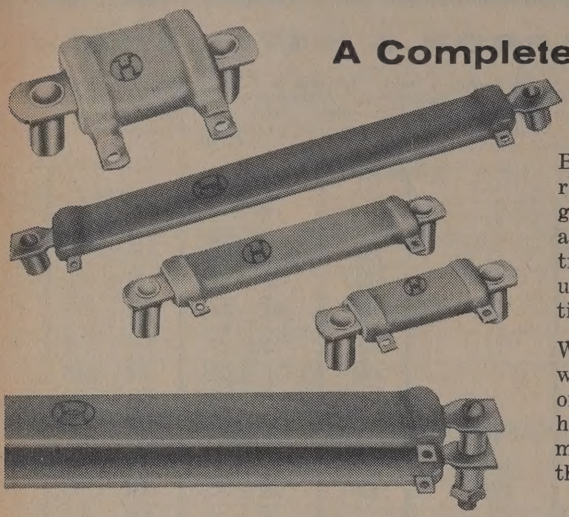
"Gray Line"

HARDWICK, HINDLE • INC
BLUE RIBBON RESISTORS



A Complete Line of Flat and Stack Mounting Power Resistors

Blue Ribbon wire-wound power resistors are made of quality materials with matched coefficients of expansion and are covered by H-H gray vitreous enamel for complete protection against environment and overload. The aluminum through bracket improves heat dissipation, minimizes hot spots, and allows a higher wattage rating per unit of space. Bracket construction facilitates stacking and adds additional space saving.

When BR resistors are stack mounted they must be derated to keep within rated operating temperatures. Watt ratings shown are based on the use of a steel panel 10 inches square x .040 thick supported horizontally. For non-metallic panels reduce rating 15%. When mounted as described in an ambient temperature not exceeding 40°C the maximum temperature rise of the resistor will not exceed 300°C.

10 WATT
Type ¾ BRS-53B
Mounting Centers 1"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B350	5	1.41	$ .92
B351	10	1.00	.92
B352	15	.82	.92
B353	25	.63	.92
B354	50	.45	.92
B355	100	.32	.92
B356	150	.26	.92
B357	250	.20	.92
B358	500	.14	.92
B359	1000	.10	.92
B360	1500	.081	.92
B361	2500	.063	.92
B362	5000	.045	.98
B363	10000	.032	1.03
B364	15000	.026	1.05

15 WATT
Type 1 BRS-53B
Mounting Centers 1¼"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B401	5	1.73	$ .97
B402	10	1.22	.97
B403	15	1.00	.97
B404	25	.78	.97
B405	50	.55	.97
B406	100	.39	.97
B407	150	.32	.97
B408	250	.25	.97
B409	500	.17	.97
B410	1000	.12	.97
B411	1500	.10	.97
B412	2500	.078	.97
B413	5000	.055	1.00
B414	10000	.039	1.04
B415	15000	.032	1.11
B416	20000	.027	1.15
B417	25000	.025	1.20

20 WATT
Type 2 BRS-53B
Mounting Centers 2⁵⁄₁₆"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B450	5	2.00	$ .99
B451	10	1.41	.99
B452	15	1.16	.99
B453	25	.89	.99
B454	50	.63	.99
B455	100	.45	.99
B456	150	.36	.99
B457	250	.28	.99
B458	500	.20	.99
B459	1000	.14	.99
B460	1500	.12	.99
B461	2500	.089	.99
B462	5000	.063	1.04
B463	10000	.045	1.16
B464	15000	.036	1.20
B465	20000	.032	1.26
B466	25000	.028	1.33
B467	50000	.020	1.44

20 WATT
Type BRM-37
Mounting Center 1⁵⁄₁₆"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B501	5	2.00	$ .96
B502	10	1.41	.96
B503	15	1.16	.96
B504	25	.89	.96
B505	50	.63	.96
B506	100	.45	.96
B507	150	.36	.96
B508	250	.28	.96
B509	500	.20	.96
B510	1000	.14	.96
B511	1500	.12	.96
B512	2500	.089	.96
B513	5000	.063	.98
B514	8000	.050	1.04

30 WATT
Type 1½ BRM-37
Mounting Centers 1¹³⁄₁₆"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B550	5	2.46	$ .98
B551	10	1.73	.98
B552	15	1.42	.98
B553	25	1.10	.98
B554	50	.77	.98
B555	100	.55	.98
B556	150	.45	.98
B557	250	.35	.98
B558	500	.25	.98
B559	1000	.17	.98
B560	1500	.14	.98
B561	2500	.11	.98
B562	5000	.076	1.04
B563	10000	.049	1.15
B564	15000	.045	1.19

When Resistors are mounted on a non-metallic base the nominal watt rating should be reduced by approximately 15%.

30 WATT
Type 1¼" BR-37
Mounting Centers 2"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B101	5	2.46	$1.28
B102	10	1.73	1.28
B103	15	1.42	1.28
B104	25	1.10	1.28
B105	50	.77	1.28
B106	100	.55	1.28
B107	150	.45	1.28
B108	250	.35	1.28
B109	500	.25	1.28
B110	1000	.17	1.28
B111	1500	.14	1.28
B112	2500	.11	1.28
B113	5000	.076	1.37
B114	10000	.049	1.48

40 WATT
Type 2" BR-37
Mounting Centers 2¾"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B201	5	2.83	$1.32
B202	10	2.00	1.32
B203	15	1.63	1.32
B204	25	1.26	1.32
B205	50	.89	1.32
B206	100	.63	1.32
B207	150	.52	1.32
B208	250	.40	1.32
B209	500	.28	1.32
B210	1000	.20	1.32
B211	1500	.16	1.32
B212	2500	.13	1.32
B213	5000	.089	1.43
B214	10000	.063	1.60
B215	15000	.045	1.67

55 WATT
Type 3½" BR-37
Mounting Centers 4¼"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B301	5	3.32	$1.53
B302	10	2.34	1.53
B303	15	1.92	1.53
B304	25	1.48	1.53
B305	50	1.05	1.53
B306	100	.74	1.53
B307	150	.61	1.53
B308	250	.47	1.53
B309	500	.33	1.53
B310	1000	.23	1.53
B311	1500	.19	1.53
B312	2500	.15	1.53
B313	5000	.10	1.63
B314	10000	.074	1.79
B315	15000	.061	1.87
B316	25000	.047	2.05

75 WATT
Type 6" BR-37
Mounting Centers 6¾"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B601	5	3.87	$1.93
B602	10	2.74	1.93
B603	15	2.24	1.93
B604	25	1.73	1.93
B605	50	1.22	1.93
B606	100	.86	1.93
B607	150	.71	1.93
B608	250	.55	1.93
B609	500	.39	1.93
B610	1000	.27	1.93
B611	1500	.22	1.93
B612	2500	.17	1.93
B613	5000	.12	2.00
B614	10000	.086	2.16
B615	15000	.070	2.24
B616	25000	.054	2.43
B617	50000	.033	2.60

Adjustable resistors with a bare edge can be furnished for obtaining intermediate resistance values. Standard tolerance ±5% on all stock units. Tapped units and closer tolerances to 1% available.

Specify short stud on BRS for unit mounting if height is at a premium.

Packaged one unit per box. Made in accordance with MIL-R-26C.

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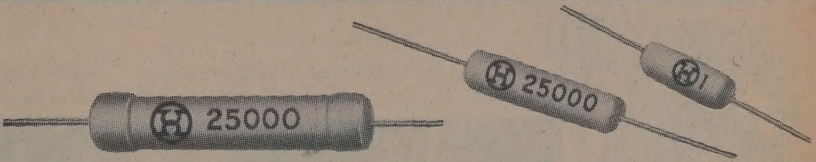
HARDWICK, HINDLE · INC AXIAL-LEAD RESISTORS

The Quality
INDUSTRIAL LINE
since 1924



The "free air" wattage ratings of these axial lead resistors are based on a hot spot temperature rise of 300°C. (540°F.) in an ambient temperature not exceeding 40°C. (104°F.). These are the finest quality vitreous enameled wire-wound resistors made with application-tested parts and employing precision assembly. Since parts have matched heat expansion, crazing and cracks are eliminated. All welded construction.

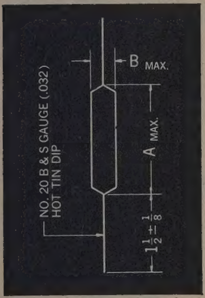
Standard Sizes:

Resistor Type	Tube Dimensions A	Tube Dimensions B	Watt Rating Nominal	Recommended Resist. Range Min. ohms	Recommended Resist. Range Max. ohms
9/16 GA	9/16"	1/4"	3 Watts	1	10,000
1 WA	1"	11/32"	5 Watts	1	25,000
1 3/4 ZA	1 3/4"	13/32"	10 Watts	1	50,000

Standard tolerance is ±5% for all stock units.

3 WATT SIZE — Type 9/16 EA — 9/16" long x 1/4" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
701	1.0	1.73	$ .59	719	125	.155	$ .59	737	1250	.049	$ .62
702	1.5	1.41	.59	720	150	.141	.59	738	1500	.045	.62
703	2.0	1.22	.59	721	200	.122	.59	739	1750	.041	.62
704	3.0	1.00	.59	722	225	.115	.59	740	2000	.039	.62
705	4.0	.86	.59	723	250	.109	.59	741	2250	.036	.62
706	5.0	.78	.59	724	300	.1	.59	742	2500	.035	.62
707	7.5	.63	.59	725	350	.093	.59	743	3000	.032	.62
708	10	.55	.59	726	400	.087	.59	744	3500	.029	.62
709	12	.50	.59	727	450	.082	.59	745	4000	.027	.62
710	15	.45	.59	728	500	.078	.59	746	4500	.026	.62
711	20	.39	.59	729	600	.071	.59	747	5000	.025	.62
712	25	.35	.59	730	700	.065	.59	748	6000	.022	.66
713	30	.32	.59	731	750	.063	.59	749	7000	.020	.66
714	35	.285	.59	732	800	.061	.59	750	7500	.020	.66
715	40	.274	.59	733	900	.058	.59	751	8000	.019	.66
716	50	.245	.59	734	1000	.055	.59	752	9000	.018	.66
717	75	.200	.59	735	1100	.052	.62	753	10000	.017	.66
718	100	.173	.59	736	1200	.050	.62				



Made in accordance with MIL-R-26. Packaged 10 units per box.

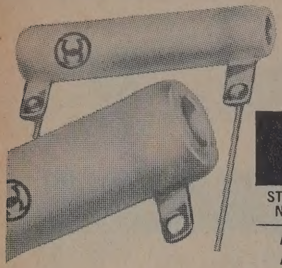
5 WATT SIZE — Type 1 WA — 1" long x 11/32" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
801	1.0	2.23	$ .62	816	50	.316	$ .62	831	750	.081	$ .62	846	4500	.033	$ .66
802	1.5	1.82	.62	817	75	.258	.62	832	800	.079	.62	847	5000	.032	.66
803	2.0	1.58	.62	818	100	.224	.62	833	900	.074	.62	848	6000	.029	.70
804	3.0	1.29	.62	819	125	.200	.62	834	1000	.070	.62	849	7000	.027	.70
805	4.0	1.12	.62	820	150	.182	.62	835	1100	.067	.66	850	7500	.026	.70
806	5.0	1.0	.62	821	200	.158	.62	836	1200	.064	.66	851	8000	.025	.70
807	7.5	.818	.62	822	225	.149	.62	837	1250	.063	.66	852	9000	.024	.70
808	10	.7	.62	823	250	.141	.62	838	1500	.057	.66	853	10000	.022	.70
809	12	.645	.62	824	300	.129	.62	839	1750	.053	.66	854	12500	.020	.78
810	15	.575	.62	825	350	.120	.62	840	2000	.050	.66	855	15000	.018	.78
811	20	.500	.62	826	400	.112	.62	841	2250	.047	.66	856	17500	.017	.78
812	25	.447	.62	827	450	.105	.62	842	2500	.045	.66	857	18000	.017	.78
813	30	.408	.62	828	500	.100	.62	843	3000	.041	.66	858	20000	.016	.78
814	35	.378	.62	829	600	.091	.62	844	3500	.037	.66	859	22500	.015	.82
815	40	.353	.62	830	700	.084	.62	845	4000	.035	.66	860	25000	.014	.82

10 WATT SIZE — Type 1 3/4 ZA — 1 3/4" long x 13/32" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
901	1.0	3.16	$ .95	915	40	.5	$ .68	929	600	.129	$ .68	943	3000	.057	$ .73	957	12500	.028	$ .95
902	1.5	2.58	.95	916	50	.447	.68	930	700	.119	.68	944	3500	.053	.73	958	13500	.027	.95
903	2.0	2.235	.95	917	75	.365	.68	931	750	.115	.68	945	4000	.050	.73	959	15000	.026	.95
904	3.0	1.825	.68	918	100	.316	.68	932	800	.111	.68	946	4500	.047	.73	960	16000	.025	.95
905	4.0	1.58	.68	919	125	.283	.68	933	900	.105	.68	947	5000	.045	.73	961	17500	.024	.95
906	5.0	1.414	.68	920	150	.258	.68	934	1000	.100	.68	948	6000	.041	.84	962	18000	.023	.95
907	7.5	1.155	.68	921	200	.223	.68	935	1100	.095	.73	949	7000	.038	.84	963	20000	.022	.95
908	10	1	.68	922	225	.217	.68	936	1200	.091	.73	950	7500	.036	.84	964	22500	.021	1.00
909	12	.910	.68	923	250	.200	.68	937	1250	.089	.73	951	8000	.035	.84	965	25000	.020	1.00
910	15	.816	.68	924	300	.182	.68	938	1500	.081	.73	952	8500	.034	.84	966	30000	.018	1.00
911	20	.707	.68	925	350	.169	.68	939	1750	.075	.73	953	9000	.033	.84	967	35000	.017	1.00
912	25	.632	.68	926	400	.158	.68	940	2000	.071	.73	954	10000	.032	.84	968	40000	.016	1.00
913	30	.575	.68	927	450	.149	.68	941	2250	.066	.73	955	11000	.030	.95	969	45000	.015	1.12
914	35	.535	.68	928	500	.141	.68	942	2500	.063	.73	956	12000	.029	.95	970	50000	.014	1.12

"Gray Line" HARDWICK, HINDLE • INC FIXED RESISTORS



Vitreous Enameled Construction

Eight stock sizes of Hardwick, Hindle fixed resistors provide an exceptionally wide choice of resistance values to meet varied applications. Ratings are in accordance with NEMA standards, being based on a temperature rise of 300°C in free air. Data on types, sizes and values not included here, and on fixed resistors with intermediate taps, special mountings, modified terminals, etc. will be furnished on request. All stock sizes are supplied complete with mounting brackets.

5 WATT Type 1Z-34 1" long x 5/16" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
A1	1	2.23	$ .57
A2	3	1.29	.57
A3	5	1.00	.57
A4	7.5	.81	.57
A5	10	.71	.57
A6	15	.58	.57
A7	25	.45	.57
A8	50	.32	.57
A9	75	.26	.57
A10	100	.22	.57
A11	150	.18	.57
A12	200	.16	.57
A13	250	.14	.57
A14	400	.11	.57
A15	500	.10	.57
A16	750	.082	.57
A17	1000	.070	.57
A18	1250	.063	.61
A19	1500	.057	.61
A20	2000	.050	.61
A21	2500	.045	.61
A22	3000	.041	.61
A23	4000	.035	.61
A24	5000	.032	.61
A25	7500	.026	.58
A26	10000	.022	.58
A27	12500	.020	.65
A28	15000	.018	.65
A29	20000	.016	.65
A30	25000	.013	.68

10 WATT Type 1¾Z-34 1¾" long x 5/16" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
A101	1	3.16	$ .57
A102	3	1.83	.57
A103	5	1.41	.57
A104	7.5	1.16	.57
A105	10	1.00	.57
A106	15	.82	.57
A107	25	.63	.57
A108	50	.45	.57
A109	75	.37	.57
A110	100	.32	.57
A111	150	.26	.57
A112	200	.22	.57
A113	250	.20	.57
A114	400	.16	.57
A115	500	.14	.57
A116	750	.12	.57
A117	1000	.10	.57
A118	1250	.089	.61
A119	1500	.081	.61
A120	2000	.071	.61
A121	2500	.063	.61
A122	3000	.057	.61
A123	4000	.050	.61
A124	5000	.045	.61
A125	7500	.036	.70
A126	10000	.032	.70
A127	12500	.028	.79
A128	15000	.026	.79
A129	20000	.022	.79
A130	25000	.020	.83

20 WATT Type 2H-34 2" long x 7/16" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
A201	5	2.00	$ .68
A202	10	1.41	.68
A203	25	.89	.68
A204	50	.63	.68
A205	75	.52	.68
A206	100	.45	.68
A207	150	.36	.68
A208	200	.32	.68
A209	250	.28	.68
A210	400	.22	.68
A211	500	.20	.68
A212	750	.16	.68
A213	1000	.14	.68
A214	1250	.13	.70
A215	1500	.12	.70
A216	2000	.10	.70
A217	2500	.089	.70
A218	3000	.081	.70
A219	4000	.070	.70
A220	5000	.063	.70
A221	6000	.057	.83
A222	7500	.051	.83
A223	10000	.043	.83
A224	12500	.035	.85
A225	15000	.032	.85
A226	25000	.024	.99
A227	35000	.021	.99
A228	40000	.019	.99
A229	50000	.017	1.15

25 WATT Type 2JX-35 2" long x 9/16" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
1001	5	2.24	$ .72
1002	10	1.58	.72
1003	25	1.00	.72
1004	50	.71	.72
1005	75	.58	.72
1006	100	.50	.72
1007	150	.41	.72
1008	200	.35	.72
1009	250	.32	.72
1010	500	.22	.72
1011	750	.18	.72
1012	1000	.16	.72
1013	1500	.13	.75
1014	2000	.12	.75
1015	2500	.10	.75
1016	3000	.091	.75
1017	3500	.084	.75
1018	4000	.079	.75
1019	5000	.070	.75
1020	6000	.064	.85
1021	7500	.057	.85
1022	10000	.050	.85
1023	12000	.042	.90
1024	15000	.036	.90
1025	20000	.031	.90
1026	25000	.028	1.04

Standard tolerance is ±5% for all stock units.

5, 10 and 20 watts sizes packaged 10 units per box;
25 through 200 watt sizes packaged one unit per box.

50 WATT Type 4JX-35 4" long x 9/16" o.d. Mounting Centers 4¾"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
2000	1	7.07	$1.55
2001	5	3.16	1.11
2002	10	2.23	1.11
2003	25	1.41	1.11
2004	50	1.00	1.11
2005	75	.82	1.11
2006	100	.71	1.11
2007	150	.58	1.11
2008	200	.50	1.11
2009	250	.45	1.11
2010	500	.32	1.11
2011	750	.26	1.11
2012	1000	.22	1.11
2013	1500	.18	1.14
2014	2000	.16	1.14
2015	2500	.14	1.14
2016	3000	.13	1.14
2017	4000	.11	1.14
2018	5000	.10	1.14
2019	7500	.081	1.23
2020	10000	.071	1.23
2021	12000	.064	1.35
2022	15000	.057	1.35
2023	20000	.050	1.35
2024	25000	.045	1.54
2025	35000	.032	1.54
2026	50000	.026	1.72

100 WATT Type 6½L-35 6½" long x ¾" o.d. Mounting Centers 7⅜"

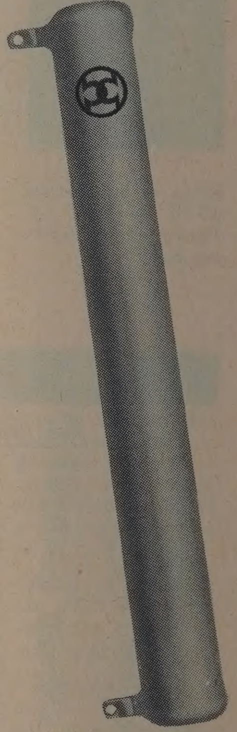
STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
3000	1	10.00	$2.16
3001	3	5.77	2.16
3002	5	4.47	1.54
3003	10	3.16	1.54
3004	25	2.00	1.54
3005	50	1.41	1.54
3006	75	1.15	1.54
3007	100	1.00	1.54
3008	250	.63	1.54
3009	500	.45	1.54
3010	1000	.32	1.54
3011	1500	.26	1.60
3012	2000	.22	1.60
3013	2500	.20	1.60
3014	3000	.18	1.60
3015	4000	.16	1.60
3016	5000	.14	1.60
3017	7500	.12	1.73
3018	10000	.10	1.73
3019	15000	.081	1.87
3020	20000	.071	1.87
3021	25000	.063	2.13
3022	30000	.058	2.13
3023	35000	.054	2.13
3024	40000	.050	2.13
3025	50000	.045	2.21
3026	60000	.041	2.21
3027	75000	.032	2.45

160 WATT Type 8½FX-57 8½" long x 1⅛" o.d. Mounting Centers 9⅜"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
4001	5	5.66	$3.19
4002	10	4.00	2.28
4003	25	2.53	2.28
4004	50	1.79	2.28
4005	75	1.46	2.28
4006	100	1.26	2.28
4007	150	1.03	2.28
4008	250	.80	2.28
4009	500	.57	2.28
4010	750	.46	2.28
4011	1000	.40	2.28
4012	1500	.33	2.32
4013	2000	.28	2.32
4014	2500	.25	2.32
4015	3000	.23	2.32
4016	5000	.18	2.32
4017	7500	.15	2.53
4018	10000	.13	2.53
4019	15000	.10	2.71
4020	20000	.089	2.71
4021	25000	.080	2.80
4022	30000	.073	2.80
4023	40000	.063	2.80
4024	50000	.057	2.89
4025	75000	.046	3.08
4026	100000	.040	3.26

200 WATT Type 10½FX-57 10½" long x 1⅛" o.d. Mounting Centers 11⅜"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
5001	5	6.32	$3.44
5002	10	4.47	2.46
5003	25	2.83	2.46
5004	50	2.00	2.46
5005	75	1.64	2.46
5006	100	1.41	2.46
5007	150	1.15	2.46
5008	250	.89	2.46
5009	500	.63	2.46
5010	750	.52	2.46
5011	1000	.45	2.46
5012	1500	.37	2.53
5013	2000	.32	2.53
5014	2500	.28	2.53
5015	3000	.26	2.53
5016	5000	.20	2.53
5017	7500	.16	2.71
5018	10000	.14	2.71
5019	15000	.12	2.89
5020	20000	.10	2.89
5021	25000	.089	2.98
5022	30000	.082	2.98
5023	40000	.071	2.98
5024	50000	.063	3.08
5025	75000	.052	3.26
5026	100000	.045	3.46



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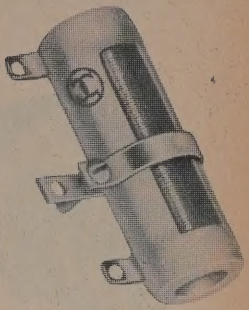
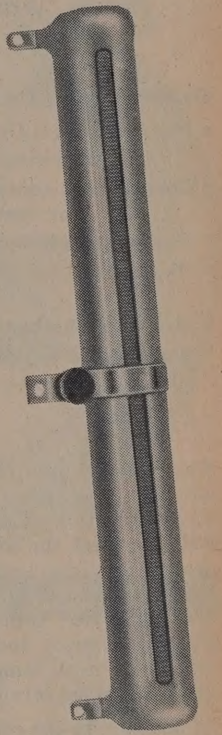
HARDWICK, HINDLE · INC
ADJUSTABLE RESISTORS

The Quality
INDUSTRIAL LINE
since 1924

This resistor, embodying features originated by Hardwick, Hindle possesses the many advantages of Vitreous Enamel Construction, plus an adjustable feature. The winding is closely and evenly spaced, assuring ample insulation between turns. Where winding is exposed in the track, its underside is tightly embedded in the enamel, the upper surface only being exposed for contact with adjustable band.





10 WATT—Type K-10
1¾" long x 5/16" o.d.
Mounting Centers 2 3/16"
Terminal 37

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
C10	1	3.16	$1.14
C11	3	1.83	1.14
C12	5	1.41	1.14
C13	7.5	1.16	1.14
C14	10	1.00	1.14
C15	25	.82	1.14
C16	50	.63	1.14
C17	75	.45	1.14
C18	100	.32	1.14
C19	150	.26	1.14
C20	200	.22	1.14
C21	250	.20	1.14
C22	400	.16	1.14
C23	500	.14	1.14
C24	750	.12	1.14
C25	1000	.10	1.14
C26	1250	.089	1.18
C27	1500	.081	1.18
C28	2000	.071	1.18
C29	2500	.063	1.18
C30	3000	.057	1.18
C31	4000	.050	1.18
C32	5000	.045	1.18
C33	7500	.036	1.27
C34	10000	.032	1.27

25 WATT—Type K-25
2" long x 9/16" o.d.
Mounting Center 2¾"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
6001	1	5.00	$1.29
6002	2	3.54	1.29
6003	3	2.88	1.29
6004	5	2.24	1.29
6005	10	1.58	1.29
6006	20	1.12	1.29
6007	25	1.00	1.29
6008	50	.71	1.29
6009	75	.58	1.29
6010	100	.50	1.29
6011	200	.35	1.29
6012	300	.29	1.29
6013	400	.25	1.29
6014	500	.22	1.29
6015	750	.18	1.29
6016	800	.17	1.29
6017	1000	.16	1.29
6018	1250	.14	1.32
6019	1500	.13	1.32
6020	2000	.12	1.32
6021	2500	.10	1.32
6022	3000	.091	1.32
6023	3500	.084	1.32
6024	4000	.079	1.32
6025	5000	.070	1.32
6026	6000	.064	1.42
6027	7000	.060	1.42
6028	8000	.055	1.42
6029	10000	.050	1.42
6030	15000	.036	1.47
6031	20000	.031	1.47
6032	25000	.028	1.61

50 WATT—Type K-50
4" long x 9/16" o.d.
Mounting Center 4¾"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
7001	5	3.16	$1.68
7002	10	2.23	1.68
7003	25	1.41	1.68
7004	50	1.00	1.68
7005	75	.82	1.68
7006	100	.71	1.68
7007	200	.50	1.68
7008	250	.45	1.68
7009	300	.41	1.68
7010	400	.35	1.68
7011	500	.32	1.68
7012	750	.26	1.68
7013	800	.25	1.68
7014	1000	.22	1.68
7015	1500	.18	1.71
7016	2000	.16	1.71
7017	2500	.14	1.71
7018	3000	.13	1.71
7019	4000	.11	1.71
7020	5000	.10	1.71
7021	6000	.091	1.80
7022	7000	.084	1.80
7023	7500	.081	1.80
7024	8000	.079	1.80
7025	9000	.074	1.80
7026	10000	.071	1.80
7027	12000	.064	1.92
7028	15000	.057	1.92
7029	20000	.050	1.92
7030	25000	.045	2.11
7031	30000	.036	2.11
7032	40000	.029	2.11
7033	50000	.026	2.29

75 WATT—Type K-75
6" long x 9/16" o.d.
Mounting Centers 6¾"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
8001	5	3.87	$1.87
8002	10	2.74	1.87
8003	15	2.24	1.87
8004	25	1.73	1.87
8005	50	1.22	1.87
8006	100	.86	1.87
8007	200	.61	1.87
8008	300	.50	1.87
8009	400	.43	1.87
8010	500	.39	1.87
8011	750	.32	1.87
8012	1000	.27	1.87
8013	1500	.22	1.92
8014	2000	.19	1.92
8015	2500	.17	1.92
8016	3000	.16	1.92
8017	4000	.14	1.92
8018	5000	.12	1.92
8019	6000	.11	2.01
8020	7000	.10	2.01
8021	7500	.10	2.01
8022	10000	.086	2.01
8023	15000	.070	2.13
8024	20000	.061	2.13
8025	25000	.054	2.32
8026	30000	.050	2.32
8027	40000	.043	2.32
8028	50000	.033	2.52
8029	60000	.030	2.52
8030	80000	.026	2.78
8031	100000	.023	2.93

100 WATT—Type K-100
6½" long x ¾" o.d.
Mounting Centers 7⅜"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
9001	5	4.47	$2.11
9002	10	3.16	2.11
9003	25	2.00	2.11
9004	50	1.41	2.11
9005	100	1.00	2.11
9006	250	.63	2.11
9007	500	.45	2.11
9008	1000	.32	2.11
9009	1500	.26	2.17
9010	2500	.20	2.17
9011	5000	.14	2.17
9012	10000	.10	2.30
9013	15000	.081	2.44
9014	20000	.071	2.44
9015	25000	.063	2.70
9016	30000	.058	2.70
9017	40000	.050	2.70
9018	50000	.045	2.78
9019	75000	.032	3.02
9020	100000	.028	3.32

160 WATT—Type K-160
8½" long x 1⅛" o.d.
Mounting Centers 9⅜"
Terminal 57

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
9030	5	5.66	$4.07
9031	10	4.00	3.16
9032	25	2.53	3.16
9033	50	1.79	3.16
9034	100	1.26	3.16
9035	250	.80	3.16
9036	500	.57	3.16
9037	1000	.40	3.16
9038	1500	.33	3.20
9039	2500	.25	3.20
9040	5000	.18	3.20
9041	10000	.13	3.41
9042	15000	.10	3.59
9043	20000	.089	3.59
9044	25000	.080	3.68
9045	30000	.073	3.68
9046	40000	.063	3.68
9047	50000	.057	3.77
9048	75000	.046	3.96
9049	100000	.040	4.14

200 WATT—Type K-200
10½" long x 1⅛" o.d.
Mounting Centers 11⅜"
Terminal 57

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
9060	5	6.32	$4.32
9061	10	4.47	3.34
9062	25	2.83	3.34
9063	50	2.00	3.34
9064	100	1.41	3.34
9065	250	.89	3.34
9066	500	.63	3.34
9067	1000	.45	3.34
9068	2500	.28	3.41
9069	5000	.20	3.41
9070	10000	.14	3.59
9071	15000	.12	3.77
9072	20000	.10	3.77
9073	25000	.089	3.77
9074	30000	.082	3.77
9075	40000	.071	3.77
9076	50000	.063	3.96
9077	75000	.052	4.14
9078	100000	.045	4.34

All sizes of Adjustable Resistors listed are furnished complete with mounting brackets and one adjustable contact band.

Tolerance of ±10% measured without the adjustable band.

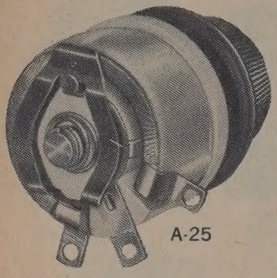
Adjustable Contact Bands

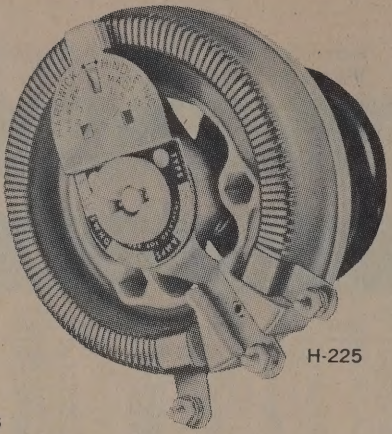
RESISTOR O.D.	TERMINAL TYPE	STOCK NO.	
		SCREW DRIVER	BAKELITE KNOB*
5/16"	K	1791-2	1791-2-X
9/16"	K	1791-8	1791-8-X
3/4"	341	1793-2	1793-2-X
1-1/8"	341	1793-4	1793-4-X

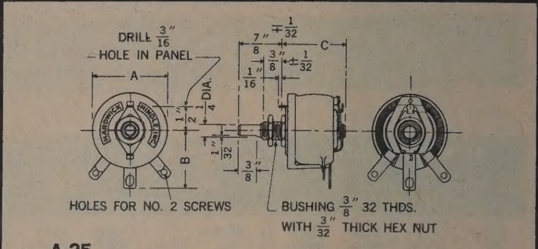
*Available on request at extra cost.

"Gray Line"

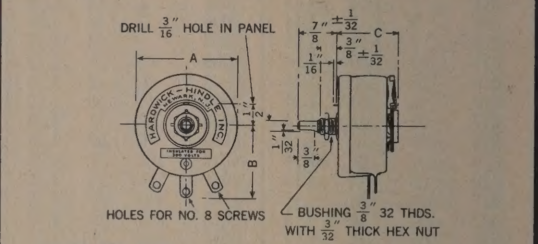
HARDWICK, HINDLE · INC RHEOSTATS—


A-25

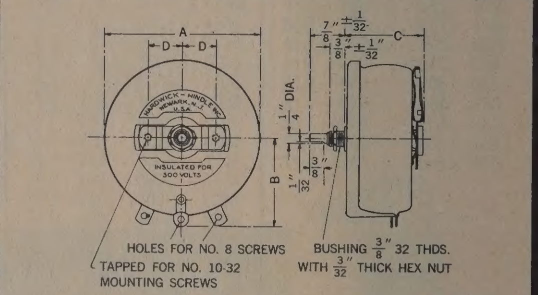

H-225


DRILL 3/16" HOLE IN PANEL
A
1/2" DIA.
1/4"
B
1/32"
7/8" ± 1/32
3/8" ± 1/32
1/16"
3/8"
C
HOLES FOR NO. 2 SCREWS
BUSHING 3/8" 32 THDS. WITH 3/32" THICK HEX NUT

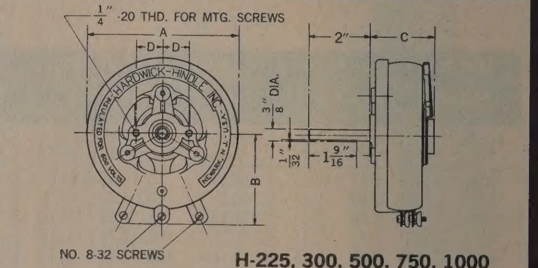
A-25


DRILL 3/16" HOLE IN PANEL
A
HARDWICK-HINDLE INC NEWARK, N.J. U.S.A.
INSULATED FOR 300 VOLTS
1/2"
1/32"
B
7/8" ± 1/32
3/8" ± 1/32
1/16"
3/8"
C
HOLES FOR NO. 8 SCREWS
BUSHING 3/8" 32 THDS. WITH 3/32" THICK HEX NUT

H-50, 75, 100


A
D D
HARDWICK-HINDLE INC NEWARK, N.J. U.S.A.
INSULATED FOR 300 VOLTS
1/4" DIA.
B
1/32"
3/8"
7/8" ± 1/32
3/8" ± 1/32
C
HOLES FOR NO. 8 SCREWS
TAPPED FOR NO. 10-32 MOUNTING SCREWS
BUSHING 3/8" 32 THDS. WITH 3/32" THICK HEX NUT

H-150


1/4"-20 THD. FOR MTG. SCREWS
A
D D
HARDWICK-HINDLE INC. NEWARK, N.J. U.S.A.
INSULATED FOR 600 VOLTS
3/8" DIA.
B
1/32"
1 9/16"
2"
C
NO. 8-32 SCREWS

H-225, 300, 500, 750, 1000

Outstanding Features

- **Highly perfected "bus bar" brush construction—affording minimum resistance to collector ring.**
- **Contact arm tension automatically adjusting for continuous pressure over winding surface.**
- **Greater safety factor due to high temperature enamel.**
- **Higher terminal strength with strong corrosion resistant alloy.**
- **Minimum number of parts in new trouble free design.**
- **Designed to comply with current standards of:**
  - (a) Military Specifications MIL-R-22
  - (b) E.I.A.
  - (c) N.E.M.A.
  - (d) Listed by Underwriters Laboratories, Inc. (Types H-50 through and including H-150)

Hardwick, Hindle rheostats are exceptionally rugged without being over-designed or dependent on untried principles of construction. They exhibit "market quality" characteristics to meet the most exacting specifications, and special design features assure long life and protection under extremes of humidity and abnormal atmospheric conditions. The "buss bar" contact arm automatically adjusts for complete, continuous contact, and smooth, flexible control. Our blue-gray, high temperature enamel—thermo shock proof—gives increased service life with an extreme factor of safety.

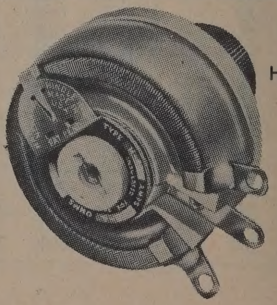
In addition to the complete standard line of rheostats listed at the right, Hardwick, Hindle, Inc. welcomes the opportunity to work with you in the development of rheostats or potentiometers to your specifications. Tapered windings, tandem assemblies, special resistances, and many other electrical or mechanical modifications can be supplied.

Hardwick, Hindle rheostats are packaged one unit per box.

Sizes and Ratings

TYPE & WATTAGE	OHM RANGE		MAX AMPS.		DIMENSIONS (INCHES)				
	MIN.	MAX.	MIN. OHMS	MAX. OHMS	A	B	C	D	ROTATION
A—25	0.50	5000	7.06	.07	1 9/16	1	1 11/32	—	285°
H—50	0.50	10000	10.00	.07	2 3/8	1 9/16	1 7/16	—	300°
H—75	0.50	10000	12.30	.09	2 3/4	1 3/4	1 21/32	—	300°
H—100	0.50	10000	14.20	0.10	3 1/8	1 29/32	1 23/32	—	300°
H—150	0.50	10000	17.30	0.12	4	2 7/16	1 31/32	7/8	300°
H—225	1.0	2500	15.00	0.30	5	2 15/16	2 3/32	7/8	310 ± 5°
H—300	1.0	2500	17.25	0.35	6	3 13/32	2 1/4	1 3/16	315 ± 5°
H—500	1.0	2500	22.30	0.45	8	4 9/32	2 3/32	1 1/2	325 ± 3°
H—750	1.0	2500	27.40	0.55	10	5 1/2	2 23/32	1 7/8	330 ± 3°
H—1000	1.0	2500	31.60	0.63	12	6 5/16	2 3/4	3	335 ± 3°

*Free air ratings thru all or any part of winding; reduce by 50% for enclosed units.


H-50

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25 WATTS TO 1000 WATTS

The Quality
INDUSTRIAL LINE
since 1924

TYPE A-25
25 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0201	0.50	7.06	17	$4.63
0202	0.75	5.77	17	4.63
0203	1.0	5.00	17	4.63
0204	1.5	4.08	34	4.63
0205	2.5	3.16	34	4.11
0206	5.0	2.22	34	4.11
0207	7.5	1.82	34	4.11
0208	10	1.58	90	4.11
0209	15	1.29	90	4.11
0210	25	1.00	100	4.11
0211	50	.706	100	4.11
0212	75	.577	135	4.11
0213	100	.500	112	4.11
0214	150	.408	146	4.11
0215	250	.316	146	4.11
0216	500	.222	180	4.11
0217	750	.182	214	4.11
0218	1000	.158	248	4.63
0219	1500	.129	292	4.63
0220	2500	.100	303	4.99
0221	3500	.084	336	4.99
0222	5000	.070	387	4.99

TYPE H-50
50 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0301	0.50	10.0	25	$5.15
0302	0.75	8.16	25	5.15
0303	1.0	7.06	52	5.15
0304	1.5	5.77	52	5.15
0305	2.5	4.48	52	5.15
0306	5.0	3.16	52	5.15
0307	7.5	2.58	52	5.15
0308	10	2.22	98	4.63
0309	15	1.82	98	4.63
0310	25	1.41	98	4.63
0311	50	1.00	129	4.63
0312	75	.816	153	4.63
0313	100	.706	157	4.63
0314	150	.577	187	4.63
0315	250	.448	258	4.63
0316	500	.316	308	4.63
0317	750	.258	294	4.90
0318	1000	.222	390	4.90
0319	1500	.182	364	4.90
0320	2500	.141	485	4.90
0321	5000	.100	590	5.15
0322	7500	.082	714	5.15
0323	10000	.070	750	5.15

TYPE H-100
100 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0401	0.50	14.2	30	$7.72
0402	0.75	11.6	30	7.72
0403	1.0	10.0	30	7.72
0404	1.5	8.16	30	7.72
0405	2.5	6.34	54	7.72
0406	5.0	4.48	54	7.72
0407	7.5	3.66	54	7.72
0408	10	3.16	54	7.72
0409	15	2.58	112	7.72
0410	25	2.00	108	7.21
0411	50	1.42	127	7.21
0412	75	1.16	151	7.21
0413	100	1.00	160	7.21
0414	150	.816	190	7.21
0415	250	.634	250	7.21
0416	500	.448	302	7.21
0417	750	.366	303	7.21
0418	1000	.316	317	7.72
0419	1500	.258	375	7.72
0420	2500	.200	494	7.72
0421	5000	.141	640	8.24
0422	7500	.115	760	8.76
0423	10000	.100	740	9.26

TYPE H-150
150 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0501	0.50	17.30	26	$9.78
0502	0.75	14.10	30	9.78
0503	1.00	12.25	40	9.78
0504	1.5	10.00	37	9.78
0505	2.5	7.75	39	9.78
0506	5.0	5.48	79	9.78
0507	7.5	4.47	75	9.78
0508	10	3.88	77	9.78
0509	15	3.16	151	9.78
0510	25	2.45	151	9.26
0511	50	1.73	192	9.26
0512	75	1.41	224	9.26
0513	100	1.22	204	9.26
0514	150	1.00	280	9.26
0515	250	.775	252	9.26
0516	500	.548	362	9.26
0517	750	.447	378	9.78
0518	1000	.388	398	9.78
0519	1500	.316	483	10.30
0520	2500	.245	635	10.30
0521	5000	.173	790	10.81
0522	7500	.141	940	11.33
0523	10000	.122	1020	12.35

Note: Knobs supplied on stock units upon request at extra charge.   Tolerance ±10% on all stock units.

H-H RESISTORS, RHEOSTATS and POTENTIOMETERS

EIA MEMBER

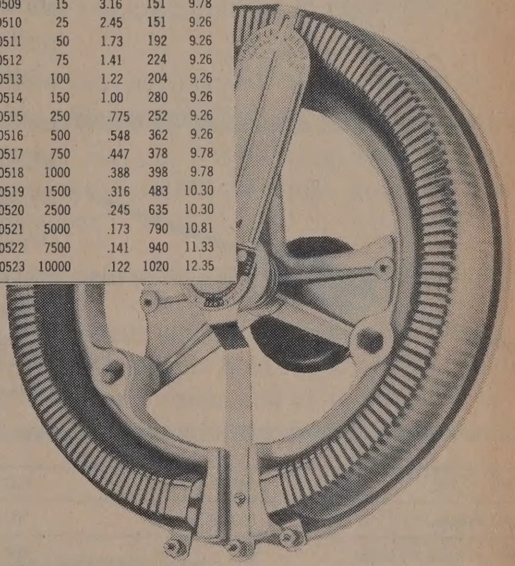
MEMBER PACE PRODUCERS OF ASSOCIATED COMPONENTS FOR ELECTRONICS, INC.

—the Reliable Line!

HARDWICK, HINDLE • INC

NEWARK 5, NEW JERSEY

H-1000



TYPE H-225
225 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0530	1	15.00	55	$14.11
0531	1.5	12.30	55	14.11
0532	2	10.60	55	14.11
0533	2.5	9.50	55	14.11
0534	3	8.66	55	14.11
0535	4	7.50	55	14.11
0536	5	6.71	55	14.11
0537	7.5	5.49	115	14.11
0538	10	4.74	115	14.11
0539	15	3.87	115	14.11
0540	25	3.00	115	14.11
0541	50	2.12	256	14.11
0542	75	1.73	306	14.11
0543	100	1.50	315	14.11
0544	150	1.22	385	14.11
0545	200	1.06	357	14.11
0546	250	.950	350	14.11
0547	300	.866	335	14.11
0548	400	.750	448	14.11
0549	500	.671	450	14.11
0550	700	.567	495	14.11
0551	750	.549	533	14.11
0552	900	.500	500	14.11
0553	1000	.474	555	14.11
0554	1200	.433	526	14.11
0555	1500	.387	630	14.11
0556	1750	.358	620	14.11
0557	2500	.300	670	14.11

TYPE H-300
300 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0601	1	17.25	49	$15.29
0602	1.5	14.15	47	15.29
0603	2	12.24	49	15.29
0604	2.5	10.95	70	15.29
0605	3	10.00	73	15.29
0606	4	8.66	70	15.29
0607	5	7.75	66	15.29
0608	7.5	6.32	71	15.29
0609	10	5.48	136	15.29
0610	15	4.47	144	15.29
0611	25	3.46	145	15.29
0612	50	2.45	245	15.29
0613	75	2.00	260	15.29
0614	100	1.73	327	15.29
0615	150	1.41	394	15.29
0616	200	1.22	420	15.29
0617	250	1.09	525	15.29
0618	300	1.00	420	15.29
0619	400	.866	440	15.29
0620	500	.775	440	15.29
0621	700	.655	502	15.29
0622	750	.633	540	15.29
0623	900	.578	521	15.29
0624	1000	.548	580	15.29
0625	1200	.500	690	15.29
0626	1500	.449	680	15.29
0627	1750	.414	790	15.29
0628	2500	.346	862	15:29

TYPE H-500
500 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0701	1	22.3	70	$22.09
0702	1.5	18.2	64	22.09
0703	2	15.8	68	22.09
0704	2.5	14.1	67	22.09
0705	3	12.9	65	22.09
0706	4	11.2	96	22.09
0707	5	10.0	96	22.09
0708	7.5	8.17	98	22.09
0709	8	7.90	97	22.09
0710	10	7.07	105	22.09
0711	12.5	6.30	103	22.09
0712	15	5.77	202	22.09
0713	16	5.60	192	22.09
0714	25	4.47	195	22.09
0715	40	3.54	205	22.09
0716	50	3.16	200	22.09
0717	75	2.58	395	22.09
0718	80	2.52	382	22.09
0719	100	2.23	450	22.09
0720	125	2.00	505	22.09
0721	150	1.82	544	22.09
0722	175	1.69	500	22.09
0723	250	1.41	570	22.09
0724	325	1.24	515	22.09
0725	500	1.00	620	22.09
0726	750	.817	740	22.09
0727	1000	.707	780	22.09
0728	1500	.577	940	22.09
0729	2000	.500	986	22.09
0730	2500	.447	940	22.09

TYPE H-750
750 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0801	1	27.4	85	$31.20
0802	1.5	22.3	85	31.20
0803	2	19.4	81	31.20
0804	2.5	17.3	87	31.20
0805	3	15.8	83	31.20
0806	4	13.6	87	31.20
0807	5	12.2	122	31.20
0808	7.5	10.0	129	31.20
0809	8	9.65	122	31.20
0810	10	8.65	121	31.20
0811	12.5	7.75	120	31.20
0812	15	7.07	127	31.20
0813	16	6.82	120	31.20
0814	25	5.47	240	31.20
0815	50	3.87	238	31.20
0816	75	3.19	250	31.20
0817	80	3.06	266	31.20
0818	100	2.74	265	31.20
0818	150	2.23	500	31.20
0820	160	2.17	485	31.20
0821	200	1.94	472	31.20
0822	250	1.73	470	31.20
0823	300	1.58	500	31.20
0824	400	1.37	472	31.20
0825	500	1.22	565	31.20
0826	600	1.12	677	31.20
0827	750	1.00	670	31.20
0828	1000	.865	715	31.20
0829	1200	.791	860	31.20
0830	1500	.707	840	31.20
0831	1800	.646	1020	31.20
0832	2500	.547	1085	31.20

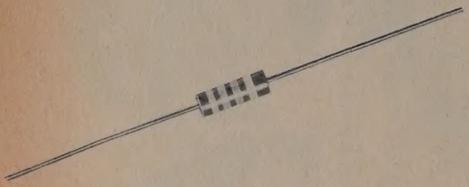
TYPE H-1000
1000 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0901	1	31.60	81	$36.45
0902	1.5	25.80	84	36.45
0903	2	22.40	109	36.45
0904	2.5	20.00	105	36.45
0905	3	18.30	113	36.45
0906	4	15.80	106	36.45
0907	5	14.10	105	36.45
0908	7.5	11.50	158	36.45
0909	8	11.20	168	36.45
0910	10	10.00	166	36.45
0911	12.5	8.95	165	36.45
0912	15	8.16	156	36.45
0913	16	7.90	166	36.45
0914	25	6.33	160	36.45
0915	50	4.47	331	36.45
0916	75	3.65	303	36.45
0917	100	3.16	320	36.45
0918	150	2.58	306	36.45
0919	175	2.39	645	36.45
0920	225	2.11	585	36.45
0921	250	2.00	640	36.45
0922	300	1.83	605	36.45
0923	400	1.58	640	36.45
0924	500	1.41	635	36.45
0925	750	1.15	820	36.45
0926	1000	1.00	862	36.45
0927	1500	.816	1030	36.45
0928	2500	.633	1300	36.45

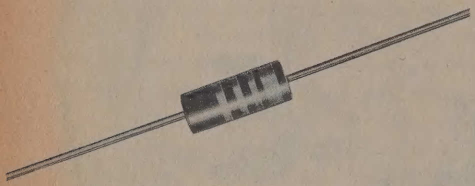
Note: Knobs supplied on stock units upon request at extra charge.

INTERNATIONAL RESISTANCE COMPANY

Insulated Carbon Composition and Wirewound Resistors



FIXED COMPOSITION RESISTORS. IRC's unique design of ½- and 1-watt resistors mean better performance and reliability. 50% more molding around the resistance element assures greater moisture protection. The working element is a layer of carbon thermally bonded to an inert glass filament for better resistance and temperature characteristics. Ribbed, shoulder leads are deeply imbedded in the molding to prevent twist or pull-out and act as heat sinks to conduct heat away for cooler operation and longer field life.



VERSATILE WIREWOUND RESISTORS. Type BWH is a new molded wirewound resistor that can be used as a direct replacement for composition resistors at about half the price. In one size (RC32) it covers 3 different wattage requirements and provides substantial cost savings over 1 and 2 watt fixed composition units, and space saving over 2 watt RC42 size units. The BWH has the stability, reliability and long life of a wirewound unit. It meets all the performance requirements of MIL-R-11.

IRC TYPE	SR¼	GBT½	GBT 1	SR 2	BWH
MIL Style	RC07	RC20	RC32	RC42	—
MIL Characteristic	GF	GF	GF	GF	—
Rating	¼w @ 70° amb.	½w @ 70° amb.	1w @ 70° amb.	2w @ 70° amb.	½w @ 137° amb. 1w @ 115° amb. 2w @ 70° amb.
Minimum Resistance	10 ohms	2.7 ohms	10 ohms	10 ohms	0.24 ohm
Maximum Resistance	1 meg	22 meg	22 meg	22 meg	1,000 ohms
Rated Voltage	250V	350V	500V	500V	—
Dimensions— Body size	.250″ x .090″ dia.	.390″ x .140″ dia.	.562″ x .225″ dia.	11/16″ x 5/16″ dia.	.562″ x .225″ dia.
Lead size	1½″ x .025″ dia.	1½″ x .031″ dia.	1½″ x .040″ dia.	1½″ x 3/64″ dia.	1½″ x .040″ dia.

STANDARD STOCK VALUES. 10% and 5% tolerance. 10% in bold type. All values available in 5%. Values are indicated on each resistor by EIA color code.

0.24	1.1	5.1	24	110	510	2,400	11K	51K	240K	1.1 meg.	5.1 meg.
0.27	**1.2**	**5.6**	**27**	**120**	**560**	**2,700**	**12K**	**56K**	**270K**	**1.2 meg.**	**5.6 meg.**
0.30	1.3	6.2	30	130	620	3,000	13K	62K	300K	1.3 meg.	6.2 meg.
0.33	**1.5**	**6.8**	**33**	**150**	**680**	**3,300**	**15K**	**68K**	**330K**	**1.5 meg.**	**6.8 meg.**
0.36	1.6	7.5	36	160	750	3,600	16K	75K	360K	1.6 meg.	7.5 meg.
0.39	**1.8**	**8.2**	**39**	**180**	**820**	**3,900**	**18K**	**82K**	**390K**	**1.8 meg.**	**8.2 meg.**
0.43	2.0	9.1	43	200	910	4,300	20K	91K	430K	2.0 meg.	9.1 meg.
0.47	**2.2**	**10**	**47**	**220**	**1,000**	**4,700**	**22K**	**100K**	**470K**	**2.2 meg.**	**10.0 meg.**
0.51	2.4	11	51	240	1,100	5,100	24K	110K	510K	2.4 meg.	11.0 meg.
0.56	**2.7**	**12**	**56**	**270**	**1,200**	**5,600**	**27K**	**120K**	**560K**	**2.7 meg.**	**12.0 meg.**
0.62	3.0	13	62	300	1,300	6,200	30K	130K	620K	3.0 meg.	13.0 meg.
0.68	**3.3**	**15**	**68**	**330**	**1,500**	**6,800**	**33K**	**150K**	**680K**	**3.3 meg.**	**15.0 meg.**
0.75	3.6	16	75	360	1,600	7,500	36K	160K	750K	3.6 meg.	16.0 meg.
0.82	**3.9**	**18**	**82**	**390**	**1,800**	**8,200**	**39K**	**180K**	**820K**	**3.9 meg.**	**18.0 meg.**
0.91	4.3	20	91	430	2,000	9,100	43K	200K	910K	4.3 meg.	20.0 meg.
1.0	**4.7**	**22**	**100**	**470**	**2,200**	**10K**	**47K**	**220K**	**1.0 meg.**	**4.7 meg.**	**22.0 meg.**

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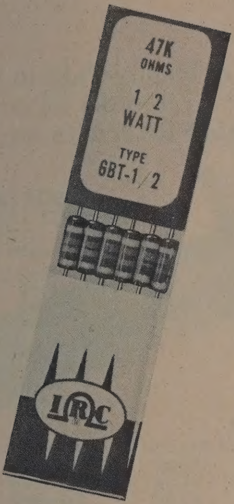
INTERNATIONAL RESISTANCE COMPANY

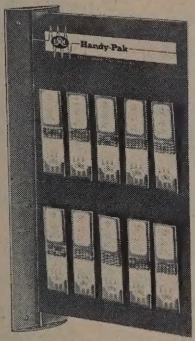
Resistor Kits And Assortments



HANDY-PAKS. The neatest, most compact resistor package available, and it's exclusive from IRC. Slimline plastic sleeve keeps leads straight and in place.

- Easier to identify—Type, resistance value and power rating on every Handy-Pak. Resistor color code is easily seen through the plastic.
- Handier to use—Opens at either end. Simply slide package out of plastic sleeve . . . withdraw the required number of resistors and slide the package into the sleeve.
- Quicker to find—Handy-Paks can be indexed by power rating and resistance. Resistors are always visible for inventory.

3 TYPES AVAILABLE . . . ½ watt contains 6 GBT½ carbon composition resistors; 1 watt package contains 4 GBT1 resistors and the 2 watt Handy-Pak contains 3 SR2 resistors.

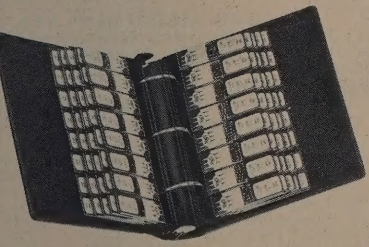


RESIST-O-PANEL. Unique swing panel attaches to wall; measures only 7″ x 12¼″. All-metal construction with slots to hold Handy-Paks. Supplied with 10 Handy-Paks of most popular values, and slots on back for 10 additional. Included FREE with either of two popular assortments.

ASSORTMENT #64
60 GBT½ ½-watt resistors
(10% tolerance)
6 each of 10 values

ASSORTMENT #68
40 GBT1 1-watt resistors
(10% tolerance)
4 each of 10 values

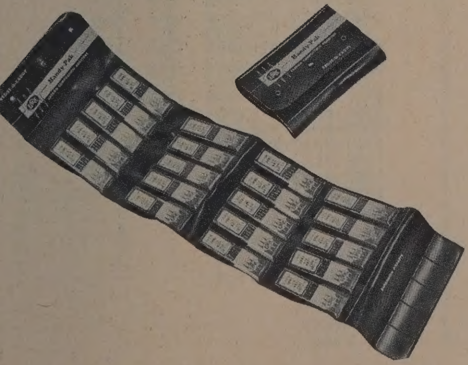
ASSORTMENT #80
30 SR2 2-watt resistors (10% tolerance), 3 each of 10 values



RESIST-O-PEDIA. Attractive, hardback binder with 3-ring "tab" inserts to hold Handy-Paks. Saves searching . . . speeds servicing. Resistors always visible. Resist-O-Pedia FREE with any of 2 assortments.

ASSORTMENT #44
462 GBT½ ½-watt resistors
(10% tolerance)
6 each of the 77 10% values
from 10 ohms to 22 megohms

ASSORTMENT #48
308 GBT1 1-watt resistors
(10% tolerance)
4 each of the 77 10% values
from 10 ohms to 22 megohms



RESIST-O-CADDY. Ideal for in-home servicing. Plastic pouch folds to 6¾″ x 3⅞″ x 1½″ . . . fits easily in tube caddy or tool chest. Individual pockets keep Handy-Paks secure and orderly.

Accurate inventory is always visible. Resist-O-Caddy FREE with either of these two popular assortments:

ASSORTMENT #41
120 GBT½ ½-watt resistors
(10% tolerance)
6 each of 20 values

ASSORTMENT #45
80 GBT1 1-watt resistors
(10% tolerance)
4 each of 20 values

ohms:	47	150	1,000	2,200	10K	27K	100K	270K	1.0 meg	4.7 meg
	100	470	1,500	4,700	22K	47K	220K	470K	2.2 meg	10 meg

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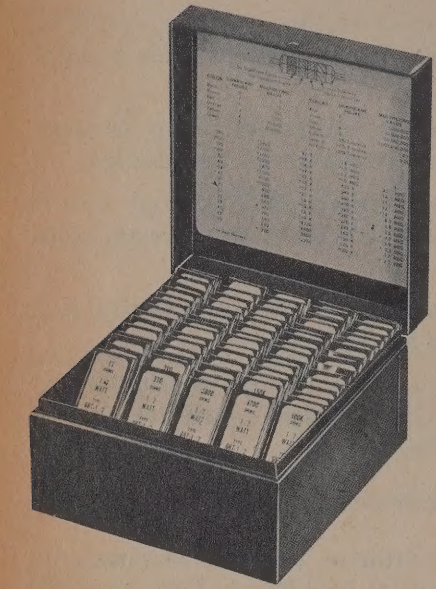
Resistor Kits And Assortments



RESIST-O-CHEST. A convenient, sturdy file of Handy-Paks in 6 popular assortments. Metal separators keep Handy-Paks in order at your fingertips. Reference data on inside of lid. Available FREE with any of these 6 fast-moving assortments.

ASSORTMENT #42
204 GBT½ ½-watt resistors
(10% tolerance)
6 each of 34 values

ASSORTMENT #46
136 GBT1 1-watt resistors
(10% tolerance)
4 each of 34 values

ohms:	47	470	2,700	8,200	27K	56K	220K	1.0 meg	4.7 meg
	100	1,000	3,300	10K	33K	68K	270K	1.5 meg	10 meg
	150	1,500	4,700	15K	39K	100K	330K	2.2 meg	—
	220	2,200	6,800	22K	47K	150K	470K	3.3 meg	—

ASSORTMENT #43
462 GBT½ ½-watt resistors
(10% tolerance)
6 each of 77 values

ASSORTMENT #47
308 GBT1 1-watt resistors
(10% tolerance)
4 each of 77 values

ASSORTMENT #50A

231 SR2 2-watt resistors (10% tolerance), 3 each of 77 values

ohms:	10	56	330	1,800	10K	56K	330K	1.8 meg	10 meg
	12	68	390	2,200	12K	68K	390K	2.2 meg	12 meg
	15	82	470	2,700	15K	82K	470K	2.7 meg	15 meg
	18	100	560	3,300	18K	100K	560K	3.3 meg	18 meg
	22	120	680	3,900	22K	120K	680K	3.9 meg	22 meg
	27	150	820	4,700	27K	150K	820K	4.7 meg	—
	33	180	1,000	5,600	33K	180K	1.0 meg	5.6 meg	—
	39	220	1,200	6,800	39K	220K	1.2 meg	6.8 meg	—
	47	270	1,500	8,200	47K	270K	1.5 meg	8.2 meg	—

ASSORTMENT #49A

102 SR2 2-watt resistors (10% tolerance), 3 each of 34 values

ohms:	47	470	2,700	8,200	27K	56K	220K	1.0 meg	4.7 meg
	100	1,000	3,300	10K	33K	68K	270K	1.5 meg	10 meg
	150	1,500	4,700	15K	39K	100K	330K	2.2 meg	—
	220	2,200	6,800	22K	47K	150K	470K	3.3 meg	—

RESIST-O-CABINET. A practical way to give any shop a professional appearance. Sturdy metal Resist-O-Cabinets are FREE with any of four balanced assortments. Designed for stacking, and for tidy stocks of many small parts. Resist-O-Cabinets have four non-spill drawers and 28 compartments. Overall size is 5⅜" x 5¹⁵⁄₁₆" x 10⅞". Blue and silver finish.

½ WATT
ASSORTMENT #4A
150 GBT½ ½-Watt Resistors

QUANTITY	RANGE
3	47 ohms
4	100 ohms
3	220 ohms
3	270 ohms
4	470 ohms
8	1,000 ohms
4	1,500 ohms
4	2,200 ohms
4	2,700 ohms
5	3,300 ohms
7	4,700 ohms
7	10K ohms
5	22K ohms
5	27K ohms
5	33K ohms
8	47K ohms
4	56K ohms
4	68K ohms
8	100K ohms
7	220K ohms
8	270K ohms
5	330K ohms
8	470K ohms
8	1.0 meg.
7	2.2 meg.
4	3.3 meg.
5	4.7 meg.
3	10.0 meg.

1 WATT
ASSORTMENT #5A
125 GBT1 1-Watt Resistors

QUANTITY	RANGE
3	47 ohms
3	100 ohms
3	150 ohms
3	220 ohms
3	270 ohms
3	470 ohms
7	1,000 ohms
3	1,500 ohms
5	2,200 ohms
3	2,700 ohms
3	3,300 ohms
5	4,700 ohms
7	10K ohms
3	15K ohms
5	22K ohms
7	27K ohms
4	33K ohms
4	39K ohms
7	47K ohms
4	68K ohms
7	100K ohms
3	150K ohms
3	220K ohms
7	270K ohms
7	470K ohms
7	1.0 meg.
3	2.2 meg.
3	4.7 meg.

2 WATT
ASSORTMENT#3A
120 BWH and SR2 2-Watt Resistors

QUANTITY	RANGE
2	4.7 ohms
2	10 ohms
1	15 ohms
2	22 ohms
1	27 ohms
1	33 ohms
1	39 ohms
3	47 ohms
2	68 ohms
3	82 ohms
4	100 ohms
3	150 ohms
3	220 ohms
3	270 ohms
4	330 ohms
4	470 ohms
5	1,000 ohms
4	1,500 ohms
4	2,200 ohms
4	3,300 ohms
3	3,900 ohms
4	4,700 ohms
5	6,800 ohms
7	8,200 ohms
7	10K ohms
5	15K ohms
7	22K ohms
4	27K ohms
7	47K ohms
5	100K ohms
3	220K ohms
3	470K ohms
4	1.0 meg.

COMB. ASSORTMENT #6A
139 Insulated Resistors and Type DCF Precision Film Resistors

RANGE	½ Watt	1 Watt	2 Watt	DCF
47 ohms	2	1	1	—
100 ohms	2	1	1	—
150 ohms	2	1	—	—
220 ohms	2	1	—	—
270 ohms	2	1	—	—
470 ohms	2	1	1	—
1,000 ohms	4	4	—	1
1,500 ohms	2	1	—	—
2,200 ohms	2	1	—	—
2,700 ohms	2	1	—	—
3,300 ohms	2	2	—	—
4,700 ohms	3	1	1	—
10K ohms	3	4	1	1
15K ohms	2	2	—	—
22K ohms	2	2	1	—
27K ohms	2	4	—	—
33K ohms	2	1	—	—
39K ohms	2	1	—	—
47K ohms	4	3	1	—
68K ohms	2	2	—	—
100K ohms	4	4	—	1
150K ohms	2	2	—	—
220K ohms	3	1	—	—
270K ohms	4	2	—	—
470K ohms	4	3	—	—
1.0 meg.	4	4	—	1
2.2 meg.	3	3	—	—
4.7 meg.	2	1	—	—
5.0 meg.	—	—	—	1

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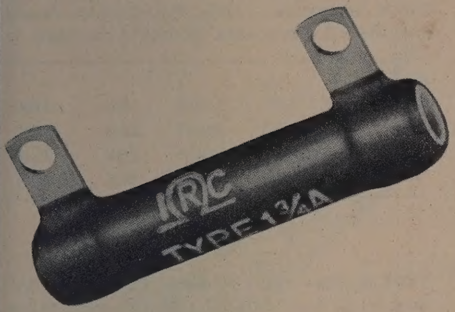
INTERNATIONAL RESISTANCE COMPANY

Power Resistors



RESISTEG COATED POWER RESISTORS need no derating. They operate at full rated power even at high resistance values. Other features include heat resistant terminals for easy soldering, ceramic cores that withstand shock and are impervious to moisture, heavy windings that handle overloads without burnout, and standard size spring loaded push-in brackets for easy mounting.

FIXED TYPES

TYPE 1A—5-8 watts. Resisteg coating. Core Size: 1" long by 5/16" dia. Terminals: 13A. Tolerance: ±5%. Mounting hardware included: none. Standard package: 5.

Ohms					
1	20	200	750	2250	8000
1.5	25	225	800	2500	9000
2	30	250	900	3000	10K
3	35	300	1000	3500	12.5K
4	40	350	1100	4000	15K
5	50	400	1200	4500	17.5K*
7.5	75	450	1250	5000	20K*
10	100	500	1500	6000	22.5K*
12	125	600	1750	7000	25K*
15	150	700	2000	7500	

* No. 1 Terminal.

TYPE 1¾A—10-12 watts. Resisteg coating. Core Size: 1¾" long x 5/16" dia. Terminals: 13A. Tolerance: ±5%. Mounting hardware included: none. Standard package: 5.

Ohms					
1	30	350	1250	7000	17.5K
1.5	35	400	1500	7500	18K
2	40	450	1750	8000	20K
3	50	500	2000	8500	22.5K
4	75	600	2250	9000	25K
5	100	700	2500	10K	30K
7.5	125	750	3000	11K	35K
10	150	800	3500	12K	40K
12	200	900	4000	12.5K	45K
15	225	1000	4500	13.5K	50K
20	250	1100	5000	15K	
25	300	1200	6000	16K	

TYPE 2C—20 watts. Resisteg coating. Core size: 2" long x 7/16" dia. Terminals: 13A. Tolerance: ±5%. Mounting hardware included: none. Standard package: 5.

Ohms					
1	150	800	2750	10K	55K
2	200	900	3000	12.5K	60K
3	250	1000	3500	15K	65K
4	300	1200	4000	20K	70K
5	350	1250	4500	25K	75K
10	400	1500	5000	30K	80K
25	500	1750	6000	35K	85K*
50	650	2000	7000	40K	90K*
75	700	2250	7500	45K	95K*
100	750	2500	8000	50K	100K*
			9000		

* No. 1 Terminal.

TYPE 2D—25 watts. Resisteg coating. Core size: 2" long x 9/16" dia. Terminals: 12A. Tolerance: ±5%. Mounting hardware included: Z-1 brackets. Standard package: 1.

Ohms					
1	25	500	3000	12K	50K
2	50	750	3500	15K	60K
3	75	800	4000	20K	70K
4	100	1000	5000	25K	80K
5	150	1500	6000	30K	100K
10	200	2000	7500	35K	
15	250	2500	10K	40K	

TYPE 4D—50 watts. Resisteg coating. Core size: 4" long x 9/16" dia. Terminals: 12A. Tolerance: ±5%. Mounting hardware included: Z-1 bracket. Standard package: 1.

Ohms					
1	50	750	4000	20K	150K
2	75	800	5000	25K	175K
3	100	1000	7500	35K	200K
4	150	1500	8000	50K	250K
5	200	2000	10K	75K	
10	250	2500	12K	100K	
25	500	3000	15K	125K	

TYPE 6½E—100 watts. Resisteg coating. Core size: 6½" long x ¾" dia. Terminals: 12A. Tolerance: ±5%. Mounting hardware included: Z-2 bracket. Standard package: 1.

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	

TYPE 8½H—160-175 watts. Resisteg coating. Core size: 8½" long x 1⅛" dia. Terminals: 4A. Tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	

TYPE 10½H—200-225 watts. Resisteg coating. Core size: 10½" long x 1⅛" dia. Terminals: 4A. Tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	25	250	2000	10K	40K
2	50	500	2500	15K	50K
3	75	750	3000	20K	60K
4	100	1000	5000	25K	75K
5	150	1500	7500	30K	100K
10					

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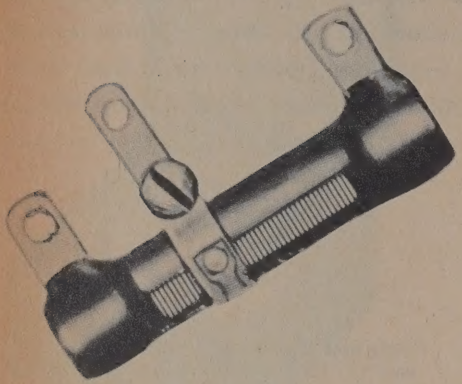
Power Resistors

ADJUSTABLE TYPES



TYPE 1¾AA—10-12 watts. Core size: 1¾″ long x 5/16″ dia. Terminals: 12A. One adjustable band: type A. Tolerance: ±10%. Standard package: 1. Mounting hardware included: Z-0 brackets.

Ohms					
1	20	250	800	3000	7500
2	25	300	1000	3500	8000
3	50	350	1250	4000	8500
5	75	400	1500	4500	9000
7.5	100	500	2000	5000	10K
10	150	600	2250	6000	
15	200	750	2500	7000	

TYPE 2DA—25 watts. Core size: 2″ long x 9/16″ dia. Terminals: 12A. One adjustable band: type X-2. Tolerance: ±10%. Mounting hardware included: Z-1 bracket. Standard package: 1.

Ohms					
1	20	250	1250	4000	9000
2	25	300	1500	4500	10K
3	50	400	2000	5000	12K
5	75	500	2250	6000	15K
7.5	100	750	2500	7000	20K
10	150	800	3000	7500	25K
15	200	1000	3500	8000	

TYPE 4DA—50 watts. Core size: 4″ long x 9/16″ dia. Terminals: 12A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms					
1	75	750	3000	7500	25K
2	100	800	3500	8000	30K
3	150	1000	4000	9000	40K
4	200	1250	4500	10K	50K
5	250	1500	5000	12K	60K
10	300	2000	6000	15K	80K
25	400	2250	7000	20K	100K
50	500	2500			

TYPE 5EA—75 watts. Core size: 5″ long x ¾″ dia. Terminals: 12A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TYPE 6½EA—100 watts. Core size: 6½″ long x ¾″ dia. Terminals: 12A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TYPE 8½HA—160-175 watts. Core size: 8½″ long x 1⅛″ dia. Terminals: 4A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

TYPE 10½HA—200-225 watts. Core size: 10½″ long x 1⅛″ dia. Terminals: 4A. One adjustable band. Tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	5	100	1500	15K	40K
2	10	250	2500	20K	50K
3	25	500	5000	25K	75K
4	50	1000	10K	30K	100K

MILITARY TYPES

STANDARD MILITARY VALUES

1.0*	1.6*	2.7*	3.6*	5.0	7.1
1.1*	1.8*	2.8	3.9*	5.1*	7.5*
1.2*	2.0*	3.0*	4.0	5.6*	8.0
1.3*	2.2*	3.1	4.3*	6.2*	8.2*
1.4	2.4*	3.3*	4.5	6.3	9.0
1.5*	2.5	3.5	4.7*	6.8*	9.1*

*New values. For other decades multiply by .10, 10, 100, 1000, etc.

MIL Type	Military Characteristic		Military Range—Ohms		MIL Type	Military Characteristic		Military Range—Ohms	
			*Min.	*Max.				*Min.	*Max.
RW 29	G	V	1.0	5600	RW 47	G	V	1.0	20K
RW 30	G	V	1.0	2400	RW 55	G	V	.10	5.1K
RW 31	G	V	1.0	10K	RW 56	G	V	.10	9.1K
RW 32	G	V	1.0	10K	RW 57	G	V	.10	3.6K
RW 33	G	V	1.0	18K	RW 58	G	V	.10	8.2K
RW 35	G	V	1.0	18K	RW 59	G	V	.10	910
RW 36	G	V	1.0	20K	RW 67	G	V	.10	3.6K
RW 37	G	V	1.0	20K	RW 68	G	V	.10	8.2K
RW 38	G	V	1.0	20K	RW 69	G	V	.10	910

*In many instances other MIL VALUES are available on special order.

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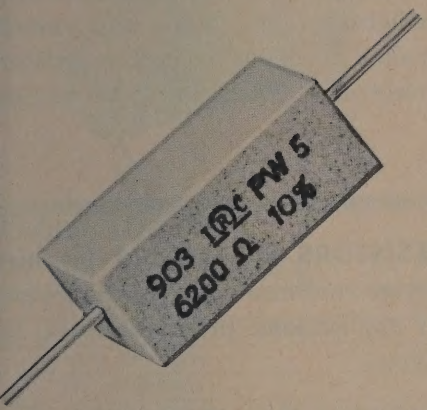
INTERNATIONAL RESISTANCE COMPANY

Power Resistors



PW5 AND PW10 AXIAL LEAD POWER WIREWOUND RESISTORS.

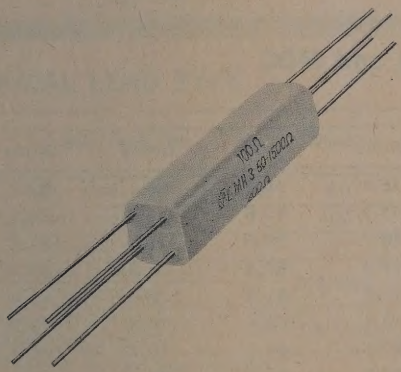
For 5 and 10 watt application, these popular resistors are compact to save space and feature superior solderability. Sealed in a ceramic case. Standard tolerance is 10%.

PW5 available from 1 to 6,000 ohms. PW10 available from 1 to 25K ohms. See stock list.

POPULAR ASSORTMENT #20A PW10 resistors is available for handy bench stock. On plastic covered card with hole for hanging.

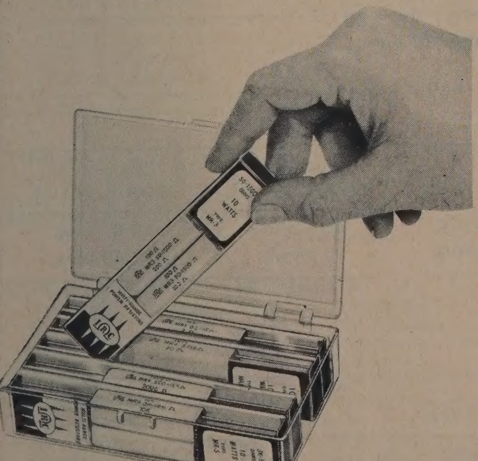
STANDARD STOCK VALUES (PW10)

ohms:										
	1	10	50	200	600	1000	2250	4000	8000	12.5K
	2	15	75	250	700	1200	2500	4500	8200	15K
	3	20	100	300	750	1250	3000	5000	8500	20K
	4	25	120	350	800	1500	3300	6000	9000	25K
	5	30	125	400	820	1750	3500	7000	10K	—
	7.5	40	150	500	900	2000	3900	7500	12K	—



MULTI-RANGE POWER RESISTORS. Up to 47 values from a single resistor. 5 multi-range resistors give complete 10 watt coverage . . . 200 values from ½ to 50,000 ohms. No delays for a particular value, and you don't tie up inventory with odd values. Ideal for in-home servicing and weekend shop work.

Four-wire wound elements are sealed in a steatite housing. It's simple to solder a basic interconnection for the required value, and cut off unused terminals. Connection diagrams included.



5 TYPES COVER 200 VALUES

TYPE MR1. 0.5 through 15 ohms. 1, 2, 4, 8 ohm elements. 10 watts. 47 values.

TYPE MR2. 5 through 150 ohms. 10, 20, 40, 80 ohm elements. 10 watts. 47 values.

TYPE MR3. 50 through 1,500 ohms. 100, 200, 400, 800 ohm elements. 10 watts. 47 values.

TYPE MR4. 500 through 15K ohms. 1K, 2K, 4K, 8K ohm elements. 10 watts. 47 values.

TYPE MR5. 3K through 50K ohms. 10K, 10K, 15K, 15K ohm elements. 10 watts. 12 values.

MULTI-RANGE KIT #55. Complete 10 watt power resistor coverage that fits in the palm of your hand. Rigid clear plastic case holds 5 Handy-Paks, 2 of each type MR resistor. With these 10 versatile resistors you have finger-tip coverage of 200 values from ½ to 50,000 ohms. Fits easily in tool case or tube caddy.

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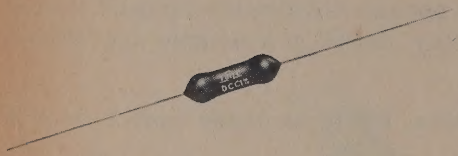
Precision Resistors



DEPOSITED CARBON PRECISIONS are available in ½, 1 and 2 watt sizes. The wide range of values, 1% tolerance, economy, low voltage coefficient, excellent frequency characteristics, predictable temperature, high voltage rating, low noise level, and small size make IRC deposited carbon resistors ideal for application in advanced electronic equipment and critical TV circuits.

MOLDED DEPOSITED CARBON RESISTORS are designed for high reliability, stable performance, low voltage coefficient, low capacitive and inductive impedance in high frequency applications. In miniature ⅛, ¼, and ½ watt sizes, plus 1 and 2 watt types.

Standard tolerance is 1%. (2% tolerance on high range units.) The housing gives complete protection, and offers better heat dissipating qualities. This results in improved load life and maximum moisture protection.

STANDARD STOCK VALUES—TYPES DCC, DCF, DCH and MDC

One decade of stock values is as follows:

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
10.0	12.1	14.7	17.8	21.5	26.1	31.6	38.3	46.4	56.2	68.1	82.5
10.2	12.4	15.0	18.2	22.1	26.7	32.4	39.2	47.5	57.6	69.8	84.5
10.5	12.7	15.4	18.7	22.6	27.4	33.2	40.2	48.7	59.0	71.5	86.6
10.7	13.0	15.8	19.1	23.2	28.0	34.0	41.2	49.9	60.4	73.2	88.7
11.0	13.3	16.2	19.6	23.7	28.7	34.8	42.2	51.1	61.9	75.0	90.9
11.3	13.7	16.5	20.0	24.3	29.4	35.7	43.2	52.3	63.4	76.8	93.1
11.5	14.0	16.9	20.5	24.9	30.1	36.5	44.2	53.6	64.9	78.7	95.3
11.8	14.3	17.4	21.0	25.5	30.9	37.4	45.3	54.9	66.5	80.6	97.6

Higher stock values may be determined by multiplying by 10, 100, 1000, etc., up to maximum stated for type.

STANDARD STOCK VALUES

IRC TYPE	MIL TYPE	MINIMUM STOCK VALUE	MAXIMUM STOCK VALUE	IRC TYPE	MIL TYPE	MINIMUM STOCK VALUE	MAXIMUM STOCK VALUE
DCC	RN20X	10 ohms	2.0 meg.	DCH	RN30X	46.4 ohms	10.0 meg.
DCF	RN25X	20 ohms	5.1 meg.	MDC	RN70D	10 ohms	2.49 meg.

NON-STOCK VALUES

IRC TYPE	MIL TYPE	MINIMUM VALUE	MAXIMUM VALUE	IRC TYPE	MIL TYPE	MINIMUM VALUE	MAXIMUM VALUE
DCC	RN20X	10 ohms	25.0 meg.	MDB	RN65D	10 ohms	5.0 meg.
DCF	RN25X	10 ohms	50.0 meg.	MDC	RN70D	10 ohms	25.0 meg.
DCH	RN30X	15 ohms	100.0 meg.	MDF	RN75B	10 ohms	50.0 meg.
MDA	RN60D	10 ohms	5.0 meg.	MDH	RN80B	15 ohms	100.0 meg.

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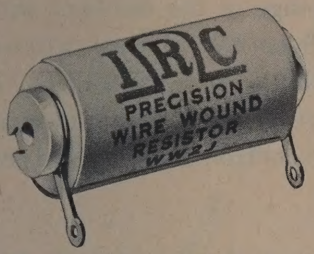
INTERNATIONAL RESISTANCE COMPANY

Precision Resistors



WIREWOUND PRECISION RESISTORS. For accuracy in critical applications, IRC Precision Wire Wound resistors are produced to exacting standards of reliability. IRC's winding technique prevents shorted turns or strains in the winding, and special insulation gives excellent protection from humidity. Positive electrical connections and easy soldering.

RADIAL LUG TYPE

IRC TYPE NO.	WW2J	WW3J	WW4J	WW5J	WW8J	WW11J
MIL-R-93A Style	RB19	RB16	RB17	RB18	RB15	RB16
Rating in Watts 65°C. Ambient	2	.50	1	1	.50	.50
Maximum Volts	2000	400	700	1000	250	500
No. of Sections	8	2	4	4	1	2
Maximum Resistance .0015 Diameter Wire	4.0 Meg.	0.3 Meg.	0.75 Meg.	1.7 Meg.	0.29 Meg.	0.4 Meg.
Maximum Resistance .0009 Diameter Wire	20.0 Meg.	1.6 Meg.	4.0 Meg.	7.5 Meg.	1.5 Meg.	2.0 Meg.
Minimum Resistance (ohms)						
±0.05% Tolerance	25	25	25	25	25	25
±0.1 % Tolerance	10	10	10	10	10	10
±0.25% Tolerance	5	5	5	5	5	5
±0.50% Tolerance	1	1	1	1	1	1
±1.0 % Tolerance	0.1	0.1	0.1	0.1	0.5	0.1

RADIAL LEAD TYPE

IRC TYPE NO.	WW3J	WW4J	WW8J	WW10J	WW11J	WW20J	WW21J	WW22J (Center Tapped)	WW23J	WW24J (Center Tapped)
Rating in Watts 65°C. Ambient	.50	1	.50	.25	.50	.25	.25	.25†	.50	.50†
Maximum Volts	400	700	250	150	500	150	300	150†	300	400†
No. of Sections	2	4	1	1	2	1	2	2	2	4
Maximum Resistance .0015 Diameter Wire	0.3 Meg.	0.75 Meg.	0.29 Meg.	40K	0.4 Meg.	35K	70K	35K†	225K	350K†
Maximum Resistance .0009 Diameter Wire	1.6 Meg.	4.0 Meg.	1.5 Meg.	0.215 Meg.	2.0 Meg.	150K	500K	250K†	1.5 Meg.	1.5 Meg.†
Minimum Resistance (ohms)										
±0.05% Tolerance	25	25	25	200	25	250	200	200†	25	25 †
±0.10% Tolerance	10	10	10	150	10	200	150	150†	10	10 †
±0.25% Tolerance	5	5	5	75	5	100	75	75†	5	5 †
±0.5 % Tolerance	1	1	1	50	1	75	50	50†	1	1 †
±1.0 % Tolerance	0.1	0.1	0.5	10	0.1	10	10	10†	0.5	0.1†

†signifies per tap section

STANDARD STOCK TYPES and VALUES

TYPE WW2J with lugs—1% Tolerance

600K Ohms
750K Ohms
900K Ohms
1.0 Megohm
1.5 Megohms
2.0 Megohms
2.5 Megohms

TYPE WW3J with lugs—1% Tolerance

0.1 Ohm
0.2 Ohm
0.5 Ohm
1.0 Ohm
5 Ohms
10 Ohms
25 Ohms
50 Ohms
100 Ohms
200 Ohms
250 Ohms
300 Ohms
500 Ohms
1,000 Ohms
1,500 Ohms
2,000 Ohms
2,500 Ohms
3,000 Ohms
3,500 Ohms
4,000 Ohms
5,000 Ohms
7,500 Ohms
10K Ohms
12.5K Ohms
15K Ohms
20K Ohms
22.5K Ohms
25K Ohms
30K Ohms
35K Ohms
40K Ohms
50K Ohms
60K Ohms
75K Ohms
100K Ohms
125K Ohms
150K Ohms
175K Ohms
200K Ohms
225K Ohms

TYPE WW4J with lugs—1% Tolerance

0.1 Ohm
0.2 Ohm
0.5 Ohm
1.0 Ohm
5 Ohms
10 Ohms
25 Ohms
50 Ohms
100 Ohms
200 Ohms
250 Ohms
300 Ohms
500 Ohms
1,000 Ohms
1,500 Ohms
2,000 Ohms
2,500 Ohms
3,000 Ohms
3,500 Ohms
4,000 Ohms
5,000 Ohms
7,500 Ohms
10K Ohms
12.5K Ohms
15K Ohms
20K Ohms
22.5K Ohms
25K Ohms
30K Ohms
35K Ohms
40K Ohms
50K Ohms
60K Ohms
75K Ohms
100K Ohms
125K Ohms
150K Ohms
175K Ohms
200K Ohms
225K Ohms
250K Ohms
300K Ohms
400K Ohms
500K Ohms

TYPE WW5J with lugs—1% Tolerance

600K Ohms
750K Ohms
900K Ohms
1.0 Megohm

TYPE WW10J with leads—1% Tolerance

10 Ohms
25 Ohms
50 Ohms
100 Ohms
200 Ohms
250 Ohms
300 Ohms
500 Ohms
1,000 Ohms
1,500 Ohms
2,000 Ohms
2,500 Ohms
3,000 Ohms
3,500 Ohms
4,000 Ohms
5,000 Ohms
7,500 Ohms
10K Ohms
12.5K Ohms
15K Ohms
20K Ohms
25K Ohms
30K Ohms
40K Ohms
50K Ohms
60K Ohms
75K Ohms
100K Ohms

Special Resistance Tolerances

Standard tolerances ±1%. Other tolerances, subject to minimum values shown on specification charts, are available on special order for all WWJ types, as follows:

0.5% 0.25% 0.2% 0.1% 0.05%

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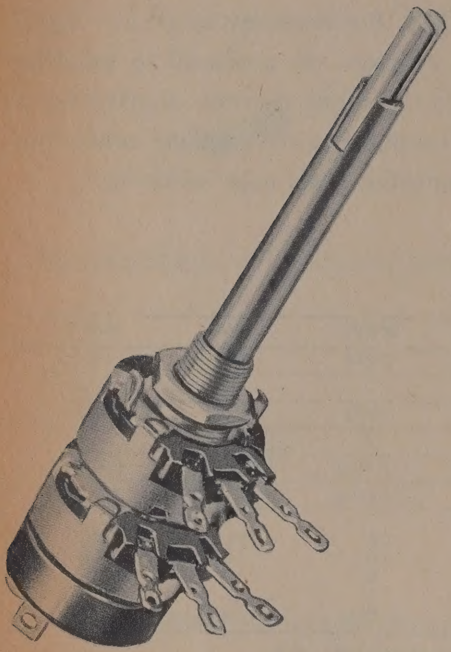
Type Q and Type 4W Concentrikits

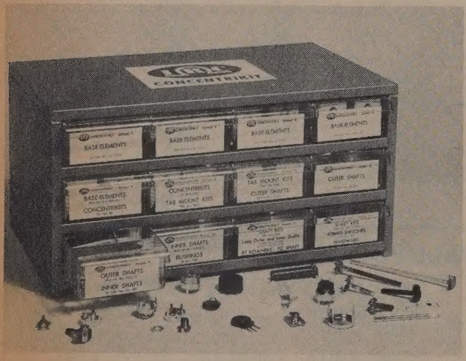


IRC offers the broadest replacement coverage in the industry with its Type Q, ½ watt carbon controls and Type 4W, 4 watt wirewound controls in CONCENTRIKIT form. With the CONCENTRIKIT replacement system, an extremely broad range of electrical and mechanical variations are available as factory assembled controls or as selected control parts for easy field assembly.

Available in CONCENTRIKIT are many types of single controls, ganged multi-section controls, concentric dual controls with combinations of carbon and wirewound sections, and specially matched controls for stereo.

Some of the mechanical variations possible include bushing mountings, tab mountings, printed circuit mountings and printed circuit terminals. A wide choice of shafts, rotary and axially-operated power switches and special tone switches can be selected from CONCENTRIKIT for almost any application.

For more data, write for Catalog S649.



DEALER STOCKS

No. 90. A comprehensive basic selection of CONCENTRIKIT parts provides broad replacement coverage of radio, TV, auto and hi-fi controls. Features the outstanding versatility of the industry's most proven and most widely used replacement system. Includes handsome metal cabinet with 12 "see thru" plastic drawers.

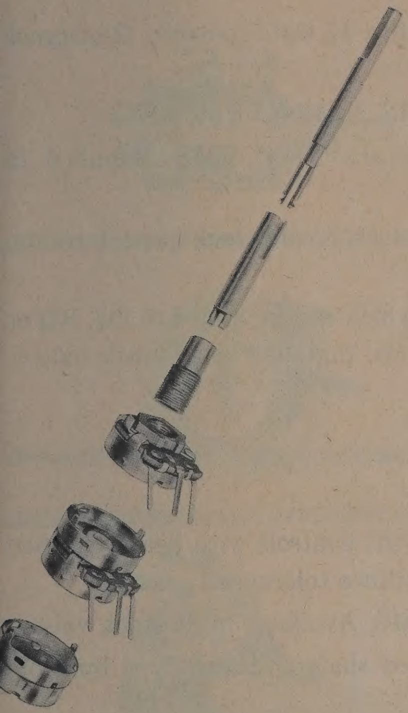
No. 92. A greatly expanded selection of CONCENTRIKIT parts. Covers in depth controls for ADMIRAL-DUMONT-EMERSON-GE-MAGNAVOX-MOTOROLA-MUNTZ-PHILCO-RCA-SILVERTONE-SYLVANIA-TRUETONE-WESTINGHOUSE-ZENITH and 170 other manufacturers. Stock is housed in handsome 12 drawer metal cabinet with "see thru" plastic drawers.

No. 91 CONVERSION STOCK. Conversion Stock No. 91 supplies you with all the items necessary to convert Dealer Stock No. 90 to the broader coverage of Dealer Stock No. 92.

For more information on the above items, write for Catalog S658.

INTERNATIONAL RESISTANCE COMPANY

Snaptrol



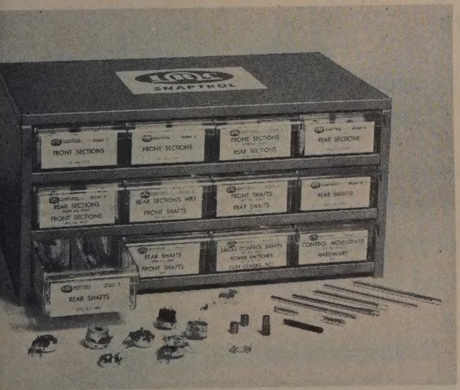
IRC's SNAPTROL replacement system provides great versatility, easy assembly and snap together convenience. With fewer basic components, SNAPTROL gives you broader replacement coverage than any other section-type exact duplicate control system on the market today.

Without cutting or modifications, factory assembled sections quickly and easily snap together to make ganged multiple section and concentric dual controls. A broad variety of carbon and wirewound front and rear sections are available, as well as matched front and rear sections for stereo.

Both universal and exact duplicate shafts snap into the control sections. Rotary and axially-operated power switches snap-on single or concentric controls. Mounting configurations include bushings, tab mountings and printed circuit brackets. Printed circuit terminals are supplied on all carbon sections for universal use.

Carbon sections are rated at ½ watt. Wirewound sections are rated at 5 watts (linear tapers).

For more data, write for Catalog S605.



DEALER STOCKS

No. 87. Features a broad selection of components of IRC's new SNAPTROL replacement system—the fast, snap-together method of replacing controls. Includes many outstanding features unique to the system. Housed in handsome metal cabinet with 12 "see thru" plastic drawers.

No. 89. Includes an expanded selection of SNAPTROL components. Covers greatest variety of control mounting and proven switch types. Broad replacement coverage of ADMIRAL-DUMONT-EMERSON-GE-MAGNAVOX-MOTOROLA-MUNTZ-PHILCO-RCA-SILVERTONE-SYLVANIA-TRUETONE-WESTINGHOUSE-ZENITH—and 170 other manufacturers. Housed in handsome metal cabinet with 12 "see thru" plastic drawers.

No. 88 CONVERSION STOCK. Conversion Stock No. 88 supplies you with all the items necessary to convert Dealer Stock No. 87 to the broader coverage of Dealer Stock No. 89.

For more information on above items, write for Catalog S657.

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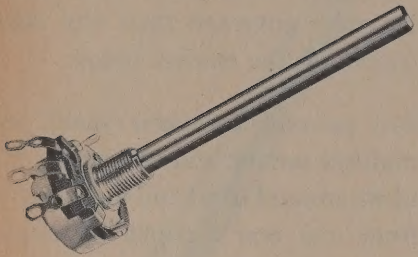
Industrial Controls



TYPES PQ, RQ, RQL and M. High quality ½ watt controls. Resistance tolerance is ±10%.

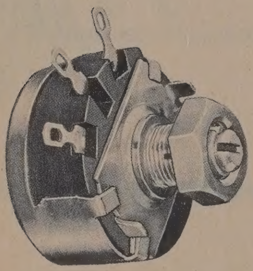
Type PQ has full round ¼″ shaft, 3″ FMS. In 33 stock values.

Type RQ has ¼″ screw-driver slotted shaft, ½″ FMS. Supplied in 33 values.

Type RQL has ¼″ screw-driver slotted shaft and lock type bushing. ½″ FMS. 26 stock values.

Type M Multi-section is a rear section which can be added to PQ, RQ or RQL for dual, triple or quadruple controls. Supplied in 25 stock values.

For more data, write for Catalog S649.



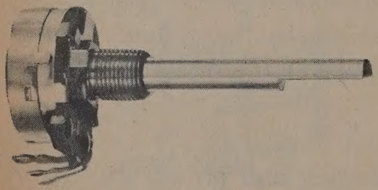
TYPES WP, WPRL and WM. Husky 4 watt controls with heavily tinned terminals for easy soldering. ±10% resistance tolerance.

Type WP has ¼″ full round shaft, 3″ FMS. Available in 36 stock values.

Type WPRL has ¼″ screw-driver slotted shaft and lock type bushing. ½″ FMS. In 36 values.

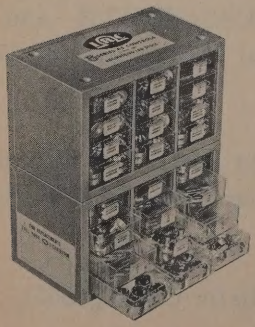
Type WM Multi-section is a rear section which mates to WP and WPRL for dual, triple or quadruple controls. Supplied in a wide assortment of values.

For more data, write for Catalog S649.



SERIES 45. ½ watt controls with resistance tolerance of ±20%. Available as snap-together sections, shafts and power switches to provide up to 12,631,500 different controls for virtually every application. Twenty shaft styles cover the majority of commercial and industrial needs.

For more data, write for Catalog S605.



ENGINEERING LAB STOCKS. Series 45, ½ watt controls to meet more than 12 million requirements. Two IRC engineering lab stocks include snap-together sections, control shafts, switches and dust covers. Ideal for building breadboards and prototypes. Grey metal cabinets stack or hang. Clear plastic drawers are labeled and separated for easy inventory and stock control.

For more data, write for Catalog S614.

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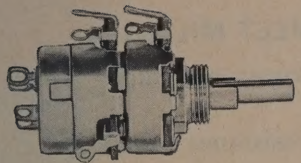
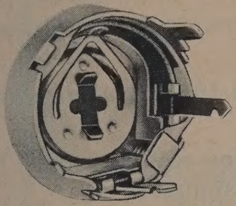
INTERNATIONAL RESISTANCE COMPANY

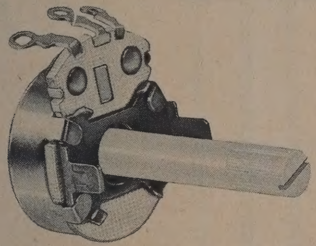
Special Controls



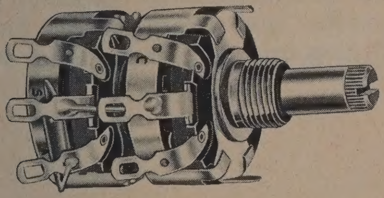
AUTO RADIO CONTROLS for 265 different makes and models. IRC's line of exact duplicate controls includes 127 individual types for every popular auto radio. Faster servicing results from these top-quality controls because of IRC's strict adherence to manufacturer's specifications. For more data, write for Catalog S525.



BUZZ AND BIAS CONTROLS for hum balance, centering, holding, locking and other TV uses. These miniature controls are available in two types, both designed for screw-driver adjustment. Type 110 in 13 values from 10 to 3,000 ohms. Type 112 supplied in 29 values from 50 to 5,000 ohms. For more data, write for Catalog S655.

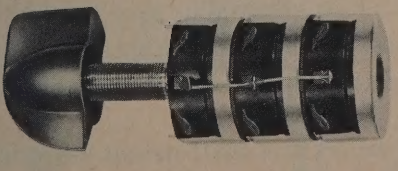


TV HEIGHT CONTROLS for reliable operation in TV and other B + applications such as AGC, noise gate, focus, fringe lock and sync. 1 watt rating. $\frac{15}{16}''$ diameter. Nylon slotted and knurled shaft can easily be modified. Tab mount design with rear adjustment. In six values from 2.0 megohms to 7.5 megohms. ±30% tolerance. Type HLC. For more data, write for Catalog S569.



TV ATTENUATORS for on-the-spot adjustment of signal input to TV set. In most cases it corrects or reduces adjacent channel interference, background picture on weaker stations, poor definition, picture and sound breakover. Type QJ-3 is widely used in service work to duplicate fringe area signals when near strong local station.

LOUDNESS CONTROLS that are continuously compensated to boost lows and highs as volume is decreased. Maintains depth and brilliance even at whisper level. The LC-2 can easily be wired into most audio circuits. Uses types 76-1, 76-2 or 76-4 switches.



L AND T PAD CONTROLS with constant impedance for use in sound systems and for speaker controls. Both types handle up to 10 watts of audio power (3 watts DC). L pad provides constant input impedance. Constant input/output impedances provided by the T pad. Knob and dial plate included. L and T pads available in 4, 8, 15, and 500 ohms. For more data, write for Catalog S656.

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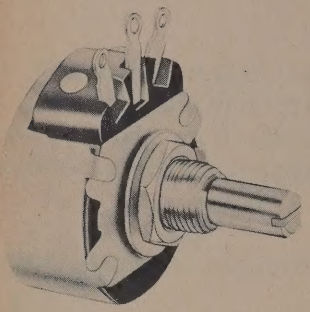
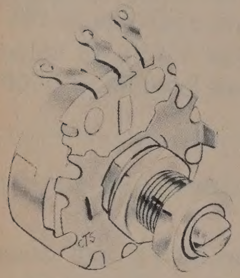
MILITARY CONTROLS
3-WATT INDUSTRIAL CONTROLS
ROTARY SELECTOR SWITCHES





MILITARY VARIABLE RESISTORS

WIREWOUND VARIABLE RESISTORS MEET MIL-R-19A

RA20 (Type 252) 2 watt wire wound in 15 resistance values. 2 shaft styles, plain and locking bushings.

RA30 (Type 25) 4 watt wire wound in 15 resistance values. 2 shaft styles, plain and locking bushings.

COMPOSITION VARIABLE RESISTORS MEET MIL-R-94B

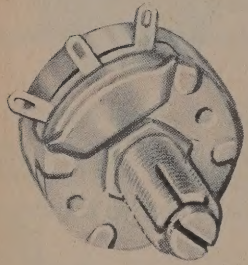
RV2 (Type 90) 1 watt composition resistors in 14 resistance values. 2 shaft styles, plain and locking bushings.

RV4 (Type 96) 2 watt composition resistors in 16 resistance values. 2 shaft styles, plain and locking bushings.

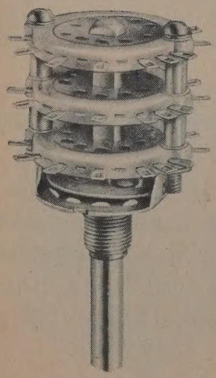
RV5 (Type 65) ½ watt miniature composition resistors in 13 resistance values. 2 shaft styles, plain and locking bushings.

RV6 (Type 300) ½ watt miniature composition resistors in 14 resistance values. 2 shaft styles, plain and locking bushings.

For stock values, write for Catalog S004.



3-WATT INDUSTRIAL CONTROLS. Types 321S and 321LT. Completely enclosed construction features: a carbon-ceramic element, excellent heat sink, long life and low noise characteristics and a large safety factor. Available from 250 ohms through 2.5 megohms. For more data, write for Catalog S631.



ROTARY SELECTOR SWITCHES with unique one-piece molded wafer for high reliability and constant uniformity that eliminates drift.

- Compact 1$\frac{1}{16}$″ size design allows more circuitry per unit of depth behind panel and closer stacking.
- Superior insulation of molded glass alkyd material.
- 1000% more silver than used by most commercial switches.
- Molded stator will not break or crush during ordinary handling, or if dropped.

Available as assembled switches or as wafers and shaft-detent assemblies. For more data, write for Catalog S657.

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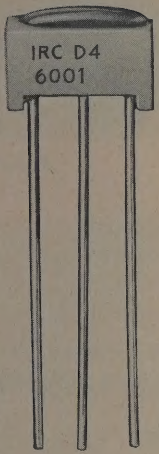
INTERNATIONAL RESISTANCE COMPANY

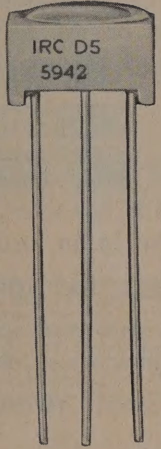
Dual Diodes and Fuse Resistors

DUAL DIODES. Universal selenium dual diodes for horizontal phase detectors and remote control in TV receivers. Also used in radio control devices for model planes, and other circuits. Available in four basic types.



TYPE D4 COMMON CATHODE

MANUFACTURER	PART NO.	MANUFACTURER	PART NO.
Admiral	93B5-6	Muntz	SR004
	93C26-7, 9	Olympic	RF5465
Airline	66X21	Packard Bell	72053
	296V004H01	Philco	34-8034
Coronado	66X21		34-8037-1, 2
Curtis Mathes	9LR2-S	RCA	1107832-7, 9
Emerson	817074	Silvertone	86-9-1
Federal	K1615		624-0007
GE	6GC1	Sylvania	624-0006
	ET16X10,		624-0007
	WT16X7		13-85943-1, 2
	K115J510-1, 2	Tel Rad	TRC-P4
	K117J460-1, 2	Travler	SR6
Hallicrafters	27C226		SR13
	027-300-226	Truetone	66X21
Hoffman	10031	Wells-Gardner	66X21
	744002	Westinghouse	296V004H01
International Rectifier	DD04	Zenith	103-20
Motorola	48C751656		103-32
	48K741255		



TYPE D5 SERIES CONNECTED

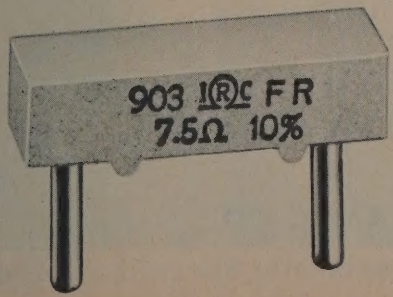
MANUFACTURER	PART NO.	MANUFACTURER	PART NO.
Admiral	93A5-2	Olympic	RF5794
	93B5-3, 4, 5	Packard Bell	72030
Airline	SR15	Silvertone	B-45-110
Coronado	SR15		B-48-110
Citizenship Radio	34-8037		86-3-1
Emerson	817062		86-4-1A
Federal	K1616	Sonora	SR15
GE	6GD1	Sylvania	13-93889
	WT16X9	Tel Rad	TRC-55
	118J966-1	Travler	SR10
International Rectifier	DD05		SR15
Magnavox	530045-1, 2, 3	Truetone	SR10, 15
Motorola	48B742698	Webcor	65P113
	48K741752		65P124-1
	48K754153	Zenith	633977

TYPE D6 COMMON ANODE

MANUFACTURER	PART NO.	MANUFACTURER	PART NO.
GE	66X1	International Rectifier	DD06
	WT16X8	Motorola	48K751724
	118J966-2	Packard Bell	72036

TYPE D7 SPECIAL MOTOROLA SIX CELL DIODE

For Motorola Part No. 48C65831A02



FUSE RESISTORS. This special resistor functions as a resistor under normal conditions, and as a fuse under overload conditions. It is used extensively as a surge-limiting resistor in voltage doubler circuits of TV receivers. Installation of an IRC Type FR fuse resistor in a TV set will prevent overloading of more valuable components and possible fire due to a short circuit. The compact, modern design of IRC fuse resistor measures only $1\tfrac{25}{64}''$ x $\tfrac{11}{32}''$ x $\tfrac{3}{8}''$. This unit is completely insulated in a rectangular ceramic case, and equipped with plug-in terminals. FR5.0—5 ohms, FR5.6—5.6 ohms, FR7.5—7.5 ohms.

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INTERNATIONAL RESISTANCE COMPANY

Service Accessories

Electronic Control
CLEANER
FOR
VOLUME CONTROLS
TUNERS
SWITCHES
PROVIDES LONG LASTING PROTECTION FROM CORROSION AND OXIDATION

ELECTRONIC CONTROL CLEANER. IRC's new Electronic Control Cleaner provides positive, long-lasting protection against damaging corrosion and oxidation. Sprayed on volume controls, tuners, switches and other sensitive components, it quickly removes dirt and clogging gum . . . deposits a non-drying film that lubricates contact surfaces.

VINYL ELECTRICAL TAPE for fast, safe, one-hand insulating. This new IRC Type 103 vinyl electrical tape has everything engineers, technicians, servicemen and hobbyists want in an insulating tape.

- 2 to 18 times better dielectric strength than other tapes.
- Seals and insulates in one fast tape-and-tear operation . . . saves tape and time. UL approved as a single insulation for wire splices.
- Saves space in confined areas . . . ends "twice-around" wraps with bulky tapes.
- Provides a tight insulated plastic seal . . . resistant to abrasion, water, acids, alkalies, corrosion and aging.
- Gives a neater wrap . . . adheres readily to irregular surfaces and contours.
- Makes an excellent wrap for insulating tools.

IRC
PHILADELPHIA, PA.
3/4 IN. x 66 FT. ROLL
UL
VINYL ELECTRICAL TAPE
NO. 103

TAPE-AND-TEAR DISPENSER. For fast, one-hand taping IRC Vinyl Electrical Tape comes in a sturdy tape-and-tear dispenser that keeps tape clean and prevents stretching. Cutting blade is shielded. Dispenser is loaded with 66 feet of ¾″ tape.

Also available in cellophane wrapped rolls:

¾″ wide by 20 feet long
⅜″ wide by 20 feet long
⅜″ wide by 36 yards long

INTERNATIONAL RESISTANCE CO.
Distributor Division
Philadelphia 8, Pa.

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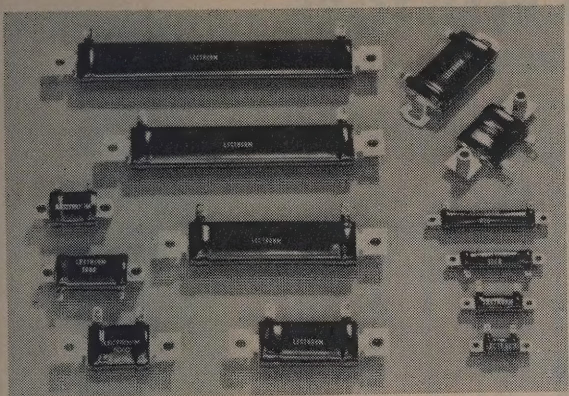
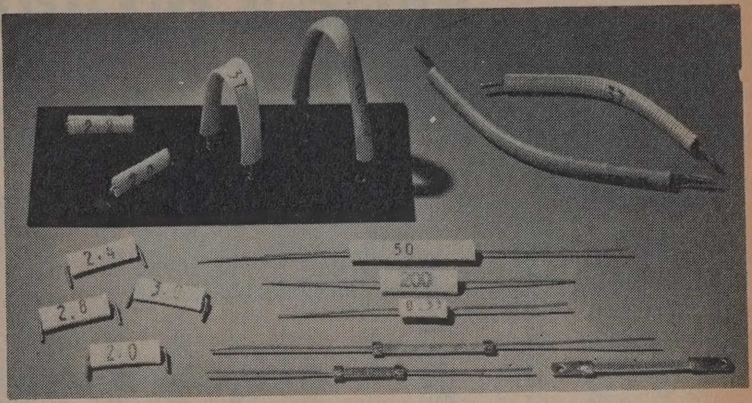
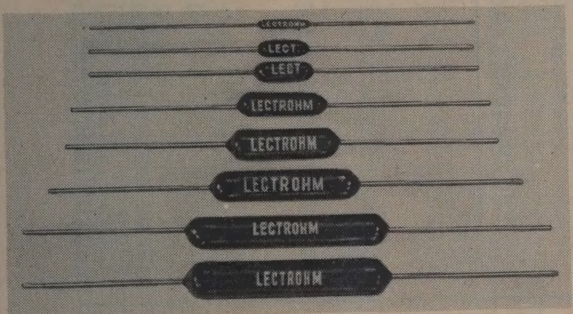


OVALS


2.4
2.4
3.0
2.8
2.0
50
200
0.33

FLEXIBLES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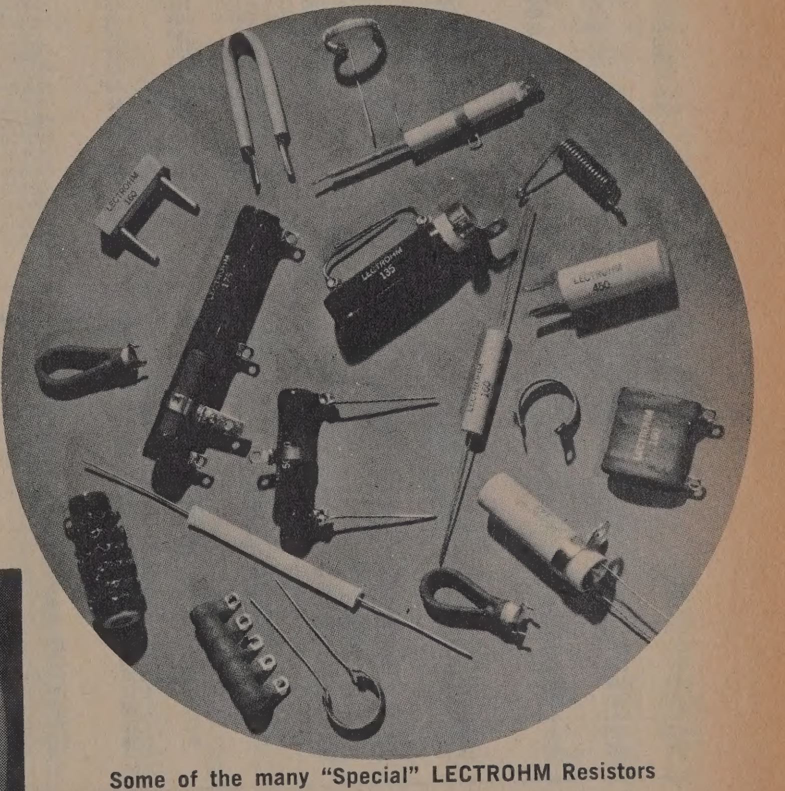
AXIALS

LECTROHM, while manufacturing the standard vitreous line, is also producing whole new groups of types, each designed to solve a special problem. Miniaturization and printed circuit restrictions in space and ventilation no longer are complicated by conventional power resistor size standards. New coating materials and winding methods developed by LECTROHM permit an infinite variety of configurations yet retain operating and life characteristics expected of the finest grade vitreous enameled types. LECTROHM engineers will fit the resistor size and shape to your design.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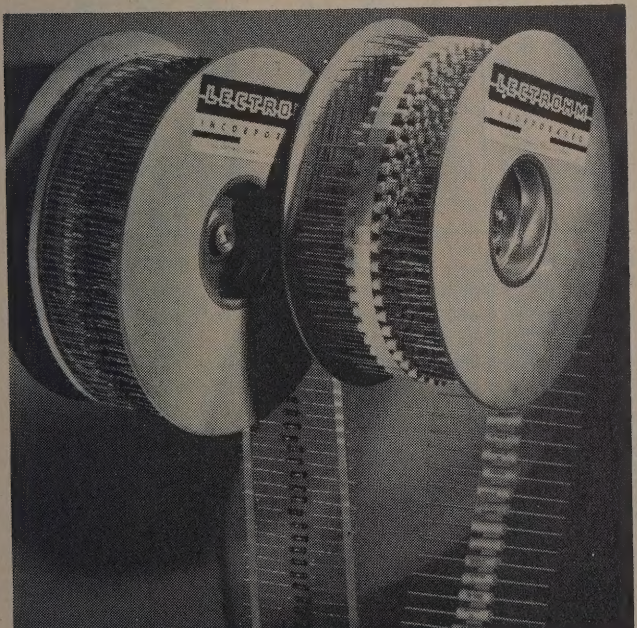
LECTROHM 135
LECTROHM 450

Some of the many "Special" LECTROHM Resistors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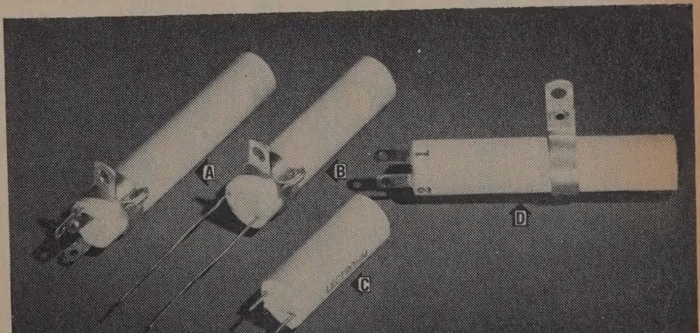
TAPED RESISTORS FOR AUTOMATION



UPRIGHTS **A** SOLDER LUG TYPE. **B** PIGTAIL TYPE. **C** PRINTED CIRCUIT. **D** HORIZONTAL MOUNTING BRACKET.

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INCORPORATED • CHICAGO, ILLINOIS

VITREOUS ENAMELED RESISTORS

Fixed Wire-Wound Types

C5 SERIES — 5 WATT

DIMENSIONS .... 5/16 x 3/16 x 1″
TERMINALS .... Pigtail type leads 1½″
MAXIMUM RESISTANCE .... 10,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	2240	$ .45	600	91	$ .45
2	1580	.45	700	84	.45
3	1290	.45	750	81	.45
4	1110	.45	800	79	.45
5	1000	.45	900	74	.45
10	707	.45	1000	70	.48
15	575	.45	1100	67	.48
20	500	.45	1200	64	.48
25	447	.45	1250	63	.48
30	408	.45	1500	57	.48
35	374	.45	1750	53	.48
40	346	.45	2000	50	.48
50	316	.45	2250	47	.48
75	258	.45	2500	44	.48
100	222	.45	3000	41	.48
125	200	.45	4000	35	.48
150	182	.45	4500	33	.48
200	158	.45	5000	31	.48
225	149	.45	6000	29	.51
250	141	.45	7000	27	.51
300	129	.45	7500	26	.51
350	119	.45	8000	25	.51
400	111	.45	9000	23	.51
500	100	.45	10000	22	.51

C10 SERIES — 10 WATT

DIMENSIONS .... 5/16 x 3/16 x 1¾″
TERMINALS .... Pigtail type leads 1½″
MAXIMUM RESISTANCE .... 50,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	3150	$ .48	1500	79	$ .54
2	2230	.48	1750	74	.54
3	1825	.48	2000	69	.54
5	1415	.48	2250	64	.54
7.5	1155	.48	2500	61	.54
10	1000	.48	3000	58	.54
15	815	.48	3500	53	.54
20	707	.48	4000	50	.54
25	630	.48	4500	47	.54
50	447	.48	5000	44	.54
75	365	.48	6000	41	.60
100	315	.48	7000	38	.60
150	258	.48	7500	36	.60
200	223	.48	8000	35	.60
225	212	.48	8500	34	.60
250	200	.48	9000	33	.60
300	182	.48	10000	32	.60
350	169	.48	12000	29	.66
400	158	.48	12500	28	.66
450	150	.48	13500	27	.66
500	141	.48	15000	25	.66
600	129	.48	16000	25	.66
700	119	.48	17500	24	.66
750	115	.48	18000	23	.66
800	111	.48	20000	22	.66
900	105	.48	22500	21	.72
1000	100	.48	25000	20	.72
1100	95	.54	30000	18	.81
1200	91	.54	40000	15	.81
1250	89	.54	45000	15	.81
			50000	14	.81

C20 or E20 SERIES — 20 WATT

DIMENSIONS .... 7/16 x 5/16 x 2″
TERMINALS .... Pigtail type leads 1½″ (C20)
Solder lug type terminal; hole diameter .1718″ (E20)
MOUNTING BRACKET .... B-33; Centers 2¾″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	2000	$ .63	2500	89	$ .66
10	1414	.63	3000	81	.66
15	1153	.63	4000	70	.66
20	1000	.63	5000	63	.66
25	894	.63	6000	57	.72
40	707	.63	7000	53	.72
50	633	.63	7500	51	.72
60	574	.63	8000	50	.72
75	517	.63	10000	45	.72
100	448	.63	12500	40	.78
125	400	.63	15000	36	.78
150	365	.63	20000	32	.78
200	316	.63	25000	28	.90
250	283	.63	30000	26	.90
300	258	.63	35000	24	.90
350	238	.63	40000	22	.90
400	223	.63	45000	21	1.05
500	200	.63	50000	20	1.05
600	182	.63	55000	18	1.05
700	169	.63	60000	16	1.05
750	163	.63	65000	15	1.20
800	158	.63	70000	14	1.20
1000	141	.63	75000	13	1.20
1100	134	.66	80000	12	1.20
1250	126	66	90000	11	1.38
1500	115	.66	95000	10.5	1.38
2000	100	.66	100000	10	1.38

E25 SERIES — 25 WATT

DIMENSIONS .... 9/16 x 5/16 x 2″
TERMINALS .... Solder lug type
MOUNTING BRACKET .... B-33; Centers 2¾″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	5000	$ .66	2500	100	$ .75
3	2890	.66	3000	91	.75
5	2240	.66	3500	84	.75
10	1580	.66	4000	79	.75
15	1290	.66	5000	71	.75
25	1000	.66	6000	64	.75
50	707	.66	7500	57	.75
75	575	.66	10000	50	.75
100	500	.66	12000	46	.75
150	400	.66	15000	41	.78
200	353	.66	20000	35	.78
250	316	.66	25000	32	.90
300	288	.66	30000	29	.90
400	250	.66	35000	27	1.02
500	224	.66	40000	25	1.02
750	182	.66	50000	20	1.20
1000	158	.66	60000	16	1.20
1250	141	.69	70000	14	1.38
1500	129	.69	80000	12	1.38
2000	112	.69	100000	10	1.38

E50 SERIES — 50 WATT

DIMENSIONS .... 9/16 x 5/16 x 4″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 250,000 ohms
MOUNTING BRACKET .... B-33; Centers 4¾″

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3165	$1.08	8000	79	$1.26
10	2230	1.08	10000	71	1.26
25	1414	1.08	12000	65	1.38
50	1000	1.08	12500	63	1.38
100	707	1.08	15000	57	1.38
200	500	1.08	20000	50	1.38
250	440	1.08	25000	45	1.53
500	300	1.08	30000	41	1.53
750	250	1.08	40000	35	1.53
1000	215	1.08	50000	32	1.71
1500	180	1.14	60000	29	1.71
2000	155	1.14	75000	26	1.92
2500	140	1.14	100000	19	2.10
3000	125	1.14	125000	15	2.22
4000	110	1.14	150000	13	2.31
5000	100	1.14	175000	11	2.40
6000	90	1.26	200000	9	2.49
7000	85	1.26	225000	8	2.79
7500	80	1.26	250000	7	2.79

E75 SERIES — 75 WATT

DIMENSIONS .... 9/16 x 5/16 x 6″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms
MOUNTING BRACKET .... B-33; Centers 6¾″

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	8650	$1.32	2500	171	$1.38
2	6120	1.32	3000	160	1.38
3	5010	1.32	4000	135	1.38
4	4340	1.32	5000	121	1.38
5	3870	1.32	6000	111	1.50
10	2740	1.32	7500	100	1.50
25	1730	1.32	8000	96	1.50
50	1220	1.32	10000	86	1.50
100	865	1.32	12000	80	1.62
150	705	1.32	12500	78	1.62
200	610	1.32	15000	70	1.62
250	550	1.32	20000	61	1.62
300	500	1.32	25000	55	1.83
400	430	1.32	30000	50	1.83
500	385	1.32	35000	46	1.83
750	318	1.32	40000	43	1.83
800	305	1.32	45000	41	1.95
1000	270	1.32	50000	39	1.95
1500	225	1.38	75000	31	2.13
2000	192	1.38	100000	27	2.37

E100 SERIES — 100 WATT

DIMENSIONS .... ¾ x ½ x 6½″
TERMINALS .... Solder lug type
MOUNTING BRACKET .... B-34; Centers 7⅜″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	10000	$1.59	2000	222	$1.68
2	7070	1.59	2500	200	1.68
3	5770	1.59	3000	181	1.68
4	5000	1.59	5000	141	1.68
5	4470	1.59	7500	114	1.80
10	3160	1.59	10000	100	1.80
25	2000	1.59	15000	81	1.98
50	1414	1.59	20000	70	1.98
75	1153	1.59	25000	63	2.10
100	1000	1.59	30000	58	2.10
150	816	1.59	40000	50	2.10
250	632	1.59	50000	45	2.22
500	447	1.59	60000	41	2.22
750	365	1.59	75000	36	2.37
1000	316	1.59	100000	32	2.52
1500	257	1.68			

E160 SERIES — 160 WATT

DIMENSIONS .... 1⅛ x ¾ x 8½″
TERMINALS .... Solder lug type
MOUNTING BRACKET .... B-35; Centers 9⅜″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	12650	$2.75	3500	215	$2.01
2	8940	2.75	4000	200	2.01
3	7300	2.75	4500	185	2.01
4	6320	2.75	5000	180	2.01
5	5660	2.75	7500	145	2.16
10	4000	1.98	10000	125	2.16
25	2530	1.98	15000	105	2.34
50	1788	1.98	20000	90	2.34
75	1460	1.98	25000	80	2.40
100	1260	1.98	30000	73	2.40
200	900	1.98	35000	68	2.40
500	570	1.98	40000	64	2.40
1000	400	1.98	50000	57	2.49
1500	330	2.01	60000	52	2.49
2000	280	2.01	70000	48	2.64
2500	250	2.01	80000	45	2.82
3000	230	2.01	100000	40	2.82

E200 SERIES — 200 WATT

DIMENSIONS .... 1⅛ x ¾ x 10½″
TERMINALS .... Solder lug type
MOUNTING BRACKET .... B-35; Centers 11⅜″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	14140	$3.00	3500	240	$2.16
2	10000	3.00	4000	225	2.16
3	8160	3.00	4500	210	2.34
4	7070	3.00	5000	200	2.34
5	6310	3.00			
10	4470	2.13	7500	165	2.34
25	2830	2.13	10000	140	2.34
50	2000	2.13	15000	115	2.49
75	1635	2.13	20000	100	2.49
100	1400	2.13	25000	90	2.58
250	900	2.13	30000	82	2.58
500	630	2.13	35000	76	2.58
1000	450	2.13	40000	71	2.58
1500	365	2.16	50000	63	2.64
2000	315	2.16	60000	58	2.64
2500	280	2.16	75000	52	2.82
3000	260	2.16	100000	45	3.00

ORDER BY SERIES NUMBER AND RESISTANCE REQUIRED.

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LECTROHM

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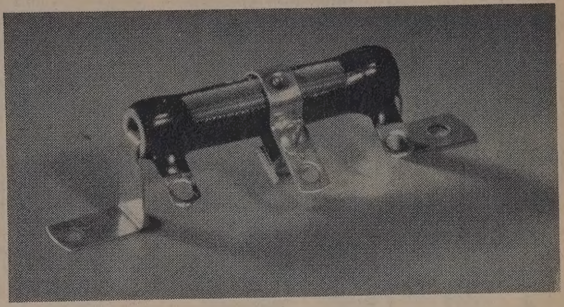
VITREOUS ENAMELED RESISTORS

FIXED AND ADJUSTABLE WIRE-WOUND TYPES

Years ahead in manufacturing techniques, LECTROHM Resistors offer absolutely top quality at consistently lower prices. New winding methods and improved enameling processes are the result of continuing research.

Your wire-wound resistor requirements, whether in small or large quantities, are given immediate attention. Large factory stocks of standard types are maintained for your convenience. Special types to fit particular applications are provided quickly and at low cost.



Adjustable Wire-Wound Types

D10 SERIES — 10 WATT

DIMENSIONS .... 5/16 x 3/16 x 1¾″
MOUNTING BRACKET .... B-32; Centers 2¼″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 10,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	3150	$ .96	750	115	$ .96
2	2230	.96	800	111	.96
3	1825	.96	1000	100	.96
5	1415	.96	1250	89	1.02
7.5	1155	.96	1500	79	1.02
10	1000	.96	2000	69	1.02
15	815	.96	2250	64	1.02
20	707	.96	2500	61	1.02
25	630	.96	3000	58	1.02
50	447	.96	3500	53	1.02
75	365	.96	4000	50	1.02
100	315	.96	4500	47	1.02
150	258	.96	5000	45	1.02
200	223	.96	6000	41	1.08
250	200	.96	7000	38	1.08
300	182	.96	7500	36	1.08
350	169	.96	8000	35	1.08
400	158	.96	8500	34	1.08
500	141	.96	9000	33	1.08
600	129	.96	10000	31	1.08

D25 SERIES — 25 WATT

DIMENSIONS .... 1/16 x 5/16 x 2″
MOUNTING BRACKET.......... B-33; Centers 2¾″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 25,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	5000	$1.23	1250	141	$1.26
2	3535	1.23	1500	129	1.26
3	2890	1.23	2000	112	1.26
5	2240	1.23	2500	100	1.26
7.5	1825	1.23	3000	91	1.26
10	1580	1.23	3500	84	1.26
15	1290	1.23	4000	79	1.26
20	1117	1.23	4500	74	1.26
25	1000	1.23	5000	71	1.26
50	707	1.23	6000	64	1.32
75	575	1.23	7000	60	1.32
100	500	1.23	7500	57	1.32
150	400	1.23	8000	55	1.32
200	353	1.23	8500	54	1.32
250	316	1.23	9000	52	1.32
300	288	1.23	10000	50	1.32
400	250	1.23	12000	46	1.38
500	224	1.23	15000	41	1.38
750	182	1.23	20000	35	1.38
300	177	1.23	25000	32	1.50
1000	158	1.23			

D50 SERIES — 50 WATT

DIMENSIONS .... 9/16 x 5/16 x 4″
MOUNTING BRACKET .... B-33; Centers 4¾″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3160	$1.56	3000	129	$1.62
10	2230	1.56	4000	112	1.62
25	1410	1.56	5000	100	1.62
50	1000	1.56	7500	81	1.74
75	816	1.56	10000	70	1.74
100	707	1.56	12000	64	1.86
150	577	1.56	15000	57	1.86
200	500	1.56	20000	50	1.86
250	447	1.56	25000	44	2.04
300	408	1.56	30000	41	2.04
400	354	1.56	40000	35	2.04
500	316	1.56	50000	32	2.16
750	258	1.56	60000	29	2.16
1000	224	1.56	75000	26	2.43
1500	182	1.62	80000	24	2.43
2000	158	1.62	100000	19	2.58
2500	141	1.62			

D75 SERIES — 75 WATT

DIMENSIONS .... 9/16 x 5/16 x 6″
MOUNTING BRACKET .... B-33; Centers 6¾″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3870	$1.80	3500	146	$1.86
10	2740	1.80	5000	121	1.86
15	2236	1.80	7500	100	1.98
25	1730	1.80	10000	86	1.98
50	1220	1.80	15000	70	2.10
100	865	1.80	20000	61	2.34
250	550	1.80	25000	55	2.34
300	500	1.80	30000	50	2.34
400	430	1.80	40000	43	2.34
500	385	1.80	50000	39	2.40
750	318	1.80	60000	35	2.40
1000	270	1.80	75000	31	2.64
1500	225	1.86	80000	30	2.64
2000	192	1.86	100000	27	2.85
2500	171	1.86			

D100 SERIES — 100 WATT

DIMENSIONS .... ¾ x ½ x 6½″
MOUNTING BRACKET .... B-34; Centers 7⅜″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	4470	$2.37	2500	200	$2.43
10	3162	2.37	3000	180	2.43
25	2000	2.37	5000	140	2.43
50	1414	2.37	7500	115	2.55
75	1155	2.37	10000	100	2.55
100	1000	2.37	15000	80	2.70
150	815	2.37	20000	70	2.70
250	632	2.37	25000	63	2.88
500	447	2.37	30000	58	2.88
750	365	2.37	40000	50	2.88
1000	315	2.37	50000	45	3.00
1250	280	2.43	60000	41	3.00
1500	250	2.43	75000	36	3.12
2000	220	2.43	100000	32	3.27

D160 SERIES — 160 WATT

DIMENSIONS .... 1⅛ x ¾ x 8½″
MOUNTING BRACKET .... B-35; Centers 9⅜″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	5660	$3.51	4500	185	$2.76
10	4000	2.73	5000	180	2.76
25	2530	2.73	7500	145	2.94
50	1788	2.73	10000	125	2.94
75	1460	2.73	15000	105	3.09
100	1260	2.73	20000	90	3.09
200	900	2.73	25000	80	3.18
500	570	2.73	30000	73	3.18
1000	400	2.73	35000	68	3.18
1500	330	2.76	40000	64	3.18
2000	280	2.76	50000	57	3.24
2500	250	2.76	60000	52	3.24
3000	230	2.76	70000	48	3.42
3500	215	2.76	80000	45	3.60
4000	200	2.76	100000	40	3.60

D200 SERIES — 200 WATT

DIMENSIONS .... 1⅛ x ¾ x 10½″
MOUNTING BRACKET .... B-35; Centers 11⅜″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	6310	$3.75	4500	210	$2.94
10	4470	2.88	5000	200	2.94
25	2830	2.88	7500	165	3.12
50	2000	2.88	10000	140	3.12
75	1635	2.88	15000	115	3.24
100	1400	2.88	20000	100	3.24
250	900	2.88	25000	90	3.30
500	630	2.88	30000	82	3.30
1000	450	2.88	35000	76	3.30
1500	365	2.94	40000	71	3.30
2000	315	2.94	50000	63	3.42
2500	280	2.94	60000	58	3.57
3000	260	2.94	75000	52	3.57
3500	240	2.94	100000	45	3.75
4000	225	2.94			

Order by series number and resistance required.

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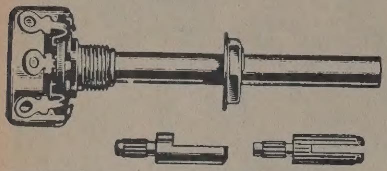
P. R. MALLORY & CO. Inc. MALLORY Controls

METAL SHAFT MIDGETROLS®

Standard universal replacement 15/16" dia. carbon control. Furnished with ¼" dia. round brass shaft and adapters for knurled, slotted or flatted knobs (hex. nut incl.).

Mallory Midgetrols— Net Each.................... $\$1^{02}$



Mall. No.	Resis. Ohms	Taper	Mall. No.	Resis. Ohms	Taper
U-1	100	4	U-35	50K	4
U-2	500	4	U-36	75K	1
U-52R	500	2	U-39	100K	1
U-751R	750	2	U-40	100K	2
U-3	1K	2	U-41	100K	4
U-4	1K	4	U-415	125K	4
U-5	1500	2	U-42	150K	1
U-5L	1500	4	U-43	200K	4
U-6	2K	4	U-44	250K	1
U-7	2500	2	U-45	250K	2
U-8	3K	4	U-46	250K	4
U-9	3K	2	U-48	500K	1
U-12	5K	1	U-50	500K	4
U-14	5K	4	U-51	750K	1
U-18	10K	1	U-52	1 meg.	2
U-19	10K	2	U-53	1 meg.	1
U-20	10K	4	U-54	1 meg.	4
U-21	15K	1	U-155	1.5 meg.	4
U-22	15K	2	U-55	2 meg.	1
U-24	20K	1	U-56	2 meg.	4
U-26	20K	4	U-255	2.5 meg.	4
U-28	25K	2	U-57	3 meg.	1
U-28A	25K	1	U-59	3 meg.	4
U-29	25K	4	U-63	5 meg.	2
U-30	30K	4	U-65	5 meg.	1
U-33	50K	1	U-67	5 meg.	4
U-34	50K	2	U-82	10 meg.	4

TAPPED MIDGETROLS®

Mallory Tapped Midgetrols— Net Each.................... $\$1^{26}$

SINGLE TAPPED

No. UT-	Resis. Ohms	Tap At	No. UT-	Resis. Ohms	Tap At
153	15K	10K	440	1 meg.	200K
415	30K	25K	443	1 meg.	450K
420	250K	50K	450	2 meg.	125K
421	250K	150K	448	2 meg.	250K
425	350K	70K	449	2 meg.	600K
427	500K	100K	454	2 meg.	400K
429	500K	50K	451	2 meg.	900K
430	500K	150K	457	3 meg.	900K
431	500K	225K	461	3¼ meg.	300K
438	1 meg.	300K			

DOUBLE TAPPED

Mallory No.	Overall Resistance	Tap Resistance	
		Tap 1	Tap 2
UDT-283	500K	100K	200K
UDT-289	1 meg.	250K	500K
UDT-291	1.5 meg.	225K	500K
UDT-295	2.25 meg.	250K	500K
UDT-296	2.25 meg.	500K	1 meg.
UDT-303	3.3 meg.	300K	1.5 meg.

MIDGETROL® SWITCHES

Use with U, UT, UDT or TA controls.

Mallory No.	Description	Net Each
US-26	SPST Switch	42c
US-26T	SPST Switch with Dummy Term.	51c
US-27	DPST Switch	51c
US-28	SPDT Switch	51c

NYLON SHAFT MIDGETROLS®

Equipped with knurled and slotted nylon shaft (¼" FMS).

Mallory Nylon Shaft Midgetrols— Net Each.................... 93^{c}

Mallory No.	Ohms	Taper	Mallory No.	Ohms	Taper
SU-6	1500	4	SU-50	500K	4
SU-8	3K	4	SU-54	1 meg.	4
SU-14	5K	4	SU-56	2 meg.	4
SU-20	10K	4	SU-565	2.5 meg.	4
SU-29	25K	4	SU-59	3 meg.	4
SU-35	50K	4	SU-67	5 meg.	4
SU-41	100K	4	SU-69	7.5 meg.	4
SU-46	250K	4			

FOR LATEST DEVELOPMENTS IN CONTROL ENGINEERING, SPECIFY MALLORY

TAB MOUNT MIDGETROLS®

Same as standard Midgetrols, but with twist tabs (no bushing). Dia., 15/16". Nylon and metal shaft types.

PTA NYLON SHAFT TAB MOUNTS

One-inch long nylon shaft.

Mallory PTA Midgetrols— Net Each.................... 60^{c}

Mallory No. PTA-	Resis. Ohms	Taper	Mallory No. PTA-	Resis. Ohms	Taper
52L	500	4	1254L	1.25 meg.	4
751L	750	4	26L	2 meg.	4
152L	1500	4	355L	3.5 meg.	4
252L	2500	4	46A	4 meg.	1
53L	5000	4	56R	5 meg.	2
352L	3500	4	755L	7.5 meg.	4
54L	50K	4	855L	8.5 meg.	4
15L	100K	4	754L	750K	4
35L	300K	4	55L	500K	4
55R	500K	2	56L	5 meg.	4

TA METAL SHAFT TAB MOUNTS

¼" x 2" rd. shaft. With 2 knob adapters.

Mallory TA Midgetrols— Net Each.................... 75^{c}

Mallory No. TA-	Resis. Ohms	Taper	Mallory No. TA-	Resis. Ohms	Taper
52L	500	4	334A	330K	1
751L	750	4	55R	500K	2
13L	1000	4	55A	500K	1
152L	1500	4	55L	500K	4
352L	3500	4	16A	1 meg.	1
53L	5000	4	16L	1 meg.	4
14L	10K	4	155L	1.5 meg.	4
153L	15K	4	26A	2 meg.	1
253L	25K	4	26L	2 meg.	4
54A	50K	1	26T16	2 meg.*	4
54L	50K	4	255L	2.5 meg.	4
15L	100K	4	36L	3 meg.	4
184L	180K	4	56R	5 meg.	2
254L	250K	4	56L	5 meg.	4

*Tap at 1 meg.

PUSH-PULL MIDGETROLS®

Carbon element controls with a push-pull type SPST switch permanently attached.

Mallory Number	Resis. Ohms	Tap, Ohms	Taper	Net Each
PP13R	1K	....	2	$1.35
PP252R	2.5K	....	2	1.35
PP15A	100K	....	1	1.35
PP16A	1 meg.	....	1	1.35
PP16L	1 meg.	....	4	1.35
PP16T15	1 meg.	100K	1	1.59
PP16T25	1 meg.	200K	1	1.59
PP16T55	1 meg.	500K	2	1.59
PP16DT55	1 meg.	250K-500K	4	1.59
PP25L	200K	....	4	1.35
PP254A	250K	....	1	1.35
PP254DT154	250K	100K-150K	4	1.59
PP26A	2 meg.	....	1	1.35
PP26T16	2 meg.	1 meg.	4	1.59
PP26DT16	2 meg.	500K-1 meg.	1	1.59
PP36DT26	3 meg.	1 meg.- 2 meg.	4	1.59
PP55T25	500K	200K	4	1.59
PP46T26	4 meg.	2 meg.	4	1.59
PP55A	500K	....	1	1.35
PP55DT1683	500K	48K-168K	4	1.59
PP55L	500K	....	4	1.35
PP55T254	500K	250K	1	1.59
PP56L	5 meg.	....	4	1.35
PP155L	1.5 meg.	....	4	1.35

PRINTED CIRCUIT MIDGETROLS®

Printed circuit tabs and "dog-house". Shaft, universal ¼" dia. x 3½".

Mallory P2 Plain Control—Net... $\$1^{11}$

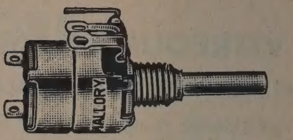
Mallory P2 Control—With SPST switch. Net Each....................$1.53

Mallory P2 Control—With DPST switch. Net Each....................$1.62

Mallory P2 Tapped Control—Net. 1.35

Mallory No.	Ohms Resis.	Tap #1	Tap #2	Taper	Sw.
P2-14A-D	10K	......	......	1	DPST
P2-16A	1 meg.	......	......	1	......
P2-16T35	1 meg.	300K	......	...	......
P2-16A-D	1 meg.	......	......	1	DPST
P2-16A-S	1 meg.	......	......	1	SPST
P2-16L-D	1 meg.	......	......	4	DPST
P2-26A	2 meg.	......	......	1	......
P2-26A-S	2 meg.	......	......	1	SPST
P2-26DT65	2 meg.	300K	600K	1	......
P2-36L	3 meg.	......	......	4	......
P2-53L-S	5K	......	......	4	SPST
P2-55A	500K	......	......	1	......
P2-55A-S	500K	......	......	1	SPST
P2-55L-S	500K	......	......	4	SPST
P2-55T254	500K	250K	......	1	......
P2-153A-D	15K	......	......	1	DPST
P2-252A-S	2.5K	......	......	1	SPST

MLC CARBON CONTROLS



Subminiature ½" control for transistor radios. MLC have ⅛" dia. metal shaft; MLCN, ⅛" dia. nylon shaft.

Mallory MLC Plain Control— Net Each.................... $\$1^{14}$

Mallory MLC—With SPST switch. Net Each....................$1.86

Mallory 1910K—MLC knob. Net....20c

Mallory No.	Ohms	Taper	Switch
MLC13L	1000	4	....
MLC222L-S	2200	4	SPST
MLC252A	2500	1	....
MLC252A-S	2500	1	SPST
MLC53A	5000	1	....
MLC53A-S	5000	1	SPST
MLC53L	5000	4	....
MLC53L-S	5000	4	SPST
MLC14A-S	10K	1	SPST
MLC14L	10K	4	....
MLC54L	50K	4	....
MLC15A	100K	1	....
MLC15L	100K	4	....
MLC25L	200K	4	....
MLC254L	250K	4	....
MLC55A	500K	1	....
MLC55A-S	500K	1	SPST
MLC55L-S	500K	4	SPST
MLCN55L	500K	4	....
MLC16A-S	1 meg.	1	SPST
MLC16L-S	1 meg.	4	SPST
MLCN16A	1 meg.	1	....
MLCN16L	1 meg.	4	....

THEATER SPEAKER CONTROLS

Mallory Number	Description	Net Each
TSA-10	4-ohm L-pad	$1.35
TSA-35	35-ohm potentiometer	1.35
TSA-6	6-ohm potentiometer	1.14

SENSITIVITY CONTROLS

Screwdriver slot controls for TV, radio, hum, balance, AGC, etc. Two watts. Single terminal can be bent to radial position.

FLANGE MOUNT RHEOSTATS

Mallory No. FL-	Resis. Ohms	Net Ea.	Mallory No. FL-	Resis. Ohms	Net Ea.
6	6	42c	600S*	600	42c
15	15	42c	750	750	42c
75	75	42c	1K	1K	42c
100	100	42c	2K	2K	42c
150	150	42c	2KS*	2K	42c
200	200	42c	3K	3K	42c
250	250	42c	4K	4K	42c
500	500	42c	5K	5K	42c
600	600	42c			

*Stops at 100 ohms.

FLANGE MOUNT POTENTIOMETERS

40P	40	42c	200P	200	42c
100P	100	42c	250P	250	42c

PRINTED CIRCUIT RHEOSTATS

New tab mount version of FL rheostats.

Mallory No. PFL-	Resis. Ohms	Net Ea.	Mallory No. PFL-	Resis. Ohms	Net Ea.
1.5	1.5	60c	3K	3K	60c
15	15	60c	4K	4K	60c
100	100	60c	5K	5K	60c
600	600	60c	60A*	60	60c
1K	1K	60c	100A*	100	60c
1.5K	1.5K	60c			

*Has polyethylene knob.

TV FOCUS CONTROLS

Replacements for TV focus controls, units are 4-watt wire-wound with special taper. Voltage breakdown, 1000 v. DC; mechanical rotation 294°, ± 2°; electrical rotation 275°, ± 5°. Have 2" round shaft with screwdriver slot; 1⅝" dia.

Mallory No. TVF140—Max. 1500 ohms resistance. Net Each....... $\$1^{35}$

Mallory No. TVF143—Max. 2500 ohms Resistance. Net Each..........$1.35

EXPLANATION OF TAPERS

Taper No. 1—A modified logarithmic left hand taper. For use in audio or antenna shunt circuits or where only the center and left hand terminals are used.

Taper No. 2—A right hand logarithmic taper. Used in series circuits as in cathode voltage controls or where only the center and right hand terminals are used.

Taper No. 4—A linear taper.

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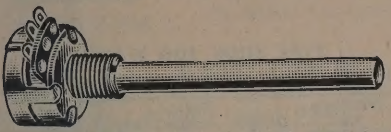
P. R. MALLORY & CO. Inc. MALLORY Controls

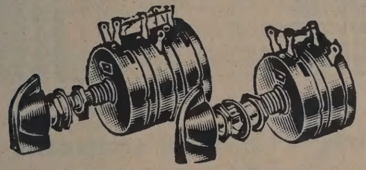
FIVE-WATT SUBMINIATURE CONTROLS



Rated at full 5 watts at 35° C. Only ¾" in diameter. Linear Taper; mechanical rotation 305° ± 5°; electrical rotation 275° ± 5°. Resistance tolerance, ± 10%; voltage breakdown, 900 v. AC rms at sea level. Standard ⅜"-32 x ⅜" bushing with locating lug. Shaft, ¼" dia. x 2" F.M.S. Furnished with mounting nut and washer.

Mallory Number	Resistance, Ohms	Net Each
VW1	1	$1.38
VW2	2	1.38
VW3	3	1.38
VW5	5	1.38
VW6	6	1.38
VW8	8	1.38
VW10	10	1.38
VW15	15	1.38
VW20	20	1.38
VW25	25	1.38
VW30	30	1.38
VW40	40	1.38
VW50	50	1.38
VW60	60	1.38
VW75	75	1.38
VW100	100	1.38
VW200	200	1.38
VW250	250	1.38
VW300	300	1.38
VW400	400	1.38
VW500	500	1.38
VW600	600	1.38
VW750	750	1.38
VW1K	1000	1.38
VW1P5K	1500	1.44
VW2K	2000	1.44
VW2P5K	2500	1.44
VW3K	3000	1.44
VW4K	4000	1.44
VW5K	5000	1.44
VW7P5K	7500	1.50
VW10K	10000	1.50
VW15K	15000	1.56
VW20K	20000	1.56
VW25K	25000	1.65

AUDIO ATTENUATORS



"T" PAD "L" PAD

For controlling levels of audio circuits. Cup Dia.: T, L, LA and LL pads, 1⅝"; RT, RL and RR, 1⁹⁄₃₂". Bushing: T and L, ⅜"-32 x ⅜"; LA, LL, RT, RL and RR, ⅜"-32 x 1" bushing. Shaft: T and L, ¼" dia. x 2", grooved; others, ¼" dia. x ½" round. With knob, nut, washer and dial.

"T" Pad Attenuators—Net Each.......................... $3.54

Mallory No.	Ohms Imped.	Mallory No.	Ohms Imped.
T2	2	T200	200
T4	4	T250	250
T6	6	T500	500
T8	8	T600	600
T15	15	T1000	1000
T50	50	T2000	2000
T100	100	T3000	3000

"L" Pad Attenuators—Net Each.......................... $2.73

"LA" Pad Attenuators—Net Ea. . $2.85

L2	2	L200	200
L4	4	L250	250
L6	6	L500	500
L8	8	L600	600
L8A	8	L1000	1000
L15	15	L2000	2000
L16A	16	L3000	3000
L50	50	L4000	4000
L100	100		

Tandem LL Pads—Case length, 2⁵⁄₁₆". Net Each.................. $5.70

LL8	8	LL50	50
LL16	16		

AUDIO ATTENUATORS (CONT'D)

"RT" Pad Attenuators—Net Each.......................... $3.33

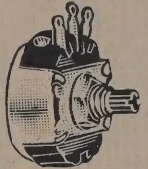
Mallory No.	Ohms Imped.	Mallory No.	Ohms Imped.
RT4	4	RT50	50
RT8	8	RT250	250
RT16	16	RT500	500

"RL" Pad Attenuators—Net Each.......................... $2.52

RL4	4	RL50	50
RL8	8	RL250	250
RL16	16	RL500	500

"RR50" Dual Tandem Stereo Control—Dual 59 ohms. Net Each........ **$2.10**

TYPE R WIRE-WOUND POTS



For replacement of TV controls requiring 3 watt unit. Also for V-divider and bias applications. High quality, dust-proof, 1⁹⁄₃₂" overall dia. 900 v. insulation. No. 4 taper. Thumb knurled, screwdriver slotted stub shaft. Bushing, ⅜".One Pal-nut with each control.

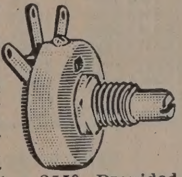
Mallory No.	Ohms	Net Each	Mallory No.	Ohms	Net Each
R2L	2	$0.93	R50CT†	50	$1.32
R3L	3	.93	R100L	100	.93
R5L	5	.93	R250L	250	.93
R6L	6	.93	R500L	500	.93
R8L	8	.93	R750L	750	.93
R10L	10	.93	R1000L	1000	.93
R10CT†	10	1.32	R1500L	1500	.93
R15L	15	.93	R2500L	2500	.93
R20L	20	.93	R3000L	3000	.93
R20CT†	20	1.32	R5000L	5000	.93
R25L	25	.93	R7500L	7500	1.08
R30L	30	.93	R10ML	10000	1.08
R30CT†	30	1.32	R15ML	15000	1.08
R50L	50	.93	R20ML	20000	1.08

†Center-tapped Controls

SWITCHES FOR TYPE R POTS

Mall. No.	Description	Net
US30	Single Pole, Single Throw	42c
US32	Double Pole, Single Throw	54c

TWO-WATT WIRE-WOUND POTENTIOMETERS



1¹⁄₁₆" diameter variable resistor that will dissipate 2 watts over the entire element for continuous operation. For use in test and special instruments, bias control and bridge circuits. Linear taper only. Contact arm is grounded. Total rotation 280°; effective electrical rotation 255°. Provided with short shaft, milled screwdriver slot. Will take standard knobs. Furnished with hex nut. Shipping Weight, 4 oz.

POTENTIOMETERS

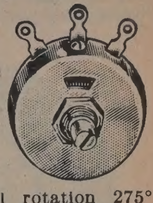
Mallory No.	Ohms Resis.	Carrying Capacity in Amps	Net Each
C6P	6	.58	$1.08
C10P	10	.45	1.08
C15P	15	.37	1.08
C20P	20	.32	1.08
C30P	30	.26	1.08
C40P	40	.22	1.08
C50P	50	.2	1.08
C100P	100	.14	1.08
C200P	200	.1	1.08
C400P	400	.07	1.08
C1MP	1K	.045	1.20
C3MP	3K	.025	1.20
C5MP	5K	.02	1.47
C6MP	6K	.018	1.47
C10MP	10K	.014	1.47
C15MP	15K	.011	1.47

RHEOSTATS*

Mallory No.	Ohms Resis.	Carrying Capacity in Amps	Net Each
C6R	6	.58	93c
C10R	10	.45	93c
C15R	15	.37	93c
C20R	20	.32	93c
C30R	30	.26	93c
C40R	40	.22	93c
C50R	50	.2	93c
C100R	100	.14	93c

*"Open" or "off" position counter-clockwise.

FOUR-WATT WIRE-WOUND POTENTIOMETERS, RHEOSTATS



Used on bias control and voltage dividers; also for replacement of positioning, hold, focus and other controls of TV sets. Rugged. Rheostats feature "off" position (no connection) type of construction. Insulated contact arm. Pots have three, rheostats have two terminals. Total rotation 294°; effective electrical rotation 275° ± 5%. **No. 4 linear taper.** Voltage breakdown 1000 v. DC.

One control (with hex nut) to carton.

POTENTIOMETERS

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M1PK	1	2.00	$1.35
M3PK	3	1.15	1.35
M6PK	6	82	1.35
M10PK	10	.63	1.35
M15PK	15	.52	1.35
M20PK	20	.45	1.35
M25PK	25	.40	1.35
M30PK	30	.37	1.35
M40PK	40	.32	1.35
M50PK	50	.28	1.35
M60PK	60	.26	1.35
M75PK	75	.23	1.35
M100PK	100	.20	1.35
M200PK	200	.14	1.35
M300PK	300	.116	1.35
M400PK	400	.10	1.35
M500PK	500	.09	1.35
M600PK	600	.082	1.35
M1MPK	1K	.063	1.35
M1.5MPK	1.5K	.052	1.35
M2MPK	2K	.045	1.35
M2.5MPK	2.5K	.04	1.35
M3MPK	3K	.037	1.35
M4MPK	4K	.032	1.35
M5MPK	5K	.028	1.35
M10MPK	10K	.02	1.35
M15MPK	15K	.016	1.47
M20MPK	20K	.014	1.47
M25MPK	25K	.013	1.47
M50MPK	50K	.009	1.74
M70MPK	70K	.0075	1.74
M75MPK	75K	.0073	2.46
M100MPK	100K	.0063	2.46

CENTER-TAPPED POTENTIOMETERS

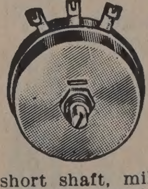
MT10PK	10	.63	$1.32
MT20PK	20	.45	1.32
MT30PK	30	.37	1.32

RHEOSTATS*

M05RK	0.5	2.80	93c
M1RK	1	2.00	93c
M2RK	2	1.40	93c
M3RK	3	1.15	93c
M4RK	4	1.00	93c
M6RK	6	.82	93c
M10RK	10	.63	93c
M15RK	15	.52	93c
M20RK	20	.45	93c
M25RK	25	.40	93c
M30RK	30	.37	93c
M40RK	40	.32	93c
M50RK	50	.28	93c
M60RK	60	.26	93c
M75RK	75	.23	93c
M100RK	100	.20	93c

*"Open"or"Off"position counter-clockwise

SEVEN-WATT WIRE-WOUND POTENTIOMETERS



Suitable for precision instruments such as resistance bridges and where a control of medium currents or voltages is required. Supplied with grounded contact arm. 307° total rotation; 295° effective electrical rotation. Will dissipate 7 watts Provided with short shaft, milled screw-driver slot for easy adjustment. Will take standard knobs. Hex nut furnished. No. 4 taper.

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
E5MP	5K	.042	$2.76
E10MP	10K	.03	2.94
E20MP	20K	.021	3.00
E25MP	25K	.019	3.09
E50MP	50K	.0135	3.15
E75MP	75K	.011	3.24
E100MP	100K	.0095	3.30
E125MP	125K	.0085	3.30
E150MP	150K	.0078	3.36

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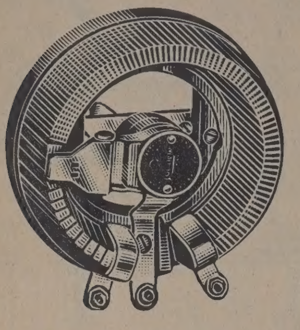
P. R. MALLORY & CO. Inc.

MALLORY Power Rheostats

Power rheostats (Type K) of porcelain vitreous enamel construction for maximum environmental protection. Features include hinged-spring contact arm, very low contact resistance, easily-cleaned and replaceable brushes and anti-backlash rotor. All electrical parts insulated by dimensionally stable ceramic. Values shown are for continuous operation in free air. Furnished with knob and dial plate.



TYPE 25K 25 WATTS

$1\frac{9}{16}$″ O.D. 295° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
25K1P	1	5.000	28	$4.40
25K2P	2	3.540	28	3.90
25K3P	3	2.880	53	3.90
25K6P	6	2.040	51	3.90
25K8P	8	1.770	56	3.90
25K10P	10	1.580	54	3.90
25K15P	15	1.290	88	3.90
25K25P	25	1.000	117	3.90
25K35P	35	.845	129	3.90
25K50P	50	.707	149	3.90
25K75P	75	.575	174	3.90
25K100P	100	.500	184	3.90
25K125P	125	.447	187	3.90
25K175P	175	.378	178	3.90
25K250P	250	.316	200	3.90
25K350P	350	.267	227	3.90
25K500P	500	.222	256	3.90
25K750P	750	.182	303	3.90
25K1000P	1000	.155	318	4.40
25K1500P	1500	.129	310	4.40
25K2500P	2500	.100	405	4.40
25K3500P	3500	.084	432	4.66
25K5000P	5000	.070	471	4.66

TYPE 50K 50 WATTS

$2\frac{13}{32}$″ O.D. 300° angle of rotation.

50K.5P	.5	10.00	25	$4.89
50K1P	1	7.07	37	4.89
50K2P	2	5.00	42	4.89
50K4P	4	3.54	66	4.40
50K6P	6	2.89	79	4.40
50K8P	8	2.50	84	4.40
50K12P	12	2.04	100	4.40
50K16P	16	1.76	106	4.40
50K22P	22	1.50	145	4.40
50K35P	35	1.19	145	4.40
50K50P	50	1.00	163	4.40
50K80P	80	.79	210	4.40
50K125P	125	.63	204	4.40
50K150P	150	.58	244	4.40
50K225P	225	.47	298	4.40
50K300P	300	.41	268	4.40
50K500P	500	.32	205	4.40
50K800P	800	.25	363	4.66
50K1000P	1000	.22	354	4.66
50K1600P	1600	.176	449	4.66
50K2500P	2500	.14	455	4.66
50K3500P	3500	.12	500	4.89
50K5000P	5000	.10	550	4.89
50K8000P	8000	.08	690	4.89
50K10000P	10000	.07	870	4.89

TYPE 75K 75 WATTS

$2\frac{25}{32}$″ O.D. 300° angle of rotation.

75K.5P	.5	12.20	26	$6.61
75K1P	1	8.66	35	6.61
75K2P	2	6.12	42	6.61
75K4P	4	4.34	64	6.61
75K6P	6	3.54	77	6.09
75K8P	8	3.06	81	6.09
75K12P	12	2.50	97	6.09
75K25P	25	1.73	126	6.09
75K50P	50	1.22	159	6.09
75K75P	75	1.00	188	6.09
75K100P	100	.87	200	6.09
75K200P	200	.61	249	6.09
75K250P	250	.55	252	6.09
75K350P	350	.46	277	6.09
75K500P	500	.39	312	6.09
75K750P	750	.32	330	6.61
75K1MP	1000	.27	365	6.61
75K1500P	1500	.22	407	6.61
75K2500P	2500	.17	428	6.61
75K5MP	5000	.12	550	7.08
75K8MP	8000	.10	670	7.60
75K10MP	10000	.09	660	7.60

TYPE 100K 100 WATTS

$3\frac{1}{8}$″ O.D. 300° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
100K.5P	.5	14.20	30	$7.32
100K1P	1	10.00	40	7.32
100K2P	2	7.07	42	7.32
100K3P	3	5.77	56	7.32
100K5P	5	4.47	59	7.32
100K7.5P	7.5	3.65	96	6.86
100K10P	10	3.16	101	6.86
100K16P	16	2.50	128	6.86
100K25P	25	2.00	160	6.86
100K50P	50	1.41	200	6.86
100K75P	75	1.15	240	6.86
100K100P	100	1.00	250	6.86
100K200P	200	.71	315	6.86
100K300P	300	.58	302	6.86
100K400P	400	.50	316	6.86
100K500P	500	.45	342	6.86
100K750P	750	.37	406	6.86
100K1000P	1000	.32	435	7.32
100K1500P	1500	.26	520	7.32
100K2000P	2000	.22	544	7.32
100K2500P	2500	.20	535	7.32
100K5000P	5000	.14	692	7.82
100K7500P	7500	.12	820	8.30
100K10000P	10000	.10	840	8.80

TYPE 150K 150 WATTS

$4\frac{1}{32}$″ O.D. 305° angle of rotation.

150K.5P	.5	17.30	31	$9.28
150K1P	1	12.30	38	9.28
150K2P	2	8.66	51	9.28
150K3P	3	7.07	73	9.28
150K5P	5	5.48	77	9.28
150K7.5P	7.5	4.47	70	9.28
150K10P	10	3.87	145	8.80
150K15P	15	3.16	138	8.80
150K25P	25	2.45	142	8.80
150K35P	35	2.07	198	8.80
150K50P	50	1.73	182	8.80
150K75P	75	1.41	218	8.80
150K100P	100	1.22	229	8.80
150K150P	150	1.00	276	8.80
150K200P	200	.87	289	8.80
150K250P	250	.77	360	8.80
150K350P	350	.66	350	8.80
150K500P	500	.55	400	8.80
150K750P	750	.45	460	9.28
150K1250P	1250	.35	490	9.28
150K1800P	1800	.290	555	9.80
150K2250P	2250	.26	547	9.80
150K3000P	3000	.22	729	9.80
150K4500P	4500	.18	689	10.27
150K7500P	7500	.14	930	10.76
150K10000P	10000	.12	980	11.73

TYPE 225K 225 WATTS

5″ O.D. 310° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
225K1P	1	15.00	52	$13.40
225K2P	2	10.60	69	13.40
225K3P	3	8.66	73	13.40
225K4P	4	7.50	91	13.40
225K5P	5	6.71	91	13.40
225K7.5P	7.5	5.48	96	13.40
225K10P	10	4.74	101	13.40
225K15P	15	3.87	147	13.40
225K25P	25	3.00	192	13.40
225K50P	50	2.12	242	13.40
225K75P	75	1.73	290	13.40
225K100P	100	1.50	304	13.40
225K150P	150	1.22	364	13.40
225K200P	200	1.06	382	13.40
225K350P	350	.80	421	13.40
225K500P	500	.67	475	13.40
225K750P	750	.55	577	13.40
225K1MP	1000	.47	605	13.40
225K1500P	1500	.39	715	13.40
225K2500P	2500	.30	660	13.40

TYPE 300K 300 WATTS

$6\frac{1}{16}$″ O.D. 315° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
300K1P	1	17.30	48	$14.53
300K2P	2	12.25	60	14.53
300K3P	3	10.00	64	14.53
300K4P	4	8.66	80	14.53
300K5P	5	7.75	80	14.53
300K7.5P	7.5	6.32	100	14.53
300K10P	10	5.48	139	14.53
300K15P	15	4.47	128	14.53
300K25P	25	3.46	182	14.53
300K50P	50	2.45	228	14.53
300K75P	75	2.00	271	14.53
300K100P	100	1.73	287	14.53
300K150P	150	1.41	338	14.53
300K200P	200	1.22	361	14.53
300K300P	300	1.00	427	14.53
300K400P	400	.87	460	14.53
300K700P	700	.66	555	14.53
300K900P	900	.58	564	14.53
300K1200P	1200	.50	605	14.53
300K1500P	1500	.45	755	14.53
300K1750P	1750	.41	691	14.53
300K2500P	2500	.35	785	14.53

TYPE 500K 500 WATTS

8″ O.D. 325° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
500K1P	1	22.40	73	$20.99
500K2P	2	15.80	68	20.99
500K3P	3	12.90	91	20.99
500K4P	.4	11.20	96	20.99
500K5P	5	10.00	127	20.99
500K7.5P	7.5	8.16	134	20.99
500K10P	10	7.07	169	20.99
500K15P	15	5.79	180	20.99
500K25P	25	4.47	230	20.99
500K50P	50	3.16	285	20.99
500K75P	75	2.58	342	20.99
500K100P	100	2.24	362	20.99
500K150P	150	1.82	430	20.99
500K200P	200	1.58	452	20.99
500K250P	250	1.41	563	20.99
500K350P	350	1.20	630	20.99
500K500P	500	1.00	708	20.99
500K750P	750	.82	670	20.99
500K1MP	1000	.71	705	20.99
500K1500P	1500	.58	862	20.99
500K2500P	2500	.45	975	20.99

TYPE "K" RHEOSTAT ACCESSORIES

(Not Illustrated)

Mal. No.	Description	Dia.	Net Ea.
365-1	Bar knob	2¼″	$0.21
366-1	Bar knob	1¼″	.18
367-1	Knurled rd. knob	1½″	.21
368-1	Knurled rd. knob	1⅛″	.15
364	368 w/pointer	11/16″	.09
363-1†	Handwheel*	3½″	2.49
363-2†	Handwheel**	3¼″	1.93
362-1	Handwheel*	3½″	2.03
362-2	Handwheel**	3¼″	2.03
361	Finger grip*	1⅜″	.70
361-1	Finger grip**	1⅜″	.55
360	Finger grip*	1⅝″	.99
360-1	Finger grip**	1⅝″	.89
359†	Finger grip*	2⅜″	.64
359-1†	Finger grip**	2⅜″	.50
369	Dial plate, 0–100	.....	.21
370	Dial plate, 0–100	.....	.85
391	Dial plate, vol.	.....	.21

*With pointer. **Without pointer. †⅜″ hole dia., others, ¼″.

EXPLANATION OF MALLORY TAPERS

TAPERS: Taper Number 1 is a modified logarithmic left hand taper in the carbon type of control and an approximation to this logarithmic taper in the wire-wound type. This taper should always be used in shunt circuits, as in usual antenna and audio circuits, or where only the center and left hand terminals are used.

Taper Number 2 is a right hand logarithmic taper in the carbon and an approximation in the wire-wound type. Used in series circuits, as in cathode voltage controls, or where only the center and right hand terminals are used.

Taper Number 4 is a linear taper. A linear "taper" is used wherever a control should be such that voltage change is proportional to the degree of rotation.

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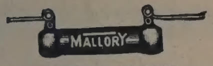
P. R. MALLORY & CO. Inc. MALLORY Resistors

TYPE HJ (FIXED) AND AV (ADJUSTABLE)



FIXED TYPE

Vitreous enamel coated. Adjustable units come with two mtg. feet and clip.
To Order: Use type No. from top of column followed by resistance value.

ADJUSTABLE TYPE

FIXED VITREOUS TYPES

5-WATT TYPE HHJ

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
1*	$0.46	50	$0.46	750	$0.50	4500	$0.50
1.5*	.46	75	.46	800	.50	5000	.50
2*	.46	100	.46	900	.50	6000	.53
3*	.46	125	.46	1000	.50	7000	.53
4*	.46	150	.46	1100	.50	7500	.53
5*	.46	200	.46	1200	.50	8000	.53
7.5*	.46	225	.46	1250	.50	9000	.53
10*	.46	250	.46	1500	.50	10,000	.53
12	.46	300	.46	1750	.50	12,500	.57
15	.46	350	.50	2000	.50	15,000	.57
20	.46	400	.50	2250	.50	20,000	.61
25	.46	450	.50	2500	.50	25,000	.63
30	.46	500	.50	3000	.50		
35	.46	600	.50	3500	.50		
40	.46	700	.50	4000	.50		

10-WATT TYPE 1HJ

1*	$0.51	150	$0.51	1500	$0.53	11,000	$0.71
2*	.51	200	.51	1750	.53	12,000	.71
3*	.51	225	.51	2000	.53	12,500	.71
4*	.51	250	.51	2250	.53	13,500	.71
5*	.51	300	.51	2500	.53	14,300	.71
7.5*	.51	350	.51	3000	.53	15,000	.71
10*	.51	400	.51	3500	.53	16,000	.71
12	.51	450	.51	4000	.53	17,500	.71
15	.51	500	.51	4500	.53	18,000	.71
20	.51	600	.51	5000	.53	20,000	.71
25	.51	700	.51	6000	.63	22,500	.75
30	.51	750	.51	7000	.63	25,000	.75
35	.51	800	.51	7500	.63	30,000	.75
40	.51	900	.51	8000	.63	35,000	.75
50	.51	1000	.51	8200	.63	40,000	.75
75	.51	1100	.53	8500	.63	45,000	.83
100	.51	1200	.53	9000	.63	50,000	.83
125	.51	1250	.53	10,000	.63		

20-WATT TYPE 2HJ

5	$0.61	300	$0.61	2500	$0.63	12,500	$0.77
10	.61	400	.61	2750	.75	15,000	.77
15	.61	500	.61	3000	.75	20,000	.77
25	.61	750	.61	3500	.75	25,000	.77
50	.61	1000	.61	4000	.75	30,000	.77
75	.61	1250	.61	4500	.75	35,000	.90
100	.61	1500	.61	5000	.75	40,000	.90
150	.61	1750	.63	6000	.75	50,000	.90
200	.61	2000	.63	7500	.75	75,000	1.31
250	.61	2250	.63	10,000	.75	100,000	1.34

25-WATT TYPE 2.5HJ

1	$0.65	75	$0.65	2000	$0.68	12,500	$0.81
2	.65	100	.65	2500	.68	15,000	.81
3	.65	150	.65	3000	.78	20,000	.81
5	.65	200	.65	3500	.78	25,000	.81
7.5	.65	250	.65	4000	.78	30,000	.94
10	.65	500	.65	5000	.78	40,000	.94
15	.65	750	.65	6000	.78	50,000	1.09
25	.65	1000	.65	7500	.78	75,000	1.28
50	.65	1500	.65	10,000	.78	100,000	1.47

50-WATT TYPE 5HJ

10	$0.99	750	$0.99	7500	$1.11	30,000	$1.39
25	.99	1000	.99	10,000	1.11	40,000	1.39
50	.99	1500	1.02	12,500	1.21	50,000	1.55
100	.99	2000	1.02	15,000	1.21	75,000	1.77
250	.99	2500	1.02	20,000	1.21	100,000	1.92
500	.99	5000	1.02	25,000	1.39		

75-WATT TYPE 7.5HJ

10	$1.17	750	$1.17	7500	$1.30	30,000	$1.57
25	1.17	1000	1.17	10,000	1.30	40,000	1.57
50	1.17	1500	1.22	12,500	1.40	50,000	1.75
100	1.17	2000	1.22	15,000	1.40	75,000	1.99
250	1.17	2500	1.22	20,000	1.40	100,000	2.12
500	1.17	5000	1.22	25,000	1.57		

100-WATT TYPE 10HJ

25	$1.38	750	$1.38	7500	$1.56	40,000	$1.92
50	1.38	1000	1.38	10,000	1.56	50,000	1.99
100	1.38	1500	1.44	15,000	1.69	75,000	2.20
150	1.38	2000	1.44	20,000	1.69	100,000	2.46
250	1.38	2500	1.44	25,000	1.92		
500	1.38	5000	1.44	30,000	1.92		

160-WATT TYPE 16HJ

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
25	$2.05	750	$2.05	7500	$2.28	40,000	$2.52
50	2.05	1000	2.05	10,000	2.28	50,000	2.60
100	2.05	1500	2.09	15,000	2.44	75,000	2.77
150	2.05	2000	2.09	20,000	2.44	100,000	2.93
250	2.05	2500	2.09	25,000	2.52		
500	2.05	5000	2.09	30,000	2.52		

200-WATT TYPE 20HJ

25	$2.21	750	$2.21	5000	$2.28	50,000	$2.77
50	2.21	1000	2.21	7500	2.44	75,000	2.93
75	2.21	1500	2.28	10,000	2.44	100,000	3.11
100	2.21	2000	2.28	20,000	2.60		
250	2.21	2500	2.28	30,000	2.68		
500	2.21	3000	2.28	40,000	2.68		

ADJUSTABLE VITREOUS TYPES

10-WATT TYPE 1AV

1	$1.00	75	$1.00	750	$1.00	4000	$1.06
2	1.00	100	1.00	800	1.00	4500	1.06
3	1.00	150	1.00	1000	1.00	5000	1.06
5	1.00	200	1.00	1250	1.06	6000	1.14
7.5	1.00	250	1.00	1500	1.06	7000	1.14
10	1.00	300	1.00	2000	1.06	7500	1.14
15	1.00	350	1.00	2250	1.06	8000	1.14
20	1.00	400	1.00	2500	1.06	8500	1.14
25	1.00	500	1.00	3000	1.06	9000	1.14
50	1.00	600	1.00	3500	1.06	10,000	1.14

25-WATT TYPE 2AV

1	$1.57	100	$1.16	1000	$1.16	5000	$1.19
3	1.57	150	1.16	1250	1.19	6000	1.28
5	1.16	200	1.16	1500	1.19	7500	1.28
10	1.16	250	1.16	2000	1.19	10,000	1.28
15	1.16	300	1.16	2500	1.19	12,000	1.32
25	1.16	400	1.16	3000	1.19	15,000	1.32
50	1.16	500	1.16	3500	1.19	20,000	1.32
75	1.16	750	1.16	4000	1.19	25,000	1.45

50-WATT TYPE 5AV

5	$1.51	200	$1.51	2000	$1.54	15,000	$1.72
10	1.51	250	1.51	2500	1.54	20,000	1.72
25	1.51	400	1.51	3000	1.54	25,000	1.90
50	1.51	500	1.51	4000	1.54	30,000	1.90
75	1.51	750	1.51	5000	1.54	40,000	1.90
100	1.51	1000	1.51	7500	1.62	50,000	1.99
150	1.51	1500	1.54	10,000	1.62		

75-WATT TYPE 7.5AV

5	$1.69	200	$1.69	2000	$1.74	15,000	$1.92
10	1.69	250	1.69	2500	1.74	20,000	1.92
25	1.69	400	1.69	3000	1.74	25,000	2.09
50	1.69	500	1.69	4000	1.74	30,000	2.09
75	1.69	750	1.69	5000	1.74	40,000	2.09
100	1.69	1000	1.69	7500	1.81	50,000	2.27
150	1.69	1500	1.74	10,000	1.81		

100-WATT TYPE 10AV

50	$1.95	2500	$2.01	10,000	$2.13	35,000	$2.49
100	1.95	3000	2.01	15,000	2.26	40,000	2.49
500	1.95	4000	2.01	20,000	2.26	50,000	2.57
1000	1.95	5000	2.01	25,000	2.49	75,000	2.81
2000	2.01	7500	2.13	30,000	2.49	100,000	3.01

160-WATT TYPE 16AV

50	$2.85	2500	$2.88	10,000	$3.07	35,000	$3.31
100	2.85	3000	2.88	15,000	3.24	40,000	3.31
500	2.85	4000	2.88	20,000	3.24	50,000	3.40
1000	2.85	5000	2.88	25,000	3.31	75,000	3.56
2000	2.88	7500	3.07	30,000	3.31	100,000	3.72

200-WATT TYPE 20AV

50	$3.19	1500	$3.26	10,000	$3.44	50,000	$3.91
100	3.19	2000	3.26	20,000	3.62	75,000	4.09
500	3.19	2500	3.26	25,000	3.81	100,000	4.29
1000	3.19	5000	3.26	30,000	3.81		

*Tolerance ±10%; all others ±5%.

RESISTOR TUBE SIZES

Fixed Types: HHJ—5/16″ x 1″. **1HJ**—5/16″ x 1¾″. **2HJ**—7/16″ x 2″. **2.5HJ**—7/16″ x 2″. **5HJ**—9/16″ x 4″. **7.5HJ**—9/16″ x 6″. **10HJ**—¾″ x 6½″. **16HJ**—1⅛″ x 8½″. **20HJ**—1⅛″ x 10½″. **Adjustable Types: 1AV**—5/16″ x 1¾″. **2AV**—9/16″ x 2″. **5AV**—9/16″ x 4″. **7.5AV**—9/16″ x 6″. **10AV**—¾″ x 6½″. **16AV**—1⅛″ x 8½″. **20AV**—1⅛″ x 10½″.

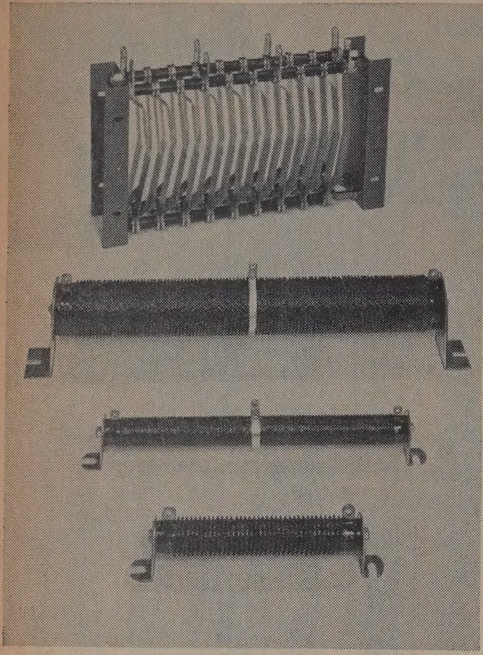
EXTRA MOUNTING FEET

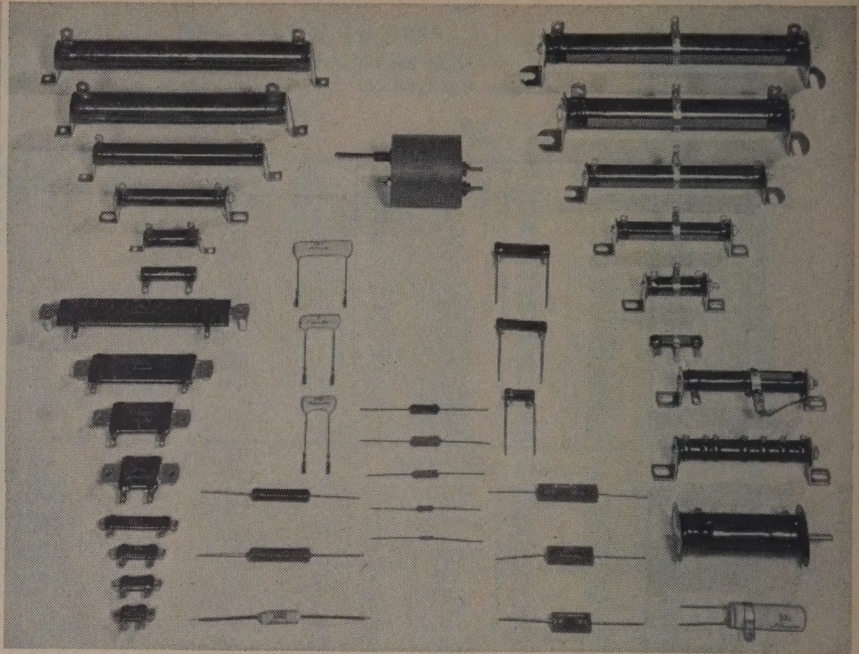
Number	For Resistor Type	Each
30V	HHJ, 1HJ, and 1AV	3c
31V	2AV, 5AV and 5HJ	6c
32V	20HJ and 20AV	10c
33V	10HJ and 10AV	18c
35V	16HJ and 16AV	15c

EXTRA ADJUSTABLE CLIPS

Number	For Resistor Type	Ea.
1V	10-watt Variohms®	5c
3V	25 and 50-watt Variohms	18c
4V	10AV 100-watt Variohms	18c
6V	160 & 200-watt Variohms	21c

MILWAUKEE "Fire-tested" RESISTORS





TUBULAR—Round Wire: Vitreous Enamel—Fixed and Adjustable—5 thru 1500 Watts. Taps and non-inductive winding available.

TUBULAR—Ribwound: Vitreous Enamel—Fixed and Adjustable—35 thru 2000 Watts. Taps and non-inductive winding available.

OVAL: Vitreous Enamel—Fixed and Adjustable—10 thru 75 Watts. Taps and non-inductive winding available.

AXIAL LEADS: Vitreous Enamel—Fixed only—1 thru 30 Watts. Non-inductive winding available.

"W" SERIES: Silicone Coat—Fixed only—5 thru 30 Watts. Taps and non-inductive winding available.

"BATHTUB": Ceramic Case—Fixed only—4 thru 20 Watts.

"ENCAPSULATED": (in Ceramic Core)—Fixed only—5 thru 100 Watts.

"TOPSIDE": Ceramic Outer Tube—Fixed only—10 thru 25 Watts.

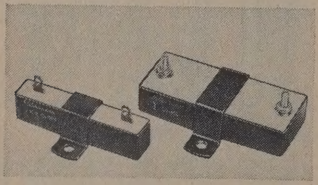
STRIP: Cement and Sand or Silicone Coat—Fixed—2 thru 30 Watts. Taps available.

FUSE RESISTORS: Strip Type—Cement and Sand Coat 4.7 thru 150 Ohms. Patented no-flame construction.

HEAVY-DUTY GRID RESISTORS: For Motor Control, Non-inductive Load Banks, Welders, etc.

RHEOSTATS: Heavy-duty push-pull type.

ALSO MIL-R-26C and NAVY TYPE 15109A RESISTORS



New! Transistorized Ignition Resistors

Engineered for use in transistorized ignition systems. They have steel frame with either stud type or quick-connect terminals. "L" type steel bracket. Made in all resistance values. Popular 50 and 100 watt sizes. Other sizes are available.

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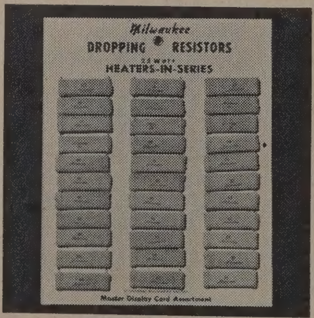
RESISTORS

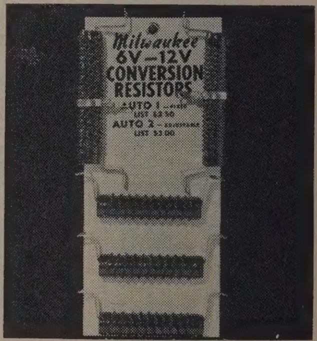
FUSE RESISTORS

REPLACEMENT STOCK
MILWAUKEE
'W' RESISTORS
5, 10, 15 WATTS

"W" CARDS


Milwaukee
DROPPING RESISTORS
HEATERS-IN-SERIES
Master Display Card Assortment

HEATER-IN-SERIES


Milwaukee
6V—12V
CONVERSION
RESISTORS
AUTO 1
AUTO 2

AUTO-CONVERSION

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germanium diodes • r.f. chokes

VITREOUS ENAMELED RHEOSTATS

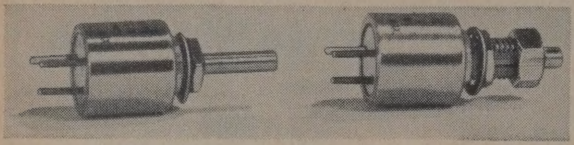
Twelve sizes in wirewound, vitreous enameled rheostats are stocked by Ohmite distributors all over the country and at the Ohmite factory. This selection, the most extensive available to industry, covers ratings that meet the major portion of design, production and emergency needs. Ratings of 7½, 12½, 25, 50, 75, 100, 150, 225, 300, 500, 750 and 1000 watts are standard.

FEATURES OF CONSTRUCTION: Ohmite rheostats are designed to produce permanently smooth, close control. The construction is all ceramic and metal; there is nothing to smoke, char, shrink, or shift. All models have insulated shafts with provision to keep the rheostat from turning on the panel. The resistance wire is wound over a solid ceramic core. Each turn is a separate resistance step and is locked against shifting by vitreous enamel. The core and base are also bonded by vitreous enamel. The pivoted universal-action-mounted contact brush is of copper-graphite or silver-graphite on the heavier current rheostats. It rides upon a large flat surface and assures perfect contact without wear on the wire. Pressure at the contact and at the center lead are independent. Ohmite Rheostat Models H, J, G, K, L, P, and N, all marked Series A, are listed under the Underwriters' Laboratories Reexamination Service.

RATING: The current carrying capacities shown in the tables are for use in *free air;* when units are enclosed, these currents should be reduced possibly as much as 30% to 50%, depending upon the degree of ventilation. The rated current will cause the rheostat to dissipate its rated wattage when the full resistance is in the circuit.

NEW 7½ WATT RHEOSTAT

Actual Size



Model C—Smallest Rheostat Available
With 7½ Watt Rating
Only .515" diam. x 9/16" long.
FULL INFORMATION IN BULLETIN 203

MODEL "E" — 12.5 WATT*

Unenclosed and Enclosed

Diameter ⅞"—Depth behind panel 1 11/16"—Shaft ⅛" Diameter. Rotation 300°—Mounting for panels up to ⅛" by means of ¼"-32 Bushing and Hex. Nut—Non-turn lug requires ⅛" hole ¼" below center of shaft—Stock No. 5151 Knob Recommended.

Enclosure including terminals 1 7/32" long by 1 3/64" diameter.

Total Ohms	Max. Amps.	Unenclosed		Enclosed	
		Stock No.	Net 1-4	Stock No.	Net 1-4
1	3.53	0101	**$4.63**	W0101	**$6.31**
2	2.50	0102	**4.63**	W0102	**6.31**
2.5	2.24	0102A	**4.63**	W0102A	**6.31**
3	2.04	0103	**4.63**	W0103	**6.31**
5	1.58	0103A	**4.63**	W0103A	**6.31**
6	1.44	0104	**4.63**	W0104	**6.31**
8	1.25	0105	**4.63**	W0105	**6.31**
10	1.12	0106	**4.63**	W0106	**6.31**
15	.91	0107	**4.11**	W0107	**5.79**
25	.71	0108	**4.11**	W0108	**5.79**
35	.60	0109	**4.11**	W0109	**5.79**
50	.50	0110	**4.11**	W0110	**5.79**
75	.41	0111	**4.11**	W0111	**5.79**
100	.35	0112	**4.11**	W0112	**5.79**
125	.32	0113	**4.11**	W0113	**5.79**
150	.29	0113A	**4.11**	W0113A	**5.79**
175	.27	0114	**4.11**	W0114	**5.79**
200	.25	0114A	**4.11**	W0114A	**5.79**
250	.22	0115	**4.11**	W0115	**5.79**
350	.19	0116	**4.11**	W0116	**5.79**
500	.16	0117	**4.11**	W0117	**5.79**
750	.13	0118	**4.11**	W0118	**5.79**
1,000	.11	0119	**4.63**	W0119	**6.31**
1,500	.091	0120	**4.63**	W0120	**6.31**
2,500	.071	0121	**4.63**	W0121	**6.31**
3,500	.060	0122	**4.90**	W0122	**6.58**
5,000	.050	0123	**4.90**	W0123	**6.58**
7,500	.041	4190†	**5.06**	W4190†	**6.74**
10,000	.035	4191†	**5.06**	W4191†	**6.74**
12,500	.031	4192†	**5.50**	W4192†	**7.18**
15,000	.029	4193†	**5.50**	W4193†	**7.18**

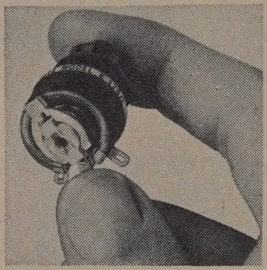
†Silicone-ceramic coating, 350 V. max. *Rating on metal panel.

MODEL "H", Series A — 25 WATT

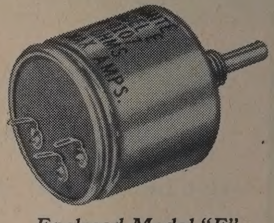
Diameter 1 9/16"—Depth behind panel 1⅜"—Shaft ¼" diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires 3/16" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0140	1	5.000	**$4.63**	0154	250	.316	**$4.11**
0141	2	3.540	**4.63**	0155	350	.267	**4.11**
0142	3	2.880	**4.63**	0156	500	.222	**4.11**
0143	6	2.040	**4.63**	0157	750	.182	**4.11**
0144	8	1.770	**4.63**	0158	1,000	.155	**4.63**
0145	10	1.580	**4.63**	0159	1,500	.129	**4.63**
0146	15	1.290	**4.11**	0160	2,500	.100	**4.63**
0147	25	1.000	**4.11**	0161	3,500	.084	**4.90**
0148	35	.845	**4.11**	0162	5,000	.070	**4.90**
0149	50	.707	**4.11**	4200†	7,500	.058	**5.06**
0150	75	.575	**4.11**	4201†	10,000	.050	**5.06**
0151	100	.500	**4.11**	4202†	15,000	.040	**5.50**
0152	125	.445	**4.11**	4203†	20,000	.035	**6.16**
0153	175	.375	**4.11**	4204†	25,000	.032	**6.82**

†Silicone-ceramic coating, 500 V. max. Not listed UL Ser. A.



Model "E"



Enclosed Model "E"

MODEL "J", Series A — 50 WATT

Diameter 2 5/16"—Depth behind panel 1⅜"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex Nut—Non-turn lug requires 3/16" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0308	0.5	10.000	**$5.15**	0324	500	.316	**$4.63**
0309	1	7.070	**5.15**	0325	800	.250	**4.90**
0310	2	5.000	**5.15**	0326	1,000	.224	**4.90**
0311	4	3.530	**5.15**	0327	1,600	.176	**4.90**
0312	6	2.880	**5.15**	0328	2,500	.141	**4.90**
0313	8	2.500	**4.63**	0329	3,500	.119	**5.15**
0314	12	2.040	**4.63**	0330	5,000	.100	**5.15**
0315	16	1.760	**4.63**	0331	8,000	.079	**5.15**
0316	22	1.500	**4.63**	0332	10,000	.070	**5.15**
0317	35	1.190	**4.63**	4210†	15,000	.058	**5.83**
0318	50	1.000	**4.63**	4211†	20,000	.050	**6.60**
0319	80	.790	**4.63**	4212†	25,000	.045	**7.26**
0320	125	.630	**4.63**	4213†	30,000	.041	**8.03**
0321	150	.575	**4.63**	4214†	40,000	.035	**9.35**
0322	225	.470	**4.63**	4215†	50,000	.032	**10.23**
0323	300	.408	**4.63**				

†Silicone-ceramic coating, 750 V. max. Not listed UL Ser. A.

MODEL "G" — 75 WATT

Diameter 2¾"—Depth behind panel 1¾"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires 3/16" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
1100	0.5	12.300	**$6.97**	1112	200	.612	**$6.41**
1101	1	8.660	**6.97**	1113	300	.500	**6.41**
1102	2	6.120	**6.97**	1114	400	.433	**6.41**
1103	3	5.000	**6.97**	1115	500	.388	**6.41**
1104	5	3.880	**6.97**	1116	750	.316	**6.97**
1105	7.5	3.160	**6.97**	1117	1,000	.274	**6.97**
1106	10	2.740	**6.97**	1118	1,500	.224	**6.97**
1107	16	2.170	**6.41**	1119	2,000	.194	**6.97**
1108	25	1.730	**6.41**	1120	2,500	.173	**6.97**
1109	50	1.230	**6.41**	1121	5,000	.123	**7.45**
1110	75	1.000	**6.41**	1122	7,500	.100	**8.00**
1111	100	.866	**6.41**	1123	10,000	.087	**8.00**

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OHMITE

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VITREOUS ENAMELED RHEOSTATS

MODEL "K", Series A — 100 WATT

Diameter 3⅛"—Depth behind panel 1¾"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires 3/16" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0440	0.5	14.100	$7.72	0452	200	.707	$7.21
0441	1	10.000	7.72	0453	300	.575	7.21
0442	2	7.070	7.72	0454	400	.500	7.21
0443	3	5.750	7.72	0455	500	.447	7.21
0444	5	4.470	7.72	0456	750	.365	7.21
0445	7.5	3.650	7.72	0457	1,000	.316	7.72
0446	10	3.160	7.72	0458	1,500	.258	7.72
0447	16	2.500	7.21	0459	2,000	.224	7.72
0448	25	2.000	7.21	0460	2,500	.200	7.72
0449	50	1.410	7.21	0461	5,000	.141	8.24
0450	75	1.150	7.21	0462	7,500	.115	8.76
0451	100	1.000	7.21	0463	10,000	.100	9.26

MODEL "L", Series A — 150 WATT

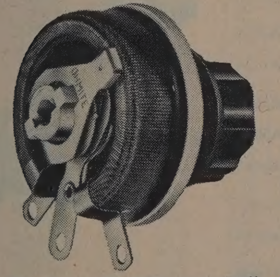
Diameter 4"—Depth behind panel 2"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼", ⅜"-32 Bushing and Hex. Nut or two 10-32 x ¾" flat head screws, mounting centers ⅞" each side of center of shaft on line perpendicular to center terminal.—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0524	0.5	17.300	$9.78	0537	150	1.000	$ 9.26
0525	1	12.300	9.78	0538	200	.865	9.26
0526	2	8.650	9.78	0539	250	.775	9.26
0527	3	7.070	9.78	0540	350	.655	9.26
0528	5	5.480	9.78	0541	500	.548	9.26
0529	7.5	4.470	9.78	0542	750	.447	9.78
0530	10	3.880	9.78	0543	1,250	.346	9.78
0531	15	3.613	9.78	0544	1,800	.288	10.30
0532	25	2.450	9.26	0545	2,250	.259	10.30
0533	35	2.070	9.26	0546	3,000	.224	10.30
0534	50	1.735	9.26	0547	4,500	.182	10.81
0535	75	1.415	9.26	0548	7,500	.141	11.33
0536	100	1.225	9.26	0549	10,000	.122	12.35

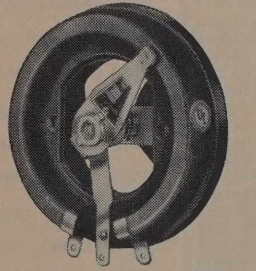
MODEL "P" — 225 WATT

Diameter 5"—Depth behind panel 2⅛"—Shaft ⅜" Diameter. Rotation 310°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers ⅞" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1250	1	15.000	$14.11	1261	100	1.500	$14.11
1251	2	10.600	14.11	1262	150	1.220	14.11
1252	3	8.660	14.11	1263	200	1.060	14.11
1253	4	7.500	14.11	1264	300	.866	14.11
1254	5	6.710	14.11	1265	400	.750	14.11
1255	7.5	5.490	14.11	1266	700	.567	14.11
1256	10	4.740	14.11	1267	900	.500	14.11
1257	15	3.870	14.11	1268	1,200	.433	14.11
1258	25	3.000	14.11	1269	1,500	.387	14.11
1259	50	2.120	14.11	1270	1,750	.358	14.11
1260	75	1.730	14.11	1270A	2,000	.336	14.11
				1271	2,500	.300	14.11



Models "J", "G" and "K"



Models "N" and "R"
("P", "T" and "U" Similar)

MODEL "N", Series A — 300 WATT

Diameter 6"—Depth behind panel 2⅜"—Shaft ⅜" Diameter. Rotation 320°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 1 3/16" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0650	1	17.320	$15.29	0661	100	1.730	$15.29
0651	2	12.240	15.29	0662	150	1.410	15.29
0652	3	10.000	15.29	0663	200	1.220	15.29
0653	4	8.660	15.29	0664	300	1.000	15.29
0654	5	7.750	15.29	0665	400	.866	15.29
0655	7.5	6.320	15.29	0666	700	.655	15.29
0656	10	5.480	15.29	0667	900	.578	15.29
0657	15	4.470	15.29	0668	1,200	.500	15.29
0658	25	3.460	15.29	0669	1,500	.447	15.29
0659	50	2.450	15.29	0670	1,750	.414	15.29
0660	75	2.000	15.29	0670A	2,000	.387	15.29
				0671	2,500	.346	15.29

MODEL "R" — 500 WATT

Diameter 8"—Depth behind panel 2⅛"—Shaft ⅜" Diameter. Rotation 325°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 1½" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0849	1.0	22.300	$22.09	0872	50	3.160	$22.09
0850	1.5	18.200	22.09	0861	80	2.520	22.09
0851	2	15.800	22.09	0862	125	2.000	22.09
0852	2.5	14.100	22.09	0863	175	1.690	22.09
0853	3	12.900	22.09	0864	250	1.410	22.09
0854	4	11.200	22.09	0865	325	1.240	22.09
0855	5	10.000	22.09	0866	500	1.000	22.09
0856	8	7.900	22.09	0867	750	.817	22.09
0857	12.5	6.300	22.09	0868	1,000	.707	22.09
0858	16	5.600	22.09	0869	1,500	.577	22.09
0859	25	4.470	22.09	0870	2,000	.500	22.09
0860	40	3.540	22.09	0871	2,500	.447	22.09

MODEL "T" — 750 WATT

Diameter 10"—Depth behind panel 3"—Shaft ⅜" Diameter. Rotation 330°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 1⅞" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1300	1	27.400	$31.20	1312	50	3.870	$31.20
1301	1.5	22.300	31.20	1313	80	3.060	31.20
1302	2	19.400	31.20	1314	100	2.740	31.20
1303	2.5	17.300	31.20	1315	160	2.170	31.20
1304	3	15.800	31.20	1316	200	1.940	31.20
1305	4	13.600	31.20	1317	300	1.580	31.20
1306	5	12.200	31.20	1318	400	1.370	31.20
1307	8	9.650	31.20	1319	600	1.117	31.20
1308	10	8.650	31.20	1320	750	1.000	31.20
1309	12.5	7.750	31.20	1321	1,200	.791	31.20
1310	16	6.820	31.20	1322	1,800	.646	31.20
1311	25	5.470	31.20	1322A	2,000	.610	31.20
				1323	2,500	.547	31.20

MODEL "U" — 1000 WATT

Diameter 12" — Depth behind panel 3" — Shaft ⅜" Diameter. Rotation 335°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 3" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1450	1	31.600	$36.45	1462	50	4.470	$36.45
1451	1.5	25.800	36.45	1463	75	3.650	36.45
1452	2	22.400	36.45	1464	100	3.160	36.45
1453	2.5	20.000	36.45	1465	175	2.390	36.45
1454	3	18.300	36.45	1466	225	2.110	36.45
1455	4	15.800	36.45	1467	300	1.830	36.45
1456	5	14.100	36.45	1468	400	1.580	36.45
1457	8	11.200	36.45	1469	500	1.410	36.45
1458	10	10.000	36.45	1470	750	1.150	36.45
1459	12.5	8.950	36.45	1471	1,000	1.000	36.45
1460	16	7.900	36.45	1472	1,500	.816	36.45
1461	25	6.330	36.45	1473	2,500	.633	36.45

CATALOG 50 LISTS ALL RHEOSTATS TO MEET MILITARY SPECIFICATION MIL-R-22B

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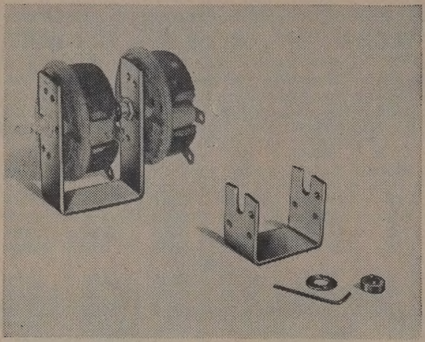
OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
germanium diodes • r.f. chokes

RHEOSTAT TANDEM COUPLING KITS



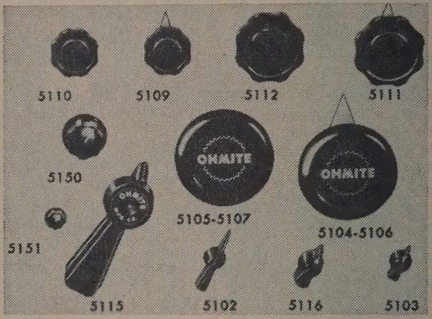
Inexpensive kits assemble standard Ohmite Model G, H, J, K, L or E (miniature) rheostats. Each kit consists of a steel "U" frame, a coupling with set screw, mica washer, Allen wrench and assembly instructions. Rheostat shafts are joined by the coupling which is fastened to the shaft of the rear unit. Projections on the coupling fit a recess in the rear hub of the front unit. Stock No. 6533 kit, mounts Model G, K or L units but accommodates Models H or J in the rear position. Stock No. 6532 unit mounts Models H or J but accommodates Models G, K or L in the rear position. Stock No. 6591 kit assembles only Model E (miniature) rheostats.

Stock No. 6532 — Max Panel 1/8"........**Net Each (1-4) $2.01**
Stock No. 6533 — Max Panel 5/32"........**Net Each (1-4) 2.51**
Stock No. 6591 — Max Panel 1/16"........**Net Each (1-4) 2.01**

BLACK BAKELITE KNOBS

Stock No.	Description	Knob Dia.	Hole Dia.	Net Ea. 1-2
5102	Bar Knob, 2¼" long		¼"	$ .50
5103	Bar Knob, 1¼" long		¼"	.21
5104	Handwheel with Pointer	3¼"	⅜"	1.38
5105	Handwheel without Pointer	3¼"	⅜"	1.16
5106	Handwheel with Pointer	3¼"	¼"	1.38
5107	Handwheel without Pointer	3¼"	¼"	1.16
5109	Finger-Grip with Pointer	1⅝"	¼"	.89
5110	Finger-Grip without Pointer	1⅝"	¼"	.82
5111	Finger-Grip with Pointer	2⅜"	¼"	1.32
5112	Finger-Grip without Pointer	2⅜"	¼"	1.21
*5115	Bar Knob, 4¾" long		⅜"	3.00
5116	Bar Knob, 1½" long		¼"	.50
5150	Skirted Finger-Grip	1½"	¼"	.29
5151	Finger-Grip	¾"	⅛"	.29
5152A	Like 5104 but shorter pointer	3¼"	¼"	1.60

*Requires pin and tapped hole in shaft.



MOLDED COMPOSITION POTENTIOMETERS, ½ and 2 WATTS

Used in commercial and military electronic applications where high quality and dependable performance are important. Type AB, 1⁵⁄₃₂" dia., is rated 2 watts at 70°C ambient and is available with ⅞" slotted shaft (CMU), 2" unslotted shaft (CU, CA, CB, CCU dual unit) and locking type slotted shaft (CLU). Type AS, a miniature unit ½" dia. rated ½ watt, is available only with locking type shaft.

Because of their molded composition elements, these units outlast and outperform film type units. Noise level is exceedingly low. Single control Type AB units extend ⅝" behind panel; dual control 1¹⁷⁄₆₄". Type AS miniature unit extends ¹¹⁄₁₆" behind panel. An SPST switch for single Type AB units is available. Units are dust and splash proof, fungus and corrosion resistant and meet the latest requirements of MIL-R-94. Styles CMU, CLU and Type AS conform respectively to MIL-R-94 Styles RV4N, RV4L, RV6L.

STOCK "POTS" — MIL Units are Stamped with MIL and Commercial Designations

	TYPE AB (1⁵⁄₃₂" Dia.)								TYPE AS (½" Dia.)	
	Single Unit ⅞" Slotted Shaft		Single Unit 2" Shaft			Locking		Dual	Miniature Locking	
Resistance Ohms Except As Noted Tol. ±10% except * ±20%	Style CMU Linear	MIL Designation	Style CU Linear	Style CA CW log	Style CB CCW log	Style CLU Linear	MIL Designation	Style CCU Linear	Linear	MIL Designation
50	CMU5001	RV4NAYSD500A	CU5001			CLU5001	RV4LAYSA500A			
100	CMU1011	RV4NAYSD101A	CU1011			CLU1011	RV4LAYSA101A		AS3601	RV6LAYSA101A
150	CMU1511	RV4NAYSD151A	CU1511			CLU1511	RV4LAYSA151A			
250	CMU2511	RV4NAYSD251A	CU2511			CLU2511	RV4LAYSA251A	Resistance Shown is for Each Unit	AS3602	RV6LAYSA251A
350	CMU3511	RV4NAYSD351A	CU3511			CLU3511	RV4LAYSA351A			
500	CMU5011	RV4NAYSD501A	CU5011			CLU5011	RV4LAYSA501A		AS3603	RV6LAYSA501A
750	CMU7511	RV4NAYSD751A	CU7511			CLU7511	RV4LAYSA751A			
1,000	CMU1021	RV4NAYSD102A	CU1021			CLU1021	RV4LAYSA102A		AS3604	RV6LAYSA102A
1,500	CMU1521	RV4NAYSD152A	CU1521			CLU1521	RV4LAYSA152A			
2,500	CMU2521	RV4NAYSD252A	CU2521			CLU2521	RV4LAYSA252A		AS3605	RV6LAYSA252A
3,500	CMU3521	RV4NAYSD352A	CU3521			CLU3521	RV4LAYSA352A			
5,000	CMU5021	RV4NAYSD502A	CU5021			CLU5021	RV4LAYSA502A		AS3606	RV6LAYSA502A
7,500	CMU7521	RV4NAYSD752A	CU7521			CLU7521	RV4LAYSA752A			
10,000	CMU1031	RV4NAYSD103A	CU1031		CB1031	CLU1031	RV4LAYSA103A	CCU1031	AS3607	RV6LAYSA103A
15,000	CMU1531	RV4NAYSD153A	CU1531			CLU1531	RV4LAYSA153A			
25,000	CMU2531	RV4NAYSD253A	CU2531		CB2531	CLU2531	RV4LAYSA253A	CCU2531	AS3608	RV6LAYSA253A
35.000	CMU3531	RV4NAYSD353A	CU3531			CLU3531	RV4LAYSA353A			
50,000	CMU5031	RV4NAYSD503A	CU5031		CB5031	CLU5031	RV4LAYSA503A	CCU5031	AS3609	RV6LAYSA503A
75,000	CMU7531	RV4NAYSD753A	CU7531			CLU7531	RV4LAYSA753A			
.1 meg.	CMU1041	RV4NAYSD104A	CU1041	CA1041		CLU1041	RV4LAYSA104A	CCU1041	AS3610	RV6LAYSA104A
.15 meg.	CMU1541	RV4NAYSD154A	CU1541			CLU1541	RV4LAYSA154A			
.25 meg.	CMU2541	RV4NAYSD254A	CU2541	CA2541		CLU2541	RV4LAYSA254A	CCU2541	AS3611	RV6LAYSA254A
.35 meg.	CMU3541	RV4NAYSD354A	CU3541			CLU3541	RV4LAYSA354A			
.5 meg.	CMU5041	RV4NAYSD504A	CU5041	CA5041		CLU5041	RV4LAYSA504A	CCU5041	AS3612	RV6LAYSA504A
.75 meg.*	CMU7542	RV4NAYSD754B	CU7542			CLU7542	RV4LAYSA754B			
1.0 meg.*	CMU1052	RV4NAYSD105B	CU1052	CA1052		CLU1052	RV4LAYSA105B	CCU1052	AS3613	RV6LAYSA105B
1.5 meg.*	CMU1552	RV4NAYSD155B	CU1552			CLU1552	RV4LAYSA155B			
2.0 meg.*	CMU2052	RV4NAYSD205B	CU2052			CLU2052	RV4LAYSA205B		AS3684	RV6LAYSA205B
2.5 meg.*	CMU2552	RV4NAYSD255B	CU2552	CA2552		CLU2552	RV4LAYSA255B		AS3614	RV6LAYSA255B
3.5 meg.*	CMU3552	RV4NAYSD355B	CU3552			CLU3552	RV4LAYSA355B			
5.0 meg.*	CMU5052	RV4NAYSD505B	CU5052			CLU5052	RV4LAYSA505B		AS3615	RV6LAYSA505B
Weight	.064 lb.		.084 lb.			.070 lb.		.123 lb.	.017 lb.	
Net Price	$1.95		$1.95	$2.25	$2.25	$2.55		$5.85	$5.10	

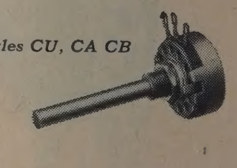
Switch CS-1 (Unmounted) for CMU, CU, CA, CB, CLU....................Net $.66

Type AS MIL Style RV6L

Style CMU MIL Style RV4N

Style CLU MIL Style RV4L

Styles CU, CA CB



Style CCU

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OHMITE

resistors · rheostats · tap switches · relays
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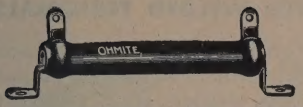
OHMITE VITREOUS ENAMELED FIXED AND DIVIDOHM® RESISTORS



These all-welded construction resistors have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. Units are wire-wound on ceramic cores and protected by Ohmite Vitreous Enamel. Furnished with mounting brackets and on DIVIDOHM with one adjustable lug.

25 WATT FIXED RESISTOR

Core: 2″ x 9/16″ — Mounting Centers 2¾″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
1	5.00	0200J	$0.72	0360	$1.29
2	3.54	0200K	.72	0360B	1.29
3	2.88	0200L	.72	0361	1.29
5	2.24	0200A	.72	0362	1.29
7.5	1.82			0362B	1.29
10	1.58	0200B	.72	0363	1.29
15	1.29	0200R	.72	0364	1.29
20	1.12			0364B	1.29
25	1.00	0200C	.72	0365	1.29
50	.71	0200D	.72	0366	1.29
75	.58	0200E	.72	0367	1.29
100	.50	0200F	.72	0368	1.29
150	.41	0200G	.72	0369	1.29
200	.35	0200H	.72	0370	1.29
250	.32	0201	.72	0371	1.29
300	.29			0371B	1.29
400	.25			0371C	1.29
500	.22	0202	.72	0372	1.29
750	.18	0203	.72	0373	1.29
800	.17	0204	.72	0374	1.29
1,000	.16	0205	.72	0375	1.29
1,250	.14			0375B	1.32
1,500	.13	0206	.75	0376	1.32
2,000	.12	0207	.75	0377	1.32
2,250	.11			0377B	1.32
2,500	.10	0208	.75	0378	1.32
3,000	.091	0209	.75	0379	1.32
3,500	.084	0210	.75	0380	1.32
4,000	.079	0211	.75	0381	1.32
4,500	.074			0381B	1.32
5,000	.070	0212	.75	0382	1.32
6,000	.064	0213	.85	0383	1.42
7,000	.060			0383B	1.42
7,500	.057	0214	.85	0384	1.42
8,000	.055			0384B	1.42
9,000	.052			0384C	1.42
10,000	.050	0215	.85	0385	1.42
12,000	.042	0216	.90	0386	1.47
15,000	.036	0217	.90	0387	1.47
20,000	.031	0218	.90	0388	1.47
25,000	.028	0219	1.04	0389	1.61
40,000	.022	0222	1.04		
50,000	.020	0224	1.21		
100,000	.010	0229	1.64		

100 WATT FIXED RESISTOR

Core: 6½″ x ¾″ — Mounting Centers 7⅜″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
5	4.47	0600A	$1.54	0956	$2.11
10	3.16	0600B	1.54	0957	2.11
25	2.00	0601	1.54	0958	2.11
50	1.41	0602	1.54	0959	2.11
75	1.15	0603	1.54		
100	1.00	0604	1.54	0960	2.11
150	.816	0605	1.54		
250	.63	0606	1.54	0960B	2.11
500	.45	0607	1.54	0961	2.11
750	.365	0608	1.54		
1,000	.32	0609	1.54	0962	2.11
1,500	.26	0610	1.60	0962B	2.17
2,000	.223	0611	1.60		
2,500	.20	0612	1.60	0963	2.17
3,000	.18	0613	1.60		
5,000	.14	0614	1.60	0964	2.17
7,500	.115	0615	1.73		
10,000	.10	0616	1.73	0965	2.30
15,000	.081	0617	1.87	0966	2.44
20,000	.071	0618	1.87	0967	2.44
25,000	.063	0619	2.13	0968	2.70
30,000	.058	0620	2.13	0969	2.70
40,000	.050	0621	2.13	0970	2.70
50,000	.045	0622	2.24	0971	2.78
60,000	.041	0623	2.21		
75,000	.032	0624	2.45	0972	3.02
100,000	.028	0625	2.75	0973	3.32

50 WATT FIXED RESISTOR

Core: 4″ x 9/16″ — Mounting Centers 4¾″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
5	3.16	0400A	$1.11	0560	$1.68
10	2.23	0400B	1.11	0561	1.68
25	1.41	0400C	1.11	0562	1.68
50	1.00	0400D	1.11	0563	1.68
75	.82	0400E	1.11	0564	1.68
100	.71	0400F	1.11	0565	1.68
150	.58	0400G	1.11	0566	1.68
200	.50	0400H	1.11	0567	1.68
250	.45	0401	1.11	0568	1.68
300	.41			0568B	1.68
400	.35			0568C	1.68
500	.32	0402	1.11	0569	1.68
750	.26	0403	1.11	0570	1.68
1,000	.22	0405	1.11	0572	1.68
1,250	.20			0572B	1.71
1,500	.18	0406	1.14	0573	1.71
2,000	.16	0407	1.14	0574	1.71
2,500	.14	0408	1.14	0575	1.71
3,000	.13	0409	1.14	0576	1.71
3,500	.12			0576B	1.71
4,000	.11	0410	1.14	0577	1.71
4,500	.10			0577B	1.71
5,000	.10	0411	1.14	0578	1.71
6,000	.091			0578B	1.80
7,000	.084			0578C	1.80
7,500	.081	0412	1.23	0579	1.80
8,000	.079	0413	1.23	0580	1.80
9,000	.074			0580B	1.80
10,000	.071	0414	1.23	0581	1.80
12,000	.064	0415	1.35	0582	1.92
15,000	.057	0416	1.35	0583	1.92
20,000	.050	0417	1.35	0584	1.92
25,000	.045	0418	1.54	0585	2.11
30,000	.036			0586	2.11
35,000	.032	0419	1.54		
40,000	.029			0587	2.11
50,000	.026	0420	1.72	0588	2.29
60,000	.024			0589	2.29
75,000	.021	0421	1.97		
80,000	.021			0590	2.54
100,000	.018	0422	2.13	0591	2.70

160 WATT FIXED RESISTOR

Core: 8½″ x 1⅛″ — Mounting Centers 9⅜″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
5	5.66	0700A	$3.19	1156	$4.07
10	4.00	0700B	2.28	1157	3.16
25	2.53	0701	2.28	1158	3.16
50	1.79	0702	2.28	1159	3.16
75	1.46	0703	2.28		
100	1.26	0704	2.28	1160	3.16
150	1.03	0705	2.28		
250	.80	0706	2.28	1160B	3.16
500	.57	0707	2.28	1161	3.16
750	.46	0708	2.28		
1,000	.40	0709	2.28	1162	3.16
1,500	.33	0710	2.32	1162B	3.20
2,000	.28	0711	2.32		
2,500	.25	0712	2.32	1163	3.20
3,000	.23	0713	2.32		
5,000	.18	0714	2.32	1164	3.20
7,500	.15	0715	2.53		
10,000	.13	0716	2.53	1165	3.41
15,000	.10	0717	2.71	1166	3.59
20,000	.089	0718	2.71	1167	3.59
25,000	.080	0719	2.80	1168	3.68
30,000	.073	0720	2.80	1169	3.68
40,000	.063	0721	2.80	1170	3.68
50,000	.057	0722	2.89	1171	3.77
60,000	.051	0723	2.89		
75,000	.046	0724	3.08	1172	3.96
100,000	.040	0725	3.26	1173	4.14

75 WATT SIZE — Dividohm

Core: 6″ x 9/16″ — Mounting Centers 6¾″

Adjustable Res.			Adjustable Res.		
Res. Ohms	Max. Amps.	Stock No.	Res. Ohms	Max. Amps.	Stock No.
5	3.87	0769	5,000	.12	0783
10	2.74	0770	6,000	.11	0783B
15	2.24	0771	7,000	.10	0783C
25	1.73	0772	7,500	.10	0784
50	1.22	0773	8,000	.096	0784B
100	.86	0774	9,000	.091	0784C
200	.61	0774B	10,000	.086	0785
250	.55	0775	12,000	.079	0785B
300	.50	0775B	15,000	.070	0786
400	.43	0775C	20,000	.061	0787
500	.39	0776	25,000	.054	0788
750	.32	0777	30,000	.050	0789
1,000	.27	0778	35,000	.046	0790
1,250	.24	0778B	40,000	.043	0791
1,500	.22	0779	45,000	.035	0792
2,000	.19	0780	50,000	.033	0793
2,500	.17	0781	60,000	.030	0794
3,000	.16	0781B	80,000	.026	0795
3,500	.15	0782	100,000	.023	0796
4,000	.14	0782B			

Net (1-9), 5 thru 1,000 ohms	$1.87
Net (1-9), 1,250 thru 5,000 ohms	1.92
Net (1-9), 6,000 thru 10,000 ohms	2.01
Net (1-9), 12,000 thru 20,000 ohms	2.13
Net (1-9), 25,000 thru 40,000 ohms	2.32
Net (1-9), 45,000 thru 60,000 ohms	2.52
Net (1-9), 80,000 ohms	2.78
Net (1-9), 100,000 ohms	2.93

200 WATT FIXED RESISTOR

Core: 10½″ x 1⅛″—Mounting Centers 11⅜″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
5	6.32	0900A	$3.44	1356	$4.32
10	4.47	0900B	2.46	1357	3.34
25	2.83	0901	2.46	1358	3.34
50	2.00	0902	2.46	1359	3.34
75	1.64	0903	2.46		
100	1.41	0904	2.46	1360	3.34
150	1.15	0905	2.46		
250	.89	0906	2.46	1360B	3.34
500	.63	0907	2.46	1361	3.34
750	.52	0908	2.46		
1,000	.45	0909	2.46	1362	3.34
1,500	.37	0910	2.53	1362B	3.41
2,000	.32	0911	2.53		
2,500	.28	0912	2.53	1363	3.41
3,000	.258	0913	2.53		
5,000	.20	0914	2.53	1364	3.41
7,500	.16	0915	2.71		
10,000	.14	0916	2.71	1365	3.59
15,000	.12	0917	2.89	1366	3.77
20,000	.10	0918	2.89	1367	3.77
25,000	.089	0919	2.98	1368	3.86
30,000	.082	0920	2.98	1369	3.86
40,000	.071	0921	2.98	1370	3.86
50,000	.063	0922	3.08	1371	3.96
60,000	.058	0923	3.08		
75,000	.052	0924	3.26	1372	4.14
100,000	.045	0925	3.46	1373	4.34

ADJUSTABLE LUGS

Bakelite Knob			Screw Driver Type		
Res. Dia.	Stock No.	Net 1-9	Res. Dia.	Stock No.	Net 1-9
9/16″	0359	$0.31	5/16″	1058	$0.14
¾″	1959	.31	9/16″	0358	.14
1⅛″	2159	.40	¾″	1958	.14
			1⅛″	2158	.23

CATALOG 50 LISTS ALL RESISTORS TO MEET MILITARY SPECIFICATIONS MIL-R-26C AND MIL-R-19365C

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OHMITE

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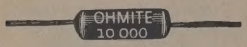
OHMITE® STOCK AXIAL-LEAD RESISTORS



Ohmite axial-lead, vitreous-enameled resistors are compact, wire-wound units available in *four stock sizes:* 1-Watt (9/16″ x 1/8″), 3-Watt (9/16″ x 1/4″), 5-Watt (1 1/16″ x 11/32″), and 10-Watt (1 15/16″ x 13/32″) . . . The resistance wire and terminal lead are both welded to the end cap, utilizing the patented Ohmite welding technique. All have 1½″ tinned wire leads, are simple to mount, and occupy small space.

Axial-lead resistors are especially suited for printed circuits, terminal board, and point-to-point wiring applications.

The standard resistance tolerance is ±5%. Resistance range for each size shown in price tables below.

Ohms	Ohms	Ohms	Ohms
1.0	56	700	6,800
1.5	68	750	7,000
2.0	75	800	7,500
3.0	82	820	8,000
4.0	100	900	8,200
5.0	120	1,000	9,000
7.5	150	1,200	10,000
10	180	1,500	12,000
12	200	1,800	15,000
15	220	2,000	18,000
18	250	2,200	20,000
20	270	2,500	22,000
22	300	2,700	25,000
25	330	3,000	27,000
27	390	3,300	30,000
30	400	3,900	33,000
33	470	4,000	39,000
39	500	4,700	40,000
40	560	5,000	47,000
47	600	5,600	50,000
50	680	6,000	

1 WATT SIZE

Net (1-9), 1 thru 1,000 ohms	$ .62
Net (1-9), 1,200 thru 5,000 ohms	.66
Net (1-9), 5,600 and 6,000 ohms	.70

3 WATT SIZE

Net (1-9), 1 thru 1,000 ohms	$ .59
Net (1-9), 1,200 thru 5,000 ohms	.62
Net (1-9), 5,600 thru 10,000 ohms	.66

5 WATT SIZE

Net (1-9), 1 thru 1,000 ohms	$ .62
Net (1-9), 1,200 thru 5,000 ohms	.66
Net (1-9), 5,600 thru 10,000 ohms	.70
Net (1-9), 12,000 thru 20,000 ohms	.78
Net (1-9), 22,000 and 25,000 ohms	.82

10 WATT SIZE

Net (1-9), 1 thru 1,000 ohms	$ .68
Net (1-9), 1,200 thru 5,000 ohms	.73
Net (1-9), 5,600 thru 10,000 ohms	.84
Net (1-9), 12,000 thru 20,000 ohms	.95
Net (1-9), 22,000 thru 40,000 ohms	1.00
Net (1-9), 47,000 and 50,000 ohms	1.12

Popular OHMITE "BROWN DEVIL"® RESISTORS

WITH WELDED TERMINALS

High quality, small size, wire-wound resistors ideal for voltage dropping, bias units, bleeders, etc. They're extra-sturdy, all-ceramic, vitreous enameled. These all-welded construction units have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. They give time-proved protection against shock, vibration, heat and humidity. Their long record of continuous trouble-free service—their wide use in all climates of the world—prove their complete reliability and economy. All units can be conveniently mounted by means of their 1½″ tinned wire leads. Standard resistance tolerance is ±5%.

5 Watt—1″ x 5/16″ Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
1	2.23	200	.160	2,250	.047
1.5	1.82	225	.150	2,500	.045
2	1.58	250	.140	3,000	.041
3	1.29	300	.130	3,500	.037
4	1.12	350	.120	4,000	.035
5	1.00	400	.110	4,500	.033
7.5	.810	450	.100	5,000	.032
10	.710	500	.100	6,000	.029
12	.640	600	.091	7,000	.027
15	.580	700	.084	7,500	.026
20	.500	750	.082	8,000	.025
25	.450	800	.079	9,000	.024
30	.410	900	.074	10,000	.022
35	.380	1,000	.070	12,500	.020
40	.350	1,100	.067	15,000	.018
50	.320	1,200	.064	17,500	.017
75	.260	1,250	.063	20,000	.016
100	.220	1,500	.057	22,500	.014
125	.200	1,750	.053	25,000	.013
150	.180	2,000	.050		

Net (1-9), 1 thru 1,000 ohms	$0.52
Net (1-9), 1,100 thru 5,000 ohms	.55
Net (1-9), 6,000 thru 10,000 ohms	.58
Net (1-9), 12,500 thru 20,000 ohms	.65
Net (1-9), 22,500 and 25,000 ohms	.68

10 Watt—1¾″ x 5/16″ Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	4.47	300	.18	5,000	.045
1	3.16	350	.17	6,000	.041
2	2.24	400	.16	7,000	.038
3	1.83	450	.15	7,500	.036
4	1.58	500	.14	8,000	.035
5	1.41	600	.13	8,500	.034
7.5	1.16	700	.12	10,000	.032
10	1.00	750	.12	11,000	.030
12	.91	800	.11	12,000	.029
15	.82	900	.11	12,500	.028
20	.71	1,000	.10	13,500	.027
25	.63	1,100	.095	15,000	.026
30	.58	1,200	.091	16,000	.025
35	.53	1,250	.089	17,500	.024
40	.50	1,500	.081	18,000	.023
50	.45	1,750	.075	20,000	.022
75	.37	2,000	.071	22,500	.021
100	.32	2,250	.066	25,000	.020
125	.28	2,500	.063	30,000	.018
150	.26	3,000	.057	35,000	.017
200	.22	3,500	.053	40,000	.016
225	.21	4,000	.050	45,000	.015
250	.20	4,500	.047	50,000	.014

Net (1-9), 0.5 thru 1,000 ohms	$0.57
Net (1-9), 1,100 thru 5,000 ohms	.61
Net (1-9), 6,000 thru 10,000 ohms	.70
Net (1-9), 11,000 thru 20,000 ohms	.79
Net (1-9), 22,500 thru 40,000 ohms	.83
Net (1-9), 45,000 and 50,000 ohms	.93

20 Watt—2″ x 7/16″ Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	6.32	800	.15	10,000	.043
1.0	4.47	850	.15	12,500	.035
2.0	3.16	1,000	.14	15,000	.032
3.0	2.58	1,200	.13	20,000	.027
4.0	2.24	1,250	.12	25,000	.024
5	2.00	1,500	.12	30,000	.022
10	1.41	1,750	.11	35,000	.021
25	.89	2,000	.10	40,000	.019
50	.63	2,250	.094	45,000	.018
75	.52	2,500	.089	50,000	.017
100	.45	2,750	.085	55,000	.016
150	.36	3,000	.081	60,000	.016
200	.32	3,500	.075	65,000	.015
250	.28	4,000	.070	70,000	.014
300	.26	4,500	.066	75,000	.013
350	.24	5,000	.063	80,000	.012
400	.22	6,000	.057	85,000	.012
500	.20	7,000	.053	90,000	.011
650	.18	7,500	.051	95,000	.010
700	.17	8,000	.050	100,000	.010
750	.16	9,000	.047		

Net (1-9), 0.5 ohms	$0.95
Net (1-9), 1.0 thru 1,000 ohms	.68
Net (1-9), 1,200 thru 5,000 ohms	.70
Net (1-9), 6,000 thru 10,000 ohms	.83
Net (1-9), 12,500 thru 20,000 ohms	.85
Net (1-9), 25,000 thru 40,000 ohms	.99
Net (1-9), 45,000 thru 60,000 ohms	1.15
Net (1-9), 65,000 thru 80,000 ohms	1.37
Net (1-9), 85,000 thru 100,000 ohms	1.57

10 WATT DIVIDOHM® ADJUSTABLE RESISTORS

Core: 1¾″ x 5/16″ — Mounting Centers 2¼″

Adjustable Res.			Adjustable Res.			Adjustable Res.			Adjustable Res.		
Res. Ohms	Max. Amps	Stock No.	Res. Ohms	Max. Amps	Stock No.	Res. Ohms	Max. Amps	Stock No.	Res. Ohms	Max. Amps	Stock No.
1	3.16	1001	75	.37	1011	750	.12	1021	4,000	.050	1031
2	2.24	1002	100	.32	1012	800	.11	1022	4,500	.047	1032
3	1.83	1003	150	.26	1013	1,000	.10	1023	5,000	.045	1033
5	1.41	1004	200	.22	1014	1,250	.089	1024	6,000	.041	1034
7.5	1.16	1005	250	.20	1015	1,500	.081	1025	7,000	.038	1035
10	1.00	1006	300	.18	1016	2,000	.071	1026	7,500	.036	1036
15	.82	1007	350	.17	1017	2,250	.066	1027	8,000	.035	1037
20	.71	1008	400	.16	1018	2,500	.063	1028	8,500	.034	1038
25	.63	1009	500	.14	1019	3,000	.057	1029	9,000	.033	1039
50	.45	1010	600	.13	1020	3,500	.053	1030	10,000	.032	1040

Net (1-9), 1 thru 1,000 ohms	$1.14
Net (1-9), 1,250 thru 5,000 ohms	1.18
Net (1-9), 6,000 thru 10,000 ohms	1.27

CATALOG 50 LISTS ALL RESISTORS TO MEET MILITARY SPECIFICATION MIL-R-26C

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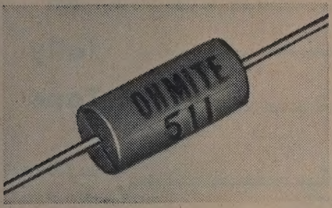
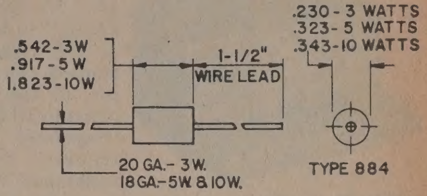
germanium diodes · r.f. chokes

RITEOHM® TYPE 884 MOLDED WIREWOUND RESISTORS ± 1% TOLERANCE



These precision power resistors are furnished from stock in power ratings of 3, 5 and 10 watts depending upon resistance. Single layer wound on ceramic core, Type 884 units feature a pressure-molded jacket of tough, resilient, silicone-ceramic material. Negligible inductance at audio frequencies. Temperature coefficient of resistance is 0±20ppm/°C. Values shown are selected from MIL Standard MS90169, MIL-R-10509 and Bell Tel. Labs.



3 WATT		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		3 WATT (Cont.)		5 WATT (Cont.)	
Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts
.100	.547	3.40	3.19	16.9	7.12	84.5	15.9	422	35.6	2100	79.4	10.500*	170	49,900*	450
.121	.602	3.48	3.23	17.4	7.22	86.6	16.1	432	36.1	2150	80.3	10,700*	170	51,100*	450
.150	.670	3.57	3.27	17.8	7.30	88.7	16.3	442	36.4	2210	81.4	11,000*	170	52,300*	450
.182	.739	3.65	3.31	18.2	7.39	90.9	16.5	453	36.9	2260	82.3	11,300*	170	53,600*	450
.200	.774	3.74	3.35	18.7	7.49	93.1	16.7	464	37.3	2320	83.4	11,500*	170	54,900*	450
.221	.814	3.83	3.39	19.1	7.57	95.3	16.9	475	37.7	2370	84.3	11,800*	170	56.200*	450
.249	.864	3.92	3.43	19.6	7.66	97.6	17.1	487	38.2	2430	85.4	12,100*	170	57.600*	450
.274	.906	4.02	3.47	20.0	7.74	100	17.3	499	38.7	2490	86.4	12,400*	170	59,000*	450
.332	.998	4.12	3.51	20.5	7.84	102	17.5	511	39.1	2550	87.4	12,700*	170	60,400*	450
.392	1.08	4.22	3.56	21.0	7.94	105	17.7	523	39.6	2610	88.4	13,000*	170	61,900*	450
.475	1.19	4.32	3.60	21.5	8.03	107	17.9	536	40.1	2670	89.5	13,300*	170	63,400*	450
.499	1.22	4.42	3.64	22.1	8.14	110	18.2	549	40.6	2740	90.6	13,700*	170	64,900*	450
.562	1.30	4.53	3.69	22.6	8.23	113	18.4	562	41.0	2800	91.6	14,000*	170	66,500*	450
.681	1.43	4.64	3.73	23.2	8.34	115	18.6	576	41.6	2870	92.8	14,300*	170	68,100*	450
.750	1.50	4.75	3.77	23.7	8.43	118	18.8	590	42.0	2940	93.9	14,700*	170	69,800*	450
.825	1.57	4.87	3.82	24.3	8.54	121	19.1	604	42.5	3010	95.0	15 000*	170	71,500*	450
1.00	1.73	4.99	3.87	24.9	8.64	124	19 3	619	43.1	3090	96.2	15,400*	170	73,200*	450
1.02	1.75	5.11	3.91	25.5	8.74	127	19.5	634	43.6	3160	97.4	15,800*	170	75,000*	450
1.05	1.77	5.23	3.96	26.1	8.84	130	19.7	649	44.1	3240	98.6	16,200*	170	76,800*	450
1.07	1.79	5.36	4.01	26.7	8.95	133	20.0	665	44.6	3320	99.8	16,500*	170	78,700*	450
1.10	1.82	5.49	4.06	27.4	9.06	137	20.3	681	45.2	3400	101	16,900*	170	80,600*	450
1.13	1.84	5.62	4.10	28.0	9.16	140	20.5	698	45.7	3490	102	17.400*	170	**10 WATT**	
1.15	1.86	5.76	4.16	28.7	9.28	143	20.7	715	46.3	3570	103	17 800*	170	82,500	908
1.18	1.88	5.90	4.20	29.4	9.39	147	21.0	732	46.8	3650	105	18.200*	170	84,500	919
1.21	1.91	6.04	4.25	30.1	9.50	150	21.2	750	47.4	3740	106	18,700*	170	86,600	930
1.24	1.93	6.19	4.31	30.9	9.62	154	21.5	768	48.0	3830	107	19,100*	170	88.700	942
1.27	1.95	6.34	4.36	31.6	9.74	158	21.8	787	48.6	3920	108	19,600*	170	90,900	952
1.30	1.97	6.49	4.41	32.4	9.86	162	22.0	806	49.2	4020	110	20,000*	170	93,100	965
1.33	2.00	6.65	4.46	33.2	9.98	165	22.2	825	49.7	4120	111	20,500*	170	95.300	976
1.37	2.03	6.81	4.52	34.0	10.1	169	22.5	845	50.4	4220	112	21,000*	170		
1.40	2.05	6.98	4.57	34.8	10.2	174	22.8	866	51.0	4320	114	21,500*	170	97,600	988
1.43	2.07	7.15	4.63	35.7	10.3	178	23.1	887	51.6	4420	115	22,100*	170	100,000	1000
1.47	2.10	7.32	4.68	36.5	10.5	182	23.4	909	52.2	4530	117	**5 WATT**		102.000*	1000
1.50	2.12	7.50	4.74	37.4	10.6	187	23.7	931	52.8	4640	118	22,600	337	105,000*	1000
1.54	2.15	7.68	4.80	38.3	10.7	191	23.9	953	53.4	4750	119	23.200	341	107,000*	1000
1.58	2.18	7.87	4.86	39.2	10.8	196	24.2	976	54.1	4870	121	23,700	344	110,000*	1000
1.62	2.20	8.06	4.92	40.2	11.0	200	24.5	1000	54.7	4990	122	24,300	347	113,000*	1000
1.65	2.22	8.25	4.97	41.2	11.1	205	24.8	1020	55.3	5110	124	24 900	353	115,000*	1000
1.69	2.25	8.45	5.04	42.2	11.2	210	25.1	1050	56.1	5230	125	25,500	357	118,000*	1000
1.74	2.28	8.66	5.10	43.2	11.4	215	25.4	1070	56.6	5360	127			121,000*	1000
1.78	2.31	8.87	5.16	44.2	11.5	221	25.7	1100	57.4	5490	128	26,100	361	124,000*	1000
1.82	2.34	9.09	5.22	45.3	11.7	226	26.0	1130	58.2	5620	130	26,700	365	127,000*	1000
1.87	2.37	9.31	5.28	46.4	11.8	232	26.4	1150	58.7	5760	131	27.400	370	130.000*	1000
1.91	2.39	9.53	5.34	47.5	11.9	237	26.7	1180	59.5	5900	133	28,000	374	133,000*	1000
1.96	2.42	9.76	5.41	48.7	12.1	243	27.0	1210	60.2	6040	134	28,700	379	137,000*	1000
2.00	2.45	10.0	5.47	49.9	12.2	249	27.3	1240	61.0	6190	136	29,400	383	140,000*	1000
2.05	2.48	10.2	5.53	51.1	12.4	255	27.7	1270	61.7	6340	138	30,100	388	143,000*	1000
2.10	2.51	10.5	5.61	52.3	12.5	261	28.0	1300	62.4	6490	140	30 900	393	147,000*	1000
2.15	2.54	10.7	5.66	53.6	12.7	267	28.3	1330	63.2	6650	141	31 600	397	150,000*	1000
2.21	2.57	11.0	5.74	54.9	12.8	274	28.7	1370	64.1	6810	143	32.400	402	154 000*	1000
2.26	2.60	11.3	5.82	56.2	13.0	280	29.0	1400	64.8	6980	145	33,200	407	158 000*	1000
2.32	2.64	11.5	5.87	57.6	13.1	287	29.3	1430	65.5	7,150	146	34,000	412	162,000*	1000
2.37	2.67	11.8	5.95	59.0	13.3	294	29.7	1470	66.4	7,320	148	34 800	417	165,000*	1000
2.43	2.70	12.1	6.02	60.4	13.4	301	30.0	1500	67.0	7,500	150	35,700	422	169,000*	1000
2.49	2.73	12.4	6.10	61.9	13.6	309	30.4	1540	68.0	7,680	152	36,500	427	174,000*	1000
2.55	2.77	12.7	6.17	63.4	13.8	316	30.8	1580	68.8	7,870	154	37 400	432	178,000*	1000
2.61	2.80	13.0	6.24	64.9	13.9	324	31.2	1620	69.7	8,060	155	38.300	437	182,000*	1000
2.67	2.83	13.3	6.32	66.5	14.1	332	31.6	1650	70.3	8,250	157	39,200	442	187,000*	1000
2.74	2.87	13.7	6.41	68.1	14.3	340	31.9	1690	71.2	8 450	159	40.200	448	191,000*	1000
2.80	2.90	14.0	6.48	69.8	14.5	348	32.3	1740	72.2	8,660	161	41 200*	450	196,000*	1000
2.87	2.93	14.3	6.55	71.5	14.6	357	32.7	1780	73.0	8,870	163	42,200*	450	200,000*	1000
2.94	2.97	14.7	6.64	73.2	14.8	365	33.1	1820	73.9	9,090	165	43,200*	450		
3.01	3.00	15.0	6.70	75.0	15.0	374	33.5	1870	74.9	9,310	167	44,200*	450		
3.09	3.04	15.4	6.80	76.8	15.2	383	33.9	1910	75.7	9,530	169	45.300*	450		
3.16	3.08	15.8	6.88	78.7	15.4	392	34.3	1960	76.6	9,760*	170	46,400*	450		
3.24	3.12	16.2	6.97	80.6	15.5	402	34.7	2000	77.4	10.000*	170	47,500*	450		
3.32	3.16	16.5	7.03	82.5	15.7	412	35.1	2050	78.4	10.200*	170	48.700*	450		

TYPE 884 NET PRICES

.10 thru .99 ohms	Net 1-24	$1.98
1.0 thru 1K ohms	Net 1-24	.71
1,001 thru 5K ohms	Net 1-24	.78
5,001 thru 10K ohms	Net 1-24	.82
10,001 thru 15K ohms	Net-1-24	.84
15,001 thru 20K ohms	Net 1-24	.88
20,001 thru 40K ohms	Net 1-24	.93
40,001 thru 55K ohms	Net 1 24	1.00
55,001 thru 75K ohms	Net 1 24	1.10
75,001 thru 100K ohms	Net 1-24	1.21
100,001 thru 125K ohms	Net 1-24	1.33
125,001 thru 150K ohms	Net 1-24	1.45
150,001 thru 175K ohms	Net 1-24	1.59
175,001 thru 200K ohms	Net 1-24	1.73

Resistance values marked * are derated in wattage because of maximum voltage gradient considerations. Even with these voltage limitations, however, the wattage ratings are still adequate for most precision applications. However, where wattage requirements dictate, the same value shown in a derated area for either the 3 or 5 watt sizes can be supplied in the next higher wattage as the case may be.

OHMITE

resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
germanium diodes · r.f. chokes

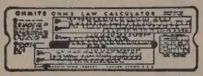
LITTLE DEVIL® RESISTOR ASSORTMENTS FOR SERVICE USE

Serviceman's assortments of 150 Ohmite "Little Devil," ¼-watt or ½-watt, or 125, 1-watt or 2-watt insulated composition resistors, in the 40 values (10 ohms to 10 megohms) most frequently used by servicemen. CAB-4 has 37 resistance values. The assortment is offered at the price of the resistors alone—the cabinet is furnished without extra cost! Cabinet is only 9″ long, 4¾″ high, and 5¼″ deep.

Assortment	Stock No.	Quantity of Resistors	Wattages	Net Price
SERVICE ±10% tolerance (40 resistance values)	**CAB-4**	150	¼ watt	$19.50
	CAB-10	150	½ watt	18.00
	CAB-2	125	1 watt	22.50
	CAB-3	125	2 watt	30.00

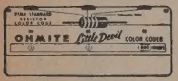
NEW OHM'S LAW CALCULATOR

Redesigned! This new, improved version of the famous Ohmite Ohm's Law Calculator — popular the world over with servicemen, engineers and students — now has scales for solving parallel resistance problems, AND a standard slide rule. More useful than ever! With one setting of the slide the calculator gives the answer to any Ohm's Law problem—reading directly in ohms, volts, amperes, and watts. Three of the new scales on the back provide a quick, one-setting means of solving parallel resistance problems. The slide rule scales will multiply, divide, find squares, and square roots.



Ohm's Law Calculator (Cardboard) ....**Net Price $0.25**
Ohm's Law Calculator (Plastic) ....**Net Price 1.50**

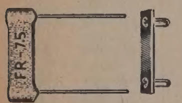
LITTLE DEVIL COLOR CODER



Here is a handy little device that makes it easy to determine the resistance and tolerance values of EIA color coded composition resistors. Just turn the color wheels until the color corresponds to the color band on the resistor and read the resistance value directly in ohms in the windows.

Little Devil Color Coder.................Net Price $ .10

OHMITE FUSE RESISTOR

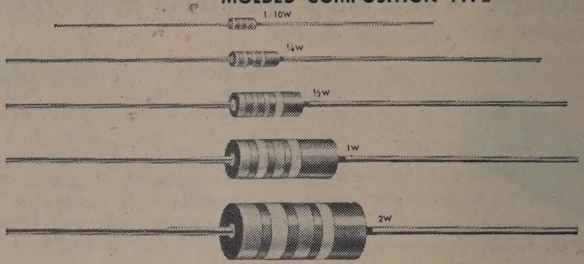


FR-7.5
Net Price $0.45
Each

Designed for replacement in all television receivers, the FR-7.5 Fuse Resistor is provided with 1½″ tinned lead wires for easy installation directly in the TV circuit. May also be soldered to the plug-in terminal strip which is provided. 7.5 ohms.

OHMITE LITTLE DEVIL RESISTORS

MOLDED COMPOSITION TYPE



on Tally Tape

(see below)

Now Includes MIL-R-11 Types

Ohmite's famous molded composition resistors. The ¼, ½, 1 and 2-watt sizes, conform respectively to Styles RC07, RC20, RC32 and RC42 of MIL-R-11C and meet all the requirements of this military specification.

Little Devils have molded insulation except for the 1/10 watt size which is coated with insulating material. Features: Great stability, low noise level, low voltage coefficient, high insulation breakdown voltage and rapid heat dissipation. They may be used at full rated wattage at 70°C (158°F) ambient temperature.

Available from stock in the standard EIA resistance values in the tolerances and resistance ranges shown in the price table below. Ratings for maximum continuous RMS voltage drop are high: 150 volts for 1/10 watt units, 250 volts for ¼ watt, 350 volts for ½ watt, 500 volts for 1 watt and 750 volts for 2 watt units.

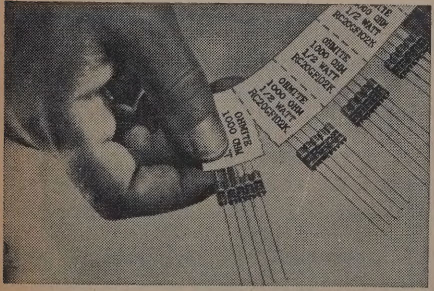
STANDARD EIA VALUES

Figures in large, bold type are ±10% EIA values. *All* values listed are ±5% values. Price table lists the various "Little Devil" sizes and indicates the tolerances and resistance ranges in which they are supplied.

Ohms	Ohms	Ohms	Ohms	Ohms	Megs.	Megs.	Megs.
2.7	**22**	**180**	**1500**	**12000**	**0.1**	**0.82**	**6.8**
3.0	24	200	1600	13000	0.11	0.91	7.5
3.3	**27**	**220**	**1800**	**15000**	**0.12**	**1.0**	**8.2**
3.6	30	240	2000	16000	0.13	1.1	9.1
3.9	**33**	**270**	**2200**	**18000**	**0.15**	**1.2**	**10.0**
4.3	36	300	2400	20000	0.16	1.3	11.0
4.7	**39**	**330**	**2700**	**22000**	**0.18**	**1.5**	**12.0**
5.1	43	360	3000	24000	0.20	1.6	13.0
5.6	**47**	**390**	**3300**	**27000**	**0.22**	**1.8**	**15.0**
6.2	51	430	3600	30000	0.24	2.0	16.0
6.8	**56**	**470**	**3900**	**33000**	**0.27**	**2.2**	**18.0**
7.5	62	510	4300	36000	0.30	2.4	20.0
8.2	**68**	**560**	**4700**	**39000**	**0.33**	**2.7**	**22.0**
9.1	75	620	5100	43000	0.36	3.0	. . .
10	**82**	**680**	**5600**	**47000**	**0.39**	**3.3**	. . .
11	91	750	6200	51000	0.43	3.6	. . .
12	**100**	**820**	**6800**	**56000**	**0.47**	**3.9**	. . .
13	110	910	7500	62000	0.51	4.3	. . .
15	**120**	**1000**	**8200**	**68000**	**0.56**	**4.7**	. . .
16	130	1100	9100	75000	0.62	5.1	. . .
18	**150**	**1200**	**10000**	**82000**	**0.68**	**5.6**	. . .
20	160	1300	11000	91000	0.75	6.2	. . .

"Tally Tape", Ohmite's wonderfully convenient packaging presently provided for ¼, ½, 1 and 2-watt resistors. Each perforated segment holds 5 resistors—prevents spilling or tangling—simplifies counting—is printed for quick identification—guarantees original, factory-fresh stock.

▼



PRICES, RESISTANCE RANGES, DIMENSIONS

Size Watts	Size Lgth.	Size Dia.	Resistance Range From	Resistance Range Thru	MIL Type	±5% Net 1-4	±5% Net 5-49	±10% Net 1-4	±10% Net 5-49
1/10	.140″	.067″	10 ohms	1.0 meg	—	—	—	**24c LIDVS**	**20c LIDVS**
1/4	¼″	.090″	2.7 ohms	24 ohms	RC 07*	**40c LIDED**	**34c LIDED**	**20c LIDSM**	**17c LIDSM**
			27 ohms	22 megs	RC 07	**26c LIDED**	**22c LIDED**	**13c LIDSM**	**11c LIDSM**
1/2	⅜″	9⁄64″	2.7 ohms	22 megs	RC 20*	**24c LIDFA**	**20c LIDFA**	**12c LIDLO**	**10c LIDLO**
1	9⁄16″	7⁄32″	2.7 ohms	22 megs	RC 32	**36c LIDBU**	**30c LIDBU**	**18c LIDME**	**15c LIDME**
2	11⁄16″	5⁄16″	10 ohms	22 megs	RC 42	**48c LIDOC**	**40c LIDOC**	**24c LIDHI**	**20c LIDHI**

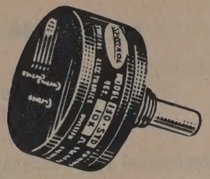
*Minimum resistance under MIL-R-11C is 10 ohms.

For more complete information on OHMITE PRODUCTS, ask for Ohmite Stock Catalog.

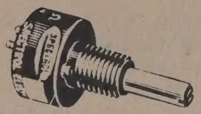
SPECTROL

PRECISION POTENTIOMETERS

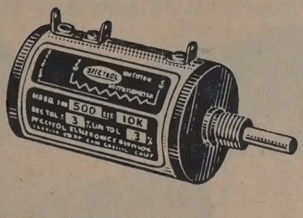
Call Your Nearest Spectrol Distributor for off-the-shelf Delivery



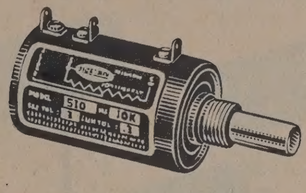
MODEL 130
$1\frac{5}{16}''$ Diam.



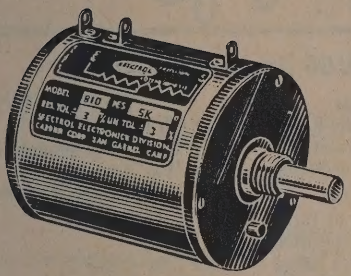
MODEL 140
$\frac{1}{2}''$ Diam.



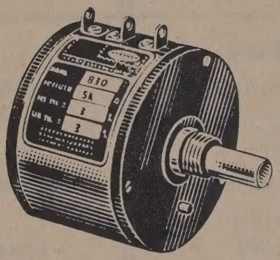
MODEL 500
$\frac{7}{8}''$ Diam.



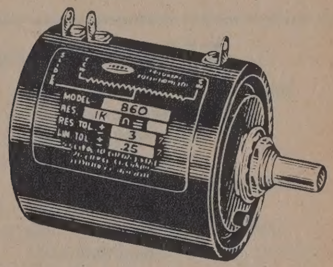
MODEL 510
$\frac{7}{8}''$ Diam.



MODEL 810
$1\frac{13}{16}''$ Diam.



MODEL 830
$1\frac{13}{16}''$ Diam.



MODEL 860
$1\frac{13}{16}''$ Diam.

Model	Diameter (inches)	Turns	Standard Resistance Range (ohms)	Standard Linearity Tolerance (%)	Standard Electrical Rotation (degrees)	Power Rating (watts)	Max. Starting Torque (in./oz.)	Max. Weight (oz.)	Standard Operating Temperature (degrees C)	Approx. Base Price (1-9)
130	1.312	1	100-30K	0.5	352	2.75	1.0	1.5	−55 to +105	$ 9.00
140	0.500	1	50-100K	1.0	325	2.0	2.0	0.15	−55 to +150	$10.00
500	0.875	10	100-100K	0.25	3600	3.0	0.5	1.0	−55 to +125	$15.00
510	0.875	10	100-100K	0.25	3600	3.0	0.5	1.5	−55 to +105	$10.00
810	1.812	10	25-300K	0.25	3600	8.0	1.75	4.5	−55 to +105	$12.00
830	1.812	3	100-50K	0.25	1080	4.75	1.75	3.0	−55 to +105	$10.00
860	1.812	10	25-400K	0.25	3600	8.0	1.75	4.5	−55 to +105	$10.00

SPECTROL ELECTRONICS CORPORATION

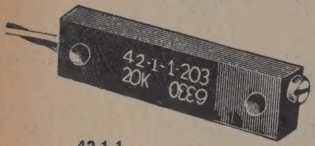
SAN GABRIEL, CALIFORNIA
PLAINVIEW, L.I., NEW YORK
BRAMPTON (TORONTO), ONTARIO, CANADA

SPECTROL TRIMMING POTENTIOMETERS

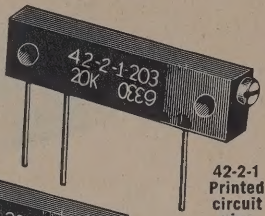
Stocked at your local distributors for immediate off-the-shelf delivery

MODEL 42 Rectangular-Military

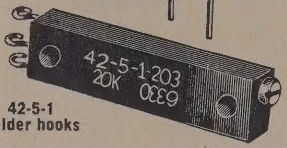
Electrical Specifications	
Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±5.0%
Power Rating	1.0 watt at 70°C
Mechanical Specifications	
Number of Turns	25 ±2
Operating Temperature Range	−65°C to +175°C
Case Dimensions	.180 x .312 x 1.250
Weight	4.5 grams max.
Base Price in 1-9 Quantities	$6.95



42-1-1
Teflon insulated leads



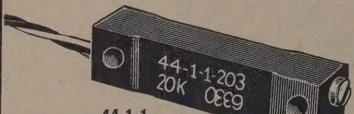
42-2-1
Printed circuit pins



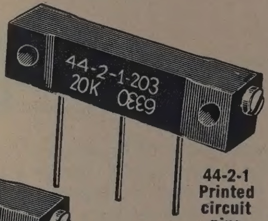
42-5-1
Solder hooks

MODEL 44 Rectangular-Military

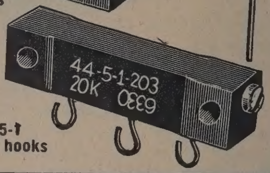
Electrical Specifications	
Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±5.0%
Power Rating	1.0 watt at 70°C
Mechanical Specifications	
Number of Turns	25 ±2
Operating Temperature Range	−65°C to +175°C
Case Dimensions	.280 x .312 x 1.250
Weight	4.5 grams max.
Base Price in 1-9 Quantities	$6.95



44-1-1
Teflon insulated leads



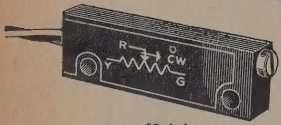
44-2-1
Printed circuit pins



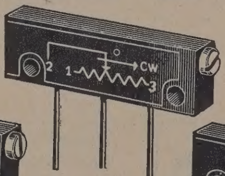
44-5-1
Solder hooks

MODEL 46 Rectangular-Military

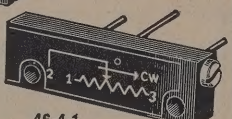
Electrical Specifications	
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0%
Power Rating	1.0 watt at 70°C
Mechanical Specifications	
Number of Turns	15 ±2
Operating Temperature Range	−65°C to +175°C
Case Dimensions	.185 x .312 x 1.000
Weight	3.6 grams max.
Base Price in 1-9 Quantities	$8.55



46-1-1
Teflon insulated leads



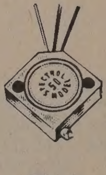
46-2-1
Printed circuit pins



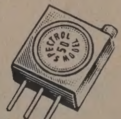
46-4-1
Printed circuit pins

MODEL 50 Square-Military

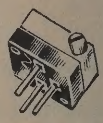
Electrical Specifications	
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0% (±1.0% available)
Power Rating	1.0 watt at 70°C
Mechanical Specifications	
Number of Turns	25 ±2
Rotation	Continuous
Operating Temperature Range	−55°C to +150°C
Case Dimensions	⅜" x ⅜" x $\frac{3}{16}$"
Weight	1 gram
Base Price in 1-9 Quantities	$7.50



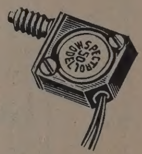
50-1-1
Teflon insulated leads



50-3-1
Printed circuit pins, 180°



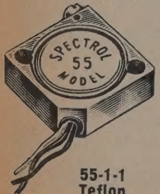
50-4-1
Printed circuit pins, base



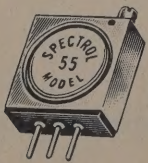
50-1-1 (bushing)
Teflon insulated leads

MODEL 55 Square-Military

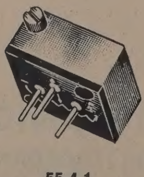
Electrical Specifications	
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0% (±1.0% available)
Power Rating	1.5 watts at 70°C
Mechanical Specifications	
Number of Turns	42 (nominal)
Rotation	Stops, clutch standard (continuous rotation available)
Operating Temperature Range	−55°C to +150°C
Case Dimensions	½" x ½" x $\frac{3}{16}$"
Weight	2 grams
Base Price in 1-9 Quantities	$6.00



55-1-1
Teflon insulated leads



55-3-1
PC pins, 180°

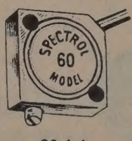


55-4-1
PC pins, base

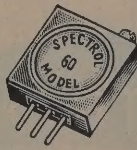
MODEL 60 Square-Military

Electrical Specifications	
Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±5.0% (±1.0% available)
Power Rating	1.5 watts at 70°C
Mechanical Specifications	
Number of Turns	25 ±2
Rotation	Continuous
Operating Temperature Range	−55°C to +150°C
Case Dimensions	½" x ½" x $\frac{3}{16}$"*
Weight	2 grams
Base Price in 1-9 Quantities	$6.50

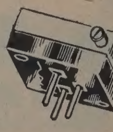
*The case depth for 100K resistance is 0.218" instead of the standard 0.185"



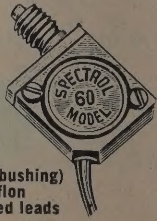
60-1-1
Teflon insulated leads



60-3-1
PC pins, 180°



60-4-1
PC pins, base



60-1-1 (bushing)
Teflon insulated leads

SPECTROL

TRIMMING POTENTIOMETERS

Stocked at your local distributors for immediate off-the-shelf delivery

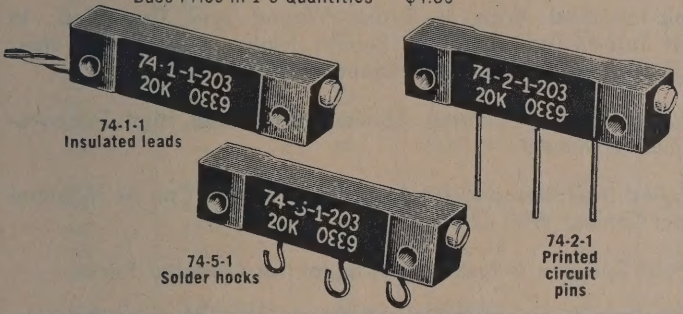
MODEL 74 Rectangular-Industrial

Electrical Specifications

Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±10%
Power Rating	1.0 watt at 70°C

Mechanical Specifications

Number of Turns	22 ±5
Operating Temperature Range	−65°C to +175°C
Case Dimensions	.280 x .312 x 1.250
Weight	4.5 grams max.
Base Price in 1-9 Quantities	$4.80



74-1-1
Insulated leads

74-5-1
Solder hooks

74-2-1
Printed circuit pins

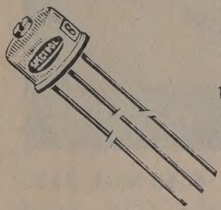
MODEL 80 Round-Military

Electrical Specifications

Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0%
Power Rating	1.0 watt at 50°C

Mechanical Specifications

Number of Turns	1
Rotation	End stops, standard (continuous rotation available)
Operating Temperature Range	−55°C to +150°C
Case Dimensions	3/8" diameter x 9/32" height
Base Price in 1-9 Quantities	$6.00



80-3-4
TO-9 Transistor Type
solid wire leads

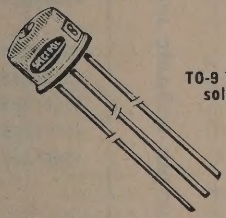
MODEL 82 Round-Industrial

Electrical Specifications

Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0%
Power Rating	0.5 watt at 50°C

Mechanical Specifications

Number of Turns	1
Rotation	330° between stops
Operating Temperature Range	−55°C to +105°C
Case Dimensions	3/8" diameter x 9/32" height
Base Price in 1-9 Quantities	$3.85



82-3-8
TO-9 Transistor Type
solid wire leads

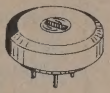
MODEL 84 Round-Military/Industrial

Electrical Specifications

Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±5.0%
Power Rating	1.0 watt at 85°C

Mechanical Specifications

Number of Turns	1
Rotation	End stops (continuous rotation available)
Operating Temperature Range	−55°C to +175°C
Case Dimensions	0.500" diameter x 0.160" height
Base Price in 1-9 Quantities	$3.95



84-3-4
Printed circuit pins

SPECTROL

MANUFACTURERS OF
PRECISION POTENTIOMETERS
TRIMMING POTENTIOMETERS
TURNS-COUNTING DIALS

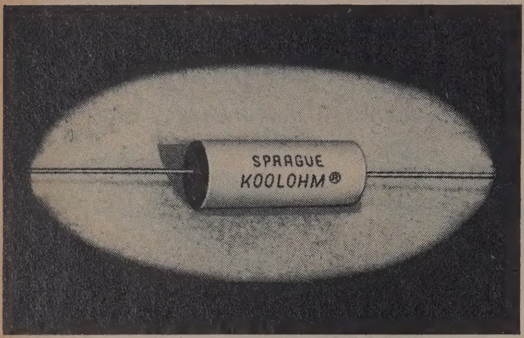
SPECTROL ELECTRONICS CORPORATION

San Gabriel, California
Plainview, L. I., New York
Toronto, Ontario, Canada

SPRAGUE RESISTORS

KOOLOHM® AXIAL-LEAD WIREWOUND RESISTORS

FOR INDUSTRIAL APPLICATIONS



- Types 450E, 452E, 454E, 456E and 458E are Standard Resistors. Types 451E, 453E, 455E, 457E and 459E are Non-Inductive Resistors

- Insulated-Shell Design for Easy Mounting
- Feature Improved Internal Construction in Which Windings and Leads are Welded to End-Cap for Superior Mechanical Strength
- Ceramic-Insulated Wire is Space Wound and Cemented, to Prevent Turn-to-Turn Shorting. Permits Higher Resistance Values in a Given Size Than in Conventional Resistors
- Non-Porous Tubular Ceramic Shells Sealed With High Temperature Silicone Cement
- Unexcelled Insulation and Mechanical Protection. Can be Mounted in Direct Contact With Chassis
- Call Your Sprague Industrial Distributor for Quantity Prices.
- For Complete Technical Details, Refer to Latest Issue of Sprague Engineering Bulletin 7300

	Type 450E 3 WATTS ¼″ x 9/16″		Type 452E 5 WATTS ¼″ x 1″		Type 454E 7 WATTS 15/32″ x 1 5/16″		Type 456E 10 WATTS 15/32″ x 1 29/32″		Type 458E 14 WATTS 15/32″ x 1 29/32″	
Ohms	Cat. No.		Cat. No.		Cat. No.		Cat. No.		Cat. No.	
1	450E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	452E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	454E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	456E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices	458E1R05	Call Your Sprague Industrial Distributor for Current Quantity Prices
1.5	450E1R55		452E1R55		454E1R55		456E1R55		458E1R55	
2	450E2R05		452E2R05		454E2R05		456E2R05		458E2R05	
3	450E3R05		452E3R05		454E3R05		456E3R05		458E3R05	
4	450E4R05		452E4R05		454E4R05		456E4R05		458E4R05	
5	450E5R05		452E5R05		454E5R05		456E5R05		458E5R05	
7.5	450E7R55		452E7R55		454E7R55		456E7R55		458E7R55	
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12	450E1205		452E1205		454E1205		456E1205		458E1205	
15	450E1505		452E1505		454E1505		456E1505		458E1505	
18	450E1805		———		———		———		———	
20	450E2005		452E2005		454E2005		456E2005		458E2005	
22	450E2205		———		———		———		———	
25	450E2505		452E2505		454E2505		456E2505		458E2505	
27	450E2705		———		———		———		———	
30	450E3005		452E3005		454E3005		456E3005		458E3005	
33	450E3305		———		———		———		———	
35	———		452E3505		454E3505		456E3505		458E3505	
39	450E3905		———		———		———		———	
40	450E4005		452E4005		454E4005		456E4005		458E4005	
47	450E4705		———		———		———		———	
50	450E5005		452E5005		454E5005		456E5005		458E5005	
56	450E5605		———		———		———		———	
68	450E6805		———		———		———		———	
75	450E7505		452E7505		454E7505		456E7505		458E7505	
82	450E8205		———		———		———		———	
100	450E1015		452E1015		454E1015		456E1015		458E1015	
120	450E1215		452E1215		454E1215		456E1215		458E1215	
150	450E1515		452E1515		454E1515		456E1515		458E1515	
180	450E1815		———		———		———		———	

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SPRAGUE RESISTORS

KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS, continued

	Type 450E 3 WATTS ¼" x 9/16"		Type 452E 5 WATTS ¼" x 1"		Type 454E 7 WATTS 15/32" x 1 5/16"		Type 456E 10 WATTS 15/32" x 1 29/32"		Type 458E 14 WATTS 15/32" x 1 29/32"	
Ohms	Cat. No.		Cat. No.		Cat. No.		Cat. No.		Cat. No.	
200	450E2015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	452E2015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	454E2015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	456E2015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	458E2015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
220	450E2215		452E2215		454E2215		456E2215		458E2215	
250	450E2515		452E2515		454E2515		456E2515		458E2515	
270	450E2715		———		———		———		———	
300	450E3015		452E3015		454E3015		456E3015		458E3015	
330	450E3315		———		———		———		———	
350	———		452E3515		454E3515		456E3515		458E3515	
390	450E3915		———		———		———		———	
400	450E4015		452E4015		454E4015		456E4015		458E4015	
450	———		452E4515		———		———		———	
470	450E4715		———		———		———		———	
500	450E5015		452E5015		454E5015		456E5015		458E5015	
560	450E5615		———		———		———		———	
600	450E6015		452E6015		454E6015		456E6015		458E6015	
680	450E6815		———		———		———		———	
700	450E7015		452E7015		454E7015		456E7515		458E7015	
750	———		452E7515		454E7515		———		458E7515	
800	450E8015		452E8015		454E8015		456E8015		458E8015	
820	450E8215		———		———		———		———	
900	450E9015		452E9015		454E9015		456E9015		458E9015	
1000	450E1025		452E1025		454E1025		456E1025		458E1025	
1100	———		452E1125		454E1125		456E1125		458E1125	
1200	450E1225		452E1225		454E1225		456E1225		458E1225	
1400	450E1425		452E1425		454E1425		456E1425		458E1425	
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2200	450E2225		452E2225		454E2225		465E2225		458E2225	
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2700	450E2725		———		———		———		———	
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3900	450E3925		———		454E3925		456E3925		458E3925	
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4500	———		452E4525		454E4525		456E4525		458E4525	
4700	450E4725		———		———		———		———	
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6800	450E6825		———		———		———		———	
7000	———		452E7025		454E7025		456E7025		458E7025	
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8200	450E8225		———		———		———		———	
9000	450E9025		452E9025		454E9025		456E9025		458E9025	
10000	450E1035		452E1035		454E1025		456E1035		458E1035	
11000	———		———		454E1135		456E1135		458E1135	
12000	———		452E1235		454E1235		456E1235		458E1125	
14000	———		452E1435		454E1435		456E1435		458E1435	
15000	———		452E1535		454E1535		456E1535		458E1535	
16000	———		———		454E1635		456E1635		458E1635	
18000	———		452E1835		454E1835		456E1835		458E1835	
20000	———		452E2035		454E2035		456E2035		458E2035	
22000	———		———		454E2235		456E2235		———	
25000	———		———		454E2535		456E2535		———	
30000	———		———		454E3035		456E3035		———	
35000	———		———		454E3535		456E3535		———	
40000	———		———		454E4035		456E4035		———	
45000	———		———		———		456E4535		———	
50000	———		———		———		456E5035		———	
60000	———		———		———		456E6035		———	
70000	———		———		———		456E7035		———	

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SPRAGUE RESISTORS

NON-INDUCTIVE KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS

Ohms	Type 451E 3 WATTS ¼" x 9/16" Cat. No.		Type 453E 5 WATTS ¼" x 1" Cat. No.		Type 455E 7 WATTS 15/32" x 1 5/16" Cat. No.		Type 457E 10 WATTS 15/32" x 1 29/32" Cat. No.		Type 459E 14 WATTS 15/32" x 1 29/32" Cat. No.	
1	451E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	453E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	455E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	457E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	459E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
1.5	451E1R55		453E1R55		455E1R55		457E1R55		459E1R55	
2	451E2R05		453E2R05		455E2R05		457E2R05		459E2R05	
3	451E3R05		453E3R05		455E3R05		457E3R05		459E3R05	
4	451E4R05		453E4R05		455E4R05		457E4R05		459E4R05	
5	451E5R05		453E5R05		455E5R05		457E5R05		459E5R05	
7.5	451E7R55		453E7R55		455E7R55		457E7R55		459E7R55	
10	451E1005		453E1005		455E1005		457E1005		459E1005	
12	451E1205		453E1205		455E1205		457E1205		459E1205	
15	451E1505		453E1505		455E1505		457E1505		459E1505	
18	451E1805		———		———		———		———	
20	451E2005		453E2005		455E2005		457E2005		459E2005	
22	451E2205		———		———		———		———	
25	451E2505		453E2505		455E2505		457E2505		459E2505	
27	451E2705		———		———		———		———	
30	451E3005		453E3005		455E3005		457E3005		459E3005	
33	451E3305		———		———		———		———	
35	451E3505		453E3505		455E3505		457E3505		459E3505	
39	451E3905		———		———		———		———	
40	451E4005		453E4005		455E4005		457E4005		459E4005	
47	451E4705		———		———		———		———	
50	451E5005		453E5005		455E5005		457E5005		459E5005	
56	451E5605		———		———		———		———	
68	451E6805		———		———		———		———	
75	451E7505		453E7505		455E7505		457E7505		459E7505	
82	451E8205		———		———		———		———	
100	451E1015		453E1015		455E1015		457E1015		459E1015	
120	451E1215		453E1215		455E1215		457E1215		459E1215	
150	451E1515		453E1515		455E1515		457E1515		459E1515	
180	451E1815		———		———		———		———	
200	451E2015		453E2015		455E2015		457E2015		459E2015	
220	451E2215		453E2215		455E2215		457E2215		459E2215	
250	451E2515		453E2515		455E2515		457E2515		459E2515	
270	451E2715		———		———		———		———	
300	451E3015		453E3015		455E3015		457E3015		459E3015	
330	451E3315		———		———		———		———	
350	451E3515		453E3515		455E3515		457E3515		459E3515	
390	451E3915		———		———		———		———	
400	451E4015		453E4015		455E4015		457E4015		459E4015	
450	451E4515		453E4515		———		———		———	
470	451E4715		———		———		———		———	
500	451E5015		453E5015		455E5015		457E5015		459E5015	
560	451E5615		———		———		———		———	
600	451E6015		453E6015		455E6015		457E6015		459E6015	
680	451E6815		———		———		———		———	
700	451E7015		453E7015		455E7015		457E7015		459E7015	
750	451E7515		453E7515		455E7515		457E7515		459E7515	
800	451E8015		453E8015		455E8015		457E8015		459E8015	
820	451E8215		———		———		———		———	
900	451E9015		453E9015		455E9015		457E9015		459E9015	
1000	451E1025		453E1025		455E1025		457E1025		459E1025	
1100	———		453E1125		455E1125		457E1125		459E1125	
1200	451E1225		453E1225		455E1225		457E1225		459E1225	
1400	451E1425		453E1425		455E1425		457E1425		459E1425	
1500	451E1525		453E1525		455E1525		457E1525		459E1525	
1800	451E1825		453E1825		455E1825		457E1825		459E1825	
2000	451E2025		453E2025		455E2025		457E2025		459E2025	
2200	———		453E2225		455E2225		457E2225		459E2225	
2500	———		453E2525		455E2525		457E2525		459E2525	
3000	———		453E3025		455E3025		457E3025		459E3025	
3300	———		———		455E3325		457E3325		459E3325	
3500	———		453E3525		455E3525		457E3525		459E3525	
3900	———		———		455E3925		457E3925		459E3925	
4000	———		453E4025		455E4025		457E4025		459E4025	
4500	———		———		455E4525		457E4525		459E4525	
5000	———		———		455E5025		457E5025		459E5025	
6000	———		———		———		457E6025		459E6025	
7000	———		———		———		457E7025		459E7025	
7500	———		———		———		457E7525		459E7525	
8000	———		———		———		457E8025		459E8025	
9000	———		———		———		457E9025		459E9025	
10000	———		———		———		457E1035		459E1035	

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SPRAGUE RESISTORS

TYPE RW55, RW56 KOOLOHM® RESISTORS

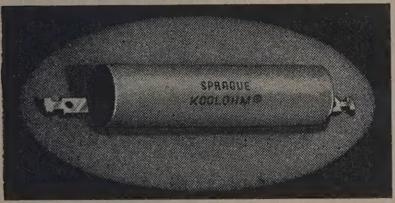
- Axial-Lead Koolohm Resistors to Military Specification MIL-R-26C, Characteristics V and G
- See Your Sprague Industrial Distributor for Quantity Prices

Ohms	Type RW55 7 WATTS 15/32″ x 1⅞″ Cat. No.		Type RW56 14 WATTS 15/32″ x 2″ Cat. No.	
1.0	RW55V1R0	Call Your Sprague Industrial Distributor for Quantity Prices	RW56V1R0	Call Your Sprague Industrial Distributor for Quantity Prices
1.1	RW55V1R1		RW56V1R1	
1.3	RW55V1R3		RW56V1R3	
1.5	RW55V1R5		RW56V1R5	
1.6	RW55V1R6		RW56V1R6	
1.8	RW55V1R8		RW56V1R3	
2.0	RW55V2R0		RW56V2R0	
2.2	RW55V2R2		RW56V2R2	
2.4	RW55V2R4		RW56V2R4	
2.7	RW55V2R7		RW56V2R7	
3.0	RW55V3R0		RW56V3R0	
3.3	RW55V3R3		RW56V3R3	
3.6	RW55V3R6		RW56V3R6	
3.9	RW55V3R9		RW56V3R9	
4.3	RW55V4R3		RW56V4R3	
4.7	RW55V4R7		RW56V4R7	
5.1	RW55V5R1		RW56V5R1	
5.6	RW55V5R6		RW56V5R6	
6.2	RW55V6R2		RW56V6R2	
6.8	RW55V6R8		RW56V6R8	
7.5	RW55V7R5		RW56V7R5	
8.2	RW55V8R2		RW56V8R2	
9.1	RW55V9R1		RW56V9R1	
10	RW55V100		RW56V100	
11	RW55V110		RW56V110	
12	RW55V120		RW56V120	
13	RW55V130		RW56V130	
15	RW55V150		RW56V150	
16	RW55V160		RW56V160	
18	~~RW55V180~~		RW56V180	
20	RW55V200		RW56V200	
22	RW55V220		RW56V220	
24	RW55V240		RW56V240	
27	RW55V270		RW56V270	
30	RW55V300		RW56V300	

Ohms	Type RW55 7 WATTS 15/32″ x 1⅞″ Cat. No.		Type RW56 14 WATTS 15/32″ x 2″ Cat. No.	
33	RW55V330	Call Your Sprague Industrial Distributor for Quantity Prices	RW56V330	Call Your Sprague Industrial Distributor for Quantity Prices
36	RW55V360		RW56V360	
39	RW55V390		RW56V390	
43	RW55V430		RW56V430	
47	RW55V470		RW56V470	
51	RW55V510		RW56V510	
56	RW55V560		RW56V560	
62	RW55V620		RW56V620	
68	RW55V680		RW56V680	
75	RW55V750		RW56V750	
82	RW55V820		RW56V820	
91	RW55V910		RW56V910	
100	RW55V101		RW56V101	
110	RW55V111		RW56V111	
120	RW55V121		RW56V121	
130	RW55V131		RW56V131	
150	RW55V151		RW56V151	
160	RW55V161		RW56V161	
180	RW55V181		RW56V181	
200	RW55V201		RW56V201	
220	RW55V221		RW56V221	
240	RW55V241		RW56V241	
270	RW55V271		RW56V271	
300	RW55V301		RW56V301	
330	RW55V331		RW56V331	
360	RW55V361		RW56V361	
390	RW55V391		RW56V391	
430	RW55V431		RW56V431	
470	RW55V471		RW56V471	
510	RW55V511		RW56V511	
560	RW55V561		RW56V561	
620	RW55V621		RW56V621	

Ohms	Type RW55 7 WATTS 15/32″ x 1⅞″ Cat. No.		Type RW56 14 WATTS 15/32″ x 2″ Cat. No.	
680	RW55V681	Call Your Sprague Industrial Distributor for Quantity Prices	RW56V681	Call Your Sprague Industrial Distributor for Quantity Prices
750	RW55V751		RW56V751	
820	RW55V821		RW56V821	
910	RW55V911		RW56V911	
1000	RW55V102		RW56V102	
1100	RW55V112		RW56V112	
1200	RW55V122		RW56V122	
1300	RW55V132		RW56V132	
1500	RW55V152		RW56V152	
1600	RW55V162		RW56V162	
1800	RW55V182		RW56V182	
2000	RW55V202		RW56V202	
2200	RW55V222		RW56V222	
2400	RW55V242		RW56V242	
2700	RW55V272		RW56V272	
3000	RW55V302		RW56V302	
3300	RW55V332		RW56V332	
3600	RW55V362		RW56V362	
3900	RW55V392		RW56V392	
4300	RW55V432		RW56V432	
4700	RW55V472		RW56V472	
5100	RW55V512		RW56V512	
5600	RW55V562		RW56V562	
6200	RW55V622		RW56V622	
6800	RW55V682		RW56V682	
7500	RW55V752		RW56V752	
8200	RW55V822		RW56V822	
9100	RW55V912		RW56V912	
10000	—		RW56V103	
11000	—		RW56V113	
12000	—		RW56V123	
13000	—		RW56V133	
15000	—		RW56V153	
16000	—		RW56V163	

Commercial Tab-Terminal KOOLOHM® Wirewound Resistors



- These Resistors Are Also Available in 5 and 10 Watt Ratings, Axial-Lead Style. See Latest Issue of Sprague Catalog C-615

Ohms	Type 25KT 25 Watts Cat. No.		Type 50KT 50 Watts Cat. No.		Type 120KT 120 Watts Cat. No.	
TYPE KT STANDARD RESISTORS						
5	25KT5R05	Call Your Sprague Industrial Distributor for Current Prices	50KT5R05	Call Your Sprague Industrial Distributor for Current Prices	120KT5R05	Call Your Sprague Industrial Distributor for Current Prices
10	25KT1005		50KT1005		120KT1005	
25	25KT2505		50KT2505		120KT2505	
50	25KT5005		50KT5005		120KT5005	
75	25KT7505		50KT7505		120KT7505	
100	25KT1015		50KT1015		120KT1015	
150	25KT1515		50KT1515		120KT1515	
200	25KT2015		50KT2015		120KT2015	
250	25KT2515		50KT2515		120KT2515	
390	—		—		120KT3915	
500	25KT5015		50KT5015		120KT5015	
600	25KT6015		50KT6015		120KT6015	
750	25KT7515		50KT7515		120KT7515	
1000	25KT1025		50KT1025		120KT1025	
1500	25KT1525		50KT1525		120KT1525	
2000	25KT2025		50KT2025		120KT2025	
2500	25KT2525		50KT2525		120KT2525	
3000	25KT3025		50KT3025		120KT3025	
4000	25KT4025		50KT4025		—	
5000	25KT5025		50KT5025		120KT5025	
7500	25KT7525		50KT7525		120KT7525	
10000	25KT1035		50KT1035		120KT1035	
12000	25KT1235		50KT1235		120KT1235	
15000	25KT1535		50KT1535		120KT1535	
20000	25KT2035		50KT2035		120KT2035	

Ohms	Type 25NIT 25NIT Watts Cat. No.		Type 50NIT 50NIT Watts Cat. No.		Type 120NIT 120NIT Watts Cat. No.	
TYPE KT STANDARD RESISTORS, continued						
25000	25KT2535	Call Your Sprague Distributor for Prices	50KT2535	Call Your Sprague Distributor for Prices	120KT2535	Call Your Sprague Distributor for Prices
40000	25KT4035		—		—	
50000	25KT5035		50KT5035		120KT5035	
75000	25KT7535		50KT7535		120KT7535	
100000	25KT1045		50KT1045		120KT1045	
TYPE NIT NON-INDUCTIVE RESISTORS						
5	25NIT5R05	Call Your Sprague Distributor for Prices	50NIT5R05	Call Your Sprague Distributor for Prices	120NIT5R05	Call Your Sprague Distributor for Prices
10	25NIT1005		50NIT1005		120NIT1005	
25	25NIT2505		50NIT2505		120NIT2505	
50	25NIT5005		50NIT5005		120NIT5005	
75	25NIT7505		50NIT7505		120NIT7505	
100	25NIT1015		50NIT1015		120NIT1015	
150	25NIT1515		50NIT1515		120NIT1515	
200	25NIT2015		50NIT2015		120NIT2015	
250	25NIT2515		50NIT2515		120NIT2515	
390	—		—		120NIT3915	
500	25NIT5015		50NIT5015		120NIT5015	
600	25NIT6015		50NIT6015		120NIT6015	
750	25NIT7515		50NIT7515		120NIT7515	
1000	25NIT1025		50NIT1025		120NIT1025	
1500	25NIT1525		50NIT1525		120NIT1525	
2000	25NIT2025		50NIT2025		120NIT2025	
2500	25NIT2525		50NIT2525		120NIT2525	
3000	25NIT3025		50NIT3025		120NIT3025	
4000	25NIT4025		50NIT4025		—	
5000	25NIT5025		50NIT5025		120NIT5025	
7500	25NIT7525		50NIT7525		120NIT7525	
10000	25NIT1035		50NIT1035		120NIT1035	
12000	25NIT1235		50NIT1235		—	
15000	25NIT1535		50NIT1535		120NIT1535	
20000	25NIT2035		50NIT2035		120NIT2035	
25000	25NIT2535		50NIT2535		120NIT2535	
50000	—		50NIT5035		120NIT5045	

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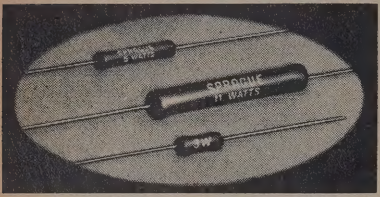
SPRAGUE RESISTORS

BLUE JACKET® INDUSTRIAL WIREWOUND RESISTORS



- Improved Minified Resistors Designed for Thorough Reliability and Stability Under Extreme Operating Conditions
- Matched Coefficient of Expansion Allows Uniform Expansion of Vitreous Enamel Coating, Ceramic Base, and End Caps, Eliminating Crazing, Cracks, and Protects From Fumes and Humidity
- Windings and Leads Welded to End-Caps for Superior Mechanical Strength
- For 2BJ, 3BJ, 5BJ and 10BJ Commercial or Service Equivalents to These Resistors, Refer to the Latest issue of Sprague Catalog C-615
- See Your Sprague Industrial Distributor for Quantity Prices

	Type 239E, 1 WATT 1/8" x 3/8"		Type 240E, 2 WATTS 3/16" x 3/8"		Type 242E, 3 WATTS 13/64" x 17/32"		Type 243E, 5 WATTS 13/64" x 15/16"		Type 244E, 7 WATTS 5/16" x 1"		Type 247E, 10 WATTS 5/16" x 1 3/4"	
Ohms	Cat. No.		Cat. No		Cat. No.		Cat. No.		Cat. No.		Cat. No.	
1	239E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	240E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	242E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	243E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	244E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	247E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
1.2	239E1R25		—		—		—		—		—	
1.5	239E1R55		240E1R55		242E1R55		243E1R55		244E1R55		247E1R55	
1.8	239E1R85		—		—		—		—		—	
2	239E2R05		240E2R05		242E2R05		243E2R05		244E2R05		247E2R05	
2.2	239E2R25		—		—		—		—		—	
2.7	239E2R27		—		—		—		—		—	
3	239E3R05		240E3R05		242E3R05		243E3R05		244E3R05		247E3R05	
3.3	239E3R35		—		—		—		—		—	
3.9	239E3R95		—		—		—		—		—	
4	239E4R05		240E4R05		242E4R05		243E4R05		244E4R05		247E4R05	
4.7	239E4R75		—		—		—		—		—	
5	239E5R05		240E5R05		242E5R05		243E5R05		244E5R05		247E5R05	
5.6	239E5R65		—		—		—		—		—	
6.8	239E6R85		—		—		—		—		—	
7.5	239E7R55		240E7R55		242E7R55		243E7R55		244E7R55		247E7R55	
8.2	239E8R25		—		—		—		—		—	
10	239E1005		240E1005		242E1005		243E1005		244E1005		247E1005	
12	239E1205		240E1205		242E1205		243E1205		244E1205		247E1205	
15	239E1505		240E1505		242E1505		243E1505		244E1505		247E1505	
18	239E1805		240E1805		242E1805		—		—		—	
20	239E2005		240E2005		242E2005		243E2005		244E2005		247E2005	
22	239E2205		240E2205		242E2205		—		—		—	
25	239E2505		240E2505		242E2505		243E2505		244E2505		247E2505	
27	239E2705		240E2705		242E2705		—		—		—	
30	239E3005		240E3005		242E3005		243E3005		244E3005		247E3005	
33	239E3305		240E3305		242E3305		—		—		—	
35	—		—		—		243E3505		244E3505		247E3505	
39	239E3905		240E3905		242E3905		—		—		—	
40	239E4005		240E4005		242E4005		243E4005		244E4005		247E4005	
47	239E4705		240E4705		242E4705		—		—		—	
50	239E5005		240E5005		242E5005		243E5005		244E5005		247E5005	
56	239E5605		240E5605		242E5605		—		—		—	
68	239E6805		240E6805		242E6805		—		—		—	
75	239E7505		240E7505		242E7505		243E7505		244E7505		247E7505	
82	239E8205		240E8205		242E8205		—		—		—	
100	239E1015		240E1015		242E1015		243E1015		244E1015		247E1015	
120	239E1215		240E1215		242E1215		243E1215		244E1215		247E1215	
150	239E1515		240E1515		242E1515		243E1515		244E1515		247E1515	
180	239E1815		240E1815		242E1815		—		—		—	
200	239E2015		240E2015		242E2015		243E2015		244E2015		247E2015	
220	239E2215		240E2215		242E2215		243E2215		244E2215		247E2215	
250	239E2515		240E2515		242E2515		243E2515		244E2515		247E2515	
270	239E2715		240E2715		242E2715		—		—		—	
300	239E3015		240E3015		242E3015		243E3015		244E3015		247E3015	
330	239E3315		240E3315		242E3315		—		—		—	
350	—		—		—		243E3515		244E3515		247E3515	
390	239E3915		240E3915		242E3915		—		—		—	
400	239E4015		240E4015		242E4015		243E4015		244E4015		247E4015	
450	—		—		—		243E4515		—		—	
470	239E4715		240E4715		242E4715		—		—		—	
500	239E5015		240E5015		242E5015		243E5015		244E5015		247E5015	
560	239E5615		240E5615		242E5615		—		—		—	
600	239E6015		240E6015		242E6015		243E6015		244E6015		247E6015	
680	239E6815		240E6815		242E6815		—		—		—	
700	239E7015		240E7015		242E7015		243E7015		244E7015		247E7015	
750	—		—		—		243E7515		244E7515		247E7515	
800	239E8015		240E8015		242E8015		243E8015		244E8015		247E8015	
820	239E8215		240E8215		242E8215		—		—		—	
900	239E9015		240E9015		242E9015		243E9015		244E9015		247E9015	
1000	239E1025		240E1025		242E1025		243E1025		244E1025		247E1025	
1100	—		—		—		243E1125		244E1125		247E1125	
1200	239E1225		240E1225		242E1225		243E1225		244E1225		247E1225	
1400	239E1425		240E1425		242E1425		243E1425		244E1425		247E1425	
1500	239E1525		240E1525		242E1525		243E1525		244E1525		247E1525	
1800	239E1825		240E1825		242E1825		243E1825		244E1825		247E1825	
2000	239E2025		240E2025		242E2025		243E2025		244E2025		247E2025	
2200	239E2225		240E2225		242E2225		243E2225		244E2225		247E2225	
2500	239E2525		240E2525		242E2525		243E2525		244E2525		247E2525	
2700	—		240E2725		242E2725		—		—		—	
3000	—		240E3025		242E3025		243E3025		244E3025		247E3025	
3300	—		240E3325		242E3325		—		244E3325		247E3325	
3500	—		240E3525		—		243E3525		244E3525		247E3525	
3900	—		—		242E3925		—		244E3925		247E3925	
4000	—		—		242E4025		243E4025		244E4025		247E4025	
4500	—		—		—		243E4525		244E4525		247E4525	
4700	—		—		242E4725		—		—		—	
5000	—		—		242E5025		243E5025		244E5025		247E5025	
5600	—		—		242E5625		—		—		—	
6000	—		—		242E6025		243E6025		244E6025		247E6025	
6800	—		—		242E6825		—		—		—	
7000	—		—		—		243E7025		244E7025		247E7025	
7500	—		—		242E7525		243E7525		244E7525		247E7525	
8000	—		—		242E8025		243E8025		244E8025		247E8025	
8200	—		—		242E8225		—		—		—	

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SPRAGUE RESISTORS

BLUE JACKET INDUSTRIAL WIREWOUND RESISTORS, continued

Ohms	Type 239E, 1 WATT 1/8" x 3/8" Cat. No.		Type 240E, 2 WATTS 3/16" x 3/8" Cat. No.		Type 242E, 3 WATTS 13/64" x 17/32" Cat. No.		Type 243E, 5 WATTS 13/64" x 15/16" Cat. No.		Type 244E, 7 WATTS 5/16" x 1" Cat. No.		Type 247E, 10 WATTS 5/16" x 1 3/4" Cat. No.	
9000	———	Call Your Sprague Industrial Distributor for Quantity Prices	———	Call Your Sprague Industrial Distributor for Quantity Prices	242E9025	Call Your Sprague Industrial Distributor for Quantity Prices	243E9025	Call Your Sprague Industrial Distributor for Quantity Prices	244E9025	Call Your Sprague Industrial Distributor for Quantity Prices	247E9025	Call Your Sprague Industrial Distributor for Quantity Prices
10000	———		———		242E1035		243E1035		244E1035		247E1035	
11000	———		———		———		———		244E1135		247E1135	
12000	———		———		———		243E1235		244E1235		247E1235	
14000	———		———		———		243E1435		244E1435		247E1435	
15000	———		———		———		243E1535		244E1535		247E1535	
16000	———		———		———		———		244E1635		247E1635	
17000	———		———		———		———		244E1735		———	
18000	———		———		———		243E1835		244E1835		247E1835	
20000	———		———		———		243E2035		244E2035		247E2035	
22000	———		———		———		243E2235		244E2235		247E2235	
25000	———		———		———		243E2535		244E2535		247E2535	
30000	———		———		———		243E3035		244E3035		247E3035	
35000	———		———		———		———		———		247E3535	
40000	———		———		———		———		———		247E4035	
45000	———		———		———		———		———		247E4535	
50000	———		———		———		———		———		247E5035	

TYPE RW57, RW58, RW59 BLUE JACKET® WIREWOUND RESISTORS

- This Series of Blue Jacket Wirewound Resistors Meet All Performance Characeristics of Military Specification MIL R-26C, Characteristics V and G
- Contact Your Sprague Industrial Distributor for Quantity Prices

Ohms	Type RW59 3 WATTS 3/16" x 1/2" Cat. No.		Type RW57 6.5 WATTS 5/16" x 1" Cat. No.		Type RW58 11 WATTS 11/32" x 1 7/8" Cat. No.	
1.0	RW59V1R0	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V1R0	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V1R0	Call Your Sprague Industrial Distributor For Current Quantity Prices
1.1	RW59V1R1		RW57V1R1		RW58V1R1	
1.2	RW59V1R3		RW57V1R2		RW58V1R2	
1.3	RW59V1R2		RW57V1R3		RW58V1R3	
1.5	RW59V1R5		RW57V1R5		RW58V1R5	
1.6	RW59V1R6		RW57V1R6		RW58V1R6	
1.8	RW59V1R8		RW57V1R8		RW58V1R8	
2.0	RW59V2R0		RW57V2R0		RW58V2R0	
2.2	RW59V2R2		RW57V2R2		RW58V2R2	
2.4	RW59V2R4		RW57V2R4		RW58V2R4	
2.7	RW59V2R7		RW57V2R7		RW58V2R7	
3.0	RW59V3R0		RW59V3R0		RW58V3R0	
3.3	RW59V3R3		RW57V3R3		RW58V3R3	
3.6	RW59V3R6		RW57V3R6		RW58V3R6	
3.9	RW59V3R9		RW57V3R9		RW58V3R9	
4.3	RW59V4R3		RW57V4R3		RW58V4R3	
4.7	RW59V4R7		RW57V4R7		RW58V4R7	
5.1	RW59V5R1		RW57V5R1		RW58V5R1	
5.6	RW59V5R6		RW57V5R6		RW58V5R6	
6.2	RW59V6R2		RW57V6R2		RW58V6R2	
6.8	RW59V6R8		RW57V6R8		RW58V6R8	
7.5	RW59V7R5		RW57V7R5		RW58V7R5	
8.2	RW59V8R2		RW57V8R2		RW58V8R2	
9.1	RW59V9R1		RW57V9R1		RW58V9R1	
10	RW59V100		RW57V100		RW58V100	
11	RW59V110		RW57V110		RW58V110	
12	RW59V120		RW57V120		RW58V120	
13	RW59V130		RW57V130		RW58V130	
15	RW59V150		RW57V150		RW58V150	
16	RW59V160		RW57V160		RW58V160	
18	RW59V180		RW57V180		RW58V180	
20	RW59V200		RW57V200		RW58V200	
22	RW59V220		RW57V220		RW58V220	
24	RW59V240		RW57V240		RW58V240	
27	RW59V270		RW57V270		RW58V270	
30	RW59V300		RW57V300		RW58V300	
33	RW59V330		RW57V330		RW58V330	
36	RW59V360		RW57V360		RW58V360	
39	RW59V390		RW57V390		RW58V390	
43	RW59V430		RW57V430		RW58V430	
47	RW59V470		RW57V470		RW58V470	
51	RW59V510		RW57V510		RW58V510	
56	RW59V560		RW57V560		RW58V560	
62	RW59V620		RW57V620		RW58V620	
68	RW59V680		RW57V680		RW58V680	
75	RW59V750		RW57V750		RW58V750	
82	RW59V820		RW57V820		RW58V820	
91	RW59V910		RW57V910		RW58V910	
100	RW59V101		RW57V101		RW58V101	
110	RW59V111		RW57V111		RW58V111	
120	RW59V121		RW57V121		RW58V121	
130	RW59V131		RW57V131		RW58V131	

Ohms	Type RW59 3 WATTS 3/16" x 1/2" Cat. No.		Type RW57 6.5 WATTS 5/16" x 1" Cat. No.		Type RW58 11 WATTS 11/32" x 1 7/8" Cat. No.	
150	RW59V151	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V151	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V151	Call Your Sprague Industrial Distributor For Current Quantity Prices
160	RW59V161		RW57V161		RW58V161	
180	RW59V181		RW57V181		RW58V181	
200	RW59V201		RW57V201		RW58V201	
220	RW59V221		RW57V221		RW58V221	
240	RW59V241		RW57V241		RW58V241	
270	RW59V271		RW57V271		RW58V271	
300	RW59V301		RW57V301		RW58V301	
330	RW59V331		RW57V331		RW58V331	
360	RW59V361		RW57V361		RW58V361	
390	RW59V391		RW57V391		RW58V391	
430	RW59V431		RW57V431		RW58V431	
470	RW59V471		RW57V471		RW58V471	
510	RW59V511		RW57V511		RW58V511	
560	RW59V561		RW57V561		RW58V561	
620	RW59V621		RW57V621		RW58V621	
680	RW59V681		RW57V681		RW58V681	
750	RW59V751		RW57V751		RW58V751	
820	RW59V821		RW57V821		RW58V821	
910	RW59V911		RW57V911		RW58V911	
1000	RW59V102		RW57V102		RW58V102	
1100	RW59V112		RW57V112		RW58V112	
1200	RW59V122		RW57V122		RW58V122	
1300	RW59V132		RW57V132		RW58V132	
1500	RW59V152		RW57V152		RW58V152	
1600	RW59V162		RW57V162		RW58V162	
1800	RW59V182		RW57V182		RW58V182	
2000	RW59V202		RW57V202		RW58V202	
2200	———		RW57V222		RW58V222	
2400	———		RW57V242		RW58V242	
2700	———		RW57V272		RW58V272	
3000	———		RW57V302		RW58V302	
3300	———		RW57V332		RW58V332	
3600	———		RW57V362		RW58V362	
3900	———		RW57V392		RW58V392	
4300	———		RW57V432		RW58V432	
4700	———		RW57V472		RW58V472	
5100	———		RW57V512		RW58V512	
5600	———		RW57V562		RW58V562	
6200	———		RW57V622		RW58V622	
6800	———		RW57V682		RW58V682	
7500	———		RW57V752		RW58V752	
8200	———		RW57V822		RW58V822	
9100	———		———		RW58V912	
10,000	———		———		RW58V103	
11,000	———		———		RW58V113	
12,000	———		———		RW58V123	
13,000	———		———		RW58V133	
15,000	———		———		RW58V153	
16,000	———		———		RW58V163	
18,000	———		———		RW58V183	
20,000	———				RW58V203	

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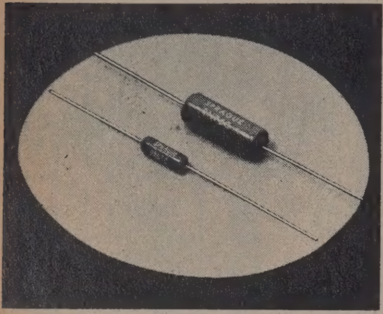
SPRAGUE RESISTORS

FILMISTOR® METAL-FILM and CARBON-FILM RESISTORS



- Filmistor® C and D Series Resistors are Ideal for Circuits Requiring High Accuracy, Reliability, and Stability with Low Temperature Coefficients.
- Physical Size of Types RN55 and RN60 is Compatible With Those of Other Resistors, Capacitors, and Diodes for "Cordwood" Packaging.
- Designed to Meet the Stringent Performance Requirements of Spec. MIL-R-10509-D.
- Low Self-inductance, Low Distributed Capacitance. Equal or Surpass the Characteristics of Precision Wirewound Resistors, Yet Are Smaller in Size.
- Metallic (C) or Carbon (D) Resistive Film is Firmly Bonded to Special Ceramic Core, Automatically Spiralled to Desired Resistance Value.
- Tough Molded Shell Provides Protection Against Mechanical Damage as Well as Catastrophic Failures From Electrolysis Caused by Moisture Penetration.
- Standard Resistance Tolerance, ±1%
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 7025 (Filmistor C) or Engineering Bulletin 7000 (Filmistor D).
- **Call Your Sprague Industrial Distributor For Quantity Prices.**

STANDARD RESISTANCE VALUES (Ohms)

10.0	26.7	71.5	191	511	1.37 K	3.65 K	9.76 K	26.1 K	69.8 K	187 K	499 K	1.37 meg.	3.74 meg.
10.2	27.4	73.2	196	523	1.40 K	3.74 K	10.00 K	26.7 K	71.5 K	191 K	511 K	1.40 meg.	3.83 meg.
10.5	28.0	75.0	200	536	1.43 K	3.83 K	10.2 K	27.4 K	73.2 K	196 K	523 K	1.43 meg.	3.92 meg.
10.7	28.7	76.8	205	549	1.47 K	3.92 K	10.5 K	28.0 K	75.0 K	200 K	536 K	1.47 meg.	4.02 meg.
11.0	29.4	78.7	210	562	1.50 K	4.02 K	10.7 K	28.7 K	76.8 K	205 K	549 K	1.50 meg.	4.12 meg.
11.3	30.1	80.6	215	576	1.54 K	4.12 K	11.0 K	29.4 K	78.7 K	210 K	562 K	1.54 meg.	4.22 meg.
11.5	30.9	82.5	221	590	1.58 K	4.22 K	11.3 K	30.1 K	80.6 K	215 K	576 K	1.58 meg.	4.32 meg.
11.8	31.6	84.5	226	604	1.62 K	4.32 K	11.5 K	30.9 K	82.5 K	221 K	590 K	1.62 meg.	4.42 meg.
12.1	32.4	86.6	232	619	1.65 K	4.42 K	11.8 K	31.6 K	84.5 K	226 K	604 K	1.65 meg.	4.53 meg.
12.4	33.2	88.7	237	634	1.69 K	4.53 K	12.1 K	32.4 K	86.6 K	232 K	619 K	1.69 meg.	4.64 meg.
12.7	34.0	90.9	243	649	1.74 K	4.64 K	12.4 K	33.2 K	88.7 K	237 K	634 K	1.74 meg.	4.75 meg.
13.0	34.8	93.1	249	665	1.78 K	4.75 K	12.7 K	34.0 K	90.9 K	243 K	649 K	1.78 meg.	4.87 meg.
13.3	35.7	95.3	255	681	1.82 K	4.87 K	13.0 K	34.8 K	93.1 K	249 K	665 K	1.82 meg.	4.99 meg.
13.7	36.5	97.6	261	698	1.87 K	4.99 K	13.3 K	35.7 K	95.3 K	255 K	681 K	1.87 meg.	5.11 meg.
14.0	37.4	100	267	715	1.91 K	5.11 K	13.7 K	36.5 K	97.6 K	261 K	698 K	1.91 meg.	5.23 meg.
14.3	38.3	102	274	732	1.96 K	5.23 K	14.0 K	37.4 K	100 K	267 K	715 K	1.96 meg.	5.36 meg.
14.7	39.2	105	280	750	2.00 K	5.36 K	14.3 K	38.3 K	102 K	274 K	732 K	2.00 meg.	5.49 meg.
15.0	40.2	107	287	768	2.05 K	5.49 K	14.7 K	39.2 K	105 K	280 K	750 K	2.05 meg.	5.62 meg.
15.4	41.2	110	294	787	2.10 K	5.62 K	15.0 K	40.2 K	107 K	287 K	768 K	2.10 meg.	5.76 meg.
15.8	42.2	113	301	806	2.15 K	5.76 K	15.4 K	41.2 K	110 K	294 K	787 K	2.15 meg.	5.90 meg.
16.2	43.2	115	309	825	2.21 K	5.90 K	15.8 K	42.2 K	113 K	301 K	806 K	2.21 meg.	6.04 meg.
16.5	44.2	118	316	845	2.26 K	6.04 K	16.2 K	43.2 K	115 K	309 K	825 K	2.26 meg.	6.19 meg.
16.9	45.3	121	324	866	2.32 K	6.19 K	16.5 K	44.2 K	118 K	316 K	845 K	2.32 meg.	6.34 meg.
17.4	46.4	124	332	887	2.37 K	6.34 K	16.9 K	45.3 K	121 K	324 K	866 K	2.37 meg.	6.49 meg.
17.8	47.5	127	340	909	2.43 K	6.49 K	17.4 K	46.4 K	124 K	332 K	887 K	2.43 meg.	6.65 meg.
18.2	48.7	130	348	931	2.49 K	6.65 K	17.8 K	47.5 K	127 K	340 K	909 K	2.49 meg.	6.81 meg.
18.7	49.9	133	357	953	2.55 K	6.81 K	18.2 K	48.7 K	130 K	348 K	931 K	2.55 meg.	6.98 meg.
19.1	51.1	137	365	976	2.61 K	6.98 K	18.7 K	49.9 K	133 K	357 K	953 K	2.61 meg.	7.15 meg.
19.6	52.3	140	374	1.0 K	2.67 K	7.15 K	19.1 K	51.1 K	137 K	365 K	976 K	2.67 meg.	7.32 meg.
20.0	53.6	143	383	1.02 K	2.74 K	7.32 K	19.6 K	52.3 K	140 K	374 K	1.00 meg.	2.74 meg.	7.50 meg.
20.5	54.9	147	392	1.05 K	2.80 K	7.50 K	20.0 K	53.6 K	143 K	383 K	1.02 meg.	2.80 meg.	7.68 meg.
21.0	56.2	150	402	1.07 K	2.87 K	7.68 K	20.5 K	54.9 K	147 K	392 K	1.05 meg.	2.87 meg.	7.87 meg.
21.5	57.6	154	412	1.10 K	2.94 K	7.87 K	21.0 K	56.2 K	150 K	402 K	1.07 meg.	2.94 meg.	8.06 meg.
22.1	59.0	158	422	1.13 K	3.01 K	8.06 K	21.5 K	57.6 K	154 K	412 K	1.10 meg.	3.01 meg.	8.25 meg.
22.6	60.4	162	432	1.15 K	3.09 K	8.25 K	22.1 K	59.0 K	158 K	422 K	1.13 meg.	3.09 meg.	8.45 meg.
23.2	61.9	165	442	1.18 K	3.16 K	8.45 K	22.6 K	60.4 K	162 K	432 K	1.15 meg.	3.16 meg.	8.66 meg.
23.7	63.4	169	453	1.21 K	3.24 K	8.66 K	23.2 K	61.9 K	165 K	442 K	1.18 meg.	3.24 meg.	8.87 meg.
24.3	64.9	174	464	1.24 K	3.32 K	8.87 K	23.7 K	63.4 K	169 K	453 K	1.21 meg.	3.32 meg.	9.09 meg.
24.9	66.5	178	475	1.27 K	3.40 K	9.09 K	24.3 K	64.9 K	174 K	464 K	1.24 meg.	3.40 meg.	9.31 meg.
25.5	68.1	182	487	1.30 K	3.48 K	9.31 K	24.9 K	66.5 K	178 K	475 K	1.27 meg.	3.48 meg.	9.53 meg.
26.1	69.8	187	499	1.33 K	3.57 K	9.53 K	25.5 K	68.1 K	182 K	487 K	1.30 meg.	3.57 meg.	9.76 meg.
											1.33 meg.	3.65 meg.	10 meg.

1/10 WATT METAL FILM
TYPE 416E/RN55C

.095" Dia. x .250" Long
30.1 ohms thru .1 meg.

1/8 WATT CARBON FILM
TYPE 411E/RN55D

.090" Dia. x .250" Long
10 ohms thru 301K

1/8 WATT METAL FILM
TYPE 418E/RN60C

.135" Dia. x .400" Long
30.1 ohms thru 1.5 meg.

1/4 WATT CARBON FILM
TYPE 405E/RN60D

.135" Dia. x .400" Long
10 ohms thru 1 meg.

1/4 WATT METAL FILM
TYPE 419E/RN65C

.200" Dia. x .600" Long
49.9 ohms thru 1 meg.

1/2 WATT CARBON FILM
TYPE 406E/RN65D

.200" Dia. x .600" Long
10 ohms thru 2 meg.

1/2 WATT METAL FILM
TYPE 420E/RN70C

.250" x Dia. .750" Long
49.9 ohms thru 1 meg.

1 WATT CARBON FILM
TYPE 407E/RN70D

.250" x Dia. .750" Long
10 ohms thru 3.16 meg.

1 WATT METAL FILM
TYPE 421E/RN75C

.375" Dia. x 1.062" Long
49.9 ohms thru 2 meg.

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WARD LEONARD

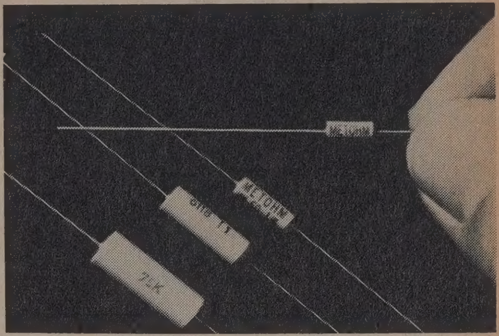
Metohm® RESISTORS
Metal Film Precision Type

THE STANDARD OF QUALITY FOR MILITARY AND INDUSTRIAL PURPOSES

FEATURES

- High stability and reliability
- Designed to exceed MIL-R-10509D
- Close resistance tolerance
- Wide range of resistance values
- Stock or made-to-order types
- 1/10, 1/8, 1/4 and 1/2 watt sizes

Exceeds MIL-R-10509D



In critical space-age electronic circuitry, METOHM metal film precision resistors guarantee high reliability, high stability, close accuracy, low TC and miniature size. Metohms are precision made under "white-room" conditions in the industry's most modern plant.

MIL SPECS. — All Metohm precision resistors are designed to exceed MIL-R-10509D char. B, C, D and E.

POWER RATING — is based on full rated load in an ambient of 125°C.

WELDABLE LEADS — gold plated Dumet leads and nickel "270" leads are available for weldable applications.

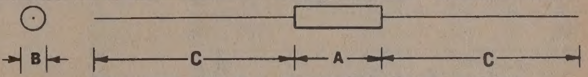
STOCK METOHMS — RN55, 60, 65 and 70 Metohm resistors, char .C, TC Code T2 (±50PPM) are stocked in MIL standard values listed below. Standard tolerance is ±1%.

MADE-TO-ORDER TYPES — see data in accompanying tables for non-stock resistors available in production order quantities.

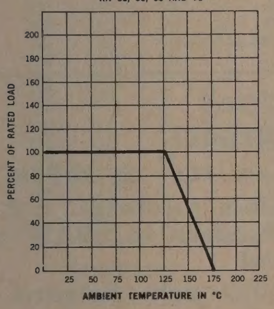
RATINGS AND SIZES — METOHM Metal Film Precision Resistors

METOHM Type	MIL Type	Watt Rating†	Resistance Values		Max. Voltage Rating (Continuous)	Standard Resistance Tolerance	Temperature Coefficient	A Length	B Diameter	C Axial Lead	
			Min. Ohms	Max.Ohms						Length	Diameter
WL 55	RN 55	1/10	30	100K	200v	1%*	**	.260 ± .010	.120 +.005 −.015	1½ ± ⅛	.025 ±.002 (#22 AWG)
WL 60	RN 60	1/8	30	500K	250v	1%*	**	.406 ± .015	.130 ±.015	1½ ± ⅛	.025 ±.002 (#22 AWG)
WL 65	RN 65	1/4	40	1 meg.	300v	1%*	**	.594 ± .015	.203 ±.015	1½ ± ⅛	.025 ±.002 (#22 AWG)
WL 70	RN 70	1/2	49.9	1.5 meg.	350v	1%*	**	.719 ± .020	.261 ±.020	1½ ± ⅛	.032 ±.002 (#20 AWG)

† Based on 125°C ambient and maximum operating temperature of 175°C
* Closer tolerances to order. See MIL Resistance Tolerance table below.
** See Temperature Coefficient Code Table below.



DERATING CURVE
RN 55, 60, 65 AND 70



RESISTANCE TOLERANCE

MIL Designation	Tolerance
F	± 1%
D	± 0.5%
C	± 0.25%
B	± 0.1%
—	± 0.05%

TEMPERATURE COEFFICIENT CODE

T.C. Code**	MIL Char.	Temperature Coefficient Range***	Temperature Range
T-0	B & D	± 150 PPM/°C	−55°C to +175°C
T-1	—	± 100 PPM/°C	−55°C to +175°C
T-2	C	± 50 PPM/°C	−55°C to +175°C
T-3	—	0 to + 100 PPM/°C	−55°C to +175°C
T-4	—	0 to − 100 PPM/°C	−55°C to +175°C
T-5	—	± 25 PPM /°C	+25°C to +145°C
T-6	—	0 to + 50 PPM/°C	−55°C to +175°C
T-7	—	0 to − 50 PPM/°C	−55°C to +175°C
T-8	—	± 35 PPM/°C ± 25 PPM/°C	−55°C to + 25°C +25°C to +175°C
T-9	E	± 25 PPM/°C	−55°C to +175°C

** For other temperature coefficients consult Home Office for price.
*** Parts per Million Per Degree Centigrade (100 PPM equals 0.01%)

MIL STANDARD RESISTANCE VALUES FOR STOCK METOHM RESISTORS

30.1	43.2	61.9	88.7	127	182	261	374	536	768	1100	1580	2260	3240	4640	6810	9760	14.0K	20.0K	28.7K	41.2K	59.0K	84.5K	121K	174K	249K	357K	511K	732K
30.9	44.2	63.4	90.9	130	187	267	383	549	787	1130	1620	2320	3320	4750	6980	10.0K	14.3K	20.5K	29.4K	42.2K	60.4K	86.6K	124K	178K	255K	365K	523K	750K
31.6	45.3	64.9	93.1	133	191	274	392	562	806	1150	1650	2370	3400	4870	7150	10.2K	14.7K	21.0K	30.1K	43.2K	61.9K	88.7K	127K	182K	261K	374K	536K	768K
32.4	46.4	66.5	95.3	137	196	280	402	576	825	1180	1690	2430	3480	4990	7320	10.5K	15.0K	21.5K	30.9K	44.2K	63.4K	90.9K	130K	187K	267K	383K	549K	787K
33.2	47.5	68.1	97.6	140	200	287	412	590	845	1210	1740	2490	3570	5110	7500	10.7K	15.4K	22.1K	31.6K	45.3K	64.9K	93.1K	133K	191K	274K	392K	562K	806K
34.0	48.7	69.8	100	143	205	294	422	604	866	1240	1780	2550	3650	5230	7680	11.0K	15.8K	22.6K	32.4K	46.4K	66.5K	95.3K	137K	196K	280K	402K	576K	825K
34.8	49.9	71.5	102	147	210	301	432	619	887	1270	1820	2610	3740	5360	7870	11.3K	16.2K	23.2K	33.2K	47.5K	68.1K	97.6K	140K	200K	287K	412K	590K	845K
35.7	51.1	73.2	105	150	215	309	442	634	909	1300	1870	2670	3830	5490	8060	11.5K	16.5K	23.7K	34.0K	48.7K	69.8K	100K	143K	205K	294K	422K	604K	866K
36.5	52.3	75.0	107	154	221	316	453	649	931	1330	1910	2740	3920	5620	8250	11.8K	16.9K	24.3K	34.8K	49.9K	71.5K	102K	147K	210K	301K	432K	619K	887K
37.4	53.6	76.8	110	158	226	324	464	665	953	1370	1960	2800	4020	5760	8450	12.1K	17.4K	24.9K	35.7K	51.1K	73.2K	105K	150K	215K	309K	442K	634K	909K
38.3	54.9	78.7	113	162	232	332	475	681	976	1400	2000	2870	4120	5900	8660	12.4K	17.8K	25.5K	36.5K	52.3K	75.0K	107K	154K	221K	316K	453K	649K	931K
39.2	56.2	80.6	115	165	237	340	487	698	1000	1430	2050	2940	4220	6040	8870	12.7K	18.2K	26.1K	37.4K	53.6K	76.8K	110K	158K	226K	324K	464K	665K	953K
40.2	57.6	82.5	118	169	243	348	499	715	1020	1470	2100	3010	4320	6190	9090	13.0K	18.7K	26.7K	38.3K	54.9K	78.7K	113K	162K	232K	332K	475K	681K	976K
41.2	59.0	84.5	121	174	249	357	511	732	1050	1500	2150	3090	4420	6340	9310	13.3K	19.1K	27.4K	39.2K	56.2K	80.6K	115K	165K	237K	340K	487K	698K	1 Meg.
42.2	60.4	86.6	124	178	255	365	523	750	1070	1540	2210	3160	4530	6490	9530	13.7K	19.6K	28.0K	40.2K	57.6K	82.5K	118K	169K	243K	348K	499K	715K	1.5 Meg.
														6650														

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WARD LEONARD

Axiohm® RESISTORS

Vitreous Enamel Wire-Wound Power Type

2 WATTS Size—⅜″ x 3⁄16″ TYPE 2X

Ohms	m.a.	Price	Ohms	m.a.	Price	Ohms	m.a.	Price
1	1414	$0.50	51	198	$0.50	510	63	$0.50
1.5	1155	.50	56	189	.50	560	60	.50
2	1000	.50	62	179	.50	620	57	.50
2	1000	.50	68	172	.50	680	54	.50
3	816	.50	75	163	.50	750	52	.50
4	707	.50	82	156	.50	820	49	.50
5	632	.50	91	148	.50	910	47	.50
7.5	517	.50	100	141	.50	1000	45	.50
10	447	.50	110	135	.50	1100	43	.53
11	426	.50	120	129	.50	1200	41	.53
12	408	.50	130	124	.50	1300	39	.53
13	392	.50	150	116	.50	1500	37	.53
15	365	.50	160	112	.50	1600	35	.53
16	354	.50	180	105	.50	1800	33	.53
18	333	.50	200	100	.50	2000	32	.53
20	316	.50	220	95	.50	2200	30	.53
22	302	.50	240	91	.50	2400	29	.53
24	289	.50	250	89	.50	2500	28	.53
27	272	.50	270	86	.50	2700	27	.53
30	258	.50	300	82	.50	3000	26	.53
33	246	.50	330	78	.50	3300	25	.53
36	235	.50	360	75	.50	3900	23	.53
39	228	.50	390	72	.50	4300	22	.53
43	216	.50	430	68	.50	4700	21	.53
47	206	.50	470	65	.50	5100	20	.53

3 WATTS Size—½″ x 3⁄16″ TYPE 3X

Ohms	m.a.	Price	Ohms	m.a.	Price	Ohms	m.a.	Price
1	1732	$0.50	125	155	$0.50	1250	49	$0.53
1.5	1414	.50	150	141	.50	1500	45	.53
2	1225	.50	180	129	.50	1750	41	.53
3	1000	.50	200	122	.50	1800	40	.53
4	866	.50	220	117	.50	2000	39	.53
5	775	.50	225	115	.50	2200	37	.53
7.5	632	.50	250	110	.50	2250	37	.53
10	548	.50	270	105	.50	2500	35	.53
12	500	.50	300	100	.50	2700	33	.53
15	447	.50	330	95	.50	3000	32	.53
18	408	.50	350	93	.50	3300	30	.53
20	387	.50	390	88	.50	3500	29	.53
22	369	.50	400	87	.50	3900	28	.53
25	346	.50	450	82	.50	4000	27	.53
27	333	.50	470	80	.50	4500	26	.53
30	316	.50	500	77	.50	4700	25	.53
33	301	.50	560	73	.50	5000	25	.53
35	293	.50	600	71	.50	5600	23	.58
40	274	.50	680	66	.50	6000	22	.58
47	252	.50	700	66	.50	6500	21	.58
50	245	.50	750	63	.50	6800	21	.58
56	231	.50	800	61	.50	7000	21	.58
68	210	.50	820	60	.50	7500	20	.58
75	200	.50	900	58	.50	8000	20	.58
82	191	.50	1000	55	.50	8200	19	.58
100	173	.50	1100	52	.53	9000	18	.58
120	158	.50	1200	50	.53	10000	17	.58

5 WATTS Size—15⁄16″ x 3⁄16″ TYPE 5XM

1	2230	$0.53	200	158	$0.53	2500	45	$0.56
1.5	1820	.53	220	151	.53	2700	43	.56
2	1580	.53	225	148	.53	3000	40	.56
3	1290	.53	250	141	.53	3300	39	.56
4	1117	.53	270	136	.53	3500	37	.56
5	1000	.53	300	129	.53	3900	36	.56
7.5	811	.53	330	123	.53	4000	35	.56
8	790	.53	350	119	.53	4500	33	.56
10	707	.53	390	113	.53	4700	32	.56
12	644	.53	400	112	.53	5000	31	.56
15	577	.53	450	105	.53	5600	30	.59
20	500	.53	470	103	.53	6000	28	.59
22	477	.53	500	100	.53	6800	27	.59
25	450	.53	560	94	.53	7000	26	.59
27	430	.53	600	91	.53	7500	25	.59
30	408	.53	680	86	.53	8000	25	.59
33	389	.53	700	84	.53	8200	24	.59
35	378	.53	750	81	.53	9000	23	.59
39	358	.53	800	79	.53	10000	22	.59
40	353	.53	820	78	.53	11000	21	.71
47	326	.53	900	74	.53	12000	20	.71
50	316	.53	1000	70	.53	12500	20	.71
56	299	.53	1100	67	.56	13500	19	.71
68	271	.53	1200	64	.56	15000	18	.71
75	257	.53	1250	63	.56	16000	18	.71
82	247	.53	1500	57	.56	17500	17	.71
100	223	.53	1750	53	.56	18000	17	.71
120	204	.53	1800	52	.56	20000	16	.71
125	200	.53	2000	50	.56	22000	15	.77
150	182	.53	2200	48	.56	25000	14	.77
180	167	.53	2250	47	.56	27000	13	.77

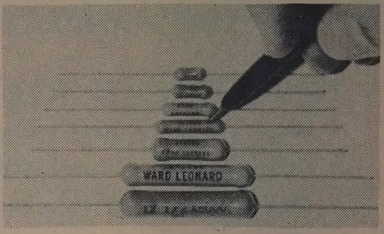
10 WATTS Size—1¾″ x 5⁄16″ TYPE 10XM

1	3160	$0.58	300	182	$0.58	6000	41	$0.71
1.5	2580	.58	350	169	.58	7000	38	.71
2	2235	.58	400	158	.58	7500	36	.71
3	1825	.58	450	149	.58	8000	35	.71
4	1580	.58	500	142	.58	8500	34	.71
5	1415	.58	600	129	.58	9000	33	.71
7.5	1155	.58	700	120	.58	10000	32	.71
10	1000	.58	750	115	.58	11000	30	.80
12	913	.58	800	112	.58	12000	29	.80
15	815	.58	900	105	.58	12500	28	.80
20	707	.58	1000	100	.58	13500	27	.80
25	630	.58	1100	95	.63	15000	25.5	.80
30	577	.58	1200	91	.63	16000	25	.80
35	534	.58	1250	89	.63	17500	24	.80
40	500	.58	1500	81	.63	18000	23	.80
50	450	.58	1750	75	.63	20000	22	.80
75	365	.58	2000	70	.63	22500	21	.84
100	316	.58	2250	66	.63	25000	20	.84
125	283	.58	2500	63	.63	30000	18	.84
150	258	.58	3000	58	.63	35000	17	.84
200	224	.58	3500	53	.63	40000	16	.84
225	211	.58	4000	50	.63	45000	15	.94
250	200	.58	4500	47	.63	50000	14	.94
			5000	45	.63			

RATINGS AND SIZES STANDARD TOLERANCE ±5%

Type	Watts† Rated	Resistance Values		Dimensions (in inches)	
		Ohms Min.	Max. Ohms	A ± 1⁄16	B ± 1⁄32
2X*	2	0.1	5,000	⅜	3⁄16
3X*	3	0.1	10,000	½	3⁄16
4X*	4	0.1	15,000	11⁄16	3⁄16
5XM*	5	0.1	20,000	15⁄16	3⁄16
7X*	7	0.1	25,000	1	5⁄16
10XM*	10	0.1	50,000	1¾	5⁄16
12.5X	12.5	0.1	75,000	1¾	⅜

* Stock types † Based on 325°C rise, 25°C amb.

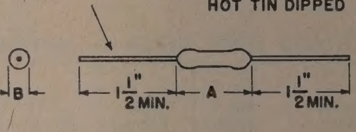


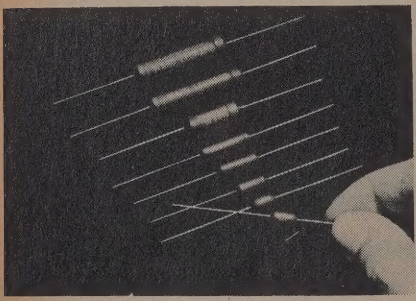
AXIOHM FEATURES

- **Vitrohm enamel construction**
- **Space saving design**
- **4 Stock sizes; 7 made-to-order sizes**
- **Wide range of resistance values**
- **Standard tolerance ±5%**

Axiohm, the miniaturized, space-saving power resistor line is designed for automation, printed circuits and advanced miniaturization use. Recommended for electronic and industrial use where high O.L. capacity and high stability are a "must". Four stock sizes and seven made-to-order sizes. Order by Stock Type and Ohms.

2,3,4 AND 5 WATT #20 B&S GAGE WIRE
7,10 AND 12.5 WATT #18 B&S GAGE WIRE
HOT TIN DIPPED





S-COAT RESISTORS

Silicone Precision Power Type

S-Coat resistor line represents the latest advance insilicone coated wire-wound power resistor design. S-Coat resistors are precision-made for precision applications requiring characteristics such as low TC, close tolerance, no noise, low drift, high O.L. capacity, vibration resistant and zero voltage coefficient. Order by Type Designation, Ohms and Accuracy if other than ±1%.

S-COAT FEATURES

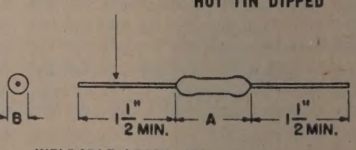
- **Low TC: ± 20PPM**
- **Close accuracy: ±1% standard, to ±0.1% special**
- **1000 volt dielectric — "V" block test**
- **Wide resistance ranges**
- **8 space-saving sizes**

RATINGS AND SIZES STANDARD TOLERANCE ±1%

Ratings in Watts*	Type Designation	MIL-R-26C Type	Resistance Values & Tolerances					Dimensions (in inches)	
			Minimum Ohms				Maximum Ohms	A ± 1⁄16	B ± 1⁄32
			1%	0.5%	0.25%	0.1%			
1	1SX	....	1.5	12	100	......	10,000	⅜	3⁄16
2	2SX	....	1.5	12	100	......	10,000	⅜	3⁄16
3	3SX	RW69V	0.6	5	40	600	18,000	½	3⁄16
4	4SX	....	0.3	2	15	250	31,000	11⁄16	3⁄16
5	5SX	....	0.3	1	5	100	44,000	15⁄16	3⁄16
7	7SX	RW67V	0.3	2.5	35	450	52,000	1	5⁄16
10	10SX	....	0.3	1	5	75	135,000	1¾	5⁄16
12.5	12.5SX	RW68V	0.3	1	5	75	170,000	1¾	⅜

* Based on max. hot spot temperature of 350°C.

1, 2, 3, 4 AND 5 WATT #20 B & S GAGE WIRE
7, 10 AND 12.5 WATT #18 B & S GAGE WIRE
HOT TIN DIPPED

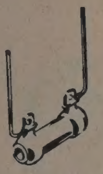


WELDABLE LEADS..ALL
RESISTOR SIZES #20 B & S GAGE

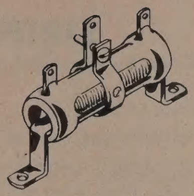
WARD LEONARD

Vitrohm® RESISTORS

Vitreous Enamel Wire-Wound Power Type



Types 5F, 10F, and 20F. Furnished with wire terminal leads. Brackets supplied on request.



Types 10A, 25A, 50A, 80A, 100A, 160A, 200A. Furnished with mounting brackets and one adjustable band.

Vitrohm fixed and adjustable power type resistors from 5 to 200 watts are designed and produced for high reliability. All cores, terminals and vitreous enamels are manufactured by W/L to guarantee top quality.

5 WATTS Size—1″ x 5⁄16″ TYPE 5F

Ohms	m.a.	Price	Ohms	m.a.	Price	Ohms	m.a.	Price
1	2230	$0.52	100	223	$0.52	1200	64	$0.56
1.5	1820	.52	125	200	.52	1250	63	.56
2	1580	.52	150	182	.52	1500	57	.56
3	1290	.52	200	158	.52	1750	53	.56
4	1117	.52	225	148	.52	2000	50	.56
5	1000	.52	250	141	.52	2250	47	.56
7.5	811	.52	300	129	.52	2500	45	.56
10	707	.52	350	119	.52	3000	40	.56
12	644	.52	400	112	.52	3500	37	.56
15	577	.52	450	105	.52	4000	35	.56
20	500	.52	500	100	.52	4500	33	.56
25	450	.52	600	91	.52	5000	31	.56
30	408	.52	700	84	.52	6000	28	.58
35	378	.52	750	81	.52	7000	26	.58
40	353	.52	800	79	.52	7500	25	.58
50	316	.52	900	74	.52	8000	25	.58
75	257	.52	1000	70	.52	9000	23	.58
			1100	67	.56	10000	22	.58

10 WATTS Type 10F—Fixed Type 10A—Adj.

Size—1¾″ x 5⁄16″ Mtg. Centers—2⅛″

		Price				Price	
Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	3160	$0.57	$1.14	1200	91	$0.61	*
1.5	2580	.57	*	1250	89	.61	$1.18
2	2235	.57	1.14	1500	81	.61	1.18
3	1825	.57	1.14	1750	75	.61	*
4	1580	.57	*	2000	70	.61	1.18
5	1415	.57	1.14	2250	66	.61	*
7.5	1155	.57	1.14	2500	63	.61	1.18
10	1000	.57	1.14	3000	58	.61	1.18
12	913	.57	*	3500	53	.61	1.18
15	815	.57	1.14	4000	50	.61	1.18
20	707	.57	1.14	4500	47	.61	1.18
25	630	.57	1.14	5000	45	.61	1.18
30	577	.57	*	6000	41	.70	1.27
35	534	.57	*	7000	38	.70	1.27
40	500	.57	*	7500	36	.70	1.27
50	450	.57	1.14	8000	35	.70	1.27
75	365	.57	1.14	8500	34	.70	1.27
100	316	.57	1.14	9000	33	.70	1.27
125	283	.57	*	10000	32	.70	1.27
150	258	.57	1.14	11000	30	.77	
200	224	.57	1.14	12000	29	.77	
225	211	.57	*	12500	28	.77	
250	200	.57	1.14	13500	27	.77	
300	182	.57	1.14	15000	25.5	.77	
350	169	.57	1.14	16000	25	.77	
400	158	.57	1.14	17500	24	.77	
450	149	.57	*	18000	23	.77	
500	142	.57	1.14	20000	22	.77	
600	129	.57	1.14	22500	21	.83	
700	120	.57	*	25000	20	.83	
750	115	.57	1.14	30000	18	.83	
800	112	.57	1.14	35000	17	.83	
900	105	.57	*	40000	16	.83	
1000	100	.57	1.14	45000	15	.92	
1100	95	.61	*	50000	14	.92	

20 WATTS • TYPE 20F

Size—2″ x 9⁄16″ Mtg. Centers—2⅝″

	Current			Current			Current	
Ohms	m.a.	Price	Ohms	m.a.	Price	Ohms	m.a.	Price
1	4480	$0.68	850	153	$0.68	10000	45	$0.83
3	2580	.68	1000	141	.68	12500	40	.85
5	2000	.68	1200	130	.70	15000	36	.85
10	1410	.68	1250	125	.70	20000	32	.85
15	1150	.68	1500	115	.70	25000	28	.99
25	900	.68	1750	107	.70	30000	26	.99
50	630	.68	1850	104	.70	35000	24	.99
75	517	.68	2000	100	.70	40000	22	.99
100	450	.68	2250	94	.70	45000	21	1.15
150	365	.68	2400	91	.70	50000	20	1.15
175	340	.68	2500	90	.70	55000	18	1.15
200	320	.68	2750	85	.70	60000	16	1.15
250	285	.68	3000	81	.70	65000	15	1.37
300	258	.68	3500	76	.70	70000	14	1.37
350	240	.68	4000	70	.70	75000	13	1.37
400	224	.68	4500	67	.70	80000	12	1.37
500	200	.68	5000	63	.70	85000	11.5	1.57
650	175	.68	6000	57	.83	90000	11	1.57
700	169	.68	7000	53	.83	95000	10.5	1.57
750	163	.68	7500	51	.83	100000	10	1.57
800	155	.68	8000	50	.83			

25 WATTS Type 25F—Fixed Type 25A—Adj.

Size—2″ x ⅝″ Mtg. Centers—2⅝″

		Price				Price	
Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	5000	$0.72	$1.29	2500	100	$0.75	$1.32
2	3535	.72	1.29	3000	90	.75	1.32
3	2890	.72	1.29	3500	85	.75	1.32
4	2500	.72	*	4000	80	.75	1.32
5	2230	.72	1.29	4500	74	*	1.32
7.5	1825	*	1.29	5000	70	.75	1.32
10	1580	.72	1.29	6000	65	.85	1.42
15	1290	.72	1.29	7000	60	*	1.42
20	1115	*	1.29	7500	58	.85	1.42
25	1000	.72	1.29	8000	56	*	1.42
50	710	.72	1.29	8500	54	.85	1.42
75	580	.72	1.29	9000	52	*	1.42
100	500	.72	1.29	10000	50	.85	1.42
150	410	.72	1.29	12000	46	.90	1.47
200	354	.72	1.29	15000	41	.90	1.47
250	315	.72	1.29	20000	34	.90	1.47
300	289	.72	1.29	25000	32	1.04	1.61
400	250	.72	1.29	30000	29	1.04	
500	224	.72	1.29	35000	27	1.04	
750	182	.72	1.29	40000	25	1.04	
800	177	.72	1.29	50000	20	1.21	
850	170	.72	1.29	60000	17	1.21	
1000	158	.72	1.29	70000	14	1.42	
1250	140	.75	1.32	75000	13	1.42	
1500	129	.75	1.32	80000	12	1.42	
2000	112	.75	1.32	100000	10	1.64	
2250	105	*	1.32				

50 WATTS Type 50F—Fixed Type 50A—Adj.

Size—4½″ x ¾″ Mtg. Centers—5¼″

		Price				Price	
Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	7070	$1.11	$1.68	5000	100	$1.14	$1.71
2	5000	1.11	1.68	6000	91	1.23	1.80
3	4080	1.11	1.68	7000	85	*	1.80
4	3535	1.11	1.68	7500	82	1.23	1.80
5	3160	1.11	1.68	8000	79	1.23	1.80
10	2235	1.11	1.68	9000	75	*	1.80
25	1415	1.11	1.68	10000	71	1.23	1.80
50	1000	1.11	1.68	12000	65	1.34	1.92
75	815	1.11	1.68	12500	63	1.34	*
100	707	1.11	1.68	15000	58	1.34	1.92
150	575	1.11	1.68	20000	50	1.34	1.92
200	500	1.11	1.68	25000	45	1.54	2.11
250	445	1.11	1.68	30000	41	1.54	2.11
300	408	1.11	1.68	35000	38	1.54	*
400	353	1.11	1.68	40000	35	1.54	2.11
500	316	1.11	1.68	45000	33	1.72	*
750	258	1.11	1.68	50000	32	1.72	2.29
800	250	1.11	1.68	60000	29	*	2.29
1000	224	1.11	1.68	75000	23	1.97	2.54
1250	200	*	1.71	80000	21	*	2.54
1500	180	1.14	1.71	100000	17	2.13	2.70
2000	160	1.14	1.71	125000	14	2.57	
2250	150	*	1.71	150000	12	2.70	
2500	141	1.14	1.71	175000	10	2.79	
3000	130	1.14	1.71	200000	9	2.89	
3500	120	*	1.71	225000	8	3.24	
4000	110	1.14	1.71	250000	7	3.24	
4500	105	*	1.71				

80 WATTS • TYPE 80A

Size—6½″ x ¾″
Mtg. Centers—7¼″

	Current			Current			Current	
Ohms	m.a.	Price	Ohms	m.a.	Price	Ohms	m.a.	Price
1	8940	$1.87	750	325	1.87	7500	103	2.01
2	6320	1.87	800	316	1.87	8000	100	2.01
3	5160	1.87	1000	282	1.87	9000	94	2.01
4	4470	1.87	1250	253	1.91	10000	89	2.01
5	4000	1.87	1500	231	1.91	15000	73	2.13
10	2830	1.87	2000	200	1.91	20000	63	2.13
15	2310	1.87	2250	188	1.91	25000	57	2.32
25	1790	1.87	2500	178	1.91	30000	51	2.32
50	1260	1.87	3000	161	1.91	35000	48	2.32
75	1030	1.87	3500	151	1.91	40000	45	2.32
100	894	1.87	4000	141	1.91	45000	41	2.52
200	632	1.87	4500	133	1.91	50000	40	2.52
250	565	1.87	5000	126	1.91	60000	36	2.52
300	515	1.87	6000	115	2.01	70000	33	2.76
400	447	1.87	7000	107	2.01	80000	31	2.76
500	400	1.87				100000	28	2.93

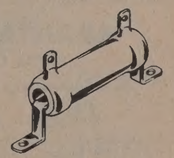
100 WATTS

Type 100F—Fixed

Type 100A—Adj.

Size—6½″ x 1⅛″
Mtg. Centers—7¼″

		Price	
Ohms	m.a.	Fixed	Adj.
1	10000	$1.54	$2.11
2	7070	1.54	2.11
3	5770	1.54	2.11
4	5000	1.54	2.11
5	4470	1.54	2.11
10	3160	1.54	2.11
25	2000	1.54	2.11
50	1410	1.54	2.11
75	1150	1.54	*
100	1000	1.54	2.11
125	895	1.54	*
150	815	1.54	*
200	707	*	2.11
250	630	1.54	2.11
400	500	*	2.11
500	447	1.54	2.11
750	365	1.54	2.11
1000	316	1.54	2.11
1250	285	1.60	*
1500	260	1.60	2.17
2000	225	1.60	2.17
2500	200	1.60	2.17
3000	180	1.60	2.17
3500	170	1.60	*
4000	158	1.60	2.17
4500	150	1.60	2.17
5000	141	1.60	2.17
6000	130	*	2.30
7500	115	1.73	2.30
10000	100	1.73	2.30
15000	80	1.87	2.44
20000	70	1.87	2.44
25000	63	2.13	2.70
30000	58	2.13	2.70
35000	54	2.13	*
40000	50	2.13	2.70
50000	45	2.21	2.78
60000	41	2.21	2.78
70000	38	2.46	*
75000	36	2.46	3.02
100000	32	2.75	3.32



HEAVY DUTY RESISTORS

Types 25F, 50F, 100F, 160F, 200F Furnished with lug terminals and mounting brackets.

Order by Type Number and Resistance Value.

Asterisks (*) in Tables Indicate that Resistors are not Stock Items.

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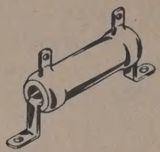
Net

WARD LEONARD

Vitrohm RESISTORS
Vitreous Enamel Wire-Wound Power Type



HEAVY DUTY RESISTORS

Types 25F, 50F, 100F, 160F, 200F Furnished with lug terminals and mounting brackets.

160 WATTS Type 160F—Fixed Type 160A—Adj.
Size—8½" x 1⅛" Mtg. Centers—9¼"

Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	12650	$2.28	$3.16	2500	252	$2.32	$3.20
2	8940	2.28	3.16	3000	230	2.32	3.20
3	7300	2.28	3.16	3500	215	2.32	3.20
4	6320	2.28	3.16	4000	200	2.32	3.20
5	5650	2.28	3.16	4500	185	2.32	3.20
10	4000	2.28	3.16	5000	178	2.32	3.20
15	3265	2.28	3.16	7500	146	2.53	3.41
25	2525	2.28	3.16	10000	126	2.53	3.41
50	1785	2.28	3.16	15000	105	2.71	3.59
75	1460	2.28	*	20000	90	2.71	3.59
100	1265	2.28	3.16	25000	80	2.80	3.68
150	1035	2.28	*	30000	73	2.80	3.68
200	894	2.28	3.16	35000	68	2.80	*
250	800	2.28	3.16	40000	64	2.80	3.68
500	565	2.28	3.16	50000	57	2.89	3.77
750	460	2.28	*	60000	52	2.89	3.77
1000	400	2.28	3.16	75000	46	3.08	3.96
1500	326	2.32	3.20	80000	45	3.08	3.96
2000	280	2.32	3.20	100000	40	3.26	4.14

200 WATTS Type 200F—Fixed Type 200A—Adj.
Size—10½" x 1⅛" Mtg. Centers—11¼"

Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	14140	$2.46	$3.34	3500	240	$2.53	$3.41
2	10000	2.46	3.34	4000	225	2.53	3.41
3	8162	2.46	3.34	4500	210	2.53	3.41
4	7070	2.46	3.34	5000	200	2.53	3.41
5	6320	2.46	3.34	7500	163	2.71	3.59
10	4470	2.46	3.34	10000	141	2.71	3.59
25	2825	2.46	3.34	15000	115	2.89	3.77
50	2000	2.46	3.34	20000	100	2.89	3.77
75	1630	2.46	*	25000	90	2.98	3.86
100	1414	2.46	3.34	30000	82	2.98	3.86
150	1150	2.46	*	35000	76	2.98	*
250	900	2.46	3.34	40000	71	2.98	3.86
500	632	2.46	3.34	50000	63	3.08	3.96
750	515	2.46	*	60000	58	3.08	3.96
1000	447	2.46	3.34	75000	52	3.26	4.14
1500	365	2.53	3.41	100000	45	3.46	4.34
2000	315	2.53	3.41	125000	40	*	4.57
2500	282	2.53	3.41	150000	35	*	4.83
3000	260	2.53	3.41				

ADJUSTABLE BANDS

Screw Driver Type

Size of Resistor	Cat. No.	Price
10 Watts	609Z	$0.26
25 Watts	612A	.26
50 Watts	612B	.26
80 Watts	612B	.26
100 Watts	615D	.26
160 Watts	615D	.26
200 Watts	615D	.26

Bakelite Knob Type

25 Watts	610A	$0.40
50 Watts	610B	.40
80 Watts	610B	.40
100 Watts	619D	.40
160 Watts	619D	.40
200 Watts	619D	.40

Order by Type Number and Resistance Value. Asterisks (*) in Table indicate that Resistors are not Stock items.

STRIPOHMS

Order by Type Number and Resistance Value

20 WATTS • TYPE 20S

2" Long—Mtg. Centers 2⁵⁄₁₆"
Width ⁷⁄₁₆"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	4480	$0.99	1500	115	$0.99
3	2580	.99	2000	100	.99
5	2000	.99	2500	90	.99
10	1410	.99	3000	81	1.04
15	1150	.99	3500	76	1.04
25	900	.99	4000	70	1.04
50	630	.99	5000	63	1.04
100	450	.99	7500	51	1.10
150	365	.99	10000	45	1.16
200	320	.99	15000	36	1.20
250	285	.99	20000	32	1.26
400	224	.99	25000	28	1.33
500	200	.99	30000	26	1.38
750	163	.99	35000	24	1.38
1000	141	.99	40000	22	1.44
1250	125	.99	50000	20	1.44

30 WATTS • TYPE 30S

1¼" Long—Mtg. Centers 2"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	5480	$1.42	500	244	$1.42
3	3160	1.42	750	200	1.42
5	2450	1.42	1000	173	1.42
10	1730	1.42	1250	154	1.42
15	1420	1.42	1500	142	1.42
25	1095	1.42	2000	122	1.42
50	774	1.42	2500	109	1.42
100	547	1.42	3000	100	1.52
150	447	1.42	3500	92	1.52
200	387	1.42	4000	86	1.52
250	346	1.42	5000	77	1.52
400	273	1.42			

40 WATTS • TYPE 40S

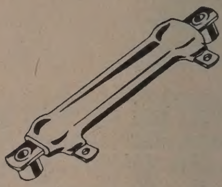
2" Long—Mtg. Centers 2¾"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	6320	$1.47	750	230	$1.47
3	3650	1.47	1000	200	1.47
5	2830	1.47	1250	180	1.47
10	2000	1.47	1500	163	1.47
15	1630	1.47	2000	141	1.47
25	1270	1.47	2500	126	1.47
50	894	1.47	3000	114	1.59
100	632	1.47	3500	106	1.59
150	510	1.47	4000	100	1.59
200	447	1.47	5000	88	1.59
250	400	1.47	7500	73	1.65
400	315	1.47	10000	63	1.77
500	283	1.47	15000	51	1.86

55 WATTS • TYPE 55S

3½" Long—Mtg. Centers 4¼"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	7420	$1.70	1250	209	$1.70
3	4280	1.70	1500	191	1.70
5	3320	1.70	2000	165	1.70
10	2350	1.70	2500	148	1.70
15	1910	1.70	3000	135	1.81
25	1480	1.70	3500	129	1.81
50	1050	1.70	4000	117	1.81
100	741	1.70	5000	104	1.81
150	604	1.70	7500	84	1.87
200	522	1.70	10000	74	1.99
250	469	1.70	15000	60	2.08
400	370	1.70	20000	52	2.15
500	331	1.70	25000	47	2.28
750	270	1.70	30000	42	2.39
1000	234	1.70			



Vitreous enameled wire-wound resistors built on a strong refractory core, and provided with low mounting brackets. Particularly suited for applications where space is limited. Specially adapted to stacking for networks.

The 20 watt Ministrip resistor is smaller in size than the standard Stripohms. They may be stacked by using 1/32" washers.

65 WATTS • TYPE 65S

4¾" Long—Mtg. Centers 5½"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	8060	$1.95	1500	208	$1.95
3	4650	1.95	2000	180	1.95
5	3610	1.95	2500	161	1.95
10	2550	1.95	3000	146	2.04
15	2080	1.95	3500	136	2.04
25	1610	1.95	4000	127	2.04
50	1140	1.95	5000	114	2.04
100	806	1.95	7500	92	2.12
150	658	1.95	10000	80	2.23
200	570	1.95	15000	65	2.31
250	509	1.95	20000	57	2.40
400	403	1.95	25000	51	2.53
500	360	1.95	30000	46	2.62
750	294	1.95	35000	43	2.62
1000	254	1.95	40000	40	2.73
1250	228	1.95	50000	36	2.73

75 WATTS TYPE 75S

6" Long—Mtg. Centers 6¾"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	8660	$2.12	2500	173	$2.12
3	5000	2.12	3000	158	2.22
5	3870	2.12	3500	146	2.22
10	2740	2.12	4000	137	2.22
15	2235	2.12	5000	122	2.22
25	1730	2.12	7500	100	2.28
50	1220	2.12	10000	87	2.40
100	866	2.12	15000	71	2.48
150	707	2.12	20000	61	2.57
200	612	2.12	25000	55	2.70
250	550	2.12	30000	50	2.80
400	433	2.12	35000	46	2.80
500	387	2.12	40000	43	2.89
750	315	2.12	50000	37	2.89
1000	274	2.12	60000	35	3.03
1250	245	2.12	65000	33	3.03
1500	224	2.12			
2000	193	2.12			

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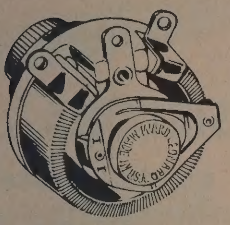
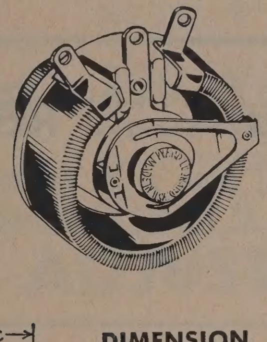
Vitrohm® RING RHEOSTATS

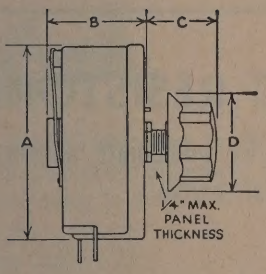
WARD LEONARD



TYPE 25R



TYPE 50R



DIMENSION SKETCH

SEE DIMENSIONS HEADING EACH TABLE

25-Watt — 50-Watt

The Ward Leonard 25-watt (Type 25R) and 50-watt (Type 50R) Ring Rheostats are especially suited for use in electronic and electrical circuits where gradual and positive resistance change is essential. Balanced contact arms, self-lubricating metal graphite contact shoes, and no backlash in the drive shaft combine to assure uniform contact pressure and smooth operation.
Standard shaft length for back-of-board mounting on ¼" panel.
Standard Resistance Tolerance ±10%.

25 WATTS **TYPE 25R**
Dimensions: A-1 9/16" B-1⅛" C-1" D-1½"

50 WATTS **TYPE 50R**
Dimensions: A-2 5/16" B-1⅛" C-1" D-1½"

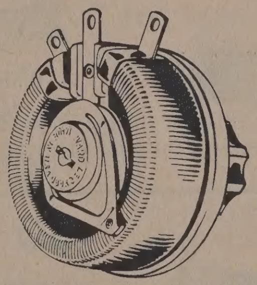
Current M.A.	Approx. No. of Steps	Price Net 1-4 Less Knob†	Ohms	Current M.A.	Approx. No. of Steps	Price Net 1-4 Less Knob†
5000	32	**$4.63**	**1**	7070	45	**$5.15**
3540	32	**4.63**	**2**	5000	56	**5.15**
2880	51	**4.63**	**3**	*	*	*
*	*	*	**4**	3540	56	**5.15**
2040	85	**4.63**	**6**	2880	94	**5.15**
1770	95	**4.63**	**8**	2500	94	**4.63**
1580	95	**4.63**	**10**	2230	94	**4.63**
1280	102	**4.11**	**15**	1810	113	**4.63**
1000	102	**4.11**	**25**	1415	144	**4.63**
840	102	**4.11**	**35**	1190	144	**4.63**
707	97	**4.11**	**50**	1000	180	**4.63**
574	129	**4.11**	**75**	812	144	**4.63**
500	162	**4.11**	**100**	707	216	**4.63**
407	190	**4.11**	**150**	574	252	**4.63**
316	200	**4.11**	**250**	447	245	**4.63**
267	220	**4.11**	**350**	374	288	**4.63**
223	245	**4.11**	**500**	316	324	**4.63**
181	292	**4.11**	**750**	256	373	**4.90**
158	315	**4.63**	**1000**	223	390	**4.90**
128	369	**4.63**	**1500**	181	396	**4.90**
100	388	**4.63**	**2500**	141	547	**4.90**
84	388	**4.90**	**3500**	119	547	**5.15**
70	595	**4.90**	**5000**	100	786	**5.15**
*	*	*	**7500**	81	905	**5.15**
*	*	*	**10000**	70	947	**5.15**

†Price with Knob add $.29.

100-Watt—150-Watt—300-Watt

Ward Leonard 100, 150 and 300 watt Ring Type Rheostats are for higher current electronic, industrial and allied applications where smooth, gradual resistance change is needed. Employing Vitrohm construction, all types provide "twin-shoe" contacts and minimum size for full watt rating. Standard values listed are carried in stock at the factory or by our Distributors. Data on special types available on request.

Standard resistance tolerance ±10%



TYPE 100R

100 WATTS **TYPE 100R**
Dimensions: A-3 5/32" B-1½" C-1" D-1½"

150 WATTS **TYPE 150R**
Dimensions: A-4" B-1¾" C-1" D-1½"

Current M.A.	Approx No. of Steps	Price Net 1-4 Less Knob†	Ohms	Current M.A.	Approx. No. of Steps	Price Net 1-4 Less Knob†
10000	30	**$7.72**	**1**	12240	39	**$9.78**
7070	56	**7.72**	**2**	8660	39	**9.78**
5740	66	**7.72**	**3**	7070	70	**9.78**
4470	56	**7.72**	**5**	5470	73	**9.78**
3640	66	**7.72**	**7.5**	4470	70	**9.78**
3160	104	**7.72**	**10**	3870	70	**9.78**
2560	113	**7.72**	**15**	3160	120	**9.78**
2000	144	**7.21**	**25**	2440	152	**9.26**
1415	180	**7.21**	**50**	1730	190	**9.26**
1150	180	**7.21**	**75**	1415	228	**9.26**
1000	216	**7.21**	**100**	1224	228	**9.26**
707	252	**7.21**	**200**	866	265	**9.26**
574	252	**7.21**	**300**	707	303	**9.26**
500	252	**7.21**	**400**	612	342	**9.26**
447	324	**7.21**	**500**	547	342	**9.26**
364	396	**7.21**	**750**	447	418	**9.78**
316	410	**7.72**	**1000**	387	432	**9.78**
223	410	**7.72**	**2000**	273	575	**10.30**
200	410	**7.72**	**2500**	244	456	**10.30**
141	685	**8.24**	**5000**	173	865	**11.33**
115	820	**8.76**	**7500**	141	1000	**11.33**
100	820	**9.26**	**10000**	122	1000	**12.35**

†Price with Knob add $.29.

300 WATTS **TYPE 300R**
Dimensions A-6" B-2 3/16"
Shaft ⅜" x 2"

Ohms	Current m.a.	Approx. No. of Steps	Price Net 1-2 Less Knob*
1	17.320	40	**$15.20**
1.5	14.142	58	**15.29**
2	12.247	78	**15.29**
2.5	10.954	78	**15.29**
3	10.000	73	**15.29**
4	8.660	78	**15.29**
5	7.745	78	**15.29**
7.5	6.324	148	**15.29**
10	5.477	154	**15.29**
15	4.472	147	**15.29**
25	3.464	155	**15.29**
35	2.927	231	**15.29**
50	2.449	267	**15.29**
75	2.000	308	**15.29**
100	1.732	326	**15.29**
150	1.414	270	**15.29**
200	1.224	308	**15.29**
300	1.000	340	**15.29**
500	.774	455	**15.29**
750	.632	514	**15.29**
1000	.547	578	**15.29**
1500	.447	675	**15.29**
2500	.346	720	**15.29**

*Price with Knob add $1.16.

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TRU-OHM **VITREOUS ENAMELED**

POWER RESISTORS

- FIXED
- ADJUSTABLE
- TRU-RIB
- AXIAL LEAD

Our new, modern plant occupies 80,000 square feet devoted to producing the finest power rheostats and wire wound resistors available. If you need a rheostat or resistor, whether it be right from stock or to your specifications, we assure you of courteous service, prompt delivery and quality merchandise.

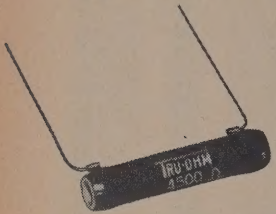
AVAILABLE WITH OR WITHOUT LEADS

5 Watt—FRL-5—FIXED Vitreous Enameled RESISTORS

1 ohm thru 10,000 ohms available in 53 stock values for immediate shipment. Special resistance values made on order. All Welded Construction.

Core: 5/16" x 3/16" x 1"

AVAILABLE WITH OR WITHOUT LEADS

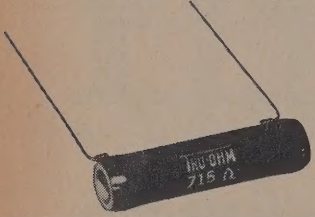


10 Watt—FRL-10—FIXED Vitreous Enameled RESISTORS

1 ohm thru 50,000 ohms available in 71 stock values for immediate shipment. Special resistance values made on order. All Welded Construction.

Core: 5/16" x 3/16" x 1¾"

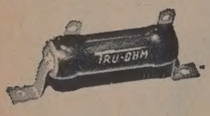
AVAILABLE WITH OR WITHOUT LEADS



20 Watt—FRL-20—FIXED Vitreous Enameled RESISTORS

1 ohm thru 100,000 ohms available in 60 stock values for immediate shipment. Special resistance values made on order. All Welded Construction.

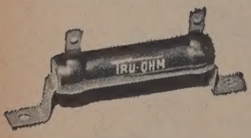
Core: 7/16" x 1/4" x 2"



25 Watt—FR-25—FIXED Vitreous Enameled RESISTORS

1 ohm thru 100,000 ohms in 45 stock values available for immediate shipment. Special resistance values made to order.

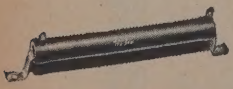
Core: 9/16" x 5/16" x 2" Mounting Centers 2¾" With Bracket #P-3747 Standard Lug #12



50 Watt—FR-50—FIXED Vitreous Enameled RESISTORS

1 ohm thru 250,000 ohms in 46 stock values available for immediate shipment. Special resistance values and tolerances made to order.

Core: 9/16" x 5/16" x 4" Mounting Centers 4¾" With Bracket #P-3747 Standard Lug #12



75 Watt—FR-75—FIXED Vitreous Enameled RESISTORS

1 ohm thru 100,000 ohms in 40 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 9/16" x 5/16" x 6" Mounting Centers 6¾" With Bracket #P-3747 Standard Lug #12

You are guaranteed to receive 24 hour delivery as we maintain jobber stock items!

TRU-OHM RESISTORS are made to meet and exceed MIL-R-26 Specifications!

TRU-OHM

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General Sales Office: Chicago, Ill.

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VITREOUS ENAMELED RESISTORS

100 Watt – FR-100 – FIXED Vitreous Enameled RESISTORS

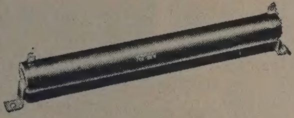
1 ohm thru 100,000 ohms in 38 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: ¾″ x ½″ x 6½″ Mounting Centers 7⅜″ With Bracket #P-3689 Standard Lug #12

160 Watt – FR-160 – FIXED Vitreous Enameled RESISTORS

1 ohm thru 10,000 ohms in 38 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 1⅛″ x ¾″ x 8½″ Mounting Centers 9⅜″ With Bracket #P-4898 Standard Lug #14

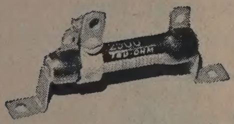


200 Watt – FR-200 – FIXED Vitreous Enameled RESISTORS

1 ohm thru 150,000 ohms in 37 stock values available for immediate delivery. Special resistance values and tolerances made to order.

Core: 1⅛″ x ¾″ x 10½″ Mounting Centers 11⅜″ With Bracket #P-4898 Standard Lug #14

ADJUSTABLE RESISTORS

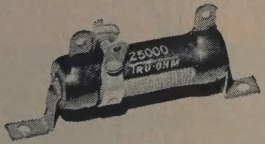


10 Watt — AR-10

Adjustable Vitreous Enameled Resistors

1 ohm thru 10,000 ohms in 40 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 5/16″ x 3/16″ x 1¾″ With Bracket #P-4989
Mounting Centers 2 3/16″ Standard Lug #10

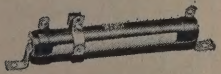


25 Watt — AR-25

Adjustable Vitreous Enameled Resistors

1 ohm thru 25,000 ohms in 43 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 9/16″ x 5/16″ x 2″ With Bracket #P-3747
Mounting Centers 2¾″ Standard Lug #12

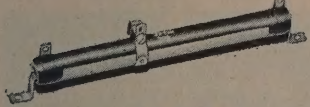


50 Watt — AR-50

Adjustable Vitreous Enameled Resistors

1 ohm thru 100,000 ohms in 47 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 9/16″ x 5/16″ x 4″ With Bracket #P-3747
Mounting Centers 4¾″ Standard Lug #12

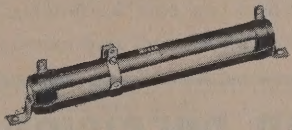


75 Watt — AR-75

Adjustable Vitreous Enameled Resistors

1 ohm thru 100,000 ohms in 48 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 9/16″ x 5/16″ x 6″ With Brackets #P-3747
Mounting Centers 6¾″ Standard Lug #12



100 Watt — AR-100

Adjustable Vitreous Enameled Resistors

1 ohm thru 100,000 ohms in 33 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

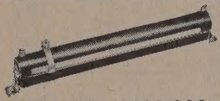
Core: ¾″ x ½″ x 6½″ With Brackets #P-3689
Mounting Centers 7⅜″ Standard Lug #12

160 Watt — AR-160

Adjustable Vitreous Enameled Resistors

1 ohm thru 100,000 ohms in 34 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 1⅛″ x ¾″ x 8½″ With Brackets #P-4898
Mounting Centers 9⅜″ Standard Lug #14



200 Watt — AR-200

Adjustable Vitreous Enameled Resistors

1 ohm thru 100,000 ohms in 31 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 1⅛″ x ¾″ x 10½″ With Brackets #P-4898
Mounting Centers 11⅜″ Standard Lug #14

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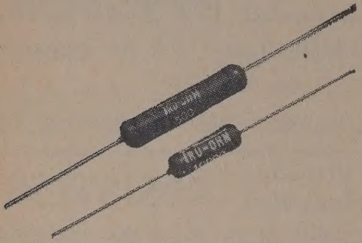
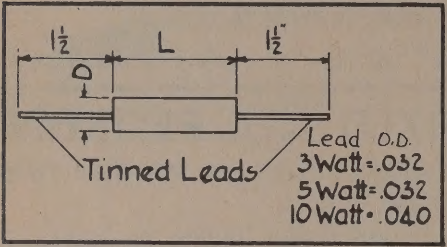
AXIAL LEAD Vitreous Enamel RESISTOR • TYPE VAL



TRU-OHM Vitreous enameled wire wound resistors with axial leads are available in a wide range of resistance values and wattage ratings.



WATTAGE	RESISTANCE RANGES	CORE DIA.	CORE LENGTH	LEAD DIA.	LEAD LENGTH
3	1-10000	¼	9/16″	.032	1½″
5	1-25000	11/32	1 1/16″	.032	1½″
10	1-50000	⅜	1 27/32″	.040	1½″
20	1-100000	½	2⅛″	.040	1½″

STANDARD RESISTANCE TOLERANCE ±5%

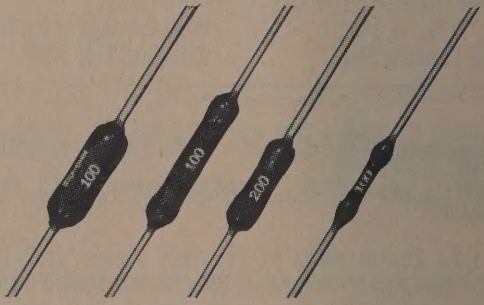
All welded construction, resistant to thermal shock and humidity are assured by thermally matching the expansion rates of core, enamel and end cad. Continuous operating temperature 340°C. Max. 40°C. ambient. These commercial units are engineered to meet and exceed the rigid requirements of the MIL-R-26-C specifications.

AXIAL LEAD PRECISION WIRE WOUND RESISTORS

With Exclusive Silicone Coating

TYPE S•AL Series

Miniature size — all welded construction — precision tolerances ±5% is standard for all types. ±2%, ±1% and ±½% tolerances are available at additional cost. Maximum power in minimum space.



STANDARD TYPES

TYPE	WATTAGE	LEAD SIZE Lgth.	LEAD SIZE Dia.	DIMENSIONS Lgth.	DIMENSIONS Dia.	CORE SIZE Lgth.	CORE SIZE Dia.	RESISTANCE Min.	RESISTANCE Max.
S • AL-1	1	1½	.032	5/32	⅜	⅛	5/16	1 Ω	3000 Ω
S • AL-3	3	1½	.032	7/32	½	5/32	7/16	1 Ω	10,000 Ω
S • AL-5	5	1½	.032	5/16	29/32	¼	⅞	1 Ω	25000 Ω
S • AL-7	7	1½	.032	⅜	1 1/32	5/16	1	1 Ω	35000 Ω
S • AL-10	10	1½	.032	⅜	1 25/32	5/16	1¾	1 Ω	50000 Ω
S • AL-15	15	1½	.040	½	1 11/16	7/16	1½	1 Ω	75000 Ω
S • AL-20	20	1½	.040	½	2 3/16	7/16	2	1 Ω	125000 Ω

SPECIAL TYPES

TYPE	WATTAGE	LEAD SIZE Lgth.	LEAD SIZE Dia.	DIMENSIONS Lgth.	DIMENSIONS Dia.	CORE SIZE Lgth.	CORE SIZE Dia.	RESISTANCE Min.	RESISTANCE Max.
S • AL-1A	1	1½	.025	3/32	13/32	1/16	⅜	1 Ω	1800 Ω
S • AL-1B	1	1½	.025	3/32	17/32	1/16	½	1 Ω	3500 Ω
S • AL-2	2	1½	.032	3/16	13/16	⅛	¾	1 Ω	12000 Ω
S • AL-3A	3	1½	.032	3/16	9/16	⅛	9/16	1 Ω	7500 Ω
S • AL-3B	3	1½	.032	¼	⅝	3/16	⅝	1 Ω	11000 Ω
S • AL-7A	7	1½	.032	5/16	1 7/32	¼	1 3/16	1 Ω	40000 Ω

NOTE 1:

All S • AL Resistors are made to order.

Materials for Standard Types are Stock items.

Materials for Special Types must be purchased to order.

NOTE 2:

Overall Dimension Tolerances are ±1/32 on Diameter and ±1/16 on Length. (Tolerance on Length of 1 Watt Size is ±1/32.)

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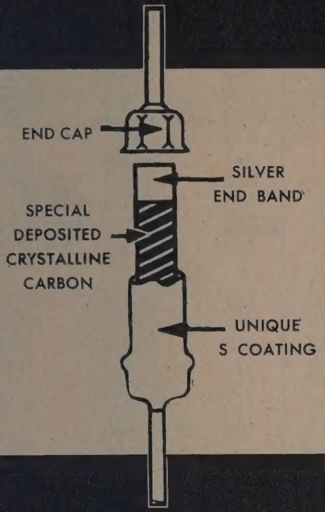
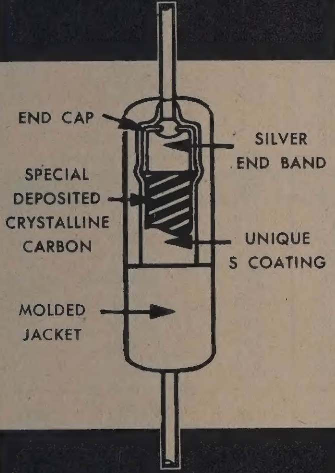
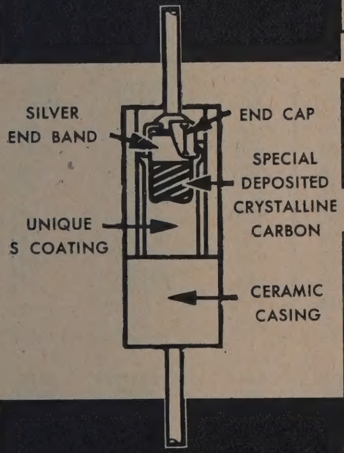


STANDARD DEPOSITED CARBON RESISTORS



MOLDED DEPOSITED CARBON RESISTORS



HERMETICALLY SEALED DEPOSITED CARBON RESISTORS

TRU-OHM

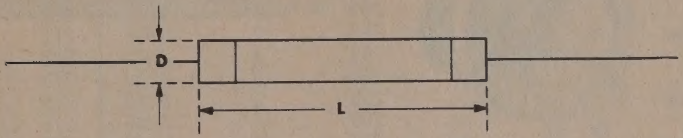
DEPOSITED CARBON FILM RESISTORS

are manufactured to exacting standards in a clinically-clean atmosphere in humidity controlled, air conditioned rooms. Reliability tested individually, each and every resistor must withstand up to twenty-five times the rated wattage for 1 sec. duration to pass exacting TRU-OHM final inspection standards.

The continuous process method employed by TRU-OHM provides a **completely uniform carbon coating** applied to special ceramic core material. For example, in applications where these resistors are subject to extremely high frequencies, the uniformity of the film element is of utmost importance.

Years of accumulated experience in manufacturing resistors have been coordinated to bring about the development of nearly diamond-hard films bonded so perfectly to the ceramic core that it is impervious to the most severe scratch tests.

Despite their sub-miniature size — ruggedness is built into TRU-OHM Deposited Resistors — try the twist test on leads — they will withstand three times the military spec required.



STANDARD DEPOSITED CARBON RESISTORS (40°C. AMBIENT TEMP. AT FULL LOAD)

TYPE	MIL-R 10509-B	RATING WATT	CONT. VDC MAX.	RESISTANCE RANGE								L	D	LEADS (1.5") AWG.	*CAPACITY IN μμF
				½%		1%		2%		5%					
				MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX				
S-2	RN-30	2	750	15 Ω	10 Meg.	15 Ω	50 Meg.	15 Ω	60 Meg.	15 Ω	100 Meg.	2.049"	.288"	20	
S-1	RN-25	1	500	10 Ω	5 Meg.	10 Ω	20 Meg.	10 Ω	30 Meg.	10 Ω	60 Meg.	.923"	.288"	20	
SX-12		½	350	10 Ω	3.9 Meg.	10 Ω	10 Meg.	10 Ω	15 Meg.	10 Ω	20 Meg.	.736"	.156"	20	
S-12	RN-20	½	350	5 Ω	2 Meg.	2 Ω	5 Meg.	2 Ω	10 Meg.	2 Ω	10 Meg.	.575"	.156"	20	
SX-14		¼	300	5 Ω	1 Meg.	2 Ω	2.5 Meg.	2 Ω	5 Meg.	2 Ω	10 Meg.	.535"	.130"	22	
S-14	RN-10	¼	300	5 Ω	1 Meg.	5 Ω	2.5 Meg.	5 Ω	5 Meg.	5 Ω	10 Meg.	.503"	.105"	22/26	
S-14A		¼	300	5 Ω	1 Meg.	5 Ω	2.5 Meg.	5 Ω	5 Meg.	5 Ω	10 Meg.	.421"	.105"	22/26	
SX-18		⅛	250	2 Ω	500K	2 Ω	1 Meg.	2 Ω	2 Meg.	2 Ω	3 Meg.	.350"	.105"	22/26	
S-18		⅛	250	2 Ω	500K	2 Ω	1 Meg.	2 Ω	2 Meg.	2 Ω	3 Meg.	.295"	.105"	22/26	
S-110		1/10	150	20 Ω	250K	20 Ω	250K	20 Ω	500K	20 Ω	500K	.285"	.069"	26	

MOLDED DEPOSITED CARBON RESISTORS (70°C. AMBIENT TEMP AT FULL LOAD)

SM-2	RN-80	2	750	15 Ω	10 Meg.	15 Ω	50 Meg.	15 Ω	60 Meg.	15 Ω	100 Meg.	2.250"	.400"	20	
SM-1	RN-75	1	500	10 Ω	5 Meg.	10 Ω	20 Meg.	10 Ω	30 Meg.	10 Ω	60 Meg.	1.115"	.400"	20	
SM-12	RN-70	½	350	10 Ω	2 Meg.	10 Ω	5 Meg.	10 Ω	10 Meg.	10 Ω	10 Meg.	.750"	.270"	20	
SM-14	RN-65	¼	300	10 Ω	1 Meg.	10 Ω	2.5 Meg.	10 Ω	5 Meg.	10 Ω	10 Meg.	.640"	.220"	22	
SM-18	RN-60	⅛	250	10 Ω	500K	10 Ω	1 Meg.	10 Ω	2 Meg.	10 Ω	2 Meg.	.406"	.150"	22	

HERMETICALLY SEALED DEPOSITED CARBON RESISTORS (70°C. AMBIENT TEMP. AT FULL LOAD)

SH-2	RN-80	2	750			50 Ω	20 Meg.	50 Ω	20 Meg.	50 Ω	20 Meg.	2.250"	.395"	20	
SH-1	RN-75	1	500			10 Ω	10 Meg.	10 Ω	10 Meg.	10 Ω	10 Meg.	1.093"	.395"	20	
SH-12	RN-70	½	350			10 Ω	5 Meg.	10 Ω	5 Meg.	10 Ω	5 Meg.	.830"	.250"	20	
SH-14	RN-65	¼	300			10 Ω	2.5 Meg.	10 Ω	2.5 Meg.	10 Ω	2.5 Meg.	.640"	.244"	22	
SH-18	RN-60	⅛	250			10 Ω	1 Meg.	10 Ω	1 Meg.	10 Ω	1 Meg.	.437"	.160"	22	

NON-INDUCTIVE DEPOSITED CARBON RESISTORS (40°C. AMBIENT TEMP. AT FULL LOAD)

NS-2		2	750	15 Ω	10K	15 Ω	20K	15 Ω	30K	15 Ω	50K	2.049"	.288"	20	.034
NS-1		1	500	10 Ω	5K	10 Ω	7.5K	10 Ω	15K	10 Ω	20K	.923"	.288"	20	.119
NSX-12		½	350	10 Ω	3K	10 Ω	10K	10 Ω	15K	10 Ω	20K	.736"	.156"	20	
NS-12		½	350	5 Ω	2K	5 Ω	5K	5 Ω	10K	5 Ω	15K	.575"	.156"	20	.088
NSX-14		¼	300	5 Ω	2K	5 Ω	4K	5 Ω	6K	5 Ω	10K	.535"	.130"	22	.066
NS-14		¼	300	5 Ω	2K	5 Ω	4K	5 Ω	6K	5 Ω	10K	.503"	.105"	22/26	.055
NS-14A		¼	300	5 Ω	2K	5 Ω	4K	5 Ω	6K	5 Ω	10K	.421"	.105"	22/26	.065
NSX-18		⅛	250	2 Ω	2K	2 Ω	4K	2 Ω	6K	2 Ω	10K	.350"	.105"	22/26	.082
NS-18		⅛	250	2 Ω	2K	2 Ω	4K	2 Ω	6K	2 Ω	10K	.295"	.105"	22/26	.095
NS-110		1/10	150	20 Ω	1K	20 Ω	2K	20 Ω	2K	20 Ω	3K	.285"	.069"	26	.059

For this true non-inductive type the inductance is negligible; i.e., the same as for a straight rod with the same dimensions of the resistor. The capacity * listed was measured in identical configuration 1½" over ground plane, terminals 2" apart.

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POWER RHEOSTATS

VITREOUS ENAMELED

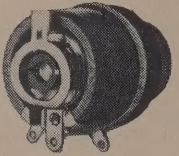
Manufactured to meet and exceed MIL-R-22 Specifications

AVAILABLE FROM STOCK

R-12½
12½ Watts —
Dia. — ⅞″
Back of panel dim. 1 1/16″
Approx. 300° Rotat'n
Panel mtg. to ⅛″ by ¼″ — 32 bushing

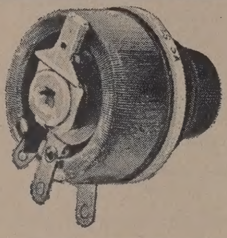
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
600	1	3.53	608	35	.60	616	500	.16
601	2	2.50	609	50	.50	617	750	.13
602	3	2.04	610	75	.41	618	1,000	.11
603	6	1.44	611	100	.35	619	1,500	.091
604	8	1.25	612	125	.32	620	2,500	.071
605	10	1.12	613	175	.27	621	3,500	.060
606	15	.91	614	250	.22	622	5,000	.050
607	25	.71	615	350	.19			

R-25
25 Watts —
Dia. — 1 9/16″
Back of panel dim. 1 5/16″
Shaft Dia. ¼″
Approx. 295° Rotat'n
Panel mtg. to ¼″ by ⅜″—32 bushing



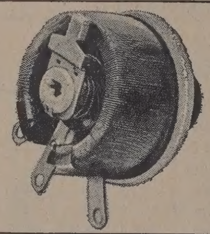
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
100	1	5.000	108	35	.845	116	500	.222
101	2	3.540	109	50	.707	117	750	.182
102	3	2.880	110	75	.575	118	1,000	.155
103	6	2.040	111	100	.500	119	1,500	.129
104	8	1.770	112	125	.445	120	2,500	.100
105	10	1.580	113	175	.375	121	3,500	.084
106	15	1.290	114	250	.316	122	5,000	.070
107	25	1.000	115	350	.267			

R-50
50 Watts
Dia. — 2 5/16
Back of panel dim. 1 7/16″
Shaft—Dia. ¼″
Approx. rotat'n 300°
Panel mtg. to ¼″ by ⅜″—32 bushing



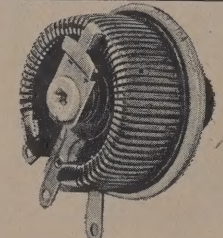
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
200	0.5	10.000	209	35	1.190	218	1,000	.223
201	1	7.070	210	50	1.000	219	1,600	.176
202	2	5.000	211	80	.790	220	2,500	.141
203	4	3.540	212	125	.630	221	3,500	.119
204	6	2.880	213	150	.574	222	5,000	.100
205	8	2.500	214	225	.470	223	8,000	.079
206	12	2.040	215	300	.408	224	10,000	.070
207	16	1.760	216	500	.316			
208	22	1.500	217	800	.250			

R-75
75 Watts
Dia.—2¾″
Back of panel dim. 1¾″
Shaft—Dia. ¼″
Approx. rotat'n 300°
Panel mtg. to ¼″ by ⅜—32 bushing



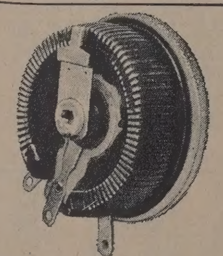
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
300	0.5	12.300	308	25	1.730	316	750	.316
301	1	8.660	309	50	1.230	317	1,000	.274
302	2	6.120	310	75	1.000	318	1,500	.224
303	3	5.000	311	100	.866	319	2,000	.194
304	5	3.880	312	200	.612	320	2,500	.173
305	7.5	3.160	313	300	.500	321	5,000	.123
306	10	2.740	314	400	.433	322	7,500	.100
307	16	2.170	315	500	.388	323	10,000	.087

R-100
100 Watts
Dia. 3⅛″
Back of panel dim. 1¾″
Shaft—Dia. ¼″
Approx. rotat'n 300°
Panel mtg. to ¼″ by ⅜—32 bushing



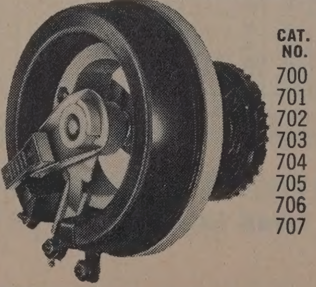
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
400	0.5	14.100	408	25	2.000	416	750	.365
401	1	10.000	409	50	1.410	417	1,000	.316
402	2	7.070	410	75	1.150	418	1,500	.258
403	3	5.750	411	100	1.000	419	2,000	.224
404	5	4.470	412	200	.707	420	2,500	.200
405	7.5	3.650	413	300	.575	421	5,000	.141
406	10	3.160	414	400	.500	422	7,500	.115
407	16	2.500	415	500	.447	423	10,000	.100

R-150
150 Watts
Dia.—4″
Back of panel Dim. 2″
Shaft Dia. ¼″
Approx. rotat'n 300°
Panel mtg. to ¼″ by ⅜—32 bushing or two 10-32 Flat Head Screws — mtg. centers ⅞″ each side from shaft center.



CAT NO.	RESIST-ANCE	MAX. AMPS.	CAT NO.	RESIST-ANCE	MAX. AMPS.	CAT NO.	RESIST-ANCE	MAX. AMPS.
500	0.5	17.300	509	35	2.070	518	750	.447
501	1	12.300	510	50	1.735	519	1,250	.346
502	2	8.650	511	75	1.415	520	1,800	.288
503	3	7.070	512	100	1.225	521	2,250	.259
504	5	5.480	513	150	1.000	522	3,000	.224
505	7.5	4.470	514	200	.865	523	4,500	.182
506	10	3.880	515	250	.775	524	7,500	.141
507	15	3.163	516	350	.655	525	10,000	.122
508	25	2.450	517	500	.548			

R-300
300 Watts
Dia. 6″
Back of panel dim. 2¼″
Shaft Dia. ⅜″
Approx. rotat'n 315°
Panel mtg. to 1¼″ by two ¼ — 20 by 1½ Flat Head mtg. Screws



CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
700	1	17.32	708	25	3.46	716	700	.66
701	2	12.24	710	75	2.00	717	900	.58
702	3	10.00	709	50	2.45	718	1,200	.50
703	4	8.66	711	100	1.73	719	1,500	.45
704	5	7.75	712	150	1.41	720	1,750	.41
705	7.5	6.32	713	200	1.22	721	2,500	.35
706	10	5.48	714	300	1.00			
707	15	4.47	715	400	.87			

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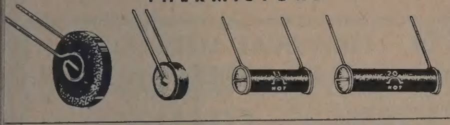
REPLACEMENT COMPONENTS

WORKMAN Electronic PRODUCTS, INC.
SARASOTA, FLORIDA

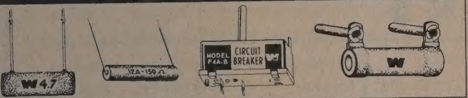
GLOBAR RESISTORS

THERMISTORS



ODEL	DESCRIPTION	LIST	DLR.
R .49	.49Ω at 3 amps	1.60	.96
R 1M	600KΩ hot 1 MegΩ cold	1.75	1.05
R2	Replaces filament res'trs	3.00	1.80
R5-8	5-8Ω at 450ma	1.65	.99
R6	6Ω Hot-600ma	1.65	.99
R9	9Ω Hot-600ma	1.65	.99
R11	11Ω Hot-600ma	2.50	1.50
R11P	11Ω-450ma 9.2Ω-600ma	1.65	.99
R19	19Ω Hot-600ma	1.50	.90
FR19A	19Ω Hot -600ma	2.20	1.32
FR31	31Ω Hot -300ma	1.90	1.14
FR35	35Ω Hot -600ma	1.90	1.14
FR43	43Ω Hot -600ma	2.50	1.50
FR50	50Ω Hot -150ma	1.60	.96
FR041	75Ω Hot -300ma	2.20	1.32
FR051	20Ω Hot -600ma	1.50	.90
FR051-2	As above - 2 in pack	3.00	1.50
FR052	10.5Ω at 125 volts	3.20	1.92
FR054	35Ω Hot -600ma	3.20	1.92
FR088	14KΩ at 140 volts	3.20	1.92
FR100	50Ω Hot-150ma	1.60	.96
FR191	120Ω cold	1.20	.72
FR291	79Ω cold -.47Ω hot	1.60	.96
FR5K	500KΩ at 25° C	1.50	.90
FRT 1	100Ω hot to 20Ω hot	1.85	1.11
FRT 1-2	As above - 2 in pack		
GM	1/5 Watt ±20% 40 vals.	.65	.39

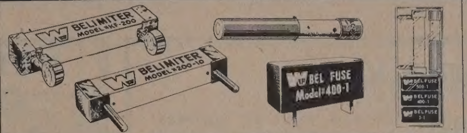
FUSED RESISTORS



MODEL	DESCRIPTION	LIST	DLR.
F4.7	4.7Ω - 5 Watts	.65	.39
F5	5Ω - 5 Watts	.65	.39
F5.6	5.6Ω - 5 Watts	.65	.39
F6	6Ω - 5 Watts	.65	.39
F7	7.5Ω - 3 amperes	.72	.43
F80	7.5Ω - 3 amperes	.65	.39
F9	9Ω - 5 Watts	.65	.39
F10	10Ω - 5 Watts	.65	.39
F10-45	4.5Ω - 10 Watts	.75	.45
F18	18Ω - 5 Watts	.65	.39
F22	22Ω - 5 Watts	.65	.39
F47	47Ω - 5 Watts	.65	.39
F100	100Ω - 5 Watts	.65	.39
F150	150Ω - 5 Watts	.65	.39
F12A	150Ω - 0.12 amperes	.65	.39
FRK	Kit of 10 Resistors	5.76	3.46
FZ4.7	4.7Ω - 3 amperes	.36	.22
FZ5.6	5.6Ω - 3 amperes	.36	.22
FZ7.5	7.5Ω - 3 amperes	.36	.22
FZ9	9Ω - 3 amperes	.36	.22
FZ4.7-5	Pk. of 5, 4.7Ω-3 amps	1.60	.99
FZ5.6-5	Pk. of 5, 5.6Ω-3 amps	1.60	.99
FZ7.5-5	Pk. of 5, 7.5Ω-3 amps	1.60	.99
FZ9-5	Pk. of 5, 9Ω-3 amps	1.60	.99
FZ	Pk. of 10 resistors	3.60	1.80
FB1	Universal replacement	2.00	1.20
F28	No. AWG 28 Wire, 5 pcs.	.25	.15
F15-7.5	7.5Ω - 15 Watts	.96	.58
F7-5	5Ω - 7 Watts	.72	.43
F2A	Universal Thermal Switch	1.20	.72
F2A-B	Motorola #80C750604	1.20	.72
F2A-C	West'hse #753V006H01	1.20	.72
F2.1A	Silvertone #43-9-2	1.20	.72
F2.2A	Motorola #80C66390A02	1.20	.72
F2.2A-B	Admiral #84B17-4	1.20	.72
F2.5A	Warwick #43-1-2	1.20	.72
F2.6A	RCA #945830-2	1.20	.72
F2.75A	Silvertone #43-12-2	1.20	.72
F2.75A-B	Motorola #80C66390A01	1.20	.72
F2.75A-C	Motorola #80K753396	1.20	.72
F2.75A-D	Philco #42-2136-1	1.20	.72
F2.75A-E*	RCA #945830-1	1.20	.72
F2.75A-E*	G. E. #ET 10X32	1.20	.72
F3A	Magnavox #180672-1	1.20	.72
F3A-B	Motorola #80K647226	1.20	.72
F4A	Philco #42-2136-2	1.20	.72
F4A-B	Emerson #808018	1.20	.72

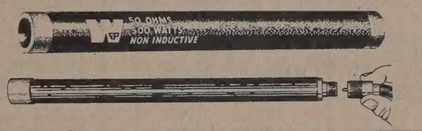
*Exact replacement RCA and G. E.

CHEMICAL FUSES



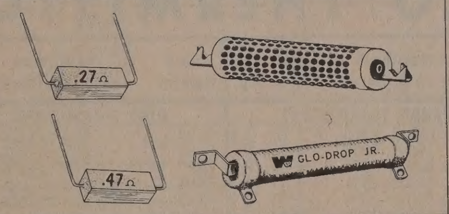
MODEL	DESCRIPTION	LIST	DLR
200-10	RCA #945309-1	.82	.49
KF-200	RCA #105041	1.00	.60
LC-200	For "C" type (limited cur.)	1.00	.60
1200-1	Emerson #808236	.75	.45
500-1	RCA, Emerson, Olympic	.75	.45
400-1	RCA #945392-2	.80	.48
3-1	RCA #045392-3	.58	.35
BL-5	Pk. of 5 chem. Fuses	3.95	2.37

Non Inductive DUMMY LOADS



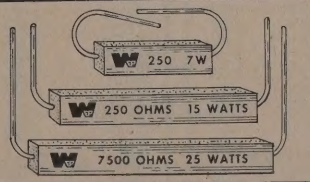
MODEL	DESCRIPTION	User's Net	Size
DL10W	10 Watt	3.50	2-1/2"x3/4"
DL25W	25 Watt	4.35	5" x 3/4"
DL75W	75 Watt	8.85	8" x 1"
DL100W	100 Watt	12.45	12" x 1"
DL500W	500 Watt	42.00	18" x 2"
DLSP-50	150 Watt	23.75	13-1/2" x 1"

AUTO RADIO RESISTORS



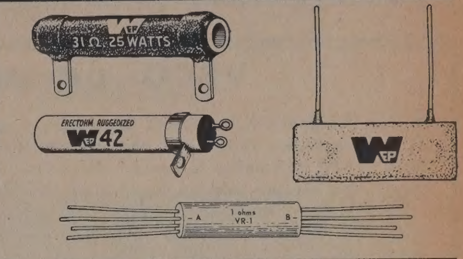
MODEL	DESCRIPTION	LIST	DLR.
WT22	0.22Ω - 5 Watt	.48	.29
WT27	0.27Ω - 5 Watt	.48	.29
WT33	0.33Ω - 5 Watt	.48	.29
WT47	0.47Ω - 5 Watt	.48	.29
WT56	5.6Ω - 5 Watt	.48	.29
WT68	0.68Ω - 5 Watt	.48	.29
WT82	0.82Ω - 5 Watt	.48	.29
7W	1800Ω - 7 Watt	.38	.23
FT2.8	2.8Ω cold	.65	.39
FT3.3	3.3Ω cold	.65	.39
FT4.5	4.5Ω cold	.65	.39
FT7.5	7.5Ω cold	.65	.39
FT10	10Ω cold	.65	.39
FT28	28Ω cold	.65	.39
FT35	35Ω cold	.65	.39
FT150	150Ω cold	1.30	.78
GD1	For 6V. in 12V. systems	5.50	3.30
GD2	2, 4, or 6 amp loads	3.30	1.98
GD3	5 to 6 amp loads	2.50	1.50
GD4	7 to 8 amp loads	2.50	1.50

SQUARE OHMS



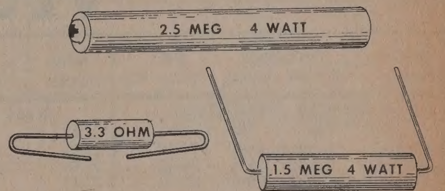
MODEL	DESCRIPTION	LIST	DLR.
5W-SQ	5W 69 Values 1-6KΩ	.36	.22
7W-SQ	7W 77 Values 1-10KΩ	.38	.23
10W-SQ	10W 85 Values 1-25KΩ	.40	.24
15W-SQ	15W 87 Values 1-35KΩ	.50	.30
20W-SQ	20W 87 Values 1-35KΩ	.65	.39
25W-SQ	25W 121 Values 1-50KΩ	.75	.45

WIREWOUND RESISTORS



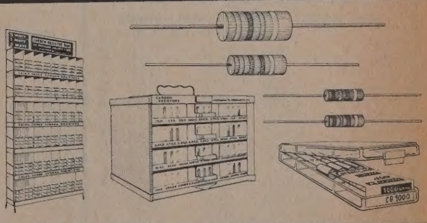
MODEL	DESCRIPTION	LIST	DLR.
6W-B	6W Bendohms, 34 values	.49	.30
6WB-34	6W Bend. 34 vals. on card	16.60	9.95
10W	10W 48 values	.65	.39
148	41Ω - 25 watt	.85	.51
151	51Ω - 30 watt	.95	.57
MO1	59Ω - 25 watt	.85	.51
E10	10 watt - 8 values	1.40	.84
30W	30W - 18 values	1.60	.96
25W	31Ω or 2250Ω - 25 watt	.85	.51
25W-3	3 pk. Dropping 41, 51, 59	2.50	1.50
25W-DR	3-25W - 42 values	1.10	.66
VR1	10W 48 values, .5 to 15Ω	1.10	.66
VR2	10W 48 vals. -5 to 150Ω	1.10	.66
VR3	10W 48 vals. -50 to 1500Ω	1.10	.66
VR4	10W 48 vals. -500 to 15KΩ	1.10	.66
VR5	10W 12 vals. -3K to 50KΩ	1.10	.66
WR-50	5-15W 50 values Each	.55	.33
WR-50C	Card of 50 values	27.50	16.50
WS	2W 21 vals. -.22 to 10.Ω	.36	.22

CARBON BAR RESISTORS



MODEL	DESCRIPTION	LIST	DLR.
1M	1 meg - 4 watts	.95	.57
1.5M	1.5 meg - 4 watts	.95	.57
2M	2 meg - 4 watts	.95	.57
2.5M	2.5 meg - 4 watts	.95	.57
1L	1 meg - 4 watts	1.25	.75
1.5L	1.5 meg - 4 watts	1.25	.75
2L	2 meg - 4 watts	1.25	.75
2.5L	2.5 meg - 4 watts	1.25	.75
1W	2.2Ω, 3.3Ω, 4.4Ω, 5.5Ω kit	1.10	.66
1W2	2.2Ω -4 resistors 1 watt	1.10	.66
1W3	3.3Ω -4 resistors 1 watt	1.10	.66
1W4	4.4Ω -4 resistors 1 watt	1.10	.66
1W5	5.5Ω -4 resistors 1 watt	1.10	.66
4W5	4 watts - 5600Ω	.95	.57
4W6	4 watts - 6800Ω	.95	.57

CARBON RESISTORS



MODEL	DESCRIPTION	LIST	DLR.
CA	1/2W ± 10% 77 vals. bulk	.20	.12
CB	1W ± 10% 77 vals. bulk	.30	.18
CC	2W ± 10% 77 vals. bulk	.40	.24
CE	1/2W ± 5% 153 vals. bulk	.40	.24
CA-6	1/2W ± 10% 77 vals. 6 pk.	.70	.42
CB-4	1W ± 10% 77 vals. 4 pk.	.80	.48
CC-3	2W ± 10% 77 vals. 3 pk.	.85	.51
CD	Rack of 624 Resistors	172.80	95.00
CD1	Cabinet of 468 Resistors	90.00	54.00

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VICTORY ENGINEERING CORPORATION

SPRINGFIELD, NEW JERSEY

THERMISTORS • VARISTORS

PIONEERS IN

VECO DESIGNER'S KITS

VECO Designer's Kits present a variety of assortments and each kit includes a wide resistance range and physical size grouping of units. Technical characteristics and schematics to assist in the solution of circuitry design and problems concerning the use and application of VECO Thermistors and Varistors.

$10.50	$14.50	$8.75	$11.75
KD25 Thermistor Disc Kit Contents One Each	KP50 Thermistor Probe Kit Contents One Each	KR75 Thermistor Rod Kit Contents One Each	KR751 Thermistor Rod Kit Contains Two Each
11E2 23D34 12E2 25D4 15D1 31E2 18E2 32D12 21E21 33D10 22E6 35D6 41D2	21A3 31A11 41A11 51A11 61A11 71A11	33S1 43R1 36S1 45R1 41R1 51R1 41S2 51R2	03 TD 121 05 TR 121 11 TR 121 13 TR 141 15 TR 161

KTB1 Thermistor Bead Kit Contents One Each	KV100 Varistor Kit Contents One Each	KV1001 Varistor Disc Kit Contents One Each	KW125 Washer Kit Contents Thermistor Two Each
32A48 31A2 43A2 41A2 51A30 51A2 51A2 61A2 Complete w/Tweezers to Facilitate Handling	023L4 124W1 023W1 143W1 063L4 155L2 114L1 165W2 A818 Mounting Kit	023L9 134L1 063L9 155L3 114L2 175L1 124L1 195L1 124L2	11X1 21W1 12X15 22W6 14X4 24W6 And Mounting Kit A828
$19.50	$14.50	$7.50	$13.50

VECO TECHNICAL LITERATURE

Literature, catalogs, and technical data covering VECO standard products are available free of charge except for the following items:

V 42 ....**Price $1.00**
VECO Thermistor-Varistor Data Book: Contains historical background, technical data, typical circuits, curves, and a complete bibliography.

V 1133 ....**Price $2.00**
VECO Thermistor Circuit Applications and Characteristics: A "must" for designing and developing circuits requiring the use of VECO Thermistors. Described, step by step, are schematics covering zero-power, voltage-current, and current time applications using VECO Thermistors.

V 1166 ....**Price $1.00**
The Theory concerning VECO Thermistor type hypsometers: A treatise concerning the use of VECO Thermistors to measure altitude by means of pressure. (VECO thermistors act as transducers, converting pressure measurement to an electrical resistance output.

These items may be purchased from either your local VECO stocking Jobber, Graybar Electric Company Sales Office, or direct from Victory Engineering Corporation.

VECO EXPERIMENTOR'S KITS

Each kit includes forms showing typical circuitry and specific characteristics of units in kit.

M168 Experimentors' Kit, 7 assorted units for **$ 5.00 net, ppd.**

M168A Experimentors' Kit, 10 assorted units for **$10.00 net, ppd.**

VECO THERMISTORS

MICRO-BEAD THERMISTORS*
.005 " Dia. ¼" Min. Leads

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
31A401C	1,000 ± 25%	$20.00	1
32A401C	2,000 ± 25%	20.00	1
41A401C	10,000 ± 25%	20.00	1

ULTRA-SMALL BEAD THERMISTORS
.010" Dia. ¼" Min. Leads

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
31A7	1,000 ± 25%	$ 6.50	1
32A50	2,000 ± 25%	6.50	1
41A5	10,000 ± 25%	6.50	1
51A22	100,000 ± 25%	6.50	1
61A5	1 Meg ± 25%	6.50	1

SMALL BEAD THERMISTORS
.014" Dia. 5/16" Min. Leads

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
32A5	2,000 ± 25%	$ 3.00	1
32A48	2,000 ± 25%	2.60	1
34A2	3,500 ± 15%	4.30	1
38C2	8,000 ± 25%	3.30	1
43A2	30,000 ± 25%	3.40	1
45A23	50,000 ± 25%	3.40	1
51A30	100,000 ± 25%	3.40	1
55A9	500,000 ± 25%	3.80	1
61A9	1 Meg ± 25%	4.20	1

MEDIUM-LARGE BEAD THERMISTORS
.043"-.088" Dia. 5/16" Min. Leads

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
21A2	100 ± 20%	$ 3.30	2
25A3	500 ± 20%	3.10	2
25A5	500 ± 20%	2.80	2
31A2	1,000 ± 20%	2.50	2
32A53	1,500 ± 20%	2.40	2
32A12	2,000 ± 20%	2.60	2
35A1	5,000 ± 20%	2.50	2
41A2	10,000 ± 20%	2.50	2
43A4	30,000 ± 20%	2.50	2
45A2	50,000 ± 20%	2.50	2
51A2	100,000 ± 15%	2.30	2
52A4	200,000 ± 20%	2.60	2
55A2	500,000 ± 20%	2.80	2
61A2	1 Meg ± 20%	2.90	2
65A5	5 Meg ± 20%	3.40	2

* Pat. Applied For

GLASS PROBE THERMISTORS

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
21A3	100 ±..20%	$ 3.30	3
21A4	100 ± 20%	3.90	4
25A6	500 ± 20%	2.50	3
25A7	500 ± 20%	3.60	4
31A6	1,000 ± 20%	3.40	4
31A11	1,000 ± 20%	2.30	3
32A1	2,000 ± 20%	2.40	4
32A11	2,000 ± 20%	2.10	3
35A3	5,000 ± 20%	3.20	4
35A11	5,000 ± 20%	2.30	3
41A1	10,000 ± 20%	3.20	4
41A11	10,000 ± 20%	2.30	3
43A3	30,000 ± 20%	2.40	4
43A11	30,000 ± 20%	2.30	3
51A1	100,000 ± 15%	2.60	4
51A11	100,000 ± 15%	2.30	3
52A6	200,000 ± 20%	3.50	4
52A11	200,000 ± 20%	2.60	3
55A1	500,000 ± 20%	3.50	4
55A11	500,000 ± 20%	2.80	3
61A1	1 Meg ± 20%	3.70	4
61A11	1 Meg ± 20%	2.80	3
65A7	5 Meg ± 20%	4.30	4
65A11	5 Meg ± 20%	3.40	3
71A4	10 Meg ± 20%	3.80	4
71A11	10 Meg ± 20%	3.40	3

GLASS ROD & BULB THERMISTORS

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
32A3	2,000 ± 25%	$ 4.60	5
37A1	7,000 ± 20%	3.60	6
44A1	35,000 ± 25%	1.90	7
45B2	30,000 ± 40%	2.60	7
46A2	60,500 ± 29%	2.60	7
49A1	85,000 ± 25%	1.90	7
51A16	100,000 ± 20%	7.40	8
65A1	5.4 Meg ± 32%	6.00	8
65A4	5.4 Meg ± 32%	4.50	8
71A2	12 Meg ± 20%	5.00	6

MATCHED THERMISTORS

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
A33	2,000 ± 25%	$15.00	9
A59	100,000 ± 15%	8.00	10
A60	2,000 ± 20%	8.00	10

DISC THERMISTORS .1" Dia.

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
25E2	500 ± 10%	$ .85	11
31E2	1,000 ± 10%	.85	11
33D7	3,000 ± 10%	.85	11
35D2	5,000 ± 10%	.85	11
41D2	10,000 ± 10%	.85	11

DISC THERMISTORS .2" Dia.

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
21E23	100 ± 10%	$ .85	11
22E6	200 ± 10%	.85	11
23E3	310 ± 10%	1.05	11
23E12	250 ± 10%	.85	11
23E16	300 ± 10%	.85	11
25E12	500 ± 10%	.85	11
28D13	750 ± 10%	.85	11
31D4	1,000 ± 10%	.85	12
31D10	1,000 ± 10%	.85	11
32D4	2,000 ± 10%	.85	11
33D2	3,000 ± 10%	.85	12
33D14	2,500 ± 10%	.85	11
34D5	4,000 ± 10%	.85	11
35D6	5,000 ± 10%	.85	11

DISC THERMISTORS .3" Dia.

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
15E4	50 ± 10%	$ .85	11
21E21	100 ± 10%	.85	11
23E11	300 ± 10%	.85	11
25D5	500 ± 10%	.85	11
31D32	1,000 ± 10%	.85	11
32D8	2,000 ± 10%	.85	11
33D10	3,000 ± 10%	.85	11

DISC THERMISTORS .4" Dia.

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
13E3	25 ± 10%	$ .85	11
15E8	50 ± 10%	.85	11
18E2	75 ± 10%	.85	11
21E2	100 ± 10%	.85	11
22E10	200 ± 10%	.85	11
23D7	295 ± 10%	.85	11
23D14	250 ± 10%	.85	11
23D18	300 ± 10%	.85	11
23E22	250 ± 10%	.85	11
25D9	500 ± 10%	.85	11
27D1	725 ± 5%	2.90	13
28D1	760 ± 5%	2.90	13
28D17	750 ± 10%	.85	11
31D3	1,000 ± 10%	.85	11
32D12	2,000 ± 10%	.85	11

DISC THERMISTORS .5" Dia.

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
12E2	20 ± 10%	$ .85	11
13E7	25 ± 10%	.85	11
13E11	30 ± 10%	.85	11
15E3	50 ± 10%	.85	11
18E6	75 ± 10%	.85	11
21E22	100 ± 10%	.85	11
22E14	200 ± 10%	.85	11
23D22	250 ± 10%	.85	11
23D26	300 ± 10%	.85	11
25D4	500 ± 10%	.85	11
28D21	750 ± 10%	.85	11
31D33	1,000 ± 10%	.85	11

DISC THERMISTORS .7" Dia.

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
11E2	10 ± 10%	$ .85	11
12E6	20 ± 10%	.85	11
13E15	25 ± 10%	.85	11
18D2	75 ± 10%	.85	11
21D2	100 ± 10%	.85	11
22D6	200 ± 10%	.85	11
23D30	250 ± 10%	.85	11
23D34	300 ± 10%	.85	11

DISC THERMISTORS 1.0" Dia.

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
05E1	5 ± 10%	$ 1.30	11
11E1	10 ± 10%	1.30	11
13E1	25 ± 10%	1.30	11
15D1	50 ± 10%	1.30	11
21D5	100 ± 10%	1.30	11
22D10	200 ± 10%	1.30	11

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VICTORY ENGINEERING CORPORATION

SPRINGFIELD, NEW JERSEY

PRODUCT RELIABILITY VARISTORS • THERMISTORS

VESO RELIABILITY AND QUALITY CONTROL

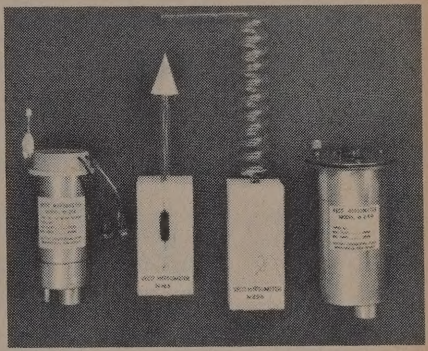
Not one VECO product ever leaves the plant until it individually passes tests for reliability exceeding applicable specifications. VECO Quality Control Processes are even more stringent than required to be acceptable by government standards with resulting high stability and performance. VECO has been qualified and authorized by the Air Force because of its quality control program to ship Air Force contracts upon the authorization of VECO's own quality control department. This can be done without the presence of an AFQCR (Air Force Inspector) under the Air Force "SWOPI" program. VECO Quality Control Processes are accepted under MIL-Q-9858 standards.

VECO's strict adherence to specifications led to its participation in many programs of the Space Age requiring high reliability. A few such programs are Nike Zeus, Apollo, Project Mercury, Regulus I & II, etc., this experience in quality and reliability earned for VECO this honor. In addition to this, VECO on the basis of test and performance was chosen to participate on the spectacular, successful Bell System's communication satellite "Telstar I & II" and is featured in future Telstars yet to fly.

VECO HYPSOMETERS

(patent applied for)

Compact, lightweight instruments which are used to determine altitude by means of pressure. VECO Hypsometers, utilizing thermistors, act as transducers which convert pressure measurement to electrical resistance output. Can also be used as barometric standards.



VECO VARISTORS

VECO Number	Exponent n	V ± 30% @5 ma. D.C.	Net Price	Fig.
023L9	3	6V	$1.00	18
063L9	3	10V	1.00	18
114L2	4	15V	1.00	18
124L1	4	25V	1.00	18
124L2	4	35V	1.00	18
134L1	4	50V	$1.00	18
155L3	5	75V	1.00	18
175L1	5	100V	1.00	18
195L1	5	120V	1.00	18

VECO Number	Resistance @25°C (Ohms)	Net Price	Fig.
ROD THERMISTORS .05″ Dia.			
41S2	10,000 ± 10%	$ 1.35	14
51R2	100,000 ± 10%	1.35	14
ROD THERMISTORS .110″ Dia.			
33S1	3,150 ± 10%	$ 1.10	15
34S2	4,300 ± 10%	1.10	15
36S1	6,300 ± 10%	1.10	15
37S1	7,250 ± 10%	1.10	15
38S1	8,000 ± 10%	1.10	15
41R1	10,000 ± 10%	1.10	15
41S1	10,000 ± 10%	1.10	15
42R1	15,000 ± 10%	1.10	15
43R1	31,500 ± 10%	1.10	15
45R1	50,000 ± 10%	1.10	15
51R1	100,000 ± 10%	1.10	15
ROD THERMISTORS .172″ Dia.			
32S2	2,000 ± 10%	$ 1.20	14
33S4	3,000 ± 10%	1.20	14
35S3	5,000 ± 10%	1.20	14
42R5	20,000 ± 10%	1.20	14
43R6	30,000 ± 10%	1.20	14
45R9	50,000 ± 10%	1.20	14
LOW BETA ROD THERMISTORS			
03RZ121	2.5 ± 10%	$ 1.40	14
05RY141	5 ± 10%	1.40	14
13RX161	25 ± 10%	1.40	14
15RW171	50 ± 10%	1.40	14
23RV181	250 ± 10%	1.40	14
33RU191	2,500 ± 10%	1.40	14
35RT201	5,000 ± 10%	1.40	14
42RT202	20,000 ± 10%	1.50	14
45RS211	50,000 ± 10%	1.40	14
51RS212	100,000 ± 10%	1.60	14
LOW BETA ROD THERMISTORS			
61RQ222	1 Meg ± 10%	1.60	14
42RN1R	25,000 ± 10%	1.20	14
51RN1R	100,000 ± 10%	1.35	14
52RN1R	225,000 ± 10%	1.35	14
55RP1R	500,000 ± 10%	1.10	14
61RP1R	1 Meg ± 10%	1.35	14
62RP1R	2.25 Meg ± 10%	1.10	14
WASHER THERMISTORS .2″ Dia.			
22X1	150 ± 10%	$ 1.15	16
31W1	1,100 ± 10%	1.15	16
WASHER THERMISTORS .7″ Dia.			
11X1	10 ± 10%	$ 1.15	16
11X3	13 ± 10%	1.20	16
12X10	15 ± 10%	1.30	16
12X15	20 ± 10%	1.15	16
14X2	38 ± 10%	1.30	16
14X4	40 ± 10%	1.15	16
15X1	50 ± 10%	1.30	16
21W1	100 ± 10%	1.15	16
21W4	130 ± 10%	1.30	16
21W5	100 ± 10%	3.10	17
22W2	180 ± 10%	1.30	16
22W6	200 ± 10%	1.15	16
23W1	315 ± 10%	1.30	16
23W2	315 ± 10%	3.50	16
24W1	415 ± 10%	1.30	16
24W6	400 ± 10%	1.15	16
32Y3	1,800 ± 10%	1.10	16
MOUNTING ACCESSORIES			
A816	Mtg. Kit	$1.25	
A819	Packing Gland	4.00	
A828	Mtg. Kit w/Bracket	1.75	

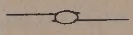


FIG. 1

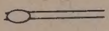


FIG. 2

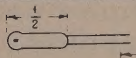


FIG. 3

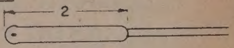


FIG. 4

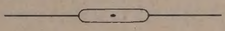


FIG. 6

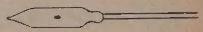


FIG. 8

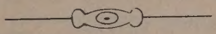


FIG. 5

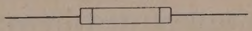


FIG. 7

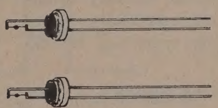


FIG. 9

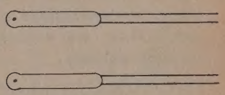


FIG. 10

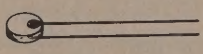


FIG. 11

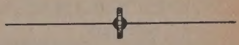


FIG. 12

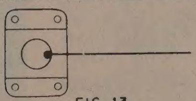


FIG. 13

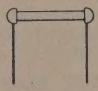


FIG. 14

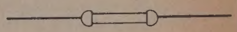


FIG. 15

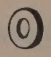


FIG. 16

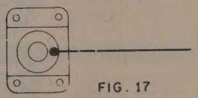


FIG. 17

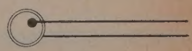
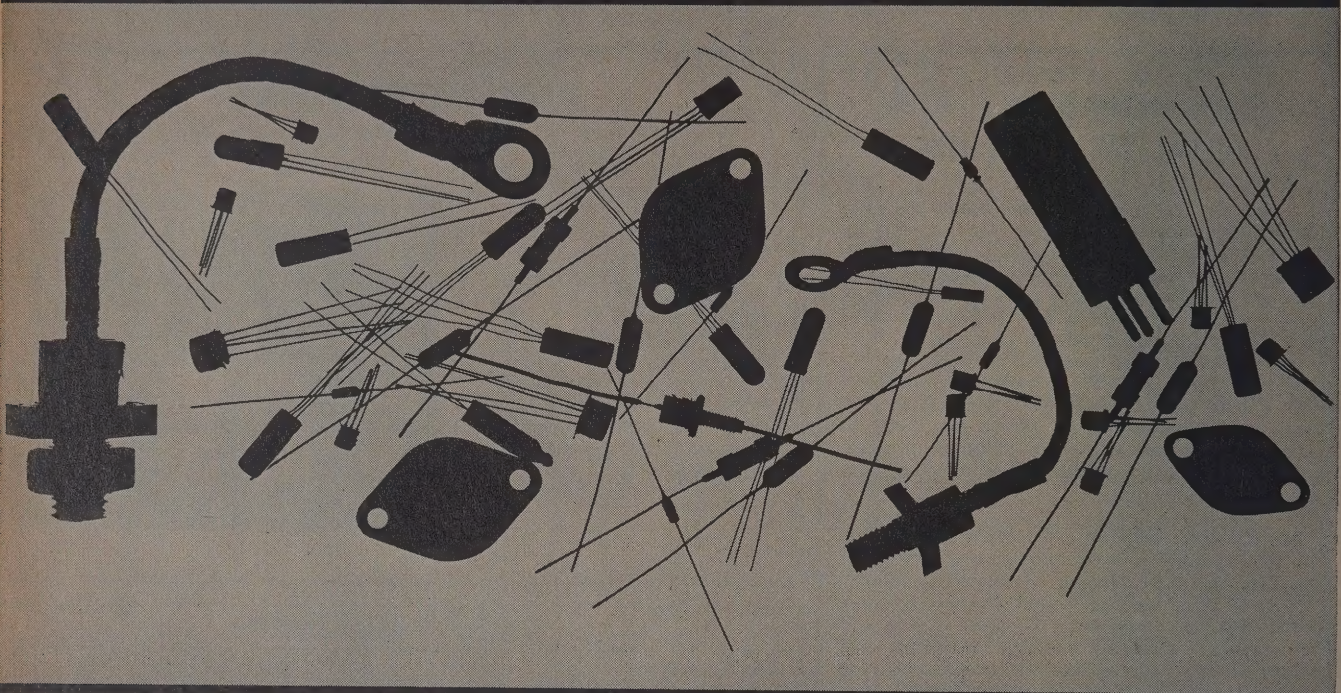


FIG. 18

SPRINGFIELD, NEW JERSEY

AMPEREX SEMICONDUCTORS



Amperex Semiconductors are now manufactured in two Amperex plants in Rhode Island. Now in its fourth year of operation, the Slatersville factory is one of the world's most modern plants devoted exclusively to the manufacture of quality germanium semiconductors for industrial, communications and entertainment applications. At Cranston, Amperex manufactures silicon planar/expitaxial transistors.

The exclusive germanium P.A.D.T. and silicon production techniques employed the specially developed tooling methods and automatic, high-volume equipment and the unparalleled quality control are your unqualified guarantee of reliability, uniformity and value.

Amperex semiconductors for high-speed switching, entertainment, computer, radar, instrumentation, military, industrial, communications and all other modern semiconductor applications are available in production quantities for immediate delivery.

DIODES: Germanium, Silicon, Silicon-reference, Silicon variable capacitors, rectifiers.

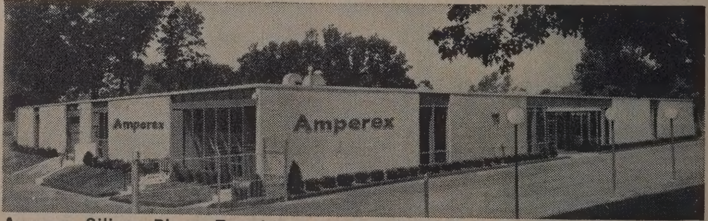
TRANSISTORS: AF types; RF types; Industrial, Switching, Computer types; Power transistors.

SEMICONDUCTOR RECTIFIERS: Silicon power rectifiers.

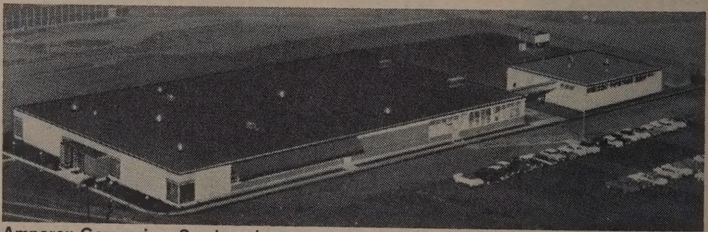
PHOTO SENSITIVE DEVICES: Cadmium sulphide cells, Photodiodes, Phototransistors.

SILICON PLANAR/EPITAXIAL TRANSISTORS: AF, RF, Medium Power, High Speed Switching, Low Level Amplifiers, Choppers, Differential Amplifiers, Video Amplifiers, High Voltage Bi-Qui and Nixie Drivers.

Write today for the AMPEREX Semiconductor Condensed Catalog. Ask Amperex about your semiconductor applications problems.



Amperex Silicon Planar Transistors are manufactured at Cranston, Rhode Island



Amperex Germanium Semiconductors are manufactured at Slatersville, Rhode Island

Ask Amperex® **AMPEREX ELECTRONIC CORPORATION,**
Semiconductor and Receiving Tube Division, Hicksville, L. I., New York

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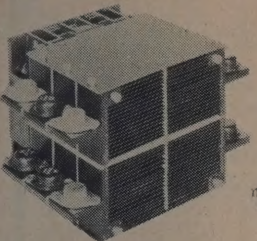
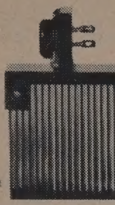
ASTRO DYNAMICS, INC. HEAT SINKS

forced convection


2401-12B

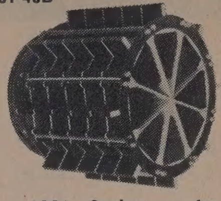

2401

2402

The **Model 2401** and **Model 2402** utilize a light compact integrated blower, which maintains the transistor shelves at minimum temperature even under conditions of high heat load. This modern highly efficient concept is achieved by means of a revolutionary production method which permits the attachment of many fins to a base, giving a large surface area for cooling. Banks of four, eight, twelve or sixteen heat sinks may be provided with each sink electrically insulated from the other.

PRICES START AT $4.10

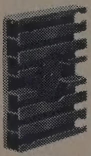
2601-40B

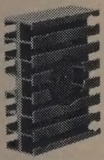


PRICES START AT $5.10

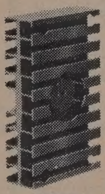
The **2601 Series** employs the same unique design of the **2401.** Within a relatively small physical area, up to 64 sinks may be mounted to one fan, insulated electrically, separated physically, with each mounted component completely accessible for servicing, replacement, or experimental monitoring.

natural convection


2501


2502

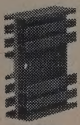
The **2501. 2502,** and **2503 Heat Sinks,** as a result of the patented "T" construction, have unusually large surface areas providing the same dissipation as commercial units twice the size. They are designed to be used where the maximum dissipation is needed in the smallest physical area. A variety of semi-conductor hole patterns, lengths, and mounting kits are available on request.


2503

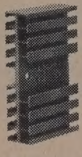
PHYSICAL SPECIFICATIONS	2501	2502	2503
Overall Dimensions	4 x 3 x 1¹¹⁄₁₆	4 x 3 x 1¼	5⅛ x 3 x 1¼
Weight	.3 lbs.	.4 lbs	.56 lbs.
Surface Area	62 sq. in.	100 sq. in.	127 sq. in.

PRICES START AT $1.04

2504 $.90


2505 $.95

The **2504, 2505, 2506, 2510, 2515** are designed to answer the need of versatile, inexpensive, highly efficient heat sinks. They incorporate a number of design features including universal transistor hole patterns. More efficient than their commercial counterparts, the low selling prices of these units make it unnecessary and undesirable to utilize standard commercial units or design your own units. These models are also available in a variety of lengths and hole patterns.


2506....$1.10

2510....$.85

2515....$.92

PHYSICAL SPECIFICATIONS	2504	2505	2506
Overall dimensions in inches	1¹⁄₁₆ x 4 x 3	1¼ x 4 x 3	1¼ x 5⅛ x 3
Weight lbs.	.254	.377	.465
Surface area sq. in.	54.8	85.8	117.2

PHYSICAL SPECIFICATIONS	2510	2515
Overall dimensions in inches	1¹⁄₁₆ x 2⅞ x 3	1¼ x 4 x 3
Weight lbs.	.195	.35
Surface area sq. in.	32.8	74.6

2507

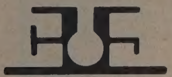
The **Model 2507 Heat Sink** is designed to be used in systems where the efficient operation of high power components demands a superior system of free convection cooling. It is ideally suited for use with high power silicon rectifiers with a mounting surface wide enough to fit all of the larger semiconductor devices. The mounted components remain completely accessible for wiring, monitoring, or replacement.

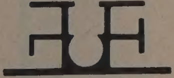
The versatility and high thermal efficiency of the **2509** heat sink stack simplifies the majority of problems in circuit design and component packaging.

Units are available, assembled or unassembled, to suit the customers needs.

PRICES START AT $3.00

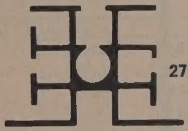
2509

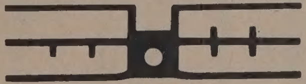

2701....$.65

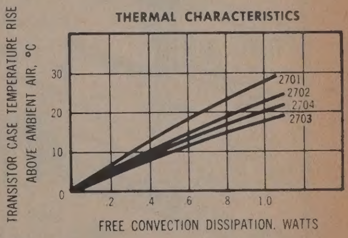

2702....$.70

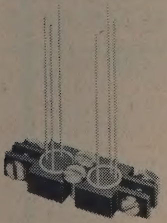
This new series of small, light natural convection heat sinks provide the maximum ratio of heat dissipation to volume occupied. Their configuration a major improvement over conventional designs, — the fins are designed to permit optimum free air flow and minimum conduction losses.

Model 2700 heat sinks will accommodate both the TO-5 and the TO-9 transistor cases. Mounting holes for other transistors are also made to customer specifications.


2703....$.70


2704....$.70




2802....$.85

2801....$.65

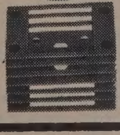
The **Model 2800** series heat sinks provide a combination of effective heat dissipation with easy, secure mounting in a compact space.

Unlike conventional transistor mounting clips which cannot function adequately as heat sinks, the **Model 2800** series effectively conduct heat from the transistor by providing sufficiently large surface contact with the chassis or other metallic mounting area.

Both **Model 2801** (1 transistor heat sink) and **Model 2802** (2 transistor heat sink) are designed to accommodate TO-5 and TO-9 transistor cases, but mounting holes for other sizes are available to customer specifications.

2201....$.12

2901


2902

Although the **Model 2201** retains the proven reliability of the "gear" design, it has by virtue of its angled fins, increased the area which can be used in natural convection. This additional area results in an efficiency increase of approximately 10% without increasing the overall size of the Heat Sink.

The **2900** series heat sinks were designed to be used either as natural convection heat dissipators or with forced air in very compact assemblies. These units are easily mounted and extremely well suited for very high packing densities. In particular, they are suited for circuit board applications. The **2900** series heat sinks are manufactured of copper with a black ebanol surface finish.

Physical dimensions: 2901 ⁹⁄₁₆ x 1¹³⁄₁₆ dia.
2902 1 x 1¹⁄₁₆ x 1½

ASTRO DYNAMICS, inc.

BURLINGTON, MASSACHUSETTS

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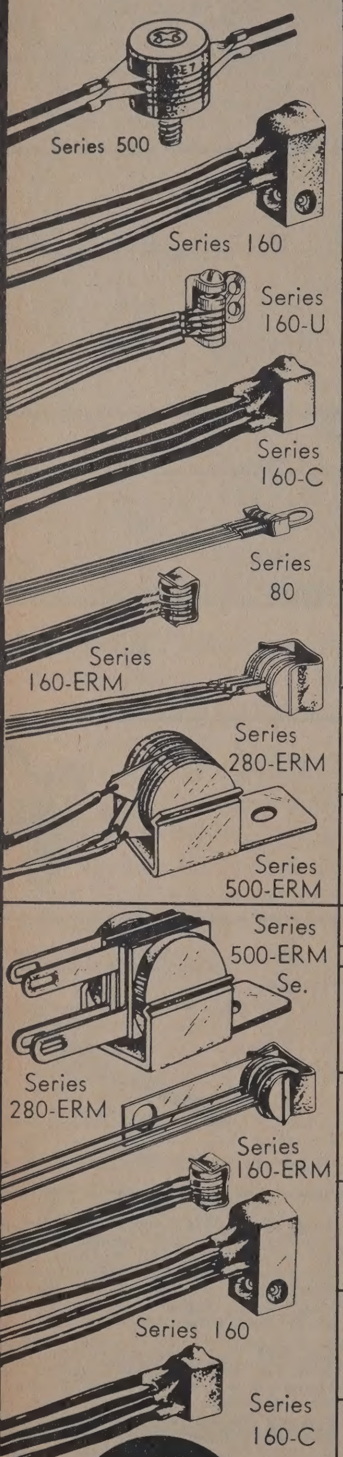
CONANT *Miniature Metallic Rectifiers*

STANDARD SINCE 1933

Illustrations approx. actual size



CONANT MINIATURE METALLIC RECTIFIERS

All Conant rectifiers are manufactured to the highest quality standards from individually tested and graded cells. Copper oxide cells are produced by the exclusive Conant Process and have 24K gold contacts applied in high vacuum.

The Conant Complete Color Code permits identification of rectifier type by color and physical form.

Only basic standard rectifier types are listed below. Many other standard catalog items are available and we are prepared to produce special items to meet customers' special requirements.

COPPER OXIDE TYPES WITH INSULATED LEAD WIRES

TYPE		CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
M		1	.500″	.125 sq. in.	5V	100 ma.	6-32 stud	Lacquer	$2.10
TH	Series	2	"	" "	"	75 ma.	" "	"	1.86
HS	500	3	"	" "	"	50 ma.	" "	"	1.53
T		4	"	" "	"	100 ma.	" "	"	1.53
H		5	"	" "	"	50 ma.	" "	"	1.20
B		1	.166″	.012 sq. in.	"	10 ma.	#2 screw	Solid fill	2.10
BTH	Series	2	"	" "	"	7 ma.	" "	"	1.86
BHS	160	3	"	" "	"	5 ma.	" "	"	1.53
BT		4	"	" "	"	10 ma.	" "	"	1.53
BH		5	"	" "	"	5 ma.	" "	"	1.20
B-U		1	"	" "	"	10 ma.	#2 screw	"	1.98
BTH-U		2	"	" "	"	7 "	" "	"	1.74
BHS-U	Series	3	"	" "	"	5 "	" "	"	1.41
BT-U	160-U	4	"	" "	"	10 "	" "	"	1.41
BH-U		5	"	" "	"	5 "	" "	"	1.08
B-C		1	"	" "	"	10 ma.	Fuse clip	"	2.10
BTH-C	Series	2	"	" "	"	7 ma.	" "	"	1.86
BHS-C	160-C	3	"	" "	"	5 ma.	" "	"	1.53
BT-C		4	"	" "	"	10 ma.	" "	"	1.53
BH-C		5	"	" "	"	5 ma.	" "	"	1.20
A		1	.080″	.0012 sq. in.	5V	1 ma.	#2 screw	Bonded vinyl	2.10
ATH	Series	2	.080″	.0012 sq. in.	"	1 ma.	#2 screw	Bonded vinyl	1.86
AHS	80	3	.080″	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AT		4	.080″	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AH		5	.080″	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.20
B-ERM*		1	"	" "	"	10 ma.	Leads	Lacquer	1.59
BTH-ERM*	Series	2	"	" "	"	7 ma.	" "	"	1.35
BHS-ERM*	160-	3	"	" "	"	5 ma.	" "	"	1.05
BT-ERM*	ERM	4	"	" "	"	10 ma.	" "	"	1.05
BH-ERM*		5	"	" "	"	5 ma.	" "	"	.75
I-ERM*		1	.280″	.035 sq. in.	"	30 ma.	" "	"	1.59
ITH-ERM*	Series	2	"	" "	"	20 ma.	" "	"	1.35
IHS-ERM*	280	3	"	" "	"	15 ma.	" "	"	1.05
IT-ERM*	ERM	4	"	" "	"	30 ma.	" "	"	1.05
IH-ERM*		5	"	" "	"	15 ma.	" "	"	.75
M-ERM*		1	.500″	.123 sq. in.	"	100 ma.	#6 screw	"	1.59
TH-ERM*	Series	2	"	" "	"	75 ma.	" "	"	1.35
HS-ERM*	500	3	"	" "	"	50 ma.	" "	"	1.05
T-ERM*	ERM	4	"	" "	"	100 ma.	" "	"	1.05
H-ERM*		5	"	" "	"	50 ma.	" "	"	.75

SELENIUM TYPES, wire leads or lugs as shown

TYPE		CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
SeM-ERM*	Series	1	.500″	.15 sq. in.	25V	60 ma.	#6 screw	Lacquer	$1.23
SeTH-ERM*	500	2	"	" "	"	40 ma.	" "	"	1.08
SeHS-ERM*	ERM	3	"	" "	"	30 ma.	" "	"	.87
SeT-ERM*	Se.	4	"	" "	"	60 ma.	" "	"	.87
SeH-ERM*		5	"	" "	"	30 ma.	" "	"	.66
SeI*		1	.280″	.06 sq. in.	"	20 ma.	Bracketerminal	"	.66
SeITH*	Series	2	"	" "	"	15 ma.	" "	"	.60
SeIHS*	280	3	"	" "	"	10 ma.	" "	"	.51
SeIT*	ERM	4	"	" "	"	20 ma.	" "	"	.51
SeIH*		5	"	" "	"	10 ma.	" "	"	.42
SeB-ERM*		1	.166″	.02 sq. in.	"	10 ma.	Leads	"	.87
SeBTH-ERM*	Series	2	"	" "	"	7 ma.	" "	"	.81
SeBHS-ERM*	160	3	"	" "	"	5 ma.	" "	"	.69
SeBT-ERM*	ERM	4	"	" "	"	10 ma.	" "	"	.69
SeBH-ERM*		5	"	" "	"	5 ma.	" "	"	.57
SeB		1	"	" "	"	10 ma.	#2 screw	Solid fill	1.38
SeBTH	Series	2	"	" "	"	7 ma.	" "	"	1.32
SeBHS	160	3	"	" "	"	5 ma.	" "	"	1.17
SeBT		4	"	" "	"	10 ma.	" "	"	1.17
SeBH		5	"	" "	"	5 ma.	" "	"	1.02
SeB-C		1	"	" "	"	10 ma.	Fuse clip	"	1.38
SeBTH-C	Series	2	"	" "	"	7 ma.	" "	"	1.32
Se-BHS-C	160-C	3	"	" "	"	5 ma.	" "	"	1.17
SeBT-C		4	"	" "	"	10 ma.	" "	"	1.17
SeBH-C		5	"	" "	"	5 ma.	" "	"	1.02

*Resilient structure (U. S. Pat No. 2,656,493) maintains optimum stack pressure independent of temperature changes, as well as providing the lowest price and smallest size.

CONANT

CONANT LABORATORIES **Lincoln, Nebraska**

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FULL WAVE BRIDGE

SILICON RECTIFIERS

- High operating temperature, 190°C (Up to 120°C ambient)
- High operating voltage (Up to 600 p.i.v)
- High efficiency (99% compared to about 75% for selenium)
- Excellent regulation (4% compared to about 15% for selenium)

Type	AC Input Volts up to	Volts up to DC Output	Max. Amps Self Cooled	Max. Amps fan Cooled	Size and Weight	User Net Price
Center-Tap	18-0-18	16	50	100	B	$ 17.00
Center-Tap	36-0-36	32	50	100	B	$ 22.00
Center-Tap	72-0-72	64	50	100	B	$ 35.50
Center-Tap	140-0-140	125	50	100	B	$ 43.50
Center-Tap	18-0-18	16	100	200	C	$ 29.50
Center-Tap	36-0-36	32	100	200	C	$ 33.50
Center-Tap	72-0-72	64	100	200	C	$ 36.50
Center-Tap	140-0-140	125	100	200	C	$ 47.50
Center-Tap	18-0-18	16	200	400	D	$ 44.50
Center-Tap	36-0-36	32	200	400	D	$ 59.50
Center-Tap	72-0-72	64	200	400	D	$ 61.50
Center-Tap	140-0-140	125	200	400	D	$ 75.50
Center-Tap	36-0-36	32	400	800	E	$ 99.50
1φ Bridge	140	125	1	*	—	$ 8.50
1φ Bridge	280	250	1	*	—	$ 10.00
1φ Bridge	140	125	2	*	—	$ 10.00
1φ Bridge	280	250	2	*	—	$ 11.50

Type	AC Input Volts up to	Volts up to DC Output	Max. Amps Self Cooled	Max. Amps fan Cooled	Size and Weight	User Net Price
1φ Bridge	36	32	6	12	F	$ 17.50
1φ Bridge	140	125	6	12	F	$ 29.50
1φ Bridge	280	250	6	12	F	$ 38.50
1φ Bridge	36	32	10	20	G	$ 20.50
1φ Bridge	140	125	10	20	G	$ 35.50
1φ Bridge	280	250	10	20	G	$ 43.50
1φ Bridge	36	32	20	40	H	$ 23.50
1φ Bridge	140	125	20	40	H	$ 39.50
1φ Bridge	280	250	20	40	H	$ 47.50
1φ Bridge	32	32	50	100	J	$ 32.50
1φ Bridge	72	64	50	100	J	$ 38.50
1φ Bridge	140	125	50	100	J	$ 69.50
1φ Bridge	280	250	50	100	J	$109.50
1φ Bridge	36	32	70	140	J	$ 39.50
1φ Bridge	72	65	70	140	J	$ 49.50
1φ Bridge	140	125	70	140	J	$ 79.50
1φ Bridge	280	250	70	140	J	$129.50

SELENIUM RECTIFIERS

FULL WAVE, HIGH DENSITY, SMALL SIZE

Max. Amps.	18v In 14v Out	36v In 28v Out	54v In 42v Out	130v In 100v Out
½	$ 1.00	$ 1.40	$ 2.30	$ 4.70
1	1.10	2.00	3.00	7.50
2	2.00	2.60	4.00	9.00
3	2.50	3.70	5.50	13.00
4	3.40	6.00	8.50	22.00
6	3.85	7.55	10.00	30.00
10	6.10	11.70	15.00	37.00

Max. Amps.	18v In 14v Out	36v In 28v Out	54v In 42v Out	130v In 100v Out
12	8.00	15.50	20.00	41.00
15	8.25	18.05	24.00	52.00
20	12.00	21.75	34.00	68.45
24	15.00	29.00	40.00	75.25
30	19.00	36.00	52.00	—
36	20.00	45.00	—	—

DURALYTIC CAPACITORS

MFD.	WVDC	PRICE
2,000	50	$ 3.75
4,000	50	4.68
8,000	50	10.25
10,000	50	12.44
1,000	75	$ 9.80
2,000	75	10.50
7,000	75	16.25
2,000	100	$12.90
4,000	100	15.50

MFD.	WVDC	PRICE
1,000	200	$14.25
2,000	200	18.75
250	300	$12.25
500	300	14.75
750	300	16.75
1,000	300	17.75
250	350	$13.25
500	350	14.75
1,000	350	19.00

TRANSFORMERS

24 HOUR SERVICE ON SPECIAL TRANSFORMERS AND CHOKES

36, 38 and 40 VOLTS*

MODEL NO.	AMPS	PRICE
GT 36-2	2	6.00
GT 36-5	5	7.60
GT 36-8	8	13.00
GT 36-10	10	14.75
GT 36-12	12	15.00
GT 36-15	15	21.50
GT 36-20	20	28.50
GT 36-30	30	41.00
GT 36-50	50	55.00

36V. CENTER TAPPED**

MODEL NO.	AMPS	PRICE
XF 36-1	1	4.75
XF 36-2	2	6.45
XF 36-4	4	7.75
XF 36-8	8	14.10
XF 36-12	12	15.50
XF 36-24	24	34.05
XF 36-30	30	42.50
XF 36-50	50	56.75

56V. CENTER TAPPED***

MODEL NO.	AMPS	PRICE
AM 56-2	2	7.50
AH 56-4	4	11.50
AH 56-6	6	21.50
AH 56-12	12	29.00

SEC 165, 160, 150, 125V @ 5A $ 50.
SEC 165, 160, 150, 125V @10A $ 80.
SEC 330, 320, 300, 250V @ 5A $ 70.
SEC 330, 320, 300, 250C @10A $115.

* Primary 115 vac 60C, tapped to deliver 36, 38 and 40 vac. ** Provide two 18V secondary windings. Secondaries connected in series gives 36 V as rated; in parallel gives 18 V at twice rated current (taps 9, 18, 27, 36 V.) Primary tapped for 100, 105, 110, and 115 V on 12, 24, 30, and 50 amp models. *** Center tapped secondary.

CHOKES

MODEL NO.	AMPS	HY	OHMS	PRICE
GH-1	1	.1	1.5	4.75
GH-2	2	.04	.9	5.50
GH-4	4	.07	.6	6.45
GH-5	5	.03	.02	6.60
GH-8	8	.03	.3	11.00
GH-10	10	.015	.05	12.50
GH-12	12	.01	.1	14.20

MODEL NO.	AMPS	HY	OHMS	PRICE
GH-15	15	.006	.01	14.75
GH-20	20	.004	.05	15.00
GH-24	24	.004	.025	25.00
GH-30	30	.003	.01	35.00
GH-50	50	.001	.001	43.00
GH-100	100	.0005	.005	53.00

GATES ELECTRONIC CO., INC.
BRONX, NEW YORK

See Two Pages in Section 4000 for GATES Power Supplies

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The
RADIO-ELECTRONIC
MASTER

SERVICE-DESIGNED

ENTERTAINMENT SEMICONDUCTORS

ELECTRONICS

TRANSISTORS • RECTIFIERS • DIODES

UNIVERSAL REPLACEMENTS

A FEW WILL DO

TRANSISTORS

Catalog No.	Use	Application	Sugg. Resale
GE-1	PNP	Mixer/Oscillator Converter • RF and IF Amplifier....	$1.25
GE-2	PNP	AF Amplifier	1.20
GE-3	PNP	AF Power Amplifier	2.25
GE-4	PNP	AF High Power Amplifier	4.50
GE-5	NPN	Mixer/Oscillator Converter •RF and AF Amplifier....	1.63
GE-6	NPN	Mixer/Oscillator Converter • RF Amplifier	1.75
GE-7	NPN	IF Amplifier	1.58
GE-8	NPN	AF Amplifier	1.20
GE-9	PNP	Mixer/Oscillator Converter • RF and IF Amplifier ..	

SILICON RECTIFIER

Catalog No.	Div.	Max. IDC	Max. Current Surge Rating	Sugg. Resale
GE-504	400	750	*45 AMPS	$1.00

*Because of the 45 AMP. Surge Rating, the G.E.-504 is recommended as a replacement for all Selenium and Silicon Rectifiers used in TV Receivers. No current limiting resistor is necessary when replacing other rectifiers with the G.E. 504.

REGISTERED ENTERTAINMENT JEDEC TYPES

TRANSISTORS

JEDEC No.	Type	Use	Sugg. Resale
2N169	NPN	IF	$1.57
2N169A	NPN	AF	2.40
2N188A	PNP	AF OUT	1.64
2N190	PNP	AF	.75
2N191	PNP	AF	.83
2N192	PNP	AF	1.57
2N241A	PNP	AF OUT	.92
2N265	PNP	AF	1.87
2N292	NPN	IF	.75
2N293	NPN	IF	.83
2N319	PNP	AF	.44
2N320	PNP	AF	.59
2N321	PNP	AF	.65
2N322	PNP	AF	.42
2N323	PNP	AF	.58
2N324	PNP	AF	.64
2N404	PNP	SW	.50
2N508	PNP	AF OUT	.63
2N1086	NPN	OSC	.83
2N1098	PNP	AF OUT	.42

TRANSISTORS (Continued)

JEDEC No.	Type	Use	Sugg. Resale
2N1145	PNP	AF OUT	$ .60
2N1415	PNP	AF-SW	.99
2N1694	NPN	SW	.99

RECTIFIERS

Type	PIV	Max. I_{DC}	Sugg. Resale
1N91	100	150	$.85
1N1692	100	600	.45
1N1693	200	600	.48
1N1694	300	600	.56
1N1695	400	600	.66
1N1696	500	600	.72
1N1697	600	600	.93

CRYSTAL DIODES

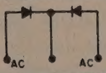
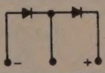
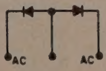
Type	Description	AVG Forward Current (MA)	Sugg. Resale
1N34AS	General Purposes	50	$ .32
1N60	Video Detector	50	.48
1N82A	Silicon UHF Mixer	—	.91
1N295	50 MC Detector	30	.35

EXPERIMENTER/HOBBYIST TYPES

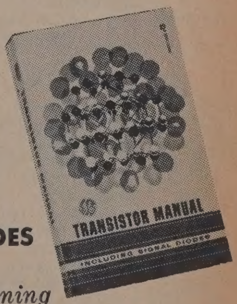
Catalog No.	Type	Suggested Resale
GE-X1	*SCR	$6.30
GE-X2	*SCR (Light Sensitive)	3.50
GE-X3	*SCR	6.00
GE-X4	Silicon Rectifier	1.95
GE-X5	*SCR	4.45
GE-X6	Photoconductive Cell	1.75
GE-X7	Reed Switch	1.00
GE-X8	Transistor	.85
GE-X9	Transistor	.85
GE-X10	Unijunction Transistor	4.95
GE-X11	Zenner Diode	2.75
GE-M100	Transistor	1.50
2N107	Transistor	.55
2N170	Transistor	.75
2N2160	Unijunction Transistor	1.49

***SCR — Silicon Controlled Rectifier**

Vac-u-Sel SELENIUM DUAL-DIODE RECTIFIERS

Catalog No.	Type		Sugg. Resale
6GC1	COMMON CATHODE		$ .54
6GD1	SERIES CONNECTED		.54
6GX1	COMMON ANODE		.54

6th EDITION TRANSISTOR MANUAL INCLUDING TUNNEL DIODES



22 fact filled chapters containing

- **Transistor Theory**
- **Characteristics**
- **Specifications**
- **Applications**

PRICE
$2.00

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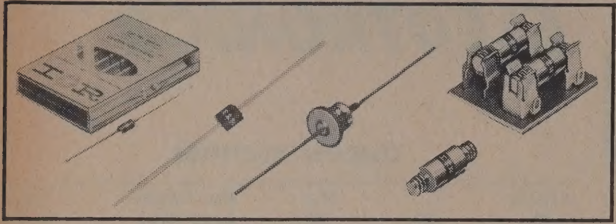
INTERNATIONAL RECTIFIER

EXECUTIVE OFFICES, EL SEGUNDO, CALIFORNIA

RADIO—TV—AUDIO RECTIFIERS AND DIODES

SEMICONDUCTORS



"5A" SERIES SILICON RECTIFIERS

The Universal combines high power capability (to 1000 ma) and peak surge current capacity to 50 amps (about 10 times standard units) in a rugged miniaturized package. It will replace virtually any rectifier, selenium or silicon, in all circuits drawing up to 1000 ma dc, including TV, radio, hi-fi systems, filament supplies and motor control. Type 5A4D is recommended for radio, TV and other systems not equipped with a power transformer. For color TV, citizens band radios and similar systems equipped with transformer, the Type 5A6D is recommended.

Cat. No.	Packaging	Distrib. Std. Pack	Dealer Net
5A4-D	10 per Box	Multiples of 10 pc.	.72 ea.*
5A4-91	Indiv. Boxed	10	.77 ea.
5A4-95	Plastic Kit, cont. 5	5 kits	3.85 per kit
5A6-D	10 per Box	Multiples of 10 pc.	1.00 ea.

*in lots of 10

RATINGS @ 40°C

Type No.	Peak Reverse Voltage,	RMS Input Volts**	DC Output Current, ma	Max. Surge Current, Amps
5A4-D	400	140	1000	50
5A6-D	600	210	1000	50

For industrial high reliability types and lower and higher rated devices in this series, see Industrial section.

**Capacitive load

NEW "10D" SERIES SILICON RECTIFIERS

Full Rated 1,000 ma @ 50°C subminiature silicon rectifiers. Incorporate completely new diffusion and encapsulation techniques to provide higher current ratings for their size than any device in the field. Pure silver leads assure easy soldering and increased heat dissipation.

Cat. No.	Packaging	Distrib. Std. Pack	Dealer Net
10D4	10 per box	Multiples of 10 pc.	.87 ea.
10D6	10 per box	Multiples of 10 pc.	1.12 ea.

RATINGS @ 50°C

Type No.	Peak Reverse Voltage	RMS Input Volts**	DC Output Current, ma	Max. Surge Current, Amps
10D4	400	140	1000	50
10D6	600	210	1000	50

For industrial high reliability types and lower and higher rated devices in this series, see Industrial section.

**Capacitive load

SD-500 SILICON "TOPHAT" RECTIFIER

Cut your rectifier stock and cut your callbacks with the premium quality SD-500 kit . . . the hermetically sealed replacement rectifier that is specifically designed for speedy installation in radio-TV, hi-fi, intercoms, phonographs, and other audio and control circuits. It WIRES IN . . . to directly replace axial lead units or CLIPS IN . . . a 10-second conversion permits plug-in into existing clip-type sockets (kit contains all needed parts). Where high humidity or other severe environmental conditions are encountered, the hermetically sealed SD-500 provides real protection, and long, dependable operation.

RATED @ 400 PIV, 750 MA resistive and 650 MA capacitive load on D.C. output.

Cat. No.	Packaging	Distrib. Std. Pack	Dealer Net
SD500	10 per box	Multiples of 10 pcs.	.86 ea.*
SD500-91	Indiv. Boxed	10	.91 ea.
SD500-92	Kit of 2 Rectif. with Conv. Hdwe.	5 kits	1.95 per kit
SD500-95	Kit of 5 Rectif. with Conv. Hdwe.	5 kits	4.75 per kit

*in lots of 10

"PLUG IN" ALL-CIRCUIT SILICON RECTIFIER

Ruggedized silicon diffused junction "plug-in" rectifiers may be rapidly snapped into radio-TV, motor control, audio-amplifier, industrial power supply and other circuits utilizing clip-type rectifier holders.

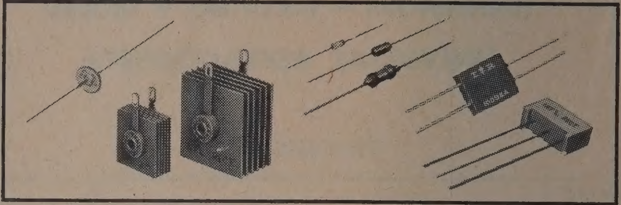
Cat. No.	Packaging	Distrib. Std. Pack	Dealer Net
1MA4-91	Indiv. Boxed	10	.90 ea.
1MA4	10 per box	Multiples of 10	.85 ea.*
1MA4K	Kit, includ. rectif. holder, hdwe. and resistor	5 kits	1.00 per kit
5MA4-91	Indiv. Boxed	10	1.25 ea.
5MA4	10 per box	Multiples of 10	1.20 ea*
5MA4-95	Plastic Box of 5	5 boxes	6.00 per bx.
5MA4K	Kit of 2 rect. with holder	5 kits	2.65 per kit

*in lots of 10

Cat. No.	Peak Reverse Voltage	RMS Input Volts	DC Output Ma @ 50°C		Max. Surge Current, Amps
			Res.	Cap.	
1MA4	400	140	350	250	2
5MA4	400	140	850	750	50

*For capacitive load use one-half of value shown. Figure indicated is for resistive and inductive loads.

**Current rating shown is for resistive and inductive load at 50°C. For capacitive load use 80% of value.



"LEMON DROP" LOW COST SILICON RECTIFIER

Combines economy with dependability

The 5E4 and 2E4 "Lemon Drops" are recommended for television, radio, tape recorders, phonographs and other applications where low rectifier cost, and dependable operation are called for. Rated at 450 ma dc output, the 5E4 "Lemon Drop" enables replacement of rectifiers in many TV sets, as well as radios and medium power amplifiers. The 2E4 "Lemon Drop" is rated at 250 ma and will provide high reliability in phonos, intercoms, tape recorders and similar low current electronic applications.

Cat. No.	Packaging	Distrib. Std. Pack	Dealer Net
2E4-91	Indiv. boxed	10	.70 ea.
2E4	10 per box	Multiples of 10 pcs.	.68 ea.*
5E4-91	Indiv. boxed	10	.75 ea.
5E4	10 per box	Multiples of 10 pcs.	.72 ea.*
5E4-95	Plastic box of 5	5 boxes	3.75 per bx.

*in lots of 10

SELENIUM RECTIFIER STACKS

Combine reliability with economy and small size

Compact, high density types designed for long life and reliability in radio, TV, record players, amplifiers and experimental applications. Output ratings from 50 ma to 650 ma at 130 volts RMS input. Economy, stable characteristics, and negligible leakage and aging of selenium provides long, economical rectifier operation. Replacement type rectifiers are individually boxed and are furnished with mounting bracket and hardware.

Cat. No.	DC Output Current, Ma	Max. RMS Volts	Dimensions, Nom. Plate Size (Inch)	Max. Mounting Dim. (Inch)	Distr. Std. Pack	Dealer Net	
						1-9	10 & up
T065/075	to 75	130	0.67 x 0.67	2 1/32	10	.59	.49
T075/150	75-150	130	1 x 1	¾	10	.74	.62
T200/300	150-300	130	1.25 x 1.25	1 5/16	10	1.10	.92
T350/400	300-400	130	1.5 x 1.5	1 5/16	10	1.18	.99
T450/500	400-500	130	1.5 x 1.5	1 5/16	10	1.22	1.02
T550/650	500-650	130	2 x 2	2	10	2.08	1.73

EUROPEAN SET REPLACEMENT RECTIFIER

Single phase Bridge Universal Replacement Rectifier for European radios, Hi-Fi, TV, Amplifiers, Tape Recorders, Etc.

This rectifier serves as universal replacement for German, Dutch and other European electronic equipment using a bridge rectifier circuit. Rating is adequate for all sets and the small size permits installation even in the most compact equipment.

More efficient and longer lasting than presently used selenium rectifiers. Fits radios, tape recorders and other equipment made by such companies as Grundig, Telefunken, Mertz, Koerting, Blaupunkt, Phillips, Lowe-Opta and others.

Cat. No.	Rating	Distrib. Std. Pack	Dealer Net
10DB8A	250V RMS (800 PIV) input 1,250 ma DC output	12	3.60 ea.

GERMANIUM DIODES

Complete line for all entertainment and most industrial applications

Miniature, hermetically sealed construction assures optimum operation over a wide range of humidity, temperature and other environmental extremes.

Cat. No.	Max. DC Inverse Volts	Distrib. Std. Pack	Dealer Net
1N34A	60	10	.32 ea.
1N48	70	10	.33 ea.
1N60	40	10	.29 ea.
1N64	25	10	.30 ea.
1N67A	80	10	.40 ea.
1N82A	25	10	.91 ea.
1N87A	30	10	.35 ea.
1N294	70	10	.34 ea.
1N295	50	10	.27 ea.
1N541	45	10	.40 ea.
1N542*	—	10	.90 ea.
1N636	60	10	.38 ea.

*This is matched pair of 2 1N541's.

SELENIUM DUAL DIODES

Rugged, reliable, 100% tested

Dual diodes are for TV Phase Detector Circuits. These diodes are of superior quality and packaged for easy identification. Connecting diagram and complete interchangeability table is supplied with each unit.

DUAL DIODES

Cat. No.	Type	Equivalent to			Distrib. Std. Pack	Dlr. Net
		GE	IRC	IT&T		
DD04	Com Cathode	6GC1	D4	K1615	20	.49 ea.
DD05	Ser. Connect.	6GD1	D5	K1616	20	.49 ea.
DD06	Com. Anode	6GX1	D6	K1617	20	.49 ea.
DD07	Com. Anode	—	D7	—	10	1.25 ea.

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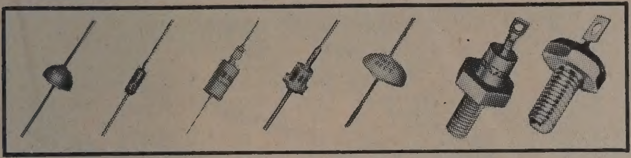
ZENER DIODES, PHOTOCELLS, RECTIFIERS

SEMICONDUCTORS

IOR



IR COMMERCIAL ZENER DIODES

The Zener diodes listed are a "commercial version" of the JEDEC—military types. Their performance is comparable for practically all commercial application where environmental temperature extremes do not prevail. All devices listed are selected to plus and minus 10% tolerances. Five percent tolerance values are available on special order at an additional charge of 50c per unit.

400 MW ZENER VOLTAGE REGULATORS

Cat. No.	Nom. Voltage (EZ)	Test Current (IT) MA	Net Price	
			1-9	10-99
Z-1000	3.3	20	1.40	1.15
Z-1002	3.9	20	1.40	1.15
Z-1004	4.7	20	1.40	1.15
Z-1006	5.6	20	1.40	1.15
Z-1008	6.8	20	1.40	1.15
Z-1010	8.2	20	1.40	1.15
Z-1012	10.0	20	1.40	1.15
Z-1014	12.0	5	1.40	1.15
Z-1016	15.0	5	1.45	1.20
Z-1018	18.0	5	1.45	1.20
Z-1020	22	5	1.45	1.20
Z-1022	27	5	1.45	1.20

1 WATT ZENER VOLTAGE REGULATORS

Cat. No.	Nom. Voltage (EZ)	Test Current (IT) MA	Net Price	
			1-9	10-99
Z-1100	3.9	50	1.90	1.60
Z-1102	4.7	40	1.90	1.60
Z-1104	5.6	35	1.90	1.60
Z-1106	6.8	30	1.90	1.60
Z-1108	8.2	25	1.90	1.60
Z-1110	10	20	1.90	1.60
Z-1112	12	15	1.90	1.60
Z-1114	15	13	1.90	1.60
Z-1116	18	10	1.90	1.60
Z-1118	22	9	1.90	1.60
Z-1120	27	7	1.90	1.60
Z-1122	33	5	1.90	1.60
Z-1124	39	5	1.90	1.60
Z-1126	47	5	1.90	1.60
Z-1128	56	5	1.90	1.60
Z-1130	68	5	1.90	1.60
Z-1132	82	5	1.90	1.60
Z-1134	100	5	1.90	1.60
Z-1136	120	5	2.25	1.85
Z-1138	150	5	2.25	1.85
Z-1140	180	5	2.25	1.85

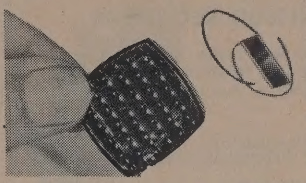
3½ WATT ZENER VOLTAGE REGULATORS

Cat. No.	Nom. Voltage (EZ)	Test Current (IT) MA	Net Price	
			1-9	10-99
Z-1200	3.9	150	2.45	2.10
Z-1202	4.7	125	2.45	2.10
Z-1204	5.6	110	2.10	1.90
Z-1206	6.8	100	2.10	1.90
Z-1208	8.2	80	2.10	1.90
Z-1210	10	70	2.10	1.90
Z-1212	12	50	2.10	1.90
Z-1214	15	40	2.10	1.90
Z-1216	18	35	2.10	1.90
Z-1218	22	30	2.10	1.90
Z-1220	27	25	2.10	1.90

10 WATT ZENER VOLTAGE REGULATORS

Cat. No.	Nom. Voltage (EZ)	Test Current (IT) MA	Net Price	
			1-9	10-99
Z-1300	3.9	500	3.50	2.95
Z-1302	4.7	400	3.50	2.95
Z-1304	5.6	350	2.90	2.45
Z-1306	6.8	300	2.90	2.45
Z-1308	8.2	250	2.90	2.45
Z-1310	10.0	200	2.90	2.45
Z-1312	12	170	2.90	2.45
Z-1314	15	140	2.90	2.45
Z-1316	18	110	2.90	2.45
Z-1318	22	90	2.90	2.45
Z-1320	27	70	2.90	2.45
Z-1322	33	60	2.90	2.45
Z-1324	39	50	2.90	2.45
Z-1326	47	45	2.90	2.45
Z-1328	56	35	2.90	2.45
Z-1330	68	30	2.90	2.45
Z-1332	82	25	2.90	2.45
Z-1334	100	20	2.90	2.45
Z-1336	120	15	2.90	2.45
Z-1338	150	15	2.90	2.45
Z-1340	180	10	4.00	3.40

EXPERIMENTER TYPE CELLS



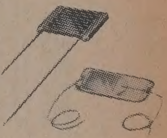
For the experimenter and hobbyist. A selected line, low priced—yet efficient, rugged and easy to mount and connect. These cells and sun batteries may be used for powering of transistorized radios, building light meters, operating small motors from sunlight, etc. Selenium cells have a spectral response similar to the human eye, thus are used extensively in light meters. Silicon cells have higher light conversion efficiency. They are the same as used in satellites.

Cat. No.	Description and Size	OUTPUT*		Dist. Std. Pack	Net Price
		Volts	MA.		
B2M	Selenium cell with mounting bracket. Cell size ½x¾"	0.2 to 0.4	2	10	1.50
B3M	Selenium cell in molded case. 1⅛x1⅛x3/16"	0.2 to 0.4	1½—2½	10	1.75
S1M	Silicon cell in molded case. 1⅛x1⅛x3/16"	0.3 to 0.4	10—16	10	2.25
S3M	Silicon cell contains 2 elements in series, therefore doubling voltage. Same size as S1M	0.6 to 0.85	10—16	3	3.95
S4M	Same as S1M but twice the current	0.3 to 0.4	25—40	6	3.95
S5M	Same as S3M but extra-high efficiency type	0.6 to 0.85	18—25	3	4.95

All cells supplied with pigtail leads.

*In full sunlight, using conventional volt and milliamp meters.

CADMIUM SULPHIDE PHOTO CONDUCTIVE CELLS



These cells do not generate electricity, but are "light-sensitive resistors." Used for operating relays, counting devices, door openers, turning on street lights, etc. Type CS-020-G8 is sealed in glass. Types CS-120-V6 and V16 are unmounted and will operate directly on 117 volt AC or DC. The type CS-120 cell is enclosed in a plastic case, same as shown under experimental cells on top of page. Most popular item.

Cat. No.	Approx. Size	Max. Applied Voltage	Max. Power Dissipation	Max. Resist (Ohms)			Net Price
				Dark	10 FC Illum.	100 FC Illum.	
CS-020-G8	⅓"x1"x⅛"	20	50 MW	.5 Meg	5000	1000	4.50
CS-120-V6	½"x¾"x1/16"	120	.2 Watt	1.5 Meg	10,000	2000	1.95
CS-120	1⅛"x1⅛"x3/16"	120	.2 Watt	1.5 Meg	10,000	2000	2.35
CS-120-V16	2"x1"x1/16"	120	1 Watt	.5 Meg	5000	1000	3.50

SOLAR AND PHOTOCELL EXPERIMENTER'S KIT

This solar and photocell kit contains various selenium, silicon and cadmium sulfide solid state photocells. An instruction manual with circuit diagrams and experiments, plus a small Hand Book is included. Designed for schools, experimenters, hobbyists.

Cat. No. K421 **Net $5.95**

EXPERIMENTER'S MOTOR

PRECISION MOTOR with special anti-friction bearings designed for operation directly from the power supplied by solar cells. For fascinating experiments or "science projects." Operates from 0.35 to 1.5V. Recommended cell is type S4M (or two S1M in parallel).

Cat. No. EP 50 — Std. Pack 6 **Net $3.95**

ZENER DIODE EXPERIMENTER KIT

For schools, laboratories and experimenters

An assortment of twelve Zener diodes in voltage ranges from 3 to 30 volts and in various ratings from ¾ thru 10 watt. Specially priced to promote the experimentation with Zener diodes in order to find new uses and as teaching aids in technical schools and universities. All diodes are marked with the voltage with 10% tolerance.

Catalog No. K546 **Net $6.50**

AUTOMOTIVE ALTERNATOR SILICON RECTIFIERS

Exact replacement for alternator rectifiers in all Chrysler Corporation cars—including the Imperial, Valiant, Plymouth and Dodge 1960, 1961, 1962 and 1963 model automobiles. Feature rapid, simple installation. Test circuit and mounting instructions are furnished in each rectifier package.

Cat. No.	Type	Replaces Mopar Types	Distrib. Std. Pack	Net Price	
				1-9	10-99
JJ1010	Case Neg.	2095502 & 2095332	10	1.60	1.35
JJ1020	Case Pos.	2095506 & 2095331	10	1.60	1.35

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INTERNATIONAL RECTIFIER

EXECUTIVE OFFICES, EL SEGUNDO, CALIFORNIA

SEMICONDUCTORS

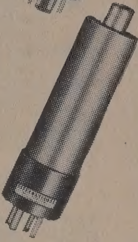
INDUSTRIAL SILICON RECTIFIERS

TUBE REPLACEMENT SILICON RECTIFIERS

Used in broadcasting, two-way radio and mobile communications, power supplies, television and audio

The increased popularity of these devices is due to these outstanding advantages:

1. Practically unlimited life (assured dependability).
2. No aging characteristics (full output maintained during entire life span).
3. Instant warm-up.
4. No filament supply.
5. Much lower operating temperature.
6. Unbreakable, compact, rugged.
7. Lower impedence (better regulation).
8. Higher DC output (up to 3 times) on many types.



Cat. No.	Maximum Dimensions (Inches)		Replaces Tube Types	Net Price
	L	D		
ST-1	1.75	0.87	6X4, 6063, 6202	13.00
ST-1A			MIL 6X4, MIL 12X4, 5AW4	30.00
ST-2*	2.65	1.25	5AX4, AAZ4, 5AU4, 5W4 5Y3, 5AU4, 5AW4, 5AZ4 5T4, 5U4, 5V4, 5W4, 5Z4 5931, 6087, 6106	13.00
ST-2A	2.65	1.25	5R4	20.45
ST-3	2.65	1.25	0Z4, 5X4, 5Y4, 6AX5, 6X5	13.00
ST-4	2.65	1.25	80, 82, 83V, 5Z3	13.00
ST-5	1.75	0.87	6X5, 12X4 (high altitude types)	14.40
ST-6	2.45	1.19	84/6Z4	14.40
ST-7A	5.05	1.38	866, 866A, 3B28	28.25
ST-8	1.10	1.40	0Z4, 6X5	13.00
ST-9	8.03	2.13	8008	137.50
ST-10	8.18	2.31	872A	137.50
ST-13	2.65	0.87	12BW4, 6BW4	13.00
ST-14*	1.50	1.25	5AU4, 5AW4, 5AZ4, 5T4 5U4, 5V4, 5W4, 5Y3, 5Z4	5.95

*ST-2 is rated at 750 MA. ST-14 is rated at 600 MA.

SD & 10B "TOP HAT" SERIES

Cat. No.	Peak Reverse Voltage	RMS Input Voltage*	DC Output Current MA**	Max. Surge Amp	Net Price
SD-91	100	70	550	10	.59
SD-92	200	140	550	10	.68
SD-93	300	210	550	10	.86
SD-94	400	280	550	10	.96
SD-95	500	350	550	10	1.06
SD-96	600	420	550	10	1.16
10B2	200	140	1300	40	1.24
10B4	400	280	1300	40	2.46
10B6	600	420	1300	40	4.89

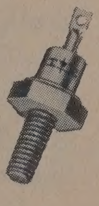
SILICON RECTIFIERS MEDIUM POWER (3-16 AMP)

The hermetically sealed rectifiers on this page are conservatively rated, if mounted on a chassis or cooling fin of 3" x 3' x 1/16" (copper or aluminum). Transient voltages must not exceed the rated PRV of the device selected. The use of transient voltage suppressors, such as Klip-Sels to limit the transient voltages is recommended.

STUD MOUNTED 3 AMP SERIES

For commercial applications where temperature does not exceed 50°C (125°F)

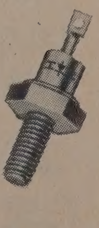
Cat. No.	Peak Reverse Voltage	RMS, Input, Volt		DC Output Amps	Net Price
		Resist. Load	Load Cap.		
3F5-D	50	35	17	3	.66
3F10-D	100	70	35	3	.79
3F20-D	200	140	70	3	.93
3F30-D	300	210	105	3	1.27
3F40-D	400	280	140	3	1.59
3F50-D	500	350	175	3	2.50



STUD MOUNTED 6 AMP SERIES

For commercial applications where temperature does not exceed 50°C (125°F)

Cat. No.	Peak Reserve Voltage	RMS Input, Volt		DC Output Current Amps	Net Price
		Resist. Load	Load Cap.		
6F5-D	50	35	17	6	.99
6F10-D	100	70	35	6	1.25
6F20-D	200	140	70	6	1.45
6F30-D	300	210	105	6	1.85
6F40-D	400	280	140	6	2.61
6F50-D	500	350	175	6	4.28



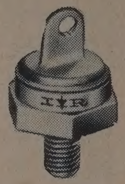
STUD MOUNTED 12 AMP SERIES

High reliability, industrial type

Cat. No.	Peak Reverse Voltage	RMS Input, Volt		DC Output Current Amps	Net Price
		Resist. Load	Load Cap.		
12F5	50	35	17	12	2.47
12F10	100	70	35	12	2.74
12F20	200	140	70	12	4.32
12F30	300	210	105	12	6.35
12F40	400	280	140	12	8.34
12F50	500	350	175	12	12.75
12F60	600	420	210	12	16.35

STUD MOUNTED 25-35 AMP SERIES

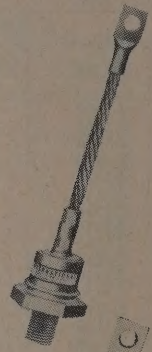
Cat. No. IR	Peak Reverse Voltage	Max.* RMS Volts	DC Output Current, Amps	Net Price
25HB5	50	35	25 to 35 Amps (dependent on type of cooling and heat sink used)	3.27
25HB10	100	70		3.85
25HB15	150	105		4.58
25HB20	200	140		5.25
25HB30	300	210		6.35
25HB40	400	280		6.70
25HB50	500	350		7.30



Write for Bulletin SR-310 for complete data.

STUD MOUNTED 45-150 AMP SERIES

Cat. No.	Peak Reverse Voltage	RMS* Input Voltage	DC Output Current, Amps	Net Price
45L5	50	35	45 to 150 Amperes (dependent on type of cooling and heat sink used)	7.75
45L10	100	70		9.55
45L20	200	140		14.20
45L30	300	210		20.80
45L40	400	280		29.80
45L50	500	350		37.80
45L60	600	420		47.75



See Bulletin SR-305 for Technical and Application Data.

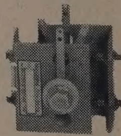
STUD MOUNTED 70-250 AMP SERIES

Cat. No.	Peak Reverse Voltage	RMS* Input Voltage	DC Output Current, Amps	Net Price
70U5	50	35	70 to 250 Amperes (dependent on type of cooling and heat sink used)	12.40
70U10	100	70		14.90
70U20	200	140		20.80
70U30	300	210		27.10
70U40	400	280		39.65
70U50	500	350		48.00
70U60	600	420		58.70

See Bulletin SR-300 for Technical and Application Data.

*Transient voltages must not exceed the rated PRV of the device selected. The use of transient voltage suppressors, such as Klip-Sels to limit the transient voltages is recommended.

SILICON BRIDGE RECTIFIER ASSEMBLIES



Pre-engineered and completely assembled single phase bridge rectifier stacks. The 1.8 amp series are miniature assemblies, completely insulated. All others are fin mounted assemblies. All diodes and rectifiers used are hermetically sealed to withstand extremes of temperature and humidity. Dual amp. ratings on B12 and B25 types are without and with fan cooling.

Cat. No.	Input RMS Volts	Output (DC)		Approx. Dim. (inch)	Net Price (1-9)
		Volt* Resistive	Amps @ 50°C		
10DB2A	95	84	1.8	27/32 x 17/32 x 7/32	2.50
10DB4A	190	170	1.8	"	2.75
10DB6A	280	250	1.8	"	3.05
10DB8A	380	340	1.8	"	3.60
B12F5	14	9.5	14/30	3 x 3¾ x 2⅝	7.70
B12F10	25	20	14/30	"	8.75
B12F30	60	43	14/30	"	14.72
B12F40	120	87	14/30	"	21.00
B25H5	14	9.5	18/42	3 x 3¾ x 2⅝	11.35
B25H10	25	20	18/42	"	14.60
B25H20	60	43	18/42	"	20.57
B25H40	120	87	18/42	"	32.25

*Into resistive or inductive load.

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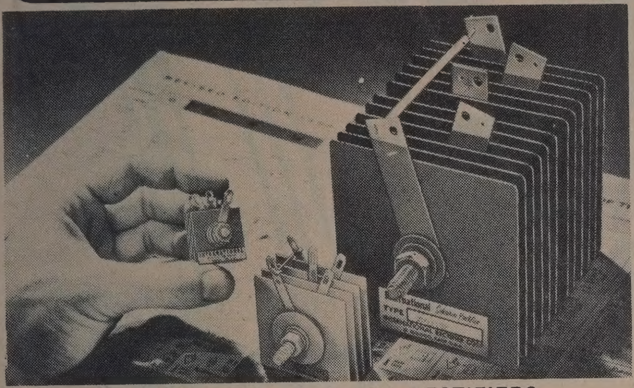
INTERNATIONAL RECTIFIER

EXECUTIVE OFFICES, EL SEGUNDO, CALIFORNIA

SEMICONDUCTORS

I⬥R

SELENIUM RECTIFIER STACKS, BATTERY CHARGING RECTIFIERS



POWER RANGE SELENIUM RECTIFIERS

These new J Type "High Density Stack" rectifiers will deliver twice the output of standard selenium types on a wide range of rectifying applications, including power supplies and voltage regulation, plate voltages and filament supply, plating and electrolysis, battery charging, relays, circuit breakers and numerous communication systems.

Cat. No.	Output		Max. Input AC Volts	Circuit & Connecting Diag. Fig.	Dimensions (Inches)							Net Price
	Volts DC	Amp DC			Fig.	A	B	MD	X	Y	Stud	
J14C04	0	0.4	36	1	A	1	1	1⅛	⅛	13/32	8-32	.95
J14C		1.5	36	1	A	1½	1½	1⅛	⅜	13/32	8-32	1.39
J14C5	to	4.8	36	1	A	3	3	1⅛	¾	⅝	⅜-16	3.48
J14C8		8.4	36	1	A	4	4	1⅞	¾	1⅛	⅜-16	4.89
J14C17	14	17.0	36	1	A	6	5	2⅛	¾	1¼	⅜-16	7.55
J29B04	0	0.4	36	2	A	1	1	1½	⅜	13/32	8-32	1.57
J29B1		1.5	36	2	A	1½	1½	1½	⅜	13/32	8-32	2.28
J29B5	to	4.8	36	2	A	3	3	2⅝	¾	⅝	⅜-16	6.43
J29B8		8.4	36	2	A	4	4	2⅝	¾	1⅛	⅜-16	8.93
J29B17	29	17.0	36	2	A	6	5	3¼	¾	1¼	⅜-16	13.27
J58B04	0	0.4	72	2	A	1	1	2¼	⅜	13/32	8-32	3.11
J58B1		1.5	72	2	A	1½	1½	2¼	⅜	13/32	8-32	4.49
J58B5	to	4.8	72	2	B	3	3	4 3/16	¾	⅝	⅜-16	12.08
J58B8		8.4	72	2	B	4	4	4 3/16	¾	1⅛	⅜-16	16.75
J58B17	58	17.0	72	2	B	6	5	5⅝	¾	1¼	⅜-16	26.52
J116B04	0	0.4	144	2	B	1	1	3 13/16	⅜	13/32	8-32	5.56
J116B1		1.5	144	2	B	1½	1½	3 13/16	⅜	13/32	8-32	8.15
J116B5	to	4.8	144	2	B	3	3	7 3/16	¾	⅝	⅜-16	22.91
J116B8		8.4	144	2	B	4	4	7 3/16	¾	1⅛	⅜-16	32.09
J116B17	116	17.0	144	2	B	6	5	10¼	¾	1¼	3/16-16	50.45
J135B04	0	0.4	180	2	B	1	1	4 9/16	⅜	13/32	8-32	6.77
J135B1		1.5	180	2	B	1½	1½	4 9/16	⅜	13/32	8-32	9.93
J135B5	to	4.8	180	2	B	3	3	8 11/16	¾	⅝	⅜-16	28.29
J135B8		8.4	180	2	B	4	4	8 11/16	¾	1⅛	⅜-16	39.71
J135B17	135	17.0	180	2	B	6	5	12 9/16	¾	1¼	3/16-16	62.43

Circuit and Connecting Diagrams

FIG. 1

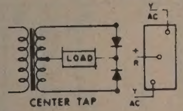
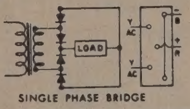
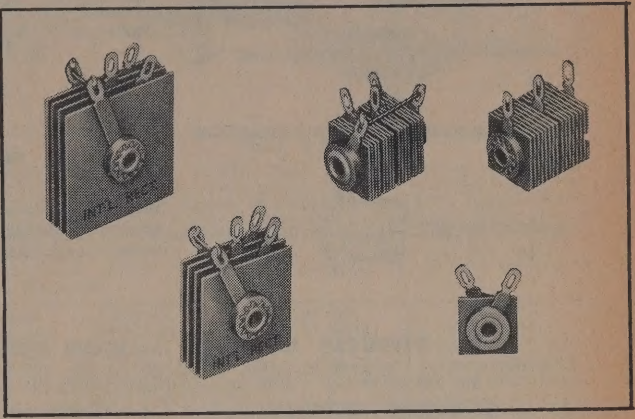


FIG. 2





ELECTRONIC RANGE SELENIUM RECTIFIERS

These half wave, full wave and miniature bridge rectifiers are designed for use in numerous electronic and instrumentation applications. They will provide stable voltage, occupy a minimum of space, are conservatively rated and easy to install.

SINGLE PLATE HALF WAVE RECTIFIERS

Cat. No.	Max. DC MA	Max. RMS Volts	Min. Series Resistor Ohms	Dimensions			Net Price
				A	B	Max. MD	
Q1H	65	25	47	.67″	.67″	7/16″	.36
A1H	100	25	22	1″	1″	7/16″	.38
B1H	150	25	15	1.2″	1.2″	7/16″	.40
C1H	250	25	5	1.5″	1.5″	7/16″	.42
M1H	500	25	5	2″	2″	7/16″	.56

FULL WAVE BRIDGE RECTIFIERS

Q1B	100	25		.67″	.67″	¾″	.84
Q4B	100	130		.67″	.67″	1 5/16″	1.56
A1B	180	25		1″	1″	¾″	1.22
B1B	300	25		1.2″	1.2″	¾″	1.28
C1B	600	25		1.5″	1.5″	¾″	1.46
M1B	1200	25		2″	2″	¾″	1.72

Diagrams of Dimensions

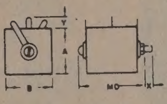


FIG. A

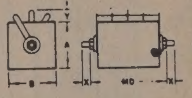


FIG. B

SELENIUM BATTERY CHARGER RECTIFIER

Type JD 4346B is the most universal rectifier for commercial "fast chargers" as used in service stations. It fits most models without circuit or mechanical modifications.

Single plate rectifiers are used for replacement of low-current chargers such as used at home, as "trickle" type in garages and for constant current models. By using singe plates of proper size, any current rating and circuit configuration (e.g. center tap, bridge, etc.) may be assembled.

Cat. No.	Output		Max. Input AC Volts	Circuit Connecting Diag. Fig.	Dimensions							Net Price
	DC Volt	DC Amp			Fig.	A	B	MD	X	Y	Stud	
JD4346B*	6-12	30-100**	16.5-0-16.5	1A	A	6	5	4⅛	¾	1⅛	⅜-16	16.75
JD4346D	6-12	30-100**	16.5-0-16.5	1	A	6	5	4⅛	¾	1⅛	⅜-16	16.75
JD116K	6-12	2 (Note A)	16.5-0-16.5	1 or 2	B	3	3	½	—	—	—	1.20
JD117K	6-12	3 (Note A)	16.5-0-16.5	1 or 2	B	4	4	½	—	—	—	1.80
JD241K	6-12	6 (Note A)	16.5-0-16.5	1 or 2	B	6	5	½	—	—	—	2.46
JD240K	6-12	9 (Note A)	16.5-0-16.5	1 or 2	B	7½	6½	½	—	—		3.40

*Most popular type. **30 without fan—100 with fan rated @ 800 LFM. Note A: Ratings shown for half wave. Two plates in center-tap circuit have twice this rating.

Circuit and Connecting Diagrams

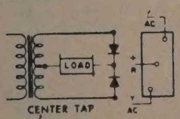


FIG. 1

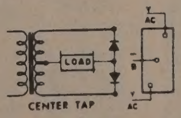


FIG. 1A

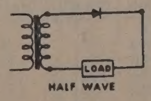


FIG. 2

Diagrams of Dimensions

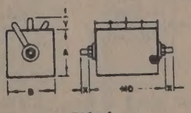


FIG. A

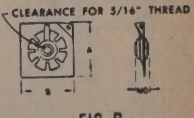


FIG. B

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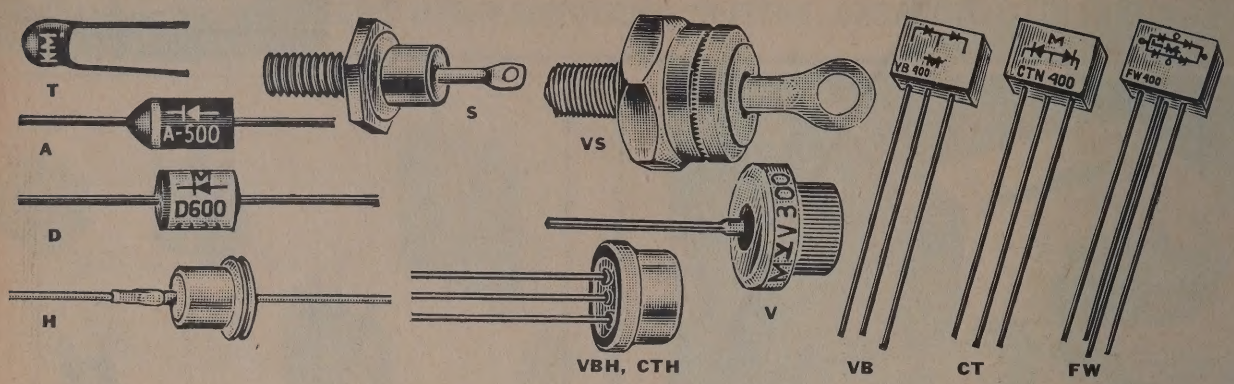

DIFFUSED JUNCTION SILICON RECTIFIERS

Manufactured to the most exacting standards. All are 100% inspected three separate times and are conservatively rated for exceptionally long-life performance.

"T" SILICON RECTIFIERS

Parallel leads, epoxy encapsulated. Rated 750 ma at +50° C; recurrent peak 5 amps; max. 4MS surge, 35 amps. Body, 7/16" dia. x 1/4"; leads, 3/8" spacing x 1½".

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
1N2090	50	35	$0.50
1N2091	100	70	.52
1N2092	200	140	.56
1N2093	300	210	.62
1N2094	400	280	.64
1N2095	500	350	.70
1N2096	600	420	.74

"A" SILICON RECTIFIERS

Axial leads, epoxy case. Rated 750 ma at +50° C; recurrent peak 5 amps; max. 4MS surge 35 amps. Body, .220" dia. x 3/8"; leads, 1½" (nom.).

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
A50	50	35	$0.58
A100	100	70	.60
1N2069	200	140	.64
A300	300	210	.70
1N2070	400	280	.72
A500	500	350	.80
1N2071	600	420	.84

"D" SILICON RECTIFIERS

Axial leads, metal case, hermetic seal. Rated 750 ma at +50° C and 500 ma at +125° C; recurrent peak 5 amps; max. 4MS surge 35 amps. Body, .240" dia. x .405"; leads, 1½" (nom.).

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
D50	50	35	$0.68
D100	100	70	.70
1N3193	200	140	.74
D300	300	210	.82
1N3194	400	280	.86
D500	500	350	.92
1N3195	600	420	1.00

"H" SILICON RECTIFIERS

Axial leads, "Top Hat" metal case, hermetic seal, gold plated. Rated 750 ma at +50° C and 250 ma at +150° C (except 1N1095, 425 ma at +100° C and 1N1096, 400 ma at +100° C). Body size, .270" dia. x .295" (flange 3/8" dia.); leads, 1½" (nom.).

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
1N536	50	35	$0.70
1N537	100	70	.73
1N538	200	140	.77
1N539	300	210	.85
1N540	400	280	.95
1N1095	500	350	1.02
1N1096	600	420	1.10

"S" SILICON RECTIFIERS

Stud mount, metal case, hermetic seal. Rated 3 amps at +50° C and 1 amp at +150° C; recurrent peak 25 amps; max. 4MS surge 100 amps. EIA DO-4 case; hex, 7/16"; #10-32 stud. Solder lug.

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
S50	50	35	$0.61
S100	100	70	.75
1N1124	200	140	.93
1N1125	300	210	1.28
1N1126	400	280	1.62
1N1127	500	350	2.25
1N1128	600	420	2.85

"V" SILICON RECTIFIERS

Heavy duty industrial case for press fit mounting; metal case, hermetic seal. Rated 18 amps at +150° C when properly installed in heat sink. Max. 4MS surge 300 amps. Body size, .500" dia. x 1/4" (nominal). Lead, #16 ga. x 1¼".

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
V50	50	....	$0.91
V100	100	....	.98
V200	200	....	1.01
V300	300	....	1.08
V400	400	....	1.10

"VS" SILICON RECTIFIERS

Stud mount, metal case, hermetic seal. Rated 15 amps at +150° C with heat sink. Max. 4MS surge 250 amps. Body size, .635" dia. x ½" (nom.); 11/16" hex; EIA DO-5 case. Solder lug. Cathode connected to case. "R" indicates reverse polarity.

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
1N3208	50	....	$1.40
1N3208R	50	....	1.40
1N3209	100	....	1.45
1N3209R	100	....	1.45
1N3210	200	....	2.00
1N3210R	200	....	2.00
1N3211	300	....	2.55
1N3211R	300	....	2.55
1N3212	400	....	3.15
1N3212R	400	....	3.15

PRE-PACKAGED SILICON RECTIFIER CIRCUITS

Matched silicon rectifiers permanently mounted in sealed cases. For replacing multiple rectifiers in doublers and bridges. Full details in technical bulletins.

"VB" VOLTAGE DOUBLER

Three parallel leads. Epoxy case. Rated 750 ma at +50° C. Case size, 15/32" x 11/16" x 1/4"; leads, 1½".

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
VB50	50	18	$1.00
VB100	100	35	1.05
VB200	200	70	1.16
VB300	300	105	1.29
VB400	400	140	1.30
VB500	500	180	1.46
VB600	600	210	1.56

"CT" FULL-WAVE RECTIFIER

Three parallel leads. Epoxy case. Rated 750 ma at +50° C. CTN center tap negative; CTP center tap positive. Case size, 15/32" x 11/16" x 1/4"; leads, 1½".

CT Neg. Mall. No.	CT Pos. Mall. No.	Max. PRV	Max. RMS Volts	Net Each
CTN50	CTP50	50	18	$1.00
CTN100	CTP100	100	35	1.05
CTN200	CTP200	200	70	1.16
CTN300	CTP300	300	105	1.29
CTN400	CTP400	400	140	1.30
CTN500	CTP500	500	180	1.46
CTN600	CTP600	600	210	1.56

PRE-PACKAGED CIRCUITS (CONT'D)

"FW" FULL-WAVE BRIDGE

Four parallel leads. Epoxy case. Rated 1.5 amps at +50° C and 1 amp at 100° C. Case size, 15/32" x 11/16" x 1/4"; leads, 1½".

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
FW50	50	35	$1.96
FW100	100	70	2.01
FW200	200	140	2.20
FW300	300	210	2.44
FW400	400	280	2.54
FW500	500	350	2.73
FW600	600	420	2.86

"VBH" VOLTAGE DOUBLER

Three parallel leads. Metal case, hermetic seal. Rate 750 ma at +50° C. Std. EIA case, 0.6" dia. x .34". Leads, 1½".

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
VBH50	50	18	$1.19
VBH100	100	35	1.25
VBH200	200	70	1.33
VBH300	300	105	1.46
VBH400	400	140	1.63
VBH500	500	180	1.75
VBH600	600	210	1.88

"CTH" FULL-WAVE RECTIFIER

Three parallel leads. Metal case, hermetic seal. Rated 750 ma at +50° C. CTHN center tap negative, CTHP center tap positive. Std. EIA case, 0.6" dia. x .34". Leads, 1½".

Mallory No.	Max. PRV	Max. RMS Volts	Net Each
CTHN50	50	18	$1.19
CTHP50	50	18	1.19
CTHN100	100	35	1.25
CTHP100	100	35	1.25
CTHN200	200	70	1.33
CTHP200	200	70	1.33
CTHN300	300	105	1.46
CTHP300	300	105	1.46
CTHN400	400	140	1.63
CTHP400	400	140	1.63
CTHN500	500	180	1.75
CTHP500	500	180	1.75
CTHN600	600	210	1.88
CTHP600	600	210	1.88

SEMICONDUCTOR HARDWARE

Used when semiconductors must be insulated from chassis.

Mallory No.	Description	Net Each
HDO-4	Complete kit, fits all EIA DO-4 rectifiers (Mallory S, ZS)	$0.10
HDO-4A	Mica washer	.01
HDO-4B	Brass washer	.015
HDO-4C	Teflon* washer	.015
HDO-4D	Solder lug	.02
HDO-4E	#10-32 locknut	.025
HDO-5	Complete kit, fits all EIA DO-5 rectifiers (Mallory VS)	.14
HDO-5A	Mica washer	.02
HDO-5B	Brass washer	.02
HDO-5C	Teflon* washer	.025
HDO-5D	Solder lug	.02
HDO-5E	1/4-28 locknut	.03

*Registered DuPont trademark.

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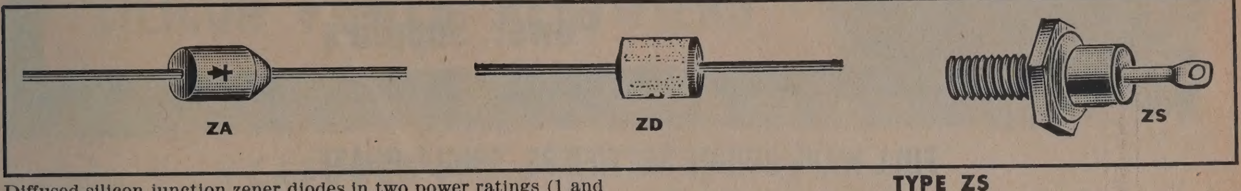
MALLORY Semiconductors

P. R. MALLORY & CO. Inc.

SILICON ZENER DIODES



Diffused silicon junction zener diodes in two power ratings (1 and 10 watts) and three standard case styles. Offer low thermal resistance and excellent forward characteristics. Exceed military requirements. Rugged cell construction for exceptional surge handling capability. **Tolerance:** No suffix (1N3016), ±20%; suffix **A** (1N3016**A**), ±10%; suffix **B** (1N3016**B**), ±5%.

TYPE ZA

High temperature regulator meets commercial, industrial, computer and home instrument requirements. Transfer molded for moisture-resistant, high strength package. Non-conductive, eliminating need for insulating sleeves. Low forward voltage drop and high temperature operation. **Power Dissipation:** 1 watt. **Size:** .220″ dia. x .375″ l., max.; leads 1¼″ lg. minimum.

TYPE ZD

EIA standard DO-13, flangeless hermetically-sealed package. **Power Dissipation:** 1 watt. **Temperature Range:** −65° C to +175° C, operating and storage. **Size:** .235″ dia. x .357″ l., max.; leads 1.4″ lg., minimum.

Nom. Zener (VZ) Volts	Type ZA Cold Case			Type ZD DO-13 Case			Type ZS DO-4 Case		
	Mall. No.	**IZT Ma**	**Net Ea.***	**Mall. No.**	**IZT Ma**	**Net Ea.***	**Mall. No.**	**IZT Ma**	**Net Ea.***
6.8	**ZA6.8**	37	**$0.99**	**1N3016**	37	**$1.95**	**1N2970**	370	**$3.71**
	ZA6.8A	37	**1.12**	**1N3016A**	37	**2.25**	**1N2970A**	370	**4.58**
	ZA6.8B	37	**1.60**	**1N3016B**	37	**3.23**	**1N2970B**	370	**5.93**
7.5	**ZA7.5**	34	**.99**	**1N3017**	34	**1.95**	**1N2971**	335	**3.71**
	ZA7.5A	34	**1.12**	**1N3017A**	34	**2.25**	**1N2971A**	335	**4.58**
	ZA7.5B	34	**1.60**	**1N3017B**	34	**3.23**	**1N2971B**	335	**5.93**
8.2	**ZA8.2**	31	**.99**	**1N3018**	31	**1.95**	**1N2972**	305	**3.71**
	ZA8.2A	31	**1.12**	**1N3018A**	31	**2.25**	**1N2972A**	305	**4.58**
	ZA8.2B	31	**1.60**	**1N3018B**	31	**3.23**	**1N2972B**	305	**5.93**
9.1	**ZA9.1**	28	**.99**	**1N3019**	28	**1.95**	**1N2973**	275	**3.71**
	ZA9.1A	28	**1.12**	**1N3019A**	28	**2.25**	**1N2973A**	275	**4.58**
	ZA9.1B	28	**1.60**	**1N3019B**	28	**3.23**	**1N2973B**	275	**5.93**
10	**ZA10**	25	**.99**	**1N3020**	25	**1.95**	**1N2974**	250	**3.71**
	ZA10A	25	**1.12**	**1N3020A**	25	**2.25**	**1N2974A**	250	**4.58**
	ZA10B	25	**1.60**	**1N3020B**	25	**3.23**	**1N2974B**	250	**5.93**
11	**ZA11**	23	**.99**	**1N3021**	23	**1.95**	**1N2975**	230	**3.71**
	ZA11A	23	**1.12**	**1N3021A**	23	**2.25**	**1N2975A**	230	**4.58**
	ZA11B	23	**1.60**	**1N3021B**	23	**3.23**	**1N2975B**	230	**5.93**
12	**ZA12**	21	**.99**	**1N3022**	21	**1.95**	**1N2976**	210	**3.71**
	ZA12A	21	**1.12**	**1N3022A**	21	**2.25**	**1N2976A**	210	**4.58**
	ZA12B	21	**1.60**	**1N3022B**	21	**3.23**	**1N2976B**	210	**5.93**
13	**ZA13**	19	**.99**	**1N3023**	19	**1.95**	**1N2977**	190	**3.71**
	ZA13A	19	**1.12**	**1N3023A**	19	**2.25**	**1N2977A**	190	**4.58**
	ZA13B	19	**1.60**	**1N3023B**	19	**3.23**	**1N2977B**	190	**5.93**
15	**ZA15**	17	**.99**	**1N3024**	17	**1.95**	**1N2979**	170	**3.71**
	ZA15A	17	**1.12**	**1N3024A**	17	**2.25**	**1N2979A**	170	**4.58**
	ZA15B	17	**1.60**	**1N3024B**	17	**3.23**	**1N2979B**	170	**5.93**
16	**ZA16**	15.5	**.99**	**1N3025**	15.5	**1.95**	**1N2980**	155	**3.71**
	ZA16A	15.5	**1.12**	**1N3025A**	15.5	**2.25**	**1N2980A**	155	**4.58**
	ZA16B	15.5	**1.60**	**1N3025B**	15.5	**3.23**	**1N2980B**	155	**5.93**
18	**ZA18**	14	**.99**	**1N3026**	14	**1.95**	**1N2982**	140	**3.71**
	ZA18A	14	**1.12**	**1N3026A**	14	**2.25**	**1N2982A**	140	**4.58**
	ZA18B	14	**1.60**	**1N3026B**	14	**3.23**	**1N2982B**	140	**5.93**
20	**ZA20**	12.5	**.99**	**1N3027**	12.5	**1.95**	**1N2984**	125	**3.71**
	ZA20A	12.5	**1.12**	**1N3027A**	12.5	**2.25**	**1N2984A**	125	**4.58**
	ZA20B	12.5	**1.60**	**1N3027B**	12.5	**3.23**	**1N2984B**	125	**5.93**
22	**ZA22**	11.5	**.99**	**1N3028**	11.5	**1.95**	**1N2985**	115	**3.71**
	ZA22A	11.5	**1.12**	**1N3028A**	11.5	**2.25**	**1N2985A**	115	**4.58**
	ZA22B	11.5	**1.60**	**1N3028B**	11.5	**3.23**	**1N2985B**	115	**5.93**
24	**ZA24**	10.5	**.99**	**1N3029**	10.5	**1.95**	**1N2986**	105	**3.71**
	ZA24A	10.5	**1.12**	**1N3029A**	10.5	**2.25**	**1N2986A**	105	**4.58**
	ZA24B	10.5	**1.60**	**1N3029B**	10.5	**3.23**	**1N2986B**	105	**5.93**
27	**ZA27**	9.5	**.99**	**1N3030**	9.5	**1.95**	**1N2988**	95	**3.71**
	ZA27A	9.5	**1.12**	**1N3030A**	9.5	**2.25**	**1N2988A**	95	**4.58**
	ZA27B	9.5	**1.60**	**1N3030B**	9.5	**3.23**	**1N2988B**	95	**5.93**
30	**ZA30**	8.5	**1.10**	**1N3031**	8.5	**2.21**	**1N2989**	85	**3.71**
	ZA30A	8.5	**1.52**	**1N3031A**	8.5	**3.11**	**1N2989A**	85	**4.58**
	ZA30B	8.5	**2.03**	**1N3031B**	8.5	**4.09**	**1N2989B**	85	**5.93**
33	**ZA33**	7.5	**1.10**	**1N3032**	7.5	**2.21**	**1N2990**	75	**3.71**
	ZA33A	7.5	**1.52**	**1N3032A**	7.5	**3.11**	**1N2990A**	75	**4.58**
	ZA33B	7.5	**2.03**	**1N3032B**	7.5	**4.09**	**1N2990B**	75	**5.93**
36	**ZA36**	7.0	**1.10**	**1N3033**	7.0	**2.21**	**1N2991**	70	**3.71**
	ZA36A	7.0	**1.52**	**1N3033A**	7.0	**3.11**	**1N2991A**	70	**4.58**
	ZA36B	7.0	**2.03**	**1N3033B**	7.0	**4.09**	**1N2991B**	70	**5.93**

ZENER DIODE HARDWARE

Mallory Number	Description	Pieces Per Pkg.	Net Each
HDO-4	Kit of two HDO-4A's, one each HDO-4B, HDO-4C, HDO-4D and HDO-4E	....	**$0.13**
HDO-4A	Mica washer	25	**.012**
HDO-4B	Brass washer	25	**.017**
HDO-4C	Teflon washer	25	**.017**
HDO-4D	Solder lug	25	**.02**
HDO-4E	#10-32 lock nut	25	**.025**

TYPE ZS

Series 1N2970 thru 1N3015 EIA standard DO-4, all-welded package for heavy-duty stud mounting. Very low thermal resistance characteristics. **Power Dissipation:** 10 watts. **Temperature Range:** −65° C to +175° C. **Polarity:** Cathode to stud as listed. Anode to stud available on special order, add suffix **R** (example: 1N2970**R**, 1N2970**R**A, etc.); same price. **Size:** 7/16″ hex x ¾″ h. from base; #10-32 NF threaded stud 7/16″ lg. HDO-4 hardware kit supplied.

Nom. Zener (VZ) Volts	Type ZA Cold Case			Type ZD DO-13 Case			Type ZS DO-4 Case		
	Mall. No.	**IZT Ma**	**Net Ea.***	**Mall. No.**	**IZT Ma**	**Net Ea.***	**Mall. No.**	**ITZ Ma**	**Net Ea.***
39	**ZA39**	6.5	**$1.10**	**1N3034**	6.5	**$2.21**	**1N2992**	65	**$3.71**
	ZA39A	6.5	**1.52**	**1N3034A**	6.5	**3.11**	**1N2992A**	65	**4.58**
	ZA39B	6.5	**2.03**	**1N3034B**	6.5	**4.09**	**1N2992B**	65	**5.93**
43	**ZA43**	6.0	**1.10**	**1N3035**	6.0	**2.21**	**1N2993**	60	**3.71**
	ZA43A	6.0	**1.52**	**1N3035A**	6.0	**3.11**	**1N2993A**	60	**4.58**
	ZA43B	6.0	**2.03**	**1N3035B**	6.0	**4.09**	**1N2993B**	60	**5.93**
47	**ZA47**	5.5	**1.10**	**1N3036**	5.5	**2.21**	**1N2995**	55	**3.71**
	ZA47A	5.5	**1.52**	**1N3036A**	5.5	**3.11**	**1N2995A**	55	**4.58**
	ZA47B	5.5	**2.03**	**1N3036B**	5.5	**4.09**	**1N2995B**	55	**5.93**
51	**ZA51**	5.0	**1.10**	**1N3037**	5.0	**2.21**	**1N2997**	50	**3.71**
	ZA51A	5.0	**1.52**	**1N3037A**	5.0	**3.11**	**1N2997A**	50	**4.58**
	ZA51B	5.0	**2.03**	**1N3037B**	5.0	**4.09**	**1N2997B**	50	**5.93**
56	**ZA56**	4.5	**1.10**	**1N3038**	4.5	**2.21**	**1N2999**	45	**3.71**
	ZA56A	4.5	**1.52**	**1N3038A**	4.5	**3.11**	**1N2999A**	45	**4.58**
	ZA56B	4.5	**2.03**	**1N3038B**	4.5	**4.09**	**1N2999B**	45	**5.93**
62	**ZA62**	4.0	**1.10**	**1N3039**	4.0	**2.21**	**1N3000**	40	**3.71**
	ZA62A	4.0	**1.52**	**1N3039A**	4.0	**3.11**	**1N3000A**	40	**4.58**
	ZA62B	4.0	**2.03**	**1N3039B**	4.0	**4.09**	**1N3000B**	40	**5.93**
68	**ZA68**	3.7	**1.10**	**1N3040**	3.7	**2.21**	**1N3001**	37	**3.71**
	ZA68A	3.7	**1.52**	**1N3040A**	3.7	**3.11**	**1N3001A**	37	**4.58**
	ZA68B	3.7	**2.03**	**1N3040B**	3.7	**4.09**	**1N3001B**	37	**5.93**
75	**ZA75**	3.3	**1.10**	**1N3041**	3.3	**2.21**	**1N3002**	33	**3.71**
	ZA75A	3.3	**1.52**	**1N3041A**	3.3	**3.11**	**1N3002A**	33	**4.58**
	ZA75B	3.3	**2.03**	**1N3041B**	3.3	**4.09**	**1N3002B**	33	**5.93**
82	**ZA82**	3.0	**1.10**	**1N3042**	3.0	**2.21**	**1N3003**	30	**3.71**
	ZA82A	3.0	**1.52**	**1N3042A**	3.0	**3.11**	**1N3003A**	30	**4.58**
	ZA82B	3.0	**2.03**	**1N3042B**	3.0	**4.09**	**1N3003B**	30	**5.93**
91	**ZA91**	2.8	**1.10**	**1N3043**	2.8	**2.21**	**1N3004**	28	**3.71**
	ZA91A	2.8	**1.52**	**1N3043A**	2.8	**3.11**	**1N3004A**	28	**4.58**
	ZA91B	2.8	**2.03**	**1N3043B**	2.8	**4.09**	**1N3004B**	28	**5.93**
100	**ZA100**	2.5	**1.10**	**1N3044**	2.5	**2.21**	**1N3005**	25	**3.71**
	ZA100A	2.5	**1.52**	**1N3044A**	2.5	**3.11**	**1N3005A**	25	**4.58**
	ZA100B	2.5	**2.03**	**1N3044B**	2.5	**4.09**	**1N3005B**	25	**5.93**
110	**ZA110**	2.3	**1.22**	**1N3045**	2.3	**2.40**	**1N3007**	23	**4.13**
	ZA110A	2.3	**1.79**	**1N3045A**	2.3	**3.56**	**1N3007A**	23	**4.58**
	ZA110B	2.3	**2.74**	**1N3045B**	2.3	**5.36**	**1N3007B**	23	**5.93**
120	**ZA120**	2.0	**1.22**	**1N3046**	2.0	**2.40**	**1N3008**	20	**4.13**
	ZA120A	2.0	**1.79**	**1N3046A**	2.0	**3.56**	**1N3008A**	20	**4.58**
	ZA120B	2.0	**2.74**	**1N3046B**	2.0	**5.36**	**1N3008B**	20	**5.93**
130	**ZA130**	1.9	**1.22**	**1N3047**	1.9	**2.40**	**1N3009**	19	**4.13**
	ZA130A	1.9	**1.79**	**1N3047A**	1.9	**3.56**	**1N3009A**	19	**4.58**
	ZA130B	1.9	**2.74**	**1N3047B**	1.9	**5.36**	**1N3009B**	19	**5.93**
150	**ZA150**	1.7	**1.22**	**1N3048**	1.7	**2.40**	**1N3011**	17	**4.13**
	ZA150A	1.7	**1.79**	**1N3048A**	1.7	**3.56**	**1N3011A**	17	**4.58**
	ZA150B	1.7	**2.74**	**1N3048B**	1.7	**5.36**	**1N3011B**	17	**5.93**
160	**ZA160**	1.6	**1.22**	**1N3049**	1.6	**2.40**	**1N3012**	16	**4.13**
	ZA160A	1.6	**1.79**	**1N3049A**	1.6	**3.56**	**1N3012A**	16	**6.26**
	ZA160B	1.6	**2.74**	**1N3049B**	1.6	**5.36**	**1N3012B**	16	**9.53**
180	**ZA180**	1.4	**1.22**	**1N3050**	1.4	**2.40**	**1N3014**	14	**4.13**
	ZA180A	1.4	**1.79**	**1N3050A**	1.4	**3.56**	**1N3014A**	14	**6.26**
	ZA180B	1.4	**2.74**	**1N3050B**	1.4	**5.36**	**1N3014B**	14	**9.53**
200	**ZA200**	1.2	**1.22**	**1N3051**	1.2	**2.40**	**1N3015**	12	**4.13**
	ZA200A	1.2	**1.79**	**1N3051A**	1.2	**3.56**	**1N3015A**	12	**6.26**
	ZA200B	1.2	**2.74**	**1N3051B**	1.2	**5.36**	**1N3015B**	12	**9.53**

★QUANTITY PRICING

For quantity orders on a given type, find price shown in tables above, and compare it in table below to find your best price for a larger quantity order.

Reg. Net Each (Lots 1-24)	Quantity Order Net Each, Lots		Reg. Net Each (Lots 1-24)	Quantity Order Net Each, Lots	
	25-99	100-999		25-99	100-999
$0.99	$0.92	$0.75	$2.74	$2.54	$2.05
1.10	1.02	.83	3.11	2.93	2.36
1.12	1.05	.85	3.23	3.04	2.40
1.22	1.13	.91	3.56	3.34	2.66
1.52	1.46	1.18	3.71	3.49	2.81
1.60	1.50	1.22	4.09	3.83	3.08
1.79	1.66	1.34	4.13	3.86	3.08
1.95	1.88	1.50	4.58	4.31	3.45
2.03	1.88	1.52	5.36	4.98	4.01
2.21	2.06	1.65	5.93	5.59	4.46
2.25	2.10	1.69	6.26	5.85	4.69
2.40	2.29	1.84	9.53	9.00	7.16

CONTACT FACTORY FOR PRICES AND DELIVERY ON ZENER DIODES IN ±1% TOLERANCES OR MATCHED PAIRS FOR SPECIAL USES.

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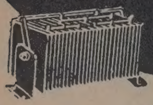
DIRECTRON

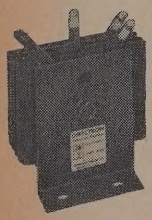


Industrial Selenium Rectifiers, Transformers, Chokes and Power Supplies

FULL WAVE BRIDGE RECTIFIERS, SINGLE PHASE, RESISTIVE-INDUCTIVE LOADS

ALL PRICES SHOWN ARE USER NET PRICES

Max. Amps.	18v. in— 14v. out No.	Price	36v: in— 28v. out No.	Price	54v. in— 42v. out No.	Price	130v. in— 100v. out No.	Price
½	A 18	$ 1.05	A 36	$ 1.50	A 54	$ 2.50	A 130	$ 5.00
1	B 18	1.20	B 36	2.20	B 54	3.20	B 130	8.00
2	C 18	2.10	C 36	3.00	C 54	4.50	C 130	10.00
3	D 18	2.70	D 36	4.00	D 54	6.00	D 130	14.00
4	E 18	3.60	E 36	7.50	E 54	10.00	E 130	24.00
6	F 18	4.50	F 36	9.00	F 54	12.00	F 130	32.00
10	G 18	6.60	G 36	12.00	G 54	18.00	G 130	39.00
12	H 18	8.20	H 36	16.00	H 54	22.00	H 130	44.00
15	J 18	10.50	J 36	20.00	J 54	27.00	J 130	54.00
20	K 18	12.50	K 36	25.00	K 54	36.00	K 130	77.00
24	L 18	15.00	L 36	30.00	L 54	42.00	L 130	82.00
30	M 18	19.10	M 36	37.00	M 54	55.00		
36	P 18	24.00	P 36	48.00				
50	R 18	30.00	R 36	60.00				



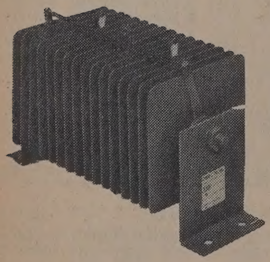
C36

220 v. Single Phase available . . . up to 1000 amps.

HALF-WAVE, CENTER-TAP, DOUBLER,

TRIPLER or 3-PHASE

Quotations on request



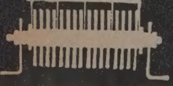
E130

24 HOUR SERVICE

on Custom Built Stacks

F18

SEE OUR AD UNDER "TRANSFORMERS" IN SECTION 5600 FOR RECTIFIER TRANSFORMERS AND HIGH CURRENT CHOKES



Mfd. by SANFORD MILLER CORP. BROOKLYN 6, N. Y.

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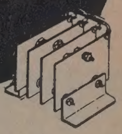
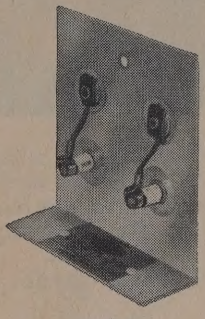
SILICON POWER RECTIFIERS

HY-A-SIL
High - Ampere - Silicon

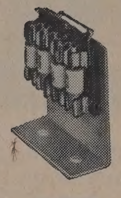


FEATURES

- High operating temperature, 190°C (Up to 120°C ambient)
- High operating voltage (Up to 600 p.i.v.)
- High efficiency (99% compared to about 75% for selenium)
- Excellent regulation (4% compared to about 15% for selenium)



SC-BR-F



SA-BR-D

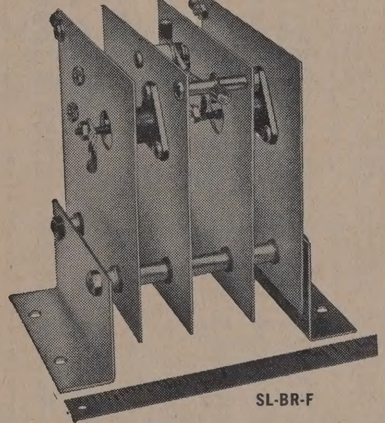
Stock No.	Type	AC Input Volts up to	DC Output Volts uo to	Max. Amps Self Cooled	Max. Amps Fan Cooled	Size And Weight	User Net Price
SI-CT-A	Center-Tap	18-0-18	16	40	80	B	$ 15.00
SI-CT-B	Center-Tap	36-0-36	32	40	80	B	20.00
SL-CT-A	Center-Tap	18-0-18	16	50	100	B	17.50
SL-CT-B	Center-Tap	36-0-36	32	50	100	B	22.50
SL-CT-D	Center-Tap	72-0-72	64	50	100	B	36.00
SL-CT-F	Center-Tap	140-0-140	125	50	100	B	44.00
SK-CT-A	Center-Tap	18-0-18	16	100	200	C	30.00
SK-CT-B	Center-Tap	36-0-36	32	100	200	C	34.00
SK-CT-D	Center-Tap	72-0-72	64	100	200	C	37.00
SK-CT-F	Center-Tap	140-0-140	125	100	200	C	48.00
SM-CT-A	Center-Tap	18-0-18	16	200	400	D	45.00
SM-CT-B	Center-Tap	36-0-36	32	200	400	D	60.00
SM-CT-D	Center-Tap	72-0-72	64	200	400	D	62.00
SM-CT-F	Center-Tap	140-0-140	125	200	400	D	76.00
SO-CT-B	Center-Tap	36-0-36	32	400	800	E	100.00
SA-BR-D	1φ Bridge	140	125	1	*	—	9.00
SA-BR-F	1φ Bridge	280	250	1	*	—	10.50
SC-BR-D	1φ Bridge	140	125	2	*	—	10.50
SC-BR-F	1φ Bridge	280	250	2	*	—	12.00
SD-BR-A	1φ Bridge	36	32	6	12	F	18.00
SD-BR-D	1φ Bridge	140	125	6	12	F	30.00
SD-BR-F	1φ Bridge	280	250	6	12	F	39.00
SE-BR-A	1φ Bridge	36	32	10	20	G	21.00
SE-BR-D	1φ Bridge	140	125	10	20	G	36.00
SE-BR-F	1φ Bridge	280	250	10	20	G	44.00
SF-BR-A	1φ Bridge	36	32	20	40	H	24.00
SF-BR-D	1φ Bridge	140	125	20	40	H	40.00
SF-BR-F	1φ Bridge	280	250	20	40	H	48.00
SI-BR-A	1φ Bridge	36	32	40	80	J	30 00
SI-BR-B	1φ Bridge	72	64	40	80	J	36.00
SI-BR-D	1φ Bridge	140	125	40	80	J	63.00
SI-BR-F	1φ Bridge	280	250	40	80	J	95.00
SL-BR-A	1φ Bridge	36	32	50	100	J	33.00
SL-BR-B	1φ Bridge	72	64	50	100	J	39.00
SL-BR-D	1φ Bridge	140	125	50	100	J	70.00
SL-BR-F	1φ Bridge	280	250	50	100	J	110.00
SG-BR-A	1φ Bridge	36	32	70	140	J	40.00
SG-BR-B	1φ Bridge	72	64	70	140	J	50.00
SG-BR-D	1φ Bridge	140	125	70	140	J	80.00
SG-BR-F	1φ Bridge	280	250	70	140	J	130.00
SK-BR-A	1φ Bridge	36	32	100	200	K	60.00
SK-BR-B	1φ Bridge	72	64	100	200	K	68.00
SK-BR-D	1φ Bridge	140	125	100	200	K	90.00
SK-BR-F	1φ Bridge	280	250	100	200	K	150.00
SM-BR-A	1φ Bridge	36	32	200	400	L	100.00
SM-BR-B	1φ Bridge	72	64	200	400	L	120.00
SM-BR-D	1φ Bridge	140	125	200	400	L	180.00
SM-BR-F	1φ Bridge	280	250	200	400	L	260.00
SO-BR-B	1φ Bridge	72	64	400	800	M	270.00
SO-BR-F	1φ Bridge	280	250	400	800	M	570.00
SL-PH-A	3φ Bridge	36	48	75	150	N	60.00
SL-PH-B	3φ Bridge	72	96	75	150	N	85.00
SL-PH-C	3φ Bridge	105	144	75	150	N	120.00
SL-PH-D	3φ Bridge	140	188	75	150	N	180.00
SL-PH-E	3φ Bridge	220	220	75	150	M	220.00
SK-PH-E	3φ Bridge	220	220	100	200	M	240.00
SM-PH-E	3φ Bridge	220	220	200	400	M	300.00
SO-PH-E	3φ Bridge	220	220	400	800	M	375.00

All above ratings based on 30°C ambient. Fan-cooled ratings based on air velocity of 100 linear ft/minute. For resistive or inductive loads, as rated. For capacitive or battery loads, derate amperage 20%. Doublers, triplers, 3 phase half wave and 3 phase center-tap also available. Custom-built stacks, 24 hour service.

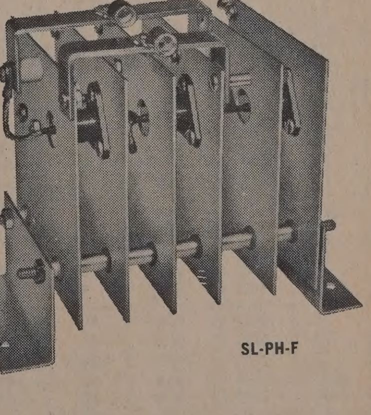
DIMENSIONS WITH BRACKETS

Size	Length	Height	Width	Weight
B	3″	6″	5″	12 oz.
C	3″	6″	6″	1 lb.
D	4″	8″	7″	2 lbs.
E	4″	9″	8″	6 lbs.
F	6″	5″	5″	1¼ lbs.
G	6″	6″	5″	1½ lbs.
H	6″	6″	6″	2 lbs.
J	6″	6″	5″	1½ lbs.
K	7″	8″	7″	4 lbs.
L	8″	9″	8″	6 lbs.
M	8″	11″	10″	6 lbs.
N	8″	6″	5″	4 lbs.

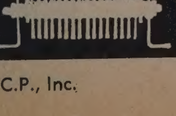
*Not suitable for fan-cooling



SL-BR-F



SL-PH-F



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Net

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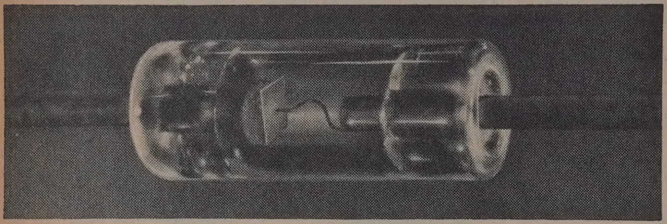
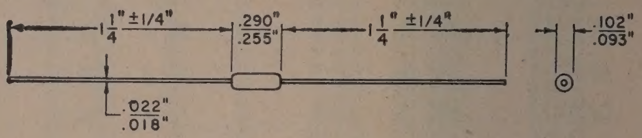
STOCK SUBMINIATURE GERMANIUM DIODES



Ohmite subminiature, gold bonded (gold whisker wire welded to germanium) germanium diodes are hermetically sealed in glass. These advanced diodes feature:

1. Unusual stability built in through temperature cycling, aging, and 100% shock test.
2. Wide operating temperature range: —85°F. through 194°F.
3. The absolute in moisture and gas resistance.

All Ohmite diodes are leak tested at 100 psi hydrostatic pressure, subjected to mechanical and temperature shock, and checked for vibration stability through production random sampling. Ohmite diodes have standard EIA color coding, beginning at the cathode (germanium pellet) end. Rating: 80 mw at 68°F. Capacitance: approximately .5 μμf. Storage temperature: to 248°F.



Stock Number	PIV	Max. Rev. μa at 25°C	Min. Fwd. ma at 1 V	NET PRICE 1/99	NET PRICE 100/999	NET PRICE 1000/4999
1N34	75	500 @ 50V	5	$ .29	$ .22	$ .18
1N34A	75	500 @ 50V	5	.29	.22	.18
1N35⑦	75	500 @ 50V	5	1.42	1.07	.89
1N38	125	500 @ 100V	5	.68	.51	.43
1N38A	125	500 @ 100V	5	.68	.51	.43
1N38B	125	500 @ 100V	5	.68	.51	.43
1N39	220	600 @ 200V	5	1.53	1.15	.96
1N39A	250	65 @ 100V	5	1.65	1.24	1.03
1N39B	200	600 @ 200V	5	1.53	1.15	.96
1N43	75	800 @ 50V	5	.41	.31	.26
1N44	145	1000 @ 50V	5	.56	.42	.35
1N47	145	500 @ 100V	5	.50	.38	.31
1N48	85	800 @ 50V	5	.30	.23	.19
1N51	75	1500 @ 50V	5	.30	.23	.19
1N54	75	100 @ 50V	5	.50	.38	.31
1N54A	75	100 @ 50V	5	.50	.38	.31
1N55	170	500 @ 150V	5	.95	.71	.59
1N55A	170	500 @ 150V	5	.95	.71	.59
1N56	50	300 @ 30V	15	.38	.29	.24
1N56A	50	300 @ 30V	15	.38	.29	.24
1N58	125	600 @ 100V	5	.69	.52	.43
1N58A	125	600 @ 100V	5	.69	.52	.43
1N60①	25	20 @ 10V	5	.39	.29	.24
1N60A①	25	20 @ 10V	5	.39	.29	.24
1N63	125	50 @ 50V	5	.81	.61	.51
1N64①	25	25 @ 10V	50	.27	.20	.17
1N64A①	25	25 @ 10V	50	.27	.20	.17
1N65	110	200 @ 50V	5	.43	.32	.27
1N66	75	800 @ 50V	5	.36	.27	.23
1N67	100	50 @ 50V	5	.55	.41	.34
1N67A	100	50 @ 50V	5	.55	.41	.34
1N68A	130	625 @ 100V	5	.63	.47	.39
1N69	75	500 @ 50V	5	.34	.26	.21
1N69A	75	500 @ 50V	5	.34	.26	.21
1N70	125	300 @ 50V	5	.43	.32	.27
1N70A	125	300 @ 50V	5	.43	.32	.27
1N87	25	30 @ 1.5V	.1*	.39	.29	.24
1N87A	25	30 @ 1.5V	.1*	.39	.29	.24
1N90	75	500 @ 50V	5	.32	.24	.20
1N95	75	500 @ 50V	5	.40	.30	.25
1N96	75	500 @ 50V	40	.53	.40	.33
1N96A	75	500 @ 50V	40	.53	.40	.33
1N97	100	100 @ 50V	20	.55	.41	.34
1N98	100	100 @ 50V	40	.43	.32	.27
1N98A	100	100 @ 50V	40	.43	.32	.27
1N99	100	50 @ 50V	20	.45	.34	.28
1N99A	100	50 @ 50V	20	.45	.34	.28
1N100	100	50 @ 50V	40	$ .46	$ .35	$ .29
1N100A	100	50 @ 50V	40	.46	.35	.29
1N116	75	100 @ 50V	5	.48	.36	.30
1N118	75	100 @ 50V	40	.55	.41	.34
1N126	75	300 @ 50V	5	.39	.29	.24
1N126A	75	300 @ 50V	5	.39	.29	.24
JAN-1N126A	75	750 @ 50V	5	.43	.32	.27
1N127A	125	200 @ 50V	5	.80	.60	.50
JAN-1N127A	125	200 @ 50V	5	.88	.66	.55
1N128	50	10 @ 10V	3	.43	.32	.27
JAN-1N128	50	10 @ 10V	3	.47	.35	.29
1N135	75	850 @ 50V	5	.29	.22	.18
1N144	50	200 @ 20V	100	.35	.26	.22
1N191③	90	25 @ 10V⑨	5	.46	.35	.29
1N192③	90	250 @ 50V⑨	5	.41	.31	.26
1N198	100	250 @ 50V⑥	5	.50	.38	.31
1N270	100	100 @ 50V	200⑧	.45	.34	.28
JAN-1N270	100	100 @ 50V	200⑧	.50	.38	.31
1N273	40	20 @ 20V	100	.46	.35	.29
1N276	100	100 @ 50V	40	.39	.29	.24
JAN-1N276⑤	100	100 @ 50V	40	.43	.32	.27
1N277	125	250 @ 50V⑥	100	.53	.40	.33
JAN-1N277	125	250 @ 50V⑥	100	.58	.44	.36
1N279	50	200 @ 20V	100	.43	.32	.27
1N281	75	500 @ 50V	100	.46	.35	.29
JAN-1N281	75	500 @ 50V	100	.51	.38	.32
1N294	75	10 @ 10V	5	.31	.23	.19
1N295①	25	200 @ 10V	5	.32	.24	.20
1N295A①	25	200 @ 10V	5	.32	.24	.20
1N298	90	200 @ 40V	40	.43	.32	.27
1N305	75	20 @ 50V	100†	2.34	1.76	1.46
1N497	30	20 @ 20V	120†	.41	.31	.26
1N498	50	25 @ 40V	120†	.45	.34	.28
1N616	40	150 @ 30V	10	.25	.19	.16
1N695⑤	35	20 @ 10V⑥	100	1.35	1.01	.84
1N774	75	150 @ 50V	100	.58	.44	.36
OMC26	50	150 @ 50V	200⑧	.45	.34	.28
OMC28	50	25 @ 50V	200⑧	.45	.34	.28
OMC37	150	200 @ 10V	200⑧	.58	.44	.36
OMC550	30	100 @ 10V	500⑧	.25	.19	.16
OMC635	75	4 @ 10V	100	.54	.41	.34
OMC646	150	4 @ 10V	200⑧	.82	.62	.51
OMC678	75	75 @ 50V	50	.41	.31	.26
OMC688	100	75 @ 50V	100	.63	.47	.39
OMC769④	50	25 @ 50V	200⑧	2.03	1.52	1.27
OMC1133④	150	25 @ 50V	100	1.02	.77	.64
OMC1137②	75	150 @ 50V	200⑧	.54	.41	.34

①Video Detector Test ②0.2 μsec. ③0.5 μsec. ④0.4 μsec. ⑤0.3μsec. ⑥75°C ⑦Consists of two matched diodes shipped as a pair with the forward current at 1 volt of the lower resistance diode within 10% of the current of the higher resistance diode. ⑧Duty cycle must be adjusted in testing at these high forward currents so that average power dissipated does not exceed 80 mw. ⑨55°C ⑩0.6 μsec. *At 0.25 volts †At 0.8 volts

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OHMITE

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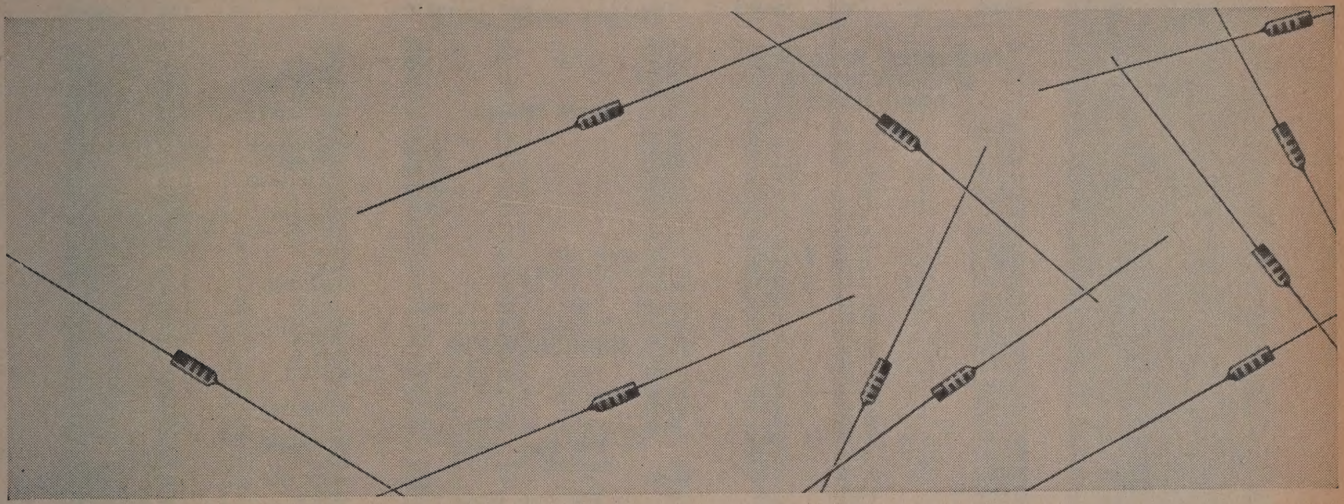
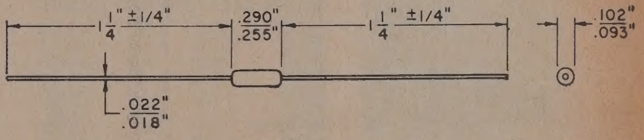
STOCK SUBMINIATURE SILICON DIODES

FOR GENERAL PURPOSE AND LOW POWER RECTIFIER USE



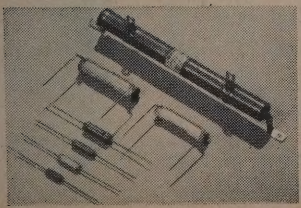
Ohmite silicon diodes employ alloy and diffusion methods of junction formation. The entire assembly is hermetically sealed in glass and is light-shielded. All units are subjected to severe mechanical and environmental checks and are tested to exacting electrical requirements with liberal safety factors. Power rating is 400 milliwatts at 20°C except where otherwise indicated. Operating temperature range is –65°C to +150°C. Ohmite diodes are distinguished for long life, superior operating characteristics, and excellent stability. No effort is spared at Ohmite to improve the reliability of diodes shipped to you from our factory. Hundreds of other diodes are available on ten day delivery or made to order (request Ohmite Catalog 804).



Stock Number	PIV	Max. Rev. µa at 25°C	Min. Fwd. ma at 1 V	NET PRICE 1/99	100/999	1000/4999
1N456	35	.025 @ 25V	40	$ .37	$ .28	$ .23
1N456A	35	.025 @ 25V	100	.37	.28	.23
1N457	75	.025 @ 60V	20	.45	.34	.28
1N457A	70	.025 @ 60V	100	.45	.34	.28
1N458	150	.025 @ 125V	7	.51	.38	.32
1N458A	150	.025 @ 125V	100	.51	.38	.32
1N459	220	.025 @ 175V	3	.66	.50	.41
1N459A	220	.025 @ 175V	100	.66	.50	.41
1N461	35	.5 @ 25V	15	.35	.26	.22
1N462	80	.5 @ 60V	5	.38	.29	.24
1N462A	80	.5 @ 60V	100	.38	.29	.24
1N463	220	.5 @ 175V	1	.46	.35	.29
1N464	150	.5 @ 125V	3	.72	.54	.45
1N482‡	45	.25 @ 30V	100	.59	.44	.37
1N482A	45	.025 @ 30V	100	.65	.49	.41
1N482B	45	.025 @ 30V	100	.65	.49	.41
1N483‡	90	.25 @ 60V	100	.67	.50	.42
1N483A	90	.025 @ 60V	100	.68	.51	.43
1N483B	90	.025 @ 60V	100	.69	.52	.43
1N484‡	160	.25 @ 125V	100	.71	.53	.44
1N484A	160	.025 @ 125V	100	$ .79	$ .59	$ .49
1N484B	150	.025 @ 125V	100	.79	.59	.49
1N485‡	230	.25 @ 175V	100	.79	.59	.49
1N485A	230	.025 @ 175V	100	1.06	.80	.66
1N485B	230	.025 @ 175V	100	1.06	.80	.66
1N486‡	280	.25 @ 225V	100	1.25	.94	.78
1N486A	280	.05 @ 225V	100	1.54	1.16	.96
1N486B	280	.05 @ 225V	100	1.71	1.28	1.07
1N487‡	375	.25 @ 300V	100	2.50	1.88	1.56
1N487A	375	.10 @ 300V	100	2.75	2.06	1.72
1N488‡	460	.25 @ 380V	100	2.50	1.88	1.56
1N488A	460	.10 @ 380V	100	2.95	2.21	1.84
1N645	260	.2 @ 225V	400	1.50	1.13	.94
1N645A#	260	.2 @ 225V	400	1.65	1.24	1.03
1N646#	375	.2 @ 300V	400	1.65	1.24	1.03
1N647#	500	.2 @ 400V	400	1.80	1.35	1.13
1N648#	600	.2 @ 500V	400	2.55	1.91	1.59
1N649#	720	.2 @ 600V	400	3.30	2.48	2.06

‡At 1.1 volts. #600 mw.

OHMITE R.F. PLATE CHOKES



This series of seven Ohmite single layer wound solenoid radio frequency plate chokes covers the entire frequency range of 3 to 520 megacycles. The four highest frequency chokes are wound on low power factor plastic cores while the other three units are wound on steatite tubes. The single layer winding is designed to avoid adverse harmonic effects within the recommended operating range and also prevents breakdown from high r.f. potentials.

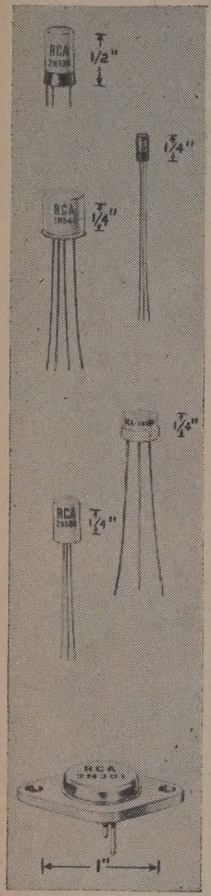
Stock Number	Operating Range Megacycles	Micro-henries	Core Dimensions	Net Each 1-9
Z-7	3 to 20 Mc.	84.0	6" x 9/16"	$1.37
Z-14	7 to 35 Mc.	44.0	2" x 7/16"	.68
Z-28	20 to 60 Mc.	21.0	1 3/4" x 5/16"	.57
Z-50	35 to 110 Mc.	7.0	7/8" x 9/32"	.46
Z-144	80 to 200 Mc.	1.8	3/4" x 3/16"	.43
Z-235	160 to 350 Mc.	0.84	3/4" x 3/16"	.43
Z-460	320 to 520 Mc.	0.20	1/2" x 5/32"	.43

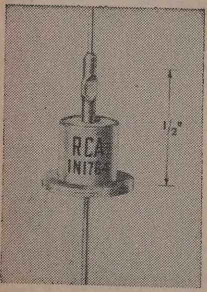
Non-magnetic Brackets Furnished with Z-7. The Z-14 and Z-28 are rated at 600 ma. All others 1000 ma.

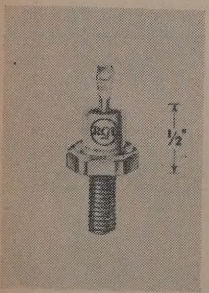
RCA SEMICONDUCTOR PRODUCTS

TRANSISTORS • RECTIFIERS • DIGITAL MICRO CIRCUITS • MEMORY PLANES

AUG. 3, 1963







TRANSISTORS, THYRISTORS, GERMANIUM DIODES & TUNNEL DIODES

Type	RCA Equipment Manufacturers Price	
	1-99	100-999
1N2326	.50	.33
1N3128	12.38	8.25
1N3129	12.38	8.25
1N3130	12.38	8.25
1N3138	36.30	24.20
1N3847	4.95	3.30
1N3848	4.95	3.30
1N3849	4.95	3.30
1N3850	4.95	3.30
1N3851	4.95	3.30
1N3852	11.39	7.59
1N3853	11.39	7.59
1N3854	11.39	7.59
1N3855	11.39	7.59
1N3856	11.39	7.59
1N3857	14.85	9.90
1N3858	14.85	9.90
1N3859	14.85	9.90
1N3860	14.85	9.90
1N3861	6.19	4.13
1N3862	11.39	7.59
IN3863	14.85	9.90
2DG001	1.62	1.08
3DG001	2.34	1.56
2N104	1.65	1.10
2N105	2.97	1.98
2N109	.64	.43
2N139	1.16	.77
2N140	1.24	.83
2N173	3.88	2.59
2N174	4.27	2.85
JAN2N174	6.52	4.35
2N175	1.63	1.09
2N176	1.88	1.25
2N215	1.73	1.16
2N217	.61	.41
2N218	1.16	.77
2N219	1.24	.83
2N220	1.55	1.03
JAN2N220	2.06	1.38
2N247	3.14	2.09
(For New Equip. Design, Use Type 2N274 or 2N1224)		
2N269	1.98	1.32
2N270	.83	.55
2N274	1.24	.83
USA2N274	2.48	1.65
2N277	3.00	2.00
2N278	3.10	2.07
2N301	1.52	1.01
2N301A	3.71	2.48
2N307	1.49	.99
2N331	2.06	1.38
2N351	2.03	1.35
2N356	5.20	3.47
2N357	6.53	4.36
2N370	.81	.54
2N371	.79	.53
2N372	.79	.53
2N373	1.24	.83
(For New Equipment Design, Use Type 2N1638)		
2N374	1.32	.88
(For New Equipment Design, Use Type 2N1639)		
2N376	2.10	1.40
2N384	1.65	1.10
JAN2N384	2.48	1.65
2N388	.59	.40
USN2N388	.61	41
2N388A	2.57	1.72
2N395	.66	.44
2N396	.84	.56
2N396A	.84	.56
2N397	1.34	.89
2N398	1.12	.75
USN2N398	1.30	.87
2N398A	1.12	.75
2N398B	1.30	.87
2N404	.41	.28
USAF2N404	.50	.33
2N404A	.58	.39
3907/2N404	124	.83
2N405	.36	.24
2N406	.33	.22
2N407	.41	.28
2N408	.38	.25
2N409	.43	.29
2N410	.40	.26
2N411	.46	.31
2N412	.43	.29
2N414	.41	.28
2N441	2.67	1.78
2N442	3.14	2.09
2N443	2.08	1.39
2N456	3.63	2.42
2N457	5.78	3.85
2N497	3.30	2.20
2N578	.99	.66
2N579	1.57	1.05
2N580	2.06	1.38
2N581	.50	.33
2N582	.99	.66
2N583	.83	.55
2N584	3.22	2.15
2N585	.99	.66
2N586	1.73	1.16
2N591	.53	.35
2N640	1.44	.96
(For New Equip. Design, Use Type 2N1637)		
2N641	1.37	.91
(For New Equip. Design, Use Type 2N1638)		
2N642	1.40	.94
(For New Equip. Design, Use Type 2N1639)		
2N643	1.40	.94
2N644	1.65	1.10
2N645	2.64	1.76
2N646	1.82	1.21
2N647	1.16	.77
2N649	.86	.57
2N656	4.13	2.75
2N696	1.57	1.05
USA2N696	1.98	1.32
2N697	2.06	1.38
USA2N697	2.48	1.65
2N699	2.89	1.93
2N705	1.98	1.32
2N706	1.57	1.05
USA2N706	2.23	1.49
2N706A	1.82	1.21
2N708	2.48	1.65
2N709	5.78	3.85
2N710	1.73	1.16
2N711	1.16	.77
2N718A	2.89	1.93
2N720A	4.13	2.75
2N794	1.49	.99
2N795	1.98	1.32
2N796	2.89	1.93
2N828	3.30	2.20
2N834	4.13	2.75
2N914	3.71	2.48
2N934	6.60	4.40
2N955	4.79	3.19
2N955A	5.36	3.58
2N960	3.84	2.56
2N961	3.15	2.10
2N962	2.39	1.60
2N963	1.42	.95
2N964	4.11	2.74
2N965	3.75	2.50
2N966	2.85	1.90
2N967	1.53	1.02
2N1010	2.89	1.93
2N1023	2.72	1.82
2N1066	1.98	1.32
2N1067	20.95	13.95
2N1068	21.95	14.65
2N1069	49.90	33.30
2N1070	64.95	43.30
2N1090	1.24	.83
2N1091	1.57	1.05
2N1092	10.75	7.15
2N1099	4.87	3.25
2N1100	6.52	4.35
2N1169	1.98	1.32
2N1170	3.71	2.48
2N1177	.83	.55
2N1178	.81	.54
2N1179	.81	.54
2N1180	.74	.50
2N1183	1.82	1.21
USA2N1183	2.64	1.76
2N1183A	2.31	1.54
USA2N1183A	3.30	2.20
2N1183B	2.89	1.93
USA2N1183B	3.88	2.59
2N1184	2.48	1.65
USA2N1184	3.71	2.48
2N1184A	2.81	1.87
USA2N1184A	4.04	2.70
2N1184B	3.47	2.31
USA2N1184B	4.70	3.14
2N1213	4.54	3.03
2N1214	4.54	3.03
2N1215	4.54	3.03
2N1216	2.97	1.98
2N1224	1.24	.83
USA2N1224	2.06	1.38
2N1225	1.40	.94
USA2N1225	2.31	1.54
2N1226	1.49	.99
2N1300	.99	.66
2N1301	1.24	.83
2N1302	.50	.33
USN2N1302	.51	.34
2N1303	.50	.33
USN2N1303	.51	.34
2N1304	.61	.41
USN2N1304	.64	.43
2N1305	.48	.32
USN2N1305	.64	.43
2N1306	.79	.53
USN2N1306	.86	.57
2N1307	.79	.53
USN2N1307	.86	.57
2N1308	1.11	.74
USN2N1308	1.19	.79
2N1309	1.07	.72
USN2N1309	1.19	.79
2N1319	1.65	1.10
2N1358	5.94	3.96
USA2N1358	6.77	4.51
2N1384	1.82	1.21
2N1395	1.49	.99
2N1396	1.65	1.10
2N1397	2.15	1.43
2N1412	6.19	4.13
USN2N1412	7.67	5.12
2N1425	.86	.57
(For New Equip. Design, Use Type 2N1524)		
2N1426	.89	.59
(For New Equip. Design, Use Type 2N1526)		
2N1450	2.06	1.38
2N1479	3.47	2.31
USA2N1479	5.12	3.41
2N1480	4.13	2.75
USA2N1480	5.78	3.85
2N1481	4.95	3.30
USA2N1481	6.60	4.40
2N1482	5.78	3.85
USA2N1482	7.43	4.95
2N1483	5.78	3.85
USA2N1483	8.25	5.50
2N1484	7.01	4.68
USA2N1484	9.49	6.33
2N1485	9.08	6.05
USA2N1485	8.25	5.50
2N1486	13.20	8.80
USA2N1486	15.70	10.45
2N1487	8.25	5.50
USA2N1487	12.40	8.25
2N1488	9.90	6.60
USA2N1488	14.05	9.35
2N1489	12.40	8.25
USA2N1489	16.50	11.00
2N1490	12.38	8.25
USA2N1490	20.65	13.75
2N1491	4.13	2.75
2N1492	6.60	4.40
2N1493	9.90	6.60
2N1511	8.25	5.50
2N1512	9.90	6.60
2N1513	12.40	8.25
USA2N1513	16.50	11.00
2N1514	19.80	13.20
USA2N1514	23.95	15.95
2N1524	.40	.26
2N1525	.43	.29
2N1526	.43	.29
2N1527	.46	.31
2N1605	1.24	.83
2N1605A	1.50	1.00

Prices shown do not include any state or local taxes. All prices are subject to change or withdrawal without notice.

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RCA SEMICONDUCTOR PRODUCTS

TRANSISTORS • RECTIFIERS • GERMANIUM DIODES • TUNNEL DIODES

Type	RCA Equipment Manufacturers Price 1-99	100-999
2N1613	3.71	2.48
2N1631	.53	.35
2N1632	.50	.33
2N1633	1.24	.83
2N1634	1.24	.83
(For Types 2N1633, 2N1634, New Equip. Design, Use Type 2N1638)		
2N1635	1.32	.88
2N1636	1.32	.88
(For Types 2N1635, 2N1636, New Equip. Design, Use Type 2N1639)		
2N1637	.59	.40
2N1638	.53	.35
2N1639	.56	.37
2N1683	1.65	1.10
2N1700	2.89	1.93
2N1701	4.13	2.75
2N1702	7.43	4.95
2N1703	7.43	4.95
2N1708	3.30	2.20
2N1711	4.54	3.03
2N1768	8.25	5.50
2N1769	13.20	8.80
2N1853	1.32	.88
USN2N1853	1.32	.88
2N1854	1.65	1.10
USN2N1854	1.65	1.10
2N1905	4.13	2.75
2N1906	6.60	4.40
2N2015	19.80	13.20
2N2016	28.05	18.70
2N2102	4.95	3.30
2N2147	2.06	1.38
2N2148	1.58	1.06
2N2205	3.30	2.20
2N2206	3.71	2.48
2N2208	3.14	2.09
2N2210	10.13	6.75
2N2270	2.48	1.65
2N2273	4.13	2.75
USA2N2273M	4.95	3.30
2N2304	6.60	4.40
2N2305	10.73	7.15
2N2338	14.85	9.90
2N2339	4.95	3.30
2N2475	6.19	4.13
2N2476	3.71	2.48
2N2477	6.79	4.13
2N2482	6.19	4.13
2N2594	4.13	2.75
2N2613	.54	.36
2N2614	.50	.33
2N2708	7.84	5.23
2N2869/2N301	1.52	1.01
2N2870/2N301A	3.71	2.48
2N2873	2.89	1.93
2N2876	66.00	44.00
3907/2N404 (Price info. listed directly below Type 2N404A)		
40050	1.17	.78
40051	1.35	.90
40053	1.40	.94
40054	14.00	9.35
40055	16.00	10.65
40056	18.00	12.00
40057	20.00	13.20
40058	25.00	16.65
40059	20.00	13.30
40060	25.00	16.65
40061	20.00	13.30
40062	25.00	16.65
40063	15.00	10.00
40064	25.00	16.65
40065	20.00	13.30
40066	35.00	23.30
40067	50.00	33.35
40068	57.00	38.00
40069	70.00	46.65
40070	120.00	79.95
40076	250.00	166.65
40077	24.75	16.50
40078	7.00	4.70
40079	(Price on Request)	

DIGITAL MICRO CIRCUITS

Type	RCA Equipment Manufacturers Price	
DMC-100	33.00	—
DMC-101	16.50	—

MEMORY PLANES

Type	RCA Equipment Manufacturers Price
N7097-1	195.00
N7165-1	80.00
N7166-1	90.00
N7190-1	210.00
N7412-1	275.00

SILICON RECTIFIERS

Type	RCA Equipment Manufacturers Price 1-99	100-999
1N248C;RC	1.82	1.21
USA1N249B	3.30	2.20
1N294C;RC	2.31	1.54
USA1N250B	4.54	3.03
1N250C;RC	3.30	2.20
1N440B	.73	.48
1N441B	.76	.51
1N442B	.87	.58
1N443B	1.09	.73
1N444B	1.24	.83
1N445B	1.60	1.07
1N536	.45	.30
1N537	.50	.33
1N538	.53	.35
JAN1N538	.91	.61
1N539	.59	.40
1N540	.68	.45
JAN1N540	1.22	.81
1N547	.96	.64
JAN1N547	1.45	.97
1N1095	.76	.51
1N1183A;RA	2.56	1.71
1N1184A;RA	3.22	2.15
1N1186A;RA	4.70	3.14
1N1187 ;R	7.01	4.68
1N1188 ;R	8.66	5.78
1N1189 ;R	10.31	6.88
1N1190 ;R	12.38	8.25
1N1195A;RA	5.36	3.58
1N1196A;RA	6.60	4.40
1N1197A;RA	8.25	5.50
1N1198A;RA	9.90	6.60
1N1199A;RA	1.24	.83
USAF1N1199	2.06	1.38
1N1200A;RA	1.40	.94
USAF1N1200	2.72	1.82
USAF1N1201	3.30	2.20
1N1202A;RA	2.72	1.82
USAF1N1202	3.96	2.64
1N1203A;RA	4.13	2.75
USAF1N1203	5.12	3.41
1N1204A;RA	5.12	3.41
USAF1N1204	6.27	4.18
1N1205A;RA	6.19	4.13
USAF1N1205	7.43	4.95
1N1206A;RA	7.43	4.95
USAF1N1206	8.66	5.78
1N1612 ;R	1.07	.72
1N1613 ;R	1.24	.83
1N1614 ;R	1.90	1.27
1N1615 ;R	4.13	2.75
1N1616 ;R	6.02	4.02
1N1763	.58	.39
1N1764	.69	.46
USA1N2135A	7.84	5.23
1N2858	.40	.26
1N2859	.41	.28
1N2860	.43	.29
1N2861	.56	.37
1N2862	.66	.44
1N2863	.73	.48
1N2864	.92	.62
1N3193	.41	.28
1N3194	.58	.39
1N3195	.91	.61

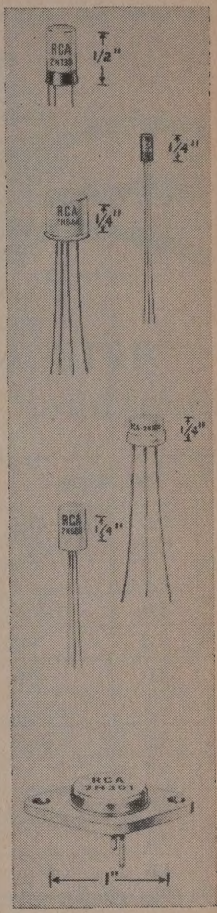
Type	RCA Equipment Manufacturers Price 1-99	100-999
1N3196	1.24	.83
1N3253	.45	.30
1N3254	.61	.41
1N3255	.94	.63
1N3256	1.27	.85
1N3563	1.65	1.10
1N3754	.36	.24
1N3755	.40	.26
1N3756	.45	.30
40108 ;R	.74	.50
40109 ;R	.91	.61
40110 ;R	1.57	1.05
40111 ;R	2.15	1.43
40112 ;R	2.48	1.65
40114 ;R	3.71	2.48
40115 ;R	10.75	7.15
40116 ;R	14.05	9.35
40208 ;R	1.32	.88
40209 ;R	1.40	.94
40210 ;R	1.90	1.27
40211 ;R	2.39	1.60
40212 ;R	2.89	1.93
40214 ;R	4.21	2.81

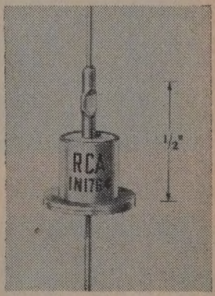
SILICON RECTIFIER ASSEMBLIES

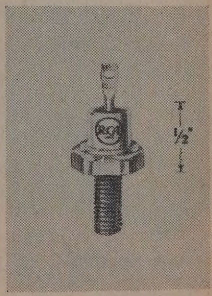
Type	RCA Equipment Manufacturers Price 1-29	30 & Up
CR101	6.00	5.50
CR102	8.40	7.70
CR103	9.60	8.80
CR104	11.40	10.45
CR105	13.20	12.10
CR106	15.60	14.30
CR107	18.00	16.50
CR108	20.40	18.70
CR109	24.00	22.00
CR110	26.40	24.20
CR201	4.80	4.40
CR203	7.20	6.60
CR204	9.60	8.80
CR206	13.20	12.10
CR208	16.80	15.40
CR210	20.40	18.70
CR212	23.40	21.45

SILICON CONTROLLED RECTIFIERS

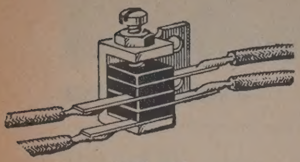
Type	RCA Equipment Manufacturers Price 1-99	100-999
2N681	8.60	5.70
2N682	9.40	6.25
2N683	10.50	7.00
2N684	12.70	8.45
2N685	14.85	9.90
2N686	18.00	12.00
2N687	20.95	14.00
2N688	26.25	17.50
2N689	31.85	21.25
2N1842A	7.75	5.15
2N1843A	8.50	5.65
2N1844A	9.40	6.25
2N1845A	11.45	7.65
2N1846A	13.50	9.00
2N1847A	16.10	10.75
2N1848A	18.75	12.50
2N1849A	23.60	15.75
2N1850A	27.00	18.00







SCHAUER INSTRUMENT RECTIFIERS



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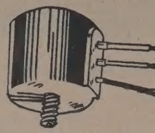

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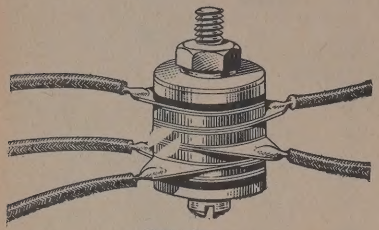


TYPE C4A

Schauer copper oxide rectifiers for instrument and other uses are processed and individually tested to meet the requirements of the user. Versatile processing techniques make possible variations in characteristics for special or unusual applications. Each rectifier is rated conservatively for long life and dependable operation. Lead lengths to customer specifications.

"A" SIZE CELLS have good frequency response above the audio range and can be used at higher frequencies. Recommended for meter applications needing 1MA or less for operation. Can be used for other applications requiring up to 5MA.

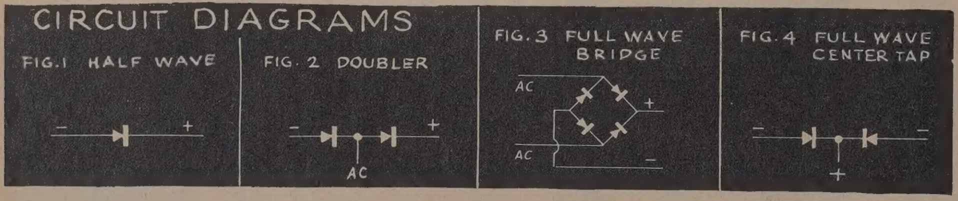
"B" SIZE CELLS (encapsulated) are for meter, relay and other applications requiring 1MA up to their maximum rating. Recommended for commercial and low audio frequency operation.

"C" SIZE CELLS are for general applications requiring larger output currents, and operation of meters, relays and other apparatus. Special process cells for varistor applications.

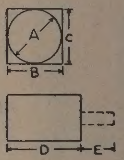
Write, wire or telephone for complete information. We welcome your inquiries concerning any special rectification problem. Schauer has been manufacturing high quality, dry-disc rectifiers since 1930.

NOTE: The Schauer Manufacturing Corp. is the exclusive manufacturer of replacement Westinghouse copper oxide rectifiers

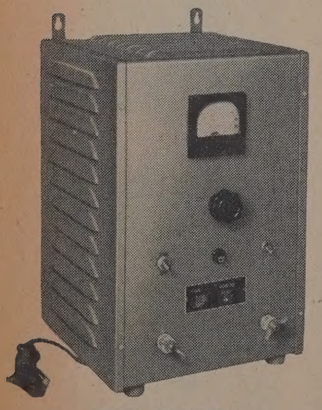
Max. Cont. Rating			Circuit Diagram Fig.	Cell Dia. Inches	No. of Cells	Leads	Mounting Screw Size	DIMENSIONS*					Type
D.C. M.A.	D.C. Volts	Max. RMS Volts						(Dia.) A	B	C	D	E	
3	6.0		2	3/16 sq.	2	3	Hole for 2-56		3/8	1/4	9/16		A2C
5	3.0	5.0	3	3/16 sq.	4	4	Hole for 2-56		3/8	1/4	9/16		A4A
13	3.0		1	7/16	1	2	6-32	9/16			7/16	9/32	BP1C
13	6.0		4	7/16	2	3	6-32	9/16			1/2	5/16	BP2B
26	1.5	2.5	2	7/16	2	3	6-32	9/16			1/2	5/16	BP2C
26	3.0	5.0	3	7/16	4	5	6-32	9/16			23/32	5/16	BP4A
32	3.0		1	3/4	1	0	10-32	3/4			11/16	5/16	C1C
32	6.0		2	3/4	2	0	10-32	3/4			3/4	5/16	C2C
32	9.0		1	3/4	3	0	10-32	3/4			7/8	1/4	C3C
64	3.0	5.0	3	3/4	4	5	10-32	3/4			31/32	5/16	C4A



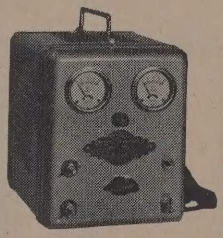
*Dimensions



SCHAUER ADJUSTABLE 6 VOLT and 12 VOLT BATTERY ELIMINATORS



MODEL SA-48006



MODEL AR 5612

MODEL SA-48006 — 6 volt and 12 volt adjustable battery eliminator for AM and FM 2-way and marine radios. A.C. input: 115 volts, 60 cycle, single-phase. D.C. output: either 6 volts D.C. up to a maximum of 48 amperes; or 12 volts D.C. up to a maximum of 24 amperes. To maintain required voltage output under various load conditions, a dial-type tap switch provides adjustment from less than 1 ampere up to maximum rated output. Case is 10″ wide x 9½″ deep x 15″ high, arranged for either bench or wall mounting.

MODEL AR 5612 — 6 volt and 12 volt adjustable battery eliminator for servicing auto radios. Output adjustable by rugged, silver contact tap switch. Low range output: 7½ volts at 12 amps., continuous; 20 amps., intermittent. High range: 15 volts at 6 amps., continuous; 11 amps., intermittent. Housed in sturdy steel case 7½″ wide x 9½″ deep x 9″ high.

Semiconductor Division

SCHAUER MANUFACTURING CORP. • Cincinnati, Ohio

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SCHAUER SEMICONDUCTORS

HEAVY DUTY ½ WATT ZENER DIODES

A 10 watt Silicon Junction in a ½ watt package for maximum surge capacity and stability. 25 watt-ms surge from 1.0 to 10ms.

Cool operation for maximum reliability and freedom from temperature drift and thermal fatigue. (Rated for a 100°C. junction temperature at maximum current.)

Mass-produced on automatic equipment for lowest cost and maximum similarity.

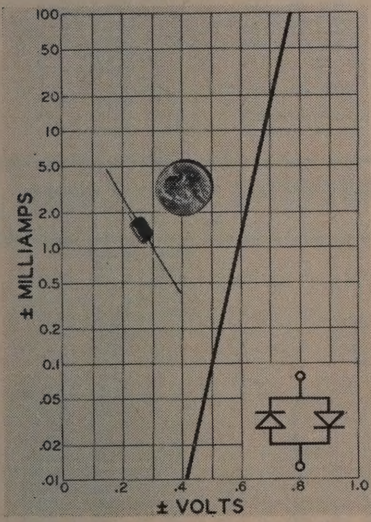
ELECTRICAL CHARACTERISTICS

Schauer Type No. 10% Tolerance (Note 1)	Nominal Zener Voltage V_Z @ I_{ZT} = 20 ma T_A = 25°C.	Dynamic Impedence Z_D @ I_{ZT} = 20 ma		Maximum Recommended Zener Current I_{ZM}	Typical Temperature Coefficient of Voltage %/°C.	Price 1-99 10% Tol.
		Max.	Typical			
SZ 2.4	2.4 Volts	40 Ohms	14 Ohms	210 ma	—.054	$1.20
SZ 2.7	2.7	40	16	185	—.055	1.20
SZ 3.0	3.0	40	17	170	—.055	.92
SZ 3.3	3.3	40	17	150	—.054	.92
SZ 3.6	3.6	40	18	140	—.050	.92
SZ 3.9	3.9	40	17	130	—.045	.92
SZ 4.3	4.3	30	17	120	—.037	.92
SZ 4.7	4.7	30	12	110	—.029	.92
SZ 5.1	5.1	20	10	100	—.019	.92
SZ 5.6	5.6	20	6	90	—.009	.92
SZ 6.2	6.2	10	2	80	+.018	.92
SZ 6.8	6.8	10	1.5	75	+.035	.92
SZ 7.5	7.5	10	1.5	70	+.044	.92
SZ 8.2	8.2	10	2	60	+.049	.92
SZ 9.1	9.1	10	4	55	+.053	1.20
SZ 10.00	10.00	10	6	50	+.055	1.20

NOTE 1. Add suffix "A" for 5% tolerance (I.e., SZ4.7A) for 4.7 ±5% volts.

NOTE 2. Series strings to close voltage tolerances available at low prices.

NOTE 3. Temperature compensated high voltage assemblies available.



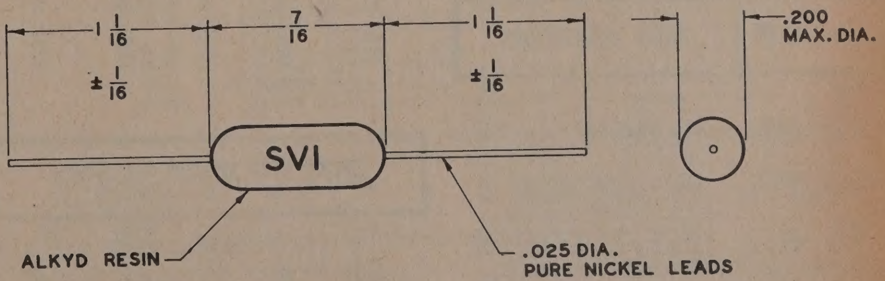
SV1 Silicon Varistor as compared in size to 25¢ piece. Chart shows its I vs E characteristics over four decades.

SCHAUER SV1 SILICON VARISTOR

SV1 Varistor consists of matched silicon junctions connected in parallel and oppositely poled. This voltage variable resistance goes through four decades of current for a half volt change in signal and makes possible its use as a single component to convert linear AC or DC information into logarithmic information following the curve $I_{ma} = e^{26(E-.59)}$ between the range I = .02 ma to 200 ma.

ELECTRICAL CHARACTERISTICS — Test limits: 50 microamperes max. at .2V D.C., 225 milliamperes min. at 1.0V D.C. Dissipation: ¾ watt at 25°C, ¼ watt at 100°C. Maximum ½ cycle surge current, 25 amps. peak.

SV1 is encapsulated with an alkyd molding compound. An inner epoxy seal, long leakage paths, and high pressure molding assure reliable performance in all environments. Prices, 1-99: $0.49 each.



Dimensions of SV1 Varistor. Also applies to Schauer ½ watt Zener Diodes. Zener cathode terminal is marked by red dot.

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Net

SEMITRON

SEMICONDUCTORS

SERVICE-
ENGINEERED
REPLACEMENTS

POWER TRANSISTORS
TYPE TO-3 CASE

Semi-tron	PNP REPLACEMENT*	Net Price
PT40	HIGH WATTAGE — 2N155, 2N156, 2N157, 2N157A, 2N176, 2N176B, 2N176G, 2N176W, 2N178, 2N234, 2N234A, 2N235, 2N235A, 2N235B, 2N236, 2N236A, 2N236B, 2N242, 2N250, 2N255, 2N256, 2N257, 2N285, 2N285A, 2N301, 2N301A, 2N307, 2N307A, 2N350, 2N351, 2N352, 2N353, 2N376, 2N378, 2N399, 2N400, 2N401, 2N419, 2N456, 2N554, 2N555, 2N637, 2N638, 2N639, AR5, AR6, AR7, AR8A, AR9, AR10, AR11, AR12, AR13, B1017, CTP1104, CTP1108, CTP1109, CTP1117, CTP1137, TS176, DS503	$1.59
PT25	MEDIUM WATTAGE—2N155, 2N156, 2N176, 2N178, 2N234, 2N234A, 2N235, 2N235A, 2N242, 2N250, 2N255, 2N256, 2N257, 2N301, 2N301A, 2N307, 2N307A, 2N378, 2N401, 2N554, 2N555, 2N638, 2N639, AR5, B1017, CTP1104, CTP1108, CTP1109, TS176	1.40
PT12	NORMAL WATTAGE — 2N234, 2N234A, 2N255, 2N256, 2N307, 2N554, B1017, CTP1104, CTP1108, CTP1109	1.17
PT6	EXPERIMENTER HOBBYIST — 2N255, 2N256, B1017, CTP1108, CTP1109	1.05

HIGH WATTAGE POWER TRANSISTORS
STUD TYPE TO-36 CASE

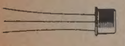
Semi-tron	PNP REPLACEMENT*	Net Price
PT501	HIGH WATTAGE — 2N173, 2N174, 2N277, 2N278, 2N441, 2N442, 2N443, DS501, DS504	$3.57
PT515	High Current Transistor for Replacement in Auto Radios, Amplifiers, and Electronic Converters	5.37

"POPULAR" POWER TRANSISTORS
TYPE TO-3 CASE

Semitron	Replacement	Net Price	Semitron	Replacement	Net Price
PT155	2N155	$1.77	PT285A	2N285A	$2.37
PT176	2N176	1.77	PT301	2N301	1.77
PT234	2N234	1.40	PT301A	2N301A	2.37
PT235A	2N235A	1.77	PT307	2N307	1.17
PT242	2N242	1.77	PT307A	2N307A	1.40
PT255	2N255	1.17	PT554	2N554	1.17
PT256	2N256	1.40	PT555	2N555	1.40

HIGH CURRENT POWER TRANSISTORS
TYPE TO-3 CASE

Semi-tron	Collector Current	USE	Net Price
PT30	3 Amp	Audio Amplifiers and Low Power Applications	$1.59
PT50	5 Amp	Audio Amplifiers and Medium Power Applications	2.37
PT150	15 Amp	Audio Amplifiers and High Power Applications	4.17



AUDIO TRANSISTORS

Semi-tron		PNP TYPE	Net Price
AT 30H AT 30M AT 30N	High Gain Medium Gain Normal Gain	High quality Audio Transistors for design or replacement of Output Transistors having similar or lower rating.	$1.77 1.65 1.50
AT 20H AT 20M AT 20N	High Gain Medium Gain Normal Gain	High quality Audio Transistors for design or replacement of Output or Driver Transistors having similar or lower rating	1.35 1.17 1.05
AT 10H AT 10M AT 10N	High Gain Medium Gain Normal Gain	High quality Audio Transistors for design or replacement of Driver or Detector Transistors having similar or lower rating.	.90 .75 .59
AT GP	General Purpose	General Purpose Transistor suitable for Audio Amplifiers, Code Oscillators, and numerous other experimental circuits.	.47

* Equivalent units shown have similar electrical characteristics. However they may vary in some specifications.

R.F. TRANSISTORS

Semi-tron		PNP TYPE*	Net Price
HF 20H HF 20M	High Gain Medium Gain	High quality R.F. unit for design or replacement of Radio Frequency Transistors having similar or lower rating.	$2.37 2.25
HF 12H HF 12M	High Gain Medium Gain	High quality R.F. unit for design or replacement of Radio Frequency Transistors having similar or lower rating.	1.77 1.65
HF 6H HF 6M	High Gain Medium Gain	High quality I.F. unit for design or replacement of Intermediate Frequency Transistors having similar or lower rating.	1.47 1.17
HF 3H HF 3M	High Gain Medium Gain	High quality I.F. unit for design or replacement of Intermediate Frequency Transistors having similar or lower rating.	1.05 .87

NPN TYPE TRANSISTORS

Semi-tron		RECOMMENDED USE	Price
NR 10	Osc	NPN Type of Transistor for use in oscillator or RF circuit	$1.47
NR 5	I. F.	NPN Type of Transistor for use in intermediate frequency amplifier	1.37
NA 20	Det. Driver	NPN Type of Transistor for use in Audio Driver or Detector stage	1.17
NA 30	Output	NPN Type of Transistor for use in Audio amplifier or output stage	1.37

AMERICAN REPLACEMENT for JAPANESE RADIO TRANSISTORS and DIODES

Semi-tron	Use	PNP TYPE	Net Price
JR30	Oscillator Mixer Converter	High quality RF unit for replacement of Radio Frequency Transistors having similar rating	$1.47
JR30X	Osc., Con. Mixer	In 2 and 3 Band Radios	1.65
JR10	IF Amplifier	High quality IF unit for replacement of Intermediate Frequency Transistors having similar rating	1.35
JR5	Audio Driver Detector	High Quality Audio Transistor for replacement of Driver or Detector Transistors having similar rating	1.17
JR15	Audio Output	High quality Audio Transistor for replacement of Output Transistor having similar rating	1.47
JD1	Detector Diode	For replacement as Diode Detector	.30
JD2	AVC Diode	For replacement as AVC Diode	.30
JP40	Audio Power	For replacement of Power Transistor in Audio application	1.77

SILICON POWER RECTIFIERS
TOP HAT AXIAL LEADS

Type	P. I. V.	RMS*	Forward Current MA	Net Price
SR60	600	420	750	$1.40
SR50	500	350	750	1.08
SR40	400	280	750	.90
SR30	300	210	750	.75
SR20	200	140	750	.60
SR10	100	70	750	.51
SR5	50	35	750	.42
SR605	600	420	500	1.35
SR405	400	280	500	.84
SR205	200	140	500	.51
SR105	100	70	500	.42

* Inductive or Resistive Load

EPOXY TYPE SILICON RECTIFIERS
750 MA. 100 to 1000 P.I.V.

Semi-tron	P. I. V.	RMS*	Forward Current	Net Price
ER 101	100	70	750 MA.	$ .42
ER 201	200	140	750 MA.	.51
ER 301	300	210	750 MA.	.60
ER 401	400	280	750 MA.	.75
ER 501	500	350	750 MA.	.90
ER 601	600	420	750 MA.	1.08
ER 801	800	560	750 MA.	1.35
ER 1001	1000	700	750 MA.	1.77

* Inductive or Resistive Load

SELENIUM DUAL DIODES

Part No.	Type	Replacement				Net Price
		G.E.	IRC	ITT	Int. Rect.	
SDD4	Common Cathode	6GC1	D4	K1615	DD04	$.53
SDD5	Series Connected	6GD1	D5	K1616	DD05	.53

SELENIUM RECTIFIERS
FOR USE IN RADIO - TV - ELECTRONICS

Semitron Type No.	Max. D. C. Output MA.	Max. A. C. Input Volts	Min. Series Resistor (Ohms)	DIMENSIONS			Net Price
				A Inches	B Inches	C Inches	
RS-151	50-75	130	22	11/16	11/16	11/16	$.47
RS-152	100-150	130	15	1	1	1	.66
RS-153	200-250	130	5	1.3	1.3	1-1/4	.87
RS-154	300-500	130	5	1.5	1.5	1-3/8	.99

GERMANIUM DIODE PLASTIC CASE

Type	SIMILAR TYPES	Net Price
1N34 1N34A	1N34A, 1N43, 1N46, 1N49, 1N60, 1N51, 1N66, 1N69, 1N294, 1N295, 1N126, CK705, 1N109, 1N125, 1N267, 1N268, GICA, NU34, TP34, TP34A, 400A, 400C, M34, M34A, M95, MN34A, OA71, OA71C, X16	$.33
1N60	1N64, 1N69, 1N295, 1N132, 1N87, 1N87G, 1N296, 1N105, 1N125, CK706, C60, G7F, G7G, CV442, GINA,	
1N64	1N69, 1N109, 1N125, 1N132, 1N148, 1N64A, 1N135	.33
IN295 Green	IN134, IN541, IN550, CR706A, CTP461	.33

GERMANIUM CRYSTAL DIODE

Type	SIMILAR TYPES	Net Price
1N34 1N34A Black Band	1N34A, 1N43, 1N46, 1N49, 1N60, 1N51, 1N66, 1N69, 1N294, 1N295, 1N126, CK705, 1N109, 1N125, 1N267, 1N268, GICA, NU34, TP34, TP34A, 400A, 400C, M34, M34A, M95, MN34A, OA71, OA71C, X16	$.27
1N60 Blue Band	1N64, 1N69, 1N295, 1N132, 1N87, 1N87G, 1N296, 1N105, 1N125, CK706, C60, G7F, G7G, CV442, GINA, M60, MN60, OA73, OA73C	.27
1N64 Red Band	1N69, 1N109, 1N125, 1N132, 1N148, 1N64A, 1N135	.27
IN295 Green	IN134, IN541, IN550, CR706A, CTP461	.27

Color Band Denotes Cathode.

ZENER VOLTAGE REGULATOR DIODES
1 WATT

Type No.	Zener Voltage E_z at I_{zt} (Volts)	Test Current I_{zt} (mA dc)	Maximum Dynamic Imped. Z_{zm} at I_{zt} (Ohms)	Maximum Zener Current I_{zm} (mA dc)	Nominal Temp. Coeff. %/°C
ZV 6.8	6.8	37	3.5	150	+.05
ZV 7.5	7.5	34	4.0	130	+.05
ZV 8.2	8.2	31	4.5	120	+.055
ZV 9.1	9.1	28	5.0	110	+.055
ZV 10	10	25	7	100	+.06
ZV 11	11	23	8	90	+.065
ZV 12	12	21	9	80	+.07
ZV 13	13	19	10	75	+.075
ZV 15	15	17	14	65	+.08
ZV 16	16	15.5	16	60	+.08
ZV 18	18	14	19.8	55	+.08
ZV 20	20	12.5	22	50	+.08
ZV 22	22	11.5	23	45	+.085
ZV 24	24	10.5	25	40	+.085
ZV 27	24	9.5	33	35	+.085
ZV 30	30	8.5	38.5	33	+.085
ZV 33	33	7.5	44	30	+.085
ZV 36	36	7	48.4	28	+.085
ZV 39	39	6.5	56	26	+.09
ZV 43	43	6	66	24	+.09
ZV 47	47	5.5	77	22	+.09
ZV 51	51	5	88	20	+.09
ZV 56	56	4.5	105	18	+.09
ZV 62	62	4	121	16	+.09
ZV 68	68	3.7	143	15	+.09
ZV 75	75	3.3	165	13	+.09
ZV 82	82	3	192	12	+.095
ZV 91	91	2.8	242	11	+.095
ZV100	100	2.5	330	10	+.095
ZV110	110	2.3	425	9	+.095
ZV120	120	2.1	520	8	+.095
ZV130	130	1.9	650	7.5	+.095
ZV150	150	1.6	940	6.5	+.095
ZV160	160	1.5	1040	6.0	+.095
ZV180	180	1.3	1120	5.5	+.095
ZV200	200	1.2	1400	5.0	+.1

SEMITRON SEMITRONICS Corp. NEW YORK, N. Y.

TECHNICAL APPARATUS BUILDERS

"TABTRON" "SILTAB"® RECTIFIERS
Engineered for Industry
Since 1945!

FOR ALL YOUR DC RECTIFIER REQUIREMENTS

"TECHNICAL APPARATUS BUILDERS" mfgr. Power Rectifiers to your specs. From one amp up to and above 1000 amps. convection or fan cooled, single or 3 phase. **"NEMA"** & MIL Specs.

SILTAB

"SILTAB"® SILICON JUNCTION FINNED STACKS —65°C TO +150°C CONVECTION COOLED*

SILICON "SILTAB"® RECTIFIER STACKS FINNED & CONVECTION COOLED RATINGS

DC AMP	FULL WAVE BRIDGE 36VAC 32VDC	72VAC 62VDC	140VAC 125VDC	280VAC 250VDC	CENTER TAP 36VCT 16VDC	72VCT 32VDC
1.2	$ 2.45	$ 2.90	$ 3.75	$ 5.75	$2.00	$2.75
2	3.75	4.60	5.15	6.90	3.00	3.90
3	4.45	5.45	6.00	9.90	3.75	4.60
6	6.60	8.90	11.90	13.60	3.45	6.45
12	7.75	12.90	19.45	33.15		
18	8.15	13.75	20.00	38.00		
24	10.90	15.75	21.60	43.90		
35	13.60	20.30	30.90	81.45		
50	21.90	27.75	63.75	108.00		
70	25.75	44.15	72.00	126.00		
160	30.60	57.45	81.00	144.90		
240	39.90	79.00	153.90	243.75		

OTHER SIZES &
TYPES AVAILABLE
SEND DETAILS
WRITE FOR
CATALOG!

"SURGTAB"® DIODE CLIPPERS TRANSIENT VOLTAGE SUPPRESSORS!

RMS-V	PEAK-V	EACH	RMS-V	PEAK-V	EACH
25	35	$ .70	275	385	$2.75
50	70	.80	300	420	2.80
75	105	1.00	325	455	2.90
100	140	1.25	350	490	3.00
125	175	1.45	375	525	3.30
150	210	1.70	400	560	3.60
175	245	2.00	425	595	3.90
200	280	2.30	450	630	4.20
225	315	2.40	475	665	4.50
250	350	2.50	500	700	4.80

OTHER SIZES & TYPES AVAILABLE
SEND DATA FOR CORRECT TYPE & SIZE
"SURGTAB" CLIPPER FOR DIODE PROTECTION
FROM INPUT & OUTPUT TRANSIENTS!

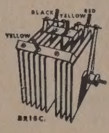
Selenium "Teksel" Rectifier Stacks—All Types! Sizes & Current Convection Cooled Ratings!

DC AMP	Full Wave Bridge 18VAC 14VDC		Full Wave Bridge 36VAC 28VDC		Full Wave Bridge 54VAC 42VDC		Full Wave Bridge 72VAC 58VDC		Full Wave Bridge 130VAC 100VDC		Full Wave Bridge 144VAC 118VDC		266VAC 217VDC		F.W.C.T. 26 V.C.T. 12 V.D.C.	
0.5	BV18	1.00	BV36	1.45	BV54	2.30	BV72	3.85	BV130	4.90	BV144	5.45	BV266	9.75	CV26	1.30
1	BA18	1.40	BA36	2.15	BA54	3.00	BA72	4.90	BA130	7.15	BA144	8.00	BA266	15.75	CA26	1.75
2	BE18	2.00	BE36	2.90	BE54	4.45	BE72	6.25	BE130	9.30	BE144	12.45	BE266	19.45	CE26	2.15
3	BF18	2.60	BF36	3.90	BF54	5.75	BF72	8.60	BF130	13.00	BF144	17.25	BF266	27.30	CF26	3.00
4	BG18	3.50	BG36	6.15	BG54	9.60	BG72	10.90	BG130	16.75	BG144	21.90	BG266	47.60	CG26	Query
6	BJ18	4.40	BJ36	8.30	BJ54	11.45	BJ72	14.00	BJ130	21.90	BJ144	25.15	BJ266	63.45	CJ26	3.75
10	BK18	6.35	BK36	10.75	BK54	17.60	BK72	18.15	BK130	29.00	BK144	33.60	BK266	75.15	CK26	4.30
12	BL18	8.00	BL36	11.45	BL54	21.95	BL72	25.60	BL130	41.75	BL144	47.75	BL266	86.75	CL26	6.00
15	BW18	10.30	BW36	12.90	BW54	22.75	BW72	32.75	BW130	48.90	BW144	52.60	BW266	106.90	CW26	7.00
20	BM18	12.45	BM36	20.45	BM54	24.30	BM72	40.90	BM130	69.60	BM144	75.90	BM266	152.00	CM26	8.00
24	BN18	14.75	BN36	29.15	BN54	35.00	BN72	48.30	BN130	80.90	BN144	90.00	BN266	162.30	CN26	10.30
30	BQ18	19.00	BQ36	36.30	BQ54	53.60	BQ72	66.45	BQ130	117.30	BQ144	125.75	BQ266	249.60	CQ26	14.90
36	BR18	23.75	BR36	47.15	BR54	69.30	BR72	81.00	BR130	132.00	BR144	153.90	BR266	299.45	CR26	16.45
50	BS18	33.45	BS36	63.75	BS54	121.50	BS72	108.75	BS130	172.45	BS144	207.60	BS266	398.90	CS26	Query

Selenium "TekSel" Three Phase Full Wave Bridge

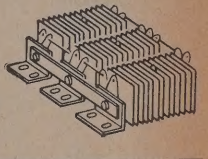
DC AMP	36VAC 42VDC		130VAC 160VDC		234VAC 282VDC		420VAC 460VDC	
1	PA36	4.90	PA130	17.90	PA234	33.75	PA420	63.20
2	PE36	7.45	PE130	21.75	PE234	39.90	PE420	66.90
4	PG36	9.90	PG130	33.15	PG234	62.15	PG420	99.75
6	PJ36	12.90	PJ130	46.90	PJ234	81.75	PJ420	108.60
10	PK36	16.60	PK130	62.45	PK234	116.00	PK420	197.45
12	PL36	18.45	PL130	66.60	PL234	132.15	PL420	212.60

SELENIUM-SILICON-GERMANIUM   COP-OX   ALL GOV'T TYPES   LOW PRICES!



24-HOUR SERVICE ON REPLACEMENTS!

WE CAN SUPPLY EXACT EQUALS ON ALL MAKES AND TYPES OF RECTIFIERS — SIZE, TYPE CURRENT TO YOUR SPECIFICATIONS



"TABTRAN" RECTIFIER TRANSFORMERS—F.W.B., C.T. & H.W.—ISOLATED PRI. & SECD!

Sec'd Volts (Dual 0-9-15-18 & 0-9-15-18)
Series secds=0-3-6-9-12-15-18-21-24-27-30-33-36 volts
Pri=†115VAC/50 to 800 cys/1φ; (*115 & 230VAC)

†TR4000R 2x16V @ 1Amp each, Sec'd Wndg(2)	$ 3.45
†TR4001 @ 1Amp per each Sec'd Wndg(2)	4.60
†TR4002 @ 2Amp per each Sec'd Wndg(2)	6.75
†TR4003 @ 5Amp per each Sec'd Wndg(2)	9.00
†TR4005 @ 12Amp per each Sec'd Wndg(2)	16.15
†TR4006 @ 24Amp per each Sec'd Wndg(2)	29.50
*†TR4007 @ 50Amp per each Sec'd Wndg(2)	54.00
*†TR4008 @ 100 Amp per each Sec'd Wndg(2)	108.00
*†TR4009 Sec'd 165, 160, 150, 125 @ 5Amps	54.00
*†TR4010 Sec'd 165V, 160, 150, 125 @ 10Amps	89.75
*†TR4011 Sec'd 330V, 320, 300, 250 @ 5Amps	79.00
*†TR4012 Sec'd 330V, 320, 250, @ 10Amps	128.00

56V/Dual Sec'd(2) 0-14-28; Parallel 28VCT @ 2xCur

TR4013 @ 2Amps per each Sec'd Wndg(2)	$ 8.80
TR4014 @ 4Amps per each Sec'd Wndg(2)	12.50
TR4015 @ 6Amps per each Sec'd Wndg(2)	18.00
TR4016 @ 12Amps per each Sec'd Wndg(2)	27.00

"TABTRAN" UNIVERSAL RECTIFIER CHOKES

CR6001 1Amp 0.1 Henrys/1.4 ohm *Internal Resistance*	$ 3.45
CR6002 2Amp 0.1 Henrys/0.67 ohms *Internal Resistance*	5.60
CR6007 4Amp 0.01 Henrys/0.1 ohms *Internal Resistance*	5.45
CR6003 5Amp 0.07 Henrys/0.6 ohms *Internal Resistance*	10.45
CR6008 10Amp 0.01 Henrys/0.1 ohms *Internal Resistance*	5.45
CR6004 12Amp 0.015 Henrys/0.1 ohm *Internal Resistance*	12.60
CR6005 24Amp 0.005 Henrys/0.025 ohm *Internal Resistance*	18.15
CR6006 50Amp 0.001 Henrys/0.001 ohms *Internal Resistance*	36.00
CR6009 100Amp 0.0005 Henrys /0.005 ohms *Internal Resistance*	43.00

"TABTRAN" ISOLATION AND CONTROL TRANSFORMERS ENCLOSED POWER TYPE ELECTRO-STATIC-SHIELDED

PRIMARY 115/230V & Secondary 115/230V 1φ 60 CYS. — ALSO 230/460V SPECIFY (ADD LETTER D = DTPP)

TPP050/50W	$11.00	TPP150/150W	$17.00	TPP750/750W	$40.00
TPP075/75W	13.00	TPP250/250W	22.00	TPP1000/1000W	49.00
TPP100/100W	14.00	TPP500/500W	32.00	TPP2000/2KW	73.00

WE CAN SUPPLY ALL VOLTAGES — FREQUENCIES AND CURRENTS! WRITE!

"TABPOST" *Five Way Binding Posts

Type	Amps	1 to 9	10/49	50/499
BP8*	8	.16@	.14@	.12@
BP10*	10	.20@	.18@	.15@
BP30*	30	.33@	.27@	.24@
BP60*	60	1.50@	1.24@	1.00@
BP100	100	2.10@	1.80@	1.50@

Brackets for Capacitors 25c Each

"TABCAP" Electrolytic Filter Capacitors

Type	MFD	DCWV	Price
CE152M*	2000	15	$1.00
CE156M	6000	15	2.00
CE505C*	500	50	1.00
CE502M	2000	50	3.30
CE508M	8000	50	6.90
CE2005C	500	200	4.00

"VACDAC" Silicon Tube Replacements

ST0Z4 1000piv—700Rms @ 200Ma	$ 3.00
ST5U4 1600piv—1120Rms @ 600Ma	4.50
ST5R4 2800piv—1900Rms @ 500Ma	12.00
ST866 10400piv—5 KVRms @ 300Ma	18.00

We reserve the right to change specifications and prices without notice. We custom manufacture to your specs.

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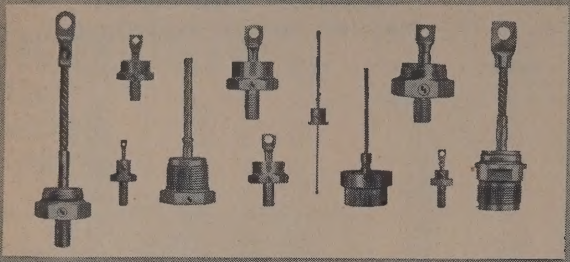
Net

TUNG-SOL



SILICON POWER RECTIFIERS

Tung-Sol silicon power rectifiers offer distinct advantages over similar competitive types. Exclusive design features combine with Tung-Sol's historically rigid quality control to assure designers unmatched operational reliability. Wide interchangeability permits specification of these outstanding components for most commercial and military applications.

LOW CURRENT TYPES

JEDEC DO-1 OUTLINE

Type	PRV V	I_o @ 50°C. amb. mA	LI_b μa	LI_o μa	iS A
1N440B	100	750	0.3		15
1N441B	200	750	0.75		15
1N442B	300	750	1.0		15
1N443B	400	750	1.5		15
1N444B	500	650	1.75		15
1N445B	600	650	2.0		15
1N536	50	750		400	15
1N537	100	750		400	15
1N538	200	750		300	15
1N539	300	750		300	15
1N540	400	750		300	15
1N547	600	750		350	15
1N560	800	500	15.0		15
1N561	1000	500	20.0		15
1N1692	100	600		500	20
1N1693	200	600		500	20
1N1694	300	600		500	20
1N1695	400	600		500	20
1N1696	500	600		500	20
1N1697	600	600		500	20
1N1763	400	500		1000	20
1N1764	500	500		1000	20

LOW CURRENT TYPES

COLD-WELDED, SUBMINIATURE CASE CONSTRUCTION

Type	PRV V	I_o @ 50°C. amb. mA	LI_o μa	iS A
1N3473	200	750	500	20
1N3474	400	750	500	20
1N3475	600	750	500	20
1N3476	800	500	500	20

MEDIUM CURRENT TYPES

JEDEC DO-5 OUTLINE

Type	PRV V	I_o@140°C. case A	LI_o mA	iS A
1N1183	50	35	10	500
1N1184	100	35	10	500
1N1185	150	35	10	500
1N1186	200	35	10	500
1N1187	300	35	10	500
1N1188	400	35	10	500
1N1189	500	35	10	500
1N1190	600	35	10	500

MEDIUM CURRENT TYPES

JEDEC DO-5 OUTLINE

Type	PRV V	I_o@150°C. case A	LI_o mA	iS A
1N1191	50	20	5	250
1N1192	100	20	5	250
1N1193	150	20	5	250
1N1194	200	20	5	250
1N1195	300	20	5	250
(CONTINUED)				
1N1196	400	20	5	250
1N1197	500	20	5	250
1N1198	600	20	5	250
1N2154	50	25	5.0	350
1N2155	100	25	4.5	350
1N2156	200	25	4.0	350
1N2157	300	25	3.5	350
1N2158	400	25	3.0	350
1N2159	500	25	2.5	350
1N2160	600	25	2.0	350
1N3208	50	15	10	250
1N3209	100	15	10	250
1N3210	200	15	10	250
1N3211	300	15	10	250
1N3212	400	15	10	250

MEDIUM CURRENT TYPES

PRESSURE FIT CONSTRUCTION

Type	PRV V	I_o@150°C. case A	LI_o mA	iS A
1N3491 - 1N3491R	50	18	10	300
1N3492 - 1N3492R	100	18	10	300
1N3493 - 1N3493R	200	18	8	300
1N3494 - 1N3494R	300	18	6	300
1N3495 - 1N3495R	400	18	4	300
1N3659 - 1N3659R	50	25	5	400
1N3660 - 1N3660R	100	25	4.5	400
1N3661 - 1N3661R	200	25	4.0	400
1N3662 - 1N3662R	300	25	3.5	400
1N3663 - 1N3663R	400	25	3.0	400
1N3664 - 1N3664R	500	25	2.5	400
1N3665 - 1N3665R	600	25	2.0	400

HIGH CURRENT TYPES

DO-8 OUTLINE

Type	PRV V	I_o@150°C. case A	LI_o mA	iS A
1N1396	50	70	15	1500
1N1397	100	70	15	1500
1N1398	150	70	15	1500
1N1399	200	70	15	1500
1N1400	300	70	15	1500
1N1401	400	70	15	1500
1N1402	500	70	15	1500

iS—Peak one-cycle surge current, under same conditions as I_o rating. (μA=Microamperes)

I_o—Max. rectified avg. DC output current, resistive or inductive load, 60 cps sine wave input.

LI_b—Max. reverse current with voltage equal to PRV applied in reverse direction, 25°C. ambient.

LI_o—Max. avg. reverse current measured over full sine wave cycle with max. rated reverse voltage and forward current applied.

Full field technical consultation or complete up-to-date listings on all Tung-Sol products are available through: Atlanta, Ga.; Columbus, Ohio; Culver City, Calif.; Dallas, Texas; Denver, Colo.; Detroit, Mich.; Melrose Park, Ill.; Newark, N.J.; Seattle, Wash. In CANADA: Abbey Electronics, Toronto, Ont.

CENTER LINE QUALITY

TUNG-SOL®

TUNG-SOL ELECTRIC INC., NEWARK 4, N.J.

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WAKEFIELD ENGINEERING INC. A COMPLETE LINE OF SEMICONDUCTOR COOLERS

FIG. 1

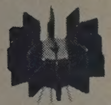


FIG. 2

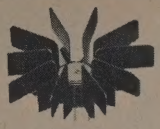


FIG. 3

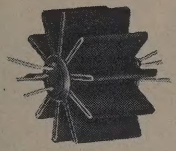


FIG. 4

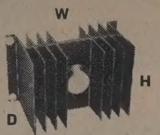


FIG. 6

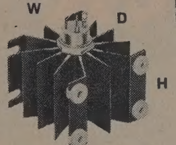


FIG. 5

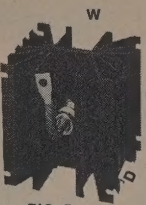


FIG. 7

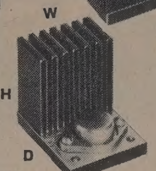


FIG. 8

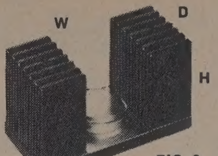


FIG. 9

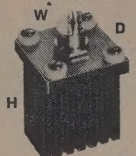


FIG. 10

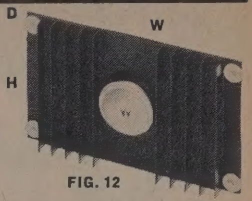


FIG. 12

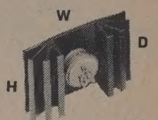
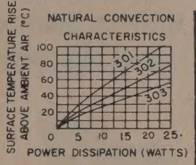
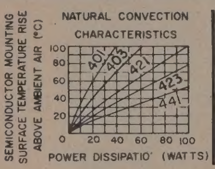
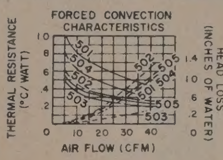


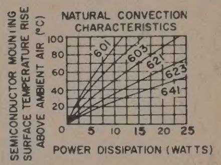
FIG. 11

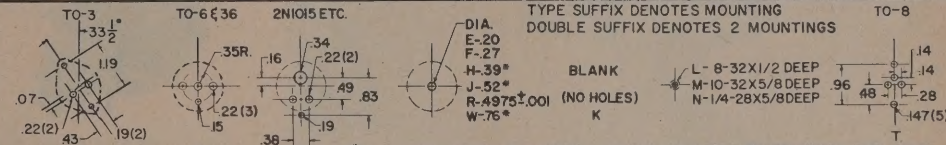
Type	Rise (°C) For 1 Watt Nat Conv	Rise (°C) For 1 Watt 250 Ft /Min	Fits JEDEC Case Styles
201	66	27	TO 18, 24, 28
203	56	19	(222 accepts
222	56	19	2 cases)
205	61	24	TO 5, 9, 11, 12, 16
207	49	17	29, 33, 39, 42, 43
209	34	10	(224 accepts
224	49	17	2 cases)
211	56	20	TO 8
213	44	13	
215	31	8	











TYPE SUFFIX DENOTES MOUNTING
DOUBLE SUFFIX DENOTES 2 MOUNTINGS

*H,J & W HOLES FREE OF ANODIZE, 1-1/8, 1-1/8, 1-5/16 DIA.S RESPECTIVELY, BOTH SIDES

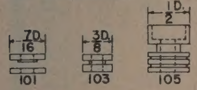
Type	Fig	Dia.	Lgth.	Fits Case Dia.	1-49	50-499	500-999	1,000 4,999
NF 201	1	.64	.19	.161/.195	0.27	0.21	0.16	0.11
NF 203	2	.64	.38	.161/.195	0.29	0.22	0.17	0.12
NF 205	1	.72	.19	.275/.335	0.27	0.21	0.16	0.11
NF 207	2	.72	.38	.275/.335	0.29	0.22	0.17	0.12
NF 209	3	1.26	.44	.275/.335	0.34	0.29	0.23	0.18
NF 211	1	.82	.19	.444/.524	0.27	0.21	0.16	0.11
NF 213	2	.82	.38	.444/.524	0.29	0.22	0.17	0.12
NF 215	3	1.38	.44	.444/.524	0.34	0.29	0.23	0.18
NF 222	4	.64	.38	.161/.195	0.38	0.30	0.24	0.19
NF 224	4	.72	.44	.275/.335	0.38	0.30	0.24	0.19

Installation tool for Models 201, 3, 5, 7, 9..............................$1.00 EA.

Type	Fig.	H	W	D	1-49	50-99	100-249	250-499
NC301L	5	.75	2.00	2.00	1.55	1.30	1.05	0.90
NC301M	5	.75	2.00	2.00	1.55	1.30	1.05	0.90
NC301N	5	.75	2.00	2.00	1.55	1.30	1.05	0.90
NC301R	5	.75	2.00	2.00	1.55	1.30	1.05	0.90
NC301RR	5	.75	2.00	2.00	1.85	1.55	1.25	1.10
NC301K	5	.75	2.00	2.00	1.25	1.05	0.85	0.70
NC302L	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
NC302M	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
NC302N	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
NC302R	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
NC302K	5	1.50	2.00	2.00	1.35	1.15	0.95	0.80
NC302MM	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20
NC302NN	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20
NC302RR	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20
NC303L	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
NC303M	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
NC303N	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
NC303R	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
NC303K	5	3.00	2.00	2.00	1.60	1.35	1.10	0.95
NC303MM	5	3.00	2.00	2.00	2.20	1.85	1.50	1.35
NC303NN	5	3.00	2.00	2.00	2.20	1.85	1.50	1.35
NC303RR	5	3.00	2.00	2.00	2.20	1.85	1.50	1.35
NC401A	6	1.50	4.81	1.25	1.90	1.55	1.30	1.10
NC401B	6	1.50	4.81	1.25	1.90	1.55	1.30	1.10
NC401E	6	1.50	4.81	1.25	1.90	1.55	1.30	1.10
NC401F	6	1.50	4.81	1.25	1.90	1.55	1.30	1.10
NC401K	6	1.50	4.81	1.25	1.60	1.30	1.10	0.90
NC403A	6	3.00	4.81	1.25	2.10	1.70	1.35	1.15
NC403B	6	3.00	4.81	1.25	2.10	1.70	1.35	1.15
NC403C	6	3.00	4.81	1.25	2.10	1.70	1.35	1.15
NC403F	6	3.00	4.81	1.25	2.10	1.70	1.35	1.15
NC403K	6	3.00	4.81	1.25	1.80	1.45	1.15	0.95
NC421A	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421B	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421C	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421H	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421J	6	3.00	4.81	2.63	3.05	2.75	2.30	2.10
NC421K	6	3.00	4.81	2.63	2.75	2.50	2.10	1.90
NC423A	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423B	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423C	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423H	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423J	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423W	6	5.50	4.81	2.63	4.15	3.55	3.00	2.80
NC423K	6	5.50	4.81	2.63	3.85	3.30	2.80	2.60
NC441H	7	5.50	4.75	4.50	5.75	4.95	4.25	3.95
NC441J	7	5.50	4.75	4.50	5.75	4.95	4.25	3.95
NC441W	7	5.50	4.75	4.50	5.75	4.95	4.25	3.95
NC441K	7	5.50	4.75	4.50	5.45	4.70	4.05	3.75
FC501A	8	1.75	1.75	2.25	5.10	4.55	4.25	4.00
FC501B	8	1.75	1.75	2.25	4.95	4.40	4.10	3.85
FC501K	8	1.75	1.75	2.25	4.60	4.10	3.85	3.60
FC502A	9	1.75	3.50	1.75	7.30	6.55	6.15	5.70
FC502B	9	1.75	3.50	1.75	7.15	6.40	6.00	5.55
FC502K	9	1.75	3.50	1.75	6.80	6.10	5.75	5.30
FC503A	9	1.75	3.50	3.50	12.20	10.95	10.25	9.50
FC503B	9	1.75	3.50	3.50	12.05	10.80	10.10	9.35
FC503K	9	1.75	3.50	3.50	11.70	10.50	9.85	9.10
FC504K	10	1.75	1.75	1.75	4.20	3.80	3.50	3.35
FC505K	10	1.75	1.75	2.00	6.10	5.35	5.00	4.75
NC601T	11	1.25	2.24	.56	1.40	1.15	0.90	0.75
NC601K	11	1.25	2.24	.56	1.10	0.90	0.70	0.55
NC603T	11	2.00	2.24	.56	1.50	1.20	0.95	0.80
NC603K	11	2.00	2.24	.56	1.20	0.95	0.75	0.60
NC621A	12	1.50	4.81	.46	1.65	1.35	1.10	0.95
NC621B	12	1.50	4.81	.46	1.65	1.35	1.10	0.95
NC621K	12	1.50	4.81	.46	1.35	1.10	0.90	0.75
NC623A	12	3.00	4.81	.46	1.80	1.50	1.20	1.05
NC623B	12	3.00	4.81	.46	1.80	1.50	1.20	1.05
NC623K	12	3.00	4.81	.46	1.50	1.25	1.00	0.85
NC641A	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
NC641B	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
NC641K	11	3.00	4.12	1.00	1.65	1.35	1.10	0.90

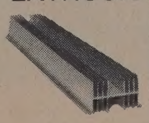
TEFLON INSULATORS

Insulate heat sinks from chassis, eliminating mica insulators between sink and semiconductor.



Type Insulators	Price	For Heat Sink Type	No. Reqd
101	0.07 Pair	501	3 Pr.
101	0.07 Pair	502, 503, 504, 505	4 Pr.
103	0.05 Ea.	401	3
103	0.05 Ea.	402, 403, 421, 423	4
103	0.05 Ea.	621, 623, 641	4
105	0.20 Ea.	441	4

EXTRUSION 4FT. LENGTHS


420 extrusion shown above

Type	Fig.	Width	Depth	Each
300	5	2.00	2.00	10.00
400	6	4.81	1.25	12.00
420	6	4.81	2.63	20.00
440	7	4.75	4.50	36.00
600	11	2.24	.56	6.00
640	11	4.12	1.00	12.00
620	12	4.81	.46	10.00

DESIGNERS KIT NET — $38.50

Contains representative types of coolers for natural and forced convection and a six-station modular package complete with fan. Cooling handbook included covering techniques for temperature, power and air flow measurement.

THERMAL COMPOUND

Type	Quan.	Price
122	2 oz.	1.95
128	8 oz.	5.10

For use between semiconductor and heat sink. Has four times the thermal conductivity of silicon grease. Also used for thermoelectric modules.

VERTICAL MTG. BK'TS.

Meet vibration of MIL 202B. For NC401 & 403 use #111, for NC421 & 423 use #113. Two bkts. reqd. per sink. To insulate use #103.

Vertical Mtg. Brackets		
Type	1-49	100-499
111	0.15	0.12
113	0.18	0.15

© U.C.P., Inc.

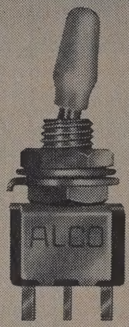
Net

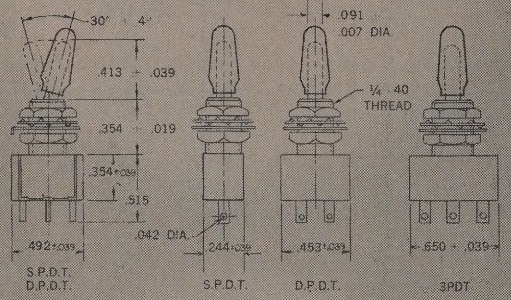
Designed by ALCO for limited space requirements

NEW ULTRAMINIATURE ALCO TOGGLE SWITCHES

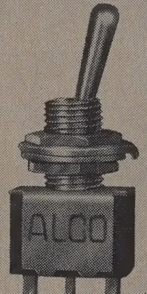
- EXCLUSIVE WITH ALCO FOR INDUSTRIAL APPLICATIONS

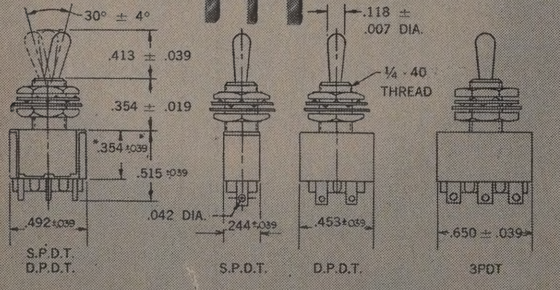
MST 115-D
MST 215-N
MST 315





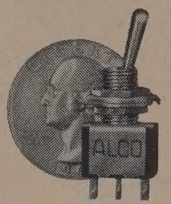
MST 105 SERIES
MST 205 SERIES
MST 305 SERIES





*NOTE: .443 ± .039 ON MOMENTARY & CENTER-OFF MODELS.

HIGH 5 AMP RATING AT 115 VAC ULTRA-MINIATURE ½″ SIZE



A new series of high-quality, ultra-miniature toggle switches, designed by ALCO, is ideally suited for limited space requirements. Conservatively rated at 5 amperes @ 115 VAC, and capable of carrying a 100% overload. Contacts and terminals are of solid silver to assure many years of service. Extremely small case size makes these switches ideal for miniature equipment which have rear panel space limitations.

Insulating Resistance:	Over 1000 megohms @ 500 VDC.
Voltage Breakdown:	Over 1000 volts @ 60 cycles.
Life Cycle:	Well over 80,000 on-off actions.
Moisture Resistance:	Over 8 megohms after 48 hours at 40°C, and humidity of 95%.
Heat Resistance:	One Hour @ 140°C.
Case Material:	Black phenol resin.
Contacts:	Solid silver.
Bushing Size:	Standard ¼ - 40, usable up to ¼″ panel thickness.

COLOR-CODED PLASTIC CAP SERIES

ALCO's revolutionary feature of color-coded, plastic caps for toggle switches has already proved to be an invaluable aid in aircraft installations. Caps are removable from handle, and are normally supplied in white, but are also available in optional colors of red, blue, and black. Physical and electrical specifications are described above.

INDUSTRIAL QUANTITY PRICE SCHEDULE

MODEL	TYPE	DESCRIPTION	One-24	25-99	100-499	500-999	1000-4999	5000-9999
MST-115D	SPDT	On-None-On	1.65	1.12	.99	.83	.755	.72
MST-215N	DPDT	On-None-On	2.15	1.43	1.29	1.08	.995	.95
MST-315	3PDT	On-None-On	3.85	2.57	2.31	1.925	1.78	1.68

NEW! BAT HANDLE SERIES

New, slim bat handles, designed for easier switching operations, have been introduced in this new series. Available in a wide variety of switching configurations (see chart below.) Physical and electrical specifications are the same as above.

INDUSTRIAL QUANTITY PRICE SCHEDULE

MODEL	TYPE	DESCRIPTION	One-24	25-99	100-499	500-999	1000-4999	5000-9999
MST-105D	SPDT	On-None-On	1.65	1.12	.99	.83	.755	.72
MST-105E	SPDT	On-Off-On	1.95	1.33	1.17	.975	.90	.85
MST-105F	SPDT	None-On-(On)	1.95	1.33	1.17	.975	.90	.85
MST-105G	SPDT	(On)-Off-(On)	1.95	1.33	1.17	.975	.90	.85
MST-105H	SPDT	On-Off-(On)	1.95	1.33	1.17	.975	.90	.85
MST-205N	DPDT	On-None-On	2.15	1.43	1.29	1.08	.995	.95
MST-205P	DPDT	On-Off-On	2.55	1.72	1.53	1.28	1.18	1.12
MST-205R	DPDT	None-On-(On)	2.55	1.72	1.53	1.28	1.18	1.12
MST-205S	DPDT	(On)-Off-(On)	2.55	1.72	1.53	1.28	1.18	1.12
MST-205T	DPDT	On-Off-(On)	2.55	1.72	1.53	1.28	1.18	1.12
MST-305	3PDT	On-None-On	3.85	2.57	2.31	1.925	1.78	1.68

(On) (Off) Indicates Momentary Positions

ALCO ELECTRONIC PRODUCTS, INC.
Lawrence, Mass.

First ultra-miniature multiple-stop switch available

NEW ADJUSTABLE-STOP ALCO ROTARY SWITCH

- ULTRA-MINIATURE IN SIZE
- ONE-HALF INCH DIAMETER

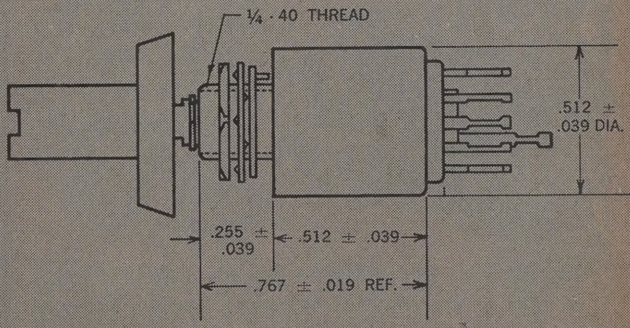
FULLY ENCLOSED — NON-SHORTING 36° SPACING —5/32"DIAMETER SHAFT

First, new, ultra-miniature rotary switch introduced by ALCO with the invaluable feature of an adjustable-stop usuable from 2 to 10 positions. Ideal for installations where size and space limitations are a factor including applications in aircraft, computers, and all types of electronic equipment. Comes equipped with an attractive black phenol knob; although it is adaptable with any standard knob that will accept a 5/32"shaft. The only one of its kind, the ALCO adjustable-stop rotary switch has these additional features • non-shorting • 36° spacing • up to 4 poles on single deck •5/32" diameter shaft • standard ¼ - 40 bushing.

SPECIFICATIONS

Current Rating:	500 ma @ 125 VAC.
Contact Resistance:	Below 20 milliohm at 2-4 VDC and at rated current.
Insulating Resistance:	Over 100 megohms between terminals and case ground (when measured with a megger of 500 VDC.)
Voltage Breakdown:	1000 VAC between terminals and case ground for a duration of one minute.
Life Cycle:	Over 10,000 switching operations at the rate of 15 to 20 full rotations per minute at the rated current.
Contacts and Terminals:	Solid silver.
Bushing Size:	¼ - 40.
Shaft:	5/32" diameter, ¼" length.

MODEL	POLES	USEABLE	MAX. POS.
MRA -1-10	One	2-10 Pos.	10
MRA -2-5	Two	2-5 Pos.	5
MRA -3-3	Three	2-3 Pos.	3
MR-4-2	Four	2 Pos.	2



INDUSTRIAL QUANTITY PRICE SCHEDULE

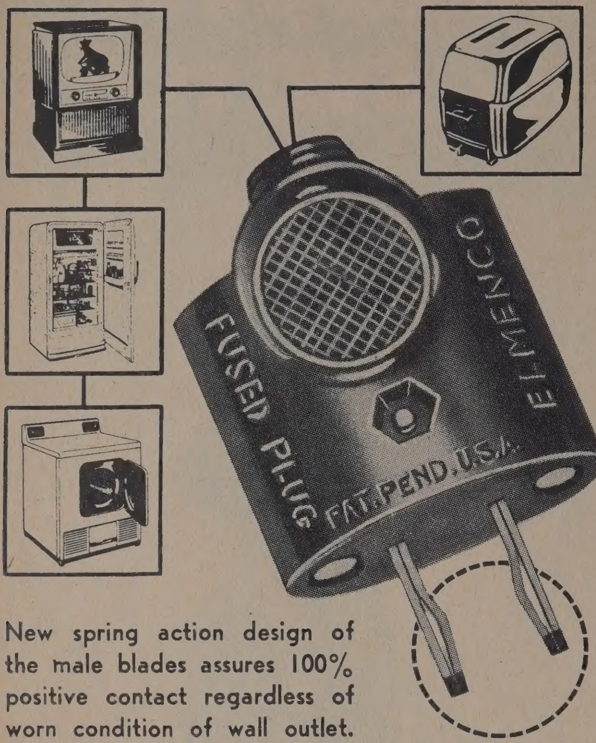
MODEL	POLES	USABLE	One-24	25-99	100-499	500-999	1000-4999	5000-9999
MRA-1-10	ONE	2-10 pos.	3.85	2.57	2.31	1.925	1.78	1.68
MRA-2-5	TWO	2- 5 pos.	3.85	2.57	2.31	1.925	1.78	1.68
MRA-3-3	THREE	2- 3 pos.	3.85	2.57	2.31	1.925	1.78	1.68
MR-4-2	FOUR	2 pos.	3.85	2.57	2.31	1.925	1.78	1.68

ALCO ELECTRONIC PRODUCTS, INC.

Lawrence, Mass.

Announcing an important NEW Feature

OF THE ELMENCO Fused Plug


FUSED PLUG
ELMENCO
PAT. PEND. U.S.A.

New spring action design of the male blades assures 100% positive contact regardless of worn condition of wall outlet.

Spring Action

For
POSITIVE CONTACT
plus
Impact Resistant Cover

LIST PRICE **75¢** LESS FUSES

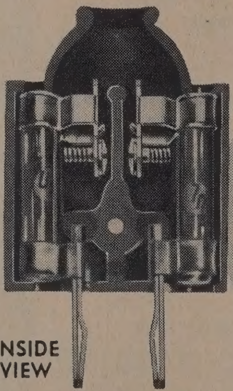
OFFERS COMPLETE PROTECTION AGAINST CURRENT SURGES & SHORT CIRCUITS

PROTECTS ELECTRICAL APPLIANCES!

ELMENCO
fused plug
with IMPACT RESISTANT COVER and "SPRING ACTION" For Perfect Contact!
OFFERS COMPLETE PROTECTION AGAINST CURRENT SURGES
10 Elmenco Fused Plugs
ELMENCO FUSED PLUGS
REPLACE FUSE INSTANTLY!

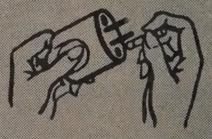
Conveniently Packed 10 to a Box In Colorful Self-merchandising displays. Easy to handle for resale

The Elmenco Fused Plug is like any standard plug, is light in weight, but easier to handle because of finger grips. However, it contains 2 small fuses which provide complete protection against damage to the appliance and to the main line. The blown fuse is easy to remove and simple to replace. Fits any standard wall outlet.



INSIDE VIEW

REPLACE FUSE Instantly!



Fuses are replaced instantly without need of opening plug. Can be used with standard 3AG and 3AB glass tubular fuses up to 20 amps.

ARCO *electronics inc.* NEW YORK, N. Y.
BRANCHES: Dallas 7, Texas, Los Angeles 35, California

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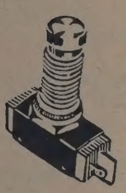
Birnbach ARROW H&H SWITCHES

TOGGLE • PUSH BUTTON • ROTARY • KNIFE • POWER • SLIDE

1



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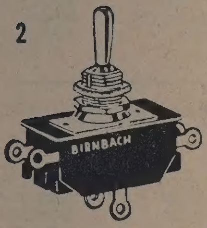

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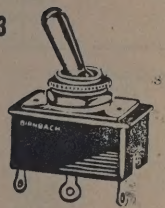

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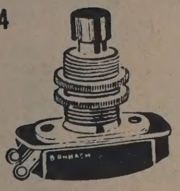

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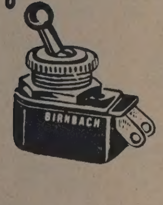

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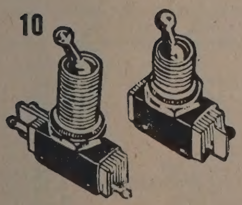


1 MOMENTARY CONTACT PUSH BUTTON

Solder lugs; laminated type. Has 9/16″ slotted sleeve, 15/32-32 TPI Complete with hex and knurled nut; nickel plated; all accept snap on button. Supplied less insulating button.

QUICK MAKE AND BREAK

Cat. No.	Descrip.	Type	Current Rating 250 V
6184	SPST	Normally Closed (On)	.3 amps
6184A	SPST	Normally Open (Off)	.3 amps
6185A	SPDT	Normally Closed (On)	.1 amp
6185	SPDT	Normally Open (Off)	.1 amp
6186	2 Circ	Normally Closed (On)	.1 amp
6231A	DPST	Normally Closed (On)	.1 amp
6231	DPST	Normally Open (Off)	.1 amp
6231B	DPDT	Normally Closed (On)	.1 amp
6232	Button only, red or black		

Std. Pkg. 25

SLOW MAKE AND BREAK

Cat. No.	Descrip.	Type	Current Rating 125 V
6180	SPST	Normally Closed (On)	.1 amp
6230	SPST	Normally Open (Off)	.1 amp
6224	2 Circ.	Normally Closed (On)	.1 amp

Std. Pkg. 25

3 INTERMEDIATE SIZE TOGGLE-BAT

Molded phenolic base; back connected silver plated solder lug contacts; supplied with hex nut and knurled nut. SPDT rated at 1 amp.-250V, 6 amps.-125 volts AC-DC; others rated at 3 amps-250V, 6 amps.- 125V AC-DC.

Std. Pkg. 25

Cat. No.	Description	Type Action
6280	SPST	POSITIVE
6280A	SPST	MOM.—NORM. OFF
6281	SPDT	POSITIVE
6281A	SPDT	MOMENTARY
6284	2 CIRC	POSITIVE
6282	DPST	POSITIVE
6282A	DPST	MOM.—NORM. OFF
6283	DPDT	POSITIVE
6283A	DPDT	MOMENTARY

2 THREE POSITION—CENTER OFF

Rated 3 amps-250 V, 6 amps-125 V AC-DC

Cat. No.	
6261	SPDT
6262	2 CIRC
6263	DPDT

Std. Pkg. 25

2 BAKELITE MOLDED MOMENTARY CONTACT SWITCHES

Same as above except momentary. SPST Normally Off. 3 A., 250 V. UL approved. Rated 6 A., 125 V.

Cat. No.	Description	Shank Length
6241	SPST	15/32″
6240	SPDT	15/32″
6242	DPDT	15/32″

Std. Pkg. 25

4 MOMENTARY PUSH BUTTON

Molded momentary, solder lugs. Rated 1 A., 125 V. With 9/16″ shank, normally OFF—push to make. Nickel plated. UL approved.

Cat. No.	Descrip.	Std. Pkg.
6233	SPST	25
6234	SPDT	25
6235	DPST	25
6236	DPDT	25

6 MIDGET SIZE TOGGLE POS. ACTION

SPST Rated 3 Amps—250 Volts, 6 amps—125 Volts. Others Rated 1 Amp—250 Volts, 6 amps—125 Volts. Molded Phenolic base. 15/32—32 x 15/32″ long slotted sleeve, Nickel finish; solder lugs.

Cat. No.	Description	Type
6244	SPST	Ball Handle
6244A	SPST	Bat Handle
6244B	SPDT	Ball Handle
6244C	SPDT	Bat Handle
6244D	2 circ.	Ball Handle
6244E	2 circ.	Bat Handle

Std. Pkg. 25

16 ROTARY SWITCHES CANOPY TYPE—ROTO LOCK

Laminated phenolic sections—solder lugs; sleeve 11/32″ diam. 32 threads per inch; nickel finish; Rotary switches supplied with two hex nuts; roto lock key types have 15/32″ diam. 32 threads per inch; key removable in off position only on SPST and DPST—key removable in both positions on all others.

SPST rated at 3 amps-250 V AC-DC, others rated at 1 amp-250 V, 3 amps-125 volts AC-DC.

Roto Lock (Key Type)

Cat. No.	Description	Std. Pkg.
6110	SPST	12
6111	SPDT	12
6112	DPST	12
6113	DPDT	12
6114	Key—Rem. Off Pos.	100
6115	Key—Rem. Both Pos.	100

Canopy type rotary

6210	SPST	⅜″	1½″
6211	SPST	1″	2½″
6212	SPDT	⅜″	1½″
6213	SPDT	1″	2½″
6214	DPST	⅜″	1½″
6215	DPST	1″	2½″
6216	DPDT	⅜″	1½″
6217	DPDT	1″	2½″

BALL HANDLE TOGGLE SWITCHES 10 POSITIVE ACTION

UL approved. Ball lever switches nickel plated; laminated type; ring and mounting nuts.

Std. Pkg. 25

Cat. No.	Descrip.	Shank Length	Current Rating 125 V.	250 V
6200	SPST	15/32″		3 amps
6201	SPST	3/4″		3 amps
6202	SPDT	15/32″	3 amps	1 amp
6202A	2 Cir.	15/32″	3 amps	1 amp
6203	SPDT	3/4″	3 amps	1 amp
6204	DPST	15/32″	3 amps	1 amp
6205	DPST	3/4″	3 amps	1 amp
6206	DPDT	15/32″	3 amps	1 amp
6207	DPDT	3/4″	3 amps	1 amp

NAME PLATE ......Std. Pkg. 100

6208 —On-Off—Fits 15/32″ Sleeves
6208A—Hi-Low—Fits 15/32″ Sleeves

BAT HANDLE TOGGLE SWITCHES 11 POSITIVE ACTION

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts. 15/32″ shank.

Std. Pkg. 25

Cat. No.	Descrip.	Current Rating 125 V	250 V
6220	SPST		3 amps
6221	SPDT	3 amps	1 amp
6221A	2 Cir.	3 amps	1 amp
6222	DPST	3 amps	1 amp
6223	DPDT	3 amps	1 amp

BAT HANDLE MOMENTARY ACTION 11

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts; 15/32″ shank; solder terminals; SPST rated at 3 amps 250V AC-DC, others rated at 1 amp 250V, 3 amps 125V AC-DC. Std. Pkg. 25.

Cat. No.	Descrip.	Type
6190	SPST	Normally Closed (On)
6191	SPST	Normally Open(Off)
6192	SPDT	Normally Closed (On)
6193	DPST	Normally Closed (On)
6194	DPST	Normally Open (Off)
6195	DPDT	Normally Closed (On)

ST TYPE PER SPEC. JAN-S-23 12

Std. Pkg. 25

Bat handle, back connected, silver plated solder lug contacts; slotted sleeve. Supplied with two hex nuts. Molded phenolic base; 15/32-32 x 15/32″ long, nickel finish. They meet, where applicable. All Jan-S-23 and Mil-S-6745 Specs.

Cat. No.	Aws No.	Description
6250	ST-12A	SPST
6251	ST-12D	SPDT
6251C	ST-12C	SPST
6251V	ST-12V	2 Circ.
6252	ST-22K	DPST
6252M	ST-22M	DPST
6253	ST-22N	DPDT

Cur. rate 125V 6A, 250V 3A, Std. Pkg. 25.

6270*	ST-42A	SPST
6271*	ST-42D	SPDT
6249*	ST-42E	SPDT
6272**	ST-52K	DPST
6273**	ST-52N	DPDT
6274**	ST-52P	DPDT

*Cur. rate 125V 15A, 250V 6A.
**Cur. rate 125V 25A, 250V 9A.
Std. Pkg. 25.

STANDARD DUTY MOM. PUSH BUTTON 13

Molded phenolic base; 15/32-32x7/16″ long slotted sleeve; nickel finish; screw terminals; complete with two hex nuts. All accept snap on button; supplied less insulating button. Cur. rate 125V 12A, 250V 6A,

Std. Pkg. 10

Cat. No.	Description	Type
6238	SPST	Normally Closed
6238B	SPDT	Normally Closed (on)
6238C	2 Circ.**	Normally Closed (on)
6226	DPST*	Normally Open (off)
6238D	DPST*	Normally Closed (on)

* 1 H.P. 250 V.A.C.-D.C.
**Cur. rating ½.

STANDARD DUTY TOGGLE SWITCHES 14

Molded phenolic base; 15/32-32 x 7/16″ long slotted sleeve; nickel finish; screw terminals; complete with one hex nut, one knurled nut.

QUICK MAKE AND BREAK BAT

Cat. No.	Descrip.	Current Rating AC-DC 125 V	250 V
6225A	SPST	12 amps	6 amps
6225B	SPDT	12 amps	6 amps
6225C	2 Circ.	6 amps	3 amps
6225	DPST*	12 amps	6 amps

* 1 HP 250 V. Std. Pkg. 10.

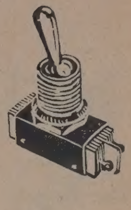
EXTRA HEAVY DUTY POWER SWITCHES 15 3 POSITION—POSITIVE CENTER OFF

Molded phenolic base; screw terminals; slotted sleeve ¾-32; nickel finish; with two hex nuts. Rated at 5 Amps—250 V, 10 Amps—125 V.

Cat. No.	Description	Circuit
6227	DPDT	¾ H.P. 250 V.A.C.-D.C.
6228	3PDT	½ H.P. 115/230 V.A.C. 3 phase
6229	4PDT	½ H.P. 115/230 V.A.C. 2 phase

Std. Pkg. 10.

11



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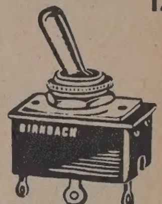

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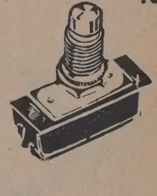

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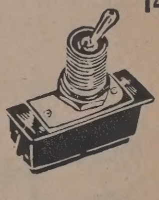

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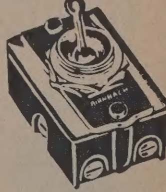

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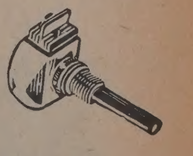

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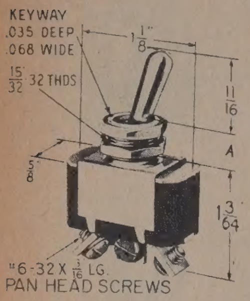
See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach CUTLER – HAMMER SWITCHES

BIRNBACH

ST-40 SERIES

The following switches conform to JAN-S-23, MIL-S-3950A, MIL-S-3950, MIL-S-6745.


KEYWAY
.035 DEEP
.068 WIDE
1 1/8"
15/32 32 THDS
11/16
A
5/8
1 3/64
#6-32 X 3/16 LG.
PAN HEAD SCREWS

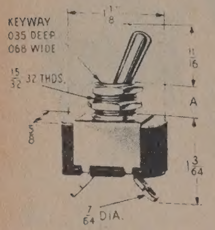
ST40

ST-40 Series — Single Pole with Screw Terminals

Nominal Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V DC

Birnbach No.	C-H	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit	Net Ea.
5360	8801K13	ST40A	AN3021-2	SPST	On-None-Off	1.68
5361	8813K12	ST40B	AN3021-9	SPST	On-None-Mom.Off	1.86
5362	8811K12	ST40C	AN3021-8	SPST	On-None-Mom.On	1.86
5363	8810K12	ST40D	AN3021-3	SPDT	On-None-On	2.04
5364	8800K13	ST40E	AN3021-1	SPDT	On-Off-On	2.04
5365	8804K12	ST40F	—	SPDT	On-None-Mom.On	2.19
5366	8812K13	ST40G	AN3021-7	SPDT	Mom.On-Off-Mom.On	2.19
5367	8809K13	ST40H	AN3021-5	SPDT	On-Off-Mom.On	2.19

Std. Pkge. 10


KEYWAY
.035 DEEP
.068 WIDE
1 1/8
15/32 32 THDS.
11/16
A
5/8
1 3/64
7/64 DIA.

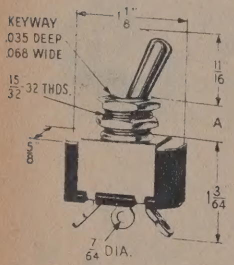
ST42

ST-42 Series — Single Pole with Solder Lugs

Nominal Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

Birnbach No.	C-H	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit	Net Ea.
5370	8803K6	ST42A		SPST	On-None-Off	1.26
5371	8819K5	ST42B		SPST	On-None-Mom.Off	1.38
5372	8817K5	ST42C		SPST	On-None-Mom.On	1.38
5373	8816K5	ST42D		SPDT	On-None-On	1.47
5374	8802K6	ST42E		SPDT	On-Off-On	1.47
3375	8805K6	ST42F		SPDT	On-None-Mom.On	1.62
5376	8818K5	ST42G		SPDT	Mom.On-Off-Mom.On	1.62
5377	8815K6	ST42H		SPDT	On-Off-Mom.On	1.62

Std. Pkge. 10


KEYWAY
.035 DEEP
.068 WIDE
1 1/8
15/32 32 THDS.
11/16
A
5/8
1 3/64
7/64 DIA.

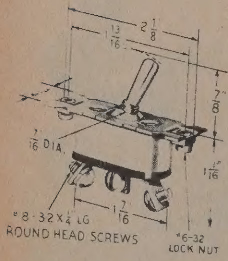
ST45

ST-45 Series per JAN-S-23 and MIL-S-6745 — Single Pole

Nominal Rating per Pole:
15 amps. 115 V. AC
20 amps. 28 V. DC

Birnbach No.	C-H	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit	Net Ea.
5440	8201K6	ST45A	AN3022-2	SPST	On-None-Off	1.95
5441	8213K6	ST45B	AN3022-9	SPST	On-None-Mom.Off	2.16
5442	8211K7	ST45C	AN3022-8	SPST	Mom.On-None-Off	2.16
5443	8210K7	ST45D	AN3022-3	SPDT	On-None-On	2.37
5444	8200K7	ST45E	AN3022-1	SPDT	On-Off-On	2.37
5445	8215K4	ST45F	AN3022-11	SPDT	On-None-Mom.On	2.55
5446	8212K6	ST45G	AN3022-7	SPDT	Mom.On-Off-Mom.On	2.55
5447	8209K6	ST45H	AN3022-5	SPDT	On-Off-Mom.On	2.55

Std. Pkge. 10


2 1/8
1 13/16
7/8"
7/16 DIA.
1 1/16
1 7/16
#8-32 X 1/4 LG
ROUND HEAD SCREWS
#6-32
LOCK NUT

ST50

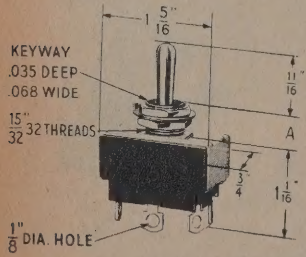
ST-50 Series per JAN-S-23 — Double Pole with Screw Terminals

Nominal Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

Birnbach No.	C-H	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit	Net Ea.
5380	8822K8	ST50K	AN3027-2	*DPST	On-None-Off	2.25
5381	8828K5	ST50L	—	DPST	On-None-Mom.Off	2.70
5382	8826K5	ST50M	—	DPST	Off-None-Mom.Off	2.70
5383	8824K8	ST50N	AN3027-3	*DPDT	On-None-On	2.70
5384	8820K10	ST50P	AN3027-1	*DPDT	On-Off-On	2.70
5385	8830K5	ST50R	—	DPDT	On-None-Mom.On	2.94
5386	8834K4	ST50S	AN3027-7	*DPDT	Mom.On-Off-Mom.On	2.94
5387	8832K4	ST50T	AN3027-8	*DPDT	On-Off-Mom.On	2.94

Std. Pkge. 25

*Denotes switches equipped with sealed lever per MIL-S-6745


1 5/16"
KEYWAY
.035 DEEP
.068 WIDE
15/32" 32 THREADS
11/16"
A
3/4
1 1/16"
1/8" DIA. HOLE

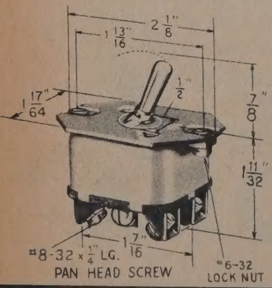
ST52

ST-52 Series per JAN-S-23 — Double Pole with Solder Lugs

Nominal Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

Birnbach No.	C-H	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit	Net Ea.
5390	8823K5	ST52K		DPST	On-None-Off	1.50
5391	8829K5	ST52L		DPST	On-None-Mom.Off	1.68
5391A	8827K5	ST52M		DPST	Off-None-Mom.On	1.68
5392	8825K5	ST52N		DPDT	On-None-On	1.68
5393	8821K5	ST52P		DPDT	On-Off-On	1.68
5394	8831K5	ST52R		DPDT	On-None-Mom.On	1.95
5395	8835K3	ST52S		DPDT	Mom.On-Off-Mom.On	1.95
5396	8833K3	ST52T		DPDT	On-Off-Mom.On	1.95

Std. Pkge. 25


2 1/8"
1 13/16"
17/64"
1/2"
7/8"
1 11/32"
1 7/16
#8-32 X 1/4" LG.
PAN HEAD SCREW
#6-32
LOCK NUT

ST55

ST-55 Series per JAN-S-23 and MIL-S-6745 — Double Pole

Nominal Rating per Pole:
20 amps. 115 V. AC
25 amps. 28 V. DC

All ST-55 Switches Have Sealed Levers

Birnbach No.	C-H	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit	Net Ea.
5450	8701K14	ST55K	AN3023-2	DPST	On-None-Off	4.11
5451	8713K14	ST55L	AN3023-9	DPST	On-None-Mom.Off	4.50
5452	8711K14	ST55M	AN3023-8	DPST	Off-None-Mom.On	4.50
5453	8710K14	ST55N	AN3023-3	DPDT	On-None-On	4.92
5454	8700K14	ST55P	AN3023-1	DPDT	On-Off-On	4.92
5455	8715K14	ST55R	AN3023-10	DPDT	On-None-Mom.On	5.34
5456	8712K14	ST55S	AN3023-7	DPDT	Mom.On-Off-Mom.On	5.34
5457	8709K14	ST55T	AN3023-5	DPDT	On-Off-Mom.On	5.34
5458*	8708K14	ST55U	AN3023-6	*DPDT	On-Off-Mom.On	5.43

Std. Pkge. 10

*Same as ST55T with added jumper across terminals to control one circuit.

See Pages 1560-1565 for Birnbach Prices for Above Items

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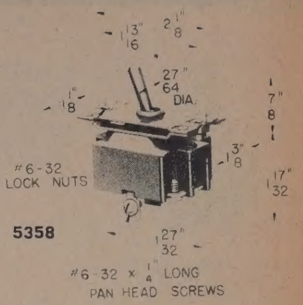
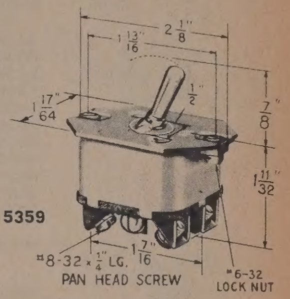
ONE HOLE MOUNTING TOGGLE SWITCHES

Approved Under MIL-S-3950A Spec.

These switches are lever sealed with special silicone rubber between lever and bushing which will retain flexibility and reliability against sand, dust, water and other environmental conditions. They are unaffected by ozone or sunlight and do not absorb oil or water, meeting 15 ft. water submersion test. Pliability or firmness not affected by extremes in temperature, high or low. Terminals plated.



5358



5359

Rating: Current Capacity (amps.)
Nom. Ratings 10 amps. 115 V. AC
20 amps. 28 V. DC

One Pole per MS 35058 — Sealed Lever (Screw Terminal)

Birnbach No.	C-H	"MS" No.	Type	Circuit	Net Ea.
5358-21	8800K16	MS35058-21	SPDT	On-Off-On	2.01
5358-22	8801K22	MS35058-22	SPST	On-None-Off	1.68
5358-23	8810K15	MS35058-23	SPDT	On-None-On	2.04
5358-24	8801K23	MS35058-24	SPST	On-Off-None	1.68
5358-25	8813K18	MS35058-25	SPST	On-Mom. Off-None	1.86
5358-26	8804K13	MS35058-26	SPDT	On-None-Mom. On	2.19
5358-27	8812K14	MS35058-27	SPDT	Mom. On-Off-Mom. On	2.19
5358-28	8811K18	MS35058-28	SPST	None-Off-Mom. On	1.86
5358-29	8813K17	MS35058-29	SPST	On-None-Mom. Off	1.86
5358-30	8811K17	MS35058-30	SPST	Off-None-Mom. On	1.86
5358-31	8809K16	MS35058-31	SPDT	On-Off-Mom. On	2.19

Std. Pkge. 10

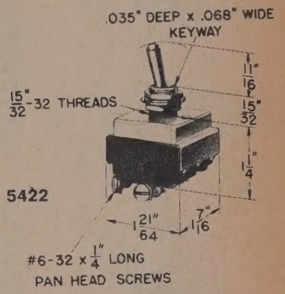
Nom. Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

Two Pole per MS 35059A Sealed Lever — (Screw Terminal)

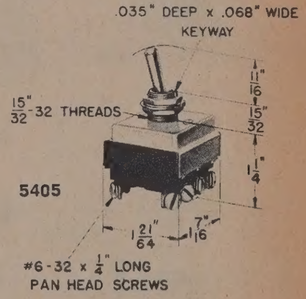
5359-21	8820K16	MS35029-21	DPDT	On-Off-On	2.70
5359-22	8822K20	MS35059-22	DPST	On-None-Off	2.25
5359-23	8824K14	MS35059-23	DPDT	On-None-On	2.70
5359-24	8822K21	MS35059-24	DPST	On-Off-None	2.25
5359-25	8828K12	MS35059-25	DPDT	On-Mom. Off-None	2.70
5359-26	8830K13	MS35059-26	DPDT	On-None-Mom. Off	2.97
5359-27	8834K5	MS35059-27	DPDT	Mom.-On-Off-Mom.On	2.94
5359-28	8826K14	MS35059-28	DPST	None-Off-Mom. On	2.70
5359-29	8828K13	MS35059-29	DPST	On-None-Mom. Off	2.70
5359-30	8826K15	MS35059-30	DPST	Off-None-Mom. On	2.70
5359-31	8832K6	MS35059-31	DPDT	On-Off-Mom. On	2.94

Std. Pkge. 10

MS and AN types use internal sand and dust toggle seals. MS25098 and MS25100 series call for solder terminals only. MS types to MIL-S-3950A (recommended) have internal toggle seals to meet 15 ft. water submersion test. For heavy duty switches, MIL-S-3950A (-21 and higher) in MS25061, MS35058 and MS35059 series call for screw terminals only. These terminals are prepared for soldering and can be soldered when screw is removed.


.035" DEEP x .068" WIDE KEYWAY
15/32"-32 THREADS
11/16"
15/32"
1 1/4"
1 21/64"
7/16"
#6-32 x 1/4" LONG PAN HEAD SCREWS

5422


.035" DEEP x .068" WIDE KEYWAY
15/32"-32 THREADS
11/16"
15/32"
1 1/4"
1 21/64"
7/16"
#6-32 x 1/4" LONG PAN HEAD SCREWS

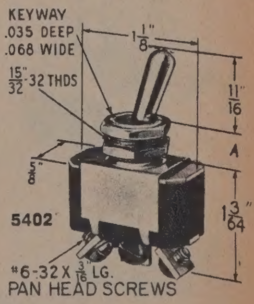
5405

Nom. Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

Four Pole—Sealed Lever — Screw Terminals
Per MIL-S-3950A—Series MS25068

5422-1	7662K5	MS25068-1	4PDT	On-Off-On	6.18
5424-3	7664K3	MS25068-3	4PDT	On-None-On	6.18
5430-5	7670K4	MS25068-5	4PDT	On-Off-Mom. On	7.44
5432-7	7672K4	MS25068-7	4PDT	Mom. On-Off-Mom. On	7.44
5340-10	7674K4	MS25068-10	4PDT	On-None-Mom. On	7.44
5420-11	7660K9	MS25068-11	4PST	On-Off-None	4.95
5426-12	7666K7	MS25068-12	4PST	None-Off-Mom. On	6.69
5428-13	7668K5	MS25068-13	4PST	On-Mom. Off-None	6.69
			HEAVY DUTY		
5422-21	7662K7	MS25068-21	4PDT	On-Off-On	6.18
5424-23	7664K5	MS25068-23	4PDT	On-None-On	6.18
5420-24	7660K13	MS25068-24	4PST	On-Off-None	4.95
5428-25	7668K7	MS25068-25	4PST	On-Mom. Off-None	6.69
5434-26	7674K5	MS25068-26	4PDT	On-None-Mom. On	7.44
5432-27	7672K5	MS25068-27	4PDT	Mom. On-Off-Mom. On	7.44
5426-28	7666K9	MS25068-28	4PST	On-Off-Mom.On	6.69
5430-31	7670K6	MS25068-31	4PDT	On-Off-Mom.On	7.44

Std. Pkge. 12



5402

Nom. Rating per Pole:
15 amps. 115 V. AC
25 amps. 28 V. DC

Double Pole Per MIL-S-3950A Spec. — Sealed Lever Switch — Flush Mounted

5405-21	8700K15	MS25103-21	DPDT	On-Off-On	4.98
5405-23	8710K15	MS25103-23	DPDT	On-None-On	4.98
5405-24	8716K7	MS25103-24	DPST	On-Off-None	4.14
5405-25	8717K5	MS25103-25	DPST	On-Mom. Off-None	4.89
5405-26	8715K15	MS25103-26	DPDT	On-None-Mom. On	5.37
5405-27	8712K15	MS25103-27	DPDT	Mom. On-Off-Mom. On	5.37
5405-28	8718K5	MS25103-28	DPST	None-Off-Mom. On	4.86
5405-31	8709K15	MS25103-31	DPDT	On-Off-Mom. On	5.37

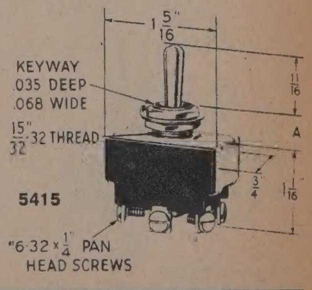
Std. Pkge. 10

Nom. Rating per Pole:
20 amps. 115 V. AC
25 amps. 28 V. DC

Three Pole—Flush Mounting (Screw Terminals)—Per MIL-S-3950A—Sealed Lever

5402	8742K10	MS25105-21	3PDT	On-Off-On	4.59
5400	8740K12	MS25105-24	3PST	On-None-Off	3.84
5401	8744K10	MS25105-23	3PDT	On-None-On	4.59

Std. Pkge. 12



5415

Nom. Rating per Pole:
10 amps. 115 V. AC
20 amps. 28 V. DC

Four Pole—Flush Mounting—Sealed Lever per MIL-S-6745—(Screw Terminals)

5415	8880K5	AN3227-1	4PDT	On-Off-On	6.18
5410	8882K5	AN3227-2	4PST	On-None-Off	4.95
5413	8884K5	AN3227-3	4PDT	On-None-On	6.18
5418	8887K5	AN3227-5	4PDT	On-Off-Mom.On	7.44
5417	8888K5	AN3227-7	4PDT	Mom.On-Off-Mom.On	7.44
5412	8886K5	AN3227-8	4PST	Off-None-Mom.On	6.69
5412A	8882K6	AN3227-9	4PST	On-Off-None	4.95
5412B	8886K6	AN3227-10	4PST	None-Off-Mom.On	6.69

Std. Pkge. 12

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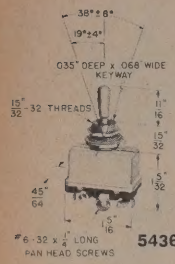
See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach CUTLER – HAMMER SWITCHES

POSITIVE ACTION SWITCHES

Especially designed for aircraft, missile and electronic applications. Made in two types—one with lever seals, the other environment sealed. Lever seal is bonded to the bushing and lever—will withstand a 15 ft. head of water, or between 6.5 to 7 lbs. per sq. inch. The environment sealed switches have seals under each contact and also a seal between switch base and the shell and are designed to pass a glycol temp. cycling test submerged for 20,000 operations per minute. The contact wiping action keeps contacts clean and smooth. Superior design, smooth operation. Screw terminals are tin-dipped to facilitate soldering if required.



5436

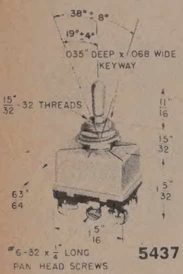
Current Rating, All Switches

Current Capacity (Amps. per Pole) 28 V. D-C	Current Capacity (Amps. per Pole) 115 V. — 400 cycles A-C	Current Capacity (Amps. per Pole) 115 V. — 60 cycles A-C

One Pole—Environment Sealed—Per MIL-S-8834 Specification

Birnbach No.	C-H	"MS" No.	Type	Circuit	Net Ea.
5436-21	8836K1	MS25306-21	SPDT	On-Off-On	6.93
5436-22	8836K9	MS25306-22	SPST	On-None-Off	6.42
5436-23	8836K4	MS25306-23	SPDT	On-None-On	6.93
5436-24	8836K6	MS25306-24	SPST	On-Off-None	6.42
5436-25	8836K8	MS25306-25	SPST	On-Mom. Off-None	6.93
5436-26	8836K5	MS25306-26	SPDT	On-None-Mom. On	7.44
5436-27	8836K2	MS25306-27	SPDT	Mom. On-Off-Mom. On	7.44
5436-28	8836K7	MS25306-28	SPST	None-Off-Mom. On	6.93
5436-29	8836K10	MS25306-29	SPST	On-None-Mom. Off	6.93
5436-30	8836K11	MS25306-30	SPST	Off-None-Mom. On	6.93
5436-31	8836K3	MS25306-31	SPDT	On-Off-Mom. On	7.44

Std. Pkg. 10

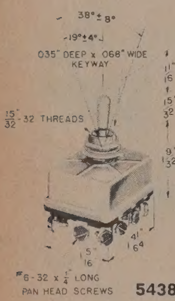


5437

Environment Sealed—Two Pole

Birnbach No.	C-H	"MS" No.	Type	Circuit	Net Ea.
5437-21	8837K1	MS25307-21	DPDT	On-Off-On	11.94
5437-22	8837K9	MS25301-22	DPST	On-None-Off	10.92
5437-23	8837K4	MS25307-23	DPDT	On-None-On	11.94
5437-24	8837K6	MS25307-24	DPST	On-Off-None	10.92
5437-25	8837K8	MS25307-25	DPST	On-Mom.Off-None	11.94
5437-26	8837K5	MS25307-26	DPDT	On-None-Mom.On	12.93
5437-27	8837K2	MS25307-27	DPDT	Mom.On-Off-Mom.On	12.93
5437-28	8837K7	MS25307-28	DPST	None-Off-Mom.On	11.94
5437-29	8837K10	MS25307-29	DPST	On-None-Mom.Off	11.94
5437-30	8837K11	MS25307-30	DPST	Off-None-Mom.On	11.94
5437-31	8837K3	MS25307-31	DPDT	Ou-Off-Mom.On	12.93

Std. Pkg. 10



5438

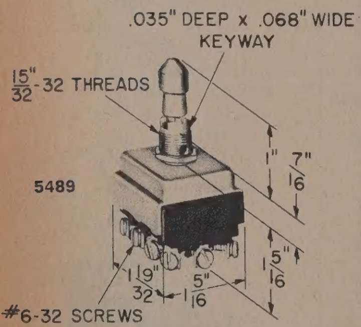
FOUR POLE

Birnbach No.	C-H	"MS" No.	Type	Circuit	Net Ea.
5438-21	8838K1	MS25308-21	4PDT	On-Off-On	28.80
5438-22	8838K9	MS25308-22	4PST	On-None-Off	28.80
5438-23	8838K4	MS25308-23	4PDT	On-None-On	28.80
5483-24	8838K6	MS25308-24	4PST	On-Off-None	27.54
5438-25	8838K8	MS25308-25	4PST	On-Mom.Off-None	28.80
5438-26	8838K5	MS25308-26	4PDT	On-None-Mom.On	31.02
5438-27	8838K2	MS25308-27	4PDT	Mom.On-Off-Mom.On	31.02
5438-28	8838K7	MS25308-28	4PST	None-Off-Mom.On	28.80
5438-29	8838K10	MS25308-29	4PST	On-None-Mom.Off	28.80
5438-30	8838K11	MS25308-30	4PST	Off-None-Mom.On	28.80
5438-31	8838K3	MS25308-31	4PDT	On-Off-Mom.On	31.02

Std. Pkg. 10

Lever Lock Switches—One, Two, Four Pole—Sealed Lever—MS 25125-6-7 Series— Per MIL-S-3950A

This series incorporates a lever lock mechanism designed to prevent accidental operation, thereby eliminating need for switch guards. The assembly of 2 die cast caps and a retaining clip spring assembled after the switch is mounted makes possible the locking feature. Switch is locked into position by the lever falling in position into deep slots in die cast caps. To operate switch from locked position the lever must be pulled straight out and moved to desired position.



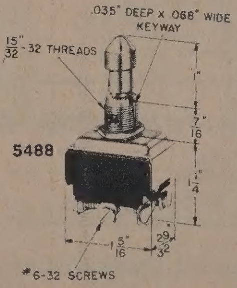
5489

Nominal Rating per Pole
10 amps. 115V. AC
20 amps. 28V. DC

ONE POLE

					Net Ea.
5487-1	8857K39	MS25125-1	SPDT	On→←Off→←On	4.59
5487-2	8857K40	MS25125-2	SPDT	On ←Off→ On	4.59
5487-3	8857K41	MS25125-3	SPDT	On Off ←On	4.59
5487-4	8857K45	MS25125-4	SPDT	On None ←On	4.59
5487-5	8857K42	MS25125-5	SPDT	On ←Off On	4.59
5487-6	8857K46	MS25125-6	SPDT	On ←Off On*	4.77
5487-7	8857K43	MS25125-7	SPDT	On→ Off ←On	4.59
5487-8	8857K44	MS25125-8	SPDT	On→ None ←On	4.59
5487-9	8857K49	MS25125-9	SPST	On→←Off None	4.26

Std. Pkg. 10

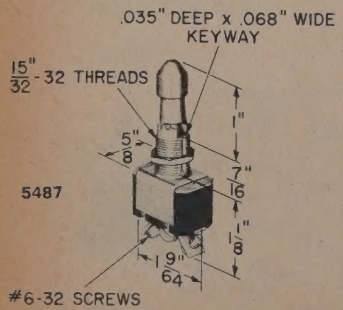


5488

TWO POLE

5488-1	8858K39	MS25126-1	DPDT	On→←Off→←On	5.28
5488-2	8858K40	MS25126-1	DPDT	On ←Off→ On	5.28
5488-3	8858K41	MS21126-3	DPDT	On Off ←On	5.28
5488-4	8858K45	MS25126-4	DPDT	On None ←On	5.28
5488-5	8858K42	MS25126-5	DPDT	On ←Off On	5.28
5488-6	8858K46	MS25126-6	DPDT	On ←Off On*	5.52
5488-7	8858K43	MS25126-7	DPDT	On→ Off ←On	5.28
5488-8	8858K44	MS25126-8	DPDT	On→ None ←On	5.28
5488-9	8858K49	MS25126-9	DPST	On→←Off None	4.80

Std. Pkg. 10



5487

Lever Lock Switches—Four Pole—Per MIL-S-3950A

5489-1	8859K39	MS25127-1	4PDT	On→←Off→←On	8.73
5489-2	8859K40	MS25127-2	4PDT	On ←Off→ On	8.73
5489-3	8859K41	MS25127-3	4PDT	On Off ←On	8.73
5489-4	8859K45	MS25127-4	4PDT	On None ←On	8.73
5489-5	8859K42	MS25127-5	4PDT	On ←Off On	8.73
5489-6	8859K46	MS25127-6	4PDT	On ←Off On*	10.02
5489-7	8859K43	MS25127-7	4PDT	On→ Off ←On	8.73
5489-8	8859K44	MS25127-8	4PDT	On→ None ←On	8.73
5489-9	8859K49	MS25127-9	4PST	On→←Off None	7.53

Std. Pkg. 10

Arrow indicates direction of movement against which lever is locked.

*Momentary Contact

See Pages 1560-1565 for Birnbach Prices for Above Items

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Birnbach CUTLER-HAMMER SWITCHES

Complete line of Cutler-Hammer quality switches available from our warehouse stocks. Includes commercial, industrial, aircraft and Gov't spec.

LIGHT DUTY TOGGLE SWITCHES

1 BACK CONNECTED LUG TERMINALS

Quick make-break; bakelite; small, compact size AC-DC UL approved

Cat. No.	C-H No.	Descrip.	Shank	Current Rating	
				125V	250V
5300	8280K16	SPST	15/32"		3 amps
5301	8381K8	SPST	15/32"	6 amps	3 amps
5302	8282K14	SPDT	15/32"	3 amps	1 amp
5303	8284K14	2 circ	15/32"	3 amps	1 amp
5304	8360K7	DPST	15/32"		3 amps
5305	8370K7	DPST	15/32"	6 amps	3 amps
5306	8363K7	DPDT	15/32"		3 amps
5307	8373K7	DPDT	15/32"	6 amps	3 amps

STD. PKG. 25

2 SIDE CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Descrip.	Shank	Current Rating	
				125V	250V
5308	8295K8	SPST	15/32"		3 amps
5309	8396K8	SPST	15/32"	6 amps	3 amps
5310	8297K8	SPDT	15/32"	3 amps	1 amp
5311	8372K7	DPST	15/32"	6 amps	3 amps
5312	8365K7	DPDT	15/32"		3 amps
5313	8375K7	DPDT	15/32"	6 amps	3 amps

STD. PKG. 25

3 SIX INCH LONG WIRE LEADS

Cat. No.	C-H No.	Descrip.	Shank	Current Rating	
				125V	250V
5335	8290K16	SPST	15/32"		3 amps
5336	8391K8	SPST	15/32"	6 amps	3 amps

STD. PKG. 25

4 PUSH BUTTON MOMENTARY SWITCHES

Door operated switches, used wherever it is desired to control current by opening or closing of refrigerated doors, telephone booths, closets, vaults, etc. AC-DC. UL approved; 15/32" shank; rated at .75 AMF., 125 volts—.75 AMPS, 250 volts.

Cat. No.	C-H No.	Description	Terminals
5337	8411K4	SP norm. open	lug
5338	8411K3	SP norm. open	screw
5339	8411K8	SP norm. closed	lug
5340	8411K7	SP norm. closed	screw

STD. PKG. 25

8, 9 HEAVY DUTY TOGGLE SWITCHES

Quick make—quick break; 15/32" shank (No. 8680 11/32" shank); AC-DC, UL approved; bakelite case; screw terminals.

Cat. No.	C-H No.	Descrip.	Current Rating	
			125V	250V
5341	@7321K3	SPST	12 amps	6 amps
5342	@7320K3	DPST	12 amps	6 amps
5343	*7361K5	SPST	15 amps	10 amps
5344	*7360K8	DPST	15 amps	10 amps
5345	**7402K4	DPST		20 amps
5346	8680K1	DPDT	10 amps	5 amps
5347	8690K2	DPDT	15 amps	10 amps

@ 1 HP—125/250V * 1½ HP—125/250V
**1½ HP—125V, 2 HP—250V

STD. PKG. 12

A MULTI-POLE, MULTI-POSITION, ROTARY SWITCHES

Nos. 7260 thru 7266 and Nos. 7271 thru 7276

B PUSHBUTTON OPERATED AIRCRAFT SWITCHES

Nos. 8911K525, 8874, 8875

STANDARD DUTY TOGGLE SWITCHES

5 BACK CONNECTED LUG TERMINALS

Slow make and break; bakelite; AC rated for longer life, greater capacity. 15 amps. 125 volts—10 amps. 250 volts.

Cat. No.	C-H No.	Description	Shank
5314	7501K13	SPST	15/32"
5315	7505K4	SPDT	15/32"
5316	7561K4	DPST	15/32"
5317	7565K5	DPDT	15/32"
5318	7611K2	3PST	15/32"
5319	7615K2	3PDT	15/32"

STD. PKG. 25

6 BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank
5320	7500K14	SPST	15/32"
5321	7504K4	SPDT	15/32"
5322	7560K5	DPST	15/32"
5323	7564K6	DPDT	15/32"
5324	7610K2	3PST	15/32"
5325	7614K2	3PDT	15/32"

STD. PKG. 25

4 PUSH BUTTON SWITCHES PUSH TO MAKE—PUSH TO BREAK

Push-push switches; AC-DC. UL approved, bakelite case; rated 6 amps. 125V—3 amps. 250V. Pushing the button once closes the contacts; pushing it again opens the contacts. 11/16" shank.

Cat. No.	C-H No.	Description	Terminals
5326	7206K4	SPST	lug
5327	7208K4	SPST	screw
5328	7207K4	SPST	wire

STD. PKG. 25

5 CENTER OFF STANDARD DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

Cat. No.	C-H No.	Description	Shank
5329	7503K13	SPDT	15/32"
5330	7563K4	DPDT	15/32"
5331	7613K2	3PDT	15/32"

STD. PKG. 25

7 BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank
5332	7502K13	SPDT	15/32"
5333	7562K4	DPDT	15/32"
5334	7612K2	3PDT	15/32"

STD. PKG. 12

C MISCELLANEOUS AIRCRAFT SWITCHES

Pistol grip trigger movement switches Nos. 8895, 8896, 8897

D LEVER EXTENSIONS and ATTACHABLE TIPS

To meet requirements for luminous identification on switches and circuit breakers these tips snap over the standard levers and are held in place by a cup shaped spring member.
Nos. 24-1939, 24-1939-2, 24-1997, 24-1997-2, 24-1164, 24-1164-2, 24-1164-3.

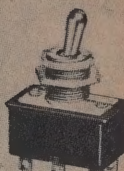
E AIRCRAFT SWITCH GUARDS

IT IS USED TO PREVENT INADVERTENT OPERATION OF THE LEVER

BOOTS FOR WATER and DUST RESISTANT APPLICATIONS

Gray silastic flexible designed to obstruct water and dust from entering switch interior. Remains flexible at minus 67°F. with stand exposure to sunlight without deterioration. For all applications. Advise which Specific Switch guard is to be used.

F BUSHING SEAL No. 32-341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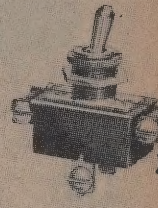
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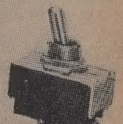
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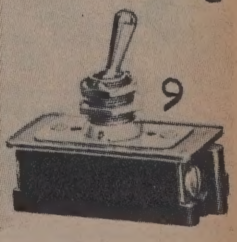
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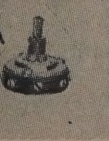
ADDITIONAL CUTLER-HAMMER EQUIPMENT AVAILABLE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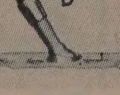
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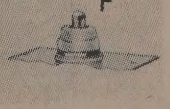
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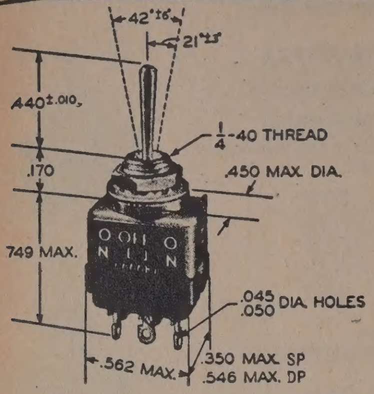
All Prices Subject to Change or Withdrawal without Notice.

Birnbach

C-H • MURRAY • CONTINENTAL • WIRT
MISCELLANEOUS SWITCHES



POSITIVE ACTION MINIATURE MILITARY SWITCHES

"As Small As A Dime"

Especially designed for aircraft, missile and electronic application

EXTREMELY COMPACT — highly reliable power or dry circuit switch, usable as a pre-set switch in aircraft recognition systems, for walkie-talkies, electronic instruments and communication systems.

NEW DESIGN — Toggle is linked directly with movable contact member, insuring positive make and break.

NEW TOGGLE LEVER SEAL — Protects switch enclosure under adverse environmental conditions; includes panel bushing seal.

NEW GOLD PLATED CONTACTS — Open and close with wiping action, for good contact even on low energy circuits. Contact bounce is extremely low.

NEW SUPERIOR MATERIAL—In molded parts, provides higher arc-tracking resistance and excellent recovery voltage.

NEW POSITIVE DETENT ACTION—For improved operator "feel."

BUILT TO MIL-S-8834 SPECS

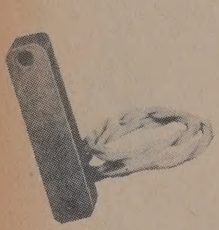
Cat. No.	C-H No.	Type	CIRCUIT Up Position	 Center Position	 Down Position	Net Ea.
5480K1	8866K1	SPDT	On	Off	On	**$6.06**
5480K2	8866K2	SPDT	Mom.-On	Off	Mom.-On	**6.84**
5480K3	8866K3	SPDT	On	Off	Mom.-On	**6.84**
5480K4	8866K4	SPDT	On	None	On	**6.06**
5480K5	8866K5	SPST	On	Off	None	**6.06**
5480K6	8866K6	SPST	None	Off	Mom.-On	**6.84**
5480K7	8866K7	SPST	On	None	Off	**6.06**
5480K8	8866K8	SPDT	None	On	Mom.-On	**6.84**
5481K1	8867K1	DPDT	On	Off	On	**7.56**
5481K2	8867K2	DPDT	Mom.-On	Off	Mom.-On	**8.82**
5481K3	8867K3	DPDT	On	Off	Mom.-On	**8.82**
5481K4	8867K4	DPDT	On	None	On	**7.56**
5481K5	8867K5	DPST	On	Off	None	**7.56**
5481K6	8867K6	DPST	None	Off	Mom.-On	**8.82**
5481K7	8867K7	DPST	On	None	Off	**7.56**
5481K8	8867K8	DPDT	None	On	Mom.-On	**8.82**

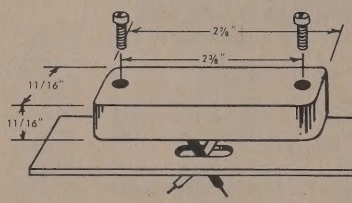
Ratings: 2 Amps., 28 V. DC; 1 Amp., 50 V. DC; 2 Amps., 115 V. AC.

MAGNETIC PROXIMITY SWITCHES

Precision, fast-acting devices, adaptable to sequential control functions on machine tools, packaging, material handling and equipment or for similar industrial devices. Rugged construction, encapsulated to assure freedom from contamination by cutting oils, dust, powder, metal chips, etc., this series will operate up to hundreds of millions of cycles at temperature ranges from —30°C to +105°C. Switches will actuate when brought into proximity with ferrous metals or other magnetic materials. Operating sensitivity in nom. ⅛" make, ½" break. No mechanical linkage is required for operation. Typical actuators include rotating cams, wheels and indexing tables, reciprocating arms, push rods, die sets, jaws and assembly line objects such as food and beverage cans, stampings and components. Speed (max.): 200 cycles/sec., repeatability within .005". Switch elements are hermetically sealed in glass, then unit is potted in epoxy resin. Case is special rubber and plastic compounding which is impervious to oil, water, gas and all common solvents.

COUNTING — POSITION LIMITING — SEQUENCE CONTROL HERMETICALLY SEALED—MOUNTS IN ANY POSITION—NO MECHANICAL LINKAGE NECESSARY.





MAGNETIC PROXIMITY SWITCHES

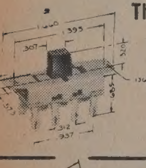
Typical actuators include rotating objects, swinging objects, reciprocating objects, assembly line objects, vehicles.

ELECTRICAL (Max. Contact Ratings)	RESISTIVE LOAD No. 5499 -128, -138	 No. 5499 -139	INDUCTIVE LOAD No. 5499 -128, -138	 No. 5499 -139
Amps	.5	2	.1	1
Volts AC or DC	125	125	125	125
Watts	15	50	5	15

Birnbach Cat. No.	MS No.	Type	Less than Std. pkge	10 Lots Ea. Switch	25 Lots Ea. Switch	50 Lots Ea. Switch
5499-128	PD-128	SPST Norm. open	Net 14.50	13.05	10.88	9.70
5499-138	PD-138	SPDT	Net 20.50	18.45	15.38	13.75
5499-139	PD-139	SPST, Norm. open (high load)	Net 17.50	15.75	13.13	11.75

BIRNBACH CONTINENTAL-WIRT SLIDE SWITCHES

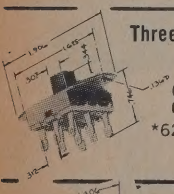
Three & Four Position Slide Switches with Detent



6294	SW729	SP3 Pos.	.5	.5	**.29**
6295	SW728	DP3 Pos.	.5	.5	**.30**
6295A	SW628	DP3 Pos.	6.0	1.0	**.54**
***6295F**	SW738*	DP4 Pos.	.5	.5	**.60**

Std. Pkg. 25

Three and Four Pole Slide Switches with Detent



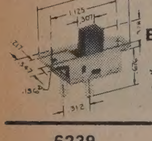
Easy wiring, compact, all poles in the same plane

6298	SW769	3PDT	.5	.5	**.54**
6299	SW742	4PDT	.5	.5	**.66**

*6299 width of switch 1.005", short terminals—distance from mounting surface to terminal tip .595"

Std. Pkg. 25

Spring Return Slide Switches



Birnbach No.	Cont. Wirt. No.	Type	Rating at 125 V. Circuit DC Amps	 AC Amps	Net Ea.
***6245S**	SW731	SPST	.5	.5	**.24**
***62456**	SW732	SPDT	.5	.5	**.29**

Std. Pkg. 25

6239	Slide Switch Shield	**.06**

UL APPROVED

NEW "SWIDGET"— occupies ⅓rd the cubic volume of a conventional slide switch with the same circuitry. Overall mounting areas is ½ of standard DPDT slide switch. Quality switch, ideal for compact applications.

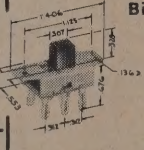
Cat. No.	Cont.-Wirt No.	Type	125V AC-DC Rating	Net Ea.
6248M	SW126	DPDT	.5 amp.	**.36**

Std. Pkg. 25

For use in wide varieties of applications and electronic fields.

Slide Switches with Standard Detent

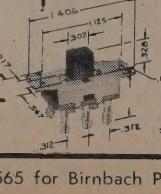
UL APPROVED



Birnbach No.	Cont.-Wirt No.	Type	Rating at 125 V Circuit DC Amps	 AC Amps	Net Ea.
6245	SW724	SPST	.75	.75	**.11**
6246	SW724	SPDT	.75	.75	**.12**
6247	SW725	DPST	.5	.5	**.15**
6248	SW726	DPDT	.5	.5	**.18**
6290	SW623	SPST	6.0	1.0	**.14**
6291	SW624	SPDT	6.0	1.0	**.15**
6292	SW625	DPST	6.0	1.0	**.24**
6293	SW626	DPDT	6.0	1.0	**.27**

Std. Pkg. 25

Slide Switches with Detent — Center Off



***6296**	SW734	SPDT	.5	.5	**.29**
***6297**	SW736	DPDT	.5	.5	**.30**

*Not UL Appr.

Std. Pkg. 25

See Pages 1560-1565 for Birnbach Prices for Above Items

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BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

FAST ACTING FUSES for PROTECTION OF INSTRUMENTS, Etc.

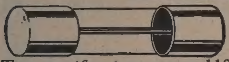
Formerly called 8AG.
Dimension ¼ x 1 inch, Glass tube.

Provide high speed action necessary to protect sensitive instruments.

Listed by Underwriters' Laboratories Inc.

Test specification—carry 100%, open at 200% in 5 seconds.

Voltage	Symbol	Amperes	List Price
250 or less	**AGX**	1/500	$1.46
"	**AGX**	1/200	.61
"	**AGX**	1/100	.55
"	**AGX**	1/32	.48
250 or less	**AGX**	1/16	.30
"	**AGX**	1/10, ⅛, 3/16, 2/10	.22
"	**AGX**	¼, ⅜, 4/10, ½ or ¾	.14
"	**AGX**	1	.088
"	**MKB**	1/16 or ⅛	.48
125 or less	**AGX**	1½ or 2	.088



Formerly called 8AG
Dimension ¼ x 1 inch, Glass tube.

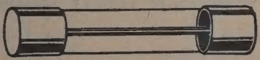
Test specification—carry 110%, open at 135% within 1 hour.

125 volt sizes are listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
125 or less	**AGX**	3, or 4	$0.088
"	**AGX**	5	.056
32 or less	**AGX**	8, 10, 15 or 20	.056
"	**AGX**	25 or 30	.066

MJB & MJW FUSES NOW CALLED AGX

BUSS GLASS TUBE FUSES, ¼ x 1¼ inch

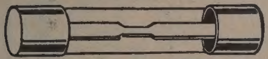


Formerly called 3AG

Test specification—carry 110%, open at 135% within 1 hour.

Listed by Underwriters' Laboratories Inc. for 250 volts or less.

Symbol	Amperes	List Price	Symbol	Amperes	List Price
AGC	1/500	$1.46	**AGC**	175/1000	$0.22
AGC	1/200	.61	**AGC**	3/16, 2/10	.22
AGC	1/100	.55	**AGC**	¼, 3/10, ⅜	.14
AGC	1/32	.48	**AGC**	45/100, ½, ¾	.14
AGC	1/16	.22	**AGC**	1, 1¼, 1½, 2	.088
AGC	⅛	.22	**MGB**	1/16 or ⅛	.48
AGC	15/100	.22	**AGC**	3	.078
			MTH	4, 5 or 6	.113



Formerly called 3AG

Test specification—carry 110%, open at 135% within 1 hour.

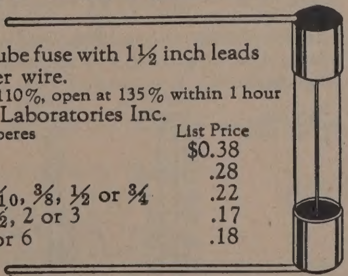
Voltage	Symbol	Amperes	List Price
125 or less	**GLH**	8 or 10	$0.17
32 or less	**AGC**	4	.078
"	**AGC**	5, 6, 7½, 8, 10 or 15	.056
"	**AGC**	20	.05
"	**AGC**	25 or 30	.066

20 ampere size is an SFE 20 fuse.

Sizes larger than 30 ampere are not recommended as clips or fuse holders would not permit fuse to carry such high currents. If surges or starting currents make heavier fuse necessary, use MDL Fusetron dual-element fuses.

MBW & MBB FUSES NOW CALLED AGC

BUSS PIG-TAIL FUSES



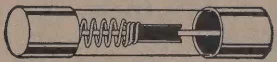
¼ x 1¼ inch Glass tube fuse with 1½ inch leads of No. 20 tinned copper wire.

Test specifications—carry 110%, open at 135% within 1 hour

Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	**GJV**	1/16	$0.38
"	**GJV**	⅛	.28
"	**GJV**	¼, 3/10, ⅜, ½ or ¾	.22
"	**GJV**	1, 1½, 2 or 3	.17
"	**GJV**	4, 5 or 6	.18

FUSETRON FUSES, ¼ x 1¼ inch



DUAL-ELEMENT SLOW BLOWING TYPE

Stop needless blows from starting currents or surges. Fuse link operates only on very high overloads or short-circuits. Thermal cutout functions on low overloads — cannot operate quickly at any load, so long time-lag is obtained. Yet protection is afforded against short-circuits or continued overloads.

Test specification—carry 110%, open at 135% within 1 hour.

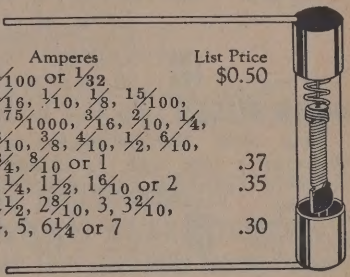
Approximate blowing time: at 200% load **MDL** 25 sec. **MDX** 12 sec.
at 300% " " 8 " " 3 "
at 500% " " 3 " " ½ "

125 and 250 volt sizes listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	**MDL**	1/100 or 1/32	$0.41
250 or less	**MDL**	1/16, 1/10, ⅛, 15/100, 175/1000, 3/16, 2/10, ¼, 3/10, ⅜, 4/10, ½, 6/10, 7/10, ¾, 8/10 or 1	.30
"	**MDX**	1¼, 1½, 1 6/10 or 2	.33
125 or less	**MDL**	1 2/10, 1¼, 1½, 1 6/10 or 2	.28
"	**MDL**	2½ or 2 8/10	.22
"	**MDX**	3, 3 2/10, 4 or 5	.22
"	**MDX**	6¼ or 7	.25
32 or less	**MDL**	3, 3 2/10, 4, 5, 6¼, 8, 10, 15, 20, 25 or 30	.22

FUSETRON PIG-TAIL FUSES

Leads are No. 20 tinned wire 1½ inch long. Listed by Underwriters' Laboratories Inc. Test specifications and performance, MDV 1/100 to 2 8/10 amps. same as MDL fuses. 3 to 7 amps. same as MDX fuses.



Voltage	Symbol	Amperes	List Price
250 or less	**MDV**	1/100 or 1/32	$0.50
"	**MDV**	1/16, 1/10, ⅛, 15/100, 175/1000, 3/16, 2/10, ¼, 3/10, ⅜, 4/10, ½, 6/10, ¾, 8/10 or 1	.37
125 or less	**MDV**	1¼, 1½, 1 6/10 or 2	.35
"	**MDV**	2½, 2 8/10, 3, 3 2/10, 4, 5, 6¼ or 7	.30

BUSS INDICATING FUSES, ¼ x 1¼ inch

Fibre Tube. Silverplated indicating pin extends from end of fuse when fuse is blown. This pin can also be used to actuate a signal by using fuses in BUSS HKA Fuseholders or BUSS Signal Fuse Blocks. GLD fuses in sizes larger than 5 amperes have dual tube construction. They can be used in BUSS Signal Fuse Blocks but not in HKA Fuseholders.

125 volt sizes listed by Underwriters' Laboratories Inc.

Test specifications—carry 110%, open at 135% in one hour or less.

Voltage	Symbol	Amperes	List Price
125 or less	**GLD**	¾	$0.66
"	**GLD**	1, 2, 3, or 5	.50
32 or less	**GLD**	8, 10, 12 or 15	.70

GBA FUSES

GBA fuses are the same as BUSS GLD fuses EXCEPT that the indicating pin is RED. This results in a more vivid indication of an open fuse when the fuses are used in BUSS HLD fuseholders.

GBA fuses have same electrical and physical characteristics as BUSS GLD fuses. They are made in the same ampere sizes up to 5 ampere, and are also priced the same.

To specify; give symbol **GBA** and amperes.

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

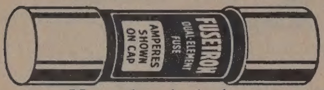
BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

FUSETRON FIBRE TUBE FUSES

13/32 x 1 1/2 inch



Dual-Element — Slow Blowing Type. Avoid needless blows from starting currents or surges. Have fuse link that operates only on very high overloads or short-circuits, and thermal cutout on low overloads. Thermal cutout cannot operate quickly at any load, hence long time-lag is obtained. Yet protection is provided against short-circuits or continued overloads.

Test specification—carry 110%, open at 135% within 1 hour.
Approximate blowing time: at 200% load 25 seconds.
at 300% load 8 seconds.
at 500% load 5 seconds.

125 and 250 volt sizes listed by Underwriters' Labs., Inc.

Voltage	Symbol	Amperes	List Price
250 or less	**FNM**	1/10, 15/100, 2/10, 3/10, 4/10, 1/2, 6/10, 8/10, 1, 1 1/8, 1 1/4, 1 4/10, 1 6/10, 1 8/10, 2, 2 1/4, 2 1/2, 2 8/10, 3 2/10, 3 1/2, 4, 4 1/2, 5, 5 6/10, 6 1/4, 7, 8, 9 or 10	$0.37
125 or less	**FNM**	12 or 15	.37
32 or less	**FNM**	20, 25 or 30	.37

SIGNAL OR VISUAL INDICATING TYPE

FNA are FNM Fusetron fuses with silverplated indicating pin that extends from fuse when fuse blows. Pin can also be used to actuate a signal by using fuse in BUSS Signal Fuse Block. Fuses in sizes larger than 10 ampere have a dual tube construction. They can be used in BUSS Signal fuse blocks but not in the HPC-C fuseholder.

Voltage	Symbol	Amperes	List Price
250 or less	**FNA**	1/10, 15/100, 2/10, 3/10, 4/10, 1/2, 6/10, 8/10	$0.688
125 or less	**FNA**	1, 1 1/8, 1 1/4, 1 4/10, 1 6/10, 1 8/10, 2, 2 1/4, 2 1/2, 2 8/10, 3, 3 2/10, 3 1/2, 4, 4 1/2, 5, 5 6/10, 6, 6 1/4, 7, 8, 10	.688
"	**FNA**	12 or 15	.758
32 or less	**FNA**	20, 25 or 30	.758

BUSS FUSES 600 Volt. UL Listed. 13/32 x 1 3/8 inch.

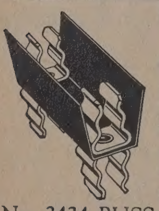
Fibre tube. For protection of control circuits or wherever a fuse with "quick-blowing" characteristics is desirable. Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
600 or less	**BBS**	4/10, 3/4 or 8/10	$0.24
600 or less	**BBS**	1, 2, 3, 4 or 5	.22

Fuseholder for BBS fuses. Use HPC-L fuseholder or No. 3845 single pole, side barrier porcelain fuse block. Only BBS fuses (or others with exact same dimensions) will fit these holders. This assures replacement of proper size fuse.

BUSS Insulated TWIN-CLIPS

For 1/4 inch FUSES.



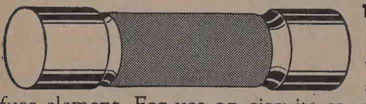
Make it easy to replace blown pigtail fuses without cutting or unsoldering pigtails. Just snap Twin-Clips on blown fuse and insert ordinary or Fusetron fuse of same amperage as blown fuse.

Strong spring clip pressure assures good contact.

		List Price
No. 3434 BUSS Insulated Twin Clips	One pair	$0.21

HIGH INTERRUPTING CAPACITY FUSES

13/32 x 1 1/2 inch

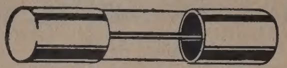


Glass fibre melamine tube with sand filler surrounding a silver fuse element. For use on circuits capable of delivering currents as high as 100,000 amperes at voltages of 600 or less. AC only.

Test specification—carry 110%, open at 135% in 1 hour or less.

Voltage	Symbol	Amperes	List Price
600 or less	**KTK**	1/10, 1/8, 2/10, 1/4, 3/10, 1/2, 3/4, 1, 1 1/2, 2, 3, 4, 5, 6, 8, 10, 15, 20, 25, 30	$1.33

BUSS GLASS TUBE FUSES



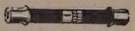
9/32 x 1 1/4 inch

Formerly called 4 AG.

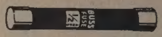
Test specifications — carry 110%, open at 135% within 1 hour except 35 and 40 ampere which open at 300% in 2 to 4 seconds when tested in a standard 30 ampere test circuit.

Voltage	Symbol	Amperes	List Price
250 or less	**AGS**	1/16	$0.46
	AGS	1/8	.32
	AGS	1/4, or 1/2	.16
	AGS	1, 2, 2 1/2 or 3	.14
32 or less	**AGS**	5, 10, 15, 20, 25, 30	.13
	AGS	35, 40 or 50	.14

BUSS HIGH VOLTAGE FUSES



HVA and HVB



HVJ and HVL

Designed for protection of circuits up to 20 KW on DC and 30 KVA on AC.

Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	Diameter of caps	Length inches	List Price
1000 or less	**HVA**	3/8, 1/2, 3/4, 1, 1 1/2, 2	13/32	3	$0.30
2500 or less	**HVB**	1/2, 3/4, 1, 1 1/2 or 2	13/32	4 1/2	.39
5000 or less	**HVJ**	1/16, 1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/2 or 2	13/16	5	.74
10000 or less	**HVL**	1/16, 1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/2 or 2	13/16	10	1.47

13/32 x 1 1/2 inch INDICATING FUSES

Has silver plated indicating pin that extends from fuse when open — gives visual indication or can actuate signal.

250 or less	**MIC**	1, 2, 3, 5, 10 or 15	$0.61
32 or less	**MIC**	20, 25 or 30	.61

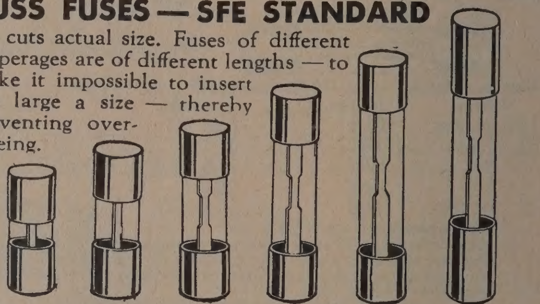
250 volt sizes listed by Underwriters' Laboratories Inc.

Fuses made in accordance with Military Specifications. Red button on indicating pin extends from end of fuse when fuse opens.

			List Price
250 or less	**MIN**	1, 2, 3, 5, 10 or 15	$0.53
125 or less	**MIN**	20, 25 or 30	.53

BUSS FUSES — SFE STANDARD

All cuts actual size. Fuses of different amperages are of different lengths — to make it impossible to insert too large a size — thereby preventing over-fuseing.



SFE 4 SFE 6 SFE 7 1/2 & SFE 9 SFE 14 SFE 20 SFE 30

Glass tube — diameter 1/4 inch. Length as per table below.

Test specification—carry 110%, open at 135% within 1 hour.

Listed by Underwriters' Laboratories Inc.

Made according to specifications of Society of Automotive Engineers.

Voltage	Symbol & Amperes	Length Inches	Pounds per 100	List Price
32 or less	**SFE 4**	5/8	.73	$0.063
"	**SFE 6**	3/4	.75	.063
"	**SFE 7 1/2**	7/8	.80	.056
"	**SFE 9**	7/8	.80	.056
"	**SFE 14**	1 1/16	.82	.05
"	**SFE 20**	1 1/4	.87	.05
"	**SFE 30**	1 7/16	1.60	.066

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

Trade Discount Applies to List Prices Only.

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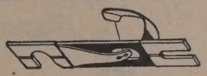
BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

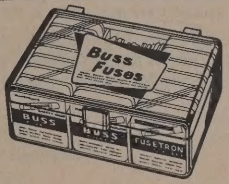
BUSS GRASSHOPPER FUSES



Give a visible signal or activate an alarm circuit when blown. Color coded to indicate type and amperage.

Symbol	Amps	Volts	Color Code	List Price
35A	1⅓	90 or less	White	$0.36
35B	1⅓	90 or less	White	.36
35B	2	90 or less	Orange	.36
35C	2	90 or less	Orange	.36
35D	1⅓	90 or less	White	.72
35E	3	90 or less	White	.39
35F	½	90 or less	Red	.36
35G	3	90 or less	Blue	.36
35H	5	90 or less	Green	.36
35R	18/100	90 or less	Yellow	.46
35T	65/100	90 or less	Tan	.53
35J	½	160 or less	Red	.53
35K	1⅓	160 or less	White	.72
35L	2	160 or less	Orange	.72
35M	3	160 or less	Blue	.66
35N	5	160 or less	Green	.66
35P	¾	160 or less	Tan	.46
35S	¼	160 or less	Pink	.53

BUSS FUSE TV Service Kit Assortment

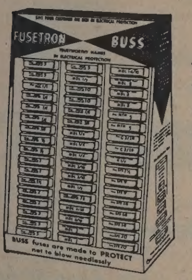


Contains 101 of the most popular fuses — 20 slide-cover boxes — and five pairs of BUSS No. 4121 Twin Clips for use in replacing blown pigtail fuses. All packed in a clear plastic box.

Symbol, **TV-STD** List Price $20.19

BUSS ELECTRONIC FUSE ASSORTMENTS

... with handy inventory feature

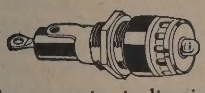

FUSETRON
BUSS
BUSS fuses are made to PROTECT not to blow needlessly

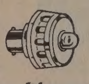
Helps serviceman have fuse he needs right in front of him . . . no delay in work to find a fuse. Keeps all the fuse stock normally needed for complete servicing of TV sets in smallest possible space.

Each 5-in box has its own shelf . . . Size and type of fuse shown on label at back of shelf . . . when shelf is empty label shows what fuses need to be immediately reordered.

		List Price
No. 255	Full-Service Electronic Fuse Assortment (255 fuses — 30 different sizes)	$40.81
No. 130	Special Electronic Fuse Assortment (130 fuses — 26 different sizes)	$20.61

PANEL MOUNTED VISUAL INDICATING FUSEHOLDER for ¼ x 1¼ inch GBA Fuse (or GLD fuse)





Has transparent, bayonet type knob that permits indicating pin of open fuse to be readily seen.

Gives positive identification of open circuit even if power is off.

Vibration cannot cause failure because terminals are held mechanically and by solder.

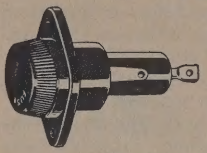
Neoprene washer and steel locking nut furnished with each holder.

Body is molded phenolic, can be used on panels up to 5⁄16 inch thick.

Normal current carrying capacity; 30 ampere.

		List Price
HLD	takes any size GBA fuse (or GLD fuse)	$0.62
No. 5487	Knob Only — will fit HKP holder, makes it visual indicating when used with GBA fuse	.26

PANEL MOUNTED HOLDERS for 13/32 x 1½ inch Fuses



Screw type knob. Molded phenolic body. Holder attached to panel by screws or rivets. Strong coil spring provides contact pressure on ends of fuse. Normal current carrying capacity 30 amperes. Listed by Underwriters' Laboratories for 15 ampere rating for any voltage up to 250.

HPC (for FNM and KTK fuses) .... List Price $0.84

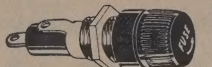
HPC-C (Same as above, but has transparent knob) .... List Price $1.05

HPC-L Holder for 13⁄32 x 1⅜ inch Fuses.

Like **HPC** Holder. Has Underwriters' Laboratories approved listing for 5 ampere rating and any voltage up to 600.

HPC-L (for BBS fuses) .... List Price $0.84

PANEL MOUNTED HOLDERS for ¼ inch Fuses



Can be used on panels up to 5⁄16 inch thick.

Bayonet type knob. No screw driver is needed.

Side terminal is held mechanically as well as by solder. Heat of soldering wire to it will not cause it to loosen.

Vibration will not cause failure of terminals as they are designed to stand severe service.

Neoprene washer and steel locking nut furnished with each holder.

Wire hole in terminals; .115 inch.

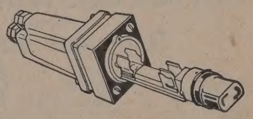
Normal current carrying capacity; 30 amperes.

Listed by Underwriters' Laboratories Inc.

		List Price
HJM	for ¼ x 1 inch fuses (AGX, SFE 14)	$0.54
HJM-CC	(Same as HJM but projects shorter distance behind panel)	.54
HKP	for ¼ x 1¼ inch fuses (ABC, AGC, SFE20, MDL, MDX, MTH)	.54
HKP-CC	(Same as HKP but projects shorter distance behind panel)	.54

PANEL MOUNTED, LAMP INDICATING FUSEHOLDERS for ¼ x 1¼ and 13/32 x 1½ inch fuses

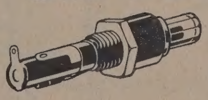
Made to Military Specifications.



Available as single or two pole units. Transparent knob permits neon indicating light to be readily seen. Body of molded alkyd.

Type	Pole	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	List Prices
HGB-C	Single	¼ x 1¼	90 to 250	30	Prices
HGA-C	Two	¼ x 1¼	90 to 250	30	on
HGC	Single	13⁄32 x 1½	90 to 500	30	Request

LAMP INDICATING FUSEHOLDERS



For panel mounting ¼ x 1 and ¼ x 1¼ inch fuses. Bayonet type knob. Molded phenolic body. Strong coil spring provides contact pressure at ends of fuse. Transparent knob permits indicating light to be readily seen.

Type	Fuse Size Inches	Circuit Voltage	Max. Amp Rating	Type Lamp	List Price
HKL	¼ x 1¼	90 to 300	20	Neon	$2.26
HKL-X	¼ x 1¼	90 to 300	20	Neon	2.26
HKR	¼ x 1¼	22 to 33	20	Incand.	3.69
HKX	¼ x 1¼	22 to 33	20	Incand.	3.69
HKT	¼ x 1¼	13 to 22	20	Incand.	3.69
HKU	¼ x 1¼	4 to 6	20	Incand.	3.69
HJL	¼ x 1	90 to 300	20	Neon	2.26

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

TRON PIGTAIL FUSES

Sub-miniature — hermetically sealed

Tron fuses can easily be incorporated into miniaturized devices or components without sacrifice of space. Designed for installation in high shock and vibration ambients.

They may be potted or encapsulated. Are self-protecting and operate without exterior flash or venting.

Available in ratings from 1/20 to 5 amperes — for use on circuits of 125 volts or less where available fault current is not over 50 amperes. Color coded to indicate ampere rating.

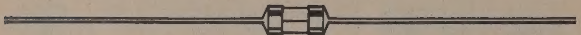
Made with 1½ inch axial pigtails or with 1 inch right angle pigtails of No. 24 tinned copper wire.

Test specifications —

Characteristic A — Carry 100% load, open within 10 seconds at 200% load.

Characteristic B — Carry 100% load, open within 10 seconds at 150% load.

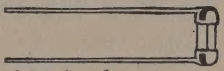
GFA TRON Fuses



Body size only .145 x .300 inches

Symbol & Amperes	Test Specification	Color Code One End	Color Code Other End	*Approximate Resistance in Ohms	List Price
GFA 1/20	A	Yellow	Yellow	20.0	$1.89
GFA 1/16	A	Brown	Brown	9.0	1.89
GFA 1/10	A	Red	Red	4.0	1.89
GFA 1/8	A	Orange	Orange	3.0	1.89
GFA 15/100	B	Red	Yellow	2.1	1.89
GFA 2/10	B	Red	Blue	1.8	1.89
GFA 1/4	B	Red	Purple	0.9	1.89
GFA 3/10	A	Green	Green	0.7	1.89
GFA 4/10	A	Blue	Blue	0.48	1.89
GFA 1/2	B	Orange	Green	0.35	1.89
GFA 6/10	B	Orange	Blue	0.25	1.89
GFA 3/4	B	Orange	Purple	0.22	1.89
GFA 1	B	Yellow	Green	0.17	1.89
GFA 1½	B	Yellow	Purple	0.12	1.89
GFA 2	B	Green	Blue	0.07	1.89
GFA 3	B	Blue	Purple	0.05	1.89
GFA 4	B	Purple	Brown	0.040	1.89
GFA 5	B	Brown	Black	0.035	1.89

GLN and GLX TRON Fuses



Body size only .140 x .300 inches

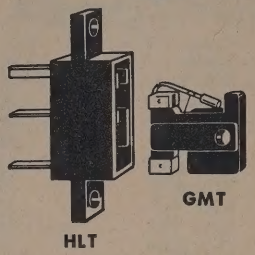
Symbol & Amperes	Test Specification	Color Code One End	Color Code Other End	*Approximate Resistance in Ohms	List Price
GLN 1/20	A	Yellow	Yellow	20.0	$1.46
GLN 1/16	A	Brown	Brown	9.0	1.46
GLN 1/10	A	Red	Red	4.0	1.46
GLN 1/8	A	Orange	Orange	3.0	1.46
GLN 3/10	A	Green	Green	0.7	1.46
GLN 4/10	A	Blue	Blue	0.48	1.46
GLX 15/100	B	Red	Yellow	2.1	1.89
GLX 2/10	B	Red	Blue	1.8	1.89
GLX 1/4	B	Red	Purple	0.9	1.89
GLX 1/2	B	Orange	Green	0.35	1.89
GLX 6/10	B	Orange	Blue	0.25	1.89
GLX 3/4	B	Orange	Purple	0.22	1.89
GLX 1	B	Yellow	Green	0.17	1.89
GLX 1½	B	Yellow	Purple	0.12	1.89
GLX 2	B	Green	Blue	0.07	1.89
GLX 3	B	Blue	Purple	0.05	1.89
GLX 4	B	Purple	Brown	0.040	1.89
GLX 5	B	Brown	Black	0.035	1.89

*Cold resistance obtained on Wheatstone Bridge. Other ratings are available with a nominal test charge.
Approximate Unit weight 0.33 grams. Shipping weight 0.116 lbs. per 100.

BUSS GMT Fuses — HLT Fuseholders

Signal Indicating

Alarm Activating



For multiple circuit apparatus where space is at a premium

GMT fuses and HLT fuseholders permit multiple mounting of fuses in limited space, for protection of communication equipment, business machines, computers, control circuits or any equipment operating at 300 volts or less.

Holders take panel mounting space of only 1/4 inch horizontal by 1 15/32 inches vertical.

Fuses give visual indication when blown by release of a spring indicator. The spring carries a colored plastic flag, in a different color for each fuse ampere rating.

The indicator spring when released makes contact with an alarm terminal in the fuseholder, which can be connected to activate a signal circuit.

Blown fuses are readily replaced without use of insulated tools. When mounted on minimum centers, removal of fuse is easy by use of a wire hook.

Buss GMT Fuses

Available Ratings and Color Code

300 volts or less

Test specification — carry 100% for 10 minutes;
open at 150% within 5 minutes.

Symbol & Amperes	Color of Indicator	Symbol & Amperes	Color of Indicator
GMT 18/100	YELLOW	**GMT** 1⅓	WHITE
GMT 1/4	VIOLET	**GMT** 2	ORANGE
GMT 1/2	RED	**GMT** 3	BLUE
GMT 65/100	BLACK	**GMT** 5	GREEN
GMT 3/4	BROWN	**GMT** 7½	BLACK-WHITE
GMT 1	GRAY	**GMT** 10	RED-WHITE

Symbol	List Price
GMT (All Sizes)	$0.62

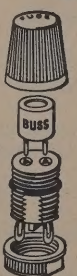
Buss HLT Fuseholders

Buss HLT fuseholders take all sizes of GMT fuses.

HLT	List Price $0.66

GMW Fuse and HWA Fuseholder

Sub-miniature fuseholder combination



Body size only .270 x .250 inches

Offering a light weight, space-saving protective device for space-tight applications in multiple circuit apparatus. GMW fuse has transparent window for visual inspection of element. Fuse may be used alone for mounting into printed circuit boards.

HWA holder can be panel mounted easily — or soldered on printed circuit boards.

AF knob for holder makes holder water-proof from front of panel.

Test specifications — carry 100%, open at 200% within 10 seconds or less.

Interrupting rating — 300 ampere at 125 volts

Symbo	Ampere	List Price
GMW	1/200, 1/100, 1/64, 1/32 and 1/16	$1.05
GMW	1/10, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10; 3/4, 1, 1½, 2, 3, 4, and 5	.81
HWA	fuseholder takes all sizes of GMW fuses	1.03
AF	knob for HWA fuseholder	.12

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BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS MINIATURE GLASS TUBE FUSES

5 mm x 20 mm (.197 x .769 inches)

Designed for protection of miniaturized circuits or equipment. Commonly used in equipment of foreign make.

Test specifications — Carry 100% load indefinitely.
Open at 200% load within 10 seconds.

Voltage	Symbol	Amperes	List Price
125 volts or less if available fault current is not over 50 amps.	**GMA**	⅛	$0.45
	GMA	¼, ½, or 7/10	.34
	GMA	1, 1 3/10, 1½, or 2	.28
	GMA	3, 4, 5, 6, or 10	.28

GJU fuses now called GMA.

HKA SERIES

Lamp Indicating, Signal Activating holders for ¼ x 1¼ inch BUSS type GLD fuses

Used on circuits of 125 volts or less. Flashes a light, rings a bell, trips a relay or gives other signals to tell you when and where a fuse blows.

Symbol		List Price
HKA	for ¼ x 1¼ inch GLD fuses, ¾ to 5 amps. GLD fuses listed under Indicating fuses.	$4.94

IN–THE–LINE HOLDERS for ¼ inch fuses

For mounting fuse in wire. Holders consist of body and bayonet type knob — two contacts ready to be staked on ends of wire — and a contact pressure spring.

Holders can also be mounted in panel up to 5/16 inch thick by means of a No. 9969 Spring nut (Nut not furnished). Flat area on holder permits locking against rotation.

Normal current carrying capacity: 15 amperes. Maximum Voltage: 250.

Contacts designed to take different size wire. For 18 to 22 wire add "-A" to symbol. For 14 to 16 wire add "-B" to symbol. (Example HHJ-A).

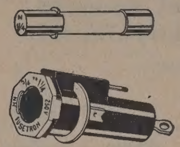
Symbol	Fuse Size Inches	List Price
HHJ	¼ x 1¼	$0.26
HHI	¼ x 1 or 1 1/16	.26
HHH	¼ x ⅞	.26
HIG	¼ x ¾	.26
HIF	¼ x ⅝	.26

SERIES HD and HA

These holders are the same in all details and dimensions as the HH and HI series — EXCEPT that the holding ears in the bayonet knob are of molded phenolic instead of being of metal.

Symbol	Fuse Size Inches	List Price
HDJ	¼ x 1¼	$0.21
HDI	¼ x 1 or 1 1/16	.21
HDH	¼ x ⅞	.21
HAG	¼ x ¾	.21
HAF	¼ x ⅝	.21
No. 9969	Spring nut for panel mounting above holders	.038

FUSETRON and BUSS MATCHED FUSES and FUSEHOLDERS



Safeguard against use of wrong size and type of fuse. FUSETRON Type N are "slow-blowing" fuses for use where harmless surges or starting currents might cause ordinary fuses to open needlessly. Use in Type HN fuseholder.

BUSS Type C are "quick-blowing" fuses for fast interruption of fault current. Use in Type HC fuseholder.
Listed by Underwriters' Laboratories Inc.

FUSETRON FUSE		FUSEHOLDER	
Symbol & Amperes	List Price	Synbol & Range	List Price
N 1/100	$0.43	**HN 0 to 3/10**	$0.22
N 1/32	.43		
N 1/16	.309		
N 1/10	.309		
N 15/100	.309		
N 2/10	.309		
N ¼	.309		
N 3/10	.309		
N 4/10	.309	**HN 3/10 to ½**	.22
N ½	.309		
N 6/10	.309	**HN ½ to ¾**	.22
N 7/10	.309		
N ¾	.309		
N 8/10	.309	**HN ¾ to 1¼**	.22
N 1	.309		
N 1¼	.28		
N 1 6/10	.28	**HN 1 3/10 to 1¾**	.22
N 1¾	.28		
N 2	.28	**HN 1¾ to 2½**	.22
N 2½	.27		
N 2 8/10	.27	**HN 2½ to 3½**	.22
N 3 2/10	.27		
N 3½	.27		
N 4	.27	**HN 3½ to 5**	.22
N 5	.27		
N 6¼	.27	**HN 5 to 7**	.22
N 7	.27		

BUSS FUSE		FUSEHOLDER	
Symbol & Amperes	List Price	Symbol & Range	List Price
C 1/32	$0.46	**HC 0 to 3/10**	$0.22
C 1/16	.30		
C ⅛	.23		
C 3/16	.23		
C ¼	.18		
C 3/10	.18		
C ⅜	.18	**HC 3/10 to ½**	.22
C ½	.18		
C ¾	.18	**HC ½ to ¾**	.22
C 1	.10	**HC ¾ to 1¼**	.22
C 1¼	.10		
C 1½	.10	**HC 1¼ to 1¾**	.22
C 1¾	.10		
C 2	.10	**HC 1¾ to 2½**	.22
C 2½	.10		
C 3	.10	**HC 2½ to 3½**	.22
C 3½	.13		
C 4	.13	**HC 3 6/10 to 5**	.22
C 5	.13		
C 6	.13	**HC 5 to 7**	.22
C 7	.13		
C 8	.19	**HC 7 to 10**	.22
C 10	.20		

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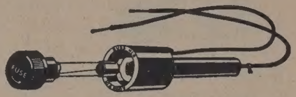
BUSS Fuses
FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS In-the-Line or Panel Mounted FUSE and HOLDER COMBINATIONS

For voltages up to 300



Safeguards against use of wrong type and size of fuse. Fuse and knob are in one piece — when fuse opens, entire fuse-knob assembly is replaced.

Fuseholder can be mounted in-the-line — or panel mounted for which a snap-in steel clip is available for mounting on any panel 1/32 to 1/16 inch thick.

Holders come with 6 inch leads of No. 18 solid copper insulated wire, unless specified otherwise.

		List Price
HLR	holder safeguards against use of wrong type of fuse — takes all ampere sizes of GLR and GMF fuses........................	$0.23
HLQ	holder is size limiting type and are made in 6 fuse ranges. Takes either GLQ or GMQ fuses up to the largest ampere size marked in holder	.26

BUSS PORCELAIN BASE FUSE BLOCKS

Come with screw type terminals. Clips have great gripping strength and the ability to retain spring under adverse conditions.

Type 4575 has center barrier only. Others have side barriers. Where block has more than one pole there is a center barrier also.

Type	Size Fuse Inches	Base Dim.	No. Poles	List Price
4396	¼ x 1¼	.925 x 2.160	1	$0.55
4161	¼ x 1¼	1.312 x 2.250	2	1.10
3792	13/32 x 1½	1.156 x 2.688	1	.83
4439	13/32 x 1½	2.938 x 2.938	3	2.48
4575	13/32 x 1½	1.970 x 2.875	2	1.53
3845	13/32 x 1⅜	1.156 x 2.688	1	.83

BUSS Add-On Fuse Blocks for 13/32 x 1½ inch Fuses

Single-pole fuseblock and separate end barrier assemble into unit of one or more poles. Units lock together. New poles can be added to either end of existing block. Made of molded phenolic. Marking strips to identify each circuit available.

Type	Description	List Price
3742	End-Barrier Only	$0.172
3743	One-Pole Block Only	1.20
Marking Strip in 50 inch length		.578

When ordering, specify number of end barriers and one-pole blocks desired. Only one end barrier needed for each assembled fuse block of any number of poles.

BUSS STANDARD FUSE BLOCKS

Available from 1 to 12 poles. Have molded black phenolic base. Clips of strong spring, Abaloy plated, highly resistant to corrosion with great gripping strength. Types 3823 and 3828 have soldered terminals firmly seated in small base. Type 3833 has screw terminals on full base that provides ample insulation around terminals.

Cat. No. Type	Base Dim.	No. Poles	List Each
	For ¼ x 1¼″ Fuses		
3823-1	½ x 1⅝	1	$0.23
3823-2	1⅛ x 1⅝	2	.46
3823-3	1¾ x 1⅝	3	.69
3823-4	2⅜ x 1⅝	4	.92
3823-5	3 x 1⅝	5	1.15
3823-6	3⅝ x 1⅝	6	1.38
3823-7	4¼ x 1⅝	7	1.61
3823-8	4⅞ x 1⅝	8	1.84
3823-9	5½ x 1⅝	9	2.07
3823-10	6⅛ x 1⅝	10	2.30
3823-11	6¾ x 1⅝	11	2.53
3823-12	7⅜ x 1⅝	12	2.76
	For ¼ x 1″ Fuses		
3828-1	½ x 1⅜	1	$0.23
3828-2	1⅛ x 1⅜	2	.46
3828-3	1¾ x 1⅜	3	.69
3828-4	2⅜ x 1⅜	4	.92
3828-5	3 x 1⅜	5	1.15
3828 6	3⅝ x 1⅜	6	1.38
3828-7	4¼ x 1⅜	7	1.61
3828-8	4⅞ x 1⅜	8	1.84
3828-9	5½ x 1⅜	9	2.07
3828-10	6⅛ x 1⅜	10	2.30
3828-11	6¾ x 1⅜	11	2.53
3828-12	7⅜ x 1⅜	12	2.76
	For ¼ x 1¼″ Fuses		
3833-1	25/32 x 2⅜	1	$0.49
3833-2	1 11/16 x 2⅜	2	.98
3833-3	2 19/32 x 2⅜	3	1.47
3833-4	3⅓ x 2⅜	4	1.96
3833-5	4 13/16 x 2⅜	5	2.45
3833-6	5 11/16 x 2⅜	6	2.94
3833-7	6 7/32 x 2⅜	7	3.43
3833-8	7⅛ x 2⅜	8	3.92
3833-9	8 1/32 x 2⅜	9	4.41
3833-10	8 15/16 x 2⅜	10	4.90
3833-11	9 27/32 x 2⅜	11	5.39
3833-12	10¾ x 2⅜	12	5.88

Other standard and special fuses, fuse blocks, fuse clips and fuse holders

If the fuses, fuse blocks, fuse clips and holders shown do not fit your requirements ask for information on other types.

Fuses and fuse mountings to meet JAN and Military specifications also are available.

If you have a special problem in protection send description or sketch giving number of circuits, type of fuse, terminals, etc., desired. We welcome such inquiries.

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

Trade Discount Applies To List Prices Only

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BUSS LIMITRON FUSES

For Protection of Semi-Conductor Rectifiers

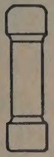
These BUSS Limitron fuses are especially designed for the protection of semi-conductor rectifiers. They provide extremely fast opening on overload and fault currents, with a high degree of restriction of the let-thru current.

If each diode is protected by a BUSS Limitron fuse, the fuse will open very quickly when the current drawn exceeds the rating of the diode.

Thus when a short-circuit occurs in a diode the fuse opens and takes that diode out of the circuit. This protects other good diodes in the rectifier which might otherwise be damaged.

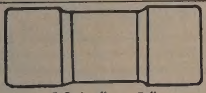
For time-current characteristic charts ask for BUSS Limitron fuse bulletin HLS.

Test specification for all types of BUSS rectifier fuses — carry 100% of rating; open at 1000 seconds on overloads between 120% and 180% of rating; open within 1 second at 250% of rating.



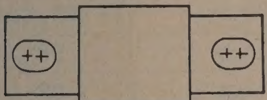
13⁄32″ x 1½″

Symbol & Ampere	Volts	Price Each
KAA 1	130	$0.80
KAA 2	"	.80
KAA 3	"	.80
KAA 4	"	.80
KAA 5	"	.80
KAA 6	"	.80
KAA 7	"	.80
KAA 8	"	.80
KAA 9	"	.80
KAA 10	"	.80
KAA 12	"	.80
KAA 15	"	.80
KAA 20	"	.80
KAA 25	"	.80
KAA 30	"	.80



13⁄16″ x 2″

KAH 35	130	$1.97
KAH 40	"	1.97
KAH 45	"	1.97
KAH 50	"	1.97
KAH 60	"	1.97

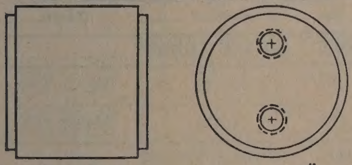


c to c 2 3⁄16″ — 1 29⁄32″

KAA 70	130	$3.85
KAA 80	"	3.85
KAA 100	"	3.85
KAA 150	"	3.85
KAA 200	"	3.85
KAA 225	"	3.85
KAA 250	"	3.85
KAA 300	"	3.85
KAA 350	"	3.85
KAA 400	"	3.85

c to c 2 7⁄16″

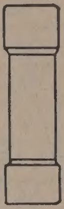
KAA 450	130	$12.50
KAA 500	"	12.50
KAA 600	"	12.50
KAA 650	"	12.50
KAA 800	"	12.50
KAA 1000	"	12.50



2″ x 1⅞″ — c to c 1″

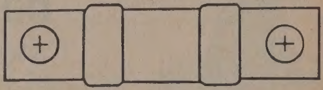
KAA 1200	130	$14.10
KAA 1500	"	14.10
KAA 2000	"	14.10

Symbol & Ampere	Volts	Price Each
KAB 1	250	$0.95
KAB 2	"	.95
KAB 3	"	.95
KAB 4	"	.95
KAB 5	"	.95
KAB 6	"	.95
KAB 7	"	.95
KAB 8	"	.95
KAB 9	"	.95
KAB 10	"	.95
KAB 12	"	.95
KAB 15	"	.95
KAB 17½	"	.95
KAB 20	"	.95
KAB 25	"	.95
KAB 30	"	.95



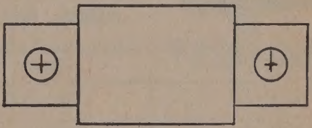
9⁄16″ x 2″

KAB 35	250	$3.75
KAB 40	"	3.75
KAB 45	"	3.75
KAB 50	"	3.75
KAB 60	"	3.75



c to c 2 7⁄16″

KAB 70	250	$5.80
KAB 80	"	5.80
KAB 90	"	5.80
KAB 100	"	5.80
KAB 150	"	5.80
KAB 175	"	5.80
KAB 200	"	5.80

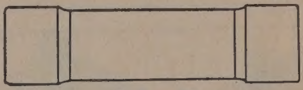


c to c 2⅜″

KAB 225	250	$7.50
KAB 250	"	7.50
KAB 300	"	7.50
KAB 350	"	7.50
KAB 400	"	7.50
KAB 500	"	7.50
KAB 600	"	7.50
KAB 800	"	21.50

c to c 2 25⁄32″

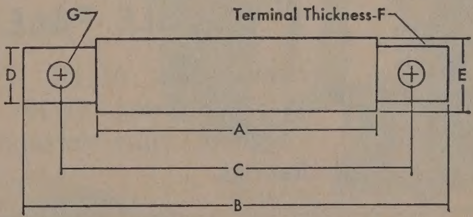
KAJ 35	600	$2.20
KAJ 40	"	2.20
KAJ 45	"	2.20
KAJ 50	"	2.20
KAJ 60	"	2.20



5⁄8″ x 3″

Symbol & Ampere	Volts	Price Each
KAC 1	600	$1.20
KAC 2	"	1.20
KAC 3	"	1.20
KAC 4	"	1.20
KAC 5	"	1.20
KAC 6	"	1.20
KAC 7	"	1.20
KAC 8	"	1.20
KAC 9	"	1.20
KAC 10	"	1.20
KAC 12	"	1.20
KAC 15	"	1.20
KAC 17½	"	1.20
KAC 20	"	1.20
KAC 25	"	1.20
KAC 30	"	1.20
KAC 35	"	4.60
KAC 40	"	4.60
KAC 45	"	4.60
KAC 50	"	4.60

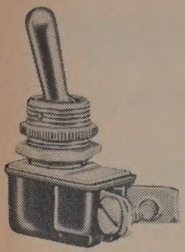
Symbol & Ampere	Volts	Price Each
KAC 60	600	$ 4.60
KAC 70	"	7.00
KAC 80	"	7.00
KAC 90	"	7.00
KAC 100	"	7.00
KAC 110	"	9.00
KAC 125	"	9.00
KAC 150	"	9.00
KAC 175	"	9.00
KAC 200	"	9.00
KAC 225	"	14.00
KAC 250	"	14.00
KAC 300	"	14.00
KAC 350	"	14.00
KAC 400	"	14.00
KAC 425	"	16.00
KAC 450	"	16.00
KAC 500	"	16.00
KAC 600	"	16.00
KAC 800	"	16.00



Ampere Rating	A	B	C	D	E	F	G
0-30	1⅛	2⅞	2½	13⁄32	9⁄16	1⁄16	¼
35-60	2 27⁄32	4⅜	3⅝	½	13⁄16	3⁄32	9⁄32
65-100	3	5	4	¾	1	⅛	13⁄32
110-200	3	5½	4⅜	1⅛	1½	3⁄16	13⁄32
225-400	3	6¼	4¾	1⅝	2	¼	9⁄16
425-800	3 1⁄16	6¼	4¾	2	2½	¼	9⁄16

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

Carling TOGGLE • PUSH • TRIGGER • ROTARY • SLIDE • TIPPETTES • SWITCHES

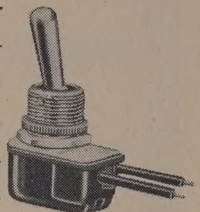


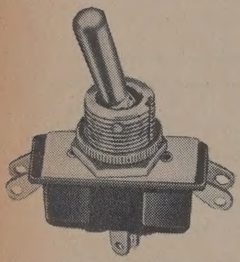
SINGLE POLE

Screw Terminals 15/32". Threaded Bushing, 15/32". Dia. Ball Toggle 3/8" long. Bat Toggle 11/16" long. U.L. Appd.

Catalog No.	Rating	Toggle
110-S-73	6A.-125V.	Bat
110-S-23	6A.-125V.	Ball
160-S-73	10A.-125V.	Bat
WIRE LEADS		
111-16-73	6A.-125V.	Bat

6" Leads Stripped ½" 105C. TFF. Wire.



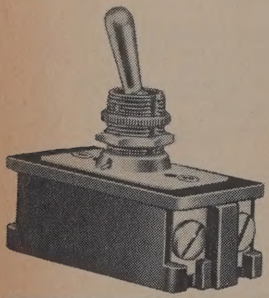


SINGLE POLE — DOUBLE POLE

SOLDER LUGS 15/32"

Threaded Bushing 15/32" Dia. Bat Toggle 11/16" long. U.L. Appd. All Have 250V. Ratings.

Catalog No.	Action	Rating
110-73	SP - ST	6A. - 125V.
112-73	SP - DT	3A. - 125V.
216-73	DP - ST	3A. - 125V.
316-73	DP - DT	3A. - 125V.
2BB62-73	SP - DT	6A. - 125V.
2BK62-73	DP - ST	6A. - 125V.
2BL62-73	DP - DT	6A. - 125V.
160-73	SP - ST	10A. - 125V.



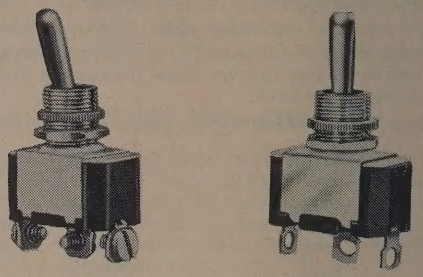
SINGLE POLE DOUBLE POLE

Heavy Duty AC-DC Type. 15/32" Bushing. 11/16" Bat Toggle. All Have Horsepower Ratings.

Catalog No.	RATINGS 125V.	250V.	Action
DA284*	16A.	8A.	SP - ST
DK284*	16A.	8A.	DP - ST
EA204**	20A.	10A.	SP - ST
EK204**	20A.	10A.	DP - ST

*1 H.P. 125-250V. rating.
**1½ H.P. 125-250V. rating.

SINGLE POLE



SCREW TERMINALS OR SOLDER LUGS.

Rated 15 Amps.* 125V. 10 Amps. 250VAC. 3/4 HP. 125-250V. AC. except SPST is 1 HP. Rated 15/32" Dia. Threaded Bushing 15/32" Dia. Threaded Bushing 15/32" long. 11/16" Bat Toggle. U.L. Appd. Heavy Duty.

*Applicable to low voltage D.C. requirements.

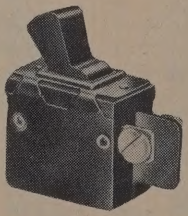
Catalog No.	Terminals	Action
2FA54-73	Screw	SP - ST
2FB54-73	Screw	SP - DT
2FC54-73	Screw	SP - DT, Center Off
2FA53-73	Lugs	SP - ST
2FB53-73	Lugs	SP - DT
2FA53-73	Lugs	SP - DT, Center Off

MOMENTARY ACTION

Same Specifications as above Except SPST. 3/4HP. Rated.

SCREW TERMINALS

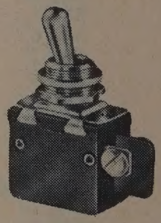
Catalog No.	ACTION Up	Center	Down
SINGLE POLE SINGLE THROW			
6FA54-73	Off	None	Mom. On
6FA58-73	On	None	Mom. Off
SINGLE POLE DOUBLE THROW			
6FB54-73	On	None	Mom. Off
6FC54-73	Mom. On	Off	Mom. On
6FC58-73	On	Off	Mom. On



SINGLE POLE

20 AMP.

20 Amp. 125V.
10 Amp. 250V.
AC-DC



Catalog No.	Terminals	Toggle
600-C	Screw	Nickel-Bat
600-20		Plastic

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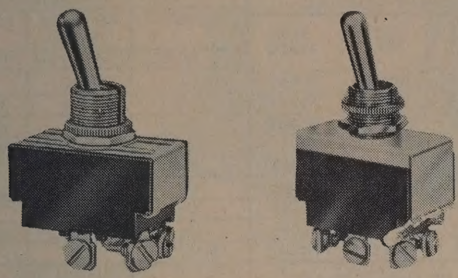
DOUBLE POLE



SCREW TERMINALS OR SOLDER LUGS

Rated 15 Amps.* 125V 10 Amps. 250V. AC. 3/4HP. 125-250V. AC. Threaded Bushing 15/32″ Dia. Threaded Bushing 15/32″ long. 11/16″ Bat Toggle. U.L. Appd. Heavy Duty.

*Applicable to low voltage D.C. requirements.

Catalog No.	Terminals	Action
2GK54-73	Screw	DP - ST
2GL54-73	Screw	DP - DT
2GM54-73	Screw	DP - DT, Center Off
2GK50-73	Lugs	DP - ST
2GL50-73	Lugs	DP - DT
2GM50-73	Lugs	DP - DT, Center Off

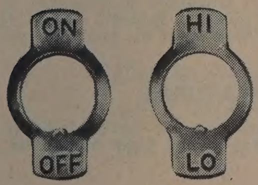
MOMENTARY ACTION

Same Specifications As Above.

SCREW TERMINALS

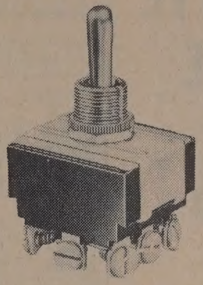
Catalog No.	ACTION		
	Up	Center	Down
DOUBLE POLE SINGLE THROW			
6GK5E-73	Off	None	Mom. On
6GK5S-73	On	None	Mom. Off
DOUBLE POLE DOUBLE THROW			
6GL5E-73	On	None	Mom. On
6GM5S-73	Mom. On	Off	Mom. On
6GM5E-73	On	Off	Mom. On

INDICATOR PLATES NICKEL PLATED



Catalog No.	Indication
YO1	ON - OFF
YO2	HI - LO

An extensive variety of indications and plate styles available for use with Carling Switches. Also a complete line of Hardware and Switch Accessories available.



THREE POLE SCREW TERMINALS

Rated 17 Amps.* 125V. AC. 12 Amps. 250V. AC. 1 HP. 1-2-3 Phase 120-600V. AC. 15/32″ Dia. Bushing 15/32″ long. 11/16″ Bat Toggle.

*Applicable to low voltage D.C. requirements.

Catalog No.	Action
HK274-73	3P - ST
HL274-73	3P - DT
HM274-73	3P - DT, Center Off

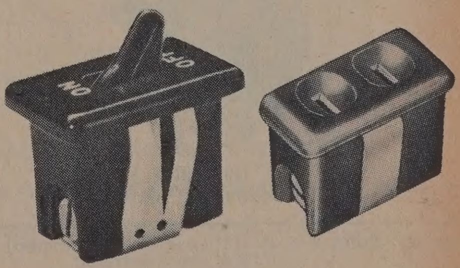
FOUR POLE SCREW TERMINALS

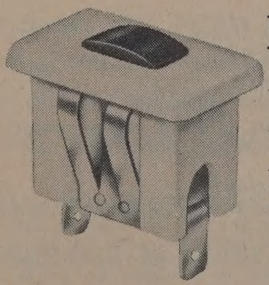
The Four Pole Switch has the same physical appearance as the Three Pole Switch pictured above. Only dimensional difference is in the width when the Fourth pole is added.

Rating 15A. 125V. 10A. 250V. AC. 15/32″ Dia. Bushing. 15/32″ long. 11/16″ Bat Toggle. Heavy Duty.

Catalog No.	Action
1K254-13	4P - ST
IL254-73	4P - DT
1M254-73	4P - DT, Center Off

"SNAP-IN" LINE





Catalog No.	Type	Rating
215-BL	Switch	20 Amp 125V. A.C. 10 Amp 250V. A.C. ½ H.P. 125-250V. A.C.
215-WH		
222-BL-RC	Pilot Light	110-250V.
222-WH-RC		
220-BL	Outlet	15 Amp 125V. 10 Amp 250V.
220-WH		

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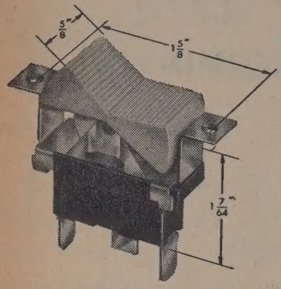
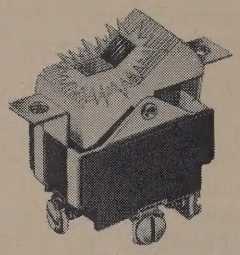
SWITCHES-TIPPETTE* LIGHTED-TIPPETTE

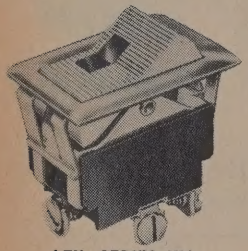
*Tippette is a Carling Trademark



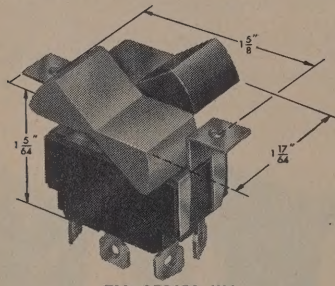
TILA61



LTILA64



LTIL SERIES W/ SNAP-IN BRACKET



TIG SERIES W/ DOUBLE ACTUATORS

TIL Series

CATALOG NUMBERS NOMINAL RATINGS RATING 6 AMP—125V A.C. 3 AMP—250V A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA60	TILA61	TILA62	TILA63	TILA64	TILA65	On	None	Off
TILA6A	TILA6B	TILA6C	TILA6D	TILA6E	TILA6F	Off	None	Mom. On
TILA6L	TILA6M	TILA6Q	TILA6R	TILA6S	TILA6T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB60	TILB61	TILB62	TILB63	TILB64	TILB65	On	None	On
TILB6A	TILB6B	TILB6C	TILB6D	TILB6E	TILB6F	On	None	Mom. On
TILC60	TILC61	TILC62	TILC63	TILC64	TILC65	On	Off	On
TILC6A	TILC6B	TILC6C	TILC6D	TILC6E	TILC6F	On	Off	Mom. On
TILC6L	TILC6M	TILC6Q	TILC6R	TILC6S	TILC6T	Mom. On	Off	Mom. On
RATING 15 AMP—125V A.C.** 10 AMP—250V A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA50	TILA51	TILA52	TILA53	TILA54	TILA55	On	None	Off
TILA5A	TILA5B	TILA5C	TILA5D	TILA5E	TILA5F	Off	None	Mom. On
TILA5L	TILA5M	TILA5Q	TILA5R	TILA5S	TILA5T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB50	TILB51	TILB52	TILB53	TILB54	TILB55	On	None	On
TILB5A	TILB5B	TILB5C	TILB5D	TILB5E	TILB5F	On	None	Mom. On
TILC50	TILC51	TILC52	TILC53	TILC54	TILC55	On	Off	On
TILC5A	TILC5B	TILC5C	TILC5D	TILC5E	TILC5F	On	Off	Mom. On
TILC5L	TILC5M	TILC5Q	TILC5R	TILC5S	TILC5T	Mom. On	Off	Mom. On

TIG Series (With *ONE* Tippette Lever)

CATALOG NUMBERS NOMINAL RATINGS RATING 6 AMP—125V A.C. 3 AMP—250V A.C. ¼ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK60	TIGK61	TIGK62	TIGK63	TIGK64	TIGK65	On	None	Off
TIGK6A	TIGK6B	TIGK6C	TIGK6D	TIGK6E	TIGK6F	Off	None	Mom. On
TIGK6L	TIGK6M	TIGK6Q	TIGK6R	TIGK6S	TIGK6T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL60	TIGL61	TIGL62	TIGL63	TIGL64	TIGL65	On	None	On
TIGL6A	TIGL6B	TIGL6C	TIGL6D	TIGL6E	TIGL6F	On	None	Mom. On
TIGM60	TIGM61	TIGM62	TIGM63	TIGM64	TIGM65	On	Off	On
TIGM6A	TIGM6B	TIGM6C	TIGM6D	TIGM6E	TIGM6F	On	Off	Mom. On
TIGM6L	TIGM6M	TIGM6Q	TIGM6R	TIGM6S	TIGM6T	Mom. On	Off	Mom. On
RATING 15 AMP—125V A.C.** 10 AMP—250 V.A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK50	TIGK51	TIGK52	TIGK53	TIGK54	TIGK55	On	None	Off
TIGK5A	TIGK5B	TIGK5C	TIGK5D	TIGK5E	TIGK5F	Off	None	Mom. On
TIGK5L	TIGK5M	TIGK5Q	TIGK5R	TIGK5S	TIGK5T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL50	TIGL51	TIGL52	TIGL53	TIGL54	TIGL55	On	None	On
TIGL5A	TIGL5B	TIGL5C	TIGL5D	TIGL5E	TIGL5F	On	None	Mom. On
TIGM50	TIGM51	TIGM52	TIGM53	TIGM54	TIGM55	On	Off	On
TIGM5A	TIGM5B	TIGM5C	TIGM5D	TIGM5E	TIGM5F	On	Off	Mom. On
TIGM5L	TIGM5M	TIGM5Q	TIGM5R	TIGM5S	TIGM5T	Mom. On	Off	Mom. On

**These switches are applicable to low voltage D.C. requirements.
Available in 3 and 4 Pole Series. For Lighted Tippette add Prefix "L" to above numbers.

Actuator - Suffix # — 1L 5/8" Long Lined (Standard)
— 1C 5/8" Cross Serrated
— 1S 5/8" Smooth
— 2L 5/16" Long Narrow
— 2S 5/16" Short Narrow s/ears
— 3L Offset 5/8" Long Lined
— 3C Offset 5/8" Cross Serrated
— 3S Offset 5/8" Smooth

For Double Actuator Add "D" to end of above number.

For Double Actuator with interlock, Add "DI" to end of above number.

Standard Colors are WHITE, -WH and BLACK, -BL, Other colors available upon request.

Imprinting on Actuators may be had upon request.

Brackets — In addition to the illustrations shown, we offer a variety of brackets — offset, flat, angled, open ear, snap-in, etc. Specials can be made upon request. Snap-in style is designed for panel thickness of approximately .040" to .100". For mounting information and dimensions consult factory. This model bracket is available on single, double and three pole Tippettes — Single pole lighted Tippettes.

Wire Lead Enclosures — W10 This Snap-On enclosure is available in the double pole, Tippette and single pole Lighted Tippette series. It is designed to protect and provide safer insulation for normally exposed lead connections.

LIGHTED TIPPETTE FEATURES

Actuators, Brackets & Accessories — Available in the same styles as listed in the Tippette Series. Lenses are Red, Amber, Clear and White. Special variations and colors available.

Lamp Characteristics

Neon (Standard)		Incandescent	
120*-240 Volts	.02 Amps	6 Volts	.02 Amps
		12 Volts	.08 Amps
		24 - 28 Volts	.04 Amps

*Available with "High Brightness" in 120.

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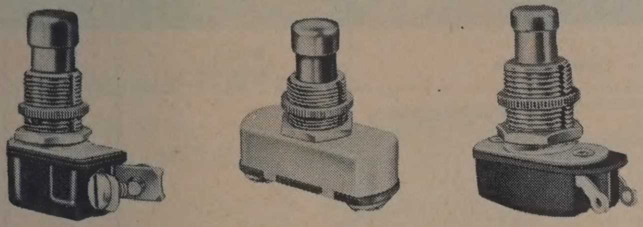
TOGGLE • PUSH • TRIGGER • ROTARY • SLIDE • TIPPETTES • SWITCHES

PUSH SWITCHES

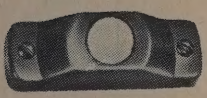
MAINTAINED CONTACTS
OR
MOMENTARY CONTACTS



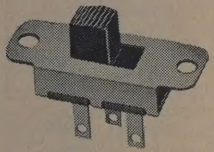
Type: PP-Push, On-Push, Off. Maintained. NO Normally Open. Momentary NC Normally Closed. Momentary. All Have 15/32″ Dia. Bushing *Screw Terminals. Others Have Solder Lugs.

Catalog No.	Rating	Type
110-SP*	6A. 125V.	P.P.
110-PM-OFF	6A. 125V.	N.O.
172*	10A. 250V.	N.O.
170	10A. 250V.	N.C.
16-3P-OFF	3A. 125V.	N.O.
16-3P-ON	3A. 125V.	N.C.

PUSH BUTTONS



Catalog	Base	Button
90	Black	Ivory
91	Ivory	Black



SLIDE SWITCHES

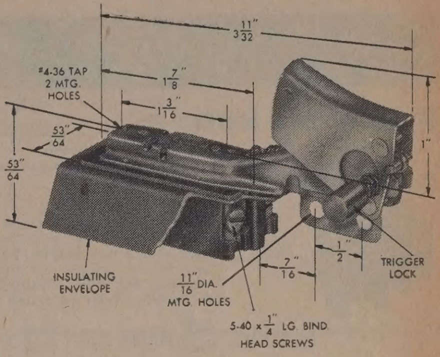
1⅛″ Mounting Centers Single Poles Rated 4A 125V. AC.

Catalog No.	Action	Terminals
S60A-BL	SP - ST	Solder Lugs — 13/64″ long
S60B-BL	SP - DT	

TRIGGER SWITCHES

SINGLE &
DOUBLE POLE
SERIES

*Note: Illustration shows "TRD" Series dimensions except for base. For base dimensions of "TRE" Series substitute 15/16″ for 53/64 height shown, 1″ for 53/64 width shown, and 5/16 for 7/16″ dimension shown.



TRD Series Rated
16A. 125V.-8A. 250V. 1 HP. 125-250V.

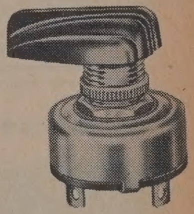
Catalog No.	Action	Has Lock	Has Envelope
TRDA284-00	SP - ST	No	No
TRDA284-06	SP --ST	Yes	Yes
TRDK284-00	DP - ST	No	No
TRDK284-06	DP - ST	Yes	Yes

TRE Series Rated
20A. 125V.-10A. 250V. 1½ HP. 125-250V.

Catalog No.	Action	Has Lock	Has Envelope
TREA204-00	SP - ST	No	No
TREA204-06	SP - ST	Yes	Yes
TREK204-00	DP - ST	No	No
TREK204-06	DP - ST	Yes	Yes

Additional Trigger Switch Series Available.

ROTARY SWITCHES



4 Position Rotary Switch Rated 4A. 125V. AC. 1A. 125V. DC.

Catalog No.	Action Position 1 - 2 - 3 - 4
700-BL	Off-On-On-On

Knob variations and colors available. Up to 8 position rotary switch series available. Consult Factory.

In addition to the items included in this listing are thousands of variations and adaptations designed for our customers' specific needs. We are constantly engaged in the development of new products and welcome the opportunity to serve your needs.

If you do not find an item on the following pages that meets your specific requirements, please contact us and we will have one of our own sales representatives discuss your requirements in detail with you. Ask them about Carling's delivery schedules which are set up to assure you of getting your switches when you need them

COMPLETE CUSTOMER SERVICE & SATISFACTION
ENGINEERED INTO EACH PRODUCT & EVERY SALE

CARLING ELECTRIC, INC. — West Hartford 10, Conn.

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OVER 60,000 OFF-THE-SHELF ANSWERS

ALWAYS AVAILABLE FOR IMMEDIATE DELIVERY

Basic Switches

SUB-SUBMINIATURE **T type**

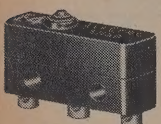
Exceptionally high current capacity in tiny case. Only ½" x ¼" x ⅜" yet UL listed at 7.5 amps. 125/250 VAC. Also rated at 7.5 amps, 30 VDC resistive, 3 amps. 30 VDC inductive. Mounts side-by-side, four switches to the inch.

ACTUATORS

ROLLER LEAF

DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SPDT solder terminals	T3	2.00
SPDT solder terminals, U.L.	T12	2.00
leaf actuator	A5-71**	.20
roller leaf actuator	A5-73**	.50

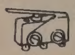
SUBMINIATURE **E4 type**



Ideal for compact electrical and electronic equipment. Low movement differential and operating force gives precision control in critical applications. Can be stacked and gang mounted. Meets MIL Specs. MS-25085 and is UL listed at 5 amps, 125/250 VAC. Also handles 4 amps, 30 VDC resistive, 2.5 amps, 30 VDC inductive. Size: 25/32" x ¼" x 23/64".

ACTUATORS

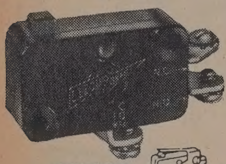
PUSHBUTTON



ROLLER LEAF

DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SPDT, solder terminals	E4-103	1.50
SPDT, turret terminals	E4-110	1.50
DPDT maintained toggle switch, 15/32" bushing	A3-32-103*	5.70
TPDT maintained toggle switch, 15/32" bushing	A3-33-103*	7.80
DPDT maintained toggle switch, ¼" bushing	A3-41-103*	5.70
SPDT maintained toggle switch, ¼" bushing	A3-42-103*	3.49
DPDT momentary push-button switch, 15/32" bushing	A4-86-103*	6.10
DPDT push-on, push-off, push-button switch, 15/32" bushing	A4-87-103*	7.40
leaf actuator	A5-9**	.20
roller leaf actuator	A5-10**	.50

MINIATURE **F type**



Low cost precision switch that meets military specs and is UL listed. Rugged design—positive over-travel stop protects mechanism from damaging over-actuation. Easy to mount. Size: 1 3/32" x 13/32" x ⅝". Rating: 10 amps 125/250 VAC / 28 VDC resistive, 6 amps, 30 VDC inductive.

ACTUATORS

ROLLER LEAF

DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SPDT basic switch, screw terminals, U.L. MS-15253-1	F2-13	1.00
roller leaf actuator	A5-47**	.40
leaf actuator	A5-49**	.20

2-CIRCUIT **S type**

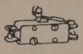
Combines high capacity, small size and long life with extreme precision. Rated at 10,000,000 operations at full load, tested to 30,000,000. Good for power circuits as well as precision control applications. Meets military specs. Several models UL listed. Reset model maintains circuit until reset button actuated; can be used as inexpensive two-way limit switch. Size: 1¼" x ½" x ½". Rating: 10 amps, 125/250 VAC. 30 VDC inductive.

ACTUATORS

ROLLER LEVER

PUSHBUTTON

EXTENDED LEAF



DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SPDT, end solder terminals	S1-4	1.40
SPDT, (reset) end solder terminals	S1-304	1.65
SPDT, end screw terminals	S2-4	1.50
SPDT, (reset) end screw terminals	S2-304	1.75
SPDT, side solder terminals	S3-4	1.47
roller lever actuator	A2-2**	.80
push-button switch, solder terminals 15/32" bushing	A4-1/S1-4* N.P.	2.40
push-button switch, detachable plastic button	A4-25-1/S1-4*	3.32
red plastic button for A4-25-1	1109-SA11-1*	.60
black plastic button for A4-25-1	1109-SA11-2	.60
1" dia. push-button actuator	A4-102**	3.50
roller leaf actuator	A5-5**	.40
extended leaf actuator	A5-7**	.50

*Designates actuator assembled with switch. **Order these actuators separately. Assemble on switch when mounting.
NOTE: ALL SWITCHES MOMENTARY CONTACT UNLESS OTHERWISE NOTED

ASK FOR CATALOG No. 100 from your distributor. Contains short-form specification details, engineering drawings, descriptions and suggested application data. The above illustrations are only a few of the more popular items in the over 60,000 switches and indicators manufactured by Control Switch Division. For facts on the many others available, ask for Catalog 100.

CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa.

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to your switching problems . . . CONTROLS COMPANY OF AMERICA

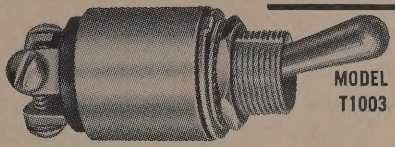
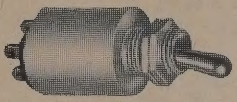
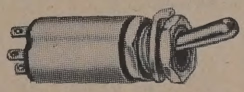
CONTROL SWITCH DIVISION
Folcroft, Pa.

AT YOUR CONTROL SWITCH DISTRIBUTOR

Toggle Switches

Space-Saving Cylindrical Types

Exceptionally rugged, cam-roller Hetherington Toggle Switches positively cannot be teased off contact. Cylindrical anodized aluminum cases reduce size by 25% over conventional rectangular switches. Firmly anchored terminals separated by heavy insulation barrier. All are 2-position, snap-action.

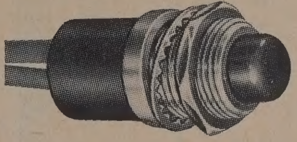
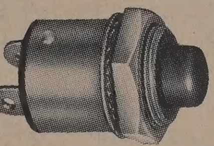
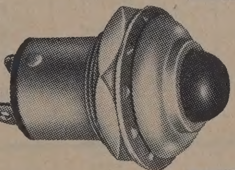
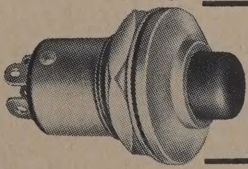
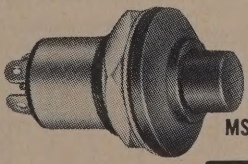
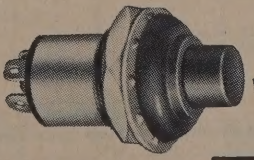
	CIRCUIT	RATINGS (Resistive Loads) 28v. dc.	RATINGS (Resistive Loads) 115v. ac.	MTG. HOLE DIA.	SPECIAL FEATURES	LIST PRICES
 **MODEL T1003**	SPDT	20 amps.	10 amps.	15/32″	Designed to MIL-S-6745 specs.	3.22
 **MODEL T2104**	2-circuit	10 amps.	5 amps.	¼″	Designed to JAN-S-23, Amend. 3.	3.94
MODEL T2150	DPDT	1 amp.	1 amp.	¼″	Miniaturized	5.32
 **MODEL T3103**	SPDT	5 amps.	2½ amps.	¼″	Anodized aluminum case	4.06

Pushbutton Switches

Snap-Action, Momentary Contact

The exclusive Hetherington snap-action mechanism reduces arcing and contact wear...provides far greater current capacity than the small sizes of these switches would indicate. Mechanism enclosed in dust and moisture-resistant anodized aluminum housings (phenolic in B2001 & B2002). 1-piece terminals and contacts firmly anchored to bases. Many types meet JAN and MIL Specs for aviation and military requirements.

Features and dimensions are subject to change based on engineering refinements. If dimensions or specifications are critical, obtain drawings from Control Switch engineering department.

	CIRCUIT	RATINGS (Resistive Loads) 28v. dc.	RATINGS (Resistive Loads) 115v. ac.	MTG. HOLE DIA.	SPECIAL FEATURES	LIST PRICES
 **MODEL B2001**	SPST (N.O.)	——	8 amps.*	½″	Phenolic body	2.09
MODEL B2002	SPST (N.C.)					
 **MODEL C1006**	SPST (N.O.)	17 amps.	15 amps.*	½″	Anodized aluminum cases	3.01
MODEL C2006	2-circuit	10 amps.				3.61
 **MODEL C100U4**	SPST (N.O.)	17 amps.	15 amps.*	⅝″	Anodized aluminum cases & mounting flanges	3.76
 **MODEL C200P3**	2-circuit	10 amps.	15 amps.*	⅝″	Anodized aluminum cases & mounting flanges	4.36
 **MODEL MS25089-3C**	2-circuit	10 amps.	——	⅝″	Conforms to MS25089-3C (MIL-S-6743). Black flange.	3.80
 **MODEL W103UB6**	2-circuit	10 amps.	——	⅝″	Black flange.	5.43

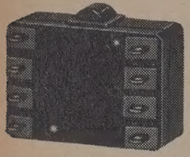
* Inspected by Underwriters' Laboratories, Inc.

More Switches on the Next Page

CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa.

MORE PRECISION SNAP-ACTION SWITCHES

DOUBLE POLE **D type**

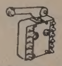


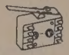
TRIPLE POLE **K type**

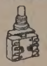
Multi-Circuit

High capacity basic switches permit simultaneous switching of multiple circuits and precision control of three phase motors. Military and UL listed models available. Reset model maintains circuit until reset button is actuated. Can be used as inexpensive two-way limit switches. Sizes: D type, 1¼″ x ½″ x ⅞″—K type, 1¼″ x .491″ x 1 5/16″.

ACTUATORS

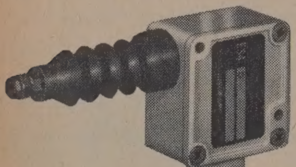

ROLLER LEVER


EXTENDED LEAF


PUSHBUTTON

DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
DPDT, side solder terminals	**4-Circuit**	
DPDT, (reset) side solder terminals	D8-4	6.25
	D8-304 N.P.	6.75
TPDT, side solder terminals	**6-Circuit**	
Actuators for Type D & K Basic Switches	K3-4	7.45
Roller lever		
Push-button, 15/32″ bushing	A2-5**	1.05
Push-button, w/o detachable plastic button, 15/32″ bushing	A4-2**	2.00
Red plastic button for A4-24-1	A4-24-1**	1.71
Black plastic button for A4-24-1	1109-SA11-1	.60
1″ dia. push-button	1109-SA11-2	.60
Extended leaf	A4-102**	3.50
	A5-18**	.75

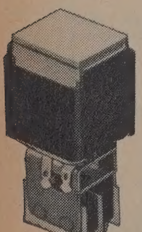
LIMIT SWITCHES **ES4 type**



Especially designed for machine control, automation circuitry and sequencing operation. Aluminum diecast housing protects switch from damage, dirt and corrosion, simplifies mounting on equipment. Some models available with neoprene boot on plunger for protection from dirt, oil and metal chips. Impulse models eliminate need for one-way dogs, complicated relays and timers. As plunger is depressed, switch completes electrical circuit during pre-set section of travel ("ON" period), but does not make circuit on return stroke. Case size: 2″ (plus plunger length) x 1 1/32″ x 2 3/16″. Rating: 10 amps, 125/250 VAC. Circuit: SPNO.

DESCRIPTION	MODEL NUMBER	OVER-TRAVEL	"ON" PERIOD	LIST PRICES 1-19
STANDARD ACTION				
	ES4-N	5/16″		8.50
Red 1¾″ push-button	ES4-J	5/16″		9.80
Neoprene boot plunger	ES4-K	7/16″		9.50
IMPULSE ACTION				
	ES4-NM1	¼″	1/16″	9.50
	ES4-NM2	3/16″	⅛″	9.50
	ES4-NM3	⅛″	3/16″	9.50
	ES4-NM4	1/16″	¼″	9.50
Red 1¾″ push-button	ES4-JM3	⅛″	3/16″	10.80
Neoprene boot plunger	ES4-KM1	⅜″	1/16″	10.50
" " "	ES4-KM2	5/16″	⅛″	10.50
" " "	ES4-KM3	¼″	3/16″	10.50
" " "	ES4-KM4	3/16″	¼″	10.50
" " "	ES4-KM6	1/16″	⅜″	10.50
Replacement basic switch for ES4 Series	S1-25			1.75

LIGHTED PUSH-BUTTON PANEL SWITCHES
C6 type



Combine lighting, legend, and electrical control in one compact unit. Save panel space, simplify operation. Units can be stacked or mounted individually on control panels or consoles. Plastic push-button is available in colors, can be hot-stamped with words or symbols, button size ¾″ x 1″. Light is provided by two separate 6- or 28-volt lamps wired in parallel. Switching component is DPDT, rated at 5 amps, 125 VAC or 4 amps, 30 VDC, resistive each pole. Either alternate action (push-on, push-off) or momentary action is available. Unit is also available without switch for use as pilot light. Two lamps included with each unit. Solid plastic or two-piece plastic button with clear slip-in insert for legend.

DESCRIPTION	MODEL NUMBER	LIST PRICES 1-24
Momentary, w/2 clear 6V lamps	C6-52-22	9.60
Momentary, w/2 clear 28V lamps	C6-56-22	10.40
Push-push, w/2 clear 6V lamps	C6-53-22	11.70
Push-push, w/2 clear 28V lamps	C6-57-22	12.50
Pilot light, w/2 clear 6V lamps	C6-50-22	5.25
Pilot light, w/2 clear 28V lamps	C6-54-22	6.05
Solid blue button	1117-229-BB	.50
2/pc. blue button	1117-SA19-11-B	.50
Solid green button	1117-229-GG	.50
2/pc. green button	1117-SA19-11-G	.50
Solid red button	1117-229-RR	.50
2/pc. red button	1117-SA19-11-R	.50
Solid white button	1117-229-WW	.50
2/pc. white button	1117-SA19-11-W	.50
Solid yellow button	1117-229-YY	.50
2/pc. yellow button	1117-SA19-11-Y	.50
Mounting barrier (use one more barrier than number of units ganged)	1117-SA-19-4	.75

NOTE: Order buttons and mounting barriers separately

**Order these actuators separately. Assemble on switch when mounting.
NOTE: ALL SWITCHES MOMENTARY CONTACT UNLESS OTHERWISE NOTED

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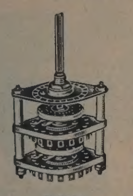
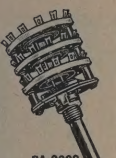
Centralab.

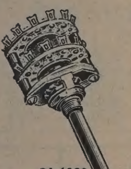
Miniature Switches, Parts



JV-9000 Series



PA-2000



PA-1000

SERIES PA-2000 1½" DIAMETER CERAMIC SWITCHES

Insulated with L-533 steatite; only 1½" dia. (⅜" smaller than standard switches). Same ratings as larger switches. Features maximum voltage flashover; high Q, low loss steatite body; minimum intercircuit capacity; insulated front-back clips. Metal parts, except clips and contacts, cadmium plated; withstand 25-hour salt spray test. Rated: 2.75 amps, 15 v. DC; 230 ma, 115 v. AC, make-break resistive load. Breakdown, 1500 v. AC rms between critical parts. One-piece shaft for accurate indexing. Adjustable stop or continuous rotation mtg. using single hole with locating lug. Bushing ⅜"-32 thread, ⅜" long. Shaft, full round ¼" dia. x 2¼" long from mtg. surface. With mtg. nut, lockwasher and knob. Shpg. Wt., 3 oz. per section.
For switches to meet military specifications, write for prices and information.

SERIES PA-1000 1½" DIAMETER PHENOLIC SWITCHES

Insulated with type PBE laminated phenolic per MIL-3115-B. Same size as PA-2000 ceramic switches. Rated: 2 amps, 15 v. DC, 150 ma, 110 v. AC. Breakdown, 1000 v. AC. Positive, adjustable stop or continuous rotation; 30° or 60° detents available. Withstand 25-hour salt spray test. With knob. Shpg. Wt., 3 oz. per section. **Military specifications available as above.**

MINIATURE ROTARY SWITCHES

No. Sect.	Total No. Poles	PA-2000 Ceramic CRL No. PA- Shtg.	PA-2000 Ceramic CRL No. PA- Non-Shtg.	PA-2000 Ceramic Total Pos.	PA-1000 Phenolic CRL No. PA- Shtg.	PA-1000 Phenolic CRL No. PA- Non-Shtg.	PA-1000 Phenolic Total Pos.
1	1	2000	2001	2—12	1000	1001	2—11
1	2	2002	2003	2—6	1002	1003	2—5
2	2	2004	2005	2—12	1004	1005	2—11
1	3	2006	2007	2—5	1006	1007	2—3
3	3	2008	2009	2—12	1008	1009	2—11
1	4				1010	1011	2
2	4	2010	2011	2—6	1012	1013	2—5
4	4	2012	2013	2—12	1014	1015	2—11
1	5	2014	2015	2—3			
5	5	2016	2017	2—12	1016	1017	2—11
1	6	2018	2019	2			
2	6	2020	2021	2—5	1018	1019	2—3
3	6	2022	2023	2—6	1020	1021	2—5
6	6	2024	2025	2—12	1022	1023	2—11
2	8				1024	1025	2
4	8	2026	2027	2—6	1026	1027	2—5
3	9	2028	2029	2—5			
3	12				1028	1029	2
2	10	2030	2031	2—3			
5	10	2032	2033	2—6	1030	1031	2—5
2	12	2034	2035	2			
6	12	2036	2037	2—6	1032	1033	2—5
3	15	2038	2039	2—3			
3	18	2040	2041	2			

SPECIAL CIRCUIT AND 60° INDEXING SWITCHES

No. Sect.	Total No. Poles	PA-2000 Shtg.	PA-2000 Non-Shtg.	PA-2000 Total Pos.	PA-1000 Shtg.	PA-1000 Non-Shtg.	PA-1000 Total Pos.
1	1	2052*		2—10	1034*		2—10
1	1	2042†		2—10	1040†		2—10
2	2	2048‡	2049‡	2—12			
2	2	2050§		4			
1	1		2043††	2—6		1035††	2—6
2	2		2045††	2—6		1037††	2—6

*All shorted to common in full CCW, progressively opened and dropped with CW rotation. †All open in full CCW, progressively picked up and shorted to common with CW rotation. ‡Silver clips and contacts. §For switching dual lines. ††60° Indexing; 1½" spacing between sections.

SEPARATE SECTIONS

For use with 30° index assemblies No. PA-300, PA-301 and PA-302, except Nos. PA-17, PA-20 and PA-45, for use with 60° Index assemblies PA-304 and PA-305.

No. Poles	Indexing	PA-2000 Ceramic CRL No. PA- Shtg.	PA-2000 Ceramic CRL No. PA- Non-Shtg.	PA-2000 Ceramic Total Pos.	PA-1000 Phenolic CRL No. PA- Shtg.	PA-1000 Phenolic CRL No. PA- Non-Shtg.	PA-1000 Phenolic Total Pos.
1	30°	0	1	2—12	30	31	2—11
2	30°	2	3	2—6	32	33	2—5
3	30°	4	5	2—5	34	35	2—3
4	30°				36	37	2
5	30°	6	7	2—3			
6	30°	8	9	2			
1	30°	10*	19*	2—5	38*	39*	2—5
2	30°	11**	18**	2—11	40**	41**	2—11
1	30°	12††		2—10	43†		2—10
1	30°	13†		2—10	49††		2—10
1	60°	20	17	2—6		45	2—6

*Unused contacts one side of common connected and shorted out. **All unused contacts connected and shorted out. †Active contacts shorted to common in full CCW, progressively opened and dropped with CW rotation. ††All active contacts open in full CCW, progressively picked up and shorted to common with CW rotation.

SERIES JV-9000 HEAVY-DUTY POWER SWITCHES

Rotary power switch insulated with Grade L-533 steatite. Rated: 9 amps, 110v. AC; 30 amps, 5 v. DC; 15 ma, 2500 v. AC. Breakdown, 3000 v. AC rms between critical parts. Coin silver contacts; 20° indexing adjustable stop. Mtg. bushing ⅜"-32 thread, ⅜" long. Sections 2¹³⁄₁₆" dia. Shipping Wt., 6 oz. per section.

SERIES JV-9000 ROTARY SWITCHES

CRL Number Shorting	CRL Number Non-Shorting	Poles to Section	No. Sections	No. Poles	No. Positions
JV-9000	JV-9001	1	1	1	2—17
JV-9002	JV-9003	3	1	3	2—5
JV-9004	JV-9005	1	2	2	2—17
JV-9006	JV-9007	3	2	6	2—5
JV-9008	JV-9009	1	3	3	2—17
JV-9010	JV-9011	3	3	9	2—5
JV-9012	JV-9013	1	4	4	2—17
JV-9014	JV-9015	3	4	12	2—5
JV-9016	JV-9017	1	5	5	2—17
JV-9018	JV-9019	3	5	15	2—5
JV-9020	JV-9021	1	6	6	2—17
JV-9032	JV-9033	2	1	2	2—8
JV-9034	JV-9035	2	2	4	2—8
JV-9036	JV-9037	2	3	6	2—8
JV-9038	JV-9039	2	4	8	2—8

SERIES JV-9000 SEPARATE SECTIONS

CRL Number Shorting	CRL Number Non-Shorting	Number Poles	Number Positions
JV-8	JVN-8	1	2—17
JV-9	JVN-9	3	2—5
JV-10	JVN-10	2	2—8
JV-18*	JVN-18*	1	2—18

*Rotor has 17 fingers making contact with 17 contacts on stator, leaving one contact open. By cutting off unwanted fingers this section can be adapted to special circuits, e.g., one off, nine progressively shorting positions.

SILVER CLIPS AND CONTACTS

CRL Number Shorting	CRL Number Non-Shorting	Index	No. of Poles	No. of Positions
PA-16	PA-21	30°	1	2—12
PA-14	PA-23	30°	2	2—6
PA-15	PA-24	30°	4	2

INDUSTRIAL NET PRICES
SERIES PA-2000 CERAMIC

CRL No. PA- Shtg.	CRL No. PA- Non-Shtg.	Net Each, lots of 1-4	5-9	10-24	25-49	50-99	100-249
2000	2001	$2.37	$1.98	$1.78	$1.69	$1.58	$1.42
2002	2003	2.37	1.98	1.78	1.69	1.58	1.42
2004	2005	3.39	2.83	2.55	2.42	2.26	2.03
2006	2007	2.37	1.98	1.78	1.69	1.58	1.42
2008	2009	4.32	3.60	3.24	3.08	2.88	2.59
2010	2011	3.39	2.83	2.55	2.42	2.26	2.03
2012	2013	5.19	4.33	3.90	3.71	3.46	3.11
2014	2015	2.37	1.98	1.78	1.69	1.58	1.42
2016	2017	6.21	5.18	4.66	4.43	4.14	3.73
2018	2019	2.37	1.98	1.78	1.69	1.58	1.42
2020	2021	3.39	2.83	2.55	2.42	2.26	2.03
2022	2023	4.32	3.60	3.24	3.08	2.88	2.59
2024	2025	7.20	6.00	5.40	5.13	4.80	4.32
2026	2027	5.19	4.33	3.90	3.71	3.46	3.11
2028	2029	4.32	3.60	3.24	3.08	2.88	2.59
2030	2031	3.39	2.83	2.55	2.42	2.26	2.03
2032	2033	6.21	5.18	4.66	4.43	4.14	3.73
2034	2035	3.39	2.83	2.55	2.42	2.26	2.03
2036	2037	7.20	6.00	5.40	5.13	4.80	4.32
2038	2039	4.68	3.90	3.51	3.33	3.12	2.81
2040	2041	4.68	3.90	3.51	3.33	3.12	2.81
2042		2.16	1.80	1.62	1.54	1.44	1.30
2048	2049	4.68	3.90	3.51	3.33	3.12	2.81
2050		2.37	1.98	1.78	1.69	1.58	1.42
2052		2.16	1.80	1.62	1.54	1.44	1.30
	2043	2.16	1.80	1.62	1.54	1.44	1.30
	2045	3.03	2.53	2.28	2.17	2.02	1.82
0	1	1.20	1.00	.90	.86	.80	.72
2	3	1.20	1.00	.90	.86	.80	.72
4	5	1.20	1.00	.90	.86	.80	.72
6	7	1.20	1.00	.90	.86	.80	.72
8	9	1.20	1.00	.90	.86	.80	.72
10	19	1.20	1.00	.90	.86	.80	.72
11	18	1.20	1.00	.90	.86	.80	.72
12		1.20	1.00	.90	.86	.80	.72
13		1.20	1.00	.90	.86	.80	.72
20	17	1.20	1.00	.90	.86	.80	.72
14	23	1.98	1.65	1.49	1.42	1.32	1.19
15	24	1.98	1.65	1.49	1.42	1.32	1.19
16	21	1.98	1.65	1.49	1.42	1.32	1.19

SERIES PA-1000 PHENOLIC

CRL No. PA- Shtg.	CRL No. PA- Non-Shtg.	1-4	5-9	10-24	25-49	50-99	100-249
1000	1001	$1.80	$1.50	$1.35	$1.28	$1.20	$1.08
1002	1003	1.80	1.50	1.35	1.28	1.20	1.08
1004	1005	2.58	2.15	1.94	1.84	1.72	1.55
1006	1007	1.80	1.50	1.35	1.28	1.20	1.08
1008	1009	3.24	2.70	2.43	2.31	2.16	1.94
1010	1011	1.80	1.50	1.35	1.28	1.20	1.08
1012	1013	2.58	2.15	1.94	1.84	1.72	1.55
1014	1015	3.81	3.18	2.86	2.72	2.54	2.29
1016	1017	4.47	3.73	3.36	3.19	2.98	2.68
1018	1019	2.58	2.15	1.94	1.84	1.72	1.55
1020	1021	3.24	2.70	2.43	2.31	2.16	1.94
1022	1023	5.04	4.20	3.78	3.59	3.36	3.02
1024	1025	2.58	2.15	1.94	1.84	1.72	1.55
1026	1027	3.81	3.18	2.86	2.72	2.54	2.29
1028	1029	3.24	2.70	2.43	2.31	2.16	1.94
1030	1031	4.47	3.73	3.36	3.19	2.98	2.68
1032	1033	5.04	4.20	3.78	3.59	3.36	3.02
1034		1.80	1.50	1.35	1.28	1.20	1.08
	1035	1.80	1.50	1.35	1.28	1.20	1.08
	1037	2.58	2.15	1.94	1.84	1.72	1.55
1040		1.80	1.50	1.35	1.28	1.20	1.08
30	31	.87	.73	.66	.63	.58	.52
32	33	.87	.73	.66	.63	.58	.52
34	35	.87	.73	.66	.63	.58	.52
36	37	.87	.73	.66	.63	.58	.54
38	39	.87	.73	.66	.63	.58	.52
40	41	.87	.73	.66	.63	.58	.52
43		.87	.73	.66	.63	.58	.52
	45	.87	.73	.66	.63	.58	.52
49		.87	.73	.66	.63	.58	.52

SEPARATE INDEX ASSEMBLIES

Index assemblies for series PA-1000 and PA-2000 interchangeable.
CRL No. PA-300 Assembly—Contains PA-300 (30°) index, P-120 pointer knob, adjustable stop plate, two ⅛" spacers, two ⁹⁄₃₂" spacers, four ⁷⁄₁₆" spacers, 2½" tie bolts, nuts, lockwashers and fiber spacer washers. Rear shaft length 2". Use with 1 to 3 sections.
CRL No. PA-301 Assembly—Contains PA-301 index (30°), P-120 pointer knob, adjustable stop plate, two ⅛" spacers, two ⁹⁄₃₂" spacers, ten ⁷⁄₁₆" spacers, four ¹⁵⁄₁₆" spacers, 5" tie bolts and hardware. Rear shaft length 4". Use with 4 to 6 sections.
CRL No. PA-302 Assembly—Contains PA-302 (30°) index, P-120 pointer knob, adjustable stop plate, four ³⁄₁₆" spacers, two ⁹⁄₃₂" spacers, sixteen ⁷⁄₁₆" spacers, eight ¹⁵⁄₁₆" spacers, 7" tie bolts, and hardware. Rear shaft length 6". Use with 7 to 9 sections.
CRL No. PA-304 Assembly—Contains PA-304 (60°) index and hardware same as PA-300. Rear shaft length 2". Use with 1 to 3.
CRL No. PA-305 Assembly—Contains PA-305 (60°) index and hardware same as PA-301. Rear shaft length 4". 4 to 6 sections.

CRL No.	Indexing	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99	100-249
PA-300	30°	$1.38	$1.15	$1.04	$0.99	$0.92	$0.83
PA-301	30°	1.80	1.50	1.35	1.28	1.20	1.08
PA-302	30°	2.37	1.98	1.78	1.69	1.58	1.42
PA-304	60°	1.44	1.20	1.08	1.03	.96	.86
PA-305	60°	1.89	1.58	1.42	1.35	1.26	1.13

SERIES JV-9000 DIAL PLATES, INDEX ASSEMBLY

CRL Nos. P-230, P-231 or P-232—2¾" dia., etched aluminum on black background; 20°; marked 1-5 for P-230, 1-8 for P-232, and 1-17 for P-231. Packaged 5 of a number.
CRL No. JV-7 Index Assembly—Includes shaft, tie rods, spacers, nuts and lockwashers, adjustable stop pin, 2" black bar knob and dial plate.

INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99
JV-9000 thru JV-9003	$10.50	$ 8.75	$ 7.88	$ 7.49	$ 7.00
JV-9004 thru JV-9007	17.40	14.50	13.05	12.40	11.60
JV-9008 thru JV-9011	24.30	20.25	18.23	17.32	16.20
JV-9012 thru JV-9015	31.20	26.00	23.40	22.23	20.80
JV-9016 thru JV-9019	38.10	31.75	28.58	27.15	25.40
JV-9020 and JV-9021	45.30	37.75	33.98	32.28	30.20
JV-9032 and JV-9033	10.50	8.75	7.88	7.49	7.00
JV-9034 and JV-9035	17.40	14.50	13.05	12.40	11.60
JV-9036 and JV-9037	24.30	20.25	18.23	17.32	16.20
JV-9038 and JV-9039	31.20	26.00	23.40	22.23	20.80
JV-8 thru JV-10	6.90	5.75	5.18	4.92	4.60
JVN-8 thru JVN-10	6.90	5.75	5.18	4.92	4.60
JV-18 and JVN-18	7.50	6.25	5.63	5.35	5.00
JV-7 Index	4.50	3.75	3.38	3.21	3.00
P-230 thru P-232	1.08*	.90*	.81*	.77*	.72*

*Package of 5.

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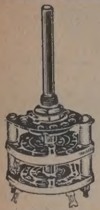
Centralab®

Rotary, Lever Switches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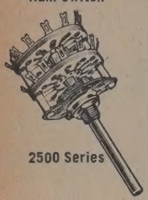
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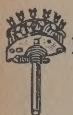
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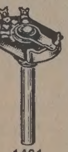
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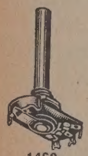
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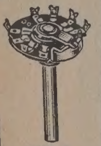
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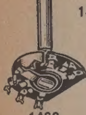
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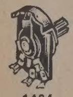
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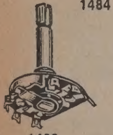
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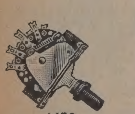
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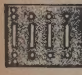

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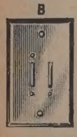

Lever Action

SERIES 2500 1⅞" DIAMETER ROTARY SWITCHES

Made of highest quality (grade L-533) Steatite insulation. Meet critical requirements of RF circuit applications. Bushing ⅜"-32 thread ⅜" long. Shaft 1⅞" long, ¼" full round. Sections 1⅞" dia. Positive index 30° with adjustable stop. Index assemblies and hardware are identical and interchangeable with those of the 1400 Series. Switches include pointer knob, nut and lockwasher. Rated: 2.75 amps. 15 v. DC; 230 ma, 115 v. AC. Breakdown, 1500 v. AC between critical parts. Shipping Weight, 5 oz. per section.

SERIES 1400 1⅞" DIAMETER ROTARY SWITCHES

Extremely compact design. Mounting bushings ⅜"-32 thread, ⅜" long. Shafts 1⅞" from end of bushing; ¼" full round. Sections 1⅞" dia. Positive 30° index with adjustable stop. With mounting nut, lockwasher and pointer knob. Index assemblies and hardware are identical and interchangeable with those of 2500 series. Rated: 2.75 amps at 15 v. DC; 230 ma at 115 v. AC. Breakdown, 1000 v, AC rms. Shipping Weight, 4 oz. per section.

COMPLETE ROTARY SWITCHES

Ceramic Types CRL Number		No. Sections	No. Poles	No. Positions	Phenolic Types CRL Number	
Shorting	Non-Short.				Shorting	Non-Short.
2500	2501	1	1	2—6	1400	1401
2502	2503	1	1	2—11	1402	1403
2504	2505	1	2	2—5	1404	1405
2510	2511	2	2	2—6	1410	1411
2512	2513	2	2	2—11	1412	1413
2506	2507	1	3	2—3	1406	1407
2520	2521	3	3	2—6	1420	1421
2522	2523	3	3	2—11	1422	1423
		1	4	2	1408	1409
2514	2515	2	4	2—5	1414	1415
		4	4	2—6	1426	1427
		4	4	2—11	1428	1429
2516	2517	2	6	2—3	1416	1417
2524	2525	3	6	2—5	1424	1425
		2	8	2	1418	1419
		4	8	2—5	1430	1431

SEPARATE SECTIONS

Deluxe Types: .187" rotor slot, use P-270, P-271, P-272 indexes.

Ceramic Types CRL Number		No. Poles	No. Positions	Phenolic Types CRL Number	
Shorting	Non-Short.			Shorting	Non-Short.
TD	XD	1	2—6	AD	HD
UD	YD	1	2—11	BD	JD
RD	RRD	2	2—5	CD	KD
SD	SSD	3	2—3	DD	LD
VD	ZD	4	2	ED	MD
		4	2—3	EED	BBD
		1	2—5	FD**	AAD**
GGD*	FFD*	1	2—11	GD*	CCD*
PISD‡		1	2—10	PID‡	
NSD and PSD		Resistance Decade†		ND and PD	
QSD		Capacitance Decade		QD	

*All unused contacts connected and shorted out. ‡19 contacts, open in full CW, progressively picked up and shorted to common with CCW rotation. †Combine for resistance decade switch. **Unused contacts one side of common connected and shorted out.

SEPARATE INDEX ASSEMBLIES

Deluxe Type: 1-piece shaft .187" thick flat; use deluxe 1400 or 2500 Series sections. Units include index, pointer knob and hardware for complete assembly.

CRL No. P-270—For 1—3 sections; 2" rear shaft.
CRL No. P-271—For 3—5 sections; 4" rear shaft.
CRL No. P-272—For 5—10 sections; 8" rear shaft.

INDUSTRIAL NET PRICES

CERAMIC SWITCHES, SECTIONS

CRL Model Number	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99	100-249
2500 thru 2507	$2.82	$2.35	$2.12	$2.01	$1.88	$1.69
2510 thru 2517	4.02	3.35	3.02	2.87	2.68	2.41
2520 thru 2525	5.16	4.30	3.87	3.68	3.44	3.10
All Sections	1.35	1.13	1.02	.97	.90	.81

PHENOLIC SWITCHES, SECTIONS

CRL Model Number	1-4	5-9	10-24	25-49	50-99	100-249
1400 thru 1409	$2.52	$2.10	$1.89	$1.80	$1.68	$1.51
1410 thru 1419	3.06	2.55	2.30	2.19	2.04	1.84
1420 thru 1425	3.90	3.25	2.93	2.78	2.60	2.34
1426 thru 1431	4.50	3.75	3.38	3.21	3.00	2.70
AD, BD, CD, DD, ED	1.05	.88	.79	.75	.70	.63
HD, JD, KD, LD, MD	1.05	.88	.79	.75	.70	.63
EED and BBD	1.35	1.13	1.02	.97	.90	.81
FD, GD, PID, ND, PD	1.05	.88	.79	.75	.70	.63
QD, AAD, CCD	1.05	.88	.79	.75	.70	.63

INDEX ASSEMBLIES

CRL Model Number	1-4	5-9	10-24	25-49	50-99	100-249
P-270	$1.65	$1.38	$1.24	$1.18	$1.10	$0.99
P-271	2.10	1.75	1.58	1.50	1.40	1.26
P-272	2.85	2.38	2.14	2.03	1.90	1.71

STEATITE HAM-TYPE SWITCHES

Heavy-duty Grade L-533 steatite insulation for ham applications. Available in 60° and 90° index. All metal parts except clips and contacts are cadmium plated steel; all units have phenolic shaft through switch sections. Positive index with adjustable stop; 60° units have 2—6 active positions; 90° units, 2—4. Single hole mounting: ⅜"-32 thread bushing ⅜" long. Shaft ¼" dia., 2¼" long, full round. Rated: 250 milliamps at 115 v. AC; 5 milliamps at 1500 v. AC; 1.75 amps at 24 v. DC, will handle 15 watts; for tubes operating at voltages up to 1 kv and inputs to 150 watts. Unit complete includes mounting nut, lockwasher, pointer knob, and dial plate. Shipping Weight, 4 oz. per section.

NON-SHORTING HAM SWITCHES

CRL Number		No. Poles*	Net Each, Lots of					
60°	90°		1-4	5-9	10-24	25-49	50-99	100-249
2550	2542	1	$2.37	$1.98	$1.78	$1.69	$1.58	$1.42
2551	2543	2	3.36	2.80	2.52	2.39	2.24	2.02
2552	2544	3	4.32	3.60	3.24	3.08	2.88	2.59
2553	2545	4	5.34	4.45	4.01	3.81	3.56	3.21
2554	2546	5	6.30	5.25	4.73	4.49	4.20	3.78
ZZD†	XXD†	1	1.20	1.00	.90	.86	.80	.72

*One pole per section. †Separate sections; use with "P" Series index assemblies.

ROTARY ACTION FLAT SWITCHES

Laminated phenolic insulation. Rated: 5.5 amps, 6 v. DC; 230 ma, 110 v. AC. Breakdown, 1000 v. AC rms. Bushing ⅜"-32 thread, ⅜" long. Shaft ¼" dia., 2¼" long. Shipping Weight, 3 oz.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
1448†‡	6	3	$2.37	$1.98	$1.78	$1.69	$1.58	$1.42
1449†§	6	3	2.37	1.98	1.78	1.69	1.58	1.42
1450*†	4	2	1.65	1.38	1.24	1.18	1.10	.99
1451†‡	4	2	1.98	1.65	1.19	1.42	1.32	1.19
1488‡	6	3	3.60	3.00	2.70	2.57	2.40	2.16
1489§	6	3	3.60	3.00	2.70	2.57	2.40	2.16

*Positive index. †Non-shorting. ‡Spring return. §Combination positive and spring return index.

GENERAL PURPOSE SWITCHES

Laminated phenolic insulation. Rated: 1.75 amps, 24 v. DC; 230 ma. 115 v. AC. Breakdown, 1000 v. AC rms. Bushing ⅜"-32 thread, ⅜" long except 1484, ¼". Positive index unless otherwise noted.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
1460	1	2	$1.08	$0.90	$0.81	$0.77	$0.72	$0.65
1461	1	3	1.08	.90	.81	.77	.72	.65
1462	2	2	1.08	.90	.81	.77	.72	.65
1463*†	1	2	1.08	.90	.81	.77	.72	.65
1464*†	2	2	1.08	.90	.81	.77	.72	.65
1465‡	1	4‡	1.80	1.50	1.35	1.28	1.20	1.08
1472*	2	3	1.08	.90	.81	.77	.72	.65
1473	2	3	1.08	.90	.81	.77	.72	.65
1483§	1	3	.75	.63	.57	.54	.50	.45
1484#	1	3	.90	.75	.68	.65	.60	.54
1486•	2	3	1.08	.90	.81	.77	.72	.65

*Non-shorting; all others shorting. †Spring return indexing. ‡3 active with AC-DPST line switch. §Remote speaker switch. #Remote auto radio speaker switch. •Remote stereo speaker switch.

ECONOMY LEVER ACTION SWITCHES

REPLACES PA-7000 SERIES

New nylon rotor design results in low cost for use singly or in groups. Have positive and/or spring return index design with shorting or non-shorting contacts. High quality laminated phenolic insulation, clips and contacts silver plated brass. Two hole type mounting bracket supplied with 6—32 thd tapped holes. Dimensions of single switch 1⅞" high x 7/16" wide x 1¼" deep behind panel. Supplies with knob and mounting hardware. Rated 2.75 amps at 15 VDC, 230 MA at 115 VAC. Shipping Weight 4 oz.

CRL No.		No. Poles	No. Pos.	Index
Shorting	Non-Shorting			
1452	1454	2	3	Positive
1453	1455	2	3	Sp. Ret.
1466	1467	2	3	Pos. & Spr.
1456	1457	4	2	Sp. Ret.
1459	1458	4	2	Positive

Mounting Plates for Lever Switches—Type A made of .035" die cut steel, black crackle finish. Provides ¾" spacing between switches. Type B for use in electrical outlet boxes. Satin chrome steel with mounting holes 3 5/16" between centers. Shpg. Wt., 4 oz.

CRL No.	Type	No. Switches	Size, Inches	CRL No.	Type	No. Switches	Size, Inches
P-1755	A	1	¾ x 2⅝	P-1759	A	5	3¾ x 2⅝
P-1756	A	2	1½ x 2⅝	P-221	B	2	2¾ x 4½
P-1757	A	3	2¼ x 2⅝	P-222	B	1	2¾ x 4½
P-1758	A	4	3 x 2⅝				

INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99	100-249
1452/4	$1.26	$1.05	$ .95	$ .90	$ .84	$ .76
1453/5	1.26	1.05	.95	.90	.84	.76
1466/7	1.26	1.05	.95	.90	.84	.76
1456/7	1.44	1.20	1.08	1.03	.96	.86
1459/8	1.44	1.20	1.08	1.03	.96	.86
Type A Plates	.30	.25	.23	.22	.20	.18
Type B Plates	.63	.53	.48	.46	.42	.38

SEPARATE INDEX ASSEMBLIES

Deluxe 90° and 60° Types: 2-piece shaft with phenolic rear, metal front; for high voltage operation; use XXD section for 90°; use ZZD section for 60°.

CRL No. 90°	CRL No. 60°	Rear Shaft	Suggested No. Sections
P-278	P-273	2"	1 to 2
P-279	P-274	4¼"	3 to 4
P-280	P-275	7"	5 to 8

CRL Number Index Assembly	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99	100-249
P-273 and P-278	$1.38	$1.15	$1.04	$0.99	$0.92	$0.83
P-274 and P-279	1.74	1.45	1.31	1.25	1.16	1.04
P-275 and P-280	2.16	1.80	1.62	1.54	1.44	1.40

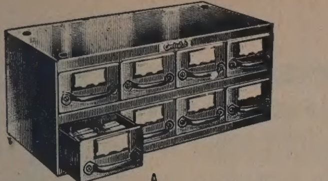
DUAL SPEAKER SWITCH KIT

((Not Illustrated). Primarily designed for rear seat auto radio speaker applications. It is adaptable, however, to many commercial applications. Contains: 1484 switch, P-216 bracket-dial plate, P-401 knob, two self-tapping metal screws and instruction sheet.

CRL No. PK-300—
Net Each $1.05

Centralab®

Switches, Hardware and Kits



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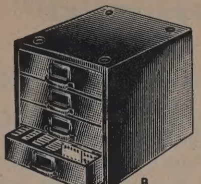

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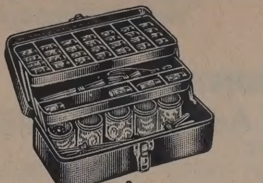

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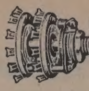
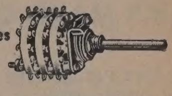




MIL-S-3786A STYLE SRO3 MINIATURE CERAMIC SWITCHES

Designed to meet MIL-S-3786A. Insulated with Grade L-533 steatite, Dow Corning 200 silicone treated against surface moisture. Breakdown, 1000 v. AC rms between critical parts. Coin silver clips and contacts; hot tin-dipped terminals. Adjustable stops or continuous rotation on 30° index. Ceramic sections 1 9/32" dia. x .125" th. Single hole mounting with locating lug at 17/32" radius. Bushing, ⅜"-32NEF-2A threaded, ⅜" lg. from mtg. surface. Shaft ¼" dia. full round, 2¼" lg. from mtg. surface. With nut, lockwasher and P-120 pointer knob. Ratings: 450 ma at 115v. AC; 8 amps, 6 v. DC; 5.5 amps, 12 v. DC (make-break resistive load).

SERIES PA-6000 SWITCHES

CRL Number		Poles to Section	No. Sections	No. Poles	No. Positions
Shorting	Non-Short.				
PA-6000	PA-6001	1	1	1	2-11
PA-6002	PA-6003	2	1	2	2-5
PA-6004	PA-6005	1	2	2	2-11
PA-6006	PA-6007	3	1	3	2-3
PA-6010*	PA-6011*	4	1	4	2
PA-6012	PA-6013	2	2	4	2-5
PA-6018	PA-6019	3	2	6	2-3
PA-6024*	PA-6025*	4	2	8	2

*Fixed, 2-position stop.

SEPARATE INDEX ASSEMBLY

CRL No. PA-600—Used with PA-60, PA-70 or PA-80 separate sections to assemble special units of 1 to 4 sections; 30° indexing. Rear shaft 2" long.

SEPARATE SECTIONS, 30° INDEXING

Used with PA-600 index assembly. Hot solder-dipped terminals. Coin silver clips and contacts. Sections 1 9/32" dia. Phenolic types rated 1000 v. AC rms breakdown between critical parts. Phenolic units .062" thick; others .125" thick.

Total Poles	No. Pos.	Phenolic Secs.		Mycalex Secs.		Ceramic Secs.	
		Shorting	Non-Short	Shorting	Non-Short	Shorting	Non-Short
1	2-11	PA-60	PA-61	PA-70	PA-71	PA-80	PA-81
2	2-5	PA-62	PA-63	PA-72	PA-73	PA-82	PA-83
3	2-3	PA-64	PA-65	PA-74	PA-75	PA-84	PA-85
4	2	PA-66	PA-67	PA-76	PA-77	PA-86	PA-87

INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
PA-6000 thru PA-6003	$3.39	$2.83	$2.55	$2.42	$2.26	$2.03
PA-6004 and PA-6005	5.19	4.33	3.90	3.71	3.46	3.11
PA-6006 thru PA-6011	3.39	2.83	2.55	2.42	2.26	2.03
PA-6012 thru PA-6025	5.19	4.33	3.90	3.71	3.46	3.11
PA-600	1.50	1.25	1.13	1.07	1.00	.90
PA-60 thru PA-67	1.35	1.13	1.02	.97	.90	.81
PA-70 thru PA-77	1.98	1.65	1.49	1.42	1.32	1.19
PA-80 thru PA-87	1.98	1.65	1.49	1.42	1.32	1.19

NOTE: Items requiring certified test data and government source inspection are special. Prices and information supplied on request.

18 AND 24 POSITION SWITCHES

Laminated phenolic insulation, type PBE per MIL-P-3115B. Voltage breakdown between critical parts 1000 v. AC, rms. Bushing ⅜" thd., ⅜" lg. Shaft ¼" dia., 2¼" lg. from mtg. surface. Rated 5.5 amps, 6 v. DC; 2.75 amps, 15 v. DC; 1.75 amps, 24 v. DC; 230 ma, 115 v. AC, rms. Shpg. Wt., 4 oz. per section. **PA-3000 Series**—18-position. Provides accurate crisp indexing in both single and multiple-section versions through the use of new hill-and-dale index. Sections 2 11/64" w. x 2 5/16" h. x 1/16" thick. Positive 20° indexing. Adjustable stops or continuous rotation. **PA-4000 Series**—24-position. Sections 1¾" w. x 2 5/16" h. x 1/16" thick.

CRL No. PA-		*	No. Pos.	Net Each, Lots of					
Short.	Non-Short.			1-4	5-9	10-24	25-49	50-99	100-249
3000	3001	1	2-17	$2.04	$1.70	$1.53	$1.45	$1.36	$1.22
3002	3003	2	2-17	2.94	2.45	2.21	2.09	1.96	1.76
3004	3005	3	2-17	3.84	3.20	2.88	2.74	2.56	2.30
3006	3007	4	2-17	4.68	3.90	3.51	3.33	3.12	2.81
4000	4001	1	2-23	2-16	1.80	1.62	1.54	1.44	1.30
4002	4003	2	2-23	3.18	2.65	2.39	2.27	2.12	1.91
4004	4005	3	2-23	4.17	3.48	3.13	2.97	2.78	2.50
4006	4007	4	2-23	4.98	4.15	3.74	3.55	3.32	2.99

*Number of poles and number of sections.

SERIES PS 15/16" SUBMINIATURE ROTARY SWITCHES

Deluxe, ceramic insulated rotary switches that are ultra-small. Weigh less than 1 oz. each, yet have the same electrical ratings as switches much heavier and larger. Ideally suited for band switching, transistor circuits, aircraft instruments, etc. Insulation is Dow-Corning 200 Silicone treated L-533 steatite; resistance exceeds 10,000 megohms. **Size:** Ceramic sections ⅛" thick spaced ⅛" apart with ceramic spacing; spacing between front plate and first section, 5/32". All hardware except clips, contacts, and index spring are of cadmium plated steel. **Mounting:** Single hole with optional locating lug on ⅜" radius. Bushing ¼-32 thread, ¼" long. Shaft ⅛" dia. x 1¼" long. **Rated:** Make and break, resistance load 3.5 amps at 6 volts DC, 160 milliamps at 110 v. AC. **Index:** Positive 30°; fixed stop.

CRL Number		Total Poles	No. of Positions	Poles Per Sec.	No. of Sections
Shorting	Non-Shorting				
PS-100	PS-101	1	11	1	1
PS-102	PS-103	2	11	1	2
PS-104	PS-105	2	5	2	1
PS-106	PS-107	3	11	1	3
PS-108	PS-109	3	3	3	1
PS-110	PS-111	4	5	2	2
PS-112	PS-113	4	2	4	1
PS-114	PS-115	6	5	2	3
PS-116	PS-117	6	3	3	2
PS-118	PS-119	8	2	4	2
PS-120	PS-121	9	3	3	3
PS-122	PS-123	12	2	4	3

SERIES PS (CONTINUED) SEPARATE SECTIONS

Ceramic* CRL No.		Phenolic† CRL No.		Total Poles	No. Pos.	Fixed Stop Indexing
Short.	Non-Short.	Short.	Non-Short.			
PS-20	PS-21	PS-40	PS-41	1	11	Use P-501 thru P-511
PS-22	PS-23	PS-42	PS-43	2	5	
PS-24	PS-25	PS-44	PS-45	3	3	
PS-26	PS-27	PS-46	PS-47	4	2	

Breakdown Voltage: *1500 v. AC rms; †1000 v. AC rms.

SEPARATE INDEX ASSEMBLIES

Designed for maximum of three sections. Includes: Index and shaft assembly: P-106 knob; six 3/32" spacers; two 1/16" spacers; two ⅛" spacers; two 3/16" spacers; two 1⅛" tie bolts; nuts, lockwashers, washers; and 16 plastic spacer washers.

CRL Number	No. of Positions	CRL Number	No. of Positions
P-501	2	P-507	8
P-502	3	P-508	9
P-503	4	P-509	10
P-504	5	P-510	11
P-505	6	P-511	Continuous Rotation
P-506	7		

INDUSTRIAL NET PRICES

CRL Number		Net Each, Lots of					
Shorting	Non-Short.	1-4	5-9	10-24	25-49	50-99	100-249
PS-100	PS-101	$4.80	$4.00	$3.60	$3.42	$3.20	$2.88
PS-102	PS-103	6.00	5.00	4.50	4.28	4.00	3.60
PS-104	PS-105	4.80	4.00	3.60	3.42	3.20	2.88
PS-106	PS-107	7.20	6.00	5.40	5.13	4.80	4.32
PS-108	PS-109	4.80	4.00	3.60	3.42	3.20	2.88
PS-110	PS-111	6.00	5.00	4.50	4.28	4.00	3.60
PS-112	PS-113	4.80	4.00	3.60	3.42	3.20	2.88
PS-114	PS-115	7.20	6.00	5.40	5.13	4.80	4.32
PS-116	PS-117	6.00	5.00	4.50	4.28	4.00	3.60
PS-118	PS-119	6.00	5.00	4.50	4.28	4.00	3.60
PS-120	PS-121	7.20	6.00	5.40	5.13	4.80	4.32
PS-122	PS-123	7.20	6.00	5.40	5.13	4.80	4.32
PS-20 thru	PS-27	2.10	1.75	1.58	1.50	1.40	1.26
PS-40 thru	PS-47	1.68	1.40	1.26	1.20	1.12	1.01
P-501 thru	P-511	1.95	1.63	1.47	1.40	1.30	1.17

PACKAGED SWITCH HARDWARE

FOR 1400 AND 2500 SERIES SWITCHES

CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg. 100
P-124	¼" metal spacer	$1.80	P-145	7" screw	$ 8.40
P-125	⅜" metal spacer	1.80	P-146	9" screw	12.00
P-126	½" metal spacer	1.80	P-147	Nut	1.80
P-127	¾" metal spacer	1.80	P-148	Lockwasher	1.80
P-128	1" metal spacer	1.80	P-177	Phenol. spacer wshr	1.80
P-136	1" screw	1.80	P-181	⅛" steatite spacer	4.80
P-137	1½" screw	1.80	P-187	¼" steatite spacer	4.80
P-138	2" screw	4.80	P-188	⅜" steatite spacer	4.80
P-139	2½" screw	4.80	P-189	½" steatite spacer	4.80
P-149	4¼" screw	8.40	P-190	⅝" steatite spacer	4.80
P-143	5" screw	8.40	P-192	1"steatite spacer	8.40

FOR PA-6000 SERIES MILITARY SWITCHES

P-395	Min. MIL screw	$8.40	P-397	Min. MIL lockwasher	$1.80
P-396	Min. MIL nut	1.80	P-398	MIL spacer washer	1.80

FOR PS-100 SERIES SUBMINIATURE SWITCHES

P-515	1⅛" screw	$8.40	P-520	⅛" steatite spacer	$1.80
P-516	Nut	1.80	P-521	3/32" steatite spacer	1.80
P-517	Lockwasher	1.80	P-522	1/16" steatite spacer	1.80
P-518	Flat washer	1.80	P-523	3/16" steatite spacer	1.80
P-519	Spacer washer	1.80	P-524	5/32" steatite spacer	1.80

FOR PA-1000 & PA-2000 SERIES MINIATURE SWITCHES

CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg. 100
P-319	Min. stop plate	$4.80	P-348	⅞" steatite spacer	$ 4.80
P-325	⅛" steatite spacer	4.80	P-350	15/16 steatite spacer	4.80
P-326	3/16" steatite spacer	4.80	P-352	1" steatite spacer	4.80
P-328	¼" steatite spacer	4.80	P-362	1" screw	1.80
P-329	9/32" steatite spacer	4.80	P-370	2" screw	4.80
P-330	5/16" steatite spacer	4.80	P-374	2½" screw	4.80
P-332	⅜" steatite spacer	4.80	P-382	4" screw	8.40
P-334	7/16" steatite spacer	4.80	P-384	5" screw	8.40
P-336	½" steatite spacer	4.80	P-388	7" screw	12.00
P-340	⅝" steatite spacer	4.80	P-390	Nut	1.80
P-342	11/16" steatite spacer	4.80	P-392	Lockwasher	1.80
P-344	¾" steatite spacer	4.80	P-394	Phen. spacer washer	1.80

CENTRALAB SWITCH KITS

STANDARD KITS (FIG. A)

Convenient, ready source of stock sections, indexes and hardware. Packed in heavy gauge steel, 8-drawer Equipto cabinet, 23¼" w. x 9½" h. x 12" d. with blue, baked enamel finish.

CRL No. SWK-810 Kit—PA-1000 series miniature phenolic parts: 106 pieces of 1½" dia. phenolic sections, 32 index assemblies with spacers, nuts, washers, knobs and dial plates. Makes up to 32 regular or special switches. Net Each.......... **$162.00**

CRL No. SWK-820 Kit—PA-2000 series miniature ceramic parts: 102 pieces of 1½" dia. steatite sections, 32 index assemblies with spacers, washers, nuts, knobs and dial plates. Makes up to 32 regular or special switches. Net Each.......... **$192.00**

JUNIOR SIZE SWITCH KITS (FIG. B)

Packed in attractive light blue and gray 4-drawer steel cabinets 10" x 11½" x 10". With balanced stock of index assemblies and separate sections for every application.

CRL No. SWK-410 Kit—PA-1000 series miniature phenolic parts: 48 phenolic 1½" dia. sections, 13 index assemblies and hardware for making 13 phenolic regular or special switches. Net Each.......... **$67.00**

CRL No. SWK-420 Kit—PA-2000 series miniature ceramic parts: 52 ceramic 1½" dia. switch sections, 13 complete index assemblies and hardware for making 13 ceramic regular or special switches. Net Each.......... **$87.40**

CUSTOM SWITCH KIT (FIG. C)

Contains parts and tools necessary for any prototype designer to construct the special switch he needs. Packed in metal cabinet, set up and ready to use. Makes 25 four-section miniature rotary phenolic or ceramic switches with factory precision. Contact nibbling tool can cut any contact arrangement you need.

CRL No. PK-20-S Kit—Complete. Net Each.......... **$125.00**

© U.C.P., Inc.

CUTLER-HAMMER SWITCHES

See your local C-H representative for prices and accessory information.

"Commercial Application"

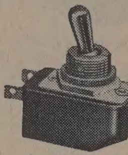
ONE HOLE MOUNTING
QUICK MAKE, QUICK BREAK A-C, D-C SWITCHES

UTILITY TYPE

They have a quick make and quick break over center arrangement on the movable contact which permits exceptionally fast contact action minimizing pitting and erosion of the contact surfaces.

Available with screw terminals, solder lug terminals or with 6″ lead wires stripped ¾″. Bushing dia. 15/32″. Available with bushing lengths of ¼″, 11/32″, 15/32″, ¾″ and 1″ — ¾″ and 1″ bushings furnished with ball type lever only.

Parts visable when switch is mounted are bright nickel plated.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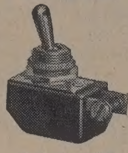
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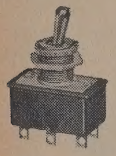
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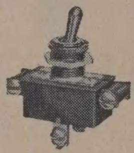
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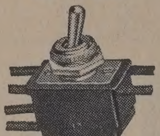
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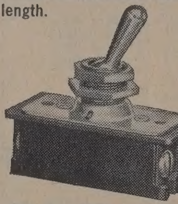
Nominal Ratings (Amps.)		Poles and Throws	Catalog Numbers		
250 V. A-c, D-c	125 V. A-c, D-c		Screw Terminals	Solder Lug Terminals	Wire Lead Terminals
1	3	SPDT (3 Way)	8297	8282	8292
3	....	SPST	8295	8280	8290
3	....	DPST	8362	8360	8361
3	....	DPDT	8365	8363	8364
3	6	SPST	8396	8381	8391
3	6	DPST	8372	8370	8371
3	6	DPDT	8375	8373	8374

When ordering, specify (1) catalog number and (2) bushing length.

HEAVY DUTY TYPE

Screw terminals or plug-in terminals (connection made by plugging wire into switch body) are available. Plug-in type switches have 3/32″ square hole to accept #14, 16 or 18 ga., stranded, tin dipped wire leads skinned 7/32″.

Bushing dia. 15/32″. Available with 11/32″ or 15/32″ bushing length.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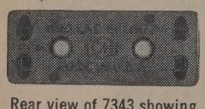
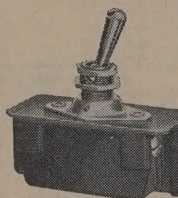

Rear view of 7343 showing holes for plug-in wire leads.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Nominal Ratings (Amperes)		Max Hp Ratings (250 V.)		Poles and Throws	Catalog Numbers	
250 V. A-c, D-c	125 V. A-c, D-c	A-c	D-c		Screw Terminals	Plug-in Terminals
5	....	....	....	DPDT w/o Center Off	8680	......
5	10	½	½	SPST	....	7347
5	10	½	½	DPST	....	7343
8	16	1	1	SPST	7321	....
8	16	1	1	DPST	7320	7443
10	15	1	½	DPST	....	7354
10	15	1	1½	SPST	7361	....
10	15	1	1½	DPST	7360	....
10	15	....	....	DPDT w/o Center Off	8690	....
20	..	2	2	SPST	7403	....
20	....	2	2	DPST	7402	....

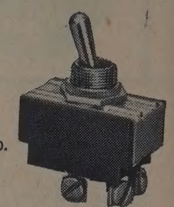
When ordering, specify (1) catalog number and (2) bushing length.

SLOW MAKE, SLOW BREAK A-C ONLY SWITCHES
3-6, 10-15 AMP. A-c LINE

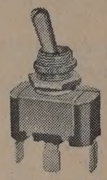
Features include: heavy duty independent springs for positive contact pressure, solid silver to silver contacts and strong substantial terminal construction.

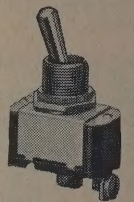
Bushing dia. 15/32″. Bushing length 15/32″ on all single pole switches. Double pole switches available with 11/32″ or 15/32″ bushings.

Available with screw, solder lug or spade type terminals.


Cat. No. 7560

Cat. Nos. 7503, 7505


Cat. No. 7511


Cat. No. 7500

Circuit Arrangement A B C Keyway on "C" Side of Switch			Throws	Catalog Number	
				Single Pole	Double Pole
3 AMP.—250 V. A-C, 6 AMP.—125 V. A-C					
ON	OFF	ON	DT	7581	7591
ON	OFF	ON*	DT	7586	7596
ON*	OFF	ON*	DT	7587	7597
ON	NONE	ON	DT	7582	7592
ON	NONE	ON*	DT	7585	7595
ON	NONE	OFF	ST	7580	7590
ON	NONE	OFF*	ST	7584	7594
OFF	NONE	ON*	ST	7583	7593
10 AMP.—250 V. A-C, ½ MAX. H.P.—250 V. A-C					
ON	OFF	ON*	DT	7508	7568
ON*	OFF	ON*	DT	7509	7569
ON	NONE	ON*	DT	7510	7570
ON	NONE	OFF*	ST	7507	7567
OFF	NONE	ON*	ST	7506	7566
10 AMP. — 250 V. A-C, 15 AMP. — 125 V. A-C, ¾ MAX. H.P. — 250 V. A-C					
ON	OFF	ON	DT	7502†	7562†
ON	NONE	ON	DT	7504†	7564†
ON	NONE	OFF	ST	7500†	7560†

*Momentary contact

†Screw terminals. For solder lug or spade type terminals add one (1) to model number. Example: 7502 is screw type — for same switch with solder lugs or spades order 7503.

When ordering, specify (1) catalog number, (2) type of terminals and (3) bushing length.

SLIDE BUTTON SWITCHES
FLUSH MOUNTING

SPST and SPDT, flush mounting slide switches.

Mounting centers — 2 3/16″—8303, 1½″—8746 and 8477, 1⅞″ on all others.

Operating buttons are red plastic on 8476-77, black phenolic on all others.

Cat. Nos. 8476 and 8477

Cat. No. 8631

Cat. No. 8303

Cat. No. 8486

Ampere Rating A-c		Maximum Hp Ratings A-c Only		Poles and Throw	Circuit Arrangement A B C			Catalog Numbers			
125 V.	250 V.	125 V.	250 V.					Screw Term.	.250″ Spade Term.	Solder Lug Term.	Plug-In Term.
6	3	...	...	SPST	On	None	Off	.....	.....	.....	8476
6*	3*	...	...	SPST	On	None	Off	8303	.....	.....	.....
7	3	...	¼	SPST	On	None	Off	.....	8486	8486	.....
7	3	...	¼	SPDT	On	Off	On	.....	8487	8487	.....
7	3	...	¼	SPDT	On	None	On	.....	8488	8488	.....
10	5	½	½	SPST	On	None	Off	.....	.....	.....	8477

*A-c and d-c rating.

When ordering, specify (1) catalog number and (2) type of terminals.

CUTLER-HAMMER, Inc.,
Milwaukee, Wis.

Most C-H switches are available with optional features for special applications. See your local Sales Office or Distributor for complete accessory and optional feature listings.

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See your local C-H representative for prices and accessory information.

CUTLER-HAMMER SWITCHES

"Commercial Application"

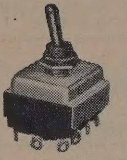
ONE HOLE MOUNTING — Cont'd

SLOW MAKE, SLOW BREAK—A-C ONLY SWITCHES

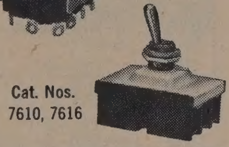
10-15 AMP, LINE — THREE OR FOUR POLE

Bushing dia. 15/32″. Bushing length — 15/32″ (7610 and 7615 also available with 11/32″ bushing).

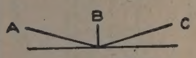
Ratings — Three pole switches — 10 amp. — 250 V. A-c, 15 Amp. — 125 V. A-c, 1 hp polyphase — 115-575 V. A-c. Four pole switches — 10 Amp. — 250 V. A-c, ½ hp — 230 V. A-c.



Cat. Nos. 7693, 7695



Cat. Nos. 7610, 7616

Circuit Arrangement  Keyway on "C" Side of Switch			Throws	Catalog Number				
				Three Pole			Four Pole	
				Screw Terminals	Solder Lug Terminals	Spade Terminals	Screw Terminals	Solder Lug Terminals
ON	OFF	ON	DT	7612	7613	7613	7692	7693
ON✱	OFF	ON	DT	7617	....	7617	....	....
ON	NONE	ON	DT	7614	7615	7615	7694	7695
ON✱	NONE	ON	DT	7618	....	7618	....	....
ON	NONE	OFF	ST	7610	7611	7611	7690	7691
ON✱	NONE	OFF	ST	7616	....	7616	....	....
ON✱	NONE	OFF	ST	....	....	....	7696	7697

✱Momentary contact.
When ordering, specify (1) catalog number, (2) type of terminals and (3) bushing length.

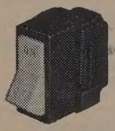
ROCKETTE SWITCHES — A-C ONLY

3-6, 10-15 AMP., A-C LINE

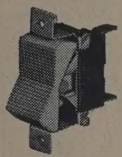
Rockers can be furnished on special order in any color to harmonize with the appliance color. Standard color of rocker is white.

Switches are flush mounting.

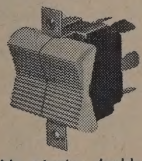
Spade terminals available in sizes .250″, .205″ and .187″.



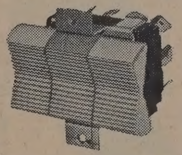
Cat. No's. 8134 & 8144



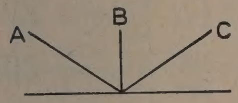
Cat. No's. 8326, 8329



Double actuator, double pole. Cat. No's. 8133 and 8143



Triple actuator, four pole. Cat. No's. 8131 and 8141

Circuit Arrangement 			Poles and Throws	Number of Rockers	Catalog Numbers	
					3 Amp. 250 V. A-c 6 Amp. 125 V. A-c	10 Amp. 250 V. A-c 15 Amp. 125 V. A-c ¾ Hp. 250 V. A-c
ON	OFF	ON	SPDT	One	8134	8144
ON✱	OFF	ON✱	SPDT	One	8136	8146
ON	NONE	OFF	SPST	One	8134	8144
ON	NONE	OFF	SPST	One	8326	8329△
ON✱	NONE	OFF	SPST	One	8135	8145
ON	OFF	ON	DPDT	One	8132	8142
ON	OFF	ON	DPDT	Two	8133	8143
ON✱	OFF	ON✱	DPDT	One	8138	8148
ON	NONE	OFF	DPST	One	8132	8132
ON	NONE	OFF	DPST	Two	8133	8133
ON✱	NONE	OFF	DPST	One	8137	8147
ON	OFF	ON	4PDT	Two	8130	8140
ON	OFF	ON	4PDT	Three	8131	8141
ON	NONE	OFF	4PST	Two	8130	8140
ON	NONE	OFF	4PST	Three	8131	8141

✱Momentary contact.
△Rated ½ hp — 250 V. A-c. Both 8326 and 8329 are nest mounted.
When ordering, specify (1) catalog number, (2) width of spade terminals and (3) poles and throws.

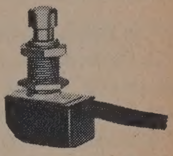
PUSHBUTTON SWITCHES

ONE HOLE MOUNTING—A-C, D-C AND A-C ONLY TYPES

Bushing dia. 15/32″. Bushing length; 8411—¼″, 7190 and 7196—½″, all others 11/16″.

All switches are momentary contact type except 7208 and 7206 which are push push type.

8442 and 8444 available with standard 17/32″ button or with short ¼″ button.



Cat. No. 7207

Ratings (Amperes)		Poles and Throws	Contacts	Catalog Numbers			
125 V.	250 V.			Screw Term.	Solder Lug Term.	Spade Term.	Wire Leads
			A-C, D-C SWITCHES				
.075	.025	SPST	N.O. or N. C.	8411	8411	8411✱	....
6	3	SPST	N. O.	7196	7190	....	7193
6	3	SPST	N. O., N. C.	7208	7206	....	7207
			A-C ONLY SWITCHES				
6	3	SPST	N. O.	8442	....	8442△	..
15	10	SPST	N. O.	8444	....	8444△	....
15†	10†	SPDT	N. O., N. C.	8446	....	8446	....

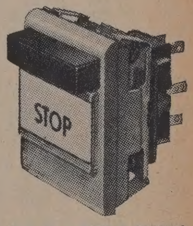
✱Spade terminals available on N. C. types only.
†Applies to N. O. circuit only. Rated 10 A. @ 125 V. and 5 A. @ 250 V. on N. C. circuit.
△Available with angle or flat type spade terminals.
When ordering, specify (1) catalog number, (2) type of terminals, (3) N. O. or N. C. operation and (4) button extension (if variable).

ILLUMINATED COMPUTER TYPE

Switches are of the snap in variety requiring a panel opening of 1⅝″ high by 1 29/64″ wide (add 1½″ to width per switch for ganged installation).

Indicating lamp unit (8457K2) is a 10 V. bulb. Other voltage bulbs on special order.

Tab type (.110″) terminals for solder or spade connection.



Cat. Nos. 8455 & 8456K2

Nominal Ratings (Amperes)		Poles and Throws	Operation	Catalog Number	
250 V. A-c, D-c	125 V. A-c, D-c			Silver Contacts	Gold Pltd. Silver Contacts
3	5	DPDT	Maintained Contact—N.O.	8455K2	8456K2✱
3	5	DPDT	Momentary Contact—N.O.	8455K3	8456K3✱
....	....	......	Lamp unit only	8457K2	......

✱Switches having gold plated silver contacts are rated at 5 millivolts — 25 microamps on dry circuit applications.
When ordering, specify (1) catalog number.

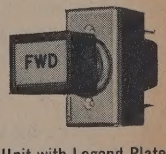
ILLUMINATED PUSHBUTTON TYPE

SPST momentary action.

Available with removable lamp or with an integral non-removable type lamp. Removable lamp types supplied with 14 V. bulbs. Integral lamp types furnished with 28 V. bulbs.

Tab type (.110″) terminals for solder or spade connection.

One hole mounting — bushing dia. 15/32″, bushing length ¼″. Rated 3 Amp. — 250 V. A-c, 6 Amp. — 125 V. A-c.



Unit with Legend Plate and Cap Assembly.

Contacts	Removable Lamp Type	Integral Lamp Type	Terminals
N. O.	8452K6	8452K4	.110 tab or solder lug
N. C.	8453K6	8453K5	.110 tab or solder lug
Lamp Only	8454K7	8454K5	.110 tab or solder lug

When ordering, specify (1) catalog number.

CUTLER-HAMMER, Inc., Milwaukee, Wis.

68 Local Sales Offices and over 150 Distributors across the nation to serve you.

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C-H CONTROL

CUTLER-HAMMER SWITCHES

See your local C-H representative for prices and accessory information.

"Military Application"

ONE HOLE MOUNTING

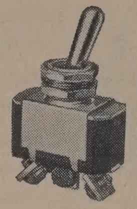
SEALED LEVER

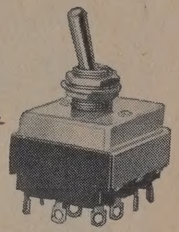
Built to satisfy and exceed military specifications, these switches feature a silicone rubber seal between bushing and lever for sand and dust protection, heavy gauge silver to silver contacts and extra strong terminal construction.

Metal parts visible when switch is mounted are dull nickel plated.

Switch guards and attachable tips are available as accessory items.

Nominal ratings — 10 Amp. — 115 V. A-c, 20 Amp. — 28 V. D-c. For specific ratings for various loads and voltages see your C-H representative. Max. weight 0.081 to 0.14 lb.


Cat. Nos. 8800, 8804, 8808, 8809, 8810, 8812


Cat. Nos. 7663, 7665, 7671, 7673, 7675

Circuit Arrangement A B C Keyway on "C" Side of Switch. Circuit is made on side opposite throw of lever.			Throws	Catalog Number					
				Single Pole		Double Pole		Four Pole	
				Screw Terminal	Solder Lug Terminal	Screw Terminal	Solder Lug Terminal	Screw Terminal	Solder Lug Terminal
ON	ON	ON	DT	....	....	8860	....	....	....
ON	ON	ON∗	DT	....	....	8860	....	....	....
ON∗	ON	ON∗	DT	....	....	8860	....	....	....
ON	ON∗	NONE	DT	....	....	†8830	†8831	....	....
ON	OFF	ON	DT	8800	8802	8820	8821	7662	7663
ON	OFF	ON∗	DT	•8809	8815	8832	8833	7670	7671
ON∗	OFF	ON∗	DT	8812	8818	8834	8835	7672	7673
△ON	OFF	NONE	ST	8801	8803	8822	8823	7660	7661
△ON	OFF∗	NONE	ST	8813	8819	†8828	†8829	7668	7669
ON	NONE	ON	DT	8810	8816	8824	8825	7664	7665
ON	NONE	ON∗	DT	8804	8805	8830	†8831	7674	7675
ON	NONE	OFF	ST	8801	8803	8822	8823	7660	7661
ON	NONE	OFF∗	ST	8813	8819	8828	†8829	7668	7669
OFF	NONE	ON∗	ST	8811	8817	8826	†8827	7666	7667
NONE	OFF	△ON∗	ST	8811	8817	†8826	†8827	7666	7667

∗Momentary contact.

△Indicates location where terminals are omitted.

•Available with jumper across outside terminals, order Cat. No. 8808.

†Not lever sealed.

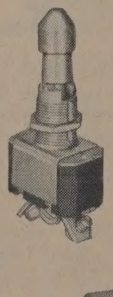
When ordering, specify (1) catalog number and (2) circuit arrangement.

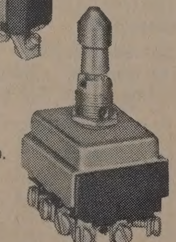
LEVER LOCK TYPE

These switches feature the same rugged construction as the standard switches listed above except that in addition they have a lever lock feature which permits the lever to be locked in the desired position. This feature prevents the switch from being tripped accidentally.

In order to operate the lever from a locked position, an upward pull must be exerted on the operating lever to disengage the lever from the milled slot.

Nominal ratings — 10 Amp. — 115 V. A-c, 20 Amp. — 28 V. D-c. For specific ratings for various loads and voltages see your C-H representative.


Cat. No. 8857


Cat. No. 8859

LEVER LOCK TYPE (Cont'd)

Circuit Arrangement A B C Keyway on "C" side of switch. Circuit is made on side opposite throw of lever.			Catalog Number					
			Single Pole	MS No.	Double Pole	MS No.	Four Pole	MS No.
			8857-	**25125-**	**8858-**	**25126-**	**8859-**	**25127-**
ON	OFF	←ON	K-41	-3	K-40	-3	K-41	-3
ON	←OFF	ON	K-42	-5	K-42	-5	K-42	-5
ON→	OFF	←ON	K-43	-7	K-43	-7	K-43	-7
ON	←OFF→	ON	K-40	-2	K-40	-2	K-40	-2
ON→	←OFF→	←ON	K-39	-1	K-39	-1	K-39	-1
ON	←OFF	ON∗	K-46	-6	K-46	-6	K-46	-6
ON	OFF→	ON∗	K-51	...	K-51	...	K-51	...
ON∗	←OFF	ON∗	K-52	...	K-52	...	K-52	...
ON→	←OFF	ON∗	K-55	...	K-55	...	K-55	...
ON	←OFF→	ON∗	K-56	...	K-56	...	K-56	...
ON∗	←OFF→	ON∗	K-50	...	K-50	...	K-50	...
ON	←OFF	NONE	K-54	...	K-54	...	K-54	...
ON→	←OFF	NONE	K-49	-9	K-49	-9	K-49	-9
ON	NONE	←ON	K-45	-4	K-45	-4	K-45	-4
ON→	NONE	←ON	K-44	-8	K-44	-8	K-44	-8
ON	NONE	←OFF	K-47	...	K-47	...	K-47	...
ON→	NONE	←OFF	K-48	...	K-48	...	K-48	...
NONE	OFF→	ON∗	K-53	...	K-53	...	K-53	...

→ Indicates direction of movement against which lever is locked.

∗Momentary contact.

When ordering, specify (1) catalog number and (2) circuit arrangement.

FLUSH MOUNTING

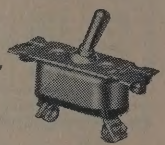
Two screw, flush mounting switches manufactured to meet current military specifications.

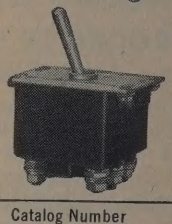
All switches have a formed steel support plate with integral 6-32 lock nuts, silver inlay on movable contact, fixed contacts of coin silver and extra heavy operating spring to insure positive contact pressure.

Attachable tips and switch guards, available as accessory items.

Metal parts visible when switch is mounted are dull nickel plated.

Max. weight — 0.10 - 0.19 lb.


Cat. Nos. 8201, 8211, 8213


Cat. No: 8791

Circuit Arrangement A B C C-H Insignia on "A" side of switch. Circuit is made on side opposite throw of lever.			Throws	Catalog Number			
				Nominal Ratings (per pole)			
				Single Pole			Double Pole
				15 Amp. 125 V. A-c 20 Amp. 28 V. D-c	60 Amp. 28 V. D-c ‡	55 Amp. 115 V. A-c 175 Amp. 28 V. D-c	20 Amp. 115 V. A-c 30 Amp. 28 V. D-c
ON	OFF	ON	DT	8200	8783	8780	8700
ON	OFF	ON∗	DT	8209	8787	....	8709
ON∗	OFF	ON∗	DT	8212	8786	....	8712
△ON	OFF	NONE	ST	....	....	....	8716
△ON	OFF∗	NONE	ST	....	....	....	8717
ON	NONE	ON	DT	8210	8785	8782	8710
ON	NONE	ON∗	DT	8215	....	....	8715
ON	NONE	OFF	ST	8201	8784	8781	8701
ON∗	NONE	OFF	ST	8211	....	....	....
ON	NONE	OFF∗	ST	8213	8789	....	8713
OFF	NONE	ON	ST	....	....	....	8711
OFF	NONE	ON∗	ST	....	8788	....	....
NONE	OFF	△ON∗	ST	....	....	....	8718
				Three Pole		Four Pole	Six Pole
				20 Amp. 115 V. A-c 25 Amp. 28 V. D-c	15 Amp. 240 V. A-c 80 Amp. 28 V. D-c	10 Amp. 115 V. A-c 20 Amp. 28 V. D-c	10 Amp. 115 V. A-c 20 Amp. 28 V. D-c
							8862-
ON	OFF	ON	DT	8742	8790	8880	K-3
ON	OFF	ON∗	DT	....	....	8887	....
ON∗	OFF	ON∗	DT	....	....	8888	....
ON	OFF	NONE	ST	....	....	....	K-2
△ON	OFF	NONE	ST	8740	....	8882	....
ON	NONE	ON	DT	8744	8792	8884	K-4
ON	NONE	OFF	ST	8740	8791	8882	K-1
OFF	NONE	ON∗	ST	....	....	8886	....
NONE	OFF	△ON∗	ST	....	....	8886	....

∗Momentary contact.

△Indicates location where terminals are omitted.

‡Momentary rating. Non-momentary rating — 80 amp. — 28 V. D-c.

When ordering, specify (1) catalog number and (2) circuit arrangement.

CUTLER-HAMMER, Inc.,
Milwaukee, Wis.

For your switching needs, ask for a specialist . . . C-H who has designed more switches for more applications than any other manufacturer.

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See your local C-H representative for prices and accessory information.

CUTLER-HAMMER SWITCHES

"Military Application"

FLUSH MOUNTING—Cont'd

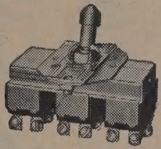
LEVER LOCK TYPE

Cat. No. 8271

This line of switches is identical to the standard flush mounting types as listed on the previous page except that they have, in addition to the standard features, a lever lock design which permits the lever to be locked into position. The operating lever must be pulled upward before it can be moved from a locked position.

All switches have screw type terminals.

Nominal Rating — 10 Amp. — 115 V. A-c, 20 Amp. —28 V. D-c. For specific ratings for various loads and voltages see your C-H representative. Max. weight 0.14 - 0.24 lb.

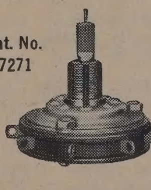


Cat. No. 8863

Circuit Arrangement A—B—C C-H Insignia on "A" side of switch. Circuit is made on side opposite throw of lever.			Throw	Catalog Numbers		
				Single Pole	Double Pole	Six Pole
						8863-
ON	←OFF	ON	DT	8272	8772	K-3
ON	OFF	←ON	DT	8276	8776	K-7
ON	←OFF	ON*	DT	8273	8773	....
ON	←OFF→	ON	DT	8270	8770	K-1
ON→	←OFF→	←ON	DT	....	8778	K-9
ON→	NONE	←ON	DT	8275	8775	K-6
ON	NONE	←OFF	ST	8271	8771	K-2
ON	NONE	OFF	ST	8277	8777	K-8
ON→	NONE	←OFF	ST	8274	8774	K-5
NONE	OFF→	ON△	ST	....	8771	....

*Momentary contact. △Indicates location where terminals are omitted.
→Indicates direction of movement against which lever is locked.
When ordering, specify (1) catalog number.

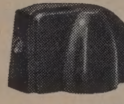
ROTARY SELECTOR SWITCH



Cat. No. 7271

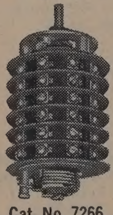
The C-H single or multi wafer selector switch is designed for applications where a large number of circuits must be controlled in consecutive steps. Switches have an indexing action which gives a positive "feel" as the shaft is rotated. Switches can be furnished with from 1 to 6 wafers with each wafer having 8 positions — 7 "on" and 1 "off". A total of 42 circuits can be controlled by one 6 wafer switch.

Nominal Rating — 5 Amp. — 28 V. D-c, 115 V. A-c For specific ratings for various loads and voltages see your C-H representative. One hole mounting. Bushing length — 15/32". Bushing dia. 15/32". Flatted shaft has ½" extension.



Cat. No. 53-635

Number of Wafers	Catalog Number			
	Screw Terminals	Max. Wt.—Lbs.	Solder Lug Terminals	Max. Wt.—Lbs.
One	7260	0.28	....	....
One	7261	0.16	7271	0.16
Two	7262	0.26	7272	0.21
Three	7263	0.32	7273	0.26
Four	7264	0.38	7274	0.31
Five	7265	0.45	7275	0.36
Six	7266	0.51	7276	0.41

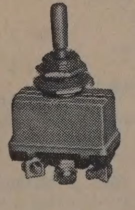


Cat. No. 7266

When ordering, specify (1) catalog number.

POSITIVE ACTION

ONE HOLE MOUNTING



Cat. No. 8836, 8840

The operating mechanism employed in the C-H line of "positive action" switches has a direct coupling arrangement between the operating lever and moving contacts which permit positive breaking action and still allows the contacts to move independently of the operating lever. The switching action takes place in less than 1° of movement on the operating lever. Once the contact movement is started the motion cannot be stopped until the switching is completed.

Cat. No. 8844, 8847

Switches are available with either the lever seal or environment seal. Both feature a silicone rubber seal bonded to the bushing and operating lever. They also are available in standard lever models or lever lock types. The lever lock switches have an integral bushing design which permits the operating lever to be locked into position. In order to move the lever from a locked position it must be pulled upward.

Nominal Rating — 25 Amp. — 28 V. D-c, 115 V. A-c on resistive loads. Max weight 0.1 - 0.2 lb. Bushing dia. 15/32". Bushing length 15/32".

CURRENT RATINGS FOR ALL SWITCHES (Amperes per pole)								
28 Volts D-c			115 V. 400 Cy A-c			115 V. 60 Cy. A-c		
Lamp Load 7	Resistive 25	Inductive 15	Lamp Load 7	Resistive 25	Inductive 15	Lamp Load 7	Resistive 20	Inductive 15

Circuit Arrangement A—B—C Keyway on "C" side of switch. Circuit is made on side opposite throw of lever.			Catalog Number					
			Environment Sealed			Lever Sealed		
			Single Pole	Double Pole	Four Pole	Single Pole	Double Pole	Four Pole
			8836-	8837-	8838-	8840-	8841-	8842-
ON	OFF	ON	K-1	K-1	K-1	K-1	K-1	K-1
ON	OFF	ON*	K-3	K-3	K-3	K-3	K-3	K-3
ON*	OFF	ON*	K-2	K-2	K-2	K-2	K-2	K-2
ON	OFF	NONE	K-6	K-6	K-6	K-6	K-6	K-6
ON	OFF*	NONE	K-8	K-8	K-8	K-8	K-8	K-8
ON	NONE	ON	K-4	K-4	K-4	K-4	K-4	K-4
ON	NONE	ON*	K-5	K-5	K-5	K-5	K-5	K-5
ON	NONE	OFF	K-9	K-9	K-9	K-9	K-9	K-9
ON	NONE	OFF*	K-10	K-10	K-10	K-10	K-10	K-10
OFF	NONE	ON*	K-11	K-11	K-11	K-11	K-11	K-11
NONE	OFF	ON*	K-7	K-7	K-7	K-7	K-7	K-7
		LEVER LOCK TYPE						
			8843-	8844-	8845-	8846-	8847-	8848-
ON→	←OFF→	←ON	K-1	K-1	K-1	K-1	K-1	K-1
ON	OFF	←ON	K-3	K-3	K-3	K-3	K-3	K-3
ON	←OFF	ON	K-4	K-4	K-4	K-4	K-4	K-4
ON	←OFF	ON*	K-8	K-8	K-8	K-8	K-8	K-8
ON	OFF→	ON*	K-13	K-13	K-13	K-13	K-13	K-13
ON*	←OFF	ON*	K-14	K-14	K-14	K-14	K-14	K-14
ON	←OFF→	ON	K-2	K-2	K-2	K-2	K-2	K-2
ON	←OFF→	ON*	K-18	K-18	K-18	K-18	K-18	K-18
ON*	←OFF→	ON*	K-12	K-12	K-12	K-12	K-12	K-12
ON→	←OFF	ON*	K-17	K-17	K-17	K-17	K-17	K-17
ON→	OFF	←ON	K-5	K-5	K-5	K-5	K-5	K-5
ON	←OFF	NONE	K-16	K-16	K-16	K-16	K-16	K-16
ON→	OFF*	NONE	K-22	K-22	K-22	K-22	K-22	K-22
ON→	←OFF	NONE	K-11	K-11	K-11	K-11	K-11	K-11
ON	NONE	←ON	K-7	K-7	K-7	K-7	K-7	K-7
ON→	NONE	ON*	K-20	K-20	K-20	K-20	K-20	K-20
ON→	NONE	←ON	K-6	K-6	K-6	K-6	K-6	K-6
ON	NONE	←OFF	K-9	K-9	K-9	K-9	K-9	K-9
ON→	NONE	OFF*	K-21	K-21	K-21	K-21	K-21	K-21
ON→	NONE	←OFF	K-10	K-10	K-10	K-10	K-10	K-10
OFF→	NONE	ON*	K-19	K-19	K-19	K-19	K-19	K-19
NONE	OFF→	ON*	K-15	K-15	K-15	K-15	K-15	K-15

*Momentary contact. **When ordering,** specify (1) catalog number.
→Indicates direction of movement against which lever is locked.

MINIATURE

These switches combine all of the construction and operating features of the standard size positive action switches plus ultra miniature size and light weight.

Nominal Rating — Wet Circuit, 4 Amp. — 28 V. D-c, Dry Circuit, 25 Micro Amp. — 5 Milli V. or less. For specific ratings for various loads and voltages see your C-H representative. Total weight — 5.0 - 6.5 grams. Bushing dia. ¼" for .440" lever and 15/32" for .667" lever switches. Gold plated solder lug terminals.

Cat. No. 8866

Cat. No. 8868

Circuit Arrangement A—B—C Keyway on "C" side of switch. Circuit is made on side opposite throw of lever.			Catalog Numbers			
			Single Pole		Double Pole	
			.440" Lever	.687" Lever	.440" Lever	.687" Lever
			8866-	8868-	8867-	8869-
ON	OFF	ON	K-1	K-1	K-1	K-1
ON	OFF	ON*	K-3	K-3	K-3	K-3
ON*	OFF	ON*	K-2	K-2	K-2	K-2
ON	OFF	NONE	K-5	K-5	K-5	K-5
ON	NONE	ON	K-4	K-4	K-4	K-4
ON	NONE	OFF	K-7	K-7	K-7	K-7
NONE	ON	ON*	K-8	K-8	K-8	K-8
NONE	OFF	ON*	K-6	K-6	K-6	K-6

*Momentary contact. **When ordering,** specify (1) catalog number.

The switches listed on these pages represent only a small fraction of the total number of small motor and appliance switches manufactured by C-H. Contact your local Sales Office or Distributor for more complete listings.

**CUTLER-HAMMER, Inc.,
Milwaukee, Wis.**

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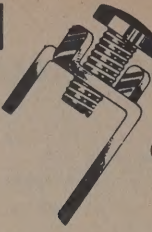
GC ELECTRONICS ELECTROCRAFT COMPONENTS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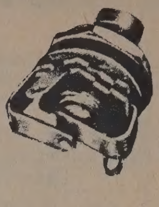
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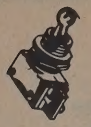
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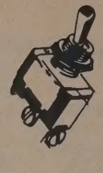
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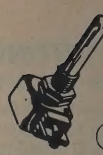
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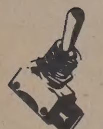
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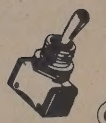
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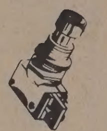
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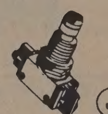
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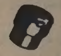
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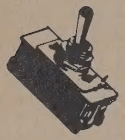
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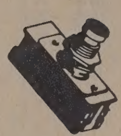
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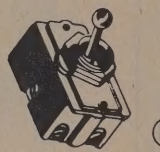
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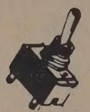
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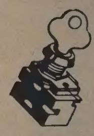

(P)

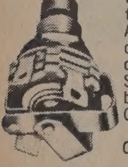
Cat. No. 33-900	Net $ .13
Cat. No. 33-901	Net $ .13
Cat. No. 33-902	Net $ .13
Cat. No. 33-903	Net $ .14
Cat. No. 33-930	Net $ .24
Cat. No. 33-931	Net $ .32
Cat. No. 33-932	Net $ .38
Cat. No. 33-934	Net $ .45
Cat. No. 33-935	Net $ .51
Cat. No. 33-936	Net $ .58
Cat. No. 33-937	Net $ .65

33-930-BU	2 Terminal	$20.40/C
33-931-BU	3 Terminal	$28.20/C
33-932-BU	4 Terminal	$34.20/C
33-934-BU	5 Terminal	$40.20/C
33-935-BU	6 Terminal	$46.20/C
33-936-BU	7 Terminal	$52.20/C
33-937-BU	8 Terminal	$58.80/C

(A) TERMINAL LUGS AND SCREWS—Designed for heavy duty terminal strips. Brass hot tinned lugs with screw inserted.
Cat. No. 33-940-BU Net $ 5.40/C

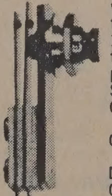
PUSH-BUTTON SWITCHES

All styles are momentary (non-locking) design, and are made with long-wearing nickel silver springs, carefully adjusted. Insulation is high grade phenolic.



STANDARD SMALL PUSH BUTTON SWITCHES—Can also be supplied with silver contacts for 3 amp, 115/V. AC rating (on special orders in production quantities).
Single "make"; black button.
Cat. No. 34-000 Net $ .57
Cat. No. 34-000-BU Net $51.66/C
Single "make"; red button.
Cat. No. 34-002 Net $ .57
Cat. No. 34-002-BU Net $51.66/C
Single "break"; black button.
Cat. No. 34-004 Net $ .57
Cat. No. 34-004-BU Net $51.66/C
Single "break"; red button.
Cat. No. 34-006 Net $ .57
Cat. No. 34-006-BU Net $51.66/C
Single "break-make"; black button.
Cat. No. 34-008 Net $ .63
Cat. No. 34-008-BU Net $57.51/C
Single "break-make"; red button.
Cat. No. 34-010 Net $ .63
Cat. No. 34-010-BU Net $57.51/C

(B) MIN. PUSH BUTTON SWITCHES—Made of the same materials and to the same specifications as standard small switches listed above.
Single "make"; black button.
Cat. No. 34-020 Net $ .57
Cat. No. 34-020-BU Net $51.66/C
Single "make"; red button.
Cat. No. 34-022 Net $ .57
Cat. No. 34-022-BU Net $51.66/C
Single "break" black button.
Cat. No. 34-024 Net $ .57
Cat. No. 34-024-BU Net $51.66/C
Single "break-make"; black button.
Cat. No. 34-026 Net $ .63
Cat. No. 34-026-BU Net $57.51/C



STRAIGHT FRAME PUSH BUTTON SWITCHES — Fine silver contacts with minimum resistance rated at 3 amp, 115/V, AC, non-inductive load. Standard push button is black.
Single "make-break".
Cat. No. 34-032 Net $ .75
Cat. No. 34-032-BU Net $69.00/C
Double "make".
Cat. No. 34-034 Net $ .82
Cat. No. 34-034-BU Net $75.00/C
Double "break".
Cat. No. 34-036 Net $ .82
Cat. No. 34-036-BU Net $75.00/C
Double "break-make".
Cat. No. 34-038 Net $ .97
Cat. No. 34-038-BU Net $90.00/C

ARROW-HART SWITCHES

These switches, made by A. H. & H. for GC Electrocraft, are UL approved. The threaded sleeves are slotted to positively prevent turning of switch if used in keyed hole.

(C) BALL HANDLE TOGGLE SWITCH—Light duty; SPST types rated 3 amps, 250/V; all others 1 amp, 250/V, 3 amps, 125/V, AC-DC.
SPST — 1/2" Shank.
Cat. No. 34-050 Net $ .75
SPST — 1" Shank.
Cat. No. 34-052 Net $ .90
SPDT — 1/2" Shank.
Cat. No. 34-054 Net $ .93
SPDT — 1" Shank.
Cat. No. 34-056 Net $1.15
DPST — 1/2" Shank.
Cat. No. 34-058 Net $1.32
DPST — 1" Shank.
Cat. No. 34-060 Net $1.50
DPDT — 1/2" Shank.
Cat. No. 34-062 Net $1.50
DPDT — 1" Shank.
Cat. No. 34-064 Net $1.65

(D) MEDIUM DUTY, NEUTRAL CENTER TOGGLE SWITCH—Rating 10 amps 250/V; 15 amps 125/V; 3/4 horsepower.
SPDT — 15/32" Shank.
Cat. No. 34-066 Net $1.02
DPDT — 15/32" Shank.
Cat. No. 34-068 Net $1.57

(E) ROTARY SWITCH—Laminated insulation; rating — SPST models, 3 amps, 25/V; all others 1 amp, 250/V-3 amps, 125/V, AC-DC.
SPST — 3/8" Shank.
Cat. No. 34-070 Net $ .93
SPST — 1" Shank.
Cat. No. 34-072 Net $1.12
SPDT — 3/8" Shank.
Cat. No. 34-074 Net $1.12
SPDT — 1" Shank.
Cat. No. 34-076 Net $1.20
DPST — 1" Shank.
Cat. No. 34-078 Net $1.62
DPDT — 3/8" Shank.
Cat. No. 34-080 Net $1.68
DPDT — 1" Shank.
Cat. No. 34-082 Net $1.68
ON-OFF PLATE—Fits all switches except slide and small canopy type.
Cat. No. 30-084 Net $ .08

(F) BAT HANDLE TOGGLE SWITCH—Light duty, laminated phenolic insulation. Rating SPST types, 3 amps, 250/V; all others 1 amp, 250/V — 3 amps, 125/V; AC-DC.
SPST — 15/32" Shank.
Cat. No. 34-086 Net $ .75
SPDT — 15/32" Shank.
Cat. No. 34-088 Net $ .93
DPST — 15/32" Shank.
Cat. No. 34-090 Net $1.32
DPDT — 15/32" Shank.
Cat. No. 34-092 Net $1.50

(G) WIRE LEAD TOGGLE SWITCH—Same switch as series listed above but with 6" wire leads.
SPST — 1/2" Shank.
Cat. No. 34-094 Net $ .97
SPST — 3/8" Shank.
Cat. No. 34-096 Net $ .97

(H) PUSH "ON" — PUSH "OFF" SWITCH—Laminated phenolic insulation; rating 3 amps, 250/V; 6 amps, 125/V, AC-DC. SPST.
Cat. No. 34-098 Net $1.32

(J) PUSH BUTTON, MOMENTARY SWITCH—2-circuit type; one circuit is normally "on" — the other is "off". Laminated phenolic insulation, rated at 1 amp, 125/V. Solder terminals.
Cat. No. 34-100 Net $1.02

(K) Red plastic push button for above switch.
Black plastic push button for above switch.
Cat. No. 34-102 Net $ .27
Cat. No. 34-104 Net $ .27

(L) MEDIUM DUTY TOGGLE SWITCH—Quick, make and break design, rating 6 amp, 250/V; 12 amp, 125/V; 12 amps, 125/V; 1 HP. DPST.
Cat. No. 34-106 Net $1.38

(M) HEAVY DUTY PUSH BUTTON SWITCH: MOMENTARY ACTION — Molded plastic housing; rating 8 amps, 25/V; 16 amps, 125-250V; 1. HP. Push button switch.
Cat. No. 34-108 Net $2.05

(N) HEAVY DUTY TOGGLE SWITCH—240/V AC; transmitters, etc. Rating SPDT model 10 amps, 250/V; 15 amps, 125/V; other two types 5 amps, 250/V; 10 amps, 125/V.
DPDT.
Cat. No. 34-110 Net $ 4.95
3 PDT.
Cat. No. 34-112 Net $ 7.60
4 PDT.
Cat. No. 34-114 Net $10.11

(O) DELUXE TOGGLE SWITCH—1000/V rms — 60 cycle is desired. Rating SPDT model, 1 amp, 250/V; 6 amps, 125/V. All others 3 amp, 250/V; 6 amp, 125/V.
SPST — 15/32" Shank.
Cat. No. 34-120 Net $1.30
SPDT — 15/32" Shank.
Cat. No. 34-122 Net $1.47
DPST — 15/32" Shank.
Cat. No. 34-124 Net $1.83
DPDT — 15/32" Shank.
Cat. No. 34-126 Net $1.98

(P) LOCK SWITCH—Removable key; sleeve length 27/32"; rating 3 amps, 250/V; 6 amps, 125/V.
With key removable in open position only.
Cat. No. 34-150 Net $2.17
With key removable in open or closed position.
Cat. No. 34-152 Net $2.17
Key only.
Cat. No. 34-154 Net $ .22

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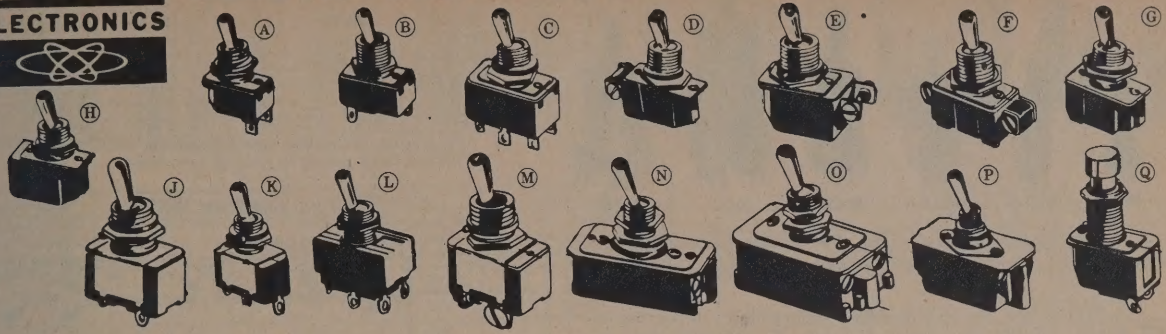
ELECTROCRAFT COMPONENTS SWITCHES · CABLE CLAMPS·

GC ELECTRONICS



These switches, made by Cutler Hammer Inc., for GC-Electrocraft, are all single hole mounting, UL Approved and supplied with threaded shank 15/32" long. Shanks are milled with keway to prevent any possible turning when used with a keyed hole in the panel.

(A) LIGHT DUTY, SMALL SIZE TOGGLE SWITCH—rating 3 amps, 250/V.
Cat. No. 34-180 SPST Net $ .72
Cat. No. 34-182 DPST Net 1.28
Cat. No. 34-184 DPDT Net 1.47

(B) "THREE WAY" AND "TWO CIRCUIT" SWITCH—Three way switch handles 2 circuits with common line; 3 terminals, with one terminal "common". Two circuit model 4 terminals, with no connections between circuits.
Cat. No. 34-186 SPDT (3-way) Net $ .90
Cat. No. 34-188 DPST (2-circuit) Net $1.10

CUTLER HAMMER SWITCHES

(C) MEDIUM DUTY TOGGLE SWITCH—solder lug connections; 3 amp, 250/V; 6 amp, 125/V, AC-DC.
Cat. No. 34-190 DPST Net $1.42
Cat. No. 34-192 DPDT Net $1.58

(D) LIGHT DUTY TOGGLE SWITCH—screw terminals, rating 3 amp, 250/V AC-DC.
Cat. No. 34-194 SPST Net $ .87
Cat. No. 34-196 DPST (2 pos. no "off") Net $1.68
Cat. No. 34-198 DPDT (2 pos. w/ off) Net $2.03

(E) MEDIUM DUTY TOGGGLE SWITCH—rating 6 amp, 125/V; 3 amp, 250/V.
Cat. No. 34-200 SPST Net $ .98
Cat. No. 34-202 DPDT (2 pos. w/ "off") Net $1.92

(F) LIGHT DUTY, 3-WAY SWITCH—rating 1 amp, 250/V; 3 amps, 125/V.
Cat. No. 34-204 SPDT Net $1.13

(G) LIGHT DUTY, WIRE LEAD SWITCH—rating 3 amps, 250/V, AC-DC.
Cat. No. 34-206 SPST 87

(H) MEDIUM DUTY WIRE LEAD SWITCH—rating 6 amp, 125/V; 3 amp, 250/V.
Cat. No. 34-208 SPST Net $ .98

(J) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V, 15 amp, 125/V and ¾ HP.
Cat. No. 34-210 SPST Net $ .72
Cat. No. 34-212 DPST (2 pos. on-off) Net $1.12

(K) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V; 15 amp, 125/V and 1 HP.
Cat. No. 34-214 SPDT (2 pos. no "off") Net $ .83
Cat. No. 34-216 3 PST (2 pos. on-off) Net $2.22
Cat. No. 34-218 3 PDT (no "off" pos.) Net $2.73

(L) MEDIUM-STD DUTY TOGGLE SWITCH—Designed for applications where rugged bat handle switch is required.
Cat. No. 34-220 DPDT lug (2 pos. w/ "off") Net $1.28
Cat. No. 34-222 DPST screw (2 pos. on-off) Net $1.28
Cat. No. 34-224 DPDT screw (2 pos. w/ "off") Net $1.58
Cat. No. 34-226 DPDT lug (3 pos. center off) Net $1.28

(M) MEDIUM-HEAVY DUTY TOGGLE SWITCH—Designed for applications where rugged bat handle switch is required.
Cat. No. 34-228 SPST screw (on-off) Net $ .83
Cat. No. 34-230 SPDT screw (no "off pos.) Net $ .98
Cat. No. 34-232 3 PST screw (2 pos. on-off) Net $2.58
Cat. No. 34-234 3 PDT screw (2 pos. w/ "off") Net $3.27
Cat. No. 34-236 SPDT (3 pos. center off) Net $ .83
Cat. No. 34-238 3 PDT (3 pos. center off) Net $2.73
Cat. No. 34-240 3 PDT (3 pos. center. off) Net $3.27

(N) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 6 amp, 250/V; 12 amp, 125/V, 1 HP.
Cat. No. 34-242 SPST Net $1.35
Cat. No. 34-244 DPST Net $1.35

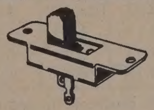
(O) HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V; 15 amp, 125/V, 1½ HP.
Cat. No. 34-246 SPST Net $2.33
Cat. No. 34-248 DPST Net $2.33

(P) EXTRA-HEAVY DUTY TOGGLE SWITCH—rating 20 amps, 250/V, 1½ HP, 125/250 V.
Cat. No. 34-250 DPST Net $3.27

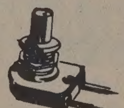
(Q) PUSH BUTTON, ON-PUSH-OFF SWITCHES—rating 3 amp, 250/V; 6 amp, 125/V; 11/16" shank length, single pole, single throw type.
Cat. No. 34-252 SPST with lug terminal Net $ .98
Cat. No. 34-254 SPST with screw terminal Net $1.12
Cat. No. 34-256 SPST with wire leads Net $1.12

MISCELLANEOUS SMALL SWITCHES

The switches listed below are widely used on electronic equipment, automotive applications and small electrical appliances.



SLIDE SWITCHES—UL approved for 1, ½ amp, 125/V. Mount with 2 screws #6 or rivets ⅛" with 1⅛" spacing.
1 amp.
Cat. No. 34-160 SPDT Net $ .17
½ amp.
Cat. No. 34-162 DPDT Net $ .20



ROTARY CANOPY SWITCH—With wire leads and 13/32" shank length. Rating 3 amps, 125/V, 1 amp, 250/V. Mounts in ⅜" hole.
Cat. No. 34-166 Net $ .30

GC ELECTRONICS

GC
INDUSTRIAL
CATALOG

GC Electronics
CATALOG FR-65-1 INDUSTRIAL
ELECTROCRAFT PLUGS & JACKS
HARDWARE
electronic INDUSTRIAL products
WIRE STRIPPERS ALIGNMENT TOOLS
CHEMICALS
KNOBS
GC ELECTRONICS COMPANY

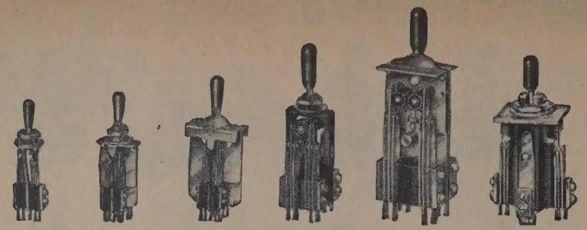
SEND FOR FREE

INDUSTRIAL CATALOG FR-65-1 ON ALL GC ELECTRONICS INDUSTRIAL PRODUCTS TODAY.

© U.C.P., Inc.

Net

A complete line of LEVER SWITCHES by GENERAL CONTROL COMPANY


MCS MCT-1 MCT-4 MCM MCL MFM

RATINGS

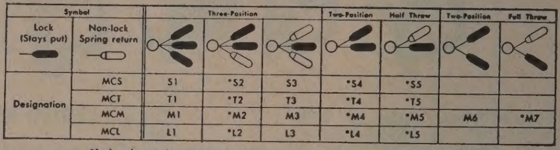
Type	*Amps.**	*High*	*Wide*	*Long***
MCS	1 or 3	⅞″	⅞″	2-1/16″
MCT-1	1 or 3	1¼″	¾″	2-5/16″
MCT-4	1 or 3	1½″	¾″	2-17/32″
MCM	5	1¼″	1¼″	2-25/32″
MCL	10	1¾″	1⅜″	3-15/16″
MFM	5	1¾″	1¾″	3″

**125 volts, 60 cycles, non-inductive.*
***From back panel to end of terminals.*

Write for data Sheet CLRM

MCS	Light-weight, miniature switch. Two contact sections. Single-hole mounting. Especially suited for Instruments and communications systems.
MCT	Small switch for multiple-circuit control. Four contact sections. Frames available for either single-hole or four-hole screw type mounting.
MCM	Widely used switch with multiple-position, ball-bearing detents. Four contact sections. Contact assemblies easily removed for wiring. Single-hole mounting.
MCL	Heavy-duty switch for constant use in electrical control. Rugged cam. Four contact sections; easily removed contact assembly. Four-hole mounting.
MFM	Versatile five-position switch with four contact sections—one neutral and four switch positions. Single-hole mounting.

LEVER OPERATION



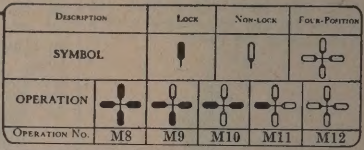
Symbol		Three-Position			Two-Position Half Throw		Two-Position Full Throw	
Lock (Stays put)	Non-lock Spring return							
Designation	MCS	S1	*S2	S3	*S4	*S5		
	MCT	T1	*T2	T3	*T4	*T5		
	MCM	M1	*M2	M3	*M4	*M5	M6	*M7
	MCL	L1	*L2	L3	*L4	*L5		

*Lock and non-lock positions may be reversed. To reverse designate as RS2, RM4, RL3, etc.

SPECIAL MCM LEVER

(A) waterproof lever
$4.05 EACH, LIST

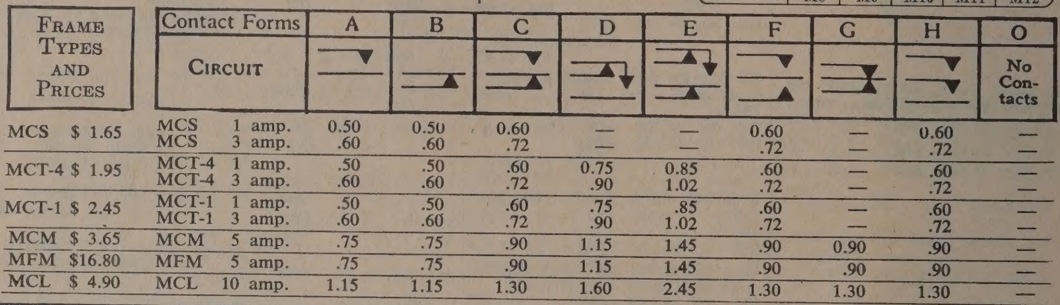
MFM



DESCRIPTION		LOCK	NON-LOCK		FOUR-POSITION
SYMBOL					
OPERATION					
OPERATION No.	M8	M9	M10	M11	M12

CONTACTS

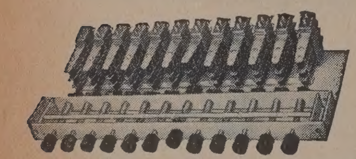
To obtain list price:— add contact prices to frame price.



FRAME TYPES AND PRICES	Contact Forms	A	B	C	D	E	F	G	H	O
	CIRCUIT									No Contacts
MCS $ 1.65	MCS 1 amp.	0.50	0.50	0.60	—	—	0.60	—	0.60	—
	MCS 3 amp.	.60	.60	.72	—	—	.72	—	.72	—
MCT-4 $ 1.95	MCT-4 1 amp.	.50	.50	.60	0.75	0.85	.60	—	.60	—
	MCT-4 3 amp.	.60	.60	.72	.90	1.02	.72	—	.72	—
MCT-1 $ 2.45	MCT-1 1 amp.	.50	.50	.60	.75	.85	.60	—	.60	—
	MCT-1 3 amp.	.60	.60	.72	.90	1.02	.72	—	.72	—
MCM $ 3.65	MCM 5 amp.	.75	.75	.90	1.15	1.45	.90	0.90	.90	—
MFM $16.80	MFM 5 amp.	.75	.75	.90	1.15	1.45	.90	.90	.90	—
MCL $ 4.90	MCL 10 amp.	1.15	1.15	1.30	1.60	2.45	1.30	1.30	1.30	—

PUSH-BUTTON SWITCHES by GENERAL CONTROL COMPANY

A complete heavy duty push button switch with either 1 amp. or 5 amp. ratings at 110/60 a.c. is available from two to sixteen positions. A right-angle MPB is also available where back-of-panel depth is limited, incorporating all of the operating features of the standard MPB. Three amp. switches are also available. It is possible to obtain the standard MPB switch stacked and/or intercoupled, providing all of the features of a single switch. Other variations of the standard MPB switch are also obtainable. Contact the factory with your requirements.


STANDARD MPB SWITCH

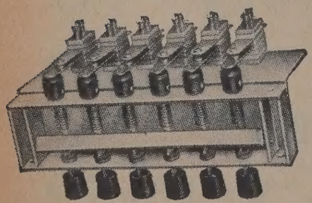
STANDARD and RIGHT-ANGLE FRAME PRICES

① FRAME TYPES		MPB-2	MPB-3	MPB-4	MPB-5	MPB-6	MPB-7	MPB-8	MPB-9	MPB-10	MPB-11	MPB-12
CONTACT POSITIONS		2	3	4	5	6	7	8	9	10	11	12
*Accumulative Lock	B-13	See note	8.15	10.55	12.95	15.30	17.70	20.05	22.45	24.85	27.20	30.30
No Two Interlock	B-14	6.70	7.25	9.05	10.80	12.60	14.35	16.10	17.90	19.65	21.45	23.90
Lock Release	B-15	6.10	6.35	7.80	9.25	10.75	12.20	13.65	15.15	16.60	18.05	20.25
Non-Lock	B-16	6.10	6.35	7.80	9.25	10.75	12.20	13.65	15.15	16.60	18.05	20.25

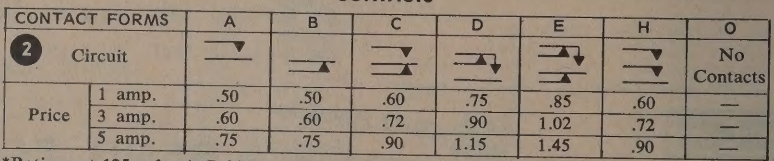
*Reset button requires one position in addition to standard contact positions. Reset button is on right-hand side unless otherwise specified.

*Reset button normally actuates no contacts but **can** be used to actuate **momentary** contacts if required.

*For applications over 12 positions, contact the factory.


RIGHT-ANGLE MPB SWITCH

CONTACTS



CONTACT FORMS		A	B	C	D	E	H	O
② Circuit								No Contacts
Price	1 amp.	.50	.50	.60	.75	.85	.60	—
	3 amp.	.60	.60	.72	.90	1.02	.72	—
	5 amp.	.75	.75	.90	1.15	1.45	.90	—

*Ratings at 125 volts A-C, N.I.

PUSH BUTTON OPERATION

③ OPERATION	ACCUMULATIVE LOCK	NO TWO INTERLOCK	LOCK RELEASE	NON-LOCK
Description	Buttons pushed in remain locked in position until released by pushing reset button.	Only one button can be pushed in at one time, and releases any other button.	Any button pushed in releases any previously pushed in button.	Has no locking action; returns to normal position on release of finger pressure.
Designation	B-13	B-14	B-15	B-16

Write for data sheet PBRM

ORDERING INFORMATION

When ordering, specify:
① Frame Type Standard MPB-6 Price: $10.75
② Push Button Operation B-15 ——
③ Contacts C1, C2, C3, etc A-A-A-B-B-C +.75+.75+.75+.75+.75+.90
④ Contact Rating 5-amperes ——
⑤ Panel Thickness ⅛″ panel ——
= $15.40

NOTICE: All prices and specifications subject to change without prior notice. **General Control Company, Boston, Mass.**

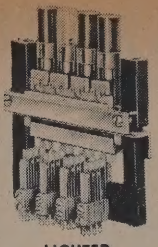
© U.C.P., Inc.

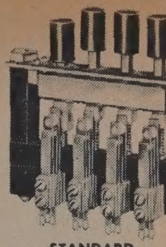
NEW Standard and Lighted Push Button Switches

FRAME PRICES

BUTTONS		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
B13	SPS	9.95	11.90	13.85	16.50	19.15	21.80	24.45	27.10	29.75	32.65	35.55	38.45	41.35	44.25	47.15
	LPS	18.40	23.15	27.75	33.40	39.05	44.70	50.35	56.00	62.90	69.05	76.60	81.35	87.50	93.65	99.80
B14	SPS	9.40	10.60	12.00	13.90	15.80	17.70	19.60	21.50	23.65	25.80	27.95	30.10	32.25	34.40	36.55
	LPS	17.85	21.85	25.90	30.80	35.70	40.60	45.50	50.40	56.80	62.20	67.60	73.00	78.40	83.80	89.20
B15	SPS	8.45	9.65	10.85	12.75	14.65	16.55	18.45	20.35	22.25	24.40	26.55	28.70	30.85	33.00	35.15
	LPS	16.90	20.90	24.75	29.65	34.55	39.45	44.35	49.25	55.40	60.80	66.20	71.60	77.00	82.40	87.80
B16	SPS	7.45	8.40	9.35	11.20	13.05	14.90	16.75	18.60	20.45	22.50	24.60	26.70	28.80	30.90	33.00
	LPS	15.90	19.65	23.25	28.10	32.95	37.80	42.65	47.50	53.60	58.90	64.25	69.60	74.95	80.30	85.65

Note: Additional frame operations available. Contact General Control.


LIGHTED


STANDARD

OPERATION

Accumulative Lock	No Two Interlock	Lock Release	Non-Lock
Buttons pushed in remain locked in position until released by pushing reset button.	Only one button can be pushed in at one time, and releases any other button.	Any button pushed in releases any previously pushed in button.	Has no locking action; returns to normal position on release of finger pressure.
B-13	B-14	B-15	B-16

CONTACTS

	A	B	C	D	H
1 amp silver	.50	.50	.60	*	.60
3 amps paladium alloy	.60	.60	.72		.72
↑ Direction of Throw					

Ratings at 125 volts A. C. n.i. * In place of a "D" contact we can offer a "C" contact adjusted to provide make before break operation.

WRITE FOR DATA SHEET SLRM

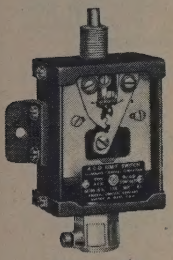
ORDERING INFORMATION

1. Frame Type	2. Operation	3. Contacts	4. Rating	5. Panel Thickness	
SPS4	B14	A-C-2A-2C	3 amps	1/8"	
$12.00	—	.60+.72+1.20+1.44	—	—	= $15.96

Limit Switches by General Control Company

A.C.O. LIMIT SWITCH

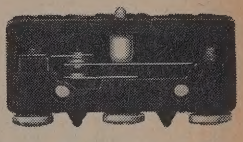
A General Control FIRST


Patent No. 2,610,274

- Alternate Contact Operating Switch
- Industrial on-off switch
- Machine tool dependability
- Single 5/8" hole, or bracket mounting
- Overtravel
- Contacts—Gcco du. op switch
- Dimensions: Width 3½" with mounting brackets
  2⅝" with 5/8" hole
  Length: 4 27/32"
  Depth: 1½"

Write for Data Sheet ADRM

Du.op LIMIT SWITCH



The General Control du.op is a positive action limit switch. The centrally located plunger acts directly on the phosphor-bronze moving blade of the type C contacts resulting in an unusually long life and dependable limit switch.

Basic Price	Arrange.	Oper.	Actuating Force	Gap	Travel to Close Contact	Over-travel
DU-S 2.50	SPDT	SPDT S-R	2-6 oz.	.020"	.020"	.015"

Ratings — 10 amperes 125VAC; n.i.; 5 amperes 230VAC; n.i.
Note: Other models available. Contact General Control.

"Footrol" FOOT SWITCHES by GENERAL CONTROL COMPANY

FOOTROL® GENERAL CONTROL

TYPE MA A new light weight foot switch with an actuating treadle built into its top to permit operation with unusually light foot pressure. A completely enclosed limit switch forms the internal switch action. Especially recommended for fast operation where minimum fatigue is important. Access to the internal limit switch terminals is greatly facilitated by simply removing the front end of the casting.

TYPE MI An ideal treadle-type foot switch, especially convenient for many applications. Inclined, non-slip tread has an adjustable throw and includes a heel rest. Two operating pressures: 5 lbs. and 10 lbs. Mounting ears are provided on each side. A BX connector is mounted in the base, and terminal access is by a removable base plate.

TYPE MC Especially adapted for unusual applications and hard use. Easily operated for foot, knee, hand, or elbow. Non-slip tread top may be operated at any point of its surface.

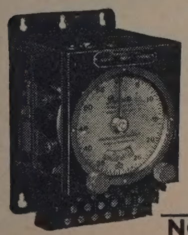
Since 1934, General Control Company has been a foremost manufacturer of Foot Switches. These are products of the highest quality; built for rugged industrial and commercial applications such as: bowling alleys, packaging machinery, super-market conveyor belts, drill presses, indexing machines, etc.

Write for data sheet FSRM

TYPES			CONTACT TYPES	CONTACT OPERATION	RATING	WEIGHT (LBS)		
MA-3 $5.60	MC-13 $7.95	MI-23 $11.95		Double throw Spring return (ONE NORMALLY OPEN, ONE NORMALLY CLOSED)	20 amps	1½	2½	4½
—	—	MI-25 $13.75		First press transfers switch contacts Second press restores switch contacts (ONE NORMALLY OPEN, ONE NORMALLY CLOSED)	12 amps	4½		
—	—	MI-26 $16.65		1st half-throw closes 1st switch 2nd half-throw closes 2nd switch Spring Return	20 amps	4½		
—	—	MI-27 $13.90		Double pole Double throw Spring return (TWO NORMALLY OPEN, TWO NORMALLY CLOSED)	20 amps	4½		

*Available with heavy duty 20 amps rating at 250 V
Standard Foot Switches are available with mounting holes to accommodate special connectors used on shielded cable.

"Promatic" CONTROLS by GENERAL CONTROL COMPANY



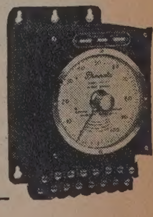
SYNCHRONOUS-MOTOR TIMER

The SeriesIII, Type SY, Synchronous-motor Timer has time ranges from 1 second up to 24 hours, available to match the Type ET Timer. Redesigned to incorporate the latest production and quality improvements. A new patented O-Ring clutch eliminates gears and costly maintenance problems. Time period easily adjusted and continuously indicated on large dial.

Write for data sheets SERM

ELECTRONIC TIMER

Type ET, Electronic Timer with ranges from .060 seconds to 60 seconds, are available in a variety of frame types, terminal arrangements, and mountings. The enclosed type or chassis model have back plates punched with universal mounting holes. Double pole, double throw auxiliary load contacts are rated at 10 amps., 125 volts a-c, n.i. Prices from $35.00 each, list.



NOTICE: Send for New Discount Sheets — General Control Company, Boston, Mass.

© U.C.P., Inc.

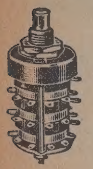
MINIATURE ROTARY TAP SWITCHES

SERIES 5000

Miniature Tap Switches

Series 5000 serves wide range of applications from automotive, to missile and navigation equipment. 36° indexing. 1 to 10 decks, 2 to 10 positions per deck. Conservatively rated to break 1 ampere, at 115 VAC, resistive, or carry 5 amperes. Life expectancy 100,000 operations.

Also available — Series 12 same as above except terminal soldered to contact rivet for improved contact resistance in corrosive atmospheres.



SERIES 24 and 24800

For Precision Requirements

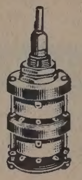
Series 24 designed for high reliability military and commercial applications. Positive detent action. 36° indexing. One pole per deck with shorting or non-shorting contacts — 1 to 10 decks, 2 to 9 positions with built-in stop, or 10 positions continuous rotation unless otherwise specified. Two poles per deck (non-shorting contacts only) also available. Rating: break 1 ampere, 115 VAC, resistive, or carry 5 amperes.

Series 24800, similar to Series 24, designed and tested to MIL-S-3786A (SR04E36B3HP) and MS16109B.

SERIES 45

Midget Tap Switch

For high reliability military and commercial applications demanding small size. Single deck, single pole only. 2 to 6 positions with stops standard on 2 to 5 positions, 6 positions continuous rotation unless otherwise specified. 60° indexing. Shorting and non-shorting base is molded melamine thermosetting plastic per MIL-M-14, Type CFG. Terminals are solder type brass, lead tin plate and fused. Conservatively rated to break 1 ampere at 115 VAC resistive circuit and to carry 5 amperes. Supplied with mounting nut.



SERIES 36 and 6

Miniature Concentric Shaft Switch

Series 36 fully enclosed tap switch with precision detent, permitting new flexibility, and allowing 2 switches to be mounted in space normally occupied by one. Each shaft controls one or two decks, with two to ten shorting, or non-shorting, positions per deck. Can be furnished in over 6500 combinations of decks and positions. Only 1" in diameter including solder lugs. Two poles per deck also available.

Series 6 similar to Series 36 except commercial detent and one pole per deck only.

Spring Return Rotary Switch

Same as Series #24 except momentary contact, spring return to either side of center position. Available 1 to 3 decks (incl.), one pole per deck, shorting or non-shorting contacts. Also available with up to 4 detent positions plus spring return position to either right or left of detent position.

PRICES ON REQUEST

PUSH BUTTON SWITCHES

LIGHTED PUSH BUTTON SWITCH

Equipped with a NE2 neon bulb, with light circuit independent of switch circuit. Switch rated at 1 amp. 115 VAC with approximate life of 500,000 operations. Normally open. Momentary contact. 3/8-32 threaded bushing, 7/16" max. dia., 1 1/4" behind panel length. Fine silver contacts. Solder type terminals.

No. 40-1—Normally open	**$2.00 ea.**

MINIATURE PUSH-PULL SWITCH

No. 30-16. Push-on, pull-off action, SPST. Normally Open. Rating: 1 ampere, 115 VAC resistive. Life expectancy 100,000 operations. 15/32-32 threaded bushing, 1/2" O.D. 1 1/2" overall length including terminals.

No. 30-16 (Red Button)	**$1.15 ea.**

MINIATURE PUSH BUTTON SWITCH

No. 30-17. Positive-feel, momentary contact, SPST. Normally Open only. Rating: 1 ampere, 115 VAC, resistive. Life expectancy approximately 200,000 operations. Incorporates .040" overtravel. Mounting hole 1/2" dia., 15/32-32 threaded bushing, 1.289" overall length including solder type terminals, snap-on red or black button cap, .375" dia.

No. 30-17R — Normally open (Red Button Cap)	**$1.40 ea.**
No. 30-17B — Normally open (Black Button Cap)	**$1.40 ea.**

SNAP ACTION SWITCH

Series 2201 and 2202 snap action, momentary contact, SPST, push button switch. Normally Open or Normally Closed available. Rating: 10 amperes, 115 VAC, resistive. Life approximately 50,000 operations. 15/32-32 threaded bushing, 7/8" O.D., 1 59/64" overall length including solder type terminals.

No. 7-21 and 7-22 same as above, except equipped with Faston terminals for solderless wiring.

No. 2201 — Normally open (Red Button)	**$1.95 ea.**
No. 2202 — Normally closed (Black Button)	**$1.95 ea.**
No. 7-21 — Normally open (Red Button)	**$2.20 ea.**
No. 7-22 — Normally closed (Black Button)	**$2.20 ea.**

SILENT ACTION SWITCH

Silent action, momentary contact, SPST, push button switch. Normally Open or Normally Closed available. Rating: 1/2 ampere, 115 VAC, resistive, for approximately 800,000 operations, or 1 ampere for approximately 100,000 operations. 15/32-32 threaded bushing, 51/64" O.D., 1 17/32" overall length including solder type terminals.

No. 4001—Normally open (Red Button)	**$0.70 ea.**
No. 4002—Normally closed (Black Button)	**$0.70 ea.**

DOUBLE POLE SWITCH

Silent action, Normally Open, momentary contact, DPST, push button switch. Rating: 1/2 ampere, 115 VAC, resistive. Life over 100,000 operations. Button and housing molded phenolic, 51/64" O.D., 1 17/64" overall length including solder terminals.

No. 35-1 (Red Button)	**$1.20 ea.**

MINIATURE PUSH BUTTON SWITCH

Silent action, momentary contact, Normally Open, SPST, switch rated at 1/4 ampere, 115 VAC, resistive. Life approximately 1/2 million operations. Button and housing molded phenolic. 5/16-32 threaded bushing, 1/2" O.D., 1 3/64" overall length including solder terminals.

No. 23-1 (Red Button)	**$0.85 ea.**

SUB-MINIATURE SWITCH

Series 30-1 silent action, momentary contact, SPST, push button switch. Normally Open or Normally Closed available. Rated at 1 ampere, 115 VAC, resistive. Life approximately 1,000,000 operations. Button and housing molded phenolic. 1/4-32 threaded bushing, 3/8" O.D., 63/64" overall length including solder terminals.

No. 30-15 same as above, except incorporates .056" overtravel with overall length of 1 1/16"

No. 30-1 — Normally open (Red Button)	**$0.95 ea.**
No. 30-2 — Normally closed (Black Button)	**$0.95 ea.**
No. 30-15 — Normally open (Red Button)	**$0.95 ea.**

ULTRA-MINIATURE SWITCH

Series 39-1 silent action, momentary contact, Normally Open, SPST, push button switch. Rated at 1/2 ampere, 115 VAC, resistive. Life over 1 million operations. Button and base molded phenolic. 1/4" O.D., 19/32" overall length including solder terminals.

No. 39-12 same as above, except with .040" overtravel and overall length of 3/4".

No. 39-1 (Red Button)	**$1.00 ea.**
No. 39-12 (Red Button)	**$1.15 ea.**

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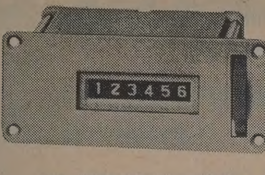
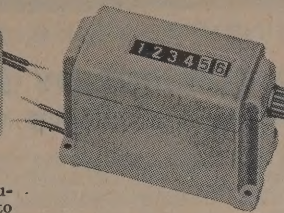
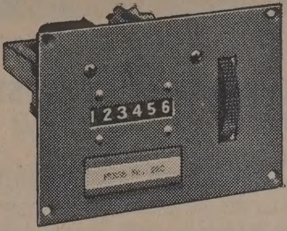
ELECTRIC COUNTERS & ACTUATORS



CE-600B Panelmount



CE-600A Basemount



CE-800B Panelmount

CE-800C Standard,
CE-800A Dustproof

PIC Electric Counters are actuated by electric impulses (12 to 150 AC or 12 to 220 DC) which may come from any suitable switch, relay, photoelectric unit or other circuit breaking device. Counters rated for 1000 counts per minute (cpm) require .030 second minimum closed period and .030 second minimum open period for each count. Counters rated at 600 cpm require .040 second minimum closed period and .060 second minimum open period for each count. Models are available for 12 to 230 v. AC and DC. Send for literature or write us for prices and deliveries.

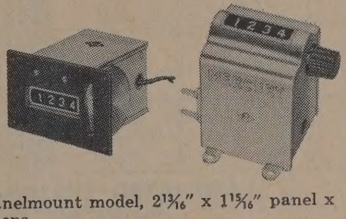
Also available in coin counting models.

CE-600 COUNTERS
TO 999,999, WITH RESET

Count life of 50 million; 1000 cpm (with suitable actuation); seven watts power consumption. Built-in rectification provides reliable operation on all AC voltages to 150 v. Quiet operation; no AC hum when energized. Continuous duty coils and balanced armature. White figures on black wheels are easy to read; die cast, dust resistant enclosure. No. CE600AS602, 1.668" w. x 3.5" d. x 2.5" h.; No. CE600BS602, 4.4375" x 1.875" panel x 2.6875" d.; No. CE600BK602, 5.5" x 2.125" panel x 2.812" d. Models listed are for 115 v. AC, 60 cps.

CE-600AS602	Basemount with knob reset. 1 to 9 Net	**$22.40**
CE-600BS602	Panelmount with knob reset. 1 to 9 Net	**24.00**
CE-600BK602	Panelmount with key reset. 1 to 9 Net	**33.00**

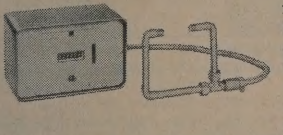
MERCURY COUNTERS
TO 9,999, WITH RESET



For laboratory use and industrial service where duty is moderate. Estimated life six million counts. Counting rate 600 cpm, higher with electronic actuation. Has white figures on black wheels. Coils consume three watts. Tamper-proof metal enclosure has plastic window. Size: Basemount model, 2¼" x 1 23/32" x 2 13/64" h.; panelmount model, 2 13/16" x 1 15/16" panel x 2 27/64" d. For 115 v. AC, 60 cps.

CE-40AS402	Basemount. 1 to 9 Net	**$15.25**
CE-40BS402	Panelmount. 1 to 9 Net	**15.95**

CE 650 PHOTOELECTRIC COUNTER
WITH REMOTE PHOTO HEADS

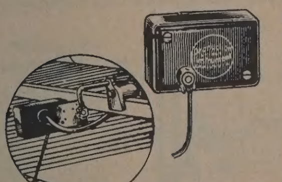


High speed 6 digit counter. A matched component package. Photoelectric actuation keyed to counter response thru transistorized amplifier. Operates reliably at high speeds (up to 2400 cpm). 50,000,000 count life. Photo heads furnished assembled and wired. Min. light time .0125 sec.; min. dark time .0125 sec.; min. speed of object thru beam 1.86 inches/sec. Prices on request.

CE 605 REMOTE DATA READOUT COUNTER
MANUAL RESET — 4 OR 5 DIGITS

Building block of system. Eliminates human error, reduces cost of manually reading and recording. Transmits counter reading electrically and visually. External circuits used to transmit accumulated totals in binary international or digital form. Manual reset knob or non-reset available. Max. speed 1000 counts per minute. Pulse 50 milliseconds, 50% on, 50% off. Low power consumption. 3/16" high numerals. Prices on request.

SENSITIVE ACTUATOR ES-41



Widely used on folding machines. Requires only ¾ in.-oz. torque. Arm motion: 24° min., 59° max. reciprocal; 10° to 45° overthrow. Arm position adjustable, easily shortened or bent. Rated speed, 300 cpm. SPST contacts rated 2 amps; 120 v. AC. Body size, 2½" x 1⅝" x 1⅝" d. Furnished with straight spring steel arm 2 13/16" long.

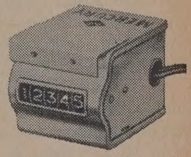
ES-41	Actuator. 1 to 9 Net	**$8.20**

CE-800 SUPER-WIZARD COUNTER
TO 999,999, WITH RESET

Has 200 million count life; 1000 cpm (with suitable actuation); only five watts power consumption. Built-in rectification provides top reliability from all AC voltages to 230 v. Continuous duty coils and balanced armatures for dependability. Large, white-on-black figures are easy to read. Standard enclosure has tamper-proof, die cast aluminum housing with staked window of unbreakable plastic; separate wiring compartment with independent cover is tapped for conduit. Dustproof enclosure has same housing with dustproof gasket seal and cement sealed window. Size: Standard and dustproof models, 3.12" w. x 5.94" l. x 4.69" h.; panelmount model, 5.19" x 3.50" panel x 4.39" d. Models listed are for 115 v. AC, 60 cps.

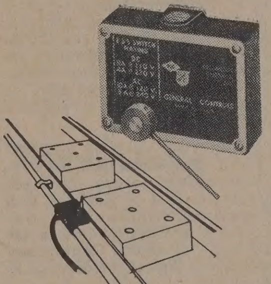
CE-800CS602	Std. enclosure, knob reset. 1 to 9 Net	**$43.00**
CE-800AS602	Dustproof enclosure, knob reset. 1 to 9 Net	**47.25**
CE-800BS602	Panelmount, knob reset. 1 to 9 Net	**41.50**

MERCURY COUNTERS
TO 99,999, NO RESET



Counts to 99,999 and then repeats. Widely used in vending machines and similar applications where duty is moderate. Estimated life, three million counts. Counting rate, 600 cpm. Coil consumes three watts. Has white figures on black wheels. Tamper-proof metal enclosure with plastic window. Size: Basemount model, 2¼" x 1 23/32" x 2 27/64" h.; panelmount model, 1 23/32" x 2 23/64" x 1 9/16" h. For 120 v. AC, 60 cps operation.

CE-40BN502	Basemount. 1 to 9 Net	**$7.75**
CE-40AN502	Panelmount. 1 to 9 Net	**8.35**



HEAVY DUTY ACTUATOR ES-5

Arm has spring return. For operation by boxes, cans, packages, etc. Minimum torque of 3 oz.-in. Arm motion: 31° min., 65° max., reciprocal; 10° to 42° overthrow. Arm position adjustable. Rated speed 300 cpm. SPST contacts rated 10 amps, 120 v. AC. Size: 3 9/16" x 2 9/16" x 1 17/32". Furnished with lever as shown in upper illustration.

ES-5	Actuator. 1 to 9 Net	**$9.85**

CE-620 ELECTRIC RESET ELECTRIC COUNTER

Developed to provide remote reset through manually, mechanically, electrically or electronically operated contacts. The CE620 includes a 6 digit CE600 electric counter with electrically operated reset mechanism mounted on a subpanel. Available with push button reset built into panel or with terminals provided for connecting remote contactor furnished by user. Also available in 7 digit and coin counting models.

CE-620BA602 Remote reset 120v 60 cy.
60 cy. 1 to 9 Net **$67.00**
CE-602BB602 Pushbutton reset 120v
60 cy. 1 to 9 Net **72.00**

Dimensions, overall 6" wide, 4" high, by ⅛" deep.

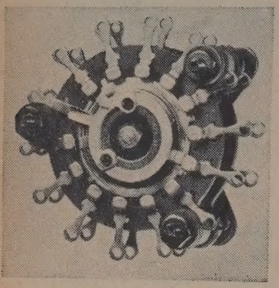
ITT GENERAL CONTROLS INC.
A SUBSIDIARY OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

LAMINATED SWITCHES

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

INSTRUMENT AND TESTER-TYPE ROTARY SWITCHES

14- and 20-Position — Single and Multi-Gang — Shorting and Non-Shorting

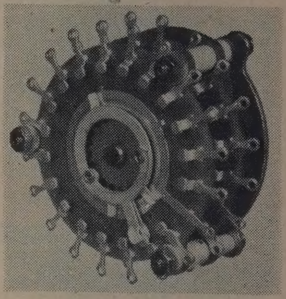


SS-14-2 Laminated

• USES — J-B-T Instrument-type Rotary Selector Switches are extensively used in quality test equipment, portable instruments, inspection setups, military or civilian avionics wherever trouble-free, dependable performance is of major importance. Available as a 14- or 20-position in laminated construction shown here or molded types described on opposite page—the design gives extra contacts in minimum space. One to six decks.

• FEATURES

Reliability — Rigid, 3-post deck suspension, instead of the usual 2; all current carrying parts are brass or phosphor bronze, silver flashed and then heavily plated with fine silver to meet 100 hour salt spray test; ball bearing action, beryllium-copper balanced spring (SS-14); leaf type (SS-20), and sharp detent assure positive indexing. Springs are replaceable without disturbing soldered connections. Laminated plastic decks and rotors are selected for maximum mechanical and dielectric strength. Insulation resistance above 50,000 megohms.



SS-20-2 Laminated

Low Contact Loss — Double-grip collector arms, and large-area contacts, silver to silver, result in an average contact resistance of .007 ohms or less.

Ample Dielectric (Conservatively Rated) — Carries 1 amp., 125 volts VAC, inductive load; maximum momentary capacity (not make-and-break), 5 amp, AC or DC; maximum voltage between contacts 1500 volts AC, R.M.S.; between decks and ground, 2000 volts AC, R.M.S.

Military or Commercial Variations — The following are typical of switches supplied on special order at extra cost: (a) laminated plastic, Type PBE-P per Spec. MIL-P-3115B; (b) fungus-proofing by vacuum impregnation of rotors, decks, spacers, and ceramic spacers using approved fungicides; (c) hot tin dip on contact surfaces to be soldered; (d) 14 or 20 live positions, no off (add suffix F, as SS-14-2F or SS-20-1F); (e) common position in non-standard location. For description of SS-14 materials, finishes, and government-quality features, see Print SK-42, Rev. B for SS-14, and Print SK-116 Rev. A for SS-20.

BASIC 14-POSITION (SS-14): 13 circuits and "off" per deck in 2" circle for compactness, angular indexing 25°43′. **1¼" Bar Knob (KN-14)** supplied only on individually boxed units—not on bulk orders unless specified. **Collector arm** normally placed directly opposite to flat of shaft so that knob pointer points to live contact. **Contact lugs** and common lugs positioned as shown below, 13 contacts per deck. **One to six decks;** for each additional deck (or gang) add 5/16" to depth. **Continuous rotation type** supplied unless otherwise specified. **Adjustable Stop** normally is supplied on standard cataloged switches. **Fixed Stops** can be supplied on quantity orders at moderate cost. **Panel locator** positioned as shown unless otherwise specified on bulk orders.

BASIC 20-POSITION (SS-20): 19 Circuits and "off" per deck in 2-23/32" circle for compactness, angular indexing 18°. **2" Bar Knob (KN-16)** supplied on individually boxed units—not on bulk orders unless specified. **Collector arm** normally placed directly opposite to flat of shaft so that knob pointer points to live contact. **Contact lugs** and common lugs positioned as shown below, 19 live positions per deck, standard. **One to six decks:** for each additional deck or gang add 5/16" to depth. **Continuous rotation** type supplied unless otherwise specified. **Panel locator** positioned as shown; can be modified on bulk orders.

COMBINATIONS IN SS-14 and SS-20 SERIES: Besides the military and commercial variations listed above, shorting and non-shorting decks can be assembled on the same switch shaft. Reference to the sketch below will be helpful in numbering decks and contacts when ordering non-standard assemblies. Specialized requirements for stainless steel shafts, no flats or double-flats on shaft, longer projections beyond bushing, and other variations can also be supplied, with necessarily longer delivery time and additional cost.

LAMINATED SWITCHES, SS-14 TYPE

14-POSITION, 25°43′ INDEXING

Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Short Non-Shorting	Standard Model	Max. (d) Depth Behind Panel	Boxed Incl. Knob
14	1	1	N-S	**SS-14-1**	27/32"	**$2.30**
5 (a)	2	1	N-S	**SS-14-1A (b)**	27/32"	**2.45**
14	1	1	S	**SS-14-1S (b)**	27/32"	**2.35**
14	1	1	C-S	**SS-14-1CS (c) (b)**	27/32"	**3.80**
14	1	2	N-S	**SS-14-2**	1 5/32"	**2.90**
5 (a)	2	2	N-S	**SS-14-2A (b)**	1 5/32"	**3.20**
14	1	2	S	**SS-14-2S (b)**	1 5/32"	**3.00**
14	1	2	C-S	**SS-14-2CS (c) (b)**	1 5/32"	**3.95**
14	1	3	N-S	**SS-14-3**	1 7/16"	**3.50**
14	1	3	S	**SS-14-3S (b)**	1 7/16"	**3.65**
14	1	4	N-S	**SS-14-4**	1 23/32"	**4.40**
14	1	6	N-S	**SS-14-6**	2 13/32"	**6.30**

LAMINATED SWITCHES, SS-20 TYPE

20-POSITION, 18° INDEXING

Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Short Non-Shorting	Standard Model	Max. (d) Depth Behind Panel	Boxed Incl. Knob
20	1	1	N-S	**SS-20-1**	23/32"	**$4.00**
6 (e)	2	1	N-S	**SS-20-1A (b)**	23/32"	**4.15**
20	1	1	S	**SS-20-1S (b)**	23/32"	**4.05**
20	1	2	N-S	**SS-20-2**	1 1/32"	**4.75**
20	1	2	S	**SS-20-2S (b)**	1 1/32"	**4.85**
20	1	3	N-S	**SS-20-3**	1 11/32"	**5.85**
20	1	4	N-S	**SS-20-4**	1 23/32"	**7.10**
20	1	6	N-S	**SS-20-6**	2 11/32"	**9.40**

(a) 5 positions include 4 "live" and 1 "off".
(b) Standard items, but not regularly stocked; check with your electronic parts distributor.
(c) Complete shorting—all contacts shorted except one in use.
(d) When adjustable stops are used, increase switch length behind panel by 3/32"; decrease effective bushing length by 3/32".
(e) 6 positions include 5 "live" and 1 "off".

Non-Shorting—Break before make. **Shorting**—Make before break.

ETCHED DIAL PLATES FOR ROTARY SWITCHES

For SS-14, MS-14, MS-14B, MAS-14, MAS-14B, SS-20, MS-20, or MS-20B Series. Dull black finish —with raised bright metal numerals, 2¾" diameter.

EP-13	off thru 13	**$0.23**
EP-14	1 thru 14	**.23**
EP-19	off thru 19	**.23**
EP-20	1 thru 20	**.23**

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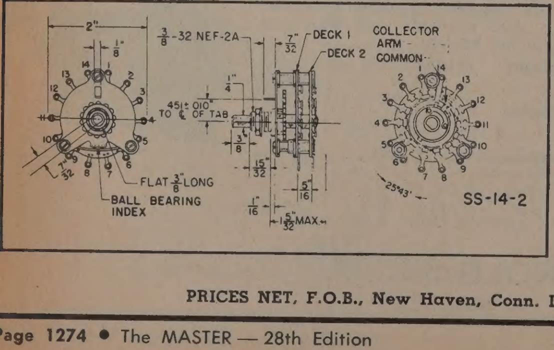
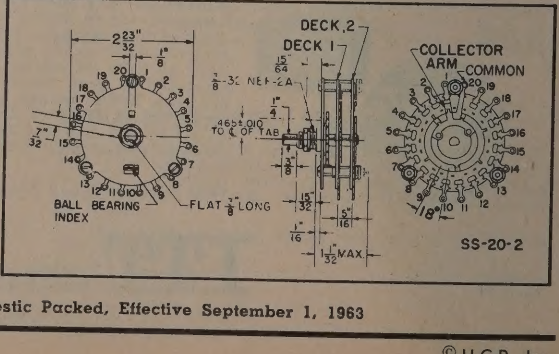


NOTE: Minor revisions in dimensioning of panel locator tab, length of threaded bushing, and overall depth have been made in this edition.



PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective September 1, 1963

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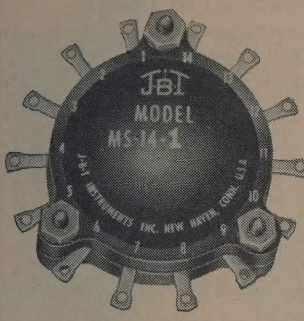
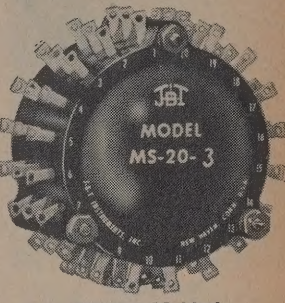
MOLDED SWITCHES

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

FULLY-ENCLOSED INSTRUMENT AND TESTER-TYPE ROTARY SWITCHES

Standard or Bonded Ruggedized Types—14- and 20-Position


MS-14-1 Molded


MS-20-3 Molded

- **All moving contacts enclosed—minimizes dirt and corrosion; 3-post deck suspension for rigidity; double-grip collector arms for positive contact; and rectangular drive shaft for precision indexing.**
- **Interchangeable, electrically and mechanically, with SS-14 and SS-20 laminated switches.**

FEATURES: See opposite page on SS types of laminated switches for current carrying capacity and voltage breakdown, also features such as heavy fine silver plating to meet 100-hour salt-spray testing; compact design; .007 ohm average contact resistance, and insulation resistance above 50,000 megohms. Besides fully enclosing all moving parts, the molded switches differ from the laminated construction in the design of the detent mechanism, but both types provide rigid 3-post construction and the positive indexing which clearly identify the quality of J-B-T switches. Test results are available on request covering certain procedures of MIL-E-5272A on insulation resistance; high and low temperature and temperature shock; humidity; altitude; salt spray; vibration; fungus resistance; rain; sand and dust; explosion; shock; and endurance values. (Ratings for MS-20-6DTS Types differ somewhat.)

★★★ **BONDED RUGGEDIZED TYPES**—As indicated in the tables, all molded rotary switches may be ordered with bonded construction as MS-14B or MS-20B types using cured laminations for ruggedization, shockproofing and further enclosure. Add cost of 35¢ per deck to catalog price of basic switch. Thus, 2-deck switch is MS-14B-2 at $3.80. Bonding adds approximately 1/64″ per deck.

BASIC 14-POSITION MOLDED (MS-14): 13 circuits and "off" per deck in 2-3/32″ circle for compactness. **Molded end cover** regularly supplied. 1½″ **Bar knob (KN-14)** included with individually boxed units—not on bulk orders unless specified. **Collector arm** placed directly opposite to flat of shaft, so that knob pointer points to live contact. **Common or "off"** contact lug is rounded and bent down for ready identification. **Extra decks** add 19/64″ per deck (or gang) to depth; for 7 decks and over add 1/2″ to depth for shaft support and 1/64″ per deck for bonding; if adjustable stop type also add 5/32″ to length. **Continuous rotation type** supplied unless adjustable stop (type MAS) is ordered or, on quantity orders, pre-set fixed stops (type MPS) are specified. **Panel locator** is available at extra cost on quantity orders when specified; on MS-14-4 and MS-14-6, extra hex nut and longer screw can be supplied for inverting supporting screw nearest common, thus converting into panel locator. **Complete dimensions:** for MS-14 switches, 1 to 6 decks, request Print SK-111, Rev. D, for 7 decks and over, SK-112, Rev. B.

BASIC 20-POSITION MOLDED (MS-20): 19 circuits and "off" per deck in 2-5/8″ circle for compactness. **Molded end cover** regularly supplied. **2″ Bar knob (KN-16)** included with individually boxed units—not on bulk orders unless specified. **Collector arm** placed directly opposite to flat of shaft so that knob pointer points to live contact. **Common or "off" contact lug** is rounded and bent down for ready identification. **Extra decks** add 19/64″ per deck to depth and, if 7 decks or more, 1/2″ for shaft support and 1/64″ per deck for bonding. **Continuous rotation type** supplied; on quantity order, pre-set fixed stops (type MPS) are available. **Panel locator** available at extra cost on quantity orders when specified; on MS-20-4 and MS-20-6, extra hex nut and longer screw can be supplied for inverting supporting screw nearest common, thus converting into panel locator. **Complete dimensions:** for MS-20 switches, 1 to 6 decks, request Print SK-113, Rev. D; for 7 decks and over, SK-114 Rev. C.

MOLDED SWITCHES, MS-14 TYPE
14-POSITION, 25° 43′ INDEXING

				STANDARD TYPE			BONDED-RUGGEDIZED		
Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Shorting Non-Shorting	Standard Model	Max. Depth Behind Panel	Boxed Incl. Knob	Bonded Model	Max. Depth Behind Panel	Boxed Incl. Knob
14	1	1	N-S	MS-14-1	27/32″	$2.45	MS-14B-1	7/8″	$2.80
14	1	1	S	MS-14-1S	27/32″	2.50	MS-14B-1S	7/8″	2.85
14	1	2	N-S	MS-14-2	1 3/32″	3.10	MS-14B-2	1 1/8″	3.80
14	1	2	S	MS-14-2S*	1 3/32″	3.20	MS-14B-2S*	1 1/8″	3.90
14	1	3	N-S	MS-14-3	1 13/32″	3.75	MS-14B-3	1 15/32″	4.80
14	1	4	N-S	MS-14-4	1 23/32″	4.85	MS-14B-4	1 25/32″	6.25
14	1	6	N-S	MS-14-6	2 13/32″	7.05	MS-14B-6	2 1/2″	9.15

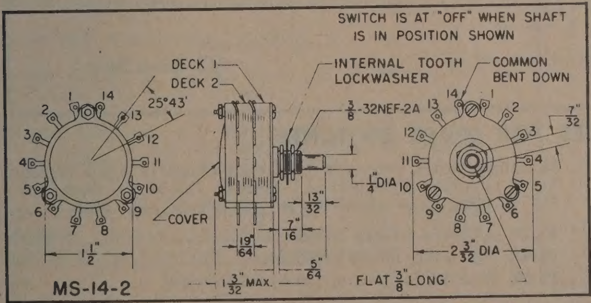
MOLDED SWITCHES, MS-20 TYPE
20-POSITION, 18° INDEXING

Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Shorting Non-Shorting	Standard Model	Max. Depth Behind Panel	Boxed Incl. Knob	Bonded Model	Max. Depth Behind Panel	Boxed Incl. Knob
20	1	1	N-S	MS-20-1	27/32″	$3.10	MS-20B-1	7/8″	$3.45
2	6	1	N-S	MS-20-1-6DT	27/32″	3.90	MS-20B-1-6DT	7/8″	4.25
2	6	1	S	MS-20-1-6DTS	27/32″	4.00	MS-20B-1-6DTS	7/8″	4.35
20	1	1	S	MS-20-1S	27/32″	3.15	MS-20B-1S	7/8″	3.60
20	1	2	N-S	MS-20-2	1 3/32″	3.90	MS-20B-2	1 1/8″	4.60
2	6	2	N-S	MS-20-2-6DT	1 3/32″	5.50	MS-20B-2-6DT	1 1/8″	6.20
20	1	2	S	MS-20-2S*	1 3/32″	4.00	MS-20B-2S*	1 1/8″	4.70
20	1	3	N-S	MS-20-3	1 13/32″	5.00	MS-20B-3	1 15/32″	6.05
20	1	4	N-S	MS-20-4	1 23/32″	6.20	MS-20B-4	1 25/32″	7.60
20	1	6	N-S	MS-20-6	2 13/32″	8.60	MS-20B-6	2 1/2″	10.70

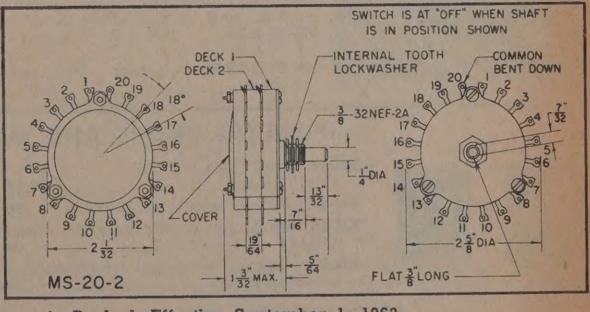
ADJUSTABLE STOP MOLDED SWITCHES, MAS-14 TYPE

Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Shorting Non-Shorting	Standard Model	Max. Depth Behind Panel	Boxed Incl. Knob	Bonded Model	Max. Depth Behind Panel	Boxed Incl. Knob
14	1	1	N-S	MAS-14-1	31/32″	$3.10	MAS-14B-1	1″	$3.45
14	1	1	S	MAS-14-1S	31/32″	3.20	MAS-14-B-1S	1″	3.55
14	1	2	N-S	MAS-14-2	1 7/32″	3.80	MAS-14B-2	1 1/4″	4.50
14	1	2	S	MAS-14-2S*	1 7/32″	3.95	MAS-14B-2S*	1 1/4″	4.65
14	1	3	N-S	MAS-14-3	1 17/32″	4.60	MAS-14B-3	1 19/32″	5.65
14	1	4	N-S	MAS-14-4	1 27/32″	5.70	MAS-14B-4	1 15/16″	7.10
14	1	6	N-S	MAS-14-6	2 17/32″	8.00	MAS-14B-6	2 19/32″	10.10

IMPORTANT: Enclosed adjustable stop mechanism increases switch length by 5/32″ behind panel; decreases effective bushing length by 3/32″; and shortens shaft extending from bushing by 1/16″. Rings RI-23 and RI-24 are supplied.
For more than 6 decks, request prices.
*Standard items, but not regularly stocked; check with your electronic parts distributor.
Non-Shorting—Break before make. **Shorting**—Make before break.



NOTE: Minor revisions in dimensioning overall length, thickness of extra decks as 19/64″, and length of shaft above threaded bushing have been made in this edition.



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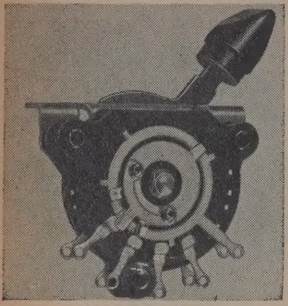
SPECIAL PURPOSE SWITCHES . . . . .

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

LEVER ACTION SWITCHES AND UNIQUE MOLDED SWITCHES

6-, 5-, 4-, and 3-Position Lever Switches—6-Pole DT per Deck—Time Saving Ring-Contact Rotaries



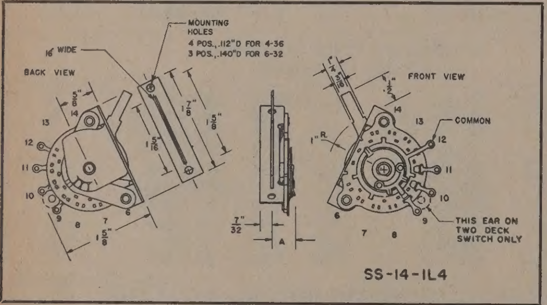
SS-14-1L4F-2
Two-Deck Lever-Action Switch

SINGLE DECK, POSITIVE INDEXING, 3- and 4-POSITION. These lever switches are derived from the J-B-T SS-14 instrument-type rotaries. Specified for tube checkers, inspection equipment, communications systems, control consoles, and other uses where quality is important. 4-position types are interchangeable with 3-position except in length of throw, and provide for an extra circuit. Individually-boxed switches come with mounting hardware and KN-17 knob as illustrated; bulk shipments, without knobs. Spacing between centers: recommended ¾″; minimum 9/16″. For dimensions, see drawing below. **Spring Return Type.** Single deck, 3-position switches may also be ordered with spring return. Lever returns to position 11, giving momentary action at positions 9 and 10.

TWO DECK. Same basic construction and packaging as single deck. Spacing between centers: recommended, 15/16″; minimum, 13/16″. ⅜″ between decks matches TV twinlead wires.

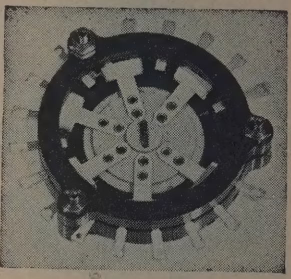
Positions Per Circuit	Circ. (Poles) Per Deck	Decks or Gangs	Short. Non-Short	Stand.* Contact Pos.	Model	Boxed Incl. Knob
3, no "off"	1	1	N-S	A	**SS-14-1L3**	**$1.00**
3, no "off"	2	1	N-S	B	**SS-14-1L3A**	**1.15**
3, no "off"	1	1	S	A	**SS-14-1L3S**	**1.05**
3, no "off"	1	1	N-S	A	**SS-14-1L3R†**	**1.15**
3, no "off"	1	1	S	A	**SS-14-1L3S-R†**	**1.20**
3, no "off"	1	2	N-S	A	**SS-14-1L3-2**	**1.70**
3, & "off"	1	1	N-S	C	**SS-14-1L4**	**1.10**
4, no "off"	1	1	N-S	D	**SS-14-1L4F**	**1.10**
4, no "off"	1	2	N-S	D	**SS-14-1L4F-2**	**1.90**
3, & "off"	1	1	S	C	**SS-14-1L4S**	**1.15**

*A—common at 12, contacts at 9, 10, 11; B—common at 9, 10, contacts at 6, 7, 8, 12, 13 14; C—common and off at 12, contacts at 9, 10, 11; D—common at 12, contacts at 8, 9, 10, 11.
†—Spring Return.



Dimensions A=⅜″ on 1-deck Switches; ⅝″ on 2-deck.
Non-shorting type with standard lever length is shown.

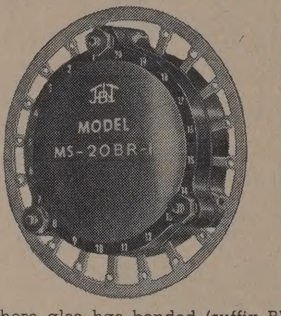
6-POLE DOUBLE-THROW PER DECK — 1 OR 2 DECKS



6-Pole Switches. Double-throw switching of 6 circuits per deck through two positions (18° throw) becomes easy with this unique rotary-type molded switch. It is fully enclosed and similar in appearance to the molded MS-20 switches on page 1275. Illustration at the right shows internal construction with back protective cover cut away. Circuit arrangement is designated on the metal front of the switch. Quality features include .007 ohm average contact resistance; heavy, fine-silver plating for 100-hour salt spray test; double-grip collector arms. Now available in non-shorting (break before make) and shorting (make before break) 2⅝″ maximum diameter, one deck 27/32″ behind panel; two deck, 1³⁄₃₂″ behind panel. DTS Shorting Types are rated 1500 volts R.M.S. between contacts and ground, 1000 volts R.M.S. between contacts.

Model	Description	Price
MS-20-1-6DT	6-pole, double-throw (1 deck), non-shorting	**$3.90**
MS-20-1-6DTS	6-pole, double-throw (1 deck), shorting	**4.00**
MS-20-2-6DT	6 pole, double-throw (2 decks), non-shorting	**5.50**

NEW IDEA: RING-CONTACT SWITCHES



Perfect connections between adjacent switch contacts are assured because this distinctive design needs no soldered jumpers. An integral ring which holds together all the contacts on each deck can be snipped wherever wanted—to save valuable time in development and pilot runs. For production lots, J-B-T can supply various combinations of joined and unjoined contacts to slash the user's assembly costs and build-in quality. The ring-contact adds 7/32″ o.d. to the MS-14 or MS-20 types listed on page 1275 (prints SK-88 Rev. C and SK-89 Rev. C respectively). The MS-20BR-1 shown here also has bonded (suffix B) construction. Switches listed below are normally available. Others such as 3-decks, 6-decks, shorting, etc., require substantial lead time.

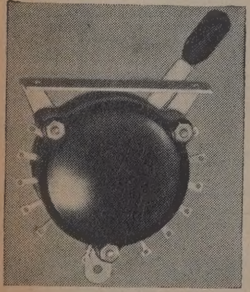
RING-TYPE MOLDED SWITCH MS-14R
(14-position; angular indexing 25° 43′; o.d. 2-5/16″)

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MS-14R-1	14	1	1	N-S	27/32″	**$2.75**
MS-14R-2	14	1	2	N-S	1 3/32″	**3.65**
MS-14R-4	14	1	4	N-S	1 23/32″	**5.90**

RING-TYPE MOLDED SWITCH MS-20R
(20-positions; angular indexing, 18°; o.d. 2-27/32″)

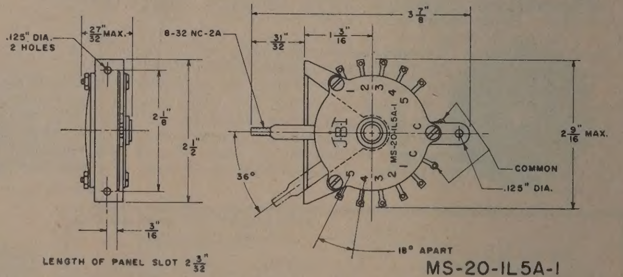
Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MS-20R-1	20	1	1	N-S	27/32″	**$3.40**
MS-20R-2	20	1	2	N-S	1 3/32″	**4.45**
MS-20R-4	20	1	4	N-S	1 23/32″	**7.25**

5- & 6-Position Lever Switch



MOLDED 5- and 6-POSITION, POSITIVE-INDEXING. Designers and servicemen now have available 5 or 6 live positions, two circuits per deck, in an enclosed lustrous black molded construction. Both switches are adapted from the MS-20 series and have similar electrical characteristics. Besides sound systems, these models can simplify circuitry for control, inspection, test, experimental, and hobby purposes. Individually-boxed switches come with mounting hardware and KN-20 threaded black molded knob; bulk shipments, without knobs. For mounting data see SK-64, Rev. H on 5-position and SK-119, Rev. B on 6-position.

Model	Description	Price
MS-20-IL5A-1	5-position, 2-circuit (1 deck)	**$3.25**
MS-20-IL6A-1	6-position, 2-circuits (1-deck)	**3.50**



PUSH-ON KNOBS AND MOUNTING PLATES FOR LEVER SWITCHES

Model	Description	Price
KN-17	black, pointed with metal insert	**$0.14**
KN-18	walnut, same as KN-19	**.06**
KN-19	black, round, flat-type, no insert needed	**.06**
KN-20	black, threaded, for molded lever switches	**.14**

Mounting Plates. Stamped .035″ steel plates in black crackle finish simplify alignment of 3-position 1L3 single deck models. Spacing between slots, ¾″; all plates 2⅝″ high.

Model	Description	Price
PL-36	¾″ wide, for one switch	**$0.30**
PL-37	1½″ wide, for two switches	**.40**
PL-38	3″ wide, for four switches (illustrated)	**.45**

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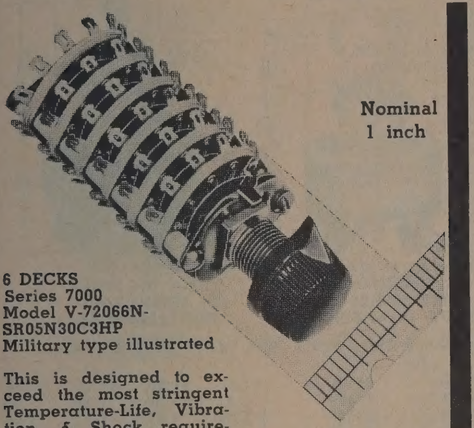
• • • • • • • • • SUB-MINIATURE SWITCHES

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

NEW! HIGH PERFORMANCE SR05 TYPES TO MIL-S-3786A—ALSO V- AND X-SERIES

Versatile 12-Position—30° Indexing—Patented Single- and Dual-Duty Deck—Rotary and Lever Types



6 DECKS
Series 7000
Model V-72066N-SR05N30C3HP
Military type illustrated

This is designed to exceed the most stringent Temperature-Life, Vibration, & Shock requirements of MIL-S-3786A

- **Precision-built for Low-Current Usage where Size, Weight, Reliability Are Important**
- **Unusual Versatility—More Contacts per Deck**
- **Accelerated Snap-Action Detent**
- **MIL Materials Throughout for Military & Non-Military Applications**

Note 1: New terminals shown above have hole to accept two 0.032" dia. wires, and supersede solid T terminals formerly supplied.

Note 2: Switches made to Amendment 2 of MIL-S-3786A normally will be supplied with epoxy glass terminal marking plate at the rear of switch. This does not alter overall switch dimensions.

● **USES—For test equipment, airborne and transistorized equipment, geophysical apparatus, and other miniaturized electrical and electronic devices.**

TYPES—Military Style SR05 Switches are numbered for specific performance characteristics stipulated in MIL-S-3786A; 1/4" shaft; bushing 3/8" dia., 3/8" long; and non-turn device mandatory. **V Type Switches** are similar in construction to SR05 but do not undergo full military test procedures.

X Type Switches use the same materials as V type switches but are intended as replacements for previous models or as original components for non-military devices where requirements are similarly exacting. Differences include 1/8" dia. stainless steel shaft and 1/4" dia. bushing, 1/4" long; non-turn device normally supplied.

POSITIONS—Series 7000 in Any of the Above Types: Up to 12 live switching contacts on the rear of the deck, and all pole contacts on the front of the same deck. — **Series 5000 in Any of the Above Types:** Up to 11 live switching contacts; maximum of four poles per side on both front and rear of the same **dual-duty** deck (8 poles per deck).

DECKS—Series 7000: 1 to 6 decks, standard.

Series 5000: 1 to 4 decks, standard.

LEVER SERIES (L Types): Made as VL-7000 or VL-5000 series, one to four decks.

KNOBS—Supplied with individually boxed switches on X and V types; not supplied on SR05 because separate military specification applies.

FOR ADDITIONAL MODELS AND FULL SPECIFICATIONS, REQUEST BULLETIN SM-32B AND LAYOUT SHEETS WITH CONTACT ARRANGEMENTS.

SPECIFICATIONS & TEST DATA ON SR05 MILITARY STYLE

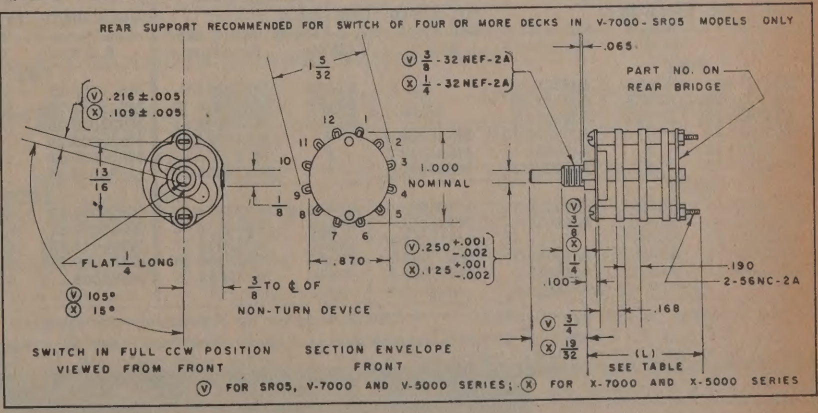
NOTE: Most of the values shown here are given in the Specification and do not indicate the extent to which the test results of J-B-T switches were more favorable.
Current-carrying capacity: 5 amps at standard ambient conditions.
Current-breaking capacity: 750 MA at 30 VDC; 300 MA at 120 VDC; 1 AMP at 115 VAC Non-Inductive.
Initial Contact Resistance: .005 ohms max.
Contact Resistance: To MIL-STD-202B-Method 307, which requires Initial—10 milliohms; After Moisture Resistance Test—15 milliohms; After Life Test—20 milliohms.
Materials: Terminals (double-wiping): gold-plated 90% silver alloy. **Rotor Contact:** 90% Silver Alloy. **Shaft & Frame:** Stainless steel, passivated.
Insulation: Wafer, glass epoxy laminate to MIL-P-18177C Type GEB, NEMA G-11; Rotor, ceramic to MIL-I-10A, Grade L-623.
Life Rotational; Temperature-Life Characteristic C, 25,000 rotational cycles at 10 cpm, Temperature —65°C to +125°C; 25,000 cycles at 70,000'.
Vibration: Grade 3 of Table III MIL-S-3786A 10 to 2000 cps. Tested in accordance with MIL-STD-202B, Method 204, Test Condition B.
SHOCK: Shock type H, High Impact per Table IV, MIL-S-3786A. Tested in accordance with MIL-STD 202B, Method 207. Mating contact did not open for more than 5 milliseconds; for Shock type M, Medium Impact, not more than 10 microseconds.

DECKS	Circ. (Poles) per Deck	Pos. per Pole	Shorting, Non-Shorting	SHAFT DIA.	V-TYPE OR X-TYPE Model	V-TYPE OR X-TYPE Price	SR05-TYPE Model	SR05-TYPE Price
ONE DECK	1	12	N-S	1/4"	**V-71121N**	$4.90	**V-71121N-SR05***	$5.25
	1	12	S	1/4"	**V-71121S**	4.90	**V-71121S-SR05***	5.25
	1	12	N-S	1/8"	**X-71121N**	4.70	—	—
	1	12	S	1/8"	**X-71121S**	4.70	—	—
	2	6	N-S	1/4"	**V-72061N**	5.00	**V-72061N-SR05***	5.35
	4	3	N-S	1/4"	**V-74031N**	5.20	**V-74031N-SR05***	5.50
ONE DUAL DUTY DECK	2	11	N-S	1/4"	**V-52111N**	5.25	**V-52111N-SR05***	5.60
	2	11	S	1/4"	**V-52111S**	5.25	**V-52111S-SR05***	5.60
	4	5	N-S	1/4"	**V-54051N**	5.35	**V-54051N-SR05***	5.70
	4	5	S	1/4"	**V-54051S**	5.35	**V-54051S-SR05***	5.70
	8	2	N-S	1/4"	**V-58021N**	5.55	**V-58021N-SR05***	5.90
TWO DECKS	1	12	N-S	1/4"	**V-71122N**	6.75	**V-71122N-SR05***	7.20
	1	12	S	1/4"	**V-71122S**	6.75	**V-71122S-SR05***	7.20
	1	12	N-S	1/8"	**X-71122N**	6.45	—	—
	2	6	N-S	1/4"	**V-72062N**	6.95	**V-72062N-SR05***	7.40
	4	3	N-S	1/4"	**V-74032N**	7.40	**V-74032N-SR05***	7.90
TWO DUAL DUTY DECKS	2	11	N-S	1/4"	**V-52112N**	8.10	**V-52112N-SR05***	8.65
	2	11	N-S	1/8"	**X-52112N**	7.75	—	—
	4	5	N-S	1/4"	**V-54052N**	8.30	**V-54052N-SR05***	8.85
THREE DECKS	1	12	N-S	1/4"	**V-71123N**	8.85	**V-71123N-SR05***	9.45
	2	6	N-S	1/4"	**V-72063N**	9.15	**V-72063N-SR05***	9.70
	4	3	N-S	1/4"	**V-74033N**	9.85	**V-74033N-SR05***	10.45
FOUR DECKS	1	12	N-S	1/4"	**V-71124N**	11.95	**V-71124N-SR05***	12.70
	1	12	N-S	1/8"	**X-71124N**	11.40	—	—
SIX DECKS	1	12	N-S	1/4"	**V-71126N**	16.05	**V-71126N-SR05***	17.10
ONE DECK LEVER	4	3	N-S	—	**VL-74031N**	$5.15	**Levers not in Specs.**	
	2	3	N-S	—	**VL-72031N**	5.05	" " " "	
	8	2	N-S	—	**VL-58021N**	5.35	" " " "	

* Typical MIL-S-3786A complete number is V-71121N-SRO5N30C3HP, unless specifically ordered otherwise. Temperature-Life Characteristic C also will meet Characteristic A or B requirements; Vibration Grade Symbol 3 will also meet Symbol 1 or 2 requirements. Shock Type H for High Impact does not automatically cover Type M, Medium Impact, which can be supplied upon order.

MAXIMUM DEPTH (L) BEHIND PANEL, INCHES

	1-Deck	2-Decks	3-Decks	4-Decks	5-Decks	6-Decks
Series V-7000-SR05 or X-7000	0.640	0.918	1.196	1.474	1.752	2.030
Series V-5000-SR05 or X-5000	0.640	0.918	1.196	1.474	—	—



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J-B-T®

TOGGLE SWITCHES

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

HEAVY DUTY—SINGLE-, DOUBLE-, & 4-POLE—GOVERNMENT QUALITY

OVER 130 MODELS OF MIL (MS), AN, AND JAN (ST) TYPES

• **ALL HEAVY DUTY MS and AN** models use solid **coin silver contacts and rocker arms,** exclusive in J-B-T construction, to add overload protection and keep contact resistance under .005 ohms. These and other features more than pay for themselves in trouble-free operation whether in normal use or exceptional environments.

MIL-S-3950A SERIES — Single-pole MS35058 with suffix —21 and above, and double-pole MS35059 types with suffix —21 and above are recommended when maximum reliability is required. Temperature, endurance, and altitude requirements exceed earlier MS types (suffix —1 to —19), AN3021 and AN3027 switches to MIL-S-6745, and ST styles to JAN-S-23 and MIL-S-21195A-(Ships). All MS switches contain a silicone rubber bushing seal to meet sand and dust and 15-foot head of water submersion tests.

NOMINAL RATINGS: 20 Amp. at 125 VAC, 10 Amp. at 250 VAC.

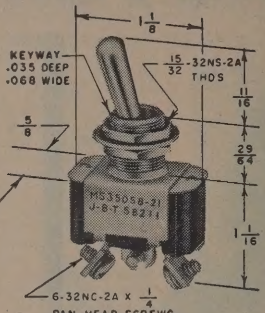
SIN LE AND DOUBLE POLE HEAVY DUTY WITH LEVER SEAL

MIL-S-3950A	Model No.	1	2-9	10-29	30-99
SPST — 2 term.					
On-X-Off	MS35058-22	$2.06	$1.65	$1.24	$1.01
On-Off-X	MS35058-24	2.14	1.71	1.28	1.05
On-Off*-X	MS35058-25	2.44	1.95	1.46	1.20
X-Off-On*	MS35058-28	2.45	1.96	1.47	1.20
On-X-Off*	MS35058-29	2.35	1.88	1.41	1.15
Off-X-On*	MS35058-30	2.35	1.88	1.41	1.15
SPDT — 3 term.					
On-Off-On	MS35058-21	2.44	1.95	1.46	1.20
On-X-On	MS35058-23	2.44	1.95	1.46	1.20
On-X-On*	MS35058-26	2.63	2.10	1.58	1.29
On*-Off-On*	MS25058-27	2.63	2.10	1.58	1.29
On-Off-On*	MS35058-31	2.68	2.14	1.61	1.31
DPST — 4 term.					
On-X-Off	MS35059-22	2.68	1.85	1.70	1.33
On-Off-X	MS35059-24	2.68	1.85	1.70	1.33
On-Off*-X	MS35059-25	3.54	2.44	2.23	1.77
X-Off-On*	MS35059-28	3.32	2.29	2.09	1.66
On-X-Off*	MS35059-29	3.32	2.29	2.09	1.66
Off-X-On*	MS35059-30	3.11	2.15	1.96	1.55
DPDT — 6 term.					
On-Off-On	MS35059-21	3.11	2.15	1.96	1.55
On-X-On	MS35059-23	3.11	2.15	1.96	1.55
On-X-On*	MS35059-26	3.54	2.44	2.23	1.77
On*-Off-On*	MS35059-27	3.54	2.44	2.23	1.77
On-Off-On*	MS35059-31	3.54	2.44	2.23	1.77

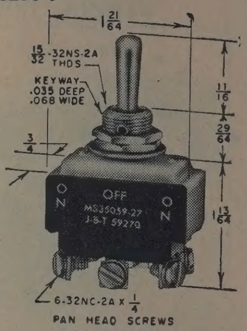
SINGLE AND DOUBLE POLE HEAVY DUTY

JAN-S-23	Model No.	1	2-9	10-29	30-99
SPST—2 term.					
On-X-Off	ST40A	$1.68	$1.34	$1.01	$ .87
On-X-Off*	ST40B	1.88	1.50	1.13	.97
Off-X-On*	ST40C	1.88	1.50	1.13	.97
SPDT—3 term.					
On-X-On	ST40D	2.02	1.62	1.21	1.04
On-Off-On	ST40E	2.02	1.62	1.21	1.04
On-X-On*	ST40F	2.22	1.78	1.33	1.14
On*-Off-On*	ST40G	2.22	1.78	1.33	1.14
On-Off-On*	ST40H	2.22	1.78	1.33	1.14
SPST—2 term.					
On-X-Off	ST42A	1.58	1.26	.95	.76
On-X-Off*	ST42B	1.76	1.41	1.06	.84
Off-X-On*	ST42C	1.76	1.41	1.06	.84

Ask for Bulletin TS-60 for Full Technical Data



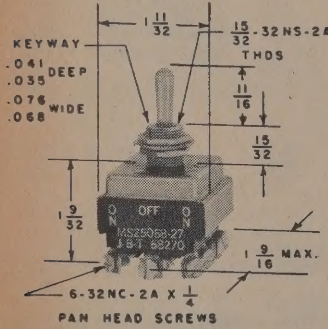
MS35058-21
SPDT, Lever Seal



MS35059-27
DPDT, Lever Seal

SINGLE AND DOUBLE POLE HEAVY DUTY (Cont'd.)

	Model No.	1	2-9	10-29	30-99
SPDT—3 term.					
On-X-On	ST42D	$1.87	$1.50	$1.12	$ .90
On-Off-On	ST42E	1.87	1.50	1.12	.90
On-X-On*	ST42F	2.09	1.67	1.25	1.00
On*-Off-On*	ST42G	2.09	1.67	1.25	1.00
On-Off-On*	ST42H	2.09	1.67	1.25	1.00
DPST—4 term.					
On-X-Off	ST50K	2.12	1.70	1.27	1.06
On-X-Off*	ST50L	2.49	1.99	1.49	1.25
Off-X-On*	ST50M	2.49	1.99	1.49	1.25
DPDT—6 term.					
On-X-On	ST50N	2.49	1.99	1.49	1.25
On-Off-On	ST50P	2.49	1.99	1.49	1.25
On-X-On*	ST50R	2.83	2.26	1.70	1.42
On*-Off-On*	ST50S	2.83	2.26	1.70	1.42
On-Off-On*	ST50T	2.83	2.26	1.70	1.42
DPST—4 term.					
On-X-Off	ST52K	1.93	1.54	1.16	.97
On-X-Off*	ST52L	2.16	1.73	1.30	1.08
Off-X-On*	ST52M	2.16	1.73	1.30	1.08
DPDT—6 term.					
On-X-On	ST52N	2.16	1.73	1.30	1.08
On-Off-On	ST52P	2.16	1.73	1.30	1.08
On-X-On*	ST52R	2.51	2.01	1.51	1.26
On*-Off-On*	ST52S	2.51	2.01	1.51	1.26
On-Off-On*	ST52T	2.51	2.01	1.51	1.26



OUTSTANDING 4-POLE SERIES

• There is no mistaking the light brown color and silver printing of these distinctive J-B-T 4-pole heavy-duty switches. The superior molded body, chosen after extensive tests, features high arc resistance and low shrinkage. As a result the switches exceed the rigorous electrical endurance requirements of MS-25068.

Equally important, the internal construction uses rocker arms and contacts made of solid coin silver (not clad or brazed). The 8 models listed here have silicone rubber bushing seals and solderable 6-32 screw terminals, the same as other heavy-duty MS switches.

4-POLE HEAVY DUTY WITH LEVER SEAL

MIL-S-3950A	Model No.	1	2-9	10-29	30-99
4PST—8 term.					
On-Off-X	MS25068-24	$5.25	$4.20	$3.31	$2.78
On-Off*-X	MS25068-25	6.20	4.96	3.91	3.29
X-Off-On*	MS25068-28	6.20	4.96	3.91	3.29
4PDT—12 term.					
On-Off-On	MS25068-21	6.10	4.88	3.84	3.23
On-X-On	MS25068-23	6.20	4.96	3.72	3.10
On-X-On*	MS25068-26	6.58	5.26	4.15	3.49
On*-Off-On*	MS25068-27	6.58	5.26	4.15	3.49
On-Off-On*	MS25068-31	6.58	5.26	4.15	3.49

MODEL NUMBERS WITH SIMILAR CIRCUITRY

SCREW TERMINAL				SOLDER LUG	
MIL-S-3950A See Notes A & B	JAN-S-23 & MIL-S-21195A	MIL-S-6745 See Note A	MIL-S-3950 See Notes A & B	JAN-S-23 & MIL-S-21195A (Ships)	MIL-S-3950 See Note A
SPST					
MS35058-22	ST40A	AN3021-2	#	ST42A	MS35058-9
MS35058-29	ST40B	AN3021-9	#	ST42B	MS35058-10
MS35058-30	ST40C	AN3021-8	#	ST42C	MS35058-11
MS35058-24	#	AN3021-10	MS35058-1	#	MS35058-12
MS35058-28	#	AN3021-11	MS35058-2	#	MS35058-13
MS35058-25	#	AN3021-12	MS35058-3	#	MS35058-14
SPDT					
MS35058-23	ST40D	AN3021-3	MS35058-4	ST42D	MS35058-15
MS35058-21	ST40E	AN3021-1	MS35058-5	ST42E	MS35058-16
MS35058-26	ST40F	#	MS35058-6	ST42F	MS35058-17
MS35058-27	ST40G	AN3021-7	MS35058-7	ST42G	MS35058-18
MS35058-31	ST40H	AN3021-5	MS35058-8	ST42H	MS35058-19
#	#	AN3021-6†	#	#	#

SCREW TERMINAL				SOLDER LUG	
MIL-S-3950A See Notes A & B	JAN-S-23 & MIL-S-21195A	MIL-S-6745 See Note A	MIL-S-3950 See Notes A & B	JAN-S-23 & MIL-S-21195A (Ships)	MIL-S-3950 See Note A
DPST					
MS35059-22	ST50K	AN3027-2	#	ST52K	MS35059-9
MS35059-29§	ST50L	AN3027-4§	#	ST52L	MS35059-10§
MS35059-30§	ST50M	AN3027-5§	#	ST52M	MS35059-11§
MS35059-24	#	AN3027-9	MS35059-1	#	MS35059-12
MS35059-28	#	AN3027-11	MS35059-2	#	MS35059-13
MS35059-25§	#	AN3027-10§	MS35059-3§	#	MS35059-14§
DPDT					
MS35059-23	ST50N	AN3027-3	MS35059-4	ST52N	MS35059-15
MS35059-21	ST50P	AN3027-1	MS35059-5	ST52P	MS35059-16
MS35059-26§	ST50R	AN3027-6§	MS35059-6§	ST52R	MS35059-17§
MS35059-27§	ST50S§	AN3027-7§	MS35059-7§	ST52S§	MS35059-18§
MS35059-31§	ST50T§	AN3027-8§	MS35059-8§	ST52T§	MS35059-19§

# Not included in this specification. **† AN3021-6 same as AN3021-5 with jumper.** **§ Same dimensions as MS35059-27.**

NOTE A: MS and AN types use internal sand and dust toggle seal and other high performance features involving extra cost over ST types. MS types to MIL-S-3950A have internal toggle seal to meet 15 ft. water submersion test. MIL-S-3950 models are superseded by MIL-S-3950A models.
NOTE B: For heavy-duty switches in the MS25068, MS35058, and MS35059 Series, MIL-S-3950A calls for SCREW TERMINALS ONLY. These terminals have SOLDERABLE FINISH and may be soldered after removal of screw.

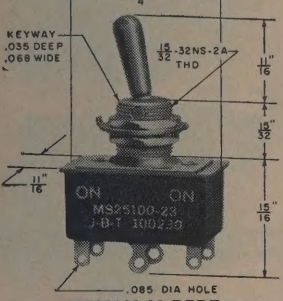
PRICES NET, F.O.B. New Haven, Conn., Domestic Packed, Effective October 1, 1963

............TOGGLE SWITCHES

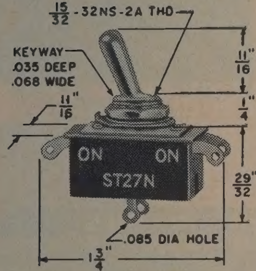
J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

MEDIUM DUTY—SINGLE & DOUBLE POLE—GOVERNMENT QUALITY

Series MS25098 and MS25100 to MIL-S-3950A; Series ST12-27 to JAN-S-23, MIL-S-21195A(Ships), or DDAX Drawings.



MS25100-23 DPDT
Rear Conn.,
Lever Seal



ST27N, DPDT
Side and Rear Conn.
1/4" Bushing

● **MEDIUM DUTY** describes the current-carrying capacity—nominally 6 amp. at 125 VAC, 3 amp, at 250 VAC—rather than the life characteristics. Self-wiping heavily silver-plated double-grip contacts provide exceptional reliability. Typical uses: instruments, data processing, and communications circuits.

NEW DESIGN FOR MS25098 & MS25100—Significant internal changes now provide fast break, wide gap, and increased insulation values, to surpass the severe endurance tests of MIL-S-3950A. For example, after 20,000 cycles of operation at 65,000' altitude with resistive load of 5 amps. at 125 VDC, contact resistance was well within the permissible limits. This development is especially important for the double-throw models MS25098-23 and MS25100-23. All MS medium-duty models contain: (a) silicone rubber bushing seal for sand, dust, and 15-foot head of water submersion tests, and (b) case-to-terminal sealing.

SIZE AND TERMINALS—Whether MS series to latest MIL-S-3950A, or ST series to prior Specifications JAN-S-23, MIL-S-21195A(Ships), or DDAX drawings, all have solder terminals. Bushings are 15/32" (except as noted †).

SINGLE AND DOUBLE POLE MEDIUM DUTY WITH LEVER SEAL

MIL-S-3950A	Model No.	1	2-9	10-29	30-99
SPST-2 term.					
On-X-Off	MS25098-22	$2.30	$1.38	$1.10	$1.04
On-X-Off*	MS25098-29	2.96	1.78	1.42	1.33
Off-X-On*	MS25098-30	2.96	1.78	1.42	1.33
SPDT—3 term.					
On-X-On	MS25098-23	2.64	1.58	1.27	1.19
DPST—4 term.					
On-X-Off	MS25100-22	3.30	1.98	1.58	1.49
On-X-Off*	MS25100-29	3.84	2.30	1.84	1.73
Off-X-On*	MS25100-30	3.84	2.30	1.84	1.73
DPDT—6 term.					
On-X-On	MS25100-23	3.58	2.15	1.72	1.60

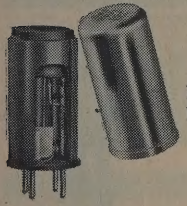
SINGLE AND DOUBLE POLE MEDIUM DUTY

JAN-S-23	Model No.	1	2-9	10-29	30-99
SPST—2 term.					
On-X-Off	ST12A	$1.52	$ .91	$ .73	$ .68
On-X-Off*	ST12B	1.73	1.04	.83	.78
Off-X-On*	ST12C	1.73	1.04	.83	.78
On-X-Off	ST13A	1.52	.91	.73	.68
On-X-Off	ST16A	1.52	.91	.73	.68
On-X-Off*	ST16B	1.73	1.04	.83	.78
Off-X-On*	ST16C	1.73	1.04	.83	.78
On-X-Off	ST17A	1.52	.91	.73	.68
SPDT—3 term.					
On-X-On	ST12D	1.73	1.04	.83	.78
On-X-On	ST13D	1.73	1.04	.83	.78
On-X-On	ST16D	1.73	1.04	.83	.78
On-X-On	ST17D	1.73	1.04	.83	.78
DPST—4 term.					
On-X-Off	ST22K	2.06	1.26	1.01	.95
On-X-Off*	ST22L	2.26	1.38	1.11	1.04
Off-X-On*	ST22M	2.26	1.38	1.11	1.04
On-X-Off	ST23K	2.06	1.26	1.01	.95
On-X-Off	ST26K	2.06	1.26	1.01	.95
On-X-Off*	ST26L	2.26	1.38	1.11	1.04
Off-X-On*	ST26M	2.26	1.38	1.11	1.04
On-X-Off	ST27K	2.06	1.26	1.01	.95
DPDT—6 term.					
On-X-On	ST22N	2.26	1.38	1.11	1.04
On-X-On	ST23N	2.26	1.38	1.11	1.04
On-X-On	ST26N	2.26	1.38	1.11	1.04
On-X-On	ST27N	2.26	1.38	1.11	1.04

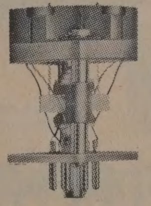
NOTES TO TABLES: X No position; * Momentary position; † Bushing 1/4" high; ‡ Side connected terminals.
Ask for Bulletin TS-6D concerning additional models and full technical data.

.........RELAYS & OSCILLATOR CONTROLS

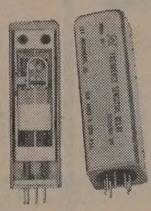
FREQUENCY-SENSITIVE RESONANT REED RELAYS AND OSCILLATOR CONTROLS



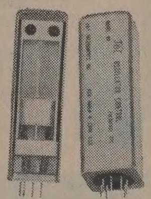
Relay
RR-A11A-124.0



Dual-Reed
Oscillator Control
RO-B10B-188.0
(internal view)



Single-Reed
Oscillator Control
RO-C61E-151.4



Relay
RR-C01E-151.4

These devices are extensively used in selective calling mobile communication equipment, remote data transmission, and simultaneous or sequential coding and decoding. For complete information request Bulletin 162R.

RR-A11- and RR-A10- types frequency sensitive electro-mechanical relays (decoders) are highly stable, accurate, and reliable control devices. These units intermittently make and break contacts when a signal of the same frequency as the tuned reed is applied to the relay driving coil. Although the reed has a high Q, the bandwidth at which the relay responds will be proportional to the input signal level.

RO-B Oscillator Controls (sometimes known as tone generators or encoders) are dual-reed units internally shock mounted and of sealed construction. These units control the frequency of oscillation in vacuum tube or transistor oscillator circuits. The RO-B Type oscillator control is recommended where accurate and stable AC signals are required. **RR-C Types** are internally shock mounted resonant reed relays. These types are square, sealed, plug-in units with 7 pin, miniature plug. **RO-C Types** are single reed, internally shock mounted oscillator controls for applications where space saving is of importance. Dimensionally these units are identical to RR-C relays.

TYPICAL REED RELAY AND OSCILLATOR CONTROL SPECIFICATIONS

Model	Enclosure	Mounting & Connections	Frequency Range CPS	DC Coil Resistance (Standard)	Accuracy to	Change per °C —40° to + 100°C	Individually Boxed
RR-A-10A-Reed Relay	1" round x 2" long	Clamp & Harness* 4 Pin Fits Cinch Socket #9804	67 to 600	200 ohms	±0.3%	±0.005 %	$15.00**
RR-A11A-Reed Relay	1" round x 2" long	Plug In 4 Pin Fits Cinch Socket # 9804	67 to 600	200 ohms	±0.3%	±0.005 %	14.50**
RR-C01E-Reed Relay	25/32" sq x 2 21/32" lg sealed	7 Pin Miniature Plug In	67 to 1600	600 ohms	±0.1%	±0.0025%	18.50**
RO-B10B-Oscillator Control†	1 33/64" sq x 2 7/16" long sealed	Octal Plug In	67 to 600	2200 ohms/coil	±0.1%	±0.003 %	26.00**
RO-C61E-Oscillator Control	25/32" sq x 2 21/32" lg sealed	7 Pin Miniature Plug In	67 to 1600	600 ohms	±0.1%	±0.0025%	18.50**

* Supplied with 2-piece clamp and 4-wire cable terminated in a 4-pin base. ** Specify frequency with order. † Dual reed construction.

PRICES NET, F.O.B. New Haven, Conn. Domestic Packed, Effective October 1, 1963

J-B-T INSTRUMENTS, INC.
NEW HAVEN, CONN. 06508

Electrical Instruments, Testers, Switches and Other Components

For other J-B-T Products, see Sec. 2900

© U.C.P., Inc.

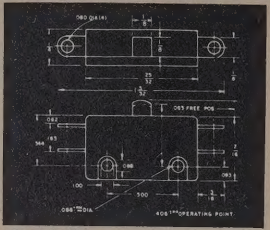
LICON®
PRECISION SNAP-ACTION SWITCHES

LICON® "DOUBLE-BREAK" ACTION

Type 11-204

A unique approach to the concept of double-break switching is the common denominator in a wide line of Licon miniature switches that speak for themselves . . . well over 20 million times. The Licon difference is in design and materials. Dual non-stressed blades and low-rate simple coil springs put life in the snap action. Double-break contacts increase the interrupting ability by providing eight surfaces and two gaps to boost capacity and life. Long-stroke wiping keeps the action alive, "cleans" contacts every actuation, minimizes chances of contact weld.

TYPE 16 SUB-MINIATURE SWITCHES


Type 16-104

Lever, roller lever, push button and toggle actuators available.

CHARACTERISTICS

Electrical Rating:
U.L. Listed; 10 amps at 125/250 V a-c 30 V d-c ratings (at S.L.):
SPNO or SPNC Res. . 15 amps
SPNO or SPNC Ind. . . 10 amps
SPDT (ext. common) Res. . . 15 amp
SPDT (ext. common) Ind. . . 7.5 amps
SPDT (int. common) Res. . 7.5 amps
SPDT (int. common) Ind. . . . . 5 amps
Pretravel . . . . .050 Max.
Overtravel . . . . .012 Min.
Operating Force . . . 5 Oz. $^{+3}_{-2}$ Oz.
Release Force . . . . 2 Oz. Min.
Movement Diff. . . . . .020± .005

Type 16-104
Solder End Terminals (Also available with Screw End Terminals as Type 16-204)

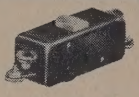
Type 16-404
Solder Bottom Terminals (Also available with Taper Tabs as Type 16-504)

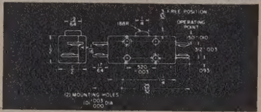
Type 16-304
Solder Side Terminals

Type 16-114
Reset Action

TYPE 11 GENERAL PURPOSE SWITCHES

Type 11-104 End Solder Terminals


Type 11-204
Screw Terminals


Type 11-104

Type 11-114
Reset Model

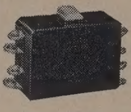
Type 11-304 Side Solder Terminals

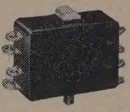
Lever, roller lever, push button and toggle actuators available.

CHARACTERISTICS

Contact Arrangement . . . . SPDT
Electrical Rating:
U.L. Listed; 10 amps at 125/250 V a-c 30 V d-c ratings:
SPNO or SPNC Res. . . . . . . 15 amps
SPNO or SPNC Ind. . . . . 10 amps
Pretravel . . . . .050 Max.
Overtravel . . . . .015 Min.
Movement Diff . . . . .020 ± .005
Operating Force . . . . 8 ± 3 oz.
Release Force . . . . 4 Oz. Min.

TYPE 22 DOUBLE-POLE DOUBLE-THROW SWITCHES

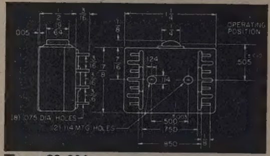

Type 22-104
Solder End Terminals


Type 22-114
Reset/Solder End Terminals

Type 22-304
Solder Side Terminals

CHARACTERISTICS

Pretravel . . . . .060 Max.
Overtravel . . . . . . .015 Min.
Move. Diff. . . . . .028± .007
Oper. Force . . . 17 ± 5 Oz.
Release Force . . 4 Oz. Min.
Prob. Mech. Life . . . . 10,000,000 Oper.
Prob. Elect. Life . . . . 750,000 Ops.
Ambient Temp. Range . . . —100°F. to 275°F.
U.L. Listed; 10 amps at 125/250 V a-c 30 V d-c ratings:
DPNO or DPNC Res. . . . . 15 amps
DPNO or DPNC Ind . . . . 10 amps


Type 22-304

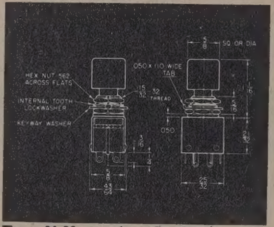
Lever, roller lever, push button and toggle actuators available.

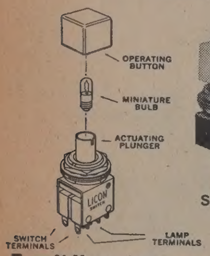
TYPE 01 LIGHTED PUSHBUTTON SWITCHES

CHARACTERISTICS

	Momentary	Maintained
Operating Force		
1 Pole	14±4 Oz.	3 Lb. Max.
2 Pole	14±4 Oz.	3 Lb. Max.
Pretravel	.062 Max.	.062 Max.
Overtravel	.012 Min.	.012 Min.
Movement Differential	.020 $^{+.005}_{-.010}$	

Electrical Rating
Single Circuit: 10 Amps, 250 V a-c
10 Amps, 30 V d-c IND.
Two Circuit: 10 Amps, 250 V a-c
7 Amps, 30 V d-c IND.

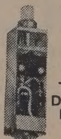

Type 01 Momentary Contact



Type 01 Momentary Contact

Type 01
Indicator Units

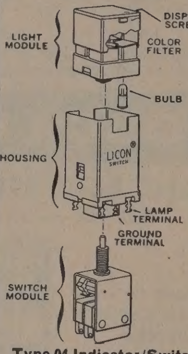
Type 01
Maintained Contact


Type 01
Transistor Driven Neon Indicator/Switch

Type 01
Solenoid Held

⅝" round or square button, sealed or unsealed available. Engraved legend optional.

TYPE 04 LIGHTED PUSHBUTTON SWITCHES

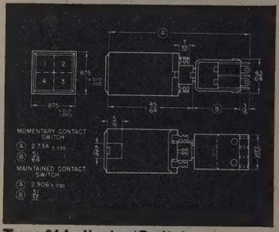


Type 04 Indicator/Switch

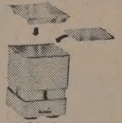
CHARACTERISTICS

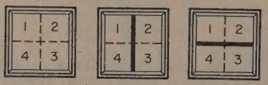
	Maintained Contact	Momentary Contact
Operating Force	96 Oz. Max.	60 Oz. Max.
Pretravel	.125±.060	.125±.060
Overtravel	.005 Min.	.012 Min.
Movement Differential		.020 $^{+.005}_{-.010}$

Electrical Rating . . . . Each Switch
Single Circuit: 10 Amps, 125/250 V a-c
10 Amps, 30 V d-c, IND.
Two Circuit: 10 Amps, 125/250 V a-c
7 Amps, 30 V d-c, IND.

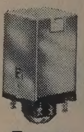


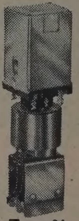
Type 04 Indicator/Switch


Insertable Legends



Three Display Screen Styles


Type 04
Indicator

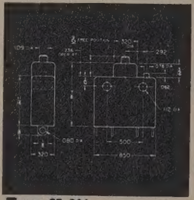

Type 04
Solenoid Held

TYPE 65 ENVIRONMENT-FREE SUB-MINIATURE SWITCHES

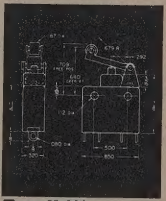
CHARACTERISTICS

SINGLE CIRCUIT RATINGS
10 Amps, 125/250 V a-c
10 Amps, 30 V d-c, Ind.
10 Amps, 30 V d-c, Res.
DOUBLE CIRCUIT
10 Amps, 125/250 V a-c
7 Amps, 30 V d-c, Ind.

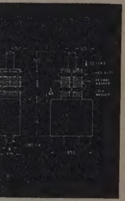
Type 65-201
Pin Plunger
Pretravel, 045 Max.
Overtravel, .012 Min.
Operating Force 1.5± .5 Lb.
Release Force, 8 Oz. Min.
Move. Differential, .020 ±.010


Type 65-201

Type 65-301
Roller-Lever
Pretravel, .10 Max.
Overtravel, .025 Min.
Operating Force, 16 Oz. Max.
Release Force, 5 Oz. Min.
Move. Differential, .058 Max.

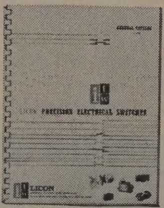

Type 65-301

Type 65-401
Overtravel Plunger
Pretravel, .070 Max.
Overtravel, .187 Min.
Operating Force, 2.25 Lbs. Max.
Release Force, 10 Oz. Min.
Full Overtravel Force, 5 Lb. Max.


Type 65-401

TYPE 63 ENVIRONMENT-FREE SWITCHES

Type 63-26306
Plunger Actuated
CHARACTERISTICS
Operating Force . 9 ± Lbs.
Full Overtravel Force . . . . . 30 Lbs. Max.
Release Force . 4 Lbs. Min.
Pretravel . . . . .040 Max.
Diff. Travel . . . . . .030 Max.
Overtravel . . . . .250 Min.
Current Capacity . . . . @28 V d-c
4 amp res. . . 4 amp motor
2 amp ind.



Licon Catalog-Available On Request

If this listing does not describe the switches you require, detailed data is shown in the new Licon catalog. Copy available on request.

LICON
DIVISION ILLINOIS TOOL WORKS INC.
CHICAGO, ILLINOIS

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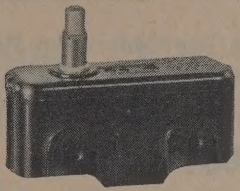
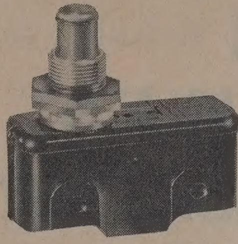
LICON® SWITCHES not only meet standards . . . they set them!

TYPE 10 BASIC SWITCHES

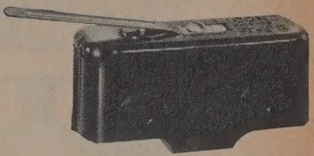
Type 10-122
Basic Switch



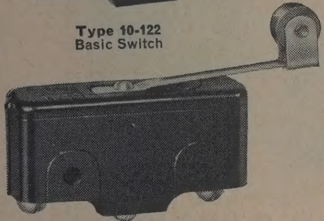
Type 10-222
Overtravel Plunger



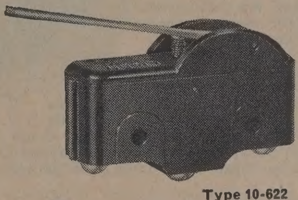
Type 10-322
Panel Mounting



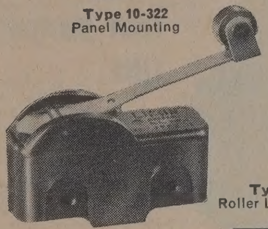
Type 10-422
Leaf Spring Actuator



Type 10-522
Roller Leaf Actuator

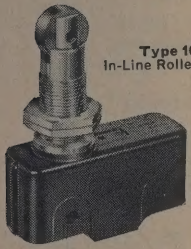


Type 10-622
Hinge-Type Lever



Type 10-722
Roller Lever Actuator

Type 10-822
Cam Actuation



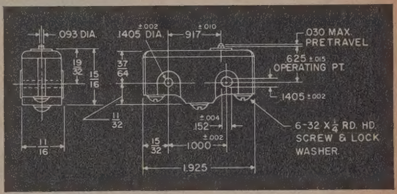
Type 10-922
In-Line Roller Actuator

Type 10-72237
One Way Actuator

CHARACTERISTICS

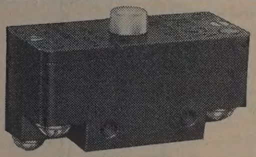
Electrical Rating 15A, 125/250 V a-c, 460 V a-c
15A Res 5A Ind. 5A motor, 30 V d-c
UL APPROVED CSA APPROVED

Splash-proof sealing against moisture, dirt, dust and other harmful elements can be provided for most models. Preloaded reverse action actuator available.

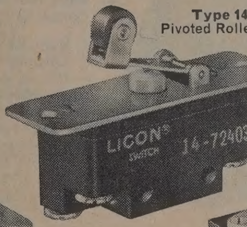


Type 10-122

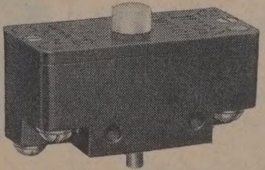
TYPE 14 HEAVY DUTY BASIC SWITCHES



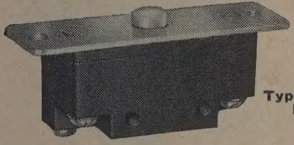
Type 14-124
Basic Switch



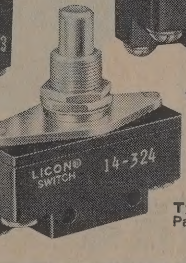
Type 14-72403
Pivoted Roller Actuator



Type 14-1241 Maintained Contact, Reset.



Type 14-12403 Auxiliary Mounting Plate



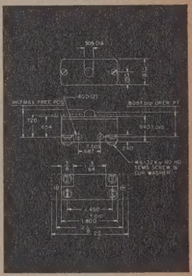
Type 14-324
Panel Mount

Movement differential available from .101" to over .040". 100 gram to 2 lb. operation force available. Terminals available with a No. 6 screw and cup washer, No. 6 screw and lockwasher or No. 8 screw with these same fastener choices. Custom terminal designs available. Auxiliary mounting plate available for panel mount.

ELECTRICAL RATING

Volts	A.C.		D.C.	
	Steady	In-Rush	D.T.	S.T.
30	20	80	10	25
110	20	80	.5	2.0
220	20	80	.2	.5
440	15	50		
600	5	10		

UL APPROVED

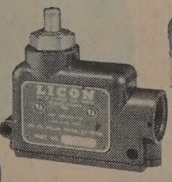


Type 14-124

TYPE 30 INDUSTRIAL ENCLOSED SWITCHES

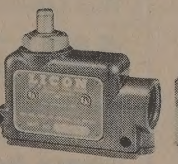
SEALED SWITCHES for environment applications

Type 30-600
Sealed
Palm Button

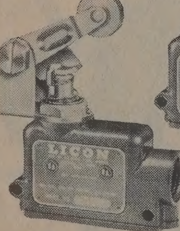


Type 30-200
Sealed Plunger

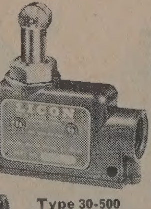
Type 30-400
Sealed Roller Arm



Type 30-100
Overtravel Plunger

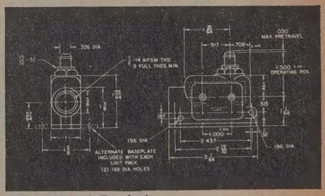


Type 30-300
Roller Arm



Type 30-500
Roller Plunger

UNSEALED SWITCHES
for general purpose applications



Type 30-200 Sealed

CHARACTERISTICS

ELECTRICAL RATING: 15 Amps. 125/250/460 V a-c; ½ Amp. 125 V d-c; ¼ Amp. 250 V d-c.
UL APPROVED CSA APPROVED

FOR FACTS AND FOLLOW-THROUGH... CALL YOUR LICON DISTRIBUTOR

He is equipped to serve you promptly and efficiently! There is an authorized Licon Distributor in your area that can provide immediate delivery of standard Licon switches from a complete stock. His inventory saves you storage space and added expense, his nearness saves you time. For fast, efficient service review your needs with your Licon Distributor salesman.

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LINEMASTER

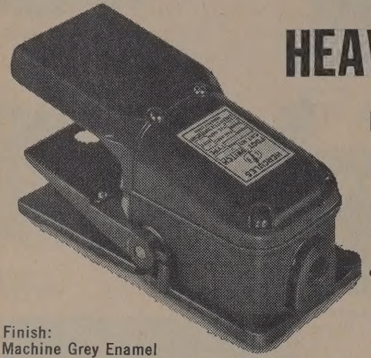
AMERICA'S FOOT SWITCH LEADER

LINEMASTER

HERCULES

HEAVY DUTY

FOOT SWITCH LINE



- Rugged
- Cast Iron Enclosure
- Safety-Guarded

Finish:
Machine Grey Enamel
Wt.: 7 lbs. 2 oz.
Size: 8-7/16" x 4-5/16" x 4-1/2"

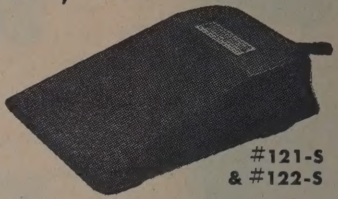
Interior steel parts are cadmium plated or otherwise treated to resist corrosion. All terminals face up for easy wiring upon unfastening cover guard. Casing has 3/4 inch threaded hole for conduit pipe. Pedal position trip point is minutely adjustable. Two and three stage switches have distinct "FEEL" between stages. Special circuit combinations can be supplied in addition to those listed below.

Class—Voltage Rating	Contact Type	Single Stage SP DT	Single Stage DP DT	Single Stage TP DT	2-Stage SP DT	3-Stage SP-DT
Water Tight NEMA Type 4 125-480 V. AC 20 amps	Maintained	571-DW	572-DW	573-DW	574-DW	575-DW
	Momentary	531-SW	532-SW	533-SW	534-SW	535-SW
Explosion-Proof Class I Group C & D Class II Group E, F & G NEMA Type 7 125-480 V. AC-20 amps	Maintained	581-DX	582-DX	583-DX	584-DX	585-DX
	Momentary	541-SX	542-SX	543-SX	544-SX	545-SX

Tip-Toe Control for Tip-Top Production!

LINEMASTER, Jr.

FOOT SWITCH



#121-S
& #122-S

Lightweight, sensitive... ideal for women workers! Needs only a touch of the toe, while heel remains comfortably on the floor.

Aluminum housing, black crackle finish.
Weight 1 lb. 5½" long, 3¼" wide, 1¼" high. Rated at 15 amps., 115 volts A.C.; 15 amps., 250 volts A.C. Can be wired to operate as single pole, normally open; single pole, normally closed; or single pole double throw. Momentary Contact only.
#122-S—Rated at 20 amps., 115-250 volts A.C.

The LINEMASTER

CLIPPER SWITCH

in two models:

1. **Momentary contact** (press to start—release to stop)
2. **Maintained contact** (press to start—press to release)

Rugged Momentary Contact Clipper has proved invaluable to product engineers and machine operators. Maintained Contact Clipper is now available for heavy duty applications. Molded nylon actuating cams; rugged cast iron housings, sponge rubber skid pads. Weight: 2½ lbs. Size: 4½" x 3½" x 1½".

#632-S—AC Rating: 20-A, 125-250V, Momentary Contact, Single Pole, Double Throw.

#634-S—AC Rating: 10-A, 125-250V, Momentary Contact, Double Pole, Double Throw.

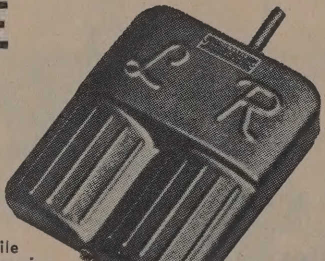
#632-D—AC Rating: 20-A, 125-250V, Maintained Contact, Single Pole, Double Throw.

#634-D—AC Rating: 10-A, 125-250V, Maintained Contact, Double Pole, Double Throw.

The LINEMASTER

EXECUTIVE

Two Switches in One • "On-Center" Mechanical Interlock!



#B-2-S
#B-4-S

This handsome switch is fool-proof and easy-to-operate! Selective circuits and guaranteed interlock eliminate possibility of accidentally tripping both circuits simultaneously, while low, wide casing saves excessive leg movement — foot pivots easily from one side to the other.
Easy to wire—remove only one screw and switch is ready. Either interior (or both) may be wired as normally open or normally closed—single pole—double throw.

Heavy steel housing, baked hammertone grey finish. Wt., 14 oz., 4⅝" long, 4" wide, 1¼" high. Each interior rated at 15 amps at 125-250 volts A.C.

The B-4-S has a DPDT circuit on each side and is rated at 10 amps 125 VAC, 5 amps 250 VAC.

The LINEMASTER

CADET

the "little giant" in foot switches that operates from *any angle*

#HB-2

Small only, 1⅛" high 3⅝" in diameter . . .
Lightweight, just 11 oz. including cordset . . .
Rugged, with heavy steel housing and unbreakable plastic actuating cap, the Cadet is an extremely compact foot switch that will give years of service in hundreds of different applications. It is well designed with an attractive grey hammertone effect casing, maroon cap and non-skid sponge rubber base for perfect positioning. The slightest pressure on the actuating cap from any angle puts the switch in operation. The operator has better control of work resulting in better production. Single pole, double throw, momentary contact only. Wired normally open. Rating 5A at 110V and 250V. Furnished with heavy duty 6 ft. 18-2SV black rubber cordset, series plug and molded strain relief grommet.

MANY OTHER STANDARD MODELS ARE AVAILABLE—WRITE FOR CATALOG

"When awkward jobs hold you up—a LINEMASTER FOOT SWITCH is your third hand!"

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LINEMASTER

PRECISION-BUILT • DEPENDABLE • RUGGED • ECONOMICAL • OVER 1000 APPLICATIONS

LINEMASTER "SENIOR" 4000 SERIES

10 Maintained and Momentary Contact Models

A sturdy industrial-type switch that operates with light pressure from foot or knee, leaving both hands free for work. Economical and built to give years of trouble-free service — fully enclosed and hooded for protection against dirt and chips, with additional heavy spring and cast stop under cover casting, to relieve pressure and strain on spring inside switch proper. Heavy-duty cast iron housing; black crackle enamel finish. 7" long, 4" wide, 3¼" high. Weight, 5¼ lbs.

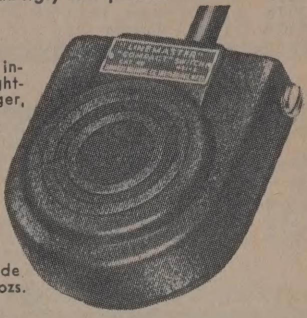
MAINTAINED CONTACT MODELS: Press to start—press to stop.
MOMENTARY CONTACT MODELS: Press to start—release to stop.

ELECTRICAL CHARACTERISTICS						MAINTAINED CONTACT	MOMENTARY CONTACT
Descrip.	Amperes AC	Amperes DC	Volts	Horse-power	Ph.	Cat. No.	Cat. No.
D-P S-T	20 20	20 20	125 250	1 1	1 1	4141-D	4141-S
D-P D-T	10 5	10 5	125 250	½ ½	1 1	4142-D	4142-S
S-P D-T	15 10	15 10	125 250	½ ½	1 1	4143-D	4143-S
D-P S-T	15 15 5		115 230 575	1 2 2	1 1 1	4151-D	4151-S
Three Pole	15 5		115-230 575	2 2	3 3	4351-D	4351-S

Safety guard available for all above models.

The LINEMASTER COMPACT

Amazingly versatile—amazingly low-priced!

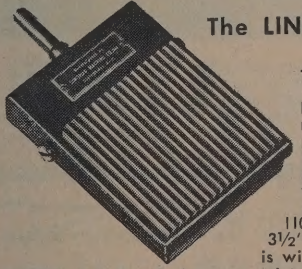


Small, lightweight — and instantly responsive to the slightest pressure of foot, finger, knee or elbow! Substantially built to insure long life, with an actuating mechanism superior to any other on the market today.

Available in a wide variety of wiring plans. Strong steel housing, black crackle finish. 2¾" long, 2½" wide ⅞" high. Weight, 6½ ozs. Momentary contact only.

Cat. No.	DESCRIPTION	RATING
491-S	Single Pole, Double Throw A.C. only	10A at 115V 10A at 230V
491-SC	SPDT. Wired N.O. with 6 ft. cord and 2 prong series plug. A.C. only.	10A at 125V ½HP at 115V
491-S Twin	Two 491-S switches mounted on a twin base	10A at 115V ½HP at 115V
492-S	Single Pole, Double Throw A.C. only	20A at 115V 20A at 230V
493-S	Single Pole, Single Throw A.C. only, double break	10A at 115V 5A at 230V
494-S	2 interiors so arranged as to simulate D-P-D-T	10A at 115V 5A at 230V
496-S	Foto with cord & light, Single Pole, Double Throw A.C.	20A at 115V 20A at 230V

The LINEMASTER TREADLITE



Trim, small, lightweight, instantaneous!

MODEL T-51-S — Accurate control in a modern, minute, treadle switch! Single pole, double throw, momentary contact interior, that can be wired open or closed. Rubber base pad and rubber-ribbed treadle, formed steel casing with black crackle finish. Interior rated at 7 amps., 110 volts and 250 volts A.C. Weight 7 ozs.; 3½" long, 2⅝" wide, 1" high (model T-51-SC is wired with 6' cord and series plugs.)

MODEL T-51-D — Rocker type maintained contact action.

MODEL T-52-S — ONE treadle activates TWO switching operations! A partial downward stroke opens or closes one circuit, added pressure actuates the second circuit. Both interiors, as well as exterior, meet specifications for single-switching Model T-51-S.

LINEMASTER "NAUTILUS" FOOT SWITCH

waterproof • dustproof
oilproof • rustproof

A truly great development by Linemaster. The Nautilus is waterproof, dustproof, oilproof, rustproof. Rugged Aluminum casting for long life. Piston type actuator sealed with "O" ring. Electrical interior "well" sealed with "O" ring.

Size: 8" x 4" x 2¼"   Wt.: 2 lbs., 8½ ozs.

Cat. No. WP541-S 20 Amp. 125-250 VAC SPDT momentary
Cat. No. WP541-D 12 Amp. 125 VAC SPDT maintained

The LINEMASTER LEKTRO-LOK SWITCH

#L-2-S

#L-4-S

Small, sensitive, automatically safe

Particularly ideal for transmission equipment!

Mechanical Interlock allows only one circuit to function at a time—and you can depend on it! LEKTRO-LOK operates on the teeter-totter system, with selective circuits. Pressure on one side actuates one circuit, release of pressure automatically returns switch to normal "off" position. Pressure on the other side is required before second switch is actuated, independent of first. Yet LEKTRO-LOK requires only a single cord—eliminates costly harness assemblies! Rugged stamped metal housing, black crackle finish. Weight, 10 ozs. 5" long, 2¾" wide, 1¼" high. Single pole, double throw. Rating (A.C. only) 15 amps at 125 volts, 15 amps. at 250 volts.

The L-4-S has a DPDT circuit on each side and is rated at 10 amps 125 VAC, 5 amps 250 VAC.

LINEMASTER SWITCH CORPORATION

WOODSTOCK, CONNECTICUT

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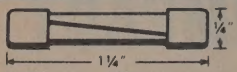
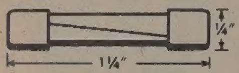
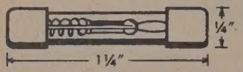
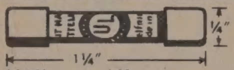
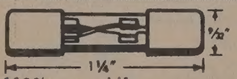
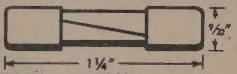
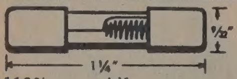
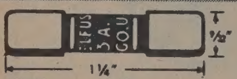
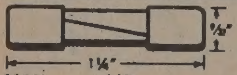
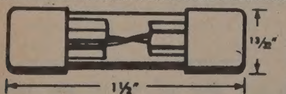
LITTELFUSE DES PLAINES, ILLINOIS, U.S.A. LITTELFUSE

Percentage of rating	Blow Time	Description	Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Optional Resale Price Per 100 Fuses Std. Pkg. of 100 Fuses or More
		**3AG Fuses (42 volts or less) 311(000) Series** Quick to medium blowing fuses. Designed with straight type element positioned to center of fuse.	4 amp.	.24/5	3.90/c
110%	Life		5, 6, 7½, 10, 15 amp. (Note: For 3AG 20 amp. now obsolete, use SFE 20A)	.17/5	2.80/c
135%	0-1 hour		25, 30 amp.	.20/5	3.30/c
200%	0-2 minutes				
		**3AG Fuses (250 volts or less) 312(000)** Quick acting fuses for low time lag applications. 312(000) Series approved by Underwriters' Laboratories.	1/100 amp.	1.65/5	27.50/c
			1/32 amp.	1.44/5	24.00/c
			1/16, 3/16, ⅛, 15/100, .175, 2/10 amp.	.66/5	11.00/c
			¼, 3/10, ⅜, ½, 6/10, ¾ amp.	.42/5	7.00/c
			1, 1½, 2, 2½ amp.	.27/5	4.40/c
			3 amp.	.24/5	3.90/c
			4, 5, 6 amp.	.34/5	5.65/c
			8 amp. at 125 volts	.51/5	8.50/c
110%	Life	**318(000) Series** Available under this series with 1½" No. 20 tinned copper leads in comparable amperages as shown. Series approved by Underwriters' Laboratories through 3 amps.	1/16	1.14/5	19.00/c
135%	0-1 hour		⅛, 15/100 amp.	.84/5	14.00/c
200%	0-2 minutes		3/16, ¼, ⅜, ½, ¾ amp.	.66/5	11.00/c
			1, 1½, 2, 3 amp.	.51/5	8.50/c
			4, 5, 6 amp.	.54/5	9.00/c
			8 amp.	.69/5	11.50/c
		**3AG Slo-Blo Fuses (125 volts or less) 313(000)** Slow blow fuses with high time lag to withstand heavy current surges. Blows quickly on shorts. 313(000) series approved by Underwriters' Laboratories through 5 amperes.	1/100, 1/32 amp.	1.23/5	20.50/c
			1/16, 1/10, ⅛, 15/100, .175, 3/16, 2/10, ¼, 3/10, ⅜, 4/10, ½, 6/10, 7/10, ¾, 8/10, 1 amp.	.90/5	15.00/c
			1 2/10, 1¼, 1½, 1 6/10, 2 amp.	.84/5	14.00/c
			2½, 2 8/10, 3, 3 2/10, 4, 5 amp.	.66/5	11.00/c
			6¼, 7, 8, 10, 15, 20, 25, 30 amps. at 32 volts	.66/5	11.00/c
110%	Life	**315(000) Series** Available under this series with 1½" No. 20 tinned copper wire leads in comparable amperages as shown. Series approved by Underwriters' Laboratories through 3.2 amps.	1/100, 1/32 amp.	1.50/5	25.00/c
135%	0-1 hour		1/16, 1/10, ⅛, 15/100, 3/16, 2/10, ¼, 3/10, 4/10, ½, 6/10, ¾, 8/10, 1 amp.	1.11/5	18.50/c
200%	60 sec. max. 5 sec. min.		1¼, 1½, 1 6/10, 2 amp.	1.05/5	17.50/c
			2½, 3, 3 2/10, 4, 5 amp.	.90/5	15.00/c
		**3AB Fuses (250 volts or less) (steatite) 314(000) Series** Medium time lag steatite enclosed arc quenching powder filled fuses. Approved by Underwriters' Laboratories through 15 amperes.	1, 2, 3	.57/5	9.50/c
110%	Life		5, 6, 8, 10	.54/5	9.00/c
135%	0-1 hour		12, 15, 20, 25 amp.	.57/5	9.50/c
200%	0-2 minutes		30 amp.	.66/5	11.00/c
		**4AG Aircraft Fuses (32 volts or less) (anti-vibration) 411(000) Series** Medium to slow fuses especially developed for aircraft use. Designed to withstand vibration, shock, fatigue and repeated off and on circuit operating conditions encountered in aircraft operation.	10, 15, 20, 25, 30 amp.	.48/5	8.00/c
110%	Life		35 amp.	.48/5	8.00/c
135%	0-1 hour				
200%	0-2 minutes				
		**4AG Aircraft Fuses (250 volts or less) (anti-vibration) 412(000) Series** Quick acting fuses—for low time lag applications. Developed for aircraft use. Designed to withstand shock and fatigue and afford maximum protection.	1/16	.69/5	11.50/c
			¼, ½	.48/5	8.00/c
			1	.75/5	12.50/c
110%	Life		2	.78/5	13.00/c
135%	0-1 hour		2½	.75/5	12.50/c
200%	0-2 minutes		3	.90/5	15.00/c
		**4AG Slo-Blo Fuses (250 volts or less) 413(000) Series** High time lag fuses for extra protection against sustained overloads. Designed to meet aircraft vibration test requirements. Spring-and-link element construction takes up thermal expansion and contraction and eliminates cyclic fatigue, crystallization and resulting fracture of link.	1/10, ⅛, 15/100, 2/10, ¼, 3/10, 4/10, ½, 6/10, ¾, 8/10, 1, 1¼, 1 6/10, 2 2½, 3, 3 2/10	1.17/5	19.50/c
110%	Life		4, 5, 6¼, 8, 10, 15, 20, 25, 30 at 32 volts	.90/5	15.00/c
135%	0-1 hour				
200%	60 sec. max. 5 sec. min.				
		**4AB Fuses (250 volts or less) (steatite) 414(000) Series** Medium lag, steatite-enclosed, shatterproof fuses. Spring and link construction under 5 amperes. Mechanical depolarization, non-crystallizing features incorporated into ratings over 5 amperes.	1, 2, 3 amp.	.87/5	14.50/c
			5, 8, 10, 15, 20 at 125 volts	.81/5	13.50/c
			25, 30 at 32 volts	.81/5	13.50/c
			35, 40 at 32 volts	.87/5	14.50/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**4AG Straight-element Fuses (250 volts or less) 417(000) Series** Medium lag fuses for applications where vibration is not an important factor. Designed with diagonally aligned element and Littelfuse exclusive locked cap construction.	1, 2, 3 amp.	.42/5	7.00/c
			5, 10, 15, 20, 25, 30 amp. at 32 volts	.39/5	6.50/c
			35, 40 at 32 volts	.42/5	7.00/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**5AG Aircraft Fuses (32 volts or less) 511(000) Series** Medium to slow fuses for general aircraft applications. Design incorporates anti-vibration type element, twisted to 90° angle and mechanically depolarized construction.	5, 10, 15, 20, 25, 30, 35, 40, 50, 60 amp.	1.53/5	25.50/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				

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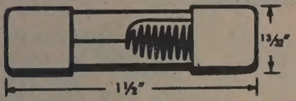
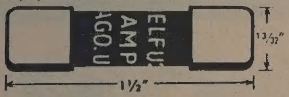
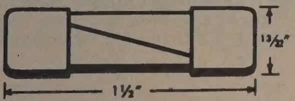
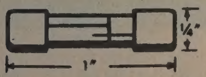
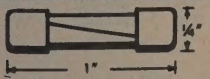
LITTELFUSE

DES PLAINES, ILLINOIS, U.S.A.

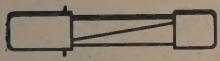
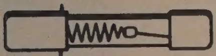
LITTELFUSE

Percentage of rating	Blow Time	Description	Amperes	Optional Resale Price	
				Per Box of 5 Less than Std. Pkg.	Per 100 Fuses Std. Pkg. of 100 Fuses or More
 110% 135% 200%	Life 0-1 hour 60 sec. max. 5 sec. min.	**5AG Slo-Blo Fuses (250 volts or less) 513(000) Series** High time lag fuses. Designed to withstand heavy current surges while affording maximum protection against shorts and damaging overloads.	½, 1, 2 amp.	1.50/5	25.00/c
			3 amp	1.17/5	19.50/c
			5, 10, 15, 20 amp. at 32 volts	1.17/5	19.50/c
			25, 30 amp. at 32 volts	1.32/5	22.00/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**5AB Aircraft Fuses (250 volts or less) 514(000) Series** Medium time lag, bakelite enclosed, shatterproof fuses. Spring-link construction under 5 amperes. Mechanical depolarization, non-crystallizing features incorporated in ratings over 5 amperes. Recommended for applications where excessive shock and vibration are encountered.	1, 2, 3 amps.	.99/5	16.50/c
			5, 10, 15, 20, 25, 30 amps at 32 volts	.93/5	15.60/c
			35, 40 amp. at 32 volts	.99/5	16.50/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**5AG Straight-element Fuses (250 volts or less) 517(000) Series** Medium time lag fuses for applications where a heavy duty fuse is desirable. Design incorporates diagonally aligned element and locked cap construction.	1, 2, 3 amp.	.54/5	9.00/c
			4 amp. at 32 volts	.54/5	9.00/c
			5, 10, 15, 20, 25, 30, 50 amp at 32 volts	.51/5	8.50/c
 100% 150%	Life 0-10 sec.	**8AG Instrument Fuses (250 volts or less) 361(000) Series** Designed for high speed action to insure maximum protection of delicate electrical equipment.	1/500 amp.	4.38/5	73.00/c
			1/200 amp.	1.83/5	30.50/c
			1/100 amp.	1.65/5	27.50/c
			1/32 amp.	1.44/5	24.00/c
			1/16 amp.	.90/5	15.00/c
			1/10, ⅛, 3/16, 2/10 amp.	.66/5	11.00/c
			¼, ⅜, 4/10, ½, ¾ amp.	.42/5	7.00/c
			1, 1½, 2, 3, 4, 5 20 amp. at 32 volts	.30/5	5.00/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**8AG Fuses (250 volts or less) 362(000) Series** Medium time lag fuses for applications where size is a factor because of space limitation or the need to differentiate physically between two fuses in close proximity. Designed to standard N.E.C. blowing specifications. Approved by Underwriters' Laboratories.	⅛ amp.	.57/5	9.50/c
			¼, ⅜, ½, ¾ amp.	.42/5	7.00/c
			1 amp.	.26/5	4.40/c
			1½, 2, 3 amp. at 125 volts	.26/5	4.40/c
			5 amp. at 125 volts	.17/5	2.80/c

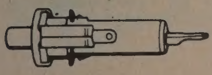
LIMITED CURRENT FUSES & HOLDERS

A new approach to circuit protection completely eliminating the possibility of overfusing circuits. This has been accomplished by a combination of three different fuse lengths and seven different widths of bayonet locking tabs on the fuse caps.

The Limited Current Fuse Holder is designed to accept only the size, amperage, range and type (regular or slo blo) in its amperage range. The fuse locks into the holder by means of a bayonet lock which permits easy and quick insertion and removal of fuses.

 110% 135% 200%	Life 0-1 hour 0-2 minutes	**Limited Current LC fuses 250V type C 332(000) Series** Quick acting—low time lag fuses, incorporating design features which adapt easily to television and similar applications.	1/32 amp.	1.38/5	23.00/c
			1/16 amp.	.90/5	15.00/c
			⅛, 3/16 amp.	.69/5	11.50/c
			¼, 3/10, ⅜, ½, 4/10, ¾ amp.	.54/5	9.00/c
			1, 1¼, 1½, 1¾, 2, 2½, 3 amp.	.30/5	5.00/c
			3½, 4, 5, 6 amp.	.39/5	6.50/c
			7 amp. at 125 volts	.39/5	6.50/c
			8 amp. at 125 volts	.57/5	9.50/c
			10 amp. at 125 volts	.60/5	10.00/c
 110% 135% 200%	Life 0-1 hour 60 sec. max. 5 sec. min.	**Limited current LC Slo Blo fuses 125V type N 333(000) Series** Slo Blo fuses for high tmie lag applications. Construction incorporates design features similar to 332(000) series.	1/100, 1/32 amp.	1.29/5	21.50/c
			1/16, 1/10, 15/100, 2/10, ¼, 3/10, 4/10, ½, 6/10, 7/10, ¾, 8/10, 1 amp.	.93/5	15.45/c
			1¼, 1 6/10, 1¾, 2 amp.	.84/5	14.00/c
			2½, 2 8/10, 3 2/10, 3½,	.81/5	13.50/c
			4, 5, 6¼, 7 amp. at 32 volts	.81/5	13.50/c

Limited Current Fuse Holders 346(000) Series)



Catalog Number	Type	Amperage Range	Opt. Less Than Std.	Net Price Std. Pkg. of 100
346001	Regular	(C 1/32-3/10)	$.13 ea.	$.11 ea.
346002	Regular	(Over C 3/10-½)	.13	.11
346003	Regular	(Over C ½-¾)	.13	.11
346004	Regular	(Over C ¾-1¼)	.13	.11
346005	Regular	(Over C 1¼-1¾)	.13	.11
346006	Regular	(Over C 1¾-2½)	.13	.11
346007	Regular	(Over C 2½ 3½)	.13	.11
346012	Regular	(Over C 3½-5)	.13	.11
346013	Regular	(Over C 5-7)	.13	.11
346014	Regular	(Over C 7-10)	.13	.11
346008	Slo-Blo	(N1/100-3/10)	$.13 ea.	$.11 ea.
346009	Slo-Blo	(Over N 3/10-½)	.13	.11
346010	Slo-Blo	(Over N ½-¾)	.13	.11
346011	Slo-Blo	(Over N ¾-1¼)	.13	.11
346016	Slo-Blo	(Over N 1¼-1¾)	.13	.11
346017	Slo-Blo	(Over N 1¾-2½)	.13	.11
346018	Slo-Blo	(Over N 2½-3½)	.13	.11
346019	Slo-Blo	(Over N 3½-5)	.13	.11
346020	Slo-Blo	(Over N 5-7)	.13	.11

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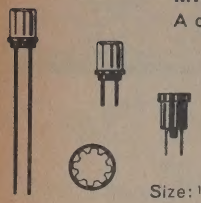
Net

LITTELFUSE DES PLAINES, ILLINOIS, U.S.A. LITTELFUSE

MICROFUSE



A completely different development in circuit protection for sub miniature applications.

The PIGTAIL VARIETY (278000 series) is especially adaptable for soldered connections in minimum space.

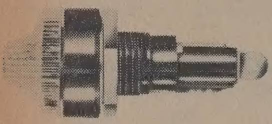
The PLUG-IN VARIETY (272000 series) is designed for use with the No. 281001 sub-miniature fuse holder which is easily mounted to chassis or printed circuit board.

The SUB-MINIATURE FUSE HOLDER #281001 allows fast simple fuse replacement, will handle continuous currents up to 5 amps at 125V or less.

Size: 13/64" Dia. x 11/32". Available from 1/500 amp. through 5 amps. Maximum voltages—125V. Blowing Specifications: Series 272000—278000. 110% Life; 200% 0-10 Seconds.

Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Optional Resale Price Per 100 Fuses Std. Pkg. of 100 Fuses or More
0 through .031 amp.	5.15/5	86.00/c
.050A through 5 amp.	4.29/5	71.00/c
281001 plug-in holder	.26 each	.22 each

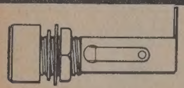
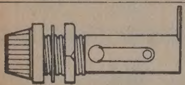
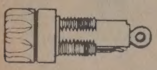
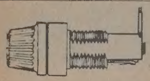
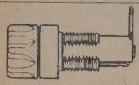
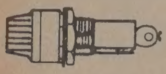
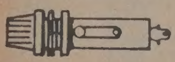
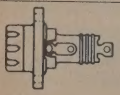
3AG INDICATING FUSE POST



Catalog Number	Voltage Range	Net Resale Price Less than Std. Pkg.	Net Resale Price Std. Pkg. of 100
344006	2½-7V	$2.21 ea.	$1.84 ea.
344012	7-16V	2.21 ea.	1.84 ea.
344024	16-32V	2.21 ea.	1.84 ea.
344125	100-125V	1.35 ea.	1.13 ea.
344250	200-250V	1.35 ea.	1.13 ea.

PHYSICAL CHARACTERISTICS

High temperature styrene knob (amber with incandescent bulbs—2½ thru 32 volts—and clear with high degree vacuum neon bulbs 90-250 volts). Maximum current rating 20 amperes. Size: Overall Length 2⅜"; front of Panel 13/16"; back of Panel 1½"; mounting hole ⅝" Dia.; flat on one side.

Style	Catalog Number	Fuse Size	Description	Physical Size fuse	Mounting Hole Dia.	Overall Length	Back of Panel	Net Resale Price Less than Std. Pkg.	Net Resale Price Std. Pkg. of 100
	341001 371001	3AG 8AG	Screwdriver Slot Knob Screwdriver Slot Knob	1¼ x 1¼ Dia. 1 x ¼ Dia.	.505D .505D	2 7/32 2 7/32	1 23/32 1 23/32	.43 ea. .43 ea.	.36 ea. .36 ea.
	342001 372001	3AG 8AG	Finger Operated Knob Finger Operated Knob	1¼ x 1¼ Dia. 1 x ¼ Dia.	.505D .505D	2 7/32 2 7/32	1 23/32 1 23/32	.43 ea. .43 ea.	.36 ea. .36 ea.
	342014		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	2 5/64	1 11/32	.32 ea.	.27 ea.
	342022		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	1 53/64	1¼	.37 ea.	.31 ea.
	342004		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	1¾	1 1/64	.37 ea.	.31 ea.
	342012	3AG	Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	2 5/32	1 11/32	.32 ea.	.27 ea.
	442001	4AG	Fuse extractor post	1¼ x 9/32 Dia.	.635D	2 29/32	2¼	.96 ea.	.80 ea.
	570001	5AG	Finger operated knob —flange Mount	1½ x 13/32 Dia.	.865D	2 9/32	1 15/32	1.29 ea.	1.08 ea.

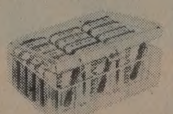
FUSE CADDY Part 094037

A handy fuse kit for instant accessibility—correct fuse at your fingertips every time. 18 individual compartments. Fuse caddy comes with 75 fuses, 15 different types, plus 3 spare compartments.

3AG ¼A
3AG ½A
3AG 1A
3AG 2A
3AG 3A
3AG 5A
3AG ¼A SB
3AG ½A SB
8AG ¼
8AG ½
N ¼ LC
N 1 LC
N 1¼ LC
C 2½ LC

Net Resale Price
$6.97 ea.

LC FUSE CADDY Part 094041



A handy all inclusive LC (Limited Current) Fuse Caddy for servicemen's tube caddy. One call is all. 18 individual compartments. LC Fuse Caddy comes with 75 fuses; 15 different types plus three spare compartments.

Net Resale Price
$9.40 ea.

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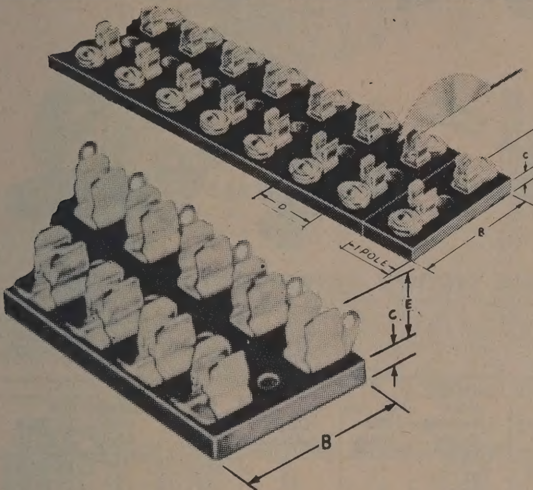
LITTELFUSE

DES PLAINES, ILLINOIS, U.S.A. **LITTELFUSE**

FUSE MOUNTING PANELS



MOUNTINGS WITH SOLDER TERMINALS—TYPE "S" Phosphor-Bronze, bright-dipped finish Lug Clips are firmly anchored to black Bakelite base—have non-turning anchors. For 8AG (387000 series) and 3AG (357000 series) fuses.

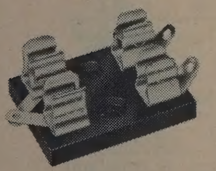
MOUNTINGS WITH SCREW TERMINALS—TYPE "T" Spaced to U/L requirements for equipment circuit protection. Nickel plated brass screw terminals, nickel plated fuse clips. For 3AG(356000 series), 4AG(456000 series) and 5AG(556000 series) fuses.

Open type fuse panels, stocked in 12-pole units as shown—we cut them to 2, 3, 4 or more poles as ordered, or you may cut them in your plant (⅛" allowance for saw cut).

Cat. No.	Fuse Type	Mtg. Type	Dim. "B"	Dim. "C"	Dim. "D"	Dim. "E"	Each less than 100	Each over 100
387001	8AG	S	1⅜	3/16	⅝	21/32	.14	.12
357001	3AG	S	1⅝	3/16	⅝	21/32	.14	.12
356001	3AG	T	2⅜	7/32	29/32	11/16	.29	.25
456001	4AG	T	2⅜	7/32	29/32	13/16	.37	.31
556001	5AG	T	2¾	9/32	31/32	1 1/32	.43	.36

Note: Above are single pole mountings. Prices and delivery by quotation for multiple pole types.

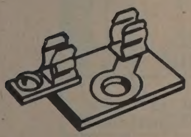
RECTIFIER MOUNTINGS



Mountings custom designed for Sarkes Tarzian silicon rectifiers series M500 and L1250. Mountings designed to your specifications are available upon request. Let our engineers assist you.

Cat. No.		Each less than 100	Each over 100
099062	1 pole	.14 each	.12 each
099063	2 poles	.28 each	.23 each

METER BACK MOUNTING Cat. No. 383002 (1059)—

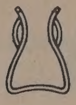


Mounts directly on meter binding post. Will not touch other posts on smallest standard meter. Linen bakelite base, 1" x 1⅛". Length over screw terminal, 1½".

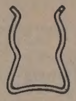
Net Resale Price	
Less than Std. Pkg.	Std. Pkg. of 10
.264 ea.	.22 ea.

STANDARD FUSE CLIPS

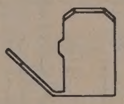
For the exacting performance often required in the electronics communications, radio, television, aircraft and marine equipment industries, we recommend our beryllium copper fuse clip. Beryllium copper clips have lower contact resistance and higher conductivity than ordinary fuse clips. They are silver plated, a finish well suited to fuse applications.



Ears



Earless



Lug

FUSE CLIPS
(Phosphor Bronze Bright Nickel Plated)

		Net Resale Price Less than Std. Pkg. ea.	Std. Pkg. of 100 ea.
3AG Fuse Clip	101001	.018	.015
3AG Fuse Clip (Earless)	101002	.018	.015
3AG Solder Terminal Clip Bright dip	101003	.026	.022
4AG Fuse Clip	103001	.0336	.028
4AG Fuse Clip (Earless)	104002	.0336	.028
5AG Fuse Clip	105001	.0432	.036
5AG Fuse Clip (Earless)	105002	.0432	.036
9/16" Dia. Fuse Clip	107001	.066	.055
9/16" Dia. Fuse Clip (Earless)	107002	.066	.055
13/16" Dia Fuse Clip	109001	.156	.130
13/16" Dia. Fuse Clip (Earless)	109002	.156	.130

FUSE CLIPS
(Beryllium Copper Silver Plated)

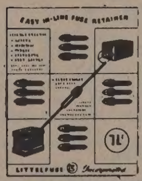
		Net Resale Price Less than Std. Pkg. ea.	Std. Pkg. of 100 ea.
3AG Fuse Clip	121001	.0432	.036
3AG Fuse Clip (Earless)	121002	.0432	.036
3AG Solder Terminal Clip	121004	.09	.075
4AG Fuse Clip	123001	.066	.055
4AG Fuse Clip (Earless)	123002	.066	.055
5AG Fuse Clip	125001	.102	.085
5AG Fuse Clip (Earless)	125002	.102	.085
9/16" Dia. Fuse Clip	127001	.198	.165
9/16" Dia. Fuse Clip (Earless)	127002	.198	.165
13/16" Dia. Fuse. Clip	129001	.486	.405
13/16" Dia. Fuse Clip (Earless)	129002	.486	.405

SNAP-ON MOUNTINGS

Time saver for pigtail replacement. Snap on blown pigtail, then use regular fuse in other side. No soldering. This Snap-On mounting has a cut out on both sides which makes the fuse accessible for replacement from both sides. They are available in bulk, on display cards of 24, or in handy merchandising plastic boxes of ten.

		Net Resale Price Less than Std. Pkg.	Std. Pkg.
Card of 24	No. 094024	$4.54 ea.	$3.78 ea.
Box of 10	No. 094025	1.89 ea.	1.58 ea.
Bulk	No. 350130	.92/5	14.00/c

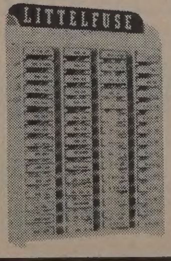
IN-LINE FUSE RETAINER Assortment 094020



comes complete with 8-inch loop of wire and fuse inserted under spring tension. Assortment consists of 6 SFE 14 units, 3 SFE 9 and 3 SFE 20.

Net Resale Price
$4.94 ea.

FUSEMASTER 094047



Versatile clear plastic fuse wall rack with 60 individual compartments for 60 different fuse types. Index inventory control card, pressure sensitive blank inventory labels for easy index adjustment; and an assortment of 100 popular fuses are furnished as a package under Fusemaster Assortment 094047.

Net Resale Price
$10.72 ea.

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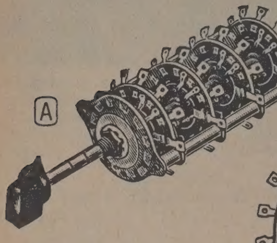
P. R. MALLORY & CO. Inc.

MALLORY Switches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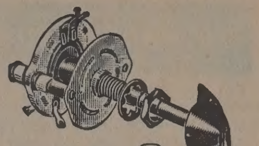
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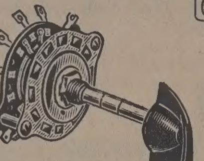
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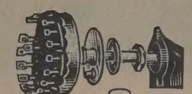
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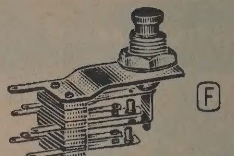
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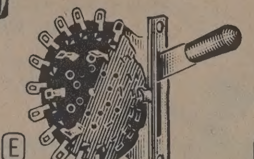
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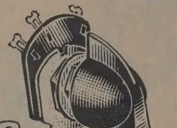
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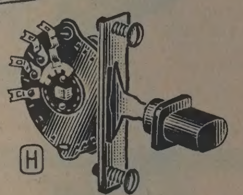
H

PHENOLIC WAFER ROTARY SWITCHES (FIG. A)

MIL grade phenolic wafers with self-cleaning silver-plated contacts. Adjustable stops, 30° index. Max. O.D., 1¾"; ⅜"-32 x ⅜" bushing; ¼" dia. x 2" shaft grooved for cutting. Space between index and #1 wafer, ½"; spacing between other wafers, 1". Ratings: .6 amp at 300 v. DC, 8 amps at 60 v. DC, 1 amp at 300 v. AC, 10 amps at 6 v. AC; max. non-breaking resistive load, 10 amps; breakdown, 1000 v. DC or AC. With hex nut, lockwasher and 366-1 knob.

Mallory Number		No. of Circuits Per Section	No. of Circuits Per Switch	No. of Positions	No. of Sections or Gangs	Net Each
Shorting Type	Non-Shorting Type					
1211L	1311L	1	1	2 to 11	1	$2.10
1215L*	1315L*	2	2	2 to 5	1	2.10
1213L*	1313L*	3	3	2 to 3	1	2.10
1212L*	1312L*	4	4	2 to 2	1	2.10
1221L	1321L	1	2	2 to 11	2	2.58
1225L*	1325L*	2	4	2 to 5	2	2.58
1223L*	1323L*	3	6	2 to 3	2	2.58
1222L*	1322L*	4	8	2 to 2	2	2.58
1231L	1331L	1	3	2 to 11	3	3.24
1235L*	1335L*	2	6	2 to 5	3	3.24
1241L	1341L	1	4	2 to 11	4	3.81
1245L*	1345L*	2	8	2 to 5	4	3.81
1251L	1351L	1	5	2 to 11	5	4.11
1256L	1356L	2	10	2 to 6	5	4.53
1261L	1361L	1	6	2 to 11	6	4.83
1266L	1366L	2	12	2 to 6	6	5.52

*These switches are provided with an "off" position which is in addition to the number of positions listed in the fifth column.

24 POSITION TAP SWITCH (FIG. B)

Ratings same as 12/1300 Series. Continuous rotation, 15° index. With nut, washer, 366-1 knob and 394 dial.
Mallory No. 13124L Switch—Net Each **$2.76**

5 POSITION HAMSWITCH® (FIG. B)

For measuring up to five circuits on single meter. Same ratings as 12/1300 Series plus conservative 1000 v. AC rms or 1500 v. DC rating. 60° index; adjustable stop.
Mallory No. 151L Hamswitch—Net Each **$2.70**

CIRCUIT OPENING SWITCH (FIG. B)

For meter switching or inserting resistors, capacitors, etc. Ratings same as 12/1300 Series. Adjustable stop; 30° index.
Mallory No. 1400L Circuit Opening Switch—Net Each . . **$4.68**

DECADE SWITCHES (FIG. B)

Requires only four resistors or capacitors for full decade. Ratings same as 12/1300 Series. 36° indexing.
Mallory No. 153L Capacitor Decade Switch—Net Each . . **$2.70**
Mallory No. 154L Resistor Decade Switch—Net Each . . . **$2.94**

CERAMIC WAFER SWITCHES (FIG. C)

MIL grade ceramic wafers for RF switching. Non-shorting. Indexes: 170/180 Series, 30°; 160 Series, 90°. Bushing, shaft and wafer spacing same as on 12/1300 Series. Ratings: 5 amps, 300 v. AC or DC; 6 amps, 6 v. AC or DC (160 Series 1000 v. DC and up to 100 watts). Series 170/180 breakdown, 500 v. AC or DC. Max. non-breaking resistive load, 5 amps. With nut, washer and 366-1 knob.

Mallory No.	No. of Sections	Circuits	Spacing Between Sections	Contacts Per Circuit	Net Each
161C	1	1	. . . .	4	$2.16
162C	2	2	1⅞"	4	3.06
163C	3	3	1"	4	3.96
164C	4	4	1"	4	4.86
165C	5	5	1"	4	5.76

Mallory No.	Number of Gangs	Number of Circuits Per Gang	Number of Positions	Net Each
172C	1	1	2 to 11	$2.37
173C*	1	2	2 to 5	2.37
174C*	1	3	2 to 3	2.37
176C	2	1	2 to 11	3.39
177C*	2	2	2 to 5	3.39
178C*	2	3	2 to 3	3.39
180C	3	1	2 to 11	4.32
181C*	3	2	2 to 5	4.32

*Has additional "off" switch preceding numbered positions.

SINGLE SECTION ROTARY SWITCHES (FIG. D)

Multi-purpose phenolic switches. Index: 1¼" dia., 30°; 1¹¹⁄₁₆" dia., 20°. Ratings: .125 amp, 300 v. DC; 3 amps, 6 v. DC; .2 amp, 300 v. AC; 5 amps, 6 v. AC; breakdown 500 v. AC or DC; max. non-breaking resistive load, 5 amps. Bushing, ⅜"-32 x ⅜"; shaft, ¼" x 2". With nut, lockwasher and 366-1 knob.

Mallory Number		No. of Circuits	No. of Positions	Dia. of Base	Adjustable Stop	Net Each
Shorting Type	Non-Shorting Type					
3115J	3215J	1	5	1¼"	No	$1.02
31112J	32112J	1	12	1¼"	No	1.02
3122J	3222J	2	2	1¼"	No	1.02
3123J	3223J	2	3	1¼"	No	1.02
3126J	3226J	2	6	1¼"	No	1.02
3134J	3234J	3	4	1¼"	No	1.05
3142J	3242J	4	2	1¼"	No	1.05
3143J	3243J	4	3	1¼"	No	1.05
31117J	32117J	1	2 to 17	1¹¹⁄₁₆"	Yes	1.56
3129J	3229J	2	2 to 9	1¹¹⁄₁₆"	Yes	1.56
3136J	3236J	3	2 to 6	1¹¹⁄₁₆"	Yes	1.65
3163J	3263J	6	2 to 3	1¹¹⁄₁₆"	Yes	1.65

ANTENNA SWITCH (FIG. D)

For switching two separate TV or FM antennas on single set. Dia., 1¼". With bracket, self-tapping screws, all hardware and 366-1 knob.
Mallory No. 3122TV Antenna Switch—Net Each **$1.31**

LEVER ACTION SWITCHES (FIG. E)

Phenolic wafers for audio systems. Positive indexing. Mtg.: 5000 Series, elongated holes on ²⁹⁄₃₂" ctrs.; 6000 Series, rd. holes on 1⅝" ctrs. Multiple mtg. spacing, ¾". Ratings: .125 amp, 300 v. DC; 3 amps, 6 v. DC; .2 amp, 300 v. AC; 5 amps, 6 v. AC; breakdown, 500 v. AC or DC. With two #6-32 screws, nuts and knob.

Mallory Number		No. of Poles or Circuits	No. of Positions or Contacts	Net Each
Shorting Type	Non-Shorting Type			
5124	5224	2	4	$1.38
6142	6242	4	2	1.20
6143	6243	4	3	1.20

PUSHBUTTON SWITCHES (FIG. F)

Non-locking for test panels, etc., in eight circuits. Silver contacts on alloy springs. Breakdown, 500 v. DC. Bushing, ⅜"-32 x ⅜". Integral phenolic knob. With nut and washer.

Mallory No.	Circuit Arrangement	Net Each
1011	SPST—Make	$0.69
1012	SPST—Break	.69
1013	SPDT	.78
1014	DPST—Make 2	.87
1015	DPST—Break 2	.87
1016	DPDT	1.05
1017	DP—Make 2, Break 1	1.05
1018	DPDT—Make before break	1.44

GENERAL PURPOSE AND LEVER ACTION SWITCHES

Mallory-Grigsby miniature phenolic switches with Wedgelock terminals (see next page). Series 4M and 5M for tone control, radio-phone, etc.; Series 6M for audio switching. Series 4M and 5M with nut, washer and 366-1 knob; 6M with GS5149 knob and two #6-30 screws. Suffixes: **D,** has AC line switch; **K,** knurled shaft (others ¼" dia. rd.); **S,** spring return; **U,** spring return and positive index.

GENERAL PURPOSE ROTARY SWITCHES (FIG. G)

Mallory Number		Circuits Per Section	No. of Sections	No. of Positions	Net Each
Shorting Type	Non-Shorting Type				
4M1114D	. . . .	1	1	4	$1.80
. . . .	4M2412S	4	1	2	1.44
5M1112	. . . .	1	1	2	1.08
5M1113	. . . .	1	1	3	1.08
5M1113K	. . . .	1	1	3	.75
5M1213	5M2213	2	1	3	1.08

MINIATURE PHENOLIC LEVER ACTION SWITCHES (FIG. H)

Mallory Number		Circuits Per Section	No. of Sections	No. of Positions	Net Each
Shorting Type	Non-Shorting Type				
6M1213	6M2213	2	1	3	$1.26
6M1213S	6M2213S	2	1	3	1.26
6M1213U	6M2213U	2	1	3	1.26
6M1412S	6M2412S	4	1	2	1.44
. . . .	6M2412	4	1	2	1.44

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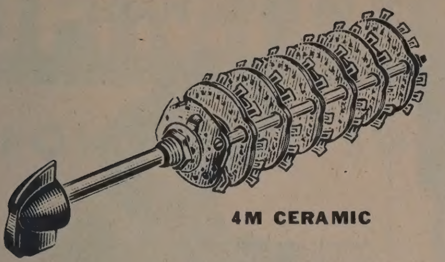
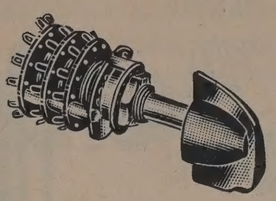
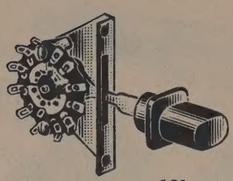
MALLORY Switches



4M CERAMIC



12M



12L

MALLORY-GRIGSBY MINIATURE SWITCHES

Mallory-Grigsby miniature rotary switches feature exclusive Wedgelock contacts which insure positive alignment, avoids frame and contact distortion and wide insulating path between adjacent contacts. Max. wafer dia., 1¾". Index: Phenolic types, 30°; ceramic types, 30°, 60° (H), and 90° (N). Phenolic types use Richardson T725 grade phenolic; ceramics, MIL grade L5 Steatite treated with Dow-Corning 200. Ratings: 350 ma, 500 v. rms resistive; breakdown, 1700 v. rms, 60 cps; max. initial contact resistance, .005 ohm. Bushing, ⅜"-32 x ⅜"; shaft, ¼" dia. x 2". With nut, washer and 366-1 knob.

30° INDEXING PHENOLIC WAFER

Mallory Number		Circuits per Section	Number of		Net Each
Shorting Type	Non-Shorting		Sections	Positions	
4M11111	4M21111	1	1	11	$1.80
4M1215	4M2215	2	1	5	1.80
4M11211	4M21211	1	2	11	2.58
4M1313	4M2313	3	1	3	1.80
4M11311	4M21311	1	3	11	3.24
4M1412	4M2412	4	1	2	1.80
4M1225	4M2225	2	2	5	2.58
4M11411	4M21411	1	4	11	3.81
4M11511	4M21511	1	5	11	4.47
4M1323	4M2323	3	2	3	2.58
4M1235	4M2235	2	3	5	3.24
4M11611	4M21611	1	6	11	5.04
4M1422	4M2422	4	2	2	2.58
4M1245	4M2245	2	4	5	3.81
4M1255	4M2255	2	5	5	4.47
4M1432	4M2432	4	3	2	3.24
4M1265	4M2265	2	6	5	5.04

30° INDEXING CERAMIC WAFER

4M11112C	4M21112C	1	1	12	$2.37
4M1216C	4M2216C	2	1	6	2.37
4M11212C	4M21212C	1	2	12	3.39
4M1315C	4M2315C	3	1	5	2.37
4M11312C	4M21312C	1	3	12	4.32
4M1226C	4M2226C	2	2	6	3.39
4M11412C	4M21412C	1	4	12	5.19
4M1513C	4M2513C	5	1	3	2.37
4M11512C	4M21512C	1	5	12	6.18
4M1612C	4M2612C	6	1	2	2.37
4M1325C	4M2325C	3	2	5	3.39
4M1236C	4M2236C	2	3	6	4.32
4M11612C	4M21612C	1	6	12	7.20
4M1246C	4M2246C	2	4	6	5.19
4M1335C	4M2335C	3	3	5	4.32
4M1523C	4M2523C	5	2	3	3.39
4M1256C	4M2256C	2	5	6	6.18
4M1622C	4M2622C	6	2	2	3.39
4M1266C	4M2266C	2	6	6	7.20
4M1533C	4M2533C	5	3	3	4.68
4M1632C	4M2632C	6	3	2	4.68

60° INDEXING CERAMIC WAFER

Non-Shorting Mallory No.	Circuits per Section	Number of		Net Each
		Sections	Positions	
4M2116H	1	1	6	$2.16
4M2126H	1	2	6	3.06
4M2136H	1	3	6	3.96
4M2146H	1	4	6	4.86
4M2156H	1	5	6	5.76

90° INDEXING CERAMIC WAFER

4M2114N	1	1	4	$2.16
4M2124N	1	2	4	3.06
4M2134N	1	3	4	3.96
4M2144N	1	4	4	4.86
4M2154N	1	5	4	5.76

MALLORY-GRIGSBY SUBMINIATURE SWITCHES

Glass-epoxy wafers per MIL-P-18177. Only ⅞" diameter. Series 12M rotary types available with up to three sections ($^3/_{16}$" spacing); Series 12L are lever action type. Index, 30°. Ratings: 150 ma at 150 v.; max. voltage, 225 v.; max. current, 2.5 amps at 6 v. AC rms (all resistive load). Bushing (12M), ⅜"-32 x ¼"; shaft ¼" dia. x 1¼". Rotary types furnished with nut, washer and 366-1 knob; lever types with two #4-40 screws and GS5149 knob. Suffixes (12L): **S,** spring return; **U,** spring return and positive index.

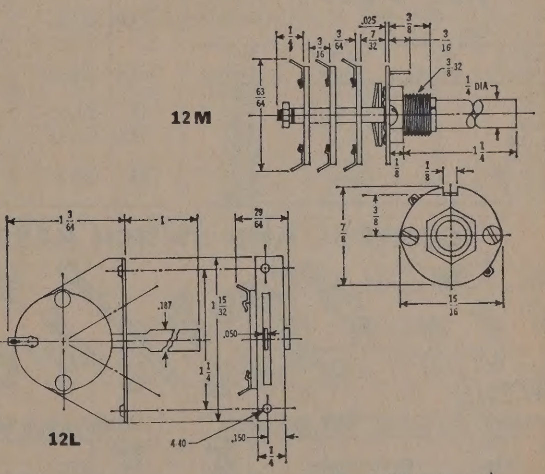
12M ROTARY—30° INDEX

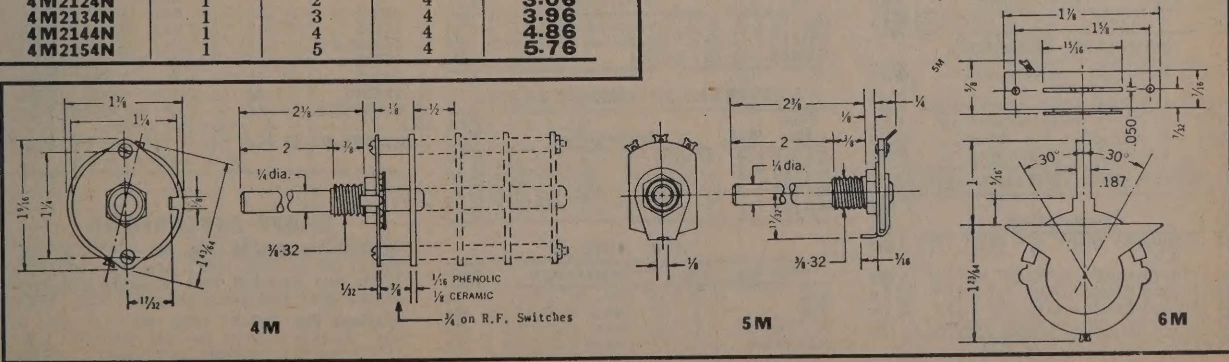
Mallory Number		Circuits per Section	Number of		Net Each
Shorting Type	Non-Shorting		Sections	Positions	
12M11111G	12M21111G	1	1	11	$4.52
12M11211G	12M21211G	1	2	11	5.58
12M1215G	12M2215G	2	1	5	4.52
12M11311G	12M21311G	1	3	11	6.64
12M1313G	12M2313G	3	1	3	4.52
12M1225G	12M2225G	2	2	5	5.58
12M1412G	12M2412G	4	1	2	4.52
12M1235G	12M2235G	2	3	5	6.64
12M1323G	12M2323G	3	2	3	5.58
12M1422G	12M2422G	4	2	2	5.58
12M1333G	12M2333G	3	3	3	6.64
12M1432G	12M2432G	4	3	2	6.64

12L LEVER ACTION—30° INDEX

Mallory Number		Circuits per Section	Number of		Net Each
Shorting Type	Non-Shorting		Sections	Positions	
12L1612	12L2612	6	1	2	$4.24
12L1612S	12L2612S	6	1	2	4.47
12L1213	12L2213	2	1	3	3.12
12L1213S	12L2213S	2	1	3	3.38
12L1213U	12L2213U	2	1	3	3.38
12L1413	12L2413	4	1	3	3.63

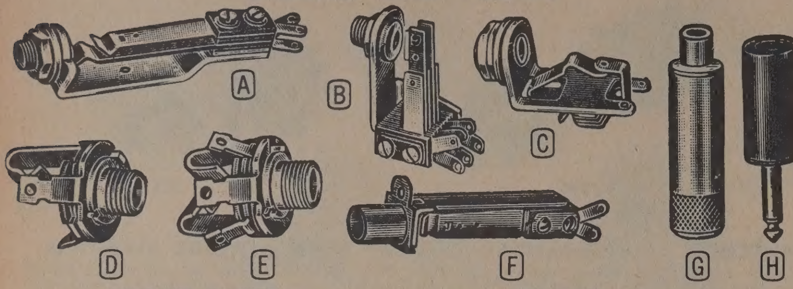
DIMENSIONS





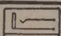
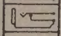
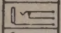
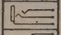
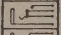
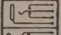
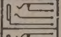
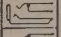
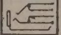
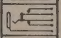
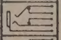
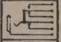
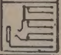
P. R. MALLORY & CO. Inc. MALLORY Jacks, Hardware

JACKS, AND PLUGS



PHONE JACKS

Four configurations meet a wide range of applications. Circuit arrangements shown in chart. Supplied with nut and washer. Bushing 3/8"-32 x 3/8". Nickel-plated alloy springs, silver contacts, cadmium-plated frames.

Long Fr. (Fig. A)		Junior (Fig. B)		Infant and Midget (Fig. C)		
Mal. No.	**Net Ea.**	**Mal. No.**	**Net Ea.**	**Mal. No.**	**Net Ea.**	**Schem.**
1	45c	701	45c	A-1	33c	
2	57c	702	51c	A-2	48c	
2A	57c	702A	57c	A-2A	57c	
2B	57c	702B	57c			
3	60c	703	60c			
		703A	60c	A-3A	66c	
3B	60c	703B	60c			
		703C	60c			
		704	69c			
4A	75c	704A	69c			
4B	75c	704B	69c			
5	90c	705	75c			
6	1.05					

COMPACT JACKS (FIGS. D AND E)

JJ-033 and JJ-034 meet all requirements of JAN-J-641.

Mallory Number	No. Cond.	Circuit Type	Net Each
LA1	2	Open	36c
LA2	2	Closed	42c
LA2A	3	Closed	48c
SC-1A	2	Open	36c
JJ-034	2	Open	39c
SCA-2B	3	Open	42c
JJ-033	3	Open	48c

GROUNDING JACK

For aircraft grounds and similar applications.
Mallory No. GJ-1—Net Each..... **36c**

TELEPHONE JACKS (FIG. F)

For close strip mounting in switchboards; plain round bushing. Mounts by screw through mounting plate.

Mallory No. XP1—Open circuit type. Net Each.......................... **63c**

Mallory No. XP2B—Three circuit microphone type. Net Each....... **75c**

Mallory No. XP3B—Single circuit, make before break type. Net Each.. **90c**

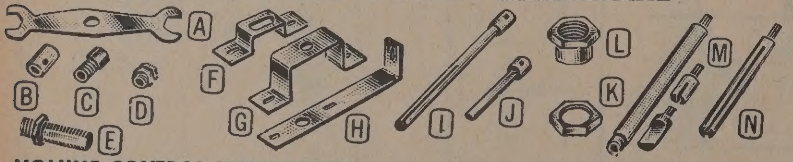
EXTENSION JACKS (FIG. G)

Mallory No.	Circuit	Shell	Net Each
100	2-way	Fiber	$1.08
100N	2-way	1-piece nickel	1.08
100A	2-way	2-piece nickel, built-in clamp	1.50

PHONE PLUGS (FIG. H)

Mal. No.	Circuit	Shell	Net Each
55	.. ....	Adapts mike con. to stand. jack	$0.30
75	2-way	Phenolic tie-cord anchor, shielded	.45
75A	2-way	Nickel, 2-piece, tie-cord anchor, built-in cble. clp.	1.05
75N	2-way	Nickel, tie-cord anchor, shielded	.66
76	3-way	Phenolic	.90
76A	3-way	Nickel, 2-piece, built-in cble. clp.	1.17
85	2-way	Miniature phone plug, shielded	.36

CONTROL AND SWITCH HARDWARE



VOLUME CONTROL NUT WRENCH

Mal. No.	Fig.	Description	Net Ea.
178	A	For 1/2" and 9/16" hex nuts	51c

COUPLERS, BUSHINGS

Mal. No.	Fig.	Description	Net Ea.
EC240	B	Univ. coupling and reducer	43c
EB247	C	Univ. extension bushing	13c
UB241	D	Univ. bushing and nut	12c
EB158	E	7/16" dble. flat. bushg.	32c
EB214	E	1/2" flatted bushing	75c

CONTROL AND SWITCH WASHERS

Mal. No.	Description	Pkg. 10
203	Extruded fiber; 3/4" O.D., 3/8" I.D.	18c
212	Flat phenolic; 3/4" O.D., 3/8" I.D.	10c
225	Nickel finish metal, 3/8" I.D.*	21c
226	Nickel finish metal, 7/16" I.D.*	21c
227	Cadmium plated lock washer‡	9c

*5/8" O.D. ‡11/16" O.D. 25/64" I.D.

ADJUSTABLE MOUNTING BRACKETS

Mal. No.	Fig.	Description	Net Ea.
RB248	F	1 3/4" mounting centers	5c
RB249	G	2 1/2" mounting centers	5c
RB254	H	Universal	5c

UNIVERSAL EXTENSION SHAFTS

Mal. No.	Fig.	Description	Net Ea.
RS242	I	4" long, 1/4" dia., 1/32" flat	57c
RS243	I	4" long, 1/4" dia., 3/32" flat	57c
RS244	I	4" long, 3/16" dia., 1/64" flat	57c
RS245	J	2" long, 1/4" dia., 3/32" slot	81c

HEX NUTS

Mal. No.	Fig.	Description	Net
232	K	7/16" hex, 3/8"-32	1c
255	L	1/4" panel shoulder	8c
A11260-12	L	1/2" panel shoulder	8c
A11260-2	L	3/4" panel shoulder	7c

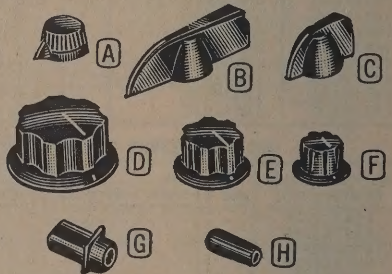
DIAL PLATES

Aluminum dial plates with figures etched on solid black background. 1 13/16" dia., 7/16" hole, figures 7/64" high, .020" thick.

Mallory No. -20° Spacing	Mallory No. -30° Spacing	Marking	Net Each
....	372	1 to 2	12c
453	373	1 to 3	12c
454	374	1 to 4	12c
455	375	1 to 5	12c
456	376	1 to 6	12c
457	377	1 to 7	12c
458	378	1 to 8	12c
459	379	1 to 9	12c
460	380	1 to 10	12c
461	381	1 to 11	12c
462	382	1 to 12	12c
463	....	1 to 13	12c
464	....	1 to 14	12c
465	....	1 to 15	12c
466	....	1 to 16	12c
467	....	1 to 17	12c
468	....	1 to 18	12c
472	....	Off 1 to 2	12c
473	383	Off 1 to 3	12c
474	384	Off 1 to 4	12c
475	385	Off 1 to 5	12c
476	386	Off 1 to 6	12c
477	387	Off 1 to 7	12c
478	388	Off 1 to 8	12c
479	389	Off 1 to 9	12c
480	390	Off 1 to 10	12c
481	....	Off 1 to 11	12c
482	....	Off 1 to 12	12c
483	....	Off 1 to 13	12c
484	....	Off 1 to 14	12c
485	....	Off 1 to 15	12c
486	....	Off 1 to 16	12c
....	394* Special	1 to 24	12c
....	487† Special	1 to 5	12c
....	488‡ Special	1 to 4	12c

Spacing between numerals: *15°,†60°,‡90°.

SWITCH AND CONTROL KNOBS



Mallory Number	Fig.	Description	Net Ea.
364	A	11/16" dia. black; pointer, 1/4" shaft	9c
365-1	B	2 1/4" blk bar; 1/4" shft	21c
366-1	C	1 1/4" blk bar; 1/4" shft	15c
366-R-1	C	1 1/4" red bar; 1/4" shft	15c
367-1	D	1 1/2" black; 1/4" shaft	21c
368-1	E	1" dia. blk; 1/4" shaft	20c
1910K	F	3/4" black; 1/8" shaft	20c
GS5149A	G	9/16" x 13/16" for lever switches; black	10c
LK171-1	H	5/16" dia. x 3/4" thd. for lever switch; black	10c

SHAFT EXTENSIONS

Mallory No. DS-36 (Fig. M)—1/4" dia. x 3" round for U, UT, UDT and TA controls. With one knurled and slotted, and one flatted shaft end knob adapters. Net.. **33c**

Mallory No. DS-37 (Fig. N)—3/16" dia. x 2 1/4" double slotted for use with U, UT, UDT and TA controls. Net Each ... **33c**

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OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
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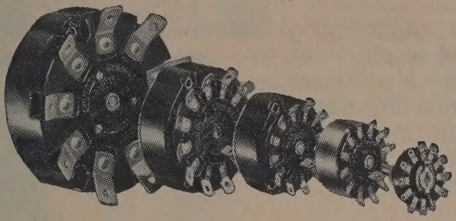
POWER TAP SWITCHES NON-SHORTING TYPE



Each switch is a non-shorting, single pole, rotary, multi-position unit, but switches can be ordered assembled 2 or 3 in tandem (2 maximum, for Model 111) to form multipole assemblies. All ceramic insulation, large, solid silver-to-silver contacts, and "slow-break" action especially designed for alternating current use establish new standards of dependability and performance. Switch shafts are electrically "dead"—insulated by strong ceramic hubs. Contacts and mechanism are entirely enclosed and protected (except for the Model 111).

MODEL 111 TAP SWITCH

Alternating Current Rating *10 Amps. 150 Volts* — Diameter 1¾″ — Shaft Diameter ¼″ — Standard Mounting: For ¼″ panel maximum, by means of ⅜″-32 threaded bushing and hex. nut.

Depth Behind Panel		Single Unit		2 in Tandem	
		1⅛″		2¾″	
No. of Taps	Total Rotation	Stock Number	*Net 1-4	Stock Number	*Net 1-2
11	300°	111-11	$4.78	111-11-T2	$12.86
10	270°	111-10	4.66	111-10-T2	12.62
9	240°	111- 9	4.54	111- 9-T2	12.38
8	210°	111- 8	4.42	111- 8-T2	12.14
7	180°	111- 7	4.30	111- 7-T2	11.90
6	150°	111- 6	4.18	111- 6-T2	11.66
5	120°	111- 5	4.06	111- 5-T2	11.42
4	90°	111- 4	3.94	111- 4-T2	11.18
3	60°	111- 3	3.82	111- 3-T2	10.94
2	30°	111- 2	3.70	111- 2-T2	10.70
Recommended Knobs		Stock No. 5150 or 5116		Stock No. 5109 or 5110	

*Without Knob.

MODEL 212 TAP SWITCH

Alternating Current Rating *15 Amps. 150 Volts* — Diameter 2¼″ — Shaft Diameter ¼″ — Standard Mounting: For ¼″ panel maximum, by means of ⅜″-32 threaded bushing and hex. nut. Tandem Mounting: For ¼″ panel maximum, three No. 10-32 flat-head machine screws ⅜″ long.

Depth Behind Panel		Single Unit		2 in Tandem		3 in Tandem	
		1¾″		4 3/16″		6 3/16″	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	212-12	$ 9.04	212-12-T2	$21.38	212-12-T3	$32.12
11	300°	212-11	8.86	212-11-T2	21.02	212-11-T3	31.58
10	270°	212-10	8.68	212-10-T2	20.66	212-10-T3	31.04
9	240°	212- 9	8.50	212- 9-T2	20.30	212- 9-T3	30.50
8	210°	212- 8	8.32	212- 8-T2	19.94	212- 8-T3	29.96
7	180°	212- 7	8.14	212- 7-T2	19.58	212- 7-T3	29.42
6	150°	212- 6	7.96	212- 6-T2	19.22	212- 6-T3	28.88
5	120°	212- 5	7.78	212- 5-T2	18.86	212- 5-T3	28.34
4	90°	212- 4	7.60	212- 4-T2	18.50	212- 4-T3	27.80
3	60°	212- 3	7.42	212- 3-T2	18.14	212- 3-T3	27.26
2	30°	212- 2	7.24	212- 2-T2	17.78	212- 2-T3	26.72
Recommended Knobs		Stock No. 5150 or 5116		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 312 TAP SWITCH

Alternating Current Rating *25 Amps. 300 Volts,* 150 V. A.C. between taps — Diameter 3 5/16″ — Shaft Diameter ¼″ — Standard Mounting: For ¼″ panel maximum, three No. 10-32 flat-head machine screws ⅜″ long.

Depth Behind Panel		Single Unit		2 in Tandem		3 in Tandem	
		2¼″		4⅝″		7″	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	312-12	$11.62	312-12-T2	$27.24	312-12-T3	$41.46
11	300°	312-11	11.44	312-11-T2	27.28	312-11-T3	40.92
10	270°	312-10	11.26	312-10-T2	26.92	312-10-T3	40.38
9	240°	312- 9	11.08	312- 9-T2	26.56	312- 9-T3	39.84
8	210°	312- 8	10.90	312- 8-T2	26.20	312- 8-T3	39.30
7	180°	312- 7	10.72	312- 7-T2	25.84	312- 7-T3	38.76
6	150°	312- 6	10.54	312- 6-T2	25.48	312- 6-T3	38.22
5	120°	312- 5	10.36	312- 5-T2	25.12	312- 5-T3	37.68
4	90°	312- 4	10.18	312- 4-T2	24.76	312- 4-T3	37.14
3	60°	312- 3	10.00	312- 3-T2	24.40	312- 3-T3	36.60
2	30°	312- 2	9.82	312- 2-T2	24.04	312- 2-T3	36.06
Recommended Knobs		Stock No. 5109 or 5110		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 412 TAP SWITCH

Alternating Current Rating *50 Amps. 300 Volts,* 150 V. A.C. between taps — Diameter 4 3/16″ — Shaft Diameter ¼″ — Standard Mounting: For ¼″ panel maximum three No. 10-32 flat-head machine screws ⅜″ long.

Depth Behind Panel		Single Unit		2 in Tandem		3 in Tandem	
		2 7/16″		5 1/32″		7⅝″	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	412-12	$15.46	412-12-T2	$35.32	412-12-T3	$52.98
11	300°	412-11	15.20	412-11-T2	34.80	412-11-T3	52.20
10	270°	412-10	14.94	412-10-T2	34.28	412-10-T3	51.42
9	240°	412- 9	14.68	412- 9-T2	33.76	412- 9-T3	50.64
8	210°	412- 8	14.42	412- 8-T2	33.24	412- 8-T3	49.86
7	180°	412- 7	14.16	412- 7-T2	32.72	412- 7-T3	49.08
6	150°	412- 6	13.90	412- 6-T2	32.20	412- 6-T3	48.30
5	120°	412- 5	13.64	412- 5-T2	31.68	412- 5-T3	47.52
4	90°	412- 4	13.38	412- 4-T2	31.16	412- 4-T3	46.74
3	60°	412- 3	13.12	412- 3-T2	30.64	412- 3-T3	45.96
2	30°	412- 2	12.86	412- 2-T2	30.12	412- 2-T3	45.18
Recommended Knobs		Stock No. 5111 or 5112		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

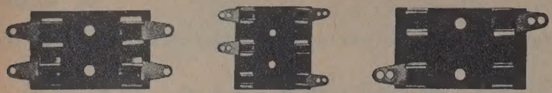
MODEL 608 TAP SWITCH

Alternating Current Rating *100 Amps. 300 Volts* — Diameter 6″ —Shaft Diameter ⅜″—Standard Mounting: For 1″ panel maximum, three flat-head machine screws ¼″-20 x 1¼″.

Depth Behind Panel		Single Unit		2 in Tandem		3 in Tandem	
		3 5/16″		6 13/16″		10 5/16″	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
8	280°	608-8	$25.54	608-8-T2	$57.68	608-8-T3	$85.42
7	240°	608-7	25.20	608-7-T2	57.00	608-7-T3	84.40
6	200°	608-6	24.86	608-6-T2	56.32	608-6-T3	83.38
5	160°	608-5	24.52	608-5-T2	55.64	608-5-T3	82.36
4	120°	608-4	24.18	608-4-T2	54.96	608-4-T3	81.34
3	80°	608-3	23.84	608-3-T2	54.28	608-3-T3	80.32
2	40°	608-2	23.50	608-2-T2	53.60	608-2-T3	79.30
Recommended Knobs		Stock No. 5104 or 5115 or 5105		Stock No. 5104 or 5115 or 5105		Stock No. 5115	

*Without Knob.

ntt NATIONAL TEL-TRONICS CORP.
YONKERS, N. Y.

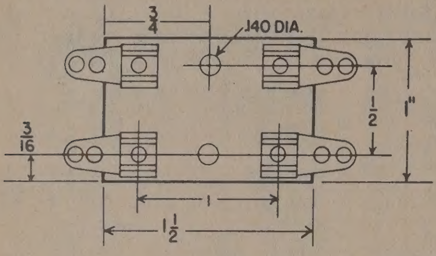


FUSE MOUNTING BASES

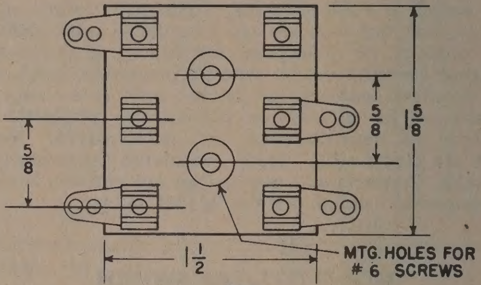
Fuse Mounting Bases to accommodate the 3AG Cartridge type auto fuses. Bases are made from 1/16", 1/8" and 3/16" thick XP laminated phenolic. Clips are made from spring brass nickel plated terminals .018 brass hot tinned.

Rectifier mounting bases made from XP laminated phenolic, clips are made from .020 spring brass cadmium or silver plated. Stops are lanced in clips and are assembled in a manner to insure polarization.

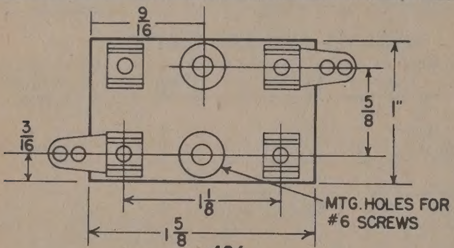
Diode clip base assemblies made to suit your specific needs. The diode clip employed, cuts soldering costs and insures good electrical connection.


3/4
.140 DIA.
1/2
1"
3/16
1
1 1/2

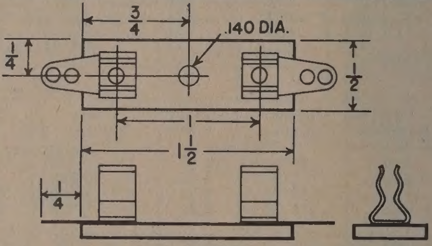
403


5/8
1 5/8
5/8
1 1/2
MTG. HOLES FOR
# 6 SCREWS

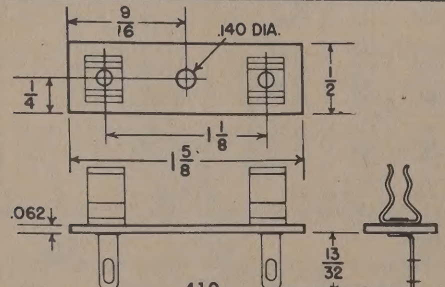
405


9/16
5/8
1"
3/16
1 1/8
1 5/8
MTG. HOLES FOR
#6 SCREWS

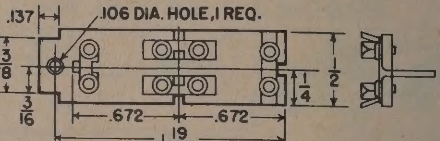
406


3/4
.140 DIA.
1/4
1/2
1
1 1/2
1/4

408

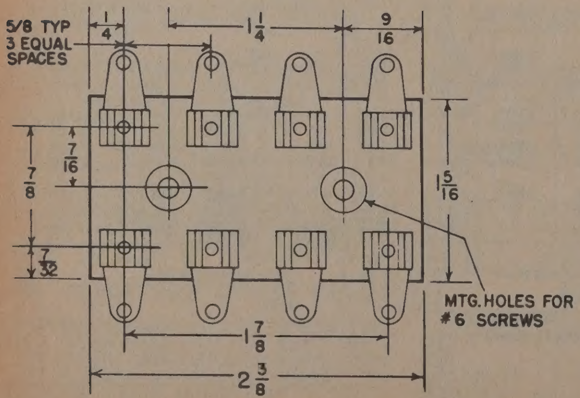

9/16
.140 DIA.
1/4
1/2
1 1/8
1 5/8
.062
13/32

410

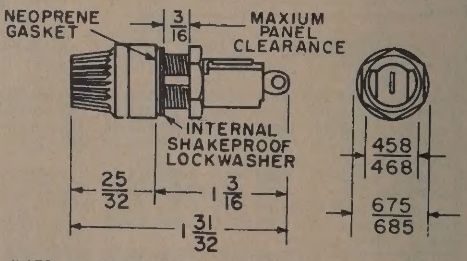

.137
.106 DIA. HOLE, 1 REQ.
3/8
3/16
1/4
1/2
.672
.672
1 19/32

DIODE CLIP BASE

420


5/8 TYP
3 EQUAL
SPACES
1/4
1 1/4
9/16
7/16
7/8
7/32
1 5/16
MTG. HOLES FOR
# 6 SCREWS
1 7/8
2 3/8

409


NEOPRENE
GASKET
3/16
MAXIUM
PANEL
CLEARANCE
INTERNAL
SHAKEPROOF
LOCKWASHER
25/32
1 3/16
1 31/32
458
468
675
685

#450 cartridge panel mount fuse holder is molded from black general purpose phenolic powder. All metal parts are plated to resist corrosion and solder lugs plated to facilitate production soldering. Rated at 15 Amps .250 volts and is underwriter laboratories approved.

Photos shown are not to size or scale

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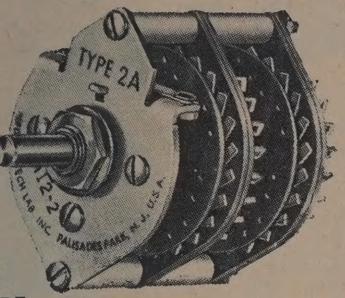
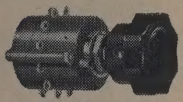
SWITCH TO TECH LABS for Precision Electrical Resistance Instruments

TAP SWITCHES



TYPE 2A & 2M

Standard control switch with phenolic or Melamine insulation, 3-5 amp. rating.



TYPE 3A MINIATURE TAP SWITCH

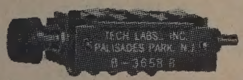
$3.00 List Without Handle

Molded from Diallyl Phthalate

Specifications

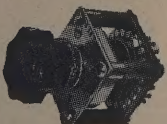
Size: 1″ diameter. 1¼″ with terminals. 1 deck, 1¹⁄₁₆″ long, ½″ for each additional deck.
Weight: 1 deck, 30 grams. 10 grams for each additional deck.
Rating: 1200 volts rms, 2000 VDC, 5 amps. (carrying) 115 V.
Insulating resistance: 100 megohms minimum at 500 volts DC.
Life: 1.5 — 2 million revolutions.
Contact resistance (standard): 6-10 milliohms. (silver): 3-5 milliohms.
Temperature range: —65°C to 100°C.
Mounting: single hole.
Meets MIL-S-3786A

CAM SWITCHES



TYPE 8A CAM SWITCH

A new development of great interest. Small size, long life and great flexibility. Have been made with from one to 30 contact springs. Will carry 3 amp. Standard unit has four contact springs and 10 positions, price $12.50.



TYPE 10A TAP SWITCH

A multi-deck switch of small dimensions, 1⅜″ sq. This is a precision switch designed to meet high requirements in smallest possible space. Up to 24 positions, shorting. Price approx. $10 per deck, plus frame $5.

The following standard switches are representative of those produced by Tech Laboratories, all of which meet government specifications. Write or teletype for further information

The Type 2A is the standard control switch for electronic instruments and high quality equipment. It is made in a number of combinations with as many as four poles per deck and 24 positions. Insulation is phenolic. The Type 2M is identical except for Melamine insulation. In the table, Code No. "S" stands for "shorting" and "N" for "non-shorting".

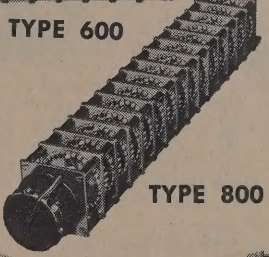
TYPE	CODE	DIA.	RATING	NO. POS.	NO. DECKS	POLD.	PRICE
2A	A1S24	1¾″	3A	24	1	1	$4.50
2A	A4S5	1¾″	3A	4	1	4	$6.00
2A	AIN10-2	1¾″	3A	10	2	1	$7.00
2M	M1S24	1¾″	3A	24	1	4	$5.50
2M	M4N3	1¾″	3A	3	1	4	$7.00

The new Type 3A molded miniature switch for use in all military and commercial applications in which a superior instrument switch is required, can be furnished with as many as eight decks and up to twelve positions per deck, single pole, or six positions double pole. It has adjustable stops for any lower number of steps.

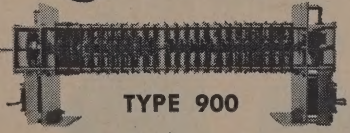
The switch, 1¼″ in diameter, carries 5 amp and is furnished "Shorting", with "non-shorting" types available on request. It can be supplied solenoid-operated and hermetically sealed. Write for details and prices.

SQUARE SWITCHES

TYPE 600



TYPE 800



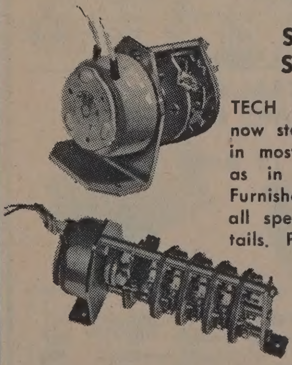
TYPE 900

These standard rugged control switches are the standby for equipment calling for dependable switches in a hurry. Will meet all standard government specs. All parts carried in stock. An infinite number of combinations possible. Teletype your specs.

The price of the basic frame is the same for all, viz. $4.00 each. The type 600 and 800 are priced at $8.00 per deck plus frame price, and the type 900 switches are $9.50 per deck plus frame $4.00.

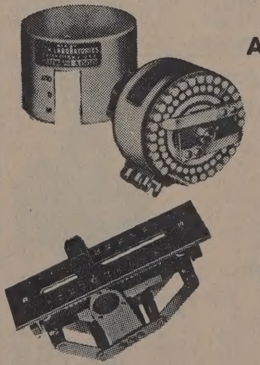
Type	Size	Rating	Max. Pos. Short.	Max. Pos. Non-Short.
600	1¾″ sq.	5A.	24	12
800	2¼″ sq.	5A.	32	16
900	2¾″ sq.	10A.	48	24

OTHER TECH LAB SWITCHES



STEPPING SWITCHES

TECH LAB switches are now standard equipment in most missiles as well as in ground controls. Furnished sealed to meet all specs. Write for details. Prices on request.



ATTENUATORS

A complete line of audio and r.f. attenuators with both manual and REMOTE CONTROL. We will design components to meet your specific requirements, if standard units are inadequate. Please write for catalogue and send us your specs for estimate.

WRITE FOR INFORMATION ON **NEW** DIGITAL BINARY SWITCHES

WRITE FOR NEW BULLETINS ON SWITCHES • DECADE RESISTORS • POTENTIOMETERS

TECH LABORATORIES INC. • Palisades Park, New Jersey

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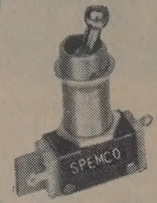
Net

SPEMCO H & H SWITCHES

BALL LEVER TOGGLE SWITCHES

Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1120 and 1121.

3 Amp.



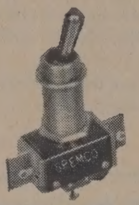
No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1120	SPST	15/32"	1 3/16"	1/2"	35/64"	.63 ea.
1122	SPDT	15/32"	1 9/16"	1/2"	35/64"	.81 ea.
1124	DPST	15/32"	1 9/16"	21/32"	35/64"	1.11 ea.
1126	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.29 ea.
*1121	SPST	1"	1 3/16"	1/2"	35/64"	.81 ea.
1123	SPDT	1"	1 9/16"	1/2"	35/64"	.96 ea.
1125	DPST	1"	1 9/16"	21/32"	35/64"	1.32 ea.
1127	DPDT	1"	1 9/16"	21/32"	29/32"	1.44 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

BAT LEVER TOGGLE SWITCHES

3 Amp.

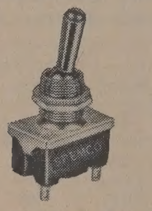
Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1135 and 1121B.



No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1135	SPST	15/32"	1 3/16"	1/2"	35/64"	.63 ea.
1136	SPDT	15/32"	1 9/16"	1/2"	35/64"	.81 ea.
1137	DPST	15/32"	1 9/16"	21/32"	35/64"	1.11 ea.
1138	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.29 ea.
*1121-B	SPST	1"	1 3/16"	1/2"	35/64"	.81 ea.
1123-B	SPDT	1"	1 9/16"	1/2"	35/64"	.96 ea.
1125-B	DPST	1"	1 9/16"	21/32"	35/64"	1.32 ea.
1127-B	DPDT	1"	1 9/16"	21/32"	29/32"	1.44 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

NEW "COMPACT" SWITCH



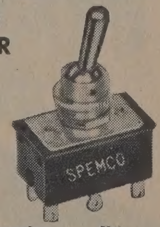
3 Amp.

Ideal for aircraft, missile, and electronic applications. Underwriter's approved 1 amp. 250 v., 3 amp. 125 v., AC-DC. Bakelite base. Bright nickel finish.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1205	SPST	15/32"	1 1/64"	41/64"	13/16"	.84 ea.
1206	SPDT	15/32"	1 1/64"	41/64"	13/16"	.99 ea.
1207	DPST	15/32"	1 1/64"	41/64"	13/16"	1.23 ea.
1208	DPDT	15/32"	1 1/64"	41/64"	13/16"	1.41 ea.

Sleeve Diameter—15/32"

MOLDED BAKELITE SWITCH, BAT LEVER



U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1143 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.

6 Amp.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1142	SPST	15/32"	1 1/4"	11/16"	15/16"	.84 ea.
*1143	SPDT	15/32"	1 1/4"	11/16"	15/16"	.99 ea.
1144	DPST	15/32"	1 1/4"	11/16"	15/16"	1.23 ea.
1145	DPDT	15/32"	1 1/4"	11/16"	15/16"	1.41 ea.

Sleeve Diameter—15/32"
*1 amp. 250 volts, 6 amp. 125 volts

BALL LEVER TOGGLE SWITCH

6 Amp.

Underwriters' approved 3A 250V, 6A 125V, molded bakelite base. Nickel plated finished. WITH 6" WIRE LEADS

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1154	SPST	3/8"	7/8"	1/2"	9/16"	.87 ea.

Sleeve Diameter—15/32"

UTILITY SWITCHES—Toggle Type For AC Uses

1185
1186

15 Amp.

1188
1194

Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1185	SPST	15/32"	1 1/8"	5/8"	15/16"	.72 ea.
1186	SPDT	15/32"	1 1/8"	5/8"	15/16"	.87 ea.
1188	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.14 ea.
1194	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.38 ea.

Sleeve Diameter—15/32"

MOMENTARY BAT LEVER TOGGLE SWITCHES

3 Amp.

Underwriters' approved, 3 amp. 125 volts, laminated bakelite base. Nickel plated finished.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1166	SPST	15/32"	1 3/16"	1/2"	35/64"	1.05 ea.
1167	SPDT	15/32"	1 9/16"	1/2"	35/64"	1.14 ea.
*1155	DPST	15/32"	1 9/16"	21/32"	35/64"	1.44 ea.
1150	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.65 ea.

Sleeve Diameter—15/32"
*1166 Normally Off *1155 Normally Off
*3 Amp 250V

15 Amp.

Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1196	SPST	15/32"	1 1/8"	5/8"	15/16"	.93 ea.
*1197	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.50 ea.

*Normally Off Sleeve Diameter—15/32"

NEUTRAL CENTER MOMENTARY BOTH ENDS

15 Amp.

Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1193	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.80 ea.
1195	SPDT	15/32"	1 1/8"	5/8"	15/16"	1.11 ea.

Sleeve Diameter—15/32"

NEUTRAL CENTER

15 Amp.

Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1187	SPDT	15/32"	1 1/8"	5/8"	15/16"	.87 ea.
1189	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.38 ea.

Sleeve Diameter—15/32"

6 Amp.

BAT LEVER TOGGLE SWITCH Neutral Center

Underwriters' approved, 6 amp. 125 volts, either AC or DC. A 3 position switch, on-off-on. Black bakelite case.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1175	SPDT	15/32"	1 13/16"	11/16"	1 1/16"	1.53 ea.
1176	DPDT	15/32"	1 13/16"	11/16"	1 1/16"	1.83 ea.

Sleeve Diameter—15/32"

6 Amp.

PUSH BUTTON DOUBLE ACTION SWITCH

Underwriters' approved, 6 amp. 125 volts. Press lever to make contact, press lever to break contact. Nickel plated finish or snap-on plastic button, in red or black.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1156	Nickel Plated	9/16"	1 1/8"	1/2"	9/16"	.90 ea.
1156-A	Red	9/16"	1 1/8"	1/2"	9/16"	1.11 ea.
1156-B	Black	9/16"	1 1/8"	1/2"	9/16"	1.11 ea.

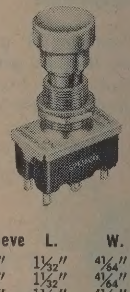
Sleeve Diameter—15/32"

"COMPACT" DOUBLE ACTION (PUSH-PUSH) SWITCH QUICK MAKE AND BREAK ACTION

3 Amp.

Rated at 1 Amp. 250 Volts and 3 Amps. 125 Volts, A.C. and D.C.

Solder lug terminals with double wiping blade mechanism.



No.	Description	Sleeve	L.	W.	H.	Net Price Each
1215	SPST	9/16"	1 1/32"	41/64"	13/16"	1.11
1215-B	SPST	9/16"	1 1/32"	41/64"	13/16"	1.32
1215-R	SPST	9/16"	1 1/32"	41/64"	13/16"	1.32
1216	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.26
1216-B	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.53
1216-R	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.53
1217	DPST	9/16"	1 1/32"	41/64"	13/16"	1.62
1217-B	DPST	9/16"	1 1/32"	41/64"	13/16"	1.77
1217-R	DPST	9/16"	1 1/32"	41/64"	13/16"	1.77
1218	DPDT	9/16"	1 1/32"	41/64"	13/16"	1.71
1218-B	DPDT	9/16"	1 1/32"	41/64"	13/16"	1.92
1218-R	DPDT	9/16"	1 1/32"	41/64"	13/16"	1.92

Sleeve Diameter—15/32"
(B, means black button, R, means Red button and just the number, nickel.)

SPECIALTIES MANUFACTURING CO. • Detroit, Michigan

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SPEMCO H & H SWITCHES

"COMPACT" MOMENTARY ACTION PUSH SWITCH QUICK MAKE AND BREAK ACTION

3 Amp.

Rated at 1 Amp. 250 Volts
3 Amps. 125 Volts A.C.-D.C.

Solder lug terminals with double wiping bade mechanism

No.	Description	Sleeve	L.	W.	H.	Net Price Each
*1219	SPST	9/16"	1 1/32"	41/64"	13/16"	1.35
*1219-B	SPST	9/16"	1 1/32"	41/64"	13/16"	1.56
*1219-R	SPST	9/16"	1 1/32"	41/64"	13/16"	1.56
1220	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.62
1220-B	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.83
1220-R	SPDT	9/16"	1 1/32"	41/64"	13/16"	1.83
*1221	DPST	9/16"	1 1/32"	41/64"	13/16"	1.89
*1221-B	DPST	9/16"	1 1/32"	41/64"	13/16"	2.07
*1221-R	DPST	9/16"	1 1/32"	41/64"	13/16"	2.07
1222	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.04
1222-B	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.19
1222-R	DPDT	9/16"	1 1/32"	41/64"	13/16"	2.19

Sleeve Diameter—15/32"

(B, means black button, R, means Red button and just the number, nickel.)
*SPST & DPST—Normally Off.

MIDGET MOMENTARY PUSH BUTTON SWITCHES

3 Amp.

Underwriters' approved, 3 amp. 120 volts, AC. Molded bakelite base, nickel plated finish.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1141	SP Norm. Closed	9/16"	1 1/32"	9/16"	29/64"	.54 ea.
1141-A	SP Norm. Open	9/16"	1 1/32"	9/16"	29/64"	.54 ea.

Sleeve Diameter—15/32"

3 Amp.

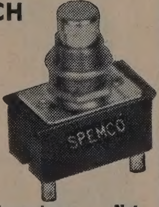
Underwriters' approved, 3 Amp. 120v, AC, Nickel plated finish, Molded bakelite base. Single Pole, slow make and slow break with bakelite snap-On button in red or black.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1157-A	Open—Red	9/16"	1 1/32"	9/16"	29/64"	.93 ea.
1157-B	Open—Black	9/16"	1 1/32"	9/16"	29/64"	.93 ea.
1157-C	Closed—Red	9/16"	1 1/32"	9/16"	29/64"	.93 ea.
1157-D	Closed—Black	9/16"	1 1/32"	9/16"	29/64"	.93 ea.

Sleeve Diameter—15/32"

INTERMEDIATE MOMENTARY PUSH SWITCH

6 Amp.



U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1147 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
**1146	SPST	1/2"	1 1/4"	11/16"	15/16"	1.41 ea.
*1147	SPDT	1/2"	1 1/4"	11/16"	15/16"	1.59 ea.
**1148	DPST	1/2"	1 1/4"	11/16"	15/16"	1.83 ea.
1149	DPDT	1/2"	1 1/4"	11/16"	15/16"	2.01 ea.

*1 amp. 250 volts, 6 amp 125 volts
**1146 & 1148 Normally off. Sleeve Diameter—15/32"

MOMENTARY "SLOW-MAKE & BREAK" NORMALLY OFF

15 Amp.

Rated at 10 Amps. 250 Volts
15 Amps. 125 Volts
1/4 H.P. 250 V. AC ONLY

Solder lug, double slotted sleeve, 3/16" travel plus 1/16" overtravel. Operating pressure 6 ozs. increasing to 2 lbs. 6 ozs. when plunger is fully depressed.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1225	DPST	15/32"	1 5/16"	3/4"	1"	1.71 ea.

Sleeve Diameter—15/32"

MOMENTARY PUSH BUTTON SWITCH, NORMALLY OFF

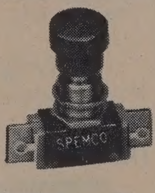
16 Amp.

Underwriters' approved, 16 amp. 125 V., 8 amp. 250 V., 1 H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1160	DPST	15/32"	1 3/4"	13/16"	25/32"	1.80 ea.

Sleeve Diameter—15/32"

1 Amp.



Two circuit, slow make and slow break, momentary switch. One circuit normally on, the other off, with snap-on plastic button, in red or black. (Pushing the button reverses the contact.) 1 Amp. 125 Volts AC.
Underwriters' Approved

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1158-A	Red	7/16"	1 19/32"	15/32"	17/32"	1.11 ea.
1158-B	Black	7/16"	1 19/32"	15/32"	17/32"	1.11 ea.

Sleeve Diameter—15/32"

POWER SWITCHES

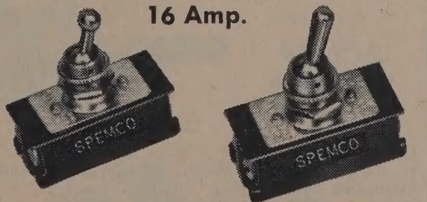
10 Amp.

Underwriters' approved, 10 amp. 125 volts. 5 amp. 250 A.C., 3/4 H.P. 250V. A.C. 1/2 H.P. 250V A.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1133	SPST	11/32"	1 5/16"	17/32"	1 5/16"	1.08 ea.
1133-B	Bakelite lever		1 5/16"	17/32"	1 5/16"	.69 ea.

*15/32" sleeve diameter

16 Amp.

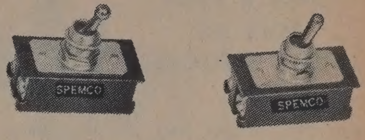


Underwriters' approved, 16 amp. 125V., 8 amp. 250V. A.C.-D.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1159	DPST	15/32"	1 3/4"	13/16"	25/32"	1.23 ea.
1159-B	DPST	15/32"	1 3/4"	13/16"	25/32"	1.23 ea.

1159—Ball Lever 1159-B—Bat Lever
Sleeve Diameter—15/32"

POWER SWITCHES 20 Amp.



Underwriters' approved 20 amp, 125 V., 10 amp. 250 V. 1 1/2 H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1134	DPST	15/32"	2"	1"	7/8"	2.07 ea.
1134-B	DPST	15/32"	2"	1"	7/8"	2.07 ea.

1134—Ball Lever 1134-B Bat Lever
Sleeve Diameter—15/32"

20 Amp.

Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125V., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170-S	DPST	11/32"	2 1/4"	1 1/8"	1 5/32"	3.00 ea.

Sleeve Diameter—1/2"

20 Amp.

Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125V., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170	DPST	17/32"	2 1/4"	1 1/8"	1 5/32"	3.00 ea.

Sleeve Diameter—15/32"

EXTRA HEAVY DUTY SWITCH NEUTRAL CENTER 10 Amp.

Used in heavy current circuits, such as transmitters, power amplifiers, motors, etc. Contacts have fast 'break' which reduces the tendency to arc. Rated at 10 amp. 125 volts, 5 amp, 250 volts, 3/4 HP 250 volts.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1161-A	DPDT	11/32"	2"	1 5/16"	1"	4.65 ea.
1161	DPDT	11/32"	2"	1 5/16"	1"	4.65 ea.

Straight thru, no off-center* Sleeve Diameter—3/4"

20 Amp. & 30 Amp.

3-9/32" mounting centers

1161-B
10 Amp. 250 Volts
20 Amp. 125 Volts

1161?C
20 Amp. 250 Volts
30 Amp. 125 Volts
Both AC-DC

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1161-B	DPDT		2 1/2"	1 19/32"	1 21/32"	7.05 ea
1161-C	DPDT		2 7/8"	1 13/16"	2"	9.45 ea.
*1161-D	DPDT		2 1/2"	1 19/32"	1 21/32"	7.05 ea.

*20 Amp. Straight thru-no off center.

10 Amp.

Rated 10 amp. 125 volts, 1/2 HP, 115-230 volts AC. 5 amp. 250 volts.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1177	3 PDT	13/32"	2 5/16"	2"	1 1/8"	7.05 ea.
1178	4 PDT	13/32"	2 5/16"	2"	1 1/8"	8.85 ea.

Sleeve Diameter—3/4"

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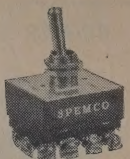
SPEMCO H & H SWITCHES

THREE & FOUR POLE AC UTILITY SWITCHES



15 amp. 125V., 10 amp. 250V. AC., except Nos. 1200 and 1201 which is 10 amp. 250V. AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1198	3PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	2.40 ea.
1199	3PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	3.00 ea.
*1200	4PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	3.45 ea.
*1201	4PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	4.20 ea.

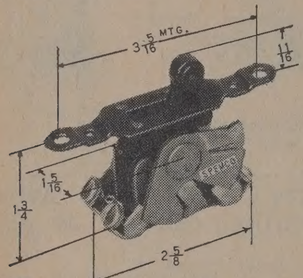
Sleeve Diameter—15/32"

*10 amp. 250 V. A.C.
*½ H.P. 115-230 V. A.C.

HEAVY DUTY SWITCHES
Toggle Type

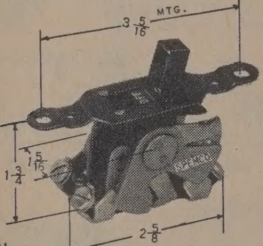
Underwriters' approved, 30 amp. 250 volts, AC DC. 2 H.P., 115V-230V AC; 1 H.P., 460V AC For use on Food Machines, Grinders, Sanders, Machine Tools, Gasoline Pumps, etc.

Roller Type Lever 30 Amp.



1190

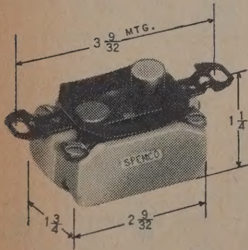
Square Bakelite Lever 30 Amp.



1191

No.	Description	Net Price
1190	DPST	2.85 ea.
1191	DPST	2.85 ea.

METAL PUSH BUTTON TYPE NORMALLY OPEN 20 Amp.



No. 1192

Description	Net Price
DPST	2.85 ea.

Underwriters' approved, 20 amp. 250 volts, 2 H.P. 230V AC, 2 H.P. 250V DC. For use on Floor Sander, as a foot switch, etc.

PORTABLE TOOL HANDLE SWITCHES
12 Amp.

Tool handle switch, fully enclosed, normally OFF with locking latches. Rated and approved by the Underwriters' for 6 amp. 250 volts, 12 amp. 125 volts, 1 H.P. 250 volts, 1¾" long, 13/16" wide, ⅞" high.

No.	Description	Net Price
1168	DPST	2.01 ea.

4 Amp.

Direct Pull Trigger with Latch.
2 amp., 250 volts.
4 amp., 125 volts.

SPST Momentary Contact

NO.	BASE DIMENSIONS L.	W.	H.	Net Price
1169	1 5/64"	21/32"	1 5/64"	1.14 ea.

S. P. MOMENTARY CONTACT
3 Amp.

Pressure lever switch with Holding Latch rated at;
3 Amp.—
125 volts A.C.

NO.	BASE DIMENSIONS L.	W.	H.	Net Price
1171	7/8"	3/16"	1 1/8"	.63 ea.

INDICATING SLIDE LEVER SWITCH

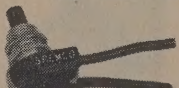
6 Amp.

Rated at
3 Amp.—250 volts
6 Amp.—125 volts

SINGLE POLE Screw Terminal

NO.	L.	W.	H.	Net Price
1174	7/8"	1/2"	17/32"	1.26 ea.

ROTARY CANOPY SWITCH
With Fixed Plastic Handle

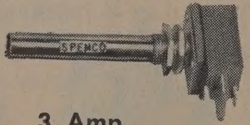


3 Amp.

Underwriters' approved, 3 amp. 125 volts. 1 amp. 250 volts.

No.	Stem	Wire Lead	Net Price
1179	7/16"	6"	.42 ea.

ROTARY SWITCHES



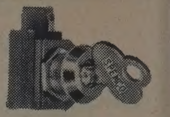
3 Amp.

Underwriters' approved, 1 amp. 250 V., 3 amp. 125 V. AC-DC (Except #1128). Nickel plated finish. Laminated bakelite base.

No.	Description	Shaft	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1128	SPST	1 1/8"	3/8"	3/16"	3/4"	9/16"	.81 ea.
1129	SPDT	1 1/8"	3/8"	9/16"	3/4"	9/16"	.99 ea.
1130	DPST	1 1/8"	3/8"	9/16"	3/4"	11/16"	1.32 ea.
1131	DPDT	1 1/8"	3/8"	9/16"	3/4"	1 1/8"	1.62 ea.

*1128 rated 3 amp. 250 V. AC-DC. 1/32"
Sleeve Diameter—11/32"

3 Amp. ROTO-LOCK SWITCH

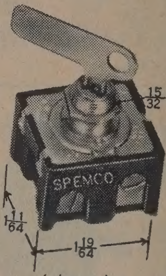


Underwriters' Approved,
3 amp. 250 volts.
Except #1129-K & 1131-K

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1128-K	SPST (With Key) (above key removable in off position only)	15/32"	1 3/16"	3/4"	9/16"	1.44 ea.
1128-KA	Key only for above					.21 ea.
1128-KE	SPST (With Key) (above key removable in either position)	15/32"	1 3/16"	3/4"	9/16"	1.44 ea.
*1129-K	SPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	1/2"	3/4"	1.56 ea.
*1131-K	DPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	3/4"	3/4"	2.07 ea.
1128-KEA	Key—fits 1128-KE, 1129-K, and 1131-K					.21 ea

*1129-K & 1131-K—U.L. approved, 1 amp. 250 V., 3 amp. 125V., AC-DC. **Sleeve Diameter—15/32"**

ROTO-LOCK SWITCH



20 Amp.

Underwriters' approved.
20 amp. 120 volts,
240 volts AC.

1½ H.P.—120 volts AC
2 H.P.—120 volts AC

(with key)
(above key removable in off position only)

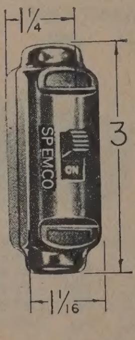
No.	Description	Sleeve	Net Price
1130-K	DPST (With Key)	9/16"	2.64 ea.
1130-KA	Key Only for above		.27 ea.

FEED THROUGH CORD SWITCH

10 Amp.

Underwriters' approved, black bakelite case sliding lever, 10 amp. 125 volts, 5 amp. 250 volts. 5/16" cord hole.

No.	Description	Net Price
1163	SP	1.29 ea.



FEED THROUGH CORD SWITCH
15 Amp.

13/32 (.406) Inch Cord Hole

For Appliance Use Only:

Rated at 10 Amp.—250 volts
15 Amp.—125 volts

No.	Description	Net Price
1164	DP (with 3rd wire ground)	4.65 ea.

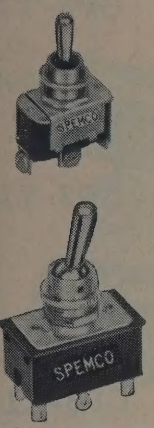
SPECIALTIES MANUFACTURING CO. • Detroit, Michigan

SPEMCO H & H SWITCHES

MILITARY TYPE TOGGLE SWITCHES

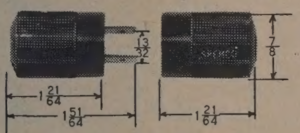
Manufactured of materials and in accordance with specification Mil-S-3950

MS-25098 and MS-35058—Single Pole
MS-25100 and MS-35059—Double Pole


SPEMCO
SPEMCO

MS Part No.	Up Position	Center Position	Down Position Keyway Side	Net Price
MS-25098-22	On	None	Off	$216.75C
MS-25098-23	On	None	On	233.25C
MS-25100-22	On	None	Off	266.25C
MS-25100-23	On	None	On	283.50C
MS-35058-21	On	Off	On	195.75C
MS-35058-22	On	None	Off	162.75C
MS-35058-23	On	None	On	195.75C
MS-35058-24	On	Off	None	162.75C
MS-35058-25	On	Mom. Off	None	179.25C
MS-35058-26	On	None	Mom. On	212.25C
MS-35058-27	Mom. On	Off	Mom. On	212.25C
MS-35058-28	None	Off	Mom. On	179.25C
MS-35058-29	On	None	Mom. Off	179.25C
MS-35058-30	Off	None	Mom. On	179.25C
MS-35058-31	On	Off	Mom. On	230.25C
MS-35059-21	On	Off	On	261.75C
MS-35059-22	On	None	Off	217.50C
MS-35059-23	On	None	On	261.75C
MS-35059-24	On	Off	None	217.50C
MS-35059-25	On	Mom. Off	None	261.75C
MS-35059-26	On	None	Mom. On	283.50C
MS-35059-27	Mom. On	Off	Mom. On	283.50C
MS-35059-28	None	Off	Mom. On	261.75C
MS-35059-29	On	None	Mom. Off	261.75C
MS-35059-30	Off	None	Mom. On	261.75C
MS-35059-31	On	Off	Mom. On	283.50C

CORD CONNECTORS
10 Amp.


13/32
7/8
1 21/64
1 51/64
1 21/64

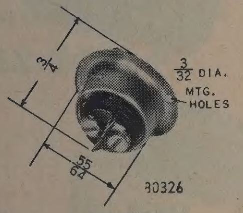
Brown Bakelite Cord Connector Complete, ⅞" O.D. x 2½" long. 10 amps. 250 volts. End opening for wire size up to ⅜" O.D.

No.	Description	Net Price
1162	Complete	1.86 ea.
1162-F	Female Part	1.02 ea.
1162-M	Male Part	1.02 ea.

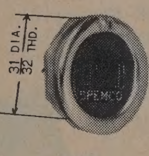
RECEPTACLES

Underwriters' approved, 10 amp. 250 volts AC.

Short Female Flush Receptacle 10 Amp.


3/4
3/32 DIA. MTG. HOLES
55/64

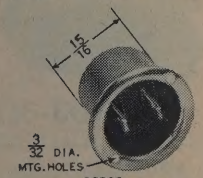
80326


31/32 DIA. THD.
SPEMCO

80327

No.	Description	Net Price
80326	2 Screw Mounting	1.14 ea.
80327	Lock Nut Mounting	1.86 ea.

Recessed Male Receptacle 10 Amp.

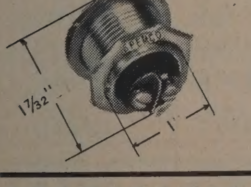

15/16
3/32 DIA. MTG. HOLES

80328

80329

No.	Description	Net Price
80328	2 Screw Mounting	1.32ea.
80329	Lock Nut Mounting	1.86 ea.

Recessed Female Receptacle 10 Amp.


SPEMCO
1 7/32"
1"

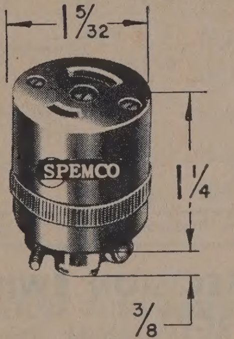
No.
80331

Description
Lock Nut Mounting

Net Price
1.86 ea.

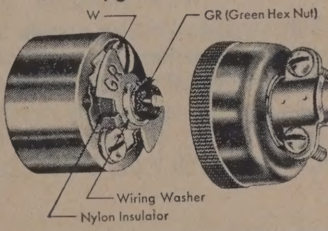
TURN TO LOCK COMPACT RECEPTACLES 3-WIRE GROUNDING TYPE
15 Amp. 125 Volt

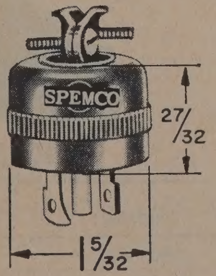
Brass metal casings, finished to resist corosion. Black bakelite is standard.


1 5/32
SPEMCO
1 1/4
3/8

Female Connector No. 1250

Net Price
$2.10 ea.

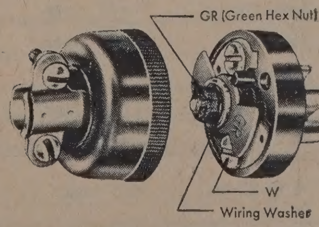

W
GR (Green Hex Nut)
GR
Wiring Washer
Nylon Insulator


SPEMCO
27/32
1 5/32

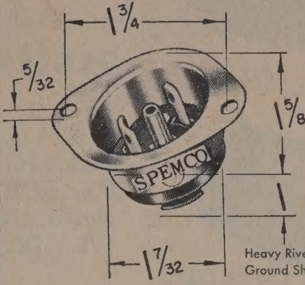
Male Connector

No. 1251

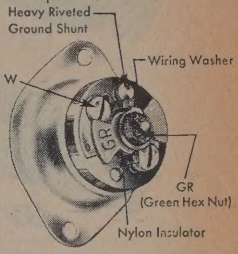
Net Price
$1.65 ea.


GR (Green Hex Nut)
W
Wiring Washer

Male Receptacle

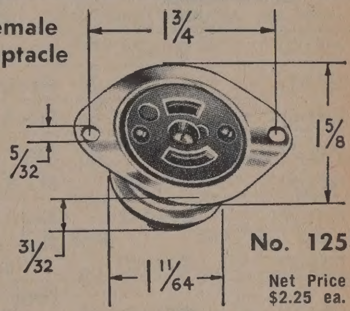

1 3/4
5/32
1 5/8
1 7/32
SPEMCO

No. 1252


Heavy Riveted Ground Shunt
Wiring Washer
W
GR
GR (Green Hex Nut)
Nylon Insulator

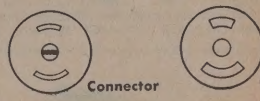
Net Price
$1.95 ea.

Female Receptacle


1 3/4
1 5/8
5/32
31/32
1 11/64

No. 1253

Net Price
$2.25 ea.


Configuration
Connector
Cap

HARDWARE

for 1⁵⁄₃₂" diameter sleeve.

No.	Description	Price
1132-HL	Hi-Lo Plate	.036 ea.
1132	On and Off Plate	.036 ea.
1132-H	Hex Nut	.024 ea.
1132-K	Knurled Nut	.024 ea.
1210	Lockwasher	1.80C
1211	Locking Ring	2.40C

PHENOLIC SNAP-ON BUTTON

No.	Color	Net Price
1212-B	Black	.21 ea.
1212-R	Red	.21 ea.
1212-W	White	.21 ea.

All aforementioned switches, connectors and receptacles are manufactured by H&H for Specialties Manufacturing Company.

SLIDE SWITCHES

Housings are made of steel and are cadmium plated 1¹³⁄₃₂" long, 35/64" wide and 1⅛" mounting centers.

No.	Description	Net Price
1180	SPST .75A-125V AC-DC	.104 ea.
1181	SPDT .75A-125V AC-DC	.168 ea.
1182	DPST .50A-125V AC-DC	.216 ea.
1183	DPDT .50V-125V AC-DC	.258 ea.

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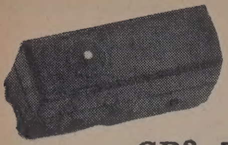
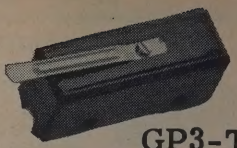
SPEMCO

H & H PRECISION SWITCHES



GP3-Z1

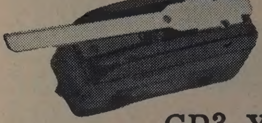


GP3-T1

GENERAL PURPOSE PRECISION SWITCHES SPDT

H & H General Purpose Precision Switches feature high electrical rating combined with very low operating force and long life. SPDT units may be wired normally open or normally closed. UL and CSA approved: 15 amp. 480 V AC, ½ amp. 125 V DC, ¼ amp. 250 V DC.

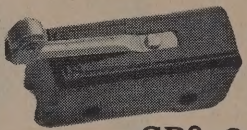
GP3-W1



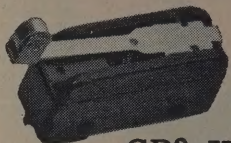
GP3-Y1

GP3-V1

GP3-U1



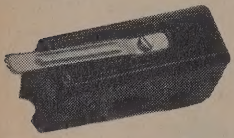
GP3-Q1



GP3-X1

SPEMCO NUMBER		*1				LIST PRICE	
Solder Lug	Screw Term.	ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	Solder Lug	Screw Term.
GP3-Z1	GP3-Z2	Pin Type	9 to 13 oz.	.015" max.	.005" min.	$155.00 C.	$165.00 C.
GP3-T1	GP3-T2	Flexible Leaf	5 oz. max.	5/32" max.	Not over 1/16"	170.00 C.	180.00 C.
GP3-Q1	GP3-Q2	Std. Roller Leaf	5 oz. max.	5/32" max.	Not over 1/16"	215.00 C.	220.00 C.
GP3-Y1	GP3-Y2	Rigid Hinge Lever	2½ oz.	3/8" max.	.219" min.	200.00 C.	205.00 C.
GP3-X1	GP3-X2	Std. Roller Lever	3½ oz. max.	9/32" max.	.156" min.	250.00 C.	260.00 C.
GP3-W1	GP3-W2	Short Roller Lever	6 oz. max.	9/64" max.	3/32" min.	250.00 C.	260.00 C.
GP3-V1	GP3-V2	Short Overtravel Button	9 to 13 oz.	1/64" max.	1/16" min.	190.00 C.	195.00 C.
GP3-U1	GP3-U2	Panel Mounted Plunger	9 to 13 oz.	1/64" max.	7/32" min.	345.00 C.	350.00 C.

*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, none; 10-19, 10%; 20-49, 20%; 50-99, 30%.

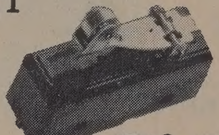


HD3-T1

HD3-Z1

HEAVY DUTY PRECISION SWITCHES SPDT

H & H Heavy Duty Precision Switches provide high inrush capacity and retain similar performance and actuating characteristics found in the General Purpose units. SPDT switches can be wired normally open or normally closed. UL and CSA approved: 20 amp. 480 V AC, 10 amp. 125 V AC "L" load, ½ amp. 125 V DC, ¼ amp. 250 V DC, 1 H.P. 120 V AC, 2 H.P. 240 V AC.

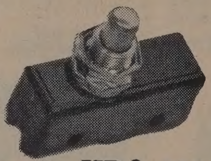


HD3-W1

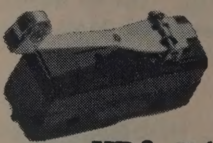
HD3-Q1

HD3-V1

HD3-Y1



HD3-U1



HD3-X1

SPEMCO NUMBER		*1				LIST PRICE	
Solder Lug	Screw Term.	ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	Solder Lug	Screw Term.
HD3-Z1	HD3-Z2	Pin Type	14 to 22 oz.	.050" max.	.010" min.	$160.00 C.	$170.00 C.
HD3-T1	HD3-T2	Flexible Leaf	9 oz. max.	11/32" max.	Not over 1/16"	180.00 C.	185.00 C.
HD3-Q1	HD3-Q2	Std. Roller Leaf	9 oz. max.	11/32" max.	Not over 1/16"	225.00 C.	230.00 C.
HD3-Y1	HD3-Y2	Rigid Hinge Lever	2½ oz. max.	5/8" max.	.078" min.	205.00 C.	210.00 C.
HD3-X1	HD3-X2	Std. Roller Lever	2½ oz. max.	15/32" max.	1/16" min.	260.00 C.	265.00 C.
HD3-W1	HD3-W2	Short Roller Lever	6 oz. max.	1/4" max.	1/32" min.	260.00 C.	265.00 C.
HD3-V1	HD3-V2	Short Overtravel Button	14 to 22 oz.	.050" max.	.093" min.	195.00 C.	200.00 C.
HD3-U1	HD3-U2	Panel Mounted Plunger	14 to 22 oz.	.050" max.	.219" min.	355.00 C.	360.00 C.

*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, none; 10-19, 10%; 20-49, 20%; 50-99, 30%.

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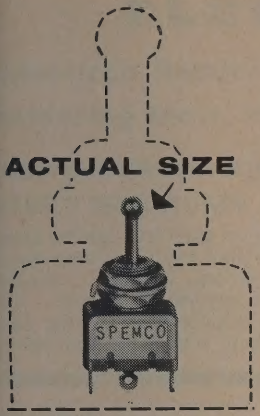
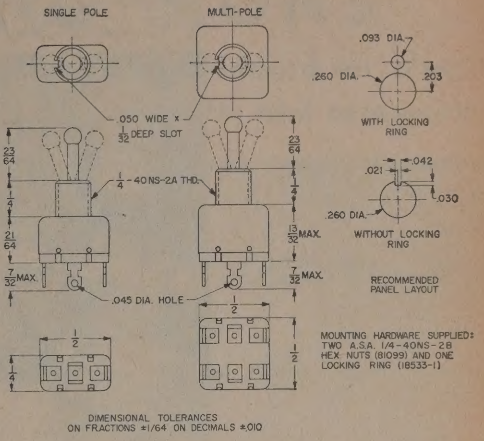
SPEMCO H & H SUBMINIATURE SWITCHES


ACTUAL SIZE
SPEMCO

SUBMINIATURE TOGGLE SWITCHES

Meeting requirements of MIL-S-3950 as applicable to SCL-6305

Spemco Subminiature Switches are 1/10 the volume of the standard switch shown in dotted outline.


SINGLE POLE
MULTI-POLE
.050 WIDE x $\frac{1}{32}$ DEEP SLOT
$\frac{23}{64}$
$\frac{1}{4}$-40NS-2A THD.
$\frac{1}{4}$
$\frac{21}{64}$
$\frac{13}{32}$ MAX.
$\frac{7}{32}$ MAX.
.045 DIA. HOLE
$\frac{1}{2}$
.093 DIA.
.260 DIA.
.203
WITH LOCKING RING
.042
.021
.030
WITHOUT LOCKING RING
RECOMMENDED PANEL LAYOUT
MOUNTING HARDWARE SUPPLIED: TWO A.S.A. 1/4-40NS-28 HEX NUTS (81099) AND ONE LOCKING RING (18533-1)
DIMENSIONAL TOLERANCES ON FRACTIONS ±1/64 ON DECIMALS ±.010

OPERATING CHARACTERISTICS

CONTACT RATINGS: 5 amp resistive at 29 volts DC or 115 volts AC.

DIELECTRIC STRENGTH: 1000 volts RMS at sea level.

VIBRATION: 5-28 CPS at 0.5 inch double amplitude; 28-2000 CPS at 20 G.

SHOCK: 50 G for 11 milliseconds.

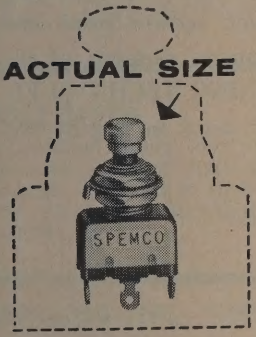
ELECTRICAL LIFE (minimum): 20,000 make and break cycles.

SEAL: Low temperature rubber boot for panel is available.

WEIGHT: From 3.0 to 5.0 grams maximum.

TERMINALS: Solder lugs.

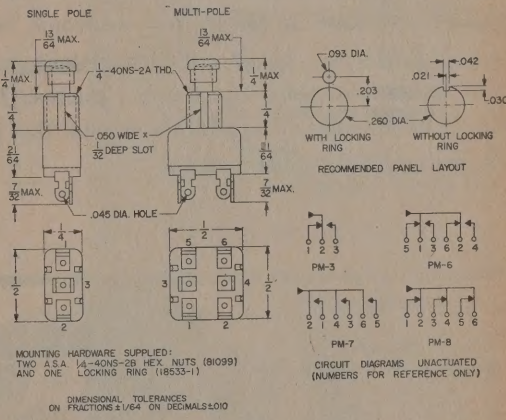
Spemco Number	Description	CIRCUIT ARRANGEMENT Down Position Keyway Side	 Center Position	 Up Position	Net Price
TS-3	SPDT	On	None	On	$3.00 ea.
TC-3	SPDT	On	Off	On	3.20 ea.
TE-3	SPDT	Mom. On	Off	On	3.20 ea.
TG-3	SPDT	Mom. On	Off	Mom. On	3.20 ea.
TM-3	SPDT	Mom. On	None	On	3.20 ea.
TS-6	DPDT	On	None	On	3.90 ea.
TC-6	DPDT	On	Off	On	4.28 ea.
TG-6	DPDT	Mom. On	Off	Mom. On	4.28 ea.


ACTUAL SIZE
SPEMCO

SUBMINIATURE PUSH BUTTON SWITCHES, MOMENTARY

Featuring gold plated coin silver contacts and gold plated brass terminals. Ideal for aircraft, missile, electronic and other applications demanding small size and dependability.

Spemco Subminiature Switches are 1/10 the volume of the standard switch shown in dotted outline.


SINGLE POLE
MULTI-POLE
$\frac{13}{64}$ MAX.
$\frac{1}{4}$ MAX
$\frac{1}{4}$-40NS-2A THD.
$\frac{1}{4}$
.050 WIDE x $\frac{1}{32}$ DEEP SLOT
$\frac{21}{64}$
$\frac{7}{32}$ MAX.
.045 DIA. HOLE
$\frac{1}{2}$
1
2
3
4
5
6
.093 DIA.
.203
.260 DIA.
.042
.021
.030
WITH LOCKING RING
WITHOUT LOCKING RING
RECOMMENDED PANEL LAYOUT
1 2 3
PM-3
5 1 3 6 2 4
PM-6
2 1 4 3 6 5
PM-7
1 2 3 4 5 6
PM-8
CIRCUIT DIAGRAMS UNACTUATED (NUMBERS FOR REFERENCE ONLY)
MOUNTING HARDWARE SUPPLIED: TWO A.S.A. 1/4-40NS-2B HEX NUTS (81099) AND ONE LOCKING RING (18533-1)
DIMENSIONAL TOLERANCES ON FRACTIONS ±1/64 ON DECIMALS ±.010

OPERATING CHARACTERISTICS

CONTACT RATING: 2 amp resistive at 29 volts DC or 1 amp at 115 volts AC.

DIELECTRIC STRENGTH: 1000 volts RMS at sea level.

VIBRATION: 5-28 CPS at 0.5 inch double amplitude; 28-2000 CPS at 20 G.

SHOCK: 50 G for 11 milliseconds.

ELECTRICAL LIFE (minimum): 20,000 make and break cycles.

WEIGHT: From 2.5 to 4.0 grams maximum.

TERMINALS: Solder lugs.

PUSH BUTTON: White nylon button shown in photo is snap-on type. On request, buttons can be colored black, blue, brown, green, red or yellow.

Spemco Number	CIRCUIT DESCRIPTION	Net Price
PM-3	SPDT — Momentary	$2.86 ea.
PM-6	DPDT — Momentary	3.51 ea.
PM-7	3PST — Normally Open	3.31 ea.
PM-8	3PST — Normally Closed	4.65 ea.

SPECIALTIES MANUFACTURING CO. • **Detroit, Michigan**

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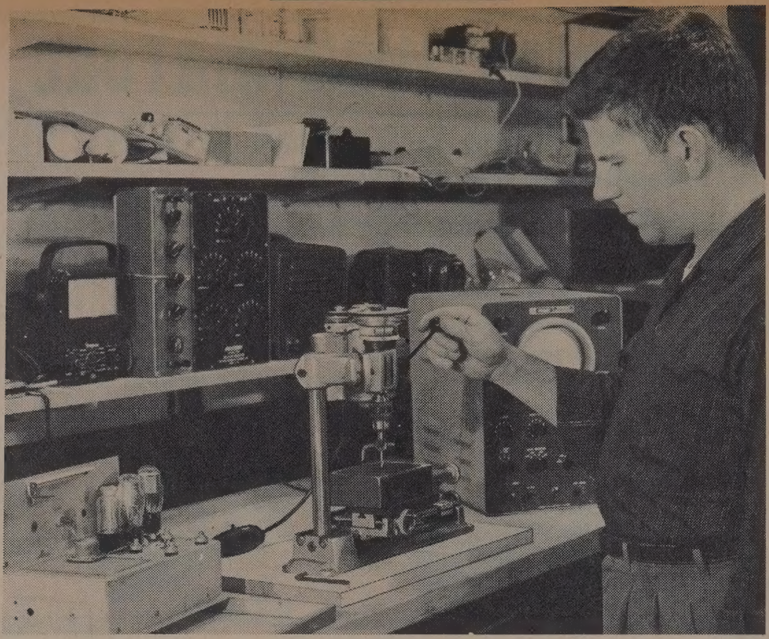


Busy designer/author/inventor Brice Ward uses his UNIMAT to machine printed circuit boards, drill chassis holes, and wind special coils. UNIMAT takes less space than the average oscilloscope.

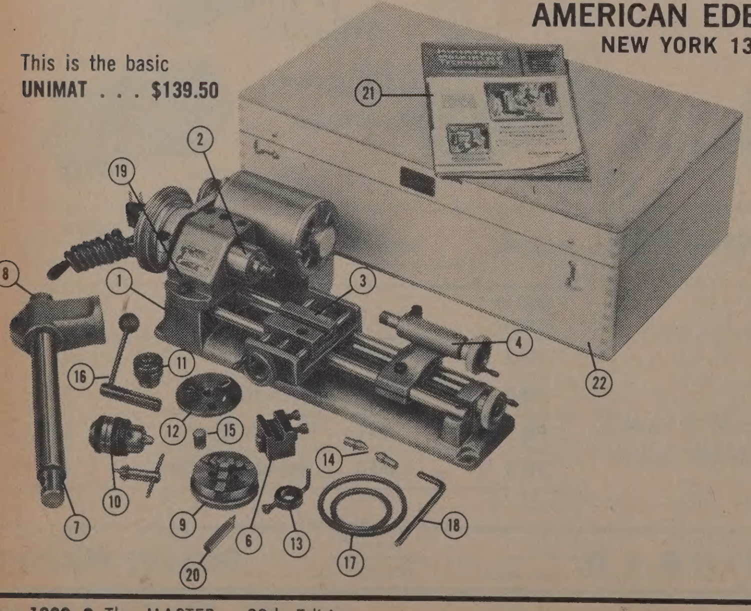
A CUSTOM ELECTRONICS WORKSHOP

...for Metals • Plastics • Wood • *in just 16" of bench space!*

With UNIMAT you're always ready to originate or duplicate that one-of-a-kind component that so often holds up a job. UNIMAT's versatility and machine tool precision do away with makeshift improvisation . . . give your breadboards and prototypes that clean, professional look. Nine quick change setups handle metals, plastics, wood with toolmaker precision. UNIMAT turns, drills, bores, mills, threads, cuts gears, grinds, sharpens, saws, files, divides, buffs, polishes. Eleven-speed self-contained motor drive provides the ideal spindle speed for each tool and material. Thousands are now in use by top electronic manufacturers, defense contractors, radio/electronic service firms and advanced hobbyists. ■ Get complete details before you order. The free UNIMAT catalog contains closeups of the various setups, plus a variety of in-use photos. Or, send $1.00 for the new MINIATURE MACHINING TECHNIQUES, a general handbook and operator's manual that is packed with shop tips and tells the UNIMAT story in step-by-step detail, including 180 photographs!

AMERICAN EDELSTAAL, INC.
NEW YORK 13, NEW YORK

This is the basic
UNIMAT . . . $139.50



1. Ribbed, cast-iron Lathe Bed
2. Ball Bearing Headstock Spindle
3. Carriage Assembly
4. Tailstock
5. Ball Bearing Idler Pulley (not shown)
6. Tool Post
7. Steel Vertical Column
8. Vertical Column Headstock Adapter
9. 3-Jaw Universal Lathe Chuck
10. Jacobs-type Drill Chuck and Key
11. Grinding Wheel Arbor
12. Face Plate
13. Lathe Dog
14. Dead Centers (two)
15. Slotted Adapter
16. Spindle-feed Hand Lever
17. Set of Drive Belts
18. Allen Wrench
19. Headstock Alignment Pin
20. Roughing Tool Bit
21. 40 Page Instruction Manual
22. Wood Storage Chest

© U.C.P., Inc.

AMERICAN BEAUTY ELECTRIC SOLDERING IRONS

American Beauty is known throughout the world as the quality-standard for electric soldering tools. Stocked in all models and watt-inputs—plus tips, parts and accessories.

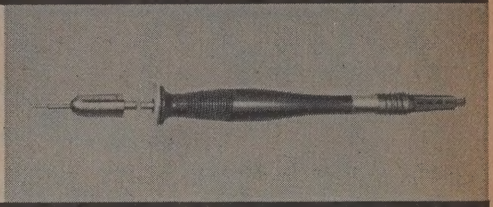
B-SERIES MINIATURES

Newest advance in truly miniature irons. Precise balance. Cool handle. Long-life, "floating", heating element. Anti-roll baffle. Simple three-piece assembly. Boxed with 6′ detachable cord set, 3 assorted tips. Packed 6 to case.

CAT. NO.	TIP DIA.	WATTS	NET WT.	LIST
B-2000-L	⅛″	22½	3 oz.	$12.00
B-2500-L	3/16″	30	3 oz.	$12.00

Two-wire cord is standard. For same irons equipped with 3-wire grounding cord and NEMA type plug, add "S3" to CAT. NO. and $1.00 to list price.

*Other options available

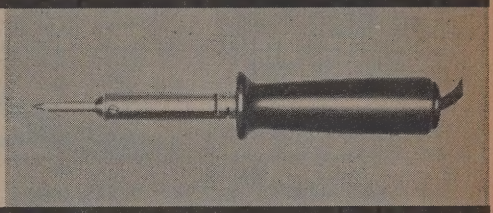


BANTAMS

Small American Beauty irons in wide range of watt-inputs and tip diameters to cover entire range of fine and medium-fine jobs on electronic and electrical production lines.

CAT. NO.	TIP DIA.	WATTS	NET WT	LIST
3114	¼″	60	8 oz.	$10.40
3118	⅛″	30	6 oz.	7.20
3120	3/16″	30	6½ oz.	7.20
3118-X	⅛″	50	6 oz.	8.00

*Other models & options available

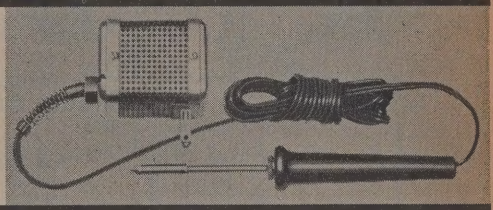


TRANSFORMER TYPES

Made in two series. Extremely light-weight, hi-heat, slim-casing irons of very small tip-diameter. For use where transformer type irons (providing complete isolation from line voltage) are desirable or necessary.

CAT. NO.	TIP DIA.	WATTS	NET WT.	LIST
T-12	1/16″	17	1 lb. 3 oz.	$20.00
T-30	1/16″	30	1 lb. 12 oz.	22.00

*Other options available

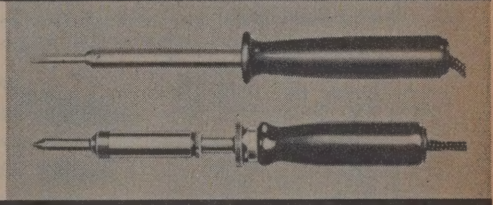


STANDARD SERIES

Hundreds of thousands of these models of American Beauty irons are on production lines all over the world. Stocked in tip sizes from ¼″ to 1⅛″, input wattages from 60 W to 550 W.

CAT. NO.	TIP DIA.	WATTS	NET WT.	LIST
3125	¼″	60	7½ oz.	$ 9.00
3138	⅜″	100	16 oz.	12.10
3158	⅝″	200	28 oz.	14.50
3178	⅞″	300	42 oz.	19.30
3198	1⅛″	550	60 oz.	24.20

*Nine models available

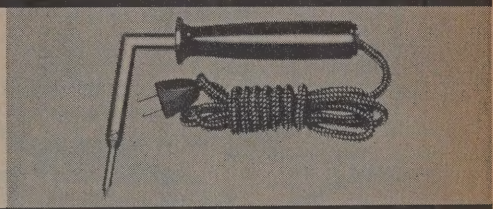


ANGLE TYPES

Conventional irons but with casings angled for work on hard-to-reach jobs. Balanced. Available in tip-sizes from ⅛″ to ⅜″ diameter, watt inputs from 30W to 100W.

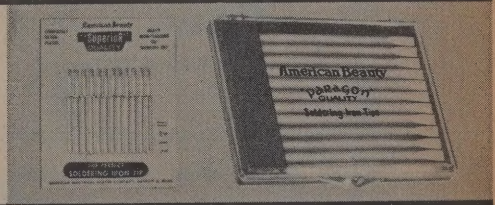
CAT. NO.	TIP DIA.	WATTS	NET WT.	LIST
3118-A	⅛″	30	6¼ oz.	$ 8.20
3125-A	¼″	60	10 oz.	10.20
3138-A	⅜″	100	16 oz.	13.20

*Other options available



SOLDERING TIPS—THREE GRADES

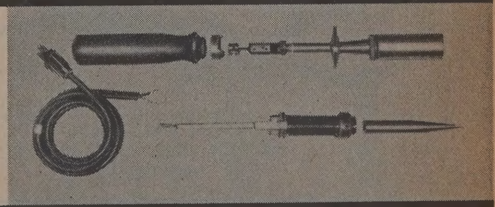
Made of commercially pure copper rod. Shapes and sizes for all AB irons and other makes as well. Three grades: (1) Nickel-Plated. (2) "SuperioR" Quality—iron-clad working end silver-plated overall. (3) "Paragon" Quality—best tips made for high-spec. soldering; iron-clad; chrome-plated; pre-tinned; maintenance-free; for extra clean work. (Ask for FREE American Beauty Tip Chart.)



PARTS AND ACCESSORIES

You can always get original-equipment-quality parts for any American Beauty Soldering Iron—standardized for quick, easy repair. Also: AB cord sets; spooled and bulk heater cord in 250′ lengths; branding irons; soldering iron temperature regulating stands; safety guards for same; melting cups or ladles.

*Request American Beauty Catalog for complete selection.



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To $199.00	30%	.70
$200.00 to $999.00	33%	.67
Plus $1000.00	40%	.60

American Beauty

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Trade Discount Applies To List Prices Only

BOKER
U.S.A.
IN-DUS-TRONIC
TOOLS
QUALITY SINCE 1837 ®

DESIGN IN-DUS-TRONIC tools are more streamlined, with slender jaws and fine points, to reach into the tight spots and perform the specific work required of the electronics technician.

TEST AND INSPECTION Individually tested for hardness, each tool must maintain highest standards for handle strength and cutting ability. To assure perfect jaw alignment, pliers must cleanly cut single bond paper strips and snip cotton-covered lamp cord without fraying. Each tool is guaranteed against defects in workmanship and materials.

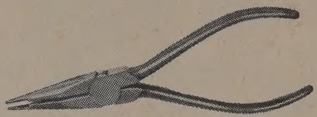
WORKMANSHIP IN-DUS-TRONIC tools are hot drop-forged from special analysis alloy steel, machined and finished with the same care and precision which have made world-famous BOKER TREE BRAND Fine Cutlery and surgical instruments for over a century. Individually fitted and adjusted, each is accurately heat-treated by HYDRIZING, which minimizes "carburization" and "decarb". Cutting blades are precision-hardened with electronic controls, and honed by hand for keen edges that retain their sharpness.

Individually Boxed

H. BOKER & CO., INC. • NEW YORK, N. Y.

RADIO AND TV NOSE CUTTING PLIERS

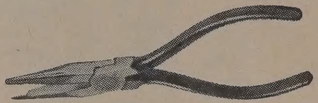
Reaches into tight spots to cut small wires, and to grip at the tips.



NO.	LIST EA.	NO.	LIST EA.
539-4½"	3.75	639-4½"	4.05
539-6"	3.75	639-6"	4.05
939-4½"	3.75	739-4½"	4.25
939-6"	3.75	739-6"	4.25

SIDE TIP NOSE CUTTING PLIERS

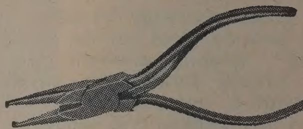
Cuts flush at left side of tips. Turn tool over to cut flush at right side.



NO.	LIST EA.	NO.	LIST EA.
S539-4½"	4.00	S639-4½"	4.30
S539-6"	4.00	S639-6"	4.30
S939-4½"	3.80	S739-4½"	4.50
S939-6"	4.00	S739-6"	4.50

TRANSVERSE END CUTTING PLIERS

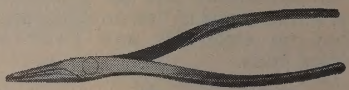
For clean, flush cutting of small wires where ordinary cutters are too bulky.



NO.	LIST EA.	NO.	LIST EA.
532-6"	3.65	632-6"	3.95
932-6"	3.65	732-6"	4.15

SHORT JAW, LONG HANDLE NOSE CUTTING PLIERS

Extra long, narrow handles provide maximum reach of the slender jaws to cut and grip.



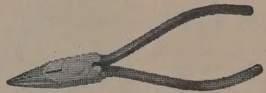
NO.	LIST EA.	NO.	LIST EA.
579-8"	4.15	679-8"	4.45
979-8"	4.15	779-8"	4.65

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.	DESCRIPTION OF FINISH	
"5"	Polished Head, Standard Gunmetal Finish Handles — i.e.	51-6"
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	61-6"
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

SHORT CHAIN NEEDLE NOSE PLIERS

Sturdy, tapered jaws provide more positive grip. Checker-milled tips.



WITH SIDE CUTTERS

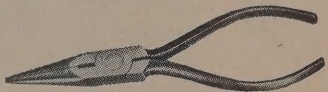
NO.	LIST EA.	NO.	LIST EA.
53-5"	3.15	63-5"	3.45
93-5"	3.15	73-5"	3.65

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-5"	2.65	630-5"	2.95
930-5"	2.65	730-5"	3.15

LONG CHAIN NEEDLE NOSE PLIERS

Slender, checker-milled jaws taper to 1/32" at tips.



WITH SIDE CUTTERS

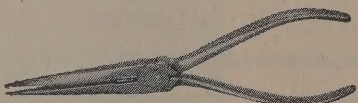
NO.	LIST EA.	NO.	LIST EA.
53-6"	3.40	63-6"	3.70
93-6"	3.40	73-6"	3.90

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-6"	2.70	630-6"	3.00
930-6"	2.70	730-6"	3.20

EXTRA LONG CHAIN NOSE PLIERS

2¾" long jaws add extra reach to checker-milled tips.



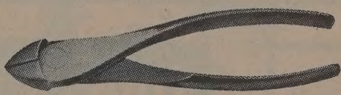
WITH SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
53-7"	4.20	63-7"	4.50
93-7"	4.20	73-7"	4.70

WITHOUT SIDE CUTTERS

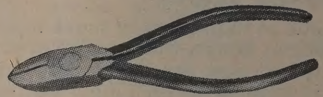
NO.	LIST EA.	NO.	LIST EA.
530-7"	3.10	630-7"	3.40
930-7"	3.10	730-7"	3.60

HEAVY DUTY DIAGONAL CUTTING PLIERS



NO.	LIST EA.	NO.	LIST EA.
591-7"	3.50	691-7"	3.80
991-7"	3.50	791-7"	4.00

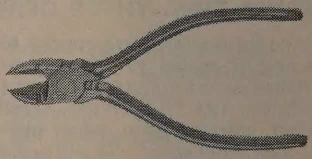
DIAGONAL CUTTING PLIERS



NO.	LIST EA.	NO.	LIST EA.
51-4½"	2.80	61-4½"	3.10
91-4½"	2.80	71-4½"	3.30
51-5"	3.05	61-5"	3.35
91-5"	3.05	71-5"	3.55
51-5½"	3.30	61-5½"	3.60
91-5½"	3.30	71-5½"	3.80
51-6"	3.45	61-6"	3.75
91-6"	3.45	71-6"	3.95
51-7½"	3.80	61-7½"	4.10
91-7½"	3.80	71-7½"	4.30

WIRE STRIPPING CUTTERS WITH INSULATION CRUSHER

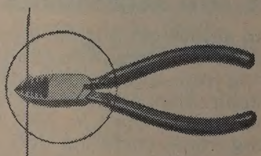
"W" notches slit acetate cellulose and other thin insulations. Notch in blades strips heavier insulation. Grooves in handles crush insulation.



NO.	LIST EA.
517-5½"	4.00
917-5½"	4.00
617-5½"	4.30
717-5½"	4.50

"THROAT-HOLD" DIAGONAL PLIERS

Plastisol inserts back of the blades tightly grip the cut-off end of wire after cut is made, preventing shorts, machine failures, and eye injuries.



NO.	LIST EA.	NO.	LIST EA.
TH51-4½"	4.40	TH91-5"	4.65
TH91-4½"	4.40	TH91-5½"	4.90
TH51-5"	4.65	TH51-7½"	5.40

SPECIAL THROAT-HOLD TYPE PLIERS

NO.	LIST EA.	
THB981-4½"	5.20	Bent (offset) Handles
THC981-4½"	5.00	Flush cutting edges

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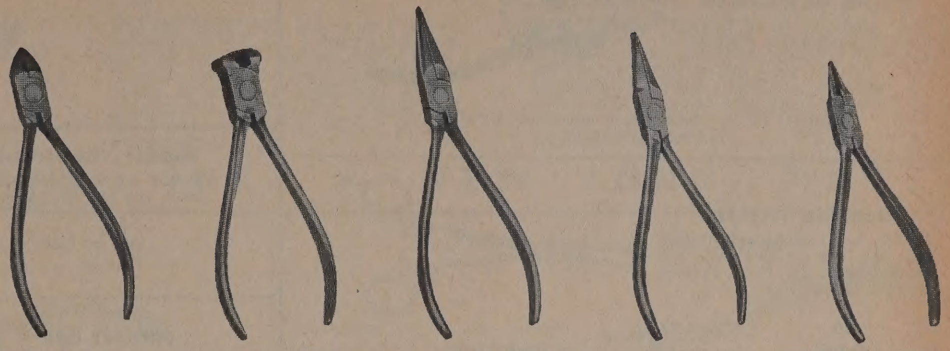
IN-DUS-TRONIC
TOOLS
QUALITY SINCE 1837
®

JEWELERS' PLIERS SETS

Crystal Case, 5" x 7", lined to nest 4½" Pliers.

NO.	CONTENTS	LIST
C63	One ea. 681, 683, 684	10.95
C64	One ea. 681, 683, 684, 6517	13.25
C65	One ea. 681, 682, 683, 684, 685	18.05
C73	One ea. 781, 783, 784	11.30
C93	One ea. 981, 983, 984	10.65
C95	One ea. 981, 982, 983, 984, 985	17.55

JEWELERS' 4½" PRECISION PLIERS



	POLISHED HEAD, GUN METAL HANDLES		POLISHED HEAD, CUSHION-GRIP HANDLES		FULL NICKEL AND CHROME PLATED		NICKEL, CHROME-PLATED CUSHION-GRIP HANDLES	
	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.
Diagonal Cutting Pliers	**581**	3.10	**981**	3.20	**681**	3.30	**781**	3.35
End Cutting Nippers	**582**	3.60	**982**	3.80	**682**	3.90	**782**	3.95
*Needle Nose Pliers	**583**	2.90	**983**	3.10	**683**	3.20	**783**	3.35
*Flat Nose Pliers	**584**	2.90	**984**	3.10	**684**	3.20	**784**	3.35
*Round Nose Pliers	**585**	2.90	**985**	3.10	**685**	3.20	**785**	3.35

*Note: Inside jaws are smooth. Supplied with milled jaws at no extra cost.

PRECISION PLIERS WITH SPRING IN EXTENDED HANDLES

Midget jaws, extra long handles, to reach into deep areas normally inaccessible.

NO.	LIST EA.	DESCRIPTION
L903S-8"	5.95	Extra Fine Needle-Nose Pliers (as 903-4½")
L981S-8"	6.05	Diagonal Cutters
L983S-8"	5.95	Needle Nose Pliers
L984S-8"	5.95	Flat-Nose Pliers
L781S-8"	6.20	Diagonal Cutters
L783S-8"	6.20	Needle-Nose Pliers
L784S-8"	6.20	Flat-Nose Pliers
L703S-8"	6.20	Extra Fine Needle-Nose Pliers (as 703-4½")

TAPERED JAWS, FLUSH CUTTING DIAGONALS

Midget pliers with sharply tapered jaws and very fine flush cutting edges.

NO.	LIST EA.
A981-4½"	3.70

STANDARD SHAPE JAWS, FLUSH CUTTING DIAGONALS

NO.	LIST EA.
C981-4½"	3.40

SHORT NOSE, FLUSH CUTTING DIAGONALS

NO.	LIST EA.
E981-4½"	3.60

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

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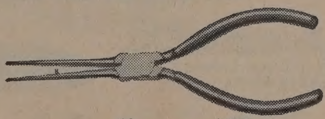
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	61-6"
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

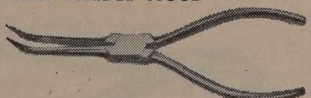
EXTRA FINE NEEDLE NOSE PLIERS WITH STABILIZED TIPS

Dowel pin in jaw engages hole in other jaw when closed, stabilizing tips and maintaining perfect alignment.



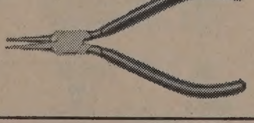
NO.	LIST EA.	NO.	LIST EA.
ST903-6"	3.50	**ST703-6"**	4.00

CURVED EXTRA FINE NEEDLE NOSE



NO.	LIST EA.
508-6"	3.90
908-6"	3.90
608-6"	4.20
708-6"	4.40

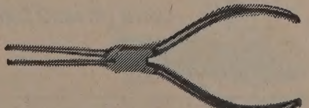
SHORT JAW, EXTRA FINE NEEDLE NOSE PLIERS



NO.	LIST EA.
503-4½"	3.10
903-4½"	3.10
603-4½"	3.40
703-4½"	3.35

EXTRA FINE NEEDLE NOSE PLIERS

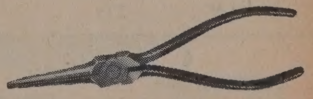
Long, very slim, spring tempered jaws for assembling miniature parts.



NO.	LIST EA.	NO.	LIST EA.
503-6"	3.10	**603-6"**	3.40
903-6"	3.10	**703-6"**	3.60

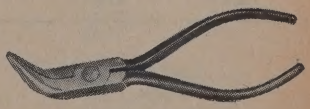
LONG NEEDLE NOSE PLIERS

Unusual gripping ability without distortion for such long, slender jaws. Checker-milled at tips.



No.	LIST EA.	No.	LIST EA.
533-6"	3.15	**633-6"**	3.45
933-6"	3.15	**733-6"**	3.65

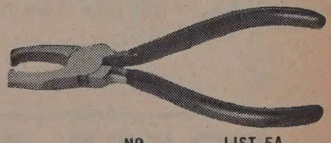
CURVED NEEDLE NOSE PLIERS



NO.	LIST EA.
538-6"	3.50
938-6"	3.50
638-6"	3.80
738-6"	4.00

END CUTTERS AND LEAD-IN STRIPPERS

Quickly strips TV transmission cable. Full throat for general purpose cutting.



NO.	LIST EA.	NO.	LIST EA.
902-6"	3.95	**702-6"**	4.50
602-6"	4.25		

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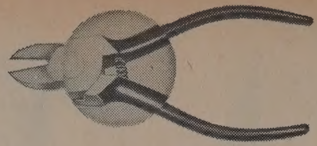
PLIERS WITH SPRING IN HANDLES

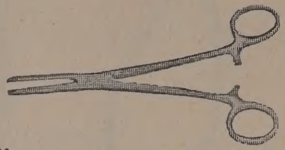
Bauer type coil spring keeps pliers in open position, ready-to-work.



Specify "S" as a Suffix to tool number (i.e., 91S-5")
Additional List Ea. .30

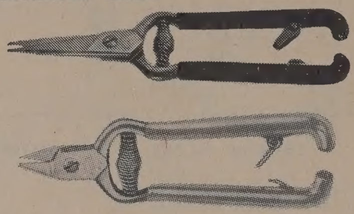
HOLDING FORCEPS

Slender, long-reaching, with ratchet type lock. Acts as third hand, and as heat sink. Box joint, polished stainless spring steel.



NO.	LIST EA.	
HF-5¼"	4.50	Straight pattern
HF-6¼"	4.35	Straight pattern
HFC-6¼"	5.00	Curved pattern

ELECTRONIC SNIPS



Pointed, serrated blades cut wire, filament, sheet metal, insulating materials, plastics, fabrics. spring keeps blades open, ready-to-work.

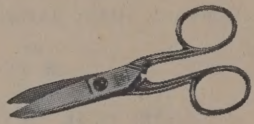
NO.	LIST EA.	
P4-7⅛"	3.60	Long Blades
P4E-6½""	4.25	Short Blades

ELECTRICIANS' SNIPS

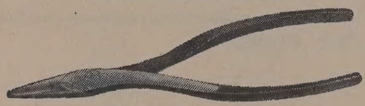
Scraper, file on back of blade.

NO.	LIST EA.
709-5"	2.75

Nickel Plated



SHORT JAW, LONG HANDLE, NEEDLE NOSE PLIERS

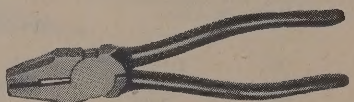


NO.	LIST EA.	NO.	LIST EA.
573-8"	3.20	673-8"	3.50
973-8"	3.20	773-8"	3.70

SHORT JAW, LONG HANDLE DUCKBILL PLIERS

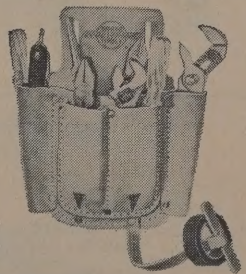
No.	LIST EA.	No.	LIST EA.
574-8"	3.15	974-8"	3.15

ELECTRICIANS' SIDE CUTTING PLIERS



NO.	LIST EA.	NO.	LIST EA.
92-6"	3.25	62-7"	3.90
92-7"	3.65	62-8"	4.25
92-8"	4.00	72-7"	4.10

LEATHER TOOL HOLSTER



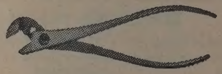
Five pockets of pliable form-fitting Russet leather. Stitched with 7-cord linen hot waxed thread, locked to solid leather back with steel rivets. Handy tape holder is of leather, not chain, an extra safety insulation feature.

NO.	LIST EA.
99	4.95

BOKER USA IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

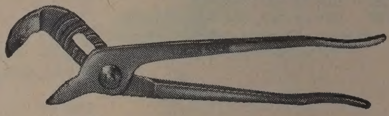
MIDGET "GROOVE-GRIP" PLIERS

Slender and wiry, indispensable for gripping small nuts and other objects in tight spots.



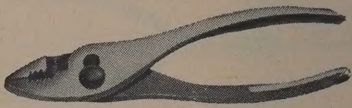
NO.	LIST EA.	
6517-5"	2.25	Nickel, Chrome Plated
P6517-5"	2.35	Nickel, Chrome Plated, Cushion Grips

"GROOVE-GRIP" 5-ADJUSTMENT PLIERS



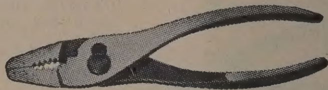
NO.	LIST EA.	
6507-6½"	2.65	Nickel and Chrome Plated
6507-8"	2.90	
6507-10"	3.25	
P5507-6½"	2.60	Polished Head Cushion-Grip Handles
P5507-8"	2.85	
P5507-10"	3.20	
P5507-14" 7 Adjustment	4.25	

COMBINATION SLIP-JOINT PLIERS



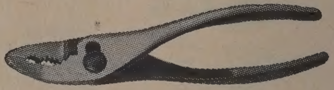
NO.	LIST EA.	
6041-6½"	1.40	Nickel and Chrome Plated
6041-8"	1.80	
6041-10"	2.60	

THIN NOSE COMBINATION PLIERS



NO.	LIST EA.	
6042-6½"	1.60	Nickel, Chromed

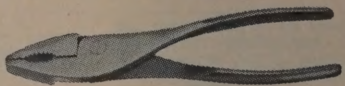
BENT THIN NOSE COMBINATION PLIERS



NO.	LIST EA.	
6043-6½"	1.85	Nickel, Chromed

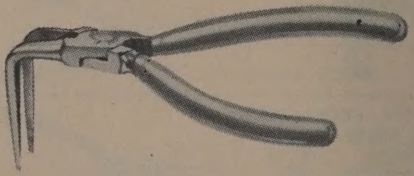
PROFESSIONAL SLIP-JOINT SIDE CUTTERS

Flat, serrated nose for gripping. Curved inner section to grip round shapes. Keen-cutting knives.



NO.	LIST EA.	
6395-7½"	3.75	Nickel, Chromed

BENT EXTRA FINE NEEDLE NOSE PLIERS



NO.	LIST EA.	NO.	LIST EA.
B508-6"	3.90	B608-6"	4.20
B908-6"	3.90	B708-6"	4.40

WITH STABILIZED TIPS

NO.	LIST EA.	NO.	LIST EA.
STB508-6"	4.30	STB608-6"	4.60
STB908-6"	4.30	STB708-6"	4.80

H. BOKER & CO., INC. • New York, N. Y.

BOKER
U.S.A.
IN-DUS-TRONIC
TOOLS
QUALITY SINCE 1837 ®

DESIGN IN-DUS-TRONIC tools are more streamlined, with slender jaws and fine points, to reach into the tight spots and perform the specific work required of the electronics technician.

TEST AND INSPECTION Individually tested for hardness, each tool must maintain highest standards for handle strength and cutting ability. To assure perfect jaw alignment, pliers must cleanly cut single bond paper strips and snip cotton-covered lamp cord without fraying. Each tool is guaranteed against defects in workmanship and materials.

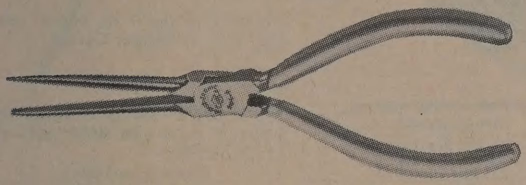
WORKMANSHIP IN-DUS-TRONIC tools are hot drop-forged from special analysis alloy steel, machined and finished with the same care and precision which have made world-famous BOKER TREE BRAND Fine Cutlery and surgical instruments for over a century. Individually fitted and adjusted, each is accurately heat-treated by HYDRIZING, which minimizes "carburization" and "decarb". Cutting blades are precision-hardened with electronic controls, and honed by hand for keen edges that retain their sharpness.

Individually Boxed

H. BOKER & CO., INC. • NEW YORK, N. Y.

EXTRA FINE FLAT NOSE PLIERS

Flat, very thin, smooth jaws, spring tempered.



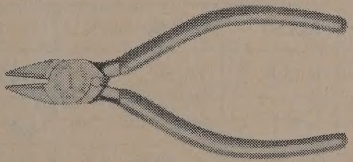
NO.	LIST EA.	NO.	LIST EA.
504-6″	3.60	**604-6″**	3.90
904-6″	3.60	**704-6″**	4.00

WITH STABILIZED TIPS

NO.	LIST EA.	NO.	LIST EA.
ST504-6″	4.00	**ST604-6″**	4.30
ST904-6″	4.00	**ST704-6″**	4.40

NEEDLE POINT DIAGONAL CUTTING PLIERS

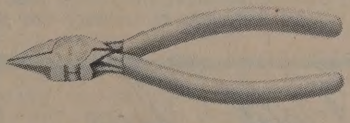
Narrow, pointed nose, semi-flush edges, for close cutting. Lightweight, easy-to-use, in electronics and light assembly. Coil spring keeps jaws open.



NO.	LIST EA.	NO.	LIST EA.
513-5½″	4.25	**613-5½″**	4.55
913-5½″	4.25	**713-5½″**	4.75

THIN, NARROW, POINTED DIAGONAL CUTTING PLIERS

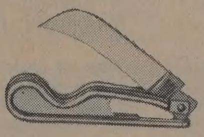
Jaws relief-ground back of blades, to cut in confined areas. Also used for removal of I. F. Cans.



NO.	LIST EA.	NO.	LIST EA.
RA51-5½″	4.50	**RA61-5½″**	4.80
RA91-5½″	4.50	**RA71-5½″**	4.90

WIRE JACK POCKET KNIFE

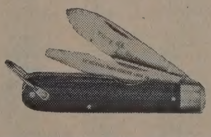
Rugged construction, unbreakable spring. Chrome Vanadium steel blade.



NO.	LIST EA.
75-3¾″	1.00

ELECTRICIANS' UTILITY KNIFE

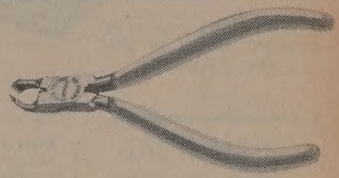
One blade and one self-locking Screwdriver and Insulation Scraper.



NO.	LIST EA.	
9229	2.75	3¾″ long

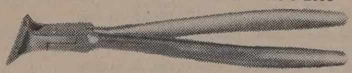
ELECTRONIC DIAGONAL END NIPPERS

Flush-cutting blades, with extremely fine points, set at 22.5° angle. For very fine subminiature work.



NO.	LIST EA.	NO.	LIST EA.
XA582-4½″	6.00	**XA682-4½″**	6.30
XA982-4½″	6.00	**XA782-4½″**	6.50

ANGLE JAW DIAGONAL NIPPERS



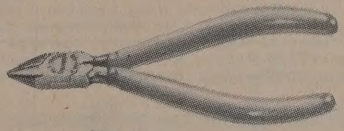
Flush cutting blades set at 22½° angle. Fine, pointed tips for precision work in confined areas.

AJ-982-4½″ Polished Head. Cushion-grip Handles.

AJ482-4½″ Full Polished Head and Handles.

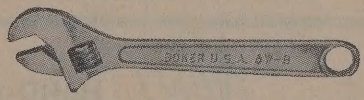
THIN HEAD, FLUSH CUTTING MIDGET DIAGONALS

Head is ground thinner, narrower. Flush edges.



NO.	LIST EA.	
XA981-4½″	4.00	Pointed jaws
XC981-4½″	3.70	Standard shape jaws, slightly shortened

THIN, ALLOY STEEL ADJUSTABLE WRENCHES



Nickel and Chrome Plated		Polished Head, Gunmetal Handles	
NO.	**LIST EA.**	**NO.**	**LIST EA.**
6W-4″	2.64	**5W-4″**	2.10
6W-6″	2.64	**5W-6″**	2.10
6W-8″	3.10	**5W-8″**	2.52
6W-10″	3.95	**5W-10″**	3.12
6W-12″	5.75	**5W-12″**	4.70
6W-15″	8.75	**5W-15″**	7.36
6W-18″	14.50	**5W-18″**	10.95

Nickel, Chrome-Plated, Cushion-Grip Handles

NO.	LIST EA.	NO.	LIST EA.
P6W-4″	2.72	**P6W-10″**	4.35
P6W-6″	2.72	**P6W-12″**	6.25
P6W-8″	3.45	**P6W-15″**	9.00

LOCKING ADJUSTABLE WRENCHES

Nickel and Chrome Plated		Nickel Chrome Plated Cushion-Grip Handles	
L6W-4″	$2.64	**PL6W-4″**	$2.72
L6W-6″	2.64	**PL6W-6″**	2.72
L6W-8″	3.02	**PL6W-8″**	3.45
L6W-10″	3.80	**PL6W-10″**	4.35
L6W-12″	5.60	**PL6W-12″**	6.25

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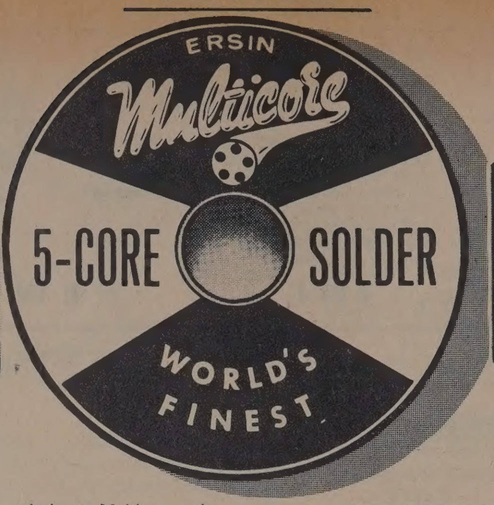
Trade Discount Applies to List Prices Only

ERSIN
Multicore
5-CORE
SOLDER
ERSIN
Multicore
SOLDER
CONTAINS 5 CORES OF NON-CORROSIVE FLUX

Available in the 7 lb. bench reel, 1 lb. dispenser carton.



SAVBIT
ERSIN
Multicore
ERSIN MULTICORE
SAVBIT
ALLOY
Multicore
5 CORE
SOLDER

Available in the 7 lb. bench reel and 1 lb. Dispenser Carton

TECHNICAL ADVANTAGES

Ersin Flux is exclusive to Multicore and will not be found in any other solder. It is a high-grade, water white resin, homogeneously activated.

Ersin Flux has a vigorous fluxing action and possesses the non-corrosive and protective features of the original resin. Soldered joints made with Ersin Flux do not corrode, even after prolonged exposure to any degree of humidity. It has been tested under climatic conditions ranging from the Arctic to the tropics.

Ersin Flux reduces the surface tension of molten solder causing it to wet metals rapidly, increasing speed of operation with resultant production economies.

Free from objectionable odors. Non-toxic in use.

Leaves nothing but pure resin on the work after soldering and may be used whenever plain resin is specified.

Complies with all pertinent federal specifications.

Multicore construction. 5 separate cores of flux eliminate possibility of no flux in a portion of the wire, which may occur in single cored solder.

Guaranteed continuity of the flux stream prevents dry joints, i.e., those having high electrical resistance.

Although there are 5 cores of flux in Multicore, the total percentage of flux to solder is less than many single cored solders.

Very rapid melting results from the multiple core construction, which provides thinner walls of solder, than are found in same gauge single cored solder.

Multicore's unique properties make perfect joints possible on difficult metals and alloys, even if oxidized.

Ability to tin rapidly produces perfect joints with less solder. Greater coverage per pound.

Ersin Multicore Solder is non-toxic in use. Cadmium is completely eliminated. The quantity of antimony is less than government standards allow. There is no danger of harmful effects caused by such impurities.

Every package of Ersin Multicore is labelled with the exact tin/lead content. This precise labelling results from Multicore's precise manufacturing methods.

STANDARD GAUGES TIN LEAD ALLOYS

ALLOY	14	16	18	20	21	22	S.W.G.
60/40	●	●	●	●	●	●	
50/50	●	●	●				
45/55	●	●	●				
40/60	●	●	●				

COPPER-LOADED SAVBIT ALLOY

Copper-loaded **SAVBIT** stops the wear and erosion of copper soldering iron tips . . . increases tiplife tenfold.

Multicore's SAVBIT Alloy is entirely new and different—it is patented.

Characteristics and specifications:

Savbit Alloy is available in Ersin Multicore 5-Core Solder containing non-corrosive extra fast Ersin flux in 14, 16, 18, 20 and 22 gauge.

Melting point: Virtually the same as standard tin/lead alloys.

Excellent conductivity, tensile and shear strength.

SPECIAL ALLOYS

ONLY from ERSIN Multicore — For IMMEDIATE OFF-THE-SHELF DELIVERY*

ALLOY	S.W.G.	CHARACTERISTICS
H.M.P.	16-18	High Melting Point—565°F
L.M.P.	16-18-22	Low Melting Point—354°F
63/37	16-18-20	Eutectic—361°F
SAVBIT	14-16-18-20-22	Copper-Loaded—419°F

NOTE: Bit temperature of soldering iron used should always be 108°F above melting point of alloy.

*ERSIN Multicore's national network of industrial distributors—in 50 states—facilitates prompt off-the-shelf delivery at factory-low prices.

New! HAND-CRAFTED Gold Lion Custom Tubes

Produced by General Electric Co. Ltd. of England

A completely new series of plug-in replacement tubes, *hand-crafted* to give *higher power, lower distortion* and longer life.

In contrast to mass-produced tubes, which often vary widely in their characteristics, new Gold Lion tubes are made to extremely close tolerances, and individually 100% tested for major characteristics, including operation tests, noise and microphony. For the first time . . . an individual test report is packed with each tube, certifying measured production characteristics.

Gold Lion
CUSTOM
TUBE
Genalex
KT77
GOLD LION
CUSTOM TUBE
Genalex

CROSS REFERENCE REPLACEMENT CHART

Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types
B309	B739	EZ81	U709	6BX4	U707	5721	B759	6201	B739
D77	D717	EZ90	U707	6CA4	U709	5726	D717	6202	U707
EAA91	D717	E81CC	B739	6CA7	KT77	5751	B759	6203	U707
EB91	D717	GZ30	U77	6CF8	Z729	5814	B749	6267	Z729
ECC81	B739	GZ32	U77	6CN5	KT66	5931	U52	6550	KT88
ECC82	B749	GZ33	U77	6L6	KT66	5932	KT66	6663	D717
ECC83	B759	GZ34	U77	6L6G	KT66	5881	KT66	6679	B739
EF86	Z729	U78	U707	6L6GB	KT77	5993	U707	6680	B749
EL34	KT77	5AR4	U77	6L6GC	KT88	6057	B759	6681	B759
EL35	KT66	5T4	U52	6X4	U707	6058	D717	7025	B759
EL36	KT66	5U4G	U52	12AT7	B739	6060	B739	7027	KT66
EL37	KT66	5V4	U77	12AU7	B749	6063	U707	7027A	KT88
EL39	KT66	5Z4	U77	12AX7	B759	6067	B749	7247	B759
EL84	N709	6AL5	D717	1614	KT66	6097	D717	7581	KT77
		6BQ5	N709	1622	KT66	6189	B749		

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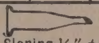
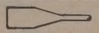
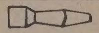
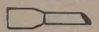
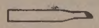
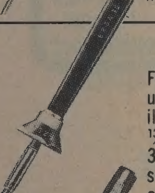
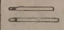
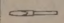
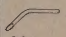
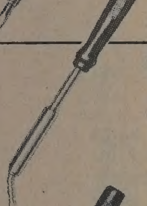
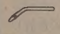
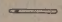
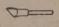
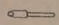
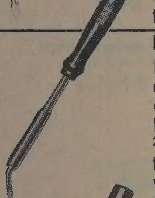
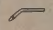
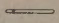
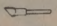
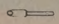
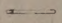
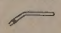
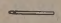
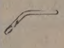
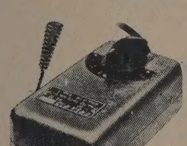
CAIG LABORATORIES INC.

New Hyde Park, L. I., N. Y.

ERSA® SOLDERING TOOLS

TECHNICAL DESCRIPTION	ERSA IRON COMPLETE CAT. NO. (Add 'D' to No. for ERSADUR)	WATTAGE	PRICE WITH COPPER BIT	PRICE WITH ERSADUR BIT*	SOLDERING BIT CAT. NO. (Add 'D' to No. for ERSADUR)	BIT FORM	PRICE COPPER	PRICE ERSADUR*	SPARE ELEMENT CAT. NO.	SPARE ELEMENT PRICE
ERSA-MICROTYP 6 VOLT **8 WATTS—15 WATTS** Subminiature soldering iron for pinpoint soldering on miniaturized printed circuits and other micromodulation techniques. Provided with ERSADUR long life bit. Good for 100,000 soldering operations. Built-in solid heater element. Weight under 3 ozs. Length of 8 watt unit 6.3", length of 15 watt unit 9.8". Temp. range 240°C to 380°C. For use with 6 volt transformer or battery, 5 foot cable & banana plugs. Temp. can be regulated with **Control Transformer ERSA R30**. For more details ask for Bulletin #E-500.	20L/8W (Short Heating Unit)	8		$9.50		 Sloping 1/16" φ			22L/8W (Element & Bit)	$5.50
	20B/8W (Short Heating Unit)	8		$9.50		 Pencil Form 1/16" φ			22B/8W (Element & Bit)	$5.50
	20K/15W (Extra Long Heating Unit)	15		$9.90		 Chisel Form 3/32" Wide			22K/15W (Element & Bit)	$5.90
	20L/15W (Extra Long Heating Unit)	15		$9.90		 Sloping 1/8" φ			22L/15 (Element & Bit)	$5.90
ERSA-MINIATURE 6 VOLT **10 WATTS—20 WATTS—30 WATTS** Miniature soldering iron for modern electronics—exchangeable heater elements—heating up time 40 sec.—weight under 3 ozs. Length 8"—for use with 6 volt transformer or battery, 5 foot cable & banana plugs—push on copper bits, easily exchanged—soldering temperature can be regulated with the **Control Transformer ERSA R30**. Temp. range 300°C. to 480°C. For more details ask for Bulletin #E-500.	10/10W	10	$5.00	$8.85	12/10	 Sloping 1/16" φ	$0.50	$4.35	11/10W	$3.60
	10/20W	20	5.00	8.85	12/20	Sloping 1/8" φ	0.50	4.35	11/20W	3.60
	10/30W	30	5.00	8.85	12/30	Sloping 5/32" φ	0.50	4.35	11/30W	3.60
 **ERSA MODEL 30** **20 WATTS—30 WATTS—40 WATTS** For radio, television and electronics—heating up time 2 min.—elements and copper bits easily exchangeable. Tip shank dia. 13/64" for all, 13/64" x 3/32" for S-bit. Bit temperatures 340°C—360°C—390°C. 5 foot cable & plug. 110 volts std. (220 volts special). Weight approx. 7¾ ozs. Length 7¾". Equipped with hex. shield. For more details ask for Bulletin #E-200.	30K/20W	20	$5.75	$10.00	32K/20		$0.50	$4.75	31/20W	$3.75
	30K/30W	30	5.75	10.00	32K/20	32K	0.50	4.75	31/30W	3.75
	30J/30W	30	5.75	10.00	32J/30		0.50	4.75	31/40W	3.75
	30S/30W	30	5.75		32S/30	32S	0.50			
	30K/40W	40	5.75	10.00	32K/40		0.50	4.75		
	30J/40W	40	5.75	10.00	32J/40	32J	0.50	4.75		
	30S/40W	40	5.75		32S/40		0.50			
 **ERSA MODEL 80A 80 WATTS** For assembly line and repair shops. Equipped with a **New Type Element** with high quality steel core, maximum heat transfer, longer life. Heating up time 2½ minutes. Tip 5/16" O.D. Bit temperature 440°C (824°F). 5 foot cable and plug. 110 volts standard (220 volts special). Weight approx. 1 lb. Length 11". For more details ask for Bulletin #E-300.	80AJ/80W	80	$11.35	$16.95	82J		$0.85	$6.45	81A/80W	$4.35
	80AK/80W	80	11.35	16.95	82K		0.85	6.45		
	80AL/80W	80	11.85		82L		1.35			
	80AH/80W	80	11.85		82H		1.35			
	80AS/80W	80	11.85		82S		1.35			
 **ERSA MODEL 150A 130 WATTS** For assembly line, repair and workshops—equipped with a **New Type Element** with high quality steel core, maximum heat transfer, longer life. Heating up time 2½ minutes. Tip 25/64" O.D. Bit temperature 470°C (878°F). 5 foot cable and plug. 110 volts standard (220 volts special). Weight approx. 1.2 lbs. Length 11". For more details ask for Bulletin #E-300.	150AJ/130W	130	$14.10	$20.00	152J		$1.10	$7.10	151A/130W	$5.70
	150AK/130W	130	14.10	20.00	152K		1.10	7.10		
	150AL/130W	130	15.40		152L		2.45			
	150AH/130W	130	15.40		152H		2.45			
	150AS/130W	130	15.40		152S		2.45			
ERSA ISOTYPE SPECIAL SAFETY INSULATED SOLDERING IRONS **65 WATTS and 90 WATTS** For work on **Live** television and telecommunication installations. Element of non-corrosive special steel, not exchangeable, fixed into housing. Plastic handle. 6½ foot cable—no plug. 110 volts standard (220 volts special). Weight approx. 20 ozs. and 25 ozs. respectively. Length about 11½".	KZ/65W	65	$22.20		62KZ		$1.35			
	JZ/65W	65	22.20		62JZ		1.35			
	KZ/90W	90	23.75		82KZ		1.90			
	JZ/90W	90	23.75		82JZ		1.90			



R30
R10

ERSA CONTROL TRANSFORMER MODELS R30 AND R10

Both transformer models have a primary voltage regulator for 110, 125, 150, 220 and 240 volts. The secondary voltage is also variable within the range of 5 to 6.5 volts, thus making it possible to select a temperature range between 240 to 480°C. When not in use, the ERSA iron rests on a special nozzle provided on the transformer. This protects against overheating.

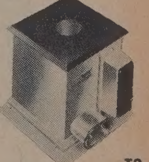
Control Transformer R10 was solely made for use with the ERSA-MINIATURE Iron Model 10W. The R30, with a greater output, permits universal use of all the various ERSA irons with their different capacities.

	Price
MODEL R30, rated 30 VA, 5.1#	$32.00
MODEL R10, rated 10 VA, 3.5#	$20.00

T2 SOLDERING BATH

Rated 240 watts, temp. approx. 600°C. Holds approx. 23 cc, internal dimen. 13/16" dia. x 1⅝". Weight with cord 3 lbs. 5 foot cord and plugs, switch. (Other solder pots available.)

PRICE $27.00

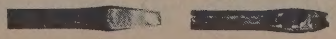


T2

'ERSADUR'-DURABLE IRON-CLAD COPPER BITS

Made of pure electrolytic copper with an iron coating. Soldering surface of bit pre-tinned ready for use. Shaft is chromium plated to prevent baking in. ERSADUR bits in normal use last for more than 100,000 solderings. Ask for Bulletin on ERSADUR.

AFTER EQUAL SERVICE TIME

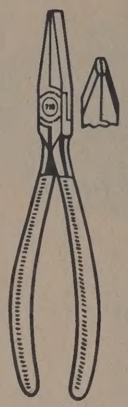


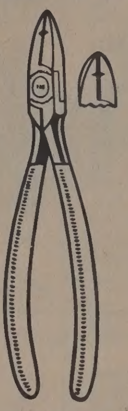
TREATED UNTREATED

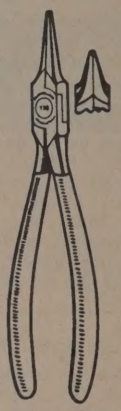
Pliers by CHANNELLOCK®

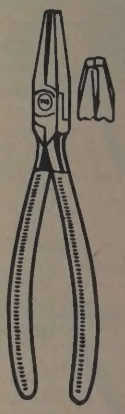
Specially Designed ELECTRONICS PLIERS

You'll do hundreds of jobs easier, faster with these Channellock Pliers because they are **specially designed** for all types of electronics work. You'll like the long reach . . . the precision-matched jaws . . . the hand-honed, specially hardened cutting edges . . . the easy-to-handle "feel" of the blue plastic grips. And you'll appreciate the top quality of Channellock Pliers . . . they're forged from high grade steel, properly heat treated. Best of all, because they are specially designed for fine electronics work, these four pliers will satisfy more than 90% of your Service and Repair needs. Ask your Electronics Equipment Supplier for Channellock Electronics Pliers . . . by name.

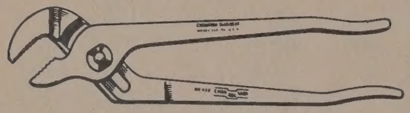

No. 718G
FLAT-NOSE PLIER
Watchmaker's precision PLUS a bull-dog grip in hard-to-reach places.


No. 728G
DIAGONAL CUTTER
A wire-stripping notch (Patent Pending) that **really works!**


No. 738G
ROUND-NOSE PLIER
You can **pick up a human hair** with these precision-machined points.


No. 748G
END CUTTER
Fine enough to cut a human hair — sturdy enough to cut 12 gauge copper wire.

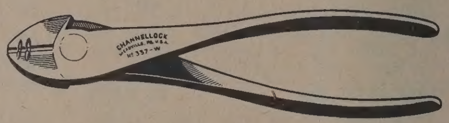
TONGUE AND GROOVE PLIERS



The **original** tongue and groove pliers. Patented, non-slip undercut channels. Patented reinforcing rib for extra strength Dipped plastic grips optional at slight extra cost.

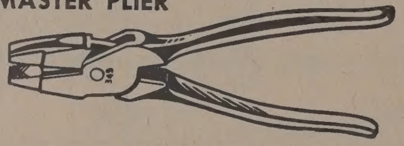
No.	Size	Capacity	No.	Size	Capacity
420	9½″	1½″	430	10″	2″
424	4½″	½″	440	12″	2¼″
426	6½″	⅞″			

ELECTRICIAN'S WIRING PLIER



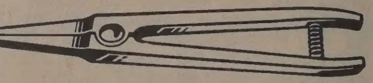
Triple-use wiring plier: cuts, strips insulation, loops wire. Patented wire stripping notches strip insulation from 14 and 12 guage wire quickly, cleanly. Length 7″. No. 337-W. Dipped plastic grips optional at slight extra cost.

WIREMASTER PLIER



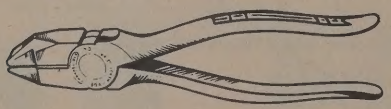
Finest wire-cutting plier ever made. Joint rivet closer to cutting edges, provides 40% more cutting power than standard design pliers. Special enclosed-joint construction holds cutter in perfect alignment for life of plier. Length 9″. No. 349. Dipped plastic grips optional at slight extra cost.

HEATSORB CLAMP



A specially designed "heat sink" that prevents heat damage to electronic components during soldering. Also a handy, self-gripping "third hand" that holds and retrieves small parts in close work. Length 5″. No. 46.

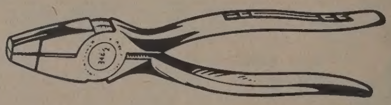
LINEMEN'S PLIER — Bevel Nose



Polished steel finish. Knurled grips. Side cutter. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
3046	6″	3048½	8½″
3047	7″		

LINEMEN'S PLIER — Rounded Nose



Polished steel finish. Knurled grips. Side cutter. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
346	6″	348½	8½″
347	7″		

CHANNELLOCK TOOLS Are Made Only By CHANNELLOCK, INC. • Meadville, Pa.

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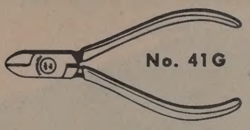
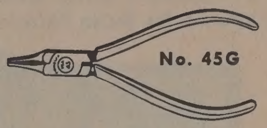
Pliers by CHAN NEL LOCK®

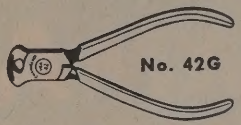
Little Champ PRECISION PLIERS

Finest quality, small pliers specially designed for delicate bench work. Widely used in electronics work, model making, jewelry and watch repair. Drop forged from high grade steel. Precision made and polished to a jeweler's finish. Dipped blue plastic cushion grip handles only. Packed six per carton.

No.	Style	Length
41G	Diagonal Cutter	4¼″
41GS	Diagonal Cutter, Coiled Spring	4¼″
42G	End Cutting Nipper	4″
43G	Needle Nose, No Side Cutter, Plain Nose	4¾″
43GS	Needle Nose, No Side Cutter, Plain Nose, Coiled Spring	4¾″
44G	Flat Nose	4¾″
45G	Round Nose	4½″
47G	Needle Nose, Side Cutter, Nose Serrations	4¾″
47GS	Needle Nose, Side Cutter, Nose Serrations, Coiled Spring	4¾″
48G	Transverse End Cutter	4¾″
49G	Curved Needle Nose	4½″


No. 41G


No. 45G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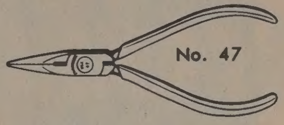
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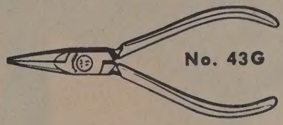
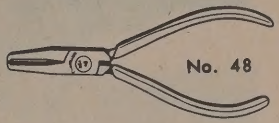
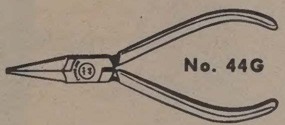
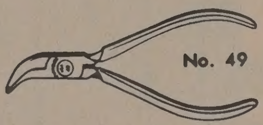
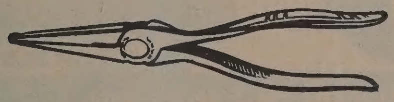

No. 43G


No. 48


No. 44G


No. 49

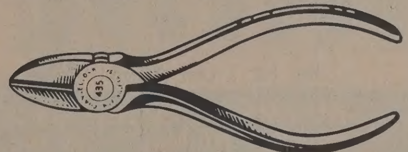
LONG NOSE PLIER



Point ³⁄₃₂″ round. Polished steel finish. Knurled grips. Dipped plastic grips optional at slight extra cost.

No.	Size	Side-Cutter	No.	Size	Side-Cutter
317½	7½″	With	326	6″	With
3017½	7½″	Without	3026	6″	Without

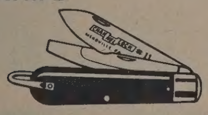
DIAGONAL CUTTING PLIER



Precision-honed cutting edges. Polished steel finish. Knurled grips. Dipped plastic grips optional at slight extra cost.

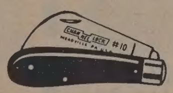
No.	Size	No.	Size
435	5″	437	7″
436	6″		

ELECTRICIAN'S KNIFE



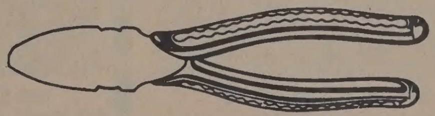
2½″ precision-honed blade. 3″ self-locking screwdriver. Unbreakable phenolic handles. Closed length 3¾″ No. 11.

SKINNING KNIFE



3″ precision-honed blade. Self-locking. Unbreakable phenolic plastic handles. Closed length 4″ No. 10.

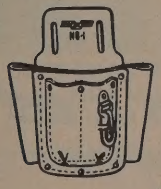
"SUPERIOR" PLASTIC GRIPS



For maximum hand comfort, durable plastic grips. Light blue color for good visibility, reduces plier loss. Easy to install. Order by desired grip size:

Plier Size	Grip Size	Plier Size	Grip Size
6″	Small	8″, 9½″, 10″	Large
7″	Medium		

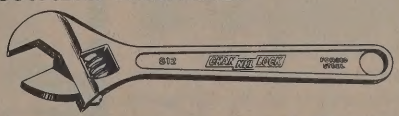
TOOL HOLSTERS



Highest quality top grain leather. Stress points reinforced with rivets. Convenient knife or wrench snap.

No.	Size	No. of Pockets
1	9¼″ x 8½″	5
2	9¼″ x 10½″	5

ADJUSTABLE WRENCHES



Drop forged of special analysis steel. Chrome plated. Dipped plastic grips optional at slight extra cost.

No.	Size	Capacity	No.	Size	Capacity
804	4″	½″	810	10″	1⅛″
806	6″	¾″	812	12″	1¹⁵⁄₁₆″
808	8″	¹⁵⁄₁₆″	815	15″	1¹¹⁄₁₆″

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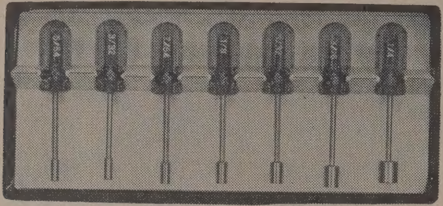
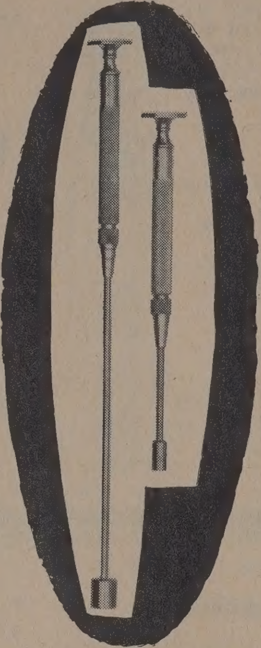
PROPERLY PROPORTIONED MINIATURE TOOLS

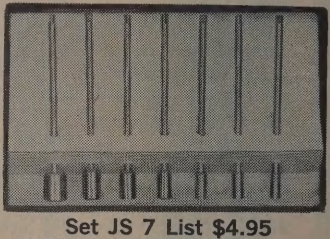
For precision instrument and model work use Desco "7" Miniature Nut Drivers. Available with Tenite handles, or for use with jewelers' screw driver handles. Also made with 5½" long shanks for those hard-to-get-to places.

DESCO "7" Sizes across flats
5/64 3/32 7/64 1/8 5/32 3/16 1/4

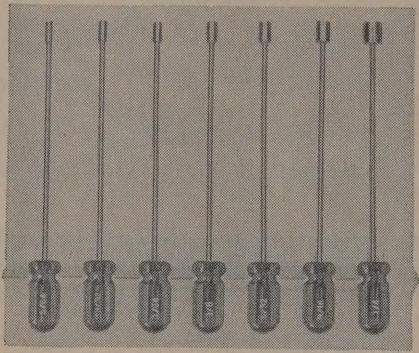


Set HS 7 List $5.95

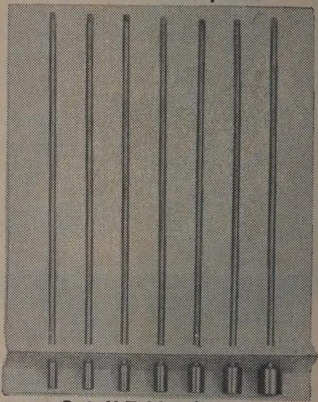




Set JS 7 List $4.95



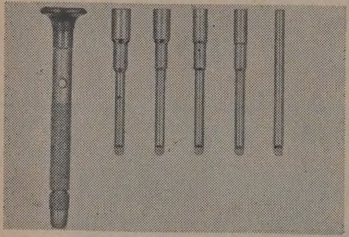
Set HL 7 List $5.95



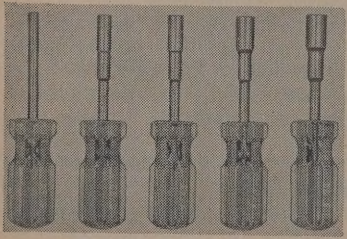
Set JL7 List $4.95

NON-MAGNETIC NUT DRIVERS available in HL7 and HS 7 series only. Specify "No-Mag" with the code number — same prices.

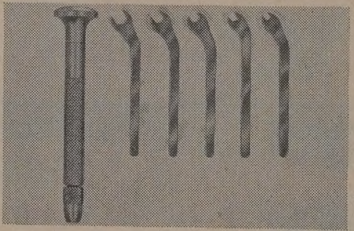
INTRODUCING THE DESCO "5" Series of Miniature Tools



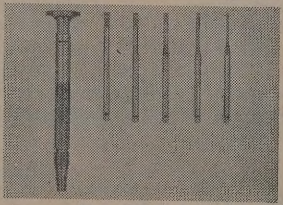
Set JD 5 List $3.50



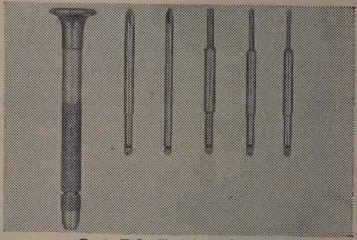
Set HD 5 List $4.50
Deeper and more rugged than the "7" Series. Made only in 5/64, 3/32, 7/64, 1/8 and 5/32.



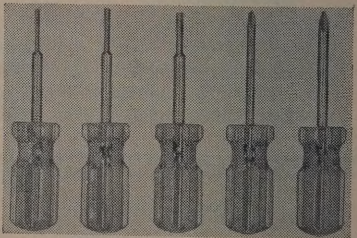
Set EW 5 Steel List $2.50
Set EWN 5 Non-Magnetic List $2.50
A practical miniature end wrench to fit the smallest nuts made 5/64 3/32 7/64 1/8 5/32.



Set SS 5 List $1.98
Contains four screw driver blades and a fine scriber.



Set PA 5 List $2.50



Set PAH 5 List $3.50
Includes the two smallest Phillips drivers and the three smallest Allen wrenches.

All of the DESCO "5" and "7" Series are complete as shown.

DESCO MFG. CO., GLENDALE, CALIF.

---

* T. M.

© U.C.P., Inc.

Made to last under constant use

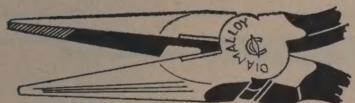
Designed to meet Industrial Users requirements . . . electronically hardened and hand honed cutting edges stay sharp longer . . . remain snug and true on the points . . . firm joints exactingly fitted to resist wear. Available with or without coil springs or plastic handles.

Ask your industrial or electronic distributor for Diamalloy Pliers or write for a Diamond Tool catalog.

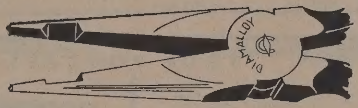
"There is nothing finer than a DIAMOND"

ELECTRONIC PLIERS *by* DIAMALLOY®

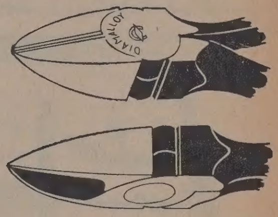
STYLES FOR MANY JOBS . . .



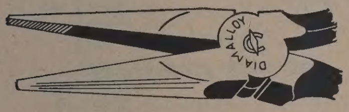
Long Nose Side Cutting Plier—SN54, SN56, SN57.



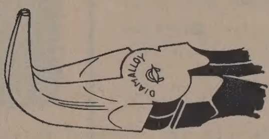
Radio Ignition Long Nose Plier—SC54.



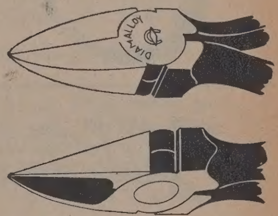
Diagonal Cutting Plier—MS54, S54, S55, S56, S57.



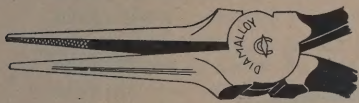
Long Nose Plier—LN54, LN56, LN57.



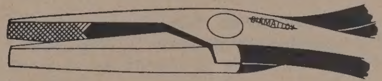
Curved Long Nose Plier—CN54, CN56.



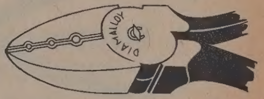
Diagonal Cutting Plier (Flush ground-Tapered Nose) —MS54RG, S54RG, S55RG, S56RG, S57RG.



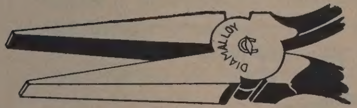
Needle Nose Plier—NN56, NN57.



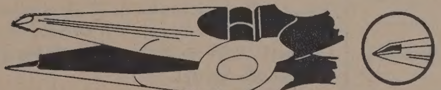
Long Nose Duck Bill Wiring Plier—DB58.



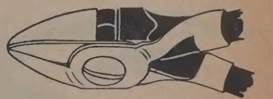
Wire Stripper Diagonal Plier—ST55.



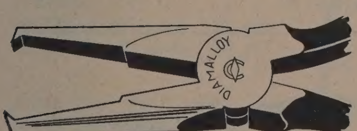
Duck Bill Plier—DN54, DN56.



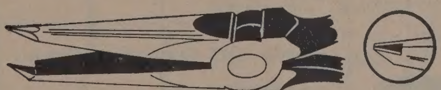
End Cutting Long Nose Plier—LC56.



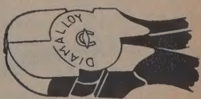
Wire Holder Diagonal Plier—MS54, MS54RG, S55, S55RG (All with wire holder)



Transverse End Cutting Plier—EC54.



End Cutting Long Nose Plier (Angle Cut) —LC56 Angle Cut.



Stub Nose Diagonal Plier—MS54SF.

DIAMOND®

DIAMOND TOOL *and Horseshoe Co.*

DULUTH, MINNESOTA • TORONTO, ONTARIO EST. 1908

INDUSTRIAL DISTRIBUTORS SERVING INDUSTRY ECONOMICALLY THE RIGHT HAND OF PRODUCTION

Norseman ELECTRONIC TOOLS

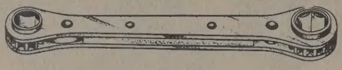
STICKLE-BACK DRILSAWS

TEC IMPORTS STICKLEBACK

Made in Germany, this tool will drill holes in wood, plaster board, etc. and saw in any direction.

#0—5 x 5/32″ dia.	$ .98 net
#1—7 x 3/16″ dia.	1.85 net
#2—10 x ¼″ dia.	2.45 net
#3—13 x 5/16″ dia.	2.95 net
#4—15 x ⅜″ dia.	3.25 net
#5—13 x ½″ dia. (saw rasp)	2.25 net

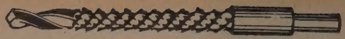
REVERSIBLE RATCHETS



A rugged ratcheting box wrench. No buttons, no levers — just turn it over to reverse the ratchet.

¼″ x 5/16″	$2.35 net	⅝″ x 11/16″	$3.90 net
⅜″ x 7/16″	2.65 net	⅝″ x ¾″	3.90 net
½″ x 9/16″	3.60 net	¾″ x ⅞″	4.50 net

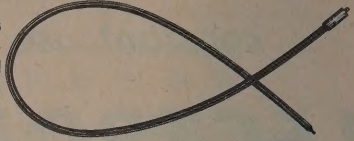
DRILL ROUTERS



Another "Stickle-back" tool, similar to the Drilsaw, but for use in electric drills.

#318-1 2⅜″ x ¼″ dia.	$1.40 net
#318-2 4½″ x ¼″ dia.	1.60 net

TIPPY STICKS



Flexible alignment tools of tenite II with a non-magnetic stainless steel tip. Permits snaking around obstructions and still turn screws and slugs.

ST-186 6″ long	.40 net
ST-1810 10″ long	.45 net
ST-1814 14″ long	.50 net

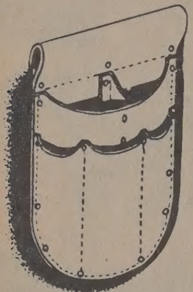
TRI-TAPS

The original 3-in-1 tool with 6/32″, 8/32″ and 10/32″ taps to clean or cut three of the most common threads used in electronic work.

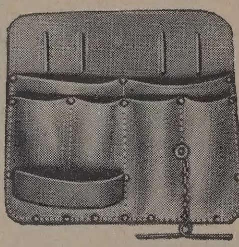
T-3 ....$2.25 net T-4 tap only for HT-24 1.65 net

HT-24 with replaceable tap..........$2.85 net

TOOL POUCHES



#14 Telephone lineman's pouch of chrome-tanned cowhide. One large separated pocket with three smaller ones in front. Riveted and stitched with linen thread. 6″ x 9¼″ ....$4.95 net



Electrician's Pouch. Bark-tanned top grain cowhide, riveted and stitched with linen thread. 7 pockets, loop for hammer, T-chain for roll of tape.

#17 10″ x 9″ ....$4.95 net

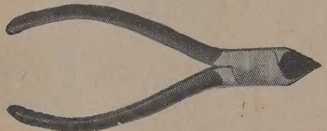
12 OTHER POUCHES AVAILABLE

Berg SWEDISH STEEL PLIERS

MADE IN ESKILSTUNA, SWEDEN, BY E. A. BERG MFG. CO. LTD. • EST. 1880

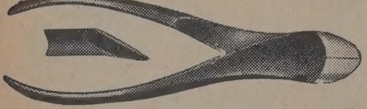
Only the best Swedish Charcoal Steel is used in the manufacture of Berg Pliers. Produced under exacting standards of control, they embody the most modern techniques of heat treatment and manufacture. Each plier is carefully engineered and designed to afford the greatest practical utility; lightness and ease of operation; and strength coupled with durability.

Special Electronic Diagonal Cutting Pliers with extra thin cutting edges, pointed nose and BOX JOINT



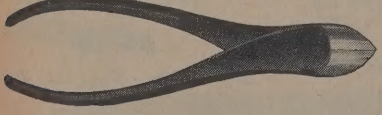
No. 525 - 5″ 4.95

ANGLE NOSE Diagonal Cutting Pliers



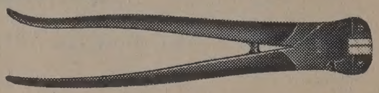
No. 2528 ......6½″ 4.25 7½″ 4.95

PIANO WIRE Diagonal Cutting Pliers



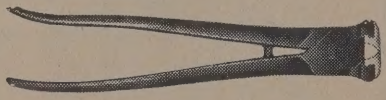
	4½″	5½″	6½″	7½″
No. 1528	2.95	3.65	4.15	4.65

PIANO WIRE Side Cutting Nippers with replaceable blades



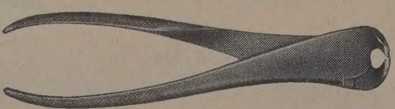
No. 1518	9″	6.50	10″	7.50
Extra Blades	9″	2.30	10″	2.55

PIANO WIRE End Cutting Nippers with replaceable blades



No. 1519 - 9″ 8.50
Extra Blades 2.90

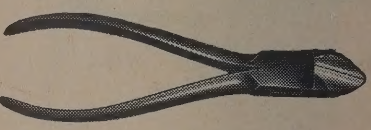
PIANO WIRE End Cutting Nippers



No. 527 ....6″ 3.50 7″ 3.95

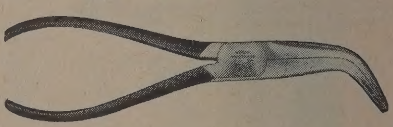
50 OTHER SIZES AND TYPES AVAILABLE

Straight Cutting Pliers with extended jaws



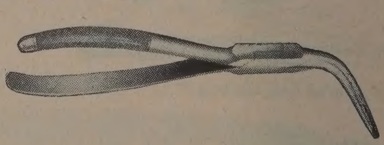
No. 1529 - 6½″ 3.95

Special Bent Nose Pliers



No. 2533-B - 8″ 4.95

Curved Nose Pliers



No. 1631 - 5½″ 3.85

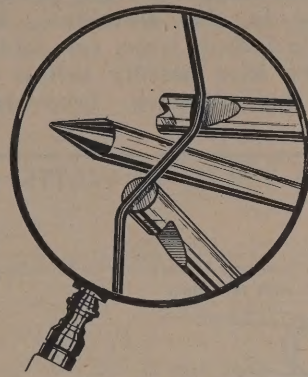
ERIKSON SPECIALIZED TOOL COMPANY, PICO RIVERA, CALIF.

Norseman
ELECTRONIC TOOLS

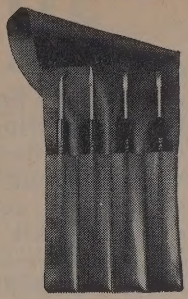
JIGGLE STICKS

Probes of Lucite, 1 end forked for pushing other end pointed for probing, notched on side for pulling wires.

PR 532-6	5/32" dia.	.30 net
PR 316-8	3/16" dia.	.35 net



NORSEMAN SOLDERING AID KIT

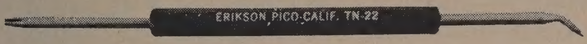


MTSA-4 miniature soldering aid kit with 4 tools M2T, M3T, M4T, M5T in vinyl kit complete ....$4.35 net

Vinyl plastic kit, packed with 4 Norseman Soldering Aids (TN-22, TN-33, TN-44, TN-55) as illustrated.
TNSA-4 complete kit ....$4.35 net

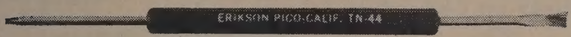
Kit with 4 Norseman Soldering Aids with unbreakable aluminum handles (AL-22, AL-33, AL-44 & AL-55).
ALSA-4 complete kit ....$4.35 net

NORSEMEN SOLDERING AIDS



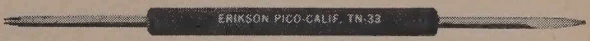
Red Handle

TN-22 Tenite II Handle	7⅝" Long	$ .75 net
M2T Tenite II Handle	5¼" Long	$ .75 net
AL-22 Aluminum Handle	7⅝" Long	$ .75 net



Black Handle

TN-44 Tenite II Handle	7½" Long	$ .90 net
M4T Tenite II Handle	5¼" Long	$ .90 net
AL-44 Aluminum Handle	7½" Long	$ .90 net



Green Handle

TN-33 Tenite II Handle	7⅝" Long	$ .75 net
M3T Tenite II Handle	5¼" Long	$ .75 net
AL-33 Aluminum Handle	7⅝" Long	$ .75 net

ERIKSON PICO-CALIF. TN-55

Blue Handle

TN-55 Tenite II Handle	6¾" Long	$ .90 net
M5T Tenite II Handle	5¼" Long	$ .90 net
AL-55 Aluminum Handle	6¾" Long	$ .90 net

PLASTIC HANDLES—(TN-22, TN-33, TN-44, TN-55) are of Tenite II, hex and will not roll off the work bench. Shock-proof, practically unbreakable and will stand rough use on industrial production lines.

METAL HANDLES—(AL-22, AL-33, AL-44, AL-55) are aluminum alloy 4" x ⅜" hex and won't roll off the work bench. Being metal, are NOT SHOCK-PROOF and hence not recommended for ordinary radio-TV service work, especially on a 'live' unit. However, these handles are practically unbreakable and were designed to take rough use on industrial assembly lines and can be used as PRY BARS in lining up components.

METAL ENDS—(separated from each other) non-magnetic stainless steel, to which solder won't adhere. Are firmly seated in handles and are twist-proof.

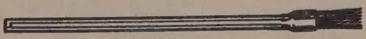
FORKED END—straddles the wire and with a slight twist, grips it for easy unwinding and removal, or guides it into another lug for soldering. Since plastic handles act as insulation, there is no danger of shock when working on sets in operation. ⅛" forks are made especially for use on printed circuits and transistors.

SPADE END—is a reamer to clean lug holes of solder.

CURVED END—can be used as a scriber for marking chassis. As a circuit tracer when looking for loose connections. As a dial cord stringer. Hook can be bent to a 90 degree angle if desired.

KNIFE & SCRAPER—for cutting and repairing printed circuits.

IRE BRUSH —has approx. 200 bristles of stainless wire .0035 in dia. to which solder will not adhere. For use in cleaning connections before soldering, brushing out splattered solder and in repairing printed circuits.



STAINLESS STEEL WIRE BRUSHES
on steel shaft approximately 2" long overall. Can be used in a regular pin vise. **.33 net**

Packed 25 or 50 per box

DIDDLE STICKS

Alignment tools —
Lucite ⁵⁄₃₂" dia.

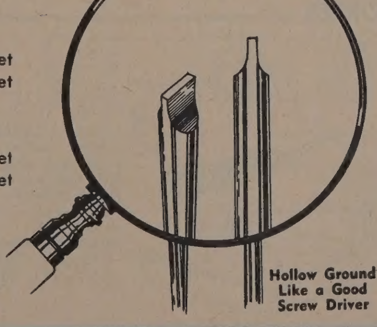
LU-53210	10" long	.25 net
LU-53214	14" long	.35 net

Rigid Vinyl 3/16" dia.

RV-31610	10" long	.25 net
RV-31614	14" long	.35 net

Fibre Glass ⅛" dia.

FG-1810	10" long	.35 net
FG-1814	14" long	.50 net
FG-1818	18" long	.65 net

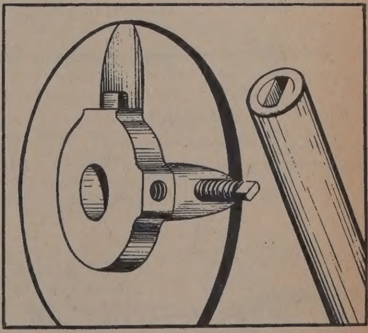


Hollow Ground Like a Good Screw Driver

SLAB-HEAD DRIVERS

Drivers for SLAB-HEAD screws as used in Delco auto radios, Zenith & Arvin TV and 1956 models of Webcor recorders.

246-P .....$1.80 net



Clutch Head Screw and Driver

ERIKSON SPECIALIZED TOOL COMPANY, PICO RIVERA, CALIF.

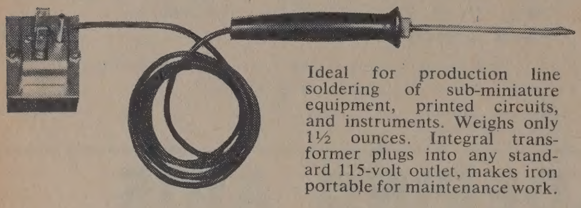
© U.C.P. Inc.

SOLDERING IRONS

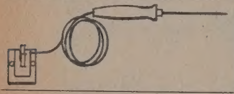
6 to 230 VOLTS 12 to 1250 WATTS

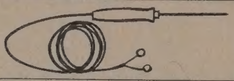
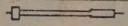
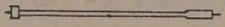
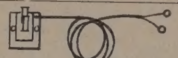
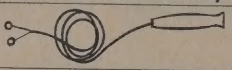
A complete line of high quality soldering irons specifically designed for production-line soldering in the electronic, instrument, and communications industries—including irons for soldering miniature and subminiature components. Also ideally suited for intermittent operations such as repair, maintenance, laboratory work, and electronic kit construction.

MINIATURE SOLDERING IRONS — 6 VOLTS, 12 WATTS

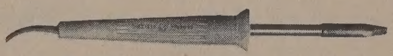


Ideal for production line soldering of sub-miniature equipment, printed circuits, and instruments. Weighs only 1½ ounces. Integral transformer plugs into any standard 115-volt outlet, makes iron portable for maintenance work.

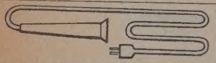
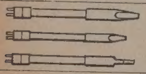
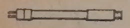
Description		Cat. No.	List Price Each‡
Complete Iron — Includes tip and heater assembly, 6-foot cordset, and transformer			
	⅛″ Chisel Tip 3″ Shank	6A428G3	$15.00
	⅛″ Chisel Tip 6″ Shank	6A428G4	15.00
	⅛″ Pyramid Tip 3″ Shank	6A428G7	15.00
	⅛″ Pyramid Tip 6″ Shank	6A428G8	15.00

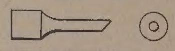
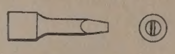
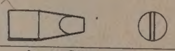
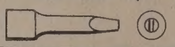
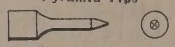
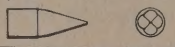
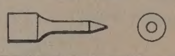
Description		Cat. No.	List Price Each‡
Complete Iron Less Transformer — Includes tip and heater assembly, 6 ft. cordset with terminals			
	⅛″ Chisel Tip 3″ Shank	6A428G5	$9.00
	⅛″ Chisel Tip 6″ Shank	6A428G6	9.00
Renewal Tip and Heater Assembly			
	⅛″ Chisel Tip 3″ Shank	6A429G3	$5.50
	⅛″ Chisel Tip 6″ Shank	6A429G4	5.50
	⅛″ Pyramid Tip 3″ Shank	6A429G5	5.50
	⅛″ Pyramid Tip 6″ Shank	6A429G6	5.50
Renewal Transformer — Includes 6-foot integral cordset			
	12 Volts— 115-volt Primary	6A430	$7.80
Handle and Cordset Only			
	6-foot Cordset with Terminals	495B687G14	$3.50

PENLINE-120 SOLDERING IRONS — 120 VOLTS; 30, 40, AND 45 WATTS — UL LISTED

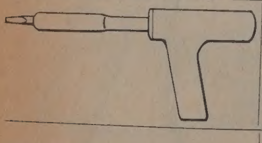
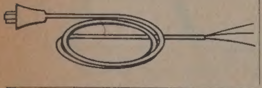


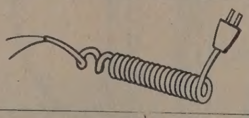
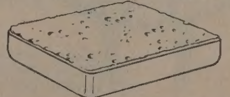
Lowest cost G-E iron; ideally suited for light to medium production in electronics, communications, and allied industries, for repair and maintenance operations, and by the "do-it-yourself" electronics kit builder. Choice of 30- and 45-watt low-cost, easy-to-change tip and heater assemblies; or 25-, 30-, and 40-watt heater assemblies with 20 different interchangeable ironclad or copper screw-on tips.

Description		Cat. No.	List Price Each‡
Handle and Cordset			
	Two-conductor	6D400	$3.00
	Three-conductor, with NEMA standard plug	6D400G2	4.00
Tip and Heater Assemblies — Ironclad			
	3/16″ Chisel Tip 30 watts	6D410	$4.70
	9/32″ Chisel Tip 30 watts	6D411	4.80
	⅜″ Chisel Tip 45 watts	6D412	4.90
Heater Assembly for Screw-on Tips			
	25 watts	6D415	$4.00
	30 watts	6D414	4.00
	40 watts	6D413	4.00

Description		Cat. No.	List Price Each‡
Screw-on Tips for 6D413 Heater Assembly and for Midget Iron Heater Assembly 6A221			
Spade Tips 	1/16″ Dia—Copper	6D4P1	$0.50
	1/16″ Dia—Ironclad	6D4P2	1.40
	⅛″ Dia—Copper	6D4P3	0.50
	⅛″ Dia—Ironclad	6D4P4	1.40
Chisel Tips 	1/16″ Dia—Copper	6D4P5	0.50
	1/16″ Dia—Ironclad	6D4P6	1.40
	⅛″ Dia—Copper	6D4P7	0.50
	⅛″ Dia—Ironclad	6D4P8	1.40
	3/16″ Dia—Copper	6D4P9	0.50
	3/16″ Dia—Ironclad	6D4P10	1.40
	⅜″ Dia—Copper	6D4P11	0.50
	⅜″ Dia—Ironclad	6D4P12	1.40
Long Chisel Tips 	3/16″ Dia—Copper	6D4P13	0.55
	3/16″ Dia—Ironclad	6D4P14	1.50
Pyramid Tips 	⅛″ Dia—Copper	6D4P15	0.50
	⅛″ Dia—Ironclad	6D4P16	1.40
	⅜″ Dia—Copper	6D4P17	0.50
	⅜″ Dia—Ironclad	6D4P18	1.40
Cone Tips 	⅛″ Dia—Copper	6D4P19	0.50
	⅛″ Dia—Ironclad	6D4P20	1.40

ACCESSORIES

Description		Ordering Directions	List Price Each‡
	Pistol-grip handle (for 6A160 Series only).	Order Cat. No. of standard iron, note on order, "except with pistol-grip handle."	Add $1.30 Each
	6-ft. 3-conductor cordset with NEMA standard plug (for 6A160 Series)	Specify Cat. No. of standard iron, note on order, "except with three-conductor cordset and NEMA standard plug."	Add $1.20 Each

Description		Ordering Directions	List Price Each‡
	6-ft. extended length 2-conductor coiled cordset with standard plug (for 6A-160 and Light-weight Series)	Specify Cat. No. of standard iron, not on order, "except with coiled cordset."	Add $1.35 Each
	Cellulose sponge in aluminum tray for wiping ironclad tips.	6A236-complete unit 6A236P1-tray only 6A236P2-sponge only	$1.50 1.00 .50

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‡ Manufacturer's suggested resale price.

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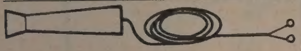
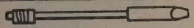
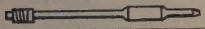
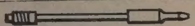
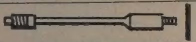
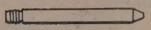
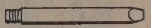
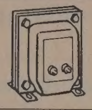
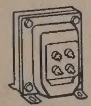
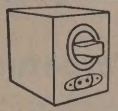
MIDGET SOLDERING IRONS — 6 VOLTS; 25 and 45 WATTS (Also tapped transformers) — UL LISTED

A versatile iron for light production in electronics, and communication industries — handles like a pencil weighs but 1¾ oz. Tip renewal is easy and fast — complete tip and heater assembly can be changed in a few seconds. Heat output can be varied from 18 to 35 watts with standard G-E transformers.

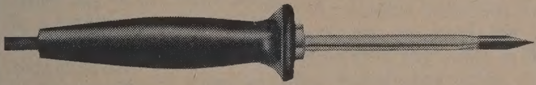
	Description	Cat. No.	List Price Each‡
Handle and Cord Set			
	For two- and four-tap transformers	6A203	$3.65
	For transformer with 3-heat switch	6A203G2	4.15
Tip and Heater Assemblies — All ironclad tips			
	¼″ Chisel Tip 25 watts	6A211	$4.05
	⅛″ Cone Tip 25 watts	6A213	4.05
	3/16″ Pyramid Tip 25 watts	6A215	4.05
	3/16″ Chisel Tip 25 watts	6A217	4.05
	⅜″ Chisel Tip 25 watts	6A211G31	4.60
Heater Assembly for Screw-on Tips (Use PENLINE-120 Tips from opposite page)			
	25 watts	6A221	$4.05
Heater Assembly for Threaded Tips			
	3″ long 25 watts	6A219	$3.95
	4¼″ long 25 watts	6A219G2	3.95

	Description	Cat. No.	List Price Each‡
Threaded Tips for Cat. No. 6D219 — and 6D219G2			
	5/32″ Cone—Nickel-plated	6D2P1	$0.60
	5/32″Chisel—Nickel-plated	6D2P1	0.60
	5/32″ Offset Cone—Nickel-plated	6D2P3	0.60
Transformers for Midget Iron — 115-volt Primary*			
	Single Tap—25 watts	6A362G2	$6.90
	Four Tap—26 to 35 watts	6A364G2	9.20
	With Three-heat Switch —18 to 35 watts†	6A434	17.00

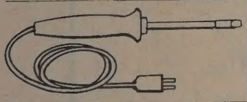
* Single- and four-tap transformers are available with 240-volt primary in quantities of 36 or more "except with 240-volt promary."

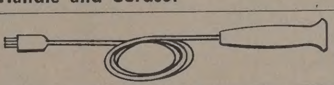
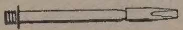
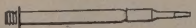
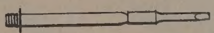
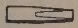
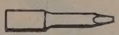
† Suitable for use only with Handle and Cordset 6A203G2. Specify catalog number desired and note on order.

LIGHTWEIGHT, MEDIUM-PRODUCTION SOLDERING IRONS — 120 VOLTS, 60 WATTS — UL LISTED



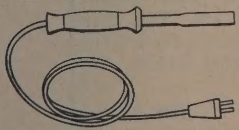
Ideal for medium production-line soldering and maintenance and repair operations in electronics and communications industries. Tip and heater assemblies can be changed in seconds.

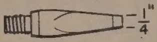
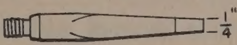
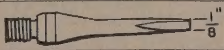
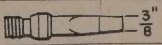
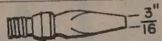
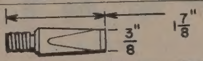
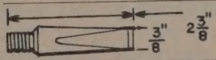
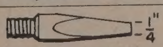
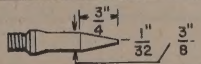
	Description	Cat. No.	List Price Each‡
Complete Iron — Includes handle and 6-foot cordset, and tip and heater assembly			
	¼″ Ironclad Chisel Tip	6A273	$14.20
	3/16″ Ironclad Pyramid Tip	6A283	14.20
	3/16″ Ironclad Chisel Tip	6A283G23	14.20

	Description	Cat. No.	List Price Each‡
Handle and Cordset			
	Two-conductor	9806539G15	$7.25
	Three-conductor with NEMA standard plug	121B571G13	8.45
Tip and Heater Assemblies			
	¼″ orInclad Chisel Tip	6A300	$6.95
	3/16″ Ironclad Pyramid Tip	6A301	6.95
	3/16″ Ironclad Chisel Tip	6A301G4	6.95
Renewal Tips Only — Must be brazed on — Instructions included with renewal tips			
	¼″ Ironclad Chisel Tip	6D3P2	$1.80
	3/16″ Ironclad Pyramid Tip	6D2P1	1.80
	3/16″ Ironclad Chisel Tip	6D3P3	1.80

6A160 SERIES SOLDERING IRONS — 115 VOLTS §, 75 TO 140 WATTS — UL LISTED

Ideal for medium to heavy production, and maintenance and repair operations. Available with any of 12 different tips, calorized or ironclad.

	Description	Cat. No.	List Price Each‡
Complete Iron Less Tip — Includes 6-foot two-conductor cordset			
	75 Watts	6A161	$14.95
	100 Watts	6A162	14.95
	110 Watts	6A162G6	14.95
	125 Watts	6A162G3	14.95
	140 Watts	6A162G12	14.95
Renewal Heater — 115 Volts§			
	75 Watts	6A31	$4.50
	100 Watts	6A32	4.50
	110 Watts	7C342	4.50
	125 Watts	8A88	4.50
	140 Watts	7C474	4.50

	Description	Cat. No.	List Price Each‡
Tips — fit all catalog numbers			
	¼″ Short Chisel—Calorized	6D1P1	$1.05
	¼″ Short Chisel—Ironclad	6D1P2	1.85
	¼″ Long Chisel—Calorized	6D1P3	1.75
	¼″ Long Chisel—Ironclad	6D1P4	3.55
	⅛″ Chisel—Ironclad	6D1P5	1.75
	⅜″ Chisel—Calorized	6D1P6	1.05
	⅜″ Chisel—Ironclad	6D1P7	1.85
	3/16″ Chisel—Ironclad	6D1P8	1.85
	⅜″ Short Taper Chisel—Ironclad	6D1P9	2.30
	⅜″ Long Taper Chisel—Ironclad	6D1P10	2.75
	¼″ Blunt Chisel—Ironclad	6D1P11	2.20
	Long Taper Cone—Ironclad	6D1P12	1.80

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§ Also available for 230-volt operation. Order 115-volt Cat. No. desired, and note on order "except for 230-volt operation." No change in price.

‡ Manufacturer's suggested resale price.

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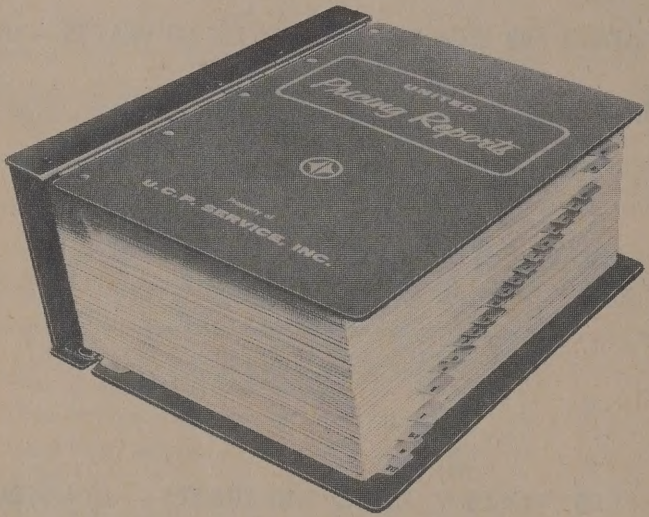

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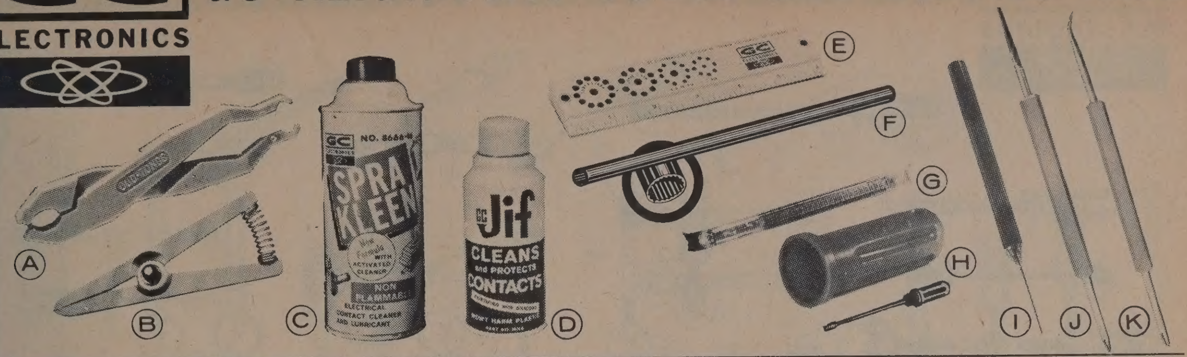
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(C) NEW 16-OZ. SIZE SPRA-KLEEN—Works upside down, as well as right-side up! Now servicemen can get to those hard-to-reach places. Stops radio and TV control noise. No need to dismantle the chassis to get at the parts when you use Spra-Kleen. Both cleans and lubricates contacts, controls, relays, switches, and other sliding contact devices in one fast operation.

Cat. No. 8666-16 Net $1.95

(D) GC JIF—Contact and Control Cleaner...Cleans—Lubricates—Long-lasting protection. Jif away noise due to dust, dirt and corrosion on Electronic/Electrical contacts, switches, controls with this NEW siliconized contact-control cleaner. Jif cleans and lubricates plus providing contacts and controls with the longest possible protection. Fast and efficient Jif saves the serviceman time and money in this new three-in-one operation, CLEAN—LUBRICATE—PROTECT. Simply apply and work controls a few times. Jif contains no solvents to harm plastics. Safe, quick, easy to use—Jif will do an excellent job for the serviceman.

Cat. No. 8670-6 Net $1.79

(E) GC RULER AND TUBE PIN STRAIGHTENER—Unique, double purpose service aid...This new GC item will prove to be the serviceman's constant companion. A plastic 6" ruler and a Tube Pin Straightener to accommodate Compactron, Large 7 Pin, 9 and 10 Pin, and 7 Pin Tubes.

Cat. No. 9135 Net $ .59

(F) SHAFT EXTENSION INSULATOR—Standard TV control—21 Sure-grip ribs . . . Fits all shafts. Cut off worn ends, or to desired length.

Cat. No. 5150 Net $ .36

(G) HI-VOLTAGE GAUGE—Measures TV Voltage Pulse . . . No current drain during operation. Snaps directly to plate cap of any listed tubes. Push plunger in slowly till neon light glows. Voltage read on calibrated rod.

Cat. No. 8840 Net $2.30

(H) TWISTMASTER—Twice the Leverage of the Bare Hand . . . Slips easily on any standard screwdriver. Insulates against shock, prevents blisters.

Cat. No. 9320 Net $ .29

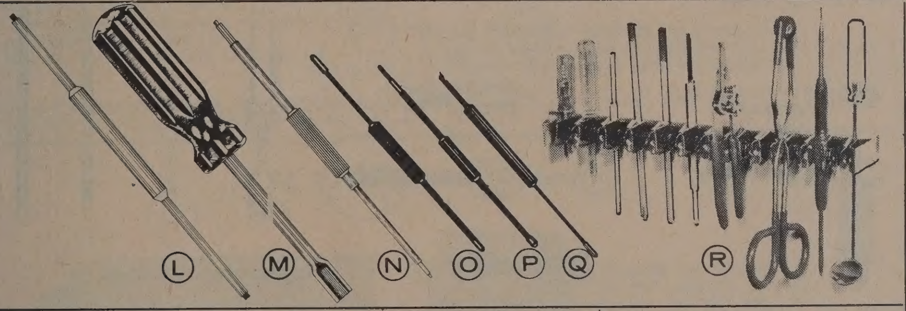
(I) PIGTAILER—Makes connections quickly and easily...For lengthening pigtails, repairing broken leads, connections, tuners, printed circuits, to hold a part, until solder is applied, or for making solderless connections, for testing and reconnecting, for replacing resistors and condensers. Will wind a pigtail that slips over 18-gauge wire. (Used in most Radio and TV work.)

Cat. No. 5077 Net $1.20

(J) and (K) SOLDERING AID TOOLS—Won't Stick to Solder...Heat-treated tool steel, chrome-plated, won't stick to solder. Wraps or disconnects wire-wrapped soldered joints quickly. Double ended to ream solder from lug holes as well as for holding or prying parts to be soldered.

Cat. No. 9075 Straight Net $ .80

Cat. No. 9076 Angled Net $ .80



(L) CAPACITOR AND TUNER ADJUSTING TOOL—New adjuster for trimmer capacitors, sealed capacitors, and miniature L. C. Tuners. Made of white Delrin with .050" hex head one end and screwdriver tip on the other end. Overall length of tool is 5⅛".

Cat. No. 8605 Net $ .63

(M) GC CAPACITOR TAB TWIST TOOL—For replacing twist lock condensors. This handy Service Aid is easier to use than needle-nose pliers—saves time on service calls and at the bench. The slotted end fits over capacitor tabs; won't slip off. A quick twist locks or unlocks the tabs. 8" long; plastic handle. One of the most useful Service-Designed tools for the bench.

Cat. No. 9446 Net $ .89

(N) GC MAGNAVOX TUNING TOOL—Head for Magnavox chassis Nos. 201 and 202, Delrin hex wrench alignment tool for Magnavox and other sets. Hex wrench on both ends, one end under-cut so it will reach bottom slugs in iron coils.

Cat. No. 8284 Net $ .48

(O) DOUBLE END HEX CORE ALIGNER—Adjusts Coil Slugs... General purpose alignment tool as well as a coil slug adjuster. Both ends are .075" Hex, with one end undercut.

Cat. No. 9300 Net $ .48

(P) 3-IN-1 HEX CORE ALIGNER—Adjusts Coil Slugs . . . For Magnavox sets and others. Hex ends, one .100" with under-cut shaft; other end is .075" and .100".

Cat. No. 9302 Net $ .48

(Q) DOUBLE END ALIGNER—Adjusts Coil Slugs . . . For coil slugs on Webcor and other sets. One end .075" Hex shaped with under-cut shaft; other is a handy screwdriver.

Cat. No. 9304 Net $ .48

(R) TOP TEN TOOL KIT—10 most often used service shop tools plus an indispensable Tool Kaddy. Tool Kaddy protects tools.

Cat. No. 9525-X Net $10.42

MAGNETIC MICROPHONE HOLDER

—for Citizens Band and other Mobile Radio units . . . Puts the microphone where you want it... when you want it. Here one day, there the next. Move it all you want, yet you know it's always safe. No holes to drill, no brackets to mount. Attach to any steel surface. Capable of holding up to 12 lbs. Clip to Microphone and have ready made magnetic microphone or attach magnet to steel surface and clip phone. Designed to fit most microphones, goes wherever you want it, easily, quickly, conveniently.

Cat. No. 65-525 Net $ .99

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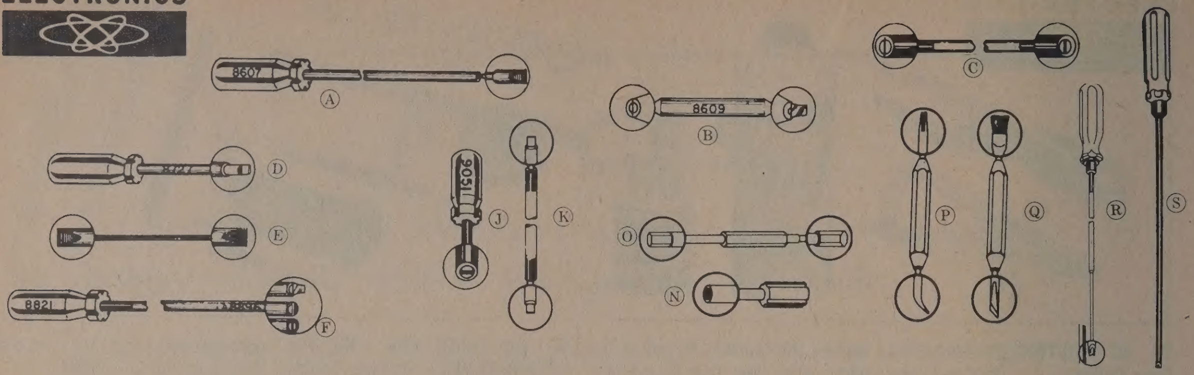
GC ALIGNMENT TOOLS . . .

ELECTRONICS



(A) G-C NEW NYLON TV LONG-REACH ALIGNER—Handy new long-reach TV aligner with insulated metal shaft and nylon tip. 12¼″ long overall, .195 Shaft Dia.
Cat. No. 8607 TV Tool Net $1.50

(B) G-C ALIGNMENT TOOL—Handy to align and adjust TV sets, radio sets, etc. Made of clear plastic 5″ long x ⅜″ dia.
Cat. No. 8609 Net $ .63

(C) G-C TV 2-IN-1 LONG-REACH DUPLEX ALIGNER—Made of clear, unbreakable plastic material. Ends colored red and blue for size identification. Tips are made of spring steel recessed for easy location of stud.
Cat. No. 8721 9″ long, 7/32″ Shaft Dia. Net $ .78
8722 7″ long, 7/32″ Shaft Dia. Net $ .67

(D) NEW G-C K-TRAN TELEVISION ALIGNER—Specially made for K-Tran I.F. Transformer tuner slugs. Precision made of bone fibre.
Cat. No. 8727 6¼″ long, 5/32″ Tip Dia. Net $ .60

(E) TV LONG REACH ALIGNMENT SCREW DRIVERS—Made of bone fibre, extra thin ⅛″ diameter screw drivers for adjustment of TV receivers. Screw drivers tip on both ends—can be re-ground and used over.
Cat. No. 8728A ⅛″x7″ long Net $ .43
8728 ⅛″x12″ long .53
8729 ⅛″x16″ long .70

(F) G-C LONG ARM TV TOOL PLASTIC SHAFT—New, extra-long-reach alignment tool for Zenith sets and others where adjustments are had to get at. Tool is 18″ long overall. 18″ long, 7/32″ Shaft Dia.
Cat. No. 8821 TV Tool (Type A) Net $ .93
8896 TV Tool (Type B) .93
8897 TV Tool (Type C) .93

(J) NEW ZENITH-RCA ALIGNING TOOL WITH HANDLE—Handle affords a better grip and easier adjustments. Length is 2½″ with a 1½″ shaft length. 7/32″ diameter blade with recessed slot in blade end.
Cat. No. 9051 Net $ .58

(K) NEW G-C STANDARD COIL SLUG TUNER ADJUSTING TOOL—A new special slug tuning tool especially made for adjusting Standard Tuners, etc. Completely insulated. 7½″ long, ¼″ shaft diameter, shaft ends .170 diameter.
Cat. No. 9087 Net $ .67

(N) G-C ADJUSTABLE SHORTY—Recessed tip TV alignment tool. Adjustable from 1¼″ to 2″ in length, for those hard-to-get-at places.
Cat. No. 9090 Net $ .58

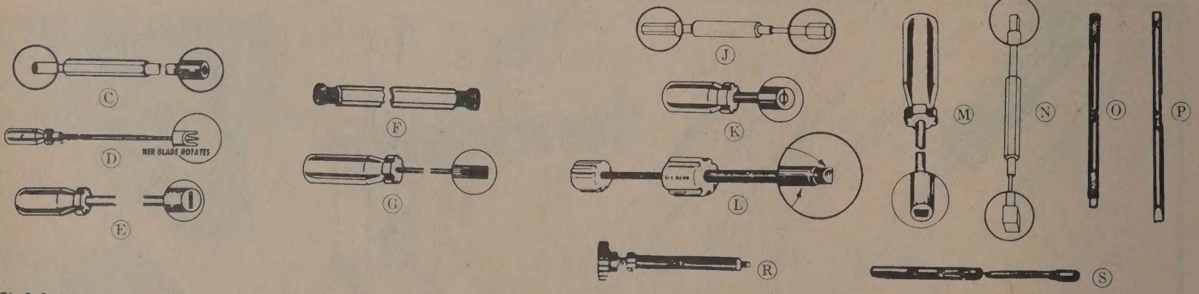
(O) G-C DOUBLE END IRON CORE TOOL—All nylon hex tool made to fit cores with .125 hex opening. One end of tool undercut so it can reach the bottom slug in coils without turning the top slug.
Cat. No. 9091 5″ long Net $ .48
9091-L 11″ long .63

(P) G-C PRINT-KOTE SOLDER AID PROBE—Handy, fine point probe specially designed to aid in probing and soldering printed circuits.
Cat. No. 9093 8″ Length Net $1.00

(Q) G-C PRINT-KOTE BRUSH AND SCRAPER—Fine Stainless Steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits.
Cat. No. 9094 8″ Length Net $ .98

(R) G-C SLUG RETRIEVER TOOL—A precision made tool with hardened steel tips made for removing lost TV tuner slugs in Standard Coil tuners. Ends ground to fit standard coils.
Cat. No. 9096 12″ Retriever Net $2.58
9097 15″ Retriever 3.00

(S) G-C MINI-HOLD SCREWDRIVERS—Speeds replacing of phono cartridges. Designed with exclusive "Wedge Action" enabling secure gripping of tiny screws. (Nos. 0, 1, 2, 3 and No. 8 set screws and smaller) Special short length (2⅞″ when in use).
Cat. No. 9346 3¼″ long, 2⅞″ in use Net $2.14
9347 7″ long, 6¾″ in use 2.40



(C) G-C RCA TV ALIGNMENT TOOL—Double end nylon tool with a recessed metal tip on one end and a plastic slot on the other end.
Cat. No. 9150 6″ Length Net $ .93

(D) G-C SCREW STARTER SCREW DRIVER—A handy screw holding screwdriver that will start screws in hard-to-get-at places. Holds the screw securely while it starts it.
Cat. No. 9148 12″ Net $2.58

(E) G-C TV AND AUTO RADIO WRENCH—Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net $1.08

(F) G-C DUAL NUT STARTER—New tool that holds and starts hex nuts or hex head screws in hard-to-get-at places. Fits ¼″ and 5/16″ hex nuts. Pat. 2664021.
Cat. No. 9147 Net $1.65

(G) G-C FIBREGLASS SCREWDRIVER—Gives full protection on hot chassis when adjusting high potentials. For close-up hard-to-reach places. Cat. No. 9291 7″ Net $ .75

(J) G-C NYLON HEX TOOLS—For the adjustment of iron cores inside mounted chassis, and the tuner adjustment of iron and brass slugs with hex heads. Has .100″ hex and 5/32″ handle.
Cat. No. 9295 11″x.100″ Hex Net $ .63
9296 11″x.075″ Hex .63
9297 11″x.075″ Hex .63

(K) G-C SHORTY ALIGNMENT TOOL—A convenient tool for hard-to-get-at places. Has 3/16″ shaft, 2″ length. Overall length of tool 4″.
Cat. No. 9298 Net $ .48

(L) G-C COLOR TV TOOL—Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner drive penetrates to the inside slot. Cat. No. 9299 Net $1.33

(M) G-C RCA WRENCH FOR VHF CHANNEL SELECTOR—Tool is made to fit square headed set screws in RCA VHF Channel Selector gear assembly without removing chassis.
Cat. No. 6035 Net $1.08

(N) G-C NEW TRANSISTOR I.F. CORE ALIGNMENT TOOL—One end square .055, opposite end rectangle nib. .047 x .078 to reach bottom slugs in iron cores.
Cat. No. 9440 11¾″ long Net $ .63

(O) G-C RCA ALIGNING TOOL—Made of 7/32″ Butyrate rod, narrow screwdriver on one end and screw nib inserted on other end.
Cat. No. 5003 Net $ .53

(P) G-C NO-METAL INSULATING ADJUSTMENT SCREW DRIVER—Made of black bone fibre. Indispensable for aligning all-wave sets.
Cat. No. 5004 7″ long Net $ .48
LOW-LOSS POLYSTYRENE TYPE—Ideal for U.H.F. Sets.

(R) G-C NEUTRALIZING TOOL—Combination screw driver and 5/16″ hex wrench. Approved by U. S. Army Signal Corps.
Cat. No. 5027 Net $2.10

(S) G-C 4-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, ¼″ hex wrench slotted and 5/16″ hex wrench on other end.
Cat. No. 5014 Net $ .87

G-C 5-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, 5/16″ hex wrench, ¼″ hex wrench slotted, with metal screw driver on one end.
Cat. No. 5015 Net $1.17

G-C 6-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, 5/16″ hex wrench, ¼″ hex side wrench and ¼″ hex end wrench slotted.
Cat. No. 5016 Net $1.20

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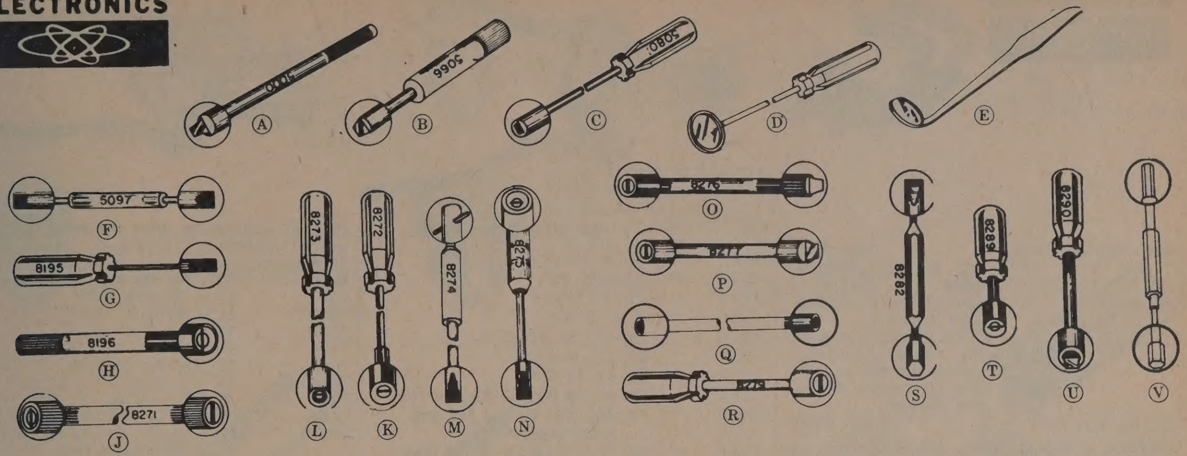
GC ALIGNMENT TOOLS . . .

ELECTRONICS



(A) **G-C ALIGNMENT SCREWDRIVER**—Low inductance metal tip screwdriver made of Butyrate material.
Cat. No. 5000 ¼″ Diameter x 6″ Tool
Net $ .42

(B) **G-C TV ALIGNMENT TOOL**—Very short, sturdy tool with a fine metal screwdriver blade.
Cat. No. 5066 2½″ long, 3/16″ Shaft Dia.
Net $ .37

(C) **G-C TV ALIGNING WRENCH**—New tool with ⅛″ square socket wrench, 7/32″ shaft with insulated handle.
Cat. No. 5080 Net $ .53

(D) **G-C INSPECTION MIRROR**—Handy inspection mirror to inspect parts, coils, wiring, etc. Made of metal shaft with glass mirror and a plastic handle.
Cat. No. 5090 7⅞″ Inspection Mirror
Net $ .42

(E) **G-C NEW ALL-PLASTIC INSPECTION MIRROR**—Use to inspect coils, resistors, sockets, etc. while the chassis is hot. No danger of shorting.
Cat. No. 5090-P 7⅞″ Plastic Mirror Net $ .38

(F) **G-C K-TRAN TOOL** — Specially designed for K-tran and I.F. transformers. Butyrate material, screwdriver on both ends.
Cat. No. 5097 6″ long, 5/32″ Delrin Tip, ⅛″ metal Tip Net $ .78

(G) **G-C TV CHANNEL TUNING TOOL**—Completely insulated, non-metallic tool with long ⅛″ narrow blade. Made of bone fibre.
Cat. No. 8195 7¼″ long, ⅛″ shaft dia.
Net $ .72

(H) **G-C TV AND FM TUNING TOOL**—Special short tool with fine recessed screwdriver top for Television and FM adjustments. Made of Butyrate.
Cat. No. 8196 2½″ long, 7/32″ shaft dia.
Net $ .38

(J) **G-C TV CORE ALIGNER**—For Motorola and other sets using Stackpole or other stud type cores that are not slotted. Milled steel insert on one end, thin screwdriver blade on other end.
Cat. No. 8271 6″ long, 7/32″ shaft dia.
Net $ .57

(K) **G-C TV I.F. OSCILLATOR ALIGNER**—Specially made for I.F. and oscillator adjustments. Will fit all makes of sets—R.C.A., G.E., Philco, Admiral and others.
Cat. No. 8272 6½″ long, ¼″ tip dia.
Net $1.12

(L) **G-C TV ALL-PURPOSE ALIGNER** — Specially made for TV I.F. adjustments. Very thin spring steel tip is recessed so the tool will guide itself over the screws.
Cat. No. 8273 8″ long, 7/32″ shaft dia.
Net $ .92

(M) **G-C TV LONG REACH ALIGNER**—Specially made for Admiral, Zenith, R.C.A. and other sets for adjustments of nested iron cores that are hard to reach.
Cat. No. 8274 9″ long, ⅛″ shaft dia.
Net $ .83

(N) **G-C TV ZENITH UNIVERSAL ALIGNER**—Specially designed for Zenith and other sets. Made of bone fibre and plastic handle.
Cat. No. 8275 5″ long, ⅛″ shaft dia., ¼″
Net $ .52

(O) **G-C TV DUPLEX ALIGNER**—An all-purpose TV aligner for trimmers and I.F. transformers. Made of Butyrate material with extra thin spring steel tips.
Cat. No. 8276 6″ long, 7/32″ shaft dia.
Net $ .52

(P) **G-C TV "SHORTY" DUPLEX ALIGNER**—Specially made for trimmer and I.F. transformers where space does not permit the use of a longer tool.
Cat. No. 8277 2½″ long, 7/32″ shaft dia.
Net $ .52

(Q) **G-C TV TUNING WAND**—Brass insert on end reduces inductance and iron core on other end increases the inductance.
Cat. No. 8278 6″ long, 7/32″ shaft dia.
Net $ .53

(R) **G-C TV CORE ALIGNER**—Tool has a recessed steel milled slot to fit over the Stackpole and other type stud cores that are not slotted.
Cat. No. 8279 7½″ long, 7/32″ shaft dia.
Net $ .68

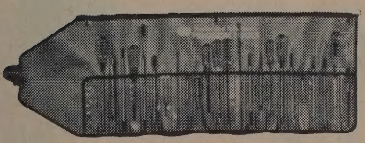
(S) **G-C NEW ZENITH TV WRENCH & ALIGNER**—New nylon plastic molded special tool made specially for Zenith TV sets.
Cat. No. 8282 5 7/16″ long, .100 Dia. Hex Wrench, .109 Screw Driver Dia. Net $ .37

(T) **G-C "SHORTY" TV ALIGNMENT SCREW DRIVER**—Only 2″ long overall to adjust hard-to-get-at places under TV tubes, etc.
Cat. No. 8289 2″ long, 7/32″ shaft dia.
Net $ .58

(U) **G-C UNIVERSAL SCREW DRIVER ALIGNER**—Made of unbreakable flexible clear plastic shaft and an amber plastic handle.
Cat. No. 8290 7″ long, 7/32″ shaft dia.
Net $ .63

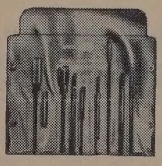
(V) **G-C ZENITH-ADMIRAL NYLON HEX WRENCH**—New nylon hex wrench alignment tool for Zenith, Admiral and other sets.
Cat. No. 8606 5″ wrench, 11″ long Net $ .48
8606-L 11″ wrench, 11″ long .63

GC ALIGNMENT TOOL KITS

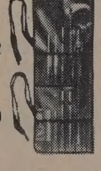


MASTER DELUXE TOOL KIT—A super-deluxe kit in a superior leatherette roll type case. Contains 25 tools and includes all TV alignment tools except the extra long ones (over 9″) which would not fit in the case.
Cat. No. 8283 Net $14.17

DELUXE ALIGNMENT TOOL KIT—Case is made of durable leatherette that will give long service. The steel tips are all extra thin and are of the best grade hardened spring steel that will give you service. Kit contains one each of 16 tools you need.
Cat. No. 8280 Net $8.63



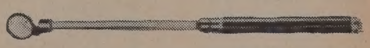
STANDARD ALIGNMENT TOOL KIT—Made to last and wear—a quality kit. Kit contains 9 essential tools in roll type case.
Cat. No. 8455 Net $4.77



G-C No. 5040 TOP 12 TOOL KIT—12 most popular TV alignment tools. Plastic roll-up case.
Cat. No. 5040 Net $7.50

G-C CONTACT BURNISHING TOOL KIT—A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean for ideal operation conditions.
Cat. No. 9339 Net $ .75

NEW TINNERMAN NUT REMOVER—The new G-C Tinnerman Nut Remover is a handy dual purpose tool for removing large or small tinnerman nuts with just a twist. Eliminates fumbling with hard-to-remove nuts.
Cat. No. 9355 Net $ .93



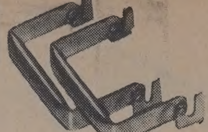
G-C ILLUMINATED INSPECTION AND SERVICE MIRROR—A hinge-mounted mirror fastens to a 6″ transparent lucite rod which transmits light from a small anodized aluminum flashlight.
Cat. No. 8725 ⅞″ Mirror, frame O.D. 1 1/16″
Net $2.02

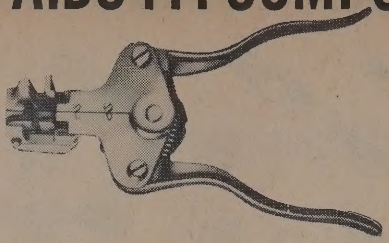
G-C SPEEDEX SLIM-TYPE SOLDER IRON TIPS—A new high-heat, turned-down tip made of one-piece copper. Will fit ⅜″ irons. Tips 4½″ long.
Cat. No. 8741 Net $ .73

G-C SOLDER IRON TIPS—Bright plated to resist corrosion. These tips are made of best grade hard-drawn copper.

	Dia. Long	
Cat. No. 724	¼″x3″	Net $ .50
725	5/16″x4½″	.55
726	⅜″x4½″	.62

GC ELECTRONICS SERVICE AIDS . . . COMPONENTS





Net $2.13

G-C TV CHASSIS SUPPORT. Prop chassis to easy working position on your bench or in the home. Simply slip it on the flange of chassis, tighten thumb screws and tilt chassis to position desired.

Cat. No. 9176 Per Pair Net $1.80

SPEEDEX STANDARD WIRE STRIPPER. This is the popular inexpensive Speedex model that will work on 90% fo all stripping jobs. Blades are inter-changeable, hardened and precision ground to razor sharp edges.

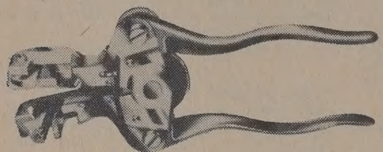
No.	For Sizes Listed Below
733	12 to 20 Wire
733-A	14 to 30 Wire
733-B	10 to 18 Wire
733-C	8 to 10 Wire
733-D	16, 18, 20, 22 Wires
733-E	14, 16, 18 Wires
733-F	10, 12, 14 Wires
733-G	For No. 18 POSJ or Parallel Wire
733-H	For 300 ohm TV and FM twin transmission line
733-I	10, 12, 14, 16, 18, 20, 22 Wire
733-M	10 to 20 Wire
733-N	Straight Cutter Blades

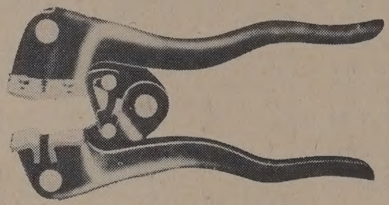
Cat. No. 733 Net $4.77

SPEEDEX AUTOMATIC WIRE STRIPPER. Equipped with "Trig-O-Matic" Stay-Open feature. Stay-Open features keeps wires from being crushed.

No.	For Sizes Listed Below
744	12 to 20 Wire
744-A	14 to 30 Wire
744-B	10 to 18 Wire
744-C	8 to 10 Wire
744D	16, 18, 20, 22 Wire
744-E	14, 16, 18 Wire
744-F	10, 12, 14 Wire
744-G	For No. 18 POSJ or Parallel Wire
744-H	For 300 ohm TV and FM twin transmission line
744-1	10, 12, 14, 16, 18, 20, 22 Wire
744-M	10 to 20 Wire
744-N	Straight Cutter Blades

Cat. No. 744 Net $5.93





SPEEDEX SPEED-O-MATIC WIRE STRIPPER. Full automatic delayed return action to prevent crushing fine wires. The Speed-O-Matic combines the features of all Speedex Wire Strippers.

No.	For Sizes Listed Below
766	12 to 20 Wire
766-A	14 to 30 Wire
766-B	10 to 18 Wire
766-C	8 to 10 Wire
766-D	16, 18, 20, 22 Wire
766-E	14, 16, 18 Wire
766-F	10, 12, 14 Wire
766-G	For No. 18 POSJ or Parallel Wire
766-H	For 300 ohm TV and FM twin transmission line
766-I	10, 12, 14, 16, 18, 20, 22 Wire
766-M	10 to 20 Wire
766-N	Straight Cutter Blades

Cat. No. 766 Net $5.93

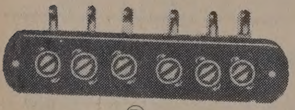
SPEEDEX WHIZ WIRE STRIPPER. All new economy model—a perfect all round general use wire stripper. Precision milled, hardened steel cutters.

Cat. No. 788 3 Hole Blade, Gauges 12 thru 22
788-B 3 Hole Blade, Gauges 10 thru 16
788-D 4 Hole Blade, Gauges 14 thru 24
788-H 300 ohm Blade forT win Lead-In
Cat. No. 788 Net $3.97

SPEEDEX WIRE STRIPPER KITS. Kits complete with Wire Strippers and seven different size ages neatly put up in a special permanent piasitc box. Very handy kit for the tool box, home workshop, maintenance and production.

Cat. No. 733-K Standard Stripper Kit Net $ 9.57
744-K Auotmatic Stripper Kit Net $11.97
766-K Speed-O-Matic Stripper Kit Net $11.97

ELECTRONIC COMPONENTS


B

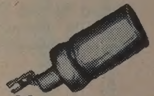
C

D

E

F

G

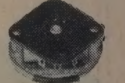

M

O

H

J

K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(B) G-C SCREW TYPE TERMINAL STRIPS. Mounted on laminated bakelite strips, rigidly constructed; terminals will not turn and short.

Cat. No.	Contacts	Net $
1772	2	.09
1772-C	(100-1772)	8.10
1773	3	.12
1773-C	(100-1773)	10.05
1774	4	.15
1774-C	(100-1774)	13.20
1775	5	.20
1775-C	(100-1775)	16.67
1776	6	.22
1776-C	(100-1776)	20.17
1777	7	.25
1777-C	(100-1777)	23.85
1778	8	.30
1778-C	(100-1778)	27.00
1779		.33
1779-C	(100-1779)	30.00
1780	10	.37
1780-C	(100-1780)	33.45

G-C STANDARD TERMINAL STRIPS. Insulation 1/16" Thick, 3/8" Spacing.

	Cat. No.		Net $
(C)	1781	1 Lug	.03
	1781-C	100 No. 1781	2.70
(D)	1782	2 lugs	.03
	1782-C	100 No. 1782	2.70
(E)	1783	3 lugs	.05
	1783-C	100 No. 1783	2.82
(F)	1784	4 lugs	.05
	1784-C	100 No. 1784	3.90
(G)	1785	5 lugs	.07
	1785-C	100 No. 1785	4.50
(H)	1786	6 lugs	.08
	1786-C	100 No. 1786	4.80
(J)	1787	7 lugs	.13
	1787-C	100 No. 1787	$8.70
(K)	1788	8 lugs	.15
	1788-C	100 No. 1788	9.60

SPECIAL TERMINALS AVAILABLE IN QUANTITIES. SEND PRINTS FOR QUOTATIONS

(M) G-C EXTENSION JACK & CONNECTOR. Special jack used in extending radio antenna cables and phonograph attachments.

Cat. No. 1744 Net $ .10
1744-C 100 $8.93

(N) G-C HIGH VOLTAGE ANTI-CORONA TV SOCKETS. Eight-prong octal and nine-pin miniature sockets for use in high voltage circuits using the 1B3, 1AX2, 1AX2A, etc.

Cat. No. 9070 8-prong octal Net $ .53
9071 9-pin miniature .53

(O) G-C 9-PIN MINIATURE WAFER SOCKET. High quality plastic wafer socket, 9-pin type with phosphor bronze contacts. Standard 1 1/8" mounting centers.

Cat. No. 1543 9-pin Wafer Sockets Net $ .12
1544 9-pin Wafer Socket with Grounding Strap Net $ .13

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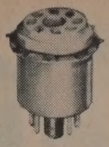
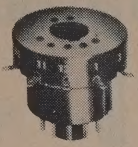
G-C 7-PIN MINIATURE TEST SOCKET ADAPTER
Cat. No. 9247
Net **$1.65**

G-C 9-PIN MINIATURE TEST SOCKET ADAPTER
Cat. No. 9249 Net **$1.87**



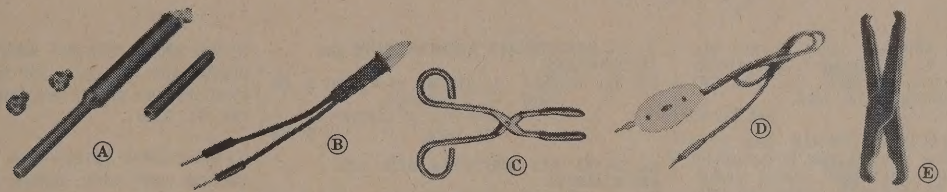
G-C 8-PIN OCTAL TEST SOCKET ADAPTER
Cat. No. 9248 Net **$1.57**



G-C DUO-DECAL TV TUBE TEST SOCKET ADAPTER — Designed for making measurements of voltage, resistance and video from the base of the picture tube. It is inserted between C.R. tube base and its socket.
Cat. No. 9251 Net **$1.95**

G-C TEST SOCKET ADAPTER KIT—This handy kit contains all 4 of G-C's Test Socket Adapters.
Cat. No. 9250 Net **$6.98**

G-C ANGLE ANODE LEAD—A better anode lead with special "Ozone Proof" rubber. Cat. No. 8637 Net **$.42**



(A) G-C CONTROL GUN KIT—Cleans and lubricates noisy volume controls. Constructed of solid aluminum—will not rust. Complete kit includes Gun, Adapter for extra long shanks, Adapter for ½-28 thread, and Auto Adapter for 7/16-28 thread.
Cat. No. 9285 Net **$4.50**
Uses G-Control Kleener.
Cat. No. 65-16 16 oz. Bottle Net **$1.95**
65-G 1 Gallon Net **$9.00**

G-C CONTROL GUN—Designed to clean and lubricate noisy volume controls in one sure, fast and easy operation. Gun nozzle fits over the control shaft and screws securely over the control base threads.
Cat. No. 9280 Net **$3.75**

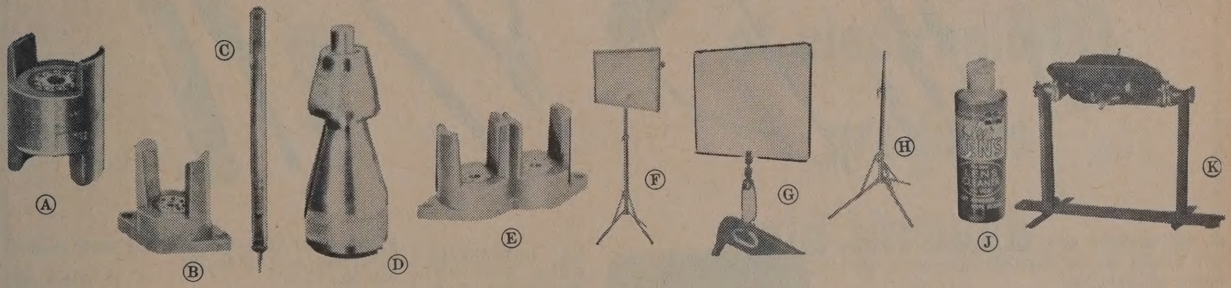
G-C CONTROL GUN ADAPTERS—Aluminum—won't rust when used with normal electronic chemicals.
Cat. No. 9281 To fit control shafts with ½-28 thread. Net **$ .50**
9283 To fit control shafts with 7/16-28 thread. Net **$ .50**
9282 For use on controls with extra long shanks Net **$ .50**

(B) G-C NE-O-LITE—A simple, safe, dependable electrical circuit tester—easy to use with a Neon Glow Lamp which varies in light intensity according to voltages. Traces all types of trouble, such as grounded lines, open circuits, short circuits, etc.
Cat. No. 5100 Net **$ .45**

(C) G-C TUBE & PARTS EXTRACTOR—Originally designed by the U. S. Signal Corps. as standard equipment. Skillfully constructed of spring steel, cadmium plated. Has rubber cushion on the prongs.
Cat. No. 5092 Net **$ .98**

(D) G-C DANDY LITE TESTER—Your hand touches the lead to only one side of the line for extra safety. A simple, dependable tester for tracing electrical circuits, grounded lines, shorts, etc.
Cat. No. 8585 Net **$ .90**

(E) G-C SPEEDEX FUSE PULLERS—Inexpensive—non-slip, fuse puller. Safe and handy for cartridge fuses.
Cat. No. 5525 Midget Size—for fuses ¼" to ½" dia. Net **$ .60**
5526 Pocket Size—for fuses ½" to 1½" dia. Voltages to 200 amps at 250 volts and 100 amps at 600 volts Net **$1.30**



(A) G-C DUAL TUBE PIN STRAIGHTENER—A handy, miniature pin straightener for 7-pin and 9-pin miniature tubes. Accurately machined metal inserts on either end of the tool body, each made of hardened metal to assure accuracy and long life.
Cat. No. 9092 Net **$1.27**

(B) G-C MINIATURE TUBE PIN STRAIGHTENER—Precision-constructed steel die, designed for straightening pins on fragile miniature tubes of the 1S5, 6AK5, 9002 variety.
Cat. No. 5191 For 7-pin Min. Tubes (red base) Net **$ .75**
8105 For 9-pin Jumbo Tubes (blue base) Net **$ .75**

(C) G-C TV "HIGH-VOLT" SAFETY PROBE & TESTER—A new handy tester for quickly checking TV high voltage circuits. Tester will glow when high voltage is okay.
Cat. No. 8836 Net **$2.13**

(D) G-C AMO MINIATURE TUBE PULLER—AMO makes it possible to easily remove or insert miniature tubes such as 6AG5, 50B5, etc. It works on the suction and vacuum principle.
Cat. No. 5093 For 7-Pin Tubes Net **$1.30**
8106 For 9-Pin Tubes Net **$1.30**

(E) G-C DUPLEX TUBE PIN STRAIGHTENER—The handiest tube pin straightener for both miniature and jumbo miniature tubes of the 7- and 9-pin types.
Cat. No. 8655 Net **$1.50**

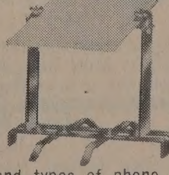
(F) G-C THIRD EYE DELUXE GLASS TV MIRROR—Here's a deluxe TV service mirror for adjusting and servicing TV sets. It is made with an adjustable and collapsible telescoping stand and 12" x 10" glass mirror that avoids distortion of the image.
Cat. No. 8390 Third Eye Mirror, Stand Net **$5.91**
8391 Glass Mirror Only **2.97**
8199 Soft Bag for Mirror **1.30**

(G) G-C TV PORTO MIRROR—TV service mirror for adjusting rear controls and settings of TV sets. Supplied with a rubber lined spring clamp.
Cat. No. 8198 TV Metal Mirror, Spring Clamp Net **$2.83**
8199 Soft Bag for Mirror Net **$1.30**

(H) G-C TELEVISION MIRROR & EXTENSION LAMP COLLAPSIBLE STAND—Handy metal collapsible and adjustable stand for No. 8391 mirror or for clamping on metal mirrors or extension lamps.
Cat. No. 8392 Net **$3.30**

(J) G-C KLEER LENS—A superior lens cleaning fluid packaged in a handy plastic spray type container. This cleaner will make the transparent protection shield in front of the picture tube crystal clear.
Cat. No. 9081 6-oz. Net **$ .75**

(K) G-C "QUICK-RIG RADIO-PHONO CHASSIS REPAIR CRADLE — Complete 360° rotation to lock chassis at best working angle. Clamps securely, makeshift setups, all metal.
Cat. No. 5212 Net **$7.50**



G-C PHONO TURNTABLE STAND—Stand raises the turntable about 15 inches above the bench so you can easily look under the mechanism to check it while in operation. Easily adjusted to all sizes and types of phono turntables. Sturdily made of steel.
Cat. No. 5205 Net **$4.95**

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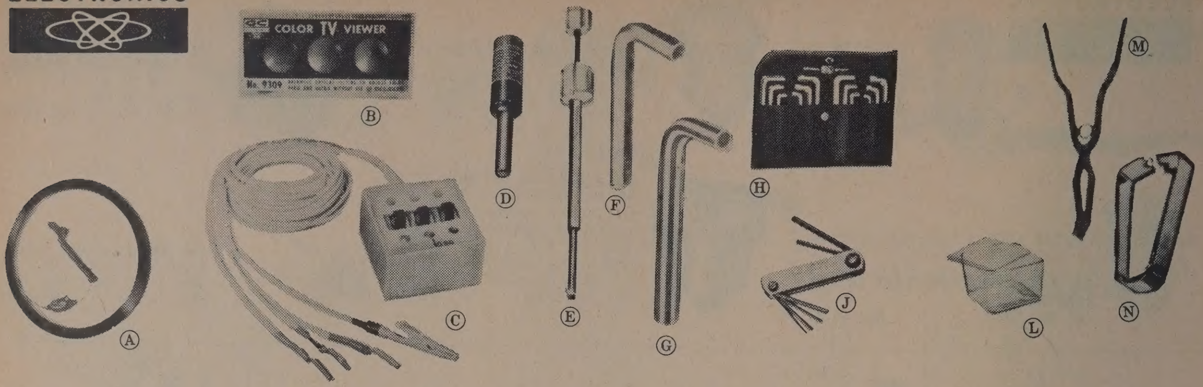


(A) DEGAUSSING COIL—For Color TV receivers. The G-C Degaussing Coil serves to demagnetize the magnetic fields set up in the color CRT due to the sensitivity of the tube.
Cat. No. 9317 Net $17.97

(B) NEW G-C COLOR TV VIEWER—Has three transparent optical filters sealed in permanent plastic. Simplifies phase and matrix adjustments on color TV sets using a saturated color for signal. Makes adjustments possible in the home.
Cat. No. 9309 Net $1.50

(C) G-C COLOR TV TEST BOX—Test color tubes with black-and-white test equipment. Extra long leads allow test box to be placed in front or rear of set.
Cat. No. 9318 Net $5.10

(D) G-C COLOR TV CHEATER—A safety device for color TV receiver work. Used when applying Hi-voltage Probe through cheater.
Cat. No. 5650 Net $ .60

(E) COLOR TV TOOL—Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner-drive penetrates to the inside slot.
Cat. No. 9299 Net $1.33

(F) G-C HEXAGON KEY WRENCH KITS and ASSORTMENTS

Cat. No.		
H1600-F	Plastic Box of 4	Net $ .36
5029	Kit 5 Assorted Wrenches in Leatherette Case.	$ .63

(G) SPLINE KEY WRENCHES KITS and ASSORTMENTS

Cat. No.		
H1602-F	Plastic Box of 4	Net $ 36
5070	Kit of 6 Assorted Wrenches in Leatherette Case	.80

INDIVIDUAL WRENCHES

Cat. No.		
5071	No. 4 Set Screw	Net $ .12
5071-A	No. 5 Set Screw	.12
5072	No. 6 Set Screw	.12
5073	No. 8 Set Screw, No. 4 Cap Screw	.12
5074	No. 10 Set Screw, No. 5-6 Cap Screw	.13

(H) G-C HEX-KEY AND SPLINE WRENCH KIT—A complete wrench kit for both hex and spline type screws. Twelve wrenches in an attractive leatherette case.
Cat. No. 5028 Net $1.35

(J) G-C POCKET HEX KEY WRENCH SET— Seven popular size wrenches. .050 to 3/16" fitted in a steel case-like pocket knife blades.
Cat. No. 9124 Net $1.83

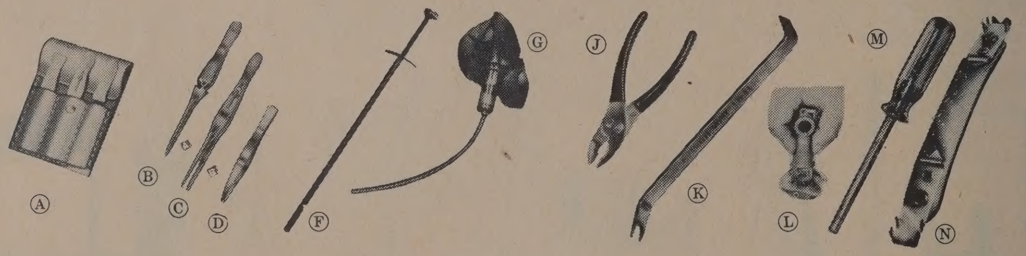
(L) G-C PLASTIC BOXES—Clear plastic boxes for stocking small parts, screws, nuts, bolts, condensers, resistors, etc.

Cat. No.		
8022	4"x4"x2½" deep	Net $ .40
8023	4"x4"x8" deep	Net $ .77

(M) G-C LONG NOSE CLAMP PLIERS—Like an extra hand. Spring tension keeps the jaws closed unless handles are squeezed.

Cat. No.		
5192	Straight Nose Pliers	Net $ .75
5193	Curved Nose Pliers	Net $ .82

(N) G-C TV-RADIO KNOB PULLER—Simply slip the G-C Puller behind the knob and pull it off. Saves time, the cabinet and the knob.
Cat. No. 23-954 Net $ .30



(A) G-C TWEEZER KIT—For the shop or laboratory to pick up and examine small parts, start screws and nuts, etc.
Cat. No. 7950 Net $2.28

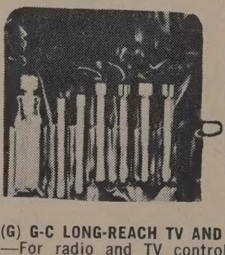
(B) G-C TWEEZERS
Cat. No. 7946 6½" Self-closing tweezer opens when squeezed; serrated, blunt points. Net $ .78

(C) G-C TWEEZERS
Cat. No. 7947 6½" Heavy-duty type, with slide lock feature; holds wires or parts tight like an extra finger; serrated, blunt points. Net $ .90

(D) G-C TWEEZERS
Cat. No. 7948 4½" Precision tweezer, narrow pointed ends for delicate work. Net $ .52

(F) G-C HANDY PICK-UP TOOL—One of the handiest tools you can have in your home, shop, office or farm. Tool is 15 inches long.
Cat. No. 5089 Net $ .98

G-C TV 3-WAY ANTENNA KLIP — Buy them by the bag and have clips ready to sell and ready to install on TV sets.
Cat. No. 9015-X Bag of 10 Net $1.43



G-C INTERCHANGEABLE HEX NUT DRIVER KIT—6 assorted nut drivers in a handy plastic case. Handle is non-inflammable amber plastic with a quick change chuck.
Cat. No. 9206 Net $3.30

(G) G-C LONG-REACH TV AND RADIO LUBRICATOR—For radio and TV controls, bearings, phono motors, etc. Buy them by the pair—one for grease and one for light oil.
Cat. No. 8690 Net $ .53

(J) G-C NO-JOLT TOOL GRIPS—Modernizes old tools with new safety grip handles. Grease and oil resistant.

Cat. No.		
5647	Small No-Jolt Plastic Tool Grips (1 pair)	Net $ .23
5648	Medium No-Jolt Plastic Tool Grips (1 pair)	.27
5649	Large No-Jolt Plastic Tool Grips (1 pair)	.33

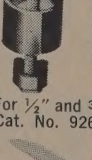
(K) G-C PRY-UP TUBE LIFTER—Handy tool for removing tight tubes. Saves the fingers and the tubes.
Cat. No. 9213 Net $ .30

(L) G-C 4-in-1 TUBE GADGET—Four tools in one. Pure rubber, will not break.
Cat. No. 9130 Net $ .92

(M) G-C NEW TV AND AUTO RADIO WRENCH—Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net $1.08

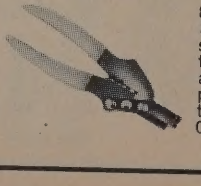
(N) G-C NEW LOW LOSS TV LINE KLIP—A new all plastic clip with metal ends only. The best for UHF or fringe areas. Made of genuine polyethylene.

Cat. No.		
9055		Net $ .15
9055-X	Bag of 10	1.47



6. G-C DUAL SHEET METAL PUNCH—Punches holes for Tube Sockets and Condensers for hand or power operation. Two punches 7/8" and 1 3/32" for one price.
Cat. No. 9260 Net $4.93

7. G-C DUAL SHEET METAL PUNCH JR.—Punch neat, clean holes in chassis for tube sockets, condensers and for mounting other components. For ½" and ¾" holes.
Cat. No. 9261 Net $4.00



8. NEW G-C PRECISION 300-OHM TOOL—This specially designed tool cuts, slots, strips and crimps. Has shockproof, oil resistant plastic grips.
Cat. No. 9220 Net $3.95

Net

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GREENLEE

CHASSIS PUNCHES

ROUND, SQUARE, "KEY," AND "D" TYPES

Greenlee Tool Co., Rockford, Illinois

NO. 730 ROUND PUNCH

Swiftly cuts clean, accurate holes in radio chassis for sockets, switches, controls and other equipment. Operates simply with an ordinary wrench for drive power . . . just insert in a small drilled hole and turn drive screw. No reaming or filing . . . hole is smooth, perfect. 27 sizes from ½″ to 3″ diameter. New Ball-Bearing Drive available for even easier, speedier operation.

NO. 731 SQUARE PUNCH

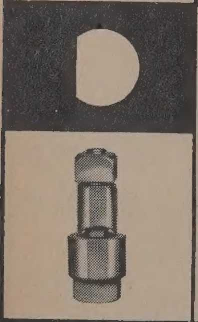
Cuts square or oblong openings as desired. Available in five sizes for making ½″, ⅝″, ¾″, ⅞″, and 1″ square holes. Drive screw fits into ½″ hole, which can be drilled or made with ½″ No. 730 GREENLEE Round Punch. Operates with an ordinary wrench for drive power. Individually packed.

NO. 731-R KHP RELAY PUNCH

Makes clean, accurate, *finished* holes in up to 16-gauge metal for Potter & Brumfield KHP miniature relay sockets. Makes 1.015″ x .859″ hole.

NO. 732 "KEY" PUNCH

Quickly, easily cuts holes for keyed radio sockets. Operates on same principle as other GREENLEE Radio Chassis Punches . . . an ordinary wrench supplies the drive power. In five sizes to make openings of 15/32″, 15/16″, 1 11/64″, 1 17/64″, 1 21/64″. Drive screw fits into ½″ hole. Individually packed.



NO. 733 "D" PUNCH

Simplifies and speeds the work of making "D"-shaped openings for high-frequency, miniature tube sockets and other equipment using this type opening. Available in ½″ and ⅝″ sizes. Operates on same principle as other GREENLEE Radio Chassis Punches with an ordinary wrench supplying the drive power. Drive screw fits into ⅜″ drilled hole. Individually packed.

NO. 734 DOUBLE "D" PUNCH

Quickly makes standard electrical receptacle openings. Cuts standard hole 1⅛″ dia. across parallel sides, 1⅜″ dia. across rounded ends. Simply insert into a ½″ hole and turn with an ordinary wrench. Does the work in less than five minutes . . . eliminates all tedious hand filing . . . gives a smooth, perfect opening.

PRICES...Nos. 730, 731, 731-R, 732, 733, 734

No. 730 ROUND PUNCH

Size	Price	Size	Price
½″	$2.60	1¾″	$5.50
9/16″	2.60	1⅞″	6.85
⅝″	2.60	2″	7.40
11/16″	2.60	2⅛″	11.00
¾″	2.60	2¼″	7.95
13/16″	2.60	2½″	13.00
⅞″	2.60	2¾″	18.00
15/16″	2.85	2 25/32″	12.50
1″	2.85	3″	25.00
1 1/16″	3.00		
1⅛″	3.00		
1 5/32″	3.00		
1 3/16″	3.00		
1 7/32″	5.50		
1¼″	3.00		
1 5/16″	3.60		
1⅜″	3.60		
1½″	4.10		
1⅝″	4.85		

Following sizes also available with larger drive screw for cutting thicker metals (No. 730X)

Size	Price
1⅛″	$5.50
1 3/16″	5.50
1¼″	5.50
1⅜″	6.25
1½″	7.25

No. 731 SQUARE PUNCH

Size	Price	Size	Price
½″	$5.50	⅞″	$7.60
⅝″	5.65	1″	7.85
¾″	6.50		

No. 731-R KHP RELAY PUNCH

Size	Price
1.018″	$14.50

No. 732 "KEY" PUNCH

Size	Price	Size	Price
15/32″	$5.10	1 17/64″	$6.50
15/16″	5.20	1 21/64″	6.90
1 11/64″	5.80		

No. 733 "D" PUNCH

Size	Price	Size	Price
½″	$4.70	⅝″	$4.95

No. 734 DOUBLE "D" PUNCH

Size	Price
1⅛″ x 1⅜″	$28.00

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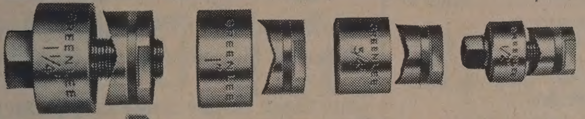
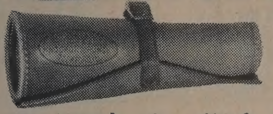
GREENLEE

KNOCKOUT PUNCHES AND DRIVERS

Greenlee Tool Co., Rockford, Illinois

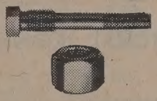




No. 735 KNOCKOUT PUNCH SET..... $11.60

Designed primarily for the electrical trade to permit fast, easy enlarging of knockouts and cutting of holes for conduit in metal boxes and cabinets. Also excellent for automobile work where holes are needed for heater pipes and other accessories. Simply insert the tool in a knockout or small drilled hole and give the screw a few turns with an ordinary wrench. No. 735 set has four punches for cutting ⅞, 1 3/32, 1 11/32, 1 11/16-inch holes for ½, ¾, 1, 1¼-inch conduit. Set is neatly packed in leather case illustrated. Weight, 2½ lb.

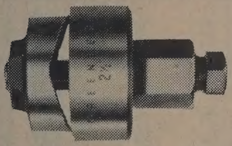
Heavy-Duty Drive for ½″ punch............ $1.25



To increase length of service of the ½-inch Knockout Punch in cutting ⅞-inch holes in heavier gauge sheet metals, the No. KR5 Drive Screw with No. KR4 Drive Nut illustrated is recommended. Weight, ¼ lb.

No. 737 KNOCKOUT PUNCH SET........ $12.50

Similar to the No. 735 set, but consists of only two punches for cutting holes to accommodate 1½″ and 2″ conduit. Packed in leather case. Weight, 3½ lb.



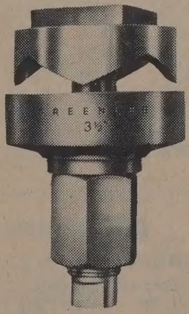
KNOCKOUT PUNCHES

No. 738 for 2½″ conduit	$16.25
No. 739 for 3″ conduit . .	$22.00

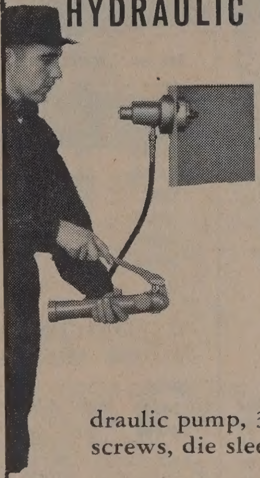
For cutting holes to accommodate 2½″ and 3″ conduit. Design is similar to that of smaller GREENLEE Knockout Punches: insert in a knockout or drilled hole and turn drive nut with an ordinary wrench. Packed and sold individually. Weight, No. 738, 4½ lb. No. 739 6½ lb.

KNOCKOUT PUNCHES

No. 741 for 3½″ conduit. .	$43.00
No. 742 for 4″ conduit....	$53.00
No. 743 for 5″ conduit....	$80.00

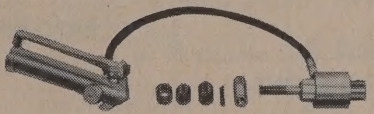


For quickly making smooth openings for 3½″, 4″ and 5″ conduit. Hole is clean, no filing of burrs necessary. Operation is similar to that of other GREENLEE Knockout Punches. Simply insert in hole for 1″ conduit and turn drive nut with an ordinary wrench. Weights, No. 741, 10⅜ lb; No. 742, 12⅛ lb; No. 743, 17⅞ lb.



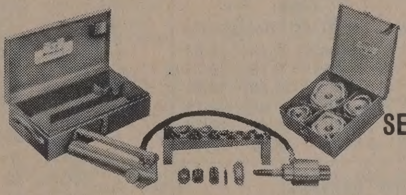
HYDRAULIC PUNCH DRIVER AND SETS

Just a few easy strokes on the handle of the GREENLEE No. 7646A Hydraulic Knockout Punch Driver and the punch slices cleanly through 10-gauge metal. Handy driver develops 11 tons of ram force. Use it with all GREENLEE Knockout Punches for conduit ½″ to 5″. Comes complete with hydraulic pump, 3-foot hose, one ram, adapter screws, die sleeves, and metal carrying box.



No. 7646-M2

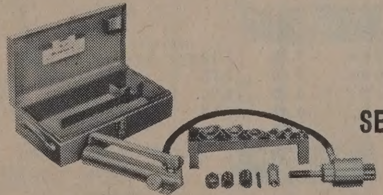
HYDRAULIC KNOCKOUT PUNCH DRIVER.... $110.00



SET No. 7310-M2

$243.50

Hydraulic hand pump, hose, complete drive, and ten punches and dies for ½″ through 4″ conduit, plus two metal carrying cases.



SET No. 7306-M2

$133.50

Hydraulic pump, six punches and dies for ½″ to 2″ conduit, plus metal carrying case.

SET No. 7304.... $110.00

Four knockout punches and dies for 2½″, 3″, 3½″, and 4″ conduit in metal carrying case.

HEXACON ELECTRIC SOLDERING IRONS

VOLTAGE RANGE: 6 to 250   OPERATES IDENTICALLY ON A.C. OR D.C., ANY CYCLE
STANDARD VOLTAGES 110/120, 121/130, 220/250   SPECIFY VOLTAGE ON ORDER

Equipped with flexible 6-ft. approved Neoprene rubber heater cord, which is water-proof, kink-free, and resistant to oil, abrasion and heat. Nickel-chromium replaceable heating elements, insulated with finest mica, protected by rugged outer housing. Replaceable tips.

PLUG-TIP IRONS

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P70	80	3/8"	1 1/8 lbs.	7.35	6.93
P100	100	3/8"	1 1/8 lbs.	8.05	7.56
P125	130	5/8"	1 5/8 lbs.	9.52	8.43
P150	150	3/8"	1 1/2 lbs.	8.82	8.33
P153	175	3/8"	1 1/2 lbs.	9.17	8.68
P151	175	1/2"	1 5/8 lbs.	9.52	8.68
P200	200	5/8"	2 3/8 lbs.	9.94	8.78
P250	250	5/8"	2 3/8 lbs.	11.41	10.25

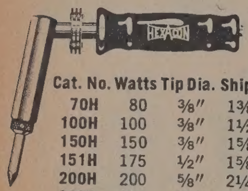
Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P300	300	7/8"	3 lbs.	13.51	11.27
P550	550	1 1/8"	4 3/8 lbs.	17.43	13.23

SUPER-POWERED IRONS

HIGHER SPEED   SMALLER TIPS

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P114	100	1/4"	1 3/8 lbs.	8.40	8.05
P154	150	1/4"	1 1/2 lbs.	9.17	8.82
P214	200	1/4"	2 1/8 lbs.	10.29	9.94
P238	200	3/8"	2 1/4 lbs.	10.29	9.80
P212	200	1/2"	2 1/4 lbs.	10.29	9.45
P338	300	3/8"	2 3/4 lbs.	14.14	13.65

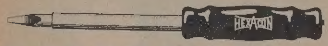
HATCHET TYPE IRONS



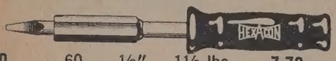
Perfect Balance
Less Fatigue
See What You Solder

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
70H	80	3/8"	1 3/8 lbs.	8.96	8.54
100H	100	3/8"	1 1/2 lbs.	9.73	9.24
150H	150	3/8"	1 5/8 lbs.	10.50	10.01
151H	175	1/2"	1 5/8 lbs.	10.99	10.15
200H	200	5/8"	2 1/4 lbs.	11.41	10.25
300H	300	7/8"	3 lbs.	14.70	12.46

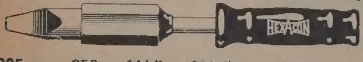
SCREW TIP IRONS



Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
50	50	7/16"	1 lb.	5.60	5.21



Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
60	60	1/2"	1 1/8 lbs.	7.70	7.14
85	90	1/2"	1 1/8 lbs.	8.26	7.70
120	120	5/8"	1 3/8 lbs.	9.10	8.26
130	130	7/8"	1 1/2 lbs.	10.43	9.10
170	175	1"	2 1/4 lbs.	11.55	9.80



Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
225	250	1 1/8"	2 3/4 lbs.	13.65	11.34
350	350	1 3/8"	3 1/2 lbs.	15.96	12.46
500	500	1 5/8"	4 3/8 lbs.	18.20	13.19
700	700	1 3/4"	5 5/8 lbs.	33.11	26.60

SUPER-PENCIL IRONS

HOT TIP   COOL HANDLE

Weighs only 2 oz.

Short Reach 3"

All the advantages of a Soldering Pencil, but a full-fledged industrial soldering iron with nickle-chromium mica-wound element. Tiny tips outperform irons with larger tips and higher wattages.

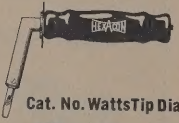
Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
25S	25	1/8"	1/2 lb.	4.90	4.70
25S20	20	1/8"	1/2 lb.	4.90	4.70
25S30	30	1/8"	1/2 lb.	4.90	4.70
25S35	35	1/8"	1/2 lb.	4.90	4.70
*25S50	50	1/8"	1/2 lb.	7.01*	5.40
26S	30	3/16"	1/2 lb.	4.97	4.74
26S35	35	3/16"	1/2 lb.	4.97	4.74
26S40	40	3/16"	1/2 lb.	5.67	5.44
*26S50	50	3/16"	1/2 lb.	7.12*	5.44

FASTEST AND MOST DURABLE PENCIL IRON. Weighs but 2 oz.

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
*24S	50	1/4"	1/2 lb.	7.56*	5.63
*24S40	40	1/4"	1/2 lb.	7.56*	5.63
*24S60	60	1/4"	1/2 lb.	7.56*	5.63

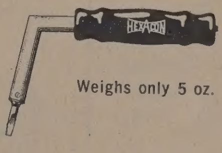
BANTAM HATCHET IRONS

PERFECT BALANCE
FOR INACCESSIBLE PLACES



Weighs only 3 oz.

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
25H	25	1/8"	1/2 lb.	5.95	5.75
25H35	35	1/8"	1/2 lb.	5.95	5.75
*25H50	50	1/8"	1/2 lb.	7.36*	5.75
26H	30	3/16"	1/2 lb.	6.02	5.79
26H35	35	3/16"	1/2 lb.	6.02	5.79
*26H50	50	3/16"	1/2 lb.	7.47*	5.79
24H	50	1/4"	1/2 lb.	7.84*	5.91
24H40	40	1/4"	1/2 lb.	7.84*	5.91
*24H60	60	1/4"	1/2 lb.	7.84*	5.91



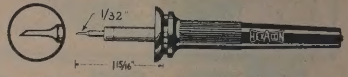
Weighs only 5 oz.

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
**30H	60	1/4"	7/8 lb.	6.51	6.19
**30H40	40	1/4"	7/8 lb.	6.51	6.19
**30H50	50	1/4"	7/8 lb.	6.51	6.19
**30H70	70	1/4"	7/8 lb.	6.51	6.19
**30H75	75	1/4"	7/8 lb.	6.51	6.19

**Extra 1/8" tip furnished with each iron.

*STANDARD EQUIPMENT **DUROTHERM** NON-STICKING LONG-LIFE TIPS.

HEXACON HORNET Model H10



World's Smallest Industrial Soldering Iron for Micro-Electronic Soldering

Cat. No. H10K Kit
(H10 Iron, 2 Tips and Sponge†)................**Net $6.93**

Cat. No. H11K Kit
(H11 Iron, 2 Tips and Sponge†)................**Net $6.93**

Cat. No. H14K Kit
(H14 Iron, 2 Tips and Sponge†)................**Net $6.93**

†Tip Cleaning Sponge in Container

Cat. No. H10 Iron less tip, 12 Watts..........**Net $5.25**
Cat. No. H11 Iron Less tip, 17 Watts..........**Net $5.25**
Cat. No. H14 Iron less tip, 20 Watts..........**Net $5.25**
Iron with 3-wire cord and Nema plug available

Cat. No. 91 Package of 12 tip cleaning sponges in container..**Net $2.10**

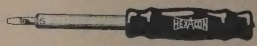
- Smallest Iron — Only 5 7/8"
- Lowest Wattage — 12-20 Watts
- Hot tip Gets In and Out Fast
- No Damage to Insulation
- Lightweight
- Cool Handle‡

DUROTHERM NON-FREEZING TIP — 1/32" and 1/16" diameters

XTRADUR LONG-LIFE TIPS — 1/8" diameter

‡Plastic handle, cooled thru ventilated design and stainless steel mirror, reflects heat away from hand.

PINPOINT SOLDERING IRONS



FOR PINPOINT ACCURACY
ON PRECISION SOLDERING

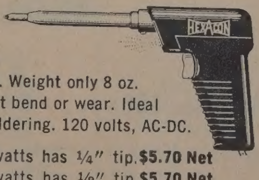
Long Reach 4 1/2" (Weigh Only 3 oz.)

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P25	25	1/8"	1/2 lb.	4.90	4.70
P2530	30	1/8"	1/2 lb.	4,90	4.70
P2535	35	1/8"	1/2 lb.	4.90	4.70
*P2550	50	1/8"	1/2 lb.	6.31*	4.70
P26	30	3/16"	1/2 lb.	4.97	4.74
P2635	35	3/16"	1/2 lb.	4.97	4.74
P2640	40	3/16"	1/2 lb.	4.97	4.74
*P2650	50	3/16"	1/2 lb.	6.42*	4.74
*P24	50	1/4"	1/2 lb.	7.21*	5.28
*P2440	40	1/4"	1/2 lb.	7.21*	5.28
*P2460	60	1/4"	1/2 lb.	7.21*	5.28
**P30	60	1/4"	7/8 lb.	5.95	5.63
**P3040	40	1/4"	7/8 lb.	5.95	5.63
**P3050	50	1/4"	7/8 lb.	5.95	5.63
**P3070	70	1/4"	7/8 lb.	5.95	5.63
**P3075	75	1/4"	7/8 lb.	5.95	5.63

**Extra 1/8" tip furnished with each iron.

*STANDARD EQUIPMENT **DUROTHERM** NON-STICKING LONG-LIFE TIPS.

INSTANT SOLDER GUNS



Solders in seconds. Weight only 8 oz. Lifetime tip, cannot bend or wear. Ideal for intermittent soldering. 120 volts, AC-DC.

Model G14 150 watts has 1/4" tip.**$5.70 Net**
Model G148 150 watts has 1/8" tip.**$5.70 Net**
Model 614K Kit has Model G14 solder gun cutting tip, smoothing tip, core solder, sandpaper. **$6.43 Net**

CORD AND CORD SETS

2 WIRE 18 GAUGE, 2 CONDUCTOR 18/2

Cord Assembled to Iron		Cord and Plug Only	
Cat. No.	Extra Net	Cat. No.	Extra Net
* SP2S	No	SP2S	.98
**PN2S	Extra	PN2S	.98
SJ2S	Charge	SJ2S	.98
HD2S	.46	HD2S	1.33
KSJ2S	2.10	KSJ2S	2.80
KSV2S	2.10	KSV2S	2.80
KPN2S	.84	KPN2S	1.54

3 WIRE 18 GAUGE, 3 CONDUCTOR 18/3

Cord Assembled to Iron		Cord and Plug Only	
Cat. No.	Net	Cat. No.	Net
* SP3N	.98	SP3N	1.68
SP3C	.98	SP3C	1.68
**SJ3N	.98	SJ3N	1.68
SJ3C	.98	SJ3C	1.68
HD3N	1.05	HD3N	1.75
HD3C	1.05	HD3C	1.75
KSJ3N	2.94	KSJ3N	3.64
KSV3N	2.94	KSV3N	3.64

*Standard on INSTRUMENT IRONS   **Standard on LARGE IRONS

HEXACON ELECTRIC COMPANY • ROSELLE PARK, N. J.

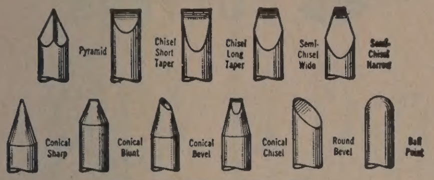
Net

© U.C.P., Inc.

LONG-LIFE SOLDERING TIPS
OUTLAST COPPER TIPS UP TO 20 TO 1

DUROTHERM NON-FREEZING TIPS: Iron coated and immunized. Absolutely prevents tips from sticking. Minimum loss of heat delivery.

Note: Also available; XTRADUR Iron-coated Pretinned Tips. Multi-coated for extra long wear which immunizes shank of tip from solder, thus preventing adhering of solder, except on working surface of tip — prevents creeping and spilling of solder.

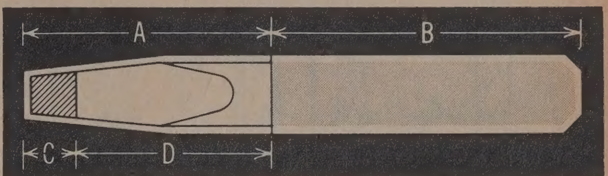


BASIC TIP SHAPES

YOUR SPECIAL TIPS QUOTED ON REQUEST
FIT ALL MAKES

CONSTRUCTION OF DUROTHERM NON-FREEZING TIP (Pat. Pending)

A — Heavy Iron Coating
B — Scale-Resistant
DUROTHERM COATING
Bonded to Base Copper
C — Pretinned Section
D — Multi-coated
and immunized



LONGEST WEARING AND BEST PERFORMING TIP EVER PRODUCED

HEXCLAD, XTRADUR AND DUROTHERM TIPS AVAILABLE IN ALL CATALOG NUMBERS LISTED BELOW

⅛" x 2¼" Fit Iron Nos. 25S, P25, 25H

Tip No.	Style of Point	Net Price
HT248D	Pyramid	$1.61
HT249D	Chisel, short	1.61
HT376D	Chisel, long	1.61
HT560D	Semi-chisel	1.61
HT222D	Conical, blunt	1.61
HT331D	Conical, sharp	1.61
HT638D	Round,bevel	1.61
HT361D	Chisel, TT 1/16"	2.00
HT693D	R. B., TT 1/16"	2.00
HT104D	R. B., TT 1/32"	2.00
HT221D	Conical, bent	2.00
HT555D	RB, groove	2.00

3/16" x 2¼" Fit Iron Nos. 26S, P26, 26H

Tip No.	Style of Point	Net Price
HT251D	Pyramid	1.68
HT294D	Chisel, short	1.68
HT195D	Chisel, long	1.68
HT207D	Semi-chisel,N	1.68
HT190D	Semi-chisel, W	1.68
HT214D	Conical, blunt	1.68
HT281D	Conical, sharp	1.68
HT288D	Pryramid, TT ⅛"	1.79
HT290D	Chisel, TT ⅛"	1.79
HT548D	S-Chisel, N, TT ⅛"	1.79
HT479D	Conical TT ⅛"	1.79
HT220D	R.B., TT 1/16"	2.07

¼" x 2¼" Fit Iron Nos. 24S, P24, 24H

Tip No.	Style of Point	Net Price
HT325D	Pyramid	1.93
HT553D	Chisel, short	1.93
HT313D	Semi-chisel, W	1.93
HT397D	Semi-chisel, M	1.93
HT417D	Semi-chisel, N	1.93
HT418D	Conical, blunt	1.93
HT102D	Round, bevel	1.93
HT586D	Conical, S-chisel	2.00
HT691D	Chisel, TT 1/16"	2.17
HT699D	S-chisel, Lg. TT ⅛"	2.00
HT451D	Chisel, L, TT ⅛"	2.00
HT324D	Chisel, S, TT ⅛"	2.00
HT513D	Conical, TT ⅛"	2.00
HT463D	Chisel, L, TT 3/16"	2.00
HT841D	S-chisel, N, TT ⅛"	2.00
HT692D	Chisel, L, TT ⅛"	2.17
HT552D	S-chisel, ⅜" Shank	2.42

¼" x 2¾" Fit Iron Nos. P30, 30H

Tip No.	Style of Point	Net Price
HT252D	Pyramid	1.93
HT253D	Chisel, short	1.93
HT202D	S-chisel, Wide	1.93
HT426D	S-chisel, N	1.93
HT131D	Conical, sharp	1.93
HT263D	Pyramid, TT ⅛"	2.00
HT264D	Chisel, Sh, TT ⅛"	2.00
HT356D	Chisel, M, TT ⅛"	2.00
HT685D	Chisel, Lg, TT ⅛"	2.00
HT452D	Conical, TT ⅛"	2.00
HT580D	Conical, TT 3/16"	2.00
HT473D	Chisel, TT 3/16"	2.00
HT130D	Round,bevel	1.93

¼" x 3" Extra long for P30, 30H
Also for competitive makes

Tip No.	Style of Point	Net Price
HT468D	Chisel, long	1.93
HT299D	Semi-chisel, W	1.93
HT328D	Semi-chisel, N	2.00
HT708D	S-chisel, N, Lg	2.00
HT453D	Conical, bevel	2,00
HT234D	Chisel, Lg, TT 5/32"	2.00
HT487D	Chisel, Lg, TT ⅛"	2.00
HT519D	Chisel, Lg, TT ⅛"	2.00
HT362D	Conical groove	2.21

¼" x 3¾" Extra long for P30, 30H
Also for competitive makes

Tip No.	Style of Point	Net Price
HT563D	Pyramid, long	1.93
HT188D	Chisel, long	1.93
HT382D	Semi-chisel, W	1.93
HT414D	Conical, blunt	1.93
HT626D	Pyramid, TT ⅛"	2.00
HT698D	S-chisel, TT ⅛"	2.00
HT603D	Chisel, Lg, TT ⅛"	2.00
HT391D	Semi-chisel, N	2.00
HT277D	Chisel, Lg, TT 3/16"	2.00

¼" x 4" Fit Irons P114, P154, P214

Tip No.	Style of Point	Net Price
HT496D	Chisel, long	2.14
HT494D	Semi-chisel, N	2.14
HT495D	Chisel, Lg, TT 3/16"	2.24

¼" x 4½" Fit Irons P114, P154, P214

Tip No.	Style of Point	Net Price
HT258D	Pyramid	2.21
HT259D	Chisel, short	2.21
HT230D	Semi-chisel, W	2.21
HT460D	Conical, bevel	2.31

⅜" x 4 9/16" Fit Iron Nos.
P100, P150, P238, P338, 100H, 150H

Tip No.	Style of Point	Net Price
HT255D	Pyramid	2.07
HT493D	Chisel, short	2.07
HT151D	Semi-chisel, W	2.07
HT183D	Semi-chisel, N	2.07
HT108D	Conical,sharp	2.07
HT114D	Conical, blunt, Sm	2.07
HT240D	Conical, blunt M	2.07
HT245D	Conical, blunt, L	2.07
HT374D	Semi-chisel, W	2.07
HT265D	Pyramid, TT ¼"	2.42
HT266D	Chisel, Sh, TT ¼"	2.42
HT335D	Chisel, Lg, TT ¼"	2.42
HT177D	S-chisel, W, TT ¼"	2.42
HT577D	S-chisel, N, TT ¼"	2.42
HT145D	Chisel, Sh, TT 3/16"	2.42
HT475D	S-chisel, N, TT 3/16"	2.42
HT289D	Pyramid, TT ⅛"	2.42
HT528D	S-chisel,bent	2.42

⅜" x 4" Fit Iron Nos. P100, P150, P238, 100H, 150H; Extra long for P70, 70H; Also other makes

Tip No.	Style of Point	Net Price
HT566D	Pyramid	2.07
HT198D	Chisel, short	2.07
HT918D	S-chisel, Sh, M	2.07
HT365D	Semi-chisel, thin	2.07
HT370D	S-chisel, Lg, N	2.21
HT140D	Semi-chisel, W	2.07
HT430D	Round,bevel	2.07
HT319D	S-chisel, N, TT ¼"	2.42
HT481D	Chisel, N, Sh, TT ⅛"	2.42

⅜" x 3¾" Fit Iron Nos. P70, 70H;
Also fit other makes

Tip No.	Style of Point	Net Price
HT254D	Pyramid	2.07
HT488D	Chisel, short	2.07
HT129D	Semi-chisel, W	2.07
HT510D	Conical, sharp	2.07
HT309D	Conical, blunt	2.07
HT458D	Conical, S-chisel	2.42
HT529D	Ball Point	2.07
HT339D	S-chisel, N, TT ¼"	2.42
HT581D	Chisel, Sh, TT ¼"	2.42
HT498D	Chisel, Lg, TT ¼"	2.42
HT291D	S-chisel, W, TT ¼"	2.42
HT497D	Chisel, Lg, TT 3/16"	2.42

½" x 4 9/16" Fit Iron Nos.
P151, P212, P151H

Tip No.	Style of Point	Net Price
HT257D	Pyramid	3.26
HT293D	Chisel, short	3.26
HT323D	Chisel, short, blunt	3.26
HT163D	S-chisel, N	2.42
HT194D	Semi-chisel, thin	3.40
HT444D	S-chisel, Lg, Taper	3.50
HT203D	Conical, blunt	3.26
HT446D	S-chisel, Lg, Taper	3.50
HT123D	S-chisel, N, TT ⅜"	3.50

⅝" x 4" Fit Iron Nos.
P125, P200, 200H, P250

Tip No.	Style of Point	Net Price
HT256D	Pyramid	3.43
HT891D	Chisel, long	3.43
HT178D	Semi-chisel, W	3.43

⅝" x 4 9/16" Fit Iron Nos.

Tip No.	Style of Point	Net Price
HT260D	Pyramid	3.43
HT499D	Chisel, long	3.43
HT371D	Semi-chisel, N	3.57
HT180D	Semi-chisel	3.43
HT209D	Conical, blunt	3.43
HT802D	S-chisel, TT ⅜"	3.71
HT766D	Shisel, TT 1/16"	3.71
HT539D	Pyramid, ⅜"	—

⅞" x 4¾" Fit Iron Nos. P300, 300H

Tip No.	Style of Point	Net Price
HT261D	Chisel, short	5.53
HT179D	Semi-chisel, W	5.32

1⅛" x 5¼" Fits No. 500

Tip No.	Style of Point	Net Price
HT262X	Chisel	—
HT229X	Semi-chisel	—
HT233X	Pyramid	—

SCREW TIPS

All Conventional Semi-chisel Types

Tip No.	Dia.	Thread	Fits Hexacon Iron No.	Xtradur Net	Hexclad Net
HT267X	7/16"	¼-20	50	1.82	1.40
HT268X	½"	5/16-18	60 and 85	2.35	1.96
HT269X	⅝"	5/16-18	120	2.94	2.50
HT270X	⅞"	½-13	170	4.27	3.89
HT271X	1"	½-13	170	4.87	4.45
HT270X	⅞"	½-13	130	4.27	3.89
HT272X	1⅛"	⅝-11	225	6.48	6.09
HT273X	1⅜"	⅝-11	350	9.10	8.75
HT274X	1⅝"	⅝-11	500	12.29	11.90
HT275X	1¾"	⅝-11	700	14.60	14.00

HORNET TIPS

TIPS FOR IRONS Nos. H10 and H11

No.	Dia.	Duotherm Net	Xtradur Net
HT866D	1/32"	.84	
HT867D	1/32"	.84	
HT868D	1/16"	.84	
HT869D	1/16"	.84	
HT864X	⅛"		.63
HT870X	⅛"		.63
HT871X	⅛"		.63
HT873X	⅛"		.63

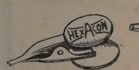
TIPS FOR IRON No. H14

No.	Dia.	Xtradur Net
HT654X	⅛"	.84
HT655X	⅛"	.84
HT656X	3/16"	.63
HT657X	3/16"	.63
HT658X	⅛"	.84
HT659X	⅛"	.63

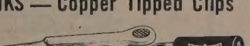
CATALOG NOS. shown are for DUROTHERM. For HEXCLAD drop "D"; cost approximately 30% less than DUROTHERM. For XTRADUR substitute "X" for "D"; cost approximately 10% less than DUROTHERM.
ABBREVIATIONS: TT, Turned to; S-chis, Semi-chisel; W. Wide; N, Narrow; Lg, Long; Sh, Short; L, Large; M, Medium; Sm, Small; RB, Round Bevel.
SAMPLE TIPS for your evaluation. Ask for new Tip Sketch Catalog with detailed sketches of 180 Standard Coated Tips.

SOLDERING ACCESSORIES

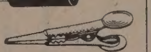
HEAT SINKS — Copper Tipped Clips



Net Price $.53
No. 34A
1⅛" Long



Net Price $1.40
No. 60A 2½" long

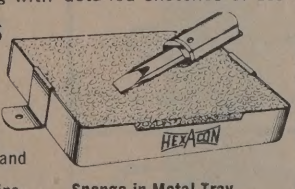


Net Price $1.40
No. 30A 1½" long

Protect heat sensitive components such as transistors and diodes from thermal damage.

TIP CLEANING SPONGE IN METAL TRAY

Insures reliability of soldered joints and extends tip life. Eliminates contimination. Pure cellulose sponge contains no harmful acids.



Sponge in Metal Tray Cat. No. 810
Sponge only Cat. No. 8101
Tray only Cat. No. 8102

ANTI-WICKING TWEEZERS Solid Berillium Copper

Cat. No.	Gauge	Net Price	Cat. No.	Gauge	Net Price
817	16-18	$5.25	820N	20*	$5.25
821	20-22	5.25	822N	22*	5.25
825	24-26	5.25	824N	24*	5.25
830	28-30	5.25	826N	26*	5.25

Prevents harmful effects of excess capillary action of solder along stranded wire beneath insulation. Order tool number by wire size being used.

*"N" Type Tweezers are made for one gauge wire only (not for a range of sizes). Therefore give better fit on wire for greater efficiency. Shorter tip hole provides for close inspection gap on precision soldering such as called for in current NASA specifications.

HEXACON ELECTRIC COMPANY • ROSELLE PARK, N. J.

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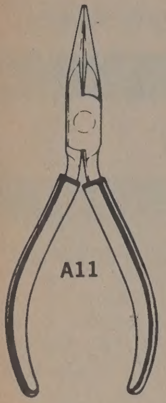
HUNTER TOOLS ...the name to watch

America's most diversified

PLIERS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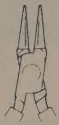
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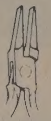
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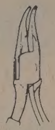
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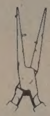
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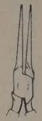
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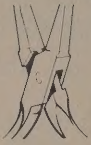
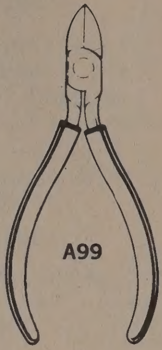


Box-Joint Pliers Available—Keeps blades always in alignment.

CUTTERS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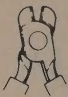
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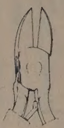
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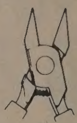
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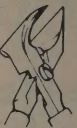
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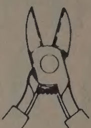
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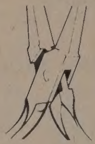
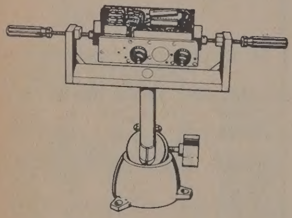


Box-Joint Cutters Available—Stop play in joints, feather touch opening and closing.

Special "Anti-Shock" cutters made to order.

WORK POSITIONERS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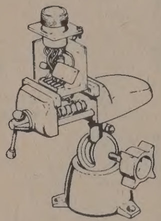
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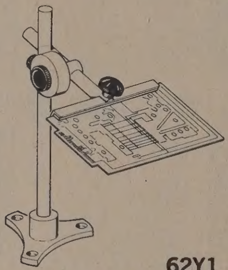
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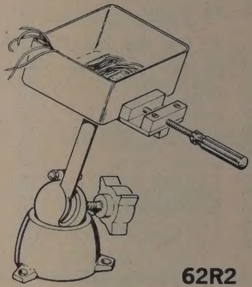
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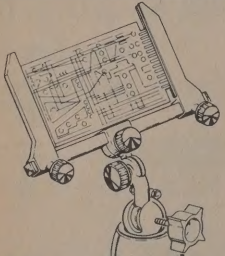
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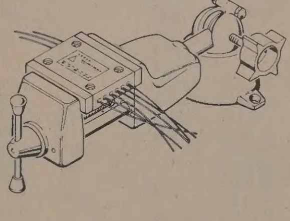
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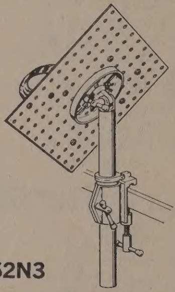
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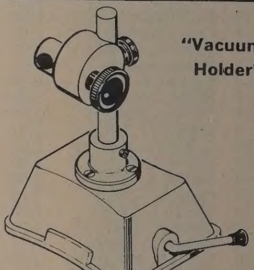
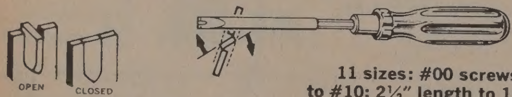

"Vacuum Holder"

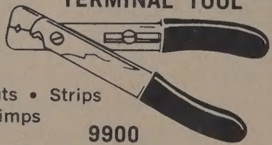
62A2

Magic-Tip SCREWHOLDING SCREWDRIVER



11 sizes: #00 screws to #10; 2½" length to 11¼"

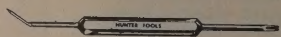
TERMINAL TOOL



Cuts • Strips Crimps

9900

SOLDERING AIDS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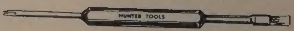
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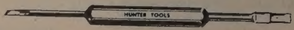
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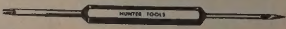
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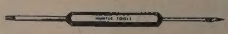
MICRO MODELS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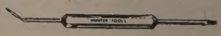
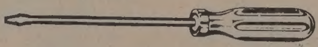
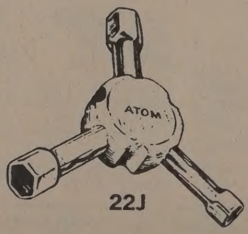

51C2

Dura-Tip SCREWDRIVER



40 models: 2" blades up to 10", square blades available

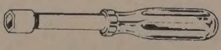
ATOM 3-IN-1 NUT DRIVER



22J

NUT DRIVERS

Sizes down to #00.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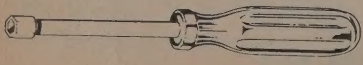
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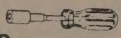
24G

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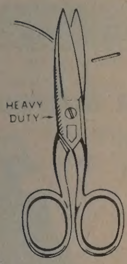
line of electronic tools!

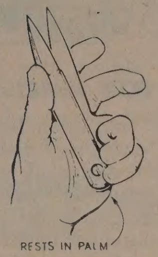
HUNTER TOOLS ...the name to watch

SCISSORS



F15

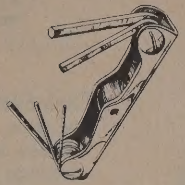
SNIPPERS


RESTS IN PALM

F213

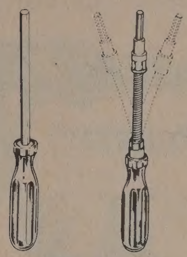
"SMITTY"

Hex Socket Key Set



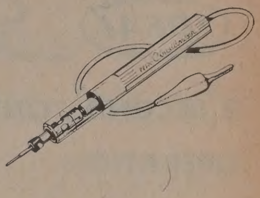
1P5
7 Models

HEX DRIVERS



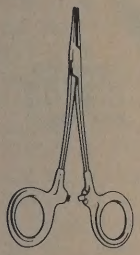
5G, 5T
From 1/16" to 5/32"

CIRCUITRACER



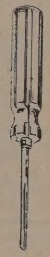
54
5 Models

SCISSOR-CLAMP



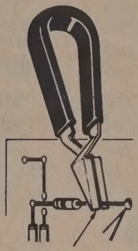
F35

TRI-TAP



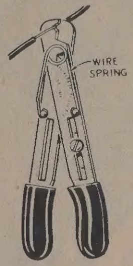
47
5 combinations

HEAT SINK



51E
6 Models

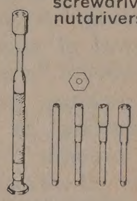
WIRE STRIPPER


WIRE SPRING

55BB
4 Models

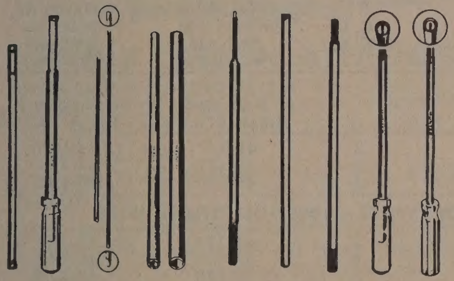
SUB-MINIATURE KITS

End wrenches,
screwdrivers,
nutdrivers



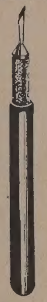
K24R

ALIGNMENT TOOLS



59 Series

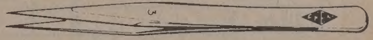
ALL PURPOSE KNIFE



E20D
4 Models

TWEEZERS 100 Models

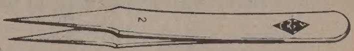
B3



CAA

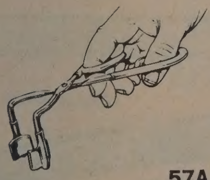
C46

B2EF



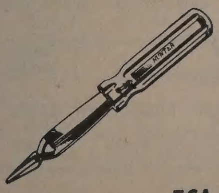
B3ME

HOT TUBE PULLERS



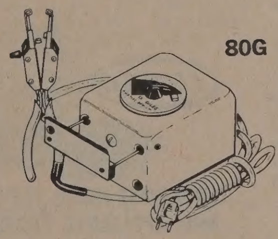
57A

TENSION TWEEZIE

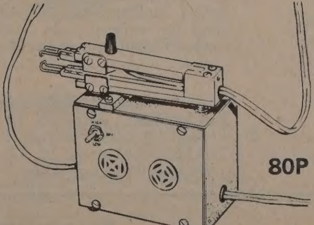


56A

THERMAL WIRE STRIPPERS



80G



80P

HUNTER
AMERICA'S
No. 1
SPACE AGE
TOOL LINE

Send
for
our
complete
tool
catalog!

HUNTER TOOLS
Santa Fe Springs, California

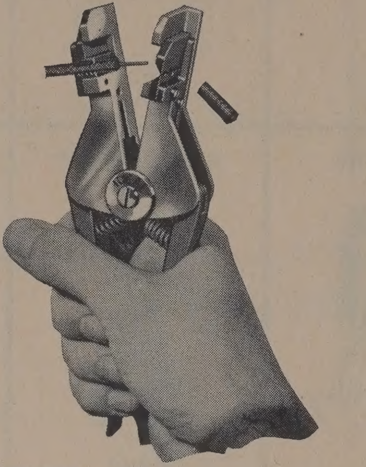
IDEAL WIRE STRIPPERS

FOR ALL TYPES OF THERMO-PLASTIC INSULATIONS . . . EVEN TOUGH TEFLON*

IDEAL Wire Strippers, both hand and production models, are engineered with unique design features that speed up and simplify the stripping of most types of insulation.

IDEAL Stripmaster®

2 SECOND "ONE SQUEEZE" OPERATION



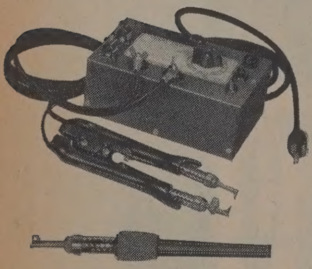
Unexcelled for fast assembly work, this 10 oz. stripper can be used all day without fatigue. Exclusive "automatic" feature holds jaws open after stripping to permit removal of wire and to prevent crushing. No nicking, fraying, or cutting of wire ends possible. 7 models for all wire gauges from 8 to 30.

MODELS FOR ALL WIRE GAUGES — FROM 8 TO 30

Catalog No.	Wire Gauge	No. of Holes	List Price◆	Suggested Resale
45-090	8 to 12	3	$9.60	$5.75
45-091	10 to 18	4	9.60	5.75
45-092	10 to 22	6	9.60	5.75
45-093	14 to 22	4	9.60	5.75
*45-095	16 or 18, SP & SPT Slot		9.60	5.75
45-097	16 to 26	6	9.60	5.75
45-098	20 to 30	6	9.60	5.75

***Also strips 2 and 3-conductor low-voltage wire used in G.E. and Touchplate remote control wiring systems.**

THERMO-STRIP™ CANNOT HARM WIRE



Damage-Free Removal of All Thermo-Plastic Insulation—Even Teflon*

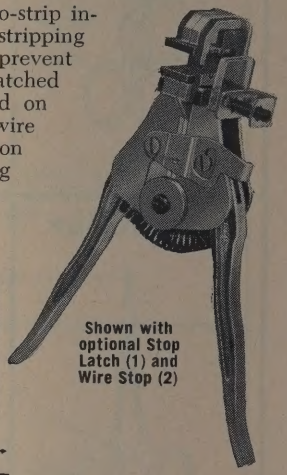
For critical stripping where *no* wire damage is permissible. Melts and removes insulation without nicking, cutting or scraping wire. Choice of tools: plier-type Pincer Tool for all normal production use; probe-type Single Loop Tool for miniaturized or crowded assemblies. Heavy-duty power unit can be run continuously, has infinitely variable heat control, heats elements immediately.

Cat. No.	Item	List Price	Sugg. Resale
45-130	Pincer Tool & Power Unit	$112.00	$67.20
45-131	Single Loop Tool & Power Unit	93.35	56.00
45-133	Power Unit Only	75.75	45.45
45-140	Pincer Tool Only	36.15	21.70
45-141	Single Loop Tool Only	17.50	10.50

IDEAL CUSTOM Stripmaster®

Patented No. 2,889,728

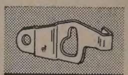
FOR PRECISION WIRE STRIPPING



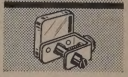
Shown with optional Stop Latch (1) and Wire Stop (2)

Removes Teflon* and other hard-to-strip insulation. New "concentric hole" stripping blades and special design of jaws prevent damage to insulation and wires. Matched sets of blades are precision drilled on watchmaker's equipment to exact wire sizes. Chucking action on insulation guides conductor through stripping hole, preventing nicks and scrapes. 3 models, wire sizes from 10 to 30.

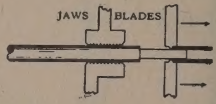
EXTRA FEATURES (optional)



"SHORT-STOP" LATCH protects wire by limiting stroke to 5/32" — disengages without removal for full 7/8" strip.



"SEE-THRU" WIRE STOP assures uniform lengths by adjusting to strip length desired.



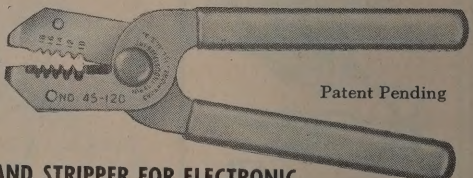
Counterbored stripping hole "chucks" insulation

FOR GENERAL PURPOSE STRIPPING OF PLASTIC, FIBRE GLASS AND OTHER HARD-TO-STRIP INSULATIONS

WIRE GAUGE	NO. OF HOLES	CATALOG NO. (without stop latch and wire-stop)	CATALOG NO. (with stop latch and wire-stop)
		List $28.25 Suggested Resale $16.95	List $34.60 Suggested Resale $20.75
10 to 14	3	45-170	45-180
16 to 26	6	45-171	45-181
26 to 30	3	45-172	45-182
FOR TYPE EE — 1000 VOLT TEFLON* WIRE			
10 to 14	3	45-173	45-183
16 to 26	6	45-174	45-184
26 to 30	3	45-175	45-185
FOR TYPE E — 600 VOLT TEFLON* WIRE			
10 to 14	3	45-176	45-186
16 to 26	6	45-177	45-187
26 to 30	3	45-178	45-188

* Reg. Trademark of DuPont

IDEAL



Patent Pending

LOW COST HAND STRIPPER FOR ELECTRONIC AND APPLIANCE PRODUCTION STRIPPING

For quick, easy, clean stripping of wires used in electronic instruments and appliances. Sturdy, compact, constructed of hardened steel for rugged duty and long service. Comfortable plastic grips for sure handling and safety.

	Cat. No.	List	Sugg. Resale
T-5 MODEL, strips 10, 12, 14, 16 and 18 gauge wires	45-120	$3.25	$1.95
T-6 MODEL, strips 16, 18, 20, 22, 24 and 26 gauge wires	45-121	$3.25	$1.95

IDEAL INDUSTRIES Inc., Sycamore, Illinois

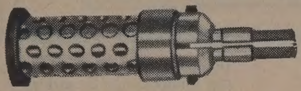
© U.C.P. Inc.

RESISTANCE SOLDERING TOOLS IDEAL

COMPLETE THERMO-TIP ATTACHMENTS AND POWER UNITS

"Pencil" Type attachment with double metal electrodes. "Feed-thru" electrodes, adjustable for length.

Cat. No. 12-167 with double metal electrodes. List Price $18.35 ◆ Suggested Resale $11.00.



DOUBLE CARBON ATTACHMENTS

Carbons provide more heat than metal tips. Available in two sizes – 1/8″ for small work, 3/16″ for larger work.

Cat. No. 12-166 Pencil Grip with 1/8″ carbons. List Price $18.35 ◆ Suggested Resale $11.00.

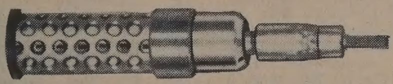
Cat. No. 12-165, Pencil Grip with 3/16″ carbons. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. 12-176 Pistol Grip with 1/8″ carbons. List Price $18.35 ◆ Suggested Resale $14.20.

Cat. No. 12-175 Pistol Grip with 3/16″ carbons. List Price $18.35 ◆ Suggested Resale $14.20.

Cat. No. L-4866 3/16″ dia. replacement carbons for **12-165** and **12-175**, six per pkg. Shipping wt., 2 oz. List Price $2.10 ◆ Suggested Resale $1.25.

Cat. No. L-4848 1/8″ dia. replacement carbons for **12-166** and **12-176**, six per pkg. Shipping wt., 2 oz. List Price $1.15 ◆ Suggested Resale $.70.



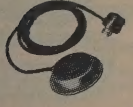
SINGLE CARBON ATTACHMENTS

Collet chuck holds feed-thru carbon. Permits adjustment. Complete with ground-clamp and lead assembly for jig-soldering.

Cat. No. 12-168 Pencil grip. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. 12-178 Pistol grip. List Price $18.35 ◆ Suggested Resale $14.20.

Cat. No. L-5202 Replacement Carbons 1/8″x3″ for **12-168** and **12-178**, packaged 6 per tube. Shipping wt., 2 oz. List Price $3.90 ◆ Suggested Resale $2.35.



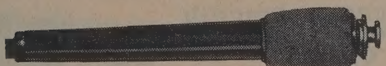
FOOT SWITCH

Cat. No. 12-146

List Price $11.90 ◆ Suggested Resale $7.15

Used to eliminate arcing at point of electrode contact. Also permits the use of electrodes to position or hold work after heat has been applied. Small and convenient to use (3⅝″ dia. x 1⅛″ high). Wired normally open (with series plug). Rated 5 amps., 115V. Shipping Wt., 12 oz.

CHISEL TIP IRONS



Cat. No. 12-151 Handle and Lead Assembly. List Price $7.75 ◆ Suggested Resale $4.65.

Cat. No. 12-144 1/4″ Chisel-Tip. List Price $12.75 ◆ Suggested Resale $7.65.

Cat. No. 12-143 – 1/8″ Chisel-Tip. List Price $12.75 ◆ Suggested Resale $7.65.

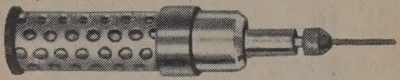
Rapid heating characteristics and corrosion-resistant special plating provide long life. Irons are locked into handle with set screws. Resistance element in the iron provides continuous, controlled heat.

NOTE: Handle assembly and Irons are sold separately.

Lightweight, Resistance Soldering Tools especially designed for faster, positive production soldering of miniature and subminiature parts. All attachments available with either "Pencil" or "Pistol-Grip" type handles. Complete with 5′ cord. Soldering Irons with "Pencil" type handle only.

"Pistol-Grip" attachment. Double metal electrodes are feed-thru type, adjustable for length.

Cat. No. 12-177 with double metal electrodes. List Price $23.65 ◆ Suggested Resale $14.20.



SINGLE METAL ATTACHMENT

Collet chuck holds feed-thru electrode. For smallest work. Complete with ground clamp and lead assembly for jig-soldering.

Cat. No.12-169 Pencil grip. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. 12-179 Pistol grip. List Price $18.35 ◆ Suggested Resale $14.20.

Cat. No. L-5241 Replacement Electrodes for **12-169** and **12-179**, packaged 6 per tube. Shipping wt., 2 oz. List Price $.90 ◆ Suggested Resale $.55.

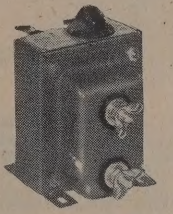
REPLACEMENT CARBON HOLDERS

Cat. No. L-5246 – 3/16″ Dia. List Price $1.15 ◆ Suggested Resale $.70.

Cat. No. L-5247 – 1/8″ Dia. List Price $.60 ◆ Suggested Resale $.35.

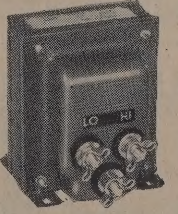
Provides easy replacement of only part attacked by corrosive fluxes. Holders can be used interchangeably with either the 12-165, 12-166, 12-175 or 12-176, depending on diameter of carbons desired.

POWER UNITS



125-Watt Power Unit. **Cat. No. 12-124**
List Price $31.85 ◆ Sug. Resale $19.10

For light production and intermittent work. Selector switch for choice of three heats. Complete with power cord and clip for holding pencil style attachments. 115V – 60 cy.



250-Watt Power Unit. **Cat. No. 12-123**
List Price $46.15 ◆ Sug. Resale $27.70

For heavier production work. Faster. Handles larger components than 12-124. Choice of two heats through "high" and "low" secondary connections. Complete wih power cord. 115V – 60 cy.

IDEAL
THERMO-TIP POWER UNIT

500-Watt Power Unit
Cat. No. 12-163
List Price $76.00
Suggested Resale $45.60

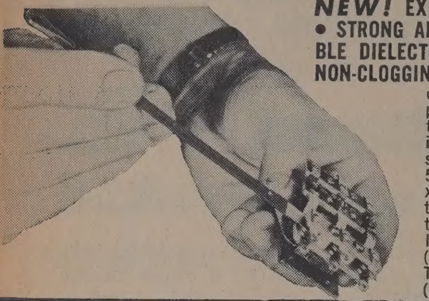
For continuous production work. Widest selection of heats – nine choices through 3-position selector switch plus "high", "medium" and "low" secondary terminals. Complete with power cord and pilot light. 115V – 60 cy.

IDEAL INDUSTRIES, Inc. Sycamore, Illinois

JONARD INDUSTR CORP

NEW PRECISION RELAY AND ELECTRONIC TOOLS

DIACRON DIAMOND SPATULA



***NEW!* EXCLUSIVE ADVANTAGES! • STRONG ABRASIVE POWER • FLEXIBLE DIELECTRIC • LONG LASTING • NON-CLOGGING.**

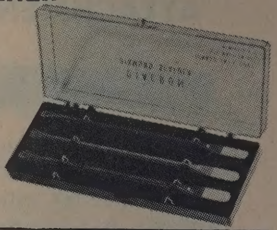
Consists of abrasive Diamond particles - Developed for any type contacts: Silver, Platinum, Gold, Palladium, Tungsten, Molybdenum - Length 5⅝" - Diamond coated face 1" x ¼" - Nylon Shaft - Three types to meet every application: Type 200 (coarse) for Industrial Relays - Type 300 (medium) for Intermediate and Telephone relays - Type 400 (fine) for Sensitive Relays.

CONTACT BURNISHER-CLEANER

K-234 Set of 3

Individual Spatulas and Kits packaged in Rigid Plastic Boxes.

Type No.	Description	Price
#200	Shaft Green	$ 4.95
#300	Shaft Red	$ 4.95
#400	Shaft Blue	$ 4.95
K-234	Kit 3 asst'd.	$14.85
K-222	Kit 3 #200	$14.85
K-333	Kit 3 #300	$14.85
K-444	Kit 3 #400	$14.85

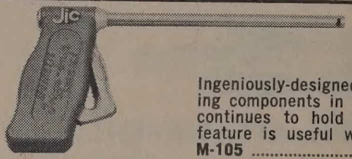


SPECIAL 15 PIECE RELAY-SERVICING TOOL KIT

2 Spring Adjusters, Tension & Thickness Gauges, Duck Bill Plier, Screw Driver, Tweezer, Mirror, 4-way Tool, Brush, Armature & Stop Benders, Contact Spray, Contact Burnisher.

KIT #K-55 ....$26.90

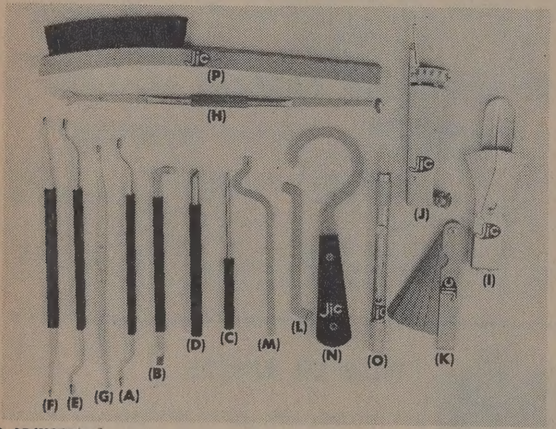
J.I.C. TRIGGA-SNIP



Ingeniously-designed wire cutting instrument for removing components in awkward positions. The TRIGGA-SNIP continues to hold the wire that has been cut. This feature is useful when cutting wires in deep chassis.

M-105 ....$4.75

SPECIAL TOOLS FOR ADJUSTING AND SERVICING RELAYS



SPRING ADJUSTERS

(A)	SA-2	General type, chisel-edged. L. 7" slot W. .023"	$2.48
(B)	SA-6A	Cross & Lengthwise slots. Slot W. .025"	$2.45
(C)	SA-7	For Miniature Relays. Slot W. .015"	$ .99
(D)	SA-8	For Heavy type springs, Round Head. Slot W. .075"	$1.98
(E)	SA-16	Double-ended, Lengthwise slot. L. 8" Slot W. .030"	$2.40
(F)	SA-17	For all types relays. L. 8" Slot W. .025"	$2.95
(G)	SA-20	For closely-set spring relays. Slot W. .020" & .015"	$3.50

ADJUSTMENT DROP WRENCHES. Bent one side, 8" Long 3 TYPES

(H) Sizes 3/16" 7/32" ¼" Same size both ends ....**$2.95 ea.**

GAUGES

(I)	G-50	Tension Gauge 0-50 GRAMS Calibrated front & Back	$6.95
(J)	GP-50	Preset Tension Gauge, 0-50 grams, for Precision reading	$8.45
(K)	720N	Thickness Gauge, 26 blades. L. 3" W. ½" .0015" to .025"	$3.90
(L)		Armature Arm Bender, Slot 3/16"	$1.30
(M)		Armature Stop Bender, Slot W. .035"	$1.48
(N)		Bank Cleaner, Diam. 1½" Length 6"	$2.95
(O)		4-way Tool (Phillips & Standard screw driver) Hex ¼" & 5/16"	$1.95
(P)		Curved Hair Brush for cleaning selector switches	$1.80
(Q)		Nickel-Silver Wire Brush for cleaning relays & others	$1.75

Other Types and Sizes Available on Special Request.

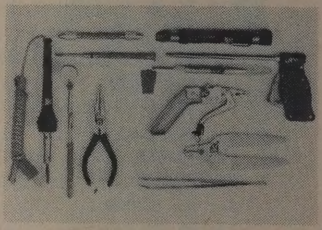
KONTAKT 60

NEW FORMULA CONTACT CLEANING SPRAY

For contacts, switches, controls, tuners, all Electronic Equipment. Leaves anti-corrosion film and long-lasting lubricant. Gives excellent results without dismounting equipment. Free extension tube for fine spray in hard-to-reach areas.

No. K-60 ....$2.45

12 PIECE SERVO TOOL KIT

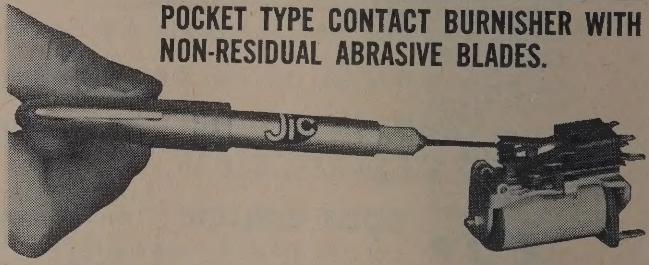


Carefully selected precision tools for servicing complex Instruments & Equipment.

Wire Cutter, 25-Watt Soldering Iron, Microscope 40x50x60, Chain Nose Plier, Inspection Mirror, Tweezer, Swivel Screw Driver, Wire Stripper, Pin Vise, Pocket Burnisher & 12 Blades, Locking Plier.

KIT #K-50 ....$29.50

POCKET TYPE CONTACT BURNISHER WITH NON-RESIDUAL ABRASIVE BLADES.



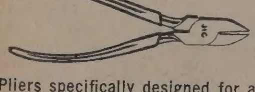
Pen with 12 blades #RB6 P-6	$3.90
Pen with 12 blades #RB4 P-4	$3.90

REPLACEMENT BLADES

No.	Width	Length	Thickness	Pkg. 25	Pkg.100
RB6	3/16"	1¾"	.007"	$3.75	**$12.50**
RB4	¼"	1¼"	.007"	$3.75	**$12.50**

PRECISION PLIERS

For economy grade deduct $1.50 per plier.



PL-1	Round Nose	$3.45
PL-2	Flat Nose	$3.50
PL-3	Diagonal Cutting	$3.95
PL-4	End Cutting	$3.85
PL-5	Round Flat Nose	$4.20
PL-6	Chain Nose	$3.60
PL-7	Side Cutting	$4.35

Precision Pliers specifically designed for assembly and service in the Electronic Industry. High grade steel. Vinyl cushion grip handles. Polished heads. Size 4½"

20 PIECE PRECISION TOOL SET

Specifically Designed for Electronic Assembly Service and Repair. Comes in durable leatherette Zipper Case.

K-600 ....$19.75

1 Diagonal Cutting Nipper 4½"
1 15-Watt Soldering Iron
1 Pen-type Contact Burnisher
  with 12 replacement blades
1 Round Nose Pliers 4½"
1 Midget Wrench 5¼"
1 Pin Vise
2 Tweezers
1 Aligner
1 Chisel
1 Screw Driver
1 Solder Core
1 Magnifying Glass
1 Miniature driver 020"
1 Miniature driver .050"
2 Nut Drivers ¼" - 3/16"
2 Needle Files
1 Phillips Driver

WRITE FOR COMPLETE CATALOG OF J.I.C. PRECISION TOOLS

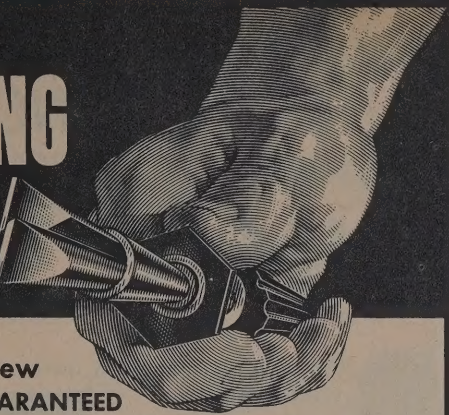
JONARD INDUSTRIES CORP., PRECISION TOOLS DIV., BRONX 63, N. Y.

Net

© U.C.P., Inc.

Quick-Wedge®
SCREW-HOLDING
Screwdrivers

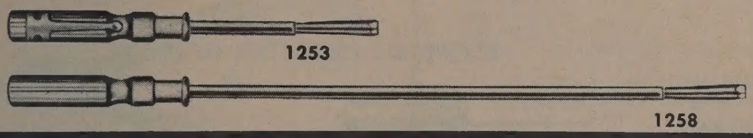
14 Different Sizes Handle
Every Screwdriving Job!



Hold - Start - Drive the Screw
AND THEY'RE UNCONDITIONALLY GUARANTEED

• One screwdriver drives many sizes of screws • Shockproof, unbreakable Tenite II handle • Hollow-ground bit fits any slotted screw • Use instead of conventional screwdriver • Tough, durable spring steel blades. Positively will not mar screw slot • Fast, positive action — easy to use • No pressure wedge to wear out • Foolproof construction.

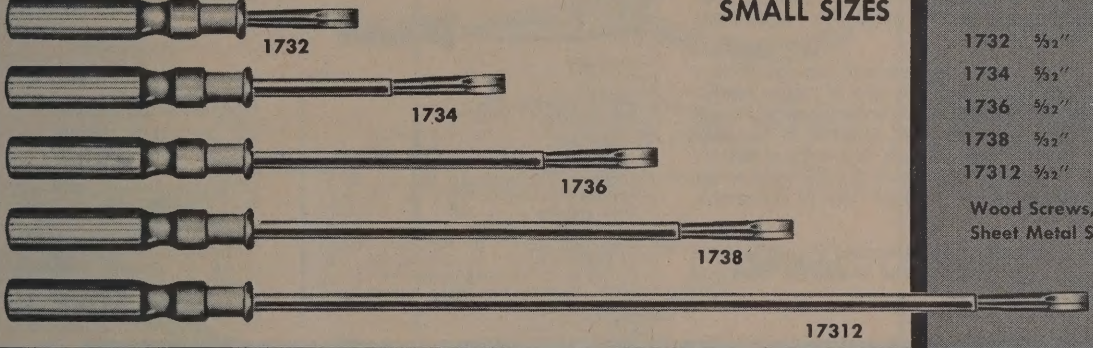
MIDGET SIZES



NO.	BLADE DIAM.	WT. LBS. PER DOZ.	DOZ.	EACH
1253	⅛″	9 oz.	$15.00	$1.25
1258	⅛″	15 oz.	18.00	1.50

Wood Screws, Bolts—No. 0 to No. 4
Sheet Metal Screws—No. 2 to No. 4

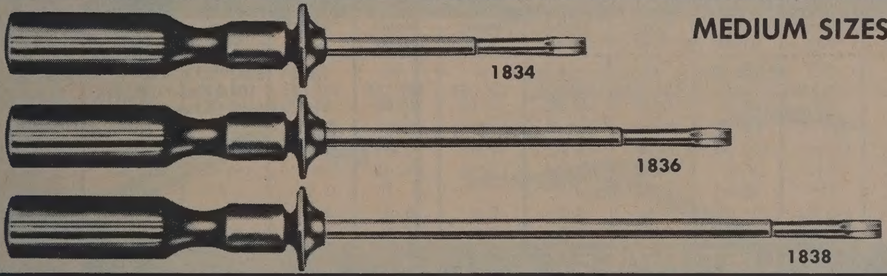
SMALL SIZES



1732	5/32″	1	$13.20	1.10
1734	5/32″	1¼	13.80	1.15
1736	5/32″	1½	14.40	1.20
1738	5/32″	1¾	15.00	1.25
17312	5/32″	2	16.80	1.40

Wood Screws, Bolts—No. 3 to No. 7
Sheet Metal Screws—No. 3 to No. 6

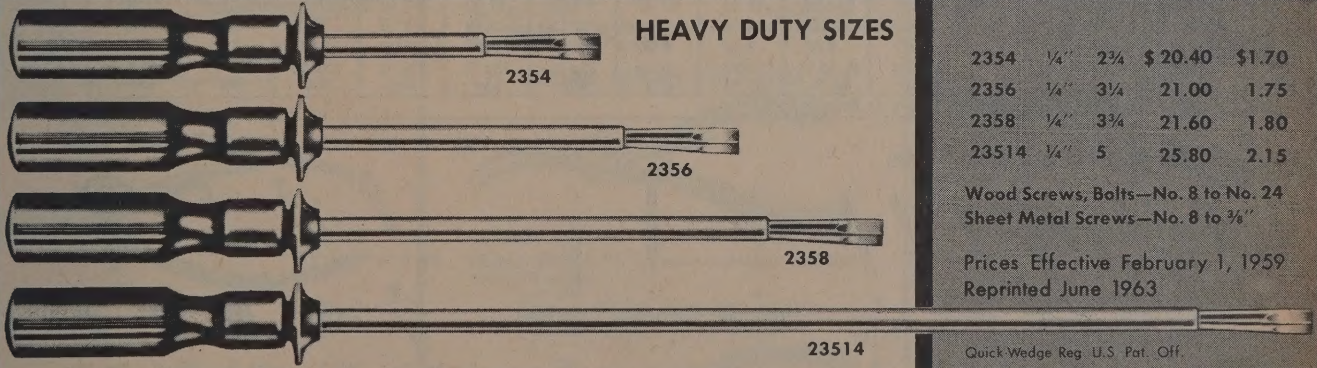
MEDIUM SIZES



1834	3/16″	2	$19.20	$1.60
1836	3/16″	2¼	19.80	1.65
1838	3/16″	2½	20.40	1.70

Wood Screws, Bolts—No. 6 to No. 12
Sheet Metal Screws—No. 6 to No. 12

HEAVY DUTY SIZES

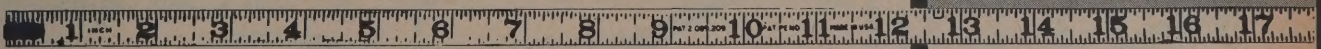


2354	¼″	2¾	$ 20.40	$1.70
2356	¼″	3¼	21.00	1.75
2358	¼″	3¾	21.60	1.80
23514	¼″	5	25.80	2.15

Wood Screws, Bolts—No. 8 to No. 24
Sheet Metal Screws—No. 8 to ⅜″

Prices Effective February 1, 1959
Reprinted June 1963

Quick-Wedge Reg. U.S. Pat. Off.



Blade length is indicated by last digit(s) of model number.
("17312" has a 12″ blade — "23514" has a 14″ blade)

ELECTRICAL SIZES

All but No. 1732 (above) available with shockproof, Vinyl covered tubing, 15¢ additional per screwdriver. Specify "E" after number.

KEDMAN COMPANY • Salt Lake City, Utah

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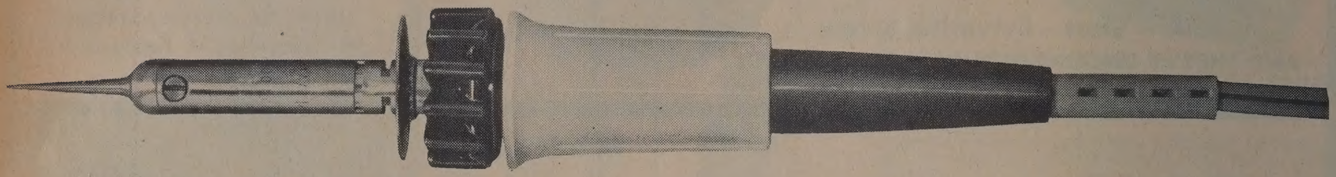
Featherlite

SOLDERING PENCILS
AND HEAVY-DUTY IRONS

kwikheat

"KWIKIE" TYPE 4000



PENCIL IRONS *(Non-thermostatic)*
7 STANDARD TEMPERATURES AVAILABLE

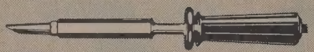
This newest Kwikie provides unexcelled efficiency and economy with its interchangeable plug-in tips, and unparalleled versatility with its standard irons in wattages and temperatures ranging from 10 watts (450°F) through 50 watts (1000°F). This selection permits easy standardization as well as precise temperatures for exacting production requirements without added cost of transformers.

Small, (7″) lightweight (1¾ oz.) and finely balanced, the new models are provided with a comfortably sized, extra-cool grip of rugged plastic, allowing their use in minimum contamination work areas (no cork). Though designed for prolonged high production precision soldering of miniature components, the Kwikie is small enough for safe fast work in densely packed circuitry with power in reserve. Engineered to melt more solder by comparison with other interchangeable tip type irons of comparable wattage.

All models available with 3 conductor safety-grounded 6′ cord sets and irons in 3 smart colors . . . green, white, and black. All irons and temperatures rate at 115V.

DEPENDABLE PRODUCTION IRONS

TYPE 200



TYPE 300

TYPE 3100

TYPES 200 and 300-
THERMOSTATIC MODELS
(Vanatta Automatic Thermostat)
Lightweight and heavy duty irons for high-speed work. Dependable and rugged. Interchangeable tips are easily replaced. Preset to 700°F for intermittent standby or to 800°F for constant high-speed soldering. Can be preset from 275° to 875° for additional charge of $1.00 each for 1 to 49 irons; 50¢ each for 50 to 99. No extra charge for 100 or more. Temperature creep reduced by the use of special alloys.

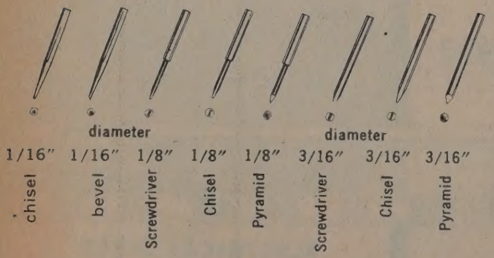
TYPE 3100-
TEMPERATURE CONTROLLED MODEL
Rugged, lightweight, and economical general purpose iron for continuous or intermittent soldering. One-piece shell and heating element attached to air-cooled plastic handle by 2 screws for rapid replacement. Temperature allows wattage increase as demand increases. Forged tellurium copper core. Screw type tips easily changed or replaced.

SPECIFICATIONS

	Model 200	Model 300	Model 3100	Model 4100	Model 4150	Model 4200	Model 4250	Model 4350	Model 4400	Model 4500
Wattage	150	225	225-75	10	15	20	25	35	40	50
Voltage	115-230 AC	115-230 AC	115 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC
Tip Temperature (Max.)	875°F.	875°F.	850°F.	450°F.	550°F.	650°F.	750°F.	850°F.	950°F.	1000°F.
Heating Time (Max.)	90 sec.	90 sec.	100 sec.	70 sec.	70 sec.	70 sec.	70 sec.	60 sec.	50 sec	60 sec.
Weight (with tip)	7½ oz.	14 oz.	8 oz.	1¾ oz.	1¾ oz.	1¾ oz.	1¾ oz.	1¾ oz.	1¾ oz.	2¼ oz.
Length (with tip)	12¾″	13″	12¾″	7″	7″	7″	7″	7″	7″	7″
Ship. Weight	1 lb. 2 oz.	1½ lbs.	1½ lbs.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.
Heater Cord Length	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.
LIST PRICES										
Complete Iron with Tip	$9.95	$14.95	$8.50	$7.00	$7.00	$7.00	$7.00	$7.00	$7.00	$7.50
Replacement Element	6.95	10.85	4.50	3.15	3.15	3.15	3.15	3.15	3.15	3.60
3-Conductor Cord, extra	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Tips (according to style)	80¢ to $1.10	$1.80 to $2.70	$1.80 to $2.70	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢

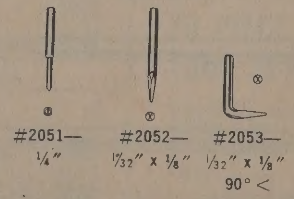
Iron Clad Tips — All Types Available — Prices on Request

Kwikie INTERCHANGEABLE TIPS

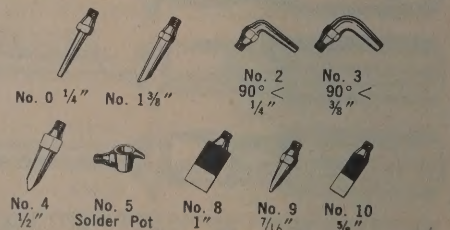


All tips available with 30°, 60° or 90° bends

TYPE 200 TIPS



TYPE 300 AND TYPE 3100 INTERCHANGEABLE SCREW TIPS



#20 ANTIFREEZE COMPOUND

A lubricant for all soldering iron tips. Prevents sticking, increases conductivity between tip and core.

PLEASE CONTACT YOUR JOBBER FOR TRADE DISCOUNTS

MANUFACTURED BY **KWIKHEAT** MANUFACTURING CO. GLENDALE, CALIF.

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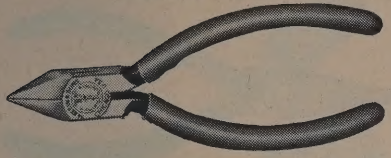
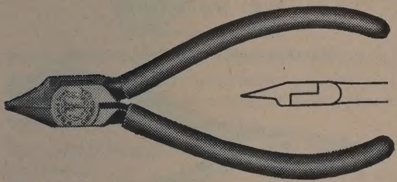
Mathias KLEIN & Sons
Established 1857
Chicago, Ill., U.S.A.
INCORPORATED
CHICAGO 45, ILLINOIS

OBLIQUE CUTTING PLIER
Lightweight Pointed Nose
Flush Cutting



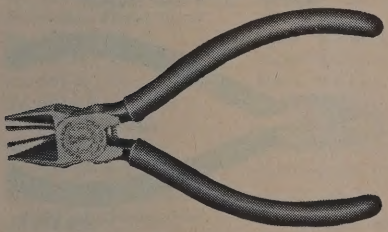
No. D209-4 Handles red plastisol covered
No. D209-4 Size 4 3/16 in.
No. 209-5 Size 5 in.
Available with coil spring

OBLIQUE CUTTING PLIER
Flush Cutting
Handles red plastisol covered



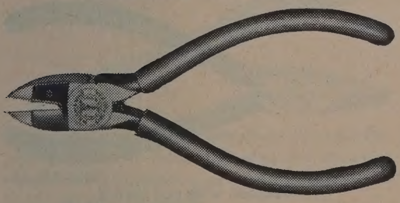
No. D219-4 Size 4 3/16 in.
No. D219-5 Size 5 in.
Available with coil spring

WIRE GRIPPING OBLIQUE CUTTER
Flush Cutting
Pat. No. 2,938,266
Handles red plastisol covered



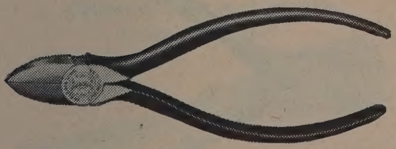
No. D229-5C Size 5 in.
Supplied with coil spring

OBLIQUE SHEAR CUTTING PLIER
Pat. No. 2,848,810
Handles red plastisol covered



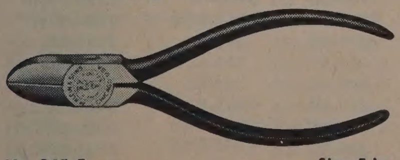
No. D207-5C Size 5½ in.
077-K Replacement Blade
Supplied with coil spring

OBLIQUE CUTTING PLIER
Flush Cutting



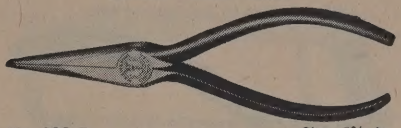
No. 210-5 Size 5½ in.
No. 210-6 Size 6 1/16 in.
Available with coil spring

OBLIQUE CUTTING PLIER



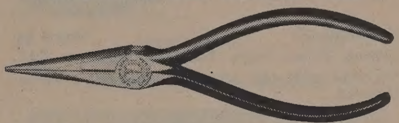
No. 245-5 Size 5 in.
Available with coil spring

LONG NOSE PLIER



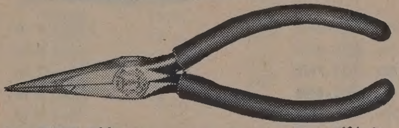
No. 301-5 Size 5 9/16 in.
No. 301-6 Size 6 5/8 in.
No. 301-7 Size 7 1/8 in.
Available with coil spring

LONG NOSE SIDE CUTTING PLIER



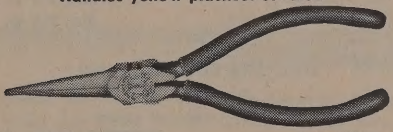
No. 203-5 Size 5 9/16 in.
No. 203-6 Size 6 5/8 in.
No. 203-7 Size 7 1/8 in.
Available with coil spring

SLIM LONG NOSE PLIER
Handles yellow plastisol covered



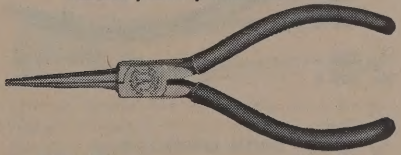
No. D307-5½ Size 5 13/16 in.
Available with coil spring
No. D221-5½C with side cutting knives (1/32" point) Size 5 13/16 in.
Supplied with coil spring.
No. D327-5½C Size 5 13/16 in.
Similar to D307-5½ but inside jaws are smooth. Supplied with coil spring.

SLIM LONG NOSE PLIER
Handles yellow plastisol covered



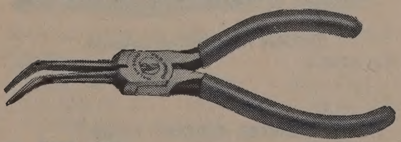
No. D310-6 Size 6 5/8 in.
Available with coil spring

LONG NEEDLE NOSE PLIER
Handles yellow plastisol covered



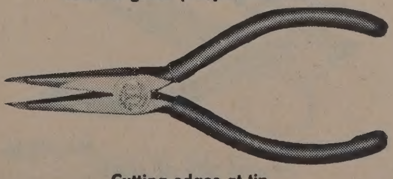
No. D318-5½ Size 5 25/32 in.
Available with coil spring
No. 328-5½C Size 5 25/32 in.
Similar to D318-5½ but jaws are smooth. Supplied with coil spring.

CURVED NEEDLE NOSE PLIER



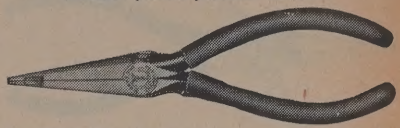
No. D338-5½C Size 5½ in.
Similar to D318-5½ but nose is curved. Supplied with coil spring.

END CUTTING TRIMMER PLIER
Handles green plastisol covered



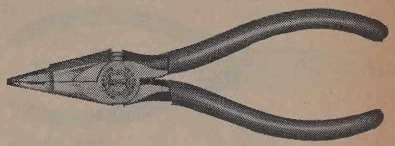
Cutting edges at tip set at 45° angle.
Supplied with coil spring
No. D211-6C Size 6½ in.

LONG NOSE PLIER, KNIFE AT POINT
Handles yellow plastisol covered



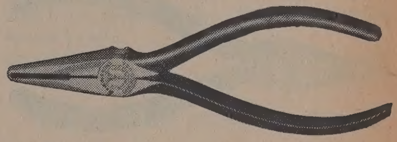
No. D301-6P Size 6 5/8 in.
Available with coil spring

LONG NOSE PLIER, KNIFE AT POINT



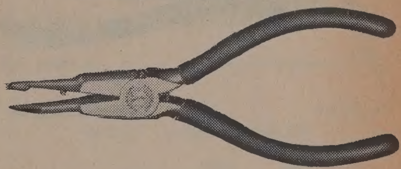
No. D317-6PC Size 6 in.
Similar to D301-6P but nose is slimmed down to permit reaching into confined spaces. Supplied with coil spring and yellow plastisol handles.

TRANSVERSE END CUTTING PLIER



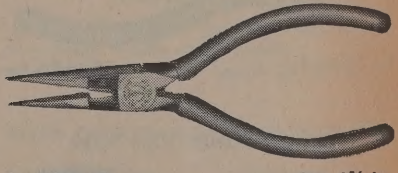
No. 204-6 Size 6¼ in.
Available with coil spring

NEEDLE NOSE ELECTRONIC PLIER
Pat. No. 2,903,790
Semi-Flush Cutting
Handles yellow plastisol covered



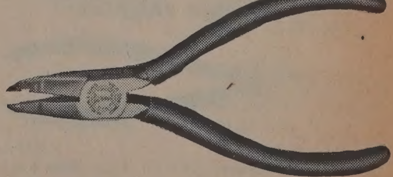
No. D261-6C Size 6¾ in.
Supplied with coil spring

LONG NOSE SHEAR CUTTING PLIER
Pat. No. 2,848,810
Handles yellow plastisol covered



No. D208-6C Size 6 5/8 in.
078-K Replacement Blade
Supplied with coil spring

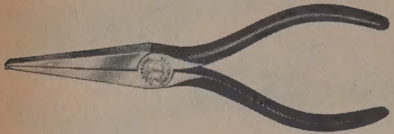
SPECIAL SKINNING PLIER
Handles red plastisol covered



No. D317-5P Size 5¼ in.

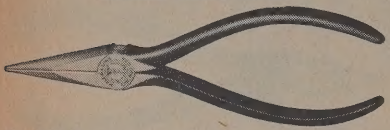
DUCK BILL PLIER

Inside jaws smooth



No. 304-6 Size 6½ in.
No. 205-6 with side cutting knives Size 6½ in.

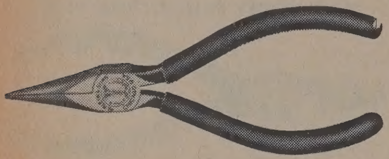
CHAIN NOSE PLIER



No. 317-6 Size 5 15/16 in.
No. 217-6 with side cutting knives Size 5 15/16 in.

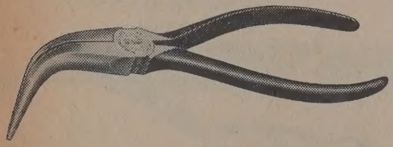
CHAIN NOSE PLIER

Handles yellow plastisol covered



No. D317-5 Size 5¼ in.
Available with coil spring

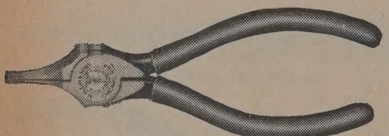
CURVED NOSE PLIER



No. 302-6 Size 6¼ in.

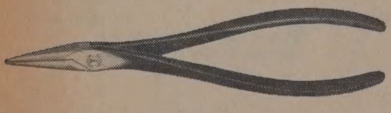
RELAY SPRING ADJUSTING PLIER

Inside jaws smooth
Handles yellow plastisol covered



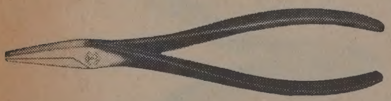
No. D325-5 Size 5 1/16 in.

8-INCH LONG NOSE PLIER



No. 314-8 with knurl Size 8 in.

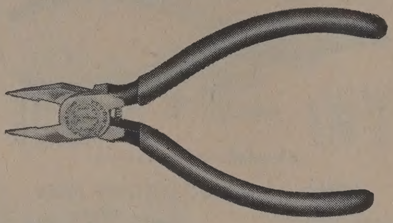
8-INCH DUCK BILL PLIER



No. 315-8 with knurl Size 8 in.
No. 312-8 without knurl Size 8 in.

HIGH HARDNESS PLIER

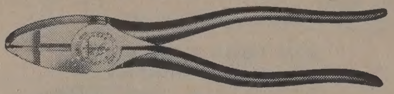
For Cutting Nickel Ribbon Wire



No. D230-4C Size 4 in.
Cutting knives have Rockwell hardness C60. Supplied with coil spring. Handle red plastisol covered.

SIDE CUTTING PLIER

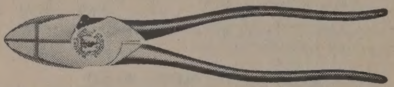
NE Type (Streamlined)



No. 201-5NE Size 5 in.
No. 201-6NE Size 6 in.
No. 201-7NE Size 7 in.
No. 201-8NE Size 8 in.
No. 201-9NE Size 9 in.

KLEIN KUT* HIGH LEVERAGE PLIER

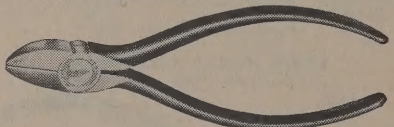
Pat. No. 2,746,145



No. 213-8NE Size 8½ in.
No. 213-9NE Size 9¼ in.

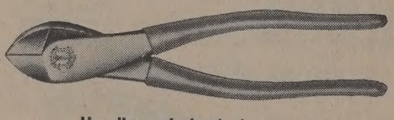
OBLIQUE CUTTING PLIER

Narrow Nose
Available with coil spring



No. 202-5 Size 5½ in.
No. 202-6 Size 6 1/16 in.

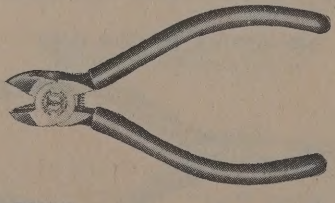
HIGH LEVERAGE OBLIQUE CUTTING PLIER



Handles red plastisol covered.
No. D228-8 Size 8 in.

PRINTED CIRCUIT PLIER

Handles red plastisol covered

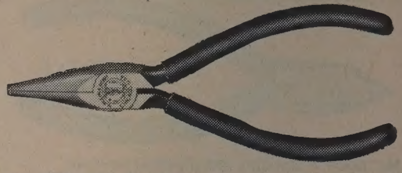


No. D052-C Size 5⅛ in.
Supplied with coil spring

*Trade-Mark

MIDGET ELECTRONIC PLIERS

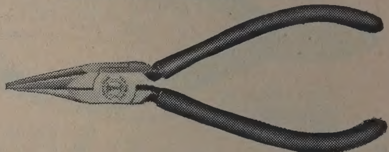
Long Nose Plier



No. D321-4½ Handles yellow plastisol covered
No. D322-4½ Handles blue plastisol covered
No. D321-4½ Size 4¾ in.
No. D322-4½ (without knurl) Size 4¾ in.
Available with coil spring

FLAT NOSE PLIER

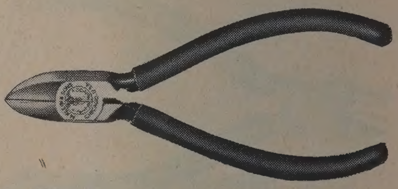
Inside jaws smooth
Handles yellow plastisol covered



No. D323-4½ Size 4¾ in.
Available with coil spring

OBLIQUE CUTTING PLIER

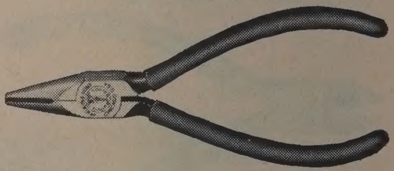
Handles red plastisol covered



No. D257-4 Size 4 3/16 in.
Available with coil spring

TRANSVERSE END CUTTING PLIER

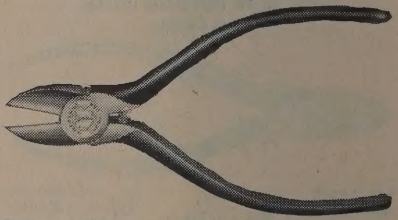
Semi-Flush Cutting
Handles green plastisol covered



No. D224-4½ Size 4⅝ in.
Available with coil spring

COIL SPRING PLIERS

Pliers listed below are supplied with coil spring



Oblique Cutters
D209-4C
209-5C
D219-4C
D219-5C
202-5C
202-6C
210-5C
210-6C
245-5C
D257-4C

Long Nose
204-6C
D261-6C
D318-5½C
203-5C
203-6C
203-7C
D221-5½C
(1/32" point)
D307-5½C

D321-4½C
D322-4½C
D323-4½C
D310-6C
D301-5C
D301-6C
D301-7C
D301-6PC
D317-6PC
D317-5C

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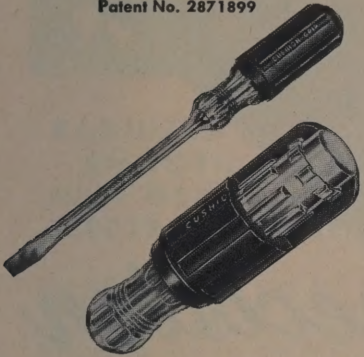
Mathias KLEIN & Sons

Established 1857
Chicago, Ill., U.S.A.
CHICAGO 45, ILLINOIS
INCORPORATED

"CUSTOM" CUSHION-GRIP SCREWDRIVERS

Patent No. 2871899

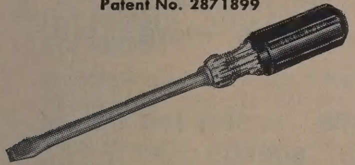


Designed for electricians who want something better than the usual commercial screwdriver. Made of alloy steel heat-treated. Chrome-plated finish. Cushion-grip for comfort.

Heavy-Duty Square Shank	
No. 600-4	Blade 4 x ¼ in.
No. 600-6	Blade 6 x 5/16 in.
No. 600-8	Blade 8 x ⅜ in.
Heavy-Duty Round Shank	
No. 602-3	Blade 3 x 3/16 in.
No. 602-4	Blade 4 x ¼ in.
No. 602-6	Blade 6 x 5/16 in.
No. 602-8	Blade 8 x ⅜ in.
Electricians Round Shank	
No. 601-3	Blade 3 x 3/16 in.
No. 601-6	Blade 6 x 3/16 in.
No. 601-8	Blade 8 x 3/16 in.
No. 601-10	Blade 10 x 3/16 in.
Super-Hard Phillips	
No. 603 #1 point	Blade 3 x 3/16 in.
No. 603 #2 point	Blade 4 x ¼ in.
Plastic Handle Screwdriver (without Cushion Grip)	
No. 604-3	Blade 3 x 3/16 in.

KLEIN INSULATED SCREWDRIVER

Patent No. 2871899

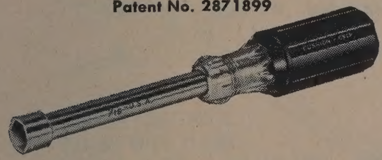


Shank insulated with an extremely hard plastic, highly resistant to cutting, cracking and chipping. Has excellent dielectric properties. Tip is exposed ⅛ in. beyond the plastic.

No. 620-3	Blade 3 x 3/16 in.
No. 620-4	Blade 4 x ¼ in.
No. 620-6	Blade 6 x 5/16 in.
No. 620-8	Blade 8 x ⅜ in.

CUSHION-GRIP NUT DRIVER

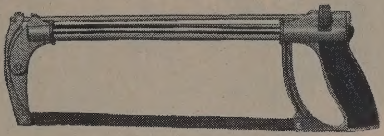
Patent No. 2871899



The finest nut driver made. Cushion grip gives tremendous turning power. Only nut driver made with shank and hex forged in one piece.

No. 630-3/16	Nut Size 3/16 in.
No. 630-¼	Nut Size ¼ in.
No. 630-5/16	Nut Size 5/16 in.
No. 630-11/32	Nut Size 11/32 in.
No. 630-⅜	Nut Size ⅜ in.
No. 630-7/16	Nut Size 7/16 in.
No. 630-½	Nut Size ½ in.

KLEIN HACKSAWS



World's finest hacksaw. Sturdy construction, compact, cuts through to flat surface. Higher tension assures longer blade life. Frame die cast aluminum. Two-hand operation. Storage for six extra blades.

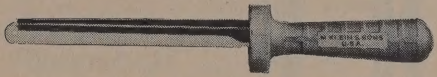
No. 701 Length 16 in. Blade 12 in.

KLEIN HACKSAW BLADES

High-quality hacksaw blades in either high-speed steel or carbon steel.

Carbon Steel Hacksaw Blades Cat. No.	Length	Teeth	Packed Per Box
1018C	10 in.	18T	72
1024C	10 in.	24T	72
1032C	10 in.	32T	72
1218C	12 in.	18T	72
1224C	12 in.	24T	72
1232C	12 in.	32T	72
High-Speed Steel Hacksaw Blades			
1018HS	10 in.	18T	100
1024HS	10 in.	24T	100
1032HS	10 in.	32T	100
1218HS	12 in.	18T	100
1224HS	12 in.	24T	100
1232HS	12 in.	32T	100

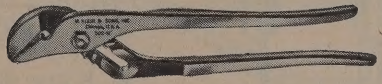
KLEIN JAB SAW



Handy saw for many uses. Blade supported firmly by steel back. Broken hacksaw blades may be used.

No. 703 Length 10½ in.

KLEIN PUMP PLIER



Jaws positioned and locked into place by engaging a tongue in the proper groove. Jaws cannot slip. Sides are polished and handles are blued.

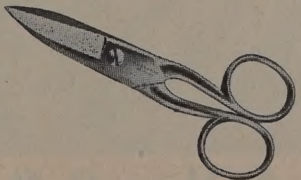
Cat. No.	Length	Max. Cap.
502-10	10 in.	1½ in.
502-12	12 in.	2⅛ in.

PUMP PLIER WITH PLASTIC HANDLE

Same as above but with yellow dipped plastic handles.

Cat. No.	Length	Max. Cap.
D 502-10	10 in.	1½ in.
D 502-12	12 in.	2⅛ in.
D 502-16	16 in.	4¼ in.

"XELA" ELECTRICIAN'S SCISSORS

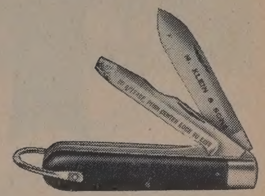


Made of high-grade steel carefully tempered. Screw hinge allows for adjustment.

Cat. No. 2100-5 Size 5 in.

5100 Pocket for scissors, not illustrated

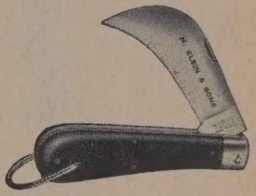
KLEIN "XELA" ELECTRICIAN'S KNIFE



Has utility blade and screwdriver blade. Made of finest cutlery steel. Handle special plastic.

No. 1550-2 Length Closed 4 in.

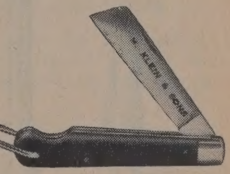
KLEIN "XELA" LINEMAN'S KNIFE



Single 3-in. blade of finest cutlery steel. Handle special plastic.

No. 1550-4 Length Closed 4 in.

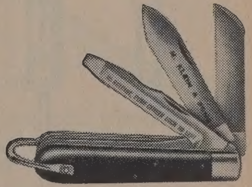
KLEIN "XELA" SKINNING KNIFE



Particularly useful in telephone work. Hardwood handle.

No. 1550-5 Length Closed 3½ in.

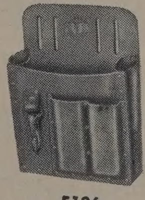
"XELA" 3-BLADE KNIFE



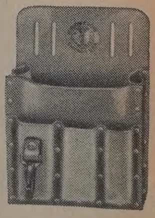
Spearpoint blade, sheepsfoot blade and screwdriver blade. Handle special plastic.

No. 1550-6 Length Closed 3¾ in.

KLEIN COMBINATION TOOL POCKETS



5126



5127

Two of the many leather tool pockets available in the Klein line. See Klein catalog for other pockets.

No. 5126 Leather Size 8½ in. high, 6½ in. wide
5127 Leather 10 in. high, 7 in. wide

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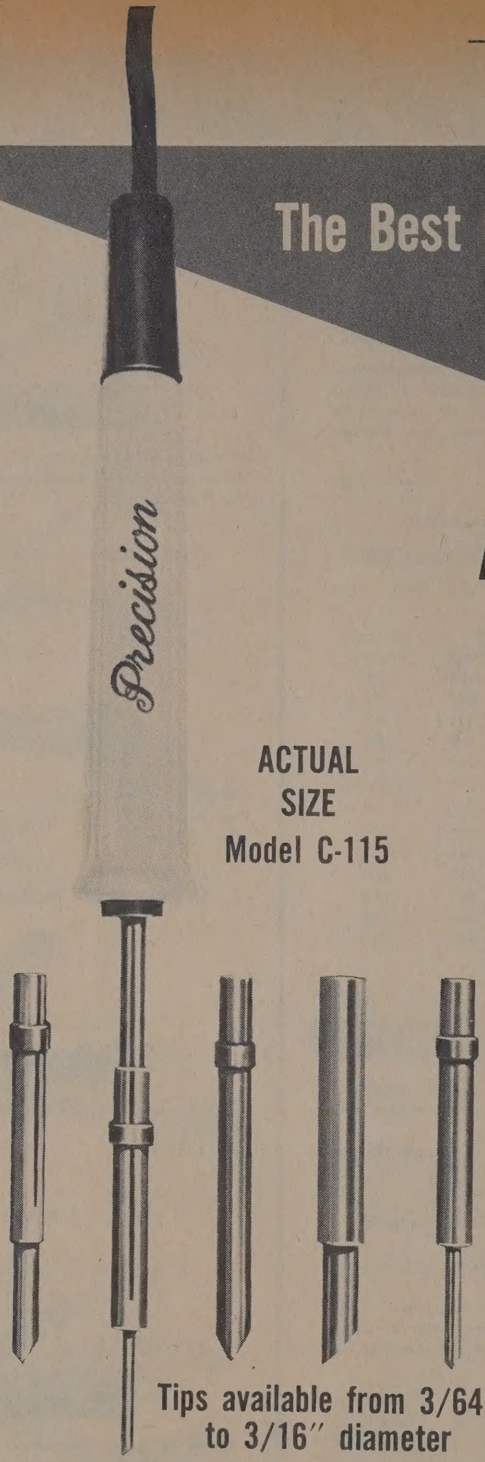
The Best Miniature Soldering Iron in the World . . .



ACTUAL
SIZE
Model C-115

Tips available from 3/64″
to 3/16″ diameter

ANTEX-*Precision* MINIATURE SOLDERING IRON!

Weighs **one** ounce . . . operates on 110-120 volts. No transformer. Longest lasting sealed element made . . . maintains constant temperature around 720°F. without oxidation.

- Ultra-flexible 3-wire cord . . . grounded . . . 50 megohms between element and tip protects components and operator.
- Bright "safety" yellow handle remains cool — stands more than 1000°F.
- Easy slide-on tips . . . stay hot under production speeds — made of tungsten-copper alloy; nickel or iron plated.
- 45-second heat-up time — cools off in 3 minutes.

Irons furnished less plugs: heavy duty 2 or 3-pronged plugs available. All parts replaceable at low cost.

$4.35 Each

In lots of 6 — Tips extra

M. M. NEWMAN CORPORATION

Marblehead, Massachusetts

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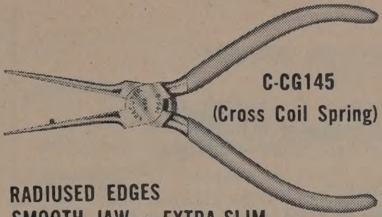
kraeuter TOOLS FOR TECHNICIANS

FOR OVER 100 YEARS THE FINEST IN HAND TOOLS

RADIUSED EDGES— SMOOTH JAWS NEW NEEDLE NOSE ELECTRONIC PLIERS

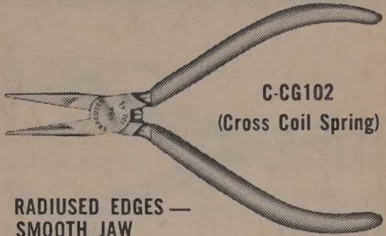
Drop forged from fine grain tool steel, heat treated to exacting specifications, these precision pliers were specifically designed for exacting electronic work. Cushion Grip handles are bonded on at the factory, actually become part of the tool. Won't crack, peel or chip. Easier to hold, easier to use. No extra cost.


C-CG145
(Cross Coil Spring)

RADIUSED EDGES SMOOTH JAW — EXTRA SLIM, LONG NOSE PLIERS—PINNED—NO CUTTER

Extra slim 2″ nose. Pinned jaw for perfect nose alignment. Will not crease insulation, score or nick wire.

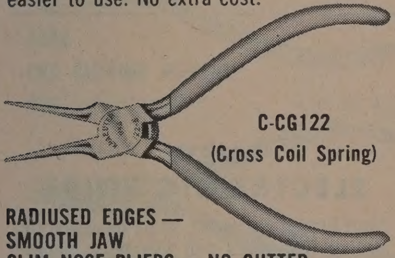
6″ DB List ea. 4.85


C-CG102
(Cross Coil Spring)

RADIUSED EDGES — SMOOTH JAW NEEDLE NOSE PLIERS — NO CUTTER

Special quality features in this plier allow repeated shaping and forming of wire without creasing, nicking or scoring.

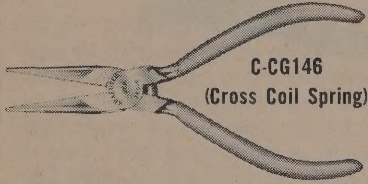
4½″ LB List ea. 3.40


C-CG122
(Cross Coil Spring)

RADIUSED EDGES — SMOOTH JAW SLIM NOSE PLIERS — NO CUTTER

Strong, short, thin nose makes this an excellent production line tool. Will not crease insulation, nick or score wire. Inside length: 1¼″.

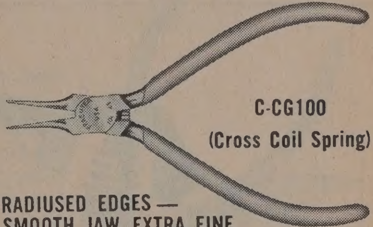
5″ R List ea. 3.70


C-CG146
(Cross Coil Spring)

RADIUSED EDGES — SMOOTH JAW NEEDLE NOSE PLIERS — NO CUTTER

Standard needle nose pliers without cutter for forming or looping wire without creasing or nicking.

6″ LB List ea. 4.45


C-CG100
(Cross Coil Spring)

RADIUSED EDGES — SMOOTH JAW EXTRA FINE NEEDLE NOSE PLIERS — NO CUTTER

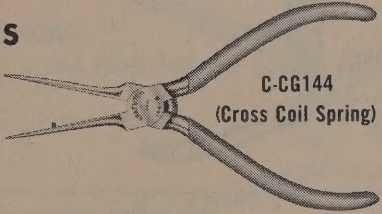
For use on hair wires and sub-miniature assembly. Precisely aligned. Will not nick or score wire, even with repeated shaping or forming.

4½″ R List ea. 4.00

NEW ELECTRONIC PLIERS

FULL POLISHED — VINYL CUSHION GRIP HANDLES

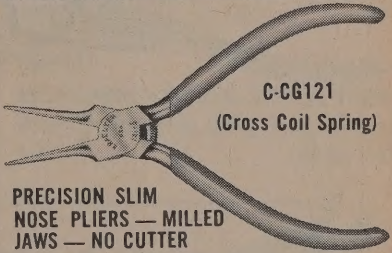
Specifically designed for use in the exacting electronics industry. Hammer forged from fine grain tool steel, individually fitted, tempered, adjusted and tested. Matched in size and handle-shape for accurate work on production line assembly. Cushion Grip handles and cross coil springs are standard features to assure maximum hand comfort at no extra cost.


C-CG144
(Cross Coil Spring)

EXTRA SLIM PINNED LONG NOSE PLIERS — MILLED JAWS — NO CUTTER

Standard serrated tips. Fine milled jaws — inside length 2″, 1/16″ tip. Pinned jaw.

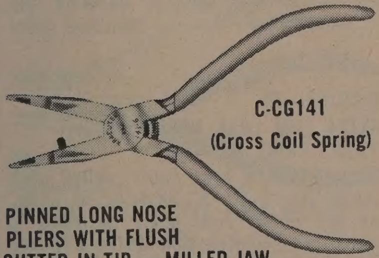
6″ O List ea. 4.65


C-CG121
(Cross Coil Spring)

PRECISION SLIM NOSE PLIERS — MILLED JAWS — NO CUTTER

Standard serrated tips. Slim nose 1¼″ length permits forming or squeezing wire to component with NO springing tip movement.

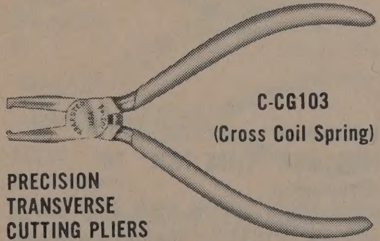
5″ O List ea. 3.50


C-CG141
(Cross Coil Spring)

PINNED LONG NOSE PLIERS WITH FLUSH CUTTER IN TIP — MILLED JAW

For soft wire only. Flush edges for square cut. Pinned jaws maintain alignment of cutting edges.

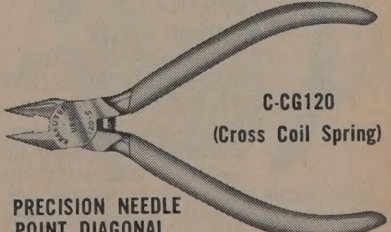
6″ G List ea. 6.00


C-CG103
(Cross Coil Spring)

PRECISION TRANSVERSE CUTTING PLIERS

For soft wire only. Cuts wires from components where accessibility from side is impossible. Ideal for stripping TV lead-in wire.

4-1/2″ G List ea. 4.00


C-CG120
(Cross Coil Spring)

PRECISION NEEDLE POINT DIAGONAL CUTTING PLIERS

Flush edge for soft wire only. For fine, exact tip cutting on heavier gauge wire. Makes square cut with no wire peaks.

5″ DB List ea. 5.50

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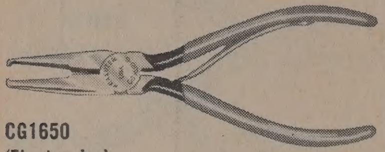
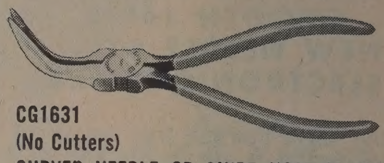
kraeuter
TOOLS FOR TECHNICIANS

FOR OVER 100 YEARS THE FINEST IN HAND TOOLS

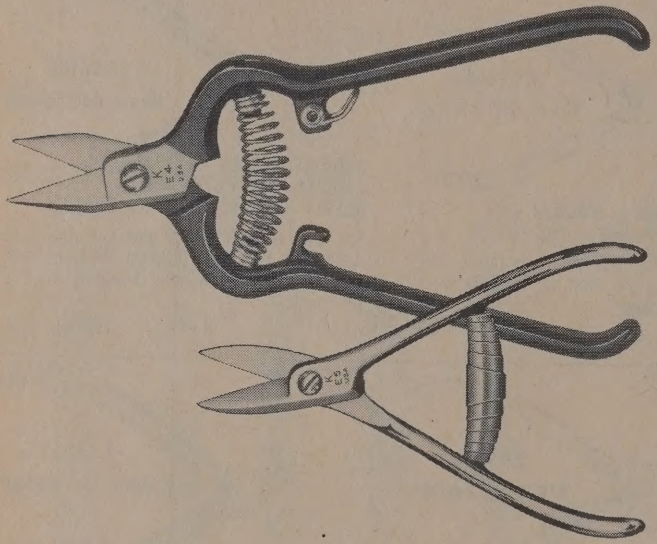


CG1650
(Electronics)
TRANSVERSE END-CUTTING PLIERS
Long jaws reach confined areas, cut wires at tips. Leaf Spring in handle.
6" 0 List ea. 5.00

CG1621
(No Cutters)
LONG NEEDLE OR SNIPE NOSE PLIERS
Slender milled jaws; inside length 2-3/32" tapering to 1/16" at points.
6" LB List ea. 3.64



CG1631
(No Cutters)
CURVED NEEDLE OR SNIPE NOSE PLIERS
Slender milled jaws tapering to 1/16" at point, curved to reach inaccessible areas.
5-1/2" G List ea. 4.18



NEW ELECTRONIC SNIPS

Short-bladed electronic snips designed for cutting fine wires and filaments, removing insulation coverings. Eliminates peaks on cut wires and damaging shocks to components. Return spring increases efficiency, reduces hand fatigue.

E-4
6½" ¾" Cut List ea. 4.75
E-5
5" ¾" Cut List ea. 4.25

NEW ELECTRONIC COMPONENT ASSEMBLY PLIERS

C-CG101—4-1/2"
PRECISION NEEDLE POINT DIAGONAL CUTTING PLIERS (ELECTRONICS) "FOR SOFT WIRE ONLY"
Needle point designed specifically for fine, exact tip cutting. Flush edge for close square cut. Specially designed cutting edge to facilitate re-sharpening and maintaining of tip cutting alignment. Furnished only with cross coil spring in handle.
4-1/2" LB List ea. 5.00

C-CG140—6"
LONG NOSE PLIERS 1/32" TIP
(Electronics)
Fine milled jaws, inside length 2" — tapering to 1/32" at the tip, reach areas inaccessible to other pliers. Furnished only with cross coil spring in handle.
6" LB List ea. 4.50

C-CG160—7"
EXTRA FINE LONG NOSE PLIERS 1/16" POINT (Electronics)
Extra fine long nose pliers, milled jaws, inside length 2-5/8" tapering to 1/16" at the point. Fine point designed to reach areas inaccessible to other pliers. Furnished only with cross coil spring in handle.
7" LB List ea. 3.80

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kraeuter
TOOLS FOR TECHNICIANS

FOR OVER
100 YEARS
THE FINEST IN
HAND TOOLS

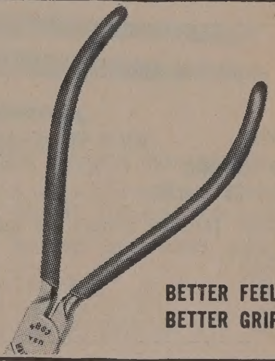
KRAEUTER PRECISION AND PROFESSIONAL PLIERS
FULL POLISHED FINISH

Extra fine pliers designed for exacting work. Drop forged from selected tool steel, accurately machined and carefully heat treated. In the hands of skilled radio and electronics technicians, these tools may be depended upon for exceptional service.

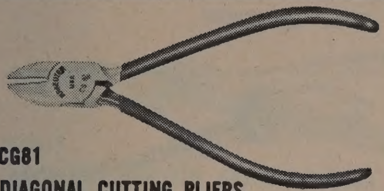
Precision and Professional Pliers illustrated show vinyl cushion grips (prefix "CG" with stock number) which are furnished at NO extra cost (factory bonded). Color: G-Green; O-Orange; R-Red; LB-Light Blue; DB-Dark Blue.

KRAEUTER VINYL
CUSHION GRIP "CG" HANDLES
AT NO EXTRA COST

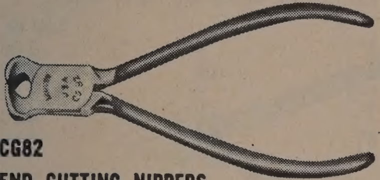
All the "CG" Kraeuter tools listed on these pages have the Cushion Grips bonded on at the factory... actually become part of the tool. Won't crack, peel or chip. They're brightly colored to help you find them when you need them... easier to hold, easier to use... cushion your hand so you do the job with less effort. Cushion Grips give pliers the "feel" of comfortable, more accurate control. And they come to you at no extra cost.



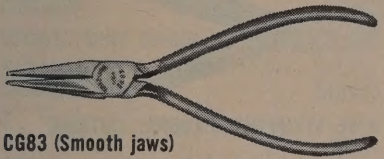
BETTER FEEL!
BETTER GRIP!



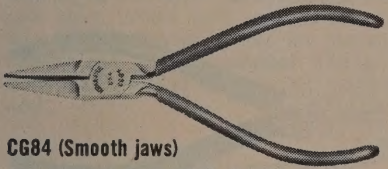
CG81
DIAGONAL CUTTING PLIERS
4½" R List ea. 3.60



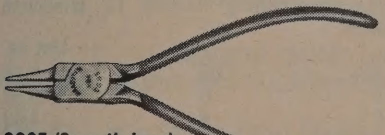
CG82
END CUTTING NIPPERS
4½" G List ea. 4.24



CG83 (Smooth jaws)
(No cutters) **CHAIN NOSE PLIERS**
4½" R List ea. 3.40

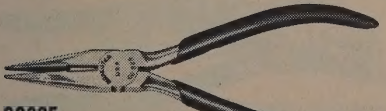


CG84 (Smooth jaws)
(No cutters) **FLAT NOSE PLIERS**
4½" DB List ea. 3.40



CG85 (Smooth jaws)
(No cutters)
ROUND NOSE ROUND JAW PLIERS
4½" G List ea. 3.40

No. 83-84-85 supplied with milled jaws when specified.



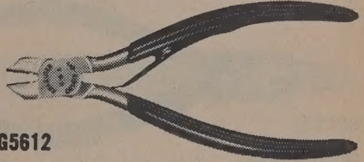
CG825
(With cutters)
MEDIUM NOSE NEEDLE POINT PLIERS
Needle points 1/32" x 1/32"
5" DB List ea. 4.70
CG835
(No cutters)
5" G List ea. 4.50

CG5601
NEEDLE POINT DIAGONAL CUTTING PLIERS

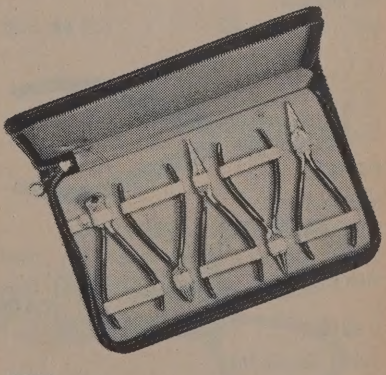
4½"	R	List ea. 4.00
5"	DB	List ea. 4.25
6"	G	List ea. 5.00

CG826
(With cutters)
LONG NOSE NEEDLE POINT PLIERS
Needle points 1/32" x 1/32"
6" G List ea. 4.90
CG836
(No cutters)
6" O List ea. 3.84

CG827
(With cutters)
EXTRA LONG NOSE NEEDLE POINT PLIERS
Needle points 1/32" x 1/32"
7" O List ea. 5.68
CG837
(No cutters)
7" LB List ea. 4.50



CG5612
NEEDLE POINT DIAGONAL CUTTING PLIERS
Wire stripping notch, spring return handles.
6½" O List ea. 5.00



CG90
PLIER SET
Five pliers in black zipper case. Size 5-3/4" x 9-1/4" when closed. One each Nos. CG81, CG82, CG83, CG84 and CG85.
List ea. 20.00

THIS IS ONLY A PARTIAL LISTING OF KRAEUTER TOOLS... SEND FOR CATALOG

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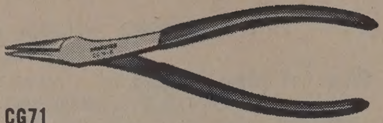
kraeuter
TOOLS FOR TECHNICIANS

FOR OVER 100 YEARS THE FINEST IN HAND TOOLS

KRAEUTER INDUSTRIAL PLIERS FULL POLISHED HEADS — VINYL CUSHION GRIP HANDLES

Designed for use in the Radio and Electronics fields. Hammer forged from high grade tool steel, individually fitted, tempered, adjusted and tested. Furnished with Cushion Grips (factory bonded) at no extra cost. Colors: G-Green; O-Orange; R-Red; DB-Dark Blue; LB-Light Blue.



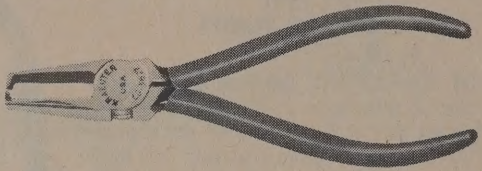
CG71

(With cutters)

SHORT JAW NOSE-CUTTING PLIERS

Extra long, narrow handles, cutters at tip of jaws.

8″ DB List ea. 4.98

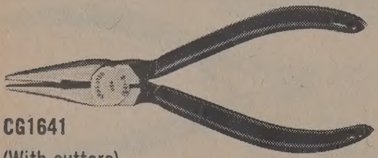


CG5627

END CUTTING RESISTOR PLIERS

Resistor terminal cutters for cutting the terminal ends of packaged assembly type resistors. Pliers sever terminal wires which are inaccessible except from over the resistor.

5½″ R List ea. 4.95



CG1641

(With cutters)

SHORT CHAIN NEEDLE NOSE PLIERS

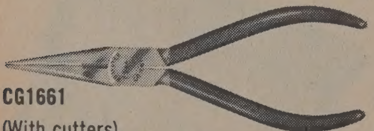
Short nose, extra leverage, for open wiring.

5″ R List ea. 3.60

CG1643

(No cutters)

5″ DB List ea. 3.58



CG1661

(With cutters)

LONG CHAIN NEEDLE NOSE PLIERS

Radio and TV's most extensively used pliers.

6″ DB List ea. 4.00

C-CG1661

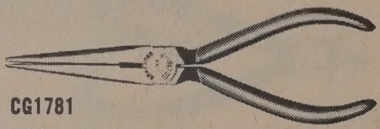
(Cross Coil Spring)

6″ DB List ea. 4.30

CG1671

(No cutters)

6″ G List ea. 3.00



CG1781

(With cutters)

EXTRA LONG CHAIN NOSE PLIERS

Jaw length reaches 2-3/4″, narrow pointed nose.

7″ O List ea. 4.80

C-CG1781

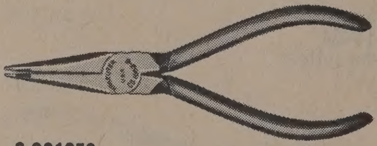
(Cross Coil Spring)

7″ O List ea. 5.10

CG1771

(No cutters)

7″ LB List ea. 3.60

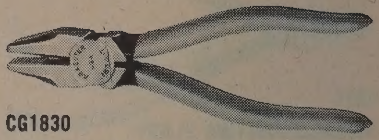


C-CG1653

(With Tip Cutter)
(Cross Coil Spring)
GRIP WIRE AT TIP OF NOSE
FORM AND CUT (NOT A FLUSH CUTTER)

Designed to reach into tight spots and grip or cut small wires. Milled tip.

5″ O List ea. 4.80

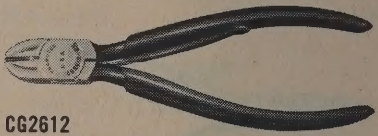


CG1830

ELECTRICIANS' SIDE CUTTING PLIERS

For electric wiring and repair work.

		List ea.
4″	R	3.00
5″	DB	3.50
6½″	O	3.50
7″	LB	4.00
8″	DB	4.50

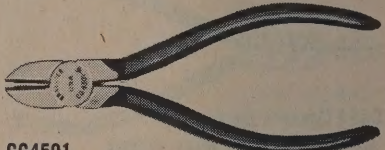


CG2612

WIRE STRIPPING DIAGONAL CUTTING PLIERS

Strips fine wire. Spring return handles.

6½″ LB List ea. 4.98



CG4501

DIAGONAL "OBLIQUE" CUTTING PLIERS

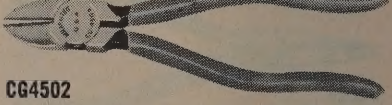
For close cutting in radio, TV, telephone work.

		List ea.
4½″	DB	3.24
5″	O	3.50
6″	R	4.00

C-CG4501

(Cross coil spring)

4½″	DB	3.54
5″	O	3.80
6″	R	4.30



CG4502

7-IN. DIAGONAL CUTTING PLIERS WITH FULL-FASHIONED HANDLES

High leverage and comfort for continuous cutting.

7″ DB List ea. 4.60

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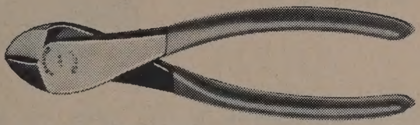
kraeuter

TOOLS FOR TECHNICIANS

FOR OVER
100 YEARS
THE FINEST IN
HAND TOOLS

INDUSTRIAL PLIERS

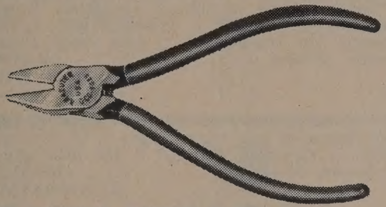


CG4610

HEAVY DUTY DIAGONAL CUTTING PLIERS

Added leverage for easier cutting.

5"	LB	List ea. 4.00
7"	G	List ea. 4.00



C-CG4625

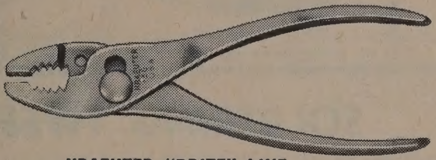
NEEDLE POINT DIAGONAL CUTTING PLIERS

Narrow tapered nose for close cutting. Cross Coil Spring in handle.

5"	R	List ea. 4.98

COMBINATION PLIERS

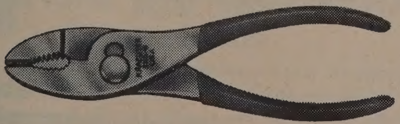
Drop forged from special analysis steel, KRAEUTER slip joint pliers have sharp, milled teeth and notches for better gripping and wire cutting. Knurled handles are shaped to fit the hand comfortably and provide maximum leverage. Studs and nuts are machined from solid bar steel and carefully hardened for longer wear.



KRAEUTER "BRITE" LINE

Fine quality slip joint pliers in 2 different finishes.

			List ea.
056	6"	Satin Chrome Plated Finish	.98
	8"	Satin Chrome Plated Finish	1.24
156	6"	Chrome Plated Finish	1.40
	8"	Chrome Plated Finish	1.75
	10"	Chrome Plated Finish	2.15

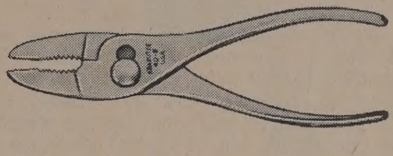


GRIPTITE COMBINATION PLIERS

NICKEL PLATED — "CG" VINYL CUSHION GRIP HANDLES

Designed for heavy duty service.

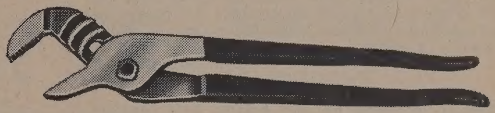
		List ea.
CG356—5½"	2 position slip joint adjustments	2.80
CG356—6"	2 position slip joint adjustments	2.80
CG356—8"	3 position slip joint adjustments	3.59
CG356—10"	3 position slip joint adjustments	4.55



THIN NOSE COMBINATION PLIERS

Tapered thin jaws for confined areas.

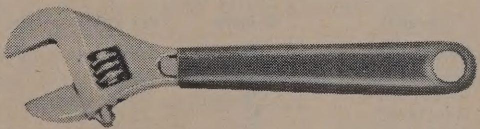
40—6"	Nickel Plated	List ea. 2.20



TONGUE-N-GROOVE JOINT PLIERS
POLISHED FACES — "CG" VINYL CUSHION GRIP HANDLES

Parallel adjustments make these pliers extremely versatile with maximum utility, leverage and strength. Furnished with Cushion Grip handles.

			List ea.
CG707—6-1/2"	**G**	Max. Jaw Capacity 1"	3.00
CG710—10"	**R**	Max. Jaw Capacity 1-1/2"	3.74
CG714—14"	**O**	Max. Jaw Capacity 2-13/16"	4.50

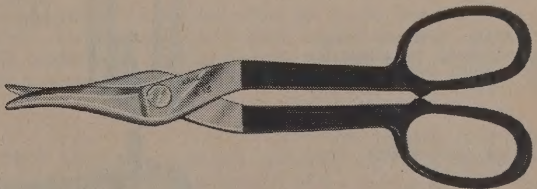


ALLOY STEEL ADJUSTABLE WRENCH

THIN PATTERN—SMOOTH ACTION—CHROME PLATED

With "CG" VINYL Cushion Grip.

		List ea.
CG31—4"	R	2.84
CG31—6"	DB	2.84
CG31—8"	O	3.70
CG31—10"	G	4.64
CG31—12"	LB	6.50
CG31—15"	R	9.50



COMBINATION PATTERN SNIP

Cuts straight, curved shapes in metal, etc. Polished Blades, Hard Black Enameled Handles.

K13—7"	Pocket Size, Cut 2"	List ea. 2.50

THIS IS ONLY A PARTIAL LISTING OF KRAEUTER TOOLS . . . SEND FOR CATALOG

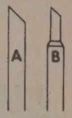
ORYX PRECISION SOLDERING INSTRUMENTS

LOW-VOLTAGE, MINIATURE PRODUCTION SOLDERING IRONS

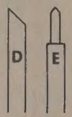
World's smallest, lightest instruments for close-quarter precision soldering of printed circuits, miniature component parts, semiconductors, and fine assemblies. Feather weights of ¼ to 1 ounce virtually eliminate hand fatigue. High efficiency, quick heat recovery, and cool handles are achieved by generating all heat within the tips. Manufactured by the Oryx Electrical Laboratories, Ltd. of England (protected by U.S. patents).

OTHER POPULAR LOW-VOLTAGE IRONS:

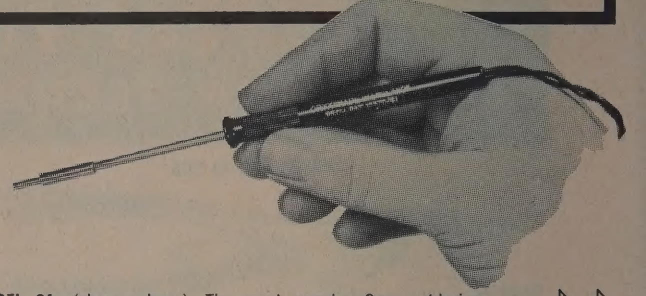
MODEL 6—The most precise Oryx soldering tool. Fixed 1/16" solid nickel tip. Solders hair-spring movements, semiconductors, rf coils, fine assemblies. Nominal temperature 625° F. Weighs only ¼ oz. 6-volts, 6-watts .... Net **$5.45** ea.
(12 or more **$4.95** ea.)

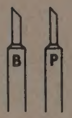


MODEL 9-6—Similar to model 6A, but greater heat capacity. Weighs ¼ ounce. Nominal temperature 750°F. Furnished with 5/32" A tip. Also takes B tip. 6-volts, 8.3 watts. Also available for 12 volts (model 9-12) and 24 volts (model 9-24).
Net **$5.45** ea.
(12 or more **$4.95** ea.)

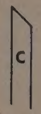


MODEL 11-6—Special model for high-temperature solders. Temperature 835° F. Weighs ¼ oz. Furnished with 5/32" solid nickel D tip. Also takes new 3/32" E tip. Nickel tips provide long life at high temperatures. 6-volts, 10-watts ....Net **$6.95** ea.
(12 or more **$6.45** ea.)

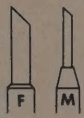




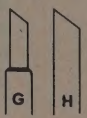
MODEL 6A—(shown above). The most popular Oryx soldering iron. Designed for printed circuit soldering. Weighs only ¼ oz. Nominal temperature 690° F. Furnished with 3/32" removable B tip. Also takes A tip, and new 1/16" P tip (with shorter tip life). 6-volts, 6-watts ....Net **$5.45** ea.
(12 or more **$4.95** ea.)



MODEL 12-6—Standard model for production soldering of radio, TV, radar, telephone, and switchboard assemblies. Weighs ½ oz. Nominal temperature 700° F. Furnished with 3/16" C tip. 6-volts, 12-watts. Also available for 12 volts (model 12-12) and 24 volts (model 12-24) ....Net **$5.45** ea.
(12 or more **$4.95** ea.)



MODEL 18-6—A heavy-duty production iron equal in performance to conventional 80 watt irons. Weighs ¾ oz. Nominal temperature 800° F. Furnished with 3/16" F. tip. Also takes new 3/32" M tip. 6-volts, 18-watts ....Net **$7.50** ea.
(12 or more **$7.05** ea.)



MODEL 25-12—Heavy-duty, high-temperature iron for large loads. Weighs 1 oz. Develops nominal tip temperature of 1000° F. Furnished with 3/16" G tip with solid nickel end. Also takes H tip. 12-volts, 25-watts ....Net **$8.00** ea.
(12 or more **$7.55** ea.)

REPLACEMENT TIPS for low-voltage soldering irons. All tips nickel plated.

Type	Material	Diameter	Use with	Net ea.
A	Copper alloy	5/32"	9-6,6A	$ .50
B	Copper alloy	3/32"	6A, 9-6	.50
C	Copper alloy	3/16"	12-6	.50
D	Solid nickel	5/32"	11-6	1.80
E	Solid nickel	3/32"	11-6	1.80

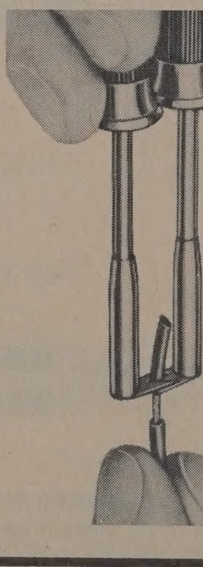
Type	Material	Diameter	Use with	Net ea.
F	Copper alloy	3/16"	18-6	$1.25
G	Solid nickel end	3/16"	25-12	1.85
H	Copper alloy	¼"	25-12	2.35
N	Copper alloy	1/8"	TW-12	1.25
M	Solid nickel end	3/32"	18-6	1.85
P	Copper alloy	1/16"	6A	.60

THERMAL WIRE STRIPPER

Reaches those hard-to-get-at spots. Ideal for repair and prototype work where a bench stripper is unsuitable. Miniature tweezer design.

- **STRIPS** Nylon, rubber, PVC, Kel-F, Polystyrene, and similar medium-temperature insulations to 1/8" diameter.
- **STAINLESS STEEL** stripping heads are abrasive-tumbled to eliminate sharp edges which might damage conductors. Operating temperature 400° F.
- **LOW COST**—brings thermal strippers within the reach of more employees.

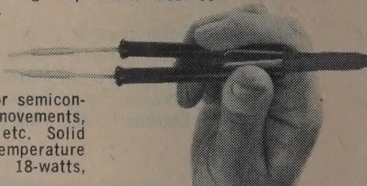
Furnished with 4½' cord. For 6-volts, AC or DC, 12-watts.



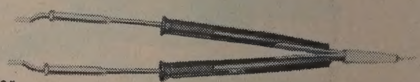
Net **$14.95** ea.
(12 or more, $14.45 ea.)
MODEL ST-6

SOLDERING TWEEZERS

Unique tools with heating elements in each arm. Speed soldering time by heating both sides of joint. Tweezer action conducts heat quickly into joint. Low-voltage operation assures safety to circuitry and to operator.



MODEL TW-6—Precision model for semiconductors, solid state, hairspring movements, miniature relays, thermostats, etc. Solid nickel 3/32" fixed tips. Nominal temperature 550° F. Weighs 1 oz. 6-volts, 18-watts, AC or DC.



MODEL TW-12
Heavy duty model for regular production-line soldering of radio, TV, radar, telephone, and switchboard assemblies. Furnished with replaceable 1/8" N tips. Nominal temperature 625° F. Weighs 2 oz. 12-volts, 25-watts, AC or DC.

Either model, complete with 4½' cord .... Net **$14.95** ea.
(12 or more **$14.45** ea.)

Spare tip N for model TW-12 ....Net **$1.25** ea.

ACCESSORIES

TW-6E REPLACEMENT ASSEMBLY—Includes element, tip, and bushing (for one TW-6 tweezer arm only)..Net **$5.30** ea.

ST-6E REPLACEMENT ASSEMBLY—Includes element, blade, and bushing (for one ST-6 stripper arm only)...Net **$5.30** ea.

S-1 SOLDERING IRON STAND ....Net **$1.50** ea.

6-VOLT TRANSFORMER—Model 54203-6V. Output 6-volts, 18-watts, For use with all 6-volt Oryx tools. Operates on 115 V. AC. With 4½' cord set — ready to plug in. Clip-holder on top for iron ....Net **$5.50** ea.

12-VOLT TRANSFORMER—Model 5420-12V. Output 12-volts, 25-watts. For all 12-volt Oryx tools. Operates on 115 V. AC. With 4½' cord set—ready to plug in. Net **$6.45** ea.

TAPPED TRANSFORMER—Output 4½ to 6-volts in ½ v. steps. For exact temperature control on all ORYX 6-volt tools. Operates on 115 V. AC—ready to plug in. Model 54204-T...Net **$6.50** ea.

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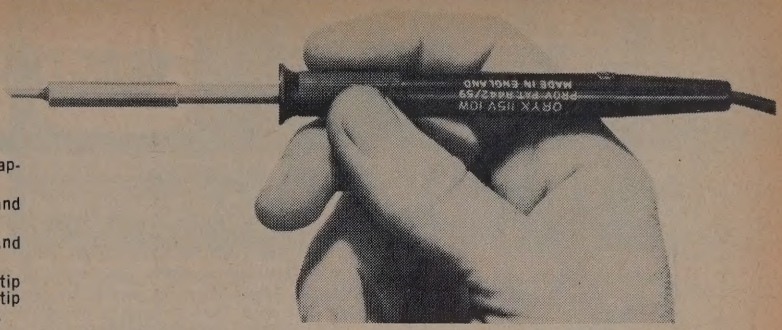
PLUG-IN 115 V. MINIATURE IRONS



- **NO TRANSFORMER.** Standard models furnished with U/L approved 4½′ cord set. Ready to plug in!
- **COMPACT DESIGN** for light production, laboratory, and service use. Irons weigh only 1 oz., plus cord.
- **HEAT QUICKLY** (about 1 minute) to 675° F. (10 W.) and 725° F. (15 W.)
- **REPLACEABLE TIPS.** 10 W. model furnished with 3/32″ J tip (also takes K tip). 15 W. model furnished with 3/16″ K tip (also takes L, Q, and R tips and solder cups listed below).

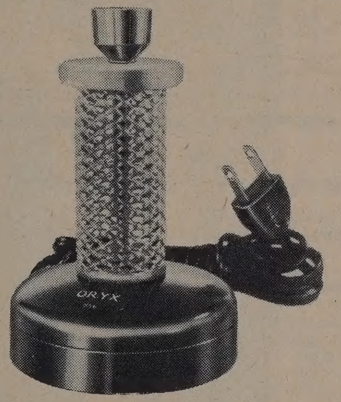
MODEL 115-10J*—Complete with J tip and cord set. Ready to plug in	Net **$6.95** ea.	(12 or more **$6.45** ea.)
MODEL 115-15K*—Complete with K tip and cord set. Ready to plug in	Net **$6.95** ea.	(12 or more **$6.45** ea.)
MODEL 115-10X (no tip)—Complete with cord set. Ready to plug in. Less tip	Net **$5.50** ea.	(12 or more **$5.00** ea.)
MODEL 115-15X (no tip)—Complete with cord set. Ready to plug in. Less tip	Net **$5.50** ea.	(12 or more **$5.00** ea.)
MODEL 115-10J-3—Complete with J tip and 3-wire grounding-type cord. Less plug	Net **$6.95** ea.	(12 or more **$6.45** ea.)
MODEL 115-15K-3—Complete with K tip and 3-wire grounding-type cord. Less plug	Net **$6.95** ea.	(12 or more **$6.45** ea.)
MODEL 115-10X-3 (no tip)—With 3-wire grounding-type cord. Less plug and tip	Net **$5.50** ea.	(12 or more **$5.00** ea.)
MODEL 115-15X-3 (no tip)—With 3-wire grounding-type cord. Less plug and tip	Net **$5.50** ea.	(12 or more **$5.00** ea.)

*Approved by Department of Building and Safety, City of Los Angeles.

REPLACEMENT TIPS AND ELEMENTS for 115 V. irons. All tips are nickel plated.

Type	Material	Diameter	Use with	Net ea.
J	Copper alloy	3/32″	115-10	$1.55
K	Copper alloy	3/16″	115-10, 115-15	1.70
L	Copper alloy	1/4″	115-15	2.25
Q	Solid nickel end	3/32″.	115-15	1.85
R	Solid nickel end	1/16″	115-15	$1.85
115-10E	Replacement element for model 115-10			3.60
115-15E	Replacement element for model 115-15			3.60

NEW! MINIATURE SOLDER POT



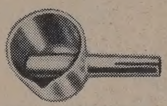
A quick-heating miniature solder pot for production, service, and laboratory use.

- HEATS to approximately 550° F. in just 4 minutes. No costly production-line delays waiting for pot to heat.
- PLUGS IN directly to 115 V. AC or DC (SP-115). Also furnished in 3-wire grounding model less plug (SP-115-3).

For tinning wires and component leads; heating waxes and potting compounds. 2½ cc. capacity. Shielded to prevent operator contact with heating element.

SP-115—Complete with cord set. Ready to plug in. Net **$11.95** ea.
SP-115-3—With 3-wire grounding-type cord. Less plug. Net **$11.95** ea.
(Either model **$11.45** ea. in lots of 12 or more)

MINIATURE SOLDER CUPS



An inexpensive, fast way to melt small quantities of solder for tinning wires and component leads. Equally useful in the laboratory or on the production line. Melts a full solder load in just 5 minutes. Can also be used for heating potting compounds, waxes, and shellacs.

Cups are used with Oryx type 18-6 or 115-15 soldering irons, and can be attached or removed in a few seconds. Cup capacity is 2½ cc. Pouring lips are provided for ladling purposes (such as pouring solder into a lug).

Operating temperature is 550-600° F. By varying voltage applied to soldering iron, continuous control of temperature is available. Covered cups can be used as microminiature ovens.

SC-18 SOLDER CUPS (use with Oryx model 18-6 soldering iron) Net **$2.25** ea.

SC-115 SOLDER CUPS (use with Oryx model 115-15 soldering iron) Net **$2.25** ea.

High-quality 60/40 solder slugs for use in ORYX pots and cups. Weigh 1 oz. each. Net **$.30** ea.

THE ORYX STORY

(Reading time 75 seconds)

FIVE REASONS WHY PRODUCTION MANAGERS CHOOSE ORYX SOLDERING IRONS

1. MINIATURE SIZE

ORYX soldering irons are small and easy to handle as pencils. Their miniature size helps to speed any precision soldering operation. Damage to adjacent components is eliminated. If you can see it, you can solder it with ORYX!

2. FEATHER WEIGHT

A standard, utility-type 100 watt soldering iron weighs about 2 lbs. The so-called pencil-type irons typically weigh between 2 and 6 ounces. ORYX soldering irons, by contrast, weigh as little as ¼ ounce. This true feather weight virtually eliminates hand fatigue. Workers can turn out many more joints per hour with fewer rejects.

3. HIGH EFFICIENCY

All ORYX soldering irons utilize a unique element-in-the-tip design principle. By generating the heat *within* the tip, far fewer watts are needed to achieve results comparable to much larger irons. This principle also provides quicker heat recovery because the heat path between element and joint is so very short. The need for large insulating handles is eliminated.

4. SAFETY

ORYX low-voltage irons are polarized, making it possible to directly ground the shaft, tip, and one side of the heating element. This provides a maximum degree of safety, both to the operator and to delicate circuitry. The ORYX line of 115 V. plug-in models includes 3-wire styles whose shafts and tips may be connected to ground for safety.

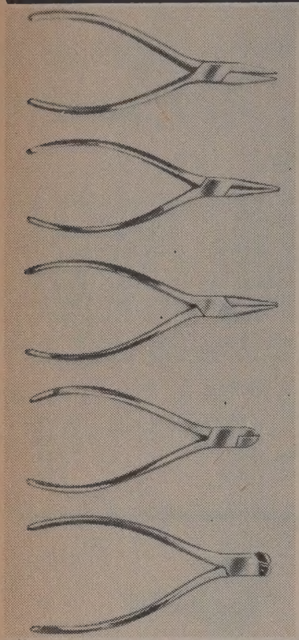
5. ECONOMY

A standard ORYX low-voltage industrial iron costs less than $5 in production quantities.

THE ORYX COMPANY **National Sales Agency, Sherman Oaks, California**

TELVAC

ELECTRONIC ASSEMBLY TOOLS



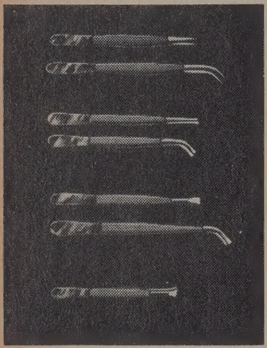
PRECISION PLIERS

- FINEST BOX JOINTS
- INDIVIDUALLY ALIGNED
- CHOICE OF 3 FINISHES

Highest quality precision tools for exacting electronic work. All models feature box joints and individual, accurate adjustment for the most intricate assembly operations. Standard production size 5¼ to 5¾". Miniature size 4¼ to 4¾" with unusually small, fine heads. Must be seen to be appreciated. Five styles and three finishes available. Standard finish is overall polished tool steel. Type A finish is overall bright nickel plate. Type B has nickel-plated heads with vinyl cushion handle grips. Made in West Germany by Old World craftsmen to ORYX CO. specifications. Individually packaged in VPI envelopes to MIL-I-3420A.

STANDARD PRODUCTION SIZE 5¼ - 5¾"			MINIATURE SIZE 4¼ - 4¾"			PRICES, EITHER SIZE	
Cat. No.	Style	Finish	Cat. No.	Style	Finish	Net. ea.	10 or More
11	Flat Nose	Polished	10	Flat nose	Polished	$2.85	$2.60
11A	Flat Nose	Nickel plate	10A	Flat nose	Nickel plate	3.10	2.80
11B	Flat nose	Vinyl grips	10B	Flat nose	Vinyl grips	3.10	2.80
21	Round nose	Polished	20	Round nose	Polished	2.85	2.60
21A	Round nose	Nickel plate	20A	Round nose	Nickel plate	3.10	2.80
21B	Round nose	Vinyl grips	20B	Round nose	Vinyl grips	3.10	2.80
31	Chain nose	Polished	30	Chain nose	Polished	2.85	2.60
31A	Chain nose	Nickel plate	30A	Chain nose	Nickel plate	3.10	2.80
31B	Chain nose	Vinyl grips	30B	Chain nose	Vinyl grips	3.10	2.80
41	Diagonal cutter	Polished	40	Diagonal cutter	Polished	3.85	3.50
41A	Diagonal cutter	Nickel plate	40A	Diagonal cutter	Nickel plate	4.18	3.80
41B	Diagonal cutter	Vinyl grips	40B	Diagonal cutter	Vinyl grips	4.18	3.80
51	Flush end cutter	Polished	50	Flush end cutter	Polished	3.85	3.50
51A	Flush end cutter	Nickel plate	50A	Flush end cutter	Nickel plate	4.18	3.80
51B	Flush end cutter	Vinyl grips	50B	Flush end cutter	Vinyl grips	4.18	3.80

All cutters available with return spring on special order. Add X to catalog number and 25c to net price.



ASSEMBLY TWEEZERS

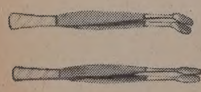
- VINYL CUSHION FINGER GRIPS
- 6 END STYLES
- STRAIGHT OR ANGLED

High quality industrial assembly tweezers with vinyl cushion finger grips to reduce operator fatigue. Bright nickel-plated. Made in West Germany to ORYX CO. specifications. Available in stainless steel and in other lengths and styles on special order.

Cat. No.	End Style	Configuration	Length	Net ea.	10 or more
102	Pointed	Straight	4"	$1.05	$ .95
104	Pointed	Straight	3¼"	.90	.81
112	Pointed	Angled	4"	1.35	1.22
202	Round	Straight	4"	1.35	1.22
204	Round	Straight	3¼"	.90	.81
212	Round	Angled	4"	1.35	1.22
302	Flat	Straight	4"	1.05	.95
304	Flat	Straight	3¼"	.90	.81
312	Flat	Angled	4"	1.35	1.22
402	Oblique	Straight	4"	1.05	.95
404	Oblique	Straight	3¼"	.90	.81

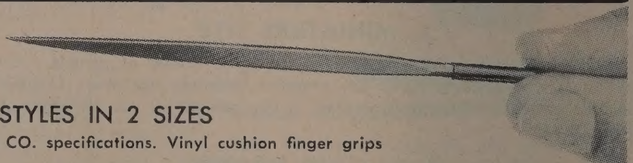
SEMICONDUCTOR TWEEZERS

Smooth, polished ends. No serrations. Specially designed for handling germanium and silicon wafers without breaking or scratching polished surfaces. Vinyl cushion finger grips.



Cat. No.	End Style	Configuration	Length	Net ea.	10 or More
502	Large oblong	Straight	4"	$1.35	$1.22
512	Large oblong	Angled	4"	1.35	1.22
602	Medium oblong	Straight	4"	1.35	1.22
612	Medium oblong	Angled	4"	1.35	1.22

PRECISION FILES



- FINEST SWISS QUALITY
- VINYL CUSHION FINGER GRIPS
- 8 STYLES IN 2 SIZES

High-quality precision needle files for delicate work. Made in Switzerland to ORYX CO. specifications. Vinyl cushion finger grips reduce fatigue. Available in other lengths and cuts on special order.

Cat. No.	Style	Length	Cut Symbol
1000	Round	4"	○
1100	Round	6¼"	
1001	Square	4"	□
1101	Square	6¼"	
1002	Triangular	4"	△
1102	Triangular	6¼"	
1003	Knife	4"	▽
1103	Knife	6¼"	

Net price ea.—4" styles, $.59 (10 or more, $.53)—6¼" styles, $.72 (10 or more, $.65)

Cat. No.	Style	Length	Cut Symbol
1004	Equalling	4"	▯
1104	Equalling	6¼"	
1005	Oval	4"	⬯
1105	Oval	6¼"	
1006	Flat	4"	▯
1106	Flat	6¼"	
1007	Half round	4"	◖
1107	Half round	6¼"	

Kit of 8 files in case—4" styles, $4.75—6¼" styles, $5.75.

THE ORYX COMPANY **National Sales Agency, Sherman Oaks, California**

DON'T BE "SWITCHED" INSIST ON SIDCO

- HIGHEST INDUSTRIAL QUALITY
- HIGHEST TEMPERATURE
- LOWEST COST

SIDCO®

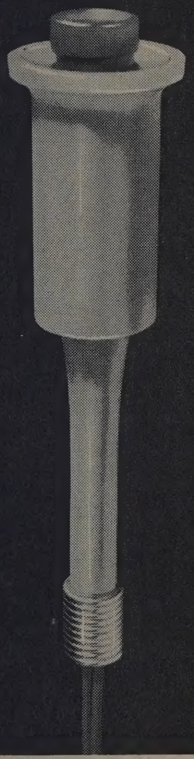
INTERCHANGEABLE INDUSTRIAL SOLDERING TIPS

Manufactured by Electronic IDEAS Incorporated, Wyncote, Penna.

PATENT NO. 2,997,684 (UL) MADE IN U.S.A. / Meets Spec. W-S-570a / Choice of major Missile & Industrial Mfrs.

FAMOUS KISS 'N COOL HANDLES

SIDCO COOL!
LIGHTWEIGHT
SIDCO COOL!
EASY TO HANDLE
SIDCO COOL!



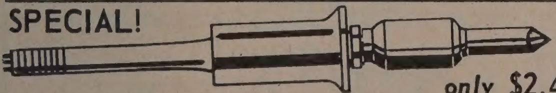
Special heat stabilized Nylon—will not crack or break (if dropped). Boilable—dust repellent—Patented—self adjusting spring socket holds tip in perfect contact. Cannot loosen. KC 1200—$1.44 Complete *with* cord. Ivory Standard (Also available in other colors on quantity orders).

NEW!

THE WORLD'S ONLY INDICATING SOLDERING IRON the SIDCO "SENTRY"

Built-in lamp gauges tip temperature and wattage. Lights brightly on 50 W.—dimly on 40 W. Plus same outstanding features as on standard SIDCO handles. KC 1200B—Cool Pastel Blue—only $1.98, Complete *with* cord.

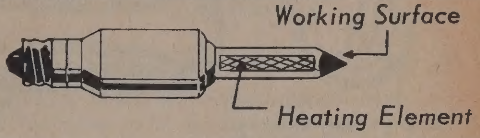
SPECIAL!

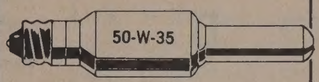
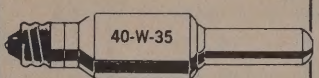
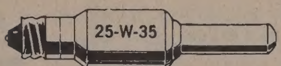
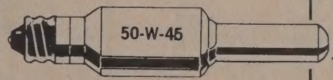
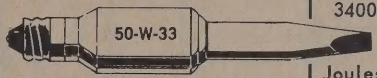
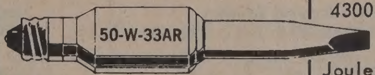
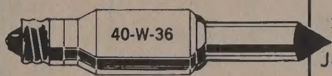
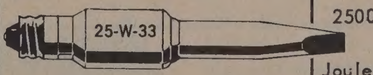
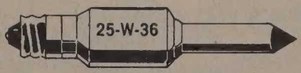


COMPLETE SOLDERING TOOL *only* $2.44 *complete with tip*

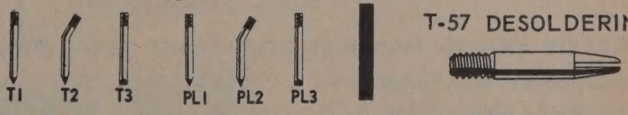
(KC-1200 And 25W36)

Super efficient heat transfer-heating element located right at working surface. Thermal time constant approx. 80 seconds.



DESCRIPTION	MODEL	Heat Capacity	Heat Trans. Rate	Unit Price (Net)
50 watt, plated steel body tapped for 1/8" tiplet; 1¼" long x 3/8" diam.	 50-W-35	3800 Joules	120 watts (with T-1 tiplet)	$1.98
40 watt, plated steel body tapped for 1/8" tiplet; 1¼" long x 3/8" diam.	 40-W-35	3300 Joules	100 watts (with T-1 tiplet)	$1.20
25 watt, plated steel body tapped for 1/8" tiplet; 1-1/8" long x 5/16" diam.	 25-W-35	1750 Joules	60 watts (with T-1 tiplet)	$1.00
Same as 50W35, except tapped for 3/16" tiplet	 50-W-45	4500 Joules	240 watts (with T-57 tiplet)	$1.98
50 watt chisel tip, premium quality, heavy iron plated, solid copper; 1-5/8" long x 3/8" diam.	 50-W-33	3400 Joules	970 watts	$2.40
50 watt chisel tip, solid iron, plated, 1-5/8" long x 3/8" diam.	 50-W-33AR	4300 Joules	80 watts	$1.60
40 watt pyramid tip, solid iron, plated; 1-1/8" long x 3/8" diam.	 40-W-36	3000 Joules	80 watts	$1.20
25 watt chisel tip, unplated tellurium copper; 1-5/8" long x 5/16" diam.	 25-W-33	2500 Joules	450 watts	$1.00
25 watt pyramid tip, unplated tellurium copper; 1-1/8" long x 5/16" diam.	 25-W-36	1400 Joules	450 watts	$1.00

1" x ⅛" dia. — TIPLETS — 3/16"



Chemically treated- positively will not freeze or bind. Pure copper—pre-tinned PRICES: T-Series .16 each; PL Series (Iron & Silver plated) will last more than 10 times as long, .48 each.

ALL PRICES SHOWN ARE USERS NET

O.E.M.'s — contact your distributor or nearest warehouse for special quantity discounts. Iron Plated Tips available for all makes.

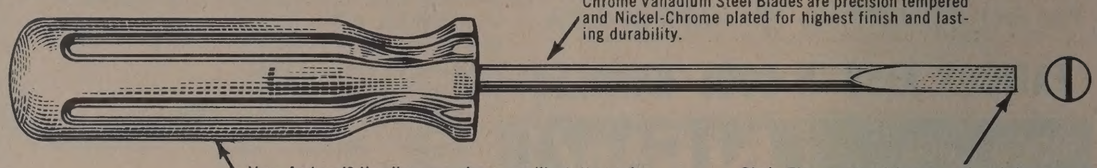
SIDCO: Narberth, Pa., Chicago 25, Ill., Box 1134, Canoga Park, Calif. (213) 340-7994.
In Canada: William Cohen, Limited, 8900 Park Ave., Montreal; Export: Singer Products Company, Inc., 95 Broad St., New York 4, N.Y. (212) WH 4-8700.

VACO®
PRODUCTS CO.
Chicago 11, Illinois

Precision Ground, Unconditionally Guaranteed

SCREW DRIVERS • NUT DRIVERS • HAND TOOLS

- **Nickel-Chrome Plated #6150 Steel Blades will not rust or corrode**
- **Comfordome Slo-Burn S/B® Amberyl® Handles are easy on the hands**



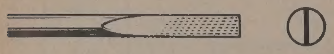
Chrome Vanadium Steel Blades are precision tempered and Nickel-Chrome plated for highest finish and lasting durability.

Vaco Amberyl® S/B® Handles bear the Underwriters' Laboratories Re-examination Service Marker.

Vaco Amberyl® Handles are a dense, resilient, thermal plastic material that is break-proof, shock-proof, fire-safe, non-absorbent and therefore impervious to most acids and alkalies.

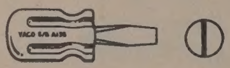
Blade Tips are precision ground and designed to perfectly fit the screw slot.

ROUND BLADE



1/8" Cabinet Style—Round Blades

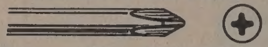
Stock Number	Blade Diameter and Length	Price
A 216-4	1/8"x4"	$ .70
A 216-6	1/8"x6"	.72
A 216-8	1/8"x8"	.78
A 216-10	1/8"x10"	.86
3/16" Cabinet Style—Round Blades		
A 316-4	3/16"x4"	.92
A 316-5	3/16"x5"	.98
A 316-6	3/16"x6"	1.02
A 316-8	3/16"x8"	1.08
A 316-10	3/16"x10"	1.18
1/4" General Service—Round Blades		
A 416-4	1/4"x4"	1.12
A 416-5	1/4"x5"	1.14
A 416-6	1/4"x6"	1.18
A 416-8	1/4"x8"	1.24
A 416-10	1/4"x10"	1.36
5/16" Heavy Duty—Round Blades		
A 516-6	5/16"x6"	1.50
A 516-8	5/16"x8"	1.58
A 516-10	5/16"x10"	1.78



Stubbys

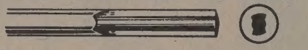
A 132	1/4"x1-1/4"	.84
A 135	5/16"x1-3/4"	1.10

PHILLIPS DRIVERS



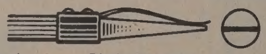
Stock Number	Point No.	Blade Diameter and Length	Price
P 01	0	1/8"x2-1/2"	$ .74
P 1	1	3/16"x3"	1.00
P 2	2	1/4"x4"	1.26
P 3	3	5/16"x6"	1.72
P 5 (Stub)	2	1/4"x1-3/4"	1.10
P 6 (Stub)	1	3/16"x1-1/4"	1.00
P 12 (Pocket Clip)	1	1/8"x2-1/2"	.76

CLUTCH HEAD DRIVERS



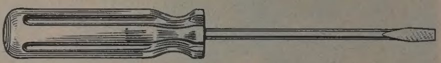
Stock Number	Bit Point Diameter and Blade Length	Price
CH 43	1/8"x3"	$1.30
CH 54	5/32"x4-1/4"	1.30
CH 64	3/16"x4-1/4"	1.30
CH 86	1/4"x6"	1.72
CH 106	5/16"x6"	2.22
	Stub Styles	
CH 51	5/32"x1-1/2"	1.16
CH 61	3/16"x1-1/2"	1.16

SCREW HOLDING DRIVERS



Stock Number	Blade Diameter and Length	Price
OK 23	1/8"x3"	$ .98
OK 24	1/8"x4"	1.02
OK 26	1/8"x6"	1.08
OK 28	1/8"x8"	1.12
OK 34	3/16"x4"	1.30
OK 36	3/16"x6"	1.36
OK 38	3/16"x8"	1.42

BULL DRIVERS® FOR EXTRA POWER

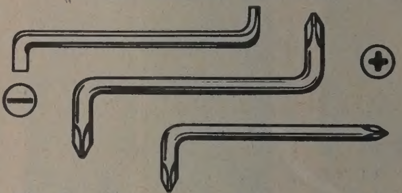


A man's size driver for a man's size job. 35% larger handle provides 35% more power and 100% more comfort.

Round Blade (Keystone Blade)

Stock Number	Blade Diameter and Length	Price
BD 144	1/4"x4"	$1.48
BD 146	1/4"x6"	1.58
BD 156	5/16"x6"	1.98
BD 158	5/16"x8"	2.08
Phillips Blade		
BD 122	#2 Phillips	1.48
BD 133	#3 Phillips	1.98

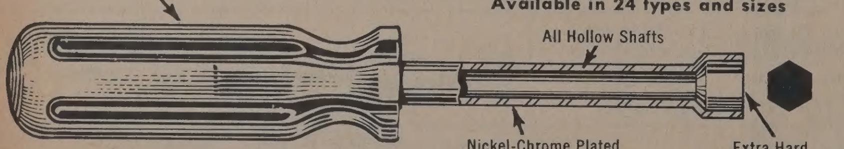
OFFSET SCREW DRIVERS



Stock No.	Type	Blade	Price
VO 1	Regular	5/32" x 3"	$ .48
VO 2	Regular	1/4" x 4"	.78
P 120	Phillips	#1 point one end, #2 point other end	.68
P 111	Phillips	#1 point both ends	.54
P 222	Phillips	#2 point both ends	.60

VACO ALL HOLLOW SHAFT NUT DRIVERS

Available in 24 types and sizes

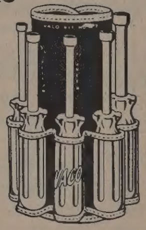


Comfordome Slo-Burn S/B® Handles

All Hollow Shafts

Nickel-Chrome Plated #6150 Steel Shafts

Extra Hard Long-Wearing Sockets



K-7 Self-Standing Kit ....$8.60 Includes 7 nut drivers (3" shaft lengths) each in own pocket marked for size and color.

COLOR CODED HANDLES FOR QUICK IDENTIFICATION

Standard 3" Shaft Lengths

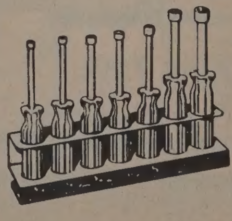
Stock No.	Hex Size	Overall Length	Color Key	Price
S 6	3/16"	6-5/8"	Black	$ .96
S 8	1/4"	6-5/8"	Red	.96
S 10	5/16"	6-5/8"	Yellow	.96
S 11	11/32"	6-5/8"	Green	.96
S 12	3/8"	6-5/8"	Blue	.96
S 14	7/16"	7"	Brown	1.18
S 16	1/2"	7"	Orange	1.18

ALSO AVAILABLE

Stubby sizes 1/4", 5/16", 3/8"

Odd sizes 7/32", 9/32"

Extra Large sizes 9/16", 5/8"



5-700 Bench Stand ....$8.00 All metal for permanent attachment to bench or wall. 7 drivers.

© U.C.P., Inc.

VACO®
PRODUCTS CO.
Chicago 11, Illinois

Precision Ground, Unconditionally Guaranteed

SPECIALTY SCREW DRIVERS • KITS

- Nickel-Chrome Plated #6150 Steel Blades will not rust or corrode
- Comfordome Slo-Burn S/B® Amberyl® Handles are easy on the hands

BERYLLIUM COPPER DRIVERS

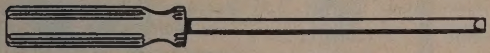
Round Blade, Non-Spark, Non-Magnetic

Stock Number	Blade Diameter and Length	Price
VB 26	1/8″ x 6″	$1.34
VB 210	1/8″ x 10″	1.48
VB 38	3/16″ x 8″	2.36
VB 46	1/4″ x 6″	2.94
VB 48	1/4″ x 8″	3.24

INSULATED BLADE SCREW DRIVERS

VR 241	1/8″ x 4″	.84
VR 261	1/8″ x 6″	.96
VR 281	1/8″ x 8″	1.00
VR 361	3/16″ x 6″	1.12
VR 381	3/16″ x 8″	1.16

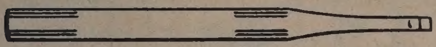
NON-METALLIC RADIO AND TV ALIGNERS



Bone Fiber Blade

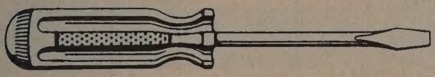
AT 55	5/32″ x 5″	.74
AT 510	5/32″ x 10″	.86

NON-MAGNETIC METAL TIP RADIO AND TV ALIGNER



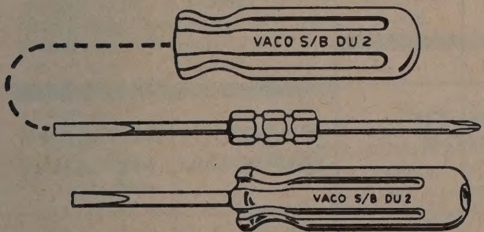
Stock Number	Body Size	Bit Diameter	Capacitance	Price
AT 45	3/8″ x 5-1/2″	3/16″	Slight	$ .60

NEON LIGHT SCREW DRIVERS



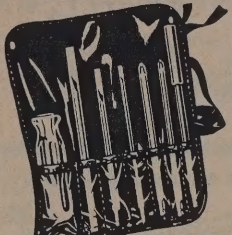
Stock Number	Blade Diameter and Length	Price
AN 44	1/4″ x 4″	$1.78
AN 2 (Pocket Clip)	1/8″ x 3″	1.08

DUPLEX "REVERSIBLE" DRIVERS



Stock Number	Blade Size and Type	Price
DU 2	No. 1 Phillips, One End 3/16″ Regular, Other End	$1.46
DUH 4	No. 2 Phillips, One End 1/4″ Regular, Other End	1.76
DUP 12	No. 1 Phillips, One End No. 2 Phillips, Other End	1.94

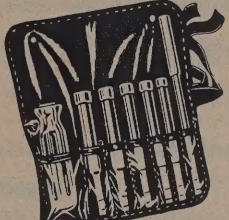
VACO RADIO and TV KITS



ZBX 51

ZBX 51 Screw Driver Kit.........$5.22

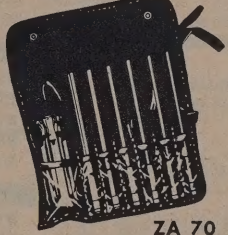
A fine, all-purpose kit of interchangeable regular and Phillips blades that fit same handle. 6″ extension makes 10 combinations possible. In durable leatherette bag.



ZSX 61

ZSX 61 Nut Driver Kit............$6.30

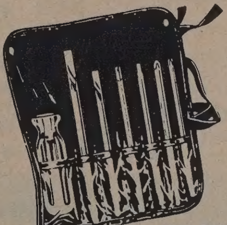
A most versatile and complete hexagon wrench kit for radio, television or any other work requiring speedy nut setting. All sockets are super hard for maximum utility and long life. 6″ extension makes 10 blade lengths possible. In handy leatherette tool roll.



ZA 70

ZA 70 Allen Driver Kit...........$5.12

This useful kit consists of 6 hexagon drivers, handle and bag. Will service hexagon recessed opening screws Nos. 4, 5, 6, 8, 10, 1/4″, 5/16″, and 3/8″. Each bit is extra long and may ground back as wear occurs.



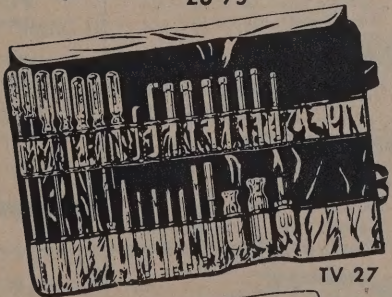
ZU 75

ZU 75 Universal Driver Kit........$5.22

Here is a kit that is universal in its applications since it will serve all three types of the most popular screws in use today—regular slotted, Phillips, and clutch head. All popular size blades are included—3/16″, and 1/4″ for regular slotted screws; No. 1 and No. 2 Phillips; 5/32″ x 3/16″ clutch head.

27-Piece TV and Radio Kit......$26.42

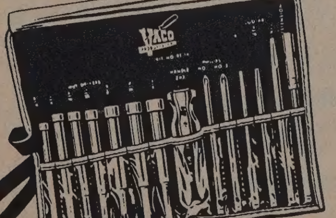
NO. TV 27 KIT—Contains practically every hand tool necessary for television and radio work, plus extra pockets for pliers and other personal tools according to individual preferences. Contains one each of the following: ZH 1 medium duty handle; ZH 2 heavy duty handle; ZX 56 extension; A 132 1/4″ stub; 1/4″, 3/16″, 1/8″ regular bits; No. 1 Phillips and No. 2 Phillips bits; 3/16″, 1/4″, 5/16″, 11/32″, 3/8″, 7/16″ and 1/2″ hex. wrenches; AT 45 metal tip aligner; A 116-2 3/32″ pocket clip; P 01 #0 Phillips thin blade; OK 24 1/8″ screw holding; VR 261 1/8″ insulated blade; OK 38 3/16″ screw holding; VR 381 3/16″ insulated blade; VB 210 1/8″ x 10″ non-magnetic adjuster; AT 510 5/32″ fiber aligner; VO 2 medium offset; VO 1 small offset.



TV 27

14-Piece TV and Radio Kit $11.98

NO. RT 14 KIT—Here's a handy, convenient kit for radio and TV service men. Contains nut drivers, Phillips and regular drivers, plus ZH 2 heavy duty handle and famous Vaco 6″ extension which doubles the usefulness of each driver. In durable leatherette tool roll.



RT 14

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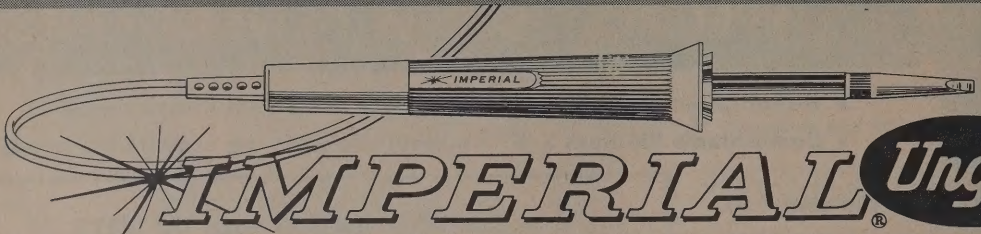
MOST VERSATILE SOLDERING IRON EVER INVENTED

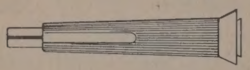


Ungar®

COOL, LIGHTWEIGHT, EASY-HANDLING

Ungar...developers of the industry's first miniature, low wattage, high temperature, pencil type iron... now brings you the ultimate in time-saving, money-saving soldering irons.

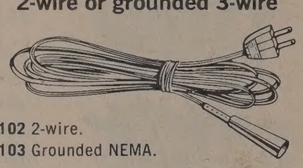
PERMA COOL COLORED HANDLES



#6100 Turquoise, Beige, Ivory*

INTERCHANGEABLE CORD SETS

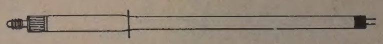
2-wire or grounded 3-wire



#6102 2-wire.
#6103 Grounded NEMA.

*NOTE: Designate color for handles and cord sets by adding suffix (-1 for Turquoise; -2 for Beige; -3 for Ivory).

NEW 15 WATT



"Long Life" Interchangeable Heat Cartridges.

#6206 15 Watt (700-750°F temperature range)
#6202 25 Watt (600-800°F temperature range)
#6201 30 Watt (650-850°F temperature range)
#6200 40 Watt (750-950°F temperature range)

44 IMPERIAL MINI-TIP®

Thread-on soldering tips

All easy-thread tips are completely interchangeable.

#6304 Iron Clad, Gold Plated (24 kt.) 3/64 x 1/2—Micro-Chisel.

#6305 Same As Above—Iron Clad, Gold Plated (24 kt.) Micro-Spade.

#6482 Iron Clad, Gold Plated (24 kt.) 3/64 x 1-1/16—Micro-Spade.

#6312 Tellurium Copper, 1/8 x 3/4—Pencil.

#6313 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6315 Tellurium, 1/8 x 3/4—Pencil Offset.

#6316 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6318 Tellurium Copper, 1/8 x 3/4—Long Taper Chisel.

#6319 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6481 Iron Clad, Gold Plated (24 kt.) 3/4 x 3/32—Tapered Screwdriver.

#6324 Tellurium Copper, 1/8 x 3/4—Long Taper Pyramid.

#6325 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6330 Tellurium Copper, 1/8 x 3/4—Screwdriver.

#6331 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6333 Iron Clad, Gold Plated (24 kt.)—1/8 x 3/4—Needle.

#6335 Tellurium Copper, 1/8 x 3/4—Spade.

#6336 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6365 Tellurium Copper, 3/16 x 3/4—Long Taper Chisel.

#6366 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6368 Tellurium Copper, 3/16 x 3/4—Long Taper Pyramid.

#6369 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6371 Tellurium Copper, 3/16 x 3/4—Screwdriver.

#6372 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6473 Tellurium Copper, 3/8x3/4—Long Taper Chisel.

#6381 Tellurium Copper, 3/16 x 1-1/2—Long Taper Chisel.

#6382 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6383 Tellurium Copper, 3/16 x 1-1/2—Long Taper Chisel Offset.

#6384 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6389 Tellurium Copper, 3/16 x 1-1/2—Screwdriver.

#6390 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6403 Tellurium Copper, 1/4x3/8—Short Taper Chisel.

#6406 Same As Above—Solid Armco Iron, Silver Plated.

#6407 Tellurium Copper, 1/4 x 3/8—Short Taper Pyramid.

#6410 Same As Above—Solid Armco Iron, Silver Plated.

#6423 Tellurium Copper, 1/4x3/4—Long Taper Chisel.

#6424 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6427 Tellurium Copper, 1/4 x 3/4—Long Taper Pyramid.

#6428 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6473 Tellurium Copper, 3/8x3/4—Long Taper Chisel.

#6474 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6476 Same As Above—Solid Armco Iron, Silver Plated.

#6477 Tellurium Copper, 3/8 x 3/4—Long Taper Pyramid.

#6478 Same As Above—Iron Clad, Gold Plated (24 kt.)

#6480 Same As Above—Solid Armco Iron, Silver Plated.

NEW MICRO-TIPS

For use with Imperial 15 watt cartridges only.

#6550 — .40 x .125 in. (tapered end) Iron Clad 24 kt. Gold Plated, Tapered Screwdriver.

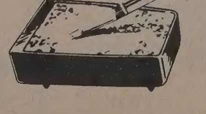
#6551 — .20 x .125 in. (stepped end) Iron Clad 24 kt. Gold Plated, Stepped Spade.

#6553 — .20 x .125 in. (stepped end) Iron Clad 24 kt. Gold Plated, Stepped Chisel.

#6554 — .20 x .125 in. (stepped end) Iron Clad 24 kt. Gold Plated, Stepped Pencil.

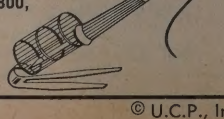
KLEEN-TIP SPONGE

Removes oxidation, doubles life of tips. **#400** with tray. **#455** refill sponges



Specially Designed IMPERIAL HOLDER

Rugged holder, built especially for the IMPERIAL, protects iron, keeps it safely out of the way. Black with gold cage guard and heat sink. **#6800**,



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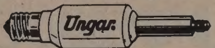
Ungar® STANDARD LINE SOLDERING IRON

New UNGAR HEATING UNITS AND THREAD-ON TIPS for Hi-Speed Repeat Soldering

Ungar's exclusive new development provides these important advantages . . .

- New thread-on copper tips, iron clad, silver plated or plain copper.
- 100% increase in heat recovery rate.
- 4 times greater heat transfer.
- Positive seal between heating unit and tip.
- New passivated plating reduces barrel oxidation and surface flaking of heating units.



#4037 Hi-Speed Heating Unit—850°-900°F. 47½ Watts.
#1237 Hi-Speed Heating Unit—750°-800°F. 37½ Watts

All electrical components are for use on 115 v. AC-DC.

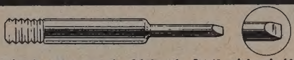
#PL 111 PENCIL TIP. ⅛" x ¾" iron clad, Silver Plated.
#111 Plain Copper

#PL 113 CHISEL TIP. ⅛" x ¾" iron clad, Silver Plated.
#113 Plain Copper.

#8001 ANTI-SEIZE.
2 oz. can
New Ungar Anti-Seize guards against "freezing," protects against corrosion and aids heat transfer to tip.

NEW MICRO-TIPLETS

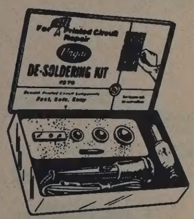
#7155 Stepped Pencil, 1/16" pencil tip. Iron clad, silver plated. Fits #535, 1235 and 4035.



#7154 Stepped Chisel, 1/16" chisel tip. Iron clad, silver plated. Fits #535, 1235 and 4035.

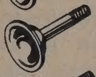
UNGAR fast, safe De-Soldering Tips

Helps remove components 70% faster. Melts solder on all terminals at once. For use with **#4045** Heating Unit.

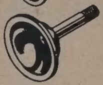


#270 UNGAR De-Soldering Kit.
Complete, 7 pieces including handle, Heating Unit **#4045** and five De-Soldering Tips in metal case.

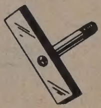
#856 5/8" Cup Tip



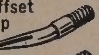
#855 3/4" Cup Tip



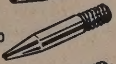
#854 1" Cup Tip



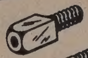
#858 Bar Tip



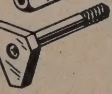
New **#862** Offset Slotted Tip



#857 Slotted Tip



New **#863** Cube Tip



New **#861** Triangle Tip

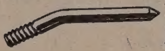
UNGAR TIPLET® Soldering Tips

for Heating Units shown below

actual size

#PL 340 Micro-Needle. 3/64"x¾", for microscopic soldering, iron clad, Silver Plated—Actual size.

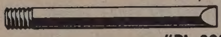
#PL 331 Pencil Tip. ⅛" x 1", iron clad, Silver Plated.
#331 Plain Copper.



#PL 332 Pencil Offset. ⅛" x 1", iron clad, Silver Plated.
#332 Plain Copper.

#PL 333 Chisel, Long Taper. ⅛" x 1", iron clad, Silver Plated.
#333 Plain Copper.

#PL 338 Tapered Needle. 1/16" x 1¾", iron clad. Silver Plated.



#PL 833 Chisel, Long Taper. 3/16" x 1¾", iron clad. Silver Plated.

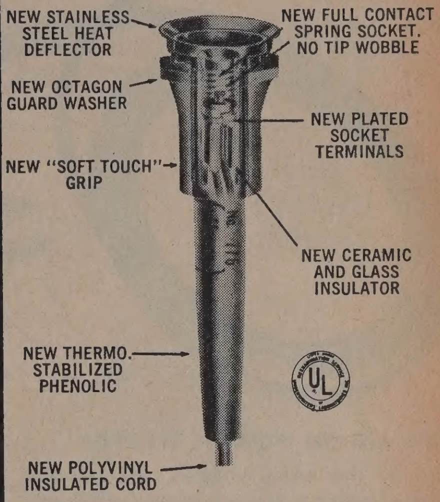
#PL 834 Chisel, Long Taper, Offset. 3/16" x 1¾", iron clad, Silver Plated.

#PL 823 Pyramid, 3/16" x 1", iron clad, Silver Plated.
#823 Plain Copper.

#PL 824 Chisel, Long Taper. 3/16" x 1", iron clad. Silver Plated.
#824 Plain Copper.

800 Series TIPLETS fits Ungar **#4045** heating unit only.

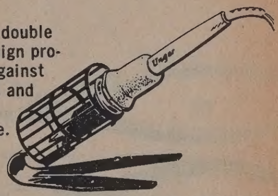
Improved #776 handle with 9 great improvements


NEW STAINLESS STEEL HEAT DEFLECTOR
NEW FULL CONTACT SPRING SOCKET. NO TIP WOBBLE
NEW OCTAGON GUARD WASHER
NEW PLATED SOCKET TERMINALS
NEW "SOFT TOUCH" GRIP
NEW CERAMIC AND GLASS INSULATOR
NEW THERMO-STABILIZED PHENOLIC
UL
NEW POLYVINYL INSULATED CORD

All these plus features . . .

#8000 Soldering Iron Holder

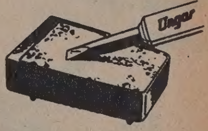
Exclusive Ungar double safety guard design protects operator against accidental burns and 2) protects iron against breakage. Individually boxed



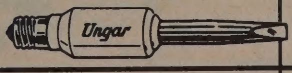
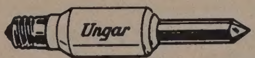
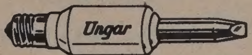
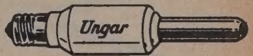
KLEEN-TIP SPONGE

Removes oxidation, doubles life of tips. **#400** with tray.

#455 refill sponges



Ungar Interchangeable Tips . . . the right tip at the right temperature.

TIP TEMPERATURES	CHISEL TIP LONG TAPER 	PYRAMID TIP 	CHISEL TIP SHORT TAPER 	THREAD-IN HEATING UNITS For use with Tiplets shown below 
850° to 1000° F. #4000 Super Hi-Heat Series 47-1/2 Watt	**#4033** Tip 1-5/8" long, 1/4" wide. UC_{47} copper, iron clad, silver plated.	**#4036** Tip 1-1/8" long, 3/8" diameter. UC_{47} copper, iron clad, silver plated.	**#4039** Tip 1-1/8" long, 3/8" diameter. UC_{47} copper, iron clad, silver plated.	**#4035** Steel body, nickel plated. 1/8" tap for use with 300 Series Tiplets. **#4045** 3/16" tap for use with 800 Series Tiplets.
750° to 800° F. #1200 Hi-Heat Series 37-1/2 Watt	**#1233** Tip 1-5/8" long, 1/4" wide. UC_{47} copper, unplated.	**#1236** Tip 1-1/8" long, 5/16" diameter. Pure solid Armco iron, silver plated.	**#1239** Tip 1-1/8" long, 3/8" diameter. Pure solid Armco iron, silver plated.	**#1235** Steel body, silver plated. 1/8" tap.
650° to 750° F. #500 Standard Series 23-1/2 Watt	**#533** Tip 1-5/8" long, 3/16" wide. UC_{47} copper, unplated.	**#536** Tip 1-1/8" long, 5/16" diameter. UC_{47} copper, unplated.	**#539** Tip 1-1/8" long, 5/16" diameter. UC_{47} copper, unplated.	**#535** Steel body, silver plated. 1/8" tap.

UNGAR ELECTRIC TOOLS • HAWTHORNE, CALIFORNIA

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UTICA

UTICA-HERBAND DROP FORGE AND TOOL DIVISION
KELSEY-HAYES CO., ORANGEBURG, S. C.

U TI CA ®

WORLD'S MOST COMPLETE LINE OF STANDARD AND SPECIAL ELECTRONIC PLIERS!

NEW UA-300 POWER WRITER

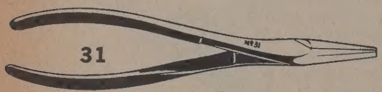
Just as the name implies, the UA-300 Power Writer is a power writing tool. It's a pencil styled, air-activated tool for inscribing, coding, labeling or marking all types of materials such as hard and soft metals, plastics, ceramics and glass.

NEW UA-200 THE VERSATILE MULTI-PURPOSE POWER CUTTER With Interchangeable Cutting Heads

This latest and most versatile addition to the Utica line of production tools is available with four optional, interchangeable cutting heads. Each head is designed for a specific cutting purpose and all have electronically induction hardened jaws.

A REVOLUTIONARY NEW WIRE STRIPPER

Strip fast and clean! Eliminate nicking! Reduce insulation marking! Handle any wire size from #12 to #26 . . . and do it all with Stripwright® . . . Utica's revolutionary new wire stripper.



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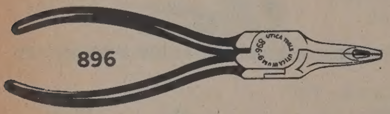

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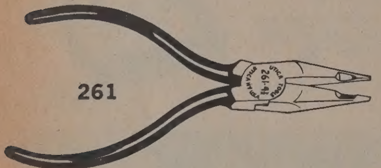

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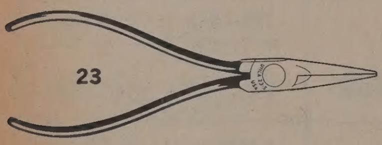

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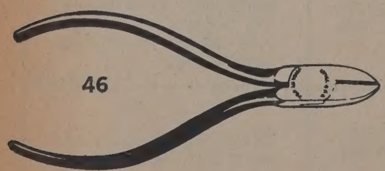

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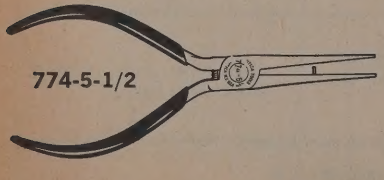


774-5-1/2

No. 31 DUCK BILL WIRING PLIERS
Long reach duck bill pliers. Serrated jaws. Size: 8″.

No. 896 RADIO AND IGNITION CUTTING PLIERS
For cutting and forming wire. Center cutter near tip of jaws. Size: 6″.

No. 261 SPECIAL SHORT CHAIN NOSE CUTTING PLIERS
Flush cutter near tip of jaws for close cuts. Size: 4½″ (formerly custom tool No. B801).

No. 23 NEW MIDGET SHORT CHAIN NOSE PLIERS
Very thin nose for delicate electronic subminiature assembly. Sizes: 4″, 4½″, 5″.

No. 46 MIDGET DIAGONAL PLIERS
Small, light, sturdy diagonal for work on small electronic assemblies. Size: 4″.

No. 774-5-1/2 PICK-UP AND WIRING PLIERS
Ideal for looping, twisting, bending and picking up finest wires.

No. 1033 LONG CHAIN NOSE PLIERS
For general wiring. 3/32″ nose and deep serrated jaws. Sizes: 6″, 7″.

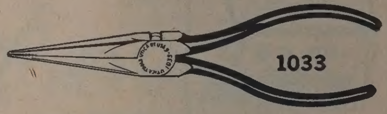
No. 25-5 BENT CHAIN NOSE PLIERS
Finely serrated jaws for sensitive circuit wiring. Size: 5″.

No. 777 LONG NEEDLE NOSE PLIERS
Long, spring tempered jaws for very fine work in assembling small electronic apparatus. Size: 6″.

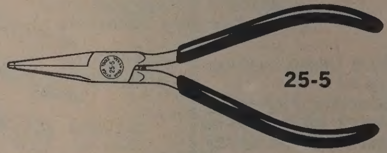
No. 776 CURVED LONG NEEDLE NOSE PLIERS
Fine, spring tempered pliers with bent nose for offset work. Size: 6″.

No. 265-5 WIRING PLIERS
Cutter designed to snap-cut, loop or twist. Size: 5″.

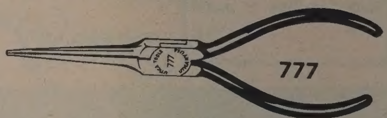
No. 47 MIDGET DIAGONAL PLIERS
Fine tapered nose for delicate work in confined areas. Flush jaws for close cutting. Size: 4″.



1033



25-5



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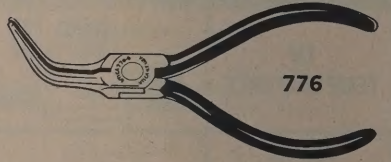

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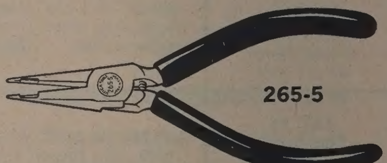
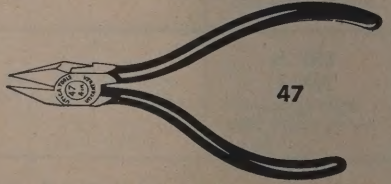


265-5



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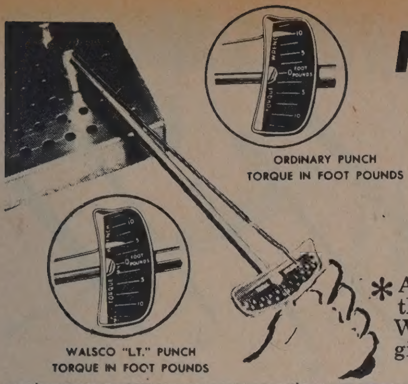

ORDINARY PUNCH TORQUE IN FOOT POUNDS

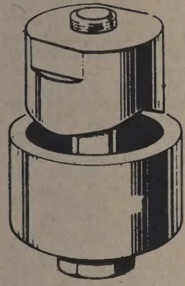
WALSCO "L.T." PUNCH TORQUE IN FOOT POUNDS

NEW (LT) LOW TORQUE* CHASSIS PUNCHES

50% LESS EFFORT REQUIRED THAN COMPETITIVE PUNCHES

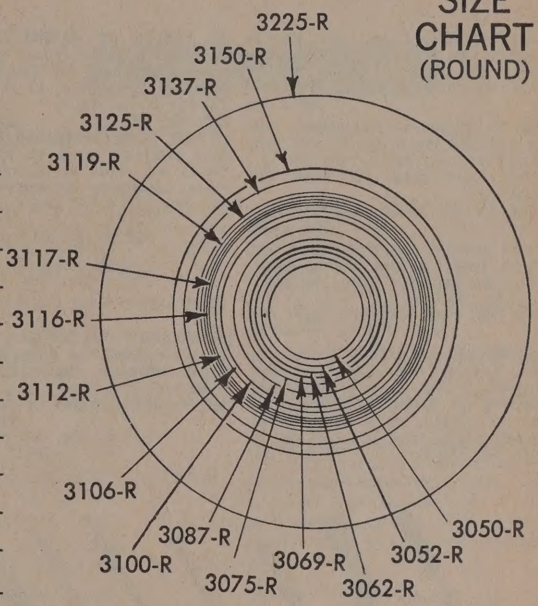
*A brand-new electro-coating process (which can't wear off) reduces friction, thus lowers torque. You get a much cleaner hole with much less effort. The Walsco "L.T." Chassis Punch requires no lubrication of any kind and will give perfect service almost indefinitely.

ROUND

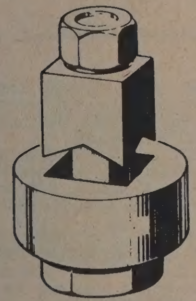


PART NO.	PUNCH SIZE	PILOT BOLT SIZE	PILOT HOLE DRILL SIZE	NET
3050-R	1/2"	1/4"	5/16"	2.80
New 3052-R	9/16"	1/4"	5/16"	2.80
3062-R	5/8"	5/16"	3/8"	2.63
3069-R	11/16"	3/8"	7/16"	2.60
3075-R	3/4"	3/8"	7/16"	2.60
3087-R	7/8"	3/8"	7/16"	2.60
3100-R	1"	3/8"	7/16"	2.85
3106-R	1 1/16"	3/8"	7/16"	3.00
3112-R	1 1/8"	3/8"	7/16"	3.00
3116-R	1 5/32"	3/8"	7/16"	3.00
3117-R	1 11/64"	3/8"	7/16"	3.00
3119-R	1 3/16"	3/8"	7/16"	3.00
3125-R	1 1/4"	3/8"	7/16"	3.00
3137-R	1 3/8"	1/2"	9/16"	4.17
3150-R	1 1/2"	1/2"	9/16"	4.92
3225-R	2 1/4"	3/4"	7/8"	9.92

SIZE CHART (ROUND)

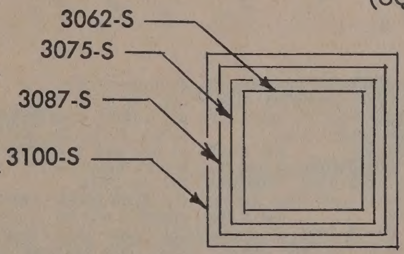


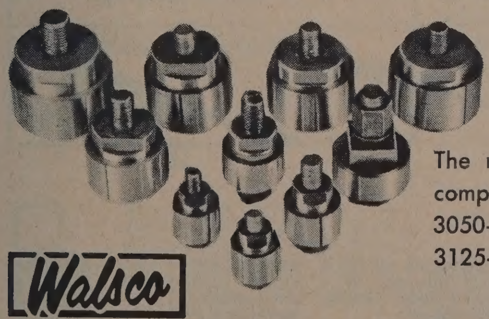
SQUARE



PART NO.	PUNCH SIZE	PILOT BOLT SIZE	PILOT HOLE DRILL SIZE	NET
3062-S	5/8"	3/8"	1/2"	5.95
3075-S	3/4"	3/8"	1/2"	6.50
3087-S	7/8"	3/8"	1/2"	6.55
3100-S	1"	3/8"	1/2"	8.25

SIZE CHART (SQUARE)





CHASSIS PUNCH KIT

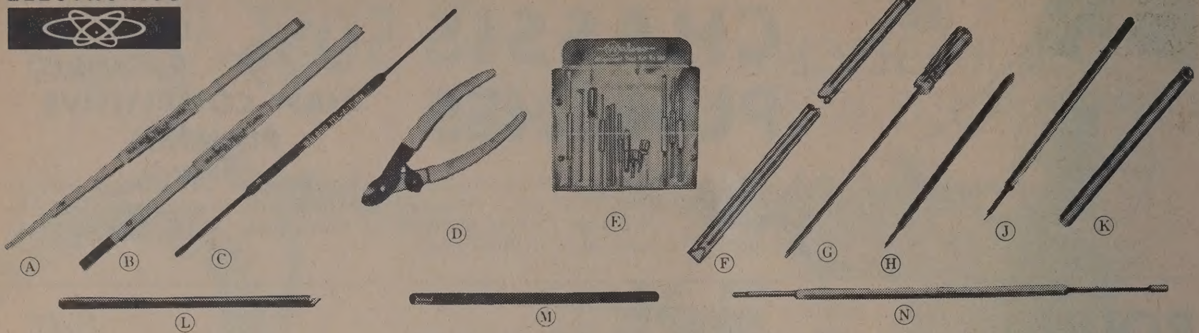
The most economical way to buy the 10 standard size punches. This complete kit includes one each of the following punches: No. 3075-S, No. 3050-D, and Nos. 3050-R, 3062-R, 3075-R, 3100-R, 3112-R, 3116-R, 3125-R, 3137-R.

No.		Net
3005	Chassis Punch Kit	38.17

Walsco ELECTRONICS

Walsco ELECTRONICS

ALIGNMENT AND SPECIAL TOOLS



(A) I.F. Aligner and also double-ended. One end fits a #4 stud, the other end fits a #6 stud.
Cat. No. 2586 Tel-A-Turn Tool Net **$ .98**

(B) An alignment screwdriver with a standard metal tip at one end. The other end has a very thin 7/64" wide metal blade for small can openings.
Cat. No. 2587 Tel-A-Turn Tool Net **$ .98**

(C) A double ended Hex Aligner that turns both top and bottom slugs. One end has .100" hex, the other end is .125" hex.
Cat. No. 2588 Tel-A-Turn Tool Net **$ .98**

(D) WALSCO STRIP-ER-CLIP. A brand new precision tool with an exclusive safeguard that prevents accidental nicking or cutting while wires are being stripped. Strips and clips all wires ranging from 14 to 26 gauge.
Cat. No. 595-X Net **$1.38**

(E) "LUCKY 13" ALIGNMENT TOOL KIT. Carefully selected as the most needed tools, for the Service-Technician in Electronics, TV, Hi-Fi and Printed Circuit Work.
Cat. No. 582 Net **$8.73**

(F) NEW "SLIM-FIBREGLASS STICKS." New precision made Walsco Slim-Sticks are made of durable fibreglass. Completely non-metallic.
Cat. No. 2531-X 1/8" Dia. x 12" Long Net **$ .42**
2532-X 1/8" Dia x 16" Long **.57**
2534-X 5/32" Dia. x 12" Long **.48**
2535-X 5/32" Dia. x 16" Long **.72**

(G) WALSCO "GLAS-STICKS." Precision made machined fiberglas reinforced polyester alignment screwdriver.
Cat. No. 2537 5/32" Dia., 7" blade Net **$ .75**
2538 5/32" Dia., 14" blade **1.05**

(H) DUPLEX ALIGNMENT SCREWDRIVER. Large end is 7/32" wide; small end, 5/32" wide. Tip thickness conforms to standard slot dimensions, 7" long.
Cat. No. 2520 Net **$ .62**

(J) ALIGNMENT TOOL FOR WESTINGHOUSE, ETC. Especially designed to fit Westinghouse and other sets. Very thin tip for small can openings.
Cat. No. 2541 5¾" long Net **$ .57**

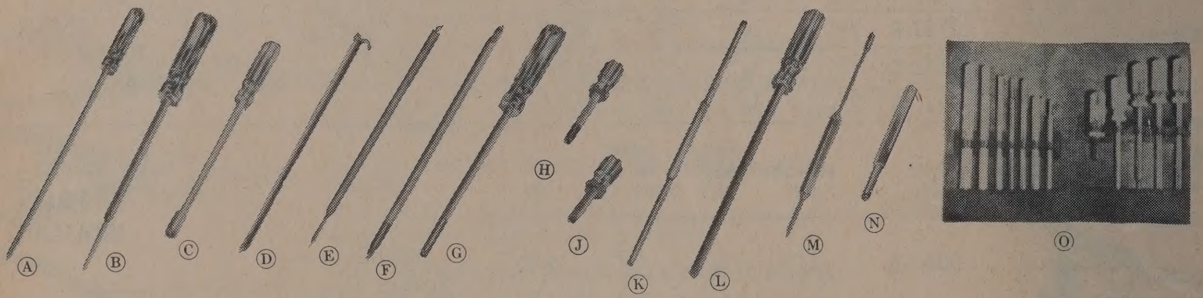
¼" HEX I.D. NEUTRALIZING WRENCH. Made of tough, flexible, Lo-loss plastic. If corners wear round, just trim back, 7½" long, 3/8" round O.D.
Cat. No. 2503 Net **$ .37**

(K) 5/16" HEX I.D. NEUTRALIZING WRENCH. Durable Lo-loss plastic gives long service life. 7½" long, 7/16" O.D.
Cat. No. 2508 Net **$ .37**

(L) METAL TIP ALIGNMENT SCREWDRIVER. Combines low capacitance desirable in alignment tool with mechanical strength of metal screwdriver. Plastic handle, 7/32" diameter, 6" long over all.
Cat. No. 2525 Net **$ .42**

(M) WALSCO TUNING WAND. Rod with one end made of brass, the other loaded with powdered iron—for checking coils.
Cat. No. 2540 Net **$ .53**

(N) DOUBLE END NYLON HEX IRON CORE TOOLS—For .075", .100" and .125" Cores. Turn both top and bottom coil slugs with this one handy tool. One end under cut for turning bottom slug separately.
Cat. No. 2542 .125" Hex, 5" long, Hex Handle Net **$ .48**
2543 .100" Hex, 5" long, Hex Handle **.48**
2544 .100" Hex, 11" long, knurled ¼" Handle **.63**
2545 .100" Hex, 11" long, thin, 5/32" Handle **.63**
2546 .075" Hex, 11" long, knurled ¼" Handle **.63**
2547 .075" Hex, 11" long, thin, 5/32" Handle **.63**



(A) "THE LONG RANGER." A full 12", slim, completely insulated tuner alignment tool. Features tough, replaceable, molded nylon tip.
Cat. No. 2523 Net **$1.50**

(B) TURRET TUNER TOOL. A tool for adjusting all sets using "Standard Coil" and similar turret-type tuners.
Cat. No. 2522 Net **$ .92**

(C) PHILCO TUNER TOOL. A special tool for 1946-48 front-end tuners.
Cat. No. 2518 Net **$1.12**

(D) WIRE DRESSING & ALIGNMENT TOOL. A handy dual-purpose tool with a thin 7/32" Butyrate handle. One end is a special tool for dressing wires in hard-to-reach places. Other end with a low capacitance metal screwdriver tip.
Cat. No. 2512 Net **$ .45**

(E) K-TRAN ALIGNMENT TOOL. This tough, double-use tool is machined at one end to fit the slots on all K-Tran miniature I.F. transformers.
Cat. No. 2515 Net **$ .60**

(F) "SLUG SAVER" TUNER TOOL. New patented tool for aligning "Standard Coil" front ends. Prevents "loosing" slugs, thru ingenious "step" design.
Cat. No. 2528 7½" long Net **$ .67**

(G) SLOTTED STUD DRIVER. An 8¼" long precision screwdriver with blade to fit No. 6 studs.
Cat. No. 2516 Net **$ .92**

(H) I.F. ALIGNER. 2½" long molded high-impact styrene . . . for RCA, Zenith and others.
Cat. No. 2527 Net **$ .58**

(J) STUBBY STUD DRIVER. The only screwdriver only 2" long overall. Fits No. 6 studs.
Cat. No. 2517 Net **$ .58**

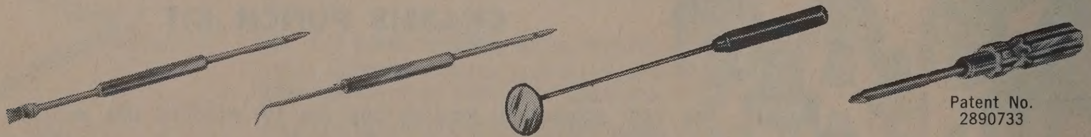
(K) STANDARD ALIGNMENT TOOL. Screwdriver blades are made with extra-thin tempered Swedish steel and are recessed so that they will slide easily over a stud and will not slip off.
Cat. No. 2519 Net **$ .67**

(L) SLOTTED SCREWDRIVER. Instead of a blade, this tool has a slot to fit No. 6 studs. For many of the older TV sets.
Cat. No. 2524 Net **$ .87**

(M) DOUBLE ENDER. A 5½" long, molded-nylon tool, with one end to fit hex studs, the other end being a very small screwdriver.
Cat. No. 2526 Net **$ .37**

(N) I.F. ALIGNER TOOL. Designed for I.F. Alignment of Zenith, RCA and other similar types. Made of molded nylon. 5½" long.
Cat. No. 2521 Net **$ .53**

(O) WALSCO TV-FM ALIGNMENT TOOL KIT. Kit contains 12 tools. These are all standard Walsco tools and come in a handy leatherette case or wall rack for mounting above work bench.
Cat. No. 580 Leatherette case. Net **$7.20**
581 in wall rack **7.50**


Patent No.
2890733

WALSCO SPECIAL TOOLS

SOLDER-AID TOOL. Wire brush makes removing of solder a cinch. Forked tool end and brush made of special stainless steel to which solder will not stick.
Cat. No. 2529 8"long plastic handle Net **$1.00**

SOLDER-AID TOOL. Similar to #2529 but has very thin curved hook in place of brush. Designed for use in delicate printed circuit work.
Cat. No. 2530 8" long plastic handle Net **$1.00**

INSPECTION MIRROR. High-visibility polished glass reflection mirror is protected against breakage by a heavy gauge plated metal backing. Has plastic, insulated grip.
Cat. No. 554 Net **$ .42**

MINI-HOLD SCREWDRIVERS. Designed primarily to speed replacing phono cartridges. Exclusive "wedge-action" securely grips extremely small screws (#1 to #4) "Mini-hold" measures just 2⅞" when in use.
Cat. No. 2568 2⅞" long, "Open" length 3¼" Net **$2.14**
2569 7" long **2.40**

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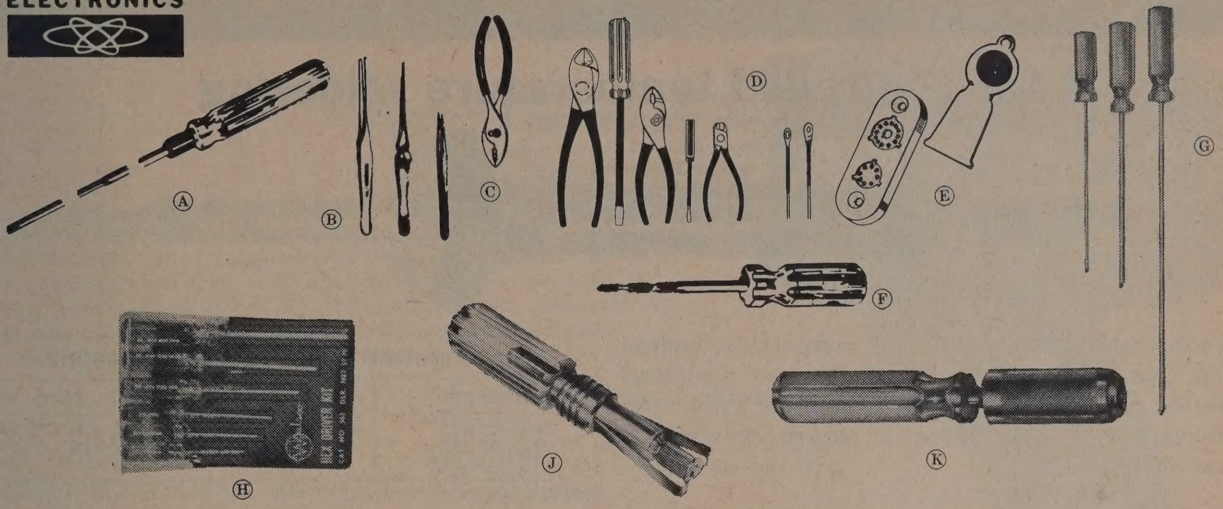
Walsco ELECTRONICS

ALIGNMENT AND SPECIAL TOOLS



(A) WALSCO SLUG RETRIEVING & SCREW HOLDING TOOL — Especially designed for removing "lost" TV Tuner slugs in Standard Coil Tuners. Excellent screw holding tool. End is precision-ground of hardened steel.

Cat. No. 2565 11" Lgh.Net **$2.58** ea.
Cat. No. 2566 15" Lgh.Net **$3.00** ea.
Cat. No. 2567 19" Lgh.Net **$3.75** ea.

(B) WALSCO SERVICE TWEEZERS — For handling small parts in crowded spaces. Walsco Tweezers are indispensable. They are made of forged steel, polished nickel-plated.

Cat. No. 570 Self-Closing Tweezer with cross-over action, 6½" long, serrated, blunt points. Net **$ .78**

Cat. No. 571 Heavy-Duty Tweezer with slide-lock feature. 6½" length, serrated, blunt points. Net **$ .90**

Cat. No. 572 Precision Tweezer with narrow, pointed ends especially suitable for delicate work. Over-all length 4½". Net **$ .52**

Cat. No. 575 Tweezer Kit, made of durable leatherette, containing one each of the above listed tweezers. Net **$2.42**

(C) EASY-ON TOOL GRIP — Designed for pliers, cutters, diagonals, wire, snippers, etc. Made of flexible, elastic plastic. Gives superior insulation and protection against electrical shock.

Cat. No. 521 Small Net **$ .23** per pr.
Cat. No. 522 Med. Net **$ .27** per pr.
Cat. No. 523 Large Net **$ .33** per pr.

(D) WALSCO PROTECTO TUBE — Insulate the handles of your pliers, wire cutters, screwdriver shanks neatly and effectively with Walsco Protecto Tube.

Cat. No. 18K Net **$1.20**

(E) WALSCO STRAIGHT'N PULL TUBE PIN STRAIGHTENER AND PULLER — Compact tube pin straightener for seven and nine pin miniature tubes combined with an ingenious tube puller.

Cat. No. 565 Net **$1.08**

(F) 3-STEP TAP — Eliminates the need for carrying 3 separate taps and handle. Designed for reaming holes, tapping new holes, etc. Sizes are 6/32, 8/32 and 10/32.

Cat. No. 2574 Net **$3.50**

(G) NON-MAGNETIC BERYLLIUM SCREWDRIVERS — Ideal for making adjustments near magnetic fields such as in focalizers of TV sets. Does not affect TV picture as a steel tool would.

Cat. No. 2560 ⅛" Dia., 9" Overall Length Net **$ .87**
Cat. No. 2561 ⅛" Dia., 13" Overall Length Net **$ .93**
Cat. No. 2562 3/16" Dia., 9" Overall Length Net **$1.48**
Cat. No. 2564 3/16" Dia., 13" Overall Length Net **$1.65**

(H) HEX DRIVERS — Blades are made of high torque, heat treated, alloy steel and are permanently embedded in shock and chip-proof plastic handles.

(J) TWISTO WIRE STRIPPER — A low-cost, pocket-size, precision stripper. Operating on an entirely new principle, the Walsco Twisto Wire Stripper permits stripping insulation right up next to a soldered connection, plug or socket.

Cat. No. 592-00 Net **$3.00**
Cat. No. 592-03 Replacement Blades **$ .67** per set

(K) WALSCO KNURL-TITE WRENCH — Tighten or loosen knurled finish nuts quickly and easily. The knurled nut is slipped into the collet-type pressure jaws. A quarter turn of the handle results in a positive vise-like grip.

Cat. No. 2581 ⅜" Dia. nut Net **$4.83**
Cat. No. 2582 ½" Dia. nut Net **$4.83**
Ca. No. 2583 ⅝" Dia. nut Net **$4.83**

FREE CATALOG

Send for the Big New Catalog of the Complete Walsco Line

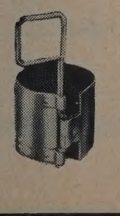
Walsco Electronics Co.
Div. GC-Textron Electronics, Inc.
Rockford, Ill., U.S.A.

SPEED-O-MATIC WIRE STRIPPERS—With fully automatic—delayed-action return that prevents the crushing of fine stranded wires. Completes the stripping operation with one simple squeeze of the handles. Strips all types of wire insulation from #10 to #30 wires by easy exchange of cutter blades.

Cat. No. 594-01 For #8 to #22	Net $5.93
Cat. No. 594-02 For #10 to #18	5.93
Cat. No. 594-03 For #14 to #30	5.93
Cat. No. 594-04 For #16 to #22	5.93
Extra Blades for Above	set 1.43

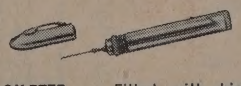
TRIG-O-MATIC WIRE STRIPPERS — Similar to 594 but has a Trig-O-Matic action that holds jaws open until released. Especially desirable for stripping of fine stranded wire.

Cat. No. 593-01 For #10 to #22	Net $5.93
Cat. No. 593-02 For #10 to #18	5.93
Cat. No. 593-03 For #14 to #30	5.93
Cat. No. 593-04 For #16 to #22	5.93
Extra Blades for Above	set 1.35



NEW WALSCO VIBRA-PULL — The quickest, easiest safest way to pull auto radio vibrators. Exclusive design offers absolute protection against damage to vibrator prongs, sockets and adjacent electronic components.

Cat. No. 566 Net **$1.70**



WALSCO OILETTE — Filled with high grade Walsco oil. Dispenses accurately one drop at a time. For use on electronic and electrical devices, clocks, office machines, sporting goods, etc.

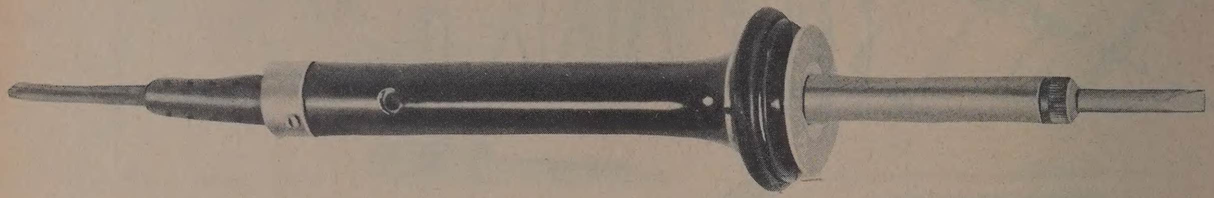
Cat. No. 986 Net **$ .83**
Cat. No. 986-22 Refill for Oilette Net **$ .33**

NEW WALSCO CHEM-O-JECTOR — A new type applicator for lubricants, greases, certain adhesives and many cleaning fluids used in electronics. Uses the "hypodermic" plunger principal, which makes it possible to reach "hard-to-get-at" places.

Cat. No. 987 Net **$ .30**

Weller MAGNASTAT® Soldering Irons

for controlled temperature soldering



Here are the only soldering irons with temperature control in the tip. One Magnastat iron with 3 different controlled temperature tips does the work of 3 different irons. And it maintains proper temperature for secure, reliable soldered connections.

- Tip temperature will not vary more than ±3% when idling.
- A Magnastat iron provides efficient soldering temperature under load and excellent recovery.
- Your choice of 3 different controlled temperatures by interchanging Magnastat tips.
- With only half the weight, Weller Magnastat irons do the work of uncontrolled irons of much higher wattage.
- The light weight of a Weller Magnastat iron reduces operator fatigue. Handle remains cool.

STANDARD WELLER MAGNASTAT IRONS

Model No.	Watts	Tip
TC552 STD	55	5-C1N—750°F
TC602 STD	75	6-E1N—750°F
TC1202 STD	120	12-G4N—750°F

Furnished with standard two-wire cord and Tip Number designated.

Other Combinations and Specifications

MODEL NO.	COMBINATION	WATTS	NET WEIGHT
TC552	No cord	55	3 oz.
TC552-2	2-wire cord	55	6 3/4 oz.
TC552-3	3-wire cord	55	7 1/2 oz.
TC552-TL3	Twist-lock cord	55	9 1/2 oz.
TC602	No cord	75	3 1/2 oz.
TC602-2	2-wire cord	75	7 1/4 oz.
TC602-3	3-wire cord	75	8 1/8 oz.
TC602-TL3	Twist-lock cord	75	10 1/8 oz.
TC1202	No cord	120	6 oz.
TC1202-2	2-wire cord	120	9 3/4 oz.
TC1202-3	3-wire cord	120	10 1/2 oz.
TC1202-TL3	Twist-lock cord	120	12 1/2 oz.

Over 90 different Magnastat Wellertips—premium plated for long life

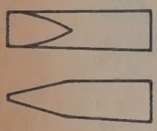
Style Number Code
Example.........5-A1S

SERIES
5—For TC552 Model
6—For TC602 Model
12—For TC1202 Model

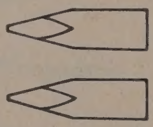
SIZES
A—1/16"
B—3/32"
C—1/8"
D—3/16"
E—1/4"
F—3/8"
G—7/16"

SHAPES
1—Screwdriver
2—Pyramid
3—Conical
4—Chisel

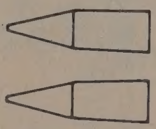
REACHES
S—Short
N—Normal
L—Long
X—45° Bent
Y—90° Bent



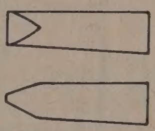
SCREWDRIVER



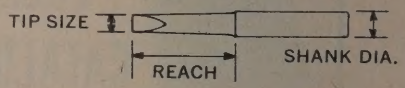
PYRAMID



CONE



CHISEL



WELLER MAGNASTAT TIPS FOR MODEL TC552

SIZE	STYLE NO.	SHAPE	REACH	SHANK DIA.
1/16"	5-A1S	Screwdriver	Short—3/4"	1/4"
1/16"	5-A1N	Screwdriver	Normal—1 5/32"	1/4"
1/16"	5-A1X	Screwdriver	45° Bent	1/4"
1/16"	5-A1Y	Screwdriver	90° Bent	1/4"
3/32"	5-B1S	Screwdriver	Short—3/4"	1/4"
3/32"	5-B1N	Screwdriver	Normal—1 5/32"	1/4"
3/32"	5-B1X	Screwdriver	45° Bent	1/4"
3/32"	5-B1Y	Screwdriver	90° Bent	1/4"
1/8"	5-C1S	Screwdriver	Short—3/4"	1/4"
1/8"	5-C1N	Screwdriver	Normal—1 5/32"	1/4"
1/8"	5-C1X	Screwdriver	45° Bent	1/4"
1/8"	5-C1Y	Screwdriver	90° Bent	1/4"
1/8"	5-C2S	Pyramid	Short—3/4"	1/4"
1/8"	5-C2N	Pyramid	Normal—1 5/32"	1/4"
1/8"	5-C3N	Cone	Normal—1 5/32"	1/4"
3/16"	5-D1N	Screwdriver	Normal—1 5/32"	1/4"
3/16"	5-D1X	Screwdriver	45° Bent	1/4"
3/16"	5-D1Y	Screwdriver	90° Bent	1/4"
3/16"	5-D2N	Pyramid	Normal—1 5/32"	1/4"

Note: The reach of the X and Y tips is the reach before the tip is bent.

WELLER MAGNASTAT TIPS FOR MODEL TC602

SIZE	STYLE NO.	SHAPE	REACH	SHANK DIA.
1/8"	6-C1N	Screwdriver	Normal—1 15/32"	3/8"
1/8"	6-C2N	Pyramid	Normal—1 15/32"	3/8"
3/16"	6-D1N	Screwdriver	Normal—1 15/32"	3/8"
3/16"	6-D2N	Pyramid	Normal—1 15/32"	3/8"
1/4"	6-E1N	Screwdriver	Normal—1 15/32"	3/8"
1/4"	6-E2N	Pyramid	Normal—1 15/32"	3/8"

WELLER MAGNASTAT TIPS FOR MODEL TC1202

SIZE	STYLE NO.	SHAPE	REACH	SHANK DIA.
1/4"	12-E1L	Screwdriver	Long—1 7/8"	1/2"
1/4"	12-E2L	Pyramid	Long—1 7/8"	1/2"
3/8"	12-F1L	Screwdriver	Long—1 7/8"	1/2"
3/8"	12-F2L	Pyramid	Long—1 7/8"	1/2"
3/8"	12-F4N	Chisel	Normal—1 9/16"	1/2"
7/16"	12-G2L	Pyramid	Long—1 7/8"	1/2"
7/16"	12-G4N	Chisel	Normal—1 9/16"	1/2"

WELLER ELECTRIC CORP. EASTON, PA.

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Weller DUAL HEAT Soldering Guns

Weller® Expert
UL

Dual heat. All Weller guns offer Dual Heat, an original Weller feature that provides two tip temperatures from the same gun. Two trigger positions permit instant switching to high or low heat, whichever is best suited for the job. The use of low heat prevents damage when soldering near heat-sensitive components and prolongs tip life. High heat is instantly available when needed.

Instant heat. Solders in seconds. No waiting for the tip to heat. No wasted current.

High-Efficiency Tip. Made of copper for superior heat transfer and premium-plated for rigidity and long life. Slips easily into difficult places.

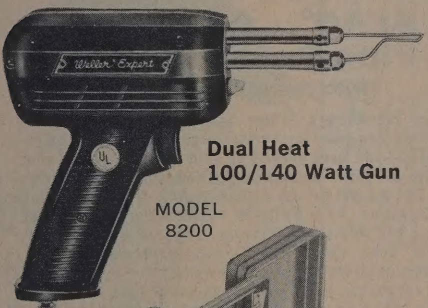
Exclusive Tip Grip. Wiping action of tip fastening nuts eliminates contact resistance and oxidation. This assures full, constant heat.

Spotlight. Illuminates the work and eliminates shadows.

Fingertip control. Heat is instantly "on" when trigger is pulled, instantly "off" when trigger is released. No need to unplug the gun. No danger of damage from an idling hot tool.

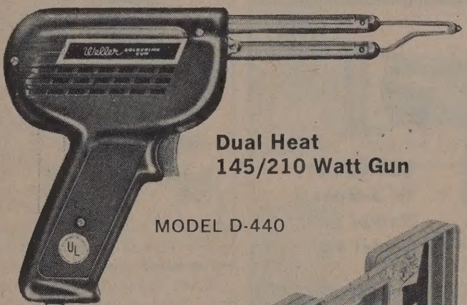
Operating comfort. Compact design and perfect balance make precision soldering easy and eliminate fatigue.

Guaranteed one year. All Weller guns are UL and CSA approved, and guaranteed for one year against defects in material and workmanship.



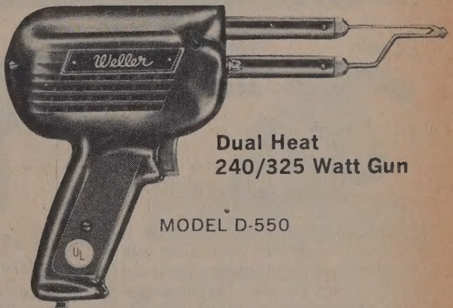
Dual Heat
100/140 Watt Gun

MODEL
8200



Dual Heat
145/210 Watt Gun

MODEL D-440



Dual Heat
240/325 Watt Gun

MODEL D-550

Weller
SOLDERING KIT

Expert Kit
with Dual Heat
100/140 Watt Gun

MODEL 8200PK

Plastic case,
3 soldering tips,
tip wrench, flux
brush, soldering
aid and solder included.

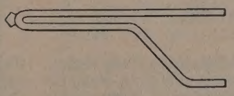
Weller
HEAVY DUTY
SOLDERING KIT
WELLER ELECTRIC CORP.

Heavy Duty Kit
with Dual Heat
240/325 Watt Gun

MODEL D-550PK

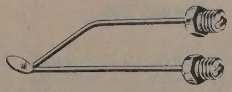
Plastic case;
soldering, cutting
and smoothing tips;
tip wrench; and
solder included.

Accessory and replacement tips for Weller guns



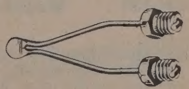
SOLDERING

For gun model 8200—Tip 8125N
For gun model D-440—Tip 7135N
For gun model D-550—Tip 7250N



SMOOTHING

For gun models D-440 and 8200—Tip 6120
For gun model D-550—Tip 6140



CUTTING

For gun models D-440 and 8200—Tip 6110
For gun model D-550—Tip 6130

WELLER ELECTRIC CORP. EASTON, PA.

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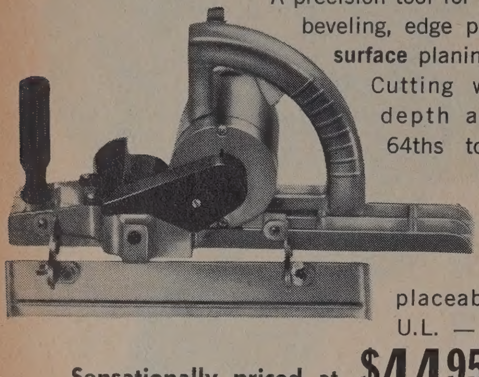
WEN ...Tools you will sell the most

PROMOTED THE YEAR 'ROUND

Reader's Digest—Life, Saturday Evening Post—Esquire, Popular Mechanics, Popular Science, Mechanix Illustrated

ELECTRIC HAND PLANE

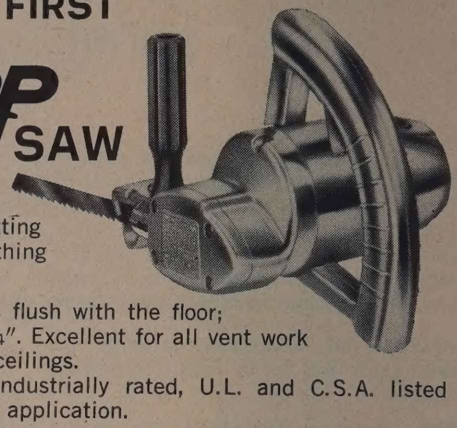
Industrially Rated for Heavy-Duty Use



A precision tool for precision work; beveling, edge planing — even surface planing. Cutting width — 2⅛″; depth adjustable to 64ths to 1/16″. ½ hp. burnout-proof motor; finger control switch; 16″ shoe; replaceable cutters — U.L. — C.S.A. listed.

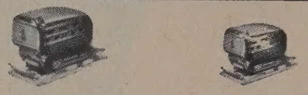
Sensationally priced at $44.95 (list price) (model #930)

WORLD'S FIRST Zipp SAW



- "Free Hand" cutting saw — cuts anything anywhere.
- Makes wall cuts flush with the floor; corner cuts to ¼″. Excellent for all vent work in walls, floors, ceilings.
- ⅓ hp. motor, industrially rated, U.L. and C.S.A. listed under industrial application.

Model #920 — $44.95 list, complete with 7 blades.



STRAIGHT-LINE VIBRATOR SANDERS

Model 202—$13.95	Model 303—$16.95	Model 404—$19.95
Small, light, quiet. Strong black plastic case. 14,400 strokes per minute. In display carton with 6 abrasive sheets, 2 polishing pads.	General utility model in red plastic. 14,400 strokes per minute. In gold metal Kit Box with 12 abrasive sheets, 2 polishing pads.	Heavy duty with special motor for amazing power. 14,400 strokes per minute. Ebony plastic in metal Kit Box with 15 abrasive sheets, 2 polishing pads, instruction book.

Belt Sander
Model 910
$44.95 LIST

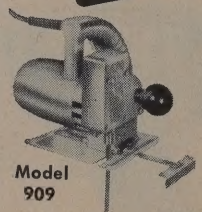
Cool-running 4¼ amp. motor turns belt at 850 surface ft. per min. Gear driven with permanently lubricated precision needle and oversize sleeve bearings. Unique tension device enables quick change of belts. Exclusive casting design causes dust accumulation at rear—keeps work clean, easy to see. Balanced weight, contour grip handle minimize fatigue. Die cast polished aluminum housing. Total weight 7 lbs. Comes with 3 belts: coarse, medium, fine.

$29.95 LIST
⅜″ 2-Speed Power Drill
Model 808

A 2-speed ⅜″ Power Drill by Wen—and only Wen. Here in one tool is everything needed in an electric drill. Easy to change speeds. 1000 RPM to 3000 RPM. Husky, powerful, but streamlined design. Genuine ⅜″ Geared Chuck. Universal 2 amp. Motor. Size 12¼″ x 4¾″ x 2½″. Weight 4½ lbs.

WEN All Saw...Cuts 4 x 4 At 45°...6″ Log Fine Scroll Work...

with complete safety.



Model 909

Does Everything a Pattern Saw Will Do, More Than A Circular Saw Does! Does many things a band saw or nibbler will do—and many things that, until now, only a chain saw could. No other portable electric-saw can cut a 6″ board or a 6″ log, yet cut any pattern, too!

Cuts 2 x 4, 4 x 4, 6 x 6—all metals, including steel thin gauge to ½″—pipe and thin wall up to 2″ in diam. Cuts curves, circles, straight cuts, fine pattern work in Masonite, Bakelite, wood, metals, tiles, Formica, wallboard, Plexiglas, plaster board, asbestos. Knife blade cuts all materials cut with knife.

Curved foot plate enables inside cut anywhere; cutting blade in line of sight; air stream clears dust from line of cut; powerful ½ H.P. motor; 3 wire 8 cord with adaptor; heavy duty hardened gears; heavy duty roller and oilite bearings.

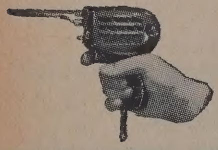
1/2 h.p.

Complete with 7 blades, rip guide, circle cutter, 45 tilting base plate. Universal Motor: AC-DC, 3400 1″ strokes per minute. Length 8″, Width 7″, Height 7½″, Wt. 6½ lbs.

UL CSA only **$44.95** UL listed under Industrial Classification

"Quick Hot" Soldering Guns . . . 8 standard and special tips

Promotionally Priced



$7.95 LIST
Model 199

$9.95 LIST
Model 199K

General purpose gun. Heats 2½ seconds. Weighs 1½ lbs. Has long, durable tips, spotlight, sturdy red plastic case. Kit includes gun, extra tips for hot-cutting, smoothing, rosin core solder, all in strong metal box.

$9.95 LIST
Model 288

Heats in 5 seconds, far beyond 200 watt rating. Light (2¼ lbs.) Has long reach, long life tips, spotlight, strong shatterproof handle and case.

$12.95 LIST
Model 250

Famous WEN 250 Watt Heavy Duty Model. 567 hours continuous operation. Heats in 5 seconds. Spotlights work. With special rip cuts plastic tile. Strong black plastic case. Comes in attractive Self-Display Carton. Also available in kit form (250K) with metal carrying case.

$5.95 LIST
Model 100

Feather-light (19 oz.) Slim-line (1 11/16″ cross section) 100 Watts power. Heats 2½ seconds. Built-in spotlight focused on work. Long reach, long life tips, replaceable and interchangeable with special purpose tips. Lustrous black plastic housing.

WEN PRODUCTS, INC.
Chicago 31, Ill.

Trade Discount Applies To List Prices Only

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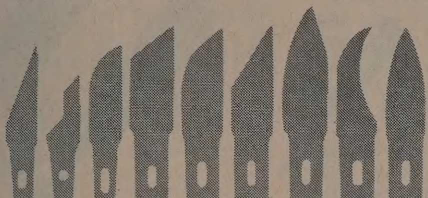
precision hand tools

The line of tools that "fit-the-job" to save you time and money

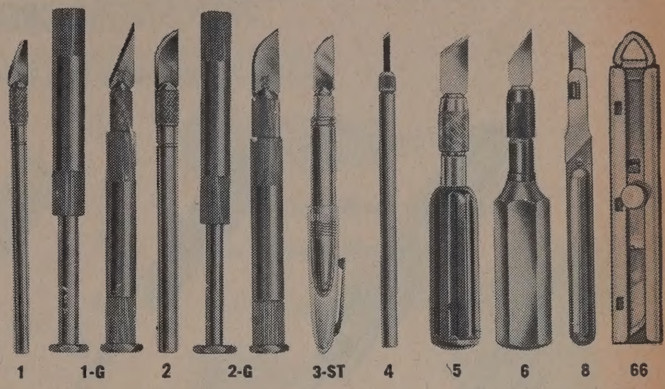
X-ACTO® "Refill-Blade" KNIVES

Always Sharp . . . Safe To Use! Wherever a Sharp Knife is Needed

- **Famous X-acto "Interchangeable Blade" Knife Feature!** Just "twist the chuck" and insert new blade.
- **So Safe!** Fingers are never near the cutting edge.
- **Versatility!** X-acto knife handles accommodate more than 30 different styles of Blades, Gouges, Routers, Punches and Saws.



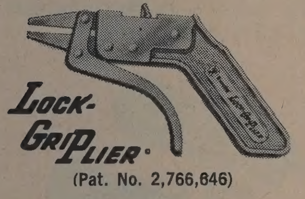
Whatever your cutting needs, X-acto has a blade that is sure to fit the job. See the complete assortment in X-acto's illustrated catalogue.



list price

No. 1 KNIFE—Aluminum Handle. For Light to Medium work. With#11 Blade....60¢
No. 1-G KNIFE (Pat.)—Aluminum Construction. Ideal for depth gauge cutting. For Light to Medium work. With #11 Blade....$1.20
No. 2 KNIFE—Aluminum Handle. For Medium to Heavy Work. With #22 Blade..75¢
No. 2-G KNIFE (Pat.)—Same as #1-G Knife except is for Medium to Heavy work. With #22 Blade....$1.50
No. 3-ST PENKNIFE—For Light to Medium work. With #10 Blade....$1.00
No. 4 STENCIL KNIFE—Metal Handle with detachable blade....30¢
No. 5 KNIFE—Plastic Handle, metal blade lock. With #19 Blade....$1.20
No. 6 KNIFE—For Heavy Work. With #24 Blade....$1.80
No. 8 UTILITY KNIFE—Steel Handle, reversible blade. With #8 Blade....29¢
No. 66 POCKET KNIFE—Push button operation. With #122 Blade....59¢

No. 348 Soldering Aid Kit—Contains five tools and a universal, double-chuck handle—all in an always-handy, see-thru carrying case. Tools are hard chrome-plated steel, to which solder will not adhere. Individual tools are replaceable. **No. 348. list** $3.00



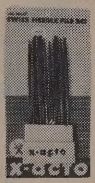
(Pat. No. 2,766,846)

The "third hand" for small assemblies. Serves as a Heat Sink, Plier, Vise, Stripper, Crimper, Tweezer, Wrench. No. 800 list price $3.50

RETRIEVER CLAMPS

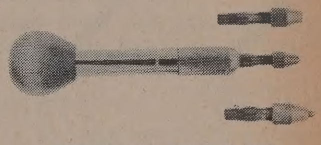
Multi-purpose tools with scores of uses in soldering, wiring & small parts assembly. Made of Swedish Steel. Box Lock assures perfect alignment.

5½" Length list
No. 810-S ....$5.75 Straight Nose
No. 810-C ....$5.90 Curved Nose
6¼" Length
No. 813-S ....$6.75 Straight Nose
No. 813-C ....$6.90 Curved Nose



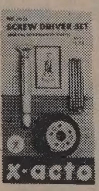
SWISS NEEDLE FILES

No. 60S—Swiss Needle File Set: Complete Set of 12 assorted styles, **list $3.95**



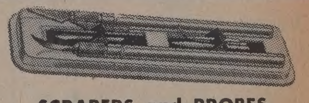
PRECISION CHUCK SET

No. 321D. For drills all sizes 44-80 and Pin Vise with interchangeable standard handle. ....**list price $2:75**



JEWELER'S SCREW DRIVERS

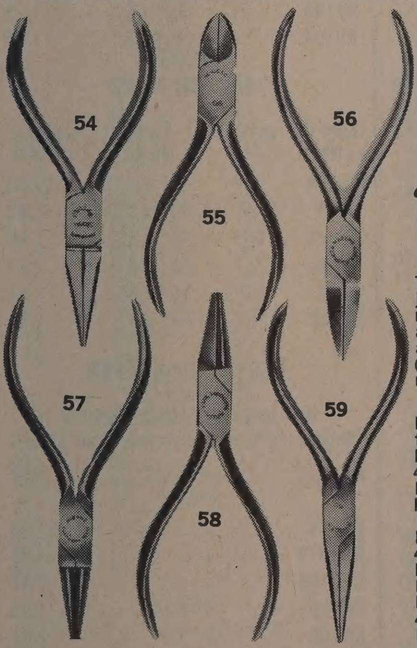
No. 70—Screw Driver Set: Aluminum handle with positive locking chuck and 5 assorted "interchangeable" steel blades. **list** $1.75



SCRAPERS and PROBES

No. 63—Scraper Set: 2 handles, 6 asst'd scraper points, 2 straight edge cutting blades in plastic case. **list** $2.75

(Scraper points and handles also available separately)

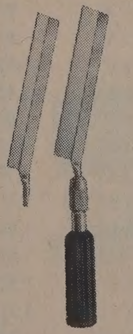


Royal Swedish
PLIERS

Tempered Swedish Steel. Box-joint assures perfect jaw alignment. Scientifically hardened and tempered in **all three** key areas (1) Jaws, (2) Box Joint, (3) Handles. Also available with non-slip insulated handles.

list price

No. 54—Long nose, side cutting. Length 4½" $4.50
No. 55—Diagonal cutting. Lgth 4" $4.00
No. 555—5" Length $5.00
No. 56—Flat nose. Length 4½" $3.50
No. 57 — Snipe-nose. Length 4½" $3.50
No. 58 — Combination nose. Length 4½" $3.50
No. 59 — Long-nose. Length 4½" $4.00
No. 596—6" Length $5.00

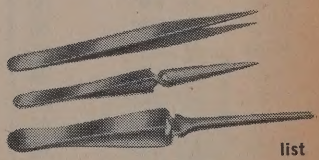


RAZOR SAWS

For razor-thin cuts through wood, plastic and metal that never chip, never split.

No. 53 — Razor Saw Set: No. 5 handle with #34 and #35 Razor Saw Blades. **list price** $1.75
No. 34—¾" Razor Saw Blade ....40¢
No. 35—1" Razor Saw Blade ....45¢

TWEEZERS



list

No. 36—Plain Pointed (4¾" long)....50¢
No. 37—Cross-action, self locking, pointed (4¾" long)....65¢
No. 38—Cross-action, self locking, blunt (6½" long) ....70¢
(Other specialized tweezers also available)

HEAT SINKS

All-aluminum to quickly dissipate heat.

(also ideal for use as cross-action clamp and tweezer)

No. 349 ST (3½" long) ....**list 20¢**
(packed 3 doz. to a box.)

Write for complete catalog of X-acto Precision Hand Tools

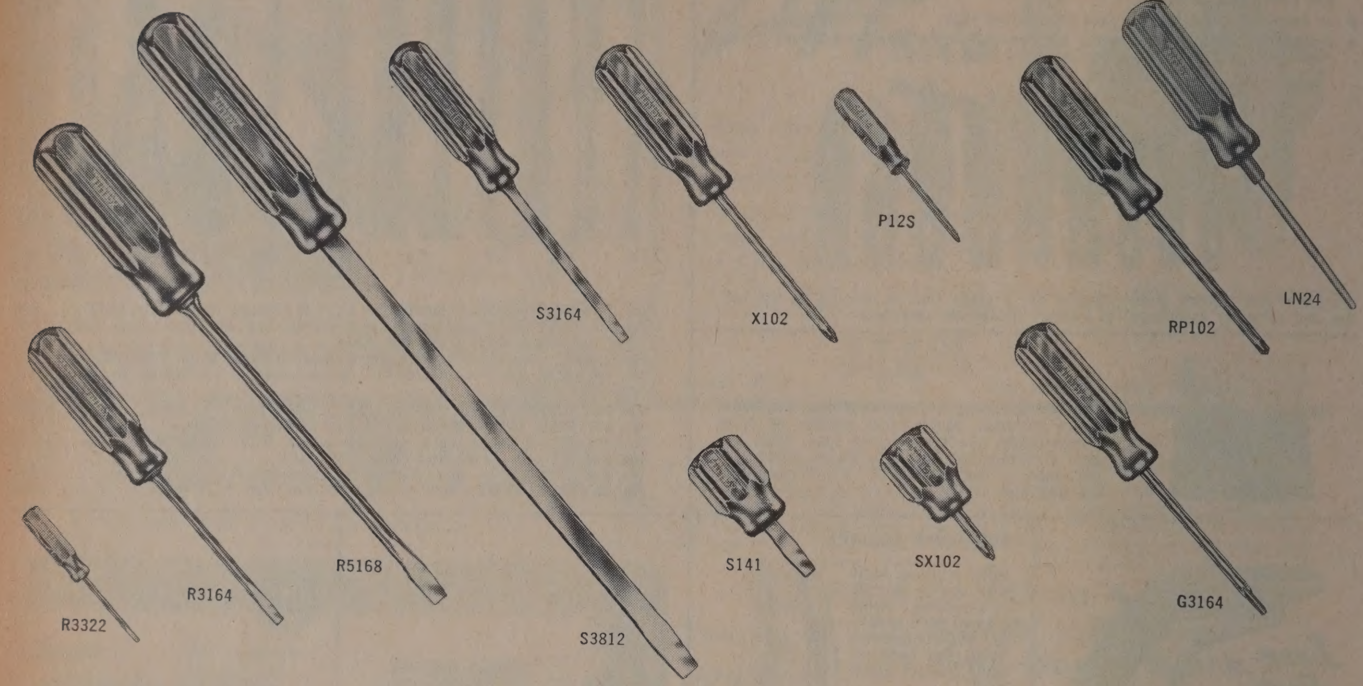
X-ACTO® PRECISION TOOLS, INC., **Long Island City, New York**

Nearly a half-century experience in manufacturing precision tools

XCELITE® QUALITY PROFESSIONAL TOOLS

SCREWDRIVERS

SAE 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles.



ROUND BLADE

Number	Size Blade	Net
	Regular	
R182	1/8" x 2"	$ .37
R184	1/8" x 4"	.43
R186	1/8" x 6"	.47
R188	1/8" x 8"	.60
R1810	1/8" x 10"	.67
R5323	5/32" x 3"	.50
R5324	5/32" x 4"	.50
R5325	5/32" x 5"	.50
R5328	5/32" x 8"	.67
R3163	3/16" x 3"	.63
R3164	3/16" x 4"	.70
R3166	3/16" x 6"	.80
R3168	3/16" x 8"	.93
R31610	3/16" x 10"	1.00
R142	1/4" x 2"	.77
R144	1/4" x 4"	.87
R146	1/4" x 6"	.93
R148	1/4" x 8"	1.00
R1410	1/4" x 10"	1.07
R5164	5/16" x 4"	.97
R5166	5/16" x 6"	1.10
R5168	5/16" x 8"	1.20
	Pocket Clip Style	
R3322	3/32" x 2"	.32
R3323	3/32" x 3"	.30
R3324	3/32" x 4"	.30
R181	1/8" x 2"	.32
R183	1/8" x 3"	.30
R184½	1/8" x 4"	.30

SQUARE BLADE

Number	Size Blade	Net
	Regular	
S3163	3/16" x 3"	$ .73
S3164	3/16" x 4"	.77
S3166	3/16" x 6"	.90
S3168	3/16" x 8"	1.00
S31610	3/16" x 10"	1.10
S142	1/4" x 2"	.83
S144	1/4" x 4"	.97
S146	1/4" x 6"	1.03
S148	1/4" x 8"	1.13
S5162	5/16" x 2"	.90
S5164	5/16" x 4"	1.10
S5166	5/16" x 6"	1.17
S5168	5/16" x 8"	1.27
S51610	5/16" x 10"	1.40
S51612	5/16" x 12"	1.53
S388	3/8" x 8"	1.53
S3812	3/8" x 12"	2.29
S3818	3/8" x 18"	2.37
S7166	7/16" x 6"	1.80
S71612	7/16" x 12"	2.20
S71618	7/16" x 18"	2.37
S1424	1/4" x 24"	2.00
	Stubby	
S3161	3/16" x 1"	.50
S141	1/4" x 1"	.57
S5161	5/16" x 1"	.57

PHILLIPS

Number	Point Size	Size Blade	Net
		Extra Long	
X1010	1	3/16" x 10"	$1.17
X1020	2	1/4" x 10"	1.30
		Regular	
X100	0	1/8" x 2"	.50
X101	1	3/16" x 3"	.77
X108	1	3/16" x 6"	.83
X102	2	1/4" x 4"	.97
X103	3	5/16" x 6"	1.30
X104	4	3/8" x 8"	1.63
		Stubby	
SX101	1	3/16" x 1⅜"	.70
SX102	2	1/4" x 1⅜"	.77
		Pocket Clip Style	
P12S	0	1/8" x 2"	.43

ALLEN HEX

Number	Hex Size	Blade Length	Net
LN20	.050"	4"	$ .67
LN21	1/16"	4"	.67
LN22	5/64"	4"	.67
LN23	3/32"	4"	.67
LN674	7/64"	4"	.67
LN24	1/8"	4"	.77
LN964	9/64"	4"	.77
LN25	5/32"	6"	.77
LN26	3/16"	6"	.77
LN27	7/32"	6"	.87
LN28	1/4"	6"	.87

REED & PRINCE

Number	Point Size	Size Blade	Net
RP101	1	3/16" x 3"	$ .73
RP102	2	1/4" x 4"	.93
RP103	3	5/16" x 6"	1.23
RP104	4	3/8" x 8"	1.57

CLUTCH HEAD

Type G No.	Tip Size	Size Blade	Net
G3324	3/32"	1/8" x 4"	$ .80
G183	1/8"	3/16" x 3"	.80
G5324	5/32"	1/4" x 4"	.90
G3164	3/16"	1/4" x 4"	.90
G146	1/4"	5/16" x 6"	1.17
G5166	5/16"	3/8" x 6"	1.43

BERYLLIUM-COPPER

Non-sparking. Non-magnetic.
Higher fatigue resistance than steel.

Number	Size Blade	Net
	Regular	
BR186	1/8" x 6"	$ .83
BR1810	1/8" x 10"	.90
BR3168	3/16" x 8"	1.47
BR146	1/4" x 6"	1.83
BR148	1/4" x 8"	1.97
	Pocket-Clip Style	
BR181	1/8" x 2"	.33

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XCELITE® QUALITY PROFESSIONAL TOOLS

COMBINATION-REVERSIBLE SCREWDRIVERS

SAE 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles. Patented spring holds blades securely. 7/16″ hex opening doubles as a nutdriver.

COMPLETE UNITS

Regular Type	Net
CR1—No. 25 handle & RB1 blade	$1.53
CR2—No. 25 handle & RB2 blade	1.53
CR3—No. 25 handle & RB3 blade	1.53
Stubby Type	
CS1—No. 26 handle & SB1 blade	1.37
CS2—No. 26 handle & SB2 blade	1.37

HANDLES ONLY

25—Regular	.67
26—Stubby	.60

BLADES ONLY

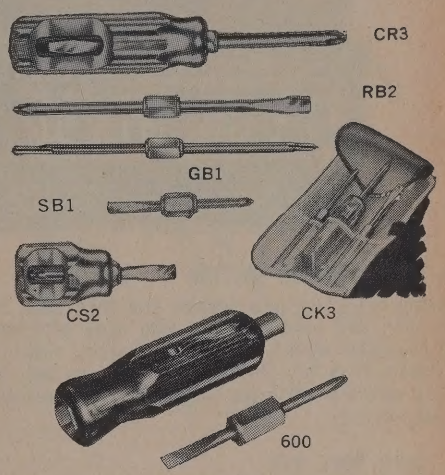
Regular Type	
RB1 — No. 1 Phillips & 3/16″ Slotted	.87
RB2 — No. 2 Phillips & 1/4″ Slotted	.87
RB3 — No. 3 Phillips & 5/16″ Slotted	.87
RB12—No. 1 & No. 2 Phillips	.97
GB1—3/16″G & 5/32″G Clutch	$ .97
GB2—5/16″G & 1/4″G Clutch	.97
Stubby Type	
SB1—No. 1 Phillips & 3/16″ Slotted	.77
SB2—No. 2 Phillips & 1/4″ Slotted	.77
GS1—3/16″G & 5/32″G Clutch	.85

ROLL KIT COMBINATIONS

	Net
CK2 with No. 25 combination handle and RB1 and RB2 reversible blades	$3.00
CK3 Same as CK2, plus RB3 blade	3.87
CK5 Same as CK2, plus RB3, GB1, and GB2 blades	5.80

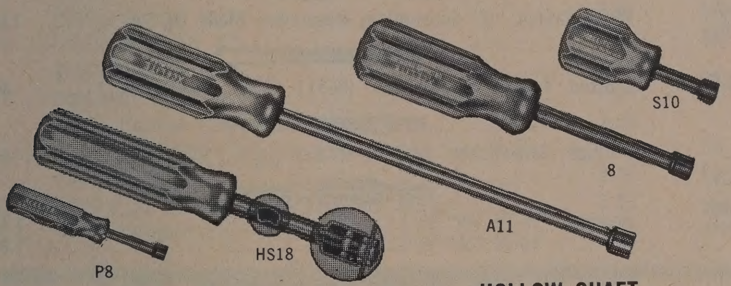
COMBINATION SCREW AND NUTDRIVER TOOL

600—Handy 4-way tool with pocket clip. 1/4″ and 7/16″ hex openings. Reversible SB1 blade .... **Net $1.53**



NUTDRIVERS (Color-Coded Handles)

Polished-plated, High Carbon Steel shafts. Shockproof, breakproof, plastic (UL) handles. Precision, cold drawn, case hardened sockets.



REGULAR

(6″ Overall Length)

Number	Handle Color	Hex Opening	Net
5	Amber	5/32″	$ .83
6	Black	3/16″	.83
7	Brown	7/32″	.83
8	Red	1/4″	.83
9	Orange	9/32″	.83
10	Amber	5/16″	.83
11	Green	11/32″	.83
12	Blue	3/8″	.83
14	Brown	7/16″	1.07
16	Red	1/2″	1.07

EXTRA LONG

(9″ Overall Length)

Number	Handle Color	Hex Opening	Net
A6	Black	3/16″	$ .97
A7	Brown	7/32″	.97
A8	Red	1/4″	.97
A9	Orange	9/32″	.97
A10	Amber	5/16″	.97
A11	Green	11/32″	.97
A12	Blue	3/8″	.97

STUBBY

(3 1/4″ Overall Length)

Number	Handle Color	Hex Opening	Net
S6	Black	3/16″	$ .70
S8	Red	1/4″	.70
S10	Amber	5/16″	.70
S11	Green	11/32″	.70
S12	Blue	3/8″	.70

HOLLOW SHAFT

Number	Handle Color	Hex Opening	Net
HS6	Black	3/16″	$1.03
HS7	Brown	7/32″	1.03
HS8	Red	1/4″	1.03
HS9	Orange	9/32″	1.03
HS10	Amber	5/16″	1.03
HS11	Green	11/32″	1.03
HS12	Blue	3/8″	1.03
HS13	Amber	13/32″	1.05
HS14	Brown	7/16″	1.05
HS15	Amber	15/32″	1.08
HS16	Red	1/2″	1.08
HS17	Amber	17/32″	1.14
HS18	Orange	9/16″	1.14
HS19	Amber	19/32″	1.26
HS20	Amber	5/8″	1.26
HS22	Amber	11/16″	1.59
HS24	Amber	3/4″	1.59

POCKET CLIP STYLE

Number	Handle Color	Hex Opening	Net
P3	Amber	3/32″	$ .53
P4	Red	1/8″	.53
P5	Amber	5/32″	.53
P6	Black	3/16″	.53
P7	Brown	7/32″	.53
P8	Red	1/4″	.53
P9	Orange	9/32″	.53
P10	Amber	5/16″	.53
P11	Green	11/32″	.53
P12	Blue	3/8″	.53

NUTDRIVER SETS

Choice of heavy gage steel stands and racks with large readable size indexes. Color-coded, shockproof, breakproof, plastic (UL) handles. Polished-plated shafts.

No. 17 BENCH STAND TYPE **Net $6.30**

Contains Nos. 6, 8, 10, 11, 12, HS16, and HS18 color-coded drivers.

No. 137 BENCH STAND TYPE **Net $7.17**

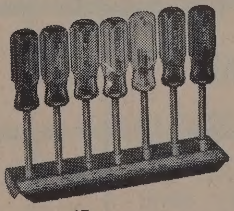
Contains Nos. 6, 8, 10, 11, 12, HS16 and HS18 color-coded nutdrivers.

No. 127 LOCKABLE WALL RACK TYPE **Net $6.45**

Contains Nos. 6, 7, 8, 9, 10, 11, and 12 color-coded nutdrivers.

No. 147 BENCH STAND TYPE (Hollow Shaft) **Net $7.98**

Contains Nos. HS8, HS9, HS10, HS11, HS12, HS14, and HS16 hollow shaft, color-coded nutdrivers.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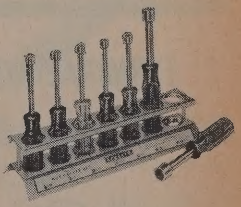
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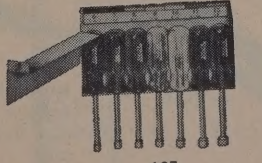
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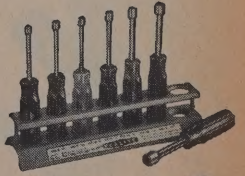
147

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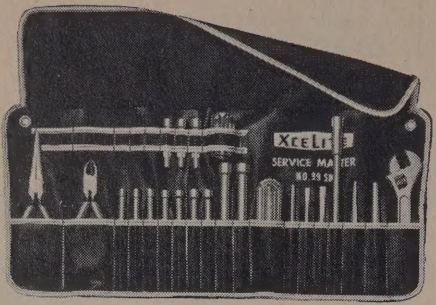
Net

XCELITE® QUALITY PROFESSIONAL TOOLS

SERIES "99" SERVICE KITS, BLADES, AND HANDLES



NO. 99SM SERVICE MASTER **Net $22.89**

Contains 52CG long nose cushion grip plier, 55CG 5″ diagonal cushion grip plier, 99-3 handle (Stubby) with three nutdrivers (¼″, 5⁄16″, ⅜″), 46C adjustable wrench, 99-1 handle (Regular) with nine interchangeable nutdrivers (99-6 thru 99-16), one Phillips and two slotted screwdrivers, 99-X10 extension shaft, and two chrome-plated reamers.

99SMK, Kit only .... **Net $1.92**

No. 99PR ROLL KIT **Net $8.67**

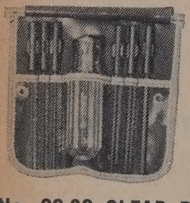
Contains nine nutdrivers (99-6 thru 99-16), 99-81 (Slotted) and 99-82 (Phillips) reversible screwdriver blades, 99-1 handle (Regular).

99K, Kit only .... **Net $ .96**

No. 99JR ROLL KIT **Net $7.50**

Contains seven nutdrivers (99-6 thru 99-12) four screwdriver blades 99-811 and 99-812 (slotted), and 99-821 and 99-822 (Phillips), 99-2 handle (Junior).

99KJR, Kit only .... **Net $.96**



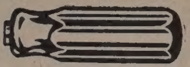
No. 99LN ROLL KIT **Net $4.47**

Contains six Allen hex screwdriver blades (99-21 thru 99-26) and 99-1 handle (Regular).

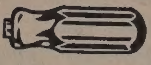
No. 99-30 CLEAR PLASTIC POUCH **Net $3.24**

Heat sealed plastic snap case with size numbers on pockets for convenient selecting and storing. Contains six Allen hex screwdriver blades (99-21 thru 99-26).

Net



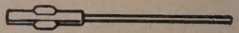
99-1 (1 1⁄16″ x 4⅛″) Regular Handle (for all blades, single-end and reversible) $ **.77**



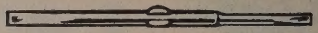
99-2 (1″ x 3⅛″) Junior Handle (for single-end blades only) .... **.67**

99-3 (1 1⁄16″ x 2″) Stubby Handle (for single-end blades only) .... **.60**

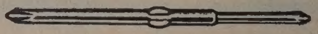
Nutdriver Blades: 99-6 (3⁄16″), 99-7 (7⁄32″), 99-8 (¼″), 99-9 (9⁄32″), 99-10 (5⁄16″), 99-11 (11⁄32″), 99-12 (⅜″) .... **.60**
99-14 (7⁄16″), 99-16 (½″) .... **.80**



Allen Hex Screwdriver Blades: 99-21 (1⁄16″), 99-22 (5⁄64″), 99-23 (3⁄32″), 99-764 (7⁄64″), 99-24 (⅛″), 99-964 (9⁄64″), 99-25 (5⁄32″), 99-26 (3⁄16″) **.60**

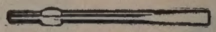


99-81 Slotted Screwdriver Reversible Blade (3⁄16″ & 9⁄32″) **1.00**

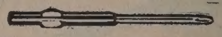


99-82 Phillips Screwdriver Reversible Blade (#1 & #2) **1.00**
99-83 Reed & Prince Screwdriver Reversible Blade (3⁄16″ & 9⁄32″) **1.00**

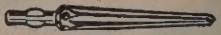
99-84 Clutch "G" Screwdriver Reversible Blade (3⁄16″ & 5⁄32″) **1.00**



Slotted Screwdriver Blades: 99-811 (3⁄16″), 99-812 (9⁄32″) .... **.60**



Phillips Screwdriver Blades: 99-821 (#1), 99-822 (#2) .... **.60**



Reamers: 99-38 (⅛″-⅜″) **1.47**
99-39 (¼″-½″) **1.83**

99-X10 Extension Shaft. Adds 7″ reach to single-end blades .... **.97**

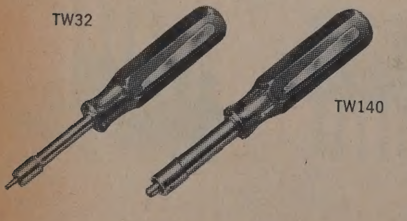
Stubby Nutdriver Blades: 99-S8, 99-S10, 99-S12 .... **.53**

TERMINAL WRENCHES

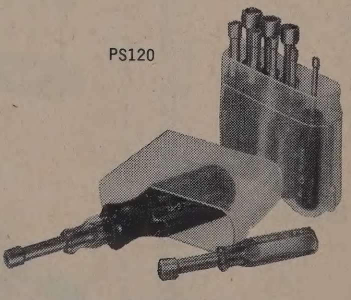
Removes spanner nut on external antenna and earphone jacks of transistor radios. Convenient pocket clip.

No. TW32 (.086″ guide pin for ¼″ O.D. spanner nut) .... **Net $ .53**

No. TW140 (.140″ guide pin for 5⁄16″ O.D. spanner nut .... **Net $ .53**



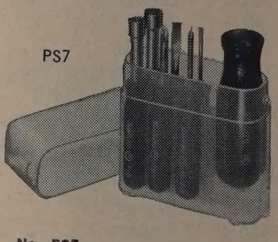
COMPACT, CONVERTIBLE NUTDRIVER AND SCREWDRIVER SETS



No. PS120 NUTDRIVER SET
Contains ten color coded nutdrivers (3⁄32″ thru ⅜″), hollow handle, and case. **Net $4.95**

Black plastic torque amplifier handle (1″ x 3-18″) slips over handles of pocket size (3½″) nutdrivers and screwdrivers . . . provides larger grip, extends reach and increases driving power to that of standard size tools. See-through plastic case fits pocket, stands upright on bench.

No. PS88 SCREWDRIVER SET
Contains 5 slot tip screwdrivers (3⁄32″, ⅛″, 5⁄32″, 3⁄16″, ¼″), 3 Phillips screwdrivers (#0, #1, #2), hollow handle, and case. **Net $3.75**



No. PS7
NUTDRIVER/SCREWDRIVER SET
Contains 2 nutdrivers (¼″ and 5⁄16″), 2 slot tip screwdrivers (3⁄16″ and 3⁄32″), 2 Philips screwdrivers (#0 and #1), hollow handle, and case. **Net $3.15**

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Net

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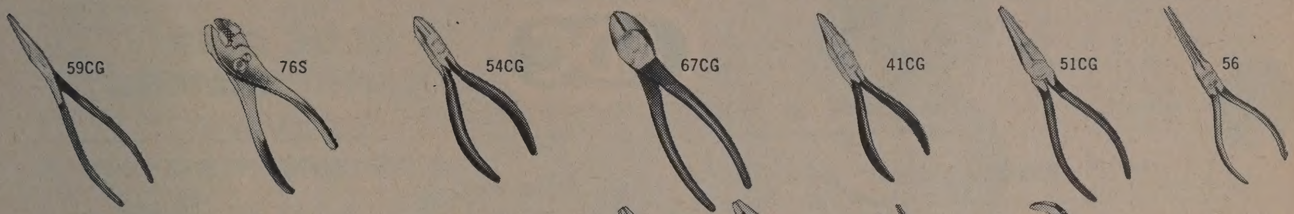
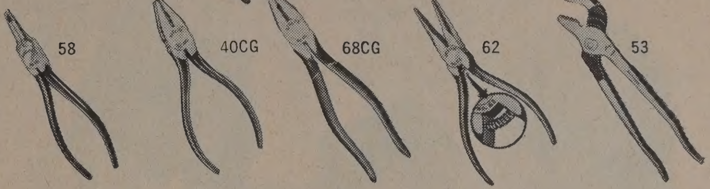
XCELITE® QUALITY PROFESSIONAL TOOLS

PLIERS



Precision-machined forged alloy steel. Perfectly aligned jaws. Hand-honed, mated cutting edges. Box joints provided where "double-strength" is important. Polished heads.



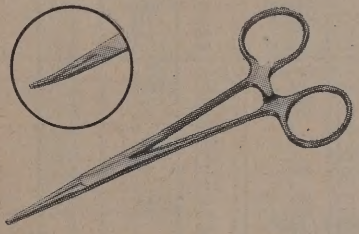
No.	Description	Net
59CG	CHAIN NOSE ELECTRICIANS PLIER (8")—Cushion Grip	$3.30
75C	COMBINATION SLIP JOINT PLIER (5")—Chrome-Plated	1.22
76C	COMBINATION SLIP JOINT PLIER (6")—Chrome-Plated	1.22
76S	Satin Finish	.71
78C	COMBINATION SLIP JOINT PLIER (8")—Chrome-Plated	1.62
54	DIAGONAL PLIER (Midget 4")	2.76
54CG	Cushion Grip	3.08
55	DIAGONAL PLIER (5")	2.55
55CG	Cushion Grip	2.93
66	DIAGONAL PLIER (6")	2.93
66CG	Cushion Grip	3.30
67	DIAGONAL PLIER (7")	3.00
67CG	Cushion Grip	3.53
41CG	LONG NOSE PLIER (Midget 4")—Without Side Cutters—Cushion Grip	2.76
52	LONG NOSE PLIER (6")—Without Side Cutters	2.33
52CG	Cushion Grip	2.63

No.	Description	Net
51	LONG NOSE PLIER (6")—With Side Cutters	$ 2.93
51CG	Cushion Grip	3.30
56	NEEDLE NOSE PLIER (6")	2.70
56CG	Cushion Grip	3.00
58	RADIO AND TV PLIER (6")	3.38
58CG	Cushion Grip	3.68
40CG	SIDE CUTTING PLIER (Midget 4")—Cushion Grip	2.63
60	SIDE CUTTING PLIER (6")	2.70
60CG	Cushion Grip	3.08
68	SIDE CUTTING PLIER (8")	3.30
68CG	Cushion Grip	3.68
62	TRAVERSE CUTTING PLIER (6")	3.30
62CG	Cushion Grip	3.68
53	UTILITY PLIER (6")—Forged Rib-Lock	1.95
53CG	Cushion Grip	2.25
63	UTILITY PLIER (10")—Forged Rib-Lock	2.55
63CG	Cushion Grip	3.24

SEIZER

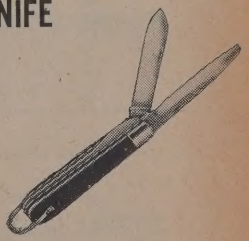
Outreaches, outholds needle nose pliers. Clamps tightly. Holds wires for soldering, retrieves small parts from hard-to-reach places. It's a heat sink. Two-position snap-lock. Stainless steel, box-joint construction. 6" length. Precision machined and tempered.

42H	Straight Nose	**Net $4.27**
43H	Curved Nose	**Net 4.42**



No. K22
ELECTRICIAN'S KNIFE

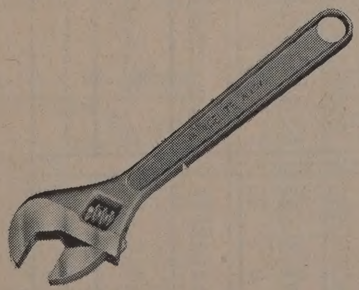
Two blades. One is combination insulation-scraper and screwdriver. Has positive lock when open ....**Net $2.01**



ADJUSTABLE WRENCHES

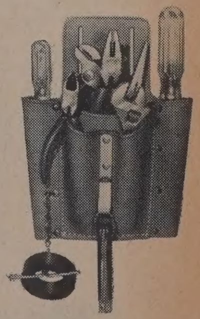
Thin-pattern permits access to close-quarter work. Chrome-plated forged alloy steel. Polished heads.

No.	Size	Net
44C	4"	**$2.16**
46C	6"	**2.16**
48C	8"	**2.48**
40-10C	10"	**3.15**
40-12C	12"	**4.65**



No. 150 TOOL HOLSTER

Has tape holder, knife clip, and 5 tool pockets. Durably made of pliable saddle leather with natural cowhide finish. Features comfortable hip-contoured back, hot-waxed stitching, and brass rivets ....**Net $3.15**



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Net

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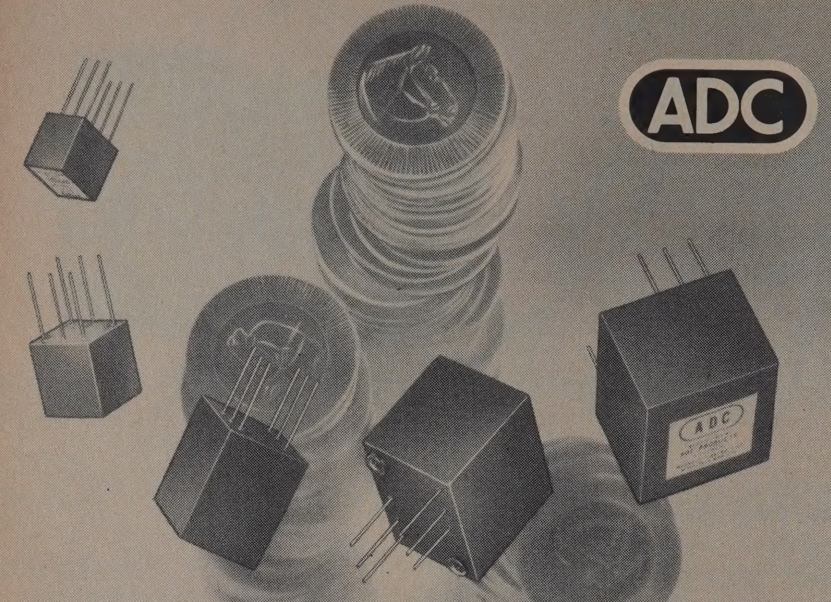


"BLUE CHIP" TRANSFORMERS

62 TYPES
5 DIFFERENT SIZES

Tiny, plastic cased, Blue Chip transformers for printed circuit applications, are available for a wide choice of power ratings.

Five different sizes, from .10 to 1.2 cubic inches with a total of 62 new ratings are listed below to indicate the available power levels for both voice frequency range and extended frequency operation. These ratings take into account not only power handling capacities at minimum frequencies, but also total harmonic distortion under stated conditions. Within the limits shown on the rating charts, variations in both power and distortion levels are possible depending upon the minimum operating frequency.

Blue Chip transformers meet Mil-T-27A, Grade 5, Class S requirements. These versatile transformers are available from ADC, or through your distributor.

CATALOG NUMBER	PRIMARY IMPED.—OHMS	SECONDARY IMPED.—OHMS	PRIMARY-SECONDARY DC RESISTANCE-OHMS		MAX. DC IN PRIM. MA.
324-6A	★100K-CT	1000-CT	3300	70	0
324-6B	25K-CT	1000-CT	2800	150	0
124-6C	10K-CT	10K-CT	1100	1400	1
324-6D	10K-CT	1500-CT	1100	180	1
324-6E	10K-CT	600-CT	1100	75	1
224-6F	4000-CT	10K-CT	440	1400	1.5
324-6G	1000-CT	600-CT	110	75	3
324-6H	1000-CT	4	110	0.5	3
224-6J	600-CT	25K-CT	65	3500	4
124-6K	600-CT	600-CT	65	75	4
324-6L	600-CT	60	65	7	4
324-6M	600-CT	4	65	0.5	4
★Max. power level: 10 mw at 300 cps.					
324-5A	100K-CT	1000-CT	6000	60	0
324-5B	25K-CT	1000-CT	2800	120	0
124-5C	10K-CT	10K-CT	1100	1200	1
324-5D	10K-CT	1500-CT	1100	200	1
324-5E	10K-CT	600-CT	1100	75	1
224-5F	4000-CT	10K-CT	440	1200	1.5
324-5G	1000-CT	600-CT	100	60	3
324-5H	1000-CT	4	100	0.4	3
224-5J	600-CT	25K-CT	65	3500	4
124-5K	600-CT	600-CT	65	75	4
324-5L	600-CT	60	65	7	4
324-5M	600-CT	4	65	0.5	4
324-4B	25K-CT	1000-CT	2800	120	0
124-4C	10K-CT	10K-CT	1100	1200	1
324-4D	10K-CT	1500-CT	1100	180	1
324-4E	10K-CT	600-CT	1100	75	1
324-4F	10K-CT	4	1100	0.5	1
224-4G	4000-CT	10K-CT	440	1200	1.5
324-4H	1500-CT	15	165	2	2.5
324-4J	1000-CT	600-CT	110	75	3
324-4K	1000-CT	4	110	0.5	3
224-4L	600-CT	25K-CT	65	3000	4
124-4M	600-CT	600-CT	65	75	4
324-4N	600-CT	60	65	7	4
324-4P	600-CT	15	65	2	4
324-4Q	600-CT	4	65	0.5	4
224-4R	250	600-CT	30	75	7
324-3A	10K-CT	10K-CT	800	1100	1
324-3B	10K-CT	600-CT	800	65	1
324-3C	10K-CT	4	800	0.5	1
324-3D	1500-CT	15	110	1.6	2.5
324-3E	1000-CT	600-CT	75	65	3
324-3F	1000-CT	4	75	0.5	3
224-3G	★ 600-CT	25K-CT	45	2800	4
124-3H	600-CT	600-CT	45	65	4
324-3J	600-CT	60	45	7	4
324-3K	600-CT	15	45	1.6	4
324-3L	600-CT	4	45	0.5	4
224-3M	250	600-CT	20	65	7
★Max. power level: 2.5 w.					
124-2A	★ 10K-CT	10K-CT	700	900	1
324-2B	★ 10K-CT	600-CT	700	55	1
324-2C	★ 10K-CT	4	700	0.4	1
324-2D	1500-CT	15	100	1.5	2.5
324-2E	1000-CT	600-CT	65	55	3
324-2F	1000-CT	4	65	0.4	3
124-2H	600-CT	600-CT	40	55	4
324-2J	600-CT	60	40	6	4
324-2K	600-CT	15	40	1.5	4
324-2L	600-CT	4	40	0.4	4
224-2M	250	600-CT	16	55	7

★Max. power level: 6 w.

Pin Diameter:
.030"
Pin Length: ½"
Weight: 0.15 oz.

RESPONSE: ± 2 DB 300 to 100,000 CPS.
DISTORTION: 10% at 30 MW, 300 to 100,000 CPS, except as noted.

Pin Diameter:
.030"
Pin Length: ½"
Weight: 0.4 oz.

RESPONSE: ± 1 DB 200 to 50,000 CPS.
DISTORTION: 10% at 150 MW, 200 to 50,000 CPS.

Pin Diameter:
.030"
Pin Length: ½"
Weight: 0.9 oz.

RESPONSE: ± 1 DB 200 to 20,000 CPS.
DISTORTION: 10% at 750 MW, 200 to 20,000 CPS.

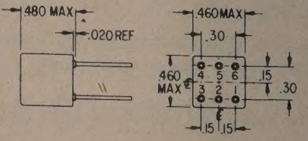
Pin Diameter:
.030"
Pin Length: ½"
Weight: 1.5 oz.
Mounting: 2—4x40 inserts, 0.6"x0.8"

RESPONSE: ± 1 DB 100 to 10,000 CPS.
DISTORTION: 1.5% at 60 MW, 100 to 10,000 CPS, or 10% at 3.5 W, 200 to 10,000 CPS, except as noted.

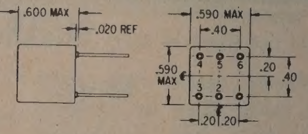
Pin Diameter:
.030"
Pin Length: ½"
Weight: 2.5 oz.
Mounting: 2—4x40 inserts, 0.8"x0.8"

RESPONSE: ± 1 DB 60 to 10,000 CPS.
DISTORTION: 1% at 250 MW, 60 to 10,000 CPS or 10% at 7.5 W, 200 to 10,000 CPS, except as noted.

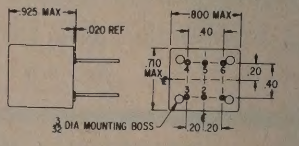
6 SIZE CASE DATA



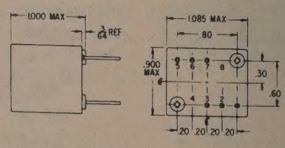
5 SIZE CASE DATA



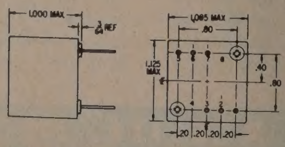
4 SIZE CASE DATA



3 SIZE CASE DATA



2 SIZE CASE DATA



ALL RATINGS BASED UPON MAXIMUM UNBALANCED DC IN PRIMARY AS LISTED

ALL CASED DIMENSIONS ARE MAXIMUM

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TRANSFORMERS ■ FILTERS ■ JACKS & PLUGS ■ TERMINAL BLOCKS

POWER TRANSFORMERS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

Reliability, minimum size and long life under rugged environmental conditions are prime requisites in today's military electronic equipment. To meet these modern standards, ADC offers a complete line of hermetically sealed power transformers. Designed to meet MIL-T-27A specifications and utilizing MIL cases and mounting dimensions, these units offer our customers a ready source for prototype and production applications. All military contractors and commercial electronic engineers with stringent environmental conditions will find these carefully rated units ideally suited. For those applications where hermetic sealing is not necessary, we offer the conservative transformer designs of our hermetically sealed line, in drawn steel cases of MIL size and mounting dimensions with phenolic terminal plates and solder lug terminals.

POWER TRANSFORMERS—60 Cycle

ADC offers these standard power transformer designs to cover a wide range of requirements for electronic circuit application. They are available in standard MIL case sizes, hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R, life expectancy X. Maximum operating altitude is 10,000 feet.

The same electrical ratings are also available as commercial grade fully enclosed units for non-military applications in the same MIL case sizes. This version is furnished with a phenolic terminal board and heavy duty solder lug terminals. Mounting screws and tapped inserts provide the same mounting centers as MIL-T-27A versions.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No. Comm'l Case	Catalog No. Hermetic Seal	Plate Winding AC Volts	Plate Winding DC Ma	Plate Winding DC Volts	Filament Windings Volts/Amps	MIL Case
522A	523A	250-0-250 C Input	20	300	6.3 CT/5 2	FA
522B	523B	300-0-300 C Input	60	310	5 2	HA
					6.3 CT 2	
522C	523C	350-0-350 C Input	110	355	5 2	JA
		L Input		265	6.3 CT 4	
522D	523D	375-0-375 C Input	150	380	5 3	LA
		L Input		280	6.3 CT 5	
522E	523E	385-0-385 C Input	200	360	5 3	
		L Input		280	6.3 CT 5	
					6.3 CT 2	MA
522F	523F	500-0-500 L Input	300	400	6.3/5 6	
					6.3 CT 6	NA

FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Sec. Volts	Sec. Amps.	Insulation Volts RMS	MIL Case
522FA	523FA	2.5 CT	5.5	3,500	FA
522FB	523FB	2.5 CT	10.0	7,500	GA
522FC	523FC	2.5 CT	15.0	10,000	JA
522FD	523FD	5.0 CT	4	3,500	GA
522FE	523FE	5.0 CT	10	5,000	HA
522FF	523FF	5.0 CT	20	10,000	MA
522FG	523FG	6.3 CT	3.0	2,500	FA
522FH	523FH	6.3 CT	5.5	2,500	GA
522FJ	523FJ	6.3 CT	10	2,500	JB
522FK	523FK	6.3 CT	20	2,500	KA
522FL	523FL	12.6 CT	2	2,500	GA

POWER TRANSFORMERS—400 Cycle

These items are especially designed for maximum performance in 380 to 1500 CPS applications, with maximum altitude ratings of 50,000 feet. They are hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R. Standard MIL case sizes and construction are used.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No. Comm'l Case	Catalog No. Hermetic Seal	Plate Winding AC Volts	DC Ma	Filament Windings Volts / Amps	MIL Case
512A	513A	240-0-240 C Input	20	6.3 CT 1.5	AJ
512B	513B	250-0-250 C Input	40	6.3 CT 2.5	EA
512C	513C	300-0-300 C Input	80	6.3 CT 5	GA
				6.3/5V 2	
512D	513D	350-0-350 C Input	150	6.3 CT 4	HA
				6.3/5V 3	
512E	513E	450-0-450 C Input	200	6.3 CT 8	JA
				6.3/5V 3	

FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Sec. Volts	Sec. Amps	Insulation Volts RMS	MIL Case
512FA	513FA	6.3 CT	1	1,500	AH
512FB	513FB	6.3 CT	3	1,500	AJ
512FC	513FC	6.3 CT	5.5	2,500	EA
512FD	513FD	6.3 CT	10	2,500	FA
512FE	513FE	6.3 CT	20	2,500	GA
512FF	513FF	26 CT	1	2,500	EA
512FG	513FG	26 CT	3	2,500	FA

MILITARY STANDARD TRANSFORMERS

These Military Standard transformers have been specified by ASESA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Each item is available as either Grade 1 or Grade 4 (ruggedized) as requested. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 4, Class R operating temperature; life expectancy X 10,000 hours minimum).

MILITARY STANDARD POWER TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary AC Volts	#1 DC Ma	DC Volts	Sec #2 Volts/Amps	Sec. #3 Volts/Amps
MS-90026	521A	TF 4RX 03HA001	200-100-0-100-200	70	140	6.3/5 2	6.3 3
MS-90027	521B	TF 4RX 03JB002	325-0-325	70	250	6.3/5 2	6.3 4
MS-90028	521C	TF 4RX 03KB006	325-0-325	150	240	6.3 5	5 3
MS-90029	521D	TF 4RX 03LB003	400-0-400	175	290	5 3	6.3 8
MS-90030	521E	TF 4RX 03MB004	450-0-450	250	320	5 3	6.3 8
MS-90031	521F	TF 4RX 02KB001	350-0-350	250	250	-- --	-- --
MS-90032	521G	TF 4RX 02LB002	550-0-550	250	400	-- --	-- --
MS-90036	521H	TF 4RX 02NB003	800-0-800	250	575	-- --	-- --

NOTE:
1. Primaries 105/115/125V., 54-66 CPS.
2. Secondary #1 DC voltage based upon inductive input filter.
3. Max. operating altitude 10,000 ft.
4. These items are also available as Grade 1 components.

MILITARY STANDARD FILAMENT TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary Volts	Secondary Amps	Insulation Volts RMS
MS-90016	521M	TF 4RX 01EB002	2.5	3.0	2500
MS-90017	521N	TF 4RX 01GB003	2.5	10	2500
MS-90018	521P	TF 4RX 01FB004	5.0	3.0	2500
MS-90019	521Q	TF 4RX 01HB005	5.0	10	2500
MS-90020	521R	TF 4RX 01FB006	6.3	2.0	2500
MS-90021	521S	TF 4RX 01GB007	6.3	5.0	2500
MS-90022	521T	TF 4RX 01JB008	6.3	10	2500
MS-90023	521U	TF 4RX 01KB009	6.3	20	2500
MS-90024	521V	TF 4RX 01JB012	2.5	10	10000
MS-90025	521W	TF 4RX 01KB013	5.0	10	10000

NOTE:
1. Primaries 105/115/125 V., 54-66 CPS.
2. Max. operating altitude 10,000 ft.
3. These items are also available as Grade 1 components.

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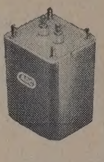
INDUCTORS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

ADC's line of inductors are circuit running mates to ADC's power transformers. They are available hermetically sealed, to meet MIL-T-27A requirements Grade 4, Class R, life expectancy X. For commercial applications, where hermetic sealing is not necessary, these same ratings are available in MIL cases and mounting dimensions, but with phenolic terminal board and solder lug terminals.

FOR 50-60 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current MA	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422A	423A	15	20	700	1000	AJ
422B	423B	20	40	475	2500	EB
422C	423C	15	60	230	2500	FA
422D	423D	12	80	175	2500	FA
422E	423E	10	110	175	2500	GA
422F	423F	8	150	100	2500	HA
422G	423G	8	200	85	2500	JA
422H	423H	8	250	85	2500	KB
422J	423J	8	325	55	2500	LA
422K	423K	4	500	30	2500	LA
422L	423L	5/25	250/25	160	2500	KB
422M	423M	5/25	325/30	110	2500	LA



FOR 380-1500 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current Ma	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422V	423V	2.5	50	175	2500	AH
422W	423W	5	50	350	2500	AJ
422X	423X	2	80	250	2500	AJ
422Y	423Y	2	150	100	2500	EB
422Z	423Z	2	200	100	2500	EA

MILITARY STANDARD INDUCTORS (power)

These Military Standard inductors have been specified by ASESA and are established by the three military services and the transformer industry as standards for military inductor applications. They are hermetically sealed to meet all MIL-T-27A requirements Grade 1, Class R, life expectancy X.

Military Part No.	Catalog No.	Type Designation	Inductance Series	Inductance Parallel	DC Resistance Ohms		Insulation Volts RMS
MS90009	421A	TF 1RX 04FA001	16 hy .08 a	4 hy .16 a	1-2 3-4	295 350	2400
MS90010	421B	TF 1RX 04GA002	25 hy .08 a	6.25 hy .16 a	1-2 3-4	300 370	2400
MS90011	421C	TF 1RX 04HA003	40 hy .08 a	10 hy .16 a	1-2 3-4	450 570	2400
MS90013	421D	TF 1RX 04HA005	16 hy .125 a	4 hy .25 a	1-2 3-4	145 185	3800
MS90014	421E	TF 1RX 04JB006	25 hy .125 a	6.25 hy .25 a	1-2 3-4	225 235	3800
MS90037	421F	TF 1RX 04KA007	40 hy .125 a	10 hy .25 a	1-2 3-4	240 295	5900
MS75000	421G	TF 1RX 04LA009	16 hy .20 a	4 hy .40 a	1-2 3-4	80 100	5900
MS75001	421H	TF 1RX 04MA010	25 hy .20 a	6.25 hy .40 a	1-2 3-4	90 120	5900
MS75002	421J	TF 1RX 04NA012	16 hy .315 a	4 hy .63 a	1-2 3-4	45 60	5900
MS75003	421K	TF 1RX 04YY013	25 hy .315 a	6.25 hy .63 a	1-2 3-4	70 80	5900

NET PRICE LIST (Prices subject to change without notice)

CAT. NO.	NET PRICE
108A	8.25
103A	3.15
103B	3.39
103C	3.30
104A	8.70
104B	9.54
114A	23.85
114B	19.80
114C	23.85
114E	23.85
114F	23.85
114G	18.00
121A	14.40
121B	14.40
122A	24.30
122B	25.20
122C	24.30
122D	16.80
122E	19.80
122F	15.90
122G	22.20
123A	26.40
123B	27.30
123C	26.40
123D	17.40
123E	21.30
123F	16.80
124-2A	8.10
124-2H	7.20
124-3A	7.80
124-3H	6.90
124-4C	7.20
124-4M	6.60
124-5C	6.90
124-5K	6.90
124-6C	6.60
124-6K	6.00
208A thru F	7.50
208G	9.00
214A	23.70
214B	16.20
214C	23.70
214H	15.45
214J	16.80
214L	16.80
220A thru D	20.85
221A	15.45
221B	13,20
222A	22.50
222B	22.50
222C	25.20
222D	19.80
222E	19.80
222F	17.40
222G	17.40
223A	24.90
223B	24.90
223C	28.20
223D	21.60
223E	21.60
223F	18.30
223G	18.30
224-2M	6.60
224-3G	7.80
224-3M	6.30
224-4G	7.20
224-4L	7.80
224-4R	6.00
224-5F	6.90
224-5J	7.80
224-6F	6.60
224-6J	7.20
308E, F	7.50
308G, H	9.00
314A	20.40
314B	18.00
320A thru F	20.85
320Y, Z	20.85
321A thru E	12.90
322A	11.70
322B	16.80
322C	15.90
322D	17.40
322E	17.40
322F	19.80
322G	21.00
322H	20.40
322J	22.80
322K	31.50
322L	33.90
322M	23.70
322N	21.60
322P	17.10
323A	13.50
323B	20.70
323C	17.40
323D	21.60
324-2B	7.80
324-2C	7.20
324-2D	6.60
324-2E	7.20
324-2F	6.60
324-2J	6.60
324-2K	6.60
324-2L	6.60
324-3B	7.50
324-3C	6.90
324-3D	6.30
324-3E	6.90
324-3F	6.30
324-3J	6.30
324-3K	6.30
324-3L	6.30
324-4B	7.80
324-4D	7.20
324-4E	7.20
324-4F	6.60
324-4H	6.00
324-4J	6.60
324-4K	6.00
324-4N	6.00
324-4P	6.00
324-5A	8.70
324-5B	7.80
324-5D	6.90
324-5E	6.90
324-5G	6.90
324-5H	5.70
324-5L	5.70
324-5M	5.70
324-6A	7.50
324-6B	7.20
324-6D	6.60
324-6E	6.60
324-6G	6.00
324-6H	5.40
324-6L	5.40
324-6M	5.40
408D	6.75
419AL thru AW	6.75
419AY thru BE	7.50
419BG thru BN	8.25
419BQ thru BS	9.00
419BU	9.00
419BW	10.50
419CE thru CS	8.25
419CU thru DA	8.70
419DC thru DG	9.00
419DJ	9.75
419DL	10.50
419EA thru EN	6.75
419EQ thru EY	7.50
419FA thru FC	8.25
419FE	8.70
419FG	9.00
419FJ	9.75
419GL thru GY	7.50
419HA thru HG	8.25
419HJ thru HN	8.70
419HQ thru HS	9.00
419HU	9.75
419HW	10.50
419HY	11.25
419KL thru LC	9.75
419LE thru LJ	10.50
419LL thru LN	11.25
419LQ thru LS	12.00
419LU	12.45
419LW	12.90
420A thru H	17.64
421A	11.10
421B	12.30
421C	13.20
421D	14.10
421E	14.70
421F	20.10
421G	21.30
421H	24.90
421J	36.90
421K	30.00
422A	5.40
422B	6.00
422C	6.45
422D	6.45
422E	6.90
422F	7.95
422G	9.60
422H	10.20
422J	12.90
422K	12.00
422L	10.20
422M	12.90
422V	7.05
422W	6.00
422X	6.00
422Y	6.90
422Z	7.20
423A	6.60
423B	7.65
423C	8.10
423D	8.10
423E	9.15
423F	10.20
423G	12.00
423H	12.90
423J	15.90
423K	14.70
423L	12.90
423M	15.90
423V	7.80
423W	7.50
423X	7.50
423Y	8.70
423Z	9.00
512A	11.70
512B	12.60
512C	17.10
512D	18.90
512E	20.55
512FA	9.00
512FB	9.60
512FC	10.35
512FD	10.80
512FE	12.90
512FF	10.65
512FG	11.25
513A	12.60
513B	14.25
513C	21.45
513D	23.70
513E	25.65
513FA	11.25
513FB	12.15
513FC	12.90
513FD	13.50
513FE	16.20
513FF	13.20
513FG	13.80
521A	22.20
521B	21.30
521C	23.70
521D	26.70
521E	30.90
521F	19.80
521G	24.90
521H	29.70
521M	13.80
521N	14.10
521P	12.90
521Q	15.60
521R	13.20
521S	15.60
521T	18.00
521U	22.05
521V	21.30
521W	22.20
522A	13.50
522B	15.00
522C	17.40
522D	18.30
522E	26.70
522F	26.70
522FA	10.80
522FB	13.20
522FC	14.40
522FD	11.70
522FE	12.90
522FF	21.30
522FG	10.80
522FH	11.70
522FJ	14.10
522FK	18.30
522FL	11.70
523A	15.90
523B	19.80
523C	21.00
523D	21.60
523D	21.60
523E	32.80
523F	32.80
523FA	12.90
523FB	16.20
523FC	20.10
523FD	14.70
523FE	15.90
523FF	27.60
523FG	12.60
523FH	14.70
523FJ	17.10
523FK	21.30
523FL	14.70

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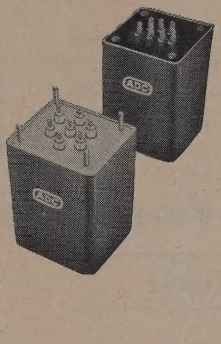
TRANSFORMERS ▪ FILTERS ▪ JACKS & PLUGS ▪ TERMINAL BLOCKS

AUDIO TRANSFORMERS *FOR MILITARY AND COMMERCIAL APPLICATIONS*

ADC offers the following designs to cover a wide range of standard audio applications, from low power transistors through heavy duty output circuits. They are conservatively rated at ±½ db from 30 to 15,000 cycles at the maximum rated power. Each is designed for minimum insertion loss, is fully impregnated before potting and rated for dependable continuous duty operation.

These audio transformers are available in standard MIL cases, hermetically sealed to meet all requirements of MIL-T-27A. THE SAME RATINGS ARE ALSO AVAILABLE AS COMMERCIAL GRADE COMPONENTS, featuring the lower cost construction of a phenolic terminal board with solder lug terminals in the same drawn MIL cases.



INPUT TRANSFORMERS Response ±½ db, 30-15,000 cps

Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Hum Reduction	Case Size
222A	223A	Line to Single or Push Pull Grids.	600[1]	60,000[1] Split	+ 10 dbm	—65 db	AJ
222B	223B	Low Impedance Line to Grid.	12.5/50/200	80,000	+ 10 dbm	—65 db	AJ
222C	223C	Line and Bridging to Single or Push Pull Grids. [3-4]	150/600/15,000	60,000[1] Split	+ 10 dbm	—65 db	AJ
222D	223D	High Impedance Pickup or Plate to Push Pull Grids.	10,000 (10MA DC)	80,000[1] Split	+ 22 dbm	—35 db	EA
222E	223E	Push Pull Plates to Push Pull Grids.	20,000[1] Split	90,000[1] Split	+ 24 dbm	—35 db	EA

MILITARY STANDARD AUDIO TRANSFORMERS

These Military Standard audio transformers have been specified by ASESA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 1, Class R operating temperature, life expectancy X (10,000 hours minimum).

Catalog No.	MIL-T-27A Classification	MIL-T-27A Part No.	Application	Impedance (Ohms)	Operating Level	Pri. DCMA Bal.	Unbal.
221A	TF 1RX 15AJ001	MS-90000	Push Pull Plates to Push Pull Grids	Pri. 10,000 CT Sec. 90,000 CT 22,500 CT	15 dbm	--	10
121A	TF 1RX 16AJ002	MS-90001	Line to Voice Coil	Pri. 600 CT (150) Sec. 4/8/16	2 W	--	--
221B	TF 1RX 10AJ001	MS-90002	Line to Push Pull Grids	Pri. 600 CT (150) Sec. 135,000 CT	15 dbm	--	--
121B	TF 1RX 16AJ001	MS-90003	Line to Line	Pri. 600 CT (150) Sec. 600 CT (150)	15 dbm	--	--
321A	TF 1RX 13AJ001	MS-90004	Plate to Line	Pri. 7600/4800 Sec. 600 CT (150)	2 W	--	40
321B	TF 1RX 13AJ002	MS-90005	Plate to Voice Coil	Pri. 7600/4800 Sec. 4/8/16	2 W	--	40
321C	TF 1RX 13AJ003	MS-90006	Push Pull Plates to Line	Pri. 15,000 CT Sec. 600 CT (150)	2 W	--	10
321D	TF 1RX 13AJ004	MS-90007	Push Pull Plates to Line	Pri. 24,000 CT Sec. 600 CT (150)	1 W	20	1
321E	TF 1RX 13AJ005	MS-90008	Push Pull Plates to Line	Pri. 60,000 CT Sec. 600 CT (150)	.5 W	20	1

OUTPUT TRANSFORMERS Response ±½ db, 30-15,000 cps (Power Response at Rated Output)

Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Case Size
322A	323A[6]	Plate to Line	15,000 (10 MA DC)	600/250 (150/62.5)[2]	+ 20 dbm (.1 W)	EB
322B[5]	323B[5]	Plate to Voice Coil	5,000 (40 MA DC)	16/8/4	+ 37 dbm (5 W)	FA
322C	323C	Push Pull Plates to Line	20,000 CT	600/250 (150/62.5)[2]	+ 30 dbm (1 W)	EB
322D	323D	Push Pull Plates to Line and Voice Coil	10,000 CT	600 (150)[2] 16/8/4	+ 40 dbm (10 W)	GA
322E	323E[1]	Push Pull Plates to Voice Coil[4]	9,000/2,250 Split[2]	16/8/4	+ 40 dbm (10 W)	GA
322F	323F[1]	Push Pull Plates to Voice Coil[3]	10,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322G	322G[1]	Push Pull Plates to Voice Coil[4]	8,000/1,600 Split[2]	16/8/4	+ 42 dbm (15 W)	JB
322H	323H[1]	Push Pull Plates to Voice Coil[4]	5,000/3,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322J	323J[1]	Push Pull Plates to Voice Coil[4]	6,600/1,650 Split[2]	16/8/4	+ 45 dbm (30 W)	KA
322K	323K[1]	Push Pull Plates to Voice Coil[4]	3,500/700 Split[2]	16/8/4	+ 48 dbm (70 W)	LA
322L	323L[1]	Push Pull Par Plates to Voice Coil	2,500/1,500 Split[2]	16/8/4	+ 49 dbm (80 W)	MA
322M	323M[1]	Push Pull Class A Transistors to Voice Coil	48/16/8 Split[2]	16/8/4	+ 47 dbm (50 W)	KA
322N	323N[1]	Class A Transistor to Voice Coil	10 (1.25a. DC)	16/8/4	+ 38 dbm (7 W)	JB
322P	323P[1]	Push Pull Transistors to Voice Coil	48/32 CT	16/8/4	+ 40 dbm (10 W)	GA

NOTES:

[1] These items are not normally carried in stock.

[2] "Split" indicates 2 separate, symmetrical windings. Impedances shown are for series connection. Where impedances are shown in parenthesis, they indicate the impedances resulting when windings are connected in parallel.

[3] Balanced, for Williamson type circuit operation.

[4] Has primary taps suitable for Screen loading

[5] Power response ±½ db, 50-15,000 cps.

[6] Response is ±1 db, 30-15,000 cps.

All of these designs are available on special order with output impedances of other values than shown above.

MINIATURE AUDIO TRANSFORMERS

2-56 Screws
Bottom View

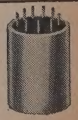
These transformers offer a variety of special design features on a catalog basis for particular circuit and chassis applications. They are available for plug-in and printed circuit applications as well as standard installations. The special cases shown allow the maximum of electrical performance for each type as well as variety and flexibility in mechanical arrangement. All electrical ratings are shown for continuous duty at full specified power levels. Dia. ⅞", Ht. 1⅜", 2-56 Mtg. screws on 11/16" centers.

MINIATURE SERIES

Cat. No.	Type	Application	Primary Impedance (Ohms)	Secondary Impedance (Ohms)	Max. Level	Response
108A	Impedance	Line to Line	50/250/600	50/250/600	+ 8 dbm	±1 db 30-15,000
208A	Input	Line to Single Grid	50/250/600	80,000	+ 10 dbm	±1 db 30-15,000
208B	Input	Line to Push Pull Grids	50/250/600	80,000CT	+ 10 dbm	±1 db 30-15,000
208C	Input	Low Impedance to Grid	7.5/30	80,000	+ 8 dbm	±1 db 30-15,000
208D	Interstage	Plate (O DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±1 db 30-10,000
208E	Interstage	Plate (3MA DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±2 db 200-10,000
208F	Input	Line to Single Grid	50/250/600	500,000	+ 10 dbm	±3 db 200-3000
208G	Interstage	Transistor to Transistors (20 MA DC)	10,000 (2500) Split	4000/1000CT	+ 10 dbm	±2 db 100-10,000
308E	Output	Plate to Line (O DC)	15,000	50/250/600	+ 10 dbm	±1 db 40-15,000
308F	Output	Plate to Line (3MA DC)	15,000	50/250/600	+ 10 dbm	±2 db 100-15,000
308G	Output	Push Pull Plates to Line	30,000CT	50/250/6600	+ 10 dbm	±1 db 30-15,000
08H	Output	Class B Transistors to Voice Coil	2000/500CT	16/8/4	+ 23 dbm	±1 db 100-10,000
3D	Inductor	200 Hy @ 0 DC; ;100 Hy @ 2MA DC; 50 Hy @ 4MA DC; 16 Hy @ 10MA DC; 6000 Ohms Resistance				

NOTE: These items are also available, on special request, as plug-in transformers with:

1. Mumetal case 15/16" dia. by 1-5/16" high. 35 db shielding.
2. Mumetal case plus 1 Mumetal shield 1-1/16" dia. by 1½" high. 65 db shielding.



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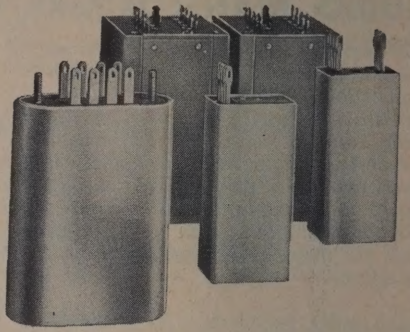
TELEPHONE COILS



For many years, ADC has been a dependable source of transformers and filters for the telephone and telegraph industry. Recently, we have designed and tooled for additional items in a series of "coils" which are electrically and physically interchangeable with similar components made by Western Electric. These items are listed below with the equivalent Western Electric number. All items in this series can be supplied in MIL cases if desired.

ADC Inductors	W.E. Indr. or Ret.	Fig.
409BB	149B	2
409BC	149C	2
409BD	149D	2
409E	149E	2
409G	149G	2
409H	149H	2
409J	149J	2
409K	149K	2
409M	149M	2
409N	149N	2
409P	149P	2
409R	149R	2
405A	152B	*
405H	225A	*
405E	250C	*
412AC	274C	1A
412AD	274D	1A
412AG	274G	1A
412AH	274H	1A
412AJ	274J	1A
412AL	274L	1A
412AR	274R	1A
412AS	274S	1A
412BB	274AB	1A
412T	307B	1A
412C	307C	1A
412F	307F	1A
412G	307G	1A
412H	307H	1A
412J	307J	1A
412K	307K	1A
412L	307L	1A
412M	307M	1A
412B	307N	1A
412A[1]	307P	1A
412R	307R	1A

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
118A	67E	*
113A	91A	5
113A	93A	5
113B	93B	5
113F	93F	5
113G	93G	5
113H	93H	5
113J	93J	5
109S[1]	94E	2
109T	94F	2
109J	94G	2
109K[1]	93H	2
109V	94K	2
109W	94L	2
109Y	94N	2
109Z	94P	2
109BB	94S	2
109BC	94T	2
109BD	94U	2
109BE	94W	2
109BF	94Y	2
109BG[1]	94AA	2
118F	106A	*
118S	119C	*
118U	119E	*
109B[1]	120C	2
109C[1]	120D	2
109D[1]	120E	2
109E[1]	120F	2
109F[1]	120H	2
109G[1]	120J	2
109H[1]	120K	2
109P[1]	120L	2
109L	146A	*
109M	146U	*
119P	170A	

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
119C	177C	*
119D	177D	*
112G	189A	1
112B	189D	1A
112C	189E	1A

ADC Imped. Trans.	W.E. Auto Trans.	Fig.
109A	23A	*
112A[1]	181B	1
112E	181C	1
112H	D166840	1A

[1] These represent most commonly used items and are normally carried in stock.

*Space did not permit outline drawings for all types. Dimensions will be sent on your request.

Fig. 1 and 1A

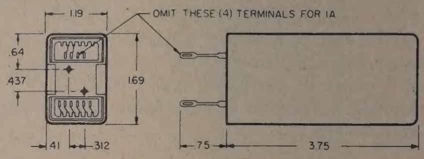


Fig. 2

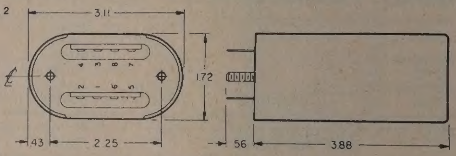
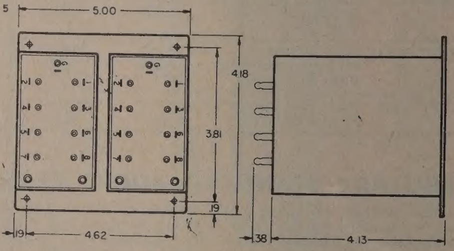
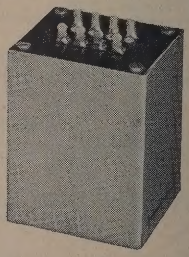


Fig. 5



ADC REPEATING COILS

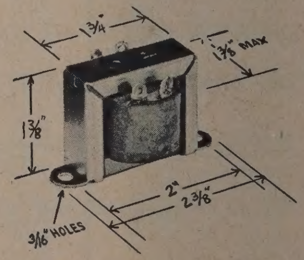


104A—Cord Circuit. This repeating coil is designed to have good transmission efficiency for voice frequencies. Low frequency ringing currents are attenuated and circuit will not ring through. Case is heavy steel to eliminate all crosstalk. Core will not saturate at maximum normal current.

104B—Phantom. The 104B Repeating Coil is a 4-winding coil, for use in phantom circuits. The phantom winding (5-6-7-8) is parallel wound. Heavy Formvar wire is used for maximum surge voltage or lightning protection. This coil has good transmission efficiency at both ringing and voice frequencies.

Type	PRI. DCR 1-2	PRI. DCR 3-4	SEC. DCR 5-6	SEC. DCR 7-8	Case	Mounting Screw	Mounting Centers
104A	10.3	16.5	12.5	14.5	2¼x1¹¹⁄₁₆x3½ high	(4) 6-32	1¾x1⅛
104B	16.5	20	24	24	2¾x2⅜x3½ high	(4) 8-32	1⅞x2¼

INDUCTION COILS



103A—Induction Coil is a 2-winding coil for local battery telephones.

103B—Anti-Sidetone Induction Coil is similar to 103A, but with an additional winding for anti-sidetone connection.

103C—Anti-Sidetone Induction Coil is designed for common battery telephone use.

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HST TRANSFORMERS

TYPE TT

MINIATURIZED TRANSISTOR TRANSFORMERS

MIL-T-27A, CLASS R GRADE 5 SPECIFICATION

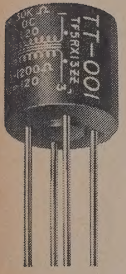
The HST line of type "TT" Transistor Transformers is the most complete available.

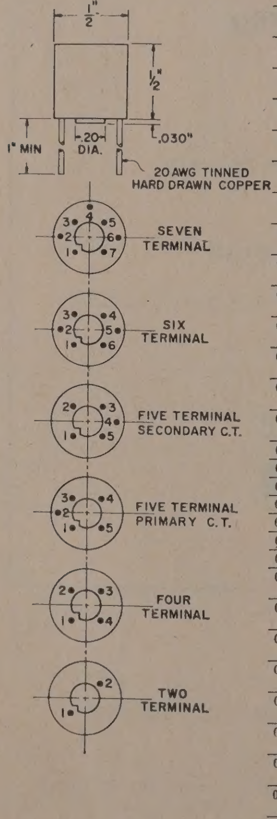
Standard types cover practically all applications: interstage, output, output to line, input, single or push-pull output, reactors, mixing and matching. All designs can be used reversed, input to secondary. The "TT" Series are vacuum molded in green epoxy resin with schematic diagrams and transformer parameters permanently and legibly marked on all units.

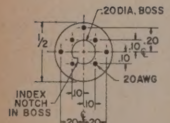
Standard 0.10" spacing is used on terminal leads. No bulky clamps are required for mounting, saving valuable board area.

All "TT" Transformers have been tested to the requirements of MIL-T-27A, Class R, Grade 5 specifications. Reliability of operation is insured by continuous reassurance testing. The meticulous plant conditions under which the "TT" series is manufactured insure the maximum quality obtainable. A magnetic shield is available for all TT units. The TT-101 Shield offers approximately 20 db of attenuation. The shield is designed to "snap-lock" onto the unit, or in addition, can be permanently cemented with a drop of epoxy resin.

MECHANICAL PARAMETERS




1/2"
1/2"
1" MIN
.20 DIA.
.030"
20 AWG TINNED HARD DRAWN COPPER
SEVEN TERMINAL
SIX TERMINAL
FIVE TERMINAL SECONDARY C.T.
FIVE TERMINAL PRIMARY C.T.
FOUR TERMINAL
TWO TERMINAL



MOUNTING TEMPLATE

#11	Mil Type	Application	Pri Imp.	D.C. MA* In Pri.	Sec. Imp.	Nom. Pri. Res.	MW Level @ I KC
001	TF5RX13ZZ	Interstage	20,000 30,000	.5 .5	800 1200	850	50
002	TF5RX17ZZ	Output	500 600	3 3	50 60	60	100
003	TF5RX13ZZ	Output	1000 1200	3 3	50 60	115	100
004	TF5RX17ZZ	Output	600	3	3.2	60	100
005	TF5RX13ZZ	Output	1200	2	3.2	115	100
006	TF5RX13ZZ	Output	10,000	1	3.2	790	100
007	TF5RX16ZZ	Input Other Application	200,000 500	0 0	1000 100,000	8500 —	25
008	TF5RX20ZZ	Reactor 3.5 HY @ 2MADC, 1HY @ 5MADC				630	
009	TF5RX13ZZ	Output or Driver	10,000 12,000	1 1	500CT 600CT	800	100
010	TF5RX13ZZ	Driver	10,000 12,000	1 1	1200CT 1500CT	800	100
011	TF5RX13ZZ	Driver	10,000 12,000	1 1	1200CT 2500CT	800	100
012	TF5RX17ZZ	Single or PP Output	150CT 200CT	10 10	12 16	11	500
013	TF5RX17ZZ	Single or PP Output	300CT 400CT	7 7	12 16	20	500
014	TF5RX17ZZ	Single or PP Output	600CT 800CT	5 5	12 16	43	500
015	TF5RX17ZZ	Single or PP Output	800CT 1070CT	4 4	12 16	51	500
016	TF5RX13ZZ	Single or PP Output	1000CT 1330CT	3.5 3.5	12 16	71	500
017	TF5RX13ZZ	Single or PP Output	1500CT 2000CT	3 3	12 16	108	500
018	TF5RX13ZZ	Single or PP Output	7,500CT 10,000CT	1 1	12 16	505	500
019	TF5RX17ZZ	Output to Line	300CT	7	600	19	500
020	TF5RX17ZZ	Output or line to Line or Mixing	500CT	5.5	600	31	500
021	TF5RX17ZZ	Output to Line	900CT	4	600	53	500
022	TF5RX13ZZ	Output to Line	1500CT	3	600	86	500
023	TF5RX13ZZ	Interstage	20,000CT 30,000CT	.5 .5	800CT 1200CT	850	100
024	TF5RX16ZZ	Input Other Application	200,000CT 500CT	0 0	1000CT 100,000CT	8500 —	25
025	TF5RX13ZZ	Interstage	10,000CT 12,000CT	1 1	1500CT 1800CT	800	100
026	TF5RX20ZZ	Reactor 6HY @ 2MADC 1.5HY @ 5MADC				2100	
027	TF5RX20ZZ	Reactor 1.25HY @ 2MADC, .5HY @ 11MADC				100	
028	TF5RX20ZZ	Reactor. 3HY @ 4MADC .15HY @ 20MADC				31	
029	TF5RX17ZZ	Single or PP Output	120CT 150CT	10 10	3.2 4	10	500
030	TF5RX17ZZ	Single or PP Output	320CT 400CT	7 7	3.2 4	20	500
031	TF5RX17ZZ	Single or PP Output	640CT 800CT	5 5	3.2 4	43	500
032	TF5RX17ZZ	Single or PP Output	800CT 1000CT	4 4	3.2 4	51	500
033	TF5RX13ZZ	Single or PP Output	1060CT 1330CT	3.5 3.5	3.2 4	71	500
034	TF5RX13ZZ	Single or PP Output	1600CT 2000CT	3 3	3.2 4	109	500
035	TF5RX13ZZ	Single or PP Output	8000CT 10,000CT	1 1	3.2 4	505	100
036	TF5RX13ZZ	Isolation or Interstage	10,000CT 12,000CT	1 1	10,000CT 12,000CT	950	100
037	TF5RX13ZZ	Driver	10,000CT 12,000CT	1 1	1200CT 1500CT	800	100
038	TF5RX13ZZ	Driver	10,000CT 12,000CT	1 1	2000CT 2500CT	800	100
039	TF5RX13ZZ	Driver	10,000CT 12,000CT	1 1	500CT 600CT	800	100
040	TF5RX16ZZ	Input	100,000	0	1000	1700	70
041	TF5RX13ZZ	Driver	20,000	.5	1000	1000	100
042	TF5RX13ZZ	Driver	20,000	.5	1200CT	1000	100
043	TF5RX17ZZ	Output	1000	3	50	60	100
044	TF5RX17ZZ	Output	400	3	50	30	100
045	TF5RX17ZZ	Output	400	3	11	30	100
046	TF5RX17ZZ	Single or PP Output	400CT	3	11	30	500
047	TF5RX20ZZ	Reactor 10HY @ 0 MADC 8HY @ .5MADC				650	
048	TF5RX13ZZ	Isolation or Interstage Ratio 1 : 1 : 1	2000CT 2500CT	3 3	8000 split 10,000 split	195	100
049	TF5RX13ZZ	Interstage	10,000CT 12,000CT	1 1	2000 split 2400 split	560	100
050	TF5RX13ZZ	Interstage	20,000CT 30,000CT	.5 .5	1000 split 1500 split	800	100
051	TF5RX13ZZ	Interstage	40,000CT 50,000CT	.25 .25	400 split 500 split	1700	50
052	TF5RX17ZZ	Interstage or Output	400CT 500CT	8 6	400 split 500 split	46	500
053	TF5RX17ZZ	Interstage	400CT 500CT	8 6	120 split 150 split	46	500
054	TF5RX17ZZ	Interstage	400CT 500CT	8 6	40 split 50 split	46	500
055	TF5RX17ZZ	Interstage	80CT 100CT	12 10	32 split 40 split	9.8	500
101		Drawn Mu-Metal Shield 20 to 30 db					

*DCMA shown is for single ended usage (under 5% distortion —100 MW —1KC) . . . for push pull, DCMA can be any balanced value taken by .5W transistors (under 5% distortion —500MW —1KC).

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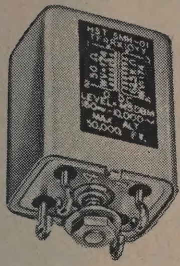
HST TRANSFORMERS

TYPES
SMH, MH

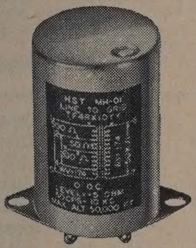
Hermetically Sealed AUDIO TRANSFORMERS



Type SMH MIL-T-27A

The SMH series of HST Transformers offers the ultimate in miniaturized metal cased, hermetically sealed, iron core components. Glass-to-metal seals are used to insure reliability. Mounting is provided for by a single stud on the header surface. All units are furnished in attractive grey with schematic diagrams permanently and legibly marked on all cases.

Type No.	Mil Type	Application	Pri. Imp. Ohms	Pri. DC Unbal.	Sec. Imp. Ohms	Response ± 2db	Max. Level
SMH-01	TF4RX10YY	Input to Grid	50	0	62,500	150-10,000	±13dbm
SMH-02	TF4RX10YY	Plate to Grid	10,000	0	90,000	300-10,000	20MW
SMH-03	TF4RX13YY	Plate to Line	10,000 25,000	3MA 1.5MA	200 500	300-10,000	20MW
SMH-04	TF4RX13YY	Plate to Low Imp.	30,000	1MA	50	300-10,000	30MW
SMH-05	TF4RX20YY	Reactor	100HYS @0 DC, 50HYS @1 MADC, 4400 Ohms				
SMH-06	TF4RX13YY	Transistor Interstage	25,000 (DCR 800)	.5MA	1000 (DCR 110)	300-10,000	10MW
SMH-07	TF4RX17YY	Transistor Output	500CT (DCR 50)	3.5MA	50 (DCR 5)	300-10,000	30MW
SMH-08	TF4RX13YY	Transistor Interstage	10,000CT (DCR 600)	2MA	1200CT	300-10,000	30MW
SMH-09	TF4RX13YY	Transistor Interstage	10,000CT (DCR 600)	2MA	2000CT	300-10,000	30MW
SMH-10	TF4RX17YY	Transistor Output	500CT (DCR 26)	10MA	600CT	300-10,000	30MW
SMH-11	TF4RX13YY	Transistor Output	1500CT (DCR 71)	7MA	600CT	300-10,000	30MW
SMH-12	TF4RX13YY	Isolation or Transistor Interstage	10,000CT	1MA	10,000CT	300-10,000	100MW



Type MH MIL-T-27A

The "MH" transformers illustrated and described on these pages have excellent application in the fields of military electronics, communications, public address systems and anywhere that quality audio components are necessary. The "MH" series transformers and reactors are enclosed in a compact, easy mounting case with glass-to-metal seals to insure reliability of operation. High permeability cores result in excellent frequency response for such small units. All units are furnished in attractive grey finish with schematic diagrams permanently and legibly marked on case.

Type No.	Mil Type	Application	Pri. Imp. Ohms	Pri. DC Unbal.	Sec. Imp. Ohms	Response ±2db	Max. Level
MH-01	TF4RX10YY	Mike, Line to Grid	50,200CT, 500CT*	0	50,000	50-10,000	+5dbm
MH-02	TF4RX11YY	Mike to Grid	82	50MA	135,000	250-8000	+18dbm
MH-03	TF4RX10YY	Plate to Grid	15,000	0	60,000	50-10,000	4MW
MH-04	TF4RX15YY	Plate to Grid	15,000	4MA	60,000	200-10,000	25MW
MH-05	TF4RX10YY	Plate to PP Grids	15,000	0	95,000CT	50-10,000	3MW
MH-06	TF4RX15YY	Plate to PP Grids	15,000	4MA	95,000 split	200-10,000	12MW
MH-07	TF4RX13YY	Plate or PP to Line	20,000CT	4MA	600/150	200-10,000	125MW
MH-08	TF4RX16YY	Mixing or Matching	600/150	0	600CT	50-10,000	+8dbm
MH-09	TF4RX10YY	Input to Grid	600/150	0	1 Megohm	±4db 200-3000	+10dbm
MH-10	TF4RX10YY	Plate to Grid	10,000	0	1 Megohm	±4db 200-3000	10MW
MH-11	TF4RX20YY	Reactor	300 HYS @ 0 DC; 50 HYS @ 3 MADC; 6000 Ohms				
MH-12	TF4RX10YY	Mike, Line to PP Grids	50,200CT, 500CT*	0	50,000CT	50-10,000	+5dbm
MH-13	TF4RX13YY	Transistor Interstage	10K/2.5K split	4MA	2K/500 split	100-10,000	100MW
MH-14	TF4RX13YY	Transistor Interstage	10K/2.5K split	4MA	4K/1K split	100-10,000	100MW
MH-15†•	TF4RX10YY	Mike or V.C. to Grid	30/12/4	0	50,000	50-12,000	0dbm
MH-16†	TF4RX16YY	Plate to Line	15,000	0	600/250/50	50-15,000	+10dbm
MH-17†	TF4RX13YY	Plate to Line	15,000	3MA	600/250/50	300-7000	+10dbm
MH18†•	TF4RX16YY	Line to Line	600/250/50	0	600/250/50	50-15,000	+10dbm

* 200 ohm termination can be used for 150 or 200 ohms, 500 ohm termination for 600 ohms.
† Layer wound coils in a MU-metal case.
• Electrostatic shield between windings.

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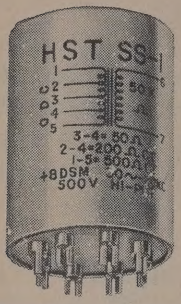
HST TRANSFORMERS

TYPE SS

Space Savers AUDIO TRANSFORMERS



Type SS

SS series Components fill the need for economical, compact, quality transformers. These units, which weigh one ounce, are fully impregnated and sealed in a drawn aluminum housing ⅞″ in diameter . . . mounting opposite terminal board. SS series items are ideal for portable broadcast, aircraft, mobile service, and similar applications. Additional magnetic shielding (25 db) available by use of SS-17 mu-metal shield. (See photo at middle left.) High-fidelity characteristics are provided, uniform within approximately 1 db from 30 to 20,000 cycles, except for SS-14, SS-15 and units carrying DC which are intended for voice frequencies. All units are furnished in an attractive anodized finish with schematic permanently and legibly marked on the case. (For MIL-T-27A Styles, see HST Type "MH").

	Type No.	Application	Pri. Imp. Ohms	DCMA Unbal.	Sec. Imp. Ohms	Pri. Res.	Response ±1db	Max. Level
INPUT AND MIXING TRANSFORMERS	SS-1	Low Imp.to Grid	50,000/250, 500/600	0	50,000	52	30-15,000	+8dbM
	SS-2	Low Imp. to PP Grids	50,200/250, 500/600	0	50,000CT	52	30-15,000	+8dbM
	SS-3	Low Imp. to Grid	7.5/30	0	50,000	4.5	30-15,000	+8dbM
	SS-11	Crystal to Line	50,000	0	50,200/250, 500/600	3900	30-15,000	+8dbM
	SS-12	Mixing, Matching	50,200/250	0	50,200/250, 500/600	12	30-20,000	+8dbM
	SS-14	Low Imp. to Grid	200	0	½ Megohm	10	200-3000	+8dbM
	SS-16	Low Imp. to Grid	250CT	0	50,000	40	30-15,000	+8dbM
		This Transformer provides very low Hum Pick-up . . . Employs two heavy gauge Mu-Metal shields, plus orientable mounting. Primary CT is balanced to 1%. Can be used for 150, 200, 250, 500 or 600 ohm sources . . . 200:1 impedance ratio. (See photo upper left.)						
	SS-25	Transistor Input	600/150 split	0	2000/500 split	70	60-15,000	+15dbM
INTERSTAGE TRANSFORMERS	SS-4	Plate to Grid	15,000	0	60,000	710	50-20,000	6.3MW
	SS-5	Plate to Grid	15,000	4	60,000	710	200-10,000	6.3MW
	SS-6	Plate to PP Grid	15,000	0	95,000CT	690	40-15,000	6.3MW
	SS-7	Plate to PP Grid	15,000	4	95,000CT	690	300-10,000	6.3MW
	SS-15	Plate to Grid	15,000	0	1 Megohm	330	150-3000	6.3MW
	SS-18	Transistor Interstage	10K/2.5K split	4	2000/500 split	800	150-20,000	100MW
	SS-19	Transistor Interstage	10K/2.5K split	4	4K/1K split	800	150-20,000	100MW
	SS-26	Transistor Interstage	10,000CT	4	10,000CT	700	150-15,000	100MW
	SS-27	Transistor Interstage	10,000CT	4	500/125 split	750	150-20,000	100MW
	SS-28	Transistor Interstage	50,000CT	2	500/125 split	3200	150-20,000	100MW
	SS-29	Trans. Inter. or Chopper	100,000CT	1	500/125 split	3200	200-20,000	100MW
	SS-30	Transistor Interstage	500/125 split	20	500/125 split	37	150-15,000	1W*
	SS-31	Transistor Interstage	500/125 split	20	150/37.5 split	35	150-15,000	1W*
	SS-32	Transistor Interstage	500/125 split	20	50/12.5 split	37	150-15,000	1W*
	SS-33	Transistor Interstage	100/25 split	40	40/10 split	9	150-15,000	1W*
OUTPUT TRANSFORMERS	SS-8	Plate to Line	15,000	0	50,200/250, 500/600	950	30-15,000	6.3MW
	SS-9	Plate to Line	15,000	4	50,200/250, 500/600	950	200-10,000	6.3MW
	SS-10	PP to Line	30,000CT	0	50,200/250, 500/600	2000	40-20,000	6.3MW
	SS-20	Transistor to Line	1500CT	8	500/125 split	100	150-20,000	100MW
	SS-21	Transistor to Voice Coil	2000CT 4000CT	4	8 16	200	150-20,000	100MW
	SS-22	Transistor to Voice Coil	400CT 500CT	20	3.2 4	35	150-15,000	1W*
REACTORS	SS-13	Reactor	300 HYS . . . 0 DC; 50 HYS . . . 3 MADC; 6000 Ohms					
	SS-23	Reactor	7 HYS . . . 3 MADC; 3.5 HYS . . . 10 MADC; 230 Ohms					
	SS-24	Reactor	1.6 HYS . . . 3 MADC; .8 HY . . . 10 MADC; 25 Ohms					
	SS-17	Mu-Metal Shield	Slip Fit Over Space Saver. Provides 25db Shielding.					

* At 200 CPS, ¼ watt at 150 CPS.

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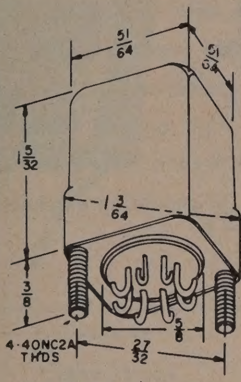
HST TRANSFORMERS

TYPE TAF

Hermetically Sealed AUDIO TRANSFORMERS

Type TAF To MIL-T-27A SPECIFICATIONS

HST TAF-01
TF4RX10YY
0 DC 0 DBM
60~-15,000~
MAX ALT
50,000 FT



UNIT WEIGHT 2½ OZ. MAX.

The HST series TAF Transformers and Reactors are all housed in deep drawn mu-metal cases offering maximum magnetic shielding obtainable in a single enclosure. All units are vacuum impregnated and potted with high quality compounds. Excellent frequency response is obtained by use of high nickel content laminations and special winding techniques. Glass-to-metal seals are used to insure positive hermetic sealing. All units furnished in attractive grey finish with schematics permanently and legibly marked on cases.

Type No.	Mil Type	Application	Pri. Imp. Ohms	Pri. DC Unbal.	Sec. Imp. Ohms	Approx. DCR Pri.	Approx. DCR Sec.	Response	Max. Level
TAF-01*	TF4RX10YY	Line to Grid	600/250/50	0	50,000	100	3200	60-15,000	0dbm
TAF-02*	TF4RX10YY	Line to Grid	600/250/50	0	250,000	48	3600	150-7000	0dbm
TAF-03	TF4RX10YY	Line to PP Grids	600/250/50	0	60,000CT	125	3600	60-15,000	0dbm
TAF-04*	TF4RX10YY	Mike or V.C. to Grid	30/12/4	0	50,000	10	4100	60-12,000	0dbm
TAF-05	TF4RX10YY	Plate to Grid	15,000	0	50,000	1100	2860	60-15,000	+10dbm
TAF-06	TF4RX10YY	Plate to PP Grids	15,000	0	60,000CT	1350	2700	60-15,000	+10dbm
TAF-07	TF4RX15YY	Plate to PP Grids	15,000	3MA	95,000CT	1450	3050	350-7000	+10dbm
TAF-08*	TF4RX10YY	Line to Grid	200	0	500,000	100	4900	350-5000	0dbm
TAF-09	TF4RX10YY	Plate to Grid	15,000	0	1 Megohm	550	4450	350-5000	+10dbm
TAF-10	TF4RX16YY	Plate to Line	15,000	0	600/250/50	1330	58	60-15,000	+10dbm
TAF-11	TF4RX13YY	Plate to Line	15,000	3MA	600/250/50	1330	58	350-7000	+10dbm
TAF-12	TF4RX16YY	PP Plates to Line	20,000CT	0	600/250/50	2600	84	60-15,000	+10dbm
TAF-13*	TF4RX16YY	Line to Line	600/250/50	0	600/250/50	80	85	60-15,000	+10dbm
TAF-14*	TF4RX21YY	HI-Imp. Line to Line	5000CT	0	5000CT	2150	2190	60-15,000	+10dbm
TAF-15	TF4RX20YY	Reactor	50 HYS @ .75 MADC			4800			

* Electrostatic shield between windings.

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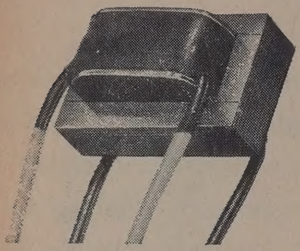
HST TRANSFORMERS

TYPE SMO

SUB-SUB MINIATURE TRANSFORMERS



Type SMO

The SMO series transformers and reactors have been engineered for highest efficiency along with minimum size. Special high nickel content lamination and compact winding techniques insure excellent frequency response and low distortion. These units are moisture-proofed by treatment with high quality varnish. All units are supplied with a black finish. All units have #26 flexible color-coded lead wires, four inches minimum in length. As normally supplied, no mounting brackets are furnished; however, channel brackets are available.

Type No.	Application	Pri. Imp. Ohms	Pri. D.C. Unbal.	Sec. Imp. Ohms	Approx. DCR Pri.	Approx. DCR Sec.	Max. Level
SMO-1	Input	200 50	0	250K 62.5K	13.5	3600	+7dbM
SMO-2	Interstage/3:1	10K	0.25	90K	710	3150	30MW
SMO-3	Plate to Line	10K 25K	3MA 1.5MA	200 500	2500	34	100MW
SMO-4	Output	30K	1MA	50	2875	50	100MW
SMO-5	Reactor	50 HYS. @ 1 MADC 4400 Ohms D.C.R.					
SMO-6	Output	100K	.5MA	60	3500	3.3	100MW
SMO-7	Transistor Interstage	20K 30K	.5MA .5MA	800 1200	800	110	100MW
SMO-8	Transistor to P.P. Sec.	10K	1MA	200CT	1200	45	100MW
SMO-9	Transistor to V.C.	10K	2MA	16	800	2.7	100MW
SMO-10	Transistor to V.C.	10K	2MA	3.2	800	.65	100MW
SMO-11	Transistor Output	500 600	3.5MA 3.5MA	50 60	50	5	100MW
SMO-12	Transistor Output	1000 1200	3MA 3MA	50 60	90	5	100MW
SMO-13	Crystal to Transistor	200K	0	1000	4000	190	+7dbM
SMO-14	Transistor Interstage	10KCT 25KCT	2MA 1MA	200CT 500CT	650	22	100MW
SMO-15	Transistor Interstage	20KCT 30KCT	1MA 1MA	800CT 1200CT	800	110	100MW
SMO-16	Output	1200 1500	3MA 3MA	3.2 4	70	.45	100MW
SMO-17	Output or Driver	10K 12.5K	2MA 2MA	500CT 600CT	800	95	100MW
SMO-18	Single or PP Output	7.5KCT 9.4KCT	4MA 4MA	3.2 4	770	.73	100MW
SMO-19	Output or Matching	500CT	10MA	600CT	26	70	100MW
SMO-20	Output	1.5KCT	7MA	600CT	70	65	100MW
SMO-21	Crystal/Chopper	200KCT	0	1000CT	4000	200	+7dbM
SMO-22	Interstage	10KCT 12KCT	4MA 4MA	1500CT 1800CT	800	300	100MW
SMO-23	Reactor	8 HYS @ 2 MADC, 4 HYS @ 5 MADC 650 Ohms DCR					
SMO-24	Reactor	3.5 HYS @ 2 MADC, 1.5 HYS @ 5 MADC 160 Ohms DCR					
SMO-25	Transistor Interstage	10KCT 12KCT	1MA 1MA	10KCT 12KCT	560	650	100MW
SMO-26	Transistor Interstage	40KCT 50KCT	.5MA .5MA	400 split 500 split	1900	43	100MW
SMO-CH	Channel Frame	Mounting Frame for any of above SMO Units.					

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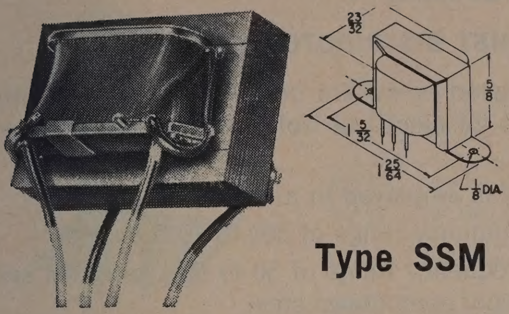
HST TRANSFORMERS

TYPES SSM, RM

Sub-Miniature TRANSFORMERS



Type SSM

The SSM series transformers and reactors have been engineered for highest efficiency along with minimum size. Special high nickel content lamination and compact winding techniques insure excellent frequency response and low distortion. These units are moisture-proofed by treatment with high quality varnish. All units are supplied with a black finish. All units have #26 flexible color-coded lead wires, four inches minimum in length. As normally supplied, no mounting brackets are furnished; however, channel brackets are available (HST type SSM-CH) as shown in sketch at left.

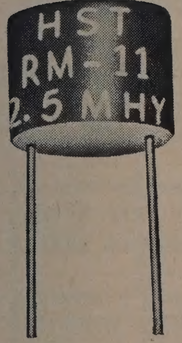
Type No.	Application	Pri. Imp. Ohms	Pri. D.C. Unbal.	Sec. Imp. Ohms	Approx. DCR		Max. Level
					Pri.	Sec.	
SSM-1*	Input	200 50	0 0	250K 62.5K	16	2500	+10dbM
SSM-2	Interstage/3:1	10K	0.25	90K	215	1850	100MW
SSM-3*	Plate to Line	10K 25K	3MA 1.5MA	200 500	1225	30	200MW
SSM-4	Output	30K	1MA	50	1850	3.8	200MW
SSM-5	Reactor	50 HYS @ 1 MADC	2675 Ohms DCR				
SSM-6	Output	100K	.5MA	60	3400	3.7	200MW
SSM-7*	Transistor Interstage	20K 30K	.5MA .5MA	800 1200	450	32	200MW
SSM-8	Transistor to P.P. Sec.	10K	1MA	2000CT	1000	40	200MW
SSM-9	P.P. Transistor to V.C.	500CT	0	3.2	15	.35	250MW
SSM-10*	P.P. Transistor to V.C.	2000CT 4000CT	4MA 2MA	8 16	290	2	250MW
SSM-11	Transistor Interstage	400CT 500CT	8MA 8MA	400 split 500 split	20	45	250MW
SSM-12	Transistor Interstage	400CT 500CT	8MA 8MA	120 split 150 split	20	12.6	250MW
SSM-13	Transistor Interstage	400CT 500CT	8MA 8MA	40 Split 50 split	20	4.5	250MW
SSM-14	Transistor Interstage	80CT 100CT	16MA 16MA	32 split 40 split	4.9	3.2	250MW
SSM-CH	Channel Frame	Mounting Frame for any of above SSM Units.					

* Impedance ratio is fixed. Any impedance between values shown may be employed.

Sub-Miniature TOROIDS

Printed Circuit Design

MIL-T-27A



Type RM

RM TYPES

Type No.	Ind. (0 Dc)	Dc Ma Max
RM-1	3.0 Mhy	50
RM-2	5.0 Mhy	40
RM-3	8.0 Mhy	30
RM-4	12.5 Mhy	25
RM-5	20.0 Mhy	20
RM-6	30.0 Mhy	16
RM-7	60.0 Mhy	11
RM-8	120.0 Mhy	8
RM-9	0.6 Mhy	90
RM-10	1.5 Mhy	57
RM-11	2.5 Mhy	44
RM-12	6.0 Mhy	28
RM-13	10.0 Mhy	22
RM-14	15.0 Mhy	18
RM-15	25.0 Mhy	14
RM-16	40.0 Mhy	11

HST sub-miniature toroids, type "RM", are specifically designed for printed circuit applications in transistor circuits. These units are ideal companion design components for use with HST type "TT" transformers.

Proper choice of core types and winding techniques insures maximum "Q" performance. See curves below for further pertinent data. All inductance values shown are adjusted to a tolerance of ±2%. All units are marked with inductance values. The "RM" series are epoxy molded.

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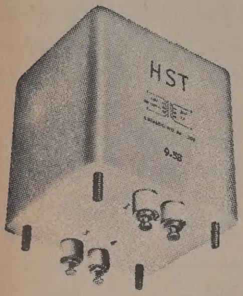
HST TRANSFORMERS

TYPE PX, PY, RS

ISOLATION TRANSFORMERS

MIL-T-27A, CLASS R, GRADE 4

IMMEDIATE DELIVERY FROM AUTHORIZED HST DISTRIBUTOR STOCKS



The HST isolation transformers listed below are designed to offer maximum utility to the user in requirements for electrical isolation. All units have electrostatic shields.

Vacuum impregnation and potting is employed in all units.

The PX series is for use in the frequency range of 380 to 1000 cycles.

The PY series is for use in the frequency range of 50 to 60 cycles. All enclosures are MIL-T-27A, standard sizes of deep drawn steel.

All units are finished in an attractive grey with schematic diagrams permanently and legibly marked on the case.

ISOLATION TRANSFORMERS

Primaries 115 Volts 380 to 1000 Cycles

Type No.	Secondary Volts	Secondary Amps	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
PX-60	26	0.2	500	AH	0.15
PX-100	26	1.0	2500	FA	1.5
PX-200	26	2.0	2500	GB	1.75
PX-300	26	4.0	2500	GA	2.0
PX-320	26	6.5	1000	JA	6.0
PX-360	115	0.3	2000	EA	0.75
PX-400	115	1.0	2500	GA	2.0
PX-500	115	2.0	2500	JA	6.0

ISOLATION TRANSFORMERS

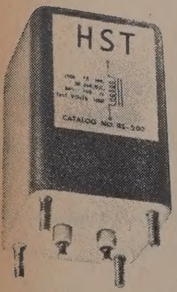
Primary 115 Volts 50/60 Cycles

Catalog No.	Secondary Volts	Secondary Amps	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
PY-100	115	0.2	2000	GA	2.0
PY-200	115	0.5	2000	HA	3.5
PY-300	115	1.0	2000	KA	8.5
PY-400	115	2.5	2000	MA	13.0
PY-500	26	1.0	2000	GA	2.0
PY-600	26	2.0	2000	HA	3.5
PY-700	26	4.0	2000	KA	8.5

FILTER REACTORS

MIL-T-27A

CLASS R, GRADE 4



The 4RS series HST reactors have been designed specifically for use in 400 cycle circuits. Their small size versus ratings are ideal for 800 cycle ripple reduction.

The RS series of HST reactors offers a wide selection of inductance values, DC resistance ranges and current ratings.

All units are housed in deep drawn steel cases, MIL-T-27A standard sizes. All units are vacuum impregnated and potted with the finest materials obtainable.

Cases are finished in an attractive grey with schematic diagrams permanently and legibly marked on all units.

FILTER REACTORS — 400 Cycle Application

Type No.	Inductance Henries	Current D.C. Ma.	D.C. Resistance (Ohms)	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
4RS-100	2	55	210	2500	AH	0.15
4RS-200	2	70	240	2500	AJ	0.25
4RS-300	2	120	105	2500	EA	0.75
4RS-400	2	165	80	2500	FB	1.0
4RS-500	2	200	77	2500	FA	1.5

FILTER REACTORS — General Application

Catalog No.	Inductance (Henries)	Current D.C. (Max.)	D.C. Resistance (Max. Ohms)	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
RS-100	15	10	700	1000	AJ	.25
RS-200	15	20	700	1000	AJ	.25
RS-300	15	40	460	2500	EA	.75
RS-400	25	50	1400	2500	GA	2.0
RS-500	10	60	230	2500	FA	1.5
RS-600	30	60	900	2500	HA	3.5
RS-700	10	85	195	2500	FA	1.5
RS-800	8	105	100	2500	GA	2.0
RS-900	8	150	100	2500	HA	3.5
RS-1000	10	150	150	2500	JA	6.0
RS-2000	8	200	90	2500	KB	6.5
RS-3000	5	250	220	2500	JA	6.0
RS-4000	8	250	95	3000	LA	11.0
RS-5000	8	300	55	3500	MA	13.0
RS-6000	4	600	20	3500	MA	13.0
RS-7000	0.5	1200	6	3500	MA	13.0

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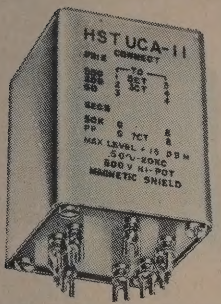
HST TRANSFORMERS

TYPE UCA

COMMERCIAL GRADE COMPONENTS



Type UCA

The HST commercial grade UCA Series has been designed and manufactured to the same exacting quality standards as the HST Military line. The excellent frequency response and low distortion inherent with these units makes them ideally suited for high-fidelity application, portable broadcast and other uses. Check the advantages listed below:

1. Rugged die-cast cases providing mounting from both ends. See photo above.
2. Excellent Frequency Response.
3. Hum-bucking coil construction on all units except those with DC in primary.
4. Additional magnetic shielding (20 db) available by use of UCA-33 mu-metal shield. See photo above.
5. Vacuum impregnated and sealed with high quality potting compound.
6. Schematic diagrams permanently marked on all units.
7. Attractive grey finish offering maximum eye-appeal in equipment.

INPUT TRANSFORMERS

Type No.	Application	Primary Imp. Ohms	Unbal. D.C.	Secondary Imp. Ohms	Response ±2db	Pri. Res. Ohms	Max. Level
UCA-10	Low Imp. to Grid	50,125/150,200/250, 333,500/600	0	50,000 split	20-20,000	59	+15dbM
UCA-11*	Low Imp. to 1 or 2 Grids	50,200,500	0	50,000CT	20-20,000	52	+5dbM
UCA-12	Low Imp. to PP Grids	50,125/150,200/250, 333,500/600	0	80,000 split	20-20,000	60	+15dbM
UCA-20†	Mixing, Matching	50,125/150,200/250, 333,500/600	0	50,125/150,200/250, 333,500/600	10-50,000	64	+15dbM
UCA-21*†	Mixing, Matching	50,200/250,500/600	0	50,200/250,500/600	40-30,000	28	+15dbM
UCA-27	Xtal/Hl. Imp. to Line	100,000 split	0	50,125/150,200/250, 333,500/600	30-20,000 with res. source	3700	+15dbM
UCA-39*	Line to Transistors	600/150 split	0	2000/500 split	20-20,000	70	+10dbM

* Multiple alloy shield for extremely low hum pickup. † High electrostatic shielding.

INTERSTAGE AND OUTPUT TRANSFORMERS

UCA-15	Transistor Interstage	10,000/2500 split	8MA	2000/500 split	40-20,000	600	1 Watt
UCA-16	Plate to Grid	15,000	0	60,000	20-20,000	800	30MW
UCA-17	Plate to Grid	15,000	8MA	60,000	40-20,000	3340	30MW
UCA-18	Single or PP Plates to PP Grids	15,000 split	0	80,000 split	20-15,000	1040	30MW
UCA-19	Plate to PP Grids	15,000	8MA	80,000 split	40-15,000	2900	30MW
UCA-22	Transistor Interstage or Output	500CT	20MA	500/125 split	40-20,000	36	1 Watt
UCA-23	Transistor Interstage or Output	500CT	20MA	16/4 split	40-20,000	36	1 Watt
UCA-24	Single or PP Plates to Line	15,000 split	0	50,125/150,200/250, 333,500/600	20-40,000	1430	30MW
UCA-25	Plate to Line	15,000	8MA	50,125/150,200/250, 333,500/600	40-20,000	1580	30MW
UCA-26	Single or PP Plates to Line	30,000 split	0	50,125/150,200/250, 333,500/600	20-40,000	2520	30MW
UCA-28	Transistor to V.C.	48CT	750 MA Bal.	16 split 8, 4	40-20,000	5	5 Watts
UCA-34	Transistor Interstage	25,000/6250 split	3MA	500/125 split	30-20,000	1620	1 Watt
UCA-35	Transistor Interstage	10,000/2500 split	8MA	500/125 split	30-20,000	610	1 Watt
UCA-36	Transistor Interstage	500/125 split	20MA	150/37.5 split	40-20,000	36	1 Watt
UCA-37	Transistor Interstage	500/125 split	20MA	50/12.5 split	40-20,000	36	1 Watt
UCA-38	Transistor Interstage	100/25 split	40MA	40/10 split	40-20,000	6.2	1 Watt

REACTORS AND FILAMENT/TRANSISTOR SUPPLY TRANSFORMERS

Type No.	Application	
UCA-30	Audio Choke	450 HYS @ 0 MA, 250 HYS @ 5 MA—6000 Ohms; 65 HYS @ 10 MA—1500 Ohms.
UCA-32	Filter Choke	60 HYS @ 15 MA—2000 Ohms; 15 HYS @ 30 MA—500 Ohms.
UCA-41	Filter Choke	240 MHY. @ .2A—6 Ohms; 60 MHY. @ .4A—1.5 Ohms.
UCA-40	Power Transformer	115 V 60 CPS to Two 6.3 VCT @ .2A Secondaries.
UCA-33	Mu-Metal Shield	Slip Fit Over UCA Case, Provides Approximately 20db Shielding.

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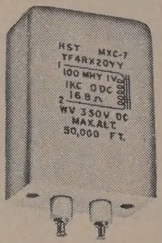
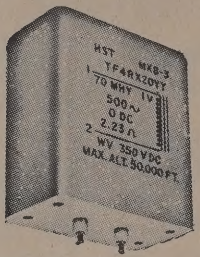
HST TRANSFORMERS

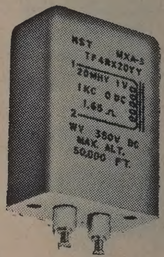
TYPES
MXA, TXA
MXB, MXC

ADVANCED "MX" SERIES OF HIGH "Q" TOROIDS

MIL-T-27A







MXA and TXA:

Length	$1\frac{9}{32}$
Width	$\frac{11}{16}$
Height	$1\frac{21}{32}$
Mounting	$\frac{7}{8} \times \frac{9}{32}$
Screws (two)	4-40
Cutout-MXA	$\frac{5}{16} \times \frac{1}{2}$
Cutout-TXA	$\frac{5}{16} \times \frac{3}{4}$
Unit Weight	4 oz.

MXB:

Length	$2\frac{9}{16}$
Width	$1\frac{3}{16}$
Height	$2\frac{13}{16}$
Mounting	$2\frac{1}{16} \times \frac{11}{16}$
Screws (four)	6-32
Cutout	$\frac{7}{8} \times \frac{1}{2}$
Unit Weight	14 oz.

MXC:

Length	$1\frac{1}{16}$
Width	$\frac{1}{2}$
Height	$1\frac{7}{32}$
Mounting	$\frac{3}{4}$
Screws (two)	4-40
Cutout	$\frac{5}{16} \times \frac{1}{2}$
Unit Weight	1.5 oz.

The new advanced "MX" series of HST standard toroids provides the highest "Q" factors, inductance stability and linearity obtainable in the industry. Permalloy dust cores are used in all units; core types selected for maximum efficiency at specified frequency ranges. All units are individually adjusted to ±1% tolerance. Enclosures are made of high permeability steel for magnetic shielding.

The TXA series toroids are center tapped for use in "capacitor multiplying tuned circuits," oscillator circuits," etc.

All units are furnished in an attractive grey finish with schematics permanently and legibly marked on cases.

MXB TYPES

Type No.	Ind. (0 Dc)	Dc Ma Max
MXB-1	10.0 Mhy	400
MXB-2	30.0 Mhy	250
MXB-3	70.0 Mhy	170
MXB-4	120.0 Mhy	120
MXB-5	0.5 Hy	60
MXB-6	1.0 Hy	40
MXB-7	2.0 Hy	30
MXB-8	3.5 Hy	22
MXB-9	7.5 Hy	16
MXB-10	12.0 Hy	11
MXB-11	18.0 Hy	9
MXB-12	25.0 Hy	8
MXB-13	40.0 Hy	6
MXB-14	60.0 Hy	4

MXA and TXA TYPES

Type No.	Ind. (0 DC)	DC MA Max.	Center Tapped Type No.
MXA-1	7.0 Mhy	250	TXA-1
MXA-2	12.0 Mhy	200	TXA-2
MXA-3	20.0 Mhy	150	TXA-3
MXA-4	30.0 Mhy	125	TXA-4
MXA-5	50.0 Mhy	100	TXA-5
MXA-6	70.0 Mhy	80	TXA-6
MXA-7	120.0 Mhy	60	TXA-7
MXA-8	0.2 Hy	50	TXA-8
MXA-9	0.3 Hy	40	TXA-9
MXA-10	0.5 Hy	30	TXA-10
MXA-11	.07 Hy	25	TXA-11
MXA-12	1.0 Hy	20	TXA-12
MXA-13	1.5 Hy	17	TXA-13
MXA-14	2.5 Hy	13	TXA-14
MXA-15	4.0 Hy	10	TXA-15
MXA-16	6.0 Hy	9	TXA-16
MXA-17	10.0 Hy	7	TXA-17
MXA-18	15.0 Hy	5	TXA-18
MXA-19	22.0 Hy	4	TXA-19
MXA-20	35.0 Hy	3	TXA-20

MXC TYPES

Type No.	Ind. (0 Dc)	Dc Ma Max
MXC-0	4.0 Mhy	160
MXC-1	7.0 Mhy	135
MXC-2	12.0 Mhy	100
MXC-3	20.0 Mhy	80
MXC-4	30.0 Mhy	65
MXC-5	50.0 Mhy	50
MXC-6	70.0 Mhy	40
MXC-7	100.0 Mhy	35
MXC-8	150.0 Mhy	30
MXC-9	0.25 Hy	22
MXC-10	0.4 Hy	17
MXC-11	0.6 Hy	14
MXC-12	0.9 Hy	12
MXC-13	1.5 Hy	9
MXC-14	2.0 Hy	8
MXC-15	2.8 Hy	7.2
MXC-16	4.0 Hy	5

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HST TRANSFORMERS

INDUSTRIAL
O.E.M.
NET PRICE
LIST

(All prices subject to change without notice)

"SS" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
SS-1	7.80	6.63	6.24	5.20
SS-2	7.80	6.63	6.24	5.20
SS-3	7.51	6.38	6.01	5.01
SS-4	6.60	5.61	5.28	4.40
SS-5	6.60	5.61	5.28	4.40
SS-6	7.51	6.38	6.01	5.01
SS-7	7.51	6.38	6.01	5.01
SS-8	7.80	6.63	6.24	5.20
SS-9	7.80	6.63	6.24	5.20
SS-10	8.40	7.14	6.72	5.60
SS-11	7.80	6.63	6.24	5.20
SS-12	7.80	6.63	6.24	5.20
SS-13	6.31	5.36	5.05	4.21
SS-14	7.51	6.38	6.01	5.01
SS-15	7.51	6.38	6.01	5.01
SS-16	10.20	8.67	8.16	6.80
SS-17	1.51	1.28	1.21	1.01
SS-18	7.80	6.63	6.24	5.20
SS-19	7.80	6.63	6.24	5.20
SS-20	6.31	5.36	5.05	4.21
SS-21	5.40	4.59	4.32	3.60
SS-22	5.40	4.59	4.32	3.60
SS-23	5.11	4.34	4.09	3.41
SS-24	5.11	4.34	4.09	3.41
SS-25	8.11	6.89	6.49	5.41
SS-26	8.11	6.89	6.49	5.41
SS-27	8.40	7.14	6.72	5.60
SS-28	8.40	7.14	6.72	5.60
SS-29	8.71	7.40	6.97	5.81
SS-30	8.11	6.89	6.49	5.41
SS-31	8.11	6.89	6.49	5.41
SS-32	8.11	6.89	6.49	5.41
SS-33	8.11	6.89	6.49	5.41

"SSM" Series

SSM-1	3.60	3.06	2.88	2.40
SSM-2	3.31	2.81	2.65	2.21
SSM-3	3.31	2.81	2.65	2.21
SSM-4	3.31	2.81	2.65	2.21
SSM-5	3.00	2.55	2.40	2.00
SSM-6	3.91	3.32	3.13	2.61
SSM-7	3.00	2.55	2.40	2.00
SSM-8	3.60	3.06	2.88	2.40
SSM-9	3.60	3.06	2.88	2.40
SSM-10	3.60	3.06	2.88	2.40
SSM-11	4.20	3.57	3.36	2.80
SSM-12	4.20	3.57	3.36	2.80
SSM-13	4.20	3.57	3.36	2.80
SSM-14	4.20	3.57	3.36	2.80

"PY" Series

PY-100	17.90	15.22	14.32	11.94
PY-200	15.35	13.05	12.28	10.24
PY-300	22.00	18.70	17.60	14.67
PY-400	22.50	19.13	18.00	15.01
PY-500	15.80	13.43	12.64	10.54
PY-600	16.90	14.37	13.52	11.27
PY-700	24.00	20.40	19.20	16.01

"TT" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
TT-001	6.00	5.10	4.80	4.00
TT-002	5.40	4.59	4.32	3.60
TT-003	5.40	4.59	4.32	3.60
TT-004	5.40	4.59	4.32	3.60
TT-005	5.40	4.59	4.32	3.60
TT-006	6.00	5.10	4.80	4.00
TT-007	6.60	5.61	5.28	4.40
TT-008	4.80	4.08	3.84	3.20
TT-009	6.60	5.61	5.28	4.40
TT-010	6.60	5.61	5.28	4.40
TT-011	6.60	5.61	5.28	4.40
TT-012	5.70	4.85	4.56	3.80
TT-013	5.70	4.85	4.56	3.80
TT-014	6.00	5.10	4.80	4.00
TT-015	6.00	5.10	4.80	4.00
TT-016	6.00	5.10	4.80	4.00
TT-017	6.00	5.10	4.80	4.00
TT-018	6.30	5.36	5.04	4.20
TT-019	6.00	5.10	4.80	4.00
TT-020	6.00	5.10	4.80	4.00
TT-021	6.00	5.10	4.80	4.00
TT-022	6.00	5.10	4.80	4.00
TT-023	6.90	5.87	5.52	4.60
TT-024	7.50	6.38	6.00	5.00
TT-025	7.20	6.12	5.76	4.80
TT-026	5.70	4.85	4.56	3.80
TT-027	4.80	4.08	3.84	3.20
TT-028	4.80	4.08	3.84	3.20
TT-029	5.70	4.85	4.56	3.80
TT-030	5.70	4.85	4.56	3.80
TT-031	6.00	5.10	4.80	4.00
TT-032	6.00	5.10	4.80	4.00
TT-033	6.00	5.10	4.80	4.00
TT-034	6.00	5.10	4.80	4.00
TT-035	6.30	5.36	5.04	4.20
TT-036	7.50	6.38	6.00	5.00
TT-037	6.60	5.61	5.28	4.40
TT-038	6.60	5.61	5.28	4.40
TT-039	6.60	5.61	5.28	4.40
TT-040	6.60	5.61	5.28	4.40
TT-041	5.40	4.59	4.32	3.60
TT-042	5.70	4.85	4.56	3.80
TT-043	4.95	4.21	3.96	3.30
TT-044	4.95	4.21	3.96	3.30
TT-045	4.95	4.21	3.96	3.30
TT-046	5.25	4.46	4.20	3.50
TT-047	5.25	4.46	4.20	3.50
TT-048	7.80	6.63	6.24	5.20
TT-049	7.80	6.63	6.24	5.20
TT-050	7.80	6.63	6.24	5.20
TT-051	8.40	7.14	6.72	5.60
TT-052	7.50	6.38	6.00	5.00
TT-053	7.50	6.38	6.00	5.00
TT-054	7.50	6.38	6.00	5.00
TT-055	7.50	6.38	6.00	5.00
TT-101	.90	.77	.73	.60

"4RS" Series

4RS-100	7.80	6.63	6.24	5.20
4RS-200	8.45	7.18	6.76	5.64
4RS-300	9.55	8.12	7.64	6.37
4RS-400	10.45	8.88	8.36	6.97
4RS-500	12.20	10.37	9.76	8.14

"TAF" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
TAF-01	13.20	11.22	10.56	8.80
TAF-02	13.73	11.67	10.98	9.16
TAF-03	13.73	11.67	10.98	9.16
TAF-04	13.73	11.67	10.98	9.16
TAF-05	12.84	10.91	10.27	8.56
TAF-06	13.20	11.22	10.56	8.80
TAF-07	13.73	11.67	10.98	9.16
TAF-08	13.73	11.67	10.98	9.16
TAF-09	13.73	11.67	10.98	9.16
TAF-10	13.20	11.22	10.56	8.80
TAF-11	13.20	11.22	10.56	8.80
TAF-12	13.73	11.67	10.98	9.16
TAF-13	14.15	12.03	11.32	9.44
TAF-14	14.15	12.03	11.32	9.44
TAF-15	12.60	10.71	10.08	8.40

"UCA" Series

UCA-10	12.75	10.84	10.20	8.50
UCA-11	12.00	10.20	9.60	8.00
UCA-12	12.00	10.20	9.60	8.00
UCA-15	9.91	8.42	7.93	6.61
UCA-16	9.91	8.42	7.93	6.61
UCA-17	12.00	10.20	9.60	8.00
UCA-18	12.00	10.20	9.60	8.00
UCA-19	12.00	10.20	9.60	8.00
UCA-20	14.40	12.24	11.52	9.60
UCA-21	12.00	10.20	9.60	8.00
UCA-22	9.91	8.42	7.93	6.61
UCA-23	9.91	8.42	7.93	6.61
UCA-24	12.91	10.97	10.33	8.61
UCA-25	12.00	10.20	9.60	8.00
UCA-26	12.75	10.84	10.20	8.50
UCA-27	12.00	10.20	9.60	8.00
UCA-28	10.20	8.67	8.16	6.80
UCA-30	10.20	8.67	8.16	6.80
UCA-32	6.60	5.61	5.28	4.40
UCA-33	2.71	2.30	2.17	1.81
UCA-34	10.20	8.67	8.16	6.80
UCA-35	9.91	8.42	7.93	6.61
UCA-36	9.60	8.16	7.68	6.40
UCA-37	9.60	8.16	7.68	6.40
UCA-38	9.29	7.90	7.43	6.20
UCA-39	11.11	9.44	8.89	7.41
UCA-40	10.13	8.61	8.10	6.76
UCA-41	6.13	5.21	4.90	4.09

"SMH" Series

SMH-1	8.40	7.14	6.72	5.60
SMH-2	8.40	7.14	6.72	5.60
SMH-3	8.40	7.14	6.72	5.60
SMH-4	8.40	7.14	6.72	5.60
SMH-5	6.91	5.87	5.53	4.61
SMH-6	7.51	6.38	6.01	5.01
SMH-7	7.51	6.38	6.01	5.01
SMH-8	7.51	6.38	6.01	5.01
SMH-9	7.51	6.38	6.01	5.01
SMH-10	7.51	6.38	6.01	5.01
SMH-11	7.51	6.38	6.01	5.01
SMH-12	9.60	8.16	7.68	6.40

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HST TRANSFORMERS

INDUSTRIAL O.E.M. NET PRICE LIST

(All prices subject to change without notice)

"MH" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
MH-01	9.00	7.65	7.20	6.00
MH-02	9.91	8.42	7.93	6.61
MH-03	7.80	6.63	6.24	5.20
MH-04	7.80	6.63	6.24	5.20
MH-05	8.40	7.14	6.72	5.60
MH-06	10.20	8.67	8.16	6.80
MH-07	9.60	8.16	7.68	6.40
MH-08	9.00	7.65	7.20	6.00
MH-09	9.00	7.65	7.20	6.00
MH-10	8.40	7.14	6.72	5.60
MH-11	7.51	6.38	6.01	5.01
MH-12	9.60	8.16	7.68	6.40
HM-13	9.00	7.65	7.20	6.00
MH-14	9.00	7.65	7.20	6.00
MH-15	13.91	11.82	11.13	9.28
MH-16	13.73	11.67	10.98	9.16
MH-17	13.73	11.67	10.98	9.16
MH-18	13.73	11.67	10.98	9.16

"MXA" Series

MXA-1	7.50	6.38	6.00	5.00
MXA-2	7.80	6.63	6.24	5.20
MXA-3	8.10	6.89	6.48	5.40
MXA-4	8.40	7.14	6.72	5.60
MXA-5	8.70	7.40	6.96	5.80
MXA-6	9.00	7.65	7.20	6.00
MXA-7	9.30	7.91	7.44	6.20
MXA-8	9.60	8.16	7.68	6.40
MXA-9	9.90	8.42	7.92	6.60
MXA-10	10.20	8.67	8.16	6.80
MXA-11	10.50	8.93	8.40	7.00
MXA-12	10.80	9.18	8.64	7.20
MXA-13	11.10	9.44	8.88	7.40
MXA-14	11.40	9.69	9.12	7.60
MXA-15	12.00	10.20	9.60	8.00
MXA-16	12.90	10.97	10.32	8.60
MXA-17	13.80	11.73	11.04	9.20
MXA-18	15.00	12.75	12.00	10.00
MXA-19	18.00	15.30	14.40	12.00
MXA-20	20.70	17.60	16.56	13.80

"MXB" Series

MXB-1	12.90	10.97	10.32	8.60
MXB-2	13.20	11.22	10.56	8.80
MXB-3	13.50	11.48	10.80	9.00
MXB-4	13.80	11.73	11.04	9.20
MXB-5	14.10	11.99	11.28	9.40
MXB-6	14.40	12.24	11.52	9.60
MXB-7	14.70	12.49	11.76	9.80
MXB-8	15.00	12.75	12.00	10.00
MXB-9	15.90	13.52	12.72	10.60
MXB-10	16.80	14.28	13.44	11.20
MXB-11	18.00	15.30	14.40	12.00
MXB-12	19.20	16.32	15.36	12.80
MXB-13	21.00	17.85	16.80	14.00
MXB-14	24.00	20.40	19.20	16.00

"MXC" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
MXC-0	6.90	5.87	5.52	4.60
MXC-1	7.20	6.12	5.76	4.80
MXC-2	7.50	6.38	6.00	5.00
MXC-3	7.80	6.63	6.24	5.20
MXC-4	7.80	6.63	6.24	5.20
MXC-5	8.10	6.86	6.48	5.40
MXC-6	8.40	7.14	6.72	5.60
MXC-7	8.40	7.14	6.72	5.60
MXC-8	8.70	7.40	6.96	5.80
MXC-9	8.70	7.40	6.96	5.80
MXC-10	9.00	7.65	7.20	6.00
MXC-11	9.00	7.65	7.20	6.00
MXC-12	9.30	7.91	7.44	6.20
MXC-13	9.90	8.42	7.92	6.60
MXC-14	10.80	9.18	8.64	7.20
MXC-15	12.00	10.20	9.60	8.00
MXC-16	13.50	11.48	10.80	9.00

"RM" Series

RM-1	7.50	6.38	6.00	5.00
RM-2	7.50	6.38	6.00	5.00
RM-3	7.80	6.63	6.24	5.20
RM-4	7.80	6.63	6.24	5.20
RM-5	8.10	6.89	6.48	5.40
RM-6	8.10	6.89	6.48	5.40
RM-7	8.40	7.14	6.72	5.60
RM-8	8.40	7.14	6.72	5.60
RM-9	8.10	6.89	6.48	5.40
RM-10	8.10	6.89	6.48	5.40
RM-11	8.40	7.14	6.72	5.60
RM-12	8.40	7.14	6.72	5.60
RM-13	8.70	7.40	6.96	5.80
RM-14	8.70	7.40	6.96	5.80
RM-15	9.00	7.65	7.20	6.00
RM-16	9.00	7.65	7.20	6.00

"TXA" Series

TXA-1	9.00	7.65	7.20	6.00
TXA-2	9.30	7.91	7.44	6.20
TXA-3	9.60	8.16	7.68	6.40
TXA-4	9.90	8.42	7.92	6.60
TXA-5	10.20	8.67	8.16	6.80
TXA-6	10.50	8.93	8.40	7.00
TXA-7	10.80	9.18	8.64	7.20
TXA-8	11.10	9.44	8.88	7.40
TXA-9	11.40	9.69	9.12	7.60
TXA-10	11.70	9.95	9.36	7.80
TXA-11	12.00	10.20	9.60	8.00
TXA-12	12.30	10.46	9.84	8.20
TXA-13	12.60	10.71	10.08	8.40
TXA-14	12.90	10.97	10.32	8.60
TXA-15	13:50	11.48	10.80	9.00
TXA-16	14.70	12.50	11.76	9.80
TXA-17	15.90	13.52	12.72	10.60
TXA-18	17.40	14.79	13.92	11.60
TXA-19	21.00	17.85	16.80	14.00
TXA-20	23.40	19.89	18.72	15.60

"RS" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
RS-100	8.35	7.10	6.68	5.57
RS-200	8.90	7.57	7.12	5.94
RS-300	10.00	8.50	8.00	6.67
RS-400	10.35	8.80	8.28	6.90
RS-500	12.35	10.50	9.88	8.24
RS-600	14.45	12.28	11.56	9.64
RS-700	13.80	11.73	11.04	9.20
RS-800	18.50	15.73	14.80	12.34
RS-900	16.20	13.77	12.96	10.81
RS-1000	18.00	15.30	14.40	12.01
RS-2000	18.65	15.85	14.92	12.44
RS-3000	19.60	16.66	15.68	13.07
RS-4000	19.70	16.75	15.76	13.14
RS-5000	35.60	30.26	28.48	23.75
RS-6000	34.95	29.71	27.96	23.31
RS-7000	33.70	28.65	26.96	22.48

"PX" Series

PX-60	11.10	9.44	8.88	7.40
PX-100	13.10	11.14	10.48	8.74
PX-200	13.90	11.82	11.12	9.27
PX-300	16.70	14.20	13.36	11.14
PX-320	20.00	17.00	16.00	13.34
PX-360	13.50	11.48	10.80	9.00
PX-400	17.00	14.45	13.60	11.34
PX-500	25.00	21.25	20.00	16.68

"SMO" Series

SMO-1	4.51	3.83	3.61	3.01
SMO-2	4.80	4.08	3.84	3.20
SMO-3	4.20	3.57	3.36	2.80
SMO-4	3.91	3.32	3.13	2.61
SMO-5	3.91	3.32	3.13	2.61
SMO-6	4.20	3.57	3.36	2.80
SMO-7	3.31	2.81	2.65	2.21
SMO-8	3.91	3.32	3.13	2.61
SMO-9	3.00	2.55	2.40	2.00
SMO-10	3.00	2.55	2.40	2.00
SMO-11	3.00	2.55	2.40	2.00
SMO-12	3.00	2.55	2.40	2.00
SMO-13	4.51	3.83	3.61	3.01
SMO-14	4.20	3.57	3.36	2.80
SMO-15	4.20	3.57	3.36	2.80
SMO-16	3.00	2.55	2.40	2.00
SMO-17	3.31	2.81	2.65	2.21
SMO-18	3.31	2.81	2.65	2.21
SMO-19	3.31	2.81	2.65	2.21
SMO-20	3.31	2.81	2.65	2.21
SMO-21	4.80	4.08	3.84	3.20
SMO-22	3.91	3.32	3.13	2.61
SMO-23	3.00	2.55	2.40	2.00
SMO-24	3.00	2.55	2.40	2.00
SMO-25	5.11	4.34	4.09	3.41
SMO-26	5.11	4.34	4.09	3.41

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Argonne® TRANSISTOR TRANSFORMERS LIST PRICE 5.00 ANY TYPE

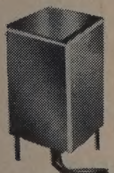
THE ONLY COMPLETE LINE OF QUALITY TRANSISTOR TRANSFORMERS MADE IN U.S.A.

● NICKEL-STEEL LAMINATIONS ● WOUND ON NYLON BOBBINS ● MYLAR OUTER WRAP ● COLOR CODED LEADS

Efficiently designed to meet the needs of miniaturization and engineered to provide more power handling capacity and improved frequency response with minimum distortion. All are nickel-steel laminations. Applications under "TYPE" column shows typical use. Many units may be used for other applications as well. Average net weight 1¼ oz.; average shpg. wt., 4 oz.

ARGONNE NUMBER	TYPE	IMPEDANCE		UNBALANCED CURRENT PRI. D.C. MA	POWER MILLI-WATTS	D.C. RESISTANCE		OVERALL SIZE
		PRIMARY OHMS	SECONDARY OHMS			PRI. OHMS	SEC. OHMS	
AR-141	Input	500,000	1,500 CT	.3	350	3500	60	1"x¾"x¾"
AR-142	Input	500,000	200 CT	.3	350	3500	20	1"x¾"x¾"
AR-143	Input	250,000	200 CT	.5	350	3500	20	1"x¾"x¾"
AR-144	Input	200,000	1,500 CT	.5	350	3000	65	1"x¾"x¾"
AR-100	Input	200,000	1,000	.5	100	3600	90	1"x¾"x¾"
AR-126	Input	150,000	1,500 CT	2.	100	3700	55	1"x¾"x¾"
AR-101	Input	100,000	3,000 CT	.5	100	3600	60	1"x¾"x¾"
AR-145	Input	100,000	2,000 CT	.5	350	3000	50	1"x¾"x¾"
AR-102	Input	100,000	1,500 CT	.5	100	3600	40	1"x¾"x¾"
AR-146	Input	100,000	50	.5	350	3000	1.6	1"x¾"x¾"
AR-127	Input	50,000	3,000 CT	1.	100	2000	50	1"x¾"x¾"
AR-128	Input	50,000	1,500 CT	2.	100	3000	50	1"x¾"x¾"
AR-129	Input	50,000	1,000	2.	100	2500	20	1"x¾"x¾"
AR-148	Input	50,000	500 CT	1.	175	1300	20	¾"x⅝"x⅝"
AR-149	Input	50,000	200 CT	1.	175	1300	10	¾"x⅝"x⅝"
AR-147	Input	50,000	30 CT	1.	175	1300	1.5	¾"x⅝"x⅝"
AR-150	Input	40,000	100	1.	175	850	6	¾"x⅝"x⅝"
AR-103	Driver	20,000	2,000 CT	1.	100	400	50	1"x¾"x¾"
AR-104	Driver	20,000	1,000	1.	100	400	50	¾"x⅝"x⅝"
AR-151	Driver	20,000	800 CT	1.5	175	600	60	¾"x⅝"x⅝"
AR-105	Driver	20,000	400	1.	100	600	30	1"x¾"x¾"
AR-130	Output	20,000	8	.5	100	400	0.6	¾"x⅝"x⅝"
AR-131	Output	20,000	3.2	.5	100	400	0.3	¾"x⅝"x⅝"
AR-106	Driver	16,000	4,000	1.	100	620	350	¾"x⅝"x⅝"
AR-152	Driver	15,000	200 CT	1.5	175	550	10	¾"x⅝"x⅝"
AR-107	Driver	15,000	200	1.5	250	1000	20	1"x¾"x¾"
AR-108	Driver	10,000	3,000 CT	1.5	100	200	100	¾"x⅝"x⅝"
AR-109	Driver	10,000	2,000 CT	1.5	100	500	50	¾"x⅝"x⅝"
AR-153	Driver	10,000	200 CT	2.	175	400	10	¾"x⅝"x⅝"
AR-110	Output	10,000	16	2.	150	600	2.5	¾"x⅝"x⅝"
AR-132	Output	10,000	8	1.	100	600	.6	¾"x⅝"x⅝"
AR-133	Output	10,000	3.2	1.	100	600	.3	¾"x⅝"x⅝"
AR-158	Input	5,000 CT	80,000	2.	175	350	1800	¾"x⅝"x⅝"
AR-157	Input	5,000	45,000	2.	175	250	1600	¾"x⅝"x⅝"
AR-156	Input	5,000	30,000	2.	175	150	1300	¾"x⅝"x⅝"
AR-155	Input	5,000	10,000	2.	175	150	450	¾"x⅝"x⅝"
AR-154	Input	5,000	7,500 CT	2.	175	150	400	¾"x⅝"x⅝"
AR-173	Driver	5,000	3,000 CT	2.	350	200	90	1"x¾"x¾"
AR-111	Output	5,000	100	1.	100	600	10	¾"x⅝"x⅝"
AR-134	Output	4,000 CT	8	4.	250	150	.8	1"x¾"x¾"
AR-135	Output	4,000 CT	3.2	4.	250	150	.3	1"x¾"x¾"
AR-112	Output	3,500	200	1.	150	120	25	1"x¾"x¾"
AR-113	Driver	3,000 CT	1,000	9.	150	100	60	¾"x⅝"x⅝"
AR-114	Output	2,500	11	10.	150	50	1.1	¾"x⅝"x⅝"
AR-115	Input	2,000 CT	8,000 CT	2.	150	150	660	1"x¾"x¾"
AR-116	Output	2,000	200	4.	250	120	20	1"x¾"x¾"
AR-175	Driver	2,000	1,500 CT	2.	350	150	60	1"x¾"x¾"
AR-159	Driver	1,500	500 CT	4.	175	100	20	¾"x⅝"x⅝"
AR-136	Output	1,000 CT	100	4.	250	120	10	1"x¾"x¾"
AR-137	Output	1,000 CT	8	4.	250	120	.9	1"x¾"x¾"
AR-138	Output	1,000 CT	3.2	4.	250	120	.3	1"x¾"x¾"
AR-160	Output	800 CT	3.2	5.	175	40	.3	¾"x⅝"x⅝"
AR-161	Output	650 CT	16	5.	175	27	1.3	¾"x⅝"x⅝"
AR-162	Output	500 CT	500 CT	5.	350	18	18	1"x¾"x¾"
AR-163	Output	500 CT	150 CT	5.	175	18	8	¾"x⅝"x⅝"
AR-165	Output	500 CT	50	5.	175	18	4	¾"x⅝"x⅝"
AR-117	Output	500 CT	30	5.	100	20	1.5	¾"x⅝"x⅝"
AR-118	Output	500 CT	16	5.	100	20	1.5	¾"x⅝"x⅝"
AR-164	Output	500 CT	8	5.	175	18	.8	¾"x⅝"x⅝"
AR-119	Output	500 CT	3.2	5.	100	20	.3	¾"x⅝"x⅝"
AR-166	Output	400 CT	16	5.	175	16	1.3	¾"x⅝"x⅝"
AR-120	Output	400 CT	11	1.	150	20	.9	¾"x⅝"x⅝"
AR-167	Output	400 CT	8 or 3.2	5.	175	16	.6/.3	¾"x⅝"x⅝"
AR-168	Output	300 CT	16	6.	175	12	1.4	¾"x⅝"x⅝"
AR-121	Output	300 CT	3.2	6.	150	20	.25	¾"x⅝"x⅝"
AR-139	Output	250 CT	8	2.	250	15	.7	1"x¾"x¾"
AR-122	Output	250 CT	3.2	2.	150	11	.3	1"x¾"x¾"
AR-123	Input	200	2,000 CT	2.	150	11	50	1"x¾"x¾"
AR-124	Output	200 CT	16	2.	250	20	1.3	¾"x⅝"x⅝"
AR-169	Output	200 CT	8 or 3.2	7.	175	9	.6/.3	¾"x⅝"x⅝"
AR-140	Output	200 CT	3.2	2.	100	10	.3	¾"x⅝"x⅝"
AR-170	Output	160 CT	8 or 3.2	8.	350	10	.6/.3	1"x¾"x¾"
AR-176	Output	125 CT	8	8.	350	4	.7	1"x¾"x¾"
AR-174	Output	125 CT	3.2	8.	350	6	.3	1"x¾"x¾"
AR-171	Output	100 CT	10 CT	10.	175	4	.8	¾"x⅝"x⅝"
AR-172	Output	48 CT	8 or 3.2	15.	350	2.3	.6/.3	1"x¾"x¾"
AR-125	Input	3	4,000	15.	250	14	50	¾"x⅝"x⅝"

HIGH FIDELITY TRANSISTOR TRANSFORMERS



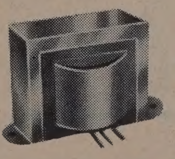
Driver and output transformers, completely encased. Response 20-20,000 cps ± 0.25 db. Output transformer 1.5 watts, 20-20,000 cps ± 2 db. Size 1-5/16" x 1-5/16" x 1¾". Shpg. wt., 9 oz.

MODEL AR-500 DRIVER TRANSFORMER: 5000 ohm primary, 3000 ohm CT secondary; dc resistance of primary 50 ohms, secondary 75 ohms; unbalanced primary dc current 20 ma. List Price **9.60**

MODEL AR-501 OUTPUT TRANSFORMER: Primary 125 ohms CT secondary 8 ohms; primary dc resistance 4 ohms, secondary 0.8; unbalanced primary current 50 ma. dc.. List Price **9.60**

HIGH POWER TRANSISTOR AUDIOS

For the new high-output transistors



MODEL AR-503 OUTPUT TRANSFORMER: 6 watts. 70-20,000 cps ± 2 db. Primary 48 ohms CT, secondary 3.2 ohms; primary dc resistance 1.1 ohms, secondary 0.3; unbalanced primary current 500 ma. dc. Size 1-9/16x1⅞x1-9/16". Shpg. wt., 1 lb. List Price **2.95**

MODEL AR-504 INPUT TRANSFORMER: 2 watts. 70-20,000 cps ± 2 db. Primary 100 ohms. secondary 200 ohms CT. Primary dc resistance 1.8 ohms, secondary 2.7; unbalanced primary current 200 ma. dc. .... List Price **2.50**

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Argonne ELECTRONICS MFG. CORP. SYOSSET, L. I. NEW YORK

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TRANSFORMERS

This group of transformers and filter reactors are designed to meet the full requirements of MIL-T-27A specifications, and are hermetically sealed in standard MIL-T-27A case sizes. They provide the highest standard of quality necessary for military and professional requirements.

The range includes the specific types standardized by the Armed Services standards group as well as a group of standard types for 400 cycle power supplies.

Transformers and reactors meeting MIL-T-27A specifications Grade 1 through 6, Class Q, S, T, or U can be supplied on special order.

All manufacturing, testing and inspection in accordance with applicable requirements of Military Specifications.

A wide range of transformers and reactors of all varieties are regularly manufactured, including the more economical types for commercial use.

If the ratings you require are not listed, we can offer prompt competitive quotations on designs to your specifications.

MILITARY STANDARD FILAMENT TRANSFORMERS Input 105/115/125 Volts 60 Cycles ± 10%

Cat. No.	MIL Types	Military Standards No.	Sec. Volts	Sec. Amps	Test Volts	Case	Wt. Lbs.	Cat. No.
FMF 20	TF1RX01EB002 or TF4RX01EB002	MS90016-1 or 2	2.5	3	2500	EB	1	FMF 20
FMF 21	TF1RX01GB003 or TF4RX01GB003	MS90017-1 or 2	2.5	10	2500	GB	2.125	FMF 21
FMF 22	TF1RX01FB004 or TF4RX01FB004	MS90018-1 or 2	5.0	3	2500	FB	1.5	FMF 22
FMF 23	TF1RX01HB005 or TF4RX01HB005	MS90019-1 or 2	5.0	10	2500	HB	3.125	FMF 23
FMF 24	TF1RX01FB006 or TF4RX01FB006	MS90020-1 or 2	6.3	2	2500	FB	1.25	FMF 24
FMF 25	TF1RX01GB007 or TF4RX01GB007	MS90021-1 or 2	6.3	5	2500	GB	2.125	FMF 25
FMF 26	TF1RX01JB008 or TF4RX01JB008	MS90022-1 or 2	6.3	10	2500	JB	5	FMF 26
FMF 27	TF1RX01KB009 or TF4RX01KB009	MS90023-1 or 2	6.3	20	2500	KB	7.75	FMF 27
FMF 28	TF1RX01JB012 or TF4RX01JB012	MS90024-1 or 2	2.5	10	10,000	JB	4.25	FMF 28
FMF 29	TF1RX01KB013 or TF4RX01KB013	MS90025-1 or 2	5.0	10	10,000	KB	6	FMF 29

MILITARY STANDARD PLATE AND FILAMENT TRANSFORMERS

Input 105/115/125 Volts 60 Cycles ± 10%. Choke Input Filter

Cat. No.	MIL Types	Military Standards No.	FIL 1	FIL 2	Plate (RMS)	Current	Case	Wt. Lbs.	Cat. No.
FMP 30	TF1RX03HA001 or TF4RX03HA001	MS90026-1 or 2	6.3/5v 2a	6.3v 3a	200-100-0-100-200	.07A.DC	HA	3.75	FMP 30
FMP 31	TF1RX03JB002 or TF4RX03JB002	MS90027-1 or 2	6.3/5v 2a	6.3v 4a	325-0-325	.07A.DC	JB	5.125	FMP 31
FMP 32	TF1RX03KB006 or TF4RX03KB006	MS90028-1 or 2	5v 3a	6.3v 5a	325-0-325	.150A.DC	KB	7.25	FMP 32
FMP 33	TF1RX03LB003 or TF4RX03LB003	MS90029-1 or 2	5v 3a	6.3v 8a	400-0-400	.175A.DC	LB	9.5	FMP 33
FMP 34	TF1RX03MB004 or TF4RX03MB004	MS90030-1 or 2	5v 3a	6.3v 8a	450-0-450	.250A.DC	MB	12.125	FMP 34
FMP 35	TF1RX02KB001 or TF4RX02KB001	MS90031-1 or 2			350-0-350	.250A.DC	KB	7.125	FMP 35
FMP 36	TF1RX02LB002 or TF4RX02LB002	MS90032-1 or 2			550-0-550	.250A.DC	LB	9.5	FMP 36
FMP 37	TF1RX02NB003 or TF4RX02NB003	MS90036-1 or 2			800-0-800	.250A.DC	NB	14.75	FMP 37

400 Cycle Transformers

FILAMENT TRANSFORMERS

Input 115 Volts 380-1200 Cycles

Cat. No.	Sec. Volts	Sec. Amps	Test Volts	Case	Wt. Lbs.	Cat. No.
FF 440	6.3 ct	2	1500	AJ	.625	FF 440
FF 41	6.3 ct	5	1500	EA	1	FF 41
FF 42	6.3 ct 6.3	5 5	2500 2500	FA	2	FF 42
FF 43	5/6.3	3	2500	EB	.95	FF 43
FF 44	5 ct	6	2500	EA	1	FF 44
FF 45	2.5 ct	10	5000	HB	2.75	FF 45

PLATE AND FILAMENT TRANSFORMERS

Input 115 Volts 380-1200 Cycles. Choke Input Filter

Cat. No.	Plate RMS	DC Amps	Filaments	Case	Wt. Lbs.	Cat. No.
FP 40	250-0-250	.070	5/6.3V 2A 6.3Vct 3A	GB	1.875	FP 40
FP 41	325-0-325	.120	5V 3A 6.3 ct 5A	JB	4.625	FP 41
FP 42	400-0-400	.200	5V 3A 6.3Vct 6A	KB	6.625	FP 42
FP 43	350-0-350	.250	——	JB	4.625	FP 43
FP 44	500-0-500	.250	——	KB	6.25	FP 44

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Frequency Response 300-10,000 c.p.s. ± 2db

Weight — 0.72 Lbs. Max. Altitude — 50,000 Ft. Max.

All units are hermetically sealed in MIL-T-27A case size AJ and are designed to meet the full requirements of the MIL-T-27A specification.

All manufacturing, testing and inspection in accordance with applicable requirements of Military Specifications.

Cat. No.	Function	Type Designation	Military Standards No.	IMPEDANCE LEVEL (in ohms) Primary	Secondary	Max. Power Level	Pri. D.C. Per Side in MA	Max. D.C. Unbal-ance	Cat. No.
FMA 550	Interstage, Single or P.P. plates to single or P.P. grids	TF1RX15AJ001	MS 90000	10,000 CT	90,000 split and CT	+15 DBM	10	10	FMA 550
FMA 551	Matching, 600 ohm line to voice coil	TF1RX16AJ002	MS 90001	600 split	4, 8, 16	2 watt	0	0	FMA 551
FMA 552	Input, 600 ohm line to single or P.P. grids	TF1RX10AJ001	MS 90002	600 split	135,000 CT	+15 DBM	0	0	FMA 552
FMA 553	Matching, 600 ohm line to 600 ohm line	TF1RX16AJ001	MS 90003	600 split	600 split	+15 DBM	0	0	FMA 553
FMA 554	Output, single plate 7600 ohm or 4800 ohm to 600 ohm line	TF1RX13AJ001	MS 90004	7600 tap @ 4800	600 split	2 watt	40	40	FMA 554
FMA 555	Output, single plate 7600 ohm or 4800 ohm to voice coil	TF1RX13AJ002	MS 90005	7600 tap @ 4800	4, 8, 16	2 watt	40	40	FMA 555
FMA 556	Output, single or P.P. plates to 600 ohm line	TF1RX13AJ003	MS 90006	15,000 CT	600 split	2 watt	10	10	FMA 556
FMA 557	Output, P.P. plates to 600 ohm line	TF1RX13AJ004	MS 90007	24,000 CT	600 split	1 watt	10	1	FMA 557
FMA 558	Output, P.P. plates to 600 ohm line	TF1RX13AJ005	MS 90008	60,000 CT	600 split	0.5 watt	10	1	FMA 558

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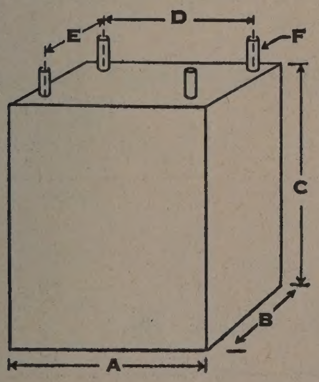
FILTER REACTORS

FOR 60 CYCLE POWER SUPPLIES

Cat. No.	DC Amps	Induct. Henries	Resist. Ohms	Test Volts	Case	Wt. Lbs.	Cat. No.
FC 410	.020	30	930	1500	AJ	.625	FC 410
FC 11	.070	15	260	2500	GB	2.25	FC 11
FC 12	.150	10	110	2500	JB	4.75	FC 12
FC 13	.200	8	90	2500	KB	6.25	FC 13
FC 14	.300	10	95	2500	LB	9.625	FC 14

FOR 400 CYCLE POWER SUPPLIES

Cat. No.	DC Amps	Induct. Henries	Resist. Ohms	Test Volts	Case	Wt. Lbs.	Cat. No.
FC 440	.070	3	225	1500	AJ	.625	FC 440
FC 41	.120	3	145	2000	EB	1	FC 41
FC 42	.200	3	115	2000	FB	1.5	FC 42
FC 43	.250	3	65	2000	GB	2.25	FC 43



MIL-T-27A CASE AND MOUNTING DIMENSIONS

Case	A	B	C	D	E	F
AJ	1 5/8	1 5/8	2 3/8	1 3/16	1 3/16	6-32
EA	1 15/16	1 13/16	2 3/4	1 3/8	1 1/4	6-32
EB	1 15/16	1 13/16	2 7/16	1 3/8	1 1/4	6-32
FA	2 5/16	2 1/16	3 1/8	1 11/16	1 7/16	6-32
FB	2 5/16	2 1/16	2 1/2	1 11/16	1 7/16	6-32
GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	6-32
HA	3 1/16	2 5/8	4 1/4	2 19/64	1 55/64	8-32
HB	3 1/16	2 5/8	3 3/16	2 19/64	1 55/64	8-32
JB	3 9/16	3 1/16	3 7/8	2 5/8	2 1/8	8-32
KB	3 15/16	3 3/8	4 5/16	3	2 7/16	10-32
LB	4 5/16	3 11/16	4 1/2	3 5/16	2 11/16	10-32
MB	4 11/16	4	4 15/16	3 11/16	3	1/4-20
NB	5 1/16	4 5/16	5 1/2	4 1/16	3 5/16	1/4-20

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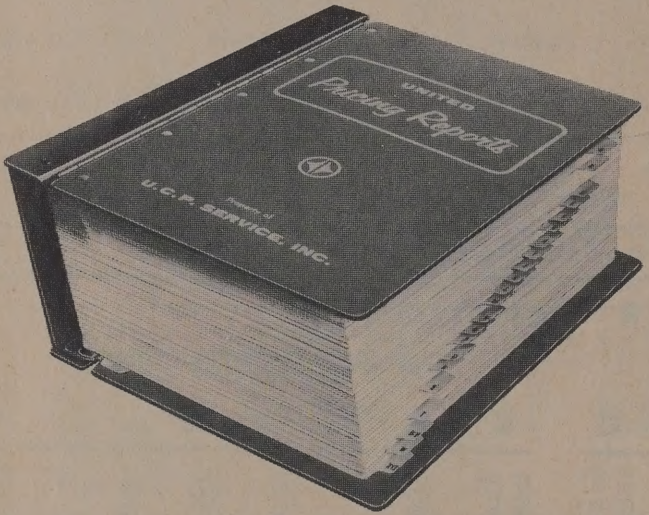

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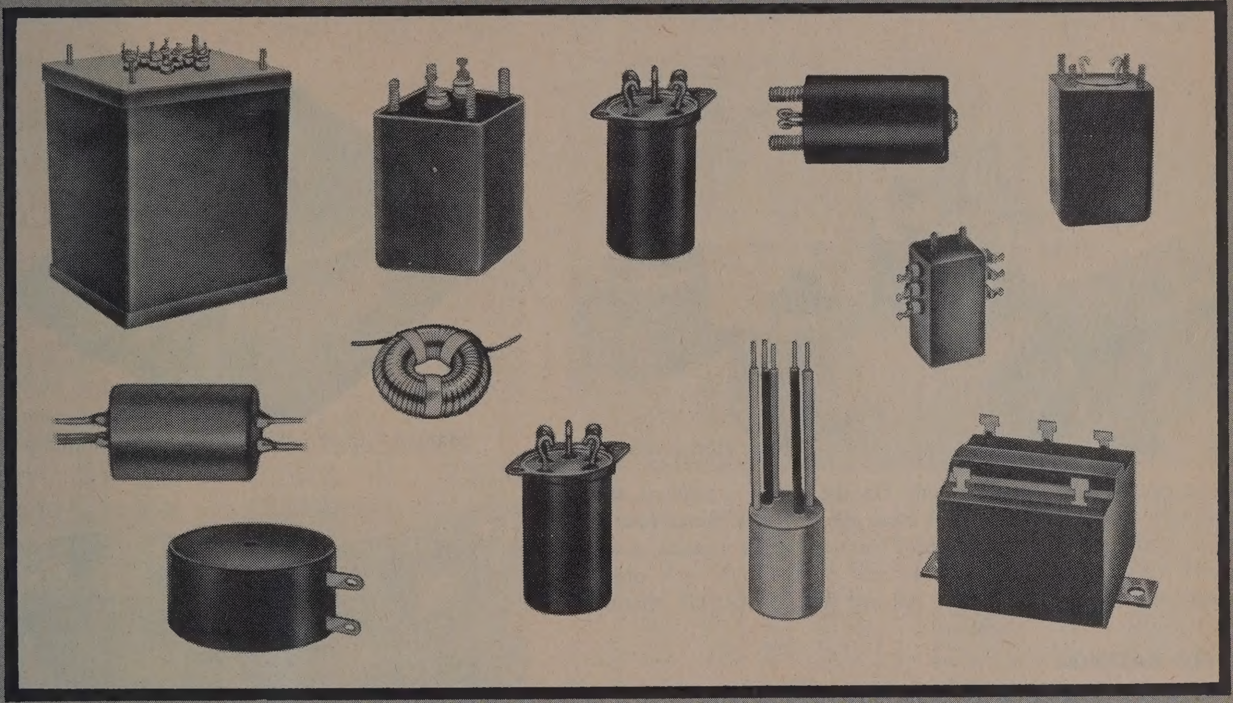

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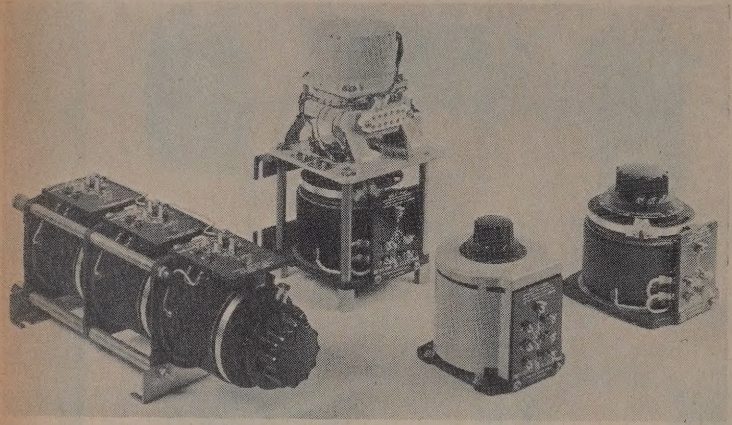


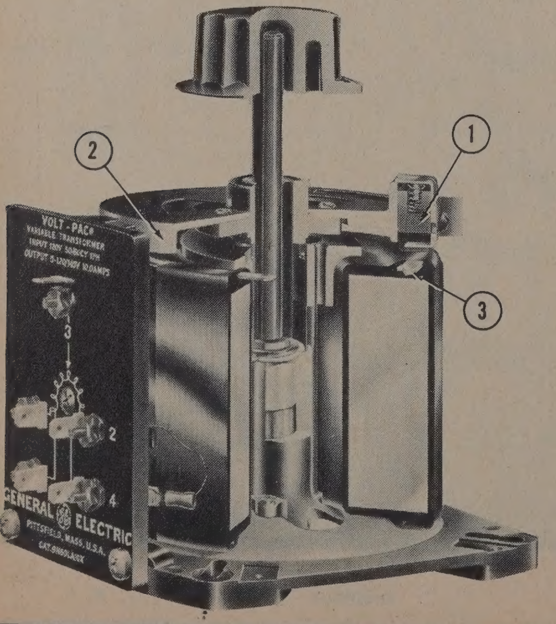
Typical volt-pac variable transformers. On the left is a manual, three-phase, 240-volt, 10-amp unit; second from the left is a motor-operated, single-phase, 120-volt, 15-amp unit; third from the left is a cased, manual, single-phase, 120/240-volt, 4-amp unit; and on the right is a manual, single-phase, 120 volt, 20-amp unit. All are for 50/60-cycle operation.

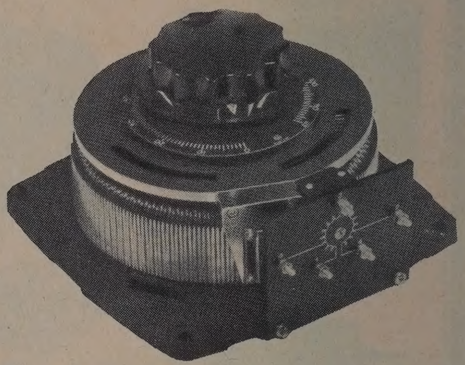
STANDARD RATINGS

Single-core construction: 120 or 240 volts, 2 to 65 amp
Multiple-core construction: 120, 240, or 480 volts; up to 390 amp
Single-phase, three-phase; 50/60 cycles

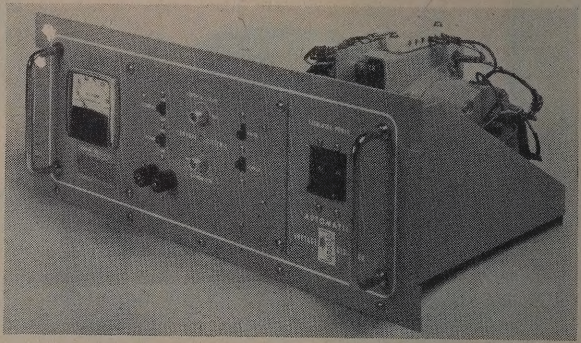
AVAILABLE DESIGNS

Manual: for variable output from stable input voltage
Motor-operated: for variable output from stable input voltage
Automatic: for closely regulated output from varying input voltage





Manual, single-phase, 120-volt, 65-amp unit



Single-phase automatic unit rated 115 volts, 8.5 amp

NEW EXCLUSIVE FEATURES

The volt-pac design incorporates many important new features which provide new levels of performance for users. Significant among these are the heat-sink ring, quick-transfer current collector, and grain-oriented solid-carbon brush. These three exclusive features help increase the load capacity of present core sizes as much as 33 percent. The ability to pack more capacity in less volume is of vital importance in many applications where space is very limited.

① Brush design, with solid-carbon grain-oriented brush, eliminates carbon-to-metal soldering, keeps brush temperature down by lowering resistance to load currents

② Quick transfer current collector increases performance and reliability by eliminating hidden contact surfaces and providing a direct low-resistance past for load current

③ New unique heat-sink ring located beneath the gold-plated brush track quickly dissipates heat from the hot spot

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volt-pac® VARIABLE TRANSFORMERS

GENERAL ELECTRIC

SINGLE-PHASE — 120, 240, 480 VOLTS — MANUAL OPERATION

OUTPUT CURRENT			Freq. †	No. of Cores	UNCASED MODEL		CASED MODEL	
Line-voltage Connection		Over-voltage Connection						
Rated Amps	Max. Amps	Amperes *			Catalog Number	Approx. Net Wt. (lb.)	Catalog Number	Approx. Net Wt. (lb.)
120-VOLT INPUT (SINGLE CORE): OUTPUT — 0-120 V (Line-voltage Conn.); 0-140 V (Overvoltage Conn.)								
2.0	2.9	2.0‡	50/60†	1	9H30AA10X	2¼	———	——
2.25	3.2	2.25‡	50/60†	1	9H30LA10X	2¼	———	——
4.0	5.8	4.0	50/60†	1	9H40AA10X	4¼	———	——
7.5	10.8	7.5	50/60†	1	9H60AA10X	9¼	9H60AA13X	10
10.0	14.5	——	60	1	9H60BA10X¶	9¼	9H60BA13X¶	10
10.0	14.5	10.0	50/60†	1	9H60LA10X	9¼	9H60LA13X	10
13.0	18.8	——	60	1	9H60NA10X¶	9¼	9H60NA13X¶	10
15.0	21.7	15.0	50/60†	1	9H75AA10X	15¼	9H75AA13X	16¼
20.0	29.0	20.0	50/60†	1	9H75LA10X	15¼	9H75LA13X	16¼
30.0	30.0	30.0	50/60†	1	9H85AA10X	30	9H85AA13X	32½
40.0	40.0	40.0	50/60†	1	9H85LA10X	30	9H85LA13X	32½
50.0	50.0	50.0	50/60	1	9H95AA10X	60	9H95AA13X	63½
65.0	65.0	65.0	50/60	1	9H95LA10X	60	9H95LA13X	63½
120-VOLT INPUT (MULTIPLE CORE): OUTPUT — 0-120 V (Line-voltage Conn.); 0-140 V (Overvoltage Conn.)								
80.0	116.0	80.0	50/60†	2	9H85LB50X	67	9H85LB53X	72
100.0	145.0	100.0	50/60	2	9H95AB50X	131	9H95AB53X	140
130.0	130.0	130.0	50/60	2	9H95LB50X	131	9H95LB53X	140
150.0	217.5	150.0	50/60	3	9H95AV50X	211	9H95AC53X	224½
195.0	195.0	195.0	50/60	3	9H95LC50X	211	9H95LC53X	224½
260.0	260.0	260.0	50/60	4	9H95LD50X	278	9H95LD53X	296
325.0	325.0	325.0	50/60	5	9H95LE50X	347	9H95LE53X	369½
390.0	390.0	390.0	50/60	6	9H95LF50X	413	9H95LF53X	440
120/240-VOLT INPUT§ (SINGLE CORE): OUTPUT — 0-240 V (Line-voltage Conn.); 0-280 V (Overvoltage Conn.)								
3.0	4.3	3.0	50/60†	1	9H60CA10X	9¼	9H60CA13X	10
4.0	5.8	——	60	1	9H60DA10X■	9¼	9H60DA13X■	10
4.0	5.8	4.0	50/60†	1	9H60MA10X	9¼	9H60MA13X	10
5.5	7.9	——	60	1	9H60PA10X■	9¼	9H60PA13X■	10
7.0	10.1	7.0	50/60†	1	9H75BA10X	15¼	9H75BA13X	16¼

OUTPUT CURRENT			Freq. †	No. of Cores	UNCASED MODEL		CASED MODEL	
Line-voltage Connection		Over-voltage Connection						
Rated Amps	Max. Amps	Amperes *			Catalog Number	Approx. Net Wt. (lb.)	Catalog Number	Approx. Net Wt. (lb.)
120/240-VOLT INPUT§ (SINGLE CORE) (Continued)								
9.5	13.7	9.5	50/60†	1	9H75MA10X	15¼	9H75MA13X	16¼
14.0	20.3	14.0	50/60†	1	9H85BA10X	30	9H85BA13X	32½
19.0	27.5	19.0	50/60†	1	9H85MA10X	30	9H85MA13X	32½
30.0	43.5	30.0	50/60	1	9H95BA10X	60	9H95BA13X	63½
40.0	40.0	40.0	50/60	1	9H95MA10X	60	9H95MA13X	63½
120/240-VOLT INPUT§ (MULTIPLE CORE: OUTPUT — 0-240 V (Line-voltage Conn.); 0-280 V (Overvoltage Conn.)								
60.0	87.0	60.0	50/60	2	9H95BB50X	131	9H95BB53X	140
80.0	80.0	80.0	50/60	2	9H95MB50X	131	9H95MB53X	140
90.0	130.5	90.0	50/60	3	9H95BC50X	211	9H95BC53X	224½
120.0	120.0	120.0	50/60	3	9H95MC50X	211	9H95MC53X	224½
160.0	160.0	160.0	50/60	4	9H95MD50X	278	9H95MD53X	296
200.0	200.0	200.0	50/60	5	9H95ME50X	347	9H95ME53X	369½
240.0	240.0	240.0	50/60	6	9H95MF50X	413	9H95MF53X	440
240/480-VOLT INPUT§ (MULTIPLE CORE): OUTPUT — 0-480 V (Line-voltage Conn.); 0-560 V (Overvoltage Conn.)								
3.0	4.3	3.0	50/60†	2	9H60CB40X	21¾	9H60CB43X	23¼
4.0	5.8	——	60	2	9H60DB40X•	21¾	9H60DB43X•	23¼
4.0	5.8	4.0	50/60†	2	9H60MB40X	21¾	9H60MB43X	23¼
5.5	7.9	——	60	2	9H60PB40X•	21¾	9H60PB43X•	23¼
7.0	10.1	7.0	50/60†	2	9H75BB40X	34	9H75BB43X	36
9.5	13.7	9.5	50/60†	2	9H75MB40X	34	9H75MB43X	36
14.0	20.3	14.0	50/60†	2	9H85BB40X	67	9H85BB43X	72
19.0	27.5	19.0	50/60†	2	9H85MB40X	67	9H85MB43X	72
30.0	43.5	30.0	50/60	2	9H95BB40X	131	9H95BB43X	140
40.0	40.0	40.0	50/60	2	9H95MB40X	131	9H95MB43X	140
60.0	87.0	60.0	50/60	4	9H95BD60X	278	9H95BD63X	296
80.0	80.0	80.0	50/60	4	9H95MD60X	278	9H95MD63X	296
90.0	130.5	90.0	50/60	6	9H95BF60X	413	9H95BF63X	440
120.0	120.0	120.0	50/60	6	9H95MF60X	413	9H95MF63X	440

THREE-PHASE — 240, 480 VOLTS — MANUAL OPERATION

OUTPUT CURRENT			Freq. †	No. of Cores	UNCASED MODEL		CASED MODEL	
Line-voltage Connection		Over-voltage Connection						
Rated Amps	Max. Amps	Amperes *			Catalog Number	Approx. Net Wt. (lb.)	Catalog Number	Approx. Net Wt. (lb.)
240-VOLT INPUT: OUTPUT — 0-240 V (Line-voltage Conn.); 0-280 V (Overvoltage Conn.)								
2.0	2.9	——	60	3	9H30AC30X¶	8½	———	——
2.25	3.2	——	60	3	9H30LC30X¶	8½	———	——
4.0	5.8	——	60	3	9H40AC30X¶	13¾	———	——
7.5	10.8	7.5	50/60	3	9H60AC30X	30	9H60AC33X	32¼
10.0	14.5	——	60	3	9H60BC30X¶	30	9H60BC33X¶	32¼
10.0	14.5	10.0	50/60	3	9H60LC30X	30	9H60LC33X	32¼
13.0	18.8	——	60	3	9H60NC30X¶	30	9H60NC33X¶	32¼
15.0	21.7	15.0	50/60	3	9H75AC30X	51	9H75AC33X	54
20.0	29.0	20.0	50/60	3	9H75LC30X	51	9H75LC33X	54
30.0	43.5	30.0	50/60	3	9H85AC30X	99½	9H85AC33X	107
40.0	58.0	40.0	50/60	3	9H85LC30X	99½	9H85LC33X	107
50.0	72.5	50.0	50/60	3	9H95AC30X	211	9H95AC33X	224½
65.0	65.0	65.0	50/60	3	9H95LC30X	211	9H95LC33X	224½
80.0	116.0	80.0	50/60	6	9H85LF30X	347	9H85LF33X	369½
100.0	145.0	100.0	50/60	6	9H95AF30X	413	9H85LF33X	440
130.0	130.0	130.0	50/60	6	9H95LF30X	413	9H95AF33X	440

OUTPUT CURRENT			Freq. †	No. of Cores	UNCASED MODEL		CASED MODEL	
Line-voltage Connection		Over-voltage Connection						
Rated Amps	Max. Amps	Amperes *			Catalog Number	Approx. Net Wt. (lb.)	Catalog Number	Approx. Net Wt. (lb.)
240/480-VOLT INPUT§: OUTPUT — 0-480 V (Line-voltage Conn.); 0-560 V (Overvoltage Conn.)								
3.0	4.3	3.0	50/60	3	9H60CC30X	30	9H60CC33X	32¼
4.0	5.8	——	60	3	9H60DC30X•	30	9H60DC33X•	32¼
4.0	5.8	4.0	50/60	3	9H60MC30X	30	9H60MC33X	32¼
5.5	7.9	——	60	3	9H60PC30X•	30	9H60PC33X•	32¼
7.0	10.1	7.0	50/60	3	9H75BC30X	51	9H75BC33X	54
9.5	13.7	9.5	50/60	3	9H75MC30X	51	9H75MC33X	54
14.0	20.3	14.0	50/60	3	9H85BC30X	99½	9H85BC33X	107
19.0	27.5	19.0	50/60	3	9H85MC30X	99½	9H85MC33X	107
30.0	43.5	30.0	50/60	3	9H95BC30X	211	9H95BC33X	224¼
40.0	40.0	40.0	50/60	3	9H95MC30X	211	9H95MC33X	224¼
60.0	87.0	60.0	50/60	6	9H95BF30X	413	9H95BF33X	440
80.0	80.0	80.0	50/60	6	9H95MF30X	413	9H95MF33X	440

* When Overvoltage Connection is used, rated current should not be exceeded Output kva for Overvoltage Connection is maximum output voltage times rated current.

† When using extended tap connections, operation is for 60 cycles per second only.

‡ Output at Overvoltage Connection is 0-132 volts.

§ When operated on lower input-voltage tap, rated current must be reduced when output voltage exceeds 140 percent of input voltage.

¶ For Line-voltage Connection only — No Overvoltage Connection provided.

■ For 240-volt input, 0-240-volt output, application only.

• For 480-volt input, 0-480-volt output, application only.

MOTOR-OPERATED AND AUTOMATIC UNITS ALSO AVAILABLE FROM STOCK

For the full story on G-E's manual and motor-operated volt-pac lines, and the automatic line with solid-state SCR control, ask your G-E Supplier for Bulletin GEC-1559. Or write to General Electric Company, Schnectady, N. Y.

Leader in...
VOLTAGE REGULATION

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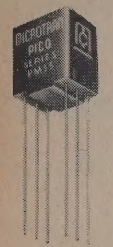
MICROTRAN Miniaturized Transformers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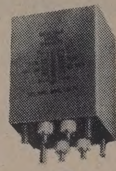
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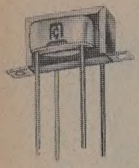
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COMPLETE SCHEMATICS SHOWING CONNECTIONS AND PARTS LIST SUPPLIED WITH ALL DC TO DC CONVERTER TRANSFORMERS.

PICO MINIATURE TRANSFORMERS — PM SERIES (FIG. A)

Epoxy molded finish with gold plated leads, 0.020″ x ¾″. Frequency Response, ±2 db, 300 cps to 100 kc, except PM3 and PM5, to 45 kc. Power level given for 15% max. distortion, except PM35, 20% and PM37, 25%. Maximum size, .410″ x .465″ x .310.″ Weight, 0.1 oz. MIL type TF5RX — ZZ (Insert MIL No. from table).

Micro-tran. No.†	Application	Impedance Primary	Impedance Secondary	Pri DC Ma*	DC Resist., Ohms Pri.	DC Resist., Ohms Sec.	Power Level, Mw	MIL No.	Net Each, 1-9*
PM3-M	Input	200K CT	1K CT	0	5300	110	10	16	$7.65
PM5-M	Input	200K	1K	0	5300	110	10	16	6.60
PM7-M	Interstage	50K CT	1K CT	0	3300	75	10	16	7.50
PM9-M	Interstage	50K	1K/250‡	0	3300	75	10	16	8.10
PM11-M	Interstage	25K CT	1K CT	0.5	1700	110	40	12	7.05
PM13-M	Interstage	25K	1K/250‡	0.25	1700	110	40	12	7.65
PM15-M	Interstage	25K	1K	0.25	1700	110	40	12	6.15
PM17-M	Isolation	10K CT	10K CT	1	1000	1300	50	12	7.65
PM19-M	Driver	10K CT	2K CT	1	1000	300	50	12	6.75
PM21-M	Driver	10K	2K/500‡	0.5	1000	300	50	12	7.35
PM23-M	Driver	10K CT	1200 CT	1	1050	280	50	12	6.75
PM25-M	Driver	10K	1200/300‡	0.5	1050	280	50	12	7.20
PM27-M	Driver	10K	1200	0.5	1050	280	50	12	6.00
PM29-M	Driver	10K CT	500 CT	1	1050	80	50	12	6.75
PM31-M	Isolation	2500	2500 CT	1	250	325	50	12	6.30
PM33-M	Output	1500 CT	600	3	170	95	50	12	6.15
PM35-M	Output	500	50	3	60	8	50	17	5.40
PM37-M	Output	120 CT	3.2	10	16	0.75	50	17	5.70
PM39-M	Audio Choke	6 hys.	....	2	1800	....	....	20	5.40
PM41-M	Audio Choke	.3 hys.	....	4	43	....	....	20	4.65

*Unbalanced. ‡Split.

DC TO DC CONVERTER TRANSFORMERS

SWITCHING TYPE

Provides improved reliability and efficiency over vibrator and rotary power converters. Approx. 800 cps repetition rate. Full wave and CT loads may be drawn simultaneously, but VA output should not be exceeded for continuous duty. Fig. B except M8072, Fig. C.

Micro-tran No.	In-put VDC	VA Out-put	Transistors Suggested	DC Output V.	DC Output Ma	DC Output CT FW V.	DC Output CT FW Ma	Size, Inches W. x D. x H.	Mtg. Ctrs., In. ML	Mtg. Ctrs., In. MW	MIL Case	Net Each, 1-9*
M8034	28	125	Delco 2N174	500	250	250	420	2⅜ x2¾ x3¹³⁄₁₆	2⅛	1¾	GA	$26.70
M8035	13.6	125	Delco 2N442	500	250	250	420	2⅜ x2¾ x3¹³⁄₁₆	2⅛	1¾	GA	26.70
M8036	13.6	40	Delco 2N442	450	90	225	155	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	1¹¹⁄₁₆	1⁷⁄₁₆	FA	24.90
M8072	2.7	190†	Delco 2N1307	480*	400‡	......	......	¹³⁄₁₆x1¹¹⁄₁₆x ²⁷⁄₃₂	1⅜	......	ZZ	5.40

*Output when used with half wave cap. input rectifier. ‡μa. †Mw.

BLOCKING OSCILLATOR TYPE

Approx. 400 cps repetition rate. Fig. C, except M8051, Fig. D.

Micro-tran No.	Turns Ratio HV: Coll.: Feedback	Input DC V.	Input DC Ma	Output DC Volts	Output DC μa	Sizes, Inches W. x D. x H.	Mtg. Ctr., In.	Net Each, 1-9*
M8050	600:12:1	3	20	1000*	25	¹³⁄₁₆x1¹¹⁄₁₆x ²⁷⁄₃₂	1⅜	$ .555
M8051	600:12:1	3	20	1000*	25	1 x1 x1⅜	1⅛	11.85
M8073	44:1:1	4	2—15‡	425—500‡	50‡•	⁷⁄₁₆ x ½ x ⁷⁄₁₆	......	5.25
M8074	65.5:.33:1	3	45	535*	90	¹³⁄₁₆x1¹¹⁄₁₆x ²⁷⁄₃₂	1⅜	5.10

*When used in blocking oscillator circuit with single cap. input rectifier. ‡Varies with load and bias conditions. Frequency varies from 100 to 2800 cps. •Maximum.

MICRO-MINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — MM AND MMT SERIES

MM-M (Fig. E): Molded, for plug-in printed circuit applications. Cast epoxy resin for high resistance to extremes of ambient temperature. MIL Type TF6RX — ZZ (Insert MIL No. from table). Size, ⅞″ x ²⁵⁄₃₂″ x ¹⁷⁄₃₂″ with ⁵⁄₃₂″ pins, .020″ dia. Weight, ½ oz. **MM-H (Fig. F):** Hermetically sealed with high compression glass terminals. Gray enamel finish. MIL Type TF4RX — YY. Size, ¹⁵⁄₁₆″ dia. x ¹¹⁄₁₆″. Weight, ¾″ oz. **MM-FB (Fig. C):** Open frame with channel on special order. MIL Type TF6RX — ZZ. Size, ¹³⁄₁₆″ x ¹⁹⁄₃₂″ x ¹⁵⁄₃₂″, plus tabs.

Microtran No. †	Application	Impedance Pri.	Impedance Sec.	Pri. Unbal. DC Ma	Oper. Level, dbm	Freq. Resp. ±2 db CPS·	MIL No.	Net Each, Lots of 1-9* -FB	Net Each, Lots of 1-9* -H	Net Each, Lots of 1-9* -M
MM1-	Input	200/50	250K/62.5K	0	4	200—10K	10	$4.50	$7.35	$8.55
MM2-	Interstage 3:1	10K	90K	0	4	150—10K	10	4.80	7.50	8.70
MM3-	Plate to line	10K	200	3	20	150—10K	13	4.20	7.20	8.40
MM4-	Output	30K	50	1	20	150—10K	13	4.05	7.05	8.25
MM5-	Reactor 50 hy. at 1 mil DC	4.7K ohms	DC Res.	....	....	....	20	4.05	6.90	8.10
MM6-	Output	100K	60	0.5	20	250—10K	13	4.20	7.20	8.40
MM7-	Output	30K	1200	0.5	20	200—10K	13	3.30	6.45	7.65
MMT1-	Line to base	600	600	8	22	200—15K	17	3.90	7.35	8.55
MMT3-	Coll. to base or line	50K	600	0.7	20	200—15K	13	4.05	7.50	8.70
MMT4-	P-p coll. to p-p base	50K CT	600 CT	1.4	20	200—15K	13	4.80	8.55	9.75
MMT5-	Coll. to speaker	50K	6	1	20	200—15K	13	4.35	7.95	9.15
MMT7-	Coll. to p-p base	25K	1200 CT	1	20	200—15K	13	4.50	8.40	9.60
MMT8-	P-p coll. to p-p base	50K CT	1200 CT	1.4	20	200—15K	13	4.65	8.55	9.75
MMT9-	Line to p-p base	600 CT	1200 CT	16	22	200—15K	17	4.20	7.65	8.85
MMT10-	Coll. to base	25K	600	1	20	200—15K	13	3.45	7.20	8.40
MMT11-	P-p coll. to p-p base or line	4K CT	600 CT	5	28	200—15K	12	4.35	7.80	9.00
MMT12-	Coll. to speaker	2K	3.4	5	28	200—15K	13	3.90	7.35	8.55
MMT13-	Output p-p coll. to speaker	4K CT	3.4	5	28	200—15K	13	4.05	7.50	8.70
MMT16-	Coll. to p-p base	10K	1500 CT	1	20	200—15K	13	4.50	8.40	9.60
MMT17-	P-p coll. to p-p base	10K CT	200 CT	6	20	200—15K	13	4.50	8.10	9.30
MMT18-	P-p coll. to p-p base	25K CT	1200 CT	2	20	200—15K	13	4.65	8.55	9.75
MMT19-	Coll. to p-p base	2500	2500 CT	2	23	200—15K	13	4.05	7.50	8.70
MMT21-	P-p coll. to p-p base	4K CT	600/150 Split	5	28	200—15K	13	4.65	8.55	9.75
MMT25-	P-p coll. to p-p base	7500 CT	600 CT	4	22	200—15K	13	4.35	7.80	9.00
MMT26-	Line to base	600 CT	600 CT	16	22	200—15K	17	4.20	7.65	8.85
MMT27-	P-p coll. to p-p base	25K CT	600 CT	2	20	200—15K	13	4.50	8.40	9.60
MMT28-	P-p coll. to p-p base	10K CT	1500 CT	2	20	200—15K	13	4.65	8.55	9.75
MMT29-	Driver/Isolation	10K CT	10K CT	2	20	200—15K	13	4.65	8.55	9.75
MMT30-	P-p coll. to p-p base	7500 CT	1200 CT	4	22	200—15K	13	4.50	8.40	9.60
MMT31-	P-p coll. to p-p base	2K CT	500 CT	10	28	200—15K	13	4.35	8.25	9.45
MMT32-	Line to p-p base	600 CT	1200/300 Split	16	22	200—15K	17	4.65	8.55	9.75

★SEE FOURTH MICROTRAN PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

†ORDER BY COMPLETE MICROTRAN NUMBER; EXAMPLE MM1-FB.

Also see EEM pages for additional items and list of franchised distributors.

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MICROTRAN

Miniaturized Transformers

ULTRA-MINIATURE TRANSISTOR TRANSFORMERS — UM SERIES

Frequency Response: ±2 db, 300-10K cps. Leads supplied, 4″ #27 color-coded. Power levels given for 7½% max. distortion. **UM-F (Fig. A):** Size, ⅜″ x ⅜″ x $\frac{11}{32}$″. Weight, 0.08 oz. MIL type TF6RX—ZZ (Insert MIL No. from table). **UM-M (Fig. B):** Size, ½″ dia. x ½″, with 1″ leads. Weight, 0.14 oz. MIL type TF5RX—ZZ.

Micro-tran No.†	Applica-tion	Impedance		Unbal. Pri., DC Ma	DC Resist., Ohms		Level at 1 kc, mw	MIL No.	Net Each, 1-9*	
		Primary	Sec.		Pri.	Sec.			-F	-M
UM21-	Input	100K	1K	0	1900	135	70	16	$6.00	$6.60
UM22-	Driver	20K	1K	0.5	1100	100	300	13	4.35	5.40
UM23-	Driver	20K	1200 CT	0.5	1100	110	300	13	4.65	6.00
UM24-	Output	1K	50	3	65	10	500	17	3.90	4.95
UM25-	Output	400	50	3	35	5	500	17	3.90	4.95
UM26-	Output	400	11	3	35	1.5	500	17	3.90	4.95
UM27-	Output	400 CT	11	6	35	1.5	500	17	4.20	5.25
UM28-	Choke	10 hy., (0 DC)	....	8 hy., (0.5 ma)	650	....	......	20	3.75	5.25
UM29-	Interstage	600 CT	600 CT	7	45	60	400	21	4.65	5.70
UM30-	Choke	1.5 hy., (0 DC)	....	7 hy., (2 ma)	100	....	......	20	3.60	4.50
UM31-	Interstage	10K CT	1200 CT	2	850	120	500	21	4.80	5.85
UM32-	Output	1500 CT	600	5	135	65	500	17	4.35	5.40
UM33-	Output	1K CT	600	6	80	65	500	17	4.35	5.40
UM34-	Driver	10K CT	600 CT	2	850	40	500	13	4.50	5.55
UM35-	Isolation	15K CT	15K CT	1	930	1210	300	15	4.95	6.15

VERI-MINIATURE TRANSISTOR TRANSFORMERS — VM SERIES

Frequency Response: ±2 db, 200-10K cps. Leads supplied, 4″ #27 color-coded. Power levels given for 7½% max. distortion. **VM-M (Fig. C):** For plug-in printed circuit applications. Cast Epoxy resin provides high resistance. Size, $\frac{9}{16}$″ x $\frac{9}{16}$″ x ½″. Weight, 0.25 oz. MIL type TF2RX—ZZ (Insert MIL No. from table). **VM-FPB (Fig. D):** Plug-in tab mounted channel. Size, $\frac{17}{32}$″ x $\frac{15}{32}$″ x $\frac{7}{16}$″. Weight, 0.2 oz. MIL type TF6RX—ZZ.

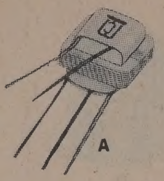
Micro-No.†	Application	Impedance		DCR, Ohms		Level, mw	MIL No.	Net Ea., 1-9*	
		Primary	Secondary	Pri.	Sec.			-FPB	-M
VM1-	Input	50	600, (1.5 ma)	7	90	15	21	$4.20	$5.55
VM2-	Input or intrstg.	200K	600, (1.0 ma)	3000	110	5	21	5.70	7.20
VM3-	Interstage	25K	600, (1.0 ma)	720	45	5	21	4.50	6.30
VM4-	Input or intrstg.	200K	1200, (.72 ma)	3100	165	5	21	5.70	7.20
VM5-	Interstage	50K	600, (1.0 ma)	830	55	5	21	4.65	6.60
VM6-	Interstage	100K	1200‡, (.72 ma)	2000	150	5	21	5.85	7.35
VM7-	Output	500, (3.5 ma)	3.4	50	0.5	15	21	4.20	5.55
VM8-	Output	1250, (2.0) ma)	3.4	135	0.5	15	21	4.35	5.70
VM9-	Output	1250, (2.0 ma)	50	135	6.5	15	21	4.35	5.70
VM10-	Interstage	2500, (1.5 ma)	2500 CT	225	215	3	21	4.65	6.90
VM11-	Choke	20 hy., (0 ma)	12 hy., .5 ma)	1000	....	....	21	4.05	5.10
VM12-	Interstage	20K	1000, (.75 ma)	625	85	5	21	4.50	6.30
VM13-	Interstage	20K	1000‡, (.75 ma)	625	85	5	21	4.65	6.90
VM14-	Interstage	600‡, (7 ma)	600 CT	50	65	15	17	4.50	6.75
VM15-	Isolation	50K CT	50K CT	2000	2600	5	15	6.00	8.40
VM16-	Driver	500‡, (7.5 ma)	250 CT	40	13	15	17	4.50	6.75

TRANSISTOR DRIVER AND OUTPUT TRANSFORMERS (FIG. E)

Hermetically sealed and magnetically shielded with MIL-T-27A construction. MIL Type TF4RX—(Add MIL No. 17 and Case from table). MIL No. 17 except where noted.

Micro. No.	Application	Impedance		Pri. Unb. DC Ma	Level Watts	Freq. Resp. ±2 db, cps	MIL Case	Net Ea., 1-9*
		Pri.	Sec.					
M8002*	Coll. to p-p base	560	400 CT	18	0.15	200—20K	AJ	$11.25
M8003*	Coll. to p-p base	625 CT	100 CT	20	1.5	200—20K	AJ	12.30
M8004	Coll. to p-p base	5400	600 CT	15	0.075	200—15K	AH#	14.85
M8005	Coll. to p-p base	7000	320 CT	7	0.040	70—15K	AH#	14.85
M8006	Coll. to p-p base	10K	6500 CT	0.75	0.005	200—15K	YY#	9.45
M8008	Coll. to speaker	25	3—4	600	3	200—20K	AJ	11.10
M8007*	P-p auto transformer	30 CT	3—4	200	2	100—20K	AJ	11.40
M8009	P-p output to spkr.	48 CT	3.2/8	50	5	200—20K	AJ	11.70
M8010	P-p coll. to servo	120 CT	1K	40	6	300—15K	AJ	11.55
M8011	P-p output to spkr.	125 CT	3—4	20	1.5	200—15K	AH	14.55
M8012*	P-p coil. to servo	140 CT	500	50	6	300—15K	AJ	11.25
M8013*	P-p output to spkr.	250 CT	3—4	20	0.4	70—15K	AH	14.55
M8014	P-p output to spkr.	400 CT	11	2	0.25	300—15K	YY	9.15
M8015	P-p coll. to servo	1600 CT	800	5	2.5	150—20K	AJ	12.00
M8016	P-p output to spkr.	2500 CT	12	4	0.10	300—15K	YY	9.30
M8054	P-p output to servo	250 CT	130	20	3	200—15K	AH	14.55

‡CT. *Bi-filar wound to minimize switching transients. #MIL No. 13.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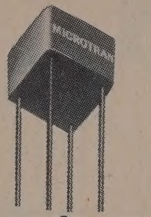
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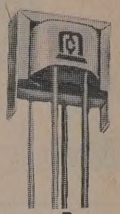
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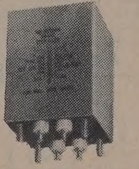
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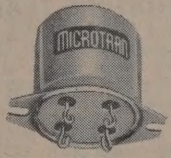

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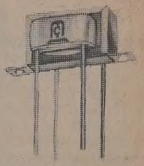
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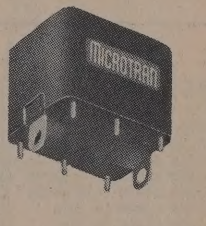

SUBMINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — SM AND SMT SERIES

SM-AF (Fig. F): MIL-T-27A-AF modified case with compression sealed ceramic terminals. Gray enamel finish. MIL Type TF4RX—YY (Insert MIL No. from table). Max. Size, ¾″ x ¾″ x 1⅛″ with two 4-40NC-2 spade mtg. bolts. Weight, 1⅛ oz. **SM-H (Fig. G):** Hermetically sealed with high compression glass terminals, gray enamel finish. MIL Type TF4RX—YY. Size, $\frac{15}{16}$ dia. x $\frac{15}{16}$″ h. Weight, 1 oz. **SM-FB (Fig. H):** Open frame with channel. Available with plug-in tab mounted channel or without channel on special order. MIL Type TF6RX—ZZ. Size, $\frac{15}{16}$″ x $\frac{19}{32}$″ x ¾″, plus tabs. Weight, 0.710 oz. **SM-M (Fig. 1):** Molded, for plug-in printed circuit applications. MIL Type TF5RX—ZZ. Size, 1$\frac{5}{32}$″ max. x ⅞″ x ¾″. Weight, 1½ oz.

Micro-tran No.†	Application	Impedance		Pri. Unbal. DC Ma	Oper-Level, dbm	Frequency Resp., ±2 db, cps	MIL No.	Net Each, Lots of 1-9*			
		Pri.	Sec.					AF-	-FB	-H	-M
SM1-	Input	200/50	250K/62.5K	0	6	80—10K	10	$9.00	$4.35	$7.20	$9.00
SM2-	Interstage 3:1	10K	90K	0	8	100—10K	10	8.70	3.90	6.90	9.00
SM3-	Plate-to-line	10K	200	3	21	150—10K	13	8.70	3.90	6.90	9.00
SM4-	Output	30K	50	1	21	150—10K	13	8.70	3.90	6.90	9.00
SM5-	Reactor 50 hy. at 1 mil DC	3K ohms	DC Resis.	......	....	....	20	7.20	3.30	6.30	8.40
SM6-	Output	100K	60	0.5	21	150—10K	13	8.70	4.35	7.05	9.00
SMT1-	Line to base	600	600	9	23	200—15K	17	6.75	3.90	6.00	7.20
SMT3-	Coll. to base or line	50K	600	1	20	300—15K	13	7.35	4.50	6.60	7.80
SMT4-	P-p coll to p-p base	50K CT	600 CT	2	20	200—15K	13	....	4.95	7.05	8.25
SMT5-	Coll. to speaker	50K	6	1	20	300—15K	13	7.20	4.35	6.45	7.65
SMT7-	Coll. to p-p base	25K	1200 CT	1.5	20	200—15K	13	7.50	4.65	6.75	7.95
SMT8-	P-p coll. to p-p base	50K CT	1200 CT	2	20	200—15K	13	....	4.95	7.05	8.25
SMT9-	Line to p-p base	600 CT	1200 CT	18	23	200—15K	17	....	4.20	6.30	7.50
SMT10-	Coll. to base	25K	600	2	20	200—15K	13	7.05	4.20	6.30	7.50
SMT12-	Output coll. to speaker	2K	3.4	5	30	200—15K	13	6.75	3.90	6.00	7.20
SMT13-	Output p-p coll. to speaker	4K CT	3.4	5	30	200—15K	13	6.90	4.05	6.15	7.35
SMT16-	Coll. to p-p base	10K	1500 CT	1	23	200—15K	13	7.50	4.65	6.75	7.95
SMT17-	P-p coll. to p-p base	10K CT	200 CT	6	20	200—15K	13	....	4.80	6.90	8.10
SMT18-	P-p coll. to p-p base	25K CT	1200 CT	3	20	200—15K	13	....	4.95	7.05	8.25
SMT19-	Coll. to p-p base	2500	2500 CT	2.5	26	200—15K	13	7.50	4.65	6.75	7.95
SMT26-	Line to base	600 CT	600 CT	18	23	200—15K	17	....	4.50	6.60	7.80

★SEE FOURTH PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

†ORDER BY COMPLETE MICROTRAN NO. EXAMPLE, UM21-M

Also see EEM pages for additional items and list of franchised distributors.

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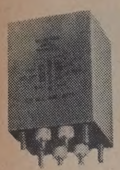
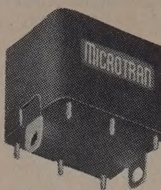
MICROTRAN

Miniaturized Transformers



A

B



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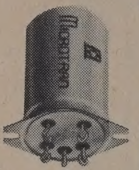

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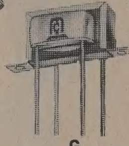

G

H

POWER SUPPLY TRANSFORMERS

For silicon rectifier circuitry and filament applications. Hermetically sealed. Primary, 105/115/125 v. Output voltage given for resistive or inductive loads, based on approx. 1 v. drop per rectifier. MIL Type TF4RX01 — (Add MIL Case Type from table) per MIL-T-27A. Fig. A except M8063 and M8069, Fig. B.

400 CYCLE TYPE

Micro. No.	Secondary		Rect. Cir.		Size, Inches W. x D. x H.	MIL Case	Net, 1-9*
	VAC	RMS	VDC‡	VDC#			
M8063§	2.85	.045 a.	1.5	3	¹⁵⁄₁₆ dia. x ¹¹⁄₁₆	YY	$10.56
	2.85	.045 a.					
M8064§	6.3 CT	.6 a.	1.9	3.8	1⁵⁄₁₆ x1⁵⁄₁₆ x1¾	AH	11.10
M8039	12.6 CT	.8 a.	10.5	21	1⅝ x1⅝ x2⅜	AJ	15.15
	12.6 CT	.8 a.					
M8018	18.5 CT	1 a.	7	21	1¹³⁄₁₆x1¹⁵⁄₁₆x2¾	EA	15.30
M8019	18.5 CT	3 a.	7	14	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	15.90
M8065	26 CT	1.5 a.	10.7	21.5	1¹³⁄₁₆x1¹⁵⁄₁₆x2¾	EA	15.60
M8066	26 CT	3	10.7	21.5	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	16.05
M8067	30 CT	.5 a.	12.5	25	2¹⁄₁₆ x2⁵⁄₁₆ x2½	FB	15.00
M8020	35 CT	3	14.5	29	2⅜ x2¾ x3¹³⁄₁₆	GA	18.00
M8068	40 CT	.2 a.	17	34	1⅝ x1⅝ x2⅜	AJ	13.20
M8041§	50 CT	.25 a.	21.5	43	1⁵⁄₁₆ x1⁵⁄₁₆ x1¾	AH	11.10
M8069§	60 CT	.003 a.	26	52	¹⁵⁄₁₆ dia.x¹¹⁄₁₆	YY	9.75
M8070§	65 CT	.170 a.	28.4	56.8	1⁵⁄₁₆ x1⁵⁄₁₆ x1¾	AH	11.25
M8021	70 CT	1 a.	30	60	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	16.05
M8071	80 CT	.90 a.	35.2	70.4	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	16.20

60 CYCLE TYPE

M8042	6.3 CT	.6 a.	1.9	3.8	1⅝ x1⅝ x2⅜	AJ	$10.20
M8043	6.3 CT	2 a.	1.9	3.8	2¹⁄₁₆ x2⁵⁄₁₆ x2½	FB	12.00
M8044	12.6 CT	2 a.	10.5	21	3¹⁄₁₆ x3⁹⁄₁₆ x3⅞	JB	21.60
	12.6 CT	2 a.					
M8022	18.5 CT	3 a.	7	14	3¹⁄₁₆ x3⁹⁄₁₆ x3⅞	JB	20.25
M8045	28 CT	.6 a.	11.7	23.4	2¹⁄₁₆ x2⁵⁄₁₆ x3⅛	FA	16.35
M8055	30 CT	2.5 a.	12.5	25	3¹⁄₁₆ x3⁹⁄₁₆ x4⅞	JA	25.65
M8023	35 CT	3 a.	14.5	29	3⅜ x3¹⁵⁄₁₆x5¼	KA	26.10
M8046	49 CT	2.5 a.	21	42	3¹¹⁄₁₆x4⁵⁄₁₆ x5⁹⁄₁₆	LA	28.20
M8024	70 CT	1 a.	30	60	3¹⁄₁₆ x3⁹⁄₁₆ x4⅞	JA	25.65
M8056	80 CT	.6 a.	35	70.5	2⅝ x3¹⁄₁₆ x4¼	HA	16.65
M8057	115 CT	.9 a.	51	102	3⅜ x3¹⁵⁄₁₆x5¼	KA	25.35

‡CT full wave. #F.W. bridge. §Pri. 115v. only.

400 CYCLE ISOLATION TRANSFORMERS

Electrostatic shielding. Also for use in either F.W. bridge or F.W. CT circuit. MIL Type TF4RX01—. Fig. A except M8058, Fig. B.

No. Micro.	Volts Input	Volts Output	Amps RMS	VA	Size, Inches W. x D. x H.	MIL Case	Net, 1-9*
M8058	115	115 CT	.017	2	¹⁵⁄₁₆xdia.x1⁷⁄₁₆	YY	$ 9.60
M8059	115	115 CT	.35	40	1¹³⁄₁₆x1¹⁵⁄₁₆x2⁷⁄₁₆	EB	14.70
M8060	115	115 CT	1.3	150	2⅜ x2¾ x3¹³⁄₁₆	GA	18.45
M8061	115*	115 CT	2.6	300	3¹⁄₁₆ x3⁹⁄₁₆ x4⅞	JA	24.90
M8062	115*	115 CT	4.4	500	3⅜ x3¹⁵⁄₁₆x5¼	KA	26.85

*Primary 105/115/125v.

MINIATURE TRANSISTOR AND AUDIO TRANSFORMERS—MT AND M SERIES

M-M (Fig. C): Molded, for plug-in printed circuit use. Cast epoxy resin provides highest resistance to temperature extremes. MIL Type TF5RX—ZZ (Insert MIL No. from table). Max. Size, 1⁵⁄₃₂″ x ⅞″ x ⅞″. Weight, 1¾ oz. **M-AG (Fig. D):** Enclosed in modified MIL-T-27 AG case with compression sealed ceramic terminals. MIL Type TF4RX—YY. Max. Size, 1″ x 1″ x 1⅜″. Weight, 2⅜″ oz. **M-H (Fig. E):** Hermetically sealed with high compression glass terminals, gray enamel finish. Available on special order with .120″ holes. MIL Type TF4RX—YY. Size ¹⁵⁄₁₆″ dia. x 1⁷⁄₁₆″ max. Weight, 1¼ oz. **M-A (Fig. F):** Aluminum case with 2-56 screws. MIL Type TF6RX—ZZ. Size, .875″ dia. x 1³⁄₁₆″. Weight, 1.25 oz. **M-FB (Fig. G):** Open frame with channel. Available with plug-in tab channel or without channel on special order. MIL Type TF6RX—ZZ. Size, 1³⁄₆₄″ x ¹³⁄₁₆″ x ²⁷⁄₃₂″ max., plus tabs. Weight, 1.13 oz. **M-P (Fig. H):** Octal plug-in type in sealed plastic housing. MIL Type TF6RX—ZZ. Size, 1³⁄₃₂″ dia. x ¹⁵⁄₃₂″. Weight, 2 oz. **M-A-Sh Shield:** 25 db magnetic shield to match Type M-A. Two clearance holes on ¹¹⁄₁₆″ centers.

MINIATURE AUDIO TRANSFORMERS — M SERIES

Micro-tran No.†	Application	Impedance		Pri. DC Ma*	Oper. Level, dbm	Freq. Resp. ± 2 db, cps	MIL No.	Net Each, Lots of 1-9*					
		Pri.	Sec.					-A	-AG	-FB	-H	-M	-P
M1-	Mike or line to 1 grid	‡	50K	0	5	20—20K	10	$ 7.50	$ 9.90	$ 4.05	$ 9.00	$ 9.90	$ 8.85
M2-	Mike or line to 2 grids	‡	50K CT	0	5	20—20K	10	7.65	10.35	4.20	9.45	10.20	8.85
M3-	Dynamic mike to 1 grid	7.5/30	50K	0	5	20—20K	10	7.50	9.90	3.90	9.00	9.75	8.40
M4-	Single plate to 1 grid	15K	60K	0	6	20—15K	10	6.45	8.55	3.45	7.65	8.55	7.50
M5-	Single plate to 1 grid	15K	60K	4	14	200—20K	15	6.45	8.55	3.45	7.65	8.55	7.50
M6-	Single plate to 2 grids	15K	95K CT	0	5	20—15K	10	7.35	9.45	3.60	8.55	9.45	8.25
M7-	Single plate to 2 grids	15K	95K CT	4	11	200—20K	15	7.35	9.75	3.75	8.85	9.75	8.25
M8-	Single plate to line	15K	‡	0	8	20—20K	16	7.65	10.50	3.75	9.60	10.50	8.85
M9-	Single plate to line	15K	‡	0	21	150—20K	13	7.65	10.50	3.75	9.60	10.50	8.85
M10-	Push-pull plate to line	30K, p-p	‡	0	8	30—50K	16	8.25	10.80	3.90	9.60	10.80	9.00
M11-	Crystal mike to line	50K	‡	0	5	20—20K	16	7.65	10.50	3.75	9.30	10.50	8.85
M12-	Mixing and matching	§	‡	0	8	20—20K	16	7.50	10.50	3.75	9.30	10.50	9.00
M13-	Reactor	300#	•	......	....	6K ohms DCR	20	6.15	8.25	3.30	7.35	8.25	7.50
M14-	50:1 mike to grid	200	½ meg.	0	9	80— 3K	10	7.35	9.90	3.90	9.00	10.20	8.85
M15-	10:1 plate to grid	10K	1 meg.	0	11	100—2500	10	7.35	9.30	3.60	8.40	9.30	8.85

MINIATURE TRANSISTOR TRANSFORMERS — MT SERIES

MT1-	Line to base	600	600	10	23	200—15K	17	$7.20	$8.70	$3.60	$7.80	$9.00	$7.35
MT2-	Coll. to p-p base 2N57	100	10 CT/ 40 CT	100	27	200—20K	17	8.10	9.60	4.20	8.70	9.90	8.25
MT3-	Coll. to base or line	50K	600	3	20	300—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT5-	Coll. to speaker	50K	6	3	20	300—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT6-	Coll. to p-p base	100K	1200 CT	1.4	17	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT7-	Coll. to p-p base	25K	1200 CT	3	22	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT8-	P-p coll. to p-p base	50K CT	1200 CT	3	20	300—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT9-	Line to p-p base	600 CT	1200 CT	4	23	200—15K	17	8.10	9.60	4.20	8.70	9.90	7.80
MT10-	Coll. to base	25K	600	3	22	200—15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT11-	P-p coll. to p-p base	4K CT	600 CT	3	32	200—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT12-	Output coll. to spkr.	2K	3.4	10	32	200--15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT13-	P-p coll. to spkr.	4K CT	3.4	3	32	200—15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT14-	Coll. to spkr. 2N179	400	10	50	25	200—20K	13	7.20	8.70	3.60	7.80	9.00	7.35
MT15-	P-p servo output 2N57	500 CT	210	30	27	300—20K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT18-	P-p coll. to p-p base	25K CT	1200 CT	6	22	200—15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT20-	P-p coll. to p-p base	50K CT	△	3	20	300—15K	13	8.40	9.90	4.50	9.00	10.20	8.55
MT21-	P-p coll. to p-p base	4K CT	■	3	32	200—15K	13	8.25	9.75	4.35	8.85	10.05	8.40
MT22-	Line to p-p base	■	1200 CT	4	23	200—15K	17	8.25	9.75	4.35	8.85	10.05	8.40
MT23-	P-p coll. to servo	250 CT	1000	10	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT24-	Coll. to p-p base	2500	600 CT	10	32	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT25-	P-p coll. to p-p base	7500 CT	600 CT	8	32	200—15K	12	8.10	9.60	4.20	8.70	9.90	8.25
MT26-	Line to p-p base	600 CT	600 CT	20	23	200—15K	17	7.95	9.45	4.05	8.55	9.75	8.10
MT29-	P-p coll. to servo	1600 CT	450	15	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT30-	P-p coll. to servo	250 CT	500	10	30	200—15K	17	7.80	9.30	3.90	8.40	9.60	7.95
M-A-Sh	Shield can for M-A	....	....	....	....	....	....	1.35	......	......	......	......	......

*Unbalanced. ‡50/250/600 CT. §50/250 CT. #Hy. 0 DC. •50 hy. at 3 ma. △1200/300 split. ■600/150 split.

★SEE FOURTH PAGE FOR QUANTITY PRICING. †ORDER BY COMPLETE MICROTRAN NUMBER: EXAMPLE M1-A.
Also see EEM pages for additional items and list of franchised distributors.

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MICROTRAN Miniaturized Transformers

LOW LEVEL CHOPPER INPUT TRANSFORMERS (FIG. A)

Efficiently transfers 30—500 cps. Transducer or thermocouple signals to instrument amplifiers. Resin impregnated to minimize mechanical vibration noise signal. Three mu-metal and two copper shields insure low hum pickup. Accurate center taps and external electrostatic shield connection improve low level operation. Signal level range. 0.5 µv to 0.5 v. 90 db magnetic shielding. Size, 1⅜" dia. x 1 25/32" h. with two 6-32 x ⅜" mtg. studs on 1½" centers. Weight, 4.5 oz.

Micro. tran No.	Turn Ratio		Full Pri. Hys*	Full Pri. Imped.*	DC Resis.		Net Each, 1-9*
	Full Pri.-Full Sec.	½ Pri.-Full Sec.			Full Pri.	Sec.	
M8025	1:7.7	1:15.4	17.5	6,600	365Ω	4140Ω	$13.80
M8026	1:3.2	1:6.4	60 hy.	22,500	455Ω	3500Ω	13.80
M8052	1:4.53	1:9.06	90	34,000	760Ω	5220Ω	14.25
M8053	1:0.5	1:1	140	53,000	920Ω	653Ω	13.65

*At 0.5 v., 60 cps.

PLUG-IN TRANSFORMERS (FIG. B)

Broadcast fidelity type, double mu-metal shielded. Octal base, except M8032 and M8033, 9-pin.
M8030 is designed as a replacement for Ampex No. 1733-1; M8032 and M8033 mate with sockets on many RCA amplifiers. Frequency Response: ±2 db, 20-20K. (M8031, ±2 db, 30-20K.) Magnetic shielding, 65 db. Level, +5 dbm.

Micro No.	Impedance		Size, In. H. x Dia.	Wt., Oz.	Net Ea., 1-9*
	Pri.	Sec.			
M8030	200/50 CT	50K	2⅛ x 1⅛ dia.	6	$13.50
M8031	600 CT/150	50K	2⅛ x 1⅛ dia.	6	13.35
M8032	250 CT	50K	2⅛ x 1⅛ dia.	6	13.05
M8033	50 CT	50K	2⅛ x 1⅛ dia.	6	13.05

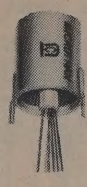
MODEL 400K TRANSISTOR TRANSFORMER SELECTOR KIT (FIG. C)

- **IDEAL FOR BREADBOARD CIRCUITRY**
- **INCLUDES FULL DESIGN DATA**

Set of nine transistor transformers covers impedance range of 150 through 200K ohms, matching most new transistor impedance ratings. Sizes range from a ⅜" cube to ¾" x ¾" x 1". All units vacuum resin impregnated for long, reliable life and for protection against rough handling. Each type has 4" color-coded leads. Includes full design data: nomographs and circuitry for determining correct impedances for Class A and B transistor amplifiers; power versus dbm chart; terminal connection sheet; guide to MIL-T-27A; cross reference index; outline drawings for later selection of stock items with same electrical ratings in many other mechanical constructions. Each transformer individually boxed in transparent plastic case.

Microtran Model 400K Transistor Transformer Selector Kit —Net Each .... $\$29^{50}$*
*Standard quantity discounts do **not** apply.

MICROTRAN TRANSFORMERS ARE AVAILABLE IN MANY OTHER MECHANICAL AND ELECTRICAL TYPES ON SPECIAL ORDER. WRITE FOR COMPLETE INFORMATION.


A

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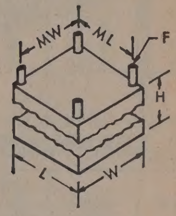
TRANSISTOR TRANSFORMER
Selector Kit
MICROTRAN COMPANY INC.
MICROTRAN
C



Case Sizes

STANDARD MIL-T-27A CASE SIZES

Case Type	Size, Inches W. x L. x H.	Mtg. Centers, In.		Stud Type F
		ML	MW	
AF	¾ x ¾ x 1⅛	13/16*	....	4-40 x ⅜
AG	1 x 1 x 1⅜	1⅛*	....	6-32 x ⅜
AH	1 5/16 x 1 5/16 x 1¾	1¼†	....	6-32 x ⅜
AJ	1⅝ x 1⅝ x 2⅜	1 3/16	1 3/16	6-32 x ⅜
EA	1 13/16 x 1 15/16 x 2¾	1⅜	1¼	6-32 x ⅜
EB	1 13/16 x 1 15/16 x 2 7/16	1⅜	1¼	6-32 x ⅜
FA	2 1/16 x 2 5/16 x 3⅛	1 11/16	1 7/16	6-32 x ⅜
FB	2 1/16 x 2 5/16 x 2½	1 11/16	1 7/16	6-32 x ⅜
GA	2⅜ x 2¾ x 3 13/16	2⅛	1¾	6-32 x ⅜
HA	2⅝ x 3 1/16 x 4¼	2 19/64	1 55/64	8-32 x ⅜
JA	3 1/16 x 3 9/16 x 4⅞	2⅝	2⅛	8-32 x ⅜
JB	3 1/16 x 3 9/16 x 3⅞	2⅝	2⅛	8-32 x ⅜
KA	3⅜ x 3 15/16 x 5¼	3	2 7/16	10-32 x ½
LA	3 11/16 x 4 5/16 x 5 5/16	3 5/16	2 11/16	10-32 x ½
YY	All metal not included above or with non-std. mtg. ctrs.			
ZZ	Open type and encapsulated			

*Not in conformance with MIL-T-27A. †Two studs in a diagonal.

★QUANTITY PRICING

Net Each, 1-9	Net Each, Lots of		
	10-49	50-99	100-249
$ 1.35	$ 1.22	$ 1.13	$ 0.90
3.30	2.97	2.75	2.20
3.45	3.10	2.88	2.30
3.60	3.24	3.00	2.40
3.75	3.38	3.13	2.50
3.90	3.51	3.25	2.60
4.05	3.64	3.38	2.70
4.20	3.78	3.50	2.80
4.35	3.91	3.63	2.90
4.50	4.05	3.75	3.00
4.65	4.18	3.88	3.10
4.80	4.32	4.00	3.20
4.95	4.45	4.13	3.30
5.10	4.59	4.25	3.40
5.25	4.73	4.38	3.50
5.40	4.86	4.50	3.60
5.55	4.99	4.63	3.70
5.70	5.13	4.75	3.80
5.85	5.27	4.88	3.90
6.00	5.40	5.00	4.00
6.15	5.54	5.13	4.10
6.30	5.67	5.25	4.20
6.45	5.81	5.38	4.30
6.60	5.94	5.50	4.40
6.75	6.08	5.63	4.50
6.90	6.21	5.75	4.60
7.05	6.35	5.88	4.70
7.20	6.48	6.00	4.80
7.35	6.61	6.13	4.90
7.50	6.75	6.25	5.00
$ 7.65	$ 6.89	$ 6.38	$5.10
7.80	7.02	6.50	5.20
7.95	7.15	6.63	5.30
8.10	7.29	6.75	5.40
8.25	7.42	6.88	5.50
8.40	7.56	7.00	5.60
8.55	7.69	7.13	5.70
8.70	7.83	7.25	5.80
8.85	7.97	7.38	5.90
9.00	8.10	7.50	6.00
9.15	8.24	7.63	6.10
9.30	8.37	7.75	6.20
9.45	8.51	7.88	6.30
9.60	8.64	8.00	6.40
9.75	8.77	8.13	6.50
9.90	8.91	8.25	6.60
10.05	9.04	8.38	6.70
10.20	9.18	8.50	6.80
10.35	9.32	8.63	6.90
10.50	9.45	8.75	7.00
10.80	9.72	9.00	7.20
11.10	9.99	9.25	7.40
11.25	10.12	9.38	7.50
11.40	10.26	9.50	7.60
11.55	10.39	9.63	7.70
11.70	10.53	9.75	7.80
11.85	10.66	9.88	7.90
12.00	10.80	10.00	8.00
12.30	11.07	10.25	8.20
13.05	11.74	10.88	8.70
$13.20	$11.88	$11.00	$ 8.80
13.35	12.01	11.13	8.90
13.50	12.15	11.25	9.00
13.65	12.28	11.38	9.10
13.80	12.42	11.50	9.20
14.25	12.82	11.88	9.50
14.55	13.09	12.13	9.70
14.70	13.23	12.25	9.80
14.85	13.36	12.38	9.90
15.00	13.50	12.50	10.00
15.15	13.63	12.63	10.10
15.30	13.77	12.75	10.20
15.60	14.04	13.00	10.40
15.90	14.31	13.25	10.60
16.05	14.44	13.38	10.70
16.20	14.58	13.50	10.80
16.35	14.71	13.63	10.90
16.65	14.98	13.88	11.10
18.00	16.20	15.00	12.00
18.45	16.60	15.37	12.30
20.25	18.22	16.87	13.50
21.60	19.44	18.00	14.40
24.90	22.41	20.75	16.60
25.35	22.81	21.12	16.90
25.65	23.09	21.38	17.10
26.10	23.49	21.75	17.40
26.70	24.03	22.25	17.80
26.85	24.16	22.38	17.90
28.20	25.38	23.50	18.80

ORDER BY COMPLETE MICROTRAN NUMBER
Also see EEM pages for additional items and list of franchised distributors.

MICROTRAN Toroidal Inductors

MICRO-MINIATURE TOROIDAL INDUCTORS — QG SERIES

QG-F: Open frame microcrystalline wax dipped with 4″ #27 plastic leads. Size, ⅝″ dia. x 9/32″. **QG-M:** Molded in high temperature epoxy resin with .020″ x 2″ gold plated nickel alloy leads. Leads may be bent downward for plug-in printed circuit use. Size, ⅞″ dia. x ⅜″.

QG-F, QI-F, QK-F, QPL-F, QTL-F Open Frame

QG-M Molded

QI-M, QK-M, QPL-M, QTL-M Molded

QP-H, QT-H 4 studs
QI-H, QK-H 2 studs
Hermetic

QGL SERIES

Frequency range, to 20 kc; accuracy, ±2%.

Microtran No.†	Inductance	Typ. DC Res., Ohms	Typ. Dist. Cap. µµf	-F Open Frame Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QGL5-	5 mh	2.5	30	$4.35	$3.92	$3.63	$2.90	$5.70	$5.13	$4.75	$3.80
QGL10-	10 mh	5	33	4.35	3.92	3.63	2.90	5.70	5.13	4.75	3.80
QGL15-	15 mh	8	34	4.50	4.05	3.75	3.00	5.85	5.27	4.88	3.90
QGL50-	50 mh	28	40	4.80	4.32	4.00	3.20	6.30	5.67	5.25	4.20
QGL100-	100 mh	50	42	4.95	4.46	4.13	3.30	6.45	5.81	5.38	4.30
QGL500-	500 mh	290	48	5.40	4.86	4.50	3.60	7.20	6.48	6.00	4.80
QGL1000-	1 hy.	530	51	6.15	5.54	5.13	4.10	7.95	7.16	6.63	5.30
QGL1500-	1.5 hys.	825	53	6.30	5.67	5.25	4.20	8.70	7.83	7.25	5.80

QGM SERIES

Frequency range, 2-100 kc; accuracy, ±2%.

QGM1-	1 mh	1.4	22	$4.80	$4.32	$4.00	$3.20	$6.45	$5.81	$5.38	$4.30
QGM5-	5 mh	6	28	5.10	4.59	4.25	3.40	6.60	5.94	5.50	4.40
QGM10-	10 mh	12	31	5.25	4.73	4.38	3.50	6.75	6.08	5.63	4.50
GM15-	15 mh	18	32	5.40	4.86	4.50	3.60	6.90	6.21	5.75	4.60
QGM25-	25 mh	30	35	5.70	5.13	4.75	3.80	7.05	6.35	5.88	4.70
QGM50-	50 mh	52	37	6.30	5.67	5.25	4.20	7.35	6.62	6.13	4.90

SUBMINIATURE TOROIDAL INDUCTORS — QIL SERIES

Frequency range to 20 kc; accuracy ±2%. **QIL-M:** Molded in high temperature epoxy with silver plated turret lugs. Size, 1 3/16″ dia. x ½″. **QIL-H:** Hermetically sealed in metal case with Teflon® terminals. Size, 1 1/16″ x ½″ x 1 7/32″. **QIL-F:** Open frame. Microcrystalline wax dipped with 4″ #27 plastic leads. Size, 1″ dia. x 13/32″.

®Registered DuPont trademark.

Microtran No.†	Inductance	Type.DC Res., Ohms	Type.Dist. Cap., µµf	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QIL5-	5 mh	1.1	38	$3.90	$3.51	$3.25	$2.60	$6.75	$6.08	$5.63	$4.50	$5.25	$4.73	$4.38	$3.50
QIL10-	10 mh	2.1	40	3.90	3.51	3.25	2.60	6.75	6.08	5.63	4.50	5.25	4.73	4.38	3.50
QIL25-	25 mh	5.3	45	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL50-	50 mh	11	47	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL100-	100 mh	22	49	4.20	3.78	3.50	2.80	7.65	6.89	6.38	5.10	5.70	5.13	4.75	3.80
QIL250-	250 mh	55	53	4.50	4.05	3.75	3.00	8.25	7.43	6.88	5.50	6.00	5.40	5.00	4.00
QIL500-	500 mh	95	55	4.80	4.32	4.00	3.20	8.55	7.70	7.13	5.70	6.30	5.67	5.25	4.20
QIL1000-	1 hy.	210	57	5.10	4.59	4.25	3.40	9.00	8.10	7.50	6.00	6.75	6.08	5.63	4.50
QIL2500-	2.5 hys.	550	61	6.75	6.08	5.63	4.50	10.80	9.72	9.00	7.20	8.70	7.83	7.25	5.80

MINIATURE TOROIDAL INDUCTORS — QK SERIES

QK-F: Open frame, microcrystalline wax dipped; 4″ # 27 plastic leads. Size, 1¼″ dia. x ⅝″. **QK-H:** Hermetic with Teflon terminals. Size, 1 15/32″ x 25/32″ x 1 47/64″. **QK-M:** Molded in high temperature epoxy resin; silver plated turret lugs. Size, 1⅜″ dia. x ¾².

QKL SERIES

Frequency range, 10 kc; accuracy, ±2%.

Microtran No.†	Inductance	Type.DC Res., Ohms	Type.Dist. Cap., µµf	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QKL10-	10 mh	1.1	66	$4.50	$4.05	$3.75	$3.00	$7.20	$6.48	$6.00	$4.80	$6.15	$5.54	$5.13	$4.10
QKL25-	25 mh	2.8	72	4.65	4.19	3.88	3.10	7.50	6.75	6.25	5.00	6.15	5.54	5.13	4.10
QKL50-	50 mh	6	76	4.65	4.19	3.88	3.10	7.80	7.02	6.50	5.20	6.15	5.54	5.13	4.10
QKL100-	100 mh	11	81	4.80	4.32	4.00	3.20	8.40	7.56	7.00	5.60	6.60	5.94	5.50	4.40
QKL250.	100 mh	28	87	4.95	4.46	4.13	3.30	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKL500-	500 mh	63	91	5.10	4.59	4.25	3.40	9.15	8.24	7.63	6.10	6.90	6.21	5.75	4.60
QKL1000-	1 hy.	110	96	5.25	4.73	4.38	3.50	9.60	8.64	8.00	6.40	7.20	6.48	6.00	4.80
QKL5000-	5 hys.	645	106	6.75	6.08	5.63	4.50	11.10	9.99	9.25	7.40	8.40	7.56	7.00	5.60
QKL10,000-	10 hys.	1175	112	7.50	6.75	6.25	5.00	12.45	11.20	10.38	8.30	9.60	8.64	8.00	6.40

QKM SERIES

Frequency range, 5-50 kc; accuracy, ±2%.

QKM2-	2 mh	0.45	52	$5.10	$4.59	$4.25	$3.40	$8.25	$7.43	$6.88	$5.50	$6.30	$5.67	$5.25	$4.20
QKM5-	5 mh	1.1	58	5.25	4.73	4.38	3.50	8.40	7.56	7.00	5.60	6.45	5.81	5.38	4.30
QKM10-	10 mh	2.5	62	5.25	4.73	4.38	3.50	8.55	7.70	7.13	5.70	6.60	5.94	5.50	4.40
QKM25-	25 mh	6.5	70	5.40	4.86	4.50	3.60	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKM50-	50mh	11	74	5.55	5.00	4.63	3.70	9.00	8.10	7.50	6.00	6.90	6.21	5.75	4.60

HIGH-Q TOROIDAL INDUCTORS — QPL SERIES

Frequency range to 10 kc; accuracy ±2%. **QPL-F:** Open frame, microcrystalline wax dipped; 4″ #24 leads. Size, 1 15/16″ dia. x ⅞″. **QPL-H:** Hermetically sealed with Teflon terminals. Size, 1 15/16″ x 1 1/16″ x 2 9/32″. **QPL-M:** Molded in high temperature epoxy resin; silver plated turret lugs. Size, 2″ dia. x 1″.

Microtran No.†	Inductance	Type. DC Res., Ohms	Type. Dist. Cap., µµf	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QPL25.	25 mh	1.5	100	$ 6.90	$ 6.21	$ 5.75	$ 4.60	$10.35	$ 9.32	$ 8.63	$ 6.90	$ 8.55	$ 7.70	$ 7.13	$ 5.70
QPL50-	50 mh	2.5	105	7.05	6.35	5.88	4.70	10.50	9.45	8.75	7.00	8.70	7.83	7.25	5.80
QPL100-	100 mh	6	110	7.20	6.48	6.00	4.80	10.65	9.58	8.88	7.10	8.85	7.97	7.38	5.90
QPL500-	500 mh	25	120	7.50	6.75	6.25	5.00	10.95	9.82	9.13	7.30	9.60	8.64	8.00	6.40
QPL1000-	1 hy.	60	125	7.80	7.02	6.50	5.20	11.40	10.26	9.50	7.60	9.90	8.91	8.25	6.60
QPL5000-	5 hys.	350	138	9.45	8.51	7.88	6.30	13.20	11.88	11.00	8.80	11.10	9.99	9.25	7.40
QPL10,000-	10 hys.	600	142	11.10	9.99	9.25	7.40	15.00	13.50	12.50	10.00	12.90	11.61	10.75	8.60
QPL25,000-	25 hys.	1500	150	13.05	11.74	10.88	8.70	17.55	15.80	14.63	11.70	15.45	13.90	12.88	10.30

HIGH-Q TOROIDAL INDUCTORS — QTL SERIES

Frequency range to 15 kc; accuracy, ±2%. **QTL-F:** Open frame, microcrystalline wax dipped with 4″ #24 leads. Size 2 7/16″ dia. x 1″. **QTL-H:** Hermetic, Teflon terminals. Size, 2 9/16″ x 1 5/16″ x 2 13/16″. **QTL-M:** Molded in epoxy resin. Size, 2⅞″ dia. x 1⅜″.

QTL50.	50 mh	1.5	136	$10.95	$ 9.85	$ 9.13	$ 7.30	$13.65	$12.28	$11.38	$ 9.10	$12.75	$11.47	$10.63	$ 8.50
QTL100-	100 mh	2.8	144	11.25	10.12	9.38	7.50	13.95	12.55	11.63	9.30	13.05	11.74	10.88	8.70
QTL500-	500 mh	15	164	11.85	10.66	9.88	7.90	14.85	13.36	12.38	9.90	13.05	11.74	10.88	8.70
QTL1000-	1 hy.	27	173	12.15	10.93	10.13	8.10	15.15	13.63	12.63	10.10	13.95	12.55	11.63	9.30
QTL2500	2.5 hys.	70	184	13.05	11.74	10.88	8.70	16.05	14.44	13.38	10.70	14.85	13.36	12.38	9.90
QTL5000-	5 hys.	140	192	13.05	11.74	10.88	8.70	16.65	14.98	13.88	11.10	15.00	13.50	12.50	10.00
QTL10,000-	10 hys.	270	200	14.25	12.82	11.88	9.50	17.25	15.53	14.38	11.50	16.20	14.58	13.50	10.80
QTL25,000-	25 hys.	850	212	16.50	14.85	13.75	11.00	19.50	17.55	16.25	13.00	18.45	16.61	15.38	12.30
QTL50,000-	50 hys.	1500	221	22.20	19.98	18.50	14.80	25.20	22.68	21.00	16.80	24.15	21.74	20.13	16.10

†ORDER BY COMPLETE MICROTRAN NUMBER; EXAMPLE QGL5-F.
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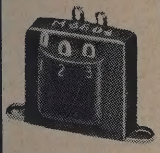
Figure E
Encapsulated
Channel Mtd.

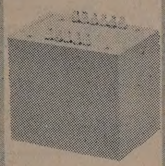
Figure Q
Hermetic
with Inserts

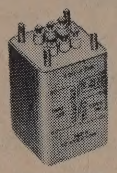
Figure MIL
Hermetic
MIL-T-27A Case

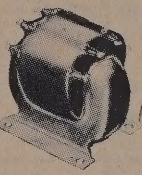
Figure R
Encapsulated
Hipersil

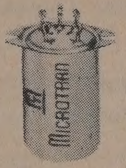
Figure H
Miniature
Hermetic

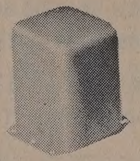
Figure V
Rectangular with
rectangular
flange

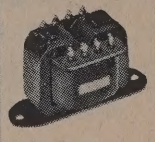
Figure X
Hipersil with
terminal board

Separate Sampling Department for quick delivery. Immediate service assured by large stocks of high temperature insulation and other specialized materials. IN-PLANT TESTING assures full compliance with military requirements and often saves weeks on contract completion. Units can be supplied to meet MIL-T-27A, MIL-T-9219, CAA-R-9786, MIL-E-5400, MIL-E-16400, MIL-E-4158, MIL-E-8189A, MCREE-553, MIL-T-21200, MIL-Q-9858.

NOT STOCK, CUSOM BUILT TO ORDER ONLY

400 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Amps.	Test Volts R.M.S.	Figure
M3144	1	3	1000	M-AG
M2655	6.3/6.3#	1.5/1.5	1500	MIL
M2810	6.3C.T./6.3C.T.#	2.0/2.0	100	MIL-EA
M2611	6.3C.T./6.3C.T.#	2.0/10.0	100	Q
M4282*†	6.3C.T.	10.0	2500	MIL-FA
M4076††	6.3	20.0	2000	MIL-JB
M4042	12.6	0.25	1000	MIL-AH
M2724	12.6C.T./6.3#	3.0/1.2	1000	MIL
M2830	12.6C.T./12.6C.T.#	5.0/5.0	500	MIL-JA
M4017	26C.T./6.3C.T.#	0.1/1.7	1000	FB
M3142	26	6.5	1500	MIL-JA
M2880**	32	5.5	500	MIL-KA

400 CYCLE PLATE/FILAMENT POWER TRANSFORMERS

Part No.	Plate Supply A.C. Volts	Plate Supply D.C. Ma.	Rectifier Volts	Filament Amps	Figure
M2751	115	5	6.3	0.35	W
M2448	128/26	20/800	6.3	2.6	MIL-FA
M1092-2	800C.T.	60	12.6C.T.	1.0	R
M1144	40	180	26.0	1.2	MIL-FA

*105/115/125 Pri. **110/115/120 Pri. †MS 16472 ††MS 16402
#Separate Wdgs

60 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Amps	Test Volts R.M.S.	Figure
M1606	2.5	.01	500	H
M2229	6.3C.T./6.3C.T.#	0.6	1,000	FB
M2551	6.3	2.0	1,500	FB
M1395*	24.0	1.0	1,500	MIL-GA
M2530	25.0/25.0#	.23/.23	1,000	MIL-GB
M2808	34.0	15.0	500	MIL
M2531	40.0/40.0#	.4/.4	1,000	MIL-HB

*117V Primary

60 CYCLE ISOLATION TRANSFORMER

Part No.	Input Voltage	Output Voltage	V.A. Rating	Figure
M2787†	110	110	0.8	FB
M2901	115	115	6.0	V
M2294†	105/115/125	118C.T.	90.	MIL
M2595	117	117	250.	K

*117V Primary. #Separate Winding. †Electrostatic Shielding.

FILTER REACTORS

Part No.	Current D.C. Ma.	Inductance Henries	D.C.R. Ohms	Test Volts	Figure
FR-2	60	10	230	2,000	MIL-FA
M2490	85	15	300	2,500	V
M2243	500	2	30	1,500	MIL-KA
M2278	1A	0.05	2	500	MIL-FA
M2909	1.75A	0.016	0.5	500	MIL-GA
M2474	5A	0.005	0.03	500	MIL
M3494	6.5A	0.04	0.5	1,000	MIL-NA
M2473	25A	0.005	0.032	500	MIL

400 CYCLE SERVO DRIVER & OUTPUT TRANSFORMERS

Part No.	Primary Impedance	Pri. Unbal. D.C. Ma.	Secondary Impedance	Power Level	Figure
M2996	†20 K	3.	25	25 Mw.	MIL-AG
M2956	1,000 C.T.	0.	1,000 C.T.	150 Mw.	FPB
M2477	8,000 C.T.	4.	500 C.T.	500 Mw.	FB
M1378	6,000	38.	180	1.3 Watts	H
M2254	200 C.T.	20.	1,000	3.0 Watts	F
M2769	10,000 C.T.	9.	500	7 Watts	E
M2795	48 C.T.	30.	176	9 Watts	FB
M2849	62 C.T.	75.	510 C.T.	16 Watts	MIL-FB

†40 db Magnetic Shielding

400 CYCLE DEMODULATOR SUPPLY TRANSFORMERS

Part No.	Primary Volts	Secondary A.C. Volts	Secondary R.M.S. Ma.	Figure
M4035	6.3	2.2/2.2	10/10	M
M4284	26	3.5/3.5	15/15	F
M3434	115/57.5	5/5	1/1	R
M3472	115	30 C.T./0.5	4/50	E

AUDIO REACTORS

Part No.	Inductance Henries	Current D.C. Ma.	D.C.R. Ohms.	Figure
M2495	1.0	0	50	F
M1812	2.0	3.0	780	F
M2501	10.0	0	318	FPB
M3285	30.0	0	390	F
M2402	100.0	0	1,700	FB
M2180	25/50/250	1/0.5/0	770	F

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Part No.	Freq.	Turns Ratio ½ Pri. to Full Sec.	Ind. of Full Pri.	Imped. of Full Pr.	Magnetic Shielding	Figure
M3297	400	15.8/1	.65 Hy.	1 MEG	45 db	G
M3174	100	1/1	50	30 K	90 db	S
M2988	55	1/1	140	10 K	90 db	S
M2057	400	1/2.81	100	250 K	None	H

Also see EEM pages for additional items and list of franchised distributors.

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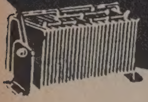
Net



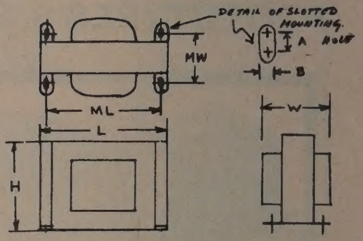
DIRECTRON

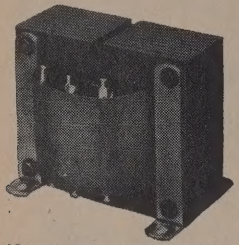
Industrial Transformers, Selenium and Silicon Rectifiers, Chokes and Power Supplies

SELENIUM RECTIFIER TRANSFORMERS

Transformers are with 2 — 18 volt center-tapped windings. Connected in series delivers 36 volts as rated. Connected in parallel — delivers 18 volts at twice rated current. (Taps 9, 18, 27, 36 V.)

Primary taps at 100, 105, 110 and 115 volts available on 12 amp, 24 amp, 30 amp and 50 amp transformers. No extra charge.





12 amp. Transformer 18T12

Part No.	Amp.	Users Net Price	L (MAX)	W (MAX)	H (MAX)	ML ±1/16	MW ±1/8	A ±1/64	B ±1/64	Weight
18 T 1	1	$ 5.25	2 21/32	3	2 3/4	2 1/2.	2 1/4	1/8	13/64	2.5
18 T 2	2	7.20	3 13/16	3	2 3/8	3 1/8	2	↓	↓	3.4
18 T 4	4	8.75	4 3/16	3	3 3/4	3 7/16	2 3/8	↓	↓	5.5
18 T 8	8	15.00	4 9/16	3 5/8	4	3 3/4	3	↓	↓	9.5
18 T 12	12	16.75	5 5/16	4 1/4	4 1/2	4 3/8	3 3/8	↓	9/32	14.5
18 T 24	24	35.75	6 1/2	4 5/8	5 1/2	5 5/16	3 3/8	9/32	↓	22
18 T 30	30	45.00	6 1/2	5	5 1/2	5 5/16	3 5/8	↓	↓	25
18 T 50	50	54.00	6 1/2	5 3/4	5 1/2	5 5/16	4 3/8	↓	↓	33

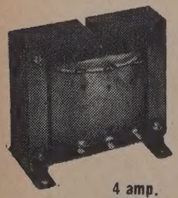
WITH 2-28 CENTER TAP WINDINGS

Part No.	Amp.	Users Net Price	L (MAX)	W (MAX)	H (MAX)	ML ±1/16	MW ±1/8	A ±1/64	B ±1/64	Weight
28 T 2	2	8.50	3 7/8	3 1/4	3 1/8	2 1/2	2 3/8	1/8	13/16	5
28 T 4	4	12.50	4 1/4	3 3/4	3 7/16	3	3	↓	↓	8
28 T 6	6	22.50	5 5/16	4 1/4	4 1/2	4 3/8	3 5/8	3/8	9/32	14
28 T 12	12	30.00	6 1/2	5	5 1/2	5 5/16	3 3/8	↓	↓	21
28 T 24	24	67.50	6 1/2	6 1/2	5 1/2	5 3/8	3 1/2	↓	↓	24.5

STEP UP TRANSFORMERS

PRIMARY WINDINGS — 100-105-110-115 VOLT			SECONDARY WINDINGS — 130-135-140 VOLT		
Part No.	Amps.	Users Net Price	Part No.	Amps.	Users Net Price
SU 10	10	65.00	SU 25	25	120.00
SU 15	15	80.00	SU 30	30	150.00
SU 20	20	105.00	SU 35	35	175.00

HIGH CURRENT CHOKES



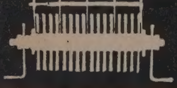
4 amp. Choke CK4

Part No.	Amps.	Hy.	Ohms	Users Net Price	L (MAX)	W (MAX)	H (MAX)	ML ±1/16	MW ±1/8	A ±1/64	B ±1/64	Weight
CK 1	1	.1	1.5	$ 4.95	31/32	2 3/4	2 3/4	2 1/2	2	1/8	13/64	2
CK 2	2	.04	.9	6.00	3 7/16	3 3/4	3 1/8	2 13/16	2 1/8	↓	↓	3.1
CK 4	4	.07	.6	7.95	3 13/16	3 1/8	3 3/8	3 1/8	2 1/2	↓	↓	5
CK 8	8	.03	.3	12.00	4 3/16	3 5/8	3 3/4	3 7/16	3	↓	↓	8
CK 12	12	.01	.1	14.95	5 5/16	3 3/4	4 1/2	4 3/8	2 7/8	↓	9/32	11.5
CK 20	20	.004	.05	15.00	5 1/4	5	4 1/2	4 1/2	4	1/2	↓	14
CK 24	24	.004	.025	27.00	5 5/16	4 3/4	4 1/2	4 3/8	3 7/8	↓	↓	17.5
CK 30	30	.003	.01	36.00	6 1/2	4 5/8	5 1/2	5 5/16	3 3/8	↓	↓	22
CK 50	50	.001	.001	45.00	6 1/2	4 7/8	5 1/2	5 1/16	3 3/8	↓	↓	23
CK 100	100	.0005	.005	54.00	6 1/2	6	5 1/2	5 5/16	4 1/8	↓	↓	30

CUSTOM BUILT TRANSFORMERS AND CHOKES — 48 HOUR SERVICE

POWER SUPPLIES TO **YOUR** SPECIFICATIONS, QUOTATIONS ON REQUEST

SEE OUR AD UNDER "RECTIFIERS" IN SECTION 4800 FOR SELENIUM AND SILICON STACKS



Mfd. by SANFORD MILLER CORP. BROOKLYN 6, N. Y.

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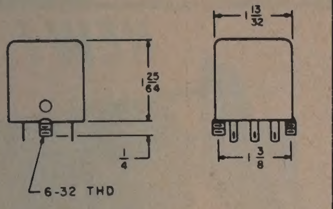
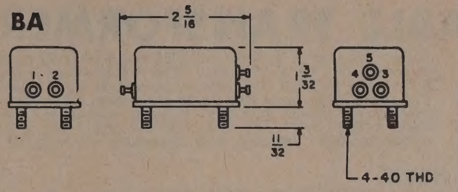
NORTH HILLS WIDE BAND TRANSFORMERS

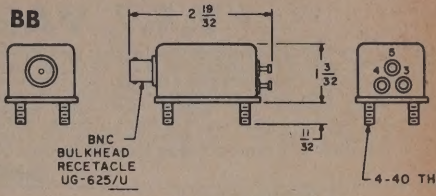
AA


1 13/32
1 25/64
1/4
1 3/8
6-32 THD

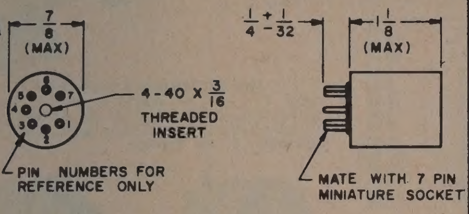
BA


2 5/16
1 2
1 3/32
5
4 3
11/32
4-40 THD

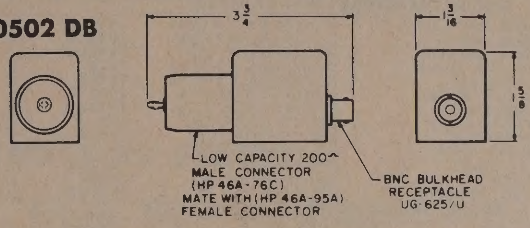
BB


2 19/32
1 3/32
5
4 3
11/32
BNC
BULKHEAD
RECETACLE
UG-625/U
4-40 THD

CA


7/8
(MAX)
4-40 x 3/16
THREADED
INSERT
PIN NUMBERS FOR
REFERENCE ONLY
1/4 + 1/32
1 1/8
(MAX)
MATE WITH 7 PIN
MINIATURE SOCKET

0502 DB


3 3/4
1 3/16
1 3/8
LOW CAPACITY 200∼
MALE CONNECTOR
(HP 46A-76C)
MATE WITH (HP 46A-95A)
FEMALE CONNECTOR
BNC BULKHEAD
RECEPTACLE
UG-625/U

DB-DC available in 0502 type, 50Ω to 200Ω, connector for mating Hewlett-Packard instruments.

- Antenna Matching
- Interstage Coupling
- Impedance Matching
- Computer Drive Circuits
- Signal Distribution
- Pulse Applications
- Voltage Step-Up
- DC Isolation
- Phase Detectors
- Balanced Modulators

Type Number	Impedance Ratio	Type Number	Impedance Ratio
1100	75 Unb/75 Bal	0300	50 Unb/100 Bal
1300	75 Unb/100 Bal	0400	50 Unb/150 Bal
1400	75 Unb/150 Bal	0500	50 Unb/200 Bal
1500	75 Unb/200 Bal	0501	50 Unb/300 Bal
1501	75 Unb/300 Bal	0600	50 Unb/450 Bal
1600	75 Unb/450 Bal	0700	50 Unb/600 Bal
1700	75 Unb/600 Bal	0800	50 Unb/800 Bal
1701	75 Unb/600 Bal	0900	50 Unb/1200 Bal
1702	75 Unb/600 Bal		
1800	75 Unb/800 Bal		
1900	75 Unb/1200 Bal		
1901*	75 Unb/1850 Bal		

*Data sheets for all types on request.

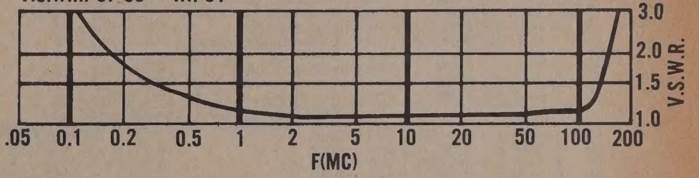
Frequency range on most of these units is contained within 100 kc to 100 mc band except for the 1702 and 1901 which cover from 20 kc to 8 mc. Data sheets with individual curves are available upon request.

North Hills wideband transformers have been designed for low insertion loss (less than 1 db) and good matching characteristics over wide frequency ranges. Balanced windings feature extremely low unbalanced voltages and have a center tap. Complete specifications are available upon request.

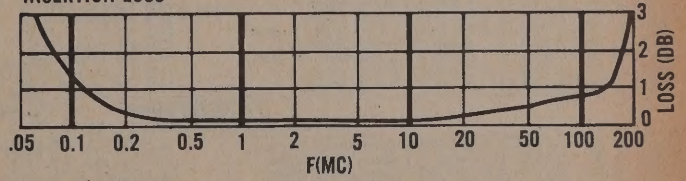
Three case styles are offered. Series AA models are potted in metal cases with a terminal board on the bottom and two 6-32 spade mounting bolts. Series BA are hermetically sealed with glass terminals at the case ends and two 4-40 studs on the bottom for mounting. Series BB is similar to BA except that the unbalanced connection is provided by a BNC connector. The above three styles are rated at 2 watts and the CA package which is designed for 7 pin plug-in or printed circuit board use is rated at ½ watt. Note that the types AA, BA and BB feature lower cut-off frequency than that of type CA because of the larger core dimensions.

TYPICAL CHARACTERISTICS (0501)

V.S.W.R. OF 50 ∼ INPUT



INSERTION LOSS



*Data sheets for all types on request.

Custom units designed to your specifications include power wideband transformers, pulse transformers, filter and adjustable inductors. See Section 1800 for standard line of inductors.

NORTH HILLS

ELECTRONICS, INCORPORATED

GLEN COVE, LONG ISLAND, N.Y.

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OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
germanium diodes • r.f. chokes

"V.T." VARIABLE TRANSFORMERS

Toroidal core type autotransformers providing distortion-free continuously adjustable voltage from fixed AC input. Highly advanced Ohmite design. Sizeable bonus in current available in all units where output greater than line volts ("overvoltage") is not required ("N" suffix); "LN" suffix indicates low input (40V max.) and very high current output: positive current transfer achieved with direct brush to slip spring shunt. **Mounting:** VT2 panel mounting by ⅜-32 bushing; VT2 tandem units by ¼-20 bolts; all VT4 and VT8 types panel or table mounting by ¼-20 bolts; VT20, VT20B, panel or table mounting by four ⅜" dia. bolts or three ⅜-24 bolts. Shafts of VT4, VT8, VT20 units slide to brush or base side. Units not cased except where indicated. Over-all dimensions include shaft. Suffixes "-2" and "-3" indicate number of units in tandem assembly (shipped with connection instructions).

SINGLE-PHASE

Input Volts	Freq.[1] cps. from	Maximum Output Amps	Maximum Output Volts	Feature or Connection	Size, Inches	Stk. No.	Weight Lbs.[7]	Net $[7] 1-5
				SINGLE TRANSFORMERS — UNCASED				
40	60	5	0-40	Hi-amps, low volts	2-13/16 dia. x 2-15/16	**VT2LN**	2.4	9.75
40	50	12.0	0-40	Hi-amps, low volts	3-9/16 x 4-7/32 x 4¾	**VT4LN**	5.25	14.50
40	50	22.0	0-40	Hi-amps, low volts	4⅞ x 5-11/16 x 5½	**VT8LN**	10.25	20.50
120	60 [8]	1.75	0-120/132	Basic 1.75A Model	2-13/16 dia. x 2-15/16	**VT2**	2.4	8.50
120	60	2.0	0-120	No overvoltage	2-13/16 dia. x 2-15/16	**VT2N**	2.4	9.00
120	50	3.5	0-120/140	Basic 3.5A Model	3-9/16 x 4-7/32 x 4¾	**VT4**	5.25	12.50
120	50	4.75	0-120	No overvoltage	3-9/16 x 4-7/32 x 4¾	**VT4N**	5.25	13.00
120	50	7.5	0-120/140	Basic 7.5A Model	4⅞ x 5-11/16 x 5½	**VT8**	10.25	18.00
120	50	10.0	0-120	No overvoltage	4⅞ x 5-11/16 x 5½	**VT8N**	10.25	18.50
120	50	20.0	0-120/140	Basic 20A Model	7½ x 8-1/16 x 5-9/16	**VT20**	22.0	45.00
120	50	25.0	0-120	No overvoltage	7½ x 8-1/16 x 5-9/16	**VT20N**	22.0	45.50
240 [2]	50	3.0	0-240/280	240V Input [2]	4⅞ x 5-11/16 x 5½	**VT8H**	10.25	20.00
240 [2]	50	4.0	0-240	240V In. No ovrvlt. [2]	4⅞ x 5-11/16 x 5½	**VT8HN**	10.25	21.00
				SINGLE TRANSFORMERS — CASED				
120	60 [8]	1.4	0-132 [4]	Fixed Mtg.	3¼ x 2½* x 4¼	**VT2E**	2.8	12.50
120	60 [8]	1.75	0-132 [3]	Portable	3¼ x 2½* x 4¼	**VT2F**	3.2	14.50
120	60	1.60	0-120	Fixed Mtg.	3¼ x 2½* x 4¼	**VT2NE**	2.8	13.00
120	60	2.0	0-120	Portable	3¼ x 2½* x 4¼	**VT2NF**	3.2	15.00
120	50	2.8	0-140 [4]	Fixed Mtg.	4½ x 4½* x 6	**VT4E**	7.4	17.50
120	50	3.5	0-140 [3]	Portable	4½ x 4½* x 6	**VT4F**	7.8	18.50
120	50	3.5	0-140 [8]	VT4F w/gnd. in. & out.	4½ x 4½* x 6	**VT4FC**	7.8	21.00
120	50	3.8	0-120	Fixed Mtg.	4½ x 4½* x 6	**VT4NE**	7.4	18.00
120	50	4.75	0-120	Portable	4½ x 4½* x 6	**VT4NF**	7.8	19.00
120	50	4.75	0-120	VT4NF w/gnd. in. & out.	4½ x 4½* x 6	**VT4NFC**	7.8	21.50
120	50	6.0	0-140 [4]	Fixed Mtg.	5-5/32 x 5-5/16† x 7-3/16	**VT8E**	13.5	23.00
120	50	7.5	0-140 [3]	Portable	5-5/32 x 5-5/16† x 7-3/16	**VT8F**	13.8	24.00
120	50	7.5	0-140 [8]	VT8F w/gnd. in. & out.	5-5/32 x 5-5/16† x 7-3/16	**VT8FC**	13.8	26.50
120	50	6.0	0-120/140 [3]	Deluxe Portable	5-5/32 x 5-5/16† x 7-3/16	**VT8G**	14.2	28.50
120	50	6.0	0-120/140 [8]	VT8G w/gnd. in. & out.	5-5/32 x 5-5/16† x 7-3/16	**VT8GC**	14.2	31.00
120	50	8.0	0-120	Fixed Mtg.	5-5/32 x 5-5/16† x 7-3/16	**VT8NE**	13.5	23.50
120	50	10.0	0-120	Portable	5-5/32 x 5-5/16† x 7-3/16	**VT8NF**	13.8	24.50
120	50	10.0	0-120	VT8NF w/gnd. in. & out.	5-5/32 x 5-5/16† x 7-3/16	**VT8NFC**	13.8	27.00
120	50	20.0	0-120/140	Basic Case	7½ x 8-1/16 x 5-11/16	**VT20B**	22.5	50.00
120	50	25.0	0-120	Basic Case	7½ x 8-1/16 x 5-11/16	**VT20NB**	22.5	50.50
120	50	16.0	0-120/140 [4]	Fixed Mtg.	7¾ x 5½‡ x 10-15/16	**VT20E**	29.0	61.00
120	50	20.0	0-140	Portable	8¼ x 5½‡ x 11¼	**VT20FC**	31.0	65.00
120	50	16.0	0-120/140 [8]	Portable	7¾ x 5½‡ x 11¼	**VT20GC**	31.0	80.00
120	50	20.0	0-120	Fixed Mtg.	7¾ x 5½‡ x 10-15/16	**VT20NE**	29.0	61.50
120	50	25.0	0-120	Portable	8¼ x 5½‡ x 11¼	**VT20NFC**	31.0	65.50
				SINGLE TRANSFORMERS — CASED WITH METERS				
120	50	6.0	0-120/140 [3]	w/voltmeter, gnd. conn.	7 x 5¼† x 10½	**VT8GCV**	15.2	58.00
120	50	6.0	0-120/140 [3]	w/volt. & ammtr., gnd. conn.	7 x 5¼† x 10½	**VT8GCVA**	15.5	91.00
120	50	6.0	0-120/140 [8]	w/volt. & wattmtr., gnd. conn.	7 x 5¼† x 10½	**VT8GCVW**	15.5	118.00
120	50	10.0	0-120	w/voltmeter, gnd. conn.	7⅜ x 5¼† x 10½	**VT8NFCV**	14.8	53.00
120	50	10.0	0-120	w/volt. & ammtr., gnd. conn.	7⅜ x 5¼† x 10½	**VT8NFCVA**	15.2	86.00
120	50	10.0	0-120	w/volt. & wattmtr., gnd. conn.	7⅜ x 5¼† x 10½	**VT8NFCVW**	15.2	113.00
120	50	16.0	0-120/140 [8]	w/voltmeter, gnd. conn.	8¼ x 5½‡ x 14	**VT20GCV**	32.0	118.50
120	50	16.0	0-120/140 [8]	w/volt. & ammtr., gnd. conn.	8¼ x 5½‡ x 14	**VT20GCVA**	32.2	145.50
120	50	16.0	0-120/140 [3]	w/volt. & wattmtr., gnd. conn.	8¼ x 5½‡ x 14	**VT20GCVW**	32.2	216.50
120	50	25.0	0-120	w/voltmeter, gnd. conn.	8¼ x 5½‡ x 14	**VT20NFCV**	32.0	103.00
120	50	25.0	0-120	w/volt. & ammtr., gnd. conn.	8¼ x 5½‡ x 14	**VT20NFCVA**	32.2	130.00
120	50	25.0	0-120	w/volt. & wattmtr., gnd. conn.	8¼ x 5½‡ x 14	**VT20NFCVW**	32.2	201.00
				TWO-IN-TANDEM ASSEMBLIES [5] [10]				
240	60 [8]	1.75	0-240/264	Series Conn. [6]	3-13/16 dia. x 6-3/16	**VT2-2**	5.25	25.00
240	60	2.0	0-240	Series Conn. [6]	3-13/16 dia. x 6-3/16	**VT2N-2**	5.25	26.00
240	50	3.5	0-240/280	Series Conn. [6]	4-5/32 x 4-13/16 x 8⅞	**VT4-2**	11.3	37.00
240	50	4.75	0-240	Series Conn. [6]	4-5/32 x 4-13/16 x 8⅞	**VT4N-2**	11.3	38.00
240	50	7.5	0-240/280	Series Conn. [6]	4⅞ x 5-11/16 x 10⅝	**VT8-2**	20.6	44.50
240	50	10.0	0-240	Series Conn. [6]	4⅞ x 5-11/16 x 10⅝	**VT8N-2**	20.6	45.50
240	50	20.0	0-240/280	Series Conn. [6]	7½ x 8-1/16 x 11⅛	**VT20-2**	45.0	107.00
240	50	20.0	0-240/280	Above unit, B case	7½ x 8-1/16 x 11⅝	**VT20-2B**	46.0	117.00
240	50	25.0	0-240	Series Conn. [6]	7½ x 8-1/16 x 11⅛	**VT20N-2**	45.0	108.00
240	50	25.0	0-240	Above unit, B case	7½ x 8-1/16 x 11⅝	**VT20N-2B**	46.0	118.00
480	50	3.0	0-480/560	Series Conn. [6]	4⅞ x 5-11/16 x 10⅝	**VT8H-2**	20.6	49.00
480	50	4.0	0-480	Series Conn. [6]	4⅞ x 5-11/16 x 10⅝	**VT8HN-2**	20.6	51.00

THREE-PHASE

Input Volts	Freq.[1] cps. from	Maximum Output Amps	Maximum Output Volts	Feature or Connection	Size, Inches	Stk. No.	Weight Lbs.[7]	Net $[7] 1-5
				TWO-IN-TANDEM ASSEMBLIES [5] [10]				
120	60	1.75	0-120/132	Open Delta Conn.	3-13/16 dia. x 6-3/16	**VT2-2**	5.25	25.00
120	60	2.0	0-120	Open Delta Conn.	3-13/16 dia. x 6-3/16	**VT2N-2**	5.25	26.00
120	50	3.5	0-120/140	Open Delta Conn.	4-5/32 x 4-13/16 x 8⅞	**VT4-2**	11.3	37.00
120	50	4.75	0-120	Open Delta Conn.	4-5/32 x 4-13/16 x 8⅞	**VT4N-2**	11.3	38.00
120	50	7.5	0-120/140	Open Delta Conn.	4⅞ x 5-11/16 x 10⅝	**VT8-2**	20.6	44.50
120	50	10.0	0-120	Open Delta Conn.	4⅞ x 5-11/16 x 10⅝	**VT8N-2**	20.6	45.50
120	50	20.0	0-120/140	Open Delta Conn.	7½ x 8-1/16 x 11⅛	**VT20-2**	45.0	107.00
120	50	20.0	0-120/140	Above unit, B case	7½ x 8-1/16 x 11⅝	**VT20-2B**	46.0	117.00
120	60	25.0	0-120	Open Delta Conn.	7½ x 8-1/16 x 11⅛	**VT20N-2**	45.0	108.00
120	60	25.0	0-120	Above unit, B case	7½ x 8-1/16 x 11⅝	**VT20N-2B**	46.0	118.00
240	50	3.0	0-240/280	Open Delta Conn.	4⅞ x 5-11/16 x 10⅝	**VT8H-2**	20.6	49.00
240	50	4.0	0-240	Open Delta Conn.	4⅞ x 5-11/16 x 10⅝	**VT8HN-2**	20.6	51.00
				THREE-IN-TANDEM ASSEMBLIES [5] [10]				
240	60	1.75	0-240 [9]	"Y" Conn.	3-13/16 dia. x 8-15/16	**VT2-3**	8.0	40.00
240	60 [8]	3.5	0-240/280	"Y" Conn.	4-5/32 x 4-13/16 x 12-15/16	**VT4-3**	17.0	59.50
240	60 [8]	7.5	0-240/280	"Y" Conn.	4⅞ x 5-11/16 x 15⅛	**VT8-3**	31.0	61.50
240	60 [8]	6.0	0-240/280	Above unit, E case	5-3/16 x 7-3/16 x 15¾†	**VT8-3E**	40.0	77.00
240	60 [8]	20.0	0-240/280	"Y" Conn.	7½ x 8-1/16 x 16-3/16	**VT20-3**	68.0	155.00
240	60 [8]	20.0	0-240/280	Above unit, B case	7½ x 8-1/16 x 16⅞	**VT20-3B**	69.5	170.00
240	60	25.0	0-240	"Y" Conn.	7½ x 8-1/16 x 16-3/16	**VT20N-3**	68.0	156.50
240	60	25.0	0-240	Above unit, B case	7½ x 8-1/16 x 16⅞	**VT20N-3B**	69.5	171.50
480	60 [8]	3.0	0-480/560	"Y" Conn.	4⅞ x 5-11/16 x 15⅛	**VT8H-3**	31.0	69.50

ACCESSORIES, PARTS

Brush-Contact Assemblies for . . .

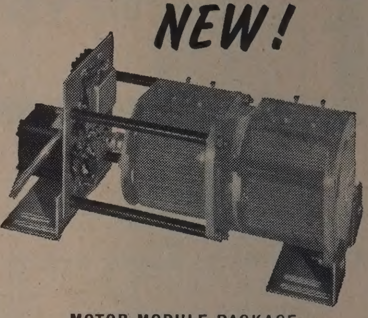
	Stk. No.	Net 1-5
VT2 Types except VT2LN	6514	$1.00
VT2LN	6517	2.00
VT4 Types except VT4LN	6515	1.00
VT4LN	6518	2.00
VT8 Types except VT8H, HN, LN	6516	1.25
VT8H, HN only	6516H	1.25
VT8LN only	6519	2.50
VT20 Types except VT20N	6590	1.75
VT20N	6594	1.75

Extra Dials or Dials with C.C.W. Calibration

"v.t."	Dial Calibration	Stk. No.	Net 1-5
VT2	0-120, 0-132 C.W.	5005	$ .25
	0-100, 100-0* C.W.	5011	.25
VT4 and VT8	0-120, 0-140 C.W.	5006	.50
	0-120, 0-140 C.C.W.	5008	.50
	0-240, 0-280 C.W.	5009	.50
	0-240, 0-280 C.C.W.	5010	.50
	0-100, 100-0* C.W.	5012	.50
VT20	0-120, 0-140 C.W.	5013	1.20
	0-120, 0-140 C.C.W.	5014	1.20
	0-240, 0-280 C.W.	5015	1.20

*Percent-of-output dial furnished with "LN" series units.

NEW!



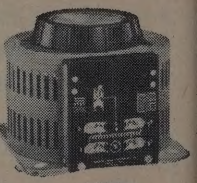
MOTOR MODULE PACKAGE

For VT4 or VT8, single or ganged, unenclosed models. Attaches in 15 minutes with everyday tools. Five speeds in stock. **Call your distributor or the factory.**

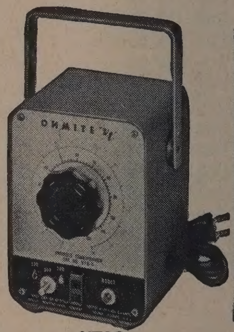
VT2, VT2N

VT4, VT4N

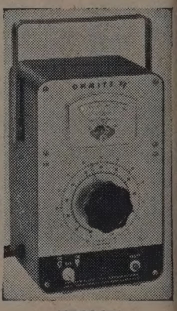
VT8, VT8N



VT20B



VT8G



VT8GCV

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[1] Frequency shown is a minimum—units may be used to well over 400 cps.

[2] VT8H and VT8HN also have taps for 120V input with 280V output for VT8H and 240V output for VT8HN. With use of 120V input the max. current rating applies up to 120V output but reduces to approx. 50% at max. output voltage.

[3] Connected at factory for overvoltage output —easily reconnected by user for no-overvoltage output. On VT8G and VT20G, switch selects overvoltage or no-overvoltage.

[4] User wires for desired output. Dial normally calibrated for overvoltage.

[5] Tandem assemblies normally furnished without interconnection between units.

[6] When transformers are series connected, load cannot be grounded.

[7] Includes knob and dial and mounting hardware.

[8] May be used at 50 cps if connected for no-overvoltage output.

[9] Overvoltage connection must not be used.

[10] Specify 240 volt dial if desired, except VT2 series.

* Add ⅞" for knob thickness.

† Add 1" for knob thickness.

‡ Add 1¼" for knob thickness.

ACCESSORIES, PARTS

Adapter Plate for 4-hole mtg. of VT4—matches other popular 4-hole mtgs.; dimensions same as shown for front plate of VT4 tandems, (Cat. 500).

Stk. No. 6512 Net 1-5 **$0.67**

Extra Knobs for Uncased Units

	Stk. No.	Net 1-5
For VT2 types	5158	$ .35
For VT4, VT8 types	5155	1.00
For VT20 types	5157	1.75

Adjustable stop for limiting rotational arc of transformers.

	Stk. No.	Net 1-5
Stop for VT4 types	6536	$ .50
Stop for VT8 types	6537	.50

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1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

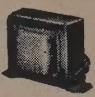
This will avoid confusion and expedite delivery.

Thank you!

The
RADIO-ELECTRONIC
MASTER

SNC

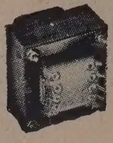
QUALITY TRANSFORMERS Give OUTSTANDING PERFORMANCE!


Style AL Mtg.

Style CL Mtg.

Style BL Mtg.

Style DL Mtg.


Style ET Mtg.

Style FL Mtg.

Skillful Engineering, latest production techniques and highest quality materials . . . backed by careful workmanship, exacting step-by-step inspection and rigorous final testing . . . are combined in every SNC transformer to provide a quality product that gives MORE in dollar value.

AUDIO TRANSFORMERS — THE "ONE" SERIES

AUDIO INPUT

Type Number	Application	Impedance		Pri. Mils (D.C.)	Max. Turns Ratio	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions				Net. Wt.	Net. Price
		Primary	Secondary			50	200	1M	5M	10M		A	B	C	C		
1P121	P.M. Speaker to Grid	4	100,000	0	1:58	−4.0	−1.0	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	2.31
1P124	S.B. Mic. to Sgl. or P.P. Grids	100	400,000 C.T.	50	1:63		−6.0	0	−2.0	−6.0	BL	1-7/8	1-9/16	1-1/2	2	.5	2.43
1P125	Low Z to Sgl. or P.P. Grids	50	100,000 C.T.	0	1:45		−3.0	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	2.25
1P128	Sgl. or D.B. Mic. or Line to Sgl. or P.P. Grids	200*/50	100,000 C.T.	50	1:45	−2.0	−0.3	0	−0.7	−2.0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.3	3.57
1P136	Line to Sgl. or P.P. Grids	500*/125	100,000 C.T.	0	1:28	−3.0	−0.4	0	−0.4	−1.5	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.4	3.57
1P145	Sgl. or P.P. Plates to Line	20,000 C.T.	500*/125	8	12.6:1	−3.5	−1.0	0	0	0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	2.94
1P152	Sgl. or P.P. Plates to Line	20,000 C.T.	200*/50	8	20:1	−4.0	−1.0	0	0	0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	2.94
1P161	Line to Line	500	500*/125	0	2:1	−0.4	−0.1	0	−0.4	−1.0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	3.18

*Indicates Balanced Center Tap

AUDIO INTERSTAGE

1P323	Sgl. Plate to Sgl. Grid	10,000	90,000	8	1:3	−5.0	−1.5	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	2.16
1P331	Sgl. Plate to P.P.Grids	10,000	90,000 C.T.	8	1:3	−6.0	−2.0	0	0	−1.0	BL	1-7/8	1-1/16	1-1/2	2	.5	2.31
1P339	Sgl. Plate to P.P. Grids	10,000	90,000 C.T.	8	1:3	−3.0	−0.5	0	±0.1	+0.5	BL	2-1/4	1-7/8	1-13/16	2-3/8	.9	2.58
1P342	Sgl. Plate to P.P. Grids	10,000	90,000 C.T.	8	1:3	−2.5	−0.5	0	0	0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	3.33
1P346	P.P. Plates to P.P. Grids	20,000 C.T.	45,000 C.T.	10	1:1.5	−1.0	−0.2	0	0	0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	3.42
1P351	Universal	Universal		8	1:3	−2.0	−0.4	0	0	0	BL	2-1/4	1-7/8	1-13/16	2-3/8	.9	2.73
3P363	Sgl. Type 30 to 19, 1J5 or P.P 30 Class B	10,000	7,000 C.T.	8	2.4:1	−0.5	0	0	−0.2	−1.0	BL	1-7/8	1-9/16	1-1/2	2	.5	1.86

TELEVISION REPLACEMENT (VERTICAL BLOCKING OSCILLATOR)

Type Number	Primary Inductance	Leakage Inductance	Turns Ratio	Mounting Style	Mounting	Dimensions				Net Wt.	Net Price
						H	W	D	Ctrs.		
1P412	1.15 Hy.±20%	.008 Hy.±25−15%	1:42	Comp. Filled Case	Flange	1-7/8	2-5/16	1-1/2	1-15/16	.5	2.40
1P416	1.15 Hy.±20%	.008 Hy.±25−15%	1:42	Comp. Filled Case	Studs	1-5/8	1-3/16	1-3/16	1-13/64	.4	2.22

CHOKES AND REACTORS — THE "TWO" SERIES

AUDIO REACTORS

Type Number	D.C. Mils		Inductance				Insul. Test Voltage	D.C. Res.	Mtg. Style	Dimensions					Net Weight	Net Price
	Nom.	Max.	0-D.C.	50% Nom. D.C.	Nom. D.C.	Max. D.C.				A	B	C	D	E		
2P123	5-0.5	15	550	—	300-500	80	2000	5500	AL	1-7/8	2-1/4	1-5/8	2-13/16		.9	2.31
2P124	5-0.5	15	550	—	300-500	80	2000	5500	CL	1-7/8	2-1/4	1-3/4	2-13/16		.9	2.58
2P126	35-15	45	65	—	25-35	20	2000	800	AL	1-7/8	2-1/4	1-5/8	2-13/16		.9	1.83
2P127	35-15	45	65	—	25-35	20	2000	800	CL	1-7/8	2-1/4	1-3/4	2-13/16		.9	2.16

FILTER AND SWINGING CHOKES

2P132	40	50	22	13	8	6	2000	450	AL	1-5/16	1-5/8	1-1/8	2		.3	1.20
2P135	65	80	18	11	8	7	2000	300	AL	1-9/16	1-7/8	1-3/8	2-3/8		.5	1.41
2P138	85	100	30	16	8	7	2000	350	AL	1-7/8	2-1/4	1-7/8	2-13/16		1.2	1.80
2P141	110	135	20	10.5	8	7	2000	200	BL	2-5/8	2-3/16	1-7/8	2-13/16		1.5	2.43
2P142	110	135	20	10.5	8	7	2000	200	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	2.58
2P144	150	180	26	13	8	5.5	2000	190	BL	3	2-1/2	2-1/8	3-1/8		2.1	2.43
2P145	150	180	26	13	8	5.5	2000	190	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.2	3.33
2P147	200	250	16	10	8	6.5	3500	110	GL	3-1/2	2-7/8	3-1/8	2-1/4	2	3.2	4.29
2P148	200-20	—	—	—	3-15	—	3500	110	GL	3-1/2	2-7/8	3-1/8	2-1/4	2	3.2	4.29
2P151	300	350	18	11	8	7	5000	75	GL	4-5/8	3-3/4	3-7/8	3	2-13/16	7.5	7.32
2P152	300-30	—	—	—	3-15	—	5000	75	GL	4-5/8	3-3/4	3-7/8	3	2-13/16	7.5	7.32
2P155	500	600	16	10	8	5.5	5000	55	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.8	20.58
2P156	500-50	—	—	—	3-15	—	5000	55	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.8	20.58

DRIVER TRANSFORMERS — THE "THREE" SERIES

Type Number	Primary Impedance	Watts	Ratio, Pri. to 1/2 Sec. or Sec. Z	Pri. D.C. Mils	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions					Net Wt.	Net Price
					50	200	1M	5M	10M		A	B	C	D	E		
3P323	6,000 C.T. to 10,000 C.T.	25	6, 5.5, 5:1	60	−0.5	0	0	0	−0.3	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	7.47
3P328	3,000 C.T. to 5,000 C.T.	25	6, 5.5, 5:1	60	−0.4	0	0	0	−0.1	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	7.47
3P334	6,000 C.T. to 10,000 C.T.	25	4.5, 4, 3.5:1	60	−1.0	−0.3	0	+0.1	+0.6	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	7.35
3P338	3,000 C.T. to 5,000 C.T.	25	4.5, 4, 3.5:1	60	−1.7	−0.5	0	0	0	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	7.50
3P342	6,000 C.T. to 10,000 C.T.	25	3, 2, 1:1	60	−0.7	−0.1	0	+0.1	+0.4	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	7.77
3P347	3,000 C.T. to 5,000 C.T.	25	3, 2, 1:1	60	−0.8	0	0	0	−0.8	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	7.65
3P353	6,000 C.T. to 10,000 C.T.	25	500 Ohms	60	−1.1	−0.3	0	0	+0.3	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	7.53
3P358	3,000 C.T. to 5,000 C.T.	25	500 Ohms	60	−0.9	−0.1	0	−0.4	−1.0	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	7.53
3P363	10,000	5	2.4:1	10	−0.5	0	0	−0.2	−1.0	BL	1-7/8	1-9/16	1-1/2	2		.5	1.86

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SNC

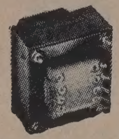
QUALITY TRANSFORMERS Give OUTSTANDING PERFORMANCE!

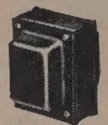
Style AL Mtg.

Style CL Mtg.

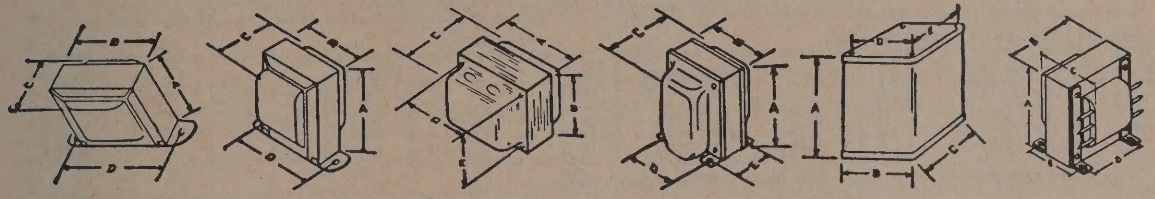
Style BL Mtg.

Style DL Mtg.


Style ET Mtg.


Style FL Mtg.

DIMENSIONAL ILLUSTRATIONS



OUTPUT TRANSFORMERS — THE "SIX" SERIES

SPECIFIC DUTY REPLACEMENT TYPES—TUBE TO VOICE COIL

Type Number	Primary Imp.—Ohms		Pri. D.C. Mils	Sec. Z—Ohms	Watts	Mtg. Style	Dimensions A	B	C	D	Net Wt.	Net Price
6P300	Single	2,000 Plate	50	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.20
6P306	Single	4,000 Plate	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.20
6P312	Single or P.P.	7,500 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.59
6P316	Single or P.P.	10,000 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.59
6P319	Push-Pull	15,000 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.62
6P321	Push-Pull	20,000 Plates	30	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.62
6P325	Push-Pull	25,000 Plates	20	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	1.62

UNIVERSAL REPLACEMENT TYPES—TUBE TO VOICE COIL—TUBE TO LINE—LINE TO VOICE COIL

Type Number	Primary Imp.—Ohms	Pri. D.C. Mils	Sec. Z—Ohms	Watts	Mtg. Style	Dimensions A	B	C	D	Net Wt.	Net Price
6P165	Sgl. or P.P. 4M to 14M Plates	40	1.1 to 14	4	ATL	1-5/16	1-5/8	1-3/8	2	.3	1.86
6P166	Sgl. or P.P. 4M to 14M Plates	50	1.1 to 14	8	ATL	1-9/16	1-7/8	1-5/8	2-3/8	.5	1.86
6P167	Sgl. or P.P. 3M to 10M Plates	50	1.2 to 13	15	BTL	1-7/8	1-9/16	1-3/4	2	.5	2.31
6P169	Sgl. 1500 to 7M Plate	55	.8 to 19	10	ATL	1-9/16	1-7/8	1-5/8	2-3/8	.5	1.86
6P172	P.P. 3500 to 12M Plates	60	1.3 to 14	20	BTL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	3.36
6P701	Single 2500 to 7500 Plate	45	165 to 1500	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	2.94
6P710	P.P. 7500 to 15M Plates	45	250 to 1000	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	3.33
6P714	Sgl. or P.P. 2500 to 12M Plates	45	150 to 2400	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	3.51
6P717	125 to 500 Line	0	1 to 32	35	BTL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	3.57
6P722	500 to 3M Line in 500-Ohm Steps	0	1.3 to 48	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	3.36

AMPLIFIER AND EQUIPMENT TYPES—TUBE TO LINE AND VOICE COIL

Type Number	Primary Imp.—Ohms	Pri. D.C. Mils	Secondary Imp.—Ohms	Watts	Frequency Characteristics—c. p. s. 50	200	1M	5M	10M	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	Net Price
6P726	P.P. 3300 or 3800 Plates	90	4-8-16-250-500	60	−0.3	0	0	+0.1	+0.5	GL	3-3/4	3-1/16	3-3/8	2-1/2	2-3/16	4.4	7.05
6P731	P.P. 4500 or 6800 Plates	90	4-8-16-250-500	60	−0.3	0	0	+0.2	0	GL	3-3/4	3-1/16	3-3/8	2-1/2	2-3/16	4.4	7.05
6P736	P.P. 5000 Plates	70	4-8-16-250-500	25	−0.9	−0.2	0	+0.2	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	4.74
6P740	P.P. 4300 Plates	70	4-8-16-250-500	25	−0.9	−0.3	0	+0.3	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	4.74
6P743	P.P. 6600 Plates	70	4-8-16-250-500	25	−0.7	−0.1	0	+0.2	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	4.74
6P746	P.P. 8000 Plates	70	4-8-16-250-500	25	−0.7	−0.1	0	+0.1	+0.3	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	4.74
6P749	P.P. 10,000 Plates	60	4-8-16-250-500	25	−0.4	−0.1	0	+0.2	+0.3	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	4.98
6P752	Sgl. 2500 Plate	60	4-8-16-250-500	10	−3.0	−0.4	0	+0.3	+0.5	DL	2-1/4	1-7/8	2-1/8	2-3/8		1.0	3.75

TELEVISION REPLACEMENT (VERTICAL DEFLECTION)

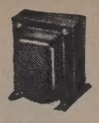
Type Number	Ratio Pri. to Sec.	Primary Imp.—Ohms	Leakage Inductance	Mounting Style	Dimensions A	B	C	D	E	Net Wt.	Net Price
6P860	10:1	19,000 Min.	0.33 Hy. Max.	B x L	3-3/16	2-3/4	2-9/16	1-19/32	2	2.2	4.41

MODULATION TRANSFORMERS — THE "FIVE" SERIES

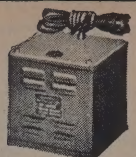
SNC universal modulation transformers are specifically designed to provide maximum application possibilities per type. All units are provided with two identical secondary windings, permitting series or parrallel operation. Changes in the ratio can be readily accomplished, when desired, without removing the unit from the chassis. Most units available in either air cooled or compound filled cases.

UNIVERSAL TYPES

Type Number	Watts	Primary Current Mils	Secondary Characteristics Series Sec. Impedance	Series Sec. Mils.	Parallel Sec. Impedance	Parallel Sec. Mils	Primary Impedance Ohms	Mtg. Style	Dimensions A	B	C	D	E	Net Weight	Net Price
5P341	15	60	3M to 8M	50	1000 to 5000	100	3M to 8M	DL	2-5/8	2-3/16	2-3/8	2-13/16		1.5	5.94
5P346	50	80	2M to 18M	75	500 to 4500	150	3M to 15M	GTL	3-7/8	3-1/8	3-3/8	2-1/2	2-3/16	4	9.30
5P352	100	120	2M to 18M	100	500 to 4500	200	3M to 15M	GTL	4-5/8	3-3/4	3-7/8	3	2-13/16	9.7	14.85
5P354								HT						24	34.05
5P355	200	200	2M to 18M	150	500 to 4500	300	3M to 15M	JT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	32	37.23
5P357								HT						33	41.19
5P358	300	250	2M to 18M	250	500 to 4500	500	3M to 15M	JT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	41	44.34
5P363								HT						51	83.16
5P364	500	300	2M to 18M	300	500 to 4500	600	3M to 15M	JT	10-3/4	6-1/2	7-1/4	5-3/8	6-1/8	64	91.08



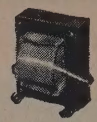
Style GL Mtg.



Style HP Mtg.

Style ATL Mtg.

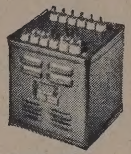
Style BTL Mtg.



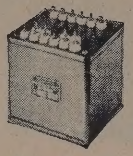
Style BxL Mtg.

Style HSP Mtg.

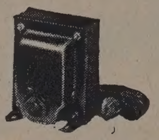
Style GTL Mtg.



Style HT Mtg.



Style JT Mtg.



Style GP Mtg.

NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and Bx.

Explanation of Suffix Symbols

L = Leads
T = Lugs
P = Cord and Plug
SP = Switch, Cord and Plug

POWER TRANSFORMERS — THE "EIGHT" SERIES

All units conservatively rated for operation on either 50 or 60 cycles and contain an electrostatic shield between primary and all other windings.

REPLACEMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions					Net Wt.	Net. Price
							A	B	C	D	E		
8P040	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2-1/2	2-3/4	2-1/2	2	2.3	3.57
8P055	117	300-0-300	55	5V. @ 2A.	6.3A. @ 2.5A.	FL	3	2-1/2	3-1/8	2-1/2	2	2.8	3.60
8P070	117	325-0-325	70	5V. @ 2A.	6.3V. @ 3A.	FL	3	2-1/2	3-1/2	2-1/2	2	3.2	4.56

HEAVY DUTY REPLACEMENT AND NEW EQUIPMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions					Net Wt.	Net Price
							A	B	C	D	E		
8P180	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2-1/2	3-1/4	2-1/2	2	3.2	4.89
8P180G						GL	3-1/16	2-7/32	3-1/8	2	2-3/16		
8P183	117	300-0-300	50	5V. @ 2A.	6.3V. @ 2A.	FL	3-3/8	2-13/16	3-7/16	2-13/16	2-1/4	3.5	5.16
8P183G						GL	3-7/16	2-27/32	3-1/4	2-1/4	2-1/8		
8P186	117	325-0-325	60	5V. @ 2A.	6.3V. @ 3A.	FL	3-3/8	2-13/16	3-11/16	2-13/16	2-1/4	4.0	5.40
8P186G						GL	3-7/16	2-27/32	3-1/2	2-1/4	2-3/8		
8P189	117	350-0-350	70	5V. @ 3A.	6.3V. @ 3.5A.	FL	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	5.0	5.94
8P186G						GL	3-13/16	3-5/32	3-5/8	2-1/2	2-7/16		
8P192	117	350-0-350	90	5V. @ 3A.	6.3A. @ 4A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.7	6.54
8P192G						GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P194	117	375-0-375	110	5V. @ 3A.	6.3A. @ 4A.	FL	3-3/4	3-1/8	4-1/8	3-1/8	2-1/2	6.0	7.32
8P194G						GL	3-13/16	3-5/32	4	2-1/2	2-13/16		
8P196	117	350-0-350	150	5V. @ 3A.	6.3V. @ 4.8A.	FL	4-1/8	3-7/16	4-3/8	3-7/16	2-3/4	7.7	7.71
8P196G						GL	4-3/16	3-15/32	4-3/8	2-3/4	3-5/16		
8P199	117	400-0-400	70	5V. @ 3A.	6.3V. @ 3.5A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.8	6.93
8P199G						GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P202	117	450-0-450	200	5V. @ 3A.	6.3V. @ 5A.	FL	4-1/2	3-3/4	4-3/4	3-3/4	3	10.7	9.90
8P202G						GL	4-9/16	3-25/32	4-3/8	3	3-11/16		
8P205	117	450-0-450	325	5V. @ 6A.	6.3V. @ 8A.	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.3	26.94
8P208	117	550-0-550	275	5V. @ 6A.	6.3V. @ 6A.	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	26.94

REPLACEMENT TYPES (2.5 Volt Heater Winding)

8P287	117	350-0-350	70	5V. @ 3A.	2.5V. @ 6A.	FL	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	5.0	5.94
8P293	117	350-0-350	90	5V. @ 3A.	2.5V..@ 8A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.6	6.48
8P295	117	350-0-350	150	5V. @ 3A.	2.5V. @ 12A.	FL	4-1/8	3-7/16	4-3/8	3-7/16	2-3/4	7.3	7.71

REPLACEMENT TYPES (Two 2.5 Volt Heater Windings)

8P487	117	350-0-350	70	5V. @ 3A.	No. 1=2.5V.@3.5A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.8	7.14
8P487G					No. 2=2.5V.@8A.	GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P494	117	375-0-375	110	5V. @ 3A.	No. 1=2.5V.@3.5A.	FL	3-3/4	3-1/8	4-1/4	3-1/8	2-1/2	6.2	7.80
8P494G					No. 2=2.5V.@10A.	GL	3-13/16	3-5/32	4-1/8	2-1/2	2-15/16		

GENERAL PURPOSE TYPES WITH CONVENIENT LUG TERMINALS (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions					Net Wt.	Net Price
							A	B	C	D	E		
8P382	117	300-0-300	50	5V. @ 2A.	6.3V. @ 2A.	ET	3-3/8	2-13/16	3-7/16	2-13/16	2-1/4	3.2	4.68
8P385	117	325-0-325	60	5V. @ 2A.	6.3V. @ 3A.	ET	3-3/8	2-13/16	3-11/16	2-13/16	2-1/4	4.0	5.01
8P388	117	350-0-350	70	5V. @ 3A.	6.3V. @ 3.5A.	ET	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	4.7	5.49

BIAS TYPES

8P510	117	40-0-40	25	5V. @ 2A.		CL	1-7/8	2-1/4	1-3/4	2-13/16		1.0	2.97
8P511	117	0-90-150-200-250	50	5V. @ 2A.		GL	3-1/16	2-7/32	2-5/8	2	1-11/16	2.0	4.32

VIBRATOR TYPES

8P610	6	225-0-225	40			AL	2-3/16	2-5/8	2	3-1/8		1.3	3.36
8P611	6	320-0-320	40			GL	3-1/16	2-7/32	2-1/2	2	1-9/16	2.1	4.02
8P612	6	390-0-390	60			GL	3-7/16	2-27/32	3-5/16	2-1/4	2-3/16	3.7	4.56

TELEVISION REPLACEMENT TYPES

8P803	117	375-0-375	210	5V. @ 3A.	No. 1=5V.@2A. No. 2=6.3V.@5.6A.	FL	4-1/2	3-3/4	4-3/4	3-3/4	3	10.7	11.73
8P805	117	235-0-235	90	5V. @ 2A.	6.3V. @ 5.5A.	FL	3-3/8	2-13/16	4	2-13/16	2-1/4	5.1	6.72
8P807	117	365-0-365	300	5V. @ 6A.	No. 1=12.6V.@5A. No. 2=5V.@2A	FL	4-23/32	3-27/32	6-3/4	4-1/16	3-3/16	16.0	20.19

Style GL Mtg.

Style HP Mtg.

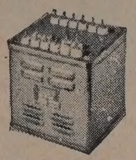
Style ATL Mtg.

Style BTL Mtg.

Style BxL Mtg.

Style HSP Mtg.

Style GTL Mtg.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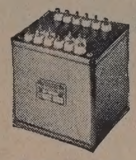
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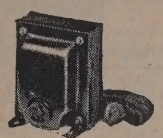
Style GP Mtg.

NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and Bx.

Explanation of Suffix Symbols

L = Leads
T = Lugs
P = Cord and Plug
SP = Switch, Cord and Plug

PLATE TRANSFORMERS — THE "SEVEN" SERIES

All SNC plate transformers have dual secondary ratings. Most units available in either air cooled or compound filled cases. All units electrostatic shields between primary and high voltage windings. 50/60 Cycle Operation

Type Number	Primary Voltage	Pri. V.A.	Secondary R.M.S. Voltage	D.C. Voltage From Filter*	D.C. Current	Mtg. Style	Dimensions					Net Wt.	Net Price
							A	B	C	D	E		
7P530	115-230	220	920-0-920 or 740-0-740	750 or 600	200MA	GL	4-3/4	3-3/4	5-1/8	3	4-1/16	12	11.88
7P535 7P536	115-230	320	930-0-930 or 750-0-750	750 or 600	300MA	HT JT	7-1/8	5-1 2	5-15/16	4-3/8	4-13/16	22 30	27.72 31.68
7P542 7P543	115-230	530	1470-0-1470 or 1220-0-1220	1250 or 1000	300MA	HT JT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	33 41	33.27 36.42
7P551 7P552	115-230	750	2050-0-2050 or 1740-0-1740	1750 or 1500	300MA	HT JT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	43 51	35.64 43.56
7P557 7P558	115-230	1060	2880-0-2880 or 2350-0-2350	2500 or 2000	300MA	HT JT	10-3/4	6-1/2	7-1/4	5-3/8	6-1/8	53 69	49.11 53.07
7P563 7P564	115-230	1760	2900-0-2900 or 2370-0-2370	2500 or 2000	500MA	HT JT	10-3/4	9	7-1/4	7	5-13/16	96 126	71.28 99.00

*All units may be operated with simultaneous loads—provided the total D.C. Current of the two loads does not exceed the rating listed.

FILAMENT TRANSFORMERS — THE "FOUR" SERIES

Most SNC Filament Transformers are constructed to provide two identical center tapped secondary windings and offer a minimum of three applications. They provide three-fold the number of possible applications of ordinary filament types. A few are single secondary units and are so designed. All have 117 V. 50/60 cycle primary.

Type Number	Applications			Test Voltages	Mtg. Style	Dimensions					Net Wt.	Net Price
	Parallel Secondaries	Series Secondaries	Independent Identical Secondaries			A	B	C	D	E		
4P222	2.5V. C.T. @ 5 A.	5 V. C.T. @ 2.5 A.	Two of 2.5V. C.T.@ 2.5 A.	2000	BL	2-1/4	1-7/8	1-3/4	2-3/8		1.0	2.34
4P226*	2.5V. C.T. @ 10 A.*			7500	BL	3	2-1/2	2-3/8	3-1/8		2.0	3.63
4P227	2.5V. C.T. @ 10 A.	5 V. C.T. @ 5 A.	Two of 2.5V. C.T.@ 5 A.	2000	BL	2-5/8	2-3/16	2	2-13/16		1.5	3.18
4P234	2.5V. C.T. @ 15 A.	5 V. C.T. @ 7.5 A.	Two of 2.5V. C.T.@ 7.5 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.2	3.75
4P239	5 V. C.T. @ 6.5A.	10 V. C.T. @ 3.25A.	Two of 5 V. C.T.@ 3.25A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.2	3.36
4P242*	5 V. C.T. @ 20 A.*			10000	BxL	4-1/8	3-7/16	2-3/4	2-3/4	2-1/8	4.6	6.72
4P243	5 V. C.T. @ 20 A.	10 V. C.T. @ 10 A.	Two of 5 V. C.T.@ 10 A.	2000	BxL	3-3/4	3-1/8	2-3/4	2-1/2	2-1/4	4.3	5.94
4P244*	6.3V. C.T. @ 0.6A.*			2000	BL	1-7/8	1-9/16	1-1/2	2		.6	2.31
4P245*	6.3V. C.T. @ 1.2A.*			2000	BL	1-7/8	1-9/16	1-5/8	2		.7	2.52
4P246	6.3A. C.T. @ 2 A.	12.6V. C.T. @ 1 A.	Two of 6.3V. C.T.@ 1 A.	2000	BL	2-1/4	1-7/8	1-3/4	2-3/8		1.0	2.76
4P251	6.3V. C.T. @ 6 A.	12.6V. C.T. @ 1 A.	Two of 6.3V. C.T.@ 3 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.0	3.21
4P256	6.3V. C.T. @ 10 A.	12.6V. C.T. @ 5 A.	Two of 6.3V. C.T.@ 5 A.	2000	BxL	3-3/8	2-13/16	2-1/2	2-1/4	2-1/8	2.9	4.17
4P260	7.5V. C.T. @ 3 A.	15 V. C.T. @ 1.5 A.	Two of 7.5V. C.T.@ 1.5 A.	2000	BL	2-5/8	2-3/16	2	2-13/16		1.5	3.36
4P267	7.5V. C.T. @ 4.5A.	15 V. C.T. @ 2.3 A.	Two of 7.5V. C.T.@ 2.3 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.0	4.17
4P272	11 V. C.T. @ 10 A.	22 V. C.T. @ 5 A.	Two of 11 V. C.T.@ 5 A.	2000	BxL	3-3/4	3-1/8	2-3/4	2-1/2	2-1/4	4.1	5.94

*Single Secondary Units.

VOLTAGE CHANGER AND ISOLATION — THE "NINE" SERIES

All Units Have Primary Cord and Secondary Plug and Are For 50/60 Cycle Operation.

VOLTAGE CHANGER (ISOLATION)

Type Number	Primary Voltage	Secondary Voltage	Capacity in V. A.	Mtg. Style	Dimensions					Net Wt.	Net Price
					A	B	C	D	E		
9P707	220-250	110-125	75	GP	3-13/16	3-5/32	3-1/8	2-1/2	1-15/16	3.9	6.15
9P713	220-250	110-125	150	GP	4-9/16	3-25/32	3-7/8	3	2-13/16	8.0	9.12
9P718	220-250	110-125	360	HP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	23.76

ISOLATION TYPES

9P721	110-250	110-250	150	GP	4-9/16	3-25/32	4-5/8	3	3-9/16	12.1	11.88
9P725	110-250	110-250	250	HP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	19.41
9P728	110-250	110-250	500	HP	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	34.8	27.33

VOLTAGE ADJUSTMENT TYPES WITH TAP CHANGE SWITCH

9P732	95-130 in 5V. Steps	115	150	HSP	4-7/8	3-7/8	3-7/8	3-1/8	3-1/8	4.7	17.04
9P737	95-130 in 5V. Steps	115	250	HSP	5-3/8	4-3/8	4-1/4	3-5/8	3-1/2	8.0	21.78
9P739	80-130 in 5V. Steps	115	500	HSP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	32.46

All list prices given are subject to regular trade discounts and may be changed without notice.

SNC MANUFACTURING CO., INC., OSHKOSH, WISCONSIN

MOST COMPLETE LINE IN THE INDUSTRY

HIGH CURRENT TRANSFORMERS & CHOKES

ALL ITEMS AVAILABLE IMMEDIATELY FROM STOCK

HIGH CURRENT RECTIFIER TRANSFORMERS

	PART NO.	PRIMARY*	SECONDARY VOLTS		SECONDARY AMPS		APPROX. DIMENSIONS					APX. LBS.	NET PRICE
			SERIES	PARALLEL	SERIES	PARALLEL	L	W	H	ML	MW		
24 VOLTS **SERIES** **0-6-12-18-24 V** 24 V C.T. or Parallel 12 V C.T. @ 2 x current	24-1	115V	0-6 12-18-24	0-6-12	1	2	3 1/16	2½	2⅝	2½	2	2.2	$ 4.65
	24-2	115	"	"	2	4	3 1/16	3	2⅝	2½	2⅜	3	5.90
	24-4	115	"	"	4	8	3 13/16	2⅝	3	3⅛	2¼	4.5	7.20
	24-6	115	"	"	6	12	4 3/16	3¼	3⅝	3 7/16	2⅜	6	8.45
	24-8	115	"	"	8	16	4 3/16	3⅞	3⅝	3 7/16	3	8	12.00
	24-12	105, 115, 125	"	"	12	24	4 9/16	4½	4	3¾	3⅜	11.5	15.00
	24-20	105, 115, 125	"	"	20	40	5¼	4¾	4⅝	4⅜	3⅜	15	18.00
	24-25	105, 115, 125	"	"	25	50	5 5/16	5¾	4⅝	4⅜	4⅛	20	24.00
	24-50	105, 115, 125	"	"	50	100	6½	6⅜	5⅝	5 5/16	4⅜	32	36.00
	*24-100	115/230	"	"	100	200	7 1/16	10½	5	6⅛	5⅛	44	52.00
	*24-100A	115/230	"	"	100	200	7⅝	7	6⅜	6¾	4⅛	45	52 00
36 VOLTS **0-9-18-27-36 V** 36 V C.T. or Parallel 18 V C.T. @ 2 x current	36-1	115 V	0- 9-18-27-36	0-9-18	1	2	3 1/16	2¾	2⅝	2½	2¼	2.5	4.60
	36-2	115	"	"	2	4	3½	3	3¼	2 13/16	2⅜	3.8	6.25
	36-4	115	"	"	4	8	4 3/16	3¾	3¾	3 7/16	2⅝	6.7	7.70
	36-6	115	"	"	6	12	4 9/16	3¾	4	3¾	2¾	8.6	12.60
	36-8	115	"	"	8	16	4 9/16	4⅛	4	3¾	3⅜	11	13.90
	36-12	105, 115, 125	"	"	12	24	5 5/16	4⅞	4⅝	4⅜	3⅜	14.5	15.25
	36-20	105, 115, 125	"	"	20	40	6½	5½	5⅝	5 5/16	3⅜	23	27.60
	36-25	105, 115, 125	"	"	25	50	6½	6	5⅝	5 5/16	3¾	27	29.75
	36-30	105, 115, 125	"	"	30	60	6½	6½	5⅝	5 5/16	4⅜	32	36.00
	36-50	115/230	"	"	50	100	6½	7¾	5⅝	5 5/16	5⅛	40	43.00
	*36-100	115/230	"	"	100	200	7 1/16	13½	5	6⅛	7⅝	65	85.00
	*36-100A	115/230	"	"	100	200	7⅝	8 5/16	6⅜	6¾	5 7/16	62	85.00
56 VOLTS **0-14-28-42-56 V** 58 V C.T. or Parallel 28 V C.T. @ 2 x current	56-1	115	0-14 28-42-56	0-14-28	1	2	3½	2¾	3	2 13/16	2¼	3.8	6.75
	56-2	115	"	"	2	4	3⅞	3¼	3⅜	3⅛	2½	5	7.25
	56-4	115	"	"	4	8	4¼	3¾	3¾	3 7/16	3	8	11.25
	56-6	115	"	"	6	12	5⅜	4¼	4⅝	4⅜	2⅞	12	18.00
	56-8	105, 115, 125	"	"	8	16	5⅜	5	4⅝	4⅜	3⅝	17	22.00
	56-12	105, 115, 125	"	"	12	24	6½	5½	5⅝	5 5/16	3⅜	22	27.00
	56-25	105, 115, 125	"	"	25	50	6½	7⅛	5⅝	5 5/16	5⅛	38	45.00
	56-50A	115/230	"	"	50	100	7⅝	7¼	6⅜	6¾	4⅞	54	85.00
	56-100	115/230	"	"	100	200	7⅝	11	6⅜	6¾	8⅛	100	125.00
80 VOLTS **0-20-40-60-80 V** 80 V C.T. or Parallel 40 V C.T. @ 2 x current	80-½	115	0-20 40-60-80	0-20-40	0.5	1	3 1/16	2¾	2⅝	2½	2¼	3	4.80
	80-1	115	"	"	1	2	3½	3¼	3¼	2 13/16	2½	4.2	7.00
	80-2	115	"	"	2	4	4¼	3⅝	3¾	3 7/16	2⅝	7	10.50
	80-4	115	"	"	4	8	5⅜	4¼	4⅝	4⅜	2⅞	13	18.00
	80-6	105, 115, 125	"	"	6	12	5⅜	5⅛	4⅝	4⅜	3⅞	19	23.00
	80-8	105, 115, 125	"	"	8	16	6½	5¼	5⅝	5 5/16	3¼	22	26.00
	80-12	105, 115, 125	"	"	12	24	6½	6	5⅝	5 5/16	4⅛	29	34.00
	80-25	115/230	"	"	25	50	7⅝	6½	6⅜	6¾	3⅞	40	55.00
	80-50	115/230	"	"	50	100	7⅝	9	6⅜	6¾	6½	78	105.00
160 VOLTS **0-40-80-120-160 V** 160 V C.T. or Parallel 80 V C.T. @ 2 x current	160-½	115	0-40 80-120-160	0-40-80	0.5	1	3½	3¼	3¼	2 13/16	2½	4.2	7.25
	160-1	115	"	"	1	2	4¼	3½	3¾	3 7/16	2⅝	6.4	10.50
	160-2	115	"	"	2	4	4 5/16	4⅜	4	3¾	3⅜	11	14.50
	160-4	0, 105, 115, 125	"	"	4	8	6½	5	5⅝	5 5/16	3¼	19	26.00
	160-8	0, 105, 115, 125	"	"	8	16	6½	6⅝	5⅝	5 5/16	4⅞	36	41.00
	160-12	115/230	"	"	12	24	7⅝	6½	6⅜	6¾	3⅞	40	55.00
230 VOLTS **0-57½-115-172½ V** 230 V C.T. or Parallel 115 V C.T. @ 2 x current	230-½	115	0-57.5 115-172½-230	0-57.5-115	0.5	1	3⅞	4	3¼	3⅛	3	7	8.70
	230-1	115	"	"	1	2	4 5/16	4	4	3¾	3	10	12.50
	230-2	115	"	"	2	5	5⅜	4¾	4⅝	4⅜	3⅜	14.5	16.75
	230-4	0, 105, 115, 125	"	"	4	8	6½	6	5⅝	5 5/16	4⅛	30	34.00

*Where two units having identical electrical ratings are shown give preference to the part number ending in "A" (The non "A" unit will be discontinued when present stock is exhausted).

Primary ratings are at 57-440 cps. Units available for 47-440 cps operation in **same physical size**, add suffix -5 to Signal No., e.g., 36-1-5., Add 20% to net price shown.

Resin Encapsulated units are available for extreme environments. Add ¼ inch to overall dimensions and prefix "E" to part no., e.g., E-36-1. Add 25% to net price shown.

LIGHT WEIGHT HIGHER FREQUENCY (360-2000 CPS) versions of the above are available on special order, both encapsulated and hermetically sealed.

SIGNAL TRANSFORMER CO., INC

BROOKLYN, NEW YORK

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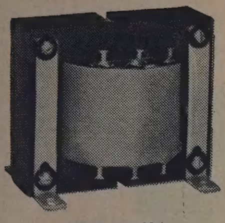
MOST COMPLETE LINE IN THE INDUSTRY

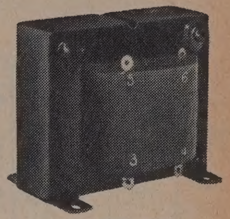
HIGH CURRENT TRANSFORMERS & CHOKES

ALL ITEMS AVAILABLE IMMEDIATELY FROM STOCK

HIGH CURRENT CHOKES



OPEN FRAME



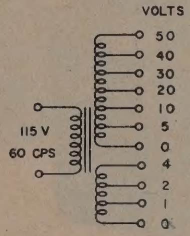
ENCAPSULATED

PART NO.	INDUCTANCE (milli-hy.)	CURRENT (amps)	RESIS. (ohms)	DIMENSIONS L	W	H	ML	MW	APPR. WT.	NET PRICE
CH-1	100	1	1.5	3 1/16	2½	2¾	2½	2	2.5	$ 4.25
CH-2	70	2	0.9	3 7/16	2¾	3⅛	2 13/16	2⅛	3.5	5.00
CH-4	70	4	0.6	3 13/16	3⅜	3⅜	3⅛	2½	5.5	6.25
CH-6	40	6	0.4	3 13/16	3¾	3⅜	3⅛	3	7	8.70
CH-8	30	8	0.3	4 3/16	3⅝	3¾	3 7/16	3	8	10.80
CH-12	15	12	0.1	5 5/16	4	4⅝	4⅜	3⅛	13	14.00
CH-20	7	20	0.05	5 5/16	4	4⅝	4⅜	3⅛	13	14.90
CH-25	5	25	0.025	5 5/16	4¾	4⅝	4⅜	3⅞	18	22.00
CH-30	4	30	0.01	6½	5½	5⅝	5 5/16	3⅜	25	27.00
CH-50	1.4	50	0.01	6½	5¾	5⅝	5 5/16	3¾	27	30.00
CH-100	0.5	100	0.005	6½	6½	5⅝	5 5/16	4⅛	32	34.00
CH-200	0.3	200	0.0025	7 9/16	7	6⅜	6¾	4⅛	45	50.00

MULT-VOLT

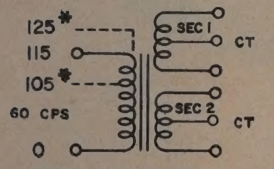
1 to 54 VOLTS
in 1 VOLT STEPS

MV (multi-voltage) secondaries may be series connected for any output from 1 to 54 volts, in 1 volt steps, at rated current.



PART NO.	SECONDARY AMPS	DIMENSIONS L	W	H	ML	MW	APPR. WT.	PRICE NET
MV-2	2	4⅛	3⅛	3¼	3⅛	2⅜	5	12.00
MV-4	4	5¼	3⅝	4	3¾	2½	7.5	16.00

SCHEMATIC DIAGRAM
(24, 36, 56, 80, 160, 230 VOLT SERIES)



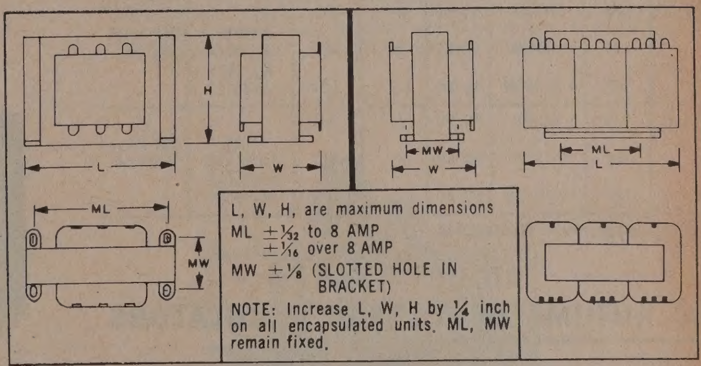
*Taps are standard on higher current units, consult chart.

Secondaries may be series connected at rated current for ¼-½-¾ or full voltage output, for full wave c.t. or bridge connection. Secondaries may be paralleled to obtain twice rated current.

NOTE: Current ratings are for AC load, full wave bridge resistive—inductive load, or F.W.C.T. capacitive load. For bridge circuit capacitive load use transformer current rating equal to 1.8 times the D.C. current. For F.W.C.T. indictive load use transformer current rating equal to 0.7 times the D.C. current.

MECHANICAL DIMENSIONS

ALL SINGLE PHASE UNITS **3 PHASE UNITS**



L, W, H, are maximum dimensions
ML ±1/32 to 8 AMP
±1/16 over 8 AMP
MW ±⅛ (SLOTTED HOLE IN BRACKET)
NOTE: Increase L, W, H by ¼ inch on all encapsulated units. ML, MW remain fixed.

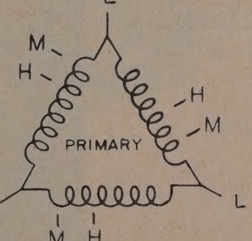
3 PHASE HIGH CURRENT RECTIFIER TRANSFORMERS

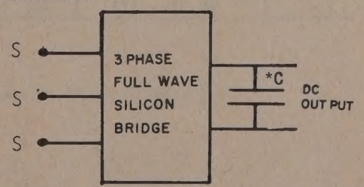
DC OUTPUT VOLTAGE

PART NO.	PRI TAP "L" SUPPLY VOLTAGE 208	PRI TAP "L" SUPPLY VOLTAGE 220	PRI TAP "M" SUPPLY VOLTAGE 208	PRI TAP "M" SUPPLY VOLTAGE 220	PRI TAP "H" SUPPLY VOLTAGE 208	PRI TAP "H" SUPPLY VOLTAGE 220	DC RATED AMPS	APPROX. DIMENSIONS L	W	H	ML	MW	APX. LBS.	NET PRICE
3PH 24-50	24	25	26	27.5	28	30	50	7¾	6	5½	4.8	4⅞	35	70.00
3PH 24-100	24	25	26	27.5	28	30	100	11½	5	8¼	7.2	4	42	100.00
3PH 24-200	24	25	26	27.5	28	30	200	11½	8⅝	8¼	7.2	6¼	90	165.00
3PH 48-30	42	44	47	50	52	55	30	7¾	6	5½	4.8	4⅞	35	70.00
3PH 48-60	42	44	47	50	52	55	60	11½	5	8¼	7.2	4	42	100.00
3PH 48-120	42	44	47	50	52	55	60	11½	8⅝	8¼	7.2	6¼	90	165.00

ELECTRICAL DATA

These units are designed for use in D.C. power supplies at currents from 30 to 200 amperes D.C. Primaries may be used with either 208 or 220 volt 3 phase systems and have output adjustment taps on the primary to supply a range of output voltage as tabulated above. D.C. output voltages are obtained using a 3 phase silicon bridge. 50 cycle versions of the above are available on special order and are slightly larger in size.





***C — Optional, no capacitor will give DC output shown at approx. 5% ripple.**

SIGNAL TRANSFORMER CO., INC

BROOKLYN, NEW YORK

STACO® *Adjust-A-Volt*® ISOLATED TRANSFORMERS

These units provide a means for smooth control of an electrically isolated AC voltage output. Uncased models give the design engineer a wide variety of circuit arrangements for both original equipment and custom-built lab applications. Cased units have line cord, input switch, pilot light, output receptacle, output voltmeter and thermal circuit breaker.

Uncased IV Series for Panel Mounting

Type	Input Voltage	Output Voltage	Cycles	Rated Amps	KVA Max	Connection	Shipping Wgt. lbs.
IV-1-2U	120	0-140	50/60	2	.28	Isolated	8
	120	0-120N	50/60	5	.60	Non-Isolated	Net Price
	120	120-260N	50/60	4.5-2	.52VD	Voltage Doubler	$30.25
	240	110-240N	50/60	4.5	1.08	Series	
IV-1-9U	120	0-140	50/60	9	1.26	Isolated	28
	120	0-120N	50/60	25	3	Non-Isolated	Net Price
	120	120-260N	50/60	20-9	2.34VD	Voltage Doubler	$57.50
	240	110-240N	50/60	20	4.8	Series	

Cased IV Series for Bench Use

Type	Input Voltage	Output Voltage	Cycles	Rated Amps	KVA Max	Shipping Wgt. lbs.	Net Price
IV-1-2M	120	0-140	50/60	2	.28	13	$69.50
IV-1-4M	120	0-140	50/60	4	.56	20	79.50
IV-1-9M	120	0-140	50/60	9	1.26	32	97.50

Deluxe Cased Units with Panel Switches & Dual Range Voltmeter

IV-1-2D	120	0-140	50/60	2	.28		14
	120	0-120N	50/60	4	.48	NON ISOLATED	Net Price $84.50
	120	120-160N	50/60	4-2	.52VD	VOLTAGE DOUBLER	
IV-1-4D	120	0-140	50/60	4	.56		21
	120	0-120N	50/60	8	.96	NON ISOLATED	Net Price $109.50
	120	120-260N	50/60	8-4	1.04VD	VOLTAGE DOUBLER	

N on Voltage means Non-Isolated

ADJUST-A-VOLT
AC AUTOMATIC VOLTAGE REGULATORS

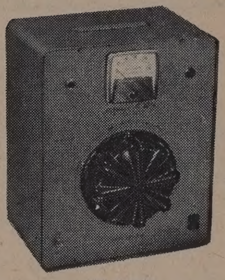
	IVR Series Instantaneous
Reg. Accuracy	± 0.10%
Time Constant	100 Milliseconds
Output Voltage	110-120
Input Voltage	95-130 1 Ph.
Frequency	60 cycle
Load Range	0 — Full Load
EFF @ Full Load	90% @ Unity P.F.
Power Factor Range	1.0 to 0.7%
Wave Form Distortion	3% Max.
Amb. Temp. Oper. Range	−0°C — +40°C

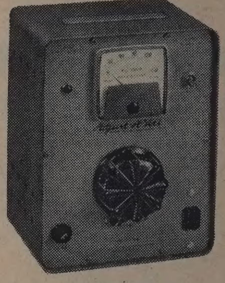
0—150 Volts AC Output Meter on all Models

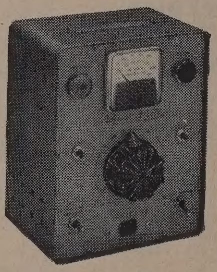
Type	KVA	Rated Amps.	Shipping Wgt. lbs.		Net Price	
			Rack	Cabinet	Rack	Cabinet
IVR-1-10	1	8.7	95	115	$405	$435

IV-1-2U

IV-1-9U


IV-1-9M


IV-1-2M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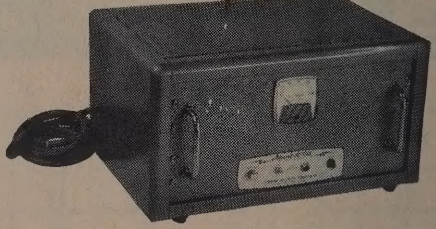

IVR-1-10C

All Adjust-A-Volt Variable Transformers and Voltage Regulator Models and Full Specifications with Eng. data are Covered in New Gen. Cat. No. 63

STACO
STANDARD electrical products company, Dayton, Ohio

STACO, INC.

STANDARD ELECTRICAL PRODUCTS DIVISION

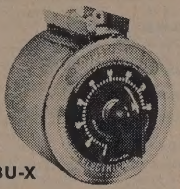
Dayton, Ohio

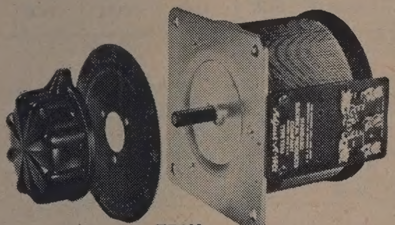
STACO® *Adjust-A-Volt*® Variable Auto-Transformers

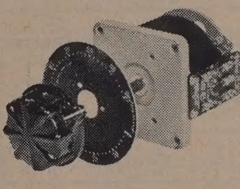
A complete line . . . from .65 to 165 KVA. Bench and panel mounted units for control of AC lines. Power, Heat, Speed and Light. Adjust-A-Volts feature smooth, continuous control, zero wave-form distortion, excellent regulation and high efficiency.

- Manual or Motorized Control
- Single and Ganged Assemblies
- 50/60 and 400 cycle
- 40 volt types
- Military designs and Isolated models
- Type T502U in motor-driven stacked assemblies up to 30 units

100BU


250BU-X

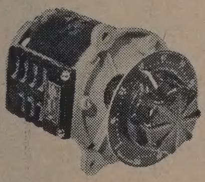

T51U

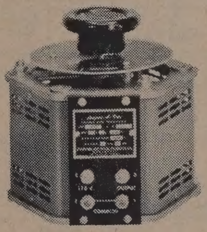

375BU

Uncased Units or Cased Units with Bare Conduit or Terminal Box

Type	Input Volts	Output Volts	Cycles	Rated Amps	Max KVA	Shipping Wgt.	Net Price
100BU	120	0-132	60	1.25	.165	2.2	$ 8.25
175BU	120	0-132	60	1.75		2.2	$ 8.50
250BUX	120	0-132	60	2.5	.33	2.5	$ 9.50
T21U	120	0-140	50/60	2.4	.33	4	$ 15.00
375BU	120	0-140	50/60	3.75	.42	5	$ 12.50
T51U	120	0-140	50/60	6.0	.84	8	$ 18.00
500BU	120	0-140	50/60	7.5	1.05	10	$ 18.00
T101U	120	0-140	50/60	10.0	1.4	14	$ 31.00
1500B	120	0-140	50/60	15	2.1	20	$ 46.00
2500BU	120	0-140	50/60	25	3.5	22	$ 49.00
2500B	120	0-140	50/60	25	3.5	23	$ 55.00
T501U	120	0-140	50/60	50	7	60	$120.00

All of the above units may be easily connected by user to attain 0-120 volt line voltage output for either 50 or 60 cycle current.


500B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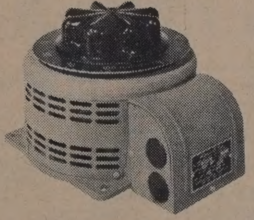
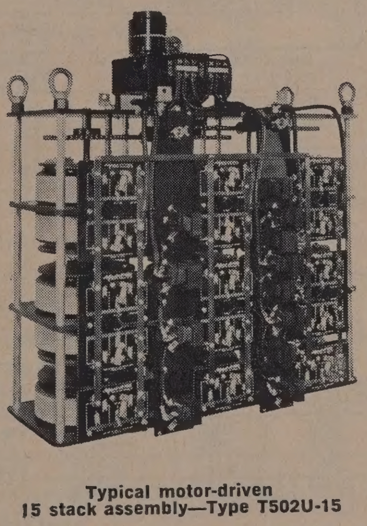
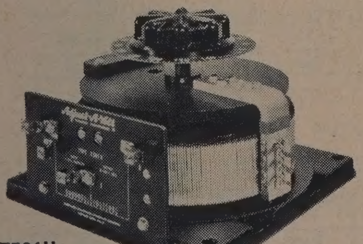
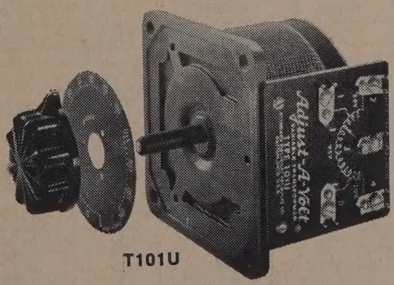
2500BU


2500B


Typical motor-driven 15 stack assembly—Type T502U-15


T501U


T101U

Write for General Catalog 63

STACO, INC.

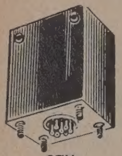
STANDARD ELECTRICAL PRODUCTS DIVISION, DAYTON, OHIO

A wholly owned subsidiary of General Electronic Control, Inc., Minneapolis, Minnesota

CHICAGO STANCOR

MIL-T-27A Transformers, Audio, Power & Rectifier Power

H



STH

C

PUBLIC ADDRESS RANGE AUDIO TRANSFORMERS

DRIVER TRANSFORMERS

Designed and built in accordance with MIL-T-27A; Grade 4, Class R operating temperature; life expectancy, 10,000 hours (minimum). Maximum operating altitude, 10,000 feet. Frequency response, ±1 db, 50–10,000 cps. Mounting type H.

Part No.	Typical Driver Tubes	Pri. Imped.	Max. DC in Pri.	Watts	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
PHD-10	P-p 6N7's, 6A6's, 6J5's, 6C4's	20K CT	10 ma	3	14	$15.84	$14.52	$13.00	$11.61	$10.89
PHD-25	Same as PHD-10	20K CT	25 ma	5	15	14.96	13.72	12.28	10.92	10.29

Note: PHD-10 and PHD-25 have a ratio of 3:1 pri./½ sec.

COMMUNICATIONS RANGE AUDIO TRANSFORMERS

Designed and built in accordance with MIL-T-27A; Grade 4, Class R operating temperature. Life expectancy, 10,000 hours (minimum). Maximum operating altitude, 10,000 feet. Frequency response, ±1 db, 200–3,500 cps. Mounting type H.

INPUT TRANSFORMER

Part No.	Application	Impedance Primary	Impedance Secondary	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
CIH-2	Low level SB or DB mike to single, or p-p grids	125/50†	125K CT	12	$11.45	$10.50	$9.40	$8.40	$7.88

† At 80 ma.

OUTPUT TRANSFORMERS

Single plate to line or voice coil, 5 watts. Mounting type H.

Part No.	Typical Output Tubes	Class	Impedance Pri.	Impedance Sec.	Max. DC*	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
COH-1	Sgl., 6L6, 6V6, 25A6	A	5K	600/150 16/8/4	55 ma	14	$14.93	$13.68	$12.25	$10.95	$10.26
COH-2	Sgl., 6F6, 6V6, 6N6, 6K6, 7B5	A	8K	Same as COH-1	55 ma	14	16.56	15.18	13.60	12.15	11.39

* In primary.

WIDE RANGE INPUT TRANSFORMERS

Designed and built according to MIL-T-27A requirements. Transformers have an operating level of +15 dbm. Reference level of 0 dbm equals one mw. Hum reduction is −70 dbm. Maximum operating altitude, 10,000 feet; frequency response, ±1 db, 30–15,000 cps. Case size, 13. Shipping Weight, 1½ lbs. Mounting type H.

Part No.	Application	Impedance Primary	Impedance Secondary	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
BIH-1	Line to single or p-p grids	600/150 CT†	50K CT†	$28.55	$26.17	$23.43	$20.93	$19.63
BIH-4	Line-to-line	600/150 CT	600/150 CT	28.80	26.40	23.64	21.12	19.80
BIH-8	Plate to p-p grids	10K	50K CT†	24.64	22.58	20.22	18.07	16.94

† Split and balanced windings.

MS (MILITARY STANDARD) TRANSFORMERS

Housed in one-piece steel cases, dimensions for case and mountings within tolerances of MS specifications. All units meet requirements of Grade 4, MIL-T-27A for Class R operation. All secondary AC voltages, ±3%. Maximum operating altitude, 10,000 feet.

POWER TRANSFORMERS—REACTOR INPUT SYSTEMS (PRIMARY 105/115/125 V., 54-66 CYCLES) Mounting Type H

Part Number	MIL-T-27A Classification	MIL-T-27A Part No.	High Voltage Secondary AC Volts	High Voltage Secondary DC Ma	DC, V. Output	Rectifier Filament Volts	Rectifier Filament Amps	Filament No. 2 Volts	Filament No. 2 Amps	Wt., Lbs.	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
PMS-70	TF4RX03HA001	MS-90026	200–100–0–100–200	70	156	6.3/5	2	6.3	3	4	HA	$29.91	$22.83	$20.45	$18.27	$17.13
PMS-70A	TF4RX03JB002	MS-90027	325–0–325	70	260	6.3/5	2	6.3	4	5	JB	24.40	22.37	20.03	17.89	16.78
PMS-150	TF4RX03KB006	MS-90028	325–0–325	150	245	6.3	5	5	3	7¼	KB	26.38	24.18	21.66	19.35	18.14
PMS-175	TF4RX03LB003	MS-90029	400–0–400	175	318	5	3	6.3	8	10	LB	31.56	28.93	25.91	23.15	21.70
PMS-250	TF4RX03MB004	MS-90030	450–0–450	250	345	5	3	6.3	8	13	MB	37.80	34.65	31.03	27.72	25.99
PMS-550	TF4RX02LB002	MS-90032	550–0–550	250	419	……	……	……	……	11	LB	28.55	26.17	23.43	20.93	19.63

FILAMENT TRANSFORMERS (PRIMARY 105–115–125 V., 54-66 CYCLES) Mounting Type H

Part Number	MIL-T-27A Classification No.	MIL-T-27A Part No.	Secondary Volts	Secondary Amps	Insulation Volts RMS	Weight, Lbs.	Case Size	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
FMS-210	TF4RX01GB003	MS-90017	2.5	10	2500	2½	GB	$15.22	$13.95	$12.49	$11.16	$10.46
FMS-53	TF4RX01FB004	MS-90018	5.0	3.0	2500	1¾	FB	13.36	12.25	10.97	9.80	9.19
FMS-510	TF4RX01HB005	MS-90019	5.0	10	2500	4	HB	18.22	16.70	14.96	13.36	12.53
FMS-62	TF4RX01FB006	MS-90020	6.3	2.0	2500	1¾	FB	13.71	12.57	11.25	10.05	9.43
FMS-65	TF4RX01GB007	MS-90021	6.3	5.0	2500	2¾	GB	15.60	14.30	12.81	11.44	10.73
FMS-610	TF4RX01JB008	MS-90022	6.3	10	2500	5	JB	19.31	17.70	15.85	14.16	13.28
FMS-620	TF4RX01KB009	MS-90023	6.3	20	2500	8	KB	23.64	21.67	19.40	17.33	16.25
FMS-210H	TF4RX01JB012	MS-90024	2.5	10	10000	4¾	JB	23.51	21.55	19.30	17.24	16.16

CASE SIZES

Case Type	Dim. in Inches D. × W. × H.	Stud Size	Case Type	Dim. in Inches D. × W. × H.	Stud Size
FB	2 5/16 × 2 1/16 × 2½	6–32	JB	3 9/16 × 3 1/16 × 3⅞	8–32
GB	2¾ × 2⅜ × 2 13/16	6–32	KB	3 15/16 × 3⅜ × 4 5/16	10–32
HB	3 1/16 × 2⅝ × 3 3/16	8–32	LB	4 5/16 × 3 11/16 × 4½	10–32
HA	3 1/16 × 2⅝ × 4¼	8–32	MB	4 11/16 × 4 × 4 15/16	¼–20

SATURABLE TRANSFORMER (MAGNETIC AMPLIFIER)

For use with two-phase, 115 v. AC, 400-cycle servo-motors. All primaries are 115 v. AC, 400 cycles. Maximum operating altitude, 50,000 feet. Control current, 8 ma. Control coil bypass capacitors must be .1 μf. MIL-T-27A specification TF4RX40YY. Mounting Type STH. Size: 2 7/16″ × 1 15/16″ × 1 13/16″.

Part No.	Out. Watts	Out. Volts	Load Res., Ohms	Cap.* μf	Pri. Amps	Coil Res., Ohms†	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
STH-3	2.7‡	26§	250♯	.28●	.085▲	2900	$29.45	$27.00	$24.18	$21.60	$20.25

* Tuning. † Per coil. ‡ Other, 3.5. § Other, 115. ♯ Other, 3800. ● Other, .19. ▲ Other, 0.1.

SILICON RECTIFIER POWER TRANSFORMERS

COMMERCIAL GRADE

Combination plate and filament power transformers bridge the gap between low voltage, high current output for use with transistor power amplifiers and the lower range of plate voltages used with electronic tubes. Two 6.3 v. filament windings, on each unit supply heater power for tubes or low voltage DC for many applications when used with suitable rectifier. Mtg. type C. Size: 4 5/16″ × 3⅝″ × 4¼″.

Part No.	Secondary No. 1 Volts	Secondary No. 1 DC Ma	Secondaries 2 & 3 Volts	Secondaries 2 & 3 Amps	Base Area, Inches	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
RP-400	400 CT	400	6.3	3.0	3⅝ × 4 5/16	7.1	$13.38	$12.27	$10.99	$9.81	$9.20
RP-600	300 CT	600	6.3	2.5	3⅝ × 4 5/16	7.1	13.35	12.23	10.96	9.79	9.18
RP-800	200 CT	800	6.3	2.0	3⅝ × 4 3/16	6.9	13.31	12.20	10.93	9.76	9.15
RP-1600	100 CT	1600	6.3	1.5	3⅝ × 3 15/16	6.0	11.82	10.83	9.70	8.67	8.13
RP-2000	80 CT	2000	6.3	1.5	3⅝ × 4 1/16	6.5	12.87	11.80	10.57	9.44	8.85
RP-2500	60 CT	2500	6.3	1.5	3⅝ × 3 15/16	6.0	12.91	11.83	10.60	9.47	8.88

MILITARY GRADE

Same electrical specifications as commercial units, above. Mounting Type H; Size: 3 11/16″ × 4 5/16″ × 5 9/16″. Hermetically sealed. Manufactured to meet MIL-T-27A; military type No. TF4RX03LA.

Part No.	Secondary No. 1 Volts	Secondary No. 1 DC Ma	Secondaries 2 & 3 Volts	Secondaries 2 & 3 Amps	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
HRP-400	400 CT	400	6.3	3.0	10.5	$29.73	$27.25	$24.40	$21.80	$20.44
HRP-600	300 CT	600	6.3	2.5	10.5	29.64	27.17	24.33	21.73	20.38
HRP-800	200 CT	800	6.3	2.0	10.0	29.64	27.17	24.33	21.73	20.38
HRP-1600	100 CT	1600	6.3	1.5	10.5	29.64	27.17	24.33	21.73	20.38
HRP-2000	80 CT	2000	6.3	1.5	9.6	28.64	26.25	23.51	21.00	19.69
HRP-2500	60 CT	2500	6.3	1.5	9.0	28.73	26.33	23.58	21.07	19.75

STANCOR ELECTRONICS, INC.

© U.C.P., Inc.

CHICAGO STANCOR

MIL-T-27A Transformers, 400 Cycle

H

S

400-CYCLE TRANSFORMERS, MILITARY STANDARD CASES

POWER TRANSFORMERS—MOUNTING TYPE H

Designed and built in accordance with MIL-T-27A specifications, Grade 4, Class S, for high temperature operation at 85° C ambient, 45° C rise. Life expectancy, 10,000 hours; maximum operating altitude, 70,000 feet.

All Primaries 105/115/125 Volts, 380–1000 Cycles.

Part Number	High Volt. Sec.		Rectifier Filament		Other Filament		Case Size, In., W. × D. × H.	Net Each, Quantities of				
	AC Volts	DC Ma	V.	Amps	V.	Amps		1–9	10–24	25–49	50–99	100–249
4PMS-70	335–0–335	70	5	2	6.3 CT	3	2 3/8 × 2 3/4 × 2 13/16	$30.20	$27.80	$24.85	$22.20	$20.80
4PMS-150	370–0–370	150	5	3	6.3 CT	4	3 1/16 × 3 9/16 × 3 7/8	43.50	39.90	35.70	31.95	29.90
					6.3 CT	1						

FILTER REACTORS—MOUNTING TYPE H

Part Number	Inductance (Henries)	Max. DC Ma	DC Res. Ohms	Insulation Volts RMS	Case Size, In., W. × D. × H.	Net Each, Quantities of				
						1–9	10–24	25–49	50–99	100–249
4RMS-285	2	85	135	2500	1 5/16 × 1 5/16 × 1 3/4	$8.90	$8.20	$7.32	$6.55	$6.15
4RMS-2200	2	200	73	2500	2 1/16 × 2 5/16 × 3 1/8	12.15	11.15	10.00	8.95	8.35

FILAMENT TRANSFORMERS—MOUNTING TYPE H

All Primaries 105/115/125 Volts, 380–1000 Cycles.

Part Number	Secondary Volts	Secondary Amps	Insulation Volts RMS	Case Size, In., W. × D. × H.	Net Each, Quantities of				
					1–9	10–24	25–49	50–99	100–249
4FMS-63	6.3 CT	3	2500	1 13/16 × 1 15/16 × 2 7/16	$18.60	$17.00	$15.25	$13.65	$12.75
4FMS-65	6.3 CT	5.5	2500	1 13/16 × 1 15/16 × 2 3/4	19.35	18.20	16.30	14.60	13.65
4FMS-610	6.3 CT	10	2500	2 1/16 × 2 5/16 × 3 1/8	21.60	19.75	17.75	15.85	14.85
4FMS-620	6.3 CT	20	2500	2 3/8 × 2 3/4 × 3 13/16	26.20	24.00	21.50	19.20	18.00
4FMS-2415*	24 CT	1.5	1500	1 13/16 × 1 15/16 × 2 3/4	16.30	14.70	13.20	12.20	11.60
4FMS-1208*	12.6 CT	0.8	1500	1 5/8 × 1 5/8 × 2 3/8	16.00	14.40	13.85	12.00	11.40
	12.6	0.8	1500						
4FMS-122*	12.6 CT	2.0	1500	1 13/16 × 1 15/16 × 2 3/4	19.00	17.00	15.40	14.25	13.45
	12.6	2.0	1500						

*Class R

ISOLATION TRANSFORMERS—MOUNTING TYPE H

All primaries 115 v., 380–1000 cycles. Insulation test, 1500 VRMS. Class R.

Part No.	Sec. Amps	VA	Size, In., W. × D. × H.	Wt., Lbs.	Net Each, Quantities of				
					1–9	10–24	25–49	50–99	100–249
4IMS-40	0.35	40	1 13/16 × 1 15/16 × 2 3/4	1.5	$13.65	$12.25	$11.05	$10.20	$9.65
4IMS-160	1.39	160	2 3/8 × 2 3/4 × 3 13/16	3.1	18.50	16.65	14.95	13.80	13.00

400-CYCLE TRANSFORMERS, YY ALTERNATE CASES

Meet MIL-T-27A, Grade 4, Class S specifications for operation, etc. Temperature Ratings: 85° C ambient, 45° C rise. Maximum operating altitude, 10,000 feet.

POWER TRANSFORMERS (ALL PRIMARIES 105/115/125 V., 380–1000 CYCLES)—MOUNTING TYPE H

Part Number	High Volt. Sec.		Rectifier Filament		Other Filament		Case Size, In., W. × D. × H.	Net Each, Quantities of				
	AC Volts	DC Ma	V.	Amps	V.	Amps		1–9	10–24	25–49	50–99	100–249
4PHC-55	270–0–270	55	5.0	2	6.3 CT	2	2 1/8 × 2 1/4 × 2 15/16	$23.00	$21.10	$18.90	$16.85	$15.80
4PHC-70	335–0–335	70	5.0	2	6.3 CT	3	2 1/8 × 2 1/4 × 2 15/16	26.85	24.60	22.00	19.70	18.45
4PHC-120	375–0–375	120	5.0	3	6.3 CT	4	2 11/16 × 2 7/8 × 3 3/4	32.90	30.10	27.00	24.10	22.60

FILAMENT TRANSFORMERS (ALL PRIMARIES 105/115/125 V., 380–1000 CYCLES)—MOUNTING TYPE H

Part Number	Secondary Volts	Secondary Amps	Insulation VRMS	Case Size, Inches			Net Each, Quantities of				
				D.	W.	H.	1–9	10–24	25–49	50–99	100–249
4FH-63	6.3 CT	3	2500	1 7/8	1 3/4	2 3/16	$15.95	$14.60	$13.10	$11.70	$10.95
4FH-65	6.3 CT	5.5	2500	1 7/8	1 3/4	2 7/16	17.42	15.95	14.30	12.75	12.00
4FH-610	6.3 CT	10	2500	2 1/4	2 1/8	2 15/16	19.35	17.75	15.90	14.20	13.30
4FH-620	6.3 CT	20	2500	2 1/2	2 3/8	3 15/16	24.30	22.30	20.00	17.80	16.70

FILAMENT TRANSFORMERS 50/60 CPS.

HERMETICALLY SEALED

Conform to MIL-T-27A specification TF4RX01YY. Provide voltages and currents for heating a wide range of receiving and transmitting tubes. All primaries 115/230 volts. All secondary AC voltages, ±3%. Mounting type H.

Part No.	Sec. V. (CT)	Sec. A	Test V. RMS	Case Size, In., W. × D. × H.	Net Each, Quantities of				
					1–9	10–24	25–49	50–99	100–249
FH-25	2.5	5.25	3500	2 3/8 × 2 1/2 × 3 5/16	$15.38	$14.10	$12.63	$11.28	$10.58
FH-58	5	10	2500	2 11/16 × 2 7/8 × 3 3/4	17.91	16.42	14.70	13.13	12.31
FH-615	6.3	1.5	2500	2 1/8 × 2 1/4 × 2 11/16	13.78	12.63	11.31	10.11	9.48
FH-63	6.3	3	2500	2 3/8 × 2 1/2 × 3 1/16	14.18	13.00	11.64	10.40	9.75
FH-65	6.3	5.5	2500	2 11/16 × 2 7/8 × 3 1/2	15.69	14.38	12.88	11.51	10.79
FH-610	6.3	10	2500	3 × 3 1/4 × 4 1/4	17.18	15.75	14.10	12.60	11.82
FH-104	10	4	2500	2 11/16 × 2 7/8 × 3 3/4	16.60	15.22	13.63	12.17	11.41

MULTIPLE FILAMENT TRANSFORMERS 50/60 CPS.

Meet MIL-T-27A, Grade 4, for Class R operation. All primaries are 105/115/125 v. AC. Insulation test voltage is 2500 for all except No. FMS-8, 5000 v. Mounting type H.

Part No.	Secondary Windings			Case Size, In., W. × D. × H.	Net Each, Quantities of				
	Sect. No. 1	Sect. No. 2	Sect. No. 3		1–9	10–24	25–49	50–99	100–249
FMS-1	5 v., 2 a.	6.3 v., 2.5 a.*	....	2 3/8 × 2 3/4 × 3 13/16	$19.45	$17.83	$15.97	$14.27	$13.38
FMS-2	5 v., 2 a.	12.6 v., 1.25 a.*	....	2 3/8 × 2 3/4 × 3 13/16	19.42	17.80	15.94	14.24	13.35
FMS-3	5 v., 3 a.	6.3 v., 5 a.*	....	2 5/8 × 3 1/16 × 4 1/4	21.40	19.62	17.57	15.69	14.71
FMS-4†	5 v., 3 a.	6.3 v., 3 a.*	6.3 v., 3 a.*	3 1/16 × 3 9/16 × 3 7/8	28.62	26.23	23.49	20.99	19.68
FMS-5	5 v., 3 a.	6.3 v., 1 a.*	6.3 v., 5 a.*	3 1/16 × 3 9/16 × 3 7/8	30.36	27.83	24.93	22.27	20.88
FMS-6‡	6.3 v., 3 a.*	6.3 v., 3 a.*	....	2 5/8 × 3 1/16 × 4 1/4	19.67	18.03	16.15	14.43	13.53
FMS-7§	6.3 v., 6 a.*	6.3 v., 6 a.*	....	3 3/8 × 3 15/16 × 5 1/4	26.04	23.92	21.42	19.13	17.94
FMS-8	5 v., 3 a.*	5 v., 3 a.*	5 v., 6 a.*	3 3/8 × 3 15/16 × 5 1/4	37.85	34.70	31.07	27.76	26.03

* Center Tapped. † Sections 2 and 3 also tapped, 12.6 v. CT at 3 amps. ‡ Sections 1 and 2 also tapped at 12.6 v. CT at 3 amps. § Sections 1 and 2 also tapped 12.6 v. CT at 6 amps.

SPECIAL POWER TRANSFORMERS ALL PRIMARIES: 115 V. AC, 50/60 CPS.

FOR REGULATED POWER SUPPLIES

MIL-T-27A—"H" TYPE MOUNTING

High Volt. Secondary			Rect.		Filament				Case Size	Part No.	Net Each, Quantities of				
					No. 2		No. 3								
AC Volts	DC Ma	Out. VDC	V.	A.	V.	Amps	V.	A.			1–9	10–24	25–49	50–99	100–249
440–0–440	165	430	5	3	6.3	7.5, 0.6	6.3	3.3	4 9/16 × 4 1/8 × 5 5/16	PHC-165	$37.33	$34.22	$30.64	$27.37	$25.66

SEMI-SEALED—"S" TYPE MOUNTING

High Volt. Secondary			Rect.		Filament				Case Size	Part No.	Net Each, Quantities of				
					No. 2		No. 3								
AC Volts	DC Ma	Out. VDC	V.	A.	V.	Amps	V.	A.			1–9	10–24	25–49	50–99	100–249
440–0–440	165	430	5	3	6.3	7.5, 0.6	6.3	3.3	4 9/16 × 4 1/8 × 5 5/16	PSC-165	$32.80	$30.07	$26.93	$24.02	$22.55

COMBINATION PLATE AND FILAMENT

MIL-T-27A—"H" TYPE MOUNTING

Pri. Volts	High Volt. Secondary		Rect. Fila.		Part No.	Case Size	Net Each, Quantities of				
	AC Volts	DC Ma	Volts	Amps			1–9	10–24	25–49	50–99	100–249
115	180–160–140–120–0–120–140–160–180	150	5.0	3.0	IBH-150	3 1/4 × 3 × 4 1/4	$22.75	$20.80	$18.60	$16.65	$15.60

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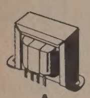
PCT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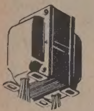
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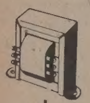
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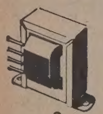
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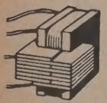
UM

UME

TS

Transistor Transformers

MIL-T-27A PRINTED CIRCUIT "POLYCHROMATRANS"

Printed circuit board transistor transformers. Test volts, 500 rms. Color-coded by application. Up to 50% reduction in distortion over other brands. Improved lower-end frequency response. Leads are fatigue resistant nickel-iron alloy, .020" dia., .563" long, gold-plated to MIL-G-45204, Class I. Size: .405" w. × .305" d. × .460" h.

Part No.	MIL Type Number	Pow. Lev. Mw	Use	Matching Impedance		Max. DC Ma*	Net Each, Quantities of				
				Primary	Secondary		1–9	10–24	25–49	50–99	100–249
PCT-14	TF5SX16ZZ	15	Input	200K CT	1K CT	0	$7.80	$7.41	$7.02	$6.50	$6.18
PCT-15	TF5SX16ZZ	35	Input	50K CT	1K CT	0	7.65	7.27	6.89	6.38	6.06
PCT-17	TF5SX16ZZ	15	Input	200K	1K	0	6.75	6.41	6.08	5.63	5.34
PCT-21	TF5SX13ZZ	55	Interst.	25K	1K	.5	6.30	5.99	5.67	5.25	4.98
PCT-23	TF5SX13ZZ	55	Interst.	25K CT	1K CT	.5	7.20	6.84	6.48	6.00	5.70
PCT-25	TF5SX13ZZ	75	Interst.	10K CT	1.5K CT	1	7.20	6.84	6.48	6.00	5.70
PCT-30	TF5SX13ZZ	75	Driver	10K CT	1.2K CT	1	6.90	6.56	6.21	5.75	5.46
PCT-31	TF5SX13ZZ	75	Driver	10K CT	2K CT	1	6.90	6.56	6.21	5.75	5.46
PCT-39	TF5SX13ZZ	75	Driver	10K CT	500 CT	1	6.90	6.56	6.21	5.75	5.46
PCT-43	TF5SX17ZZ	75	Output	1K	50	3	5.85	5.56	5.27	4.88	4.63
PCT-54	TF5SX17ZZ	75	Output	600 CT	12	4.5	6.00	5.70	5.40	5.00	4.75
PCT-60	TF5SX17ZZ	75	Output	500 CT	600	3	6.00	5.70	5.40	5.00	4.75
PCT-61	TF5SX17ZZ	75	Output	900 CT	600	4	6.15	5.84	5.54	5.13	4.67
PCT-62	TF5SX13ZZ	75	Output	1.5K CT	600	3	6.30	5.99	5.67	5.25	4.98
PCT-70	TF5SX17ZZ	75	Output	320 CT	3.2	6	5.85	5.56	5.27	4.88	4.63
PCT-71	TF5SX17ZZ	75	Output	600 CT	3.2	4.5	6.00	5.70	5.40	5.00	4.75
PCT-76	TF5SX13ZZ	75	Output-Isolation	10K CT	10K CT	1	7.80	7.41	7.02	6.50	6.18
PCT-77	TF5SX17ZZ	75	Output-Isolation	600 CT	600 CT	3	7.20	6.84	6.48	6.00	5.70
PCT-116	TF5SX20ZZ	....	Choke	6 hys.	....	2	5.70	5.42	5.13	4.75	4.51
PCT-117	TF5SX20ZZ	....	Choke	1.25 hys.	....	2	4.80	4.58	4.32	4.00	3.80
PCT-118	TF5SX20ZZ	....	Choke	3.5 hys.	....	2	4.80	4.58	4.32	4.00	3.80
PCT-128	TF5SX20ZZ	....	Choke	.3 hy.	....	4	4.80	4.58	4.32	4.00	3.80

* Max. Ma, DC unbalanced in primary.

Part No. SPCT-10—Magnetic alloy shield for all PCT transformers. Net Each: 1–9, **84c**; 10–24, **80c**; 25–49, **76c**; 50–99, **70c**; 100–249, **67c**.

ULTRA-MINIATURE MIL-T-27A ENCAPSULATED TYPES

Excellent for use with printed circuitry, etc., as lead spacing is 1/10" grid type for easy mounting on punched boards. **Dimensions:** .312" × .400" × .426". Weight (Approx.), .125 oz. Mtg. Type UME.

No. UME-	Application	DC Ma#	Impedance, Ohms		DC Res. Ohms		Net Each, Quantities of				
			Primary	Secondary	Pri.	Sec.	1–9	10–24	25–49	50–99	100–249
20	Driver	1	10K 12.5K	1200 CT 1500 CT	1000	100	$6.67	$6.12	$5.48	$4.89	$4.59
23	Single†	7	300 CT 400 CT	12 16	35	2.5	5.95	5.45	4.88	4.36	4.09
34	Input	0	200K CT	1000 CT	6500	250	7.67	7.03	6.30	5.63	5.28
37	Reactor	2	1 hy.*	....	190	....	5.25	4.82	4.31	3.85	3.61

* At 2 DC ma. † Or p-p output. # In primary.

MIL-T-27A AUDIO TRANSFORMERS

Maximum operating altitude, 50,000 feet. Mounting Type TAMS. Size: 1 3/8" × 1" × 1", Weight: 2 oz.

Part No.	Application	Impedance, Ohms		Pri. DC Ma	DC Ohms		Net Each, Quantities of				
		Primary	Secondary		Pri.	Sec.	1–9	10–24	25–49	50–99	100–249
TAMS-5	Driver	1000	200 CT	10	400	115	$15.60	$14.30	$12.81	$11.44	$10.73
TAMS-6	Driver	2000	200 CT	5	720	115	12.71	11.65	10.43	9.32	8.74

IRON CORE AUDIO TRANSFORMERS

Small iron core weighing only 1/10 of an ounce. Useful range is below 1 mw. Mtg. Type, UM.

Part No.	Application	Imped., Ohms		DC Ohms		Wt. Lbs.	Net Each, Quantities of				
		Pri.	Sec.	Pri.	Sec.		1–9	10–24	25–49	50–99	100–249
UM-110	Interstage	20K	1000	1675	285	.07	$6.22	$5.70	$5.10	$4.56	$4.28
UM-112	Hi-Z Mic. In.	200K	1000	4000	195	.10	6.87	6.30	5.64	5.04	4.73
UM-113	Interstage	20K	1000	1350	205	.10	4.75	4.35	3.90	3.48	3.26
UM-114	Out. or Mtchg.	500	50/60	70	9.0	.10	4.25	3.90	3.49	3.12	2.93

Dimensions: UM-110 1/4" × 3/8" × 3/8"; others, 3/8" × 3/8" × 3/8", ±.015".

TRANSISTOR POWER TRANSFORMERS

Primary, 117 v., 60 cycle operation.

Part No.	Plate Supply		Size, In., W. × D. × H.	Mtg. Type	Net Each, Quantities of				
	AC Volts	DC Ma			1–9	10–24	25–49	50–99	100–249
TP-1*	13 or 18	900	3 × 2 1/2 × 3	C	$4.87	$4.47	$4.00	$3.57	$3.35
P-8196	80 CT	1200	2 7/8 × 3 1/2 × 3 1/2	C	6.55	6.00	5.37	4.80	4.50
TP-2†	10/20 CT/40 CT	100	2 13/16 × 1 5/8 × 1 5/8	A	4.00	3.80	3.20	3.00	2.70
TP-3†	10/20 CT/40 CT	300	3 3/4 × 2 × 2 1/4	A	5.20	4.60	4.20	3.90	3.60
TP-4†	10/20 CT/40 CT	1000	2 5/8 × 3 × 3 3/16	C	8.50	7.60	6.80	6.30	5.90

* For bridge rectifier systems, has 2 identical plate supplies. † Tapped primary to obtain lower secondary voltages.

SPECIAL TRANSISTOR TRANSFORMERS

Special transformers for transistor applications. Mtg. Types: TA-56, J; TA-57 and TA-61, S; TA-13 and TA-14, TD; TA-60, TS; all others, Mtg. Type A.

Part Number	Impedance, Ohms		DC Res., Ohms		Max. Pri. DC Ma	Watts	Net Each, Quantities of				
	Pri.	Sec.	Pri.	Sec.			1–9	10–24	25–49	50–99	100–249
TA-1*	600 CT	10	42	.8	20	.05	$1.89	$1.73	$1.55	$1.39	$1.30
TA-2†	100 CT	10 CT	4.3	.8	100	.25	1.89	1.73	1.55	1.39	1.30
TA-3†	100	1000 CT	5.8	45	100	.25	1.89	1.73	1.55	1.39	1.30
TA-4†	500 CT	5000 CT	37	250	12	.03	2.49	2.28	2.04	1.83	1.71
TA-5‡	1000	200 CT	400	115	10	.05	4.71	4.32	3.86	3.45	3.24
TA-6‡	2000	200 CT	720	115	5	.05	5.33	4.88	4.37	3.91	3.66
TA-7‡	100	100 CT	12	12	100	.5	1.89	1.73	1.55	1.39	1.30
TA-9§	1000	4/8/16	180	3.5	10	.2	4.87	4.49	4.00	3.57	3.55
TA-10§	2000 CT	4/8/16	250	4	....	.2	5.33	4.88	4.37	3.91	3.66
TA-11§	48 CT	8/16	5	1.5	275	5	3.65	3.35	3.00	2.68	2.51
TA-12§	20 CT	8	.55	.35	500	10	1.89	1.73	1.55	1.39	1.30
TA-52†	500 CT	500 CT	40	55	....	.30	3.00	2.75	2.46	2.20	2.06
TA-56§	48 CT	3.2/8/16	3.6	1.4	550	10	3.04	2.78	2.49	2.23	2.09
TA-57§	100 CT	3.2/8/16	6.6	1.5	500	10	3.00	2.75	2.46	2.20	2.06
TA-58‡	100	200 CT	6.5	15.5	200	.5	2.13	1.95	1.75	1.56	1.46
TA-59‡	500 CT	200 CT	36.5	15.5	50	.5	2.36	2.17	1.94	1.73	1.63
TA-61‡	1:1●	●	1.8▲	....	....	....	2.60	2.38	2.13	1.91	1.79
TA-63‡	20K CT	2K CT	2140	325	....	....	4.47	4.00	3.60	3.35	3.10

* Input. † Interstage. ‡ Driver. § Output. # CT, 2 secondaries 16 ohm series, 4 ohms parallel. ● Turns ratio: primary to 1/2 secondary, 1:1. ▲ Per winding.

MINIATURE AUDIO TRANSFORMERS (MTG. TYPE A)

.150-Watt Group—Dimensions: 13/16" w. × 5/8" d. × 21/32" h. Mtg. tabs; 25/32" centers, 3/16" w. Wt., .65 oz.

Net Each, 10–24 .... **$3.35**
Net Each, 50–99 .... **2.68**
Net Each, 1–9 .... **$3.65**
Net Each, 25–49 .... **3.00**
Net Each, 100–249 .... **2.51**

Part No.	Application	Impedance, Ohms		DC Resis., Ohms	
		Primary	Secondary	Pri.	Sec.
TA-20	Output	350 CT	4, 12	38	1.45
TA-21	Output	500 CT	4, 8, 16	75.3	3.55
TA-23	Output	600 CT	4, 8, 16	73.2	3.2
TA-26	Output	1,250	4, 12	132.5	1.4
TA-27	Interstage	1,200	20,000 CT	142	1860
TA-28	Interstage	1,500	500 CT	104	46.5
TA-30	Interstage	5,000 CT	7,500 CT	650	790
TA-31	Interstage	5,000 CT	10,000 CT	635	825
TA-32	Interstage	5,000 CT	80,000 CT	573	5740
TA-33	Output	10,000 CT	4, 8, 16	1174	2.6
TA-34	Interstage	10,000	200 CT	1200	33.4
TA-35	Interstage	10,000	2,000 CT	1200	257
TA-36	Interstage	10,000	3,000 CT	1200	385
TA-38	Interstage	500 CT	150 CT	62	21.2

.300-Watt Group—Dimensions: 1 5/8" w. × 3/4" d. × 13/16" h. Mtg. Centers, 1 3/8". Weight, 1.2 oz.

Net Each, 10–24 .... **$3.35**
Net Each, 50–99 .... **2.68**
Net Each, 1–9 .... **$3.65**
Net Each, 25–49 .... **3.00**
Net Each, 100–249 .... **2.51**

Part No.	Application	Impedance, Ohms		DC Resis., Ohms	
		Primary	Secondary	Pri.	Sec.
TA-39	Output	100 CT	4, 8, 16	10.9	1.45
TA-41	Output	400 CT	4, 8, 16	34	1.5
TA-42	Output	500 CT	4, 8, 16	47	.85
TA-43	Output	700 CT	4, 8, 16	77	1.15
TA-46	Interstage	100,000	1,500 CT	3250	143
TA-47	Input	1,000 CT	200,000 CT	123	1815

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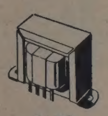
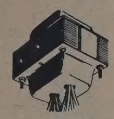
CHICAGO STANCOR

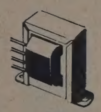


A, PA

C, PC



PM, M



PS

C1

BV

Power, Plate & Rectifier Transformers

PLATE AND FILAMENT SUPPLIES

All primary windings for 117 v., 60 cps operation. All plate supplies center-tapped. PC Series—Type PC Mtg.; PM Series—Type PM Mtg.; Series PA—Type PA Mtg.; Series PS—Type PS. Provide approximately 260 v. DC to condenser input filter.

Part No.	Plate		Rec. Fil.		Amp. Fil.		Base Area, Inches	Wt., Lbs.	Net Each, Quantities of				
	AC V.	DC Ma	V.	A.	V.	A.			1–9	10–24	25–49	50–99	100–249
PC8401	470	40	5	2	6.3 CT	2.0	2⅝ × 2⅝	2.2	$5.42	$4.97	$4.45	$3.97	$3.73
PM8401	470	40	5	2	6.3 CT	2.0	2½ × 3	2.2	5.69	5.38	4.67	4.17	3.91
PC8402	480	55	5	2	6.3 CT	2.0	2⅝ × 2¾	2.4	5.38	4.93	4.42	3.95	3.70
PM8402	480	55	5	2	6.3 CT	2.0	2½ × 3	2.4	5.53	5.07	4.54	4.05	3.80
PC8403	500	70	5	2	6.3 CT	2.5	2⅝ × 3⅛	3.2	6.25	5.73	5.13	4.59	4.30
PM8403	500	70	5	2	6.3 CT	2.5	2½ × 3	3.2	6.25	5.73	5.13	4.59	4.30
PC8404	520	90	5	2	6.3 CT	3.0	3 × 3½	4.0	6.93	6.35	5.69	5.08	4.76
PM8404	520	90	5	2	6.3 CT	3.0	2⅞ × 3⅜	4.0	6.93	6.35	5.69	5.08	4.76
PC8405	540	120	5	3	6.3 CT	3.5	3¼ × 3½	4.9	9.04	8.28	7.42	6.63	6.21
PM8405	540	120	5	3	6.3 CT	3.5	3⅛ × 3¾	4.9	9.04	8.28	7.42	6.63	6.21

Use with choke input, VR supply, Spkr. field or Hi-V. with condenser input filter.

Part No.	AC V.	DC Ma	V.	A.	V.	A.	Base Area, Inches	Wt., Lbs.	1–9	10–24	25–49	50–99	100–249
PM8423	600	90	5	2	6.3 CT	3.5	2 13/16 × 3⅜	4	$ 7.98	$ 7.32	$ 6.55	$ 5.85	$5.49
PC8406	650	40	5	2	6.3 CT	2.0	2⅝ × 2¾	2.4	5.65	5.18	4.64	4.15	3.89
PM8406	650	40	5	2	6.3 CT	2.0	2½ × 3	2.4	5.65	5.18	4.64	4 15	3.89
PC8407	650	55	5	2	6.3 CT	2.0	2⅝ × 3⅛	3.2	5.89	5.40	4.84	4.32	4.05
PM8407	650	55	5	2	6.3 CT	2.0	2½ × 3	3.2	5.89	5.40	4.84	4.32	4.05
PC8422	650	150	5	3	6.3 CT	5.0	3¼ × 3⅞	5.8	9.40	8.62	7.72	6.89	6.46
PM8422	650	150	5	3	6.3 CT	5.0	3⅛ × 3¾	5.8	9.42	8.63	7.73	6.91	6.48
PC8408	680	70	5	2	6.3 CT	2.5	3 × 3⅜	3.8	7.36	6.75	6.04	5.40	5.06
PM8408	680	70	5	2	6.3 CT	2.5	2⅞ × 3⅜	3.8	7.36	6.75	6.04	5.40	5.06
PC8409	700	90	5	2	6.3 CT	3.0	3 × 3⅝	4.5	7.76	7.12	6.37	5.69	5.34
PM8409	700	90	5	2	6.3 CT	3.0	2⅞ × 3⅜	4.5	7.76	7.16	6.37	5.69	5.34
PC8410	720	120	5	3	6.3 CT	3.5	3¼ × 3¾	5.5	8.82	8.08	7.24	6.47	6.06
PM8410	720	120	5	3	6.3 CT	3.5	3⅛ × 3¾	5.5	9.18	8.42	7.54	6.73	6.31
PC8411	750	150	5	3	6.3 CT	4.5	3⅝ × 4	5.8	11.82	10.83	9.70	8.67	8.13
PM8411	750	150	5	3	6.3 CT	4.5	3½ × 4⅛	5.8	12.31	11.28	10.10	9.03	8.46
PC8412	800	200	5	3	6.3 CT	5.0	4 × 4	8.2	12.31	11.28	10.10	9.03	8.46
PM8412	800	200	5	3	6.3 CT	5.0	3¾ × 4½	8.2	12.35	11.32	10.13	9.05	8.49
PC8413	800	250	5	4	6.3 CT	5.0	4 × 4½	10.0	14.07	12.90	11.55	10.32	9.68
PC8414	1200	200	5	3	6.3 6.3	3.0 3.0	4 × 4¼	8.3	14.47	13.27	11.88	10.61	9.95

For use with 6AX5, 6X4, 6X5, or selenium rectifiers.

Part No.	AC V.	DC Ma	V.	A.	V.	A.	Base Area, Inches	Wt., Lbs.	1–9	10–24	25–49	50–99	100–249
PS8415	125	15	‡	....	6.3	0.6	2⅜ × 1⅜	0.7	$2.33	$2.13	$1.91	$1.71	$1.60
PS8416	250	25	....	....	6.3	1.0	2⅞ × 1¾	1.0	2.80	2.57	2.30	2.05	1.93
PA8421	125	50	‡	....	6.3	2.0	3¾ × 2⅛	1.5	3.76	3.45	3.09	2.76	2.59
PC8417	440	50	6.3	.6	25.2	0.5	2⅝ × 2⅝	2.2	6.29	5.77	5.16	4.61	4.33
PC8418	460	50	....	....	6.3	2.5	2⅝ × 2⅝	2.2	4.71	4.32	3.87	3.45	3.24
PM8418	460	50	....	....	6.3	2.5	2½ × 3	2.2	4.71	4.32	3.87	3.45	3.24
PC8419	480	70	....	....	6.3	3.0	2⅝ × 2⅞	2.6	5.42	4.97	4.45	3.97	3.73
PM8419	480	70	....	....	6.3	3.0	2½ × 3	2.6	5.42	4.97	4.45	3.97	3.73
PC8420	520	90	....	....	6.3	4.0	3 × 3½	3.5	6.29	5.77	5.16	4.61	4.33
PM8420	520	90	....	....	6.3	4.0	2⅞ × 3⅜	3.5	6.56	6.02	5.39	4.81	4.51

Special or combination filament windings.

Part No.	AC V.	DC Ma	V.	A.	V.	A.	Base Area, Inches	Wt., Lbs.	1–9	10–24	25–49	50–99	100–249
P-8359†	▲	70	....	....	6.3 6.3 CT	0.6 3.0	2½ × 2⅝	2.8	$ 7.55	$ 6.80	$ 6.15	$ 5.65	$ 5.10
P-6348*	480	60	....	....	6.3 CT	2.75	2 3/16 × 2 11/16	2.3	5.47	5.02	4.49	4.01	3.76
P-6358†	600	65	....	....	6.3 CT	2.7	2⅝ × 2½	3	5.84	5.35	4.79	4.28	4.01
P-8173††	500	10	....	....	6.3 6.3	0.6 1.2	2⅞ × 2⅛	1.0	4.58	4.20	3.76	3.36	3.15
P-8174††	500	20	....	....	6.3 6.3	0.6 1.2	3 5/16 × 2¼	1.5	4.75	4.35	3.90	3.48	3.26
P-8175†	600	70	5.0	3	6.3 CT	3.0	2⅞ × 3⅛	4.0	7.71	7.07	6.33	5.65	5.30
P-8177†	600	120	5	3	6.3 CT	3.0	3 3/16 × 3⅝	5.75	9.40	8.62	7.72	6.89	6.46
P-8176†	700	110	5	2	6.3 CT 6.3 CT	3.0 3.0	3 3/16 × 3⅞	5.5	10.36	9.50	8.51	7.60	7.13
P-6007*	800	110	5 CT	3	2.5 CT 2.5 CT	15.0 3.5	3⅛ × 3¾	5.4	11.16	10.23	9.16	8.19	7.68
P-8360†	875■	185	5.0■	3.0	6.3 6.3	3.0 4.0	4 × 4½	9.5	16.00	14.40	12.95	12.00	11.30
P-6143†	880	130	5	3	6.3 CT	3.5	3⅝ × 4⅛	7.0	11.07	10.15	9.09	8.12	7.61
P-5059†#	675	200	5 CT	3	6.3 CT	5.0	3¾ × 4⅛	9.6	13.07	11.98	10.73	9.59	8.99
P-6315*	740	275	5 CT	3	6.3 CT	7.0	3¾ × 4½	9.3	13.69	12.55	11.24	10.04	9.41

* Type M Mtg. † Type C Mtg. †† Type C1 mounting. # 117/107 primary. ‡ ½ wave. ▲ 190/160-0-160/190. ■ 2000 v. rms test.

PLATE TRANSFORMERS

DC output rated CCS at load terminals of single-action, reactor-input filter, ICAS with single-section capacitor-input filter (secondary CT must be grounded). Primary, 117 volts, AC. Mounting PC.

Part No.	Secondary AC Volts	DC Output		Filter Input	Rectifier	Wt., Lbs.	Size—Inches	Net Each, Quantities of				
		Volts	Ma					1–9	10–24	25–49	50–99	100–249
PC-8301	415–0–415	300 425	200 160	Reactor Capacitor#	5U4G 5U4G	5	4 × 3¼ × 3 7/16	$ 7.89	$ 7.23	$ 6.48	$ 5.79	$ 5.43
PC-8302	515–0–515	385 500	235 200	Reactor Capacitor#	5U4G 5R4GY	7	4 5/16 × 3⅝ × 4⅛	10.33	9.47	8.48	7.57	7.10
PC-8303	665–0–665	500 750	250 200	Reactor Capacitor#	5R4GY 5R4GY	10	4¾ × 4 × 4⅜	13.11	12.02	10.76	9.61	9.01
PC-8304	750–0–750	600 850	265 200	Reactor Capacitor#	2-5R4GY 5R4GY	12	4¾ × 4 × 4⅞	14.76	13.53	12.12	10.83	10.15
PC-8305	920–0–920	750 1000	250 200	Reactor Capacitor#	2-5R4GY 5R4GY	12	4¾ × 4 × 5	15.36	14.08	12.61	11.27	10.56

Capacitor input rating is for intermittent duty.

SELENIUM RECTIFIER TRANSFORMERS

For nominal input of 117 v. AC, 50–60 cps. Mtg. Type BV.

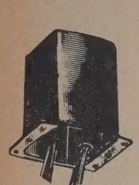
Part No.	Applied VAC under Load	Output, Max. DC				Filter Cap., µf	Net Each, Quantities of					Wt., Lbs.	Size—Inches
		Resistive/Induct. Load		Capacitative Load*									
		Volts	Amps	Volts	Amps		1–9	10–24	25–49	50–99	100–249		
RT-201#	11.7–29.4	11.2	2.0	13.8	2.0	1 K	$ 4.98	$ 4.57	$ 4.09	$ 3.63	$ 3.43	3	3⅛ × 2½ × 3⅜
RT-201†	11.1–28.5	23.0	1.25	30.0	1.25	.5 K	4.98	4.57	4.09	3.63	3.43		
RT-202#	12.0–29.8	11.1	4.0	14.7	4.0	2 K	6.70	6.20	5.55	4.96	4.65	4	3⅝ × 2⅞ × 3½
RT-202†	12.0–29.8	24.3	2.0	33.0	2.0	1 K	6.70	6.20	5.55	4.96	4.65		
RT-204#	11.7–29.2	12.0	8.0	14.5	8.0	4 K	8.75	8.02	7.18	6.41	6.01	6	4 × 3¼ × 4⅛
RT-204†	11.6–29.2	24.0	4.0	32.4	4.0	2 K	8.75	8.02	7.18	6.41	6.01		
RT-206#	12.0–29.7	11.5	12.0	14.4	12.0	6 K	11.87	10.88	9.75	8.71	8.16	9	4¼ × 3 7/16 × 5⅛
RT-206†	12.0–29.7	24.0	6.0	32.0	6.0	3 K	11.87	10.88	9.75	8.71	8.16		
RT-208#	12.1–29.2	11.4	15.0	14.8	15.0	7.5 K	14.96	13.72	12.28	10.97	10.29	13	4¾ × 3¾ × 5¼
RT-208†	12.1–29.2	23.7	8.0	32.5	8.0	4 K	14.96	13.72	12.28	10.97	10.29		
RT-2012#	12.2–29.0	11.4	22.5	14.3	22.5	12 K	22.07	20.23	18.12	16.19	15.18	21	5⅜ × 4⅜ × 6⅜
RT-2012†	12.2–29.0	23.5	12.0	33.0	12.0	6 K	22.07	20.23	18.12	16.19	15.18		
RT-408†	25.0–53.5	44.0	8.0	63.0	8.0	4 K	32.64	29.92	26.79	23.93	22.44	27	5⅜ × 4⅜ × 7½
RT-4012†	25.0–53.0	43.5	12.0	60.0	12.0	6 K	42.98	39.40	35.28	31.52	29.55	34	7⅛ × 5⅝ × 6¼
P-8193‡	17 or 18	....	....	....	....	....	8.45	7.75	6.94	6.20	5.81	6	3¾ × 3⅛ × 3⅝
P-8194§	36 at 3A	....	....	....	....	....	14.36	13.17	11.79	10.53	9.88	10	4½ × 3¾ × 4

CT Rectifier Circuit. † Bridge Rectifier Circuit. * For complete details and instructions, write for Stancor Bulletin No. 518R. ‡ Sec., 6 amps rms. § Dual Sec., rms rated.

STANCOR ELECTRONICS, INC.

CHICAGO STANCOR

Power, Bias & CRT Transformers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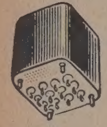
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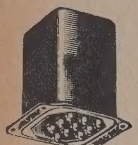
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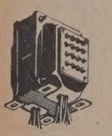

CD

PC

SPECIAL POWER TRANSFORMERS

POWER TRANSFORMERS AND FILTER REACTORS

Three types of construction are available: Hermetically sealed, semi-sealed, and compound sealed. All units have high grade magnet wire coils wound on non-agin silicon steel cores. Core and coil are vacuum-impregnated with varnish and baked at high temperatures to achieve a vibration-proof unit. Housed in seamless, draw steel cases and sealed with a special moisture-resistant compound. Hermetically sealed units, H-Type meet the rigid standards of Grade 4, MIL-T-27A specifications fo Class R operation. One-piece steel covers are bonded by deep-seal soldering. Semi-sealed units, S-Type have steel base covers fitted with phenolic terminal board numbered solder lugs. Compound-sealed units, C-type, have fiber-board covers and 10″ color-coded leads.

FOR CAPACITOR INPUT SYSTEMS—PRIMARY 117 VOLTS, 50–60 CYCLES
MIL-T-27A—"H" TYPE MOUNTING

High Volt. Second.			Filaments				Part No.	Case No.	Net Each, Quantities of				
Volts, AC	DC Ma	Out. V. DC	Rect.		Others				1–9	10–24	25–49	50–99	100–249
			V.	A.	Volts	Amps							
250-0-250	10	320	....	....	6.3 6.3	1.2 0.6	PHC-10	14	$16.91	$15.50	$13.88	$12.40	$11.63
250-0-250	20	300	....	....	6.3 6.3	1.2 0.6	PHC-20	15	16.05	14.72	13.18	11.77	11.04
225-0-225	40	210	5	2	6.3 CT	2	PHC-40	17	18.38	16.85	15.09	13.48	12.64
270-0-270	55	260	5	2	6.3 CT	2	PHC-55	17	19.45	17.83	15.97	14.27	13.38
300-0-300	60	285	5	2	6.3 CT	3	PHC-60	19	19.95	18.28	16.37	14.63	13.71
335-0-335	70	320	5	2	6.3 CT	3	PHC-70	19	20.73	19.00	17.01	15.20	14.25
330-0-330	85	320	5	2	6.3 CT	3	PHC-85	20	22.16	20.32	18.19	16.25	15.24
345-0-345	105	320	5	2	6.3 CT	3.5	PHC-105	21	24.44	22.40	20.06	17.92	16.80
375-0-375	120	380	5	3	6.3 CT	4	PHC-120	21	25.27	23.17	20.75	18.53	17.38
370-0-370	150	390	5	3	6.3 CT 6.3 CT	4 1	PHC-150	22	30.12	28.07	25.13	22.45	21.05

SEMI-SEALED "S" TYPE MOUNTING

High Volt. Second.			Filaments				Part No.	Case No.	Net Each, Quantities of				
Volts, AC	DC Ma	Out. V. DC	Rect.		Others				1–9	10–24	25–49	50–99	100–249
			V.	A.	Volts	Amps							
225-0-225	40	210	5	2	6.3 CT	2	PSC-40	17	$14.80	$13.57	$12.55	$11.21	$10.51
270-0-270	55	260	5	2	6.3 CT	2	PSC-55	17	15.13	13.87	12.42	11.09	10.40
335-0-335	70	320	5	2	6.3 CT	3	PSC-70	19	17.16	15.73	14.09	12.59	11.80
330-0-330	85	320	5	2	6.3 CT	3	PSC-85	20	17.95	16.45	14.73	13.16	12.34
345-0-345	105	320	5	2	6.3 CT	3.5	PSC-105	21	19.33	17.72	15.87	14.17	13.29
385-0-385	200	390	5	3	6.3 CT 6.3 CT	4.5 1	PSC-200	22	27.27	25.00	22.39	20.00	18.75

SEMI-SEALED "C" TYPE MOUNTING

High Volt. Second.			Filaments				Part No.	Case No.	Net Each, Quantities of				
Volts, AC	DC Ma	Out. V. DC	Rect.		Others				1–9	10–24	25–49	50–99	100–249
			V.	A.	Volts	Amps							
225-0-225	40	210	5	2	6.3 CT	2	PCC-40	16	$ 9.73	$ 8.92	$ 7.99	$ 7.13	$ 6.69
270-0-270	55	260	5	2	6.3 CT	2	PCC-55	16	10.42	9.55	8.55	7.64	7.16
300-0-300	60	285	5	2	6.3 CT	3	PCC-60	18	11.62	10.65	9.54	8.52	7.99
335-0-335	70	320	5	2	6.3 CT	3	PCC-70	18	12.00	11.00	9.85	8.80	8.25
330-0-330	85	320	5	2	6.3 CT	3	PCC-85	20	13.02	11.93	10.69	9.55	8.95
345-0-345	105	320	5	2	6.3 CT	3.5	PCC-105	20	13.53	12.40	11.10	9.92	9.30
385-0-385	200	390	5	3	6.3 CT 6.3 CT	4.5 1	PCC-200	22	20.89	19.15	17.15	15.32	14.36

FOR REACTOR INPUT SYSTEMS—PRIMARY 117 VOLTS, 50–60 CYCLES
MIL-T-27A—"H" TYPE MOUNTING

High Volt. Second.			Filaments				Part No.	Case No.	Net Each, Quantities of				
Volts, AC	DC Ma	Out. V. DC	Rect.		Others				1–9	10–24	25–49	50–99	100–249
			V.	A.	Volts	Amps							
350-0-350	55	260	5	2	6.3 CT	2	PHR-55	17	$19.64	$18.00	$16.12	$14.40	$13.50
425-0-425	70	320	5	2	6.3 CT	3	PHR-70	19	20.29	18.60	16.66	14.88	13.95
450-0-450	105	320	5	2	6.3 CT	3.5	PHR-105	21	23.16	21.23	19.01	16.99	15.93
500-0-500	120	390	5	3	6.3 CT	4	PHR-120	21	23.75	21.77	19.49	17.41	16.33

SEMI-SEALED "S" TYPE MOUNTING

350-0-350	55	260	5	2	6.3 CT	2	PSR-55	17	$16.09	$14.75	$13.21	$11.80	$11.06
425-0-425	70	320	5	2	6.3 CT	3	PSR-70	19	17.65	16.18	14.49	12.95	12.14
450-0-450	105	320	5	2	6.3 CT	3.5	PSR-105	21	18.91	17.33	15.52	13.87	13.00
520-0-520	200	390	5	3	6.3 CT 6.3 CT	4.5 1	PSR-200	22	31.38	28.77	25.76	23.01	21.58

SEMI-SEALED "C" TYPE MOUNTING

350-0-350	55	260	5	2	6.3 CT	2	PCR-55	16	$11.24	$10.30	$ 9.22	$ 8.24	$ 7.73
425-0-425	70	320	5	2	6.3 CT	3	PCR-70	18	12.58	11.53	10.33	9.23	8.65
450-0-450	105	320	5	2	6.3 CT	3.5	PCR-105	20	13.64	12.50	11.19	10.00	9.38
550-370-75-0-75-370-550	300	420	5	6	6.3 CT 6.3 CT	5 1	PCR-300	24	29.53	27.07	24.24	21.65	20.30

CASE SIZES

Case	Depth	Width	Height
8	1½″	1½″	1 15/16″
9	1½″	1½″	2⅛″
12	2¼″	2⅛″	2 11/16″
13	2¼″	2⅛″	2 15/16″
14	2½″	2⅜″	3 3/64″
15	2½″	2⅜″	3 5/16″
16	2⅞″	2 11/16″	3½″
17	2⅞″	2 11/16″	3¾″
18	3¼″	3″	3⅞″
19	3¼″	3″	4¼″
20	3 11/16″	3 5/16″	4 5/16″
21	3 11/16″	3 5/16″	4 11/16″
22	4 9/16″	4⅛″	5 5/16″
24	5 5/16″	4 13/16″	6 1/16″
26	6⅛″	5¼″	7 1/16″

BIAS SUPPLY TRANSFORMERS

Rectifier Filament, 5 v., 3 amps. Type CD mounting.

Part No.	High Voltage Supply (CT) VAC at DC Milliamps	H. × W. × D. Inches	Net Each, Quantities of				
			1–9	10–24	25–49	50–99	100–249
P-6317*	200/170/130/90 @ 200 ma.	4 × 3¼ × 3⅝	$11.25	$10.32	$ 9.24	$8.25	$7.74
P-6318†	450/400/350/250 @ 200 ma.	4 5/16 × 3⅝ × 4⅛	13.38	12.27	10.99	9.81	9.20

Shipping Weight: * 4.9 lbs. † 7 lbs.

CATHODE-RAY TUBE POWER TRANSFORMER

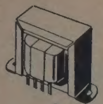
For use with type 2×2 rectifier tubes in half-wave high voltage supply circuit. Primary, 117 v. AC, 50–60 cps. Mtg. Type PC. Supplies 1,800 v. AC at 2.0 ma DC; 2.5 v. rect. fil. at 1.8 amps; and 2.5 v. at 2.2 amps or 6.3 v. at 0.6 amp other winding. Size: 3¾″ w. × 3¼″ d. × 3⅞″ h. Shipping Weight, 5 lbs.

Part No. P-8178—Net Each, 1–9 .... $9.04
Net Each, 10–24 .... $8.28 Net Each, 25–49 .... 7.42
Net Each, 50–99 .... 6.63 Net Each, 100–249 .... 6.21

STANCOR ELECTRONICS, INC.

CHICAGO STANCOR

Filament Transformers



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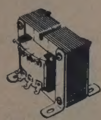

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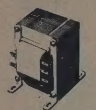

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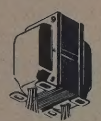

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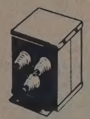

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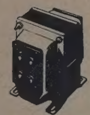

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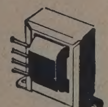

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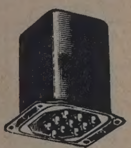

F-SERIES

COMMERCIAL GRADE FILAMENT TRANSFORMERS

SINGLE SECONDARY

Primary 50 or 60 cycle operation.

Part No.	Secondary		H. × W. × D. Inches	Wt.‡ Lbs.	Mtg. Type	Net Each, Quantities of				
	Volts	Amps				1–9	10–24	25–49	50–99	100–249
P-4026*	2.5	1.5	1⅝ × 2⅞ × 1½	0.7	A	$ 2.71	$ 2.48	$ 2.22	$ 1.99	$ 1.86
P-4082†	2.5 CT	2.5	2 11/16 × 2¾ × 2¼	1.5	TD	4.75	4.35	3.90	3.48	3.26
P-6133*	2.5 CT	5.0	2 11/16 × 3 5/16 × 2¼	1.5	S	3.73	3.42	3.06	2.73	2.56
P-3024† §	2.5 CT	10.0	3 3/16 × 2⅝ × 2⅝	2.5	C	4.91	4.50	4.03	3.60	3.38
P-6454†	2.5 CT	10.0	3⅛ × 3⅝ × 2½	2.5	S	3.93	3.60	3.22	2.85	2.70
P-3060*	2.5 CT	10.0	3½ × 2⅞ × 2½	2.5	BV	6.60	6.05	5.42	4.84	4.54
P-3026† §	5.0 CT	3.0	3 3/16 × 2⅝ × 2⅝	2.4	C	4.91	4.50	4.03	3.60	3.38
P-4088* §	5.0 CT	3.0	3⅛ × 2½ × 2½	1.8	BV	4.16	3.82	3.42	3.05	2.86
P-6467*	5.0 CT	3.0	2 × 3 5/16 × 2	1.4	A	3.15	2.88	2.58	2.31	2.16
P-6455†	5.0 CT	6.0	2⅝ × 3 5/16 × 2¼	2.0	S	4.25	3.90	3.49	3.12	2.93
P-3062*	5.0 CT	6.0	3⅛ × 2½ × 2½	2.3	BV	5.04	4.62	4.13	3.69	3.46
P-5000† §	5.0 CT	6.0	3 3/16 × 2½ × 3	3.1	C	5.69	5.22	4.67	4.17	3.91
P-6135*	5.0 CT	10.0	3⅛ × 2½ × 2⅞	3.0	BV	5.49	5.03	4.51	4.03	3.78
P-4086† §	5.0 CT	14.0	5⅛ × 4⅝ × 8½	12.3	FA	22.45	20.58	18.43	16.47	15.44
P-6432* §	5.0 CT	21.0	3⅞ × 3 × 3⅛	4.5	BV	8.18	7.50	6.72	6.00	5.63
P-6433* §	5.0 CT	15.0	3⅛ × 2½ × 2⅞	3	BV	7.02	6.43	5.76	5.15	4.83
P-6302† §	5.0 CT	22.0	5⅛ × 4⅝ × 8½	13.5	FA	32.69	29.97	26.84	23.97	22.48
P-6492* §	5.0 CT	30.0	4¾ × 3¾ × 3⅞	7.5	C	10.73	9.83	8.81	7.87	7.38
P-6468† §	5.0 CT	30.0	4 5/16 × 3 9/16 × 3⅞	4.3	D	12.55	11.50	10.30	9.20	8.63
P-6305† §	5.0 CT	30.0	5⅛ × 4⅝ × 10	18.3	FA	30.36	27.83	24.93	22.27	20.88
P-6134*	6.3 CT	1.2	1⅝ × 2¾ × 1¾	0.8	A	2.05	1.88	1.69	1.51	1.41
P-8190*	6.3	1.2	2 × 3¼ × 1¾	1.0	A	2.71	2.48	2.22	1.99	1.86
P-8191#	6.3	1.2	2 × 3¼ × 1¾	1.0	A	2.91	2.67	2.39	2.13	2.00
P-5014* §	6.3 CT	3.0	3⅛ × 2½ × 2½	2.0	BV	4.58	4.20	3.76	3.36	3.15
P-6466*	6.3 CT	3.0	2 × 3 5/16 × 2	1.4	A	3.33	3.05	2.73	2.44	2.29
P-6462†	6.3	3.0	3 × 3½ × 2⅝	2.0	S	5.49	5.03	4.51	4.03	3.78
P-4019† §	6.3 CT	4.0	3 3/16 × 2⅝ × 2⅝	2.7	C	4.95	4.53	4.06	3.63	3.40
P-6465*	6.3 CT	0.6	1⅜ × 2⅜ × 1⅜	0.4	A	1.95	1.78	1.60	1.43	1.34
P-3064*	6.3 CT	6.0	3⅛ × 2½ × 2⅞	2.4	BV	5.31	4.87	4.36	3.89	3.65
P-4089† §	6.3 CT	6.0	3⅝ × 3 × 3⅛	3.5	C	6.49	5.95	5.33	4.76	4.46
P-6456†	6.3 CT	6.0	2¼ × 3⅝ × 2½	2.0	A	3.75	3.43	3.07	2.75	2.58
P-6308† §	6.3 CT	10.0	3½ × 2⅞ × 2⅞	3.4	BV	6.45	5.92	5.30	4.73	4.44
P-6464*	6.3 CT	10.0	3½ × 3 × 3¼	3.5	C	6.80	6.23	5.58	4.99	4.68
P-6309† §	6.3 CT	20.0	4⅝ × 3¾ × 3	6.7	BV	10.02	9.18	8.22	7.35	6.89
P-5015* §	7.5 CT	4.0	3⅛ × 2½ × 2⅞	2.7	BV	4.65	4.27	3.82	3.41	3.20
P-4091† §	7.5 CT	5.0	3⅝ × 3 × 3	3.4	C	6.58	6.03	5.40	4.83	4.53
P-6138*	7.5 CT	8.0	3⅞ × 3⅛ × 2⅞	4.7	BV	7.15	6.55	5.87	5.24	4.91
P-6457†	7.5 CT	2.1	4½ × 3¾ × 4	8.0	C	12.47	11.43	10.24	9.15	8.58
P-5016* §	10.0 CT	4.0	3½ × 2⅞ × 2⅝	3.3	BV	5.95	5.45	4.88	4.36	4.09
P-6458† §	10.0 CT	5.0	3 1/16 × 2½ × 2⅞	3.0	BV	4.62	4.23	3.79	3.39	3.18
P-4096† §	10.0 CT	5.0	4 × 3¼ × 3⅛	4.0	C	7.09	6.50	5.82	5.20	4.88
P-6139* §	10.0 CT	8.0	3⅞ × 3⅛ × 3⅛	4.9	BV	7.36	6.75	6.04	5.40	5.06
P-4097† §	10.0 CT	8.0	4 × 3¼ × 3⅝	5.2	C	7.67	7.03	6.30	5.63	5.28
P-6461*	10.0 CT	10.0	3⅞ × 3¼ × 3⅝	5.0	C	8.62	7.90	7.07	6.32	5.93
P-3020† §	11.0 CT	10.0	4¾ × 4 × 3½	7.7	C	9.78	8.97	8.03	7.17	6.73
P-8130*	12.6 CT	2.0	2 × 3¼ × 2	1.4	A	3.36	3.08	2.76	2.47	2.31
P-6469*	25.2	1.0	2 × 3¼ × 2	1.4	A	3.20	2.93	2.63	2.35	2.20

MULTIPLE SECONDARY

Part No.	Volts	Amps	H. × W. × D. Inches	Wt.‡ Lbs.	Mtg. Type	1–9	10–24	25–49	50–99	100–249
P-6333*	5.0 5.0 6.3 CT 7.5/6.3 CT	3.0 3.0 4.0 3.0	2⅞ × 2⅞ × 3⅜	4.7	BH	$9.24	$8.47	$7.58	$6.77	$6.35
P-6428* §	6.3 6.3 6.3 6.3 CT	1.75 1.75 1.75 1.75	3⅛ × 2½ × 3	3.0	C	6.09	5.58	5.00	4.47	4.19
P-6429* §	6.3 6.3 6.3 6.3 CT	3.5 3.5 3.5 3.5	3⅞ × 3⅛ × 3½	4.8	C	8.25	7.57	6.78	6.05	5.68
P-6430* §	6.3 CT 6.3 CT	3.0 3.0	3⅛ × 2½ × 3⅞	2.8	C	5.40	4.95	4.43	3.96	3.71
P-6431* §	6.3 CT 6.3 CT	6.0 6.0	3⅞ × 3⅛ × 3½	4.8	C	8.18	7.50	6.72	6.00	5.63

Primary Volts: *117 v.; † 117/107 v.; # 6.3 v. ‡ Shipping. § Has electrostatic shield.

F-SERIES FILAMENT TRANSFORMERS

Units with secondaries rated for less than 6 amps have solder-lug terminals; those with secondaries rated at more than 6 amps have screw-type terminals. Numbers F-210, F-210H and F-520HB are for high voltage rectifier supply. All primaries: 115/230 v. AC, 50/60 cps.

Part No.	Secondary		Insul. VRMS	Size, Inches H. × W. × D.	Wt., Lbs.	Net Each, Quantities of				
	Volts	Amps				1–9	10–24	25–49	50–99	100–249
F-210	2.5 CT	10	5000	3¾ × 2 11/16 × 2⅞	3	$10.64	$ 9.75	$ 8.73	$ 7.80	$ 7.31
F-210H	2.5 CT	10	9000	4¼ × 3 × 3¼	4	12.93	11.85	10.61	9.48	8.89
F-54	5.0 CT	4	2500	3 5/16 × 2⅜ × 2½	2¼	7.11	6.52	5.84	5.21	4.89
F-58	5.0 CT	10	2500	3¾ × 2 11/16 × 2⅞	3½	14.75	13.52	12.10	10.81	10.14
F-516	5.0 CT	20	2500	4 11/16 × 3 5/16 × 3 11/16	6½	18.64	17.08	15.30	13.67	12.81
F-520HB	5.0 CT	20	10,000	5 5/16 × 4⅛ × 4 9/16	13	18.49	16.95	15.18	13.56	12.71
F-530	5.0 CT	30	2500	5 5/16 × 4⅛ × 4 9/16	10½	23.91	21.92	19.63	17.53	16.44
F-615	6.3 CT	1.5	2500	2 11/16 × 2⅛ × 2¼	1	11.71	10.73	9.61	8.59	8.05
F-63	6.3 CT	3	2500	3 1/16 × 2⅜ × 2½	2	6.87	6.30	5.64	5.04	4.73
F-65	6.3 CT	5.5	2500	3¾ × 2 11/16 × 2⅞	3	12.24	11.22	10.04	8.97	8.41
F-610	6.3 CT	10	2500	4¼ × 3 × 3¼	5	16.47	15.10	13.52	12.08	13.25
F-725	7.5 CT	25	2500	5 5/16 × 4⅛ × 4 9/16	12	26.45	24.25	21.72	19.40	18.19
F-104	10 CT	4	2500	3¾ × 2 11/16 × 2⅞	3¼	12.11	11.10	9.94	8.88	8.33

CASE SIZES

Case	Depth	Width	Height
8	1½″	1½″	1 15/16″
9	1½″	1½″	2⅛″
12	2¼″	2⅛″	2 11/16″
13	2¼″	2⅛″	2 15/16″
14	2½″	2⅜″	3 3/64″
15	2½″	2⅜″	3 5/16″
16	2⅞″	2 11/16″	3½″
17	2⅞″	2 11/16″	3¾″
18	3¼″	3″	3⅞″
19	3¼″	3″	4¼″
20	3 11/16″	3 5/16″	4 5/16″
21	3 11/16″	3 5/16″	4 11/16″
22	4 9/16″	4⅛″	5 5/16″
24	5 5/16″	4 13/16″	6 1/16″
26	6⅛″	5¼″	7 1/16″

F-SERIES MULTIPLE FILAMENT TRANSFORMERS

All primaries: 105/115/125 v., 50/60 cycles. Insul. test, 2500 v., except F-8, 5000 v.

Secondary Windings			Case Size	Wt., Lbs.	Part Number	Net Each, Quantities of				
Section No. 1	Section No. 2	Section No. 3				1–9	10–24	25–49	50–99	100–249
5 v., 2 a.	6.3 v., 2.5 a.*	....	15	2¾	F-1	$17.64	$16.17	$14.48	$12.93	$12.13
5 v., 2 a.	12.6 v., 1.25 a.*	....	15	2¾	F-2	15.05	13.80	12.36	11.04	10.35
5 v., 3 a.	6.3 v., 5 a.*	....	17	3½	F-3	17.95	16.45	14.73	13.16	12.34
5 v., 3 a.	6.3 v., 3 a.*	6.3 v., 3 a.*	18	4¾	F-4†	20.64	18.92	16.94	15.13	14.19
5 v., 3 a.	6.3 v., 1 a.*	6.3 v., 5 a.*	18	4¾	F-5	22.09	20.25	18.13	16.20	15.19
6.3 v., 3 a.*	6.3 v., 3 a.*	....	17	3½	F-6‡	18.16	16.65	14.91	13.32	12.49
6.3 v., 6 a.*	6.3 v., 6 a.*	....	21	6½	F-7§	20.36	18.67	16.72	14.93	14.00
5 v., 3 a.*	5 v., 3 a.*	5 v., 6 a.*	21	7	F-8	25.13	23.03	20.63	18.42	17.28

* Center Tapped. † Sections 2 and 3 also tapped, 12.6 v. CT at 3 amps. ‡ Sections 1 and 2 also tapped at 12.6 v. CT at 3 amps. § Sections 1 and 2 also tapped 12.6 v. CT at 6 amps.

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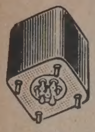
Audio Transformers: MIL-T-27A, Commercial Grade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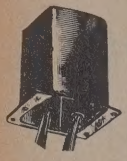
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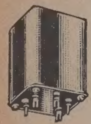
BOH, H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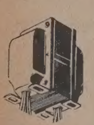

PC

WIDE RANGE OUTPUT TRANSFORMERS

Maximum operating altitude, 10,000 feet. Frequency Response: ±1 db, 30–15,000 cps. Designed and built according to MIL-T-27A requirements. Mounting type B.

Part No.	Application	Impedance		Oper. Lev.*	Case Size	Net Each, Quantities of				
		Primary	Sec.			1–9	10–24	25–49	50–99	100–249
BOH-2	P-p plates to line, 6C5's or equiv.	20K CT†	600/150 CT†	+30	16	$19.38	$17.77	$15.91	$14.21	$13.33
BOH-4	P-p plates to line, 6L6's or equiv.	7500 CT	600/150 CT†‡	+43	20	25.04	22.95	20.55	18.36	17.21
BOH-5	P-p plates to line or VC, 6V6's, equiv.	10K CT†	600/16/8 CT† 150/4†	+37	18	24.40	22.37	20.03	17.89	16.78

* Reference level of 0 dbm equals 1 mw. † Split and balanced windings. ‡ Tertiary winding for 15% inv. feedback.

MS (MILITARY STANDARD) AUDIO TRANSFORMERS

Maximum operating altitude, 50,000 feet. Frequency Response: ±2 db, 300–10,000 cps. Case size, 1⅝" sq. × 2⅜" h., Type AMS. Weight, 0.6 lbs. (max.).

Part No.	MIL-T-27A Classification	Application	Impedance		Net Each, Quantities of				
			Primary	Secondary	1–9	10–24	25–49	50–99	100–249
AMS-2	TFIRX16AJ002	Line to VC	600 CT 150	4/8/16	$16.05	$14.70	$13.15	$11.75	$11.00
AMS-3	TFIRX10AJ001	Line to p-p grids	600 CT 15C	135K CT	18.65	17.10	15.30	13.70	12.80
AMS-4	TFIRX16AJ001	Line to line	600 CT 150	600 CT 150	18.22	16.70	14.96	13.36	12.53
AMS-5	TFIRX13AJ001	Single pl. to line	7600/4800	600 CT 150	13.10	12.02	10.76	9.61	9.01
AMS-6	TFIRX13AJ002	Single pl. to VC	7600/4800	4/8/16	12.71	11.65	10.43	9.32	8.74

FULL FREQUENCY RANGE OUTPUT TRANSFORMERS

Frequency Response: ±1.5 db, 30–20,000 cps. Mounting type B semi-sealed.

Part No.	Application	Impedance, Ohms		Oper. Level*	Mtg. Type	Case Size	Net Each, Quantities of				
		Primary	Secondary				1–9	10–24	25–49	50–99	100–249
BO-1	Sing. Pl. to line	15K†	600/150 CT‡	+15 dbm	B	14	$15.56	$14.27	$12.78	$11.41	$10.70
BO-2	Push-pull plates to line	20K CT‡	600/150 CT‡	+30 dbm	B	16	18.80	17.23	15.43	14.77	12.93
BO-5	P-p plates to line or VC	10K CT‡	600/16/8 CT and 150/4‡	5 watts	B	18	22.27	20.42	18.28	16.33	15.31

* 0 dbm, reference level, 1 mw. † 0–10 DCMa. ‡ Split and balanced windings

FULL FREQUENCY RANGE INPUT TRANSFORMERS

Frequency Response: ±1 db, 30–15,000 cps. Primary and secondary windings split and balanced. Mounting type B semi-sealed.

Part No.	Application	Impedance, Ohms		Oper. Level	Mtg. Type	Case Size	Net Each, Quantities of				
		Primary	Secondary				1–9	10–24	25–49	50–99	100–249
BI-2	Line to single or p-p grids	600/150 CT	50K CT	+15 dbm	B	12	$36.33	$33.30	$29.82	$26.64	$24.98
BI-3	Line bridging to p-p grids	8K/6K CT	50K CT	+15 dbm	B	12	32.64	29.92	26.79	23.93	22.44

PUBLIC ADDRESS RANGE DRIVER TRANSFORMER

Frequency Response: ±½ db, 50–10,000 cps. Ratio of primary to ½ secondary, 3:1. Mounting type C semi-sealed. Weight, 2¼ lbs.

Part No.	Typical Driver Tubes	Primary Imped.	Max. DC in Pri.	Case Size	Net Each, Quantities of				
					1–9	10–24	25–49	50–99	100–249
PCD-25	P-p 6N7's, 6A6's, 6J5's, 6C4's, etc.	20K CT	25 ma	15	$7.82	$7.17	$6.42	$5.73	$5.38

OUTPUT TRANSFORMERS

PUSH-PULL

Power level, 15 watts. Max. DC in pri., 200 ma. Mtg. type C semi-sealed. Case Size 19. Wt., 5 lbs.

Part No.	Typical Output Tubes	Class	Impedance, Ohms		Net Each, Quantities of				
			Primary	Secondary	1–9	10–24	25–49	50–99	100–249
PCO-150	6V6's, 6F6's	AB	10K CT	600/150/16/8/4	$13.18	$12.08	$10.82	$ 9.67	$9.06
PCO-150A	6V6's, 6F6's	AB	12K CT	600/150/16/8/4	14.05	12.88	11.54	10.31	9.66

SINGLE-PLATE TO LINE OR VOICE COIL

Power level, 5 watts. Max. DC in pri., 55 ma. Mtg. type C semi-sealed. Case size, 14. Wt., 2¼ lbs.

COC-1	6L6, 6V6, 25A6	A	5K	600/150/16/8/4	$8.29	$7.60	$6.81	$6.08	$5.70
COC-2	6F6, 6V6, 6N6, 6K6, 7B5	A	8K	600/150/16/8/4	9.93	9.10	8.15	7.28	6.83

COMMUNICATIONS RANGE INPUT TRANSFORMERS

Frequency Response: 1 db, 200–3500 cps. Mtg. type C semi-sealed. Case size 9. Wt., ¾ lbs.

Part No.	Application	Impedance, Ohms		Net Each, Quantities of				
		Primary	Secondary	1–9	10–24	25–49	50–99	100–249
CIC-1	Low level line to single or p-p grids	600/150 CT	100K CT	$16.40	$15.03	$13.46	$12.03	$11.28
CIC-2	Low level SB or DB mic. to sgl. or p-p grids	125/50, 80 ma	125K CT	7.29	6.68	5.99	5.35	5.01

WF SERIES FULL FREQUENCY RANGE AUDIO TRANSFORMERS

Frequency Response: ±2 db, 30–20,000 cps. Maximum operating level, +7 db. Mtg. type WF. Size, 1½" sq. × 2". Weight, 0.6 lbs.

Part No.	Application	Impedance, Ohms		Net Each, Quantities of				
		Primary	Secondary	1–9	10–24	25–49	50–99	100–249
WF-20	Low imped. mic., pick-up or line to grid	50, 125/150, 200, 250, 333, 500/600	50K	$13.09	$12.00	$10.75	$9.60	$9.00
WF-21*	Low imp. mic., pickup or line to sgl. or p-p grids	50, 200, 500	50K	11.91	10.92	9.78	8.73	8.19
WF-22	Low imp. mic., pickup or line to p-p grids	50, 125/150, 200, 250, 333, 500/600	80K overall, 2 sections	11.91	10.92	9.78	8.73	8.19
WF-30	Low imp. mixer, mic., pickup or line to line	50, 125/150, 200 250, 333, 500/600	50, 125/150, 200, 250, 333, 500/600	13.62	12.48	11.18	9.99	9.36
WF-36†	P-p low level plates to line (output)	30,000 plate-to-plate	50, 125/150, 200, 250, 333, 500/600	13.09	12.00	10.75	9.60	9.00

* Frequency Response: ±2 db. 50–20,000 cps, magnetic shield. † Use shunt plate feed to keep DC out of primary winding.

HIGH FIDELITY OUTPUT TRANSFORMERS

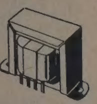
Frequency response excellent from 20 to 20,000 cps. Extremely low level of intermodulation distortion over entire range and at any power level. **Type PC** upright shell mounting for all units. Shipping Weight, 6.5 lbs. Size: 4⁵⁄₁₆" h. × 3⁹⁄₁₆" w. × 4¼" d.

Part No.	Pri. Imp. (PP) Ohms	Sec. Imp. Ohms*	Max. Watts	Max. Pri. DCMa†	Net Each, Quantities of				
					1–9	10–24	25–49	50–99	100–249
A-8053	5000	8, 16	50	150	$13.38	$12.27	$10.99	$ 9.81	$ 9.20
A-8056	6600	8, 16	50	125	13.38	12.27	10.99	9.81	9.20
A-8054	9000	8, 16	50	100	13.38	12.27	10.99	9.81	9.20
A-8072**	7600	4, 8, 16	25	100	16.36	15.00	13.43	12.00	11.25

* Where more than one secondary impedance is shown, only one value is to be used at any time. ** Primary provided with screen taps for ultra-linear use. † DCMa per half of primary.

STANCOR ELECTRONICS, INC.

Audio, Special Purpose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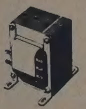
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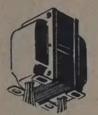
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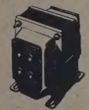
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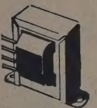
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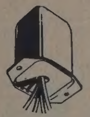
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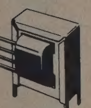
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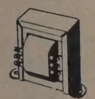
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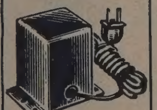
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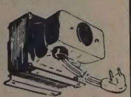
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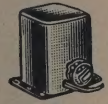
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SINGLE PLATE TO VOICE COIL

Part No.	Impedance in Ohms		Max. Watts	Mtg. Type	Net Each, Quantities of				
	Primary	Secondary			1–9	10–24	25–49	50–99	100–249
A-3332	2,000	3.2	3	A	$1.36	$1.25	$1.12	$1.00	$0.94
A-3876	2,000	4	5	A	1.45	1.33	1.19	1.07	1.00
A-3328	4,000	3.5	3	A	1.35	1.23	1.10	.99	.93
A-2203	4,000	8	5	A	2.42	2.22	1.99	1.77	1.66
A-3877	5,000	4	5	A	1.45	1.33	1.19	1.07	1.00
A-8092	5,000	3–4	8	A	2.05	1.88	1.69	1.51	1.41
A-3337	5,000	6–8	10	S	2.29	2.10	1.88	1.68	1.58
A-3310	5,000	500, 15, 8, 4	20	C	5.60	5.13	4.60	4.11	3.85
A-3878	7,000	4	5	A	1.49	1.37	1.22	1.09	1.03
A-2313	7,000	8	10	A	2.51	2.30	2.06	1.84	1.73
A-8114	7,600	3.2	5	A	1.73	1.58	1.42	1.27	1.19
A-3329	8,000	3.5	3	A	1.35	1.23	1.10	.99	.93
A-3879	10,000	4	5	A	1.45	1.33	1.19	1.07	1.00
A-3881	15,000	4	5	A	1.60	1.47	1.31	1.17	1.10
A-3327	25,000	4	5	A	1.80	1.65	1.48	1.32	1.28

PUSH-PULL PLATES TO VOICE COIL

Part No.	Impedance in Ohms		Max. Watts	Mtg. Type	Net Each, Quantities of				
	Primary, CT	Secondary			1–9	10–24	25–49	50–99	100–249
A-8098†	2,000	8, 16, 32	15	C	$ 7.98	$ 7.32	$6.55	$5.85	$5.49
A-3802	3,800/3,300	500, 250, 8, 4	75	C	11.78	10.80	9.67	8.64	8.10
A-8094†	4,000	8, 16, 32	7½	A	4.00	3.67	3.28	2.93	2.75
A-3851*	4,400	500, 250, 15, 8, 4	30	C	7.27	6.67	5.60	5.33	5.00
A-3872	5,000	15, 8, 4	18	TD	4.58	4.20	3.76	3.36	3.15
A-3800	5,000	500, 250, 15, 8, 4	30	C	6.75	6.18	5.54	4.95	4.64
A-3307	6,000	500, 15, 8, 4	30	C	7.76	7.12	6.37	5.69	5.34
A-3801	6,600	500, 250, 15, 8, 4	35	C	8.58	7.87	7.04	6.29	5.90
A-3885	9,000	500, 250, 15, 8, 4	35	C	8.51	7.80	6.99	6.24	5.85
A-4432	10,000	4	10	S2	2.42	2.22	1.99	1.77	1.66
A-3304	10,000/7,000	500, 15, 8, 4	25	C	6.31	5.78	5.18	4.63	4.34
A-3311	10,000	500, 15, 8, 4	25	C	6.78	6.22	5.57	4.97	4.66
A-3831	10,000	8, 4, 2	5	A	2.65	2.43	2.18	1.95	1.83
A-8093	10,000	3–4	10	A	2.13	1.95	1.75	1.56	1.46
A-3335	10,000	6–8/3.2–4	10	S	3.09	2.83	2.54	2.27	2.13
A-3839	10,000	2,000, 15, 8, 4	10	TD	4.75	4.35	3.90	3.48	3.26
A-2312	14,000	4	10	A	2.80	2.57	2.30	2.05	1.93
A-3496	14,000	4	5	A	2.65	2.43	2.18	1.95	1.83
A-3303	14,000	500, 15, 8, 4	20	C	6.42	5.88	5.27	4.71	4.41
A-3857	25,000	4	5	A	2.36	2.17	1.94	1.73	1.63

* Has tertiary winding to provide 10% inverse feedback. † For use in "Twin-Coupled" amplifier.

SINGLE PLATE TO PUSH-PULL GRIDS

Single Plate (7,000 to 15,000 ohms) to p-p class "A" grid; rated 10 ma DC. A-53 Single Plate to Single Grid (7,000–20,000 ohms).

Part No.	Turns Ratio	H. × W. × D. Inches	Mtg. Type	Net Each, Quantities of				
				1–9	10–24	25–49	50–99	100–249
A-53	1:3	1⅜ × 2⅜ × 1½	A	$1.98	$1.82	$1.63	$1.45	$1.36
A-53-C	1:3	1⅜ × 2⅜ × 1⅜	A	2.36	2.17	1.94	1.73	1.63

VIBRATOR TRANSFORMER

Part No.	Secondary VAC	Filter Input VDC*	DC Ma	Recom. Buffer Capac.	Mtg. Type	Net Each, Quantities of				
						1–9	10–24	25–49	50–99	100–249
P-6166†	350–0–350	6.3‡	135	.01 μf	C	$11.87	$10.88	$9.75	$8.71	$8.16

* When used with sync vibrator. † 6 v. DC and 117 v. AC primaries. ‡ Filament, at 2.25 amps.

AUTOMATION CONTROL TRANSFORMERS

Primary, 115/230 v. AC, 50/60 cps on all models.

Part No.	Secondary		VA Rating	Mtg. Type	Wt., Lbs.	Net Each, Quantities of				
	Parallel	Series				1–9	10–24	25–49	50–99	100–249
P-6375	6 v. at 2 amps	12 v. at 1 amp	12	J	1	$ 3.42	$ 3.13	$ 2.81	$2.51	$2.35
P-6376	6 v. at 4 amps	12 v. at 2 amps	24	J	1½	3.71	3.40	3.04	2.72	2.55
P-6377	12 v. at 4 amps	24 v. at 2 amps	48	J	2½	4.69	4.30	3.85	3.44	3.23
P-6378	12 v. at 8 amps	24 v. at 4 amps	96	BV	4¼	7.58	6.95	6.22	5.65	5.21
P-6379	12 v. at 16 amps	24 v. at 8 amps	192	BV	8	13.07	11.98	10.73	9.59	8.99

MOBILE OR FIXED TRANSISTOR POWER TRANSFORMER

Part Number	Primaries	Secondaries	RMS V. Test	Mtg. Type	Size, In.			Net Each, Quantities of				
					H.	W.	D.	1–9	10–24	25–49	50–99	100–249
P-8195	12 v. DC or 117 v. AC 60 cycles	280 v. DC at 150 ma* and 12.6 v. AC at 3 amps†	1500	C	3⅞	3⅞	3⅛	$13.60	$12.47	$11.16	$9.97	$9.35

* Continuous duty, 250 ma intermittent. † With 117 v. AC primary only.

STEPUP-STEPDOWN TRANSFORMERS

Use with air conditioners. 60 cps; 208/230 v.; 230/208 v.

Part No.	Output, KVA	For Motor Size	Size, Inches H. × W. × D.	Shpg. Wt., Lbs.	Mtg. Type	Net Each, Quantities of				
						1–9	10–24	25–49	50–99	100–249
PSU-2000	2.3	.5–1 hp	3½ × 3¾ × 6½	9	PSU	$16.40	$15.03	$13.46	$12.03	$11.28
PSU-3000	3	1–2 hp	4 × 4½ × 6	10	PSU	19.71	18.07	16.18	14.45	13.55

STEP-DOWN TRANSFORMERS (PRIMARY, 50/60 CYCLES)

Input side is provided with an eight-foot covered cord and plug for use in wall receptacle, etc; output side has standard female receptacle. Mounting type SD.

Part Number	Input Voltage	Output Voltage	Rating, Cont. Duty	Wt., Lbs.	Net Each, Quantities of				
					1–9	10–24	25–49	50–99	100–249
SD-50	220–250	110–125	50 watts	2¾	$ 5.96	$ 5.47	$ 4.90	$ 4.37	$ 4.10
SD-100	220–250	110–125	100 watts	4¼	7.47	6.85	6.13	5.48	5.14
SD-150	220–250	110–125	150 watts	7	9.47	8.68	7.78	6.95	6.51
SD-250	220–250	110–125	250 watts	8¾	11.24	10.30	9.22	8.24	7.73
SD-500	220–250	110–125	500 watts	14½	16.96	15.55	13.93	12.44	11.66
SD-1000	220–250	110–125	1000 watts	22½	24.09	22.08	19.78	17.67	16.56

ISOLATION TRANSFORMERS (PRIMARY, 50/60 CYCLES)

Eight-foot rubber-covered cord with plug is provided on the primary, secondary has standard female receptacle. Mounting type IS.

Part Number	Input Voltage†	Output Voltage	Rating, Cont. Duty	Wt., Lbs.	Net Each, Quantities of				
					1–9	10–24	25–49	50–99	100–249
IS-50	105/115/125	125/115/105*	50 watts	5	$11.20	$10.27	$ 9.19	$ 8.21	$ 7.70
IS-100	105/115/125	125/115/105*	100 watts	8½	14.69	13.47	12.06	10.77	10.10
IS-150	105/115/125	125/115/105*	150 watts	12½	17.29	15.85	14.19	12.68	11.89
IS-250	105/115/125	125/115/105*	250 watts	18¼	23.44	21.48	19.24	17.19	16.11

* With 115 v. AC primary only. † Switch selected.

STANCOR ELECTRONICS, INC.

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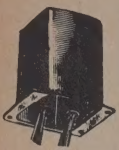
Filter Reactors; Isolation, Line Adjusting Transformers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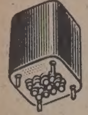
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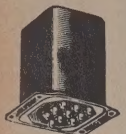
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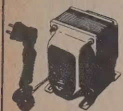
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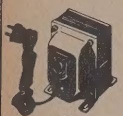
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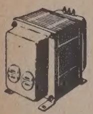
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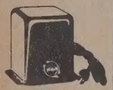
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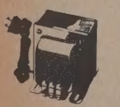
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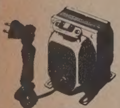
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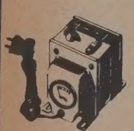
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FILTER REACTORS

Units have high grade magnet wire coils wound on non-aging, silicon steel cores; housed in seamless, drawn steel cases and sealed with special moisture-resistant compound. Hermetically sealed units, H-Type meet the rigid standards of Grade 4, MIL-T-27A specifications for Class R operation. One-piece steel covers are bonded by deep-seal soldering. Semi-sealed units, S-Type, have steel base covers fitted with phenolic terminal boards, numbered solder lugs. Compound sealed units, C-Type have fiber board covers and 10" color-coded leads.

MIL-T-27A "H" TYPE MOUNTING UNITS

Inductance in Henries	Max. Cur. DC Ma	DC Resist. in Ohms	Insul. Test Volts RMS	Wt., Lbs.	Part No.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
15	10	680	1,000	1	RH-1510	8	$ 8.91	$ 8.17	$ 7.31	$ 6.53	$ 6.13
15	20	680	1,000	1	RH-1520	8	7.16	6.57	5.88	5.25	4.93
15	40	475	2,500	1½	RH-1540	12	8.78	8.05	7.21	6.44	6.04
15	55	420	2,500	2	RH-1555	13	8.82	8.08	7.24	6.47	6.06
15	85	285	2,500	2¾	RH-1585	14	9.76	8.95	8.01	7.16	6.71
12	105	170	2,500	4	RH-12105	17	11.76	10.78	9.66	8.63	8.09
12	150	150	2,500	5½	RH-12150	19	13.49	12.37	11.07	9.89	9.28
12	200	140	2,500	7	RH-12200	20	15.60	14.30	12.81	11.44	10.73
10	55	230	2,500	1¾	RH-1055	13	8.75	8.02	7.18	6.41	6.01
10	85	175	2,500	2½	RH-1085	14	9.60	8.80	7.88	7.04	6.60
8	105	100	2,500	3¾	RH-8105	17	11.89	10.90	9.76	8.72	8.18
8	150	100	2,500	5¼	RH-8150	18	13.00	11.92	10.67	9.53	8.94
8	200	85	2,500	7	RH-8200	20	15.45	14.17	12.69	11.33	10.63
8	250	90	2,500	10½	RH-8250	22	17.78	16.30	14.60	13.04	12.23
8	300	60	3,500	12½	RH-8300	22	22.45	20.58	18.43	16.47	15.44

SEMI-SEALED "S" TYPE MOUNTING UNITS WITH LUGS

Inductance in Henries	Max. Cur. DC Ma	DC Resist. in Ohms	Insul. Test Volts RMS	Wt., Lbs.	Part No.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
15	40	475	2,500	1½	RS-1540	12	$ 7.22	$ 6.62	$ 5.93	$ 5.29	$ 4.96
15	55	421	2,500	2	RS-1555	12	7.53	6.90	6.18	5.52	5.18
15	85	285	2,500	2¾	RS-1585	15	8.69	7.97	7.13	6.37	5·98
12	105	170	2,500	4	RS-12105	17	10.38	9.52	8.52	7.61	7.14
12	150	150	2,500	5½	RS-12150	19	11.69	10.72	9.60	8.57	8.04
12	200	140	2,500	7	RS-12200	21	13.71	12.57	11.25	10.05	9.43
10	55	230	2,500	1¾	RS-1055	12	7.47	6.85	6.13	5.48	5.14
10	85	175	2,500	2½	RS-1085	15	8.29	7.60	6.81	6.08	5.70
8	105	100	2,500	3¾	RS-8105	17	10.51	9.63	8.63	7.71	7.23
8	150	100	2,500	5¼	RS-8150	19	12.42	11.38	10.19	9.11	8.54
8	200	85	2,500	7	RS-8200	21	8.51	7.80	6.99	6.24	5.85
8	300	60	3,500	12½	RS-8300	22	12.93	11.85	10.61	9.48	8.89

SEMI-SEALED "C" TYPE MOUNTING UNITS WITH LEADS

Inductance in Henries	Max. Cur. DC Ma	DC Resist. in Ohms	Insul. Test Volts RMS	Wt., Lbs.	Part No.	Case No.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
15	40	475	2,500	1½	RC-1540	12	$ 5.15	$ 4.72	$ 4.22	$ 3.77	$ 3.54
15	55	421	2,500	2	RC-1555	12	5.89	5.40	4.84	4.32	4.05
15	85	285	2,500	2¾	RC-1585	14	6.78	6.22	5.57	4.97	4.66
12	105	170	2,500	4	RC-12105	16	10.38	9.52	8.52	7.61	7.14
12	200	140	2,500	7	RC-12200	20	11.11	10.18	9.12	8.15	7.64
10	55	230	2,500	1¾	RC-1055	12	5.42	4.97	4.45	3.97	3.73
10	85	175	2,500	2½	RC-1085	14	6.16	5.65	5.06	4.52	4.24
8	150	100	2,500	5¼	RC-8150	18	9.58	8.78	7.87	7.03	6.59
8	200	85	2,500	7	RC-8200	20	10.85	9.95	8.91	7.96	7.46
8	300	60	3,500	12½	RC-8300	22	14.49	13.28	11.90	10.63	9.96

CASE SIZES

Case	Depth	Width	Height	Case	Depth	Width	Height	Case	Depth	Width	Height
8	1½"	1½"	1 15/16"	15	2½"	2⅜"	3 5/16"	20	3 11/16"	3 5/16"	4 5/16"
9	1½"	1½"	2⅛"	16	2⅞"	2 11/16"	3½"	21	3 11/16"	3 5/16"	4 11/16"
12	2¼"	2⅛"	2 11/16"	17	2⅞"	2 11/16"	3¾"	22	4 9/16"	4⅛"	5 5/16"
13	2¼"	2⅛"	2 15/16"	18	3¼"	3"	3⅞"	24	5 5/16"	4 13/16"	6 1/16"
14	2½"	2⅜"	3 3/64"	19	3¼"	3"	4¼"	26	6⅛"	5¼"	7 1/16"

ISOLATION TRANSFORMERS

Built-in electrostatic shields grounded to core internally.

STRAIGHT ISOLATION (125/115/105 V. 50/60 cps. TO 115 V.)

Part No.	Watts	Mtg. Type	H. × W. × D. Inches	Shpg. Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
P-6410*	50	K	3 9/16 × 2 15/16 × 3⅛	3.7	$ 7.78	$ 7.13	$ 6.39	$ 5.71	$ 5.35
P-6160	100	KA	4¾ × 4 × 3⅞	7	14.22	13.03	11.67	10.43	9.78
P-6161	250	KA	4¾ × 4 × 5⅜	14.2	21.02	19.27	17.25	15.41	14.45
P-6298	500	KA	7⅝ × 6⅛ × 7⅝	28	42.31	38.78	34.73	31.03	29.09
P-6125	1000	FK	7¾ × 5⅝ × 7¾	34.8	66.53	60.98	54.61	48.79	45.74
P-6123	1500	FK	7¾ × 5⅝ × 9	49.8	92.64	84.92	76.05	67.93	63.69
P-6371†	175	TE	5 5/16 × 4 9/16 × 5¼	9	18.98	17.40	15.58	13.92	13.05

* Primary 115 v. only. † Specifically designed for AC-DC Portable TV Receivers. Primary 117 v. only.

STEP-DOWN ISOLATION (250/230/210 V. 50/60 cps. TO 115 V.)

P-6383	100	KA	4¾ × 4 × 3¾	7.3	$14.36	$13.17	$11.79	$10.53	$ 9.88
P-6385	250	KA	4¾ × 4 × 5⅜	14.2	23.40	21.45	19.21	17.16	16.09

ISOLATION TESTING (117 V. 50/60 cps. TO 105/115/125 V.)

P-6415	350	KC	5⅜ × 4½ × 5¾	17	$23.07	$21.15	$18.94	$16.92	$15.86

AUTOTRANSFORMERS

115 v. secondary; 230 v. primary. 50/60 cps.

Part No.	Watts	H. × W. × D. Inches	Shpg. Wt., Lbs.	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
P-6287	40	3½ × 2 11/16 × 2 7/16	2.2	K2	$ 6.36	$ 5.83	$ 5.22	$ 4.67	$ 4.38
P-5062	80	3⅝ × 3 × 3¼	3.8	K	7.78	7.13	6.39	5.71	5.35
P-5063	100	4 × 3¼ × 3¼	4.5	K	8.25	7.57	6.78	6.05	5.68
P-5064	150	4 5/16 × 3⅝ × 3⅝	5.2	K	9.73	8.92	7.99	7.13	6.69
P-5065	300	4¾ × 4 × 4⅛	8.8	K	13.51	12.38	11.09	9.91	9.29
P-6141	500	4¾ × 4 × 5⅛	13.7	K	17.78	16.30	14.60	13.04	12.24

LINE ADJUSTING TRANSFORMERS

Nominal output, 115 v. Input (50–60 cps); 65/75/90/100/115/130/145 v. Type PV case with output meter.

Part No.	Watts	H. × W. × D. Inches	Shpg. Wt., Lbs.	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
PV-6441	150†	5½ × 3⅞ × 5⅜	6.4	PV	$19.44	$17.82	$15.96	$14.25	$13.36
PV-6442	350†	5½ × 3⅞ × 6⅛	10.5	PV	22.38	20.52	18.37	16.41	15.39
PV-6443	500†	5½ × 3⅞ × 6⅞	15.0	PV	24.75	22.68	20.31	18.15	17.01

† Watts to pure resistive load. To other types of loads, multiply rating of line adjuster by power factor of load for actual wattage.

STANCOR ELECTRONICS, INC.

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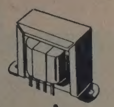
Chokes, Filters, Toroids — Voltage Stabilizers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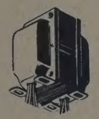
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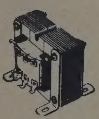
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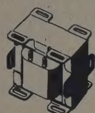
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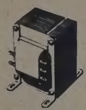
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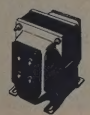
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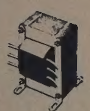
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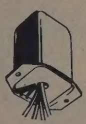
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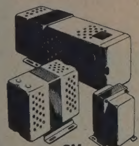
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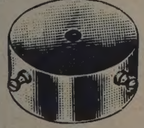

TM

SMOOTHING CHOKES

For DC power supplies. Rated 10 v., 60 cps. with max. DC in windings. Tolerance of −15% + 50% on all ratings.

Part No.	Hys.	Ma	Ohms	H. × W. × D. Inches	Mtg. Type	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
C-2707	2.0	15	70	1 3/16 × 2 3/16 × 1 1/4	A	0.4	$ 1.50	$ 1.35	$ 1.22	$ 1.13	$ 1.07
C-2344	1.5	10	85	1 1/4 × 2 1/8 × 1 1/8	A	0.5	1.09	1.00	.90	.80	.75
C-1515	20.0	15	900	1 5/8 × 2 7/8 × 1 1/2	A	0.7	2.11	1.93	1.73	1.55	1.45
C-2318	12.0	30	400	1 3/8 × 2 3/8 × 1 3/8	A	0.5	1.80	1.65	1.48	1.32	1.24
C-1706	4.5	50	300	1 3/8 × 2 3/8 × 1 3/8	A	0.4	1.25	1.15	1.03	.92	.86
C-1707	7.0	50	550	1 3/8 × 2 3/8 × 1 3/8	A	0.4	1.38	1.27	1.13	1.01	.95
C-1003	16.0	50	580	2 × 3 1/4 × 1 3/4	A	1.1	2.13	1.95	1.75	1.56	1.46
C-1708	13.0	65	500	2 × 3 1/4 × 1 3/4	A	1.0	2.36	2.17	1.94	1.73	1.63
C-1355	8.0	75	290	2 1/16 × 2 5/16 × 1 3/4	L	1.0	2.60	2.38	2.13	1.91	1.79
C-1002	15.0	75	400	2 1/4 × 3 3/4 × 2 1/4	A	1.7	2.84	2.60	2.33	2.08	1.95
C-1420	16.0	80	360	3 3/16 × 2 5/8 × 2 5/8	C	2.5	4.55	4.17	3.73	3.33	3.13
C-1709	8.0	85	250	2 × 3 1/4 × 2	A	1.4	2.36	2.17	1.94	1.73	1.63
C-2305	5.0	100	300	2 11/16 × 2 3/4 × 2 3/16	TD	1.5	3.38	3.10	2.78	2.48	2.35
C-1001	10.5	110	225	2 5/8 × 4 × 2 1/4	A	2.3	3.50	3.22	2.88	2.57	2.41
C-2704	9	125	250	2 1/4 × 3 5/8 × 1 7/8	A	1.8	3.02	2.77	2.48	2.21	2.08
C-2303	2.5	130	100	2 × 3 1/4 × 1 3/4	A	1.0	2.20	2.02	1.81	1.61	1.51
C-1421	7.0	140	165	3 3/16 × 2 5/8 × 2 5/8	C	2.5	4.55	4.17	3.73	3.33	3.13
C-2304	2.3	150	60	2 × 3 1/4 × 1 3/4	A	1.0	2.20	2.02	1.81	1.61	1.51
C-2309	3.0	150	90	2 1/4 × 3 3/4 × 2 1/4	A	1.7	2.53	2.32	2.07	1.85	1.74
C-1710	7.0	150	200	2 5/8 × 4 × 2 1/4	A	2.2	3.53	3.23	2.90	2.59	2.43
C-2335	7.0	150	170	3 × 2 1/2 × 3	TD	2.3	4.91	4.50	4.03	3.60	3.38
C-1410	4.0	175	100	3 3/16 × 2 5/8 × 2 5/8	C	2.4	4.45	4.08	3.66	3.27	3.06
C-2327	1.5	200	85	1 5/8 × 2 7/8 × 1 1/2	A	0.8	1.76	1.62	1.45	1.29	1.21
C-2325	2.0	200	60	2 1/4 × 3 3/4 × 2 1/4	A	1.8	2.80	2.57	2.30	2.05	1.93
C-1646	5.0	200	90	4 × 3 1/4 × 3 3/8	C	4.5	6.67	6.12	5.48	4.89	4.59
C-1411	4.5	200	80	3 5/8 × 3 × 3 1/8	C	3.5	5.56	5.10	4.57	4.08	3.83
C-1721	8.5	200	120	3 7/8 × 3 1/8 × 3	NV	4.4	7.36	6.75	6.04	5.54	5.06
C-2705	10	200	150	3 9/16 × 3 × 3 1/2	C	4.5	7.11	6.52	5.84	5.21	4.89
C-1703	4.0	250	60	3 1/2 × 2 7/8 × 3 3/16	BV	4.2	6.09	5.58	5.00	4.47	4.19
C-1412	4.0	250	60	3 5/8 × 3 × 3 1/2	C	4.3	6.84	6.27	5.61	5.01	4.70
C-2326	1.0	300	43	2 1/4 × 3 3/4 × 2 1/4	A	1.7	2.85	2.62	2.34	2.09	1.96
C-2334	2.8	300	60	2 5/8 × 2 1/4 × 4	A	2.5	3.47	3.18	2.85	2.55	2.39
C-1722	8.0	300	80	4 5/8 × 3 3/4 × 3 1/2	NV	7.3	10.84	9.93	8.90	7.95	7.45
C-1413	8.0	300	80	4 3/4 × 4 × 4 1/8	D	7.8	11.25	10.32	9.24	8.25	7.74
C-2308	8.0	300	80	4 3/4 × 4 × 3 7/8	C	7.8	10.84	9.93	8.90	7.95	7.45
C-2328	0.8	375	25	2 1/4 × 3 3/4 × 2	A	1.5	3.53	3.23	2.90	2.59	2.43
C-1414	7.5	400	60	4 3/4 × 4 × 5 1/8	D	11.8	15.40	14.12	12.64	11.29	10.59
C-2708	0.32	600	10	1 15/16 × 3 5/16 × 2	A	1.3	2.87	2.40	2.16	2.00	1.90
C-1723	4.5	50	325	1 3/8 × 2 3/8 × 1 3/8	A	0.4	1.38	1.27	1.13	1.01	.95

SWINGING CHOKES

For AC-DC power supplies. Rated at 10 v., 60 cps, with max. DC in winding. Tolerance of −15% + 50% on all ratings.

Part No.	Hys.	Ma	Ohms	H. × W. × D. Inches	Mtg. Type	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
C-1716	13.5–3.5	15–150	130	3 3/16 × 2 5/8 × 2 1/2	C	2.3	$ 4.35	$ 3.98	$ 3.57	$ 3.19	$ 2.99
C-1400	12–2	17.5–175	100	3 3/16 × 2 5/8 × 2 5/8	C	2.4	4.65	4.27	3.82	3.41	3.20
C-1401	12–2	20–200	80	3 5/8 × 3 × 3 1/8	C	3.5	5.84	5.35	4.79	4.28	4.01
C-1402	12–2	25–250	60	3 5/8 × 3 × 3 1/2	C	4.3	6.84	6.27	5.61	5.01	4.70
C-2307	20–4	30–300	80	4 3/4 × 4 × 3 7/8	C	7.9	11.22	10.28	9.21	8.23	7.71
C-1404	17–3	40–400	60	4 3/4 × 4 × 5 1/8	D	11.7	14.95	13.70	12.27	10.96	10.28

AUDIO FILTER

SPLATTER SUPPRESSOR FILTER

For use between the Modulator and RF Amplifier.

Part No.	Ind. Range Henries*	Max. DC Ma	Mtg. Type	H. × W. × D. Inches	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
C-2317	0.048–0.9	300	BH	2 5/8 × 3 × 3	$5.47	$5.02	$4.49	$4.01	$3.76

* Taps provided to obtain various amounts of inductance.

AUDIO CHOKE

Rated at 2 v., 200 cps. with max. DC in windings. Tolerance of −15% + 50% on rating.

Part No.	Hys.	Ma	Ohms	H. × W. × L. Inches	Mtg. Type	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
C-1003	16	50	580	2 × 3 1/4 × 1 3/4	A	$2.13	$1.95	$1.75	$1.56	$1.46

HIGH CURRENT FILTER CHOKES

Inductance values rated at 1 v. rms, 60 cps.

Part No.	Hys.	Amps	Ohms	H. × W. × D. Inches	Mtg. Type	Wt., Lbs.	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
C-2685	.035	2.0	.75	2 3/8 × 2 5/8 × 2 3/4	BH	1.9	$ 3.49	$ 3.20	$ 2.87	$2.56	$2.40
C-2686	.025	4.0	.425	3 × 3 3/8 × 2 7/8	BH	3.4	5.95	5.45	4.88	4.36	4.09
C-2687	.01	8.0	.15	3 1/4 × 3 3/4 × 3 3/16	BH	5.3	7.82	7.17	6.42	5.73	5.38
C-2688	.01	12.5	.11	3 1/2 × 4 1/8 × 3 1/16	BH	5.9	9.00	8.27	7.39	6.60	6.19
C-2689	.005	22.5	.03	3 7/8 × 4 1/2 × 4 1/2	BH	11.9	13.20	12.10	10.84	9.68	9.08
C-2690	0.3†	1‡	3§	3 7/16 × 2 7/8 × 3 1/4	BV	5	7.87	7.22	6.46	5.77	5.41
C-2691	80#	2.5●	0.6▲	3 3/4 × 3 1/8 × 3 3/4	BV	7	10.04	9.20	8.24	7.36	6.90

† Series, 0.075 hy parallel. ‡ Series, 2 parallel. § Series, .75 parallel. # Mh, series, 20 mh parallel. ● Series, 5 parallel. ▲ Series, 0.15 parallel.

POWERGUARD VOLTAGE STABILIZERS—60 Cps. Single Phase, AC—Mounting Type CV

Automatically provide stable output voltages (±1%) for input voltage variations of ±15%. No moving parts and compact, shock resistant construction insure maintenance-free operation. Regulation occurs within 25 milli-seconds or 1 1/2 cycles. Safeguard and improve the operation, efficiency and life of equipment being regulated. Completely integrated construction except* units below have separate capacitors.

Part No.	VA Rating	Input Volts	Output Volts	Wt., Lbs.	Size—Inches H	W	D	Net Each, Quantities of 1–4	5–9	10–24	25–49
CV15D	15	95–130	117	4 1/2	3 1/2	2 5/8	5 9/16	$ 15.00	$ 13.00	$ 12.75	$ 12.00
CV30H	30	95–130	117	7	5 1/8	3 1/8	6	20.00	18.00	17.00	16.00
CV30S*	30	95–130	117	7	5 1/8	3 1/8	3 1/8	16.00	14.40	13.60	12.80
CV60H	60	95–130	117	9	5 1/8	3 1/8	6 5/8	25.00	22.50	21.25	20.00
CV60S*	60	95–130	117	9	5 1/8	3 1/8	3 11/16	21.00	18.90	17.85	16.80
CV120H	120	95–130	117	11 1/2	5 1/8	3 1/8	7 3/8	33.00	29.75	28.00	26.50
CV120S*	120	95–130	117	11 1/2	5 1/8	3 1/8	5 9/16	29.00	26.20	24.60	23.30
CV250H	250	95–130	117	26	6 1/4	5 3/4	12 5/8	49.00	44.00	41.50	39.00
CV500H	500	95–130	117	33	6 1/4	5 3/4	13 7/8	77.00	69.00	65.50	61.50
CV750H	750	95–130	117	46	6 1/4	5 3/4	14 3/4	97.00	87.00	82.50	77.50
CV1000H	1000	95–130	117	57	6 1/4	5 3/4	16 3/4	128.00	115.00	109.00	102.50
CV1500H	1500	#	@	85	9	8 1/4	17 3/4	173.00	155.00	147.00	138.00
CV2000H	2000	#	@	105	9	8 1/4	19 3/8	232.00	208.00	197.00	185.00
CV3000H	3000	#	@	138	9	8 1/4	22 1/2	315.00	282.00	266.00	250.00

* Separate capacitor unit. # 95–130, 175–235, 200–260. @ 117/234.

ADAPTER KITS—3 conductor input cord and 3 way receptacle.

Part No. A-18K, 30–120 VA range, $2.00 net.
Part No. A-16K, 250–1000 VA range, $2.50 net.

MOLDED TOROIDAL INDUCTORS

Tolerance ±1% on inductance. Temperature range, −55° C to +85° C. Size: 1 1/16" dia. × 1/2" h. Shpg. Wt., 1 1/2 oz.

Part Number	Ind. Mh	DC Ω	Net Each, Quantities of 1–9	10–24	25–49	50–99	100–249
TM-2A	2	.72	$4.91	$4.50	$4.03	$3.60	$3.38
TM-5A	5	1.85	4.91	4.50	4.03	3.60	3.38
TM-10A	10	3.25	4.91	4.50	4.03	3.60	3.38
TM-20A	20	7.0	4.91	4.50	4.03	3.60	3.38
TM-50A	50	18.5	$4.91	$4.50	$4.03	$3.60	$3.38
TM-100A	100	32.5	4.91	4.50	4.03	3.60	3.38
TM-1000A	1000	340	6.22	5.70	5.10	4.56	4.28

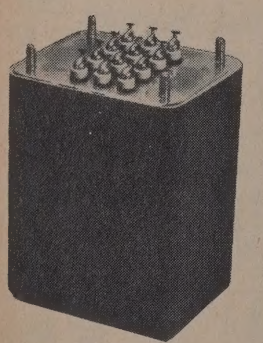
STANCOR ELECTRONICS, INC.

STERLING
TRANSFORMER

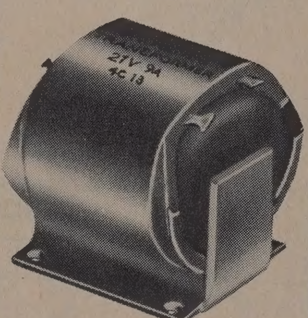
transformers for every application

- POWER
- AUTO
- ISOLATION
- AUDIO
- MINIATURE
- REACTORS
- HIGH FIDELITY
- PRECISION
- TOROIDAL
- SATURABLE
- FILTERS
- TRANSISTOR
- PLATE
- FILAMENT
- INPUT
- OUTPUT
- INTERSTAGE
- MODULATION
- DRIVER
- FILTER CHOKES
- PULSE
- THREE PHASE
- 400 CPS
- CURRENT LIMITING

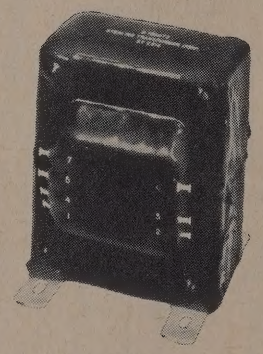
TRANSFORMERS — LARGE, SMALL, ENCAPSULATED, MOLDED, HERMETICALLY SEALED, AND OPEN — ALL WIDELY ACCEPTED AS FIRST QUALITY AND SURE PERFORMANCE. WE INTRODUCE SOME OF THE SPECIAL **STERLING TRANSFORMERS** ALONG WITH APPLICATIONS WHERE THEY HAVE PROVEN THEMSELVES SUPERIOR.



Transistor Power Module Transformer. Ideal for use in computers where precision and long component life are necessary for optimum performance.



Miniature Molded Transformer. Small in size, light in weight, suitable for gyro applications.



Encapsulated Transformer. Precision constructed for use in high quality commercial and industrial electronic equipment and systems.

STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

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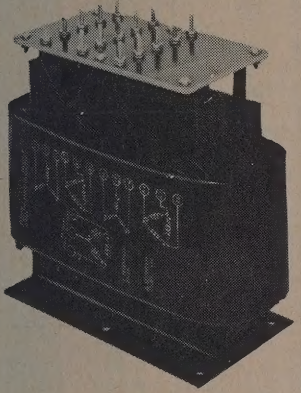
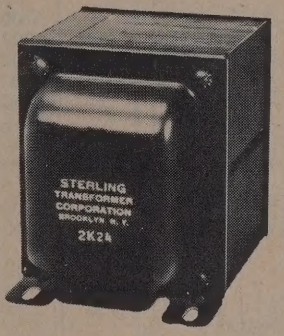
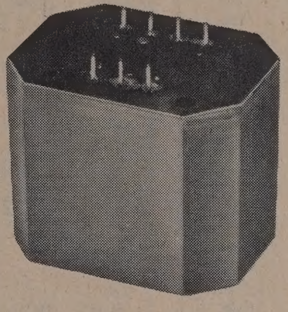
STERLING TRANSFORMER



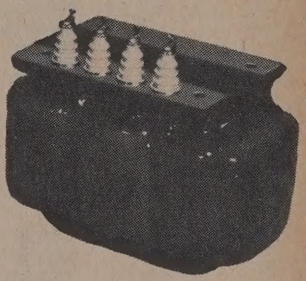
Three Phase Multi-Output Transformer. Capable of exceptionally long life in the rugged operation conditions of ground support and ground test equipment.



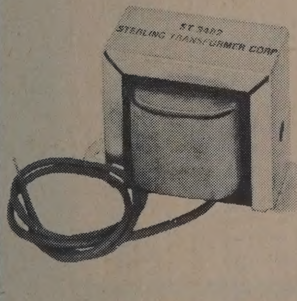
Commercial "End Bell" Transformer. Widely accepted Sterling 2K series for application in regulated power supplies.



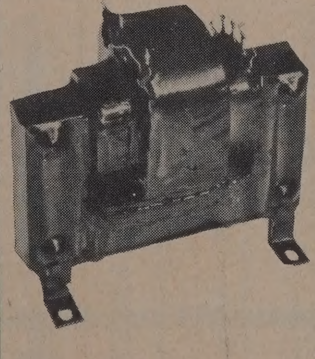
Space Saving Molded Transformer for printed circuit board plug-in application. Provides the necessary power and longevity needed to operate precise computer circuits.



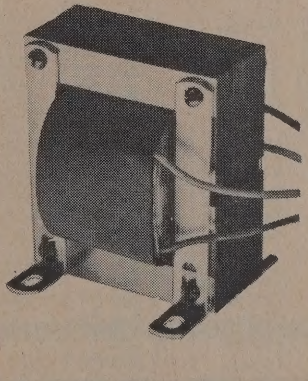
Encapsulated Transformer for Military Applications. Heavy duty, high voltage, three phase, multi-output autotransformer for use in radar tracking stations.



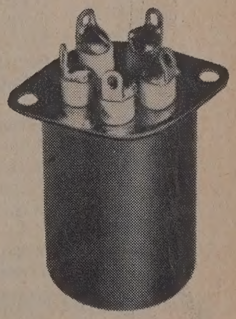
Commercial Channel-Mount Transformer. Useful in industrial applications such as boiler control operation, commercial receivers, and entertainment consoles.



High voltage Dip Encapsulated Low Capacitance Filament Transformer. For special test equipment. Provides constant voltage output for precision operation of specialized test equipment.



Commercial Open Frame Transformer. Sturdy, high power unit for use in spot welding and induction heating equipment.



Lightweight Miniature Military Transformer. Ruggedly constructed to withstand shock and handling encountered in mobile communication systems.

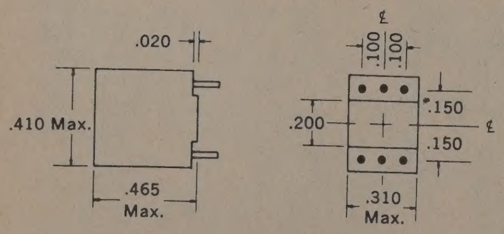
STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

STERLING TRANSFORMER

transistor transformers

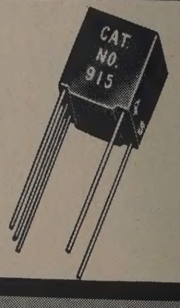
NANOSPEC TRANSISTOR TRANSFORMERS — 900 SERIES
Frequency Response ± 2 db 300 Cycles to 90 KC

Part No.	Application	Color Application Guide	Primary Impedance	Secondary Impedance	Unbal. Pri. DC Ma.	Power Level MW.	DC Resistance Primary	DC Resistance Secondary	Net Price 1-9 Pcs.
901	Input	Brown	200,000 CT	1,000 CT	0	10	5300	110	7.65
902	Input	Brown	200,000	1,000	0	10	5300	110	6.60
903	Interstage	Red	50,000 CT	1,000 CT	0	10	3300	75	7.50
904	Interstage	Red	50,000	1000/250 Split	0	10	3300	75	8.10
905	Interstage	Red	25,000 CT	1,000 CT	0.5	40	1700	115	7.05
906	Interstage	Red	25,000	1000/250 Split	0.25	40	1700	115	7.65
907	Interstage	Red	25,000	1,000	0.25	40	1700	115	6.50
908	Isolation	Green	10,000 CT	10,000 CT	1	50	1200	1300	7.65
909	Driver	Orange	10,000 CT	2,000 CT	1	50	1050	300	6.75
910	Driver	Orange	10,000	2000/500 Split	0.5	50	1050	300	7.35
911	Driver	Orange	10,000 CT	1,200 CT	1	50	1050	280	6.75
912	Driver	Orange	10,000	1200/300 Split	0.5	50	1050	280	7.20
913	Driver	Orange	10,000	1,200	0.5	50	1050	280	6.00
914	Driver	Orange	10,000 CT	500 CT	1	50	1050	80	6.75
915	Isolation	Green	2,500	2,500 CT	1	50	250	325	6.30
916	Output	Yellow	1,500 CT	600	3	50	170	135	6.15
917	Output	Yellow	500	50	3	50	60	8	5.40
918	Output	Yellow	120 CT	3.2	10	50	17	.75	5.70
919	Audio Choke	Blue	6 HY.	DCR 1800 OHMS	2				5.40
920	Audio Choke	Blue	.3 HY.	DCR 45 OHMS	4				4.65
921	Audio Choke	Blue	1.25 H	DCR 180 OHMS	2				4.80
922	Audio Choke	Blue	3.5 H	DCR 1040 OHMS	2				4.80
923	Audio Choke	Blue	.9 H	DCR 110 OHMS	2				4.80
924	Audio Choke	Blue	.1 H	DCR 15 OHMS	5				4.80
925	Interstage	Red	10,000 CT	1,500 CT	1	50	1050	300	7.20
926	Isolation	Green	600 CT	600 CT	3	50	72	92	7.20
927	Output	Yellow	1,000	50	3	50	145	8	5.85
928	Output	Yellow	300 CT	600	7	50	41	98	6.00
929	Output	Yellow	500 CT	600	3	50	67	98	6.00
930	Output	Yellow	900 CT	600	4	50	104	96	6.15
931	Output	Yellow	150 CT	12	10	50	18	3.5	5.85
932	Output	Yellow	300 CT	12	7	50	42	3.4	5.85
933	Output	Yellow	600 CT	12	4.5	50	77	3	6.00
934	Output	Yellow	1,000 CT	12	3.5	50	120	3	6.15
935	Output	Yellow	1,500 CT	12	3	50	179	2.9	6.30
936	Output	Yellow	7,500 CT	12	1	50	796	2.9	6.75
937	Output	Yellow	320 CT	3.2	6	50	44	.77	5.85
938	Output	Yellow	600	3.2	3	50	70	.76	5.55
939	Output	Yellow	600 CT	3.2	4.5	50	70	.85	6.00
940	Output	Yellow	800 CT	3.2	4	50	107	.86	6.15
941	Output	Yellow	1,200	3.2	2	50	131	.76	5.55
942	Output	Yellow	1,200 CT	3.2	3	50	131	.87	6.15
943	Output	Yellow	1,600 CT	3.2	2.5	50	186	.8	6.30
944	Output	Yellow	10,000	3.2	1	50	1160	.81	6.15
945	Output	Yellow	8,000 CT	3.2	1	50	790	.76	6.75



NANOSPEC 900 SERIES

Designed for printed circuit transistor use in high component density applications. Nickel alloy leads on 0.1 inch centers and stepped mounting face to insure ease of installation. Epoxy resin encapsulated.



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Net

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transistor transformers

STERLING
TRANSFORMER

MINISPEC TRANSISTOR TRANSFORMERS—300 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
300	Line to Base	600	600	10	23	200–15,000	$3.60	$7.80
301	Coll. to P.P. Base	100	10 C.T./40 C.T.	100	27	200–20,000	4.20	8.70
302	Coll. to Base or line	50,000	600	3	20	300–15,000	3.90	8.40
303	Collector to speaker	50,000	6	3	20	300–15,000	3.90	8.40
304	Coll. to P.P. Base	100,000	1,200 C.T.	1.4	17	200–15,000	4.05	8.55
305	Coll. to P.P. Base	25,000	1,200 C.T.	3	22	200–15,000	4.05	8.55
306	P.P. Coll. to P.P. Base	50,000 C.T.	1,200 C.T.	3	20	300–15,000	4.20	8.70
307	Line to P.P. Base	600 C.T.	1,200 C.T.	4	23	200–15,000	4.20	8.70
308	Collector to Base	25,000	600	3	22	200–15,000	3.90	8.40
309	P.P. Coll. to P.P. Base	4,000 C.T.	600 C.T.	3	32	200–15,000	4.20	8.70
310	Output Coll. to speaker	2,000	3.4	10	32	200–15,000	3.90	8.40
311	P.P. Coll. to speaker	4,000 C.T.	3.4	3	32	200–15,000	4.05	8.55
312	Coll. to Speaker	400	10	50	25	200–20,000	3.60	7.80
313	P.P. Servo Output	500 C.T.	210	30	27	300–20,000	3.90	8.40
314	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	6	22	200–15,000	4.20	8.70
315	P.P. Coll. to P.P. Base	50,000 C.T.	1200/300 Split	3	20	300–15,000	4.50	9.00
316	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 Split	3	32	200–15,000	4.35	8.85
317	Line to P.P. Base	600/150 Split	1,200 C.T.	4	23	200–15,000	4.35	8.85
318	P.P. Coll. to Servo	250 C.T.	1,000	10	30	200–15,000	3.90	8.40
319	Coll. to P.P. Base	2,500	600 C.T.	10	32	200–15,000	3.90	8.40
320	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	8	32	200–15,000	4.20	8.70
321	Line to P.P. Base	600 C.T.	600 C.T.	20	23	200–15,000	4.05	8.55
322	P.P. Coll. to Servo	1,600 C.T.	450	15	30	200–15,000	3.90	8.40
323	P.P. Coll. to Servo	250 C.T.	500	10	30	200–15,000	3.90	8.40

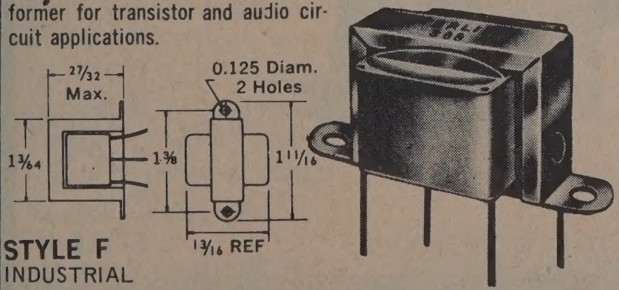
MINISPEC AUDIO TRANSFORMERS—300 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
375	Mike or line to 1 grid	50/250/600 C.T.	50,000	0	5	20–20,000	$4.05	$9.00
376	Mike or line to 2 grids	50/250/600 C.T.	50,000 C.T.	0	5	20–20,000	4.20	9.45
377	Dynamic mike to 1 grid	7.5/30	50,000	0	5	20–20,000	3.90	9.00
378	Single plate to 1 grid	15,000	60,000	0	6	20–15,000	3.45	7.65
379	Single plate to 1 grid	15,000	60,000	4	14	200–20,000	3.45	7.65
380	Single plate to 2 grids	15,000	95,000 C.T.	0	5	20–15,000	3.60	8.55
381	Single plate to 2 grids	15,000	95,000 C.T.	4	11	200–20,000	3.75	8.85
382	Single plate to line	15,000	50/250/600 C.T.	0	8	20–20,000	3.75	9.60
383	Single plate to line	15,000	50/250/600 C.T.	4	21	150–20,000	3.75	9.60
384	Push pull plates to line	30,000 C.T.	50/250/600 C.T.	0	8	30–50,000	3.90	9.60
385	Crystal mike to line	50,000	50/250/600 C.T.	0	5	20–20,000	3.75	9.30
386	Mixing and matching	50/250 C.T.	50/250/600 C.T.	0	8	20–20,000	3.75	9.30
387	Reactor	300 hy. 0 d.c.	50 hy. @ 3 ma.			DCR 6,000	3.30	7.35
388	50:1 mike to grid	200	½ Megohm	0	9	80–3,000	3.90	9.00
389	10:1 plate to grid	10,000	1 Megohm	0	11	100–2,500	3.60	8.40

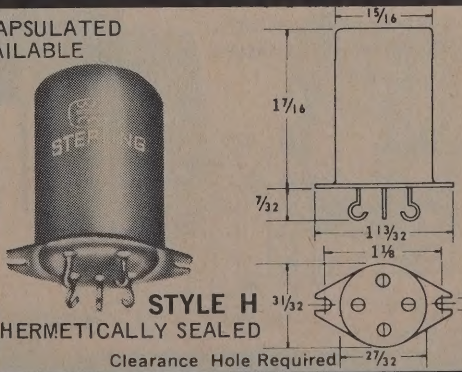
MINISPEC 300 SERIES

Highest efficiency miniature transformer for transistor and audio circuit applications.

MILITARY STYLE ENCAPSULATED
VERSIONS ARE AVAILABLE



STYLE F
INDUSTRIAL



STYLE H
HERMETICALLY SEALED

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transistor transformers

MICROSPEC TRANSISTOR TRANSFORMERS — 600 SERIES

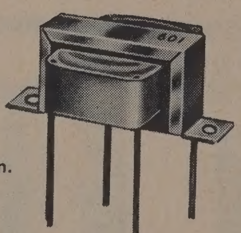
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs.	
							F	H
601	Line to Base	600	600	8	22	200–15,000	$3.90	$7.35
602	Coll. to Base or line	50,000	600	0.7	20	200–15,000	4.05	7.50
603	P.P. coll. to P.P. Base	50,000 C.T.	600 C.T.	1.4	20	200–15,000	4.80	8.55
604	Collector to speaker	50,000	6	1	20	200–15,000	4.35	7.95
605	Coll. to P.P. Base	25,000	1,200 C.T.	1	20	200–15,000	4.50	8.40
606	P.P. coll. to P.P. Base	50,000 C.T.	1,200 C.T.	1.4	20	200–15,000	4.65	8.55
607	Line to P.P. Base	600 C.T.	1,200 C.T.	16	22	200–15,000	4.20	7.65
608	Collector to Base	25,000	600	1	20	200–15,000	3.45	7.20
609	P.P. coll. to P.P. Base or line	4,000 C.T.	600 C.T.	5	28	200–15,000	4.35	7.80
610	Coll. to Spkr.	2,000	3.4	5	28	200–15,000	3.90	7.35
611	Output P.P. coll. to spkr.	4,000 C.T.	3.4	5	28	200–15,000	4.05	7.50
612	Coll. to P.P. Base	10,000	1,500 C.T.	1	20	200–15,000	4.50	8.40
613	P.P. Coll. to P.P. Base	10,000 C.T.	200 C.T.	6	20	200–15,000	4.50	8.10
614	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	2	20	200–15,000	4.65	8.55
615	Coll. to P.P. Base	2,500	2,500 C.T.	2	23	200–15,000	4.05	7.50
616	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 split	5	28	200–15,000	4.65	8.55
617	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	4	22	200–15,000	4.35	7.80
618	Line to Base	600 C.T.	600 C.T.	16	22	200–15,000	4.20	7.65
619	P.P. Coll. to P.P. Base	25,000 C.T.	600 C.T.	2	20	200–15,000	4.50	8.40
620	P.P. Coll. to P.P. Base	10,000 C.T.	1,500 C.T.	2	20	200–15,000	4.65	8.55
621	Driver/Isolation	10,000 C.T.	10,000 C.T.	2	20	200–15,000	4.65	8.55
622	P.P. Coll. to P.P. Base	7,500 C.T.	1,200 C.T.	4	22	200–15,000	4.50	8.40
623	P.P. Coll. to P.P. Base	2,000 C.T.	500 C.T.	10	28	200–15,000	4.35	8.25
624	Line to P.P. Base	600 C.T.	1200/300 split	16	22	200–15,000	4.65	8.55

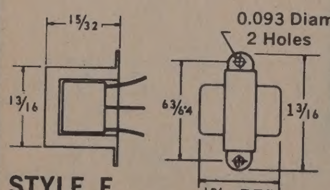
MICROSPEC AUDIO TRANSFORMERS — 600 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs.	
							F	H
675	Input	200/50	250,000/62,500	0	4	200–10,000	$4.50	$7.35
676	Interstage 3:1	10,000	90,000	0	4	150–10,000	4.80	7.50
677	Plate to line	10,000	200	3	20	150–10,000	4.20	7.20
678	Output	30,000	50	1	20	150–10,000	4.05	7.05
679	Reactor 50 HY at 1 madc				4700	ohms DCR	4.05	6.90
680	Output	100,000	60	0.5	20	250–10,000	4.20	7.20
681	Output	30,000	1,200	0.5	20	200–10,000	3.30	6.45

MICROSPEC 600 SERIES

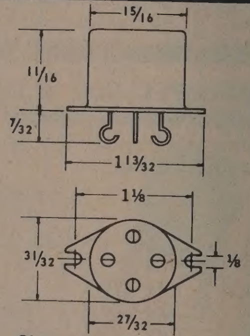
Subminiature transformers
for high efficiency circuits.





STYLE F
INDUSTRIAL

MILITARY STYLE ENCAPSULATED VERSIONS ARE AVAILABLE



Clearance Hole Required

STYLE H
HERMETICALLY SEALED

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transistor transformers

STERLING
TRANSFORMER

TRANSISTOR POWER MODULE TRANSFORMERS—7K SERIES

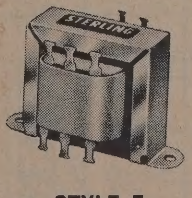
PRIMARY 115V, 50/60 CYCLES (Tapped for dual secondary voltages) The chart below shows the secondary voltages available and the approximate DC voltages which result in typical silicon rectifier circuits (at MIL currents shown). Primary taps can modify nom. AC voltages by −6%, +6%, and +12%. Since the capacitor following the rectifier affects the DC voltage, values used (in 1000 mfd) are shown, in parenthesis ( ), after each current rating. *Nom. AC and DC volts are at 115 volt input . . . primary taps can modify −6%, +6%, and +12%. 50/60 CPS

		MIL-T-27A RATINGS IN REGULAR TYPE, *INDUSTRIAL RATINGS IN ITALICS*											HERM. SEALED MIL STYLE H TF4SX02		INDUSTRIAL, OPEN STYLE TYPE F OR L	
		FULL WAVE BRIDGE SILICON RECTIFIER								FULL WAVE CT						
Type No.	Nom. AC.Volts* Appr. DC Volts*	40.5 53	32.25 41	28.5 34	24 25	20.25 24	16.5 18	12 12	8.25 6	40.5 CT 24	24 CT 12	16.5 CT 6.6	Case Size	Net Price	Style	Net Price 1-9 pcs.
7K1	MIL – DC Amp.	.02 (.1)	.023(.1)	.025(.1)	.027(.1)	.042(.2)	.035(.2)	.055(.2)	.065(.2)	.035(.2)	.040(.2)	.055(.2)	AH	11.70	F	7.15
	IND – DC Amp.	*.025(.1)*	*.035(.1)*	*.040(.1)*	*.042(.1)*	*.055(.2)*	*.042(.2)*	*.070(.2)*	*.085(.2)*	*.042(.2)*	*.055(.2)*	*.068(.2)*				
7K2	MIL – DC Amp.	.07 (.1)	.08 (.1)	.085(.1)	.09 (.1)	.14 (.2)	.11 (.2)	.18 (.2)	.22 (.2)	.11 (.2)	.13 (.2)	.17 (.2)	AJ	12.90	F	8.35
	IND – DC Amp.	*.085(.1)*	*.12 (.1)*	*.13 (.1)*	*.14 (.1)*	*.18 (.2)*	*.14 (.2)*	*.23 (.2)*	*.28 (.2)*	*.14 (.2)*	*.17 (.2)*	*.21 (.2)*				
7K3	MIL – DC Amp.	.4 (.5)	.44 (.5)	.48 (.5)	.52 (.5)	.8 (1.0)	.6 (1.0)	1.0 (2.0)	1.2 (2.0)	.6 (1)	.72 (1)	.92 (2)	FA	14.40	F	7.40
	IND – DC Amp.	*.48 (.5)*	*.6 (.5)*	*.6 (.5)*	*.64 (.5)*	*1.0 (1.0)*	*.8 (1.0)*	*1.2 (2.0)*	*1.52 (2)*	*.8 (1)*	*.88 (1)*	*1.12 (2)*				
7K4	MIL – DC Amp.	1 (.5)	1.1 (.5)	1.2 (.5)	1.3 (.5)	2 (1)	1.5 (1)	2.5 (2)	3 (2)	1.5 (1)	1.8 (1)	2.3 (2)	HA	19.80	L	12.15
	IND – DC Amp.	*1.2 (.5)*	*1.5 (.5)*	*1.5 (.5)*	*1.6 (.5)*	*2.5 (1)*	*2 (1)*	*3 (2)*	*3.8 (2)*	*2 (1)*	*2.2 (1)*	*2.8 (2)*				
7K5	MIL – DC Amp.	2.5 (1)	3 (1)	3 (1)	3.5 (1)	5 (2)	3.7 (2)	6 (4)	7.5 (4)	3.7 (2)	4.5 (2)	5.5 (4)	KA	28.80	L	20.55
	IND – DC Amp.	*3 (1)*	*3.5 (1)*	*3.8 (1)*	*4 (1)*	*6 (2)*	*4.5 (2)*	*7.5 (4)*	*9 (4)*	*4.5 (2)*	*5.5 (2)*	*6.7 (4)*				
7K6	MIL – DC Amp.	6 (4)	7 (4)	7.5 (4)	8 (4)	12 (6)	9 (6)	15 (12)	18 (12)	9 (6)	11 (6)	13.5 (12)	OA	48.00	L	36.15
	IND – DC Amp.	*7.5 (4)*	*8.5 (4)*	*9.5 (4)*	*10 (4)*	*15 (6)*	*11 (6)*	*19 (12)*	*23 (12)*	*11 (6)*	*13.5 (6)*	*17 (12)*				
Type No.	Nom. AC Volts* Appr. DC Volts*	81 106	64.5 82	57 68	48 50	40.5 48	33 36	24 24	16.5 12	81 CT 48	48 CT 24	33 CT 13				
7K7	MIL – DC Amp.	0.5 (.125)	0.55 (.125)	0.6 (.125)	0.65 (.125)	1.0 (.25)	0.75 (.25)	1.25 (.5)	1.5 (.5)	0.75 (.25)	0.9 (.25)	1.15 (.5)	HA	20.40	L	12.75
	IND – DC Amp.	*0.6 (.125)*	*0.75 (.125)*	*0.75 (.125)*	*0.8 (.125)*	*1.25 (.25)*	*1.0 (.25)*	*1.5 (.5)*	*1.9 (.5)*	*1.0 (.25)*	*1.1 (.25)*	*1.4 (.5)*				

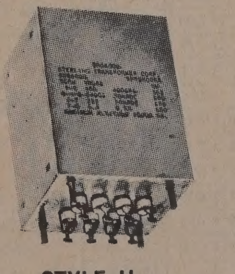
PRIMARY 115V, 50/60 CYCLES (tapped on 7K10 thru 7K13 for dual secondary voltages). DC ratings are approximate, based on silicon bridge rectifier (except 7K8, 7K9, also shown F.W.CT.). Choke input DCV is based on 10% voltage drop in choke. Condenser value, C, is in 1000 mfd. 7K8, 7K9, 7K14 listing under "Secs in parallel" is single winding.

														HERM. SEALED MIL STYLE H TF4SX02		INDUSTRIAL, OPEN STYLE TYPE F OR L	
				Sec. in Parallel					Sec. in Series								
Type No.	Application	Sec.V Rms	Sec.A Rms	Choke DCV	Input DCA	Cond. DCV	Input DCA	C	Choke DCV	Input DCA	Cond. DCV	Input DCA	C	Case Size	Net Price	Style	Net Price 1-9 pcs.
7K8	F.W. Bridge	20 CT	.3	16.5	.3	26	.2	.2						EB	10.20	F	5.15
	Full Wave CT			8	.43	12	.3	.5									
7K9	F.W. Bridge	20 CT	.6	16.5	.6	26	.4	.4						EA	12.90	F	7.85
	Full Wave CT			9	.85	13	.6	1									
7K10	Full Wave Bridge	17/21.5 17/21.5	1.5 1.5	14/17.5	3	18.5/25	2	1	28/35	1.5	43/56	1	.5	HA	18.60	L	12.15
7K11	Full Wave Bridge	17/21.5 17/21.5	4 4	14/17.5	8	18.5/25	5	2	28/35	4	43/56	2.5	1	LA	30.00	L	21.45
7K12	Full Wave Bridge	17/21.5 17/21.5	9 9	14/17.5	18	18.5/25	12	6	28/35	9	43/56	6	4	4¾x6x7H	45.90	L	33.70
7K13	Full Wave Bridge	34/43 34/43	4.5 4.5	28/35	9	43/56	6	4	56/70	4.5	85/110	3	1	4¾x6x7H	45.90	L	33.70
7K14	F.W. Bridge	10	20	8.2	20	10	13	12						KA	27.00	L	20.85

Universal transistor power supply module transformers with output voltage selection by varied secondary connections. Designed for silicon rectifier application with choke or capacitor input filters.



STYLE F



STYLE H
HERMETICALLY SEALED

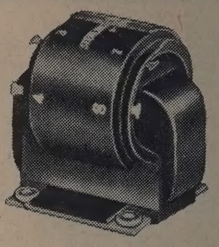
STYLE L

STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

STERLING
TRANSFORMER

ENCAPSULATED 400 cps transformers
CLIPPER SERIES

	Cat. No.	Secondary Volts	Secondary Amps.	Rms. V Insulation	Primary Volts	Mold Size	Maximum Operating Ambient	Net Price 1-9 pcs.
FILAMENT	4C1	6.3 CT	.8	1500	115	SM3	100°C	12.52
	4C2	6.3 CT	1.2	1500	115	SM2	100°C	12.52
	4C3	6.3 CT	6.75	1500	110/115/120	2	100°C	20.11
	4C4	6.3 6.3	4.9 2.7	1500 1500	115	3	90°C	17.99
	4C5	6.3 CT	7.2	1500	115	35	120°C	20.87
	4C6	6.3 6.3 6.3	7 7 1.5	1500 1500 1500	120	35	80°C	20.34
	4C7	6.3 CT 6.3 CT	7 7	1500 1500	120	4	100°C	24.21
	4C8	6.3 6.3 6.3	13.7 2.93 0.3	1500 1500 1500	115	4	90°C	24.21
	4C9	6.3 CT	12.3	1500	115	5	100°C	22.39
	4C10	20 CT	0.6	1500	115	SM1	100°C	15.94
	4C11	6.3 6.3 6.3	2.4 2.5 2.7	1500 1500 1500	115	3	100°C	22.39
	4C26	6.3 CT	2	1500	115	SM1	100°C	15.94
	4C27	6.3 CT	3	1500	115	1A	100°C	16.55
	4C28	6.3 CT	5	1500	115	2	100°C	17.16
	4C29	5.0 CT	3	2500	115	SM1	100°C	15.94
	4C30	5.0 CT	6	2500	115	2	100°C	17.16
POWER	4C12	14.1	3	1500	115	3	100°C	17.08
	4C13	21	9	1500	115	4	65°C	18.98
	4C14	26	0.5	1500	115	SM1	55°C	15.56
	4C15	26 CT	1.5	1500	115	3	65°C	16.09
	4C16	28 CT 6.3 CT	0.75 7A	1500 1500	115	2	65°C	24.14
	4C17	52 CT	.192	1500	115	SM1	100°C	17.27
	4C18	90 CT	4.5	1500	115	9	100°C	32.64
	4C19	115	.05	1500	115	SM2	100°C	12.75
	4C20	105/115/125	0.4	1500	105/115/125	2	90°C	18.45
	4C21	115	2.83	1500	115	8	100°C	26.57
	4C22	334	.025	1500	115	SM1	120°C	14.65
	4C23	26 CT	3	1500	115	4	100°C	19.35
	4C24	26 CT	5	1500	115	6	100°C	22.31
	4C25	52 CT	2	1500	115	5	100°C	21.33



FOR MINIMUM SIZE &
MINIMUM WEIGHT
- CONTOUR MOLDED
- HIPERSIL CORES

Built to pass MIL-T-27A specifications, including Grade 2 humidity tests, and to operate continuously at 150° C. Result: Savings up to 50% in space and weight without sacrifice in performance.

HIGH SHOCK
EXTREME ENVIRONMENT CONDITIONS
LIGHT WEIGHT FOR AIRBORNE USE
10,000 HOUR PLUS-LIFE
SERVO APPLICATIONS
ISOLATION
POWER SUPPLIES
AIRBORNE CONTROL CIRCUITS
MISSILE CIRCUITS

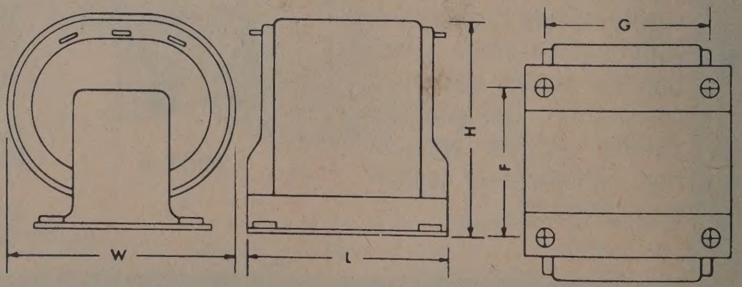
MOLD NO.	OVERALL DIMENSIONS L	W	H	MTG. DIMENSIONS F	G	APP. WT. (LBS.)	MTG. METH.
SM3	1	1-1/4	1-3/16	1	Note 1	0.06	Note 1
SM2	1-1/2	1-1/4	1-11/16	1	Note 1	0.10	Note 1
SM1	1-1/2	1-1/2	1-11/16	1-1/8	Note 1	0.16	Note 1
1	1-13/16	1-7/8	1-13/16	1-1/4	1-7/16	0.25	Note 2
1A	1-11/16	1-17/32	1-13/16	1-5/32	1-1/8	0.25	Note 2
2	2	1-15/16	2-1/8	1-9/32	1-1/4	0.40	Note 2
3	2-5/16	1-13/16	2-1/8	1-9/32	1-7/16	0.45	Note 2
35	2-1/16	2-3/8	2-3/16	1-17/32	1-11/16	0.70	Note 2
4	2-5/16	2-3/8	2-9/16	1-17/32	1-11/16	0.90	Note 2
5	2-3/4	2-3/8	2-7/8	1-17/32	2-3/16	1.20	Note 2
6	2-3/4	2-5/8	3-1/8	1-17/32	2-3/16	1.50	Note 2
7	3	2-7/8	3-3/8	1-25/32	2-1/2	2.00	Note 2
8	3-3/8	2-7/8	3-3/8	1-25/32	2-1/2	2.50	Note 2
83	3-3/4	3-1/4	3-3/8	2-1/4	3	3.25	Note 3
86	3-3/4	3-3/4	3-3/8	2-3/4	3-1/8	4.25	Note 3
9	4-1/16	3-3/8	3-7/8	2-3/16	3-1/2	5.00	Note 3
10	4-1/2	3-15/16	3-15/16	2-3/4	3-1/8	6.00	Note 3

Note 1—SM series are two hole mounting with holes on center line. #4-40 Pem nuts are fastened to the bracket.

Note 2—#6-32 Pem nuts on bracket are standard.

Note 3—#8-32 Pem nuts on bracket are standard.

- All primaries 380-1000 cps
- Dielectric test voltages:
  PRIMARIES 1000 Volts RMS
  SECONDARIES 1500 Volts RMS
- Epoxy resin used as encapsulant
- Prices subject to change without notice



STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

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transformers for electronically regulated power supplies

STERLING TRANSFORMER

2K SERIES

PLATE AND FILAMENT TRANSFORMERS

Cat. No.	Supply Rating	High Voltage Secondary AC Volts	DC MA	Rectifier Fil.		Pass Tube Fil.		Regulator Fil.		Auxiliary Fil.		Overall			Mtg. Dim.		Rec. Mtg. Screw	Wt Lbs.	Net Price 1-9 pcs
				V	A	V	A	V	A	V	A	L	W	H	ML	MW			
2K6	300/250VDC 400MADC	550-480-0 480-550V	440	Use with 2K20				Use with 2K20				6	4 5/8	5 1/2	4 1/2	3 1/2	#10	19	$18.48
2K8	300/250VDC 300MADC	540-475-0 475-540V	340	5	6	6.3	6	6.3	1.2	6.3CT	6	6 1/4	4 5/8	5 1/2	4 3/4	3 1/2	#10	20	21.62
2K10	300 250VDC 200MADC	500-440-0 440-500V	240	5	3	6.3	3	6.3	1.2	6.3CT	6	5	4 5/8	5 1/2	3 1/2	3 1/2	#10	14	17.66
2K12	300 250VDC 100MADC	540-465-0 465-540V	140	5	3	6.3	3	6.3	1.2	6.3CT	3	4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	15.18
2K13	150 100VDC 400MADC	370-310-0 310-370V	440	Use with 2K20				Use with 2K20				4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	15.18
2K14	150/100VDC 300MADC	375-320-0 320-375V	340	5	6	6.3	6	6.3	1.2	6.3CT	6	5 1/2	4 5/8	5 1/2	4	3 1/2	#10	16	17.82
2K15	150/100VDC 200MADC	355-300-0 300-355V	240	5	3	6.3	3	6.3	1.2	6.3CT	6	4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	15.18
2K16	150/100VDC 100MADC	350-310-0 310-350V	140	5	3	6.3	3	6.3	1.2	6.3CT	3	4 3/8	3 7/8	4 5/8	3 5/16	3	#8	10	13.20
2K17	300 250VDC 600MDC	565-500-0 500-565V	640	Use with 2K20				Use with 2K20				6 1/4	4 1/2	6	4 1/2	3 7/16	#10	22	27.19
2K18	300 250VDC 800MADC	580-520-0 520-580V	840	Use with 2K21				Use with 2K21				6	6 1/8	7 1/4	4	4 25/32	1/4	33	35.64
2K19	300/250VDC 1.0 Amp.	590-525-0 525-590V	1040	Use with 2K21				Use with 2K21				7 1/2	6 1/8	7 1/4	5 1/2	4 25/32	1/4	48	50.16
2K20	(Filament Transformer for 400MA and 600MA Supplies)			5	6	6.3	6	6.3	1.2	6.3CT	6	3 7/8	3 7/8	4 5/8	2 13/16	3	#8	7.5	11.22
2K21	(Filament Transformer for 800MA and 1 Amp. Supplies)			5	10	6.3	10	6.3	2	6.3CT	10	4 7/8	3 7/8	4 5/8	3 13/16	3	#8	12	15.51

2K SERIES

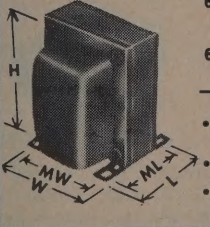
CHOKES

Cat. No.	Inductance	Rated Current MADC	DC Resist.	Dielectric Test Volt.	Overall			Mtg. Dim.		Rec. Mtg. Screw	Wt Lbs	Net Price 1-9 pcs.
					L	W	H	ML	MW			
2K5	4 hys. min.	440	50	2500V RMS	3 3/4	3 9/16	4 1/4	2 5/8	2 3/4	#8	6	$ 7.66
2K7	4 hys. min.	340	60	2500V RMS	3 1/8	2 15/16	3 1/2	2	2 1/4	#8	3.3	5.15
2K9	4 hys. min.	240	90	2500V RMS	2 5/8	2 5/8	3 1/8	1 11/16	2	#8	2.3	3.89
2K11	4 hys. min.	140	185	2500V RMS	3 11/16	2 3/16	2 5/16	3 1/8	Chan.	#8	1.5	2.64
2K22	4 hys. min.	.64A	52	2500V RMS	4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	13.20
2K23	4 hys. min.	.84A	25	2500V RMS	5 1/2	4 5/8	5 1/2	4	3 1/2	#10	17	16.96
2K24	4 hys. min.	1.04A	20	2500V RMS	7	4 5/8	5 1/2	5 1/2	3 1/2	#10	25	23.56

6K SERIES

SPECIALS

Cat. No.	Secondary Volts	Secondary Amperes	RMS Volts Insulation	Primary Volts	Overall Dim.			Mtg. Dim.		Rec. Mtg. Screw	Wt Lbs.	Net Price 1-9 pcs.
					L	W	H	ML	MW			
6K1	6.3	4	1000	115/230	3 11/16	2 1/2	2 5/16	3 1/8	Chan.	8	1 3/4	$ 5.61
6K2	6.3	12	1500	115/230	3 3/4	3 1/4	4	2 7/16	2 1/2	8	6	10.30
6K3	6.3 CT	16	3000	115	3 7/8	3 1/4	4	2 9/16	2 1/2	8	6 1/2	10.96
6K4	5 6.3 CT 6.3 CT	3 4 4	2000 2000 2000	115/230	3 1/2	3 1/4	4	1 3/16	2 1/2	8	5	10.89
6K5	6.3 6.3	1.5 1.5	1000 1000	115/230	4	2 1/2	2 5/8	3 9/16	Chan.	8	2 1/4	6.14
6K6	800 CT	.036 DC	4000	115/230	3 1/2	2 5/8	3 3/16	2 7/16	2	8	4	6.93
6K7	28 CT	7 DC	1000	115	4 1/4	3 1/4	4	2 15/16	2 1/2	8	8	10.43
6K8	660 CT 5	.25 DC 4.5	1500 1500	115/230	3 7/8	3 7/8	4 5/8	2 13/16	3	8	8	12.67
6K9	1130 CT 5	.062 DC 2	3300 3300	115/230	3 7/8	3 7/8	4 5/8	2 13/16	3	8	8	12.67



- ONE UNIT PROVIDES PLATE AND FILAMENT POWER FOR ENTIRE SUPPLY.
- RATINGS BASED ON D.C. OUTPUT OF SUPPLY.
- APPLICATION BULLETIN WITH EACH UNIT.

Standard Color Code

Primary: Black
High Voltage: Center Tap: Red-Yellow
High Voltage: High Tap: Red
High Voltage: Low Tap: Blue

Rectifier Filaments: Yellow
Pass Tube Filaments: Brown
Regulator Filaments: Green
Auxiliary Filaments: Slate

NOTES

1. All Primaries 115 Volts 50/60 Cps
2. Ratings Based On Capacitor Input Filters
3. Dielectric Test Voltages:
   Primaries: 1500 V. RMS
   All Secondaries: 2500 V. RMS

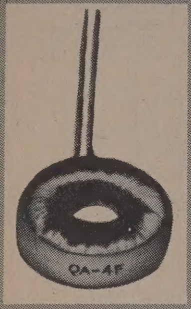
STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

STERLING
TRANSFORMER

hi-Q toroidal inductors

MANUFACTURED TO MIL-T-27A. ALL HERMETICALLY SEALED UNITS (STYLE H) ARE MIL TYPE TF4RX20YY

- ALL MOLDED UNITS STYLE M ARE MIL TYPE TF5RX20ZZ
- ALSO TOROIDAL INDUCTORS IN OTHER SIZES AND VALUES AVAILABLE ON SPECIAL ORDER.
- MOLYBDENUM PERMALLOY POWDER CORES USED IN ALL UNITS.

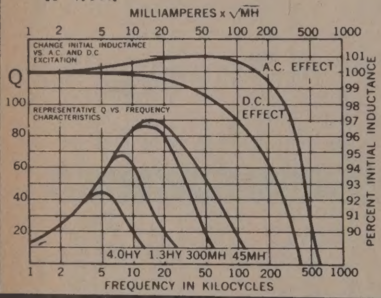


STYLE F
- ALL INDUCTORS SHOWN AVAILABLE IN OPEN STYLE F.

QA SERIES

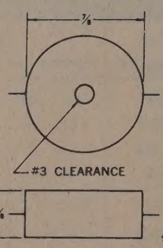
FREQUENCY TO 20KC•ACCURACY ± 1%

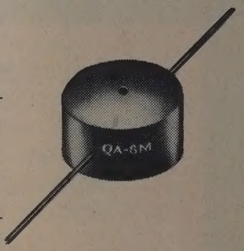
The QA series is designed to optimize small size and high "Q" for miniaturized applications. These units are available on special order with stabilized cores and inductance from 1MH to 4.0H.



AVAILABLE ON SPECIAL ORDER
HERMETICALLY SEALED

Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Net Price 1–9 pcs. Style M
QA-1	5MH	2.5	30	4.35	5.70
QA-2	10	5	33	4.35	5.70
QA-3	15	8	34	4.50	5.85
QA-4	20	11.2	36	4.60	6.00
QA-5	30	17	37	4.65	6.15
QA-6	50	28	40	4.80	6.30
QA-7	100	50	42	4.95	6.45
QA-8	150	80	44	5.10	6.60
QA-9	200	120	45	5.20	6.70
QA-10	300	150	46	5.30	6.95
QA-11	500	290	48	5.40	7.20
QA-12	1.00H	530	51	6.15	7.95
QA-13	1.50	825	53	6.30	8.70





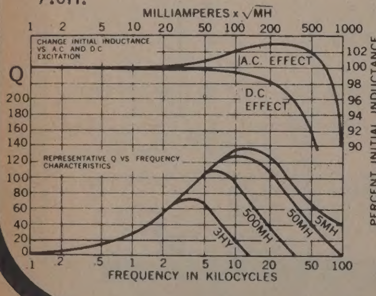
MOLDED STYLE M

Encapsulated in Epoxy Resin. Pigtail leads for printed circuit applications.

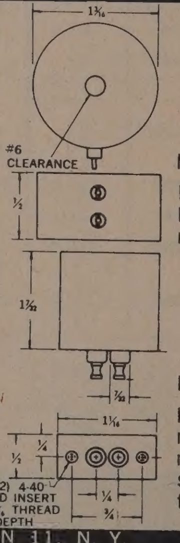
QB SERIES

FREQUENCY TO 20KC•ACCURACY ± 1%

The QB series is designed for airborne applications where stable high "Q" is needed with minimized size and weight. Available on special order with stabilized cores and inductance to 7.0H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Net Price 1–9 pcs. Style H	Net Price 1–9 pcs. Style M
QB-1	5MH	1.1	38	3.90	6.75	5.25
QB-2	10	2.1	40	3.90	6.75	5.25
QB-3	15	3.3	42	3.90	6.75	5.40
QB-4	20	3.7	43	3.95	6.85	5.50
QB-5	30	5.8	45	4.00	7.00	5.55
QB-6	50	11	47	4.05	7.20	5.65
QB-7	100	22	49	4.20	7.65	5.70
QB-8	150	34	50	4.35	7.80	5.85
QB-9	200	47	52	4.55	8.15	6.05
QB-10	300	60	53	4.65	8.40	6.15
QB-11	500	95	55	4.80	8.55	6.30
QB-12	1.00H	213	57	5.10	9.00	6.75
QB-13	1.50	335	59	5.85	9.45	7.35



MOLDED STYLE M

Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H

Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

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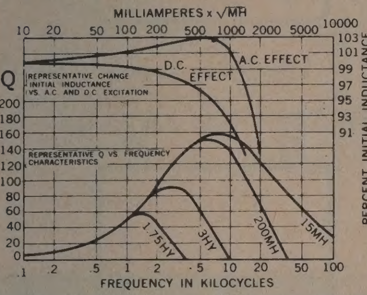
hi-Q toroidal inductors

STERLING
TRANSFORMER

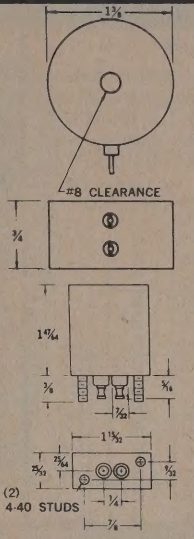
QC SERIES

FREQUENCY TO 10KC
ACCURACY ± 1%

The QC series is designed for high "Q", increased power level & stability. Available on special order with stabilized cores and inductance to 20H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QC-1	5MH	0.62	60	4.35	7.05	6.15
QC-2	10	1.1	66	4.50	7.20	6.15
QC-3	15	1.7	68	4.50	7.35	6.15
QC-4	20	1.9	70	4.55	7.50	6.15
QC-5	30	3	72	4.60	7.65	6.15
QC-6	50	6	76	4.65	7.80	6.15
QC-7	100	11	81	4.80	8.40	6.60
QC-8	150	17	83	4.95	8.55	6.60
QC-9	200	24	85	5.00	8.75	6.70
QC-10	300	37	88	5.05	8.90	6.80
QC-11	500	63	91	5.10	9.15	6.90
QC-12	1.00H	110	96	5.25	9.60	7.20
QC-13	1.50	185	98	5.40	9.75	7.35
QC-14	2.00	250	100	5.90	10.15	7.60
QC-15	3.00	380	103	6.40	10.55	8.00
QC-16	5.00	645	106	6.75	11.10	8.40
QC-17	7.50	950	109	7.25	11.80	9.10
QC-18	10.00	1175	112	7.50	12.45	9.60



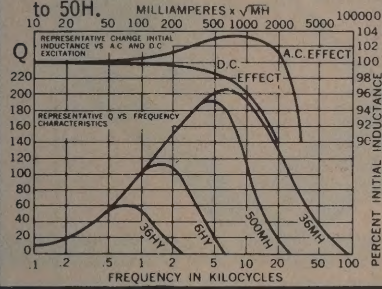
MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

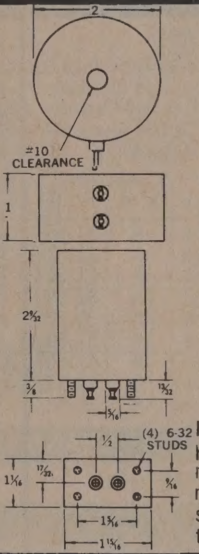
QD SERIES

FREQUENCY TO 10KC•ACCURACY ± 1%

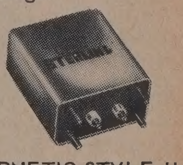
The QD series is designed for very high "Q" in the audio band allowing for application in sharp frequency filters with high power levels and low losses. They are excellent for tuned transformers and oscillators. Available on special order with stabilized cores and inductance to 50H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QD-1	20MH	1.0	97	7.05	10.50	8.70
QD-2	30	1.5	100	7.05	10.50	8.70
QD-3	50	2.5	105	7.05	10.50	8.70
QD-4	100	6	110	7.20	10.65	8.85
QD-5	150	7	113	7.35	10.75	9.40
QD-6	200	10	115	7.35	10.75	9.40
QD-7	300	15	117	7.50	10.95	9.60
QD-8	500	25	121	7.50	10.95	9.60
QD-9	1.00H	60	126	7.80	11.40	9.90
QD-10	1.50	90	130	8.10	11.70	10.20
QD-11	2.00	100	131	8.95	12.60	10.60
QD-12	3.00	155	134	9.25	13.00	10.90
QD-13	5.00	275	138	9.45	13.20	11.10
QD-14	7.50	400	140	10.05	14.10	12.00
QD-15	10.00	600	142	11.10	15.00	12.90
QD-16	15.00	900	146	12.00	15.75	13.80
QD-17	20.00	1100	148	12.85	17.35	15.25
QD-18	25.00	1500	150	13.05	17.55	15.45



MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.

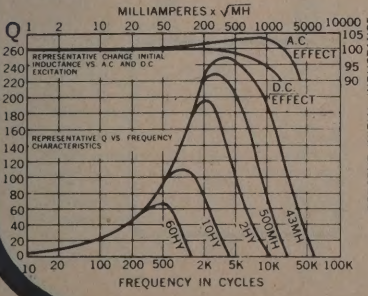


HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

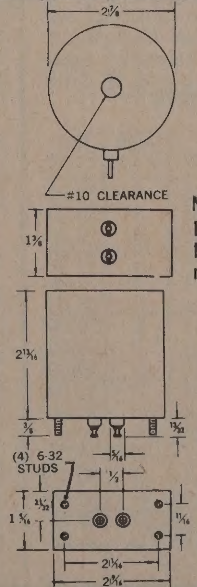
QE SERIES

FREQUENCY TO 15KC
ACCURACY ± 1%

The QE series is most widely used in low audio frequency applications where high "Q" is essential. They are used where inductance stability over a wide voltage range is required. Available on special order with inductance to 75H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Net Price 1–9 pcs. Style F	Style H	Style M
QE-1	25MH	0.85	127	10.80	13.50	12.60
QE-2	50	1.6	136	10.95	13.65	12.75
QE-3	100	3	144	11.25	13.95	13.05
QE-4	150	3.9	149	11.70	14.25	13.65
QE-5	200	5.9	153	11.75	14.75	13.85
QE-6	300	8.5	158	11.80	14.80	13.90
QE-7	500	15	164	11.85	14.85	13.95
QE-8	1.00H	30	173	12.15	15.15	13.95
QE-9	1.50	40	177	12.45	15.45	14.25
QE-10	2.00	60	181	12.80	16.30	14.60
QE-11	3.00	85	185	12.90	16.40	14.80
QE-12	5.00	142	192	13.05	16.65	15.00
QE-13	7.50	215	196	14.00	17.00	15.95
QE-14	10.00	300	200	14.25	17.25	16.20
QE-15	15.00	430	205	15.30	18.30	17.25
QE-16	20.00	550	209	16.25	19.25	18.15
QE-17	25.00	800	212	16.50	19.50	18.45
QE-18	30.00	850	214	20.00	23.00	21.95
QE-19	50.00	1500	221	22.20	25.20	24.15



MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.

HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

STERLING
TRANSFORMER

STANDARD INTERSTAGE AND LINE TRANSISTOR AND TUBE APPLICATIONS *filters*

Hermetically Sealed – Manufactured to MIL-F-18327B Available in Other Frequencies

LOW PASS

INTERSTAGE

LI units have a loss of approximately 3 db at cutoff frequency, and an attenuation of 35 db at 1.5 cutoff frequency. Input and output 10,000 ohms. LI units are MIL type FR4RX11YY.

Part No.	Frequency	Case Size	Net Price
LI-60	60 cps	A	31.50
LI-100	100 cps	A	31.50
LI-200	200 cps	B	31.50
LI-400	400 cps	B	31.50
LI-500	500 cps	B	31.50
LI-800	800 cps	B	31.50
LI-1,000	1,000 cps	B	31.50
LI-1,500	1,500 cps	B	31.50
LI-2,000	2,000 cps	B	31.50
LI-2,500	2,500 cps	B	31.50
LI-3,000	3,000 cps	B	31.50
LI-4,000	4,000 cps	B	31.50
LI-5,000	5,000 cps	B	31.50
LI-10,000	10,000 cps	B	31.50

LINE

LL units have a loss of approximately 3 db at cutoff frequency, and an attenuation of 35 db at 1.5 cutoff frequency. Input and output 500/600 ohms. LL units are MIL type FR4RX11YY.

Part No.	Frequency	Case Size	Net Price
LL-600	600 cps	A	31.50
LL-1,000	1,000 cps	A	31.50
LL-1,500	1,500 cps	A	31.50
LL-2,000	2,000 cps	A	31.50
LL-2,500	2,500 cps	A	31.50
LL-4,000	4,000 cps	A	31.50
LL-8,000	8,000 cps	A	31.50
LL-10,000	10,000 cps	A	31.50
LL-12,000	12,000 cps	A	31.50

HIGH PASS

INTERSTAGE

HI units have a loss of less than 6 db at cutoff frequency, and an attenuation of 35 db at .67 cutoff frequency. Input and output 10,000 ohms. HI units are MIL type FR4RX33YY.

Part No.	Frequency	Case Size	Net Price
HI-100	100 cps	A	31.50
HI-200	200 cps	A	31.50
HI-300	300 cps	A	31.50
HI-400	400 cps	A	31.50
HI-500	500 cps	A	31.50
HI-800	800 cps	A	31.50
HI-1,000	1,000 cps	A	31.50
HI-2,000	2,000 cps	A	31.50
HI-3,000	3,000 cps	A	31.50

LINE

HL units have a loss of less than 6 db at cutoff frequency, and an attenuation of 35 db at .67 cutoff frequency. Input and output 500/600 ohms. HL units are MIL type FR4RX33YY.

Part No.	Frequency	Case Size	Net Price
HL-200	200 cps	A	39.00
HL-300	300 cps	A	39.00
HL-500	500 cps	A	39.00
HL-1,000	1,000 cps	A	39.00

FOR WIDE BAND PASS FILTERS THE LI & HI OR LL & HL MAY BE CONNECTED IN SERIES.

BAND PASS

INTERSTAGE

BI units have 2:1 voltage gain. They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 10,000 ohms, output to grid. BI units are MIL type FR4RX22YY.

Part No.	Frequency	Case Size	Net Price
BI-50	50 cps	A	30.00
BI-60	60 cps	A	30.00
BI-100	100 cps	A	30.00
BI-120	120 cps	B	30.00
BI-200	200 cps	B	30.00
BI-240	240 cps	B	30.00
BI-400	400 cps	B	30.00
BI-500	500 cps	B	30.00
BI-750	750 cps	B	30.00
BI-800	800 cps	B	30.00
BI-1,000	1,000 cps	B	30.00
BI-1,500	1,500 cps	B	30.00
BI-2,000	2,000 cps	B	30.00
BI-3,000	3,000 cps	B	30,00
BI-4,000	4,000 cps	B	30.00
BI-5,000	5,000 cps	B	30.00
BI-10,000	10,000 cps	B	30.00

LINE

BL units have 9:1 voltage gain. They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 500/600 ohms, output to grid. BL units are MIL type FR4RX22YY.

Part No.	Frequency	Case Size	Net Price
BL-400	400 cps	B	30.00
BL-1,000	1,000 cps	B	30.00

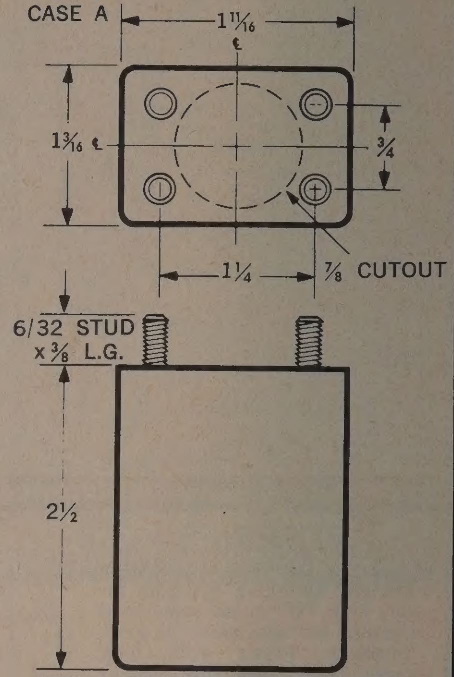
TRANSISTOR INTERSTAGE

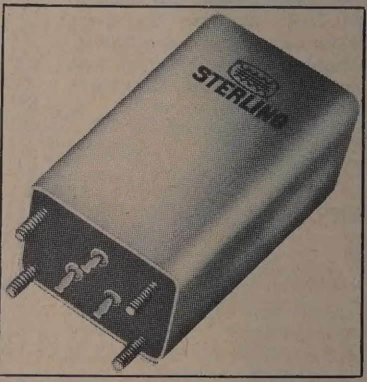
They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 10,000 ohms, output 10,000 ohms. BIT units are MIL type FR4RX22YY.

Part No.	Frequency	Case Size	Net Price
BIT-60	60 cps	A	36.00
BIT-100	100 cps	A	36.00
BIT-120	120 cps	B	36.00

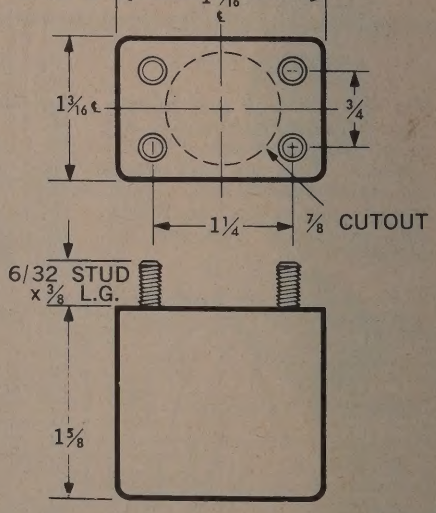
CASE DETAIL

CASE A





CASE B



STERLING TRANSFORMER CORP. BROOKLYN 11, N. Y.

filters TELEGRAPH TONE CHANNEL TELEMETERING

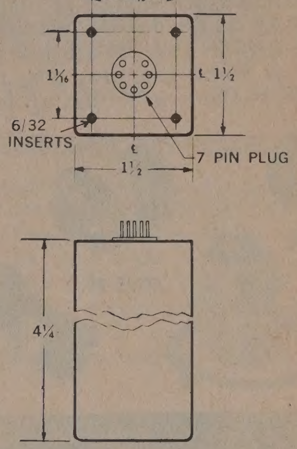
Available in Other Frequencies

STERLING
TRANSFORMER

TELEGRAPH TONE CHANNEL — RECEIVING

- Attenuation at ± 42.5 cps from center frequency—less than 3 db.
- Attenuation at crossover with adjacent channels—at least 15 db.
- Attenuation at ± 170 cps from center frequency—at least 35 db.
- Impedance: 600 ohms; units are MIL type FR4RX22YY.

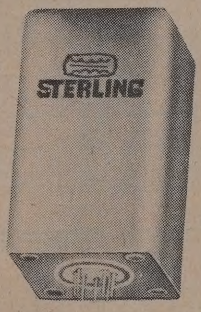
Part No.	Frequency	Net Price
TR-425	425 cps	72.00
TR-595	595 cps	72.00
TR-765	765 cps	72.00
TR-935	935 cps	72.00
TR-1105	1105 cps	63.00
TR-1275	1275 cps	63.00
TR-1445	1445 cps	63.00
TR-1615	1615 cps	63.00
TR-1785	1785 cps	60.00
TR-1955	1955 cps	60.00
TR-2125	2125 cps	60.00
TR-2295	2295 cps	60.00
TR-2465	2465 cps	57.00
TR-2635	2635 cps	57.00
TR-2805	2805 cps	57.00
TR-2975	2975 cps	57.00
TR-3145	3145 cps	57.00
TR-3315	3315 cps	57.00

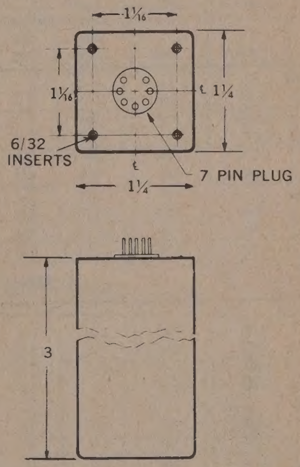


TELEGRAPH TONE CHANNEL — TRANSMITTING

- Attenuation at ± 42.5 cps from center frequency—less than 3 db.
- Attenuation at crossover with adjacent channels—at least 10 db.
- Attenuation at ± 170 cps from center frequency—at least 25 db.
- Impedance: 600 ohms; units are MIL type FR4RX22YY.

Part No.	Frequency	Net Price
TT-425	425 cps	42.00
TT-595	595 cps	42.00
TT-765	765 cps	42.00
TT-935	935 cps	42.00
TT-1105	1105 cps	36.00
TT-1275	1275 cps	36.00
TT-1445	1445 cps	36.00
TT-1615	1615 cps	36.00
TT-1785	1785 cps	33.00
TT-1955	1955 cps	33.00
TT-2125	2125 cps	33.00
TT-2295	2295 cps	33.00
TT-2465	2465 cps	30.00
TT-2635	2635 cps	30.00
TT-2805	2805 cps	30.00
TT-2975	2975 cps	30.00
TT-3145	3145 cps	30.00
TT-3315	3315 cps	30.00



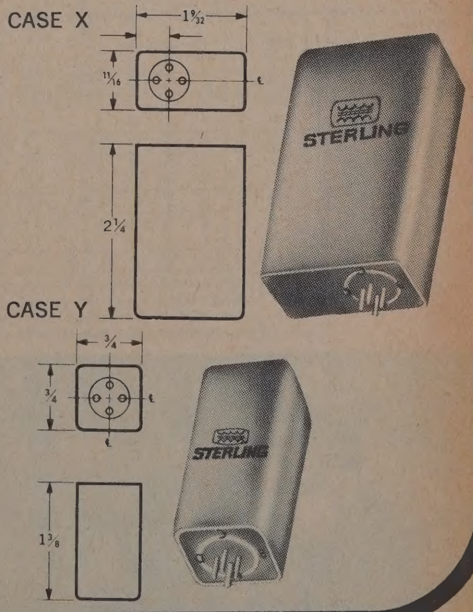


TELEMETERING FILTERS

- Impedance: 100K ohms input and output.
  Insertion loss: less than 6 DB.
- Attenuation Characteristics for ± 7.5% Bandwidth Filters
  At ± 7.5% of center frequency—less than 3 db.
  At ± 25% of center frequency—more than 20 db.
  At 1.75 times center frequency and above—greater than 40 db.
  At 0.57 times center frequency and below—greater than 40 db.
  Attenuation characteristics for ± 15% Bandwidth filters is proportional.
  ... all units MIL type FR4RX22YY.

Part No.	Channels	Frequency	Bandwith ±	Case Size	Price
TM-1	1	400 cps	7½%	X	39.00
TM-2	2	560 cps	7½%	X	39.00
TM-3	3	730 cps	7½%	X	39.00
TM-4	4	960 cps	7½%	X	39.00
TM-5	5	1.3 KC	7½%	X	39.00
TM-6	6	1.7 KC	7½%	X	39.00
TM-7	7	2.3 KC	7½%	Y	39.00
TM-8	8	3.0 KC	7½%	Y	39.00
TM-9	9	3.9 KC	7½%	Y	39.00
TM-10	10	5.4 KC	7½%	Y	39.00
TM-11	11	7.35 KC	7½%	Y	39.00
TM-12	12	10.5 KC	7½%	Y	42.00
TM-13	13	14.5 KC	7½%	Y	42.00
TM-14	14	22.0 KC	7½%	Y	42.00
TM-15	15	30.0 KC	7½%	Y	42.00
TM-16	16	40.0 KC	7½%	Y	42.00
TM-17	17	52.5 KC	7½%	Y	42.00
TM-18	18	70.0 KC	7½%	Y	42.00
TM-A	A	22.0 KC	15%	Y	42.00
TM-B	B	30.0 KC	15%	Y	42.00
TM-C	C	40.0 KC	15%	Y	42.00
TM-D	D	52.5 KC	15%	Y	42.00
TM-E	E	70.0 KC	15%	Y	42.00

4 Pin Plugs for Printed Circuit Application

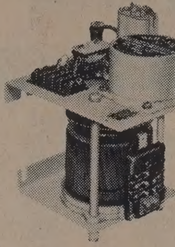


STERLING TRANSFORMER CORP   BROOKLYN 11, N. Y.

POWERSTAT® *Variable Transformers*

- **ZERO WAVEFORM DISTORTION**
- **RUGGED CONSTRUCTION**
- **GOLD-ALLOY PLATED COMMUTATORS**

Deliver continuously-adjustable voltage from a-c power lines. All manually-operated types listed in charts except 10B, EN116-EN216 and EN117-EN217 Series are also available with motor-drives if desired. Motor-driven speeds are 5, 15, 30 or 60 seconds for full range travel except types suffixed 4P, 4PS, 4D, 5P, 6P, 6PS, 6D and 6Y which do not offer the 5 second speed. 117-217, 126-226 and 136-236 types are also available with 2- or 3-wire cord-plug sets. 1156D-1256D Series types are available in ratings up to 244 KVA.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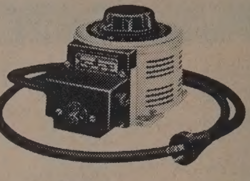
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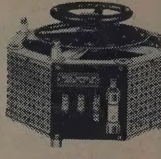

TYPE 1156D

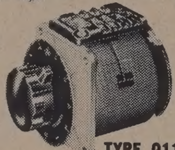
TYPE 10B

TYPE 21

TYPE EN216-2

TYPE 116

TYPE 2PF10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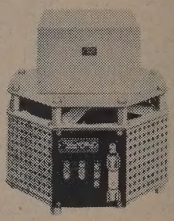
TYPE 136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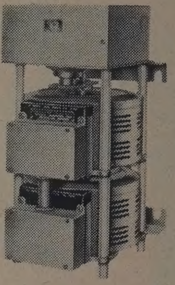
TYPE 15MC136T-2

RATINGS AND SPECIFICATIONS

10B SERIES

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	60	0-132	1	0.13			2PF10	3.3
120	50/60	0-120	2.25*	0.27	3‡	0.36	10B	2.4
120	60	0-132	2.25*	0.30				
240	50/60	0-240	2.25*	0.54	3‡	0.72	10B-2	5.6
240	60	0-264	2.25*	0.59				
Three Phase								
120	50/60	0-120	2.25*	0.47	3‡	0.62	10B-2	5.6
120	60	0-132	2.25*	0.51				
240	60	0-240	2.25*	0.94	3‡	1.2	10B-3	8.3

21 SERIES

Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	50/60	0-120	3.75	0.45	5.5	0.66	21	6
120	50/60	0-140	3.75	0.53				
240	50/60	0-240	3.75	0.90	5.5	1.3	21-2	12
240	50/60	0-280	3.75	1.0				
Three Phase								
120	50/60	0-120	3.75	0.78	5.5	1.1	21-2	12
120	50/60	0-140	3.75	0.91				
240	50/60	0-240	3.75	1.6	5.5	2.3	21-3	17
240	60	0-280	3.75	1.8				

116-216 and 117-217 SERIES†

Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	50/60	0-120	7.5	0.90	10	1.2	116 ‡‡	12
120	50/60	0-140	7.5	1.0				
120	60	0-120	10	1.2	13	1.6	117T ‡‡	12
240	50/60	0-240	3	0.72	4.5	1.1	216 ‡‡	12
240	50/60	0-280	3	0.84				
240	60	0-240	4	1.0	6.3	1.5	217T‡‡	12
240	50/60	0-240	7.5	1.8	10	2.4	116T-2	24
240	50/60	0-280	7.5	2.1				
240	60	0-240	10	2.4	13	3.1	117T-2	24
480	50/60	0-480	3	1.4	4.5	2.2	216T-2	24
480	50/60	0-560	3	1.7				
480	60	0-480	4	1.9	6.3	3.0	217T-2	24

116-216 and 117-217 SERIES† (contd.)

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Three Phase								
120	50/60	0-120	7.5	1.6	10	2.1	116T-2	24
120	50/60	0-140	7.5	1.8				
120	60	0-120	10	2.1	13	2.7	117T-2	24
240	50/60	0-240	3	1.2	4.5	1.9	216T-2	24
240	50/60	0-280	3	1.5				
240	60	0-240	4	1.7	6.3	2.6	217T-2	24
240	50/60	0-240	7.5	3.1	10	4.2	116T-3	36
240	60	0-280	7.5	3.6				
240	60	0-240	10	4.2	13	5.4	117T-3	36
480	50/60	0-480	3	2.5	4.5	3.7	216T-3	36
480	60	0-560	3	2.9				
480	60	0-480	4	3.3	6.3	5.2	217T-3	36

EN116-EN216 and EN117-EN217 SERIES

Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	50/60	0-120	6.5	0.78	10	1.2	EN116	15
120	50/60	0-140	6.5	0.91				
120	60	0-120	8.5	1.0	12.5	1.5	EN117	15
240	50/60	0-240	2.6	0.62	4	0.96	EN216	15
240	50/60	0-280	2.6	0.73				
240	60	0-240	3.5	0.84	5.2	1.2	EN217	15
240	50/60	0-240	6.5	1.6	10	2.4	EN116-2	28
240	50/60	0-280	6.5	1.8				
240	60	0-240	8.5	2.0	12.5	3.0	EN117-2	28
480	50/60	0-480	2.6	1.2	4	1.9	EN216-2	28
480	50/60	0-560	2.6	1.5				
480	60	0-480	3.5	1.7	5.2	2.5	EN217-2	28
Three Phase								
120	50/60	0-120	6.5	1.4	10	2.1	EN116-2	28
120	50/60	0-140	6.5	1.6				
120	60	0-120	8.5	1.8	12.5	2.6	EN117-2	28
240	50/60	0-240	2.6	1.1	4	1.7	EN216-2	28
240	50/60	0-280	2.6	1.3				
240	60	0-240	3.5	1.5	5.2	2.2	EN217-2	28
240	50/60	0-240	6.5	2.7	10	4.2	EN116-3	39
240	60	0-280	6.5	3.2				
240	60	0-240	8.5	3.5	12.5	5.2	EN117-3	39
480	50/60	0-480	2.6	2.2	4	3.3	EN216-3	39
480	60	0-560	2.6	2.5				
480	60	0-480	3.5	2.9	5.2	4.3	EN217-3	39

FOOTNOTES

*Rating if mounted on a metal panel. When mounted on a bracket or nonmetallic panel, derate to 1.75 amperes with corresponding reduction in maximum KVA.

‡Rating if mounted on a metal panel. When mounted on a bracket or nonmetallic panel, derate to 2.5 amperes with corresponding reduction in maximum KVA.

†Also available with open construction for back-of-panel mounting (suffix U when ordering). Prefix Q if square frame is desired instead of round frame on open construction (U) types.

‡‡Also available with metered knobs. Add prefix V when ordering.

THE SUPERIOR ELECTRIC COMPANY

Bristol, Connecticut, U.S.A.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100, 3500 AND 4000

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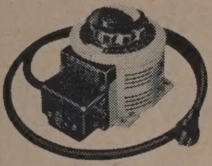
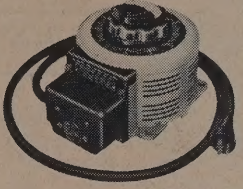
POWERSTAT® *Variable Transformers*

- **EXCELLENT REGULATION**
- **HIGH EFFICIENCY**
- **CONSERVATIVE RATINGS**

TYPE V116



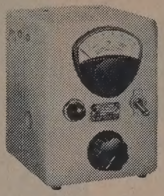
TYPE V3PN126



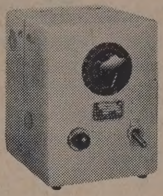
TYPE V3PN136

METERED KNOB TYPES

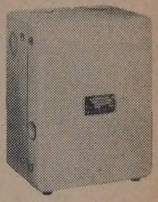
POWERSTATS of the V116-V216, V117-V217, V126-V226 and V136-V236 Series have an accurate voltmeter integral with the knob. They have the same ratings and mounting dimensions as single types with enclosed construction (with and without cord-plugs) in the 116-216, 117-217, 126-226 and 136-236 Series listed in the charts. Voltmeter is insensitive to stray magnetic fields. Conversion kits also available to modify currently cataloged types not having metered knobs.



TYPES RP120MP, RP240MP



TYPE RP120/240P



TYPE RP120/240

POWERSTAT® REGULATING POSITIONERS

Maintain a constant output voltage at any value within the output range of a motor-driven POWERSTAT Variable Transformer regardless of variations in line voltage or load current. Can be used with any motor-driven POWERSTAT designed for 120 or 240 volt, 50/60 cycle single phase service to control output voltages as high as 280 volts. On three phase, can be used to monitor one line-to-neutral or one line-to-line voltage depending on POWERSTAT type.

126-226 SERIES**

INPUT		OUTPUT					TYPE	Ship. Wt. Lbs.
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA		
Single Phase								
120	50/60	0-120	12.5	1.5	18	2.2	126‡‡	17
120	50/60	0-140	12.5	1.8				
240	50/60	0-240	6	1.4	9	2.2	226‡‡	17
240	50/60	0-280	6	1.7				
240	50/60	0-240	12.5	3.0	18	4.3	126-2	32
240	50/60	0-280	12.5	3.5				
480	50/60	0-480	6	2.9	9	4.3	226-2	32
480	50/60	0-560	6	3.4				
Three Phase								
120	50/60	0-120	12.5	2.6	18	3.7	126-2	32
120	50/60	0-140	12.5	3.0				
240	50/60	0-240	6	2.5	9	3.7	226-2	32
240	50/60	0-280	6	2.9				
240	50/60	0-240	12.5	5.2	18	7.5	126-3	49
240	60	0-280	12.5	6.1				
480	50/60	0-480	6	5.0	9	7.5	226-3	49
480	60	0-560	6	5.8				
136-236 SERIES**								
Single Phase								
120	50/60	0-120	20	2.4	25	3.0	136‡‡	25
120	50/60	0-140	20	2.8				
120	50/60	0-120	40	4.8	50	6.0	136-2§	52
120	50/60	0-140	40	5.6				
240	50/60	0-240	9	2.2	12.5	3.0	236‡‡	25
240	50/60	0-280	9	2.5				
240	50/60	0-240	20	4.8	25	6.0	136-2	52
240	50/60	0-280	20	5.6				
480	50/60	0-480	9	4.3	12.5	6.0	236-2	52
480	50/60	0-560	9	5.0				
Three Phase								
120	50/60	0-120	20	4.2	25	5.2	136-2	52
120	50/60	0-140	20	4.8				
240	50/60	0-240	9	3.7	12.5	5.2	236-2	52
240	50/60	0-280	9	4.4				
240	50/60	0-240	20	8.3	25	10.4	136-3	76
240	60	0-280	20	9.7				
480	50/60	0-480	9	7.5	12.5	10.4	236-3	76
480	60	0-560	9	8.7				

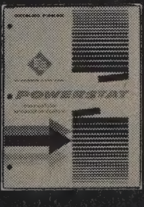
LW136 SERIES††

INPUT		OUTPUT			TYPE	Ship. Wt. Lbs.
Volts	Cycles	Volts	Max. Amps.	Max. KVA		
Single Phase						
120/240	50/60	15-0-15	35	.52	LW136	25
120/240/480	50/60	30-0-30	35	1.0	LW136-2	52
120/240	50/60	45-0-45	35	1.6	LW136-3	76
120/240	50/60	0-30	25	0.75	LW136	25
120/240/480	50/60	0-60	25	1.5	LW136-2	52
120/240	50/60	0-90	25	2.2	LW136-3	76
Three Phase						
120/240	50/60	0-30	25	1.3	LW136-2	52
120/240	50/60	0-30	43.3	2.2	LW136-3	76
120/240	50/60	0-52	25	2.2	LW136-3	76
240/480	60	0-35	43.3	2.6	LW136-3	76
240/480	60	0-60	25	2.6	LW136-3	76
1156D-1256D SERIES§§						
Single Phase						
120	50/60	0-140	45	6.3	1156D	79
120	50/60	0-140	90	12.6	1156D-2P	158
120	50/60	0-140	135	18.9	1156D-3P	274
120	50/60	0-140	180	25.2	1156D-4P	395
120	50/60	0-140	225	31.5	1156D-5P	490
120	50/60	0-140	270	37.8	1156D-6P	584
240	50/60	0-280	28	7.8	1256D	79
240	50/60	0-280	45	12.6	1156D-2S	152
240	50/60	0-280	56	15.7	1256D-2P	158
240	50/60	0-280	84	23.5	1256D-3P	274
240	50/60	0-280	90	25.2	1156D-4PS	386
240	50/60	0-280	112	31.4	1256D-4P	391
240	50/60	0-280	140	39.2	1256D-5P	490
240	50/60	0-280	135	37.8	1156D-6PS	583
240	50/60	0-280	168	47.0	1256D-6P	588
480	50/60	0-560	28	15.7	1256D-2S	152
480	50/60	0-560	56	31.4	1256D-4PS	386
480	50/60	0-560	84	47.0	1256D-6PS	583
Three Phase						
120	50/60	0-140	45	10.9	1156D-2D	152
120	50/60	0-140	90	21.8	1156D-4D	386
120	50/60	0-140	135	32.7	1156D-6D	583
240	50/60	0-280	28	13.6	1256D-2D	152
240	60	0-280	45	21.8	1156D-3Y	225
240	50/60	0-280	56	27.2	1256D-4D	386
240	50/60	0-280	84	40.7	1256D-6D	583
240	60	0-280	90	43.6	1156D-6Y	569
480	60	0-560	28	27.2	1256D-3Y	225
480	60	0-560	56	54.3	1256D-6Y	569

FOOTNOTES

§Requires also one paralleling choke type T5000.
**126-226 and 136-236 Series also available with open construction for back-of-panel mounting (suffix U when ordering).
††LW136 Series ratings are for use as low voltage isolated output transformer. Also permits connection for use as limited range transformer or as a line corrector. Full connections and ratings on request.
§§1156D-1256D Series types also have terminals for limiting output voltage to line voltage.
‡‡Also available with metered knobs. Add prefix V when ordering.

COMPLETE LITERATURE
containing full product information, engineering data, outline drawings, connections, ratings, charts and illustrations on all standard and special use POWERSTATS is available on request. Specify whether 50/60 cycle, 400/800 cycle or complete file is desired.



METERED KNOB

REGULATING POSITIONERS

POWERSTAT® *Variable Transformers*

40-VOLT SERIES

Meet high current, low voltage requirements of low voltage power supplies and a wide range of transistor circuit applications. Manually-operated and motor-driven single, 2- and 3-gang single phase types available.

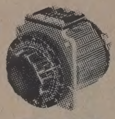
H-C SERIES

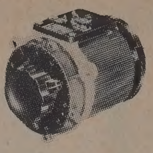
High current, high efficiency types featuring a new variable transformer design concept with helical coils and patented re-entry rings. Extremely fine voltage division. 3 phase only.

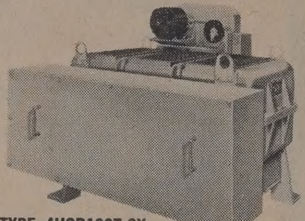
LINE CORRECTORS, OIL-COOLED, EXPLOSION-PROOF

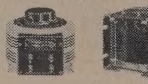
Line Correctors available in manually-operated and motor-driven types; Oil-Cooled and Explosion-proof are manually-operated only.

TYPE 10B-40


TYPE 21-40


TYPE 116U-40


TYPE 4HCB100T-3Y


LINE CORRECTOR TYPE LC2106C

OIL-COOLED TYPE O-116

EXPLOSION-PROOF TYPE X-116

40-VOLT SERIES

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
Single Phase						
40	60	0-40	6	0.24	10B-40	3.3
			15	0.6	21-40	6
			25	1.0	116U-40	11

H-C SERIES

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
240	50/60	0-240	200	83	2HC200LT-3Y*	1650
240	60	0-270	200	93.5	2HC200T-3Y*	
240	50/60	0-240	360	149	2HCB200LT-3Y*	1700
240	60	0-270	360	168	2HCB200T-3Y*	
240	50/60	0-240	720	299	2HCB200LT-6Y	3800
240	60	0-270	720	337	2HCB200T-6Y	
480	50/60	0-480	100	83	4HC100LT-3Y*	1650
480	60	0-540	100	93.5	4HC100T-3Y*	
480	50/60	0-480	200	166	4HCB100LT-3Y*	1700
480	60	0-540	200	187	4HCB100T-3Y*	
480	50/60	0-480	400	333	4HCB100LT-6Y	3800
480	60	0-540	400	374	4HCB100T-6Y	

*Omit T in type number when ordering types without terminal enclosure.

LINE CORRECTOR SERIES

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
Used as Line Correctors — SINGLE PHASE						
95-135	50/60	115	17.5	2.0	LC2102C	55
95-135	50/60	115	52	6.0	LC2106C	80
95-135	50/60	115	130	15.0	LC2115C	200
195-255	50/60	230	32.5	7.5	LC2207C	85
205-250	50/60	230	120	27.5	LC2228C	205
400-520	50/60	460	15	6.6	LC2407C	85
400-520	50/60	460	40	17.6	LC2418C	205
Used as Line Correctors — THREE PHASE						
195-255	50/60	230	25	10.0	LC3210YC	211
195-255	50/60	230	38	15.0	LC3215YC	226
195-255	50/60	230	50	20.0	LC3220YC	241
195-255	50/60	230	113	45.0	LC3245YD	615
195-255	50/60	230	175	70.0	LC3270DD	795
400-520	50/60	460	16	12.5	LC3412YC	200
400-520	50/60	460	22	17.5	LC3417YC	215
400-520	50/60	460	33	25.0	LC3425YC	230
400-520	50/60	460	66	50.0	LC3450YD	580
400-520	50/60	460	100	75.0	LC3475YD	630
420-500	50/60	460	131	100.0	LC34100YD	630

When units of the LC series are used as limited range adjustable transformers, the input voltage is the output voltage shown in the above chart and the output voltage is the input voltage shown in the above chart.

OIL-COOLED

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
120	50/60	0-120	15	1.8	O-116	32
120	50/60	0-140	15	2.1		
120	50/60	0-140	30	4.2	O-1126	100
240	50/60	0-240	6	1.4	O-216	32
240	50/60	0-280	6	1.7		
240	50/60	0-280	18	5.0	O-1226	105

OTHER TYPES AVAILABLE ON SPECIAL ORDER

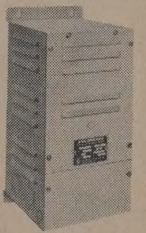
EXPLOSION-PROOF

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
120	50/60	0-120	7.5	0.90	X-116	47
120	50/60	0-140	7.5	1.0		
120	50/60	0-140	12	1.7	X-1126	142
240	50/60	0-240	3	0.72	X-216	47
240	50/60	0-280	3	0.84		
240	50/60	0-280	6	1.7	X-1226	142

other variable voltage controls

SOLIDSTAT Variable Voltage Controls

Solid-state, semiconductor type variable a-c voltage controls for inductive or lagging power factor loads. Can be controlled by small indicating potentiometer, current feedback sensing or voltage sensing circuits.



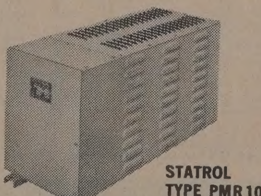
SOLIDSTAT TYPE CSR106

SOLIDSTAT VARIABLE VOLTAGE CONTROLS

INPUT VOLTS	INPUT FREQUENCY CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS. AT MAX. VOLTS	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
120	60	0-115	50	6.0	CSR106	21
240	60	0-230	50	12.0	CSR212	21
120	60	0-115	100	12.0	CSR112	42
240	60	0-230	100	24.0	CSR224	42

STATROL Magnetic Amplifiers

Two-stage magnetic amplifiers controlled by small indicating potentiometer. Contains no moving parts, relays or tubes.


STATROL TYPE PMR106

STATROL MAGNETIC AMPLIFIERS

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
Single Phase						
120	60	0*-115	25	3.0	PMR103	115
		0*-120	50	6.0	PMR106	165
		0*-120	83	10.0	PMR110	222

*Nominal zero (12 volts maximum)

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100, 3500 AND 4000

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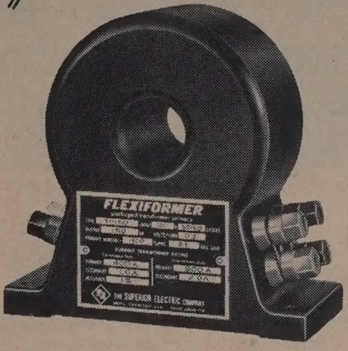
FLEXIFORMER® *Packaged Transformer Primary*

THE
"Do-it-yourself"
TRANSFORMER

- A SOURCE OF A-C VOLTAGE
- A CURRENT TRANSFORMER
- 150 VA AND 1000 VA TYPES



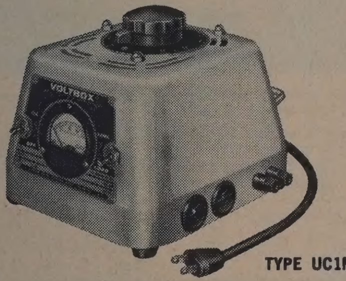
TYPE TP150

A FLEXIFORMER Packaged Transformer Primary is a self-contained toroidal primary coil encased in durable high impact plastic. Colored SUPERIOR 5-WAY Binding Posts for connections are integrally mounted. When used as a source of a-c voltage, the center opening permits hand-threading the correct number of secondary winding turns to obtain the desired output voltage. When used as a current transformer, the FLEXIFORMER winding is shunted by an ammeter which indicates the current flow in a conductor hand-threaded through the center opening. Can be portable or fastened permanently

AS A SOURCE OF A-C VOLTAGE					AS A CURRENT TRANSFORMER					
NOMINAL PRIMARY VOLTS*	CYCLES	MAX. VA	VOLTS PER SECONDARY TURN	REG. AT MAX. OUTPUT	INPUT/ OUTPUT RATIO	MAX. PRIMARY AMPS.†	MAX. SECONDARY AMPS.†	ACCURACY AT 60 CYCLES	TYPE	SHIP. WT. LBS.
120	50/60	150	0.3	25%	400/1	400	1.0	1%	TP150	6
120	50/60	1000	0.75	10%	160/1	800	5.0	1%	TP1000	24

*Maximum 175 volts at 60 cycles, 145 volts at 50 cycles.
†Ratings for continuous duty. Double for intermittent duty but with reduced accuracy.

VOLTBOX®
A-C Power Supply



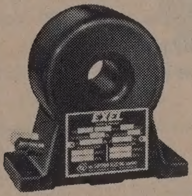
TYPE UC1M

INPUT VOLTS	OUTPUT			
	VOLTS	MAX. AMPS.	MAX. KVA	TYPE
120	0-140	7.5	1.0	UC1M
240	0-280	3.0	0.84	UC2M

OTHER TYPES AVAILABLE ON SPECIAL ORDER

Compact versatile instrument containing all the necessary components for tests involving a-c voltage: POWERSTAT Variable Transformer, direct reading voltmeter, three output receptacles, two SUPERIOR 5-WAY Binding Posts, "on-off" switch, line-load meter switch, fuse and 6-foot cord-plug. For 50/60 cycle service.

EXEL
Loading Reactor

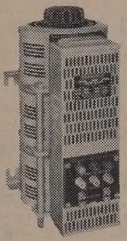


Type LR2

120 volts, 60 cycles
2.0 amperes at 120 volts
Inductive reactance 60 ohms
D-C resistance 4.0 ohms
Inductance 0.16 henrys

Designed to provide a convenient inductive load which can be made adjustable when used in conjunction with a POWERSTAT variable transformer. Used primarily for testing apparatus at various lagging power factors, i.e., to simulate an inductive load. Essentially consists of a gapped, strip-wound silicon steel toroid core, wire-wound and imbedded in epoxy compound. Entire assembly enclosed in a self-contained, durable, high grade phenolic case having two SUPERIOR 5-WAY binding posts for connections. At 60 cycles, the EXEL has essentially a linear current curve from 0 to nominal 2.0 amperes for continuous duty and up to 3.0 amperes for intermittent duty.

VARICELL®
adjustable
A-C/D-C Power Supply

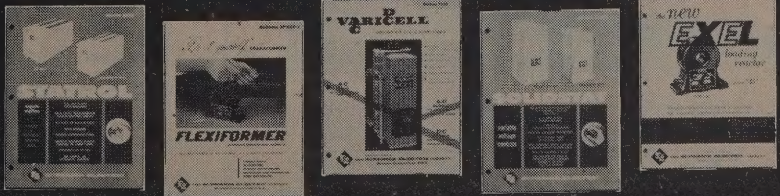


Type V4050-3

A-C INPUT:	240 v., 50/60 cycles, 3-phase (Primary delta connected) 480 v., 50/60 cycles, 3-phase (Primary wye connected)
A-C OUTPUT:	0-25 v., 40 amps., 3-phase (Secondary delta connected) 0-50 v., 25 amps., 3-phase (Secondary wye connected)
D-C OUTPUT:	0-35 v., 50 amps. (Secondary delta connected) 0-60 v., 30 amps. (Secondary wye connected)

Provides a source of adjustable low a-c or d-c voltage from a-c power lines. Essentially consists of a 3-phase, low voltage POWERSTAT variable transformer combined with a static d-c power supply. Power supply uses highly efficient silicon rectifier cells connected for full-wave 3-phase operation. The a-c and d-c outputs cannot be simultaneously loaded or externally interconnected. The a-c output can be used either single or three-phase.

REQUEST BULLETINS AND DATA SHEETS
giving complete information on
SOLIDSTAT Variable Voltage Controls,
STATROL Magnetic Amplifiers,
FLEXIFORMER Packaged Transformer Primaries,
VOLTBOX A-C Power Supplies,
VARICELL Adjustable A-C/D-C Power Supplies,
and EXEL Loading Reactors.



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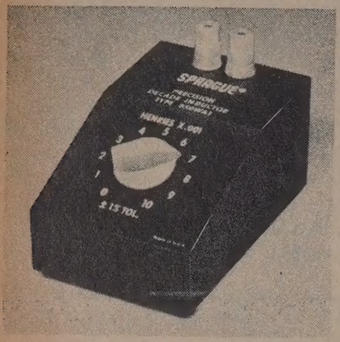
SPRAGUE PULSE TRANSFORMERS AND DECADE INDUCTORS

TYPE 850W PRECISION DECADE INDUCTORS



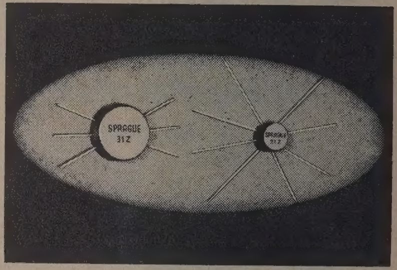
- Indispensable For Design and Experimental Work on Audio Filters, Equalizers, and Tuned Circuits. Frequency Range is 150 to 20,000 Cycles per Second
- Excellent Stability With Respect to Current and Ambient Temperature Changes
- All Four Decade Inductors May Be Connected in Series to Provide 11,110 Steps of Inductance
- Housed in Blue Aluminum Case with Sloping Front to Facilitate Bench-Top Readings. Measures 3″ Wide, 2½″ High, 5½″ Long. Fitted with Five-way Binding Posts.

Cat. No.	Inductance Steps	Optimum Freq. Range in cps	Average Q Factor at 1000 cps	Average Q Factor at 4500 cps	Max. Milliamperes D-C	Max. Milliamperes A-C	Net Each
850WA1	10 x 0.001H	400 to 20,000	40	75	250	700	$31.90
850WA2	10 x 0.01H	400 to 20,000	60	125	79	220	31.90
850WA3	10 x 0.1H	400 to 20,000	60	125	25	70	31.90
850WA4	10 x 1.0H	400 to 5,000	60	125	8	22	31.90

- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 90,500.

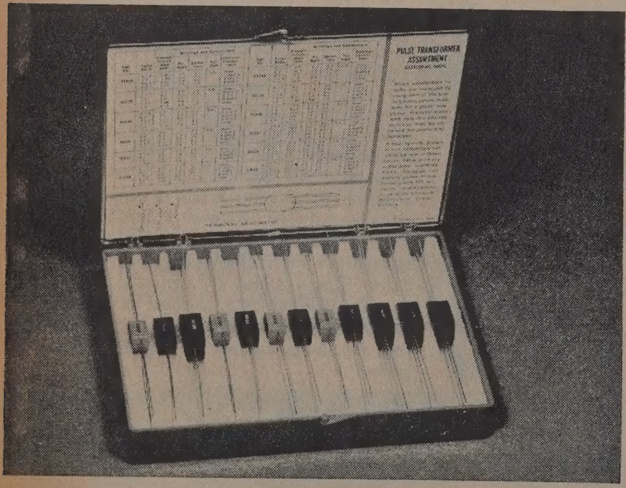
TYPE 31Z 'PANCAKE' PULSE TRANSFORMERS

- Miniature Units with Transformer Section Embedded in Epoxy Resin Inside a Pre-molded Outer Shell.
- "Pancake" Design is Excellent for Mounting on Printed Wiring Boards as Well as On Conventional Chassis.
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 40,230.
- 31Z382 Is Recommended for Pulse Voltages up to 200 Volts at Average Power Rating of 1.0 Watt. Maximum Suggested Volt-microsecond Product is 1200.
- 31Z204 and 31Z286 Are Recommended for Pulse Voltages up to 100 Volts at Average Power Rating of 0.5 Watt. Maximum Suggested Volt-microsecond Product is 340.



Cat. No.	Turns Ratio	L_P (mH)	L_L (μH)	C_I ($\mu\mu$F)	C_C ($\mu\mu$F)	Typical Pulse Width Range and Impedance Level for 10% Droop: Width at 100Ω (μsec)	Width at 250Ω (μsec)	Width at 500Ω (μsec)	Net, ea.
31Z204	1 : 1	6.0	10.0	14	29	13.0	4.80	2.6	$4.60
31Z286	1 : 1 : 1	6.0	10.0	14	29	13.0	4.80	2.6	5.70
31Z382	1 : 1 : 1	15	25	24	49	33	12	6.4	5.70

PULSE TRANSFORMER ASSORTMENT No. 100Z41



Cat. No. 100Z41......................Net, $65.00

- A Special Selection of Pulse Transformers for Low-Power High-speed Computer Circuitry
- Covers a Wide Range of Turns Ratios and Primary Inductance Combinations
- Ideal for Experimental Circuit Design on Transistorized or Electron Tube Circuits.
- Transformer Cores and Windings are Potted in Pre-Molded Epoxy Cases for Mechanical and Moisture Protection
- Can Be Mounted Flush on Printed Wiring Boards or Used in Conventional Point-to-Point Wiring
- For Complete Technical Data on Assortment 100Z41, Refer to Latest Issue of Engineering Bulletin 40,002.
- Packed in Clear, Hinged-Lid Reusable Plastic Case

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REM-66-6329

All prices and sizes subject to change without notice.

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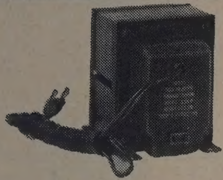
TODD ELECTRIC Co., Inc.

STEP-DOWN, STEP-UP AUTO TRANSFORMERS FOR EVERY 50 OR 60 CYCLE APPLICATION

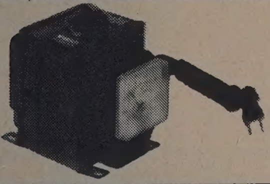
Todd's precision designed Auto Transformers are specially constructed to resist corrosion caused by excessive humidity and will withstand abnormal loading. The input side is equipped with 6 ft. U.L. approved line cord with American wall plug. British or Continental wall plugs available at extra cost.



HEAVY DUTY MODEL

220/240 – 110/120 volts

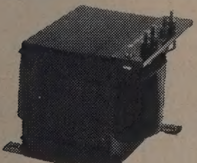
Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-15	75	2 1/4	3 3/16	2 3/4	3 3/16	$ 7.90
SD-16	100	2 1/3	3 3/16	2 3/4	3 5/16	8.10
SD-17	150	3 2/3	3 3/16	2 3/4	3 15/16	9.60
SD-12	250	6	4 5/8	3 7/8	3 5/8	13.20
SD-18	350	6 2/3	4 5/8	3 7/8	3 3/4	14.25
SD-11	500	10 2/3	4 5/8	3 7/8	4 7/8	17.10
SD-19	750	12	4 5/8	3 7/8	5 1/8	21.80
SD-13	1000	15 2/3	4 5/8	3 7/8	6 1/8	28.50
SD-14	1500	20	4 5/8	3 7/8	7 1/8	37.20
SD-20	2000	24	6	4 1/2	6 5/8	70.00



HEAVY DUTY VOLTAGE REGULATOR

Type	input Taps								Sec.
11	84	92	100	108	115	122	130	138	115
12	84	92	100	108	115	122	130	138	230
21	170	185	200	215	230	245	260	275	115
22	170	185	200	215	230	245	260	275	230

Catalog Number	Type	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
TC-17	11 or 22	150	6	5 13/32	3 25/32	5	$ 25.20
TC-18	11 or 22	350	7	5 13/32	3 25/32	5 3/8	35.60
TC-11	11 or 22	500	11	5 13/32	3 25/32	5 3/4	41.00
TC-19	11 or 22	750	15	5 13/32	3 25/32	6 3/8	51.30
TC-13	11 or 22	1000	20	5 13/32	3 25/32	7 1/8	62.25
TC-14	11 or 22	1500	25	5 13/32	3 25/32	8 1/8	81.50
TC-20	11 or 22	2000	30	6 21/32	4 9/32	8 3/4	155.00
TC-17	12 or 21	150	6	5 13/32	3 25/32	5 1/4	29.50
TC-18	12 or 21	350	7	5 13/32	3 25/32	5 3/4	41.15
TC-11	12 or 21	500	11	5 13/32	3 25/32	6	47.30
TC-19	12 or 21	750	15	5 13/32	3 25/32	6 3/4	60.50
TC-13	12 or 21	1000	20	6 21/32	4 9/32	7 3/4	75.00
TC-14	12 or 21	1500	25	6 21/32	4 9/32	8 3/4	92.25
TC-20	12 or 21	2000	30	6 21/32	4 9/32	9 3/4	178.00



INDUSTRIAL MODEL

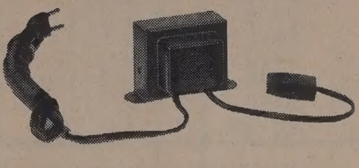
208/220/240 — 110/120 volts

Step-up or Step-down

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-28	3000	38	6 1/8	7 1/16	6 1/4	$171.00
SD-29	4000	47	6 1/8	7 1/16	6 1/4	200.00
SD-22	5000	58	6 1/8	7 1/16	6 1/4	233.00
SD-30	6000	70	6 1/8	7 1/16	6 1/4	283.00

ALL IN STOCK . . . SAME DAY SHIPMENT!

INQUIRE FOR DISTRIBUTOR DISCOUNT



NORMAL DUTY MODEL

220/240 – 110/120 volts

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-24	50	1 1/2	2 3/8	3 3/4	2 1/4	$4.90
SD-21	65	1 2/3	2 3/8	3 3/4	2 1/4	5.15
SD-25	80	1 2/3	2 3/8	3 3/4	2 1/4	5.40
SD-23	100	1 2/3	2 3/8	3 3/4	2 3/8	5.70
SD-26	125	2	2 9/16	4	2 5/8	6.35
SD-27	150	2 1/4	2 9/16	4	2 5/8	6.90

PANEL MOUNTED VOLTAGE REGULATOR

Type	input Taps								Sec.
11	84	92	100	108	115	122	130	138	115
12	84	92	100	108	115	122	130	138	208/230
21	170	185	200	215	230	245	260	275	115
22	170	185	200	215	230	245	260	275	208/230

Catalog Number	Type	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
TA-20	11 or 22	2000	40	6 7/8	7 1/2	17 3/8	$182.00
TA-28	11 or 22	3000	50	6 7/8	7 1/2	17 3/8	208.00
TA-29	11 or 22	4000	60	6 7/8	7 1/2	17 3/8	253.00
TA-22	11 or 22	5000	70	6 7/8	7 1/2	17 3/8	293.00
TA-30	11 or 22	6000	85	6 7/8	7 1/2	17 3/8	348.00
TA-20	12 or 21	2000	40	6 7/8	7 1/2	17 3/8	198.00
TA-28	12 or 21	3000	50	6 7/8	7 1/2	17 3/8	222.00
TA-29	12 or 21	4000	60	6 7/8	7 1/2	17 3/8	270.00
TA-22	12 or 21	5000	70	6 7/8	7 1/2	17 3/8	313.00
TA-30	12 or 21	6000	85	6 7/8	7 1/2	17 3/8	370.00

INDUSTRIAL PANEL MODEL

208/220/240 — 110/120 volts

Step-up or Step-down

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-28TA	3000	50	6 7/8	7 1/2	17 3/8	$198.00
SD-29TA	4000	60	6 7/8	7 1/2	17 3/8	229.00
SD-22TA	5000	72	6 7/8	7 1/2	17 3/8	265.00
SD-30TA	6000	85	6 7/8	7 1/2	17 3/8	316.00

Todd is a step-down, step-up specialist. Consult us for modifications including fusing, metering, non-standard voltage, specialized mountings, Mil-T-27A applications, hermetic sealing and other custom requirements.

TODD ELECTRIC CO., INC.

YONKERS, N. Y.

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HIGH CURRENT TRANSFORMERS & CHOKES
ELECTRICAL SPECIFICATIONS

			SECONDARY AMPS FOR OPTIONAL HOOKUP	
			SERIES	PARALLEL
	PART NO.	PRIMARY VOLTS	6-12-18-24 SEC. VOLTS	6 OR 12 SEC. VOLTS
24 VOLTS 50-500 ~	2401	115	1	2
	2402	115	2	4
	2404	115	4	8
	2406	115	6	12
	2408	115	8	16
	2412	105, 115, 125	12	24
	2420	105, 115, 125	20	40
	2425	105, 115, 125	25	50
	2450	105, 115, 125	50	100
	24100	115, 230	100	200
			9-18-27-36 SEC. VOLTS	9 OR 18 SEC. VOLTS
36 VOLTS 50-500~	3601	115	1	2
	3602	115	2	4
	3604	115	4	8
	3606	115	6	12
	3608	105, 115, 125	8	16
	3612	105, 115, 125	12	24
	3620	105, 115, 125	20	40
	3625	105, 115, 125	25	50
	3630	105, 115, 125	30	60
	3650	115, 230	50	100
	36100	115, 230	100	200
			14-28-42-56 SEC. VOLTS	14 OR 28 SEC. VOLTS
56 VOLTS 50-500 ~	5601	115	1	2
	5602	115	2	4
	5604	115	4	8
	5606	115	6	12
	5608	105, 115, 125	8	16
	5612	105, 115, 125	12	24
	5625	105, 115, 125	25	50
	5650	115/230	50	100
			20-40-60-80 SEC. VOLTS	40 OR 80 SEC. VOLTS
80 VOLTS 50-500~	80005	115	0.5	1
	8001	115	1	2
	8002	115	2	4
	8004	115	4	8
	8006	105, 115, 125	6	12
	8008	105, 115, 125	8	16
	8012	105, 115, 125	12	24

	CHOKE INPUT FILTER OR INDUCTIVE LOAD	RESISTIVE LOAD	CAPACITOR INPUT FILTER OR CAPACITIVE LOAD
FULL WAVE BRIDGE	1.0	1.0	1.8
FULL WAVE C.T.	.7	.7	1.1

This series of high current transformers and chokes are most widely used for rectifier and high current applications. It is one of the industry's most popular items. The characteristics of these transformers and chokes permit low temperature rise and excellent regulation in the smallest and most compact package possible.

ALL UNITS IN STOCK FOR SAME DAY SHIPMENT

Three basic constructional types are offered for maximum prototype and production flexibility.

BRACKET MOUNT • Open style units are double vacuum varnish impregnated and long life

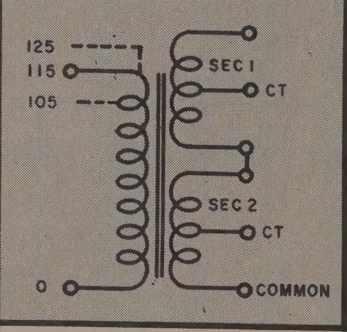
• Epoxy units vacuum encapsulated to withstand extreme environments per MIL-T Spec Grade 5 Class S

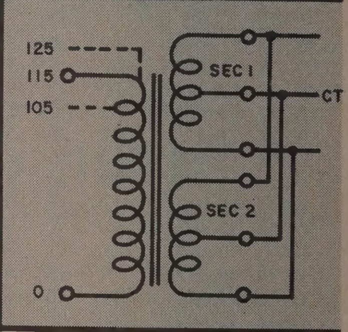
SHELL ENCLOSED • This style offers mechanical protection, excellent commercial appearance & "wiring with leads" convenience: Double vacuum impregnation assures moisture resistance and long life

CAN ENCASED • Commercial can style units are ruggedly built and imbedded in rigid potting compound to insure long life and maximum heat transfer. Professional TODD finish enchances any chassis

• Hermetic sealed units are manufactured to MIL-T-27 Grade 4 Class S specifications to withstand the most rigorous environmental conditions.

CONTACT TODD FOR CUSTOM VARIATIONS





CHOKES 50-400~line frequency

PART NO.	INDUCTANCE MILLIHENRIES	CURRENT (D.C.) AMPS	RESISTANCE OHMS
CH-01	100	1	1.5
CH-02	40	2	0.9
CH-04	70	4	0.6
CH-06	40	6	0.4
CH-08	30	8	0.3
CH-12	10	12	0.1
CH-20	4	20	0.05
CH-25	4	25	0.025
CH-30	3	30	0.01
CH-50	1	50	0.01
CH-100	0.5	100	0.005

• ENGINEERING • RELIABILITY • SERVICE

TODD *ELECTRIC CO., INC., Yonkers, N. Y.*

Net

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HIGH CURRENT TRANSFORMERS & CHOKES

MECHANICAL SPECIFICATIONS

- BRACKET MTD (STYLE B)
- ENCAPSULATED (STYLE BE)

L	W	H	ML	MW	WT	STYLE B Price	STYLE BE Price
3	2½	2¾	2½	2	2.2	4.54	5.81
3	2⅞	2¾	2½	2⅜	3.0	5.94	7.38
3¾	2⅝	3¼	3⅛	2¼	4.2	7.03	9.00
4⅛	2⅞	3¾	3 7/16	2⅜	5.2	8.51	10.56
4⅛	3⅞	3¾	3 7/16	3	7.6	11.79	15.00
4½	4⅜	4	3¾	3⅜	11.7	15.08	18.75
5¼	4¾	4⅝	4⅜	3⅜	15	17.70	22.50
5¼	5½	4⅝	4⅜	4⅛	18	24.28	30.00
6⅜	6⅜	5⅝	5 5/16	4⅜	32	35.15	45.00
7	9½	-5	6⅛	5⅛	37	51.10	65.00
3	2¾	2¾	2½	2¼	2.5	5.24	6.50
3⅜	3	3	2 13/16	2¼	3.8	6.74	8.63
4⅛	3½	3¾	3 7/16	2⅝	6.5	8.52	10.56
4½	3¾	4	3¾	2¾	8.6	12.41	15.94
4½	4⅛	4	3¾	3⅜	11	14.63	18.13
5¼	4½	4⅝	4⅜	3⅜	14.5	15.97	20.31
6⅜	5	5⅝	5 5/16	3⅜	22	27.80	34.50
6⅜	5½	5⅝	5 5/16	3¾	25	29.20	37.19
6⅜	6	5⅝	5 5/16	4⅜	32	36.15	45.00
6⅜	7	5⅝	5 5/16	5⅛	38	41.80	53.75
7	12	5	6⅛	7⅝	60	85.45	106.25
3⅜	3	3	2 13/16	2⅜	3.8	7.05	9.06
3¾	3¼	3⅜	3⅛	2½	5	8.89	11.00
4⅛	4	3¾	3 7/16	3	8	12.27	15.63
5¼	4¼	4⅝	4⅜	2⅞	13	18.41	22.50
5¼	4¾	4⅝	4⅜	3⅝	16	21.60	27.50
6⅜	5	5⅝	5 5/16	3⅜	22	27.12	33.75
6⅜	6½	5⅝	5 5/16	5⅛	35	43.60	46.25
7	11	5	6⅛	6⅝	50	86.60	106.25
3	2¾	2¾	2½	2¼	3.7	4.74	6.00
3⅜	3⅛	3¼	2 13/16	2½	4.2	7.05	8.75
4⅛	3½	3¾	3 7/16	2⅝	6.5	10.20	13.13
5¼	4⅛	4⅝	4⅜	2⅞	10.8	18.08	22.50
5¼	5⅛	4⅝	4⅜	3⅞	17	22.54	28.75
6⅜	5	5⅝	5 5/16	3¼	19	26.44	32.50
6⅜	6	5⅝	5 5/16	4⅛	27	33.50	42.50
3	2½	2¾	2½	2	2	4.65	6.00
3⅜	2¾	3⅛	2 13/16	2⅛	3.2	5.91	7.25
3¾	3¼	3⅜	3⅛	2½	5	7.58	9.75
3¾	3¾	3⅜	3⅛	3	6.8	9.30	11.50
4⅛	4	3¾	3 7/16	3	8	11.35	14.63
5¼	4¼	4⅝	4⅜	3⅛	13	14.48	18.38
5¼	4¼	4⅝	4⅜	3⅛	13	14.98	18.63
5¼	5	4⅝	4⅜	3⅞	18	21.40	27.50
6⅜	5	5⅝	5 5/16	3⅜	22	26.90	33.75
6⅜	5½	5⅝	5 5/16	3¾	25	30.30	37.50
6⅜	6½	5⅝	5 5/16	4⅛	32	33.35	42.50

- FULLY MTD. SHELLS STYLE V

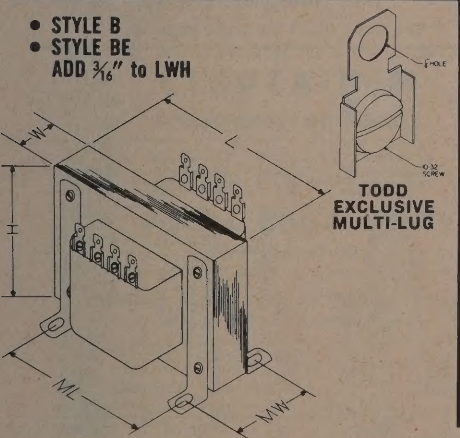
L	W	H	ML	MW	WT	STYLE V Price
2 19/32	2¾	3⅛	2	1 11/16	2.2	4.88
2 19/32	3⅛	3⅛	2	2 1/16	3.0	6.20
3 7/32	3 7/16	3 15/16	2½	2 3/16	4.2	7.56
3 17/32	3 13/16	4 7/32	2¾	2 11/16	5.2	8.87
3 17/32	4 7/16	4 7/32	2¾	3 5/16	7.6	12.60
3 27/32	4 13/16	4 9/16	3	3 11/16	11.7	15.75
4½	5 7/16	5 5/16	3½	3⅞	15	18.90
4½	6 3/16	5 5/16	3½	4⅝	18	25.20
2 19/32	3	3⅛	2	2 15/16	2.5	5.46
2 29/32	4 5/16	3 7/16	2¼	4 5/16	3.8	7.25
3 17/32	4 1/16	4 7/32	2¾	2 15/16	6.5	8.87
3 27/32	4 5/16	4 9/16	3	3 3/16	8.6	13.39
3 27/32	4 13/16	4 9/16	3	3 11/16	11	15.23
4¼	5 7/16	5 5/16	3½	3⅞	14.5	17.06
2 29/32	4 5/16	3 7/16	2¼	3¼	3.8	7.61
3 7/32	3 11/16	3 15/16	2½	2 7/16	5	9.24
3 17/32	4 7/16	4 7/32	2¾	3 5/16	8	13.13
4½	4 15/16	5 5/16	3½	3⅜	13	18.90
4½	5 13/16	5 5/16	3½	4¼	16	23.10
2 19/32	3	3⅛	2	1 15/16	3.7	5.04
2 29/32	3 9/16	3 15/32	2¼	2⅜	4.2	7.35
3 17/32	4 1/16	4 7/32	2¾	2 15/16	6.4	11.03
4½	5 3/16	5 5/16	3½	3⅝	10.8	18.90
4½	5 15/16	5 5/16	3½	4⅜	17	24.15
2 19/32	2¾	3⅛	2	1 11/16	2	5.04
2 29/32	3 3/16	3 15/16	2¼	2	3.2	6.09
3 7/32	3 11/16	3 15/16	2½	2 7/16	5	8.19
3 7/32	4 3/16	3 15/16	2½	2 15/16	6.8	9.66
3 17/32	4 7/16	4 7/32	2¾	3 5/16	8	12.29
4½	5 3/16	5 5/16	3½	3⅝	13	15.44
4½	5 3/16	5 5/16	3½	3⅝	13	15.65
4½	6 1/16	5 5/16	3½	4½	18	23.10

- ENCASED COMMERCIAL (STYLE C)
- HERMETIC SEALED MIL-T (STYLE CM)

L	W	H	ML	MW	WT	STYLE C Price	STYLE CM Price
3	3½	3 13/16	2⅛	2⅝	3.1	9.77	13.49
3	3½	3 13/16	2⅛	2⅝	4.0	12.39	17.11
3⅝	4¼	4 7/16	2 11/16	3 5/16	5.5	15.12	20.88
3 15/16	4⅝	4⅞	3	3 11/16	6.6	17.75	24.51
3 15/16	4⅝	4⅞	3	3 11/16	8.8	25.20	34.80
4 7/16	5 7/16	6 11/16	3	3¼	14.7	31.50	43.50
5	4¾	5½	3⅜	3⅞	17.6	37.80	52.20
5¾	4¾	5½	4⅛	3⅞	21	50.40	69.60
6⅝	5 5/16	6⅝	4⅜	4¼	37	75.60	109.40
9¾	5¼	7¼	5⅛	3	44	109.20	150.80
3	3¼	3 13/16	2⅛	2⅝	3.4	10.92	15.08
3 15/16	3⅞	4¼	2 7/16	3	4.8	14.49	20.01
3 15/16	4⅝	4⅞	3	3 11/16	7.8	17.75	24.51
4¼	5	5 7/16	3 5/16	4 1/16	10.7	26.78	36.98
4¼	5	5 7/16	3 5/16	4 1/16	13.1	30.45	42.05
4¾	4⅝	5½	3⅜	3⅞	16.9	34.13	47.13
6⅝	5⅝	6⅝	4⅜	4¼	27	57.96	80.04
6⅝	5⅝	5⅞	4⅜	4¼	29.5	62.48	86.28
6⅝	5⅝	5⅝	4⅜	4¼	36.5	75.60	104.40
7¼	5⅝	5⅝	4⅜	4¼	42.7	90.30	124.70
12¼	5¼	7¼	7⅝	5¼	69.4	178.50	246.50
3 5/16	3⅞	4¼	2 7/16	3	4.8	15.23	21.03
3⅝	4¼	4 7/16	2 11/16	3 5/16	6.3	18.48	25.52
4¼	5	5 7/16	3 5/16	4 1/16	10.1	26.25	36.25
5	4¾	5½	3⅜	3⅞	15.6	37.80	52.20
5	4¾	5½	3⅜	3⅝	18.6	46.20	63.80
5¾	5⅝	6¾	4⅜	4¼	26.3	56.70	78.30
6⅝	5⅝	6¾	4⅜	4¼	40	94.50	130.50
11¼	5¼	7¼	6⅝	3	58.5	178.50	246.50
3	3½	3 13/16	2⅛	2⅝	5.6	10.08	13.92
3 5/16	3⅞	4 7/16	2 7/16	3	5.2	14.70	20.30
3 15/16	4⅝	4⅞	3	3 11/16	7.7	22.05	30.45
5	4¾	5½	2⅞	3⅞	13.4	37.80	52.20
5¾	4¾	5½	3⅞	3⅞	20	48.30	66.70
6⅝	5⅝	6⅝	3¼	4¼	24	54.60	75.40
6⅝	5⅝	6⅝	4⅛	4¼	32	71.40	98.60
3	3½	3 13/16	2⅛	2⅝	2.9	10.08	13.92
3 5/16	3⅞	4 7/16	2 7/16	3	4.2	12.18	16.82
3⅝	4¼	4 7/16	2 11/16	3 5/16	6.3	16.38	22.62
3⅝	4¼	4 7/16	2 11/16	3 5/16	8.1	19.32	26.68
3 15/16	4⅝	4⅞	3	3 11/16	9.2	24.57	33.93
5	4⅝	5½	3⅛	3⅞	15.6	30.87	42.63
5	4⅝	5½	3⅛	3⅞	15.6	31.29	43.21
5¼	4¾	5½	3⅜	3⅞	20.7	46.20	63.80
5¾	5⅝	6¾	4⅜	4¼	26.3	56.70	78.30
6⅝	5⅝	6⅝	3¾	4¼	30	63.00	87.00
6⅝	5⅝	6¾	4⅜	4¼	37	71.40	98.60

- **STYLE B**
- **STYLE BE**

ADD 3/16" to LWH



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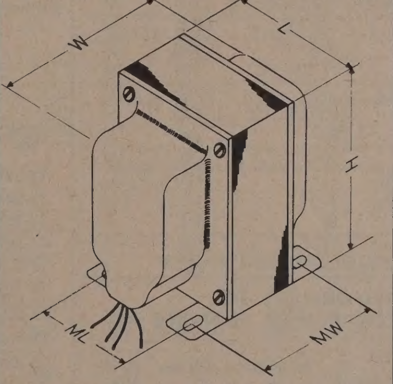
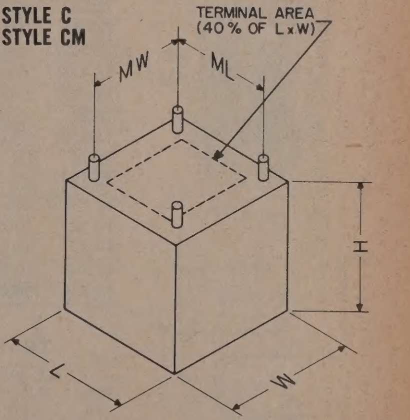


- **STYLE C**
- **STYLE CM**



SPECIFY STYLE WITH ORDER

• ENGINEERING • RELIABILITY • SERVICE

TODD *ELECTRIC CO., INC., Yonkers, N. Y.*

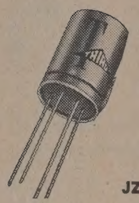
TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

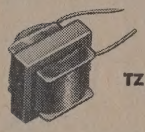
MINIATURES

†† JAF SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	** MTG.
JAF-1‡	600/250/50	50000	0	60-15000	AF
JAF-2‡	600/250/50	250000	0	100-15000	AF
JAF-3	600/250/50	60000 CT.	0	60-15000	AF
JAF-5‡	30/12/4	50000	0	50-15000	AF
*JAF-11	15000	50000	10	60-15000	AF
JAF-12	15000	60000 CT.	10	250-15000	AF
JAF-13	15000 (3 Ma.)	95000 CT.	10	250-15000	AF
JAF-14‡	200	½ megohm	10	350-5000	AF
JAF-15	15000	1 megohm	10	300-3000	AF
JAF-21	15000	600/250/50	10	60-15000	AF
JAF-22	15000 (3 Ma.)	600/250/50	10	350-7000	AF
JAF-23	20000 CT.	600/250/50	10	60-15000	AF
JAF-24	10000 CT.	2000 CT.	10	50-20000	AF
JAF-25	12000CT.(2 Ma.)	600 CT./150	12	50-15000	AF
JAF-26	50000CT.(.5Ma.)	600 CT./150	10	100-15000	AF
JAF-31‡	600/250/50	600/250/50	10	60-15000	AF
JAF-32	1500 CT. (2Ma.)	600 CT./150	14	20-20000	AF
JAF-33‡	5000 CT.	5000 CT.	10	60-15000	AF
JAF-34	500 CT.	500 CT./125	14	50-20000	AF
*JAF-35	600 CT.	2000 CT./500	14	50-20000	AF
JAF-101	50 h.-.75 Ma.				AF
JAF-102	6 HY.—3 MA. or 4 HY.—6 Ma.				



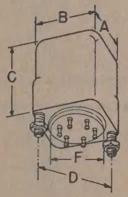
JZ



TZ

SUB-MINIATURE AUDIO — Hermetically Sealed

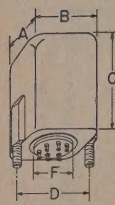
Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.	** Case
*JZ-1	600/250/50	60000	350	4100	JZ
*JZ-5	30/12/4	50000	11.5	3800	JZ
*JZ-7	30/12/4	1000	12	480	JZ
JZ-13	15000 (1. Ma.)	135000 CT.	1150	4400	JZ
JZ-15	20000 (.5 Ma.)	1200/600/100	2700	350	JZ
*JZ-25	10000 (1 Ma.)	200	1500	120	JZ
*JZ-26	1000 (5 Ma.)	50	355	30	JZ



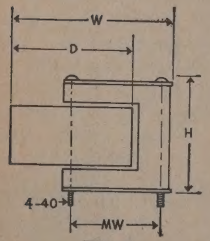
AF
AJ

SUB-MINIATURE AUDIO — Open Frame

Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.
TZ-1	600/250/50	60000	350	4100
TZ-2XT	200 CT.	200000	35	5000
*TZ-5	30/12/4	50000	6	3500
*TZ-7	30/12/4	1000	5	480
TZ-13	15000 (1 Ma.)	135000 CT.	985	4400
TZ-15	20000 (.5 Ma.)	1200/600/100	2700	350
*TZ-24XT	25000 CT.	500 CT.	2000	60
TZ-17XT	10000 CT.	2000 CT	1000	250
TZ-29XT	10000 CT.	10,000 CT	1100	1400
*TZ-25	10000 1 Ma.)	200	1500	120
TZ-32XT	1500 CT.	600 CT./150	160	65
TZ-26	1000 (5 Ma.)	50	355	20
*TZ-28	600	50	95	11
*TZ-103XT	4 Hy. or 1 Hy.	—	400	—
T-41X	1000 (10 Ma.)	200 CT.	430	130
*T-42X	9800 (2 Ma.)	16	855	1.7
TY-44X	1000 (10 Ma.)	16/8/4	180	3.8
TY-47X	2000 CT.(10 Ma.)	16/8/4	260	4



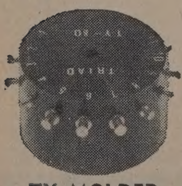
AG
AH



TY-S

TRANSFORMERS FOR TRANSISTOR POWER SUPPLIES

Type No.	D.C. Volts Out of Rect.	D.C. Ma. Max.	Dimensions—Inches H	W	D	MW
TY-68S	250	65	1¾	1¾	1¹¹⁄₃₂	1½
■TY-69S	300	100	1⅞	2⅜	1⅞	1½
■TY-70S	325	150	2	2⅜	2⁷⁄₁₆	1½
■TY-71S	375	200	2	2⅜	2⁷⁄₁₆	1½
■TY-74S	600	200	2	4⅛	3	3¾



TY-MOLDED

EPOXY MOLDED TOROIDAL TYPE

Type No.	D.C. Source Volts	D.C. Volts Out Of Rectifier	D.C. Ma. Max.	Dimension—Inches Dia.	Ht.	Wt. Lbs.
TY-78	12.6	250/125	100	1¾	¹¹⁄₁₆	.35
TY-79	12.6	300/150	200	1¾	1	.35
TY-80	12.6	325/162.5	150	1¾	1	.35
TY-81	12.6	375/187.5	200	2	1	.50
TY-82	12.6	450/225	150	2	1	.50
TY-83	12.6	500/250	250	2¾	1⅜	.85
TY-84	12.6	600/300	200	2¾	1⅜	1.00
•TY-85	12.6	600/300	350	2⅞	2½	2.00
TY-88	28	250/125	80	1⁵⁄₁₆	⁹⁄₁₆	.25
TY-89	28	300/150	100	1¾	¹¹⁄₁₆	.35
TY-90	28	325/162.5	200	1¾	1	.35
TY-91	28	375/187.5	200	2	1	.50
TY-92	28	450/225	200	2	1	.50
TY-93	28	500/250	250	2¾	1⅜	.85
TY-94	28	600/300	200	2¾	1⅜	1.00
TY-99	6.3	300/150	100	1¾	1	.35
TY-100	6.3	325/162.5	150	2	1	.50
TY-101	6.3	375/187.5	200	2¾	1⅜	1.00
TY-102	6.3	450/225	150	2¾	1⅜	1.00

†† MINIATURE AUDIO — "Trijets"

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.
T-1X‡	600/250/50	50000	0	60-15000
T-2X‡	600/250/50	250000	0	100-15000
T-3X	600/250/50	60000 CT.	0	60-15000
T-5X‡	30/12/4	50000	0	50-15000
T-11X	15000	50000	10	60-15000
T-12X	15000	60000 CT.	10	60-15000
T-13X	15000 (3 Ma.)	950000 CT.	10	250-15000
T-14X‡	200	500000	10	200-10000
T-15X	15000	1 Megohm	10	150-15000
T-20X	15000	600/250/50	10	60-15000
*T-21X	3000	50	10	100-15000
T-22X	15000 (3 Ma.)	600/250/50	10	100-50000
T-23X	2000 CT.	600/250/50	10	40-30000
*T-24X	10000 CT.	2000 CT.	10	50-20000
*T-25X	12000 CT.(2 Ma.)	600 CT. 150	10	50-16000
T-26X	50000 CT.(.5 Ma.)	600 CT./150	10	100-15000
T-31X‡	600/250/50	600/250/50	10	50-15000
*T-32X	1500 CT. (2 Ma.)	600 CT./150	13	50-20000
T-33X‡	5000 CT.	5000 CT.	10	60-15000
T-34X	500 CT.	500 CT./125	13	50-20000
T-35X	600 CT.	2000 CT./500	13	50-20000
T-101X	50 henries @ .75 Ma.			
T-102X	6 Hy.-3 Ma. or 4 Hy.-6 Ma.			

††Low frequency loss will result from DC in windings other than where specified.

****See Case Chart on Triad Page 15**

MINIATURES

TRANSISTOR TRANSFORMERS

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-23X	50000	.5	500 CT.	100 MW
TY-24X	50000	.5	3000 CT.	200 MW
TY-25X	100000	.5	200 CT.	200 MW
TY-26X	100000	.5	3000 CT.	200 MW
TY-27XT	500 CT.	2	500 CT.	10 MW
TY-28XT	500 CT.	2	200 CT.	10 MW
TY-29X	24 CT.	500	8/4	8W
TY-30X	100 CT.	100	8/4	2W
TY-31X	200 CT.	50	8/4	2W
TY-32X	200 CT.	2	2000 CT.	200 MW
TY-33X	400 CT.	5	16/8/4	200 MW
TY-34X	400 CT.	5	2000 CT.	200 MW
TY-35X	500 CT.	2	150 CT.	100 MW
TY-36X	2000	2	1500 CT.	200 MW
TY-37X	2000 CT.	4	8000 CT.	200 MW
TY-38X	3000 CT.	4	1000 CT.	200 MW
TY-39X	4000 CT.		16/8/4	200 MW
TY 40X	5000	1	200 CT.	100 MW
TY-41X	16000	1	4000	100 MW
TY 42X	20000	.5	8/4	100 MW
TY-43X	20000	.5	800 CT.	100 MW
T 1X	1000	10	16/8/4	200 MW

Continued on TRIAD Page 2

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64
■Discontinued item. Available until supply is exhausted
‡Static Shield •New item

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

MINIATURES (Continued)

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-45X	500 CT.	5	16/8/4 ·	200 MW
TY-46X	100	100	1000 CT.	1 W
TY-47X	2000 CT.	10	16/8/4	200 MW
TY-48X	100 CT.	40	16/8/4	.5 W
TY-49X	500 CT.	12	5000 CT.	1 W
TY-50X	125000	0	2000 CT.	40 MW
TY-51X	2000 CT.	10	200 CT.	100 MW
TY-52X	20000 CT.	1	2000 CT.	200 MW
TY-53X	200 CT.	10	400 CT.	6 W
TY-54X	15000	1.5	200 CT.	200 MW
TY-55X	2000 CT.	2	500 CT.	200 MW
TY-56X	10000	1	2000 CT.	200 MW
TY-57X	250 CT.	10	16/8/4	200 MW
TY-58X	125 CT.	15	8/4	200 MW
TY-59X	5000 CT.	1	50000 CT.	200 MW
TY-60X	200000	0	1000	100 MW
TY-61X	100	100	100 CT.	4 W
TY-62X	10000	2	4	100 MW
TY-63X	48 CT.	275	16/8	8 W
TY-64X	32 CT.	575	16/8/4	10 W
TY-65Z	32 CT.	575	6K/4K/3K	10 W
TY-66A	6 CT.	5A	6K/4K/3K	40 W
TY-67A	6 CT.	5A	16/8/4	40 W

†† JO SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	Case
JO-1	600/250/50	50000	0	60-15000	JOA
JO-2	600/250/50	250000	0	60-15000	JOA
***JO-3**	600/250/50	60000 CT.	0	50150000	JOA
***JO-5**	30/12/4	50000	0	50-12000	JOA
JO-11	15000	60000	10	50-15000	JOB
JO-12	15000	60000 CT.	10	50-15000	JOB
JO-13	15000-3 Ma.	95000 CT.	10	50-15000	JOB
***JO-21**	15000	600/250/50	10	20-20000	JOB
JO-22	15000-3 Ma.	600/250/50	10	100-10000	JOB
***JO-23**	20000 CT.	600/250/50	10	40-30000	JOB
***JO-31**	600/250/50	600/250/50	10	40-20000	JOB
***JO-101**	50 h.-2 Ma.				JOB

DC TO AC TRANSISTOR TRANSFORMERS

Type	Primary	Secondary		
TY-75A	12v	115v	60cps	115 watts
TY-76A	12v	115v	60cps	60 watts
TY-468	28v	115v	400cps	60 watts
TY-462	12v	115v	400cps	60 watts

POWER COMPONENTS

HERMETICALLY SEALED

Combined PLATE and FILAMENT Transformers Primary 115V — 50/60 cycle

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	F Dim. (Min.) Inches	Case
***HSM-200**	120	100	6.3 CT.-1.6A.	1	FA
***HSM-201**	500 CT.	20	6.3 CT.-2A.	1 7/16	GA
•HSM-202	120	20	6.3 CT.-.6A.	1 5/16	EA
HSM-203	600 CT.	50	6.3 CT.-2.5A. 5 -2A.	1 7/16	JB
HSM-205	700 CT.	70	6.3 CT.-3A. 5 -3A.	1 7/16	JA
***HSM-207**	700 CT.	120	6.3 CT.-5A. 5 -3A.	1 7/16	KA
•HSM-208	626 CT.	200	6.3/5.0-3A. 6.3 CT. 5	1 7/16	KA
HSM-241	700 CT.- 70V. bias.tap.	150	6.3 CT.-6A. 6.3-V. -2A. 5 -3A.	1 7/16	LA
***HSM-212**	1000/ 800 CT.	190 (ch. in.) 150 (cd. in.)	6.3/5-4A. 6.3 CT.-4A. 6.3 V-4A.	1 7/16	FA
***HSM-245**	800/ 700 CT. 70 V. bias tap.	200	6.3 CT.-6A. 6.3-V. -4A. 5 -6A.	1 7/16	MA
HSM-216	1000/ 800 CT.	254 (ch. in.) 200 (cd. in.)	6.3/5-4A. 6.3 CT.-5A. 6.3-5A.	1 7/16	MA
***HS-247**	800/ 700 CT. 70 V. bias tap.	300	6.3 CT.-8A. 6.3-V. -4A. 5 -6A.	1 7/16	GP-15
***HSM-218**	1000/ 800 CT.	300 (ch. in.) 235 (cd. in.)	6.3/5-6A. 6.3 CT.-6A. 6.3-6A.	1 7/16	GP-15
***HSM-219**	(115/ 230 pri.) 760/ 1600 CT.	40/230 (ch.input)		Spcl.	GP-15

•New item

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

All types electrostatically shielded
GP-15 dimens. 4¾″ x 5⅞″ x 6⅝″ high. Wt. approx. 22 lbs.
Mtg. centers 3¾″ x 4⅞″.

Combined PLATE and FILAMENT Transformers Primary 115V—400 cycle to operate 380 to 1500 cycles

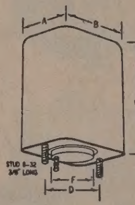
Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	Insul. Test Volt.	F Dim. (Min.) Inches	Case
***HS-402**	475 CT.	20	6.3 CT.-1.5A.	1500	13/16	AJ
HS-401	500 CT.	40	6.3 CT.-1A. 6.3-1A	1500	1	EB
•HS-400	125	25	6.3 CT.-8A.	1500	29/32	AH
•HS-404	500 CT.	120	6.3 CT.-3A. 6.3/5.0-3A.	1500	15/16	FA
HS-405	600 CT.	70	6.3 CT.-2A. 6.3-2A. *6.3-2A.	1500	1 7/16	GA
***HS-407**	600 CT.	120	6.3 CT.-3.5A. 6.3-3.5A. *6.3/5-3A.	1500	1 7/16	JB
***HS-409**	700 CT.	150	6.3 CT.-4A. *6.3/5-3A.	1500	1 7/16	HA
***HS-413**	450 CT.	200	6.3 CT.-6A. 6.3 -6A. *6.3/5-4A.	1500	1 7/16	JA
HS-415	800/ 600 CT.	200	63. CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1 7/16	KB
***HS-417**	800/ 600 CT.	300	6.3 CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1 7/16	LA

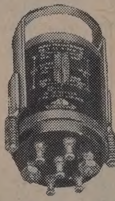
* Tapped for 5 volt rectifier use. All types electrostatically shielded.

AUDIO INTERSTAGE Transformers

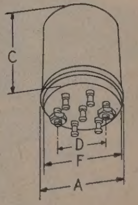
Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Power Output	Shld'g	Case
***HS-23**	15000	1:2.7	20-20000	40 MW	P-3	GP-4
***HS-25**	15000	1:2.72 overall	20-20000	75 MW	P-1	GP-4
***HS-35**	15000	1:2.72 overall	20-20000	26 MW	P-1	GP-2
HS-27	20000/ 5000	1:1.72 overall	20-20000	130 MW	P-1	GP-4
HS-29	20000/ 5000	1:2 overall	20-20000	30 MW	P-5	GP-4
HSM-31	20000/ 5000	1:1 or 2:1	20-20000	3 W		FA
***HS-32**	15000 (6 Ma.)	1:2 overall	20-15000	200 MW	P-1	GP-5

HS Series





JO Series



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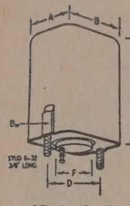
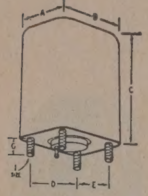
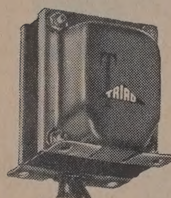


GP 1, 2, 3



MIL-T-27A CASE



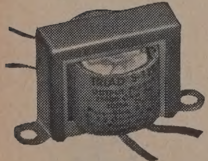
Case A

PL-4

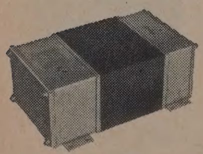
PL-5

PL-6
TRIAD
LOS ANGELES, CALIF.

PL-6



Case X



Case SC

POWER OUTPUT to Line and VC. Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-Watts	Freq. Resp.	** Case
HS-71	10000 (10 Ma.)	600/150	2	150-15000	AH-2
HS-73	5000 (40 Ma.)	500/250/ 16/8/4	5	70-15000	AJ-2
HS-75	1000 CT. (50 Ma. bal.)	500/250/ 16/8/4	10	100-25000	EB
***HS-77**	9000 CT. (120 Ma. bal.)	500/250/ 16/8/4	25	70-20000	GA

LOW LEVEL AUDIO

AUDIO INPUT TRANSFORMERS Hermetically Sealed

Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Power Output MW	Shld'g	** Case
***HS-1**	600*/250*/ 150/62.5	1:11.3	20-20000	10	P-5	GP-4
***HS-11**	Same as above				P-1	GP-2
HS-3	600*/250*/ 150/62.5	1:14 overall	20-20000	10	P-5	GP-4
***HS-4**	Same as above				P-3	GP-4
***HS-14**	Same as above				P-1	GP-3
***HS-15**	600*/250*/ 150/62.5 (10 Ma.)	1:8 overall	30-20000	100	P-3	GP-5
***HS-5**	30	1:65.7	40-12000	1	P-5	GP-4
***HS-8**	600*/250** 150/62.5	1:14 overall	20-20000	100	P-1	GP-4

*Balanced center tap.

OUTPUT, MIXING, MATCHING, BRIDGING

Type No.	Primary Imped.	Secondary Impedance	Freq. Resp.	Power Output MW	Shld'g	** Case
***HS-50**	15000	600*/250*/ 150/62.5	20-20000	400	P-3	GP-4
HS-60	15000	600*/350*/ 150/62.5	20-20000	20	P-1	GP-4
***HS-61**	15000 (5 Ma.)	600*/250*/ 150/6.25	40-15000	200	P-1	GP-5
HS-52	20000 CT./ 5000	600*/250*/ 150/6.25	20-20000	400	P-1	GP-4
HS-54	20000 CT./ 5000	600*/250*/ 150/6.25	20-20000	30	P-5	GP-4
HS-56	600*/250*/ 150*62.5	600*/250*/ 150/6.25	10-30000	100	P-3	GP-4
HS-66	600*/250*/ 150*62.5	600*/250*/ 150/6.25	10-30000	100	P-1	GP-3
***HS-58**	600*/250*/ 150*62.5	600*/250*/ 150/6.25	20-30000	50	P-3H	GP-5

* Balanced center tap.

POWER COMPONENTS

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HSM-223	115	6.3	0.6	1500	AJ-2
HSM-225	105-115-125	6.3 CT.	2	1500	EA
HSM-226	105-115-125	6.3 CT.	3.6	1500	FA
HSM-224	105-115-125	6.3 CT.	5.5	2500	HB
HSM-234	105-115-125	†6.3 CT. 6.3	10 10	2500	KA
HSM-227	105-115-125	†6,3 CT. 6.3	3 3	2500	GA
HSM-229	105-115-125	6.3 CT.	8	2500	JB
HSM-233	105-115-125	12.6 CT.	.8	1500	EA
HSM-237	105-115-125	12.6 CT.	2	2000	FA
HSM-230	105-115-125	24 CT.	0.8	1500	FA
HSM-239	105-115-125	24 CT.	1.5	2500	GA
HSM-240	115/230	†12.6 CT. †12.6	1.5 1.5	2500	GA
HSM-236	105-115-125	†12.6 CT. 12.6	2 2	2500	JB
HSM-228	105-115-125	†6.3 CT. 6.3	6 6	2500	JA
HSM-231	105-115-125	6.3 CT. 5 CT.	5 3	2500	JB
■HSM-235	105-115-125	2.5 CT. 10 CT.	10 10	7500 2500	MA

† Series or parallel connections.
** See case chart Triad Page 15.
*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64
■Discontinued item. Available until supply is exhausted

POWER COMPONENTS (cont.)

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HSM-238	105-115-125	†26 CT. †26	2 2	2500	JA

FILAMENT Transformers, 380/1500 cycle

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HS-436	115	6.3 CT.	1	1500	AH
HS-425	105-115-125	6.3 CT.	2	1500	AJ-2
HS-427	105-115-125	6.3 CT.	5	2500	EA
HS-445	105-115-125	24 CT.	3	2500	EA
HS-438	105-115-125	24 CT.	1.5	1500	EA
HS-433	105-115-125	*6.3 CT. *6.3	5 5	2500	FA
HS-435	105-115-125	*6.3 CT. *6.3 †6.3/5	3.5 3.5 3	2000	FA
HS-441	105-115-125	*5 CT. *5 2.5 CT.	10 10 10	2000 7500	HA
HS-443	105-115-125	*12.6 CT. *12.6	0.8 0.8	1500	AJ-2
HS-442△	57.5-99.7-115-120 Single phase.	*12.6 CT. *12.6	2 2	1500	EA
HS-444△	57.5-99.7-115-120	*26 CT. *26 CT.	2 2	2000	FA

△ Two Units can be used, 115 volt 3 phase to 26 volt 2 phase, Scott-connected. * Series or parallel connection. † 5 volt tap for filament type rectifiers.

HIGH FIDELITY OUTPUT

HIGH LEVEL OUTPUT — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Freq. Resp.	Max. Level Watts	F Di. Min. In.	** Case
***HSM-79**	20000 CT. (20 Ma.) or 5000 (40 Ma.)	16/8/4	40-20000	5	1 7/16	FA
HSM-80	20000 CT. (20 Ma.) or 5000 (40 Ma.)	600/ 250 CT. or 150/62.5	40-20000	5	1 7/16	FA
HSM-81	8000 CT. Split primary.	16/8/4	7-50000	15	1 7/16	JB
***HSM-82**	8000 CT.	600/ 250/125	7-50000	15	1 7/16	JB
***HSM-181**	8000/ 2000 CT. Split primary.	16/8/4	7-50000	15	1 7/16	JB
***HSM-182**	8000/ 2000 CT. Split primary.	600/ 250/125	7-50000	15	1 7/16	JB
***HSM-84**	5000 CT.	16/8/4	15-30000	20	1 7/16	JB
***HSM-184**	8000	16/8/4	10-50000	25	1 7/16	KB
***HSM-189**	10000/ 2500 CT. Split primary.	16/8/4	7-50000	25	1 7/16	KB
***HSM-190**	10000/ 2500 CT. Split primary.	500/ 250/125	7-50000	25	1 7/16	KB
***HSM-186**	6600 CT. or 1650 CT. Split primary.	16/8/4	7-50000	25	1 7/16	KB
***HSM-187**	6600 CT. or 1650 CT. Split primary.	500/ 250/125 250/125	7-50000	25	1 7/16	KB

(Continued on next page.)

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***HSM-94**	4500 CT.	16/8/4	7-50000	55	$1\frac{7}{16}$	LA
***HSM-192**	4000 CT. or 1000/ 445 CT. Split primary.	16/8/4	7-50000	65	$1\frac{7}{16}$	LA
***HSM-193**	4000 CT. or 1000/ 445 CT. Split primary.	500/ 150/125	7-50000	65	$1\frac{7}{16}$	LA

HIGH LEVEL OUTPUT

Type No.	Primary Impedance	Secondary Impedance	Output Watts
S-34X	4000 CT.	32/16/8	7.5
S-31A	8000 CT.	16/8/4	15
S-32A	8000 CT.	500/250/125	15
†S-142A	8000 CT.	16/8/4	15
S-35A	5000 CT.	16/8/4	20
S-36A	5000 CT.	500/250/125	20
†S-144A	8000 CT.	16/8/4	25
†S-146A	6600 CT.	16/8/4	25
†S-148A	10000 CT.	16/8/4	25
S-42A	4500 CT.	16/8/4	50
†S-152A	4000 CT.	16/8/4	65
SR-45Z*	4000/2000/ 1000/500	16/8/4	10
S-46A	2000/1000/ 500/250	16/8/4	20

† Williamson type circuit. Proper taps on primary for screen operation, leads out both end bells.
* Replaces S-45Z.

LINE POWER

ISOLATION Transformers, 50/60 cycles

(See Triad page 6 for 380/1500 cycle isolation transformers)

Type No.	V. A. Output	Input Volts	Output Volts
N-51X	35	115	115
N-68X	50	230/115	115
N-53M	85	115	115
N-54M	150	115	115
N-67A	150	230/115	115
N-55M	250	115	115
N-66A	250	230/115	115
N-57M	500	115	115
N-59M	1000	115	115
†N-52M	350	95 to 130 (in 5V steps)	115
†N-56M	150	95 to 130 (in 5V. steps)	115

†With switch and meter for primary voltage control. Detachable cord.

***N-469A**	50	460/230	115
***N-470A**	150	460/230	115
N-471A	300	460/230	115

STEPDOWN Autoformers, 50/60 cycles

Type No.	V. A. Output	Input Volts	Output Volts
N-1X	50	230	115
N-3M	85	230	115
N-4M	150	230	115
N-5M	250	230	115
N-7M	600	230	115
N-9M	1250	230	115
***N-11M**	2000	230	115
N-34X	150	95/105/115/125/135	115
†N-35M	250	95 to 130 (in 5V. steps)	115
†N-50M	500	95 to 130 (in 5V. steps) With switch and meter.	115

† M case with switch for primary voltage control and detachable cord.

Note: Last letter of Type No. denotes case style.

FILTER REACTORS

Type No.	Current DC Ma.	Inductance *Henries	Resistance Ohms	Insulation Test Voltage
HSM-301	20	30	1000	1500
HSM-302	20	14	560	1500
HS-331	40	4	375	1500
HS-303	50	12	385	1500
HS-333	70	3	225	1500
HSM-305	70	15	300	2500
HS-335	120	3	150	1500
HSM-307	120	15	185	2500
***HSM-309**	150	9	115	2500
HS-339	200	3	105	2000
***HSM-315**	200	10	100	2500
HS-341	300	2	48	2000
***HSM-319**	300	10	85	2500

Minimum inductance—20%

PULSE TRANSFORMERS
BLOCKING OSCILLATOR TYPE

Type No.	Pulse Voltage per Winding	Pulse Duration—us	Load Impedance —Ohms
PL-4	100-100	.54 to .66	500*
***PL-5**	100-100-100	.36 to .54	2000*
PL-6	100-100-100	.36 to .54	2000*

* As blocking oscillator in Triad circuit. Can be used with lower impedances and higher peak power at lower duty cycle.

HIGH SPEED FERRITE TOROIDAL CORE
LOW POWER

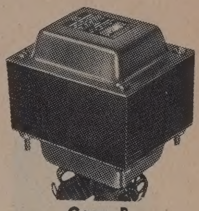
Type No.	Turns Ratio	Pulse Width μ Sec.	Rise Time μ Sec.	Repetition Rate	Suggested Load Ohms	Volts
PL-80E **PL-80H** **PL-80P**	1-1	.07	.03	1-2 Mc	200	15
PL-81E **PL-81H** **PL-81P**	2-1	.07	.03	1-2 Mc	200	20
PL-82E **PL-82H** **PL-82P**	3-1	.08	.03	1-2 Mc	100	15
PL-83E **PL-83H** **PL-83P**	4-1	.08	.03	1-2 Mc	100	15
PL-84E **PL-84H** **PL-84P**	5-1	.08	.03	1-2 Mc	100	15

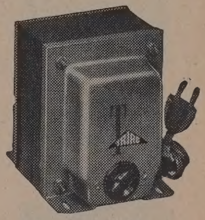
The letter "H" indicates Hermetically Sealed, the letter "P" indicates Miniature Plug-in and the letter "E" indicates Epoxy Molded.

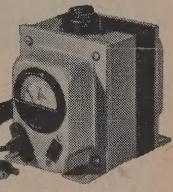
LOW SPEED SILICON CORE LOW POWER

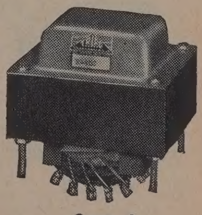
Type No.	Pulse Voltage per Winding	Pulse Duration—μ Sec.	Load Impedance —Ohms
***PL-124E** **PL-124H**	300-300-300	.6 to 5	150
PL-140E **PL-140H** **PL-140M**	100-400-100	.6 to 5	175
PL-139E **PL-139H** **PL-139M**	100-100	.3 to 1.5	250
PL-146E **PL-146H** **PL-146M**	300-300	.6 to 5	250

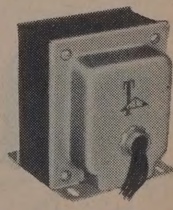
Letter "M" indicates MIL type case. For pulse types only.


Case B


Case M


Case M with Meter


Case C


Case AC

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

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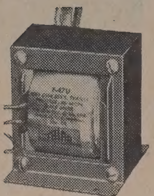
Instrument POWER SUPPLY Transformers

For PREAMPLIFIERS, VTVM, etc.

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes
R-68A	800 CT.	30	5V.-2A, 6.3V-1.2A, 6.3V-1.2A.
R-2C	135	15	6.3V-.9A.
R-23B	250 CT.	22	6.3-.8A. 15.5/12.6V-.6A.
R-3A	500 CT.	20	6.3V CT.-2A.
R-29A	230 CT.	40	6.3V.CT.-1.5A.
R-30X	135	50	6.3V.-1.5A.
R-54X	115	15	6.3V.-.6A.
R-56A	130	20	0/15/22.5/30V-.6A.
R-73B	135	200	6.3V CT.-5.5A.



Case U

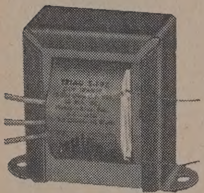
For CATHODE RAY Tubes

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes	
R-41C	440-0-440-1250.	125/5	*6.3V.-.6A. †2.5V.-1.75A. 5V.-3A.	†2.5V.-1.75A. 5V.-3A.
R-45C	400-0-400-800.	30/5	*6.3V.-.6A. 6.3 CT.-3A. †5V.-2A	6.3V.-1A. 5V.-2A.
R-43C	1600	3	*6.3/5/2.5V.-1A. †6.3/5/2.5V.-3A.	

* Static shielded and insulated for full plate voltage.

† Insulated for full plate voltage.



Case Z

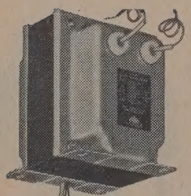
For REGULATED POWER SUPPLIES

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma. Choke Input	Filament Windings Volts and Amperes	
R-70A	880 CT.	75	6.3V.-.6A. 6.3V.-.3A.	6.3V.-.9A. 6.3V.-3A.
R-26A	880-720 CT.	200	6.3 CT.-8A. 6.3V.-1A.	6.3V.-3A. 5V.-3A.
*R-28A	1250 CT.	300	6.3 CT.-8A. 6.3V.-3A.	6.3V.-3A. 5V.-6A.
*R-46A	1250 CT. 130 (Bias winding)	350	5V.-4A.	6.3V.-4A. 6.3V.-1A. 6.3V.-1A.

R-46A will supply 550 V. D.C. using 2 5R4G rectifier tubes, choke input. Will also supply 130 V. for bias using Selenuim rectifier. Sufficient filament windings to regulate screen voltages.

Type No.	Plate Supply AC Volts	Plate Supply DC Ma. Choke Input	Filament Windings Volts and Amperes	
*R-27A	1500 CT.	400	5V.-6A.	6.3V.-3A. 6.3V.-8A.



Case AL

UNIVERSAL

Isolation, Autoformer, Voltage Control 50/60CPS

Type No.	V.A. (Isolation)	V.A. (Autoformer)
N-64AC	500	1000
N-62AC	1000	2000
*N-60SC	2000	4000

Case X

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

SELENIUM RECTIFIER Transformers

Primary 60 cycles

These transformers are for use with Selenium rectifiers. Rectifiers *not* included.

Type No.	Primary Volts	Secondary AC Volts	Secondary Amperes RMS	Half Wave Volts DC	Full Wave Volts DC
F-47U	115	17-18	3	6-7	13-14
F-48U	115	17-18	6	6-7	13-14
F-49U	115	36 36	3 3	13	26
F-60U	115	6.5-13-19.5-26	3 (int.)	9	18
F-61U	115	24-27-30 33-36	3	13	26
F-67U	110-120	24-27-30-33-36	8	13	26
F-63U	115	8-9 8-9	2 2		6-7
F-64U	115	7-8-9	7		6-7
F-62U	105-115-125	9-9-9-9	10 ea. wdg.		6-7 ea. wdg.
F-68U	115	9 CT. 9 9 9	3.5 3.5 3.5 3.5		6-7 ea. wdg.
F-65U	110-120	140-150-160	.75	60	115
*F-66U	110-120	140-150-160	2.5	60	115
F-79U	115	24-26-28-30	15	11.4	22.8
F-80U	tapped for mult. sec.	12 to 18 or 24 to 36CT	40 20	—	13
F-84AC	230-115	24CT or 12CT	10 20	—	8.5
F-90X	115 tapped	40CT-20CT-10	100ma	15	30
F-91X	115 tapped	40CT-20CT-10	300ma	15	30
F-92A	115 tapped	40CT-20CT-10	1 amp	15	30
R-93A	115	6.3CT (voltage doubler circuit) 150-160-170	6 (500ma)	65	120
F-93X	115V tapped	40CT-20CT-10	750ma	15	30
F-94X	115X tapped	40CT-20CT-10	35ma	15	30

FILAMENT Transformers, Single Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts	Secondary Amperes	Test Volts
F-1X	2.5 CT.	3	1500
F-72Z	2.5 CT.	5	7500
F-6X	2.5 CT.	6	2500
F-3X	2.5 CT.	10	3000
F-5U	2.5 CT.	10	7500
F-71U	2.5 CT.	10	10000
F-7X	5 CT.	3	1500
F-8X	5 CT.	6	1500
F-12X	5 CT.	8	2500
*F-9A	5.2 CT.	13	1500
F-10U	5 CT.	14	10000
F-9U	5.2 CT.	13	1500
F-15U	5 CT.	15	3000
F-11U	5.2 CT.	24	1500
F-13X	6.3	.6	1500
F-14X	6.3 CT.	1.2	2500
†F-52X	6.3	1.2	5000
†F-51X	6.3/5	2	5000
†F-53X	6.3	4	5000
F-16X	6.3 CT.	3	2500
F-18X	6.3 CT.	6	1500
F-18A	6.3 CT.	6	1500
F-19X	6.3/6 CT.	6	2000
F-21A	6.3 CT.	10	1500
F-20U	6.3/6 CT.	11	3000
F-22A	6.3 CT.	20	2000
F-24U	7.5/6.3 CT.	8	3000
F-28U	7.5/6.3 CT.	25	3000
F-23U	10 CT.	7	1500
F-29U	12/11/10 CT.	11	3000
F-25X	12.6 CT.	1.5	1500

(Continued on next page.)

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TRIAD DISTRIBUTOR DIVISION

F-44X	12.6 CT.	2	1500
F-26X	12.6 CT.	2.5	1500
F-45X	24 CT	1	1500
F-41X	25.2 CT.	2	1500
F-40X	26.8 CT	1	1500
F-50X	Filament line transformer Pri. 6.3V/5V Sec. 6.3/5V 2A		5000
F-83A	12.6 CT. 12.6 CT.	5 5	1500

† Low capacity—High voltage for damper tube operation.

CHOKES

SWINGING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-31A	25/5	20/200	150	2500
C-33A	25/5	30/300	105	3000
***C-32AL**	20/4	35/350	105	5000
***C-35A**	20/4	40/400	65	3000
***C-39A**	25/5	50/500	65	3000
***C-38AL**	25/5	50/500	65	5000

SMOOTHING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-30X	50	15	3500	1500
C-2X	2	15	70	1500
C-1X	15	20	1000	1500
C-3X	10	50	500	1500
C-4X	4	50	360	1500
C-6X	5	65	330	1500
C-5X	12	75	390	1500
C-8X	7	75	240	1500
C-7X	10	90	270	1500
C-9X	4	90	100	1500
C-11X	6	110	160	1500
C-10X	9	125	250	1500
C-12X	6	160	165	1500
C-12A	6	160	165	1500
C-13X	3	160	75	1500
C-14X	6	200	150	1500
C-14A	6	200	150	1500
C-16A	10	200	150	2500
C-21X	1.5	225	65	1500
C-15X	4	250	100	1500
C-15A	4	250	100	1500
C-23X	1.2	260	45	1500
C-24X	1	240	50	1500
C-27X	.7	290	25	1500
C-36X	.5	300	30	1500
C-17X	1.5	300	40	1500
C-18A	8	300	90	2500
***C-19A**	10	300	105	3000
C-25A	2.6	310	60	1500
***C-42AL**	8	350	105	5000
C-34X	.6	350	35	1500
C-28X	1	350	35	1500
C-29X	1.5	375	50	1500
C-20A	6	400	60	3000
C-22A	10	500	65	3000
***C-45AL**	10	500	65	5000
C-40X	.32	600	10	1500
C-47U	.3-.075	1A-2A	3-.75	1500
C-48U	.08-.02	2.5A-5A	.57-.143	1500
C-49U	.032-.008	5A-10A	.19-.05	1500
C-80U	.024-.006	20A-40A	.096-.024	1500

ISOLATION Transformers

Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Secondary Volts	Amp.	V. A.	F Dim. (Min.) Inches	Case
HS-470	115	.35	40	1	EA
HS-471	115	.7	80	1	FA
HS-472	115	1.4	160	1	GA
HS-474	115	2.6	300	1	JA
HS-475	115	4.4	500	1	KA

60 cycle — hermetically sealed

Type No.	secondary volts	amp.	V.A.	F dim. (Min.) inches	Case
HSM-270	105-115-125	.4	50	1	JB
HSM-271	105-115-125	1	125	1	KA
HSM-272	105-115-125	2	250	1⅞₁₆	NB

All isolation transformers electrostatically shielded.

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

FILAMENT Transformers, Multiple Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts and Amperes		Test Volts RMS
***F-27U**	10 CT.-10A.	2.5 CT.-10A.	1500 7500
***F-30A**	5 CT.-3A.	6.3 CT.-8A.	1500
F-32A	6.3 CT.-3A.	6.3 CT.-3A.	1500
F-34A	6.3 CT.-1.75A. 6.3V.-1.75A.	6.3V.-1.75A. 6.3V.-1.75A.	1500
F-36A	6.3 CT.-3.5A. 6.3V.-3.5A.	6.3V.-3.5A. 6.3V.-3.5A.	1500
F-38A	6.3 CT.-5A. 6.3V.-1A. 5V.-4A.	6.3V.-5A. 5 CT.-2A.	1500
F-42A	12.6 CT.-2.5A.	12.6-2.5A.	1500

AUDIO INPUT TRANSFORMERS

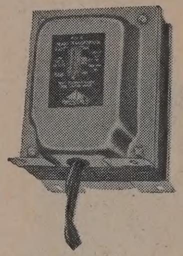
Low Level Input

Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-9J	line or mike to grid	30-15000	600/250/50	12
A-10J	line to grid	30-15000	600/150 split wdgs.	10.5
A-11J	line or mike to grid 60-80DB shielding	30-15000	600/250/50	10
A-12J	same as A-11J	30-15000	600 CT./150 split windings	10
***A-13J**	line to transistor or line to line (70 db Shldg)	30-15000	600/300/ 200 CT./110/50 split windings	1
A-40J	par. fed 6J5 or 6SN7 plate to P.P. grids	30-15000	15000	2.76
***A-41J**	same as A-40J 8ma DC in primary	30-15000	15000	2.3
A-50J	pp plates to voice coil	30-15000	10000 CT.	35.3
A-52J	line or transistor to line or transistor	30-15000	500/CT./125 20 MA. D.C. Split Winding	2
A-55J	par. fed 6J5 or 6SN7 to line	30-15000	15000	5
A-56J	lin or transistor to Voice Coil	30-15000	500 CT./125 20 MA. D.C. Split Winding	5.6
A-58J	pp plates or transistors to line or transistors	30-15000	10000 CT./2500 Split Winding	2.24
A-64J	line or transistor to transistor	30-15000	100 CT.*25 30 MA. D.C. Split Winding	1.58
A-65J	par. fed 6J5 or 6SN7 to line	30-15000	15000 CT.	5
***A-66J**	same as A-65J— 5 ma DC in primary	40-15000	15000	5
A-67J	line to line	30-15000	600 CT./150 split windings	1
A-68J	pp plate to line 4 ma DC in primary	30-15000	15000 CT.	5
A-69J	pp plates or bridging to line 3 MA. D.C. in Primary	30-15000	25,000 CT./ 6250 Split Winding	7.1
A-70J	line or transistor to line or transistor	30-15000	500 CT./125 15 MA. D.C. Split Winding	2.24
***A-77J**	Audio choke — dual winding	250 henries - 5 ma DC 62.5 henries - 10 ma DC		
***A-78J**	output pp transistors to line	30-15000	2000CT	1.82
A-79J	Transistor interstage 10ma in primary	20-15000	1000	2.2

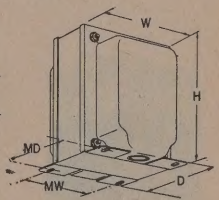
Line or Microphone to Grid

Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-1X	Line or single button mike to grid.	100-15000	100	31.4
A-3X	Line or D.B. mike to grid.	200-10000	400 CT.	22.1
A-4X	Line to grid.	100-20000	500/200/ 67.5 CT.	12
A-5X	Single button mike to p.p. grids—Hi-gain.	100-15000	100	84
A-6X	Speaker V.C. to grid	150-20000	8/3.2	79
A-7J	Voice coil to grid	150-10000	3.2	124

A DIVISION OF LITTON INDUSTRIES



Case A



Case A

Triad J Series offers flexibility enabling your amplifiers to exceed broadcast standards. Although economy in construction has cut costs, these transformers approach and closely approximate performance characteristics found in more costly hermetically sealed parts. Single hole mounting provides for rotation for maximum reduction of hum . . . alloy shielding gives you 40-60 db hum reduction (60-80 db in Types A-11J & A-12J) . . . you can obtain wide frequency ranges . . . flexible leads facilitate ease in mounting . . . input units are electrostatically and magnetically shielded . . . light weight and encased in Triad's satin smooth baked gray enamel cases, 1⅜″ diameter, 1¾″ above chassis . . . legible circuit diagrams are permanently affixed to every case.

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TRIAD DISTRIBUTOR DIVISION

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AUDIO OUTPUT TRANSFORMERS

Line to Voice Coil

Type No.	Primary Impedance	Output Imped.	Output Watts	Freq. Resp.
S-23X	50 (autoformer).	3.2	1	100-8000
S-26X	500/50 (autoformer).	3.2	4	100-8000
S-65X	500	8/4	5	100-10000
S-66X	500 (autoformer).	16/8/4	3	100-10000
S-76Z	250/125/62.5/31	16/8/4	10	40-15000
S-77U	500 CT./125 split wdgs.	32/16/8/ 4/2	30	40-15000

POWER

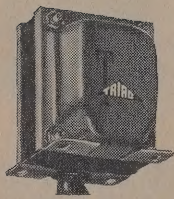
Combined PLATE and FILAMENT Transformers

Primary 115 volts — 60 cycles

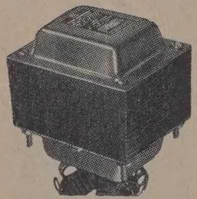
Type No.	Plate Supply		Rect. Fil.		Other Fil.	
	AC Volts	DC Ma.	Volts	Amp.	Volts	Amp.
R-22A	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-22B	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-4A	500 CT.	40			6.3 CT.	2
R-4B	500 CT.	40			6.3 CT.	2
R-5A	600 CT.	65			6.3 CT.	2.7
R-5B	600 CT.	65			6.3 CT.	2.7
R-6A	480 CT.	50	5	2	6.3 CT.	2
***R-6B**	480 CT.	50	5	2	6.3 CT.	2
R-7A	600 CT.	50	5	2	6.3 CT.	2
***R-7B**	600 CT.	50	5	2	6.3 CT.	2
R-8A	500 CT.	75	5	2	6.3 CT.	2.5
***R-8B**	500 CT.	75	5	2	6.3 CT.	2.5
R-9A	600 CT.	75	5	2	6.3 CT.	3
R-9B	600 CT.	75	5	2	6.3 CT.	3
R-10A	525 CT.	90	5	2	6.3 CT.	5
R-10B	525 CT.	90	5	2	6.3 CT.	5
R-11A	700 CT.	90	5	2	6.3 CT.	3.5
R-11B	700 CT.	90	5	2	6.3 CT.	3.5
R-12A	550 CT.	110	5	2	6.3 CT.	5
R-12B	550 CT.	110	5	2	6.3 CT.	5
R-14A	700 CT.	125	5	3	6.3 CT.	4.5
R-14B	700 CT.	125	5	3	6.3 CT.	4.5
R-16A	700 CT.	160	5	3	6.3 CT.	5
***R-16B**	700 CT.	160	5	3	6.3 CT.	5
***R-17A**	750 CT. 80 Tap	160	5	3	6.3 CT. 2.5 CT.	5 5
R-18A	750 CT.	175	5	3	6.3 CT.	8
***R-18B**	750 CT.	175	5	3	6.3 CT.	8
***R-19A**	750 CT. 80 Tap	200	5	3	6.3 CT. 2.5 CT.	6 10
R-20A	700 CT.	200	5	3	6.3 CT.	8
R-20B	700 CT.	200	5	3	6.3 CT.	8
R-72A	800 CT.	140	5	3	6.3 CT.	4
R-21A	800 CT.	200	5	3	6.3 CT.	6
R-21B	800 CT.	200	5	3	6.3 CT.	6
R-24A	800 CT.	300	5	6	6.3 CT.	6
R-24B	800 CT.	300	5	6	6.3 CT.	6
R-25A	800 CT.	500	5	6	6.3 6.3 CT.	3 7
R-58A	875 CT.	185	5	3	6.3 6.3	4 3
R-71A	900 CT.	250	5 CT.	4	6.3 CT. 6.3	2 4
R-93A	150-160-170	500 250	Silicon Rectifier Voltage doubler		6.3 CT.	6

Combined PLATE and FILAMENT Transformers "100" Series

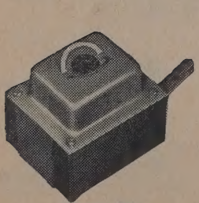
Never have the outstanding features of Triad Combined Plate and Filament Power Transformers been available at such realistic costs. No quality or performance requirement has been overlooked . . . specify Triad and be certain. Shielding, impregnation, chatter freedom . . . to Triad's demanding quality control standards.



Case A



Case B



Case BS

PRIMARY 115 VOLTS 60 CYCLES

Type No.	Plate Supply AC Volts	DC Ma.	Rect. Filaments Volts	Amp.	Other Filaments Volts	Amp.	Case Dim. H	W	D	Mtg. Dim. MW	MD	Wt. Lbs.
R-104A	500 C.T.	40			6.3 V.C.T.	2	2¾	2⅜	2¼	1¾	1½	1.55
R-104B	500 C.T.	40			6.3 V.C.T.	2	1⅝	2¾	2¼	2 3/16	1¾	1.55
R-105A	600 C.T.	65			6.3 V.C.T.	2.7	3⅛	2⅝	2½	2	1¾	2
R-105B	600 C.T.	65			6.3 V.C.T.	2.7	1¾	3 1/16	2⅝	2½	2	2
R-106A	480 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2⅜	2	1⅝	2.05
R-106B	480 C.T.	50	5	2	6.3 V.C.T	2	1⅝	3 1/16	2⅝	2½	2	2.05
R-107A	600 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2½	2	1¾	2.35
R-107B	600 C.T.	50	5	2	6.3 V.C.T	2	1¾	3 1/16	2⅝	2½	2	2.35
R-108A	500 C.T.	75	5	2	6.3 V.C.T.	2.5	3⅛	2⅝	2⅝	2	1⅞	2.4
R-108B	500 C.T.	75	5	2	6.3 V.C.T.	2.5	1⅞	3 1/16	2⅝	2½	2	2.4
R-109A	600 C.T.	75	5	2	6.3 V.C.T.	3	3½	3	2⅞	2¼	1¾	2.9
R-109B	600 C.T.	75	5	2	6.3 V.C.T.	3	1¾	3 7/16	2⅞	2 13/16	2¼	2.9
R-110A	525 C.T.	90	5	2	6.3 V.C.T.	5	3½	3	3¼	2¼	2	3.25
R-110B	525 C.T.	90	5	2	6.3 V.C.T.	5	2	3 7/16	2⅞	2 13/16	2¼	3.25
R-111A	700 C.T.	90	5	3	6.3 V.C.T.	3.5	3½	3	3¼	2¼	2	3.55
R-111B	700 C.T.	90	5	3	6.3 V.C.T.	3.5	2	3 7/16	2⅞	2 13/16	2¼	3.55
R-112A	550 C.T.	110	5	2	6.3 V.C.T.	5	3½	3	3⅜	2¼	2⅛	3.7
R-112B	550 C.T.	110	5	2	6.3 V.C.T	5	2⅛	3 7/16	2⅞	2 13/16	2¼	3.7
R-113A	650 C.T.	40	5	2	6.3 V.C.T.	2	3⅛	2⅝	2¾	2	1¾	2.3
R-113B	650 C.T.	40	5	2	6.3 V.C.T.	2	2	3	2½	2½	2	2.3
R-114A	700 C.T.	125	5	3	6.3 V.C.T.	4.5	3⅞	3¼	3¼	2½	2⅜	4.7
R-114B	700 C.T.	125	5	3	6.3 V.C.T.	4.5	2½	3¾	3⅛	3⅛	2½	4.7
R-115A	680 C.T.	70	5	2	6.3 V.C.T.	2.5	3⅝	3	3⅜	2¼	2⅛	3.5
R-115B	680 C.T.	70	5	2	6.3 V.C.T.	2.5	2	3 7/16	2⅞	2 13/16	2¼	3.5
R-116A	700 C.T.	160	5	3	6.3 V.C.T.	5	3⅞	3¼	3⅝	2½	2⅝	5.65
R-116B	700 C.T.	160	5	3	6.3 V.C.T.	5	2⅝	3¾	3⅛	3⅛	2½	5.65
R-118A	750 C.T.	175	5	3	6.3 V.C.T.	8	4¼	3⅝	4	2¾	2⅞	7.45
R-118B	750 C.T.	175	5	3	6.3 V.C.T.	8	2⅞	4⅛	3½	3 7/16	2¾	7.45
R-120A	700 C.T.	200	5	3	6.3 V.C.T.	8	4¼	3⅝	4⅛	2¾	2⅞	8.25
R-120B	700 C.T.	200	5	3	6.3 V.C.T.	8	3	4⅛	3½	3 7/16	2¾	8.25
R-121A	800 C.T.	200	5	3	6.3 V.C.T.	6	4¼	3⅝	4⅜	2¾	3¼	8.25
R-121B	800 C.T.	200	5	3	6.3 V.C.T.	6	3¼	4⅛	3½	3 7/16	2¾	8.25

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

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TRIAD DISTRIBUTOR DIVISION

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PLATE POWER Transformers
Primary 115 volts — 60 cycles

Type No.	Secondary Volts AC	DC	Sec. D.C. Ma. CCS	ICAS	Rect. Fil.
P-1A	440/220 CT.	180/90	160	190	5V-3A
P-3A	600/300 CT.	250/125	300	360	5V-4A
P-5A	1100 CT.	400	250	300	5V-4A
P-7A	1235 CT.	500	250	300	5V-4A
***P-9A**	1235 CT.	500	500	600	5V-6A
P-11A	1455 CT.	600	250	300	
P-213AL*†	1780 CT.	750	250	300	
§P-14A	1780 CT.	750/600	250	300	
P-215AL*†	2340 CT.	1000	250	300	
P-216AL*†	2430 CT.	1000	500	600	
P-217AL*†	2880 CT.	1250	250	300	
P218AL*†	2880 CT.	1250	500	600	
P-220AL*†	3300 CT.	1500	350	420	
***PR-21AL**	3300 CT.	1500	500	600	

† Plate leads out side of case for 866 rectifiers.
§ Tapped Pri. to produce the lower D.C. voltage.
*Pri. is 230/115V.

TELEVISION COMPONENTS

Replacement POWER Transformers, Combined Plate and Filament

Electrostatically shielded. Primary 115 volts 60 cycles.

Type No.	Plate Supply AC Volts	DC Ma.	Filaments — Volts and Amperes	
R-37BC	735 V.C.T.	275	5V.—6A.	6.3V.—8.5A. 6.3V./5V.—2A.*
R-38A	750 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-38BC				
R-39BC	640 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—1.2A.*
R-40BC	780/440 V.C.T.	300	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—8.5A. 6.3V.—3.5A.
R-42BC	675 V.C.T.	185	5V.—3A.	6.3V.—7A. 6.3V.—2A.*
R-49BS	650 V.C.T.	240	5V.—3A.	6.3V.—9A. 6.3V.—0.9A. 6.3V.—1.2A.*
R-49BC				
R-50A	790/650 V.C.T.	310	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—5A. 6.3V.—5A. 6.3V.—2.6A.
R-50BC				
R-51BC	505 V.C.T.	320	5V.—6A.	6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*
R-52BC	600 V.C.T.	270	5V.—3A.	6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*
R-60BC	460 V.C.T.	300	5V.—6A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-61BC	560 V.C.T.	275	5V.—6A.	6.3V.—6A. 6.3V.—6A. 6.3V.—1.2A.*
R-62BC	680 V.C.T.	290	5V.—6A.	6.3V.—10A. 6.3V.—1.5A. 6.3V.—1.2A.*
R-64BC	520 V.C.T.	270	5V.—3A.	6.3V.—10A.
R-65BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-66BC	580 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-67BC	600 V.C.T.	250	5V. —3A.	6.3V. —9A.
R-69BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-74BC	680 V.C.T.	190	6.3V.—7.8A. 6.3V.—1.2A. (damper wdg)	5V.—3A.
R-75BA	560 .C.T.	280	5V.—3A.	6.3V.--9.5A.
R-79BA	127V.	1000	6.3V.-2A 6.3V.-10A.	12.6V.-2A 12.6V.CT.-2A.
R-80BA	500V.CT.	300	5V.-6A 6.3V.-2.0A	6.3V.-8A 6.3V.-5A
R-86BA	117/129*141 multi-purpose	1000	6.3V.-6A 6.3V.-6A	12.6V.CT.-2A

* Less than 100 m.m.f.d. capacity to ground and insulated for high voltage damper tube.
Height of transformers in BC cases is measured from chassis line to top of case. Copper shading ring on all BC cases to reduce external magnetic field.

Note: Last letter of Type No. denotes case style.

AUDIO

Triad Replacement Output Transformers furnish a wide range of size and mounting characteristics . . . specifically engineered for mounting in precise location in chassis. Climatite treated . . . manufactured to exacting quality standards of more costly types . . . progressively designed for advanced circuitry and audio tubes . . . total complete coverage over impedance and wattage ranges . . . Triad units provide finest response in minimum space . . . and outlive all others.

REPLACEMENT OUTPUT TRANSFORMERS

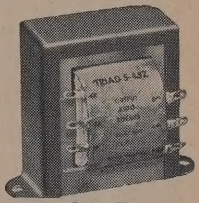
Single Tube To Standard Voice Coil 3-4 Ohms

Type No.	Primary Impedance	D.C. Ma	Audio Watt
S-20X	2000	50	2-3
S-20Z	2000	50	2-3
S-2X	2000	55	3-5
S-12X	2500	50	2-3
S-12Z	2500	50	2-3
S-1X	2500	60	3-5
S-16X	3000 5% Tap	50	2-3
S-30X	3000	60	3-5
S-67X	3200	60	4-6
S-4X	3000	70	5-8
S-14Z	4000	50	2-3
S-41X	4000	50	3-5
S-41Z	4000	50	3-5
S-6X	5000	35	2-3
S-6Z	5000	35	2-3
S-3X	5000	40	3-5
S-5X	5000	50	5-8
S-5Z	5000	50	5-8
S-48X	6500	35	2-3
S-48Z	6500	35	2-3
S-49X	6500	35	3-5
S-7X	7500	30	3-5
S-9X	7500	50	5-8
S-9Z	7500	50	5-8
S-8X	8000	30	2-3
S-8Z	8000	30	2-3
S18X	8000	45	4-6
S-18Z	8000	45	4-6
S-11X	10000	30	2-3
S-11Z	10000	30	2-3
S-17X	10000	30	3-5
S-10X	10000	45	4-6
S-40X	14000	5.5	¼
S-38X	16000	15	2-3
S-38Z	16000	15	2-3
S-37X	25000	4.0	¼
S-13X	25000	10	2-3
S-13Z	25000	10	2-3

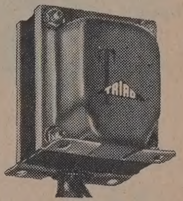
REPLACEMENT PUSH-PULL OUTPUT TRANSFORMERS

Push-Pull Tubes To Voice Coil 3-4 Ohms

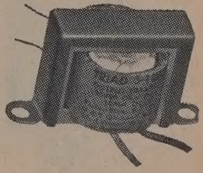
Type No.	Impedance	D.C. MA. Each Side	Audio Watts
S-39X	12000 CT.	30	3-4
S-64X	6000 CT.	40	4-6
S-15X	10000 CT.	35	7-10
S-19Z	10000 CT.	50	10-14
S-68Z	3000/3800 CT.	90	15-18
S-69Z	5000 CT.	60	15-18
S-21A	8000 CT.	55	15-18
S-21Z	8000 CT.	55	15-18



Case Z



Case A



Case X

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

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TRIAD DISTRIBUTOR DIVISION

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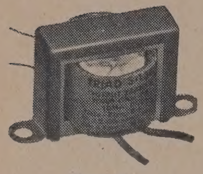
AUDIO

LOW LEVEL OUTPUT Transformers

Type No.	Application	Freq. Resp.	Pri. Imped.	Second. Imped.
A-51X	Tube to line.	300-3000	7000	50
A-53X	Single or p.p. tubes to line.	70-7000	18000 CT.	600/250/50
■A-54X	P.P. Tubes to V.C.	150-30000	7700 CT.	8/4
A-55J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding	30-15000	15000	600/250/50
A-65J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding.	30-15000	15000	600/150 Split winding
S-58X	Line to line.	300-3000	600/ 150 —Split windings—	600/ 150
A-67J	Line to line. 45 db. shielding.	30-15000	600/ 150 —Split windings—	600/ 150



Case X

SPLATTER Chokes

Type No.	Inductance Henries	Current Ma.	Res. Ohms	Wt. Lbs.
*C-26X	Tapped to 1.5	100	95	1¼
*C-43X	Tapped .05 to 1	300	40	2

A-75J
TONE CONTROL REACTOR
15 HENRIES
IV. 60 C.P.S.
TRIAD

Case J

UNIVERSAL OUTPUT Transformers

Single Or Push-Pull Tubes To Voice Coil

Type No.	Application	Impedance	DC MA	Audio Watts
S-62X	Single or P.p. plates	2000-10000	30	2
S-52X	Single or p.p. plates	4000-24000	30	4
S-51X	Single or p.p. plates	4000-14000	35	5
S-63X	Single or p.p. plates	1500- 7000	50	6
S 54X	Single	1500- 5000	70	8
S-53X	Single or p.p. plates	4000-14000	40	8
S-55X	P.p. plates	4000-14000	40	10
S-55Z	P.p. plates	4000-14000	40	10
S-56Z	Single	1500- 6000	85	12
S-59Z	P.p. plates	1500- 4000	65	15
S-57Z	P.p. plates	4000-14000	55	15
S-61Z	P.p. plates	4000-10000	60	20

Case P

PLUG-IN INPUT Transformers

Type No.	Application	Pri. Imped.	Second Imped.	Freq. Resp.	Shld'g
*A-200P	Line to mike to grid.	200/50 CT. △	36,000	30-20000	70 db.
*A-202P	Same as above.	200/50 CT. △	36,000	20-20000	90 db.
HS-273P	Same as above	200/50 CT. △	80,000	30-30000	70 db.
*A-210P	Stereo Isolation	1:1 ratio	30,000	20-20000	45 db.

△ Split Winding

INTERSTAGE Transformers

Plate to Grid

Type No.	Application	Freq. Resp.	Pri. Imped.	Second Imped.	Ratio
A-31X	Plate to single or p.p. grids	300-3000	10000	90000CT	1 : 3
A-33X	Plate to single or p.p. grids	70-7000	10000	90000CT	1 : 3
A-42Z	Multi-ratio single or p.p. plates to single or p.p. grids.	70-7000	15000 CT.	135000C.T. or 33750	1 : 1.5 1 : 3 1 : 6
■A-35A	Plate to single or p.p. grids	50-10000	10000	90000CT	1 : 3
A-39A	P.p. plates to p.p. grids	50-10000	20000 CT.	45000CT	1 : 1.5
A-40J	Parallel-fed 6J5 or 6SN7. Plate to p.p. grid 45 db. shielding.	30-15000	15000	115000CT	1 : 2.76

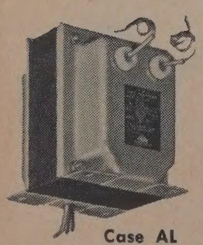
MODULATION Transformers

Tube to RF Load

Type No.	Primary	Freq. Resp.	Secondary Impedance	Secondary Ma.	Aud. Wtts.
TY-65Z	32 CT. (575 Ma.) (Transistor use)	70-15000	3000-4000-6000	100	10
M-4Z	5000 (Auto-former).	300-3000	6750 4	100 (total)	10
M-5Z	5000 (Auto-former).	300-3000	6750 4	165 (total)	20
M-1X	10000 CT. for 19, 1J6, 6N7, 6A6, etc.	300-3000	5000-8000-10000	50	5
M-3X	10000 CT. for 6N7, 6A6, 6F6's, etc.	300-3000	3000-5000-8000	100	20
TY-66A	6 CT. (5A) (Transistor use)	300-3000	3000-4000-6000	200	40
*†M-7AL	4250 CT. for 807's	300-3000	3000-5000-8000	200	60
*M-15A	Multi-match	300-3000	4000 to 20000	150	30
*†M-12AL	Multi-match	300-3000	4000 to 20000	300	125

DRIVER Transformers

Type No.	Driver Tubes	Output Tubes	Frequency Response	Ratio Primary ½ Sec.	Primary D.C. Ma.
A-81X	30, 1H4, etc.	19, 30's, 1J6, etc.	200-20,000	2.66:1	15
A-83X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	70-7000	1.33:1	40
A-85X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	50-10000	2.66:1	40
A-89A	P.p. plates to class B or AB grids—Universal 15 watt.	Any class B or AB tubes. 100-500 watts output	50-10000	3.1 or 1.8:1	100 per side
TY-61X	Transistor use		70-10000	1:0.5	100



Case AL

■Discontinued item. Available until supply is exhausted
*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

†Plate leads out side

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OUTPUT Transformers
Tube to Voice Coil and Line

Type No.	Tubes	Pri. Imped.	Sec. Imped.	DC Pri.	Audio Watts
S-27A	2A3, 6A3, 6B4, 6L6, 6U6, 6Y6, 12A5, 25B6, 35B5, 50A5.	2500	500/16/ 8/4	80	8
S-28X	2A5, 6AC5, 6B5, 6F6, 6K6, 7B5, 14A5, 25AC5.	7500	500/16/ 8/4	40	5
S-29X	6AQ5, 6AS5, 6V6, 7C5, 25A6, 25B5, 25L6, 25N6, 35A5, 35L6.	5000	500/16/ 8/4	45	5
S-22A	P.p. 2A3, 6B4, 6A5, 6L6, etc.	5000 CT.	500/16/ 8/4	100 (bal.)	15
S-24A	P.p. 6V6, 7C5, 6K6, 6F6, etc.	8000 CT.	500/16/ 8/4	80 (bal.)	15
S-60A	P.p. 6L6, 5881, 807, etc.	6600 CT.	500/250/ 16/8/4	120 (bal.)	35

70.7 volt Line to Voice Coil

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-70Z	Autoformer 16000/8000/4000/ 2000/1000.	8/4	5	40-15000
S-71Z	Autoformer 4000/2000/1000/500.	16/8/4	10	40-20000
S-25Z	Autoformer 4000/2000/1000/500.	8/4	10	30-20000
SR-45Z	Autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
SR-74K	Weatherproof autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
S-72Z	Autoformer 2000/1000/500/250.	16/8/4	20	40-20000

70.7 volt Line to Voice Coil (Cont.)

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-46A	Autoformer 2000/1000/500/250.	16/8/4	20	20-20000
***S-75K**	Weatherproof autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-78Z	Isolation 4000/2000/1000/500.	16/8/4	10	40-20000
S-79Z	Isolation 2000/1000/500/250.	16/8/4	20	40-20000
S-47Z	10K/5K/2.5K/ 1250/625	16/8/4	8	20-20000
S-73X	Isolation 16K/8K/ 4K/2K/1K	16/8/4	5	40-15000

25 VOLT LINE TRANSFORMERS

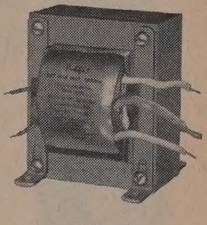
Type No.	Primary Matching Impedance	Secondary Load Impedance	Output Watts
S-131X	1250/625/312	8/4	2
S-132X	1000/500/250/125	16/8/4	5
S-133Z	500/250/125/62.5	16/8/4	10

MATCHING TRANSFORMERS FOR 25 OR 70.7 VOLT LINE

***S-129Z**	70.7V line to 25V line or, 25V line to 70.7V line	30	20-15000
S-130Z	70.7V line to 25V line or, 25V line to 70.7V line	10	20-15000

Special TRANSCEIVER Transformers
(Voice Frequencies)

Type No.	Application	Primary Impedance	Secondary Impedance
A-21X	S.B. mike or plate to grid (2 primaries)	100 10000	100000
***A-23X**	Tube to line and hi-impedance phones.	10000	50 and 2000


Case U

INSTRUMENTATION GEOFORMERS
LOW FREQUENCY TRANSISTOR TRANSFORMERS

Type No.	Impedance Ohms Pri.	Impedance Ohms Sec.	Turns Ratio	Min. pri. Ind. @ 100MV—60 cy. With No Unbalanced D.C. Current	D. C. Resistance (Ohms) Pri.	D. C. Resistance (Ohms) Sec	Frequency Response in Cycles Primary Signal of 1 Volt Unbalanced D.C. Secondary Current of 1 Ma. −3DB	1 Ma. −1DB	2 Ma. −3DB	2 Ma. −1DB	3 Ma. −3DB	3 Ma. −1DB	5 Ma. −3DB	5 Ma. −1DB	Shielding	Case Mtg.	Wt.
G-18	1000 or 250	125 or 31	2:83:1	60.	500	44	5 to 20000	8 to 7000	5 to 20000	8 to 7000	6 to 20000	9 to 7000	7 to 20000	10 to 7000	P1-H	GP-1F	3.2 oz.
G-19	1000 or 250	1000 or 250	1:1	65.	540	230	12 to 7000	15 to 3800	12 to 7000	15 to 3800	12 to 7000	15 to 3800	20 to 7000	40 to 3800	P1-H	GP-2L	5¼ oz.
G-30	1000 CT.	2500 CT.	1:1.58	20.	350	1800	20 to 8000	40 to 4200	22 to 8000	45 to 4200	40 to 8000	75 to 4200	70 to 8000	160 to 4200	P1	GP-1F	3.2 oz.

CHOPPER INPUT TRANSFORMERS

Triad Chopper Input Transformers provide exceedingly close balance between the two halves of the primary winding . . . minimum noise in microvolt ranges of input signals is assured with Triad's special core treatment techniques. For demanding transistor and tube applications, Triad's special design capabilities have an outstanding record. For special applications, consult Triad.

Type No.	Turns Ratio	Minimum Primary Inductance @ 1V—60	Maximum Primary Volts @ 60	Primary Matching Impedance In Ohms	Secondary Matching Impedance In Ohms	D.C. Resistance Primary In Ohms	D.C. Resistance Secondary In Ohms	Stray Fields Shield	Case and Mounting	Weight
G-20‡ **G-20H‡**	1:8	120 h.	25	10,000 CT or 2500	640,000 CT	370	21,000	P5-H P1-H	GP-4T GP-2L	11½ oz. 5¼ oz.
G-21‡ **G-21TS‡**	4:1	1200 h.	84	20,000 CT	12,500 CT	4000	1300	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.
G-22H‡ **G-22‡**	1:4	1000 h.	90	50,000 CT	800,000 CT	2200	19,000	P1-H P5-H	GP-3R GP-5W	7¾ oz. 1 lb.
G-23‡ **G-23TS‡**	6.32:1	1000 h.	75	40,000 CT	1000 CT	4400	160	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.
G-24‡	1:1	400 h. Low capacity coupling less than .02 $\mu\mu$F between windings.	19.5	40,000 CT	40,000 CT	1625	1625	P5	GP-5S	1 lb.
G-25‡ **G-25TS‡**	2:1	800 h.	70	40,000 CT or 10,000 CT	10,000 CT	3200	2200	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.

‡Static Shield
*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

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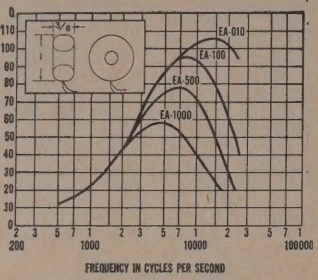
TOROIDS

Triad toroids may be ordered with standard leads in strong plastic coating, or epoxy molded encapsulated per Specification MIL-T-27A; TF5RX20ZZ. To specify molded toroids with gold-plated fixed terminals, an "A" should be added to the full type number; for example, EM-001A.

A

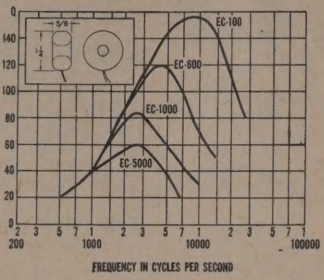
TOROIDS

EA SERIES



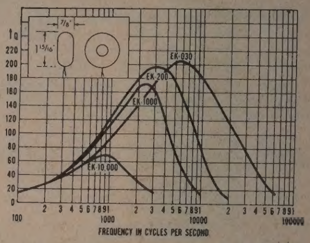
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EA-001	1 mh	.40	270
EA-002	2 mh	.58	192
EA-003	3 mh	.73	157
*EA-004	4 mh	.85	135
EA-005	5 mh	1.20	121
EA-007	7 mh	1.42	102
EA-010	10 mh	2.20	86
EA-015	15 mh	3.40	70
*EA-020	20 mh	5.05	60
EA-025	25 mh	5.80	54
EA-030	30 mh	7.90	50
*EA-040	40 mh	11.40	43
EA-050	50 mh	12.80	38
*EA-070	70 mh	19.00	32
EA-100	100 mh	30.00	27
EA-150	150 mh	46.00	22
EA-200	200 mh	52.00	19
EA-250	250 mh	73.00	17
EA-300	300 mh	80.00	16
*EA-400	400 mh	115.00	14
EA-500	500 mh	126.00	12
*EA-600	600 mh	178.00	11
*EA-700	700 mh	193.00	10
EA-1000	1000 mh	297.00	8.6

EC SERIES



Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EC-001	1 mh	.40	520
EC-002	2 mh	.56	368
*EC-003	3 mh	.70	300
*EC-004	4 mh	.82	260
EC-005	5 mh	.92	233
EC-007	7 mh	1.05	195
EC-010	10 mh	1.30	165
EC-015	15 mh	1.60	134
EC-020	20 mh	1.85	116
EC-030	30 mh	2.85	95
EC-040	40 mh	4.20	82
EC-050	50 mh	4.60	74
*EC-070	70 mh	4.60	74
EC-100	100 mh	8.00	52
EC-200	200 mh	25.00	37
EC-250	250 mh	28.00	33
EC-300	300 mh	38.20	30
*EC-400	400 mh	44.00	26
EC-500	500 mh	63.50	23
*EC-600	600 mh	71.00	21
EC-700	700 mh	80.00	19.5
EC-1000	1000 mh	113.00	16.5
EC-1500	1500 mh	175.00	13.5
EC-2000	2000 mh	243.00	11.6
EC-3000	3000 mh	370.00	9.5
*EC-4000	4000 mh	435.00	6.2
*EC-5000	5000 mh	645.00	7.4
EC-7000	7000 mh	780.00	6.2
EC-10000	10000 mh	1190.00	5.2

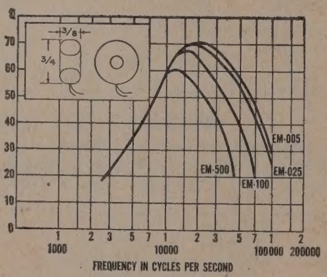
EK SERIES



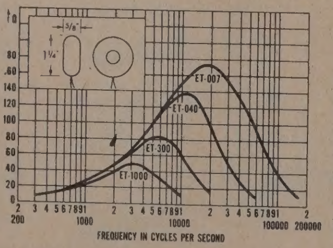
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EK-010	10 mh	.92	262
EK-020	20 mh	1.30	184
*EK-030	30 mh	1.65	150
*EK-040	40 mh	1.90	130
*EK-050	50 mh	3.50	116
*EK-060	60 mh	4.00	106
*EK-080	80 mh	4.60	92
EK-100	100 mh	5.20	82
*EK-120	120 mh	5.50	75
*EK-150	150 mh	6.20	67
EK-200	200 mh	7.50	58
*EK-250	250 mh	10.30	52
*EK-300	300 mh	12.00	47
*EK-400	400 mh	16.50	41
EK-500	500 mh	23.60	37
*EK-700	700 mh	30.00	31
EK-1000	1000 mh	45.00	26
*EK-2000	2000 mh	100.00	18.4
*EK-3000	3000 mh	151	15
*EK-4000	4000 mh	175	13
*EK-5000	5000 mh	250	11.6
*EK-7000	7000 mh	380	9.8
EK-10000	10000 mh	500	8.2
*EK-20000	20000 mh	1000	5.8
*EK-30000	30000 mh	1500	4.1
*EK-40000	40000 mh	1850	4.1

Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
*EM-001	1 mh	2.8	150
*EM-002	2 mh	4.1	108
*EM-003	3 mh	5.1	87
*EM-004	4 mh	6.0	76
EM-005	5 mh	6.8	68
EM-007	7 mh	8.2	57
EM-010	10 mh	10	48
*EM-015	15 mh	12.5	39
*EM-020	20 mh	14.5	34
*EM-025	25 mh	16.5	30
*EM-030	30 mh	18	27.6
*EM-040	40 mh	27	24
EM-050	50 mh	30	22
*EM-060	60 mh	40	19.5
*EM-070	70 mh	43	18
EM-100	100 mh	66	15
EM-150	150 mh	100	12.5
*EM-200	200 mh	115	11
EM-250	250 mh	167	9.6
EM-300	300 mh	180	8.8
EM-400	400 mh	265	7.6
EM-500	500 mh	295	7
EM-700	700 mh	440	5.8
EM-1000	1000 mh	650	4.8

EM SERIES



ET SERIES



Type No.	Ind.	Res Ohms Approx.	D.C.-Ma. for 5% Ind. drop
*ET-001	1 mh	.57	680
*ET-002	2 mh	.82	480
*ET-003	3 mh	.98	396
*ET-004	4 mh	1.10	342
*ET-005	5 mh	1.35	306
*ET-007	7 mh	1.50	260
*ET-010	10 mh	2	217
*ET-015	15 mh	3	177
*ET-020	20 mh	4.3	153
*ET-025	25 mh	4.8	137
*ET-030	30 mh	6.9	125
*ET-040	40 mh	7.2	108
*ET-050	50 mh	8	97
*ET-060	60 mh	15.5	88
*ET-070	70 mh	16.8	82
*ET-100	100 mh	26.0	68
*ET-150	150 mh	38.5	56
*ET-200	200 mh	44.5	48
*ET-250	250 mh	64	43
*ET-300	300 mh	72	40
*ET-400	400 mh	103	34
*ET-500	500 mh	118	31
*ET-700	700 mh	173	26
*ET-1000	1000 mh	245	22

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

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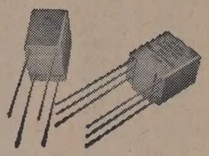
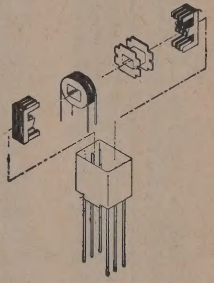
RED SPEC TRANSISTOR TRANSFORMERS

Type No.	Application Type	MIL-T-27A Designation	Primary Impedance	D.C. Res. Pri. Ohms	Max. Unbal. Pri. D.C. Ma.	Secondary Impedance	Max. Power MW
SP-4	Input	TF5RX16ZZ	200000 c.t.	5300	0	1000 c.t.	10
SP-5	Input	TF5RX16ZZ	50000 c.t.	3800	0	1000 c.t.	25
SP-7	Input	TF5RX16ZZ	200000	5300	0	1000	10
SP-11	Interstage	TF5RX13ZZ	25000	1700	.5	1000	40
SP-13	Interstage	TF5RX13ZZ	25000 c.t.	1700	.5	1000 c.t.	40
SP-15	Interstage	TF5RX13ZZ	10000 c.t.	1050	1	1500 c.t.	50
SP-20	Driver	TF5RX13ZZ	10000 c.t.	1050	1	1200 c.t.	50
SP-21	Driver	TF5RX13ZZ	10000 c.t.	1050	1	2000 c.t.	50
•SP-22	Driver	TF5SX13ZZ	10000	1050	1	2000 c.t./500†	50
SP-29	Driver	TF5RX13ZZ	10000 c.t.	1050	1	500 c.t.	50
*SP-32	Output	TF5RX17ZZ	500	60	3	50	50
SP-33	Output	TF5RX17ZZ	1000	145	3	50	50
*SP-34	Output	TF5RX17ZZ	600	70	3	3.2	50
*SP-35	Output	TF5RX13ZZ	1200	120	2	3.2	50
SP-36	Output	TF5RX13ZZ	10000	1160	1	3.2	50
SP-42	Output	TF5RX17ZZ	150 c.t.	18	10	12	50
SP-43	Output	TF5RX17ZZ	300 c.t.	38	7	12	50
SP-44	Output	TF5RX17ZZ	600 c.t.	75	4.5	12	50
*SP-46	Output	TF5RX17ZZ	1000 c.t.	120	3.5	12	50
*SP-47	Output	TF5RX13ZZ	1500 c.t.	180	3	12	50
SP-47	Output	TF5RX13ZZ	7500 c.t.	820	1	12	50
SP-49	Output	TF5RX17ZZ	300 c.t.	37	7	600	50
SP-50	Output	TF5RX17ZZ	500 c.t.	60	3	600	50
SP-51	Output	TF5RX17ZZ	900 c.t.	100	4	600	50
SP-52	Output	TF5RX13ZZ	1500 c.t.	170	3	600	50
*SP-59	Output	TF5RX17ZZ	120 c.t.	15	10	3.2	50
SP-60	Output	TF5RX17ZZ	320 c.t.	40	6	3.2	50
SP-61	Output	TF5RX17ZZ	600 c.t.	70	4.5	3.2	50
*SP-62	Output	TF5RX17ZZ	800 c.t.	100	4	3.2	50
*SP-63	Output	TF5RX13ZZ	1200 c.t.	125	3	3.2	50
SP-64	Output	TF5RX13ZZ	1600 c.t.	190	2.5	3.2	50
*SP-65	Output	TF5RX13ZZ	8000 c.t.	820	1	3.2	50
SP-66	Output Isolation	TF5RX13ZZ	10000 c.t.	1000	1	10000 c.t.	50
SP-67	Output Isolation	TF5RX17ZZ	600 c.t.	73	3	600 CT.	50
•SP-68	Output Isolation	TF5SX13ZZ	10000	1000	1	10000 c.t./2500†	50
•SP-69	Output Isolation	TF5SX17ZZ	600	72	3	600 c.t./150†	50
SP-106	Choke	TF5RX20ZZ	6 hy.	1700	2		
SP-107	Choke	TF5RX20ZZ	1.25 hy.	180	2		
SP-108	Choke	TF5RX20ZZ	3.5 hy.	1100	2		
SP-117	Choke	TF5RX20ZZ	.9HY	110	2	—	—
SP-118	Choke	TF5RX20ZZ	.3 hy.	42	4		
*SP-128	Choke	TF5RX20ZZ	.1HY	15	5	—	—
SP-310	Magnetic shielding case						

•New Item. **CT** For Center Tap. †Split secondary

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64





PRICE INDEX by Triad Transformer Type Number

Prefix letters indiciate transformer type as follows. Suffix letters indicate case type.

A	**Audio**
C	**Choke**
E	**High Q Toroidal Coil**
F	**Filament**
G	**Geoformer Instrumentation**
HC	**Box Shielded Isolation**
HS	**Hermetically Sealed**
HSM	**Hermetically Sealed**
JAF	**Trijet/Hermetically Sealed**
JO	**Trijet/Hermetically Sealed**
JZ	**Trijet/Hermetically Sealed**
M	**Modulation**
N	**Isolation or Stepdown Autoformer**
P	**Plate Power**
PL	**Pulse**
R	**Power/Combined Plate and Filament**
S	**Speaker Coupling or Output**
SP	**Transistor/Red Spec Microminiature**
T	**Miniature**
TZ	**Miniature**
TY	**Transistor**

When you specify TRIAD you are assured of transformers which will give you the exceptional performance you seek. Engineered, developed and manufactured to the most rigid quality control standards, Triad Transformers employ the most advanced techniques of scientific research.

Every Triad Transformer is manufactured under the Signal Corps RIQAP Program, providing you with a product which is pre-inspected to meet military specifications.

Triad's sound pricing policy and stable marketing philosophy guarantee the finest transformer products available. Triad transformers are produced by skilled craftsmen . . . they are constructed of only the finest pre-inspected new materials available from manufacturers within the limits of the United States.

Leader in transformer research, Triad continues to incorporate the newest, most progressive methods of manufacture in every transformer. All Triad transformers will perform within specifications given when matched and loaded at impedances shown. All Triad transformers shown are available off the shelf at your finest stocking distributor.

Only Triad Transformers are always . . . Climatite vacuum impregnated, core and coil . . . encased in satin smooth baked gray enamel . . . packaged engineered for quick, easy identification . . . permanently marked (wherever possible) with legible circuit and connection specifications . . . of the smallest, lightest construction possible at any cost . . . shielded with copper foil in static shielded types . . . there is no substitute for a Triad Transformer.

For quality assurance . . . . performance tested transformers . . . excellence in design and technology . . . **always specify Triad.**

Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Type No.	Net Price
A-1X	2.23
A-3X	2.62
A-4X	2.67
A-5X	2.97
A-6X	2.57
A-7J	4.78
A-9J	8.67
A-10J	7.68
A-11J	10.90
A-12J	9.52
*A-13J	10.12
A-21X	2.77
*A-23X	2.85
A-31X	2.73
A-33X	3.88
■A-35A	6.18
A-39A	6.22
A-40J	8.44
*A-41J	9.15
A-42J	9.15
A-42Z	3.60
A-50J	6.55
A-51X	2.22
A-52J	7.73
A-53X	3.18
■A54X	2.73
A-55J	8.00
A56J	7.15
A-58J	7.73
A-64J	5.95
A-65J	8.89
*A-66J	8.94
A-67J	8.90
A-68J	9.07
A-69J	8.34
A-70J	7.15
*A-75J	7.73
*A-77J	8.90
*A-78J	8.90
*A-79J	8.60
A-81X	2.62
A-83X	2.58
A-85X	3.06
A-89A	6.33
■A-91A	8.45
A-95X	2.57
■A-96X	3.67
A-97K	4.28
A-97X	2.38
A-97Z	2.50
A-97Y	5.78
A-98K	5.10
A-98X	2.68
A-99X	3.90
■A-101U	5.32
A-102X	3.40
A-103X	3.93
A-104X	3.87
■A-105X	3.93
A-107X	4.74
A-108X	3.72
A-109X	3.72
A-110X	3.57
A-111X	2.73
A-112X	3.68
A-113X	2.98
A-113Z	3.43
A-114X	4.78
A-115X	3.40
A-115Z	3.40
A-116X	3.82
A-117X	3.67
■A-118X	3.65
A-119X	3.23
A-120X	2.40
A-120Z	2.57
A-122X	2.16
A-122Z	2.16
A-131X	3.67
A-132X	3.55
A-133X	3.52
A-134X	4.50
A-135X	4.00
A-136X	3.00
A-137X	3.09
A-138X	3.51
A-139X	4.23
A-140X	3.87
A-141X	3.22
A-142X	3.51
A-143X	4.28
A-144X	4.00
†A-146X	3.84
*A-200P	15.00
*A-202P	20.85
*A-210P	10.86
C-1X	1.87
C-2X	1.65
C-3X	2.10
C-4X	1.77
C-5X	2.34
C-6X	2.04
C-7X	2.67
C-8X	2.50
C-9X	2.34
C-10X	3.21
C-11X	3.18
C-12A	5.00
C-12X	3.39
C-13X	3.24
C-14A	5.43
C-14X	3.33
C-15A	5.25
C-15X	3.68
C-16A	7.68
C-17X	2.93
C-18A	8.49
■C-19A	11.57
C-20A	12.12
C-21X	2.38
C-22A	19.74
C-23X	2.48
C-24X	2.02
C-25A	6.10
*C-26X	3.55
C-27X	2.10
C-28X	3.57
C-29X	2.93
C-30X	2.17
C-31A	7.12
*C-32AL	11.57
C-33A	10.34
C-34X	2.02
*C-35A	12.00
C-36X	1.82
*C-38AL	21.62
*C-39A	21.25
C-40X	2.67
*C-42AL	9.52
*C-43X	4.77
*C-45AL	30.74
C-47U	7.48
C-48U	9.55
C-49U	12.65
C-80U	34.52
CL-1	.60
D-2	6.90
D-11	10.22
D-14R	7.28
D-19	7.23
DA-20	3.93
D-22	7.80
■D-26	7.35
D-27	7.14
D-28	6.57
■D-33	7.14
■D-35	8.40
DA-36	3.77
■DA-37	2.49
D-40	9.95
D-41	8.62
D-42	7.40
D-44	6.65
D-45R	6.40
D-46	9.32
D-47R	7.50
D-48	7.12
■D-49	9.32
D-50	7.82
D-52	4.98
D-53	5.07
■D-54	5.10
D-55	9.55
D-56	8.07
D-57	9.15
■D-58	6.63
D-59	6.85
D-60R	6.43
■D-61	5.55
D-62	5.82
D-63	6.40
■D-64	7.50
D-65	8.44
D-66	9.60
D-67	11.65
D-68	9.05
D-69	7.28
D-70	8.40
D-71	7.20
D-72	7.50
D-73R	8.57
D-74	7.14
D-75	8.40
D-76R	8.22
D-77R	8.22
D-78	6.96
D-79	7.57
■D-80	7.95
D-81	7.27
D-82	9.32
D-83R	5.95
D-84	9.35
D-85	9.44
D-86	9.77
D-87	8.18
D-88	7.40
D-89R	9.55
D-90	8.45
■D-91	6.99
D-92	6.78
D-93	6.17
D-94R	7.50
D-95	7.20
D-96	7.50
D-97R	6.82
D-98R	10.57
D-99	7.35
D-100	7.22
D-101	7.27
D-102	7.65
D-103	7.50
■D-104	6.30
D-105	8.90
D-106	6.78
D-107	8.44
D-108	9.90
D-109	6.90
D-110	8.28
D-111	8.10
D-112	7.68
D-113	8.57
D-115R	7.17
D-114	8.44
D-116	10.94
D-117	7.02
D-118R	7.65
D-119	8.07
D-120	7.65
D-121	7.72
D-122	7.10
D-123	7.88
D-124	6.67
D-125	8.94
D-126	9.17
D-127	7.44
D-128	2.38
D-129	6.82
D-130R	4.77
D-131	7.80
D-132	7.77
D-133	7.72
D-134	8.94
D-135	2.02
D-136	5.23
D-137	7.23
D-138	7.68
D-139	6.18
■D-141	7.50
D-142	12.89
D-143	8.60
D-151R	6.45
D-152	8.35
D-135 Kit	8.44
D-154	7.68
D-155	5.83
D-156	9.35
D-157	8.07
D-158	4.88
D-159	6.68
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D-187	7.65
D-188R	7.88
D-189	9.05
D-190 Kit	7.73
D-191	8.60
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D-193	9.32
D-194	7.20
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D-197	6.33
D-198	6.67
D-199	7.35
D-200	6.68
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D-202	6.98
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D-204	6.38
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D-206	7.65
D-207	7.92
D-208	6.88
D-209	8.00
D-210	6.67
D-211	7.60
D-212	7.41
†D-213	7.86
†D-214	8.94
†D-215	8.34
†D-216	8.94
†D-217	6.57
†D-218	8.94
†D-219	8.94
†D-220	7.50
†D-221	8.10
†D-222	8.10
D-601	7.80
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D-604	7.65
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D-626	7.20
D-627	7.90
D-628	7.68
D-629	3.57
D-630	7.68
†D-631	7.86
†D-632	7.86
D-638	7.72
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*EA-001A	5.07
EA-002	3.60
EA-002A	5.00
EA-003	3.52
EA-003A	5.12
*EA-004	3.68
EA-004A	5.35
EA-005	3.82
EA-005A	5.47
EA-007	4.35
EA-007A	4.35
EA-10	3.78
EA-010A	5.32
EA-015	3.83
EA-015A	5.45
*EA-020	3.17
EA-020A	5.12
EA-025	3.88
EA-025A	5.60
EA-030	3.35
EA-030A	5.38
*EA-040	3.40
*EA-040A	5.55
EA-050A	5.48
EA-050	3.45
*EA-070	3.57
*EA-070A	6.40
EA-100	3.65
EA-100A	5.67
EA-150	3.18
EA-150A	5.10
EA-200	4.15
EA-200A	6.17
EA-250	4.44
EA-250A	6.62
EA-300	4.44
EA-300A	6.22
*EA-400	5.90
*EA-400A	7.95
EA-500	5.33
*EA-500A	7.27
*EA-600	3.32
EA-600A	5.18
*EA-700	5.32
*EA-700A	7.27
EA-1000	4.37
EA-1000A	5.95
EC-001	3.60
EC-001A	5.10
EC-002	3.72
EC-002A	5.33
*EC-003	3.78
*EC-003A	5.35
*EC-004	3.83
*EC-004A	5.45
EC-005	4.02
EC-005A	5.50
EC-007	4.00
EC-007A	5.62
EC-010	4.15
EC-010A	5.37
EC-015	4.60
EC-015A	5.83
EC-020	4.67
EC-020A	6.10
EC-030	4.07
EC-030A	5.45
EC-040	4.23
EC-040A	6.02
EC-050	4.60
EC-050A	6.38
*EC-070	4.62
*EC-070A	6.40
EC-100	4.87
EC-100A	6.55
EC-200	4.38
EC-200A	6.22
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EC-700A	6.73
EC-1000	5.27
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EC-1500	5.44
EC-1500A	7.10
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EC-2000A	7.15
EC-3000	5.90
EC-3000A	7.60
*EC-4000	5.32
EC-4000A	7.10
*EC-5000	5.02
EC-5000A	6.78
EC-7000	4.83
EC-7000A	6.77
EC-10000	8.69
EC-10000A	10.49
EK-010	6.15
EK-010A	8.90
EK-020	6.40
EK-020A	9.17
*EK-030	6.27
*EK-030A	9.02
*EK-040	6.67
*EK-040A	9.24
*EK-050	6.27
*EK-050A	9.02
*EK-060	7.15
*EK-060A	9.95
*EK-080	7.17
*EK-080A	7.28
EK-100	7.07
EK-100A	9.95
*EK-120	7.62
*EK-120A	11.07
*EK-150	6.73
*EK-150A	9.14
EK-200	7.14
EK-200A	9.99
*EK-250	7.24
*EK-250A	9.84
*EK-300	7.50
EK-300A	10.32
*EK-400	7.50
EK-400A	10.30
EK-500	5.85
*EK-500A	8.22
*EK-700	5.78
*EK-700A	8.45
EK-1000	7.72
EK-1000A	10.49
*EK-1500	7.17
*EK-1500A	10.39
*EK-2000	7.88
*EK-2000A	10.34
*EK-3000	6.52
*EK-3000A	9.62
*EK-4000	7.15
*EK-4000A	9.52
*EK-5000	9.17
*EK-5000A	9.84
*EK-7000	7.15
*EK-7000A	9.55
EK-10000	9.67
EK-10000A	12.69
*EK-20000	12.15
*EK-20000A	15.34
*EK-25000	8.94
*EK-25000A	10.60
*EK-30000	12.02
*EK-30000A	15.22
*EK-40000	9.05
*EM-001	4.34
EK-40000A	11.44
*EM-001A	5.68
*EM-002	4.34
*EM-002A	5.85
*EM-003	4.34
EM-003A	5.68
*EM-004	3.93
*EM-004A	5.23
EM-005	4.48
*EM-005A	5.95
EM-007	4.44
*EM-007A	5.67
EM-010	4.50
EM-010A	5.55
*EM-015	4.17
*EM-015A	5.67
*EM-020	5.12
*EM-020A	5.93
*EM-025	4.12
EM-025A	5.57
*EM-030	4.55
EM-030A	6.02
*EM-040	4.98
*EM-040A	6.43
EM-050	4.55
EM-050A	6.02
*EM-060	4.48
*EM-060A	5.93
*EM-070	5.32
*EH-070A	6.43
EM-100	5.33
EM-100A	7.15
EM-150	4.18
EM-150A	5.57
*EM-200	5.50
EM-200A	7.95
EM-250	4.40
EM-250A	5.73
EM-300	5.17
EM-300A	6.55
EM-400	5.93
EM-400A	7.38
EM-500	4.73
EM-500A	6.15
EM-700	5.93
EM-700A	7.60
EM-1000	5.62
EM-1000A	6.90
*ET-001	4.27
*ET-001A	5.68
*ET-002	4.27
*ET-002A	7.23
*ET-003	4.00
*ET-003A	5.50
*ET-004	4.27
ET-004A	5.32
*ET-005	3.40
ET-005A	5.43
*ET-007	4.23
ET-007A	5.60
*ET-010	5.02
*ET-010A	6.37
*ET-015	3.65
ET-015A	5.33
*ET-020	3.77
*ET-020A	5.12
*ET-025	3.68
*ET-025A	5.45
*ET-030	5.98
*ET-030A	7.35
*ET-040	3.78
*ET-040A	5.38
*ET-050	3.78
ET-050A	5.48
*ET-060	3.83
*ET-060A	5.55
*ET-070	3.48
*ET-070A	5.32
*ET-100	4.87
ET-100A	5.83
*ET-150	4.55
*ET-150A	6.38
*ET-200	4.65
*ET-200A	6.43
*ET-250	4.65
*ET-250A	6.43
*ET-300	4.00
*ET-300A	5.68
*ET-400	4.00
*ET-400A	5.68
*ET-500	4.07
*ET-500A	5.67
*ET-700	4.15
*ET-700A	5.83
*ET-1000	5.27
ET-1000A	7.00
F-1X	2.77
F-X3	4.55
F-5U	6.38
F-6X	3.78
F-7X	3.57
F-8X	5.39
*F-9A	8.89
F-9U	7.93
F-10U	10.07
F-11U	10.50
F-12X	4.62
F-13X	2.45
F-14X	2.85
F-15U	7.00
F-16X	4.73
F-17U	11.74
F-18A	7.05
F-18X	5.02
F-19X	4.23
F-20U	7.82
F-21A	9.00
F-22A	12.50
F-23U	7.77
F-24U	6.68
F-25X	3.17
F-26X	3.65
*F-27U	11.39
F-28U	14.65
F-29U	11.52
*F-30A	8.49
F-32A	5.82
F-34A	8.67
F-36A	10.27
F-38A	11.94
F-40X	3.39
F-41X	4.43
F-42A	6.77
F-43X	3.84
F-44X	3.32
F-45X	3.39
F-47U	6.30
F-48U	9.02
F-49U	13.55
F-50X	4.88
F-51X	4.55
F-52X	3.67
F-53X	5.48
F-60U	6.15
F-61U	9.27
F-62U	23.49
F-63U	6.43
F-64U	6.57
F-65U	8.79
*F-66U	27.60
F-67U	17.72
F-68U	9.50
F-71U	5.15
F-72Z	4.52
F-79U	24.74
*F-80U	39.31
F-83A	10.84
*F-84AC	20.27
F-90X	3.40
F-91X	4.00
F-92A	7.73
F-93X	5.48
F-94X	3.22
F-102X	4.77
F-104U	9.15
†FL-381	3.90
†FL-384	62.25
†FL-385	61.42
†FL-386	61.42
†FL-387	61.42
†FL-388	63.62
†FL-389	41.39
G-2	24.53
G-2H3	23.65
G-4	24.53
G-4H3	23.65
G-5	21.20
G-5TS	28.90
G-7	21.20
G-8	28.07
G-9	21.20
G-10	28.07
G-12	20.00
G-14	19.60
G-14TS	24.53
G-17	21.76
G-18	20.00
G-18TS	24.40

†New item ■Discontinued item. Available until supply is exhausted

*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price
G-19	20.00	G-391	18.91	HSM-203	22.86	HS-471	14.82	N-51X	4.17	PL-82E	11.39	■R-35A	16.85	R-109B	7.17
G-19TS	24.53	G-394	18.91	*HSM-205	24.42	HS-472	18.60	N-52M	28.07	PL-82H	12.69	R-37BC	21.94	R-110A	11.82
G-20	28.90	G-401	19.60	HSM-207	26.40	HS-474	22.85	N-35M	15.79	PL-82P	12.02	R-38A	18.18	R-110B	8.85
G-20H	23.65	G-435	19.60	*HSM-208	27.90	HS-475	25.62	N-50M	23.94	PL-83E	12.17	R-38BC	20.45	R-111A	8.34
G-21	23.65	G-534TS	25.85	*HSM-212	34.56	JAF-1	13.21	N-52M	28.07	PL-83H	12.92	*R-39A	18.05	R-111B	8.34
G-21TS	28.90	G-437	19.60	HSM-216	40.50	JAF-2	13.74	N-51X	4.17	PL-83P	12.27	R-39BC	18.90	R-112A	8.34
G-22	31.22	G-437TS	25.85	*HSM-281	54.60	JAF-3	13.74	N-53M	9.32	PL-84E	11.82	R-40BC	23.65	R-112B	8.23
G-22H	25.85	G-455	19.60	*HSM-219	49.95	JAF-5	13.74	N-54M	12.69	PL-84H	13.07	R-41C	15.12	R-113A	7.57
G-23	23.65	G-475	20.32	HSM-223	11.61	*JAF-11	12.84	N-55M	17.82	PL-84P	12.42	R-42BC	14.49	R-113B	7.72
G-23TS	28.90	G-493	17.65	HSM-224	18.32	JF-12	13.21	N-56M	34.27	*PL-124E	11.39	R-43C	12.22	R-114A	9.95
G-24	37.83	†G-500	32.80	*HSM-225	14.28	JAF-13	13.74	N-57M	35.84	PL-124H	12.77	R-45C	13.47	R-114B	9.95
G-25	23.65	†G-501	32.80	HSM-226	16.32	JAF-14	13.74	N-59M	48.66	PL-139E	9.80	*R-46A	25.12	R-115A	7.80
G-25TS	28.90	†G-502	32.80	HSM-227	19.44	JAF-15	13.74	*N60SC	104.79	PL-139H	10.88	R-49BC	20.32	R-115B	7.68
G-30	17.89	†GF-600	36.84	HSM-228	23.19	JAF-21	13.21	N-62AC	54.30	PL-139M	11.75	R-49BS	21.27	R-116A	11.07
G-30TS	24.40	†GF-601	47.87	*HSM-229	21.96	JAF-22	13.21	N-64AC	27.39	PL-140E	11.39	R-50A	26.06	R-116B	11.07
G-31	19.60	†GF-602	33.25	HSM-230	15.72	JAF-23	13.74	N-66A	15.22	PL-140H	12.77	R-50BC	24.60	R-118A	12.35
G-32	24.53	*HC-25	21.25	HSM-231	20.64	JAF-24	14.30	N-67A	10.39	PL-139E	9.80	R-51BC	14.17	R-118B	12.45
G-33	21.20	*HC-115	29.25	*HSM-232	22.41	JAF-25	14.15	N-68X	5.67	PL-139H	10.88	R-52BC	17.15	R-120A	12.45
G-34	27.89	*HC-300	38.10	HSM-233	14.00	JAF-26	14.30	N-73A	10.60	PL-139M	11.75	R-54X	4.35	R-120B	12.74
G-36	16.81	*HS-1	28.58	HSM-234	25.80	JAF-31	14.18	N-74A	10.45	PL140E	11.39	R-56A	6.23	R-121A	13.34
G-36TS	25.85	HS-3	31.10	*HSM-235	33.30	JAF-32	14.10	*N-469A	6.05	PL-140H	12.77	R-58A	15.49	R-121B	11.65
G-40	21.20	*HS-4	28.40	HSM-236	21.54	JAF-33	14.18	*N-470A	8.91	PL-140M	13.85	R-60BC	20.39	R-112A	15.19
G-40TS	26.89	*HS-5	27.55	HSM-237	16.49	JAF-34	14.10	N-471A	12.15	PL-146E	11.39	R-61BC	22.29	R-123HA	12.60
G-48	16.39	*HS-8	28.58	HSM-238	24.58	*JAF-35	14.10	NM-1	.60	PL-146H	12.72	R-62BC	26.82	R-124BC	11.90
G-48TS	25.85	*HS-11	21.68	HSM-239	18.00	JAF-101	12.61	NM-2	.72	PL-146M	13.84	*R-63BC	16.15	R-125BC	15.15
G-51	19.60	*HS-14	22.52	HSM-240	19.44	JAF-102	12.70	NW-3	.78	R-2C	4.50	R-64BC	14.58	R-126A	15.44
G-51A	19.60	*HS-15	26.65	HSM-241	33.00	JO-1	13.38	NW-4	.78	R-3A	6.28	R-65BC	14.35	R-127A	15.07
G-52	20.80	*HS-23	21.73	*HSM-245	39.90	JO-2	13.92	NW-5	.78	R-4A	6.15	R-66BC	16.02	R-128BC	16.17
G-53	20.80	*HS-25	21.73	*HS-247	45.99	*JO-3	14.04	NW-6	.72	R-4B	6.33	R-67BC	16.15	R-129BC	15.22
G-53A	20.80	HS-27	19.70	HSM-270	20.52	*JO-5	13.92	NW-7	.60	R-5A	7.40	R-68A	9.00	R-131A	17.02
G-54	20.80	HS-29	27.50	HSM-271	26.10	JO-11	13.32	NW--10	.60	R-5B	7.45	R-69BC	16.07	R-132BC	15.55
G-57	16.81	HSM-31	21.08	HSM-272	36.96	JO-12	13.74	NW-11	.78	R-6A	7.17	R-70A	11.10	R-133A	14.62
G-58	25.85	*HS-32	27.50	HS-273P	17.10	JO-13	13.74	NW-18	.60	*R-6B	7.50	R-71A	17.72	R-134A	14.50
G-64	16.39	*HS-35	19.51	HSM-301	11.82	*JO-21	13.74	NW-19	.60	R-7A	8.44	R-72A	11.77	R-135BC	15.60
G-65	16.39	*HS-50	23.23	HSM-302	11.04	JO-22	13.74	NW-22	.82	*R-7B	8.44	R-73B	7.45	R-136BC	15.84
G-72	21.20	HS-52	24.02	HS-303	11.34	*JO-23	13.92	NW-21	.67	R-8A	8.28	R-74BC	17.99	R-138A	15.74
G-80	24.58	HS-54	28.58	HSM-305	12.24	*J-31	13.98	NW-23	.72	*R-8B	8.34	R-75BA/BC	16.07	R-139A	15.45
G-84	21.20	HS-56	25.82	HSM-307	15.15	*JO-101	12.60	NW-24	.72	R-9A	8.67	R-76BC	17.92	R-675A	17.57
G-85	21.20	*HS-58	30.32	*HSM-309	16.32	*JZ-1	11.79	NW-25	.67	R-9B	9.05	R-77BC	19.50	S-1X	1.98
G-92	22.06	HS-60	19.51	*HSM-315	18.84	*JZ-5	12.13	P-1A	9.12	R-10A	10.69	R-77BS	21.45	S-2X	2.45
G-101	19.60	*HS-61	20.65	HSM-319	26.01	*JZ-7	11.79	P-3A	11.74	R-10B	9.27	R-78BC	16.90	S-3X	2.38
G-101TS	23.65	HS-66	23.18	HS-331	8.16	*JZ-13	11.79	P-5A	12.50	R-11A	10.34	R-79BA	13.19	S-4X	2.57
G-135	19.60	HS-71	14.41	HS-333	9.09	JZ-15	11.79	P-7A	14.65	R-11B	10.22	R-80BA/BC	18.84	S-5X	2.62
G-135	19.60	HS-73	15.43	HS-335	11.49	*JZ-25	11.47	*P-9A	25.46	R-12A	10.67	R-81BC	21.44	S-5Z	2.72
G-155	19.60	HS-75	18.19	HS-339	12.48	*JZ-26	11.47	P-11A	12.50	R-12B	10.72	R-81BS	21.42	S-6X	1.98
G-183	24.92	*HS-77	21.20	HS-341	13.32	K-20 Kit	4.50	P-14A	19.12	R-14A	12.40	R-83A	14.24	S-6Z	2.17
G-201	19.60	*HSM-79	19.51	HS-400	13.31	M-1X	2.52	*P-15AL	22.12	R-14B	11.45	R-84K	6.15	S-7X	2.02
G-202	20.00	HSM-80	21.31	HS-401	17.64	M-3X	4.50	P-16AL	45.60	R-16A	13.00	R-85A	15.99	S-8X	1.90
G-235	19.60	HSM-81	23.60	*HS-402	15.96	M-4Z	2.22	*P-17AL	25.22	*R-16B	13.69	R-86BA	12.48	S-8X	2.02
G-250	19.60	*HSM-82	23.60	HS-404	21.00	M-5Z	4.11	*P-18AL	52.20	*R-17A	15.39	R-87BC	14.64	S-9X	2.33
G-255	19.60	*HSM-84	23.60	HS-405	21.90	M-6X	4.77	*P-20AL	51.75	R-18A	12.66	R-88A	15.79	S-9Z	2.62
G-266	20.50	*HSM-85	23.60	*HS-407	26.34	*M-7AL	11.22	PR-21AL	50.67	*R-18B	13.79	R-89BC	16.15	S-11X	1.98
G-274	20.41	*HSM-91	39.33	*HS-409	22.38	*M-8AL	14.77	P-213AL	19.50	*R-19A	17.94	R-90BC	16.07	S-11Z	2.10
G-275	20.50	*HSM-94	43.65	*HS-413	27.30	*M-12AL	17.89	P-215AL	21.65	R-20A	12.50	R-91HA	13.95	S-12X	1.90
G-276	20.50	*HSM-95	43.65	HS-415	34.20	*M-15A	9.05	P-216AL	43.32	R-20B	13.52	R-92A	13.57	S-12Z	1.90
G-283	24.92	*HS-97	82.26	*HS-417	37.44	*M-16AL	11.34	P-217AL	24.67	R-21A	15.82	■R-93A	16.17	S-13X	2.27
G-284	20.00	*HSM-181	23.60	HS-425	13.32	MB-20	.72	P-218AL	48.30	R-21B	14.79	R-94H	26.11	S-13Z	2.27
G-285	20.00	*HSM-182	23.60	HS-427	16.02	MB-31	.45	P-220AL	41.68	R-22A	7.52	R-104A	5.48	S-14Z	2.02
G-301	19.30	*HSM-184	30.02	HS-433	17.76	N-1X	3.43	PL-4	10.68	R-22B	7.85	R-104B	5.78	S-15X	2.73
G-306	19.30	*HSM-186	30.02	HS-435	19.86	N-3M	7.82	*PL-5	12.14	R-23B	6.15	R-105A	6.90	S-10X	2.23
G-313	19.30	*HSM-187	30.02	HS-436	11.40	N-4M	7.88	PL-6	12.14	R-24A	16.74	R-105B	7.02	S-16X	2.02
G-315	19.30	*HSM-189	30.02	HS-438	16.38	N-5M	11.55	PL-10	1.78	R-24B	16.57	R-106A	6.33	S-17X	2.10
G-335	18.91	*HSM-192	45.04	HS-441	27.15	N-7M	18.52	PL-80E	10.94	R-25A	25.34	R-106B	6.65	S-18X	2.33
G-336	18.91	*HSM-190	30.02	HS-442	19.08	N-9M	36.33	PL-80H	12.14	R-26A	18.90	R-107A	7.60	S-18Z	2.35
G-350	18.91	*HSM-193	45.04	HS-443	16.08	*N-11M	50.59	PL-80P	11.52	*R-27A	37.29	R-107B	7.62	S-19Z	3.12
G-355	18.91	*HSM-200	16.98	HS-444	26.70	N-34X	6.07	PL-81E	11.47	*R-28A	25.86	R-108A	7.28	S-20X	1.85
G-388	19.30	*HSM-201	21.66	HS-445	16.22	N-35M	15.79	PL-81H	12.25	R-29A	5.50	R-108B	7.40	S-20Z	1.85
G-389	19.30	HSM-202	14.75	HS-470	13.74	N-50M	23.94	PL-81P	11.67	R-30X	4.89	R-109A	9.17	S-21A	4.72

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S-21Z	4.05	S-61Z	5.39	†SP-22	7.77	T-13X	3.72	TY-45X	4.78	TY-90	16.00	WLC-6	1.32	Y-26-2	6.68
S-22A	6.27	S-62X	4.17	SP-29	7.50	T-14X	4.00	TY-46X	2.45	TY-91	15.60	WLC-7	1.35	Y-28	6.62
S-23X	2.15	S-63X	3.05	*SP-32	6.34	T-15X	4.11	TY-47X	4.67	TY-92	15.50	WLC-8	1.80	Y-28-3	6.78
S-24A	6.77	S-64X	2.40	SP-33	6.82	T-20X	3.68	TY-48X	4.50	TY-93	18.07	WLC-8A	1.80	†Y-30G	8.94
S-25Z	4.52	S-65X	2.57	*SP-34	6.55	*T-21X	3.45	TY-49X	3.28	TY-94	15.96	WLC-9	1.88	†Y-31G	8.94
S-26X	2.22	S-66X	2.57	*SP-35	6.65	T-22X	3.45	TY-50X	6.28	TY-99	13.45	WLC-10	1.59	Y-40	6.78
S-27A	5.85	S-67X	2.27	SP-36	6.32	T-23X	4.48	TY-51X	4.85	TY-100	20.62	WLC-11	2.05	Y-40-3	7.65
S-28X	3.90	S-68Z	3.78	SP-42	7.00	*T-24X	3.72	TY-52X	5.35	TY-101	19.67	WLC-12	1.38	Y-41	6.90
S-29X	4.50	S-69Z	5.35	SP-43	6.50	*T-25X	3.35	TY-53X	3.67	TY-102	18.90	WLC-17	1.41	†Y-41-2	8.55
S-30X	2.10	S-70Z	3.83	SP-44	7.02	T-26X	3.40	TY-54X	5.00	TY-462	16.32	WLC-21	1.33	Y-41-3	7.68
S-31A	6.85	S-71Z	5.10	*SP-46	7.12	T-31X	4.23	TY-55X	4.73	TY-468	12.35	WLC-23	1.33	Y-42-2	8.73
S-32A	8.82	S-72Z	4.20	*SP-47	7.38	*T-32X	3.45	TY-56X	4.12	TZ-1	4.62	WLC-25	1.52	Y-43	6.98
S-34X	4.73	S-73X	4.00	SP-48	6.82	T-33X	4.90	TY-57X	4.55	TZ-2XT	5.83	WLC-26	1.62	Y-43-1	7.73
S-35A	8.32	SR-74K	6.45	SP-49	5.38	T-34X	3.19	TY-58X	4.07	*TZ-5	4.98	WLC-29	1.85	Y-44	5.95
S-36A	9.32	*S-75K	11.32	SP-50	6.67	T-35X	3.68	TY-59X	5.83	*TZ-7	3.95	WLC-30	1.68	Y-44-1	8.10
S-37X	5.07	S-76Z	5.23	SP-51	6.28	T-41X	3.90	TY-60X	4.50	TZ-13	6.17	WLC-31	1.88	Y-45	7.27
S-38X	2.15	S-77U	11.32	SP-52	8.10	*T-42X	3.90	TY-61X	2.72	TZ-15	5.00	Y-12	6.52	Y-45-2	8.12
S-38Z	2.15	S-78Z	4.85	*SP-59	6.88	T-101X	2.62	TY-62X	3.55	TZ-17XT	4.60	Y-12-1	7.23	Y-46	5.95
S-39X	2.40	S-79Z	5.32	SP-60	7.00	T-102X	2.38	TY-63X	3.82	*TZ-24XT	4.98	Y-12-3	7.23	Y-46-3	7.57
S-40X	4.60	*S-129Z	4.95	*SP-62	6.84	TY-23X	5.00	TY-64X	5.95	*TZ-25	4.27	Y-17	6.33	■Y-47	5.98
S-41X	2.05	S-130Z	3.23	*SP-63	6.28	TY-24X	3.23	TY-65Z	2.83	TZ-26	3.67	Y-17-1	7.15	Y-48	6.40
S-41Z	2.05	S-131X	2.82	SP-64	6.43	TY-25X	6.22	TY-66A	8.94	*TZ-28	3.67	†Y-17-2	8.55	Y-48-3	7.48
S-42A	15.19	S-132X	2.93	*SP-65	7.50	TY-26X	5.22	TY-67A	9.24	TZ-29XT	4.77	Y-17-3	7.00	Y-49	7.68
SR-45Z	6.79	S-133X	5.90	SP-66	7.68	TY-28XT	4.28	TY-68S	5.50	TZ-32XT	5.02	Y-19	6.78	Y-49-1	8.28
S-46A	9.67	S-142A	11.17	SP-67	6.90	TY-27XT	4.12	■TY-69S	9.49	*TZ-103XT	3.00	■Y-19-1	6.82	Y-60	8.94
S-47Z	3.84	S-144A	15.24	*SP-68	7.95	TY-29X	3.68	■TY-70S	10.44	V-21	5.23	Y-19-3	6.82	Y-60-1	11.55
S-48X	2.00	S-146A	14.84	*SP-69	7.18	TY-30X	2.98	■TY-71S	9.19	V-21B	5.39	Y-20	6.78	Y-60-2	9.77
S-49X	2.12	S-148A	13.69	SP-106	5.83	TY31X	2.73	■TY74S	8.94	V-21K	9.19	Y-20-2	7.35	Y-62	8.94
S-50X	2.27	S-149A	22.62	SP-107	5.34	TY-32X	2.95	TY-75A	12.82	V-21Z	5.38	Y-20-3	6.77	Y-64	7.15
S-51X	3.77	S-152A	19.05	SP-108	5.90	TY-33X	3.90	TY-76A	9.60	V-23	5.50	Y-21	6.27	Y-64-1	9.52
S-52X	4.38	S-154A	23.82	SP-117	4.88	TY-34X	3.12	TY-78	14.72	V-23B	6.65	Y-21-1	6.93	Y-66-1	8.60
S-53X	3.93	S-156A	16.50	SP-118	5.68	TY-35X	3.17	TY-79	15.34	V-23K	8.34	Y-21-3	7.05	Y-70	8.94
S-54X	4.52	S-158A	32.74	*SP-128	4.48	TY-36X	3.33	TY-80	15.94	V-23Z	5.67	Y-22	6.78	Y-70-1	9.52
S-55X	4.17	SP-4	8.17	SP-310	.84	TY-37X	3.99	TY-81	15.19	VR-30Z	4.15	Y-22-1	7.23	Y-72-1	9.32
S-55Z	4.12	SP-5	8.12	T-1X	4.98	TY-38X	3.99	TY-82	15.27	V-31	4.47	Y-22-3	6.78	Y-81-3	10.02
S-56Z	5.27	SP-7	7.50	T-2X	3.95	TY-39X	5.15	TY-83	18.34	V-31K	6.96	Y-24	6.57	Y-82-1	7.60
S-57Z	5.39	SP-11	7.00	T-3X	4.55	TY-40X	3.75	TY-84	15.84	WC-13	1.32	Y-24-3	7.00	Y-83-1	9.25
S-58X	2.50	SP-15	7.48	T-5X	4.07	TY-41X	3.84	†TY-85	28.20	WLC-3	1.33	Y-25	5.83	YC-1	.60
S-59Z	5.72	SP-20	7.27	T-11X	3.57	TL-42X	4.40	TY-88	11.10	WLC-4	1.32	Y-25-1	6.45	YC-110	.75
S-60A	10.24	SP-21	7.48	T-12X	3.88	TY-44X	4.23	TY-89	13.72	WLC-5	1.33	Y-25-3	6.33	YC-111	.75
														YC-112	.75

TRIAD CASES

	GB	HA	HB	JA	JB	KA	KB
A	2 3/8	2 5/8	2 5/8	3 1/16	3 1/16	3 3/8	3 3/8
B	2 3/4	3 1/16	3 1/16	3 9/16	3 9/16	3 15/16	3 15/16
C	2 13/16	4 1/4	3 3/16	4 7/8	3 7/8	5 1/4	4 5/16
D	2 1/8	2 19/64	2 19/64	2 5/8	2 5/8	3	3
E	1 3/4	1 55/64	1 55/64	2 1/8	2 1/8	2 7/16	2 7/16
G	3/8	3/8	3/8	3/8	3/8	1/2	1/2
I	6-32	8-32	8-32	8-32	8-32	10-32	10-32
Wt. (avg.) lbs.	1 3/4	2 1/2	2 1/4	4 1/2	4	7 3/4	7

	LA	LB	MA	MB	NA	NB
A	3 11/16	3 11/16	4	4	4 5/16	4 5/16
B	4 5/16	4 5/16	4 11/16	4 11/16	5 1/16	5 1/16
C	5 9/16	4 1/2	6	4 15/16	6 13/16	5 1/2
D	3 5/16	3 5/16	3 11/16	3 11/16	4 1/16	4 1/16
E	2 11/16	2 11/16	3	3	3 5/16	3 5/16
G	1/2	1/2	5/8	5/8	5/8	5/8
I	10-32	10-32	1/4-20	1/4-20	1/4-20	1/4-20
Wt. (avg.) lbs.	9 1/4	8 1/2	13 1/2	12 1/2	18	16

	AH	AJ	EA	EB	FA	FB	GA
A	1 5/16	1 5/8	1 13/16	1 13/16	2 1/16	2 1/16	2 3/8
B	1 5/16	1 5/8	1 15/16	1 15/16	2 5/16	2 5/16	2 3/4
C	1 3/4	2 3/8	2 3/4	2 7/16	3 1/8	2 1/2	3 13/16
D	1 1/4	1 3/16	1 3/8	1 3/8	1 11/16	1 11/16	2 1/8
E		1 3/16	1 1/4	1 1/4	1 7/16	1 7/16	1 3/4
G	3/8	3/8	3/8	3/8	3/8	3/8	3/8
I	6-32	6-32	6-32	6-32	6-32	6-32	6-32
Wt. (avg.) lbs.	4 oz.	9 oz.	1	15 oz.	1 3/4	1 1/2	2

	AF	AG	AH-2	AJ-2	JZ*†
A	3/4	1	1-5/16	1-5/8	9/16 dia.
B	3/4	1	1-5/16	1-5/8	Round
*†Bw	1-3/64	1-3/32	1-11/32		
C	1-1/8	1-3/8	1-3/4	2-3/8	25/32
D	*27/32	*1-1/32	*1-11/32	*1-5/8	
F	5/8	3/4	7/8	7/8	
I	4/40	6/32	6/32	6/32	
Unit Wt.	1-1/4 oz.	2-1/2 oz.	5-1/4 oz.	11 oz.	.5 oz.

* Not in conformance with MIL-T-27A.
† Not in conformance with MIL-T-27

	GP-1	GP-2	GP-3	GP-4	GP-5
A	7/8	1 1/16	1 1/4	1 7/16	1 5/8
B	1 1/16	1 1/4	1 1/2	1 3/4	2
Bw	1 1/16	1 11/32	1 9/16		
C	1 11/16	2 1/4	2 3/8	2 1/2	2 3/4
D	1 3/32	1 3/16	1 15/32	1 1/2	1 1/2
F	3/4	3/4	15/16	15/16	15/16
Wt.	3 oz.	5 1/2 oz.	8 oz.	12 oz.	17 oz.

	JOA	JOB
A	15/16 dia.	15/16 dia.
B	Round	Round
C	1 13/32	1 25/32
D	9/16	9/16
F	7/8	7/8
Unit Wt.	2 oz.	2 1/2 oz.

SHIELDING

P-1—One nickel alloy high permeability shield — 45db. reduction in pickup.
P-3—Two nickel alloy shields interleaved with one heavy copper shading ring — 70db. reduction in pickup.
P-5—Three nickel alloy shields interleaved with two heavy copper shading rings— 95 db. reduction in pickup.

†New item ■Discontinued item. Available until supply is exhausted
*Semi-standard item; for availability, see pg. 1, Catalog TR-63/64

Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

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The
RADIO-ELECTRONIC
MASTER

TRANSISTOR TRANSFORMERS *Hermetically sealed to MIL-T-27B*

DO-T* AND DI-T* TRANSISTOR TRANSFORMERS

DO-T DI-T
(Actual Size)

Revolutionary transistor transformers hermetically sealed to MIL-T-27B specs. Plastic insulated solderable leads, firmly anchored to withstand 10 pound pull. Ideal for printed circuits. DO-T: 5/16" dia. x 13/32" long, wt., 1/10 oz. DI-T: 5/16" dia. x 1/4" long, wt., 1/15 oz. these compact units provide frequency response, high efficiency and low distortion. U.S. Pat. No. 2,949,591

DO-T Type	DI-T Type	Net Each	Application	Pri. Imped., Ohms	Sec. Imped. Ohms
DO-T1	DI-T1	$6.00	a	20K/30K, 0.5 ma	800/1200
DO-T2	DI-T2	5.40	b	500/600, 3 ma	50/60
DO-T3	DI-T3	5.40	b	1K/1.2K, 3 ma	50/60
DO-T4	....	5.40	b	600, 3 ma	3.2
DO-T5	DI-T5	5.40	b	1.2K, 2 ma	3.2
DO-T6	....	6.00	b	10K, 1 ma	3.2
DO-T7	....	6.60	c	200K	1K
DO-T8	DI-T8	4.80	d•	3.5 hys. @ 2 ma	2.5 hys.‡‡
DO-T9	DI-T9	6.60	e	10K/12K, 1 ma	500/600 CT
DO-T10	DI-T10	6.60	f	10K/12.5K, 1 ma	1.2K-1.5K CT
DO-T11	DI-T11	6.60	f	10K/12.5K, 1 ma	2K/2.5K CT
DO-T12	....	5.70	b	150/200 CT, 10 ma	12/16
DO-T13	....	5.70	b	300/400 CT, 7 ma	12/16
DO-T14	....	6.00	b	600/800 CT, 5 ma	12/16
DO-T15	....	6.00	b	800/1070 CT, 4 ma	12/16
DO-T16	....	6.00	b	1K/1330 CT, 3.5 ma	12/16
DO-T17	....	6.00	b	1.5K/2K CT, 3 ma	12/16
DO-T18	....	6.30	b	7.5K/10K CT, 1 ma	12/16
DO-T19	DI-T19	6.00	b	300 CT, 7 ma	600
DO-T20	DI-T20	6.00	b	500 CT, 5.5 ma	600
DO-T21	DI-T21	6.00	b	900 CT, 4 ma	600
DO-T22	DI-T22	6.00	b	1500 CT, 3 ma	600
DO-T23	DI-T23	6.90	a	20K/30K CT, .5 ma	0.8K/1.2K CT
DO-T24	....	7.50	c	200K CT	1K CT
DO-T25	DI-T25	7.20	a	10K/12K CT, 1 ma	1.5K/1.8K CT
DO-T26	DI-T26	5.70	d†	6 hys. @ 2 ma	4.5 hys.‡‡
DO-T27	DI-T27	4.80	d‡	1.25 hys. @ 2 ma	0.9 hy.‡‡
DO-T28	DI-T28	4.80	d§	0.3 hy. @ 4 ma	0.1 hy.‡‡
DO-T29	....	5.70	b	120/150 CT, 10 ma	3.2/4
DO-T30	....	5.70	b	320/400 CT, 7 ma	3.2/4
DO-T31	....	6.00	b	640/800 CT, 5 ma	3.2/4
DO-T32	....	6.00	b	800/1K CT, 4 ma	3.2/4
DO-T33	....	6.00	b	1060/1330 CT, 3.5 ma	3.2/4
DO-T34	....	6.00	b	1.6K/2K CT, 3 ma	3.2/4
DO-T35	....	6.30	b	8K/10K CT, 1 ma	3.2/4
DO-T36	DI-T36	7.50	a	10K/12K CT, 1 ma	10K/12K CT
DO-T37	DI-T37	7.80	a	2K/2.5K CT, 3 ma	8K/10K Split
DO-T38	DI-T38	7.80	a	10K/12K CT, 1 ma	2K/2.4 Split
DO-T39	....	7.80	a	20K/30K CT, .5 ma	1K/1.5K Split
DO-T40	....	8.40	a	40K/50K CT, .25 ma	400/500 Split
DO-T41	DI-T41	7.50	a	400/500 CT, 8/6 ma	400/500 Split
DO-T42	....	7.50	a	400/500 CT, 8/6 ma	120/150 Split
DO-T43	DI-T43	7.50	a	400/500 CT, 8/6 ma	40/50 Split
DO-T44	DI-T44	7.50	a	80/100 CT, 12/10 ma	32/40 Split
DO-T45	....	7.80	a	1K/1.25K CT, 3.5 ma	16K/20K Split
DO-T46	....	8.40	c	100K CT	500 CT
DO-T47	....	8.10	a	9K/10K, 1 ma	9K/10K CT
DO-T48	....	7.80	a	8K/10K, 1 ma	1.2K/1.5K CT
DO-T49	....	7.80	d§§	Series—.075 hys @ 10 ma, 10.5Ω Parallel—.018 hys @ 20 ma, 2.6Ω	
DO-T50	....	5.70	d§§	Series—20 hys @ 1 ma, 5100Ω Parallel—5 hys @ 2 ma, 1275Ω	
DO-T51	DI-T51	7.80	a	2K/2.5K CT, 3 ma	2K/2.5 K split
DO-T52	DI-T51	7.80	a	4K/5K CT, 2 ma	8K/10K CT
DO-T400	....	6.60	h	28V, 380-1 KC	6.3 V, 60 ma
DO-T410	....	7.80	h	28V, 380-1 KC	Two 6.3 V, 30 ma
DO-T420	....	7.80	h	28V, 380-1 KC	28 V, 30 ma
DO-TSH	DI-TSH	.90		High mu shield and cover; 25 db	

•630 ohms. †2100 ohms. ‡100 ohms. §25 ohms.
‡‡DI-T primary impedance. §§2 Wdgs.
a—Interstage; b—Output; c—Input; d—Inductor; e—Driver or Output; f—Driver; g—matching; h—Power Unit.

NEW
DI-T200* SERIES TRANSISTOR TRANSFORMERS

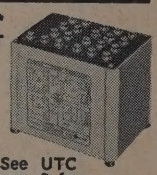
These revolutionary transistor transformers embody the same rugged reliable construction afforded by the unique winding techniques and physical construction found in the DO-T & DI-T transformers. DI-T200 series differ by having straight pin, 1" long, .017 d. Dumet wire, gold plated leads.
To MIL-T-27B, size 5/16 x 3/8", wt. 1/15 oz. U.S. Pat. No. 2,949,591

Type No.	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	Net Each
DI-T225	Interstage	80 CT 100 CT	32 Split 40 Split	$8.40
DI-T230	Output or Matching	300 CT	600 Split	7.20
DI-T235	Interstage	400 CT 500 CT	40 Split 50 Split	8.40
DI-T240	Interstage or Output (Ratio 2:1:1)	400 CT 500 CT	400 Split 500 Split	8.40
DI-T245	Output or Matching	500 CT 600 CT	50 CT 60 CT	6.90
DI-T250	Output or Mixing	500 CT	600 CT	7.20
DI-T255	Output or Matching	1,000 CT 1,200 CT	50 CT 60 CT	6.90
DI-T260	Output	1,500 CT	600 CT	7.20
DI-T265	Isolation or Interstage	2,000 CT 2,500 CT	8,000 Split 10,000 Split	8.70
DI-T270	Output or Driver	10,000 CT 12,000 CT	500 CT 600 CT	7.80
DI-T273	Output or Driver	10,000 CT 12,500 CT	1,200 CT 1,500 CT	7.80
DI-T276	Interstage or Driver	10,000 CT 12,000 CT	2,000 CT 2,400 CT	7.80
DI-T278	Interstage or Driver	10,000 CT 12,500 CT	2,000 Split 2,500 Split	8.70
DI-T283	Isolation or Interstage	10,000 CT 12,000 CT	10,000 CT 12,000 CT	8.40
DI-T288	Interstage or Driver	20,000 CT 30,000 CT	800 CT 1,200 CT	8.10
DI-T204	Split Inductor (2 wdgs)	Series: .1 hy @ 4 ma DC, 25Ω Parallel: .025 hy @ 8 ma DC, 6Ω		6.00
DI-T208	Split Inductor (2 wdgs)	Series: .9 hy @ 2 ma DC, 105Ω Parallel: .2 hy @ 4 ma DC, 26Ω		6.00
DI-T212	Split Inductor (2 wdgs)	Series: 2.5 hy @ 2 ma DC, 630Ω Parallel: .6 hy @ 4 ma DC, 157Ω		6.00
DI-T216	Split Inductor (2 wdgs)	Series: 4.5 hy @ 2 ma DC, 2300Ω Parallel: 1.1 hy @ 4 ma DC, 575Ω		6.90

CIRCUIT DEVELOPMENT TRANSFORMERS FOR TRANSISTORS

The UTC LABoratory circuit development transformers aid the designer in selecting optimum impedances for best power and distortion results from his transistor circuit.

LAB* UNIT



LAB-5
20 Cycles to 20kc
Up to 50mw Continuous

Pri Imp. Ω	Sec. Imp. Ω
125	125
200 split	200 split
500 split	500 split
2000 split	2000 split

Net Each: $48.00

LAB-10
units in LS-1 case

LAB-20
units in LS-3 case

See UTC page 8 for dimensions
Terminal board as shown above

LAB-10
20 Cycles to 20kc
Up to 1W Continuous

Pri. Imp. Ω Range	Pri. to Sec. Ratio	Sec. Imp. Ω Range
1900 Ω to 14,400 Ω	20:1 or 10:1	19 Ω to 36 Ω
925 Ω to 7600 Ω	10:1 or 5:1	37 Ω to 76 Ω

Net Each: $30.00

LAB-20
20 Cycles to 20kc
Up to 50W Continuous

Pri. Imp. Ω	Sec. Imp.
6, 12, 24, 40, 54, 70,	4, 8, 16, 64

Net Each: $60.00

PIP* SERIES TRANSISTOR PULSE TRANSFORMERS

UTC's PIP series of subminiature transistor type pulse transformers is designed to give a maximum of component density in equipments, their configuration being especially compatible with transistors. The design is based on the UTC DO-T and DI-T series to impart exceptional reliability. PIP-1 through PIP-9 have a ratio of 4:4:1, PIP-10 through PIP-12 have a ratio of 5:3:1. All units are checked and adjusted in a transistor test circuit to give the required pulse width.

Hermetically sealed, manufactured & guaranteed to MIL-T-20138B by full environmental testing . . . all units, completely METAL CASED, MIL type TP6RX4410CZ. See UTC page 6 for other miniature pulse transformers.

All Units Individually Adjusted to Parameters Shown in Table

U.S. Pat. No. 2,949,591

5/16" Dia. x 3/16" high
Weight 1/20 oz.

	APPROX. DCR, OHMS			BLOCKING OSCILLATOR PULSE					COUPLING CIRCUIT CHARACTERISTICS							
Type No.	1-Brn 2-Rd	3-Org 4-Yel	5-Grn 6-Blu	Width µSec.	Rise Time	% Over Shoot	Droop %	% Back Swing	P Width µSec.	Volt Out	Rise Time	% Over Shoot	Droop %	Back Swing	Imp. in, out,	Net Each
PIP-1	.18	.20	.07	.05	.02	0	0	37	.05	9	.018	0	0	12	50	$6.00
PIP-2	.47	.56	.17	.1	.025	0	0	25	.1	8	.02	0	0	5	50	6.00
PIP-3	1.01	1.25	.37	.2	.030	2	0	15	.2	7	.035	0	0	5	100	6.00
PIP-4	1.5	1.85	.54	.5	.05	0	0	15	.5	7	.06	0	0	0	100	6.00
PIP-5	2.45	3.1	.9	1	.08	0	0	14	1	6.8	.15	0	0	5	100	6.00
PIP-6	3.0	3.7	1.1	2	.10	0	0	15	2	6.6	.18	0	2	10	100	6.00
PIP-7	4.9	6.05	1.8	3	.20	0	0	14	3	6.8	.20	0	2	10	100	6.00
PIP-8	8.0	9.7	2.9	5	.30	0	0	3	5	7.9	.22	0	13	25	200	6.00
PIP-9	13.1	15.9	4.7	10	.35	0	5	12	10	6.5	.4	0	15	20	200	6.00
PIP-10	.55	.41	.15	.1	.01	0	0	20	.1	8	.01	0	0	5	140/50	6.00
PIP-11	2.9	2.2	.82	1	.02	4	4	6	1	6.6	.05	0	6	12	280/100	6.00
PIP-12	9.4	7.1	2.6	5	.05	0	12	12	5	8	.09	2	12	25	560/200	6.00
PIP-100	Transistor pulse transformer kit, consisting of PIP-1 thru PIP-9 in plastic case.															51.00

UTC PAGE 1. *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1963 United Transformer Corp., New York, N. Y.

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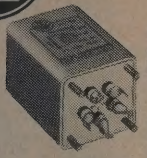
TRANSISTOR TRANSFORMERS *Hermetically sealed to MIL-T-27B*

TRANSISTOR SUPPLY TRANSFORMERS



Primary 115V. 50/60 cycles (tapped on H-143 thru H-146 for dual secondary voltages). DC ratings are approximate, based on silicon bridge rectifier (except H-141, H-142 also shown F.W.CT.). Choke input DCV is based on 10% voltage drop in choke. Condenser value, C, is in 1000 mfd. H-141, H-142, H-147 listing under "Secs in parallel" is single winding. All units MIL type TF4RX02.

Type No.	Sec. V Rms	Sec. A Rms	Sec. in Parallel: Choke DCV	Input DCA	Cond. DVC	Input DCA	C	Sec. in Series: Choke DCV	Input DCA	Cond. DVC	Input DCA	C	MIL Case	Net Each
H-141	20 CT	.3	16.5	.3	26	.2	.2						EB	$10.20
			8	.43	12	.3	.5							
H-142	20 CT	.6	16.5	.6	26	.4	.4						EA	12.90
			9	.85	13	.6	1							
H-143	17/21.5	1.5	14/17.5	3	18.5/25	2	1	28/35	1.5	43/56	1	.5	HA	18.60
	17/21.5	1.5												
H-144	17/21.5	4	14/17.5	8	18.5/25	5	2	28/35	4	43/56	2.5	1	LA	30.00
	17/21.5	4												
H-145	17/21.5	9	14/17.5	18	18.5/25	12	6	28/35	9	43/56	6	4	RC-175	45.90
	17/21.5	9												
H-146	34/43	4.5	28/35	9	43/56	6	4	56/70	4.5	85/110	3	1	UTC Pg. 9	45.90
	34/43	4.5												
H-147	10	20	8.2	20	10	13	12						KA	27.00

UNIVERSAL TRANSISTOR SUPPLY TRANSFORMERS

Low Voltage DC Supply
Telephone Supply
Bias Supply
Battery Chargers
Plating Rectifiers

UTC universal transistor supply transformers are high reliability units in drawn MIL cases. Primary tapes can modify nom. AC voltages by −6%, +6%, and +12%. The capacitor following the rectifier affects the DC voltage.

PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 8.25 to 40.5

Type No.	MIL DC Range	Indust. DC Range	MIL CASE	Net Each
H-915	6V-.065A to 53V-.02A	6V-.085A to 53V-.025A	AH	$11.70
H-925	6V-.22A to 53V-.07A	6V-.28A to 53V-.085A	AJ	12.90
H-935	6V-1.2A to 53V-4A	6V-1.52A to 53V-.48A	FA	14.40
H-94	6V-3A to 53V-1A	6V-3.8A to 53V-1.2A	HA	19.80
H-95	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	KA	28.80
H-96	6V-18A to 53V-6A	6V-23A to 53V-7.5A	OA	48.00

PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 16.5 TO 81

Type No.	MIL DC Range	Indust. DC Range	MIL CASE	Net Each
H-965	12V-1.5A to 106V-.5A	12V-1.9A to 106V-.6A	HA	20.40

NEW 400-CYCLE MET* TYPES
PRIMARY 115 VOLTS, 400 CPS.
NOMINAL SEC., 8.25-40.5 VOLTS

Type No.	MIL DC Range	Indust. DC Range	MIL CASE	Net Each
MET 455	6V-1.2A to 53V-.4A	6V-1.52A to 53V-.48A	AJ	$12.90
MET 465	6V-3A to 53V-.4A	6V-3.8A to 53V-1.2A	FA	14.40
MET 475	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	HA	20.40

400 CYCLE MOLDED TYPES

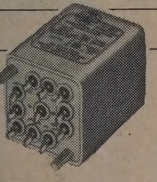
Primary 105/115
Volts 380-1000 Cycles. Sec: 6.3
VCT 2500V RMS Test

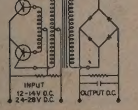
MOLDED 400
CYCLE TYPE
TF5SX01ZZ

Type No.	Sec. Amp.	L In.	W In.	H In.	Wt. Lbs.	Net Each
H-101	3.5	1 25/32	1 21/32	2	.3	$14.10
H-102	5.5	1¾	2	2¼	.44	15.00
H-103	10	2 5/16	2⅛	2½	.8	17.40
H-104	25	2⅞	2½	3 1/32	1.5	21.90
H-118	.3	Sub ounces mold see pg. 10				9.00

TRANSISTOR INVERTER TRANSFORMERS

High reliability (layer insulated) types providing high efficiency in small size. Units are in drawn MIL cases. Circuit details supplied with transformer. With 6 V. input instead of 12 V., output voltage is halved, current rating remains the same.





FOR 12/14 OR 24/48 VOLT BATTERY

Type No.	DC output, when used in circut shown	MIL Case	Net Each
H-97	250V.-60MA	AH	$14.70
H-98	375V.-100MA	AJ	15.90
H-99	425V.-175MA	FA	20.40
H-100	550V.-200MA	GB	21.00

IMMEDIATE
DELIVERY
ON ALL ITEMS
FROM STOCK

NEW MET* 400-CYCLE SERIES

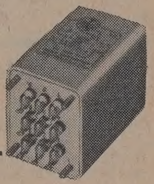
Type No.	MIL Type	Sec. Volt	Amps. (MIL)	Amps. (Indust.)	Sec.Test V.RMS	MIL Case	Net Each
MET-410#	TF4SXO1YY 400 cy. pri.	6.3	.6	.75	500	RC-25	$ 7.80
MET-420	TF4SXO1AH 3800-1000 cy.‡	6.3CT	2	2.5	2500	AH	9.60
MET-430±	TF4SXO1FA 400 cycles§	12.6CT 12.6	2 2	2.5 2.5	1500	FA	18.00
MET-435	TF4SXO1FA 380-1000 cy.‡	6.3CT	10	12	2500	FA	12.00
MET-440	TR4SXO1GB 380-1000 cy.‡	6.3CT 6.3CT	6 6	7 7	2500	GB	15.00

†Two MET-430's, Scott-connected, provide 26v., 2-phase from 115 v., 3-phase 400 cps input. Replaces former No. H-139. ‡105/115/125 v. primary. §57.5/99.7/115 v. primary. #Replaces former No. H-140.

HERMETIC SEALED TRANSISTOR/FILAMENT SUPPLY TRANSFORMER

Primary: 105/115/210/220 volts, 50/60 cycles, except H-130, H-137, H-138, H-104 (115v.) and H-131 (115/220v.) Suited to 400/100 cycle service. H-128: 6½" x 5½" x 7¾" h. (wt. 34 lbs.) H-129: 6½" x 5½" x 7¾" h. (wt. 28 lbs.)

METAL CASED TF4 TYPE



MIL T-27B RATINGS IN REGULAR TYPE,
INDUSTRIAL RATINGS IN BOLD TYPE

Type No.	MIL Type	Sec. Volts	Amps. (MIL)	Amps. (Indust.)	Sec. Test V. RMS	MIL Case	Net Each
H-119	TF4RX01AH	6.3CT	.3	.38	1500	AH	$ 8.40
H-120	TF4RX01GB	2.5	10	12	4000	GB	13.80
H-121	TF4RX01JB	2.5	10	12	10000	JB	18.00
H-122	TF4RX01KB	2.5	20	26	10000	KB	21.00
H-123	TF4RX01NB	2.5 2.5 2.5	5 5 10	7.5 7.5 15	10000	NB	36.00
H-124	TF4RX01FB	5	3	3	2000	FB	12.00
H-125	TF4RX01KB	5	10	12	10000	KB	21.00
H-126	TF4RX01LA	5	20	25	10000	LA	27.00
H-127	TF4RX01NA	5	20	30	21000	NA	45.00
H-128	Term. Opp. Mtg. TF4RX01YY	5	60	75	21000		81.00
H-129	Term. Opp. Mtg. TF4RX01YY Term. Opp. Mtg.	5 5 5	10 10 20	12 12 24	21000		90.00
H-130	TF4RX01AJ	6.3CT	.6	.75	1500	AJ	9.00
H-131	TF4RX01FB	6.3CT	2	2.5	2500	FB	12.00
H-132	TF4RX01JA	6.3CT 6.3CT	6 6	7 7	2500	JA	19.20
H-133	TF4RX01HB	6.3CT	7	8	2500	HB	15.00
H-134	TF4RX01HA	6.3CT	10	12	2500	HA	16.80
H-135	TF4RX01JB	10 CT	10	13	2500	JB	21.00
H-136	TF4RX01LA	14, 12, 11 CT	10	14	2500	LA	27.00
H-137	TF4RX01EB	6.3 6.3	.6 .6	.75 .75	1500	EB	12.00
H-138	TF4RX01GA	12.6 12.6	2 2	2.5 2.5	1500	GA	19.50
		400 CYCLE TYPE					
H-139•	TF4RX01FA Pri. 400 cyc. 57.5,99.7,115V	12.6CT 12.6	2 2	2.5 2.5	1500	FA	18.00
H-140	TF4RX01YY Pri. 400 Cyc.	6.3	.6	.75	500	RC-25 UTC Pg. 5	7.80

•Two H-139's Scott connected provide 26 volt two phase from 115V. three phase 400 cycle input.

UTC PAGE 2. *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1963 United Transformer Corp., New York, N. Y.

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TRANSISTOR TRANSFORMERS *(Commercial Types)* & M-S TRANSFORMERS & INDUCTORS

TRANSISTOR TRANSFORMERS *(Commercial Type)*

NEW CAT★ TRANSISTOR IMPEDANCE TYPES

All units in RC-50 case. Frequency range, ±2 db, 50-15,000 cps. Power level 1 watt except CAT-15, 5 watts.

UTC Type	Application	Imped. Ohms	Primary Unbal. Ma DC	Secondary Imped., Ohms	Net Each
CAT-15	Output	48/12 spl.	750•	16 spl./8/4	**$8.10**
CAT-20	Istg./outp.	500/125 spl.	20	16/4 split	**7.80**
CAT-25	Isol./outp.	500/125 spl.	20	500/125 spl.	**7.80**
CAT-30	Input/istg.	500/125 spl.	20	2K/500 split	**7.80**
CAT-40	Istg./outp.	10K/2.5K spl.	8	2K/500 split	**7.80**

•Balance. ★Trade mark.

ULTRASONIC TRANSFORMERS

Frequency range, 10-50 kc. CGU-1 and CGU-2 are push-pull drivers; all others, push-pull output.

UTC Type	For Tube Type	Pri. Imp., Ohms	Max. Watts	#	Case No.	Net Each
CGU-1	5881 to 6156's	7000	25	a	RC-62	**$ 15.00**
CGU-2	6550 to 5868's	5000	100	b	RC-62	**17.40**
CGU-3	6550's	5000	100	c	RC-62	**22.50**
CGU-4	6155's, 4-125's	7200	300	c	RC-87	**25.50**
CGU-5	6155's, 4-125's	7200	300	d	RC-87	**26.10**
CGU-6	6156's, 250TH's	4500	600	c	RC-125	**39.00**
CGU-7	6156's, 250TH's	4500	600	d	RC-125	**39.90**
CGU-8	6156's	9200	1000	c	RC-175	**72.00**
CGU-9	5868's	10200	2000	c	†	**135.00**

#Sec. imped., ohms: a—4150 G-G. b—2400 G-G. c—300/170/175/18.75. d—30/17/7.5/1.88. † 5¼″ x 5 9/16″ x 8″

CHANNEL FRAME FILAMENT/TRANSISTOR TRANSFORMERS

Pri. 115 V. 50/60 Cycles—Test Volts RMS: 1500

Type No.	Secondary	W	D	H	M	Lbs.	Net Each
FT-1	2.5 VCT-3A	2⅞	1⅝	1 11/16	2⅜	¾	**$2.85**
FT-2	6.3 VCT-1.2A	2⅞	1⅝	1 11/16	2⅜	¾	**3.15**
FT-3	2.5 VCT-6A	3 5/16	1⅞	2	2 13/16	1	**3.45**
FT-4	6.3 VCT-3A	3 5/16	1⅞	2	2 13/16	1	**3.45**
FT-5	2.5 VCT-10A	3¾	2⅛	2 5/16	3⅛	1½	**3.90**
FT-6	5 VCT-3A	3¾	2⅛	2 5/16	3⅛	1½	**4.05**
FT-7	7.5 VCT-3A	3¾	2⅛	2 5/16	3⅛	1½	**4.05**
FT-8	6.3 VCT-8A	4	2½	2⅝	3 9/16	2½	**4.80**
FT-10	24 VCT-2A or 12V-4A	4	2⅝	2 11/16	3 9/16	2½	**5.10**
FT-11	24 VCT-1A or 12 V-2A	3¾	2⅛	2 5/16	3⅛	1½	**4.50**
FT-12	36 VCT-1.3A or 18 V-2.6A	4	2⅝	2⅝	3 9/16	2½	**5.10**

Taps on pri. of FT-13 & FT-14 to modify sec. nominal V, −6% +6%, +12%

Type No.	Secondary	W	D	H	M	Lbs.	Net Each
FT-13	26 VCT-.04A	2⅛	1⅜	1¼	1¾	¼	**$3.30**
FT-14	26 VCT-.25A	2⅞	1⅝	1 11/16	2⅜	¾	**3.75**

TRANSISTOR/FILAMENT TRANSFORMERS

Pri. 115 x 50/60 Cycles; Bridge Rectifier

S-77 & S-78 Tapped For Dual Secondary Voltages

UTC Type	DCV	DCA	Case No. See Page 11	Net Each
S-75	5.2/14	1.2/.4	G-1	**6.00**
S-76	10/26	4/1.4	G-4	**9.00**
S-77	14/56	3/1	G-5	**10.20**
S-78	28/110	9/3	G-10	**30.00**

TRANSISTOR/FILAMENT SUPPLY TRANSFORMERS

Primary 115 volts 50/60 cycles

Type No.	Sec. V RMS	Sec. A RMS	In Parallel Choke in DCV	In Parallel Choke in DCA	In Parallel C in DCV	In Parallel C in DCA	In Series Choke in DCV	In Series Choke in DCA	In Series C in DCV	In Series C in DCA	Case No. See Pg. 9	Net Each
CG-30	17/21.5 17/21.5	1.5 1.5	14/17.5	3	18.5/25	2	28/35	1.5	43/56	1	**RC-112**	**$18.90**
CG-31	34/43 34/43	4.5 4.5	28/35	9	43/56	6	56/70	4.5	85/110	3	**RC-175**	**42.00**
CG-32	6.3VCT	1.2									**RC-62**	**10.50**

FILAMENT/TRANSISTOR SUPPLY TRANSFORMERS

Primary 105, 115, 210, 220, 230 volts, 50/60 cycles, except CG-34 , . . 105, 115, 220, 230. These transformers may be used on 25 to 43 cycles if 220 volt primary is used on 110 volts. Secondary voltage is simultaneously reduced to half.

Type No.	Sec. Volts C.T.	Sec. Amp.	Working Voltage	Sec. Test Volts RMS	Case No. See Page 9	Net Each
CG-33	6.3	4	500	2000	RC-75	**$ 9.00**
CG-34	2.5	10	2500	6000	RC-112	**10.20**
CG-35	6.3	6	500	2000	RC-87	**9.60**
CG-36	6.3/6.3	5/5	500	2000	RC-100	**13.50**
CG-120	2.5	10	5000	11000	RC-125	**15.00**
CG-121	5	25	5000	11000	RC-150	**18.00**
CG-122	7.5/6.3	10	1500	4000	RC-125	**15.00**
CG-124	10	10	1500	4000	RC-150	**15.00**
CG-125	14/12/11	10	1500	4000	RC-150	**18.00**
CG-126	14/11/10 14/11/10	10	1500	4000	RC-152	**24.00**

RC CASE
See Pg. 9

MILITARY STANDARD TRANSFORMERS AND INDUCTORS

Hermetically Sealed To MIL-T-27B Specifications

Made and guaranteed to meet MIL-T-27B by full environmental testing.

FILAMENT, POWER, PLATE TRANSFORMERS

Primary 105/115/125 v., 54/66 cycles. Current ratings are for high voltage secondary DC, choke input filter. For condenser input, reduce by 70%. All units are MIL grade 4, ruggedized; equally usable where grade 1 is specified. Electrostatically shielded.

UTC Type	MS No.	MIL Type TF4RX-	Secondary Rating	MIL Case	Net Each
N-583A	90016-2	01EB002	2.5 v.-3 a.; 1000 WV	EB	**$10.20**
N-584A	90017-2	01GB003	2.5 v.-10 a.; 1000 WV	GB	**14.10**
N-585A	90018-2	01FB004	5 v.-3 a.; 1000 WV	FB	**11.10**
N-586A	90019-2	01HB005	5 v.-10 a.; 1000 WV	HB	**15.30**
N-587A	90020-2	01FB006	6.3 v.-2 a.; 1000 WV	FB	**11.10**
N-588A	90021-2	01GB007	6.3 v.-5 a.; 1000 WV	GB	**12.90**
N-589A	90022-2	01JB008	6.3 v.-10 a.; 1000 WV	JB	**17.70**
N-590A	90023-2	01KB009	6.3 v.-20 a.; 1000 WV	KB	**22.50**
N-591A	90024-2	01JB012	2.5 v.-10 a.; 6300 WV	JB	**18.00**
N-592A	90025-2	01KB013	5 v.-10 a.; 6300 WV	KB	**21.00**
N-593A	90026-2	03HA001	200-100-0-100-200, 70 ma; 6.3/5 v.-2 a.; 6.3 v.-3 a.	HA	**20.70**
N-594A	90027-2	03JB002	325-0-325, 70 ma; 6.3/5 v.-2 a.; 6.3 v.-4 a.	JB	**22.35**
N-595A	90028-2	03KB006	325-0-325, 150 ma; 5 v.-3 a.; 6.3 v.-5 a.	KB	**25.35**
N-596A	90029-2	03LB003	400-0-400, 175 ma; 5 v.-3 a.; 6.3 v.-8 a.	LB	**27.30**
N-597A	90030-2	03MB004	450-0-450, 250 ma; 5 v.-3 a.; 6.3 v.-8 a.	MB	**33.90**
N-598A	90031-2	02KB001	350-0-350, 250 ma	KB	**19.80**
N-599A	90032-2	02LB002	550-0-550, 250 ma	LB	**26.85**
N-600A	90036-2	02NB003	800-0-800, 250 ma	NB	**37.50**

AUDIO TRANSFORMERS

Frequency response 300-10,000 cps, ±2 db. Split 600-ohm units provides for 600 ohms CT and 1500 ohms. Electrostatic shielding provided on W-784, W-785 and W-786. No. W-783 has center-tapped secondary for 90K CT or 22.5K CT. All units in AJ case. Wt., 0.6 lb.

UTC Type	MS No.	MIL Type TF1RX-	#	Pri. Ohms	Pri. DC Ma., Unbal.	Sec. Ohms	Net Each
W-783	90000	15AJ001	a	10K CT	10	90K spl.	**$15.90**
W-784	90001	16AJ002	b	600 spl.	......	4/8/16	**14.70**
W-785	90002	10AJ001	c	600 spl.	......	135K CT	**14.10**
W-786	90003	16AJ001	d	600 spl.	......	600 spl.	**14.10**
W-787	90004	13AJ001	e	7.6K/4.8K	40	600 spl.	**12.75**
W-788	90005	13AJ002	f	7.6K/4.8K	40	4/8/16	**12.90**
W-789	90006	13AJ003	g‡	15K CT	10	600 spl.	**12.45**
W-790	90007	13AJ004	g+	24K CT	20†	600 spl.	**12.90**
W-791	90008	13AJ005	g#	60K CT	20+	600 spl.	**12.45**

#Use: a—PP plates to pp grids, 15 dbm level. b—Line to VC, 2 watts. c—Line to pp grids, 15 dbm. d—Line to line, 15 dbm. e—Plate to line, 2 watts. f—Plate to VC, 2 watts. g—PP plates to line. †Balanced. ‡2 watts. +1 watt. #0.5 watt.

INDUCTORS

Two windings for series or parallel connection. Inductance shown for series connection. All but Z-847 are standard MIL case types. Rated 3500 WVDC, unless otherwise noted.

UTC Type	MS No.	MIL Type	Induct. Hy.	Ma DC	DCR Ohms	MIL Case	Net Each
Z-848•	90009-1	04FA001■	16	80	645	FA	**$11.40**
Z-849•	90010-1	04GA002■	25	80	670	GA	**14.10**
Z-850•	90011-1	04HA003■	40	80	1020	HA	**21.30**
Z-851†	90013-1	04HA005■	16	125	330	HA	**16.50**
Z-852†	90014-1	04JB006■	25	125	460	JB	**24.30**
Z-853	90037-1	04KA007■	40	125	535	KA	**29.40**
Z-854	75000-2	04LA009•	16	200	180	LA	**31.50**
Z-855	75001-2	04MA010•	25	200	210	MA	**36.90**
Z-856	75002-2	04NA012•	16	315	105	NA	**43.20**
Z-857	75003-2	04YY013•	25	315	150	YY	**75.00**

•1000 WVDC. †2000 WVDC. ■TFIRX-. •TF4RX.

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HERMETIC COMPONENTS *Hermetically sealed to MIL-T-27B*

HERMETIC AUDIO UNITS

RC-25

RC-50

FH

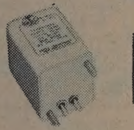
SM

These extremely compact units are proved to specifications of MIL-T-27B. **Response & level ratings:** RC-25: Similar to Ouncers for case (1 13/32" x 61/64" x 1 7/16" h. 1.5 oz.). RC-50: Similar to ultra compact units for case (1 5/8" x 1 5/8" x 2 5/16" h. 8 oz.). SM: Similar to SSO units for case (1 1/16" x 1 1/2" x 29/32" h. 0.8 oz.). FH: 27/32" x 23/32" x 9/16", h. .8 oz.

UTC Type	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	#	Net Each
H-1	Line to grid	50, 200 CT, 500 CT	50K	a	$9.00
H-2	Mike to grid	82, 50 ma	135K	a	9.90
H-3	Pl. to grid	15K	60K	a	7.80
H-4	Pl. to grid	15K, 4 ma	60K	a	7.80
H-5	Pl. to p-p	15K	95K CT	a	8.40
H-6	Pl. to p-p	15K, 4 ma	95K split	a	10.20
H-7	Pl. to line	20K CT, 4 ma	150/600	a	9.60
H-8	Mixing	150/600	600 CT	a	9.00
H-9	Input	150/600	1 meg.	a	9.00
H-10	Pl. to grid	10K	1 meg.	a	8.40
H-11	Reactor: 300 hys, 50 hys @ 3 ma, 600 ohms			a	7.50
H-12	Line to p-p	50, 200 CT, 500 CT	50K CT	a	9.60
H-13	Interstage	10K/2.5K split	2K/.5K split	a	9.00
H-14	Interstage	10K/2.5K split	4K/1K split	a	9.00
H-15	Tr. to line	1.5K CT	500/125 split	a	9.00
H-16	Tr. to V.C.	2K/4K CT	8/16	a	9.00
H-17	Tr. Input	600/150 split	2K/500 split	a	8.70
H-18	Tr. Interstage	10K CT	500/125 split	a	8.70
H-19A	Input*	250 CT/500 CT	50K/100 CT	b	16.50
H-20	Interstage	15K split	80K split	b	15.00
H-21	Pl. to p-p	15K, 8 ma	80K split	b	18.00
H-219	Tr. Interstage	50K CT	500/125 split	a	9.00
H-22	Pl. to line	15K, 8 ma	50/200, 125/500	b	15.90
H-220	Tr. Interstage	500/125 split	500/125 split	a	8.70
H-221	Tr. Interstage	500/125 split	150/37.5 split	a	8.70
H-222	Split Inductor:	Series: 60 Mhy-80 ma, 4 ohms Parallel: 15 Mhy-160 ma, 1 ohm		a	6.00
H-224	Split Inductor:	Series: 1 Hy-20 ma, 60 ohms Parallel: .25 Hy-40 ma, 15 ohms		a	6.00
H-225	Tr. Interstage	100/25 split	40/10 split	a	8.70
H-23	P-p to line	30K split	50/200, 125/500	b	16.20
H-24	Inductor: 250 hys. @ 5 ma†, 65 hys. @ 10 ma‡			b	10.80
H-25	Mixing	500 CT	125/500	b	15.00
H-26	Interstage	10K/2.5K split	2K/500 split	b	15.00
H-27	Tr. to V.C.	500 CT	16/4 split	b	15.00
H-280	Interstage	200 CT	400 split	b	12.00
H-281	Tr. to V.C.§	48 CT	16, 8, 4	b	12.00
H-282	Tr. to V.C.††	20 CT	16, 8, 4	c	12.60
H-283	Mixing/ Matching	50, 125/150 200/250, 333 500/600	50, 125/150, 200/250, 333 500/600	b	17.40
H-284	Split Inductor:	Series: 4 Hys-50 ma, 100 ohms Parallel: 1 Hy-100 ma, 25 ohms		b	7.20
H-286	Split Inductor:	Series: 40 Hys-15 ma, 1000 ohms Parallel: 10 Hys-30 ma, 250 ohms		b	7.50
H-290	Shld. chopper	2500 e. s.	100K	b	19.80
H-291	Max. shld. chop.	2000/500 e. s.	312K	c	28.80
H-295	Shld. chopper	10K/2.5K e. s.	50K	f	18.00
H-30	Input	50	62,500	d	8.40
H-31	Pl. to grid	10K	90K	d	8.40
H-32	Pl. to line	10K, 3 ma	200	d	8.40
H-33	Output	30K, 1 ma	50	d	8.40
H-35	Inductor: 100 hys., 50 hys. @ 1 ma, 4400 ohms			d	6.90
H-36	Interstage	25K, 0.5 ma	1K	d	7.50
H-37A	Tr. output	500 CT	50	d	7.50
H-38	Interstage	10K CT, 2 ma	1.2K CT	d	7.50
H-39	Interstage	10K CT, 2 ma	2K CT	d	7.50
H-40A	Tr. output	500 CT	600 CT	d	7.50
H-41A	Tr. output	1500 CT	600 CT	d	7.50
H-42A	Isol./Tr. Inter.	10K CT	10K CT	d	8.40
FHA-15	Tr. Interstage	10K CT/2.5K split	200 CT/50 split	e	8.10
FHA-25	Tr. Interstage	20K CT/5K split	800 CT/200 split	e	8.10
FHI-3	Split Inductor:	Series: 60 Mhys-32 ma, 6 ohms Parallel: 15 Mhys-64 ma, 1.5 ohms		e	6.00
FHI-7	Split Inductor:	Series: 1 Hy-8 ma, 100 ohms Parallel: .25 Hy-16 ma, 25 ohms		e	6.00
FHI-11	Split Inductor:	Series: 2.4 Hys-2 ma, 160 ohms Parallel: .6 Hys-4 ma, 40 ohms		e	6.00

*Has 75 db shielding. †6000 ohms. ‡1500 ohms. §5 watts. ††10 watts. #Case: a—RC25. b—RC-50. c—RC-62. d—SM. e—FH. f—RC-37. (See above & pg. 9)

HERMETIC SEALED FILTER INDUCTORS TUBE and TRANSISTOR TYPE


METAL CASED TF4 TYPE
H-70 thru H-79, H-164 thru H-173

UTC H-105
TF5SX04ZZ
MOLDED MIL TYPE TF5SX04ZZ
H-105 thru H-109 & H-300

The multiple ratings for the "H" series of filter chokes suit these units for the complete gamut of military and industrial applications. Transistor supply units are swinging type to enhance regulation. H-79 terminals opposite mounting.

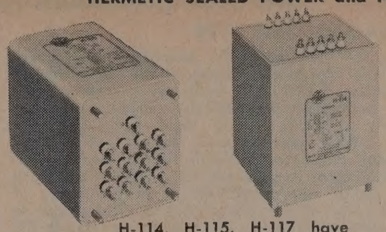
*Relates to ripple voltage, in input filter circuits only.

Type No.	Ind. Hys.	@	MA DC	Res. Ohms	Max. DCV* Ch. Input	Test V. RMS	MIL Case	Net Each
H-70	20		20	925	350	1000	AH	$ 7.20
H-71	20		40	350	500	2500	FB	8.40
H-72	13		70	215	500	2500	GB	9.00
H-73	11		100	150	700	2500	HB	11.40
H-74	11		150	135	700	2500	JB	12.90
H-75	11		200	90	700	2500	KB	17.40
H-76	11		200	85	1500	4500	LB	24.00
H-77	10		300	60	2000	5500	MB	27.00
H-78	7		400	48	2500	7000	OA	34.50
H-79	7		800	20	3000	9000	7x7x8	90.00
H-164 †	45‡		35	1.2		500	AG	6.60
(2 wdgs.) *	11.25‡		70	.295				
H-166 †	125‡		50	1.2		500	AH	7.50
(2 wdgs.) *	31‡		100	.3				
H-168 T	68‡		100	.8		750	AJ	8.40
(2 wdgs.)*	17‡		200	.2				
H170 †	.18		125	.6		1000	GB	10.20
(2 wdgs.) *	.045		250	.15				
H-171 †	9‡		.75A	.03		1000	JA	15.00
(2 wdgs.) *	2.25‡		1.5A	.0075				
H-172 †	70‡		.25A	.22		1000	HA	12.60
(2 wdgs.) *	17.5‡		.5A	.055				
H-173 †	90‡		.5A	.15		1000	KA	21.00
(2 wdgs.) *	22.5‡		1A	.038				

Type No.	Inductance Henries @ DC MA	DCR Ohms	Test Volts	L	W	H	Wgt. Lbs.	Net Each
H-105	2.5 @ 25 MA	225	1000	1 1/4	15/16	15/16	.1	$ 5.70
H-106	2.25 @ 60 MA	110	1000	1 3/8	1 5/16	1 3/8	.28	6.00
H-107	2 @ 120 MA	55	2500	2 1/8	1 3/4	1 55/64	.9	7.50
H-108	2 @ 220 MA	35	2500	2 7/8	2 1/2	2 17/32	1.7	9.60
H-109†	.2 @ 150 MA	.6	750	2 7/8	2 1/2	2 17/32	1.7	10.80
(2 wdgs.)*	.06 @ 250 MA	.15						
H-300 †	1 @ 5 MA	40	500	1	3/4	23/32	0.5	6.30
(2 wdgs.)*	.25 @ 10 MA	10						

†Split winding in series *Split winding in parallel
‡Rated in millihenries

HERMETIC SEALED POWER and PLATE TRANSFORMERS


H-114, H-115, H-117 have terminals opposite mounting.

Power transformers: primary 115V, 60 cycles suited to 50*-1000 cycles service. Plate transformers: primary 105/115/210/220 volts, 50/60 cycles. "L" ratings are choke input . . . "C" ratings are condenser input. H-80 thru H-197 MIL type TF4RX03, H-110 thru H-117 MIL type TF4RX02.

The tapped high voltage winding provides either of two secondary voltages for greatest versatility. The power transformer listings indicate DC voltages and permissible currents for both choke and condenser input filters, as well as for military and industrial applications.

"W" suffix units designed for full wave center tap and full wave bridge application. Center tap of secondary may be disconnected from ground.

MIL-T-27B Ratings in Regular Type, **Industrial Ratings in Bold Type**

Type No.	HV Sec. C. T.	Approx. DC Volts	DC MA	Fil. Wdg.	**Approx. DC Volts**	**DC MA**	**Fil. Wdg.**	MIL Case	Net Each
H-80	450	C 240	30	6.3VCT-2A	**C 215**	**38**	**6.3VCT-2.5A**	FA	$12.90
H-81	500	L 170	95		**L 160**	**110**		HA	18.00
		C 270	55	6.3VCT-3A	**C 245**	**75**	**6.3VCT-3A**		
	550	L 200	85	5V-2A	**L 180**	**105**	**5V-2A**		
		C 310	50		**C 280**	**65**			
H-82	550	L 180	145		**L 160**	**190**		JB	20.40
		C 290	90	6.3VCT-4A	**C 270**	**115**	**6.3VCT-4.5A**		
	600	L 215	135	5V-2A	**L 190**	**180**	**5V-2A**		
		C 330	85		**C 315**	**100**			
H-83	600	L 215	165		**L 200**	**210**		JA	21.00
		C 315	100	6.3V-5A	**C 320**	**120**	**6.3V-6A**		
	670	L 250	150	5V-2A	**L 230**	**200**	**5V-2A**		
		C 400	90		**C 380**	**110**			
H-84	700	L 245	225		**L 240**	**255**		KA	26.40
		C 390	135	6.3V-5A	**C 375**	**160**	**6.3V-6A**		
	750	L 275	205	6.3V-1A	**L 270**	**230**	**6.3V-1.5A**		
		C 430	125	5V-3A	**C 410**	**150**	**5V-4A**		
H-85	700	L 245	300		**L 230**	**370**		LA	30.00
		C 390	190	6.3V-6A	**C 355**	**230**	**6.3V-6A**		
	750	L 270	280	6.3V-1.5A	**L 250**	**350**	**6.3V-2A**		
		C 425	170	5V-3A	**C 395**	**210**	**5V-4A**		
H-86	720	L 270	310		**L 250**	**360**		MB	30.90
		C 425	180	6.3V-6A	**C 395**	**225**	**6.3V-7.5A**		
	790	L 295	300	6.3V-2A	**L 280**	**350**	**6.3V-2A**		
		C 475	160	5V-3A	**C 440**	**210**	**5V-4A**		
H-87	730	L 245	420		**L 230**	**515**		NB	36.00
		C 390	275	6.3V-6A	**C 390**	**300**	**6.3V-6A**		
	800	L 275	400	6.3V-2A	**L 275**	**480**	**6.3V-2A**		
		C 440	250	5V-4A	**C 430**	**290**	**5V-6A**		
H-89	850	L 305	430		**L 275**	**550**		OA	49.50
		C 460	280	6.3V-8A	**C 445**	**340**	**6.3V-10A**		
	1050	L 400	400	6.3V-4A	**L 370**	**500**	**6.3V-5A**		
		C 600	260	5V-6A	**C 575**	**320**	**5V-6A**		
H-91	900	L 340	200	6.3V-5A	**L 330**	**220**	**6.3V-6A**	KA	27.00
	1000	L 390	190	6.3V-1A	**L 385**	**195**	**6.3V-1.5A**		
				5V-3A			**5V-4A**		
H-92	900	L 340	265	6.3V-6A	**L 330**	**310**	**6.3V-8A**	MB	33.00
	1050	L 400	240	6.3V-2A	**L 395**	**290**	**6.3V-2A**		
				5V-4A			**5V-4A**		
H-93	1000	L 370	300	6.3V-8A	**L 340**	**390**	**6.3V-10A**	OA	49.50
	1200	L 465	265	6.3V-4A	**L 455**	**350**	**6.3V-5A**		
				5V-6A			**5V-6A**		
H-194**	200	L 170	140	6.3V-3.5A	**L 160**	**155**	**6.3V-4A**	HA	21.00
		C 275	85		**C 260**	**95**			
	235	L 200	125		**L 190**	**135**			
		C 325	75		**C 310**	**85**			
H-195**	215	L 185	285	6.3V-5A	**L 175**	**300**		JA	24.00
		C 300	180		**C 285**	**195**	**6.3V-6A**		
	265	L 230	240		**L 220**	**255**			
		C 375	150		**C 360**	**165**			
H-196**	230	L 200	445	6.3V-5A	**L 190**	**480**		KA	30.00
		C 320	280	6.3V-1.5A	**C 300**	**300**	**6.3V-6A**		
	285	L 250	380		**L 240**	**420**	**6.3V-2A**		
		C 400	235		**C 380**	**260**			
H-197**	260	L 230	500	6.3V-6A	**L 220**	**550**		MB	42.00
		C 360	320	6.3V-2A	**C 340**	**350**	**6.3V-7A**		
	320	L 280	420		**L 270**	**470**	**6.3V-2A**		
		C 450	260		**C 430**	**290**			
H-198	No CT							HA	27.00
Highly	800	1000	5	1.25 V—.2A connected to one					
shielded	1600	2000	5	end of HV winding.					
Scope	2400	3000	5	6.3 V—.6A 5.2 KV RMS test voltage					
transformer									
H-110	1050	L 365	300		**L**	**400**		MB	27.00
	1200	L 430	275		**L**	**385**			
H-110W ‡		L 730	210		**L**	**280**			29.70
		L 860	190		**L**	**265**			
H-111	1050	L 415	500		**L**	**600**		NA	33.00
	1200	L 480	450		**L**	**550**			
H-111W ‡		L 830	350		**L**	**420**			36.00
		L 960	310		**L**	**380**			
H-112	1500	L 615	320		**L**	**385**		NA	36.00
	1900	L 790	275		**L**	**330**			
H-112W ‡		L 1230	220		**L**	**270**			39.60
		L 1580	190		**L**	**230**			
H-113	2500	L 1050	310		**L**	**375**		†	54.00
	3000	L 1275	275		**L**	**330**			
H-114	2500	L 1050	475		**L**	**525**		‡	81.00
	3000	L 1265	425		**L**	**475**			
H-115	3500	L 1500	275		**L**	**375**		‡	81.00
	4400	L 1900	235		**L**	**320**			
H-117	5000	L 2125	950		**L**	**1150**		††	291.00
	6000	L 2550	850		**L**	**1050**			

*For 50 cycles, secondary current ratings reduced by 10%.
**DC ratings for bridge rectifier circuits.
†6x5 1/8x6 3/4, ‡6 3/4x6 1/2x8, ††11x11x14 3/4
‡ New full wave bridge rectifier types

IMMEDIATE DELIVERY ON ALL UTC STOCK ITEMS

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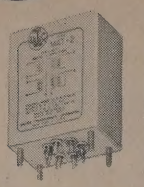
HERMETIC COMPONENTS *Hermetically sealed to MIL-T-27B*

MAT* MAGNETIC AMPLIFIERS FOR SERVO MOTOR APPLICATIONS

VACUUM TUBE TYPE



The MAT 1-4 Magnetic Amplifiers are exceptionally stable units designed for the control of 2 phase, 115V., 400 cycle servo motors. They are compact . . . hermetically sealed . . . magnetically shielded . . . and meet MIL-T-27B and MIL-E-5400 Specifications. The output is sinusoidal, amplitude variable, and phase reversible. Control is provided by a dual triode such as 12AU7 operating with a plate voltage of 115 volts, 400 cycles, or higher. The signal to the triode grids can be polarity reversible DC or phase reversible 400 cycles with or without suppressed carrier modulation. These units eliminate DC power requirements as well as temperature sensitive dry disc rectifiers. The high input impedance provides minimum loading on sensing elements and high power gain. Ringing at low load level has been reduced to a minimum through high internal damping factors. The power output figures are conservative . . . power gain of the *Magnetic Structure* is approximately 40 . . . response time approximately 7.5 milliseconds. The maximum null voltage is 3 volts RMS. For single phase supply voltage the load capacitor should effect 90° phase shift with motor load . . . for 3 phase, 30° phase shift.

Type No.	MAT-1	MAT-2	MAT-3	MAT-4
230 Volt Supply				
Power output	4 W.	8 W.	11 W.	18 W.
RL, ohms	3300	1600	1200	720
CL, mfd., approx.	.2	.3	.5	.7
115 Volt Supply				
Power output	2 W.	4 W.	6 W.	9 W.
RL, ohms	6500	3300	2200	1450
CL, mfd.	.13	.2	.3	.45
Reson. Freq.	40 cyc.	35 cyc.	35 cyc.	20 cyc.
Log-Decr.	.18	.23	.03	.65
Cont. Wdg. Res.	6200 ohms	8450 ohms	4750 ohms	5650 ohms
Case, Length, in.	1 1/4	1 1/2	1 3/4	2 1/8
Width, In.	1 15/16	2 1/8	2 1/2	3 1/8
Height, In.	2 5/16	2 3/4	2 15/16	3 3/8
Mtg. Dim., In.	13/16 x 1 1/2	1 x 1 5/8	1 1/8 x 1 7/8	1 1/2 x 2 1/2
Studs, stainless	4-40	6-32	8-32	8-32
Cutout, in.	1	1	1	1
Unit Weight, lbs.	.67	1.1	1.7	2.75
Net Each	**$27.00**	**$30.00**	**$36.00**	**$39.00**

MAT-5 115V.-400 cyc. to 460 VCT; provides 230V. 48 MA DC or 460V. 24 MA DC. RC-37 Case (UTC pg. 9). MIL type TF4SY02YY. **Net Each $10.80**

MAT-6 Input . . . 10,000 ohms pri. . . . 1:15 C.T. ratio . . . phase shift under 1°. . . . RC-25 case (UTC pg. 5). MIL- type TF4RX10YY. **Net Each $9.00**

TRANSISTOR TYPE

UTC transistor MAT units are identical to their vacuum tube counterparts, but designed for low impedance control. The input transformer may be chosen by impedance ratio rather than precise rated impedance.

Type No.	MAT-7	MAT-8	MAT-9	MAT-10	MAT-60
Power output	4 W.	8 W.	11 W.	18 W.	50 W.
RL, ohms	3300	1600	1200	720	260
CL, mfd approx.	.2	.3	.5	.7	.7
Cont. Wind. Res.	38Ω	52Ω	30Ω	36Ω	50
Case Length, In.	2 5/16	2 1/2	2 3/4	2 29/32	MIL MB
Width, In.	1 13/16	2 1/4	2 1/2	2 29/32	
Height, In.	1 17/32	1 11/16	2	2 1/4	
Mtg. Dim., In.	1 3/8 x 1 7/8	1 13/16 x 2	1 15/16 x 2 3/16	2 3/8 x 2 3/8	60
Studs, stainless	4-40	6-32	8-32	8-32	cycle
Cutout, In.	1	1	1	1	type
Weights, lbs.	.65	1.1	1.7	2.75	
Net Each	**$25.80**	**$28.80**	**$34.50**	**$37.50**	**$54.00**

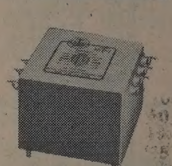
MAT-11 115V.-400 cyc. to two 28 Volt .2A windings for 56 VCT-.2A or 28 V- .4 A. RC-37 (UTC pg. 9) case. MIL type. TF4SY02YY. **Net Each $10.05**

MAT-65 115V. 60 cyc. to 8.5 VCT @ 500 ma & 63 VCT @ 300 ma. FA case. MIL Type TF4SX02FA. **Net Each 12.60**

ULTRASHIELDED POWER-LINE ISOLATION TRANSFORMERS

Simllates battery operation for critical circuits requiring extreme isolation from power line.

Designed to give the ultimate in isolation, for line-powered equipment, which formerly could only be obtained from battery power. The effective capacity coupling between primary and secondary windings is less than 0.1 MMFD. For this purpose shields are individually terminated to allow maximum flexibility. Input and output terminals are brought out on opposite sides of a special housing in order to maintain the excellent isolation between line and load.



HIT*

MIL-T-27B Ratings in Regular Type
Industrial Ratings in Bold Type
Primary 115 V 50/60 Cycles

Secondary 115 V

Type No.	Power Watts	**Power Watts**	Case Size	**Net Each**
HIT-1	50	**60**	4 1/32x4 1/32x3 1/32"	**$33.00**
HIT-15	120	**150**	5 11/32x5x3 1/2"	**39.00**
HIT-2	160	**200**	5 17/32x5 17/32x4 17/32"	**48.00**
HIT-3	400	**480**	8x6 17/32x5 17/32"	**69.00**
HIT-450†	80	**100**	4 1/32x4 1/32x3 1/32"	**33.00**

†Primary, 115v. 400 cps. Secondary, 115 volts.

PRECISION MINIATURE WIDE APPLICATION PULSE TRANSFORMERS

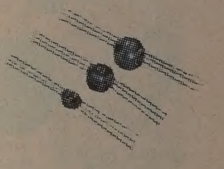
UTC miniature, wound core, pulse transformers are individually precision adjusted in standard test circuits to close tolerances. They are high reliability units, hermetically sealed by vacuum molding and suited for service from −70° C. to +130° C. Wound core structure provides excellent temperature stability (unlike ferrite). Designs are high inductance type to provide minimum of droop and assure true pulse width. H-45 thru H-57 ratio 1:1:1. H-60 thru H-69 ratio 4:4:1. Others ratio 5:3:1.

See PIP pulse units on UTC page 1

ALL UNITS INDIVIDUALLY ADJUSTED TO PARAMETERS SHOWN IN TABLES

TRANSISTOR PULSE TRANSFORMERS

Type No.	APPROX. DCR, OHMS 1-2	3-4	5-6	BLOCKING OSCILLATOR PULSE Width µ Sec.	Rise Time	% Over Shoot	Droop %	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width µ Sec.	Volts Out	Rise Time	% Over Shoot	Droop %	% Back Swing	Imp. in, out, ohms	Net Each
H-60	.124	.14	.05	.05	.016	0	0	30	.05	9.3	.012	0	0	20	50	$ 6.60
H-61	.41	.48	.19	.1	.016	0	0	30	.1	8.2	.021	0	0	15	50	6.60
H-62	.78	.94	.33	.2	.022	0	0	18	.2	7.4	.034	0	5	12	100	6.60
H-63	1.86	2.26	.70	.5	.027	2	10	20	.5	7.5	.045	0	20	25	100	6.60
H-64	3.73	4.4	1.33	1	.033	0	12	25	1	7	.078	0	15	23	100	6.60
H-65	6.2	7.3	2.22	2	.066	0	15	25	2	6.6	.14	0	10	20	100	7.50
H-66	10.2	12	3.6	3	.087	0	18	30	3	6.8	.17	0	10	20	100	7.50
H-67	14.5	17.5	5.14	5	.097	0	23	28	5	7.9	.2	0	18	28	200	7.50
H-68	42.3	52.1	14.8	10	.14	0	15	28	10	6.5	.4	0	15	30	200	7.50
H-611	.426	.32	.132	.1	.018	8	0	12	.1	8.2	.02	0	0	30	140/50	6.60
H-641	5	3.6	1.4	1	.04	0	10	10	1	7	.07	0	20	30	280/100	6.60
H-671	21	16	6	5	.08	0	14	12	5	8	.2	0	25	30	560/200	7.50
H-69	Transistor pulse tranformer kit, consists of H-60 thru H-68 in plastic case.															60.00



Size & weight of H-60 thru H-68 same as H-45.

VACUUM TUBE PULSE TRANSFORMERS

Type No.	APPROX. DCR, OHMS 1-2	3-4	5-6	BLOCKING OSCILLATOR PULSE Width µ Sec.	Rise Time	% Over Shoot	Droop %	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width µ Sec.	Volts Out	Rise Time	% Over Shoot	Droop %	% Back Swing	Imp. in, out, ohms	DIMENSIONS L In.	W In.	Wt. Grams	Net Each
H-45	3	3.5	4	.05	.022	0	20	10	.05	17	.01	20	0	35	250	3/8	3/8	1	$ 6.75
H-46	5.5	6.5	7	.10	.024	0	25	10	.10	19	.01	30	10	50	250	3/8	3/8	1	6.75
H-47	3.7	4.0	4	.20	.026	0	25	8	.20	18	.01	30	15	65	500	9/16	9/16	4	6.00
H-48	5.5	5.8	6	.50	.03	0	20	5	.50	20	.01	30	20	65	500	9/16	9/16	4	6.00
H-49	8	8.5	9	1	.04	0	20	10	1	24	.02	15	15	65	500	9/16	9/16	4	6.00
H-50	20	21	22	2	.05	0	20	10	2	27	.05	10	15	35	500	9/16	9/16	4	6.00
H-51	28	31	33	3	.10	1	20	8	3	26	.07	10	10	35	500	9/16	9/16	4	6.00
H-52	36	41	44	5	.13	1	25	8	5	23	.15	10	10	45	1000	9/16	9/16	4	6.00
H-53	37	44	49	7	.28	0	25	8	7	24	.20	10	10	50	1000	5/8	5/8	6	6.00
H-54	50	58	67	10	.30	0	20	8	10	24	.25	10	10	50	1000	5/8	5/8	6	6.30
H-55	78	96	112	16	.75	0	20	10	16	23	.40	5	15	20	1000	5/8	5/8	6	6.30
H-56	93	116	138	20	1.25	0	25	10	20	23	.6	5	10	10	1000	5/8	5/8	6	6.30
H-57	104	135	165	25	2.0	0	30	10	25	24	1.5	5	10	10	1000	5/8	5/8	6	6.30
H-461	9.6	6.4	2.5	.1	.025	0	0	8	.1	19	.02	3	5	20	700/250	3/8	3/8	1	6.75
H-501	30	20	7	2	.08	0	12	5	2	27	.06	12	15	35	1400/500	9/16	9/16	4	6.00
H-531	66	47	17	7	.32	0	12	3	7	24	.23	12	10	40	2800/1000	5/8	5/8	6	6.00
H-561	180	142	53	20	1.75	0	13	5	20	23	.7	5	10	10	2800/1000	5/8	5/8	6	6.30
H-58	Pulse transformer kit. Consisting of H-45 thru H-57 in a partitioned plastic case.																		75.00

UTC PAGE 5. *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1963 United Transformer Corp., New York, N. Y.

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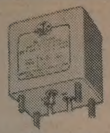
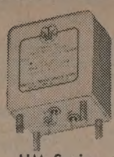
ELECTRIC WAVE FILTERS *Hermetically sealed to MIL-T-27B*


BM & LM
Series


HM Series

INTERSTAGE AND LINE FILTERS

Available in stock frequencies listed below (numerical part of type number is cutoff freauency in cps). Compact shielded cases hermetically sealed to MIL-T-27B specs. BMI, LMI, BML cases: 1 3/16'' x 1 11/16'' x 1⅝'' h.; wt., 6 oz. HMI, HML, LML cases: 1 3/16'' x 1 11/16'' x 2½'' h.; wt., 9 oz. The BMI filters are band pass interstage units designed to operate between a vacuum tube plate (or 10,000 ohms) and a grid. They provide a gain of 2 at center frequency. BTI units are same as BMI, but 10,000 ohms output.

BML band pass filters, similarly, work into a grid, but have an input impedance of 500/600 ohms. They provide a gain of 9.

HMI filters are high pass interstage units.

LMI filters are low pass interstage units.

HML filter are high pass with input and output impedance of 500/600 ohms.

LML filters are low pass filters with input and output impedance of 500/600 ohms.

LLP low frequency low pass filter, loss of less than 40 db at 20 cycles. Source & load 100K ohms.

UTC Type	Net Ea.	UTC Type	Net Ea.	UTC Type	Net Ea.
BMI-30	$36.00	LMI-200	$31.50	HMI-800	$31.50
BMI-50	30.00	LMI-400	31.50	HMI-1000	31.50
BMI-60	30.00	LMI-500	31.50	HMI-2000	31.50
BMI-90	30.00	LMI-800	31.50	HMI-3000	31.50
BMI-100	30.00	LMI-1000	31.50	BML-400	30.00
BMI-120	30.00	LMI-1500	31.50	BML-1000	30.00
BMI-150	30.00	LMI-2000	31.50	HML-200	39.00
BMI-200	30.00	LMI-2500	31.50	HML-300	39.00
BMI-240	30.00	LMI-3000	31.50	HML-500	39.00
BMI-400	30.00	LMI-4000	31.50	HML-1000	39.00
BMI-500	30.00	LMI-5000	31.50	LML-1000	31.50
BMI-750	30.00	LMI-10000	31.50	LML-1500	31.50
BMI-800	30.00	BTI-60	36.00	LML-2000	31.50
BMI-1000	30.00	BTI-100	36.00	LML-2500	31.50
BMI-1500	30.00	BTI-120	36.00	LML-3000	31.50
BMI-2000	30.00	HMI-50	31.50	LML-4000	31.50
BMI-3000	30.00	HMI-100	31.50	LML-8000	31.50
BMI-4000	30.00	HMI-200	31.50	LML-10000	31.50
BMI-5000	30.00	HMI-300	31.50	LML-12000	31.50
BMI-10000	30.00	HMI-400	31.50	LLP-10	60.00
LMI-100	31.50	HMI-500	31.50		

NEW 400-CYCLE 115 V. LINE FILTERS

Intended for use on 115 v., 400 cps line to eliminate harmonic distortion.

UTC No. PLF-25 — Gives 150 v. output into 500 ohm load with ±1 db, 375-425 cps. Will attenuate 800 cycles by 30 db; 1200 cycles and higher by at least 50 db. MIL type, FR4RX11NB. Meets MIL-F-18327B. Size 4 5/16'' w. x 5 1/16'' d. x 5½'' h. Weight, 10 lbs. Net Each $66.00

UTC No. PLP-13 — Eliminates harmonic distortion, rejects 60 and 120 cycles, and gives zero phase shift at 400 cycles. Operating into 1000 ohm load, provides 115 v. output at 400 cycles, within ±1 db, 375-425 cycles. Attenuates 800 cycles by 15 db; 1200 cps by 45 db; above 1200 cps by at least 35 db; 120 cps by 20 db; and, 60 cps by 30 db. MIL type FR4RX22-LB; meets MIL-F-18327B specifications. Size, 3 11/16'' w. x 4 5/16'' d. x 4½'' h. Weight, 6½ lbs. Net Each $66.00

TELEGRAPH TONE CHANNEL FILTERS

TGT CASE
1½ x 1½ x 2½
Mtg 1 1/16 x 1 1/16''
Screws 6-32
Weight ......8 oz.

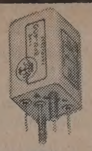
TGR CASE
1½ x 1½ x 4¼
Mtg 1 1/16 x 1 1/16''
Screws 6-32
Weight ....15 oz.

UTC band pass filters for mutiplex transmitting and receiving provide maximum stability in miniature sizes. Stock filters cover all standard transmit and receive bands. All units employ 7 terminal header matching subminiature 7 pin socket.

TGR (receiving) & TGT (transmitting) filters are 600 ohms in and out. They are down less than 3 db at ± 42.5 cycles from center frequency. TGR units are down more than 30 db at ± 170 cycles. Attenuation is greater than 15 db at adjacent channel crossover. TGT units are down more than 16 db at ± 170 cycles. Attenuation is greater than 7.5 db at adjacent channel crossover. *All units are MIL type FR4RX-22YY.*

UTC Type	Net Each	Center Frequency (Cyc.)	UTC Type	Net Each
TGT-425	$42.00	425	TGR-425	$72.00
TGT-595	42.00	595	TGR-595	72.00
TGT-765	42.00	765	TGR-765	72.00
TGT-935	42.00	935	TGR-935	72.00
TGT-1105	36.00	1105	TGR-1105	63.00
TGT-1275	36.00	1275	TGR-1275	63.00
TGT-1445	36.00	1445	TGR-1445	63.00
TGT-1615	36.00	1615	TGR-1615	63.00
TGT-1785	33.00	1785	TGR-1785	60.00
TGT-1955	33.00	1955	TGR-1955	60.00
TGT-2125	33.00	2125	TGR-2125	60.00
TGT-2295	33.00	2295	TGR-2295	60.00
TGT-2465	30.00	2465	TGR-2465	57.00
TGT-2635	30.00	2635	TGR-2635	57.00
TGT-2805	30.00	2805	TGR-2805	57.00
TGT-2975	30.00	2975	TGR-2975	57.00
TGT-3145	30.00	3145	TGR-3145	57.00
TGT-3315	30.00	3315	TGR-3315	57.00

IMMEDIATE DELIVERY ON ALL ITEMS


BPM

HPM & LPM

MINIFILTERS*

These units provide almost the same characteristics as the standard interstage units listed to the left, although extremely miniaturized. Hermetically sealed to MIL-T-27B specs. B type case: ¾'' x ¾'' x 1⅛'' h.; wt., 1 oz. H and L cases: 1'' x 1'' x 1⅜'' h.; wt., 2¼ oz. Cutoff frequencies in cps indicated by type number.

BPM units (BAND PASS) have 2:1 gain. Attenuation is approximately 2 db ±3% from center frequency, and 35 db per octave as shown. Input 10,000 ohms, output to grid, tapped for 10,000 ohms to provide for transistor circuits. For tube circuits continuity is on grid side, for transistor use continuity is on input side.

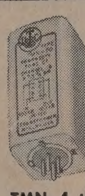
BPH units (BAND PASS) attenuation less than 3 db ±5% from center frequency, and 40 db per octave. Source and load 500 ohms.

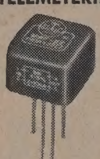
HPM units (HIGH PASS) are down less than 6 db at cutoff frequency, and more than 30 db at .67 cutoff frequency, 40 db at .6 cutoff frequency. Input and output 10,000 ohms.

LPM units (LOW PASS) are down less than 6 db at cutoff frequency, and more than 30 db at 1.5 cutoff frequency, 40 db at 1.65 cutoff frequency. Input and output 10,000 ohms.

UTC Type	Net. Ea.	UTC Type	Net. Ea.	UTC Type	Net. Ea.
BPH-50000	$27.00	BPM-2500	$27.00	HPM-1500	$30.00
BPH-100000	27.00	BPM-3000	27.00	HPM-4000	30.00
BPM-400	27.00	BPM-3200	27.00	LPM-200	30.00
BPM-440	27.00			LPM-300	30.00
BPM-500	27.00			LPM-500	30.00
BPM-600	27.00	BPM-4000	27.00	LPM-1000	30.00
BPM-750	27.00	BPM-4800	27.00	LPM-1500	30.00
BPM-800	27.00	BPM-5000	27.00	LPM-2000	30.00
BPM-1000	27.00	BPM-6400	27.00	LPM-3000	30.00
BPM-1200	27.00	BPM-8000	27.00	LPM-5000	30.00
BPM-1500	27.00	BPM-10000	27.00	LPM-6000	30.00
BPM-1600	27.00	HPM-500	30.00	LPM-10000	30.00
BPM-2000	27.00	HPM-1000	30.00	LPM-15000	30.00

TELEMETERING BAND PASS FILTERS


TMN-.4 thru TMN-1.7
11/16 x 1 9/32 x 2''
Weight 3.5 oz.
TMN-2.3 thru TMW-70
23/32 x 23/32 x 1⅜''
Weight 1.2 oz.


MNF-.4 thru MNF-5.4
1 3/16'' Sq. x ½'' high
Weight 1 oz.
MNF-7.35 thru MWF-70
23/32'' Sq. x ½'' high
Weight ⅓ oz.

Both TMN and TMW types are designed for 100 K input and output impedance and have an insertion loss of less than 6 db. Four pin hermetic header matches small Winchester socket.

TMN filters are down less than 3 db at ± 7.5% of center frequency. They are down more than 18 db at ± 25% of center frequency. Attenuation is greater than 40 db beyond 1.75 Fc and .58 Fc.

TMW filters are down less than 3 db at ± 15% of center frequency. They are down more than 20 db at ± 50% of center frequency. Attenuation is greater than 40 db beyond 2.5 Fc and .4 Fc.

MNF and MWF (Minifilter) provide same performance as filters described above but are extremely miniaturized. Slanted toward use with transistors. Pin terminals ideally suited for printed circuits.

UTC Type	Net Each	Center Frequ'cy KC	Band Width±	UTC Type	Net Each
TMN- .4	$39.00	.4	7½%	MNF- .4	$39.00
TMN- .56	39.00	.56	7½%	MNF- .56	39.00
TMN- .73	39.00	.73	7½%	MNF- .73	39.00
TMN- .96	39.00	.96	7½%	MNF- .96	39.00
TMN-1.3	39.00	1.3	7½%	MNF-1.3	39.00
TMN-1.7	39.00	1.7	7½%	MNF-1.7	39.00
TMN-2.3	39.00	2.3	7½%	MNF-2.3	39.00
TMN-3.0	39.00	3.0	7½%	MNF-3.0	39.00
TMN-3.9	39.00	3.9	7½%	MNF-3.9	39.00
TMN-5.4	39.00	5.4	7½%	MNF-5.4	39.00
TMN-7.35	39.00	7.35	7½%	MNF-7.35	39.00
TMN-10.5	42.00	10.5	7½%	MNF-10.5	42.00
TMN-14.5	42.00	14.5	7½%	MNF-14.5	42.00
TMN-22	42.00	22	7½%	MNF-22	42.00
TMN-30	42.00	30	7½%	MNF-30	42.00
TMN-40	42.00	40	7½%	MNF-40	42.00
TMN-52.5	42.00	52.5	7½%	MNF-52.5	42.00
TMN-70	42.00	70	7½%	MNF-70	42.00
TMW-22	42.00	22	15%	MWF-22	42.00
TMW-30	42.00	30	15%	MWF-30	42.00
TMW-40	42.00	40	15%	MWF-40	42.00
TMW-52.5	42.00	52.5	15%	MWF-52.5	42.00
TMW-70	42.00	70	15%	MWF-70	42.00

HIGH Q PRECISION INDUCTANCE DECADE

Invaluable instruments for design and experimental work with tuned circuits, wave filters, and equalizers. The low hum pickup toroid coils employ a new permalloy dust core which, combined with special winding methods, provides very high Q, excellent voltage and temperature stability, and high self resonance frequency. The inductance values are laboratory adjusted to better than 1% precision, with calibration noted on base.

DI CASE
Length ....4½''
Width ....4⅜''
Height .... 2⅜''
Weight ....2 lbs.

Type No.	Induct. Henries	Optimum Range	Max. Q	Max. ACMA	Ins. Test Volts RMS	Net Each
DI-1	10 x .01	2-60 KC	200	500	500	$42.00
DI-2	10 x .1	.25-20 KC	200	150	500	54.00
DI-3	10 x 1	.25-10 KC	200	50	500	57.00
DI-4	10 x 10	.2-1.5 KC	100	15	500	72.00

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HIGH Q COILS & INDUCTORS

MINIDUCTORS *

All these ultracompact high Q units are grade 5, hermetically sealed to (MIL-T-27B). All give extra temperature stability rated at 1%, −55° C to +100° C.

MM—Ultraminiature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 30 KC. 7/16 dia. x 1/4"; wt. .07 oz.
MH—Ultraminiature epoxy molded toroidal inductors similar to MM except maximum Q at 100 KC. Size & wt. as MM.
ML—Ultraminiature hipermalloy cased inductors with epoxy board and pin terminals for printed circuit application. Maximum Q at 800 cps to 2 KC, depending on inductance. 7/16 x 31/64 x 9/16"; wt. .2 oz.
MO—Miniature epoxy molded inductors with pin terminals for printed circuit application. Maximum Q at 600 cps to 1500 cps depending on inductance. 3/4 x 1 1/16 x 13/16"; wt. 1 oz.
MW—Miniature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 5 to 10 KC. 23/32 dia. x 13/32"; wt. .25 oz.

UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each
ML-0	.15	$ 8.40	MM-6	.03	$ 8.10	MO-2	2	$ 6.60
ML-1	.25	8.40	MM-7	.06	8.40	MO-5	5	6.60
ML-2	.40	8.40	MM-8	.12	8.40	MO-7.5	7.5	6.60
ML-3	.70	8.40	MH-1	.0006	8.10	MO-20	20	6.60
ML-4	1.4	8.40	MH-2	.0015	8.10	MO-50	50	7.20
ML-5	2.5	8.40	MH-3	.0025	8.40	MO-100	100	7.20
ML-6	4.0	8.40	MH-4	.006	8.40	MW-.05	.05	7.20
ML-7	6.0	8.40	MH-5	.01	8.70	MW-.10	.10	7.50
ML-8	10	8.40	MH-6	.015	8.70	MW-.25	.25	7.50
ML-9	25	8.70	MH-7	.025	9.00	MW-.5	.5	7.80
ML-10	60	9.90	MH-8	.04	9.00	MW-.75	.75	8.40
MM-1	.003	7.50	MO-.1	.1	6.30	MW-1	1	8.70
MM-2	.005	7.50	MO-.15	.15	6.30	MW-1.2	1.2	9.30
MM-3	.008	7.80	MI-.3	.3	6.30	MW-2	2	10.80
MM-4	.0125	7.80	MO-.5	.5	6.30	MW-3	3	11.70
MM-5	.02	8.10	MO-1	1	6.30	MW-5	5	13.50

HIGH Q TOROID INDUCTORS

Favorites for over fifteen years, UTC HQ Toroids are only excelled by the preferred new "M" series. As typical Q curves show, HQ coils are available for application from 100 cycles to 100 KC. Adjusted to 1%, the inductance is virtually independent of frequency, temperature, and vibration. Voltage stability is excellent, and shielding case assures 80 db coupling attenuation. Hermetically to MIL-T-27B. All units MIL type TF4RX-20YY.

HQA and HQC CASE
Diamter 1 13/16"
Height 1 3/16"
Mounting 1 1/8"
Screws 6-32
Cutout 9/16 x 1 3/16"
Weight 5 oz.

HBQ CASE
Length 2 5/8"
Width 1 5/8"
Height 2 5/8"
Mounting 1 11/64 x 2 11/64"
Screws 6-32
Cutout 9/16 x 1 1/8"
Weight 14 oz.

HQE CASE
Length 1 1/16"
Widtth 1/2"
Height 1 7/32"
Mounting 3/4"
Screws 4-40
Cutout 5/16 x 1/2"
Weight 1.5 oz.

Type No.	Inductance (O DC))		DC MA Max.	Net Each
HQA-1	5	mhy.	400	$7.50
HQA-2	12.5	mhy.	260	7.80
HQA-3	20	mhy.	200	8.10
HQA-4	30	mhy.	160	8.40
HQA-5	50	mhy.	130	8.70
HQA-6	80	mhy.	100	9.00
HQA-7	125	mhy.	85	9.00
HQA-8	200	mhy.	65	9.60
HQA-9	300	mhy.	50	9.60
HQA-10	.5	hy.	40	9.90
HQA-11	.75	hy.	35	9.90
HQA-12	1.25	hy.	26	10.80
HQA-13	2	hy.	20	11.40
HQA-14	3	hy.	16	12.90
HQA-15	5	hy.	13	13.80
HQA-16	7.5	hy.	10	15.00
HQA-17	10	hy.	9	15.90
HQA-18	15	hy.	8	16.80

Type No.	Inductance (O DC))		DC MA Max.	Net Each
HQB-1	10	mhy.	410	$15.00
HQB-2	30	mhy.	240	15.30
HQB-3	70	mhy.	170	15.90
HQB-4	120	mhy.	120	16.80
HQB-5	.5	hy.	60	17.40
HQB-6	1	hy.	41	18.00
HQB-7	2	hy.	30	18.90
HQB-8	3.5	hy.	22	19.80
HQB-9	7.5	hy.	16	21.00
HQB-10	12	hy.	11	21.90
HQB-11	18	hy.	9	22.80
HQB-12	25	hy.	8	24.00
HQC-1	1	mhy.	1350	15.60
HQC-2	2.5	mhy.	850	16.80
HQC-3	5	mhy.	600	18.00
HQC-4	10	mhy.	420	19.80
HQC-5	20	mhy.	300	24.00
HQE-1	5	mhy.	155	7.80
HQE-2	10	mhy.	110	7.80
HQE-3	50	mhy.	50	8.10
HQE-4	100	mhy.	35	8.40
HQE-5	200	mhy.	25	8.70

HERMETIC "M" TYPE TOROIDS

UTC permalloy dust toroids provide highest Q factor with miniaturized dimensions. Lab adjusted to 1% tolerance and sealed to MIL-T-27B specs. Magnetic case plus toroid provide 80 db shielding.

Type
MQA 40 at 500 cps, 160 at 5 kc, approx, 40 at 20 kc.
SIZE (11/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.)
MQB 40 at 250 cps, 250 at 3 kc, approx. 40 at 20 kc.
SIZE 1 3/16" x 2 9/16" x 2 13/16" h.; wt. 14 oz.
MQD 40 at 5 kc, 185 at 50 kc, approx. 40 at 300 kc.
SIZE 11/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.
MQE 20 at 600 cps, 140 at 10 kc, approx. 40 at 40 kc.
SIZE 1/2" x 1 1/16" x 1 7/32" h.; wt. 1.5 oz.

TQA units are similar to MQA but center tapped for ocillator application, etc. Net each: TQA-1 thru TQA-15, $1.50 more than MQA's; TQA-16, 14.70; TQA-17, 15.90; TQA-18, 17.40; TQA-19, 21.00; TQA-20, 23.40.

UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each
MQA-1	.007	$ 7.50	MQB-1	.010	$12.90	MQD-6	.020	$21.00
MQA-2	.012	7.80	MQB-2	.030	13.20	MQD-7	.030	22.80
MQA-3	.020	8.10	MQB-3	.070	13.50	MQE-0	.004	6.90
MQA-4	.030	8.40	MQB-4	.120	13.80	MQE-1	.007	7.20
MQA-5	.050	8.70	MQB-5	.50	14.10	MQE-2	.012	7.50
MQA-6	.070	9.00	MQB-6	1.0	14.40	MQE-3	.020	7.80
MQA-7	.120	9.30	MQB-7	2.0	14.70	MQE-4	.030	7.80
MQA-8	.20	9.60	MQB-8	3.5	15.00	MQE-5	.050	8.10
MQA-9	.30	9.90	MQB-9	7.5	15.90	MQE-6	.070	8.40
MQA-10	.50	10.20	MQB-10	12	16.80	MQE-7	.100	8.40
MQA-11	.70	10.50	MQB-11	18	18.00	MQE-8	.150	8.70
MQA-12	1.0	10.80	MQB-12	25	19.20	MQE-9	.250	8.70
MQA-13	1.5	11.10	MQB-13	40.0	21.00	MQE-10	.40	9.00
MQA-14	2.5	11.40	MQB-14	60.0	24.00	MQE-11	.60	9.00
MQA-15	4.0	12.00	MQD-0	.001	14.50	MQE-12	.90	9.30
MQA-16	6.0	12.90	MQD-1	.002	15.00	MQE-13	1.5	9.90
MQA-17	10.0	13.80	MQD-2	.003	15.60	MQE-14	2.0	10.80
MQA-18	15.0	15.00	MQD-3	.005	16.20	MQE-15	2.8	12.00
MQA-19	22.0	18.00	MQD-4	.007	16.80	MQE-16	4.0	13.50
MQA-20	35.0	20.70	MQD-5	.012	18.00			

VARIDUCTORS

HVC & HVV

VIC

These variable inductors are ideal for use in tuned circuits, equalizers, oscillators, etc. TYPE HVC:—Gives highest Q and stability; adjustable −70% to +200% of mean value. Hermetically sealed to MIL-T-27B.

HVV Types: For precise matching; vernier inductance variation ±10% of nominal value. Offer high Q over a wide frequency range and high temperature stability.

VIC:—Adjustable −45% to +85% of mean value.

Size: HVC, TVC and HVV types, 1 1/8" lg. x 25/32" w. x 1 7/32" h.; weight 2 oz. VIC type, 1 11/32" lg. x 1 1/4" w. x 1 7/16" h.; weight 5 1/2 oz. HVC, TVC, U.S. Pat. No. 2,879,489; HVV, Pat. Pend.

TVC type inductors are identical to HVC units, but provide taps at 30% and 50% of total turns — ideal for oscillator circuits, etc.
HVC & TVC, U. S. Pat. No. 2,879,489

UTC Type	Mean Hys.	DC Ma.	Net Each	UTC Type	Mean Hys.	DC Ma.	Net Each
HVC-1	.006	100	9.00	TVC-6	.6	15	11.10
HVC-2	.015	60	9.00	TVC-7	1.5	10	11.70
HVC-3	.040	40	9.00	TVC-8	4	7	11.70
HVC-4	.1	30	9.00	TVC-9	10	5	11.70
HVC-5	.25	20	9.00	TVC-10	25	3.5	12.90
HVC-6	.6	15	9.00	TVC-11	60	2	14.10
HVC-7	1.5	10	9.60	TVC-12	150	1.5	15.30
HVC-8	4	7	9.60	VIC-1	.0085	75	6.60
HVC-9	10	5	9.60	VIC-2	.013	60	6.60
HVC-10	25	3.5	9.90	VIC-3	.021	50	6.60
HVC-11	60	2	10.80	VIC-4	.034	40	6.60
HVC-12	150	1.5	12.00	VIC-5	.053	35	6.60
HVV-.006	.006	200	12.00	VIC-6	.084	30	6.60
HVV-.015	.015	120	12.00	VIC-7	.13	25	6.60
HVV-.04	.04	80	12.00	VIC-8	.21	21	6.90
HVV-.1	.10	50	12.00	VIC-9	.34	18	6.90
HVV-.25	.25	30	12.00	VIC-10	.54	15	6.90
HVV-.6	.6	20	12.00	VIC-11	.85	12	6.90
HVV-1.5	1.5	13	12.90	VIC-12	1.3	10	7.20
HVV-4	4	6	12.90	VIC-13	2.2	8	7.20
HVV-10	10	4.5	12.90	VIC-14	3.4	7	7.20
HVV-25	25	3	13.20	VIC-15	5.4	6	7.50
HVV-60	60	2	14.40	VIC-16	8.5	5	7.50
HVV-150	150	1.3	15.90	VIC-17	13	4	7.50
TVC-1	.006	100	11.10	VIC-18	21	3.5	7.80
TVC-2	.015	60	11.10	VIC-19	33	3	7.80
TVC-3	.040	40	11.10	VIC-20	52	2	8.40
TVC-4	.1	30	11.10	VIC-21	83	1.5	9.00
TVC-5	.25	20	11.10	VIC-22	130	1	12.00

LOW FREQUENCY HIGH Q COILS

MQL TYPES

All these units of MIL type TF4RX20YY induct value to 2% tolerance at 1v., 60 cycles. Exceptional Q and stability, inductance swing less than 3.5% from −55°C to +85°C. The case, sealed hermetically to MIL-T-27B is 1 13/16" dia. 2 1/2" h. Either transformer, parallel, series or center type connections are permitted due to dual windings to 4 terminals. Mounting 1 1/2" sq. with a 6-32 screw. Cutout 1 1/2" dia wt. 1 lb.

Type No.	Hys. (0 DC) Series	Parallel	Net Each	Type No.	Hys. (0 DC) Series	Parallel	Net Each
MQL-0	1	.25	$30.00	MQL-3	200	50	$30.00
MQL-1	10	2.5	30.00	MQL-4	400	100	13.50
MQL-2	20	5	30.00	MQL-5	2500	625	33.00

MQM TYPES

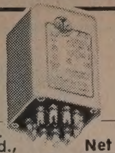
Designed for high Q at low frequencies. Structure provides exceptional stability, adjusted to 2% at 1V. 60 cycles. Inductance variation less than 2% from −55°C to +130°C. Made to MIL-T-27B, MIL type TF4SX20YY. Size 1 5/16" d x 1 5/8" h., cutout: 1" d., wt. 5 oz.

Type No.	Series Hy (0 DC)	Parallel Hy (0 DC)	Series DCRΩ ±20%	Net Each
MQM-2	2	.5	21	$12.60
MQM-16	16	4	143	12.60
MQM-40	40	10	368	12.60
MQM-300	300	75	3700	13.50
MQM-600	600	150	5720	13.50

UTC PAGE 7. *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1963 United Transformer Corp., New York, N. Y.

HI-FI & BROADCASTING COMPONENTS

ULTRACOMPACT* HI-FI AUDIOS



Small light weight, wide range units. Level +15 dbm except where otherwise noted. Top and bottom mounting. Die cast case, 1½'' x 1½'' x 2'' h. Weight, ½ lb.

UTC Type	Application	Primary Impedance, Ohms	Sec. Imped., Ohms	#	Net Each
A-10	Input	50, 125/150, 200/250, 333, 500/600	50K split	a	$13.20
A-11	Shield. Input	50, 200, 500	50K CT	a	12.00
A-12	Input	Same as A-10	80K split	a	12.00
A-15	Interstage*	10K/2.5K split**	2K/500 sp.	c	9.90
A-16	Pl. to grid	15K	60K	a	9.90
A-17	Pl. to grid	15K, 8 ma	60K	c	12.00
A-18	Pl. to p-p	15K split	80K split	a	12.00
A-19	Pl. to p-p	15K, 8 ma	80K split	c	12.00
A-20	Mixing	Same as A-10	Same as pri.	d	14.40
A-21	Shield Mixing	50, 200/250, 500/600	Same as pri.	e	12.00
A-22	Tr. to line*	500 CT	500/125 spl.	c	9.90
A-23	Tr. to V.C.*	500 CT	16/4 split	c	9.90
A-24	Pl. to line	15K split	See A-10 pri.	f	12.90
A-25	Pl. to line	15K, 8 ma	See A-10 pri.	c	12.00
A-26	P-p to line	30K CT	See A-10 pri.	f	13.20
A-27	Input	100K split	See A-10 pri.	b	12.00
A-28	Tr. to V.C.	48 CT, 5 w.	16 (split), 8, 4	c	10.20
A-34	Transistor Interstage	25K/6250 split	500/125 split	b	10.20
A-35		10K/2.5K split	500/125 split	b	9.90
A-36		500/125 split	150/37.5 split	c	9.60
A-37		500/125 split	50/12.5 split	c	9.60
A-38		100/25 split	40/10 split	c	9.30
A-39	line to transist.	600/150 split	2K/500 split	a	11.10
A-30	Inductor: 250 hys. @ 5 ma†; 65 hys @ 10 ma‡				10.20
A-32 (2-wdgs.)	Split Filter Inductor	Series: 60 Hys @ 15 ma, 2000 ohms Parallel: 15 Hys @ 30 ma, 500 ohms			6.60
A-33	Hipermalloy shield fits A units 20 db				2.70
A-40	Power transformer: 115v 60 cycles to two 6.3 CT—.2A Secs.				9.90
A-41 (2-wdgs.)	Split Filter Inductor	Series: 240 Mhy @ .2A, 6 ohms Parallel: 60 Mhy @ .4A, 1.50 ohms			6.30
A-42 (2-wdgs.)	Split Filter Inductor	Series: 4 hys-50 ma, 100 ohms Parallel: 1 hy-100 ma, 25 ohms			6.60
A-43	Matching to 2 simult. lines or Tr.	600/150 split	(2) 600/150 split	g	14.10
A-44	I'stge/output	4K/1K split, 12 ma	600/150 spl.	b	9.90
A-45	Spkr. match	4, 8, 16	4 w. max lvl.	c	6.60
A-46	Chopper	10K/2.5K	500	......	15.00
A-47	3-wdg. hybrd.	500/600CT	2 x 500/600CT	......	15.00

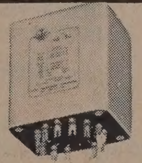
*+30 dbm. †6K ohms. ‡1.5K ohms. §2K ohms. ††500 ohms. **8 ma. #Frequency response (±2 db), cps: a—20-20,000. b—30-20,000. c—40-20,000. d—10-50,000. e—30-30,000. f—20-40,000. g—20-30,000.

HIPERMALLOY* TRANSFORMERS

Hipermalloy audio and power transformers are specifically designed for portable and compact service. High fidelity though light in weight and dependable. The frequency characteristic of the Hipermalloy audio units is uniform from 30 to 20,000 cycles. They incorporate a Hipermalloy nickel iron core and hum balanced coil structure. The rugged die cast case is of high conductivity alloy finished in grey, arranged for mounting with the terminals either up or down. DC in Primary shown is maximum unbalanced.

TYPE H-2 CASE

Length	3 9/16''
Width	2 13/16''
Height	3½''
Mounting	2 x 2¾''
Screws	6-32
Cutout	2 11/16'' dia.
Unit Wt.	.5 lbs.



TYPE H-1 CASE

Length	2⅜''
Width	1 15/16''
Height	3⅛''
Mount	1⅜ x 1 13/16''
Screws	6-32
Cutout	1 13/16'' dia.
Unit Wt.	.2 lbs.

LOW IMPEDANCE TO GRID AND MIXING TRANSFORMERS

Units Housed in Type H-1 Case

UTC Type	Application	Primary Imped. Ohms	Sec. Imped. Ohms	Level dbm	Net Each
HA-100	Line to grid	50, 125/150, 200, 250, 333, 500/600	60K split	+18	$17.40
HA-100X	As above but multiple alloy shields for low hum pick up			+16	17.40
HA-101	Linetogrids	Same as HA-100	120K split	+18	22.20
HA-101X	As above but muliple alloy shields for low hum pickup		80K split	+16	18.00
HA-103A	Mike/mixer to grid	2.5, 5.5, 10, 15, 22, 30, 38, 60	60K split	+18	15.00
HA-108*	Mixing	Same as HA-100	60K split Same as Pri	+20	19.80
HA-108X*	As above but multiple alloy shields for low hum pick up			+18	19.80
HA-130X	Line to grids.	30, 50, 200, 250	60K Split	+18	21.00

INTERSTAGE AUDIO TRANSFORMERS

Units Housed in Type H-1 Case, except HA-107: in H-2 Case

UTC Type	Application	Primary Imped. Ohms	Sec. Imped. Ohms	Level Mw.	Net Each
HA-104	Pl. to grids	15K split	95K	100	$15.00
HA-105	Pl. to grid	15K	60K	100	21.00
HA-106	Pl. to grids	15K split	135K	100	18.90
HA-107	Pl's. to grids	30K	80K	600	27.00
HA-137	Pl's. to grids	30K	68K	100	16.80

Continued on next column

LINEAR STANDARD* TRANSFORMERS

Guaranteed frequency response of ±1 db 20-20,000 cps, ±1 db 7-50,000 cps on high level units, make these ideal transformers for uniform frequency response and low distortion. High efficiency and dependability through shielding. Top and bottom mounting.

LOW LEVEL TRANSFORMERS

Type LS-1 case, 2⅝'' x 3⅛'' x 3¼'' h. Suffix X indicates multiple alloy shield. Weight, 3 lbs.

UTC Type	Application	Pri. Imp., Ohms	Sec. mp., Ohms	Level, dbm	Net Each
LS-10	Input	50, 125/150, 200, 250, 333, 500/600	60K split	+19	$24.00
LS-10X	Input	As above	50K	+17	24.00
LS-12	Input	As above	120K split	+19	27.00
LS-12X	Input	As above	80K split	+17	24.00
LS-30	Mixing	As above	Same as pri.	+23	24.00
LS-30X	Mixing	As above	Same as pri.	+20	27.00
LS-19	Pl. to grids	15K	95K	+20	19.50
LS-21	Pl. to p-p	15K	135K split	+20	24.00
LS-40	Pl. to p-p	15K, 8 ma	135K split	+20	33.00
LS-25	P-P to p-p	30K split	50K split	+23	27.00
LS-27	Pl. to line	15K, 8 ma	See LS-10 pri.	+23	24.00
LS-50	Pl. to line	15K	See LS-10 pri.	+23	24.00
LS-51	P-p to line	30K split	See LS-10 pri.	+24	27.00
LS-14X	Lo-Z to grids	2.5, 5.5, 10, 15, 22, 30, 38, 60	50K	+17	24.00
LS-26	Line to grids	5K	60K	+23	27.00
LS-31	Line to line	30, 50, 200,250	See LS-10 pri.	+23	24.00
LS-32	Lo-Z to line	Same as LS-14X	See LS-10 pri.	+23	33.00
LS-68	Matching to 2 Simult. lines or Tr.	600/150 split	(2) 600/150 split	+15	24.00
LS-150	Line to line	4K	See LS-10 pri.	+23	21.00
LS-151	Line to line	16K	See LS-10 pri.	+26	21.00
LS-140	70 db hybrid	500/600 split	Same as pri.	+18	27.00
LS-141	Hybrid †	500/600 split	Same as pri.	+18	21.00

† Has 3 sets of coils.

HIGH LEVEL TRANSFORMERS

Sizes: LS-33, -34, -35, -47, -52, -54, -55, -56, -61, -63, 3½'' x 4 7/16'' x 4 3/16'' h. (Wt., 7½ lbs.). LS-6L1, -6L4, -48, -58, -65, -666, -667, 5'' x 5 13/16'' x 4 11/16'' h. (Wt., 15 lbs.). LS-691, 13'' x 15¾'' x 24'' h. (Wt. 370 lbs.). LS-692, 13'' x 15¾'' x 28'' h. (Wt. 520 lbs.).

UTC Type	Application	Pri. Imped., Ohms	#	Level Watts	Net Each
LS-33	Matching	50, 125/150, 200, 250, 333, 500/600	a	20	$24.00
LS-34	Matching	As above	a	40	33.00
LS-47	Driver	5K	i	20	24.00
LS-48	Driver	12K	j	40	60.00
LS-6L1	P-p output	9K	b	30	36.00
LS-6L4	P-p output	4,500/3,800	b	55	66.00
LS-58	P-p output	2.5K/1.5K	b	40	57.00
LS-52	P-p output	8000	b	20	24.00
LS-55	P-p output	5K/3K split	b	20	24.00
LS-61	P-p output	10K/6K split	b	20	24.00
LS-54	P-p output	8000	c	20	21.00
LS-57	P-p output	5K/3K split	c	20	21.00
LS-63	P-p output	10K/6K split	c	20	21.00
LS-56	P-p output	5K/3K split	d	20	27.00
LS-35	EL-34's †	5K CT 43% taps	e	35	24.00
LS-65	6550's †	3.3K CT 40% taps	e	60	42.00
LS-666	P-p transistor	8 split	f	50	21.00
LS-667	P-p transistor	8 split	e	50	21.00
LS-691	Modulation	10,400	g	1,000	600.00
LS-692	Modulation	4,750	h	2,500	930.00

† With feedback. # Secondary Impedance: a—1.2, 2.5, 5, 7.5, 10, 15, 20, 30, 50, 125/150, 200/250, 333, 500/600 ohms. b—500, 333, 250/200, 125, 50, 30, 20, 10, 7.5, 5, 2.5, 1.2 ohms. c—30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. d—6K, 5K, 4K, 1.8K, 1.5K, 1K, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. e—4, 8; 16 ohms. f—500 ohms split. g—4.5K, 4K, 3.5K, 2.75K, 2K. h—2.5K, 2K, 1.75K, 1.5K, 1.25K. i—Pri./½ Sec. 3.2:1. j—Pri./½ Sec. 5.1:1.

Continued from bottom of previous column

PLATE TO LINE TRANSFORMERS

Units Housed in Type H-1 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Mw	Net Each
HA-113	to multiple line	15K split	50, 125/150, 200, 250, 333, 500/600	125	$18.00
HA-114	Lo-Z to multi-line	30K		200	21.00
HA-133	to multi-line	15K split		160	21.00

OUTPUT TRANSFORMERS

Units Housed in Type H-2 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Watts	Net Each
HA-134	P-p to line	5K/9.4K	50, 125/150, 200, 250, 330, 500/600	15	$16.80
HA-135	P-p to V.C.	3K/5K	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	18	16.80
HA-136	5881's screen-taps	6.6K	4, 8, 16	20	18.00

POWER TRANSFORMERS

Units Housed: HP-122 in Type H-1 Case; HP-123 in Type H-2 Case

UTC Type	Application	Psi. Volt 50/60u	Hi-Volt	Fil. Wind	Net Each
HP-122	Pre-amp	115	220-O-220 15 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—1.2A	$12.00
HP-123	Pre-amp or Tuner	115	275-O-275 35 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—2A	12.00

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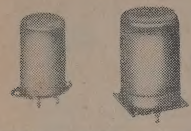
COMMERCIAL GRADE COMPONENTS

DIMENSIONS, COMMERCIAL GRADE "RC" CASE



Performance insured during constant usage due to the ruggedness of this vacuum impregnated component with special sealing compound. Case, finished in light gray enamel, is ready for mounting on chassis. (All audio components linear).

Case No.	Base Dim. (Sq.)	Mounting Dim. (Sq.)	Ht., +1/8, −1/16	Cutout Dia.	Unit Wt. (Lbs.)
RC-37	1 3/8	1 1/8	1 5/8	1 1/4	.35
RC-50	1 5/8	1 5/16	2 1/4	1 1/2	1/2
RC-62	1 13/16	1 1/2	2 1/2	1 1/2	1
RC-75	2 3/16	1 13/16	2 7/8	1 7/8	1 1/2
RC-87	2 9/16	2 3/32	3 1/4	2	2 1/2
RC-100	3	2 3/8	3 3/4	2 5/8	3 1/2
RC-112	3 7/16	2 11/16	4 1/8	2 7/8	5
RC-125	3 3/4	3	4 1/2	3	6 1/2
RC-150	4 1/2	3 9/16	5 1/2	3 3/4	11
RC-152	5 1/8	4 1/8	5 1/2	4	15 1/2
RC-175	5 3/4	4 7/8	7	4	22

SWINGING INPUT AND FILTER INDUCTORS

UTC Type	Induct. Henries	DC MA	DC Res. Ohms	Test Volts	Case No.	Net Each
CG-40	10	200	110	1750	RC-112	$ 8.10
CG-44	30	100	400	1750	RC-100	6.90
CG-45	250	15	5000	1750	RC-87	6.00
CG-48C	75	50	2200	1750	RC-87	7.50
CG-100	12	150	110	2500	RC-125	9.00
CG-102	12	250	100	3000	RC-150	13.20
CG-104	10	350	90	5000	RC-152	15.00
CG-108	10	500	52	7000	RC-175	27.00
CG-1S	10	1000	40	9000	11 1/2 x 4 3/4 x 6 7/8 H. Wt., 40 lbs.	54.00
CG-101	25/5	150	110	2500	RC-125	9.00
CG-103	25/5	250	100	3000	RC-150	13.20
CG-105	25/5	350	90	5000	RC-152	15.00
CG-109	25/5	500	52	7000	RC-175	27.00
CG-111§ (2 wdgs)‡	100/10mh 25/2.5mh	2.5a. .5a.	.6 .15	1500	RC-87	11.40
CG-112§ (2 wdgs)‡	40/10mh 10/2.5mh	6 a. 12 a.	.24 .06	1500	RC-112	12.60
CG-113§ (2 wdgs)‡	7/1.75mh 1.8/.45mh	17.5a. 35 a.	.036 .009	1500	RC-125	14.70
CG-1C	25/5	1000	40	9000	11 1/2 x 4 3/4 x 6 7/8 H. Wt., 40 lbs.	54.00

§Split winding in series. †Wt., 40 lbs. ‡Split winding in parallel.

PLATE TRANSFORMERS

Primaries for 105, 115, 220, 230 volts; 50/60 cycles. For reduced power, secondary can be cut in half, using 220 v. primary on 110 volts; may be used on 25 to 43 cycles in this case. "W" suffix units designed for full wave center tap and full wave bridge application. Center tap may be disconnected from ground.

UTC Type	High Voltage	DC Volts	Case No.	Net Each
CG-300	625-515-0-515-625	500/400	RC-150	$16.20
CG-300W	625-515-0-515-625	1000/800	RC-150	17.70
CG-301	580-530-300-0-300-530-580	475/425/250	RC-152	24.00
CG-301W	580-530-300-0-300-530-580	950/850/500	RC-152	26.40
CG-302	950-750-0-750-950	760/610	RC-175	30.00
CG-302W	950-750-0-750-950	1520/1220	RC-175	33.00
CG-303	1500-1235-400-0-400-1235-1500	1250/1000 300	RC-175	36.00
CG303W	1500-1235-400-0-400-1235-1500	2500/2000 600	RC-175	39.60

POWER AND BIAS TRANSFORMERS

Primary 115 volts, 50/60 cycles. DCMA is for choke input; reduce 70% for condenser input. Filament 1 is 5 volts, 3 amps., and Filament 2 is 5 volts, 2 amps., except as otherwise noted.

UTC Type	High Voltage	DC Ma	Filament 3	Filament 4	Case No.	Net Each
CG-422	435-365-0-365-435 125-0-125	125 25	6.3 VCT-3A	2.5 VCT-5A	RC-150	$21.00
CG-428	500-0-500 80-0-80	250 100	6.3 VCT-4A	6.3 VCT-3A, tapped 2.5 VCT-3A	RC-152	24.90
CG-429*	600-525-0-525-600	250	7.5 VCT-3A, tapped 6.3 VCT-4A		RC-152	24.90
CG-431†	500-400-0-400-500 80-0-80	500 100	6.3 VCT-5A	6.3 VCT-3A	RC-175	36.00
CG-315	Tapped for any DC voltage from 15 to 100 volts within 6%—250 MA				RC-125	14.40
CG-316	Tapped for any DC voltage from 75 to 400 volts within 6%—250 MA				RC-152	21.00

*Filament 2 is 6.3 VCT-3A. †Filament 1 is 5V-6A.

AUDIO UNITS

UTC Type	Use †	Pri. Imped., Ohms	Level	Case RC-	Net Each
CG-131	a	15K	+28 dbm	50	$ 9.90
CG-132	b	15K	+30 dbm	62	9.90
CG-133	c	30K CT	+32 dbm	75	10.50
CG-134	d	50, 200, 500	+30 dbm	50	9.00
CG-135	e	50, 200, 500	+30 dbm	50	9.90
CG-235	f	50, 200, 500	+28 dbm	75	12.00
CG-136	g	15K, 50, 200	+30 dbm	62	13.20
CG-137	h	50, 200, 500	+28 dbm	50	8.40
CG-140	i	15K	+30 dbm	50	7.80
CG-141	j	30K CT	+32 dbm	50	9.00
CG-233	k	30K CT	+35 dbm	87	9.00
CG-333	k	30K CT	+35 dbm	87	9.00
CG-433	k	5K CT	10 w.	100	9.90
CG-15	l	8K CT	20 w.	100	12.00
CG-16	l	3K/5K CT	20 w.	100	12.00
CG-19	l	6K/10K CT	20 w.	100	12.00
CG-710	l	14K/20K CT	20 w.	100	12.00
CG-2L6	l	9K CT	30 w.	125	13.80
CG-20	m	5K CT, 43% screen taps	25 w.	125	15.00
CG-21	m	3.3K CT, 40% screen taps	50 w.	150	24.00
CVP-1	n	3K/5K/6K/8K/10K/14K CT	12 w.	100	13.20
CVP-2	n	"	30 w.	125	14.40
CVP-3	n	"	60 w.	150	21.00
CVP-4	n	"	125 w.	152	24.00
CVP-5	n	"	300 w.	175	39.00
CVL-1	p	500	15 w.	87	9.00
CVL-2	p	500	40 w.	125	10.50
CVL-3	p	500	75 w.	150	15.00
CVM-0	q	Any Class B	12 w.	100	10.50
CVM-1	q	"	30 w.	125	13.80
CVM-2	q	"	60 w.	150	18.00
CVM-3	q	"	125 w.	152	21.00
CVM-4	q	"	300 w.	175	39.00
CVM-5	q	"	600 w.	†	105.00
CG-51AX	r	15K	5 w.	87	9.00
CG-53AX	r	3K/10K/ CT	20 w.	112	10.50
CG-59AX	r	50, 200, 500	20 w.	112	10.80

† 7" x 12" x 9"; Wt., 60 lbs. †a—Pl. to grid. b—Pl. to 2 grids. c—2 pl. to 2 grids. d—Input, humbucking. e—P-p input, humbucking. f—Input, mag. shielded. g—Dual input, humbucking. h—Mixing. i—Pl. to line. j—P-p to line. k—Driver. l—Output. m—Feedback output. n—Universal output. p—Universal matching. q—Universal modulator. r—Universal driver.

END CASTING UNITS

See note on "W" suffix units under plate transformers.

UCT Type	High Volt	DC Volt		L	W	H	Wt. Lbs.	Net Each
CG-304	1500-1235-0-1235-1500	1.25K	1K	14 5/8	8 1/2	10 3/8	100	$141.00
CG-304W†	1500-1235-0-1235-1500	2.5K	2K	14 5/8	8 1/2	10 3/8	100	156.00
CG-305	2400-1750-0-1750-2400	2K	1.5K	10 1/2	4 3/4	6 7/8	50	63.00
CG-305W†	2400-1750-0-1750-2400	4K	3K	10 1/2	4 3/4	6 7/8	50	69.00
CG-306	as above	2K	1.5K	13 7/8	8 1/2	10 3/8	100	150.00
CG-306W†	as above	4K	3K	13 7/8	8 1/2	10 3/8	100	165.00
CG-307	3500-3000-2400-0-2400-3000-3500	3K 2K	2.5K	13 5/8	8 1/2	10 3/8	90	138.00
CG-308	as CG-307	3K 2K	2.5K	15 1/8	8 1/2	10 3/8	125	162.00
CG-309	as CG-307	3K 2K	2.5K	21	10	13 1/4	253	360.00
CG-310	4600-4050-3500-0-3500-4050-4600	4K 3K	3.5K	17 1/4	10	13 1/4	150	309.00
CG-311	1500-1235-0-1235-1500	1.25K	1K	10 1/2	4 3/4	6 7/8	50	66.00
CG-311W†	1500-1235-0-1235-1500	2.5K	2K	10 1/2	4 3/4	6 7/8	50	69.00
CG-312	1800-1500-0-1500-1800	1.5K	1.25K	10 1/2	4 3/4	6 7/8	38	66.00

† Full Wave Bridge Rectifier types.

VARIPOWER * AUTOFORMERS

Simultaneous control of filament, plate and line voltage. Filament voltage control within 2 1/2%. Output voltage from 0 to 130 volts. 50/60 cycles. Taps at 25, 55, 75, 95, 100, 105, 110, 115, 120, 125, and 130 volts.

UTC Type	Watts Output	Case No.	Net Each	UTC Type	Watts Output	Case No.	Net Each
CVA-1	150	RC-112	$12.00	CVA-4	1000	RC-152	$21.00
CVA-2	250	RC-125	14.10	CVA-5	2000	RC-175	36.00
CVA-3	500	RC-150	18.00				

UTC PAGE 9.

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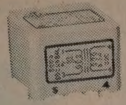
MINIATURE, OUNCER, SUBOUNCER & SUB-SUBOUNCER UNITS

SUBOUNCER*& SUB-SUBOUNCER*AUDIO TRANSFORMERS TRANSISTOR & TUBE TYPES HERMETICALLY SEALED

TO MIL-T-27B

UTC SSO-#P and SO-#P units are ideal miniaturized components having high efficiency and wide frequency response. Special nickel iron core materials and winding methods provide exceptional performance and reliability.



SO-#P UNIT
Dim.
¾x1x23/32"
Pin Length ¼"
Wt. ....05 lb.

SSO-#P UNIT
Dim.
¾x⅞x9/16"
Pin Length ¼"
Wt. ....04 lb.

SML-70
7/16x31/64x9/16"
Wt. .2 oz.

These units are vacuum molded to MIL Grade 5. They employ 50 mil deeply anchored pin terminals ideally suited for printed circuit and transistor application. Terminals are strong enough to support these light weight units.

The UTC SML-70 is an ultra miniature transformer providing high shielding, extremely low insertion loss with wide band response, 200 cycles to 20 kc. These units are provided with pin terminals (.025 dia.) strong enough to support the unit and are ideal for printed circuits.

PRINTED CIRCUIT AUDIO UNIT — HIPERMALLOY SHIELD CASE

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SML-70	Input or Chopper Service	200K	1K	$8.40

MIL TYPE: TF5RX16ZZ.

PRINTED CIRCUIT MOLDED TYPES TO MIL GRADE 5

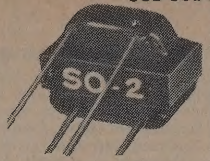
Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SO-2P	Interstage/3:1	10K	90K	**$7.50**
SO-3P*	Plate to Line	10K	200	**7.50**
		25K	500	
SO-5P	Inductor: 40 hy at 1 ma, 2675 ohms, series; 4 hy at 4 ma, 670 ohms, parallel;			**7.50**
SO-7P*	Transistor	20K	800	**7.20**
	Interstage	30K	1200	
SO-8P	Transistor to PP Sec.	10K	2000 CT	**7.80**
SO-9P	PP Transistor to V.C.	500 CT	3.2	**7.80**
SO-14P	Transistor	80 CT	32 Split	**8.10**
	Interstage	100 CT	40 Split	
SO-15P	Tr. output	600 CT	600 Split	**8.10**
SO-17P	Inductor: 16 hy at 2 ma, 1.1K ohms, series; 4 hy at 4 ma, 275 ohms, parallel;			**7.50**

MIL TYPES: TF5RX13ZZ: SO-3P, SO-7P, SO-8P; TF5RX15ZZ: SO-2P; TF5RX17ZZ: SO-9P, SO-14P, SO-15P, SO-17P; TF5RX20ZZ: SO-5P.

SSO-3P	Plate to line	10K	200	**$8.10**
		25K		
SSO-5P	Inductor: 100 hy at 0 ma, 4.4K ohms, series; 25 hy at 0 ma, 1.1K ohms, parallel			**7.80**
SSO-8P	Transistor to pp sec.	10K	2000 CT	**8.10**
SSO-14P	Transistor	10K CT	200 CT	**8.40**
	Interstage	25K CT	500 CT	
SSO-15P	Transistor	20K CT	800 CT	**8.40**
	Interstage	30K CT	1200 CT	
SSO-19P	Output matching	500 CT	600 CT	**8.10**
SSO-20P	Output	1.5K CT	600 CT	**8.10**
SSO-21P	Crystal/Chopper	200K CT	1000 CT	**8.40**
SSO-22P	Interstage	10K CT	1500 CT	**7.80**
		12K CT	1800 CT	
SSO-23P	Inductor: 8 hy at 2 ma, 600 ohms, series; 2 hy at 4 ma, 150 ohms, parallel			**7.50**
SSO-24P	Inductor: 3.5 hy at 2 ma, 160 ohms, series; 0.9 hy at 4 ma, 40 ohms, parallel			**7.20**
SSO-25P	Transistor Interstage	10K CT	10K/ 2.5K spl.	**8.40**

MIL TYPES: TF5RX13ZZ: SSO-3P, SSO-8P, SSO-14P, SSO-15P, SSO-22P, SSO-25P; TF5RX16ZZ: SSO-21P; TF5RX17ZZ: SSO-19P, SSO-20P; TF5RX20ZZ: SSO-5P, SSO-23P, SSO-24P.

SUB-SUBOUNCERS*AND SUBOUNCERS*



Lead mounted (channel available as separate item) miniature nickel iron core units for transistor or vacuum tube circuits. Plastic mounted leads. SSO Sub-Subouncers: Approx. 2 db, 140-10,000 cps; +20 VU except inputs +7 VU. (7/16" x ¾" x 43/64"; wt., .02 lb.) SO Subouncers: Approx. 2 db., 100-10,000 cps; +24 VU except inputs +10 VU. (19/32" x 43/64" x ⅞"; wt., .03 lbs.)

UTC SSO-	Net Each	Application	Pri. Imp., Ohms	Sec. Imp., Ohms	UTC SO-	Net Each
1	$4.50	Input	50/200	62.5K/250K	1	$3.60
2	4.80	Interstage	10K, .25 ma	90K	2	3.30
3	4.20	Pl. to line	10K/25K, 1.5 ma	200/500	3	3.30
4	3.90	Output	30K, 1 ma	50	4	3.30
5	3.90	Inductor:	50 hys. @ 1 ma	4400 ohms#	5‡	3.00
6	4.20	Output	100K, .5 ma	60	6	3.90
7	3.30	Tr. intrstg.	20K/30K†	80/1200	7	3.00
8	3.90	Tr. intrstg.	10K, 1 ma	2K CT	8	3.60
9	3.00	Tr. to V.C.	10K, 2 ma	16	......	....
......	....	Tr. to V.C.	500 CT	3.2	9	3.60
10	3.00	Tr. to V.C.	10K, 2 ma	3.2	......	....
......	....	Tr. to V.C.	2K/4K CT	8/16	10	3.60
11	3.00	Tr. Output	500/600§	50/60	......	....
......	....	Transist. Int.	400/500 CT	400/500 Split	11	4.20
12	3.00	Tr. Output	1K/1.2K††	50/60	......	....
......	....	Transist. Int.	400/500 CT	120/150 Split	12	4.20
13	4.50	Input	200K	1K	......	....
......	....	Transist. Int.	400/500 CT	40/50 Split	13	4.20
14	4.20	Tr. intrstg.	10K/25K CT	200/500 CT	......	....
......	....	Transist. Int.	80/100 CT	32/40 Split	14	4.20
15	4.20	Tr. intrstg.	20K/30K CT	.8K/1.2K CT	......	....
......	....	Tr. output	600 CT, 5 ma	600 Split	15	4.20
16	3.00	Tr. output	1.2K/1.5K††	3.2/4	......	....
......	....	Tr. intrstg.	2.5K CT, 4 ma	2500 Split	16	4.20
17	3.30	Output	10K/12.5K**	500/600 CT	......	....
......	....	Inductor: 16 hy at 2ma, 1.1K ohms, series; 4 hy at 4 ma, 275 ohms, parallel			17	3.30
18	3.30	Output	7.5K/9.4K CT	3.2/4	......	....
19	3.30	Matching	500 CT	600 CT	......	....
20	3.30	Output	1.5K CT	600 CT	......	....
21	4.80	Chopper	200K CT	1K CT	......	....
22	3.90	Tr. intrstg.	10K/12K CT	1.5K/1.8K CT	......	....
23	3.00	Inductor: 4 hys @ 5 ma, 650 ohms				
24	3.00	Inductor: 1.5 hys. @ 5 ma, 160 ohms				
25	5.10	Transist. Int.	10K/12K CT	10K/12 CT	......	....
26	5.10	Transist. Int.	40K/50K CT	400/500 Split	......	....
27	5.10	Tr. output	4K CT, 2.5 ma	600 Split	......	....
CH	.30	Mounting channel for any of above			CH	.30

†0.5 ma. ‡Resis., 2675 ohms. §3.5 ma. **2 ma. ††3 ma. #DC resis.

OUNCER*AUDIO UNITS

Standard and Plug-in Types

UTC ouncer components provide wide range ±1 db, 30 to 20,000 cps (except Nos. 0-14 and 0-15). In compact ⅞" dia. case. No. 0-16 has heavy shielding (case 1 1/16" dia.). P-16 has 9 pin plug (1 3/16" dia.). Wt., 4 oz. max.

UTC No.	Net Each	Application	Pri. Imped., Ohms	Sec.Imped., Ohms	UTC No.	Net Each
O-1	$7.80	Input	50, 200, 500	50K	P-1	$9.00
O-2	7.80	P-p input	50, 200, 500	50K CT	P-2	9.00
O-3	7.50	Input	7.5/30	50K	P-3	8.40
O-4	6.60	Pl. to grid	15K	60K	.....	.....
O-5	6.60	Pl. to grid	15K, 2 ma	60K	.....	.....
O-6	7.50	Pl. to p-p	15K	95K CT	P-6	8.40
O-7	7.50	Pl. to p-p	15K, 2 ma	95K CT	P-7	8.40
O-8	7.80	Pl. to line	15K	50, 200, 500	P-8	9.00
O-9	7.80	Pl. to line	15K, 2 ma	50, 200, 500	P-9	9.00
O-10	8.40	P-p to line	30K CT	50, 200, 500	P-10	9.00
O-11	7.80	Cryst. out.	50K	50, 200, 500	P-11	9.00
O-12	7.80	Mixing	50, 200, 500	50, 200, 500	P-12	9.00
O-13	6.30	Inductor	300 Hys-0 ma; 6000 ohms		.....	.....
O-14	7.50	50:1 input	200	500K	.....	.....
O-15	7.50	10:1 P/G	15K	1 meg.	P-15	9.00
O-16	10.20	Shld. input	250 CT	50K	P-16	11.40
O-17	1.50	Hipermalloy shield, 25 db, for Ouncers			.....	.....
O-18	7.80	Tr. intrstg.	10K split	2K split	.....	.....
O-19	7.80	Tr. intrstg.	10K split	4K split	.....	.....
O-20	6.30	Tr. to line	1.5K CT	500 split	.....	.....
O-21	5.40	Tr. to V.C.	2K/4K CT	8/16	.....	.....
O-22	5.40	Tr. to V.C.	500/400 CT	4/3.2	.....	.....
O-23	5.10	Inductor	7 Hys-3 ma; 230 ohms		.....	.....
O-24	5.10	Inductor	1.6 Hys-3 ma; 25 ohms		.....	.....
O-25	8.10	Transist. Input	600/150 split	2K/500 split	.....	.....
O-26	8.10	Transist. Int.	10K CT 4 ma.	10K CT	.....	.....
O-27	8.40	Transist. Int.	10K CT 4 ma.	500/125 split	.....	.....
O-28	8.40	Transist. Int.	50K CT. 2 ma.	500/125 split	.....	.....
O-29	8.70	Transist. Int. or chopper	100K CT 1 ma.	500/125 split	.....	.....
O-30	8.10	Transist. Int.	500/125 split	500/125 split	.....	.....
O-31	8.10	Transist. Int.	500/125 split	150/37.5 split	.....	.....
O-32	8.10	Transist. Int.	500/125 split	50/12.5 split	.....	.....
O-33	8.10	Transist. Int.	100/25 split	40/10 split	.....	.....
O-34	5.10	Split Inductor	Series: 60 Mhy-80 ma; 4 ohms Parallel: 15 Mhy-160 ma; 1 ohm		.....	.....
O-36	5.10	Split Inductor	Series: 1 Hy-20 ma; 60 ohms Parallel: .25 Hy-40 ma; 15 ohms		.....	.....
O-37	8.10	Tr. to line	4K/1K spl., 4 ma	650/150 split	....	....
O-38	5.10	Spkr. match	0, 4, 8, 16 ODC		....	....
O-BR	.21	Mounting U-bracket for ouncers				....

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AMATEUR & PUBLIC ADDRESS TRANSFORMERS "S"* SERIES

DIMENSIONS, SPECIAL SERIES TRANSFORMERS

G-1 thru G-4

G-5 thru G-12

UTC Special Series transformers are specifically designed for amateur and popular-priced PA service. These units are finished in a rich, commercial type medium gray enamel. A recessed terminal strip is provided, permitting above chassis or breadboard wiring in addition to standard chassis type.

G-CASE SIZES

Case	Height, In.	Width, In.	Depth, In.	Wt., Lbs.
G-1	1 7/8	2 13/16	1 3/4	1
G-2	2 5/16	3 3/8	1 15/16	1 1/2
G-3	2 1/2	3 3/4	2 5/32	2
G-4	2 15/16	4 1/8	2 5/16	3
G-5	3 3/4	3 1/8	4 1/2	4 1/2
G-7	4 5/8	4 5/8	5 1/2	8
G-8	4 5/8	5 3/8	5 3/8	12
G-9	5 7/8	5 3/8	6 3/4	21
G-10	5 7/8	6 1/8	6 5/8	24
G-11	5 7/8	6 1/2	7 3/8	31
G-12	10 1/4	7 3/8	9 1/4	52

INPUT AND DRIVER TRANSFORMERS

Type UTC	Application	Ratio Pri. to Sec.	Level	Case	Net Each
S-1	Plate to grid	1:3½	+30 dbm	G-2	$4.80
S-2	Plate to p-p grids	1:4†	+30 dbm	G-2	6.00
S-3	Pl. to 1 or 2 grids	1:4†	+25 dbm	G-1	4.50
S-5	Line to grid, humbkg.	1:16	+30 dbm	G-2	5.10
S-6	Line to grid, compact	1:16	+25 dbm	G-1	4.50
S-8	Driver pl. to p-p	2.66:1. 5:1†	5 w.	G-3	6.60
S-9	Driver p-p to p-p	2.66:1, 3.6:1 5:1†	20 w.	G-4	8.70
S-10	Driver p-p to p-p	2.25:1†	5 w.	G-3	6.60

†Center tapped.

MATCHING, OUTPUT AND MODULATION UNITS

UTC Type	Application	Pri. Imped., Ohms	†	Level, Watts	Case	Net Each
S-11	Pl. to line	15K	a	.25	G-2	$5.10
S-12	Line to V.C.	.5K/2K/4K	b	15	G-2	5.40
S-13	Line to V.C.	.5K/2K/4K	b	30	G-4	7.80
S-14	Output	2.5K/4K/7K/10K	c	10	G-2	6.60
S-15	PP output	4K/5K/10K CT	c	12	G-2	7.20
S-16	PP output	3K/6K/9/10K CT	c	30	G-4	8.40
S-17	PP output	3.8K/4.5/5K CT	c	55	G-5	12.00
S-18	Univ. modul.	Any Class B	d	12	G-3	7.20
S-19	Univ. modul.	Any Class B	d	30	G-4	9.30
S-20	Univ. modul.	Any Class B	d	55	G-5	15.00
S-21	Univ. modul.	Any Class B	d	110	G-7	21.00
S-22	Univ. modul.	Any Class B	d	250	G-9	33.00

†Secondary Impedance: a—200/500 ohms. b—2, 4, 8, 15 ohms. c—2. 8. 15, 500 ohms. d—Any Class C.

FILTER, SWINGING AND AUDIO INDUCTORS

Type	Henries	Ma. DC	Ohms	Insul.	Case	Net Each
S-23§	300	5	5000	1500 v.	G-2	$4.50
S-24‡	500	3	6000	1500 v.	G-2	5.10
S-25	30	30	800	1500 v.	G-2	3.90
S-26	12	60	250	1500 v.	G-2	3.90
S-27	25	75	350	1500 v.	G-4	5.10
S-28	20	100	350	1500 v.	G-4	6.30
S-29	6	175	90	1500 v.	G-4	5.10
S-30†	4/20	175	90	1500 v.	G-4	5.10
S-31	6	225	100	2700 v.	G-5	6.90
S-32†	4/20	225	100	2700 v.	G-5	6.90
S-33	8	300	100	4000 v.	G-7	9.30
S-34†	4/20	300	100	4000 v.	G-7	9.60
S-35	8	400	60	5000 v.	G-8	12.00
S-36†	4/20	400	60	5000 v.	G-8	12.00
S-37	8	550	60	6000 v.	G-8	15.00
S-38†	4/20	550	60	6000 v.	G-8	15.00
S-80	50/10 Mhy	1.75A	.5	500 v.	G-1	3.90
S-81	100/8 Mhy	2.5A	.6	1500 v.	G-3	6.00
(2Wdgs)	25/2 Mhy	5A	.15			

§Audio. ‡P.P. Audio C. T. †Swinging.

Information on components in this box listed on UTC page 12.

REPLACEMENT TYPE COMPONENTS

The shells and brackets of these vacuum sealed components are finished in shiny black enamel. A minimum number covers any replacement requirement.

Fig. A

Fig. B

Fig. C

Fig. D

Fig. E

Fig. F

Fig. G

Fig. H

FILAMENT TRANSFORMERS

Primary Tapped 105, 115 Volts, 50-60 Cy.

UTC Type	Secondary Volts	Secondary Current	Insulation	Case No.	Net Each
S-53	2.5 VCT	10 Amp	1500 V	G-3	$6.30
S-54	5 VCT	4 Amp	2500 V	G-3	5.70
S-55	6.3 VCT	3 Amp	1500 V	G-3	5.40
S-57	2.5 VCT	10 Amp	10000 V	G-5	9.00
S-58	2.5 VCT	20 Amp	10000 V	G-5	9.90
S-59	5 to 5.25 VCT	13 Amp	5000 V	G-5	9.30
S-60	5 to 5.25 VCT	22 Amp	10000 V	G-7	13.20
S-61	7.5 VCT tapped 6.3 VCT	10 Amp	3000 V	G-5	10.20
S-62	10 VCT	10 Amp	3000 V	G-5	9.30
S-63	14 VCT tapped 12 VCT & 11 VCT	10 Amp	5000 V	G-7	13.20

Type	Filament 1	Filament 2	Filament 3	Case	Net
‡S-64	2.5 VCT-5A	2.5 VCT-5A	5 VCT-6A	G-5	$10.80
‡S-67	5 VCT-6A	6.3 VCT-54		G-5	10.20
‡S-68	5 VCT-3A	6.3 VCT-4A	7.5 VCT-5A	G-5	10.50
‡S-70	6.3 VCT-5A	6.3 VCT-5A	....	G-5	10.20
§S-71	2.5 VCT 6A	2.5 VCT-6A	2.5 VCT-12A	G-7	15.00
†S-72	5 VCT-3A	5 VCT-3A	5 VCT-6A	G-5	11.40

§Insulation 10,000 v. †Insulation 5000 v. ‡Insulation 3000 v.

COMBINED PLATE AND FILAMENT TRANSFORMERS

Primary 115 V., 50-60 Cy.

UTC Type	Voltage	DC V.	Rect. Fil.	Filament No. 1	Filament No. 2	Case No.	Net Each
S-39	490-400-0-400-490 175 ma	400/310	5V-3A	2.5 VCT-6A	6.3 VCT-4A	G-7	$16.50
S-40	525-425-0-425-525 250 ma	400/310	5V-3A	6.3 VCT-3A	6.3 VCT-3A	G-7	18.00
S-41	600-0-600 200 ma	475	5 V-3A	7.5 V tapped 6.3 V-3A	6.3 VCT-2A	G-7	18.00
S-42	600-525-0-525-600 300 ma	480/400	5 V-6A	7.5 V tapped 6.3 V-3A	6.3 VCT-3A	G-7	19.50

PLATE AND BIAS TRANSFORMERS

Primary 115 V. 50/06 Cycles

UTC Type	2.5 VCT-12A High Voltage	DC Voltages †	DC Ma	Case	Net Each
S-44	575-525-0-525-575	470/430	500	G-9	$25.80
S-45	900-750-0-750-900	750/620	200	G-8	21.00
S-46	1000-750-0-750-1000	825/600	300	G-9	24.00
S-47	1500-1250-1000-0-1000-1250-1500	1275/1050/825	300	G-10	33.00
S-48	1500-1250-1000-0-1000-1250-1500	1300/1075/850	500	G-11	39.00
S-49	2100-1800-1500-0-1500-1800-2100	1815/1540/1275	300	G-11	36.00
S-50	3000-2500-0-2500-3000	2625/2175	300	G-12	60.00
S-51	Any bias voltage from 15 to 100 ± 6%		200	G-5	12.00
S-52	Any bias voltage from 75 to 400 ± 6%		200	G-7	15.60

†Based on two-section filter for 200 ma. and 300 ma. units. Single section filter for 500 ma. units, both choke input.

IMMEDIATE DELIVERY

ON ALL UTC STOCK ITEMS

AND SPECIAL CUSTOM BUILT UNITS TO YOUR SPECS.

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TRANSFORMERS FOR INDUSTRY WIDE APPLICATIONS

DOUBLE SHELL POWER TRANSFORMERS (FIG. B SEE PG. 11)

Rectifier filaments 5 volts, 3 amps except R-101, 2 amps.

UTC Type	High V.	DC Ma.	Amplifier Filament	Overall Height	Wt., Lbs.	Net Each
R-101	275-0-275	50	6.3 v. CT-2.7A	3"	2½	$7.20
R-102	350-0-350	70	6.3 v. CT-3A	3⅝"	3½	7.50
R-103	350-0-350	90	6.3 v. CT-3.5A	3 15/16"	4½	8.40
R-104	350-0-350	120	6.3 v. CT-5A	3⅞"	5½	9.00
R-105	385-0-385	160	6.3 v. CT-5A	4 5/16"	7	11.40

VERTICAL SHELL POWER TRANSFORMERS (FIG. C SEE PG. 11)

Rectifier filaments 5 volts, 3 amps., except R-110, 2 amps.

R-110	300-0-300	50	6.3 v. CT-2.7A	3¼"	2½	$7.20
R-111	350-0-350	70	6.3 v. CT-3A	3¼"	3½	7.50
R-112	350-0-350	120	6.3 v. CT-5A	4"	5½	9.00
R-113	400-0-400	200	6.3 v. CT-6A	4⅝"	8	13.20

CHANNEL FRAME FILTER INDUCTORS (FIG. E SEE PG. 11)

Inductance Shown is at Rated D.C.M.A.—Test Volts RMS: 1500

Type No.	Induct. Hys.	Current	Resist. Ohms	Dimensions, in. W	D	H	M	Wt. lbs.	Net Each
R-55	6	40MA	300	2⅜	1⅜	1⅜	2	½	$1.65
R-14	8	40MA	250	2⅞	1½	1 11/16	2⅜	¾	1.95
R-15	12	30MA	450	2⅞	1½	1 11/16	2⅜	¾	1.95
R-16	15	30MA	630	2⅞	1½	1 11/16	2⅜	¾	1.95
R-17	20	40MA	850	3 5/16	1⅝	2	2 13/16	1	2.25
R-18	8	80MA	250	3 3/32	1⅝	2	2 13/16	1	2.52
R-19	14	100MA	450	3¾	1⅞	2 5/16	3⅛	1½	3.00
R-20	5	200MA	90	4⅛	2¼	2⅝	3 9/16	2½	3.60
R-21	15/3	200MA	90	4⅛	2¼	2⅝	3 9/16	2½	3.60
R-220	100/8 Mhy.	2.5A	.6	3¾	2	2 5/16	3⅛	1½	4.20
	25/2 Mhy.	5A	.16						

PHOTOFLASH TRANSFORMERS

STANDARD 982

Can be used for either standard (Amglo type) or trigger (Sylvania type) multiple flash tubes. Circuit details included with transformer.

PF-6

PF-1 Primary for 115 volts, 50/60 cycles. Secondaries for power supply delivering 2200 volts DC to condenser up to 100 Mfd. Compound sealed in G-3 (Pg. 11) case 2⅛ x 2¾ (3¾ including flanges) x 2½ inches high. Weight 2 lbs. **Net Each $8.40**

PF-3 Trigger Transformer 15 KV peak. ⅞ O.D.x3 long. Weight 2 oz. **Net each: $6.00**

TRANSISTOR TYPE

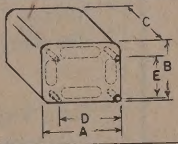
These are miniaturized light weight units for transistor type photoflash supply.

PF-5 Primary for 115 volts. 50/60 cycles or for 4½ V. battery switched by PF-6 inverter transformer. Output delivers 400 V. DC when used in voltage doubler circuit to charge photoflash capacitor (typically 40 watt-Sec.). G-1 case (Pg. 11)
Net each: $8.40

PF-6 Inverter transformer transforms 4½ V. DC from battery to input for PF-5 stepup transformer. Ouncer case (Pg. 11)
Net each: $5.10

PF-7 Trigger transformer. Shorting .25 mfd. capacitor (charged to approx. 225 V. DC) across terminals 1-2 produces 6 KV pulse at terminal 3 for triggering flash tube. ⅞" Dia. x 15/16"; Wt. ½ oz.
Net each: $3.60

MIL-T-27B CASE SIZES



MIL	Size, Inches: Dimension					Mtg.
Case	A	B	C	D	E	Studs
AF	¾	¾	1⅛	Diag.	9/16	4-40 x ⅜
AG	1	1	1⅜	Diag.	¾	4-40 x ⅜
AH	1 5/16	1 5/16	1¾	Diag.	1¼	6-32 x ⅜
AJ	1⅝	1⅝	2⅜	1 3/16	1 3/16	6-32 x ⅜
EA	1 15/16	1 13/16	2¾	1⅜	1¼	6-32 x ⅜
EB	1 15/16	1 13/16	2 7/16	1⅜	1¼	6-32 x ⅜
FA	2 5/16	2 1/16	3⅛	1 11/16	1 7/16	6-32 x ⅜
FB	2 5/16	2 1/16	2½	1 11/16	1 7/16	6-32 x ⅜
GA	2¾	2⅜	3 13/16	2⅛	1¾	6-32 x ⅜
GB	2¾	2⅜	2 13/16	2⅛	1¾	6-32 x ⅜
HA	3 1/16	2⅝	4¼	2 19/64	1 55/64	8-32 x ⅜
HB	3 1/16	2⅝	3 3/16	2 19/64	1 55/64	8-32 x ⅜
JA	3 9/16	3 1/16	4⅞	2⅝	2⅛	8-32 x ⅜
JB	3 9/16	3 1/16	3⅞	2⅝	2⅛	8-32 x ⅜
KA	3 15/16	3⅜	5¼	3	2 7/16	10-32 x ½
KB	3 15/16	3⅜	4 5/16	3	2 7/16	10-32 x ½
LA	4 5/16	3 11/16	5 9/16	3 5/16	2 11/16	10-32 x ½
LB	4 5/16	3 11/16	4½	3 5/16	2 11/16	10-32 x ½
MA	4 11/16	4	6	3 11/16	3	¼-20 x ⅝
MB	4 11/16	4	4 15/16	3 11/16	3	¼-20 x ⅝
NA	5 1/16	4 5/16	6 13/16	4 1/16	3 5/16	¼-20 x ⅝
NB	5 1/16	4 5/16	5½	4 1/16	3 5/16	¼-20 x ⅝
OA	5½	4½	6¾	3¾	3	¼-20 x ⅝

STEP-DOWN AUTO-TRANSFORMERS (FIG. A SEE PG. 11)

With 6-ft. cord and female receptacle, except R-64; 220/240 to 110/120 v., 50/60 cps.

UTC Type	Rating	Size, Inches L.	W.	H.	Wt., Lbs.	Net Each
R-41	85 watt capacity	3 3/16	2⅝	3⅛	4	$5.70
R-42	125 watt capacity	3½	3	3½	5	6.00
R-43	175 watt capacity	3¾	3¼	3⅞	5½	6.90
R-44	250 watt capacity	4⅜	3¼	3⅞	6½	8.40
R-45	500 watt capacity	4⅝	3⅞	4⅝	12	12.00
R-46	1200 watt capacity	6⅞	3⅞	4⅝	18	24.00
R-64	2500 watts, no cord	10½	4¾	6¾	30	45.00

ISOLATION TRANSFORMERS (FIG. F SEE PG. 11)

Ideal for isolating line noise. AC-DC sets, etc. Excellent electrostatic shielding 1500 volt breakdown test. Six foot cord and female receptacle, except R-77.

Primary 110-120 volts 50/60 cycles—Secondary 110-120 volts
Except R-97 220 volt Primary—120 volt Sec.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-72	40	3⅛	2⅝	3⅛	2x1⅞	4	$ 7.20
R-73	100	3¾	3¼	3⅞	2½x2⅜	6	9.00
R-74	250	4⅞	3⅞	4⅝	3x3½	12	15.00
R-75	600	7⅜	3⅞	4⅝	3x5⅞	20	24.00
R-76	1200	8½	4½	6⅛	3⅝x6⅝	30	42.00
R-77	2500	12	7	9	6x11	70	84.00
R-97	250	4⅞	3⅞	4⅝	3x3½	12	15.00

LINE VOLTAGE ADJUSTERS WITH METER (FIG. G SEE PG. 11)

The perfect answer to abnormal or fluctuating line voltage. Adjust switch so that meter reads at red line and you know that your equipment is working at correct voltage. These units combine a tapped auto-transformer with a switch and meter in a compact, rugged assembly. The nine tap switch provides for line voltage of 60 to 140 volts on 115 volt output models and 160 to 240 volts on 230 volt output model. All units are designed for 50/60 cycles service and come complete with 6 foot input cord and plug and outlet receptacle.

Type No.	Primary Voltages	Sec. Volts	Watts Ratings	L	W	H	Wgt. Lbs.	Net Each
R-78	†	115	150	7	4	4¾	6	$17.70
R-79	†	115	300	7	4	4¾	9	18.90
R-80	†	115	600	10¼	4	4¾	13	22.80
R-81	†	115	1200	10¼	4	4¾	21	33.00
R-86	‡	230	1200	10¼	4	4¾	21	33.00

† 60, 70, 80, 90, 100, 110, 120, 130, 140
‡ 160, 170, 180, 190, 200, 210, 220, 230, 240

EXPORT VOLTAGE ADAPTER (FIG. D SEE PG. 11)

Complete with cord and plug and special locking switch providing for line voltages of 105, 115, 125, 135, 150, 210, 230, 250 volts; 42 to 60 cycles. Output voltage 115.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-47	85	4⅝	3	3½	2¼x2¼	4½	$10.20
R-48	150	4¾	3¼	4	2½x2½	5½	11.70

TV VOLTAGE REGULATOR (FIG. D SEE PG. 11)

Complete with cord, plug, and special locking switch. Permits operation of 115 volt 50/60 cycle TV sets on line voltages of 85, 90, 95, 100, 105, 110, 120, 125 V.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-49	350	5	3¼	4	2½x2¾	5	$12.00

SIGNALLING AND CONTROL TRANSFORMERS (FIG. H SEE PG. 11)

Primary 110-120 volts, 50/60 cycles—Secondary
4/8/12/16/20/24 volts

High power transformers suitable for operating relays, sirens horns, gongs, etc. from 115 V. 50/60 cycle line. These units have four secondary terminals providing 4, 8, 12, 16, 20 and 24 volt output. The volt ampere rating is based on the 24 volt secondary tap with corresponding reduction at the lower voltages. Underwriters' approved primary leads are employed, and screw-type binding posts.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
SC-3	50	3	3 1/16	3 9/16	1¾x2¼	3	$7.50
SC-4	100	3¼	3 7/16	4	2⅛x2½	5	9.00
SC-5	250	4	4⅝	4¾	3 5/16x3	10	14.40

INDUSTRIAL DISCOUNTS

Applicable to any UTC products listed in this catalog.

Assorted Quantities, Lots of			
1-24	25-99	100 up	100-499/One Type
Net Price	Net —15%	Net —20%	Net —33⅓%

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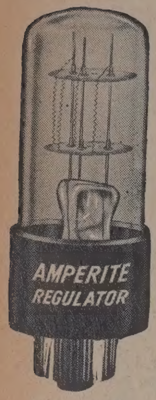
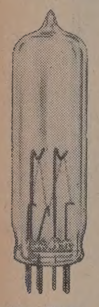
AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE



STANDARD



MINIATURE

AUTOMATIC REGULATION

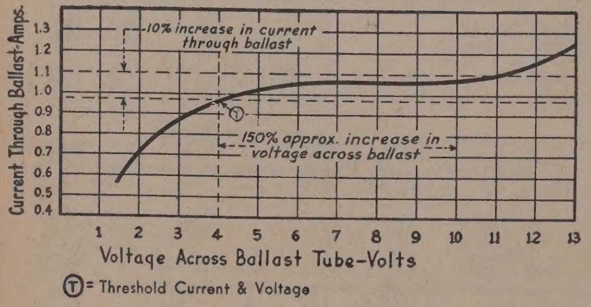
WHAT IT IS

The AMPERITE *Ballast-Regulating Tube* is an automatic *"rheostat"* designed to keep the current in a circuit at a definite value, for example, 0.5 amp.

Should the supply voltage increase, the *Amperite* will automatically increase in resistance enough to take up the increase in supply voltage — keeping the voltage on the load constant. It consists of an iron wire *hermetically sealed* in a bulb containing *hydrogen* or *helium* — the two gases with the *highest heat conductivity*. Its regulating action is based on the high temperature co-efficient of resistance of the iron wire and the rapid cooling of *hydrogen* or *helium* gas.

Being a constant current device, the *AMPERITE Ballast-Regulating Tube* can be used only to regulate a constant load—fixed wattage. Thermostatic relays can sometimes be included in these regulators to reduce initial surge.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



Characteristic curve of a typical Amperite. Approximate curve of any other Amperite can be obtained by multiplying or dividing the current or voltage scale by any number.

Standard Types of Amperite Ballast Tubes_____Net $1.80
Amperite NE70V Neon Lamp _________________Net $1.80

D6-1E
*D6T4
**D6TK7
**D6TF10
**D6TF30
D7-20
D7H4
*D7HT4
*D7HT11
1A10
**1TF10
1-15
*1HT2
*1HT4
1H10
**1HTF10
*1HT11
**1HTF11
1H20
1H22
**2TK7
2A10
2A12
2A20
*2HT2
2H4
*2HT4
**2HTF4
2H10
3-2
**3TF2
**3TK2
3-4
3H-1-7
3H4
**3HTF4
*3T4
*3T4A
**3TF4A
**3TF4
**3TFV4
3V4
3-7
**3TF7
3A10
3-11
3H11
*3T11
3TF11
**3TF12
3-14
3-16
3A20
3H-25
3-38A
3-50A
4A10
4-12
4H3
4H4
4H4C
**4HTF4
**4HTF7
4H10
4H11
5E1
**5TF2
5-4
**5TF4
5A10
5-11
5-16
5H3
5H4
5H10
5H11
6-3
6-4
6-4A
6-4B
*6T4
*6T4F
**6TF4
6-7
**6TF7
6-8B
6A10
6-11
6-12
6-13
6A15
6-36
6H4
**6HTF4
6H6
7-4
**7TF4
7A10
7-11
**7HTF2
**7HTF3
**7HTF4
7H4
7H4B
7H7
7H11
**8TF2
8-3B
8-4
8A10
**9TF2
9-3
9-4
9-4A
9-7
9-8
9A10
10T1
**10TF2
10-3
10-4A
10-4B
10-4C
10-4D
10-4E
10A10
10A12
10-25
11-3
11-4
11A10
11-11
12-4
12-7
12A10
12-11
13-4
15-2
15-4
16-4
17-3
20-3
20-4
22-4
24-3
34-2
35-4
40-6E
41-7E
55-1
55-4

*T denotes T5½ bulb-7 pin miniature, e.g., 3T4.
**TF denotes T6½ bulb-9 pin miniature, e.g., 3TF4.
Base Wiring: Octal, 7 and 9 pin miniature—prongs 2-7.

AMPERITE NEON LAMP
TYPE NE70V Net $1.80

GENERAL ADVANTAGES:

• Light, compact • No moving parts • Rugged; will withstand vibration of 10G. minimum • Hermetically sealed; not affected by altitude or humidity changes • Can be changed as easily as a radio tube • Operates equally well on A.C. or D.C. • Inexpensive

CAPACITIES AVAILABLE

Current values of 60 ma. to 5 amps; threshold voltage 0.4 to 40 V. Maximum dissipation per AMPERITE 50w per tube (ST19 bulb). Any number of AMPERITES with the same voltage range can be operated in parallel. AMPERITES should not be used in series.

AGEING

AMPERITE Ballast Tubes may change approximately up to 3% in current if aged for 4 to 8 hours, at maximum voltage. They will change very little thereafter.

LIFE EXPECTANCY

Average life if operated as recommended	**2000 Hours**
If operated continuously at maximum voltage	**1000 Hours**
If operated continuously at 80% maximum voltage	**5000 Hours**
If filament is operated below glow point	**5000 Hours up**

In operation, the *Amperite* filament starts to glow at one point; as the voltage is increased, the glow spreads over the entire filament. Like incandescent lamps, turning *Amperite* on and off reduces its life, especially if operating near its maximum voltage.

TIME LAG CHARACTERISTICS

Time lag encountered in an *Amperite Ballast Tube* depends upon the wattage consumed by the ballast and the size of the bulb. Where the wattage is small for the size of the bulb, the action can be made practically instantaneous — less than 1 second. In such cases the bulb will remain at practically ambient temperature. When the wattage is high enough to heat the bulb to a temperature uncomfortable to the hand (160°F) the lag might be as much as several minutes for final readings—but normally reaches within 90% of final readings within a few seconds.

AMPERITE NUMBERING SYSTEM

In general, the AMPERITE number approximately denotes the current—voltage threshold value. For example:

Amperite Number	3-4	3H4	10-7	12-11	12H11
Threshold Current	0.3	0.35	1.0	1.2	1.25
Threshold Voltage	4.0	4.0	7.0	11.0	11.0

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.

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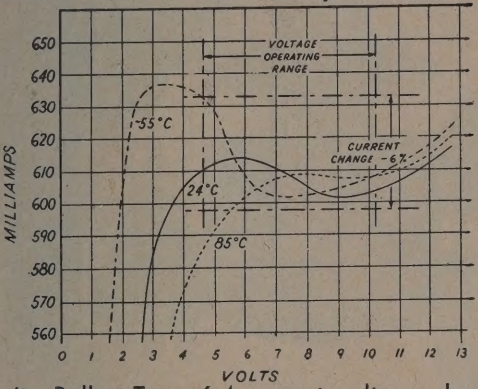
AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE

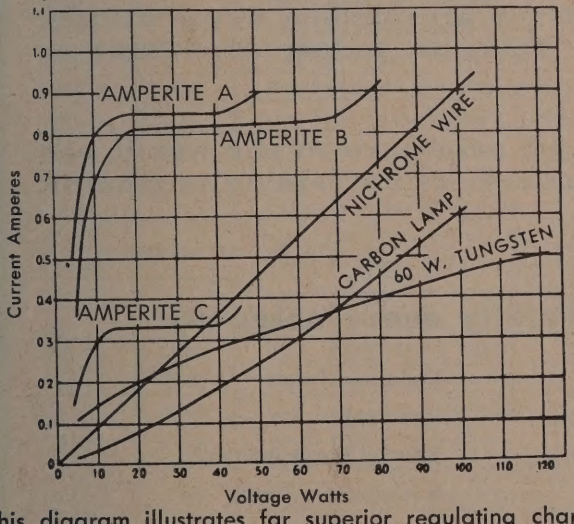
AMBIENT EFFECTS

Ambient temperature variation of —50° to +70° C will change the current value of an *Amperite* approximately 2% on regulating portion of curve as shown directly below. Being hermetically sealed the *Amperite* is not affected by altitude or humidity changes.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



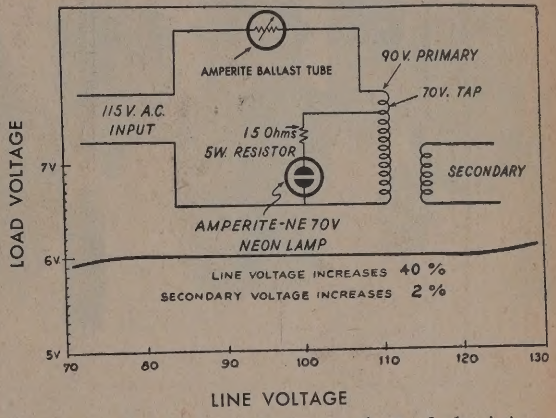
Amperite Ballast-Type 6-4 current voltage characteristic under ambient conditions of —55°, 24°, and 85° C. The percentage change with ambient is approximately the same with all type *Amperite* ballasts.



This diagram illustrates far superior regulating characteristics of the *Amperite* Ballast-Regulating Tube. ***STANDARD SIZES available for various wattage consumption . . . For good regulation, a bulb should not be required to dissipate more than 50% of maximum wattage.***

BATTERY CHARGING AND DISCHARGING

Amperite Ballast Tubes are very successfully used for keeping the current constant in charging and discharging batteries. Any number of *Amperites* of the same voltage range can be placed in parallel to obtain proper current. The current can be kept to ± 1%. Advise voltage variation and currents desired.


AMPERITE BALLAST TUBE
90 V. PRIMARY
70 V. TAP
115 V. A.C. INPUT
15 Ohms 5W. RESISTOR
SECONDARY
AMPERITE-NE 70V NEON LAMP
LOAD VOLTAGE
7V
6V
5V
LINE VOLTAGE INCREASES 40 %
SECONDARY VOLTAGE INCREASES 2 %
70 80 90 100 110 120 130
LINE VOLTAGE

A light, compact, and inexpensive method of obtaining close regulation is to use an *Amperite Ballast Tube* with an *Amperite* Neon Lamp — type NE70V. Base octal-base wiring-prongs 2-5. One NE70V is used for all loads up to 100W.

POWER SUPPLIES

We strongly recommend, for any particular application, to fill in and return one of our special problem sheets (ASP 343) and permit us to recommend the most suitable AMPERITE.

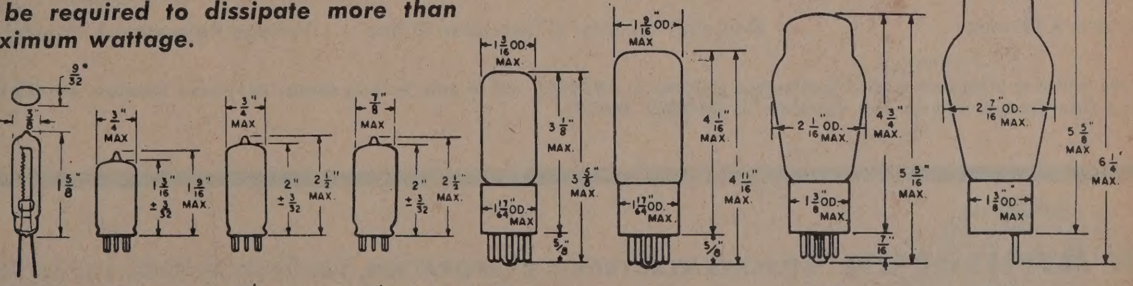
POWER SUPPLY	Dry Cells	6 Volts	12 Volts	26 Volts	115 Volts
Supply Variation	2.2-3.0V	5.5-7.5V	11.4-13.8V	22.0-30.0V	105-125V
Desired on Load	1.8-2.0V	3.9-4.1V	6.1- 6.4V	12.4-12.8V	90- 95V
Required on AMPERITE	0.4-1.0V	1.6-3.4V	5.3- 7.4V	9.6-19.2V	15- 30V
Current Variation	.29-.32a	.29-.32a	.29- .32a	.29- .32a	.29-.32a

The above chart shows the maximum load voltage for the given supply to obtain ± 2% current regulation on load. Better regulation is obtainable by increasing the voltage across the **AMPERITE.** Up to a point, the higher the percentage of the supply voltage taken up by the **AMPERITE,** the better the regulation.

Radio tube filament loads — have low cold resistance which causes a high initial surge. For such loads we recommend a bleeder of 20 to 50% prox. of load and the corresponding **AMPERITE.** e.g.

FILAMENT LOAD	USE AMPERITE	TOTAL CURRENT
0.3a	4HTF4	0.45a
0.6a	8-4	0.8a
0.7a	9H4	0.95a

On Radio tube filament loads the bleeder will also improve the regulation.


9/32"
3/8"
1 5/8"
3/4" MAX
1 3/16" ± 3/32
1 9/16" MAX.
3/4" MAX
2" ± 3/32
2 1/2" MAX.
7/8" MAX
2" ± 3/32
2 1/2" MAX.
1 3/16" OD. MAX.
3 3/8" MAX.
3 5/8" MAX.
1 17/64" OD. MAX
5/8"
1 9/16" OD. MAX
4 1/16" MAX.
4 11/16" MAX.
1 17/64" OD. MAX.
5/8"
2 1/16" OD. MAX.
4 3/4" MAX.
5 5/16" MAX.
1 3/8" OD. MAX.
7/16"
2 7/16" OD. MAX.
5 5/8" MAX.
6 1/4" MAX.
1 3/8" OD. MAX

SIZE	SUB. MIN. L	T5½S	T5½L	T6½L	T9	T-12	ST-16	ST-19
MAX. WATTS	2 W.	3	5	5	12	25	30	50
WT. PER TUBE	2 GMS.	7 GMS.	8 GMS.	8 GMS.	1 OZ.	2¼ OZ.	2½ OZ.	2¾ OZ.

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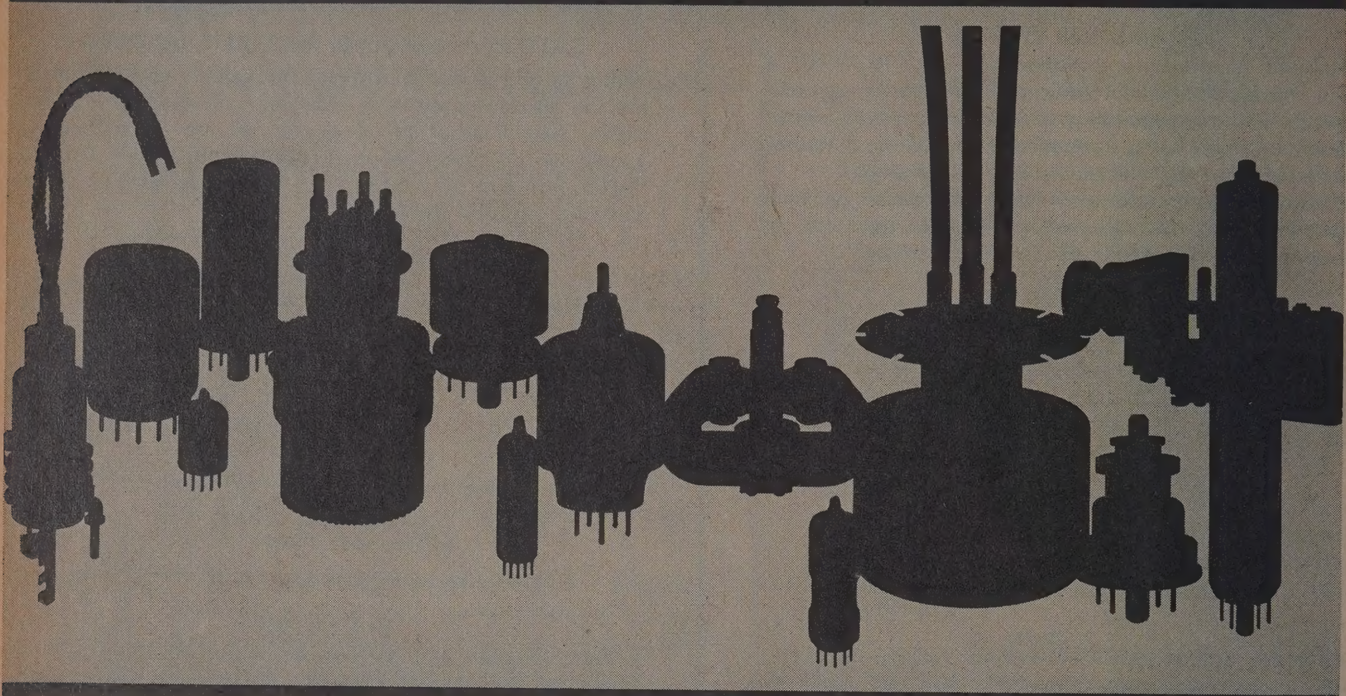
AMPEREX ELECTRON TUBES



Amperex Electron Tubes are available for all modern applications, including communications, entertainment, amateur, industrial, radiation detection and military.

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- Miniature Tubes
- Neutron Generators & Detectors
- Photomultiplier Tubes
- Power Tubes
- Premium-Quality Tubes
- Premium-Quality, 10,000 Hour-Guaranteed Tubes
- Radiation Counter & Detection Tubes
- Receiving Tubes
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- Tuning Indicator Tubes
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TYPE	OTHER DESIG NATIONS	DESCRIPTION	MAX. CONTINUOUS AVERAGE DC ANODE CURRENT (AMPS)	OSCILLOGRAPH PEAK ANODE CURRENT CONTINUOUSLY RECURRING (AMPS)	MAX. INSTANTANEOUS PEAK FORWARD VOLTAGE	MAX. INSTANTANEOUS PEAK INVERSE VOLTAGE
RECTIFIERS						
EL 1C	3B22	Full Wave. A4-10 Base. Single End.	1.0	4.0		725
EL 3B	6013	Half Wave. A4-10 Base. Anode Cap.	2.5	20		920
EL 3C	4B24	Full Wave. A4-81 Base. Single End.	2.5	10		725
EL 3C/L	6982	Full Wave. Lug Type Base. Single End.	2.5	10		725
EL 6B	5892	Half Wave. A4-81 Base. Anode Cap.	6.4	77		920
EL 6B/L	6983	Half Wave. Lug Type Base. Anode Cap.	6.4	77		920
EL 6C		Full Wave. A4-81 Base. Single End	6.4	25.6		725
EL 6F	6015	Half Wave. Panel Mounted. Flexible Leads	6.4	77		920
EL 16F		Half Wave. Panel Mounted. Flexible Leads	16	96		620
THYRATRONS						
EL C1B	3C31	A4-10 Base. Anode Cap.	1.0	8.0	525	700
EL C1B/A	5664	A4-10 Base. Anode Cap.	1.0	8.0	750	1250
EL C1K	6014	A4-10 Base. Single End	1.0	8.0	1000	1250
EL C1K/B	7319	A4-10 Base. Single End.	1.0	8.0	2000	2000
EL C3J	5632	A4-10 Base. Anode Cap.	2.5	30	900	1250
EL C3J/A	5684	A4-10 Base. Anode Cap.	2.5	30	1000	1250
EL C3J/L	7216	Lug Type Base. Anode Cap.	2.5	30	900	1250
EL C3J/AL	7556	Lug Type Base. Anode Cap.	2.5	30	1000	1250
EL C4H-1		A4-81 Base. Anode Cap.	4.0	50	1700	1700
EL C4H-2		Panel Mounted. Anode Cap.	4.0	50	1700	1700
EL C4H-3		Lug Type Base. Anode Cap.	4.0	50	1700	1700
EL C4H-4		Panel Mounted. Flexible Leads	4.0	50	1700	1700
EL C4H-5		Lug Type Base. Flexible Lead.	4.0	50	1700	1700
EL C6C	6987	#4310 Base. Anode Cap.	6.4	77	2000	4000
EL C6H-1		A4-81 Base. Anode Cap.	6.4	80	1700	1700
EL C6H-2		Panel Mounted. Anode Cap .	6.4	80	1700	1700
EL C6H-3		Lug Type Base. Anode Cap.	6.4	80	1700	1700
EL C6H-4		Panel Mounted. Flexible Leads.	6.4	80	1700	1700
EL C6H-5		Lug Type Base. Flexible Lead.	6.4	80	1700	1700
EL C6J	5C21	A4-81 Base. Anode Cap.	6.4	77	750	1250
EL C6J/A	5685	A4-81 Base. Anode Cap.	6.4	77	1000	1250
EL C6J/F	6860	Panel Mounted. Anode Cap.	6.4	77	1000	1250
EL C6J/L	6988	Lug Type Base. Anode Cap.	6.4	77	750	1250
EL C6J/K	6864	A4-81 Base. Anode Cap.	6.4	77	1000	1250
EL C6J/KF	6871	Panel Mounted. Flexible Leads.	6.4	77	1000	1250
EL C6J/KL	6989	Lug Type Base. Anode Cap.	6.4	77	1000	1250
EL C16J	5665	Panel Mounted. Flexible Leads.	16.0	160	1000	1250
EL C16H		Panel Mounted. Flexible Leads.	16.0	160	1700	1700

ELECTRONS, INCORPORATED

NEWARK 3, N.J.

EIMAC POWER GRID TUBES and Accessories

(24 hour factory delivery on most distributor orders)

DIODES & RECTIFIERS

		Filament Voltage (Volts)	Filament Current (Amps)	Peak Inverse Voltage (Volts)	Peak Plate Current (Amps)	Average Plate Current (ma)	Plate Dissipation (Watts)	User Price
Instrument Diode	2-01C	5.0	0.35	1,000	0.01	1	0.1	$ 18.00
Internal Anode	2-25A	6.3	3.0	25,000	1.0	50	15	24.00
	2-50A	5.0	4.0	30,000	1.0	75	30	27.00
	8020/100R	5.0	6.5	40,000	1.5	100	60	16.00
	2-150D	5 0	13.0	30,000	3.0	250	90	44.50
	253	5.0	10.0	15,000	2.5	350	100	37.00
	2-240A	7.5	12.0	25,000	4.0	500	150	50.00
	250R	5.0	10.5	60,000	2.5	250	150	36.00
	2-450A	7.5	26.5	30,000	8.0	1000	450	138 00
	2-2000	10.0	25.0	75,000	12.0	750	1200	250.00
External Anode	2X1000A	26.5	2.2	25,000	25.0	1250	1000	144.00
	2X3000F	7.5	51.0	25,000	20.0	3000	3000	168.00
Mercury Vapor	RX21A	2.5	10.0	11,000	3.0	750	....	25.75
	KY21A	2.5	10.0	11,000	3.0	750	....	26.75

At Eimac you'll find the most complete line of power grid tubes available today: triodes, tetrodes, pulse modulators, diodes, zero-bias tubes, ceramic tubes, glass tubes, air cooled, water cooled and vapor cooled tubes. And there are more to come! Continuing Eimac projects are ever increasing the scope of power grid tube capabilities.

TRIODES

		MAXIMUM RATINGS				ELECTRICAL CHARACTERISTICS			
		Plate Dissipation (Watts)	Plate Voltage (Volts)	Plate Current (Amps)	Grid Dissipation (Watts)	Filament Voltage (Volts)	Filament Current (Amps)	Amplification Factor	User Price
UHF	3CPN10A5	10	3500 (Pulsed)	3.0 (Pulsed)	2	6.0	1.0	100	$ 32.00
	2C39A	100	1000	0.125	2	6.3	1.0	100	20.75
	2C39WA	100	1000	0.125	2	6.3	1.0	100	32.00
	3CX100A5	100	1000	0.125	2	6.0	1.0	100	31.00
	3CX100F5	100	1000	0.125	2	26.5	0.22	100	34.00
	3CPX100A5	100	3500 (Pulsed)	3.0 (Pulsed)	2	6.0	1.0	100	32.00
Internal Anode	25T	25	2000	0.075	7	6.3	3.0	24	28.50
	3C24	25	2000	0.075	7	6.3	3.0	24	16.00
	35T	50	2000	0.150	15	5.0	4.0	39	33.00
	75TH	75	3000	0.225	16	5.0	6.25	20	43.00
	75TL	75	3000	0.225	13	5.0	6.25	12	43.00
	100TH	100	3000	0.225	20	5.0	6.3	38	23.50
	100TL	100	3000	0.225	15	5.0	6.3	14	23.50
	592/3-200A3	200	3500	0.250	25	10.0	5.0	25	46.00
	250TH	250	4000	0.350	40	5.0	10.5	37	38 50
	250TL	250	4000	0.350	35	5.0	10.5	14	38 50
	304TH	300	3000	0.900	60	5 or 10	25 or 12.5	20	75 00
	304TL	300	3000	0.900	50	5 or 10	25 or 12.5	12	75 00
	3-400Z	400	4000	0.40	20	5.0	14.5	200	34 00
	450TH	450	6000	0.600	80	7.5	12.0	38	85 00
	450TL	450	6000	0.600	65	7.5	12.0	18	85 00
	750TL	750	10,000	1 0	100	7.5	21.0	15	169 00
	3-1000Z	1000	6000	0.80	50	7.5	21.3	200	119 00
	1000T	1000	7500	0.750	80	7.5	15.5	35	169 00
	1500T	1500	8000	1.250	125	7.5	24.0	24	320.00
	2000T	2000	8000	1.750	150	10.0	23.5	23	425.00
External Anode Forced Air Cooled	3CX1000A7	1000	2500	1.0	45	5.0	34	200	194.00
	3X2500A3	2500	6000	2.5	150	7.5	51.0	20	200.00
	3X2500F3	2500	6000	2.5	150	7.5	51.0	20	205.00
	3X3000A1	3000	6000	2.5	50	7.5	51.0	5	210 00
	3X3000F1	3000	6000	2.5	50	7.5	51.0	5	220 00
	3X3000A7	3000	5000	2.5	225	7.5	51.0	200	255 00
	3X3000F7	3000	5000	2.5	225	7.5	51.0	200	260.00
	3CX10,000A1	10,000	7000	4.0	100	7.5	100.0	5.5	490 00
	3CX10,000A3	10,000	7000	4.0	250	7.5	100.0	20	490 00
	3CX10,000A7	10,000	7000	4.0	500	7.5	100.0	200	650 00
External Anode Water Cooled	3W5000A1	5000	6000	2.5	50	7.5	51.0	5	280.00
	3W5000F1	5000	6000	2.5	50	7.5	51.0	5	260 00
	3W5000A3	5000	6000	2.5	150	7 5	51.0	20	245.00
	3W5000F3	5000	6000	2.5	150	7 5	51.0	20	250 00
	3CW20,000A1	20,000	7000	4.0	100	7.5	100.0	5.5	560.00
	3CW20,000A3	20,000	7000	4.0	250	7.5	100.0	20	560.00
	3CW20,000A7	20,000	7000	4.0	500	7.5	100.0	200	710.00
External Anode Vapor Cooled	3CV30,000A3	30,000	10,000	6.0	500	6.3	158	20	710.00

Net

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TETRODES

	Tube	Plate Dissipation (Watts)	Plate Voltage (Volts)	Plate Current (Amps)	Grid Dissipation (Watts)	Screen Voltage (Volts)	Screen Dissipation (Watts)	Filament Voltage (Volts)	Filament Current (Amps)	User Price
Internal Anode	4-65A	65	3000	0.15	5	600	10	6.0	3.5	$ 27.00
	4-125A	125	3000	0.225	5	600	20	5.0	6.5	36.00
	4-250A	250	4000	0.35	10	600	35	5.0	14.5	46.50
	4-400A	400	4000	0.35	10	600	35	5.0	14.5	48.00
	4-1000A	1000	6000	0.70	25	1000	75	7.5	21.0	131.50
External Anode Conduction Cooled	4CN15A	15	2500	0.25	2	400	12	6.0	3.0	58.50
External Anode Forced Air Cooled	4CX125C	125	2500	0.25	2	400	12	6.0	2.7	61.50
	4CX125F	125	2500	0.25	2	400	12	26.5	0.6	123.50
	4X150A	250	2000	0.25	2	400	12	6.0	2.6	25.00
	4X150D	250	2000	0.25	2	400	12	26.5	0.57	27.90
	4X150G	250	2000	0.25	2	400	12	2.5	7.0	58.00
	4X150R	250	2000	0.25	2	400	12	6.0	2.7	45.50
	4X150S	250	2000	0.25	2	400	12	26.5	0.62	48.50
	4X250B	250	2000	0.25	2	400	12	6.0	2.6	36.50
	4X250F	250	2000	0.25	2	400	12	26.5	0.7	36.50
	4CX250B	250	2000	0.25	2	400	12	6.0	2.6	39.00
	4CX250F	250	2000	0.25	2	400	12	26.5	0.56	39.00
	7580	250	2000	0.25	2	500	12	6.0	2.6	45.00
	4CX250R	250	2000	0.25	2	500	12	6.0	2.6	45.00
	4CX250K	250	2000	0.25	2	400	12	6.0	2.6	64.00
	4CX250M	250	2000	0.25	2	400	12	26.5	0.57	92.50
	4CX300A	300	2500	0.25	2	400	12	6.0	2.7	58.50
	4CX300Y	300	2000	0.40	1	400	8	6.0	3.5	.....
	4CX350A	350	2000	0.30	..	400	8	6.0	3.3	55.50
	4CX350F	350	2000	0.30	..	400	8	26 5	0.7	60.00
	4X500A	500	4000	0.35	10	500	30	5.0	13.5	127.50
	4CX1000A	1000	3000	1.0	0	400	12	6.0	10.5	181.00
	4CX1000K	1000	3000	1.0	0	400	12	6 0	10.5	218.00
	4CX3000A	3000	7000	2.0	50	1000	175	10.0	45.0	420.00
	4CX5000A	5000	7500	4 0	75	1500	250	7.5	75.0	495.00
	4CX5000R	5000	7500	4 0	75	1500	250	7.5	75.0	705.00
	4CX10,000D	10,000	7500	4.0	75	1500	250	7.5	75.0	550.00
	4CX15,000A	15,000	10,000	6.0	200	1500	450	6.3	160 0	695.00
	4CX35,000C	35,000	20,000	15.0	500	2500	1750	10.0	300.0	1765.00
External Anode Water Cooled	4W300B	300	2000	0.25	2	400	12	6.0	2.6	57.00
	4CW2000A	2000	3000	1 0	0	400	12	6.0	10.5	220.00
	4CW10,000A	10,000	7500	3.0	75	1500	250	7.5	75.0	610.00
	4W20,000A	20,000	8000	15.0	60	1500	200	10 0	30.0	1950.00
	4CW50,000C	50,000	20,000	15.0	500	2500	1750	10.0	300.0	2100.00
External Anode Vapor Cooled	4CV8000A	8000	7000	2.0	50	1000	175	10.0	45.0	470.00
	4CV20,000A	20,000	7500	4.0	75	1500	250	7.5	75.0	590.00
	4CV35,000A	35,000	10,000	6.0	200	2000	450	6.3	160.0	825.00
	4CV100,000C	100,000	20,000	15.0	500	2500	1750	10.0	300.0	2350.00

PENTODE

	Tube	Plate Dissipation (Watts)	Plate Voltage (Volts)	Plate Current (Amps)	Grid Dissipation (Watts)	Screen Voltage (Volts)	Screen Dissipation (Watts)	Filament Voltage (Volts)	Filament Current (Amps)	User Price
Internal Anode	4E27A/5-125B	125	4000	0.20	5	750	20	5.0	7.5	45.00

PULSE MODULATORS

Tube	Plate Dissipation (Watts)	Plate Voltage (Volts)	Peak Plate Current (Amps)	Grid Dissipation (Watts)	Screen Voltage (Volts)	Screen Dissipation (Watts)	Filament Voltage (Volts)	Filament Current (Amps)	User Price
6C21	300	30,000	15	50	..	..	8.2	17.0	$ 93.00
4PR60B	60	20,000	18	1	1500	8	26.0	2.25	107.00
4PR65A	65	15,000	1	5	2000	10	6.0	3.5	43.00
4PR125A	125	18,000	1.8	5	2000	20	5.0	6.5	57.00
4PR250C	250	50,000	4	5	2000	25	5.0	14.5	188.00
4PR400A	400	20,000	4	10	2500	35	5.0	14.5	64.00
4PR1000A	1000	30,000	8	25	2500	75	7.5	21.4	156.00

SOCKETS

Socket	Tube	Screen By-Pass Capacitor μμf	User Price
SK-300	4CX5000A, 4CX5000R 4CX10,000D, 4CW10,000A	none	$105.00
SK-300A	4CX15,000A	none	105.00
SK-310	4CV20,000A, 4CV35,000A	none	.....
SK-400	4-125A, 4-250A, 4-400A 4PR125A, 4PR250C, 4PR400A	none	17.50
SK-410	3-400Z, 4-125A, 4-250A 4-400A, 4PR125A, 4PR250C 4PR400A	none	6.50
SK-500	4-1000A, 4PR1000A	none	20.00
SK-510	3-1000Z, 4-1000A, 4PR1000A	none	6.50
SK-600	4X150A 4X150D 4X150R 4X150S 4X250B 4X250F 4CX250B 4CX250F 7580 4CX350A 4CX350F 4W300B	2700	11.50
SK-600A		2700	12.00
SK-610*		2700*	11.50
SK-620		1100	12.50
SK-620A		1100	15.00
SK-630*		1100*	12.50
SK-630A*		1100*	15.00
SK-640		none	7.50
SK-650*		none*	8.50

*Grounded cathode contacts

Socket	Tube	Screen By-Pass Capacitor μμf	Special Characteristics	User Price
SK-655		1100	(Screen bypass capacitor for use with SK-650)	$ 7.00
SK-700	4CN15A	1100	1 Heater grounded	23.00
SK-710	4CX125C 4CX125F	1100	1 Heater, cathode grounded	23.00
SK-711A	4CX300A 4CX300Y	1100	1 Heater, cathode grounded	26.50
SK-740		none		10.00
SK-760	4CX300A, 4CX300Y	none	Integral chimney	10.00
SK-770	4CX300A, 4CX300Y	none	Integral chimney grounded screen contacts	10.00
SK-800B	4CX1000A, 4CW2000A	1500		56.00
SK-810B	4CX1000A, 4CW2000A	1500	1 Heater, cathode grounded	56.00
SK-860	3CX1000A7	none		38.00
SK-870	3CX1000A7	none	Grid contacts grounded	40.00
SK-890B	4CX1000A, 4CW2000A	1500	Cathode, 1 Heater grounded	65.00
SK-900	4X500A	650		68.50
SK-1300	3CX10,000A1, 3CX10,000A3 3CX10,000A7, 3CW20,000A1 3CW20,000A3, 3CW20,000A7	none		64.50
SK-1310	3CV30,000A3	none		.....
SK-1400A	4CX3000A	1800		93.00
SK-1470A	4CX3000A	none	Screen contacts grounded	93.00
SK-1490	4CV8000A	none		88.35
SK-1500	4CX35,000C, 4CW50,000C	none		220.00
SK-1510	4CV100,000C	none		.....

CHIMNEYS

	used with socket	User Price
SK-306	SK-300, SK-300A	$. 6.50
SK-316	SK-300, SK-300A	9.65
SK-406	SK-400, SK-410	6.50
SK-416	SK-410 (3-400Z only)	6.50
SK-506	SK-500, SK-510	12.00
SK-516	SK-510 (3-1000Z only)	12.00
SK-606	SK-600, SK-600A, SK-610 SK-640, SK-700, SK-711A	.75

		User Price
SK-626	SK-620, SK-620A, SK-630 SK-630A, SK-655	$ .75
SK-636A	SK-620, SK-620A,	11.00
SK-636B	SK-630, SK-630A	11.00
SK-806	SK-800B, SK-810B, SK-890B	8.50
SK-816	SK-860, SK-870	7.00
SK-906	SK-900	11.50
SK-1306	SK-300A, SK-1300	6.50
SK-1406	SK-1400A, SK-1470A	6.50

Specifications subject to change without notice. Write for complete specifications on any tube to:

Power Grid Tube Marketing,
EITEL-McCULLOUGH, INC.,
San Carlos, California.

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ITT ENTERTAINMENT
RECEIVING TUBES

Tube Type

- 1G3GT /1B3GT
- 1R5
- 1S5
- 1T4
- 1U4
- 1U5
- 1X2B
- 3AL5
- 3AU6
- 3AV6
- 3BN6
- 3BZ6
- 3CB6
- 3DK6
- 3DT6
- 3V4
- 4BC8
- 4BQ7A
- 4BZ6
- 4BZ7
- 4CB6
- 4DT6
- 5AQ5
- 5CG8
- 5J6
- 5U8
- 5U4GB
- 5Y3GT
- 6AC7GT
- 6AF4A
- 6AK5
- 6AL5
- 6AM8A
- 6AN8A
- 6AQ5A
- 6AQ8A
- 6AR5
- 6AT6
- 6AU4GTA
- 6AU6A
- 6AV6
- 6AW8A
- 6AX4GTB
- 6BA6
- 6BC8
- 6BE6
- 6BG6G
- 6BH6
- 6BJ6
- 6BK5
- 6BM8
- 6BN6
- 6BN8
- 6BQ5
- 6BQ6GTB /6CU6
- 6BQ7A
- 6BZ6
- 6BZ7
- 6C4
- 6CA4
- 6CA7
- 6CB6A
- 6CF6
- 6CG7
- 6CG8A
- 6CL6
- 6CM7
- 6CQ8
- 6CS7
- 6DE7
- 6DK6
- 6DQ6B
- 6DT6
- 6EA8
- 6EM5
- 6EW6
- 6J5GT
- 6J6A
- 6K6GT
- 6SA7GT
- 6SJ7GT
- 6SK7GT
- 6SL7GT
- 6SN7GTB
- 6SQ7GT
- 6T8A
- 6U8A
- 6V6GT
- 6W4GT
- 6W6GT
- 6X4
- 6X5GT
- 6X8
- 7AU7
- 8AW8A
- 8BQ5
- 8CG7
- 8EM5
- 10DE7
- 12AL5
- 12AQ5
- 12AT6
- 12AT7
- 12AU6
- 12AU7A
- 12AV6
- 12AX4GTB
- 12AX7A
- 12BA6
- 12BE6
- 12BH7A
- 12BK5
- 12BQ6GTB
- 12BY7A
- 12DQ6B
- 12SA7GT
- 12SK7GT
- 12SL7GT
- 12SN7GTA
- 12SQ7GT
- 19T8
- 25C5
- 25L6GT
- 32ET5
- 35C5
- 35L6GT
- 35W4
- 35Z5GT
- 36AM3
- 50BM8
- 50C5
- 50EH5
- 50L6GT

SPECIAL SELECTED AUDIO TYPES

SPECIAL SELECTED AUDIO TYPES	AMERICAN EQUIVALENT
EB-91	6AL5 (NR)
ECC-81	12AT7 ER
ECC-82	12AU7 (NR)
ECC-83	12AX7 ER
ECC-85	6AQ8 ER
ECC-88	6DJ8 ER
ECF-82	6U8 ER
ECL-82	6BM8 ER
EF-94	6AU6 (NR)
EL-84	6BQ5 ER
EL-90	6AQ5 ER
EZ-80	6V4 ER
ELL-80	6HU8 ER
EM-84A	6FG6 ER
E-88-CC	6DJ8 or 6922 ER
EABC-80	6T8 ER
ECH-81	6AJ8 ER
EF-89	6DA6 ER
EF-184	6EJ7 ER
EL-95	
GZ-34	5U4G/GB (NR)
EBF-89	

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SERVICE-DESIGNED RECEIVING TUBES

ELECTRONICS

Effective July 15, 1963

Type	List Price
0Z4	$2.45
0Z4A*	2.15
0Z4G	2.60
1A7GT	5.75
1AD2	*
1AX2	3.05
1B3GT	2.90
1DN5	3.65
1G3GT	2.90
1H2	3.05
1H5GT	4.15
1J3	
1K3	2.90
1L4†	3.20
1L6	6.85
1LA6	6.20
1LH4	8.10
1LN5	8.20
1N2A	4.65
1R5	3.05
1S2A	2.70
1S4	4.35
1S5	2.90
1T4	2.90
1U4	2.90
1U5	2.65
1V2	2.10
1X2A/B	3.05
2A3	10.50
2AF4A	4.10
2AF4B	4.10
2AH2	*
2AS2	*
2BN4A	2.55
2CW4	4.45
2CY5	3.05
2DZ4	4.10
2EN5	2.10
2ER5	3.55
2FH5	3.05
2FQ5A	4.05
2FS5	3.10
2FY5	2.80
2GK5	4.05
2GU5	4.25
3A2	4.85
3A3	3.40
3AF4A	4.10
3AL5	2.05
3AT2	*
3AU6	2.36
3AV6	1.90
3B2	10.35
3BC/3CE5	2.35
3BE6	2.25
3BN4	2.90
3BN6	3.75
3BU8	3.35
3BY6	2.90
3BZ6	2.30
3CB6	2.30
3CE5	2.35
3CF6	2.70
3CS6	2.65
3CY5	3.25
3DG4	3.65
3DK6	2.45
3DT6	2.20
3DZ4	4.10
3EA5	3.75
3EH7	2.75
3EJ7	2.75
3ER5	3.55
3FS5	3.05
3GK5	4.15
3HA5	4.10
3Q4	3.55
3Q5GT	5.70
3S4	3.20
3V4	2.50
4AU6	2.35
4BC8	4.10
4BL8/XCF80	2.55
4BN6	3.75
4BQ7A	4.00
4BS8	3.90
4BU8	3.35
4BZ6	2.25
4BZ7	4.05
4CB6	2.30
4CE5	2.35
4CS6	2.35
4CY5	2.85
4DE6	2.65
4DT6	2.20
4EH7	3.80
4EJ7	3.80
4ES8	4.65
4EW6	2.65
4GK5	4.15
4GZ5	2.40
4HS8	3.05
5AM8	3.55
5AN8	4.00
5AQ5	2.35
5AR4	4.50
5AS8	4.15
5AT8	3.70
5AU4	3.40
5AV8	4.10
5AZ4	5.65
5B8	5.30
5BE8	3.35
5BK7A	3.40
5BQ7A	4.00
5BR8	3.65
5BT8	3.30
5BW8	3.40
5CG8	3.35
5CL8A	3.50
5CM8	3.80
5CQ8	4.10
5CZ5	4.35
5DH8	5.10
5DJ4	2.65
5EA8	3.35
5ES8	5.80
5EU8	3.35
5EW6	2.65
5FG7	2.80
5FV8	3.15
5GH8	3.95
5GX6	2.65
5HG8	4.45
5J6	2.85
5T8	3.65
5U4GB	2.10
5U8	3.35
5V3	3.85
5V4GA	3.50
5V6GT	2.45
5X8	3.45
5Y3GT	1.75
5Y4GA	2.55
5Y4GT	2.65
5Z3	3.30
6A7	8.55
6A8	6.90
6AB4	2.15
6AC7	5.10
6AC7Y†	5.30
6AF3	2.90
6AF4	4.00
6AF4A	4.00
6AF11	*
6AG5	2.75
6AG7	5.90
6AG11	*
6AH4GT	3.45
6AH6	4.70
6AK5†	4.30
6AL3	2.95
6AL5	1.85
6AL7GT†	5.75
6AL11	*
6AM4	5.90
6AM8A	3.45
6AN4	6.55
6AN8A	4.00
6AQ5A	2.15
6AQ6	2.60
6AQ7GT	5.00
6AQ8	3.20
6AR5	2.60
6AR8	5.15
6AR11	*
6AS5	2.55
6AS8	3.80
6AS11	*
6AT6	1.90
6AT8A	3.80
6AU4GTA	3.60
6AU5GT	4.30
6AU6A	2.10
6AU8A	3.80
6AV5GA	4.25
6AV6	1.65
6AV11	*
6AW8A	3.75
6AX3	*
6AX4GTB	2.65
6AX5GT	2.95
6AX8	3.70
6AY3	2.80
6AY11	*
6AZ8	5.55
6B8	7.30
6B10	*
6BA6	2.00
6BA7	5.95
6BA8A	3.90
6BA11	*
6BC5/6CE5	2.35
6BC7	3.80
6BC8	4.00
6BD6	2.45
6BD11	*
6BE3	*
6BE6	2.20
6BF5	3.55
6BF6	1.90
6BF8	4.35
6BF11	*
6BG6GA	6.50
6BH6	2.70
6BH8	3.65
6BJ3	*
6BJ6	2.60
6BJ7	3.15
6BJ8	3.50
6BK4	8.00
6BK5	3.70
6BK7B	3.40
6BL7GTA	4.05
6BL8	3.95
6BM8	3.05
6BN4	2.65
6BN6	3.20
6BN8	3.05
6BQ5	2.40
6BQ6GA	4.35
6BQ6GTB	4.35
6BQ7A	3.80
6BR8A	3.65
6BS8	3.75
6BU8	3.10
6BV8	3.20
6BW4	2.90
6BW8	3.55
6BX7GT	4.35
6BY5GA	5.10
6BY6	2.65
6BY8	2.65
6BZ6	2.25
6BZ7	4.00
6BZ8	4.45
6C4	1.85
6C5	4.30
6C9	5.80
6C10	*
6CA4	2.10
6CA5	3.20
6CA7†	5.20
6CB5A	8.60
6CB6A	2.25
6CD6GA	5.80
6CE5	2.35
6CF6	2.55
6CG7	2.45
6CG8A	3.30
6CH8	5.20
6CK4	3.00
6CL5	9.60
6CL6	3.75
6CL8A	3.35
6CM6	3.30
6CM7	2.90
6CM8	4.25
6CN7	2.90
6CQ4	3.20
6CQ8	3.50
6CR6	2.40
6CS6	2.65
6CS7	3.00
6CU5	2.65
6CU6	4.35
6CU8	4.35
6CW4	4.45
6CW5	3.60
6CX8	3.85
6CY5	2.80
6CY7	3.20
6CZ5	4.10
6D10	*
6DA4	2.70
6DA5†	2.80
6DB5	5.30
6DC8	3.25
6DE4	2.80
6DE6	2.55
6DE7	3.40
6DG6GT	2.50
6DJ8	5.00
6DK6	2.35
6DM4	2.75
6DN6	7.45
6DN7	3.55
6DQ4	2.65
6DQ5	7.70
6DQ6A	4.15
6DQ6B	4.15
6DR7	3.65
6DS4	4.45
6DS5	3.50
6DT5	3.25
6DT6	2.15
6DT6A	2.15
6DT8	3.80
6DW4	3.75
6DW5	4.05
6DX8	3.25
6DZ4	4.00
6DZ7	8.45
6E5†	5.10
6EA5	3.80
6EA8	3.20
6EA7	3.80
6EB5	4.90
6EH5	2.90
6EH7	4.10
6EB8	4.25
6EH8	3.20
6EJ7	3.80
6EM5	3.40
6EM7	5.10
6EQ7	2.90
6ER5	3.80
6ES5	3.00
6ES8	5.80
6ET7	4.25
6EU7	2.70
6EU8	3.30
6EV5	3.00
6EV7	2.90
6EW6	2.50
6EW7	4.05
6EX6	8.00
6EY6	3.40
6EZ5	3.60
6EZ8	3.80
6F5	4.60
6F6	5.90
6F6GT	5.90
6FD6	3.80
6FD7	4.65
6FG5	5.20
6FG6†	3.25
6FG7	2.90
6HF5	2.90
6FJ7	*
6FM7	*
6FM8	3.00
6FQ5	4.10
6FQ7	2.30
6FS5	3.05
6FV6	3.95
6FV8	3.15
6FW5	4.10
6FY5	2.90
6FY7	*
6G11	*
6GC5	3.65
6GE5	*
6GF5	*
6GH8	3.20
6GJ7	3.65
6GK5	4.10
6GK6	2.90
6GM5	3.20
6GM6	2.70
6GM8/ECC86	4.65
6GN8	3.95
6GU5	4.25
6GV5	*
6GW6	4.15
6GW8	3.20
6GX6	2.30
6GY5	*
6GY6	2.50
6GY8	3.80
6H6	3.95
6HA5/ECC900	4.05
6HA6	3.25
6HB5	*
6HB6	4.75
6HD5	*
6HD5	*
6HE5	*
6HF5	*
6HF8	3.95
6HG8	4.40
6HJ8	3.30
6HK5	4.75
6HS6	2.90
6HS8	3.20
6HZ6	2.65
6HZ8	4.35
6J5	3.65
6J6	2.80
6J7	5.00
6J11	*
6JC8	3.05
6JE8	3.95
6JH8	4.35
6JK8	4.30
6JN8	3.00
6JU8	3.20
6JZ8	*
6K6GT	2.65
6K7	4.95
6K8	7.55
6K11	*
6KA8	4.10
6KZ8	2.80
6L6†	8.65
6L6GC†	4.20
6M11	*
6N7	5.00
6Q7	5.35
6S4A	2.50
6S8GT	4.45
6SA7	4.30
6SB7Y	6.35
6SC7	4.35
6SF5	3.75
6SF7	6.30
6SG7	4.65
6SH7	4.50
6SJ7	4.15
6SK7	4.25
6SL7GT	3.55
6SN7GTB	2.60
6SQ7	3.75
6SR7	3.90
6SS7	5.50
6T4	5.45
6T10	*
6T8A	3.40
6U5/6G5†	5.55
6U8A	3.30
6U10	*
6V3A	4.85
6V4	1.60
6V6	6.80
6V6GT	2.15
6V6GTA	2.15
6V6GTY†	2.85
6W4GT	2.45
6W4GTA	2.45
6W6GT	2.85
6X4	1.65
6X5GT	2.10
6X8A	3.20
6Y6G	3.45
6Y6GT	3.45
7A4	7.55
7A6	7.45
7A7	7.60
7A8	8.30
7AF7	6.00
7AG7	8.40
7AU7	2.60
7B5	8.85
7B6	5.60
7B7	8.10
7C5	3.50
7C6	7.75
7C7	3.60
7EY6	3.20
7F7	8.00
7F8	8.80
7HG8/PCF86	3.35
7N7	7.55
7S7	6.85
7X7	8.10
7Y4	7.15
7Z4	6.90
8AU8	4.10
8AW8A	3.65
8B10	*
8BQ5	2.90
8CG7	2.50
8CM7	2.80
8CN7	2.80
8CS7	3.30
8CX8	4.35
8EB8	4.00
8EM5	3.45
8ET7	4.40
8FQ7	2.75
8GJ7	3.45
8GN8	3.95
9AP/PCF80	4.00
9AU7	2.80
9BR7	3.35
9CL8	3.15
9U8A	3.30
10AL11	*
10S8	4.25
10DE7	3.40
10EG7	4.65
10EW7	3.95
10GN8	3.80
10HF8	4.95
10JY8	3.90
11AR11	*
11CY7	3.25
11JE8	4.10
12AB5	3.50
12AC6	2.20
12AD6	2.40
12AE6A	2.45
12AE7	2.80
12AF3	2.90
12AF6	2.80
12AJ6	2.55
12AL5	1.90
12AL8	6.60
12AL11	*
12AQ5	2.40
12AT6	1.90
12AT7	3.05
12AU6	2.15
12AU7	2.45
12AU7A	2.45
12AV5GA	4.10
12AV6	1.65
12AV7	3.55
12AW6	3.30
12AV3	*
12AX4GTB	2.70
12AX7	2.55
12AZ7A	2.75
12B4A	2.85
12BA6	1.65
12BA7	5.95
12BD6	2.45
12BE3	*
12BE6	1.75
12BF6	2.20
12BH7A	3.05
12BK5	4.00
12BL6	2.65
12BN6	3.90
12BQ6GA	4.50
12BQ6GTB	4.05
12BR7	3.20
12BV7	3.50
12BW4	2 90
12BY7A	3.20
12BZ7	4.45
12C5	2.45
12CA5	2.80
12CN5	3.45
12CR6	2.75
12CT8	4.30
12CU5	2.45
12CU6	4.50
12CX6	2.90
12D4	2.80
12DB5	2.80
12DE8	3.35
12DK7	2.95
12DL8	6.20
12DQ6B	4.25
12DQ7	3.45
12DS7	3.45
12DT5	3.30
12DT8	3.75
12DU7	4.10
12DV7	3.65
12DV8	3.80
12DW7	3.25
12DW8	3.55
12DY8	4.65
12DZ6	2.80
12EA6	2.65
12ED5	2.85
12EG6	3.20
12EK6	2.90
12EM6	3.15
12EN6	3.05
12EQ7	2.90
12EZ6	2.30
12F8	3.05
12FK6	2.30
12FM6	2.30
12FQ8†	3.20
12FR8	4.80
12FX8A	4.10
12GA6	2.80
12GC6	4.20
12GE5	*
12H6	3.95
12J5	3.65
12J8	4.65
12K5	3.65
12K7GT	7.05
12L6GT	2.80
12R5	3.10
12SA7	4.30
12SC7	5.50
12SF5	4.25
12SF7	6.60
12SG7	4.65
12SH7	6.05
12SJ7	4.15
12SK7	3.95
12SL7GT	3.75
12SN7GTA	2.70
12SQ7	3.75
12SR7	5.75
12V6GT	2.90
12W6GT	3.20
12X4	1.95
13DE7	3.00
13DR7	3.40
13EM7	5.15
13DF7	4.85
13J10	*
14A7	5.95
14AF7	6.05
14B6	5.60
14GT8	3.20
14JG8	3.00
14Q7	6.20
15AF11	*
15DB11	*
15CW5/PL84	2.80
15EA7	4.25
15EW6	2.80
15FM7	*
15FY7	*
15HB6	2.90
16AQ3/XY88	2.80
17AV5GA	3.75
17AX3	*
17AX4GT	2.70
17BE3	*
17BE11	*
17C9	7.60
17D4	2.75
17DE4	3.35
17DM4	3.20
17DQ6A	4.20
17DQ6B	4.20
17EW8	2.80
17GE5	*
17GV5	*
17GW6	4.25
17H3	2.50
17JZ8	*
18AG5	4.10
18FW6	2.15
18FX6	2.35
18FY6	1.90
19AU4GTA	3.45
19BG6GA	6.50
19CL8A	3.50
19EA8	3.45
19EZ8	3.80
19HV8	3.80
19J6	3.15
19JN8	3.20
19KG8	2.80
19T8	3.55
19X8	4.35
20EZ7	4.15
21EX6	5.70
21GY5	*
21HJ5	*
22DE4	3.10
25AV5GA	4.35
25AX4GT	2.85
25BK5	3.65
25BQ6GA	4.60
25BQ6GTB	4.60
25C5	2.15
25CA5	3.10
25CD6GB	5.85
25DK4	1.75
25DN6	6.35
25EC6	5.70
25EH5	2.50
25F5	4.10
25L6GT	2.65
25W4GT	2.70
25W6GT	3.25
25Z5	4.60
25Z6GT	3.05
27GB5/PL500	3.95
30AG11	*
25ET5A	2.55
33GT7	*
EL-34/6CA7†	5.20
34GD5	2.35
35A5	6.00
35B5	3.40
35C5	2.15
35DZ8	3.45
35EH5	2.20
35GL6	2.50
35HB8	4.55
35L6GT	2.45
35W4	1.10
35Y4	4.80
35Z3	5.00
35Z5GT	1.85
36AM3A	1.65
42	5.15
50A5	6.25
50B5	2.80
50C5	2.15
50DC4	1.90
50EH5	2.30
50FE5	4.35
50HC6	2.30
50HK6	2.30
50L6GT	2.55
50X6	6.25
50Y6GT	4.60
50Y7GT	4.50
60FX5	2.80
75	6.80
80	4.25
ECF80/6BL8	3.95
EZ80/6V4	1.60
XCF80/4BL8	2.55
EM81/6DA5†	2.80
ECL82/6BM8	3.05
84/6Z4	2.60
EM84/6FG6†	3.25
ECC85/6AQ8	3.20
HCC85/17EW8	2.80
ECL86/6GW8	3.20
117L7/M7GT	10.15
117N7GT	13.65
117Z3	4.35
117Z6GT	7.15
FM1000	9.45
6973	4.50
7025	3.00
7189A	2.85
7199	4.10
7247	3.05
7355†	3.05
7408	2.65
7543	3.10
7581†	4.50
7581A†	4.50
7591	3.00
7695	4.70

COMPACTRON TYPES

Type	List Price
1AD2	$2.30
2AH2	2.40
2AS2	2.40
3AT2	2.45
6AF11	3.85
6AG11	2.95
6AL11	3.35
6AR11	3.30
6AS11	3.85
6AV11	3.00
6AX3	2.05
6AY11	2.95
6B10	2.70
6BA11	3.05
6BD11	3.90
6BE3	2.30
6BF11	3.65
6BJ3	2.00
6C10	3.00
6D10	3.10
6FJ7	2.80
6FM7	2.65
6FY7	2.60
6G11	3.30
6GE5	3.10
6GF5	2.80
6GV5	3.35
6GY5	3.70
6HB5	3.40
6HD5	3.60
6HE5	3.00
6HF5	5.90
6J11	3.65
6JZ8	2.85
6K11	2.95
6M11	3.70
6T10	3.45
6U10	2.95
8B10	2.70
10AL11	3.40
11AR11	3.30
12AL11	3.40
12AX3	2.10
12BE3	2.10
12GE5	3.15
13J10	4.05
15AF11	3.85
15BD11	3.90
15FM7	2.75
15FY7	2.60
17AX3	2.10
17BE3	2.35
17BF11	3.65
17GE5	3.15
17GV5	3.40
17JZ8	2.90
21GY5	3.75
21HJ5	3.75
30AG11	3.00
33GT7	5.65

† Non-taxable *Compactron Types — See Special Section for Prices

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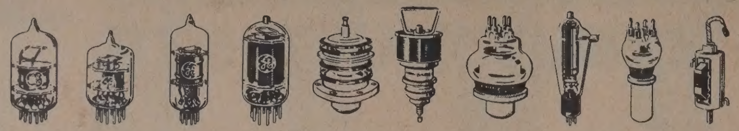
Trade Discount Applies To List Prices Only

ELECTRONICS INDUSTRIAL tubes



FOR BROADCAST, COMMUNICATIONS AND INDUSTRY

Effective July 15, 1963

Type	Suggested Dealer Price
OA2	$ 1.50
OA3	1.55
OA4G	1.90
OB2	1.45
OB3	2.35
OC3	1.50
OD3	1.45
1AD4	2.80
1AH4	1.35
1D21/SN4	7.30
C1K (See GL-6014/C1K)	
GL-1L21	25.00
GL-1L36	18.50
GL-1L38	33.25
GL-1P39	2.75
GL-1P40	3.75
1Q26A (Price on request)	
GL-2B22	31.00
GL-2B23	68.20
2BP1A	19.05
GL-2C39A	20.75
GL-2C39B	32.15
GL-2C39WA	30.00
GL-2C40	28.00
GL-2C40A	34.00
GL-2C42	27.10
GL-2C43	27.20
GL-2C46	29.50
2D21	1.30
2D21W (See 5727/2D21W)	
2E26	3.85
2X2A	3.30
GL-3B24W	10.55
GL-3B28	6.00
GL-3C23	11.98
GL-3CX100A5	32.00
3MP1	26.30
KC-4 (See GL-5575/100)	
GL-4-65A	28.50
GL-4250/5D22	46.50
GL-4-400A	48.00
GL-4-1000A	135.00
GL-4D21/4-125A	36.00
GL-4X150A	25.00
GL-4X500A	125.60
5AUP24	140.00
GL-5C24	45.00
5CP1-A	21.45
5QP4A	67.70
5R4GYA	2.05
5Y3WGTB★	5.75
FA-6 (See GL-5627)	
6AC7WA★	5.70
6AK5W (See 5654/6AK5W)	
6AL5W (See 5726/6AL5W)	
6AK6	1.40
6AN5	3.75

★Five Star Type

Type	Suggested Dealer Price
6AS6	$ 3.45
6AS6W (See 5725/6AS6W)	
6AS7GA	4.95
6AU6WB (See 6136/6AU6WA/B)	
6BA6W (See 5749/6BA6W)	
6BE6W (See 5750/6BE6W)	
6C4WA★	3.15
6D4	2.85
6J4	4.20
6SK7WA (See 6137/6SK7WA)	
6X4WA (See 6202/6X4WA)	
GL-7C29	189.50
GL-7D21	647.00
PJ-8 (See GL-5556)	
GL-8D21	1985.00
12A6	3.10
12AT7WB (See 6201/12AT7WA/B)	
12AY7	2.45
FA-13 (See GL-5628)	
C16J (See 5665/C16J)	
FG-17 (See GL-5557)	
PJ-23 (See GL-868)	
FG-27A	52.00
28D7	4.95
FG-32 (See GL-5558)	
FG-33 (See GL-5720)	
FG-41 (See GL-5830)	
B-47 (See GL-5623)	
FG-57 (See GL-5559)	
FG-67 (See GL-5728)	
FG-81A	32.50
83	1.75
FG-97	62.00
FG-98A	77.00
GL-100TH	23.60
FG-104 (See GL-5561)	
FG-105	59.00
FG-154	108.00
FG-172	122.00
GL-203/623	13.44
GL-217C	21.20
FG-238B (See GL-5555)	
GL-242C	33.00
FG-259B (See GL-5554)	
FG-280	105.00
GL-393A	13.25
407A	5.90
408A	4.95
GL-411	478.75
GL-414	231.00
GL-415 (See GL-5550)	
502A	2.30
GL-506 (See GL-6228)	
GL-575A	20.15
GL-627	31.50
GL-672-A	42.50
GL-673	20.15
GL-678	49.50

Type	Suggested Dealer Price
740 (See GL-6856/740)	
760 (See GL-6858/760)	
760P (See GL-6859/760P)	
GL-805	$ 22.10
807	2.95
GL-809	7.95
GL-810	26.95
GL-811A; GL-812A	ea. 6.90
GL-813	23.15
GL-814; GL-815	ea. 28.35
GL-816	2.95
GL-828	32.95
GL-829-B	19.00
GL-830B	17.35
GL-832-A	15.90
GL-833-A	53.65
GL-836	11.10
GL-837	10.30
GL-838	20.00
GL-845	25.00
GL-851	717.00
GL-857-B	218.50
GL-862-A	1713.25
GL-866-A	2.65
GL-868	4.50
GL-869-B	138.00
GL-870-A	1982.00
GL-872-A	9.90
GL-880	595.00
884	2.30
GL-889-A	235.00
GL-889-R-A	370.00
GL-891-R	460.00
GL-892	270.00
GL-892R	455.00
GL-893-AR	1260.00
GL-917	7.00
GL-920	7.30
GL-921	3.50
GL-922	3.10
GL-923	3.40
GL-927	4.25
GL-929	2.35
GL-930	3.65
GL-931-A	4.75
1612	4.00
1614	4.90
GL-1616	13.90
1619	5.70
1620	7.55
2050	2.40
2050A	2.25
GL-5513	512.00
GL-5518	1060.00
GL-5528/C6L	56.00
GL-5544	32.50
GL-5545 (See GL-6807)	
GL-5549	653.50
GL-5550	49.00

Type	Suggested Dealer Price
GL-5551A	$ 65.00
GL-5551A/P	65.00
GL-5552A	99.00
GL-5552A/P	99.00
GL-5553B	245.00
GL-5553B/P	245.00
GL-5554	215.00
GL-5555	316.00
GL-5556	39.00
GL-5557	9.50
GL-5558	17.50
GL-5559	23.00
GL-5560	33.00
GL-5561	59.00
GL-5563A	50.00
GL-5564/GL-507	850.00
GL-5575/100	250.00
GL-5593	310.00
5610	1.05
GL-5623	30.00
GL-5625 (Use GL-5575/100)	
GL-5627	80.00
GL-5628	60.00
GL-5630	1900.00
GL-5632/C3J	13.80
5636★	6.10
5642	3.85
5651	1.78
5654★	2.45
5654/6AK5W★	2.45
5662	1.45
5663	2.10
GL-5665/C16J	56.90
5670★	2.45
GL-5674	225.00
GL-5675	16.05
GL-5681	1990.00
5686★	3.40
5687★	4.00
5687WA★	6.13
5691	8.75
5692	8.25
5693	6.60
5696	2.05
5718★	3.65
5719★	3.15
GL-5720	34.75
5725 (See 5725/6AS6W)	
5725/6AS6W★	3.15
5726/6AL5W★	1.55
5727★	2.90
5727/2D21W★	2.90
GL-5728	74.00
GL-5736	205.00
GL-5740/FP-54	209.00
5749 (See 5749/6BA6W)	
5749/6BA6W★	2.20
5750 (See 5750/6BE6W)	
5750/6BE6W★	3.45

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(continued)

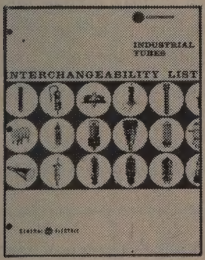
INDUSTRIAL tubes

- FIVE STAR
- THYRATRON
- CATHODE RAY
- PHOTOTUBE
- IGNITRON
- RECTIFER
- KLYSTRON
- COMMUNICATION
- INDUSTRIAL RECEIVING

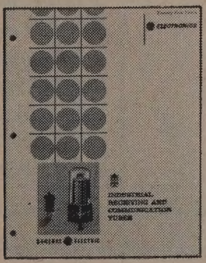
Type	Suggested Dealer Price	Type	Suggested Dealer Price	Type	Suggested Dealer Price	Type	Suggested Dealer Price
5751★	$ 2.55	6137★	$ 2.85	6676△	$ 1.15	GL-7399	$ 520.00
5751WA★	2.95	6146	4.35	6677△	1.95	7427	2.65
GL-5762/7C24	255.00	6146A	4.35	6678△	1.75	7462	28.75
5763	2.55	GL-6161	125.00	6679△	1.60	7486	28.75
GL-5779	200.00	GL-6166A	1020.00	6680△	1.30	GL-7518	17.00
GL-5788	476.25	GL-6183 (See GL-6942)		6681△	1.40	7588	63.25
5814A★	2.34	6189/12AU7WA★	3.65	6688A★	8.75	7625	28.75
GL-5820A	1200.00	6197	3.05	GL-6771	71.90	GL-7629	1800.00
GL-5822A	116.00	GL-6198A (Use 7038)		GL-6807	29.30	GL-7644	65.00
5823	1.75	6201/12AT7W★	2.95	GL-6808	30.50	GL-7669	65.00
5824	3.60	6202★	2.85	GL-6809	31.00	GL-7670	77.20
GL-5830	480.00	6203★	4.10	6814★	5.05	GL-7671	99.00
5840★	5.30	6205★	5.35	6829★	6.10	GL-7681	155.00
5844★	2.30	6206★	7.25	GL-6848	1740.00	7701	2.10
GL-5855	85.00	6211	2.35	GL-6856/740	20.80	GL-7703	190.00
5879	1.85	6222★	7.35	GL-6858/760	28.10	7716	1.75
5881	3.50	GL-6228	3696-25	GL-6859/760P	29.80	7717/6CY5	1.40
GL-5894	25.00	GL-6251	2400.00	6883	4.55	7720	28.75
5896★	3.75	6265★	4.10	GL-6897	32.15	7724/14GT8	1.50
5899★	5.50	GL-6283	500.00	GL-6907	25.00	GL-7725	13.50
5902★	4.80	GL-6299	56.00	6919	1.35	GL-7726	16.30
5915A	1.65	GL-6333	310.00	GL-6942	920.00	GL-7735A	205.00
5963	1.50	6336A	19.40	GL-7007/6166A	1020.00	7984	5.35
5964	ea. 1.55	GL-6346	70.00	7025	†3.00	7861★	3.50
5965A	1.90	6350	2.35	7036	1.50	GL-7985	1740.00
GL-5973	495.00	6360	4.95	7038	230.00	GL-8000	29.15
6005★	3.95	6386★	7.40	7054	1.55	GL-8005	17.85
6005/6AQ5W★	3.95	6397	8.30	7056	1.20	GL-8008	9.90
GL-6011/710	13.00	6414★	3.65	7057	1.95	GL-8013A	17.05
6012★	7.65	GL-6427	870.00	7058	1.30	GL-8020	24.00
GL-6014/C1K	12.90	GL-6442	39.25	7059	1.75	8068	3.60
GL6019	751.75	6463	1.90	7061	1.30	8081	29.90
6021★	3.50	6485	2.05	7077	28.75	8082	29.90
GL-6039	1325.00	GL-6512	259.80	GL-7151	750.00	8083	29.90
6046	1.55	GL-6513	347.00	7167	1.55	GL-8092A	1975.00
6072A★	3.90	GL-6514	509.00	GL-7171	81.50	GL-8093	1350.00
6080★	5.35	GL-6515	915.00	7226	315.00	8102	1.45
6087★	5.75	6550	4.30	7239★	6.25	8106	1.55
6100★	2.49	6660△	1.10	7266	24.75	8136	1.20
6111★	3.70	6661△	1.45	GL-7289	32.15	8156	4.10
6112★	4.10	6662△	1.40	GL-7293	1300.00	9001	5.40
6134★	5.70	6663△	1.00	7296	35.65	9002	4.85
6135★	2.40	6664△	1.15	7325	205.00	9003	5.40
6136/6AU6WA/B★	2.70	6669△	1.15	GL-7391	67.00		

★Five-star Type △Communication Types

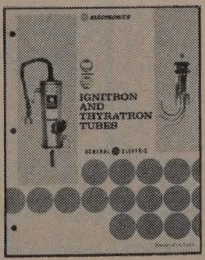
NEW G-E INDUSTRIAL TUBE CATALOGS


INDUSTRIAL TUBES
INTERCHANGEABILITY LIST
GENERAL ELECTRIC

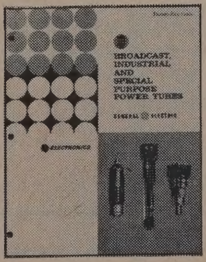
ETI-719D 25¢
Alpha-numerical listing of G-E replacements for nearly 3,000 types of industrial tubes.


INDUSTRIAL RECEIVING AND COMMUNICATION TUBES
GENERAL ELECTRIC

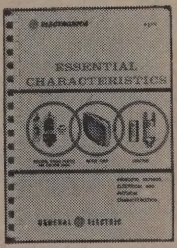
ETI-2387 25¢
Complete specifications of G-E industrial receiving, communications, 5-Star and ceramic receiving tubes.


IGNITRON AND THYRATRON TUBES
GENERAL ELECTRIC

ETI-2388 25¢
Specifications and data on 80 types of G-E Ignitrons and Thyratrons, plus operating guide.


BROADCAST, INDUSTRIAL AND SPECIAL PURPOSE POWER TUBES
GENERAL ELECTRIC

ETI-2389 25¢
Lists 125 special-purpose and broadcast power tubes and rectifiers, including installation information.


ESSENTIAL CHARACTERISTICS
GENERAL ELECTRIC

ETR-15J $1.50
Lists all receiving, TV picture, 5-Star, and small special-purpose tubes, and G-E capacitors.

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VOLTAGE REGULATOR ■ VOLTAGE REGULATOR RUGGEDIZED ■ ARGON MERCURY VAPOR THYRATRON ■ GRID CONTROLLED RECTIFIER, GAS AND MERCURY ■ MERCURY RECTIFIER ■ GAS MERCURY VAPOR THYRATRON ■ XENON HALF WAVE RECTIFIER ■ MERCURY VAPOR RECTIFIER ■ TRANSMITTING TYPES ■ PULSE MODULATORS

MARSHALL ELECTRONICS COMPANY

Manufacturers of Precisioneered Electron Tubes

AND

LEWIS and KAUFMAN, Ltd.

LOS GATOS
LONG LIFE

***LOS GATOS BRAND ELECTRON TUBES**

INDUSTRIAL, COMMUNICATIONS AND MILITARY TYPES

MARSHALL *PRECISIONEERED TYPES*

OA2WA	Voltage Regulator, Ruggedized
OA3/VR75	Voltage Regulator
OA3A	Voltage Regulator
OA3W	Voltage Regulator, Ruggedized
OB3/VR9D	Voltage Regulator
OB3A	Voltage Regulator
OB3W	Voltage Regulator, Ruggedized
OC3/VR105	Voltage Regulator
OC3A	Voltage Regulator
OC3W	Voltage Regulator, Ruggedized
OD3/VR150	Voltage Regulator
OD3A	Voltage Regulator
OD3W	Voltage Regulator
FG17(5557)	Grid Controlled Rectifier, Mercury Vapor
2B23	High Vacuum, Low Current Diode
3B28	Xenon Half Wave Rectifier
3C23	Argon, Mercury Vapor Thyratron
4B32	Half Wave Gas Rectifier
HF300	Triode Power Amplifier
323B	Grid Controlled Rectifier, Gas & Mercury
393A	Grid Controlled Rectifier
394A	Grid Controlled Rectifier, Gas & Mercury
811A	Triode Power Amplifier
812A	Triode Power Amplifier
ME811A	Triode Power Amplifier (Special)
ME812A	Triode Power Amplifier (Special)
816	Half Wave, Mercury Vapor Rectifier
866A	Half Wave, Mercury Vapor Rectifier
866JR	Half Wave, Mercury Vapor Rectifier
872A	Half Wave Rectifier, Mercury Vapor
872AX	Ultra-Reliable Version of 872A
873	Grid Controlled Rectifier, Mercury Vapor
5557/FG17	Grid Controlled Rectifier, Mercury Vapor
5847/404A	Miniature Broad Band Pentode
6901	Thyratron, Gas & Mercury Vapor
741C	Thyratron, Gas
8008	Rectifier, Mercury Vapor
UH50	Medium MU Power Triode

LOS GATOS LONG LIFE LEWIS and KAUFMAN, Ltd. LONG LIFE TYPES

3B24W	Half Wave High Vacuum Rectifier
3B24WA	Half Wave High Vacuum Rectifier, Ruggedized
3C24/24G	Medium MU Power Triode
4B39	High Vacuum Medium Power Current Rectifier
4B41	High Vacuum Low Current Rectifier
4B42	High Vacuum Low Current Rectifier
4D21/4-125A	Beam Power Tetrode
4E27/8001	Power Pentode
4E27A/5-125B	Power Pentode
5D21	Pulse Amplifier Tetrode
25T	Medium MU Power Triode
100R	High Voltage Medium Current Rectifier
100TH	High MU Medium Power Triode
100TL	Low MU Medium Power Triode
250R	High Voltage Medium Current Rectifier
250TH	High Mu Power Triode
250TL	Low MU Power Triode
253	High Vacuum High Current Rectifier
254	Medium MU Triode
254W	Ultra-Reliable Version of 254
LK300	Triode Power Amplifier
332A	Transmitting Pentode
543	High Vacuum High Voltage Rectifier, Ruggedized
578	High Voltage Medium Current Rectifier
705A	High Vacuum Half Wave Rectifier
705WA	High Vacuum Half Wave Rectifier, Ruggedized
715C	Pulse Amplifier Tetrode
719A	High Vacuum High Voltage Clipper Diode
LK811A	Triode Power Amplifier (Special)
LK812A	Triode Power Amplifier (Special)
878	High Voltage Medium Current Rectifier
3200	Transmitting Triode
6173	UHF Pencil Diode
8020	High Voltage Medium Current Rectifier

Specifications: Detailed data sheets are available on request. All types listed are manufactured to conform with applicable MIL-E-1 specifications.
Prices, Terms, Delivery & Transportation Information: Available at our plant. Most types are in stock. Large quantity discount price schedules are in effect.
Technical Assistance: The Marshall engineering staff is available for consultation in regard to application and/or developmental problems.
Marshall is a prime contractor for U.S. government agencies and all branches of the Armed Forces.

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MARSHALL ELECTRONICS COMPANY, NEWARK, NEW JERSEY

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EL34/6CA7
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Mullard
ELECTRON TUBES

For High-Fidelity • AM-FM • Television • Industry • Foreign Replacement

Mullard electron tubes, universally recognized for their advanced designs and reliability, offer a comprehensive range of tubes for High-Fidelity, AM-FM, Television, and Industrial Applications. The vast manufacturing resources of the Mullard organization, including the world's most modern research laboratories, is your assurance of guaranteed tube design advantages for maximum performance in electronic equipment.

Mullard Type	EIA Type	List Price	Mullard Type	EIA Type	List Price	Mullard Type	EIA Type	List Price
DAF96	1AH5	$3.15	ECL83		$5.15	EZ35	6X5	$3.60
DF96	1AJ4	3.25	ECL86	6GW8	3.25	EZ40	6BT4	2.30
DF97	1AN5	2.80	EF37A		7.65	EZ80	6V4	1.60
DK92	1AC6	3.40	EF40		4.45	EZ81	6CA4	2.25
DK96	1AB6	3.40	EF41	6CJ5	2.90	EZ90	6X4	1.70
DL96	3C4	2.40	EF42		4.45	FW4/800		7.95
DM70	1M3	2.05	EF55		6.75	GZ30	5Z4G	5.30
EAA91		185	EF80	6BX6	3.25	GZ32	5AQ4	4.70
EABC80	6AK8	3.55	EF85	6BY7	3.25	GZ33		5.90
EAF42	6CT7	2.85	EF86	6267	2.70	GZ34	5AR4	4.45
EB91	6AL5	1.85	EF89	6DA6	3.05	HBC90	12AT6	1.85
EBC41	6CV7	2.60	EF91	6AM6	3.30	HBC91	12AV6	1.70
EBC81	6BD7A	3.50	EF92	6CQ6	3.70	HCC85	17EW8	2.80
EBC90	6AT6	1.90	EF93	6BA6	2.05	HF93	12BA6	2.10
EBC91	6AV6	1.70	EF94	6AU6	2.10	HK90	12BE6	2.20
EBF80	6N8	3.10	EF95	6AK5	4.30	HL92	50C5	2.20
EBF83	6DR8	3.60	EF98	6ET6	3.30	HY90	35W4	1.45
EBF89	6DC8	3.25	EF183	6EH7	3.20	LC900	3HA5	2.50
EC81	6R4	5.15	EF184	6EJ7	3.20	LCF801	5GJ7	3.05
EC90	6C4	3.60	EK90	6BE6	2.25	LF183	4EH7	3.20
EC91	6AQ4	5.45	EL33	6AG6	5.15	LF184	4EJ7	3.20
EC92		2.45	EL34	6CA7	6.20	PCC88	7DJ8	4.65
EC95	6ER5	2.45	EL37		6.65	PCF80	9A8	4.45
EC97	6FY5	2.80	EL38	6CN6	7.45	PCL82	16A8	4.45
EC900	6HA5	2.50	EL41	6CK5	3.25	PC900	4HA5	2.50
ECC33		5.90	EL42		3.25	PCF801	8GJ7	3.05
ECC35	6SG7	5.90	EL81	6CJ6	4.35	PL36	25E5	6.10
ECC40		4.10	EL83		4.10	PL81	21A6	4.55
ECC81	12AT7	3.05	EL84	6BQ5	2.45	UABC80		3.75
ECC82	12AU7	2.50	EL85	6BN5	5.80	UCC85		3.75
ECC83	12AX7	2.55	EL86	6CW5	2.85	UCH81	1908	3.60
ECC84	6CW7	3.75	EL90	6AQ5	2.25	UCL82	50BM8	3.05
ECC85	6AQ8	2.75	EL91	6AM5	3.30	UF86		3.45
ECC86	6HG8	4.65	EL95	6DL5	2.30	UL41	45A5	3.20
ECC88	6DJ8	4.30	EL821	6CH6	7.15	UL84	45B5	2.85
ECC91	6J6	2.80	EL822		7.65	UY85	38A3	1.65
ECC189	6ES8	4.65	EM34	6CD7	3.95	XC95	2ER5	2.50
ECF80	6BL8	3.95	EM81	6DA5	2.75	XC900	2HA5	2.50
ECF82	6U8	3.95	EM84	6FG6	3.30	XCF80	4BL8	3.95
ECF801	6GJ7	3.05	EQ80	6BE7	5.30	XCF801	4GJ7	3.05
ECH42	6CU7	3.10	EY51	6X2	3.75	6EU7	6EU7	2.75
ECH81	6AJ8	2.95	EY81	6R3	2.95	7025	7025	2.75
ECH83	6DS8	4.10	EY86	6S2	2.95	7189	7189	3.05
ECL80	6AB8	3.40	EY88	6AL3	2.85	7247	12DW7	3.05
ECL82	6BM8	3.10						

Mullard
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Laboratory-Balanced
Matched Pairs

For Optimum Performance
Of High- Fidelity Equipment
Mullard Receiving Tubes Available
As Matched Pairs

Mullard Matched Pairs	EIA Type	List Price
ECL82 MP	6BM8	$ 7.15
ECL86 MP	6GW8	7.45
EL34 MP	6CA7	13.45
EL37 MP	········	13.90
EL84 MP	6BQ5	5.55
EL86 MP	6CW5	6.50
EL90 MP	6AQ5	5.35
EL95 MP	6DL5	5.35
UCL82 MP	50BM8	7.15
UL84 MP	45B5	5.95
7189 MP	7189	6.95

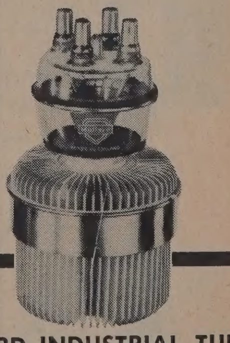
Master 10M Series

Master 10M Series

• Tube-To-Tube Uniformity • Long Life • Guaranteed Performance

A selected series of individually laboratory-tested tubes, ideal for today's technically-advanced and exacting electronic equipment . . . meets more stringent requirements . . . gold-protected pins . . . individual plastic-foam cushion packaging for protection during handling and shipping. Each Master 10M tube guaranteed for 10,000 hours of effective performance within two years from date of purchase. Recommended for the full range of electronic equipment.

Tube Type	Suggested Resale Price	Tube Type	Suggested Resale Price	Tube Type	Suggested Resale Price	Type Tube	Suggested Resale Price
6AB8	$ 2.75	6DL5	$2.55	12DW7	$2.55	ECF80/6BL8	$3.05
6AJ8	2.65	6DX8	2.85	15CW5	2.50	ECF86/6HG8	3.00
6AK5	3.25	6EH7	2.60	6267	2.50	ECH81/6AJ8	2.65
6AK8	2.80	6EJ7	2.60	7025	2.35	ECL80/6AB8	2.75
6AL5	2.00	6ER5	2.40	7247	2.55	ECL84/6DX8	2.85
6AQ5	2.15	6ES8	3.50	EABC80/6AK8	2.80	EF86/6267	2.50
6AQ5A	2.15	6EU7	2.35	EB91/6AL5	2.00	EF89/6DA6	2.55
6AQ8	2.40	6FY5	2.35	EBC90/6AT6	2.00	EF93/6BA6	2.00
6AT6	2.00	6GK5	2.40	EBC91/6AV6	1.95	EF94/6AU6	2.05
6AU6	2.05	6HG8	3.00	EBF89/6DC8	2.65	EF95/6AK5	3.25
6AU6A	2.05	6J6	2.55	EC90/6C4	2.85	EF183/6EH7	2.60
6AV6	1.95	6J6A	2.55	EC95/6ER5	2.40	EF184/6EJ7	2.60
6BA6	2.00	6T8A	2.80	EC97/6FY5	2.35	EK90/6BE6	2.10
6BE6	2.10	7HG8	2.65	ECC81/12AT7	2.55	EL84/6BQ5	2.15
6BL8	3.05	9A8	3.25	ECC82/12AU7	2.20	EL90/6AQ5	2.15
6BQ5	2.15	12AT7	2.55	ECC83/12AX7	2.20	EL95/6DL5	2.55
6BQ5A	2.15	12AU7	2.20	ECC85/6AQ8	2.40	HBC91/12AV6	1.95
6C4	2.85	12AU7A	2.20	ECC88/6DJ8	3.00	PCF80/9A8	3.25
6DA6	2.55	12AV6	1.95	ECC91/6J6	2.55	PCF86/7HG8	2.65
6DC8	2.65	12AX7	2.20	ECC189/6ES8	3.50	PL84/15CW5	2.50
6DJ8	3.00	12AX7A	2.20				



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Mullard Type	EIA Cross/Ref.	Suggested Resale Price
75C1		$ 5.70
85A2	0G3	2.30
90C1		3.50
E88CC	6922	4.75
E180F	6688	6.80
ME1400		6.70
TD03-10	5861	33.75
QY5-3000A	6076	315.00
E55L	8233	13.25

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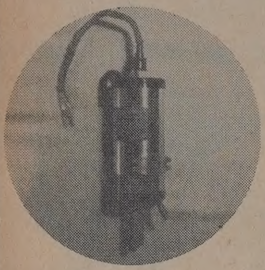
ELECTRONIC CONTROL DEVICES FOR INDUSTRY

Ignitrons, Rectifier Tubes, Thyratrons
Silicon Controlled Rectifiers



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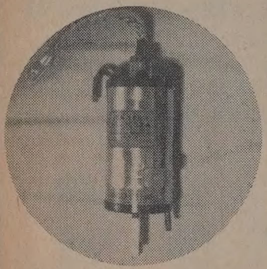

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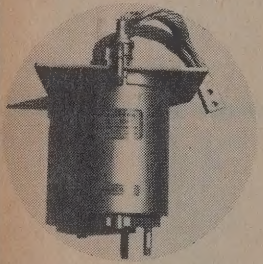

NL-1064

NL-710/6011

IGNITRONS

MAXIMUM RATINGS

Type Number	Volts	Maximum Demand	Corresp. Current DC Amps	Maximum Current DC Amps	Corresp. Demand	Type Of Cooling	Net Selling Price
NL-1005A	250-600	600 Kva	30.2	56	200 Kva	Forced Air	$ 65.00
NL-1009A	250-600	1700 Kva	120.0	220	570 Kva	Water	155.00
NL-1011A	250-600	600 Kva	30.2	56	200 Kva	Water	65.00
NL-1012A	250-600	1200 Kva	75.6	140	400 Kva	Water	99.00
NL-1013A	250-600	2400 Kva	192.	355	800 Kva	Water	245.00
NL-1014A	250-600	4800 Kva	486	900	1600 Kva	Water	750.00
NL-1016A	250-600	1700 Kva	120.0	220	570 Kva	Water	155.00
NL-1022A	1500 Peak	1200 Amps	16	56	336 Amps	Water	116.00
NL-1051A*	250-600	600 Kva	30.2	56	200 Kva	Water	65.00
NL-1052A*	250-600	1200 Kva	75.6	140	400 Kva	Water	99.00
NL-1053A	250-600	3000 Kva	225	400	1000 Kva	Water	284.00
NL-1054A	250-600	4800 Kva	486	900	1600 Kva	Water	750.00
NL-1061*	250-600	600 Kva	30.2	56	200 Kva	Water	65.00
NL-1062*	250-600	1200 Kva	75.6	140	400 Kva	Water	99.00
NL-1063	250-600	3000 Kva	225	400	1000 Kva	Water	284.00
NL-1064	250-600	4800 Kva	486	900	1600 Kva	Water	825.00
NL-1066*	2500 Peak	2000 Amps	10	——	——	Water	77.20
NL-1068*	1500 Peak	1200 Amps	16	56	336 Amps	Water	116.00
NL-1069	250-600	1700 Kva	120	220	570 Kva	Water	155.00
NL-1081*	250-600	1000 Kva	43.2	75	410 Kva	Water	75.00
NL-1082*	250-600	2000 Kva	86.4	150	820 Kva	Water	107.00
NL-1091*	250-600	1000 Kva	43.2	75	410 Kva	Water	75.00
NL-1092*	250-600	2000 Kva	86.4	150	820 Kva	Water	107.00
NL-5550	250-600	300 Kva	12.1	22.4	100 Kva	Water Clamp	49.00
NL-5553B*	250-600	2400 Kva	192	355	800 Kva	Water	245.00
NL-5555	2100 Peak	1200 Amps	150	200	1800 Amps	Water	316.00
NL-7673*	250-600	2400 Kva	192	355	800 Kva	Water	245.00

THYRATRONS

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Volts	Filament Volts	Filament Amps	Additional Characteristics	Net Selling Price
NL-C3J/L	Xenon	2.5	30	1250	2.5	9		$ 15.25
NL-C3J/AL	Xenon	2.5	30	1250	2.5	9		16.00
NL-C3J/AL-Ne	Xenon	2.5	30	1250	2.5	9	Life Ind.	18.40
NL-3C23	Arg & Merc	1.5	6	1250	2.5	7		11.98
NL-C6J+•	Xenon	6.4	80	1250	2.5	21		28.10
NL-C6J/K+	Xenon	6.4	80	1250	2.5	21		28.30
NL-C6J/K-Ne	Xenon	6.4	80	1250	2.5	21	Life Ind.	32.50
FG-105	Mercury	0.25	1.0	2000	5.0	10		59.00
NL-710/6011	Arg & Merc	2.5	30	1500	2.5	9		13.00
NL-710A/7725	Arg & Merc	2.5	30	2500	2.5	9		13.50
NL-710AL	Arg & Merc	2.5	30	2500	2.5	9		16.30
NL-710L/7518	Arg & Merc	2.5	30	1500	2.5	9		15.25
NL-714	Arg & Merc	1	3	1250	2.5	5		10.00
NL-716	Arg & Merc	1	8	1250	2.5	6.3		12.50
NL-732	Arg & Merc	30	225	1500	2.5	55		120.00
NL-734/5544	Xenon	3.2	40	1500	2.5	11.5		22.50
NL-740+•	Arg & Merc	4	50	1500	2.5	16		20.80
NL-760+•	Arg & Merc	6.4	77	1500	2.5	21		28.10
NL-770L+	Xenon-Merc	10.0	120	1500	2.5	25		45.25

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Ignitrons, Rectifier Tubes, Thyratrons

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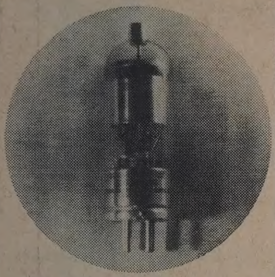
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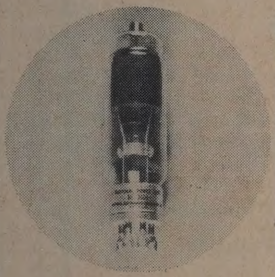
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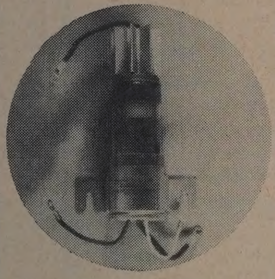
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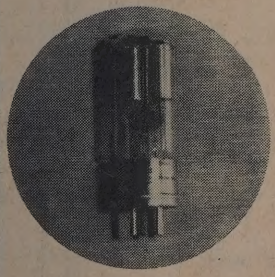
NL-604

THYRATRONS (cont'd)

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Volts	Filament Volts	Filament Amps	Additional Characteristics	Net Selling Price
NL-5557/ FG17/715	Mercury	1	3	5000	2.5	5		$ 9.50
NL-5560/ FG95	Mercury	2.5	15	1000	5.0	4.6		33.00
NL-5632/ C3J	Xenon	2.5	30	1250	2.5	9		13.80
NL-5665/ C16J	Xenon	18.0	160	1250	2.5	31		52.50
NL-5684/ C3J/A	Xenon	2.5	30	1250	2.5	9		14.50
NL-5684-Ne	Xenon	2.5	30	1250	2.5	9	Life Ind.	16.70
NL-5684A-Ne	Xenon	2.5	30	1500	2.5	9	Life Ind.	17.90
NL-6014/ C1K	Xenon	1	8	1250	2.5	6.3		13.10
NL-6989/ C6J/KL	Xenon	6.4	80	1250	2.5	21.0		29.45
NL-6989-Ne	Xenon	6.4	80	1250	2.5	21.	Life Ind.	33.90
NL-7556A-Ne	Xenon	2.5	30	1500	2.5	9	Life Ind.	19.60

FULL AND HALF WAVE RECTIFIERS

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Volts	Filament Volts	Filament Amps	Additional Characteristics	Net Selling Price
NL-575A	Mercury	2.5	10	15,000	5.0	10.0	HW	$ 20.15
NL-604•	Arg & Merc	2.5	10	900	2.5	11.5	FW	11.80
NL606•	Arg & Merc	6.4	25.6	900	2.5	17	FW	20.80
NL-615	Mercury	2.5	10	2000	2.5	7	HW	10.05
NL-617	Mercury	5	20	1000	2	12	HW	15.00
NL-619	Mercury	6	20	300	2	12	HW	10.00
NL-623	Mercury	15	45	500	2.5	20	HW	13.35
NL-635/ 7019+•	Xen & Merc	6.4	77	1000	2.5	18	HW	13.00
NL-643	Mercury	15	90	700	2.5	23	HW	13.50
NL-649/ 5834	Mercury	2	10	900	2.5	7	HW	10.20
NL-660+•	Xenon	6.4	80	920	2.5	21	HW	13.00
NL-664L	Xen & Merc	10.0	120	1000	2.5	25	HW	26.00
NL-673	Mercury	2.5	10	15,000	5.0	10	HW	20.15
NL-869B	Mercury	5	20	20,000	5.0	20	HW	138.00
NL-5558/ FG32	Mercury	2.5	15	5000	5	4.5	HW	17.50
NL-6894	Mercury	2.5	11.5	20,000	5.0	10	HW	25.00
NL-6895	Mercury	2.5	11.5	20,000	5.0	10	HW	25.00
NL-7723-Ne	Xenon	2.5	30	920	2.5	9	HW Life Ind.	13.10
NL-7786-Ne	Xenon	6.4	80	920	2.5	21	HW Life Ind.	15.50

STUD MOUNTED SILICON CONTROLLED RECTIFIERS

16-Amp SCR

Type No.	PRV	Net Selling Price
NL-2N1842	25	$ 7.75
NL-2N1843	50	8.50
NL-2N1844	100	9.45
NL-2N1845	150	11.50
NL-2N1846	200	13.50
NL-2N1847	250	16.15
NL-2N1848	300	18.75
NL-2N1849	400	23.65
NL-2N1850	500	27.00

25-Amp SCR

Type No.	PRV	Net Selling Price
NL-2N681	25	$ 8.65
NL-2N682	50	9.40
NL-2N683	100	10.50
NL-2N684	150	12.75
NL-2N685	200	15.00
NL-2N686	250	18.00
NL-2N687	300	21.00
NL-2N688	400	26.25
NL-2N689	500	31.90

NOTES
* Plastic coated version available, indicated by the addition of the suffix letter P.
+ Available with bracket base for panel mounting, designated by the addition of suffix letter P.
• Available with lug base, designated by the addition of suffix letter L.

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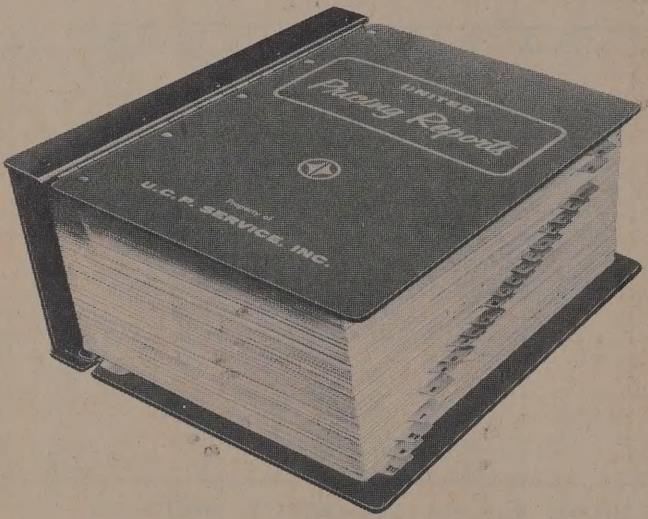

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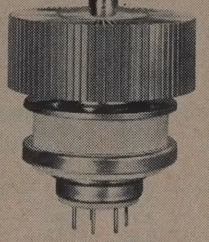
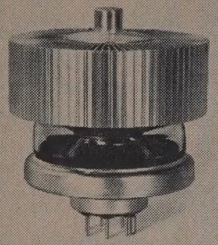
Because of their proven reliability, long life and high efficiency, Penta power tubes are specified by an ever-increasing number of equipment manufacturers. More and more power tube users, too, now specify Penta tubes for replacements. Extra care in every step of production and test assures you of top performance and quality in each Penta power tube you buy.

PL-175A
Beam Pentode

PL-175A
BEAM PENTODE



PL-8432
CERAMIC BEAM PENTODE



PL-8295/172
BEAM PENTODE

PL-4-400A
POWER TETRODE

PL-177A
Beam Pentode

PL-177A
BEAM PENTODE

Type		Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volts Max.	Plate Current Ma., Max.	Screen Volts Max.	Price
PL-4-65A	(See PL-8165/4-65A)							
PL-4-400A	Power Tetrode	5.0	14.5	400	4,000	350	800	$ 48.00
PL-4-1000A	(See PL-8166/4-1000A)							
PL-4D21(4-125A)	Power Tetrode	5.0	6.5	125	3,000	225	600	36.00
PL-4D21A	Power Tetrode	5.0	6.5	175	3,000	225	600	37.50
PL-4E27A(5-125B)	Beam Pentode	5.0	7.5	125	4,000	200	750	45.00
PL-4PR65A	(See PL-8187/4PR65A)							
PL-4PR400A	(See PL-8188/4PR400A)							
PL-4X500A	Power Tetrode	5.0	13.5	500	4,000	350	500	125.00
PL-5D22(4-250A)	Power Tetrode	5.0	14.5	250	4,000	350	800	46.50
PL-172	(See PL-8295/172)							
PL-175A	Beam Pentode	5.0	14.5	400	4,000	350	800	50.00
PL-177A	Beam Pentode	6.0	3.2	75	2,000	175	600	29.00
PL-177WA	Ruggedized Beam Pentode	6.0	3.2	75	2,000	175	600	33.50
PL-250R	Rectifier	5.0	10.5	150	60,000	250	. . .	36.00
PL-254W	Power Triode	5.0	7.5	100	4,000	225	. . .	25.00
PL-527A/185	Power Triode	5.5	140	300	20,000	75a. pk.	. . .	200.00
PL-6549	Beam Pentode	6.0	3.2	75	2,000	175	600	29.00
PL-6569	Power Triode	5.0	14.5	250	4,000	300	. . .	37.50
PL-6580	Power Triode	5.0	14.5	400	4,000	350	. . .	45.00
PL-6775	Ruggedized Power Tetrode	5.0	14.5	400	4,000	350	800	50.00
PL-8165/4-65A	Power Tetrode	6.0	3.5	65	2,000	150	600	27.00
PL-8166/4-1000A	Power Tetrode	7.5	21	1,000	6,000	700	1,000	132.00
PL-8187/4PR65A	Pulse Tetrode	6.0	3.5	65	15,000	1a. pk.	2,000	43.00
PL-8188/4PR400A	Pulse Tetrode	5.0	14.5	400	20,000	4a. pk.	2,500	64.00
PL-8295/172	Beam Pentode	6.0	8.2	1,000	3,000	1,000	600	142.00
PL-8295A	Ceramic Beam Pentode	6.0	8.2	1,000	3,000	1,000	600	152.00
PL-8432	Ceramic Beam Pentode	6.0	8.2	1,000	3,000	1,000	600	152.00

VACUUM SWITCHES

Type	Voltage Maximum	Current Max. Amperes		Coil	Price
		AC or DC	Pulse		
PL-R1	21,000	6	150	Not supplied; requires 1100 ampere-turns	$33.00
PL-169A	21,000	30	500	Not supplied; requires 1900 ampere-turns	40.00
PL-186	21,000	6	. . .	Not supplied; requires 1000 ampere-turns	38.00
PL-187	21,000	30	500	Integral; 28 V, 500 Ma., DC	58.00
PL-190	21,000	6	150	Integral; 28 V, 250 Ma., DC	58.00
PL-191	21,000	6	. . .	Not supplied; requires 1000 ampere-turns	28.00

ACCESSORIES

Type		Price
PL-C1	Glass chimney for PL-4-400A, PL-175A, PL-6580	$ 6.50
PL-C184	Plastic chimney, only, for PL-8295/172, PL-8295A. Same chimney as used on PL-184, PL-184A sockets, below.	5.00
PL-C209	Plastic chimney, only, for PL-8432. Same chimney as used on PL-209A, below.	5.00
PL-184	Socket for PL-8295/172 and PL-8295A. Includes chimney, built-in screen-grid and suppressor-grid by-pass capacitors.	53.00
PL-184A	Socket for PL-8295/172 and PL-8295A. Same as PL-184, above, except suppressor-grid contacts are grounded.	48.00
PL-209A	Socket for PL-8432. Includes chimney, built-in screen-grid by-pass capacitors. Suppressor-grid contacts grounded.	48.00

PENTA LABORATORIES, INC.

SANTA BARBARA, CALIFORNIA

FIELD ENGINEERING REPRESENTATIVES AND DISTRIBUTORS SERVING MAJOR CITIES

Export Representative: Frazar & Hansen, Ltd., San Francisco 11, Calif.

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Trade Discount Applies To List Prices Only

RCA ELECTRON TUBES

ENTERTAINMENT RECEIVING TYPES

PRICE SCHEDULE • JULY 30, 1963

RCA Type	List Price*
0Z4	$2.40
0Z4A	2.15
0Z4G	2.60
1A3	6.55
1A5GT	4.25
1A7GT	5.75
1AX2	3.05
1B3GT	2.90
1C5GT	5.30
1DN5	3.65
1G3GT/ 1B3GT	2.90
1H5GT	4.15
1J3	2.90
1K3	2.90
1L4 (see industrial type)	
1L6	6.80
1LA6	6.20
1LB4	8.65
1LC6	8.30
1LD5	8.40
1LE3	7.00
1LG5	6.80
1LH4	8.05
1LN5	8.15
1N2A	4.65
1N5GT	5.20
1R5	3.05
1S4	4.35
1S5	2.90
1T4	2.90
1U4	2.90
1U5	2.65
1V	5.85
1V2	2.10
1X2A; B	ea. 3.05
2A3	10.50
2AF4B	4.05
2BN4A	2.55
2CW4	4.45
2CY5	3.05
2DS4	4.45
2EN5	3.40
2ER5	3.50
2FH5	3.05
2GK5	4.05
3A2	4.85
3A3	3.40
3AF4A	4.05
3AL5	2.05
3AU6	2.35
3AV6	1.90
3B2	9.85
3BA6	2.50
3BC5	2.35
3BE6	2.25
3BN4A	3.05
3BN6	3.85
3BU8	3.10
3BY6	2.60
3BZ6	2.30
3CB6	2.30
3CE5	2.35
3CF6	2.70
3CS6	2.45
3CY5	3.05
3DG4	3.40
3DK6	2.40
3DT6A	2.20
3EA5	2.85
3ER5	3.50
3GK5	4.05
3GS8/ 3BU8	3.10
3LF4	6.40
3Q4	3.55
3Q5GT	5.65
3S4	3.20
3V4	2.50
4AU6	2.35
4AV6	1.85
4BC5	2.35
4BC8	4.05
4BL8	2.55
4BN6	3.85
4BQ7A	4.20
4BS8	3.85
4BU8	3.10
4BZ6	2.25
4BZ7	4.05
4CB6	2.30
4CS6	2.35
4CY5	2.85
4DE6	2.65
4DT6A	2.25
4EH7,4EJ7	ea. 3.80
4ES8	4.60
4EW6	2.65
4GS8/ 4BU8	3.10
5AM8	3.55
5AN8	4.00
5AQ5	2.20
5AS4A	2.65
5AS8	4.15
5AT8	$3.65
5AU4	3.40
5AV8	4.05
5AW4	2.80
5AZ4	5.65
5B8	5.30
5BC3	2.30
5BE8	3.30
5BK7A	3.40
5BQ7A	4.05
5BR8	3.65
5BT8	3.30
5BW8	3.40
5CG8	3.35
5CL8A	3.35
5CM8	3.80
5CQ8	3.95
5CZ5	4.35
5DH8	5.10
5DJ4	2.65
5EA8	3.15
5EU8	3.35
5EW6	2.65
5FG7	2.75
5FV8	3.15
5GH8	3.95
5GM6	2.65
5GX6	2.35
5J6	2.85
5T4	12.10
5T8	3.40
5U4G;GB	ea. 2.10
5U8	3.30
5V3A	3.85
5V4GA	3.50
5V6GT	2.40
5X4G	3.35
5X8	3.45
5Y3GT	1.75
5Y4GA	2.60
5Y4GT	2.65
5Z3	3.30
5Z4	8.35
6A7	8.50
6A8	6.85
6A8G*	8.60
6A8GT	8.60
6AB4	2.15
6AB5/ 6N5	8.05
6AB7	8.25
6AC5GT	6.25
6AC7	5.10
6AD7G	9.40
6AF3	2.90
6AF4	4.00
6AF4A	4.00
6AF6G	6.20
6AG5	2.75
6AG7	6.20
6AH4GT	3.45
6AH6	4.70
6AK5	4.40
6AK6 (see industrial type)	
6AL3	2.75
6AL5	1.85
6AL7GT	5.75
6AM4	5.90
6AM8A	3.45
6AN4	6.55
6AN8A	4.00
6AQ5A	2.15
6AQ6	2.60
6AQ7GT	4.00
6AQ8	3.15
6AR5	2.65
6AS5	2.40
6AS8	3.90
6AT6	1.90
6AT8A	3.80
6AU4GTA	3.60
6AU5GT	4.30
6AU6A	2.10
6AU8A	3.50
6AV5GA	4.20
6AV6	1.65
6AW8A	3.70
6AX3	2.70
6AX4GT;B	ea. 2.65
6AX5GT	3.10
6AX8	3.70
6AY3	2.75
6AZ8	5.55
6B8	7.30
6BA3	2.75
6BA6	2.00
6BA7	5.95
6BA8A	3.85
6BC4	5.35
6BC5	2.55
6BC7	3.80
6BC8	4.00
6BD6	2.45
6BE6	2.20
6BF5	3.55
6BF6	$1.80
6BG6G	6.80
6BH3	2.95
6BH6	2.70
6BH8	3.65
6BJ6	2.60
6BJ7	3.15
6BJ8	3.50
6BK4	8.00
6BK5	3.70
6BK7B	3.40
6BL7GTA	3.95
6BL8	3.95
6BN4A	2.50
6BN6	3.20
6BN8	3.05
6BQ5	2.40
6BQ6GTB/ 6CU6	4.35
6BQ7A	3.95
6BR8A	3.65
6BS8	3.75
6BU8	2.80
6BV8	3.15
6BW4	2.90
6BW8	3.50
6BX7GT	4.35
6BY5GA	5.10
6BY6	2.50
6BY8	2.65
6BZ6	2.25
6BZ7	4.00
6BZ8	4.45
6C4	1.85
6C5	4.25
6C6	8.30
6C8G	8.55
6CA4	2.10
6CA5	3.15
6CB5A	8.25
6CB6A	2.25
6CD6GA	5.80
6CE5	2.35
6CF6	2.55
6CG7	2.45
6CG8A	3.30
6CH8	5.20
6CK4	3.00
6CL6	3.75
6CL8A	3.15
6CM6	3.30
6CM7	2.90
6CM8	4.25
6CN7	2.90
6CQ4	3.00
6CQ8	3.50
6CR6	2.40
6CS6	2.35
6CS7	2.95
6CU5	2.35
6CU6 (See 6BQ6GTB/ 6CU6)	
6CU8	4.15
6CW4	4.45
6CX8	3.85
6CY5	2.85
6CY7	3.20
6CZ5	4.10
6D6	7.80
6DA4	2.70
6DB5	5.30
6DC6	3.40
6DC8	3.20
6DE4	2.85
6DE6	2.55
6DE7	3.40
6DG6GT	2.55
6DK6	2.35
6DN6	7.45
6DN7	3.50
6DQ5	8.35
6DQ6A*	4.15
6DQ6B	4.15
6DR7	3.40
6DS4	4.45
6DS5	3.20
6DT5	3.25
6DT6A	2.15
6DT8	3.80
6DW4	3.70
6DW5	4.05
6DX8	3.10
6DZ7	8.45
6E5	4.90
6EA5	3.80
6EA7	3.80
6EA8	3.20
6EB8	4.00
6EH5	2.90
6EH7	3.80
6EH8	3.15
6EJ7	3.80
6EM5	3.40
6EM7	5.10
6EQ7	2.90
6ER5	$ 3.50
6ES5	3.05
6ES8	5.80
6EU7	2.70
6EU8	3.30
6EV5	3.00
6EV7	2.50
6EW6	2.50
6EW7	3.90
6EX6	7.25
6EY6	3.40
6EZ5	3.60
6EZ8	3.80
6F5	4.60
6F6;6F6G	5.85
6F6GT	5.85
6F7	11.70
6F8G	8.95
6FA7	2.90
6FD7	5.05
6FG6 (See EM84/6FG6)	
6FG7	2.90
6FH5	2.55
6FH8	3.65
6FM8	3.00
6FQ5A	4.05
6FQ7	2.30
6FS5	3.05
6FV6	3.55
6FV8	3.15
6FW5	4.10
6FW8*	9.20
6G6G	7.20
6GC5	3.20
6GH8	3.15
6GJ5	4.55
6GK5	4.05
6GK6	2.75
6GM6	2.40
6GN8	3.70
6GT5	4.20
6GV8	3.30
6GW6	4.15
6GX6;Y6	ea. 2.30
6GY8	3.80
6H6	4.00
6HB6	3.10
6HF8	3.95
6HJ8	3.30
6HS6	2.50
6HS8	3.20
6J5;GT	ea. 3.65
6J6A	2.80
6J7;GT	4.95
6JC8	3.05
6JH8	4.35
6JU8	2.95
6K6GT	2.65
6K7;GT	4.95
6K8	7.50
6K11	3.85
6KA8	3.80
6L6	8.60
6L6GC	4.20
6L7	7.35
6N5 (See 6AB5/6N5)	
6N7	5.00
6N7GT	5.00
6Q7	5.30
6Q7GT	5.65
6R7	5.45
6S4A	2.45
6S7	7.20
6S8GT	4.40
6SA7	4.30
6SA7GT	4.30
6SB7Y	6.30
6SC7	4.20
6SF5	3.70
6SF5GT	3.20
6SF7	6.25
6SG7	4.60
6SH7	4.45
6SJ7	4.15
6SJ7GT	4.15
6SK7	3.95
6SK7GT	3.95
6SL7GT	3.50
6SN7GTB	2.60
6SQ7	3.75
6SQ7GT	3.80
6SR7	3.90
6SS7	5.50
6T4	5.45
6T8A	3.40
6U5	5.55
6U8A	3.30
6V3A	4.55
6V6	6.75
6V6GTA	2.20
6W4GT	2.40
6W6GT	2.85
6X4	1.65
6X5GT	2.10
6X8	$3.15
6Y6G	4.30
6Y6GA	4.30
6Z4 (See 84/6Z4)	
7A4	7.50
7A5	6.00
7A6	7.40
7A7	7.55
7A8	8.25
7AF7	6.60
7AG7	8.40
7AH7	6.40
7AU7	2.60
7B4	7.20
7B5	8.85
7B6	5.60
7B7	8.10
7B8	5.95
7C5	3.50
7C6	7.75
7C7	3.60
7E7	6.70
7EY6	3.15
7F7	7.95
7F8	8.75
7G7	6.40
7H7	6.40
7J7	7.25
7K7	8.60
7N7	7.55
7Q7	6.20
7R7	6.65
7V7	4.90
7W7	7.00
7X7	8.10
7Y4	7.15
7Z4	6.90
8AU8	4.05
8AW8A	3.70
8BA8A	3.65
8BH8	3.55
8BN8	3.25
8BQ5	2.90
8CG7	2.50
8CM7	2.90
8CN7	2.80
8CX8	3.90
8EB5	3.75
8EM5	3.45
8ET7	4.40
8FQ7	2.75
8GN8	3.75
8KA8	3.85
9AU7	2.80
9BR7	3.35
9CL8	3.15
9U8A	3.55
10C8	4.25
10DE7	3.40
10DR7	4.20
10EG7	4.60
10EM7	4.75
10HF8	4.65
11CY7	3.25
12A8GT	8.85
12AB5	3.50
12AC6	2.20
12AD6	2.40
12AE6A	2.05
12AE7	3.75
12AF3	2.90
12AF6	2.75
12AH7GT	5.55
12AJ6	2.55
12AL5	1.90
12AL8	6.55
12AQ5	2.60
12AT6	1.85
12AT7	3.05
12AU6	2.15
12AU7A	2.45
12AV5GA	3.85
12AV6	1.65
12AV7	3.55
12AW6	3.30
12AX4GTA*	2.70
12AX4GTB	2.70
12AX7; 7A	ea 2.55
12AY3	2.80
12AY7	4.75
12AZ7A	3.05
12B4A	2.70
12BA6	1.65
12BA7	5.95
12BD6	2.45
12BE6	1.75
12BF6	2.20
12BH7A	3.05
12BK5	4.00
12BL6	2.65
12BQ6GTB/ 12CU6	4.45
12BR7	3.20
12BV7	3.50
12BW4	2.90
12BY7A	$3.05
12BZ6	2.25
12BZ7	4.40
12C5 (See 12CU5/ 12C5)	
12C8	9.70
12CA5	2.85
12CN5	3.45
12CR6	2.65
12CT8	4.25
12CU5/ 12C5	2.45
12CU6 (See 12BQ6GTB/ 12CU6)	
12CX6	2.90
12D4	2.75
12DB5	2.75
12DE8	3.30
12DK6	2.40
12DK7	2.95
12DL8	5.80
12DQ6A*	4.20
12DQ6B	4.20
12DQ7	3.45
12DS7	3.95
12DT5	3.05
12DT8	3.80
12DU7	4.05
12DV8	3.55
12DW7	3.25
12DY8	4.60
12DZ6	2.55
12EA6	2.65
12EC8	3.60
12ED5	2.85
12EG6	3.20
12EH5	2.90
12EK6	2.90
12EL6	2.00
12EN6	3.05
12EQ7	2.90
12F8	2.75
12FK6	2.10
12FM6	2.00
12FQ8	3.20
12FR8	4.80
12FV7	3.65
12FX8	3.80
12GA6	2.55
12GC6	4.20
12GJ5	4.60
12GT5	4.25
12H6	3.95
12J5GT	4.35
12J7GT	7.40
12J8	4.60
12K5	3.35
12K7GT	7.00
12K8	8.70
12L6GT	2.75
12Q7GT	5.80
12R5	3.10
12SA7	4.30
12SA7GT	4.30
12SC7	5.50
12SF5	4.10
12SF7	6.60
12SG7	4.65
12SH7	5.75
12SJ7	4.20
12SK7	3.95
12SK7GT	3.95
12SL7GT	3.75
12SN7GTA	2.70
12SQ7	3.75
12SQ7GT	3.75
12SR7	5.45
12U7	2.65
12V6GT	2.40
12W6GT	3.00
12X4	1.90
13DE7	3.40
13DR7	3.40
13EM7	4.75
13FD7	5.35
14A7	5.90
14AF7	6.05
14B6	5.60
14C7	6.60
14F7	8.95
14F8	6.70
14GT8	3.20
14Q7	6.20
14R7	7.20
15HB6	3.30
17AX4GT	2.70
17AY3	2.80
17BH3	3.05
17BQ6GTB	5.55
17C9	6.15
17D4	2.75
17DE4; M4	ea 3.40
17DQ6A (2/62)	4.25
17DQ6B	$ 4.20
17GJ5	4.60
17GT5	4.25
17GW6	4.25
17H3	2.50
18A5	4.15
18FW6	2.15
18FX6	2.15
18FY6	1.65
18GD6A	2.15
19AU4	3.50
19AU4GTA	3.45
19BG6GA	6.50
19CL8A	3.50
19EA8	3.40
19HS6	2.55
19J6	3.95
19T8	3.50
19X8	4.35
20EZ7	3.65
22BH3	3.05
22DE4	3.10
24A	6.60
25AV5GA	4.25
25AX4GT	2.90
25BK5	3.65
25BQ6GTB/ 25CU6	4.65
25C5	2.15
25CA5	3.10
25CD6GB	5.85
25CU6 (See 25BQ6GTB/ 25CU6)	
25DN6	6.80
25EC6	5.70
25EH5	2.30
25L6	8.85
25L6GT	2.65
25W4GT	2.70
25Z5	4.60
25Z6GT	3.05
27	5.40
32ET5	2.20
34GD5	2.10
34GD5A	2.10
35A5	6.00
35B5	3.40
35C5	2.15
35DZ8	3.45
35EH5	2.30
35GL6	2.50
35L6GT	2.40
35W4	1.10
35Y4	4.80
35Z3	5.00
35Z4GT	2.70
35Z5GT	1.85
36AM3A	1.60
41	5.80
42	5.15
43	7.60
47	9.15
50A5	6.25
50B5	2.95
50C5	2.15
50DC4	1.90
50EH5	2.30
50FE5	3.65
50FK5	2.30
50L6GT	2.55
50X6	6.20
50Y6GT	4.60
50Y7GT	4.50
60FX5	2.50
70L7GT	10.15
75	6.80
78	7.20
80	4.20
84/6Z4	3.65
117L7GT/ 117M7GT	10.15
117M7GT (See 117L7GT/ 117M7GT)	
117N7GT	13.60
117P7GT	13.60
117Z3	4.35
117Z6GT	7.10
5879	3.75
5881	6.40
6973	4.50
7025	2.95
7027A	6.60
7189	2.85
7199	3.70
7247	3.05
7408	2.15
7543	3.10
7591	2.95
7695	4.40
7868	3.30
EM84/6FG6	3.25

*Optional. Prices include Federal Excise tax where applicable. All prices subject to change or withdrawal without notice.

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RCA PICTURE TUBES

June 1, 1963

RCA SILVERAMA
Black & White Picture Tubes

All materials and parts used in the manufacture of RCA Silverama Picture Tubes are new except for the envelope which, prior to re-use, was carefully inspected to meet the standards of the original new envelope.

RCA COLORAMA
Color Picture Tubes

RCA Colorama Picture Tubes contain used materials which, prior to re-use, are carefully inspected to meet RCA's high quality standards.

RCA SILVERAMA BLACK & WHITE
LIST PRICE* SCHEDULE—

RCA TYPE	OPTIONAL LIST PRICE	RCA TYPE	OPTIONAL LIST PRICE	RCA TYPE	OPTIONAL LIST PRICE	RCA TYPE	OPTIONAL LIST PRICE
5TP4	87.00	17DKP4	44.75	21ALP4	Use 21CBP4A	21FP4C	45.75
7JP4	34.75	17DLP4	Use 17DSP4	21ALP4A	Use 21CBP4A	21MP4	58.25
8DP4	37.50	17DQP4	44.00	21ALP4B	Use 21CBP4A	21WP4	Use 21WP4A
10BP4A	43.00	17DRP4	52.50	21AMP4	Use 21AMP4A	21WP4A	47.25
10FP4A	45.75	17DSP4	44.00	21AMP4A	45.75	21XP4A	47.25
12KP4A	44.75	17DTP4	Use 17DKP4	21ANP4	Use 21CBP4A	21YP4	Use 21YP4A
12LP4A	44.75	17DXP4	44.00	21ANP4A	Use 21CBP4A	21YP4A	44.75
14ATP4	42.00	17GP4	44.00	21AQP4	Use 21AMP4A	21ZP4	Use 21ZP4B
14BP4	Use 14EP4	17HP4	Use 17HP4B	21AQP4A	Use 21AMP4A	21ZP4A	Use 21ZP4B
14CP4	Use 14EP4	17HP4A	Use 17HP4B	21ATP4	Use 21CBP4A	21ZP4B	44.75
14EP4	42.00	17HP4B	37.25	21ATP4A	Use 21CBP4A	23AHP4	61.00
14HP4	Use 14QP4A	17JP4	Use 17BP4B	21ATP4B	Use 21CBP4A	23ALP4	61.00
14NP4	Use 14WP4	17LP4	Use 17LP4A	21AUP4	Use 21AVP4B	23ANP4	Use 23BKP4
14NP4A	Use 14WP4	17LP4A	36.25	21AUP4A	Use 21AVP4B	23AUP4	Use 23AHP4
14QP4A	44.00	17QP4	Use 17QP4A	21AUP4B	Use 21AVP4B	23AWP4	Use 23BJP4
14RP4	Us 14WP4	17QP4A	37.25	21AVP4	Use 21AVP4B	23BJP4	61.00
14RP4A	Use 14WP4	17RP4	Use 17HP4B	21AVP4A	Use 21AVP4B	23BKP4	Use 23BLP4
14SP4	Use 14WP4	17RP4C	Use 17HP4B	21AVP4B	45.75	23BLP4	70.50
14WP4	46.75	17TP4	46.50	21AWP4	45.75	23CP4	68.75
14ZP4	Use 14WP4	17UP4	Use 17QP4A	21BAP4	Use 21CBP4A	23DAP4	64.75
16AP4A	41.25	17VP4	Use 17LP4A	21BNP4	Use 21CBP4A	23EP4	68.75
16DP4A	43.00	17VP4B	Use 17LP4A	21BSP4	Use 21AMP4A	23FP4	Use 23FP4A
16GP4B	40.50	17YP4	Use 17QP4A	21BTP4	Use 21CBP4A	23FP4A	61.00
16KP4	Use 16RP4A	19AP4B	46.75	21CBP4	Use 21CBP4A	23GP4	Use 23CP4
16KP4A	Use 16RP4A	19ABP4	55.25	21CBP4A	45.75	23HP4	Use 23CP4
16LP4A	47.75	19AFP4	57.25	21CBP4B	Use 21CBP4A	23JP4	68.75
16RP4	Use 16RP4A	19AHP4	49.50	21CEP4	Use 21DFP4	23KP4	Use 23FP4A
16RP4A	44.00	19AJP4	49.50	21CEP4A	Use 21DFP4	23KP4A	Use 23FP4A
16TP4	44.00	19AUP4	59.25	21CMP4	Use 21CBP4A	23MP4	Use 23FP4A
16WP4A	47.75	19AVP4	49.50	21CQP4	51.50	23MP4A	Use 23FP4A
16ZP4	Use 16LP4A	19AXP4	Use 19AYP4	21CUP4	Use 21AMP4A	23WP4	Use 23FP4A
17AP4	Use 17BP4B	19AYP4	49.50	21CVP4	Use 21CBP4A	23XP4	Use 23YP4
17ATP4	Use 17BJP4	19BLP4	Use 19AVP4	21CWP4	Use 21CBP4A	23YP4	68.75
17ATP4A	Use 17BJP4	19BVP4	Use 19AVP4	21CXP4	Use 21DSP4	24ADP4	Use 24CP4A
17AVP4	Use 17BJP4	19CHP4	49.50	21CZP4	Use 21DEP4A	24AEP4	67.25
17AVP4A	Use 17BJP4	19XP4	Use 19AVP4	21DAP4	Use 21DEP4A	24AHP4	71.75
17BJP4	40.00	19ZP4	Use 19AVP4	21DEP4	Use 21DEP4A	24ALP4	Use 24AHP4
17BP4	Use 17BP4B	20CP4	Use 20DP4C	21DEP4A	51.50	24ANP4	Use 24AEP4
17BP4A	Use 17BP4B	20CP4A	Use 20DP4C	21DFP4	51.50	24ATP4	84.75
17BP4B	37.25	20CP4B	Use 20DP4C	21DLP4	45.75	24AUP4	67.25
17BP4C	Use 17BP4B	20CP4C	Use 20DP4C	21DMP4	Use 21FAP4	24BAP4	90.75
17BRP4	Use 17DSP4	20CP4D	Use 20DP4C	21DNP4	Use 21CBP4A	24CP4	Use 24CP4A
17BUP4	Use 17BJP4	20DP4	Use 20DP4C	21DQP4	Use 21DLP4	24CP4A	67.25
17BVP4	Use 17CSP4	20DP4A	Use 20DP4C	21DSP4	45.75	24DP4	Use 24AEP4
17BWP4	Use 17CSP4	20DP4B	Use 20DP4C	21EP4	Use 21EP4B	24DP4A	Use 24AEP4
17BZP4	Use 17DSP4	20DP4C	51.50	21EP4A	Use 21EP4B	24QP4	Use 24CP4A
17CP4	40.00	20HP4	Use 20HP4D	21EP4B	49.50	24TP4	Use 24CP4A
17CAP4	Use 17DSP4	20HP4A	Use 20HP4D	21EAP4	Use 21FDP4	24VP4	Use 24CP4A
17CBP4	Use 17BJP4	20HP4B	Use 20HP4D	21EMP4	Use 21EQP4	24VP4A	Use 24CP4A
17CDP4	55.50	20HP4C	Use 20HP4D	21EQP4	51.50	24XP4	Use 24CP4A
17CFP4	40.00	20HP4D	51.50	21ESP4	Use 21FAP4	24YP4	Use 24AEP4
17CKP4	Use 17DSP4	20LP4	Use 20HP4D	21EVP4	62.00	24ZP4	Use 24AEP4
17CLP4	Use 17BJP4	20MP4	Use 20HP4D	21FAP4	51.50	27EP4	Use 27RP4
17CSP4	44.75	21AP4	55.25	21FDP4	62.00	27MP4	114.25
17CWP4	Use 17DSP4	21ACP4	Use 21AMP4A	21FLP4	Use 21CBP4A	27RP4	111.50
17CYP4	50.75	21ACP4A	Use 21AMP4A	21FP4	Use 21FP4C		
17DAP4	53.25	21AFP4	Use 21YP4A	21FP4A	Use 21FP4C		

RCA COLORAMA PICTURE TUBES

NOTICE: RCA COLORAMA PICTURE TUBES CONTAIN USED MATERIALS

LIST PRICE* SCHEDULE—

RCA TYPE	OPTIONAL LIST PRICE	RCA TYPE	OPTIONAL LIST PRICE	RCA TYPE	OPTIONAL LIST PRICE
15GP22	Price upon request.	21CYP22	Use 21CYP22A	21FJP22	$148.00
21AXP22	Use 21AXP22A	21CYP22A	$127.00	21FKP22	Use 21FJP22
21AXP22A	$127.00	21FBP22	$135.00		

*Optional. Prices include Federal Excise tax where applicable. All prices subject to change or withdrawal without notice.

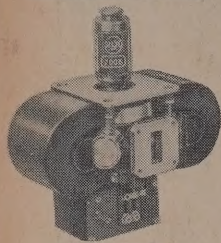
RCA ELECTRON TUBES

FOR INDUSTRY AND COMMUNICATIONS

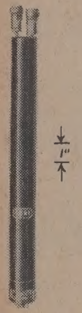
RESALE PRICE SCHEDULE • JUNE 1, 1963

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

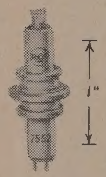
MICROWAVE DEVICES



Magnetrons



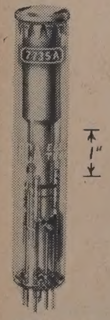
Traveling Wave



Pencil

CAMERA & DISPLAY

Image Orthicons



Vidicons

RCA POWER TUBES

RCA VACUUM POWER TUBES FOR CW APPLICATIONS

RCA Type	Dist. Resale Price Optional
2C39A	$22.50
2C39WA	30.00
2C40	29.30
2C40A	33.00
2C43	26.95
2E24	5.25
2E26	3.75
4-65A	28.75
4-125A/4D21	36.00
4-250A/5D22	46.50
4-400A	48.00
4-1000A	132.00
4E27/8001	40.00
4E27A/5-125B	50.00
4X500A	128.50
6F4	13.10
8D21	1,985.00
9C21	1,610.00
9C22	2,155.00
9C25	1,690.00
207	330.00
801A	13.00
805	22.10
807	3.00
809	7.95
810	26.95
811A	6.90
812A	6.90
813	23.16
814	28.35
815	28.35
827R	370.00
828	32.95
829B	19.00
830B	17.35
832A	15.90
833A	53.65
834	21.25
838	22.05
845	25.00
860	48.10
880	615.00
889A	235.00
889RA	370.00
891	275.00
891R	430.00
892	270.00
892R	425.00
1624	6.25
1625	4.75
2029	9,100.00
4602	P
4604	8.00
5556	39.00
5588	190.00
5671	1,760.00
5713	340.00
5762/7C24	230.00
5762A	250.00
5770	1,250.00
5771	790.00
5786	170.00
6146	4.35
6146A	4.35
6146W/7212	6.75
6155/4-125A	36.00
6156/4-250A	46.50
6159	4.80
6159W/7357	6.90
6161	125.00
6166	850.00
6166A/7007	1,020.00
6181	1,110.00
6448	5,985.00
6524	17.90
6806	7,355.00
6816	52.00
6850	17.90
6883	4.45
6884	60.00
6893	4.15
6897	32.15
6949	P
7034/4X150A	25.00
7035/4X150D	27.90
7094	32.25
7203/4CX250B	39.35
7204/4CX250F	$39.35
7212	6.75
7213	465.00
7271	27.70
7357	6.90
7457	55.25
7580	45.05
7650	290.00
7801	95.00
7842	65.25
7843	60.00
7844	52.00
7870	95.00
8000	29.15
8005	17.85
8032	5.25
8072	18.75
8121	25.90
8122	31.60

RCA VACUUM POWER TUBES FOR RF-PULSE APPLICATIONS

RCA Type	Dist. Resale Price Optional
2C40A	33.00
2054	P
4603	P
4605V2	9,335.00
5946	125.00
6950/2039	41,625.00
6952	8,110.00
7214	485.00
7649	70.00
7651	305.00
7835	61,050.00
8184	1,890.00

RCA HARD-TUBE MODULATORS

RCA Type	Dist. Resale Price Optional
3E29	20.85
6293	5.95
7358	8.30

RCA VACUUM POWER TUBES FOR SPECIAL APPLICATIONS

RCA Type	Dist. Resale Price Optional
3C33	28.75
4600A	245.00

RCA RECTIFIERS VACUUM TYPES — Half-Wave Types

RCA Type	Dist. Resale Price Optional
2X2A	3.35
579B	20.50
836	11.10
1616	13.90
5825	22.90
8013A	17.05
8020	24.00

MERCURY-VAPOR TYPES — Half-Wave Types (except as noted)

RCA Type	Dist. Resale Price Optional
83	1.89
575A	20.15
604/7014	11.80
615/7018	9.75
635/7019	13.00
635L/7020	13.50
673	20.15
816	2.95
857B	218.50
866A	2.65
869B	138.00
872A	9.90
4620	218.50
5558	17.50
5561	59.00
6894	25.00
6895	25.00
8008	9.90

GAS TYPES — Half-Wave Types

RCA Type	Dist. Resale Price Optional
3B25	8.50
3B28	6.00

RCA IGNITRONS

RCA Type	Dist. Resale Price Optional
1051A	65.00
1052A	99.00
5550	49.00
5551A	65.00
5552A	99.00
5553B	245.00
5555	316.00

RCA THYRATRONS TRIODES (Mercury-Vapor Types)— For Control Service (except as noted)

RCA Type	Dist. Resale Price Optional
3C23	$11.98
627	31.50
676	63.80
677	63.80
710/6011	13.00
714/7021	9.50
716/6855	12.50
760/6858	28.10
5557	9.50
5559	23.00
5563A	50.00

TRIODES (Gas Types)— For Control Service (except as noted)

RCA Type	Dist. Resale Price Optional
629	18.25
884	2.28
885	2.00
6130/3C45	17.80
C1K/6014	13.10
C3J/5632	13.80
C3JA/5684	14.50
C3JL	15.25
C6J/5C21	28.10
C6JA/5685	29.00
C16J/5665	56.90

TETRODES (Mercury-Vapor Types)— For Control Service (except as noted)

RCA Type	Dist. Resale Price Optional
105	59.00
172	122.00
632B	33.00
672A	39.85
5560	33.00

RCA MICROWAVE TUBES

RCA MAGNETRONS (For Pulsed-Oscillator Service)

RCA Type	Dist. Resale Price Optional
6521	700.00
7008	P
7111	P
6865-A	1,590.00
4011-A	1,585.00

RCA TRAVELING-WAVE TUBES

RCA Type	Dist. Resale Price Optional
4009	1,755.00
4010	1,755.00
4012	1,425.00
4013	1,425.00
4015	3,330.00
4017	3,000.00
4019	3,000.00
4020	3,000.00
4021	2,775.00
4036	P
6861	955.00

RCA PENCIL TUBES

RCA Type	Dist. Resale Price Optional
4037	20.00
5675	16.05
5876	10.25
5876A	23.10
5893	20.75
6173	15.05
6263	21.50
6263A	21.50
6264A	21.50
6562/5794A	8.15
7533	10.75
7552	47.70
7553	57.10
7554	50.05

RCA PHOTOSENSITIVE TUBES & DEVICES

RCA PHOTOCONDUCTIVE CELLS

RCA Type	Dist. Resale Price Optional
SQ2500	1.55
SQ2501	2.85
SQ2502	2.85
SQ2504	1.65
SQ2505	1.75
4402	2.30
4403	1.75
4404	1.75
4408	1.85
4413	2.65
4423	$1.80
4424	2.00
4425	1.90
4448	1.65
4453	1.65
6694A	13.20
7163	1.65
7412	2.10
7536	2.10

RCA PHOTOJUNCTION CELLS

RCA Type	Dist. Resale Price Optional
4420	6.40
7467	10.00

RCA PHOTOVOLTAIC CELLS

RCA Type	Dist. Resale Price Optional
SL2205	10.30
SL2206	14.30

RCA PHOTOTUBES SINGLE- AND TWIN-UNIT TYPES — Gas Types

RCA Type	Dist. Resale Price Optional
1P29	4.80
1P37	4.50
1P40	3.75
1P41	4.75
868	4.45
918	4.45
920	7.30
921	3.50
923	3.40
927	4.25
928	6.00
930	3.65
4409	4.45
5581	3.45
5582	5.40
5583	4.80
5584	7.15
6405/1640	7.60
6953	4.45

SINGLE AND TWIN-UNIT TYPES — Vacuum Tubes

RCA Type	Dist. Resale Price Optional
1P39	2.80
1P42	13.95
917	7.00
919	7.15
922	3.10
925	3.65
926	3.75
929	2.35
934	4.15
935	11.90
5652	7.50
5653	2.25
6570	9.00
7043	4.40

RCA MULTIPLIER PHOTOTUBES

RCA Type	Dist. Resale Price Optional
1P21	54.50
1P22	15.80
1P28	28.10
931-A	12.40
931-VA	13.00
2020	85.00
2031	P
2067	155.00
4438	105.00
4439	105.00
4440	105.00
4441	155.00
5819	56.50
6199	52.00
6217	72.00
6328	12.65
6342-A	60.10
6472	13.10
6655-A	60.00
6810-A	225.00
6903	370.00
7029	605.00
7046	570.00
7102	110.00
7117	12.65
7200	205.00
7264	265.00
7265	425.00
7326	410.00
7746	200.00
7764	200.00
7767	135.00
7850	240.00
8053	120.00
8054	125.00
8055	195.00

P—Price and Delivery on Request

Net

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RCA ELECTRON TUBES
FOR INDUSTRY AND COMMUNICATIONS

RESALE PRICE SCHEDULE • JUNE 1, 1963

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

RCA CAMERA & DISPLAY TUBES

RCA IMAGE ORTHICONS

RCA Type	Dist. Resale Price Optional
8093-A	$1,320.00
7293-A	1,300.00
5820-A	1,200.00
7513	1,320.00
7513/V1*	1,400.00
4401/V1	1,320.00
4415/V1	1,320.00
4415**	1,400.00
4416**	1,400.00
7295-B	1,440.00
7389-A	1,440.00

RCA MONOSCOPES

RCA Type	Dist. Resale Price Optional
2F21	275.00
1699	275.00

RCA VIDICONS

RCA Type	Dist. Resale Price Optional
2048-A	720.00
4427	585.00
6326	515.00
7038	205.00
7262-A	280.00
7263-A	615.00
7697	205.00
7735-A	205.00
8051	575.00
8134	555.00

RCA IMAGE-CONVERTER TUBES

RCA Type	Dist. Resale Price Optional
4449	1,650.00
6032-A	170.00
6381	125.00
6914	115.00
6914-A	150.00
6929	130.00
7404	370.00

RCA CATHODE-RAY TUBES OSCILLOGRAPH TYPES

RCA Type	Dist. Resale Price Optional
1EP1	23.60
1EP2	23.60
1EP11	26.00
2AP1-A	16.45
2BP1	20.15
2BP11	21.60
3AP1-A	22.75
3AQP1	23.10
3BP1-A	17.00
3JP1	21.45
3JP7	23.60
3KP1	20.35
3KP7	19.90
3KP11	20.15
3RP1	13.45
3RP1-A	21.80
3WP1	26.15
3WP11	27.60
5ABP1	31.50
5ABP7	36.40
5ABP11	36.95
5ADP1	30.00
5AHP7	31.85
5AHP7-A	31.85
5BP1-A	30.50
5CP1-A	22.53
5CP7-A	28.60
5CP11-A	28.15
5CP12	28.55
5FP7-A	21.35
5FP15-A	30.00
5UP1	15.40
5UP7	24.30
5UP11	24.05
7BP7-A	36.20
7MP7	37.60
7VP1	25.30
16ADP7	100.00
902-A	19.90

TRANSCRIBER KINESCOPE

RCA Type	Dist. Resale Price Optional
5WP11	92.70

VIEW-FINDER KINESCOPES

RCA Type	Dist. Resale Price Optional
5AYP4	65.00
5FP4-A	25.75

MONITOR KINESCOPES

RCA Type	Dist. Resale Price Optional
7CP4	$49.00
7TP4	70.80
8HP4	42.90
10SP4	77.25
14BAP4	36.25
17DWP4	37.30

PROJECTION KINESCOPES

RCA Type	Dist. Resale Price Optional
5AZP4	115.00
7NP4	1,085.00
7WP4	1,110.00

FLYING-SPOT CATHODE-RAY TUBES

RCA Type	Dist. Resale Price Optional
5AUP24	150.00
5AYP4	65.00
5WP15	92.70
5ZP16	85.80
4452	90.00

STORAGE TUBES
COMPUTER STORAGE TUBE

Primary-Current-Modulation Type

RCA Type	Dist. Resale Price Optional
6571	77.95

DISPLAY STORAGE TUBES

Direct-View Types

RCA Type	Dist. Resale Price Optional
4412	3,415.00
4454	1,230.00
6866	1,280.00
7183	1,230.00
7268	P
7315	925.00
7448	925.00

RADECHON

Single Beam, Barrier-Grid Type

RCA Type	Dist. Resale Price Optional
6499	425.00

GRAPHECHON

Scan-Conversion Type

RCA Type	Dist. Resale Price Optional
7539	1,720.00

RECEIVING TYPE TUBES FOR INDUSTRY AND COMMUNICATIONS

RCA Type	Dist. Resale Price Optional
Beam Deflection	
7360	3.80
Beam Power	
Subminiature:	
5902	5.75
Miniature:	
5686	3.40
5763	2.53
6005	3.93
6005/6AQ5W	3.95
6005/6AQ5W/6095	3.95
6417	3.04
6669/6AQ5A	1.06
7061	1.30
7551	3.50
7558	3.50
7905	3.95
Other Air-Cooled Types:	
12A6	3.36
1614	4.93
1619	5.70
1622	4.85
1631	3.45
Diodes, Misc.	
9005	8.05
9006	2.70
Glow-Discharge	
0A2	1.32
0A2WA	3.65
0A3	1.54
0A4G	1.86
0B2	1.37
0B2WA	2.40
OC2	1.50
0C3	1.50
0D3	1.44
1C21	$4.15
991	.87
5651	1.78
5651WA	3.80
5823	1.75
6073	3.00
6073/0A2	3.35
6074	3.45
6074/0B2	3.70
6626/0A2WA	4.45
Pentodes	
Subminiature:	
5636	7.80
5639	6.55
5840	6.25
5899	5.55
6205	6.40
6206	8.55
Miniature:	
1L4	1.37
3A4	1.25
6AK6	1.40
6AS6	3.43
6AU6WA	2.70
6AU6WB	2.70
26A6	3.70
5618	6.75
5654	2.45
5654/6AK5W	2.45
5654/6AK5W/6096	4.35
5725	3.80
5749	2.20
5749/6BA6W	2.20
5847	9.55
5847/404A	9.55
6136	2.70
6186	3.85
6186/6AG5WA	3.85
6197	2.50
6660/6BA6	1.01
6661/6BH6	1.34
6662/6BJ6	1.29
6676/6CB6A	1.12
6677/6CL6	1.85
7054	1.55
7056	1.20
8077/7054	1.55
9001	5.40
9003	5.40
Acorn:	
954	11.20
956	10.85
959	13.85
Other Air-Cooled Types:	
6AC7W	4.20
6AG7Y	2.80
6SJ7Y	1.95
1613	3.00
1620	7.55
1621	3.50
5693	6.60
Rectifiers	
Vacuum:	
5R4GY	2.03
5R4GYB	2.03
6X4W	1.60
5642	3.85
5690	14.10
Tetrodes	
Nuvistor:	
7587	5.20
Thyratrons	
Gas:	
2D21	1.29
2D21W	2.90
3D22A	28.00
502A	2.30
2050	2.37
2050A	2.21
5696	2.05
5727	2.90
5727/2D21W	2.90
6012	7.65
Triodes	
Subminiature:	
5718	3.65
5719	3.85
6814	5.90
Miniature:	
6J4	4.19
6J4WA	5.60
6J6WA	5.35
6664/6AB4	1.06
9002	4.15
Nuvistor:	
7586	3.35
7895	3.35
8056	5.00
8058	13.25
Acorn:	
6F4	13.10
6L4	8.40
955	7.05
957	8.50
958A	12.30
Twin Diodes	
5726	1.55
5726/6AL5W	1.55
5726/6AL5W/6097	1.55
5896	4.45
6663/6AL5	.92
6887	1.25
7055	1.00

TWIN PENTODES

RCA Type	Dist. Resale Price Optional
6939	12.00

TWIN TRIODES

RCA Type	Dist. Resale Price Optional
3A5	2.03
6AS7G	4.95
12AT7WA	2.55
12AT7WB	2.55
12SX7GT	2.53
1635	3.82
5670	2.45
5670WA	3.95
5687	4.05
5691	8.75
5692	8.25
5751	2.55
5751WA	2.95
5814A	2.40
5814WA	2.40
5842/417A	7.35
5963	1.40
5964	1.55
5965	1.95
6021	4.80
6072	3.90
6080	5.35
6080WA	10.80
6082	5.60
6099	P
6101	5.35
6101/6J6WA	5.35
6111	5.45
6112	5.45
6189/12AU7WA	3.70
6201	2.95
6211	2.15
6336A	19.05
6350	1.85
6386	7.40
6679/12AT7	1.50
6680/12AU7A	1.22
6681/12AX7	1.26
6681/12AX7A	1.26
6922	4.90
7044	2.70
7057	1.95
7058	1.30
7898	1.35

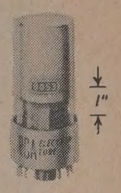
TWIN DIODE TRIODES AND TRIODE PENTODES

RCA Type	Dist. Resale Price Optional
12SW7	1.49
26C6	3.05
6678/6U8A	1.62
7059	1.75
7060	1.95

MISCELLANEOUS TYPES

RCA Type	Dist. Resale Price Optional
12SY7	2.67
26D6	3.05
1612	5.80
1629	1.90
5734	22.05
5750	3.45
5915	1.65
7724/14GT8	1.48

PHOTOSENSITIVE



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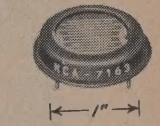
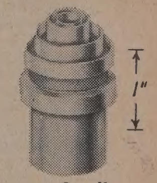


Photocells

POWER TUBES



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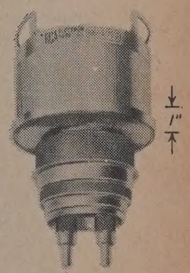

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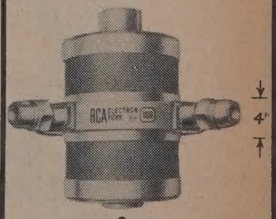

Super

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*Available in matched sets of three

**Available as matched set of three—two 4415's, one 4416

P—Price and Delivery on Request

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SYLVANIA INDUSTRIAL TUBES

Type	Sugg. User Price
C1K/6014	$ 12.90
C3J/5632	13.80
C3J/A/5684	14.50
C6J/5C21	28.10
C6J/A/5685	29.00
C16J/5665	56.90
*OA2	1.46
GB-OA2WA	3.65
OA3	1.54
*OA4G	1.86
OA5	6.96
*OB2	1.44
* **OB2WA**	3.00
GB-OB2WA	3.00
*OB3	2.35
*OC3	1.50
*OD3	1.44
OZ4A	1.20
VG1A	32.60
1B63A	30.95
1P39	3.90
1P40	3.75
1S6 (t)	1.55
•2-01C	18.50
2-25A	24.00
2-50A	27.00
2-150D	44.50
2-240A	50.00
2-2000A	250.00
*2C36	38.72
2C37	39.32
2C39A	20.75
2C39B	32.15
2C39WA	30.00
2C40	29.30
2C41	35.00
2C43	26.95
2C51	3.65
2C53	9.80
2D21	1.25
2D21W (See 5727/ 2D21W)	
2E24	5.20
2E26	3.85
*2J42	125.00
*2J42H	158.00
2X2A	3.10
2X1000A	144.00
2X3000F	168.00
•3-400Z	34.00
3A4	1.25
3A5	2.03
3B28	6.00
3C23	11.98
•3CPN10A5	32.00
3CX100A5	31.25
3E29	19.00
3W5000F1	260.00
3W5000F3	245.00
•3X2500A3	200.00
•3X2500F3	205.00
•3X3000A1	210.00
•3X3000F1	215.00
4-65A	28.50
4-125A	36.00
4-250A	46.50
4-400A	48.00
4-1000A	132.00
•4CX250B	39.00
4CX250F	39.00
•4CX250K	64.00
4CX250M	92.50
•4CX300A	58.50
•4CX1000A	181.00
•4CX5000A	495.00
4E27A/5-125B	50.00
•4PR60B	107.00
4W300B	57.00
•4W20,000A	1950.00
4X150A	26.50
4X150D	28.00
4X250B	39.35
•4X500A	128.50
5C21 (See C6J/5C21)	
5R4GYB	2.03
* **5Y3WGTA**	4.05
GB-5Y3WGTA	4.05
6AD4 (t)	3.70
*•6AH6WA	9.15
*6AJ5	3.85
6AK4 (t)	3.10
6AK5W (See 5654/ 6AK5W)	
6AL5W (See 5726/ 6AL5W)	
*•6AN5WA	10.80
*6AN6	4.35
6AQ5W (See 6005/ 6AQ5W)	
6AS6	3.43
6AS6W (See 5725/ 6AS6W)	
6AS7G	4.93
* **6AU6WA**	$2.95
* **6AU6WB**	2.95
6AZ5 (t)	3.85
6BA5 (t)	4.70
6BA6W (See 5749/ 6BA6W)	
* **6BF7W**	4.20
•6C4W	1.55
*•6C4WA	3.15
*6D4	2.85
6DJ8 (Receiving Type)	
*6J4	4.19
* **6J4WA**	5.60
GB-6J4WA	5.60
* **6J6WA**	5.35
6J7 (See 1620/6J7)	
* **6SJ7WGT**	2.70
GB-6SJ7WGT	2.70
* **6SL7WGT**	3.15
GB-6SL7WGT	3.15
* **6SN7WGT**	2.35
GB-6SN7WGT	2.35
* **6SN7WGTA**	4.90
*6V6GTY	1.45
*6X4W	1.60
* **6X4WA**	2.85
GB-6X4WA	2.85
* **6X5WGT**	1.55
GB-6X5WGT	1.55
* **7AK7**	8.15
GB-7AK7	8.15
* **7F8W**	7.05
GB-7F8W	7.05
* **12AT7WA**	2.55
*•12AT7WB	3.05
12AU7WA (See 6189/12AU7WA)	
12AY7	2.45
KY21A	26.75
RX21A	25.75
•25T	28.50
*28D7	4.95
S28D7	4.95
* **28D7W**	10.75
GB-28D7W	10.75
FG-95 (See 5560/ FG95)	
100 (See 5575/100)	
100TH	23.50
102A	186.00
200 (See 5576/200)	
232B	705.00
241B	245.00
250TH	38.50
279A	440.00
•304TH	75.00
•304TL	75.00
322	26.00
GB-407A	5.90
GB-408A	4.95
450TL	85.00
481B	10.90
502A	2.30
575A‡	20.15
579B	20.50
•592/3-200A3	46.00
•604	11.80
604L	13.00
606	20.80
606L	21.90
•SYT-620B	650.00
615	9.75
•627	31.50
628	41.00
629	18.25
632B	33.00
635	13.00
635L	13.50
642	17.00
652 (See 5551A/652)	
655 (See 5553B/655)	
•672A	39.85
673	22.15
678	49.50
681	49.00
710 (See 6011/710)	
•760	28.10
760L	29.40
801A	13.00
807‡	3.00
810	26.95
811A	6.90
812A	6.90
813	23.15
815	28.35
816	2.95
828	32.95
829B	19.00
832A	15.90
833A‡	53.65
837	10.30
845	25.00
866A	2.90
869B‡	$138.00
872A	10.65
880‡	630.00
884	2.28
889RA (See 5667/ 889RA)	
892R‡	425.00
921	3.50
922	3.10
923	3.40
927	4.25
929	2.15
930	3.10
931A	11.15
•1000T	169.00
R1111	12.70
R1111M	26.00
GB-1216	2.38
GB-1217	1.55
1218A	5.00
GB-1219/5670	3.70
GB-1220/5654	3.05
GB-1252/6U8A	2.00
1222A	2.45
1229	5.35
1247	6.00
•1500T	320.00
1614	4.10
1616	13.90
1620/6J7	6.99
1622	4.05
1624	6.25
2050	2.37
2050A	2.21
CT4251	11.10
•SYT-4260	1065.00
•SYT-4260C	1100.00
•SYT-4261	1065.00
•SYT-4267	1065.00
•SYT-4268	1065.00
•SYT-4268C	1100.00
•SYT-4273	1250.00
•SYT-4273C	1285.00
•SYT-4278	1250.00
•SYT-4278C	1285.00
•SYT-4281	1250.00
•SYT-4282	1250.00
5530	350.00
5530-H	350.00
5541	560.00
5551A/652	65.00
5552A	99.00
5553B/655	245.00
5555	316.00
5557‡	9.50
5558	17.50
5559‡	23.00
5560/FG95‡	33.00
5575/100	250.00
•5576/200	280.00
5606	305.00
5632 (See C3J/5632)	
* **5636**	6.75
* **5636A**	6.75
* **5639**	6.55
* **5639A**	6.55
* **5641**	7.55
* **5641A**	7.55
5642 (t) (Receiving Type)	
* **5643**	9.05
* **5644**	9.90
* **5644A**	9.90
* **5647**	8.65
* **5647A**	8.65
5651	1.90
* **5651WA**	4.20
GB-5654	2.45
* **5654/6AK5W**	2.45
* **5654/6AK5W/ 6096**	4.35
5658	630.00
5665 (See C16J/5665)	
5666	295.00
5667 (889RA)‡	390.00
•5668	350.00
5669	515.00
* **5670**	2.45
GB-5670	2.45
* **5670WA**	3.95
5680	190.00
5684 (See C3J/A/ 5684)	
5685 (See C6J/A/ 5685)	
5687	4.00
GB-5687	4.00
*• **5687WA**	5.66
*5692	8.25
5693	6.60
5696	2.05
* **5718**	4.00
* **5718A**	4.00
* **5719**	3.50
* **5719A**	$ 3.50
*5722	6.60
GB-5725	3.15
* **5725/6AS6W**	3.15
GB-5726	1.55
* **5726/6AL5W**	1.55
* **5726/6AL5W 6097**	1.55
GB-5727	2.90
* **5727/2D21W**	2.90
•5736	205.00
GB-5749	2.20
* **5749/6BA6W**	2.20
GB-5750	3.45
*• **5750/6BE6W**	3.45
* **5751**	2.95
GB-5751	2.95
* **5751WA**	2.95
5763	2.53
5767	44.77
*5768	32.37
5789	914.50
5790	390.00
5791	180.00
5796	17.25
* **5814A**	2.35
GB-5814A	2.35
* **5814WA**	2.35
•5820A	1200.00
*5823	1.72
* **5840**	5.85
* **5840A**	5.85
5845	9.95
5855	75.00
5879	1.95
5881	3.50
5894	25.00
* **5896**	4.15
* **5896A**	4.15
* **5899**	6.05
* **5899A**	6.05
* **5902**	5.25
* **5902A**	5.25
* **5903**	7.45
* **5904**	7.90
* **5905**	8.40
* **5906**	8.40
* **5907**	8.40
* **5908**	9.80
5916	9.80
* **5931**	6.80
GB-5931	6.80
* **5932**	11.30
GB-5932	11.30
* **5933**	12.35
GB-5933	12.35
* **5933-WA**	16.50
5934	22.00
* **5963**	1.34
GB-5963	1.34
GB-5964	1.54
GB-5965	1.95
5966	42.00
* **5977**	6.55
* **5977A**	6.55
* **5987**	11.10
5996	210.00
GB-6005	3.95
* **6005/6AQ5W**	3.95
6005/6AQ5W/ 6095	3.95
6009	228.00
6011/710	13.80
6012	7.65
6014 (See C1K/6014)	
* **6021**	3.50
* **6021A**	3.50
6027	180.00
*•6028	4.95
*6080	5.33
GB-6080	5.33
*• **6080WA**	10.50
6096 (See 5654/ 6AK5W/6096)	
6097 (See 5726/ 6AL5W/6097)	
GB-6101	5.35
* **6110**	8.05
* **6111**	5.05
* **6111A**	5.05
* **6112**	4.10
* **6112A**	4.10
* **6135**	2.40
GB-6135	2.40
GB-6136	2.90
GB-6145	12.80
6146A	5.00
6159	4.80
6159A	4.80
GB-6186	3.85
*• **6186/6AG5WA**	3.85
GB-6189	3.70
* **6189/12AU7WA**	3.70
GB-6201	2.95
* **6205**	$ 5.90
* **6205A**	5.90
* **6206**	8.00
* **6206A**	8.00
GB-6211	1.95
*•6216	4.15
6217	72.00
•6257	275.00
* **6308**	8.25
GB-6350	2.15
* **6352**	9.85
•6360	4.95
6367	185.00
•6399	170.00
6400	199.00
6421	460.00
6423-F	550.00
6424	490.00
•6425-F	640.00
6426	720.00
6476A	14.95
6481	38.30
6483	3.09
6503	65.82
6545	870.00
6546	270.00
6550 (t)	4.95
6591	34.40
6660/6BA6	1.05
6661/6BH6	1.35
6662/6BJ6	1.30
6663/6AL5	.95
6669/6AQ5A	1.05
6677/6CL6	1.80
6678/6U8A	1.60
6679/12AT7	1.50
6680/12AU7	1.20
6681/12AX7	1.25
* **6788**	10.85
6799	2760.00
6802	15.70
6807	29.40
GB-6814	5.55
*•6832	20.65
6879	13.37
6883	5.15
6883A	5.15
6887	1.25
GB-6888	6.90
6897	32.15
6909	11.43
6910	13.37
GB-6922	4.95
•6939	12.45
* **6943**	11.10
* **6944**	11.10
* **6945**	11.10
* **6946**	10.85
* **6947**	11.35
* **6948**	11.35
6973 (t) (Receiving Type)	
•6977	2.50
7006	1134.00
7007	1020.00
7025 (t) (Receiving Type)	
•7034 (See 4X150A)	
GB-7044	3.20
7054	1.45
7055	1.00
7056	1.20
7057	1.95
7058	1.30
7059	1.75
7060	2.05
7061	1.30
7098	1170.00
* **7137**	7.10
GB-7137	7.10
7155	13.37
7167	1.45
7199 (t) (Receiving Type)	
•7203 (See 4CX250B)	
•7204 (See 4CX250F)	
7258	2.75
•7289 (See 3CX100A5)	
7325	230.00
GB-7327	12.45
*7503	1170.00
• **GB-7550**	13.25
•7738	2.80
*•7759	7.35
*•7760	15.25
*•7761	7.40
*•7762	7.40
•7803	2.55
*•7887	6.70
*•7888	5.25
*•7889	6.70
•7963	7.50
8008	9.90
•8035	11.10

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SYLVANIA INDUSTRIAL TUBES

Type	Sugg. User Price
*•8064	$ 7.50
•8070	7.50
•8071	7.50
•8100	1.40
•8103	7.50
•8142	1.40
•8143	1.40
•8186	10.75
•8345	1.40
•8346	1.40
•8347	1.40
•8353	11.10
9001	5.40
9002	3.85
9003	5.40
70780	.65
7480-0008	1.20

KLYSTRONS

Type	Sugg. User Price
SK-113	195.00
SK-114	195.00
SK-115	195.00
SK-220A-G	140.00
SK-220Z	315.00
SK-221A	160.00
SK-221B-G	145.00
SK-221H	205.00
SK-221K	160.00
SK-222A-G	145.00
SK-222Z	320.00
SYK-720A-G	145.00
SYK-720Z	325.00
SYK-722A-G	150.00
SYK-722Z	330.00
K-839B (t)	195.00
K-840B (t)	195.00
K-841B (t)	195.00
K-4008	195.00
K-4009	195.00
K-4010	195.00
K-4011	205.00
K-4012	195.00
K-4013	195.00
K-4014	195.00
K-4015	195.00
SYK-4203A	90.00
SYK-4312	100.00
SYK-4313	130.00
SYK-4331	125.00
SYK-4333A	140.00
SYK-4334	145.00
SYK-4335	160.00
SYK-4339	145.00
6468	195.00
6469	195.00
6470	195.00
*6BL6	37.00
*6BM6	51.00
*6BM6A	53.00
*5836	69.00
*5837	69.00

INDUSTRIAL and MILITARY CATHODE RAY TUBES

Type	Sugg. User Price
2AP1A	$ 19.30
2BP1	20.60
2BP11	22.25
*3ACP1A	37.00
*3ACP2A	39.45
*3ACP7A	39.45
*3ACP11A	$39.45
3ACP12A	39.45
*3ADP1	61.60
3ADP2	61.60
3ADP7	61.60
3ADP11	61.60
3ASP1	34.90
3ASP2	34.90
3ASP7	34.90
3ASP11	34.90
3BEP1	39.25
*3BGP1	44.75
3BGP2	44.75
3BGP7	44.75
3BGP11	44.75
3BMP1	50.85
3BMP2	50.85
3BMP7	52.65
3BMP11	50.85
3BMP12	50.85
*3BP1A	27.10
*3FP7A	28.20
*3JP1	27.95
*3JP2	27.95
*3JP7	27.95
*JP12	34.00
*3KP1	25.95
3KP7	27.60
3KP11	27.60
3KP16	45.60
3MP1	23.55
*3RP1	24.65
3RP1A	29.10
3RP4	24.70
*3SP1	31.30
3SP2	31.30
3SP5	31.30
3SP11	31.30
*3WP1	30.30
3WP2	30.35
3WP11	30.30
*4MP1	63.35
5ABP1	34.40
5ABP1A	39.65
5ABP4	46.30
5ABP4A	49.90
5ABP7	46.30
5ABP7A	46.90
5ABP11	39.90
5ABP11A	47.50
5ABP31A	47.50
*5ADP1	34.40
5ADP1A	40.00
*5ADP2	37.80
5ADP2A	45.40
*5ADP7	34.60
5ADP7A	49.15
5ADP11	41.60
5ADP11A	49.15
5ADP31A	49.15
5AHP2A	48.35
*5AHP4A	48.35
*5AHP7	34.40
*5AHP7A	41.75
5AHP14	34.40
5AHP14A	42.25
5AHP19	34.40
5AHP19A	47.55
5AMP1	48.20
*5AMP1A	51.40
5AMP2	48.20
*5AMP2A	51.40
5AMP7	51.30
*5AMP7A	65.35
5AMP11	$52.95
*5AMP11A	65.35
5AQP1	40.00
5AQP1A	43.20
5AQP2	40.80
5AQP2A	44.05
*5AQP7	43.20
*5AQP7A	46.45
5AQP11	40.80
5AQP11A	44.25
5AUP24	151.20
5AXP4	24.75
5BCP1	64.80
5BCP4	64.80
*5BCP7	81.00
5BCP11	81.00
5BGP1	75.00
5BGP2	75.00
5BGP5	75.00
5BGP7	75.00
5BGP11	75.00
5BGP15	75.00
5BHP1	92.50
5BHP1A	92.50
5BHP2	92.50
*5BHP2A	92.50
5BHP7	92.50
5BHP7A	92.50
5BHP11	92.50
5BHP11A	92.50
5BHP15	92.50
5BHP15A	92.50
5BNP16	31.30
*5BP1A	30.50
5BRP1	50.30
5BRP4	50.30
5BRP7	50.30
5BRP11	50.30
*5CP1A	32.65
*5CP1B	35.30
*5CP7A	32.65
5CP11A	30.25
*5CP12	32.65
5CVP1	154.25
5CVP7	154.25
5CVP19	154.25
5DEP1	28.80
5DEP2	28.80
5DEP7	28.80
5DEP11	28.80
5DKP4	30.60
5DKP11	30.60
5DKP15	30.60
5DKP16	30.60
5DKP24	30.60
5DLP4	30.60
5FP4A	28.30
*5FP7A	29.95
5FP11A	35.95
*5FP14A	29.30
5RP1A	140.40
5RP2A	140.40
5RP4A	189.00
5RP5A	189.00
5RP7A	143.10
5RP11A	143.40
*5UP1	28.90
5UP7	29.05
5UP11	28.90
5WP11	109.10
5WP15	109.10
5ZP15	138.85
5ZP16	89.60
5ZP24	138.85
7ABP7	$50.40
*7ABP7A	52.40
7ABP14	64.75
7ABP14A	63.45
7ABP19	63.85
7ABP19A	63.45
7AEP1	44.05
7AEP2	44.05
*7AEP7	47.00
7AEP11	60.25
7AQP4	63.85
7AQP7	63.85
7AQP16	63.85
7AQP19	63.85
7AQP25	63.85
7AUP4	63.85
7AUP7	63.85
7BP2A	45.40
*7BP7A	39.10
7JP1/7VP1	33.00
7JP7	33.60
7MP7	37.10
7MP14	41.05
7UP7	43.20
7UP25	43.20
8CP1	43.20
8CP2	57.20
8CP7	47.20
8CP11	57.20
8DP4	28.80
8FP4	46.60
8KP4	28.80
8XP4	27.95
8YP4	29.95
*10AKP7	49.90
*10ANP4	81.65
10ANP7	81.65
10ANP16	81.65
10ANP19	81.65
10ANP25	81.65
*10KP7	46.35
*10KP7A	51.65
10KP7B	56.95
10NP11	148.50
10SP4	77.25
10VP7	83.80
10VP15	83.80
*10WP7	37.20
10WP7A	40.85
10WP14	55.35
10WP14A	64.45
10WP19	55.35
10WP19A	55.35
12ABP7	64.80
12ABP7A	51.65
12ABP14	$63.50
12ABP14A	74.00
12ABP19	74.00
12ABP19A	81.65
*12DP7A	61.78
*12DP7C	72.60
12SP7	41.60
12SP7B	49.70
*12SP7D	64.80
17DWP4	23.30
21EYP4	30.25
SC-2558P1	107.75
SC-2558P4	107.75
SC-2558P7	107.75
SC-2782	420.00
SC-2809	920.00
SC-2812P1	37.85
SC-2830P1	54.55
SC-2854	52.95
SC-3016P11	63.50
SC-3042P1	48.55
SC-3061P1	504.00
SC-3093	378.00
SC-3116P1/ T65P1/T543P1	110.00
SC-3116P2/ T65P2/T543P2	110.00
SC-3116P5/ T65P5/T543P5	110.00
SC-3116P7/ T65P7/T543P7	110.00
SC-3116P11/ T65P11/T543P11	110.00
SC-3116P15/ T65P15/T543P15	110.00
SC-3301P1/ T64P1/T533P1	110.00
SC-3301P2/ T64P2/T533P2	110.00
SC-3301P5/ T64P5/T533P5	110.00
SC-3301P7/ T64P7/T533P7	110.00
SC-3301P11/ T64P11/T533P11	110.00
SC-3301P15/ T64P15/T533P15	110.00
SC-3037P7	48.55
SC-3179P7	332.50
SC-3180P7	332.50

Types listed in Bold Face are Sylvania Gold Brand Tubes.

GB-Manufactured to Commercial and Industrial Specifications.

• Indicates additions to line since last price list.

* Indicates Military Type Approval.

(t) Federal Excise Tax included in price.
(All other types non-taxable.)

‡ These tubes may be of foreign manufacture and, in many cases, manufactured by the foreign affiliate of Sylvania Electric Products Inc.

PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

For high quality Industrial or Entertainment Receiving Type Tubes and Picture Tubes—Specify Sylvania

ELECTRONIC TUBE DIVISION • SYLVANIA ELECTRIC PRODUCTS INC. • BUFFALO, N. Y.

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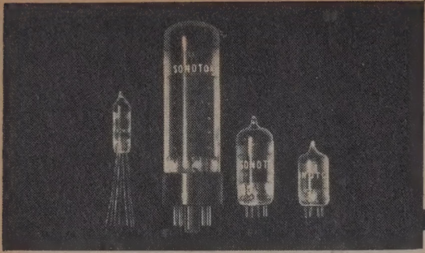
GENERAL SYSTEM



SONOTONE

Two great lines of electron tubes for reliable performance in military—industrial—commercial applications

SONOTONE 'VALUE LINE'... Home entertainment line

TUBE TYPE	SUGG. LIST
0Z4	$ 2.35
*1B3GT/DY30	2.85
1G3GT	2.85
*1R5/DK91	2.45
*1S5/DAF91	2.55
*1T4/DF91	2.30
*1U4/DF904	2.25
1U5	2.00
1X2A/1X2B	3.00
*1X2B/DY80	3.00
2AF4A	3.95
2CY5	2.75
2DZ4	3.10
3A3	2.90
3AF4A	3.95
3AL5	1.80
3AU6	2.05
3BN6	2.95
3BZ6	2.20
3CB6	2.20
3DK6	2.35
3DT6	2.10
3DZ4	3.10
*3V4/DL94	2.30
4BC8	4.00
4BQ7A	3.95
4BZ6	2.20
4BZ7	4.00
4CB6	2.20
4DT6	2.10
5AQ5	2.05
5AM8	3.10
5AT8	3.20
5CG8	3.00
5CL8A	2.95
5J6	2.75
5U4GB	2.05
5U8	3.30
*5Y3GT/GZ30	1.65
*6AB4/EC92	2.05
6AF4	3.95
6AF4A	3.95
6AG5	2.55
6AH6	4.30
*6AK5/EF95	4.65
*6AL5/EB91	1.75
6AM8A	3.05
6AN8A	3.45
*6AQ5A/EL90	2.05
*6AQ5A/EL90 MP	4.30
6AQ8A/ECC85	2.95
6AS5	2.35
*6AT6/EBC90	1.85
6AU4GTA	3.30
*6AU6A/EF94	2.05
6AU8A	3.40
*6AV6/EBC91	1.60
6AW8A	3.50
6AX4GTB	2.55
*6BA6/EF93	1.95
6BC8	3.95
*6BE6/EK90	2.20
6BG6GA	6.45
6BH6	2.65
6BH8	3.80
*6BJ6/E99F	2.55
6BK5	3.60
6BK7B	3.30
6BL7GTA	3.90
*6BM8/ECL82	2.60
*6BM8/ECL82 MP	5.45
6BN4A	2.40
6BN6	2.90
*6BQ5/EL84	2.30
*6BQ5/EL84 MP	4.80
6BQ6GA/6CU6	4.25
6BQ6GTB	4.25
6BQ6GTB/6CU6	4.25
*6BQ7A/ECC180	3.90
6BN8	2.60
6BS8	3.70
6BU8	2.70
6BZ6	2.15
6BZ7	3.95
*6C4/EC90	1.75
*6CA4/EZ81	1.65
*6CA7/EL34	5.60
*6CA7/EL34 MP	11.75
6CB6A	2.15
6CD6GA	5.75
6CF6	2.45
6CG7	2.40
6CG8A	2.95
6CL6	3.70
6CM7	2.70
6CQ8	3.25
*6CS6/EH90	2.20
6CS7	2.90
6CS8	2.25
6CU5	2.75
6CY5	2.70
6DE4	2.70
6DE6	2.40
6DK6	2.30
6DQ5	7.35
6DQ6B	4.10
6DR4	1.75
6DR7	2.90
6DT5	3.15
6DT6A	2.05
6EA7	3.40
6EA8	2.60
6EB8	3.95
6EM5	2.95
6EM7/6EA7	3.40
6EW6	2.20
*6FG6/EM84	2.60
6GH8	2.55
6GW8	3.30
6J5GT	2.85
*6J6/ECC91	2.75
6J6A	2.75
6K6GT	2.25
6L6GC	4.10
6L6GC MP	8.95
6S4A	2.40
6SA7	3.95
*6SL7GT/ECC35	3.25
*6SN7GTB/ECC33	2.55
*6T8A/EABC80	3.30
*6U8A/ECF82	3.25
6V6GT	2.05
6V6GT MP	4.30
6V6GTA	2.05
6V6GTA MP	4.30
6W4GT	2.05
6W6GT	2.35
*6X4/EZ90	2.75
*6X5GT/EZ35	2.00
6X8	3.10
6X8A	3.10
7AU7	2.55
8AW8A	3.55
8CG7	2.40
*8BQ5/XL84	2.35
8EM5	3.00
10DE7	2.90
12AD6	2.25
12AL5	1.85
12AQ5	2.35
*12AT6/HBC90	1.70
*12AT7/ECC81	2.90
*12AU6/HF94	1.85
*12AU7A/ECC82	2.40
*12AV6/HBC91	1.50
12AX4GTB	2.60
*12AX7/ECC83	2.40
12AX7A	2.40
12AY7	2.40
12AZ7	2.65
12B4A	2.60
*12BA6/HF93	1.50
*12BE6/HK90	1.50
12BH7A	3.00
12BK5	3.35
12BQ6GTB	4.45
12BY7A	3.00
12DQ6A	4.10
12DQ6B	4.10
12SA7GT	3.60
12SL7GT	3.40
12SN7GTA	2.60
12SQ7GT	2.40
12W6GT	2.75
17AX4GTA	2.60
17DQ6B	4.10
18FW6A	1.75
18FX6A	1.80
18FY6A	1.50
19T8	3.30
25C5	1.85
25CD6GB	5.78
25L6	2.25
32ET5A	1.95
35C5	1.85
35L6GT	2.35
*35W4/HY90	.85
35Z5GT	1.80
36AM3A	1.20
36AM3B	1.20
*50BM8/UCL82	3.20
*50BM8/UCL82 MP	6.70
*50C5/HL92	1.85
50EH5	2.05
50L6GT	2.35
DAF91/1S5	2.55
DF91/1T4	2.30
DF904/1U4	2.25
DK91/1R5	2.45
DL94/3V4	2.30
DY30/1B3GT	2.35
DY80/1X2B	3.00
E99F/6BJ6	2.55
EABC80/6T8A	3.30
EB91/6AL5	1.75
EBC90/6AT6	1.85
EBC91/6AV6	1.60
EC90/6C4	1.75
EC92/6AB4	2.05
ECC33/6SN7GTB	2.55
ECC35/6SL7GT	3.25
ECC81/12AT7	2.90
ECC82/12AU7A	2.40
ECC83/12AX7	2.40
ECC85/6AQ8A	2.95
ECC180/6BQ7A	3.90
ECC91/6J6	2.75
ECF82/6U8A	3.25
ECL82/6BM8	2.60
ECL82/6BM8 MP	5.45
EF93/6BA6	1.95
EF94/6AU6	2.05
EF95/6AK5	4.65
EH90/6CS6	2.20
EK90/6BE6	2.20
EL34/6CA7	5.60
EL34/6CA7 MP	11.75
EL84/6BQ5	2.30
EL84/6BQ5 MP	4.80
EL90/6AQ5A	2.05
EL90/6AQ5A MP	4.30
EM84/6FG6	2.60
EZ35/6X5GT	2.00
EZ81/6CA4	1.65
EZ90/6X4	2.75
GZ30/5Y3GT	1.65
HBC90/12AT6	1.70
HBC91/12AV6	1.50
HF93/12BA6	1.50
HF94/12AU6	1.85
HK90/12BE6	1.50
HL92/50C5	1.85
HY90/35W4	.85
UCL82/50BM8	3.20
UCL82/50BM8 MP	6.70
XL84/8BQ5	2.35

MP Indicates Matched Pair.

SONOTONE 'PREMIUM LINE'... Home entertainment line

TUBE TYPE	SUGG. LIST
0Z4	$ 2.40
1AB6	3.30
1AC6	3.30
1AH5	3.10
1AJ4	3.00
1AN5	2.70
1B3GT	2.90
1G3GT	2.90
1L4	2.65
1M3	2.00
1S2	3.00
1S4	3.80
1S5	2.15
1T4	2.25
1U5	2.25
1X2B	3.00
2AF4A	3.95
2AF4B	3.95
2DZ4	3.20
2ER5	2.90
3AF4A	3.95
3AF4B	3.95
3BZ6	2.25
3C4	2.75
3DT6	2.10
3DZ4	3.20
3GK5	4.00
3Q4	2.90
3S4	2.45
3V4	2.15
4BQ7A	3.95
4BZ7	4.00
4DL4	4.20
4GV7	3.40
5AQ5	2.10
5AR4	4.25
5CG8	3.25
5GV7	3.40
5J6	2.80
5U4GB	2.10
5V4	3.45
5Y3GT	1.75
6AB4	2.05
6AB8	3.25
6AF4	3.95
6AF4A	3.95
6AJ8	3.10
6AK5	4.20
6AL5	1.80
6AM6	3.25
6AM8A	3.35
6AN8	3.55
6AQ4	5.15
6AQ5A	2.15
6AQ5A MP	4.40
6AQ8	2.70
6AT6	1.85
6AU5GT	4.25
6AU6A	2.05
6AU8A	3.35
6AV6	1.65
6AW8A	3.45
6AX4GT	2.65
6BA6	2.00
6BA8A	3.70
6BD7A	2.75
6BE6	2.15
6BH6	2.65
6BJ6	2.60
6BG6GA	6.40
6BL7GTA	3.95
6BL8	3.85
6BM8	2.95
6BM8 MP	6.20
6BN5	5.55
6BN6	3.05
6BQ5	2.35
BQ5 MP	5.05
6BQ6GTB/6CU6	4.35
6BQ7A	3.85
6BR5	2.70
6BR8A	3.45
6BU8	2.70
6BW7	2.90
6BX6	3.15
6BY7	3.15
6BZ6	2.25
6BZ7	3.85
6C4	2.00
6CA4	1.90
6CA7	5.05
6CA7 MP	11.10
6CB6A	2.25
6CD6GA	5.60
6CD7	2.40
6CG7	2.40
6CG8A	3.25
6CJ5	2.85
6CJ6	4.25
6CK5	3.10
6CK6	3.95
6CL6	3.65
6CL8A	3.10
6CN6	7.25
6CS6	2.35
6CS7	3.10
6CT7	2.80
6CV7	2.55
6CW5	2.75
6CW5 MP	5.70
6CW7	3.70
6DA4	2.65
6DA5	2.70
6DA6	2.80
6DC8	3.10
6DE4	2.70
6DE6	2.45
6DJ8	4.05
6DK6	2.30
6DL5	2.45
6DL5 MP	5.15
6DR5	3.50
6DQ6B	4.05
6DS8	2.95
6DT6A	2.15
6DZ4	3.20
6EA8	2.70
6EB8	3.70
6EH7	3.00
6EJ7	3.00
6EM7	5.00
6ER5	2.40
6ES8	4.35
6ET6	3.20
6EU7	2.50
6FG6	2.90
6GH8	3.05
6GK5	2.85
6GM8	4.45
6GN8	3.70
6GV7	3.40
6GW8	3.10
6GW8 MP	6.50
6HG8	3.15
6J4	3.95
6J4WA	5.35
6J6	2.75
6J6A	2.75
6J6WA	5.35
6JX8	2.70
6K6GT	2.35
6L6GC	3.95
6L6GC MP	8.20
6N8	3.00
6S4A	2.05
6SL7GT	3.45
6SN7GTB	2.60
6T8	3.25
6U8	3.20
6V4	1.55
6V6GT	2.15
6V6GT MP	4.40
6WGT	2.40
6X4	1.60
6X5G	2.10
6X8	3.00
7AN7	3.65
7GV7	3.40
7HG8	3.25
9A8	4.45
9AQ8	3.10
9U8/PCF82	3.30
12AB5	3.35
12AD6	2.25
12AH8	3.25
12AQ5	2.30
12AT6	1.65
12AT7	2.90
12AU6	2.15
12AU7	2.40
12AU7A	2.40
12AV6	1.65
12AX4GT	2.70
12AX7	2.45
12BA6	1.65
12BE6	1.75
12BH7A	3.00
12BL6	2.25
12BY7A	3.00
12DQ6B	4.20
12SN7GT	2.70
15CW5	2.90
15DQ8	3.95
16A8	4.35
18DZ8	3.15
19AQ5	2.05
19T8	3.45
25EH5	2.15
35C5	2.10
35DZ8	3.00
35EH5	2.15
35W4	1.05
38A3	1.60
45B5	2.80
45B5 MP	5.80
50BM8	3.00
50BM8 MP	6.25
50C5	2.15
50EH5	2.35
5928/6267	2.65
60FX5	2.35
5763	3.45
6026	5.85
6146	10.45
7025	3.15
7189	2.60
7189 MP	5.75
7199	3.65
7247	2.85
DAF91/1S5	2.15
DAF96/1AH5	3.10
DC90	2.60
DF91/1T4	2.25
DF92/1L4	2.65
DF96/1AJ4	3.00
EF98/6ET6	3.20
EF183/6EH7	3.00
EF184/6EJ7	3.00
EF804	3.25
EH90/6CS6	2.35
EK90/6BE6	2.15
EL34/6CA7	5.05
EL34/6CA7 MP	11.10
EL38/6CN6	7.25
EL41/6CK5	3.10
EL81/6CJ6	4.25
EL83/6CK6	3.95
EL84/6BQ5	2.35
EL84/6BQ5 MP	5.05
EL85/6BN5	5.55
EL86/6CW5	2.75
EL86/6CW5 MP	5.70
EL90/6AQ5	2.15
EL90/6AQ5 MP	4.40
EL95/6DL5	2.45
EL95/6DL5 MP	5.15
EM34/6CD7	2.40
EM35	2.40
EM71	5.80
EM80/6BR5	2.70
EM81/6DA5	2.70
EM84/6FG6	2.90
EZ12	4.80
EZ35/6X5G	2.10
EZ80/6V4	1.55
EZ81/6CA4	1.90
EZ90/6X4	1.60
GZ30/5Y3GT	1.75
GZ34/5AR4	4.25
HBC90/12AT6	1.65
HBC91/12AV6	1.65
HF93/12BA6	1.65
HF94/12AU6	2.15
HK90/12BE6	2.15
HL92/50C5	2.15
HY90/35W4	1.30
M8081/6J6WA	5.35
M8232/6J4WA	5.35
PC88/4DL4	4.20
PCC84/7AN7	3.65
PCC85/9AQ8	3.10
PCF80/9A8	4.45
PCF82/9U8	3.30
PCF86/7HG8	3.25
PCF805/7GV7	3.40
PCL82/16A8	4.35
PCL84/15DQ8	3.95
PL36/25E5	2.15
PL84/15CW5	2.90
UCL82/50BM8	3.00
UCL82/50BM8 MP	6.25
UL84/45B5	2.80
UL84/45B5 MP	5.80
UY85/38A3	1.60
XC95/2ER5	2.90
DF97/1AN5	2.70
DK92/1AC6	3.30
DK96/1AB6	3.30
DL92/3S4	2.45
DL94/3V4	2.15
DL96/3C4	2.75
DM70/1M3	2.00
DY30/1B3GT	2.90
DY80/1X2B	3.00
DY86/1S2	3.00
EAA91	1.80
EABC80/6T8	3.25
EAF42/6CT7	2.80
EB91/6AL5	1.80
EBC41/6CV7	2.55
EBC81/6BD7A	2.75
EBC90/6AT6	1.85
EBC91/6AV6	1.65
EBF80/6N8	3.00
EBF83/6DR5	3.50
EBF89/6DC8	3.10
EC90/6C4	2.00
EC91/6AQ4	5.15
EC92/6AB4	2.05
EC95/6ER5	2.40
ECC33/6SN7GTB	2.60
ECC35/6SL7GT	3.45
ECC40	4.00
ECC81/12AT7	2.90
ECC82/12AU7	2.40
ECC83/12AX7	2.45
ECC84/6CW7	3.70
ECC85/6AQ8	2.70
ECC86/6GM8	4.45
ECC88/6DJ8	4.05
ECC91/6J6	2.75
ECC180/6BQ7A	3.85
ECC189/6ES8	4.35
ECF80/6BL8	3.85
ECF82/6U8	3.20
ECF83	3.25
ECF86/6HG8	3.15
ECF805/6GV7	3.40
ECH81/6AJ8	3.10
ECH83/6DS8	2.95
ECH84/6JX8	2.70
ECL80/6AB8	3.25
ECL82/6BM8	2.95
ECL82/6BM8 MP	6.20
ECL86/6GW8	3.10
ECL86/6GW8 MP	6.50
EF40	4.35
EF41/6CJ5	2.85
EF80/6BX6	3.15
EF85/6BY7	3.15
EF86/5928-6267	2.65
EF89/6DA6	2.80
EF91/6AM6	3.25
EF93/6BA6	2.00
EF94/6AU6	2.05
EF95/6AK5	4.20

SONOTONE MILITARY AND INDUSTRIAL TUBES

TUBE TYPE	SPECIFICATION MIL-E-1/	SUGG. LIST
6CG7	1095	$ 2.40
6J4	58	3.95
6J4WA	619D	5.35
6J6WA	243B	5.35
5636	168E	8.69
5639	169E	6.55
5639WA	1267 (Tentative)	12.38
5702WA	82D	10.50
5702WB	1069C	15.74
5703	692A	3.88
5703WA	293D	10.50
5703WB	1070B	14.58
5718	172D	4.25
5719	173E	3.85
5814A	12D	4.73
5840	140D	6.25
5899	97G	6.55
5902	175E	5.75
5977	187D	6.55
6021	188C	4.80
6026	No mil spec.	5.60
6101/6J6WA	Spec. MIL-E-1/243A Superseded-order 6J6WA	5.35
6111	189D	5.45
6112	190D	5.45
6205	140D	6.40
6222	955A	11.07

All prices include Federal Excise Tax where applicable.

All orders subject to Local, State and Federal Taxes.

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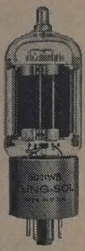
TUNG-SOL ELECTRON TUBES

The fully comprehensive Tung-Sol line of electron tubes fills virtually every requirement . . . from the most exacting military and industrial applications to the peak quality demands of modern entertainment electronics. A quality control network that's unparalleled plus unexcelled production know-how assure that high-volume production units exhibit the same superior performance and full-life dependability as the engineering samples.

MILITARY-INDUSTRIAL

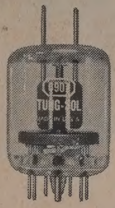


VACUUM PULSE TUBES

Types available: 3D21WB, 6293, 6293W, 6889, 7403.

INDICATOR TUBES

Types available: 6977, 7323, 7400, 7401, 7813, 8216.

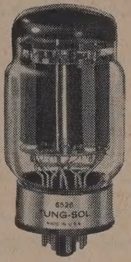


TRANSMITTING TUBES

Types available: 2E22, 5894, 6146, 6146W, 6159, 6159W, 6252, 6360, 6883, 6907, 8032, 8149, 8150, 8236.

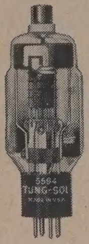
RECTIFIERS

Types available: 1Z2, 3B24WA, 3B25, 3B28, 3B29, 4B32, 5R4GY, 5R4WGA, 5R4WGB, 6H6WGT, 6X4WA, 6X4W, 25Z6WGT, 26Z5W, 583, 5517, 5726/6AL5W, 5829WA, 576A.



POWER TRIODES

Types available: 5998, 6AS7G, 6080, 6080WA, 6080WB, 6082, 6082WA, 6082WB, 6336A, 6394A, 6520, 6528, 6877, 7105, 7236, 7241, 7242, 7802, 7802WA, 7802WB, 8193.

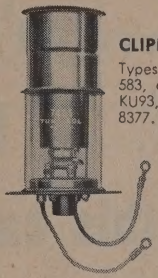


THYRATRONS

Types available: 2A4G, 2D21, 2050, 2050W, 3C23, 323B, 393A, 394A, 395A, 885, 5594, 5643, 5663, 5696, 5727, 6D4, 6012, 6901, 7410.

VOLTAGE REGULATORS

Types available: OA2, OB2WA, OB2, OC3W, OD3W, 5787, 5787WA, 6074, 6542, 7099.



CLIPPER TUBES

Types available: 3B29, 576A, 583, 6339, 7454, 7455, 8275/KU93, 8373, 8374, 8375, 8376, 8377.

VOLTAGE REFERENCE TUBES

Types available: 5651, 5651WA, 5783, 5783WA, OG3.

PENTODES

Types available: 1AD4, 404A, 5636, 5639, 5654/6AK5W, 6AH6WA, 6AU6WB, 5672, 5678, 5702WAM, 5702WBM, 5725/6AS6W, 5749/6BA6W, 5784WB, 6AJ5, 6AK5WB, 6AS6, 5840, 5875, 5902, 6028, 6088, 6136, 6205, 6245.

POWER PENTODES

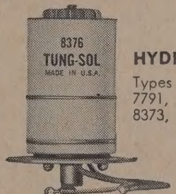
Types available: 2E22, 26E6WG, 3A4, 5A6, 5881, 6AR6, 6098/6AR6WA, 6L6GC, 6L6WGB, 6216, 6327. 6384, 6550, 6889, 7189, 7581, 7591, 7867.

TELEPHONE TUBES

Types available: 313C, 338A, 393A, 394A, 395A, 407A, 408A, 426A, 5842/417A, 5847/404A, 6028.

PHOTO DEVICES

Types available: 8049, 8217.

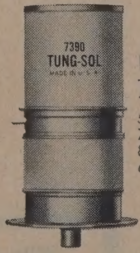


HYDROGEN DIODES

Types available: 7789, 7790, 7791, 7792, 7793, 8275/KU93, 8373, 8374, 8375, 8376, 8377.

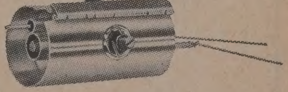
TWIN TRIODES

Types available: 6SU7GTY, 2C51, 12AT7WA, 12AY7, 5670, 5687, 5687WA, 5718, 5719, 5744WB, 5751, 5751WA, 5814A, 5814WB, 6021, 6111, 6112, 6188/6SU7WGT, 7370, 6SN7WGTA.



HYDROGEN THYRATRONS

Types available: 1257, 1257A, 1258, 5948, 5948A, 5949, 5949A, 7190, 7191, 7191A, 7192, 7240, 7322, 7390, 7890, 8036, 8097, 8191, 8192, 8253/6587A.



PENCIL TUBES

Types available: 6263A, 6562, 7533.

ENTERTAINMENT

Tung-Sol tubes . . . cathode ray, series string, hybrid auto radio, TV, radio, stereo and hi-fi provide an ideal combination of the most sought-after characteristics. Tung-Sol is also packing the popular types of its quality audio tubes in factory-matched pairs. Dynamically-balanced 6550's, 5881's, 6V6GTA's, 6BQ5's bring you the finest in full-fidelity reproduction.

Technical assistance is available through the following sales offices: Atlanta, Ga.; Columbus, Ohio; Culver City, Calif.; Dallas, Texas; Denver, Colo.; Detroit, Mich ; Melrose Park, Ill.; Newark, N. J.; Seattle, Wash. Canada: Abbey Electronics, Toronto, Ont.

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CATHODE RAY TUBES

For more than a decade, Rayonic® Cathode Ray Tubes have continued to increase in industry acceptance because of high quality standards.

- Complete line of electrostatic and magnetic tubes
- Made to EIA or MIL specs
- Rectangular and round cross sections
- Ideal for new designs as well as replacement requirements
- JAN approved types constantly increasing
- Every Rayonic Tube is covered by a 15 month warranty
- Tube lengths from 7″

Phosphor on each tube listed below, is standard. P1, P2, P4, P7, P11 and P31 are readily available. Consult factory for special phosphor.

RAYONIC® TUBE TYPES		PHYSICAL DATA			TYPICAL OPERATING DATA				BASING	RAYONIC® TUBE TYPES
					ANODE #3 VOLTS	ANODE #2 VOLTS	DEFL. Factor V/IN.			
TUBE	JAN	FACE	LEN	BASE			D1, D2	D3, D4		
1EP		1″ flat	4 1/16	11 Pin SBU		500	130	150	11V	1EP
2BP	2BP1	2″ Round	7⅝[1]	12 Pin SD		1000	135	87	12E	2BP
2FP**		2″ Round flat	7⅝[1]	8 Pin N		1000	60	34	8KF	2FP**
3ABP		3″ flat 2 gun	10½″	14 Pin	4000	2000	181/181	165/165		3ABP
3ACP-A		3″ Round flat	10″	12 Pin MD	4000	2000	190	148	14J	3ACP-A
3ADP		3″ Round flat	10¼″	12 Pin SD	4000	2000	150	65	12Z	3ADP
3AHP		1½″ x 3″	9⅛″	12 Pin SD		1000	86	30	12E	3AHP
3AQP		3″ Round	9⅛″	12 Pin SD		1000	86	30	12F	3AQP
3ASP		1½″ x 3″ flat	8 15/16″	8 Pin N		2000	80	33	8KF	3ASP
3ATP		1½″ x 3″ flat	8 15/16″	8 Pin N		2000	80	33	8KL	3ATP
3BSP		3″ Round flat	9⅛″	12 Pin SD		1000	85	31	12E	3BSP
3JP	3JP1,2,7	3″ Round	10″	12 Pin MD	3000	1500	150	111	14J	3JP
3MP		3″ Round	8″	12 Pin SD		1000	130	125	12F	3MP
3RP	3RP1	3″ Round	9⅛″	12 Pin SD		1000	86	61	12E	3RP
3RP-A	3RP1A	3″ Round flat	9⅛″	12 Pin SD		1000	86	61	12E	3RP-A
3SP	3SP1	1½″ x 3″	9⅛″	12 Pin SD		1000	86	61	12E	3SP
3WP		3″ Round flat	11½″	12 Pin SD		1500	69	47	12E	3WP
3XP	3XP1	1½″ x 3″	8⅞″	Loctal		2000	80	33	VC-XP	3XP
3YP		1½″ x 3″	7″	Loctal		1000	80	52	VC-YP	3YP
4MP		3½″ x 3½″ flat	13¾″	10 Pin SD	4000	2000	75	47	12Z	4MP
5ABP/5ADP	5ADP1	5″ Round flat	16¾″	12 Pin MD	3000	1500	46	33	14J	5ABP-/5ADP
5AFP		5″ flat 2 gun	18¼″	12 Pin MD+	4000	2000	60/60	55/55	Special	5AFP
5AMP		5″ Round flat	17⅝″	12 Pin MD		2500	45	22.5	14U	5AMP
5AMP-A***		5″ Round flat	17⅝″	12 Pin MD		2500	45	22.5	14U	5AMP-A***
5AQP-A		5″ Round flat	16¾″	12 Pin MD		2500	45	35	14G	5AQP-A
5AQP-B		5″ Round flat	16¾″	12 Pin MD		2500	45	35	14G	5AQP-B
5BGP***		5″ Round flat	17½″	12 Pin MD	10,000	1670	31.6	78	14AF	5BGP
5BHP***		5″ Round flat	18¼″	12 Pin MD	10,000	1670	16.7	77.5	14AF	5BHP
5BTP		5″ Round flat	12″	12 Pin SD	1600	800	51	27	VC-BT	5BTP
5CBP2/T55P2*		5″ Round flat	18¼″	12 Pin MD	4000	1850	53	17	14AG	5CB2/T55P2*
5CP1A		5″ Round	16¾″	12 Pin MD	4000	2000	87	78	14J	5CP1A
5DEP		5″ Round	14¾″	12 Pin SD		1500	42	24	12E	5DEP
5UP		5″ Round	14¾″	12 Pin SD		1500	50	41	12E	5UP
7JP/7VP		7″ Round	14½″	12 Pin SD		6000	216	177	14R	7JP/7VP
8CP		8″ Round	16½″	12 Pin SD	4000	2000	70	58	14J	8CP
8XP4		8″ Rectangular	11 7/16″	5 Pin SSD	Magnetic 90° TV Check Tube				7FG	8XP4
8YP4		8″ Rectangular	8 11/16″	5 Pin SSD	Magnetic 110° TV Check Tube				7FG	8YP4
VC129P**		3″ Round	9⅛″	12 Pin SD		1000	86	61	12E	VC129P**
VC136P		4⅛″ x 2⅛″ flat	13⅝″	12 Pin MD		2000	50	21	VC136	VC136P

NOTE: Most tubes also available with integral magnetic shield.

*Indicates tubes are double branded since they are manufactured to tolerances common to both tube types listed, and are within industry standards for both types.
**Includes integral magnetic shield.
***Aluminized.
Values listed are design centers.

†SD—Small Duodecal; MD—Medium Diheptal;

MM—Medium Magnal; N—Neo-eightar

SBU—Small Button Unidekar.

Specifications subject to change without notice.

REQUEST BULLETIN #2041

RAYONIC®

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Philadelphia 44, Pa.

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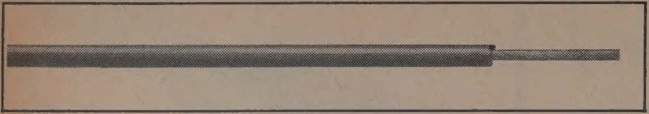


MIL-W-76B-PLASTIC WIRE

TYPE MW–UNCOVERED PLASTIC

DESCRIPTION: Solid or extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation. The stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

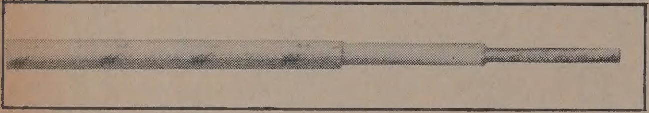
STRANDED

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1550	MW-C 24(7)U	24	7/32	.016″	.059″	1-30 AS LISTED BELOW
1551	MW-C 22(7)U	22	7/30	.016″	.064″	
1553	MW-C 20(10)U	20	10/30	.016″	.073″	
1555	MW-C 18(16)U	18	16/30	.016″	.084″	
1557	MW-C 16(26)U	16	26/30	.016″	.095″	
1559	MW-C 14(41)U	14	41/30	.016″	.110″	
1560	MW-C 12(65)U	12	65/30	.016″	.125″	

SOLID

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1561/24	MW-C 24(1)U	24	1	.016″	.055″	1-30 AS LISTED BELOW
1561	MW-C 22(1)U	22	1	.016″	.060″	
1563	MW-C 20(1)U	20	1	.016″	.066″	
1565	MW-C 18(1)U	18	1	.016″	.074″	
1567	MW-C 16(1)U	16	1	.016″	.083″	

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



MIL-W-76B-PLASTIC WIRE

TYPE MW–GLASS BRAID

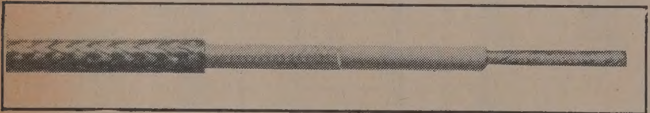
DESCRIPTION: Extra flexible stranded tinned copper, white **medium wall** polyvinylchloride insulation, color coded flame retardant lacquered glass braid overall. The stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1590	MW-C 22(7)B	22	7/30	.016″	.080″	1-19 as listed below
1591	MW-C 20(10)B	20	10/30	.016″	.090″	1-19 as listed below
1592	MW-C 18(16)B	18	16/30	.016″	.100″	1-19 as listed below
1593	MW-C 16(26)B	16	26/30	.016″	.115″	1-19 as listed below
1594	MW-C 14(41)B	14	41/30	.016″	.125″	1 & 11-19 as listed below
1595	MW-C 12(65)B	12	65/30	.016″	.140″	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW–GLASS BRAID–SHIELDED

DESCRIPTION: Extra flexible stranded tinned copper, white medium wall polyvinylchloride insulation, white flame retardant lacquered glass braided with tinned copper shield overall, 80% coverage. The stranded conductor has an extra tight lay to prevent springing open when stripped.

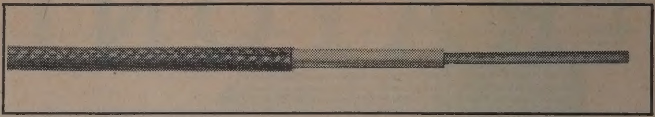
CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLOR
1194/24	MW-C 24(7)BS	24	7/32	.016″	.090″	White
1194/22†	MW-C 22(7)BS	22	7/30	.016″	.095″	White
1194†	MW-C 20(10)BS	20	10/30	.016″	.108″	White
1196†	MW-C 18(16)BS	18	16/30	.016″	.124″	White
1197†	MW-C 16(26)BS	16	26/30	.016″	.133″	White
1198†	MW-C 14(41)BS	14	41/30	.016″	.144″	White
1199†	MW-C 12(65)BS	12	65/30	.016″	.168″	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.

†1194/22 to 1199 formerly 1361 to 1365



MIL-W-76B-PLASTIC WIRE

TYPE MW–SHIELDED

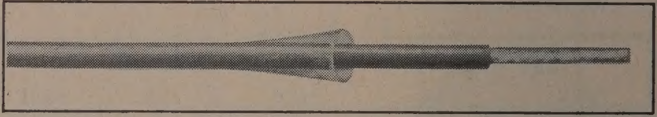
DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, braided tinned copper shield overall, 80% coverage. Stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1350	MW-C 24(7)S	24	7/32	.016″	.075″	White
1351	MW-C 22(7)S	22	7/30	.016″	.085″	White
1352	MW-C 20(10)S	20	10/30	.016″	.095″	White
1353	MW-C 18(16)S	18	16/30	.016″	.105″	White
1354	MW-C 16(26)S	16	26/30	.016″	.115″	White
1355	MW-C 14(41)S	14	41/30	.016″	.130″	White
1356	MW-C 12(65)S	12	65/30	.016″	.145″	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW–NYLON JACKET

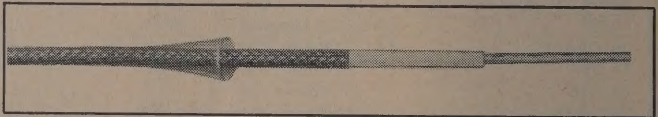
DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, clear nylon (polyamide) jacket overall. Stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOM. O.D.	* STOCK COLORS
1503	MW-C 24(7)J	24	7/32	.016″	.002″	.065″	1-19 as listed below
1504	MW-C 22(7)J	22	7/30	.016″	.003″	.072″	1-19 as listed below
1505	MW-C 20(10)J	20	10/30	.016″	.003″	.079″	1-19 as listed below
1506	MW-C 18(16)J	18	16/30	.016″	.003″	.090″	1-19 as listed below
1507	MW-C 16(26)J	16	26/30	.016″	.004″	.103″	1-19 as listed below
1508	MW-C 14(41)J	14	41/30	.016″	.004″	.118″	1-6 as listed below
1509	MW-C 12(65)J	12	65/30	.016″	.005″	.135″	1-3 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW–SHIELDED–NYLON JACKET

DESCRIPTION: Stranded tinned copper, white **medium** wall polyvinylchloride insulation, braided tinned copper shield, 80% minimum coverage, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —40° to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1370	MW-C 24(7)SJ	24	7/32	.016″	.005″	.091″
1371	MW-C 22(7)SJ	22	7/30	.016″	.005″	.100″
1372	MW-C 20(7)SJ	20	7/28	.016″	.005″	.105″
1373	MW-C 18(19)SJ	18	19/30	.016″	.005″	.115″
1374	MW-C 16(19)SJ	16	19/29	.016″	.005″	.125″
1375	MW-C 14(19)SJ	14	19/27	.016″	.005″	.138″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet
20—White/Black/Red
21—White/Black/Green
22—White/Black/Yellow
23—White/Black/Blue
24—White/Black/Brown
25—White/Black/Orange
26—White/Black/Gray
27—White/Black/Violet
28—Tan
29—Pink
30—Dark Blue

*Other striped color combinations available to order.

See Last Two ALPHA Pages For Complete Price List

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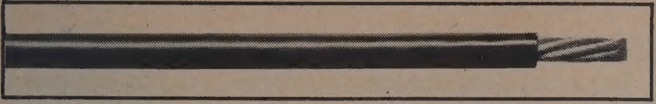


MIL-W-76B-PLASTIC WIRE

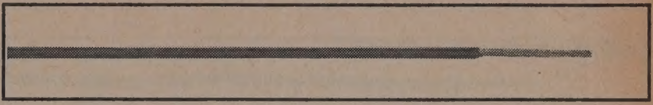
TYPE HW—UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded **heavy wall** polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating —40°C to +80°C. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	VOLT. RAT.	NOM. O.D.	* STOCK COLORS
1571	HW-C 22(7)U	22	7/30	.032″	2500	.103″	1-10 as listed below
1573	HW-C 20(10)U	20	10/30	.032″	2500	.108″	1-10 as listed below
1575	HW-C 18(16)U	18	16/30	.032″	2500	.120″	1-10 as listed below
1577	HW-C 16(26)U	16	26/30	.032″	2500	.134″	White, Black, Red
1579	HW-C 14(41)U	14	41/30	.045″	600	.170″	White, Black, Red
1651	HW-C 12(65)U	12	65/30	.045″	600	.190″	White, Black, Red
1653	HW-C 10(105)U	10	105/30	.045″	600	.215″	White, Black, Red
1655	HW-C 8(133)U	8	133/29	.045″	600	.265″	White, Black, Red
1657	HW-C 6(133)U	6	133/27	.045″	600	.310″	White, Black, Red

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



MIL-W-76B-PLASTIC WIRE

TYPE LW—UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded **light wall** polyvinylcholride insulation.

CHARACTERISTICS: Temperature rating —40°C. to +80°C. Voltage rating 300 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1685	LW-C 30(7)U	30	7/38	.010″	.033″
1686	LW-C 28(7)U	28	7/36	.010″	.035″
1687	LW-C 26(7)U	26	7/34	.010″	.038″
1688	LW-C 24(7)U	24	7/32	.010″	.043″
1689	LW-C 22(7)U	22	7/30	.010″	.049″
1690	LW-C 20(7)U	20	7/28	.010″	.060″

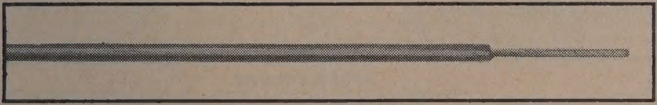
*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

*Other striped combinations available to order.

STANDARD PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

MIL-W-16878 D -PLASTIC WIRE



TYPE B—UNCOVERED PLASTIC

REGULAR TINNED COPPER CONDUCTOR

DESCRIPTION: Stranded tinned copper, color coded. .010″ polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating, —55°C to 105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1850	B-32	32	7/40	.010″	.028″
1851	B-30	30	7/38	.010″	.032″
1852	B-28	28	7/36	.010″	.034″
1853	B-26	26	7/34	.010″	.038″
1854	B-24	24	7/32	.010″	.043″
1854/19	B-24	24	19/36	.010″	.043″
1855	B-22	22	7/30	.010″	.050″
1855/19	B-22	22	19/34	.010″	.050″
1856	B-20	20	7/28	.010″	.058″
1856/19	B-20	20	19/32	.010″	.058″
1857	B-18	18	7/26	.010″	.068″
1857/19	B-18	18	19/30	.010″	.068″
1858/19	B-16	16	19/29	.010″	.077″
1859/19	B-14	14	19/27	.010″	.091″

STOCK COLORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

Standard Put-Ups

#1850 and #1851 —100, 500, 1000 ft. spools
#1852 thru #1857/19 —100, 500, 1000, 5000 ft. spools
#1858/19 and #1859/19—100, 500, 1000, 3000 ft. spools

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED.

TYPE B—NYLON JACKET

REGULAR TINNED COPPER CONDUCTOR

DESCRIPTION: Stranded tinned copper, color coded. .010″ polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating, —55°C to 115°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1860	B-32	32	7/40	.010″	.003″	.035″
1861	B-30	30	7/38	.010″	.003″	.039″
1862	B-28	28	7/36	.010″	.003″	.041″
1863	B-26	26	7/34	.010″	.003″	.044″
1864	B-24	24	7/32	.010″	.003″	.049″
1864/19	B-24	24	19/36	.010″	.003″	.049″
1865	B-22	22	7/30	.010″	.003″	.056″
1865/19	B-22	22	19/34	.010″	.003″	.056″
1866	B-20	20	7/28	.010″	.003″	.064″
1866/19	B-20	20	19/32	.010″	.003″	.064″
1867	B-18	18	7/26	.010″	.003″	.074″
1867/19	B-18	18	19/30	.010″	.003″	.074″
1868/19	B-16	16	19/29	.010″	.003″	.085″
1869/19	B-14	14	19/27	.010″	.004″	.099″

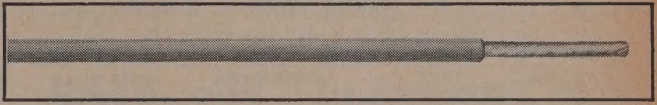
STOCK COLORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

Standard Put-Ups

#1860 and #1861 —100, 500, 1000 ft. spools
#1862 thru #1867/19 —100, 500, 1000, 5000 ft. spools
#1868/19 and #1869/19—100, 500, 1000, 3000 ft. spools

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED.



TYPE C—UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded .016″ polyvinychloride insulation.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1610	C-24	24	16/36	.016″	.058″	1-19 as listed below
1830	C-24	24	7/32	.016″	.058″	1-19 as listed below
1831	C-22	22	7/30	.016″	.064″	1-19 as listed below
1832	C-20	20	7/28	.016″	.072″	1-19 as listed below
1833	C-18	18	7/26	.016″	.082″	1-19 as listed below
1834	C-16	16	19/29	.016″	.091″	1 & 11-19 as listed below
1835	C-14	14	19/27	.016″	.105″	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE C—NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded .016″ polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOMINAL O.D.	* STOCK COLORS
1840	C-24	24	7/32	.016″	.002″	.065″	1-19 as listed below
1841	C-22	22	7/30	.016″	.003″	.072″	1-19 as listed below
1842	C-20	20	7/28	.016″	.003″	.079″	1-19 as listed below
1843	C-18	18	7/26	.016″	.003″	.090″	1-19 as listed below
1844	C-16	16	19/29	.016″	.004″	.099″	1 & 11-19 as listed below
1845	C-14	14	19/27	.016″	.004″	.114″	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE C—SHIELDED—NYLON JACKET

DESCRIPTION: Stranded tinned copper, **white** .016″ polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket (which can be striped to order for color identification) overall.

CHARACTERISTICS: Temperature rating —55°C. to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

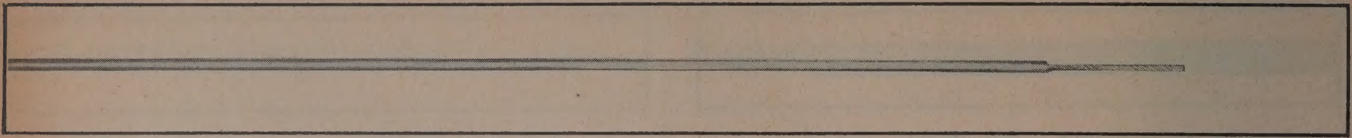
ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL WALL THICKNESS	NOMINAL JACKET THICKNESS	NOMINAL O.D.
1470	24	7/32	.016″	.005″	.091″
1471	22	7/30	.016″	.005″	.098″
1472	20	7/28	.016″	.005″	.105″
1473	18	19/30	.016″	.005″	.115″
1474	16	19/29	.016″	.005″	.125″
1475	14	19/27	.016″	.005″	.138″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

*Other solid and striped combinations available to order.



MIL-W-16878D PLASTIC WIRE

TYPE B—UNCOVERED PLASTIC
TINNED COPPER CONDUCTOR
PRE-BONDED

DESCRIPTION: Each strand of the conductor is double tinned and then heated, which bonds the individual strands together for easy stripping. Color coded .010″ polyvinylchloride insulation. The insulation meets requirements of MIL-W-16878D.

CHARACTERISTICS: Temperature rating —55°C to 105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

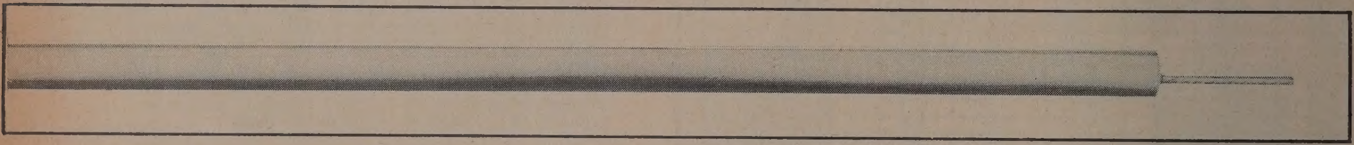
APPLICATION: A pre-bonded conductor is the ideal construction when leads are to be cut and stripped for point to point wiring. The pre-bonded conductor maintains much of the flexibility of an ordinarily stranded wire but reduces processing and handling costs on soldering, retwisting of strands after stripping and hand tinning operations. Since the individual strands are bonded, expensive induction heating equipment is unnecessary.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.″
3154	B-24	24	7/32	.010″	.044
3155	B-22	22	7/30	.010″	.051
3156	B-20	20	7/28	.010″	.059
3157	B-18	18	7/26	.010″	.070

STOCK COLORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT., 5000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED.



U.L. POPULAR PRICED HOOK-UP WIRE

DESCRIPTION: Stranded tinned copper, color coded polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating (—10°C to 80°C, 300V) (—10°C to 105°C, 600V).

RESISTANCE: Acids, alkalis, oil, flame, moisture and fungus.

300 VOLT 80°C—STYLE No. 1007

ALPHA NO.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.″
3050	24	7/32	.016″	.057
3051	22	7/30	.016″	.065
3053	20	10/30	.016″	.071
3055	18	16/30	.016″	.080
3057*	16	26/30	.016″	.095

STOCK COLORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT., 5000 FT.
***3057 - STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT., 3000 FT.**

600 VOLT* 105°C—STYLE No. 1015

ALPHA NO.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.″
3071	22	7/30	.032″	.095
3073	20	10/30	.032″	.102
3075	18	16/30	.032″	.112
3077 **	16	26/30	.032″	.125
3079 **	14	41/30	.032″	.142

STOCK COLORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray slate)
10—Violet (purple)

***ALSO CSA APPROVED 600 VOLT 90°C TYPE TR-32.**
STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT., 5000 FT.
**** 3077, 3079 - STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT., 3000 FT.**

See Last Two ALPHA Pages For Complete Price List

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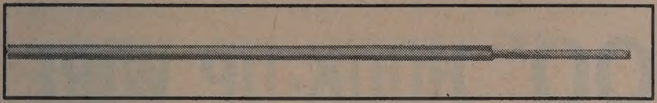


MIL-W-16878C-TEFLON† WIRE 260°C

TYPE E—EXTRUDED (600 VOLTS)

DESCRIPTION: Single conductor stranded silver plated copper, .010" TFE Teflon insulation.

CHARACTERISTICS: Temperature rating —65°C. to +260°C. Voltage rating 600 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	*STOCK COLORS
2850	E-32	32	7/40	.029"	1-19 as listed
2851	E-30	30	7/38	.032"	1-19 as listed
2852	E-28	28	7/36	.036"	1-19 as listed
2853	E-26	26	7/34	.040"	1-19 as listed
2854	E-24	24	19/36	.045"	1-19 as listed
2855	E-22	22	19/34	.051"	1-19 as listed
2856	E-20	20	19/32	.059"	1-19 as listed
2857	E-18	18	19/30	.070"	1-19 as listed
2858	E-16	16	19/29	.083"	1-19 as listed
2859	E-14	14	19/27	.097"	1-6 & 11-19 as listed
2859/12	E-12	12	19/25	.113"	1 & 11-19 as listed
2859/10	E-10	10	37/26	.134"	1 & 11-19 as listed

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

* Other solid colors and striped combinations available to order.

TYPE E—SPIRAL WRAPPED (600 VOLTS)

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2883	E-26	26	7/34	.040"
2884	E-24	24	19/36	.045"
2885	E-22	22	19/34	.051"
2886	E-20	20	19/32	.059"
2887	E-18	18	19/30	.070"

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)

*Other solid colors and striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

TYPE EE—EXTRUDED (1000 VOLTS)

DESCRIPTION: Single conductor stranded silver plated copper, .016" TFE extruded Teflon insulation.

CHARACTERISTICS: Temperature rating —60°C. to +260°C. Voltage rating 1000 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

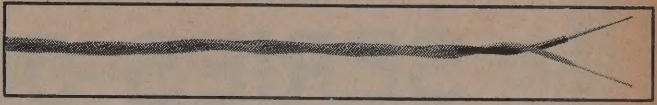
ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2874	EE-24	24	19/36	.055"
2875	EE-22	22	19/34	.062"
2876	EE-20	20	19/32	.070"
2877	EE-18	18	19/30	.080"
2878	EE-16	16	19/29	.089"
2879	EE-14	14	19/27	.106"
2879/12	EE-12	12	19/25	.124"
2879/10	EE-10	10	37/26	.145"
2879/8	EE-8	8	133/29	.210"

***STOCK COLORS**

1—White
11—White Black
12—White Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

* Other solid colors and striped combinations available to order.



MIL-W-16878C SHIELDED TEFLON† CABLES

DESCRIPTION: Each conductor stranded silver plated copper, type E extruded TFE .010" insulation, braided silver plated copper shield over conductor(s), 90% coverage. When covered, either a Teflon impregnated fiberglass braid or a .010" Teflon fused tape jacket overall.

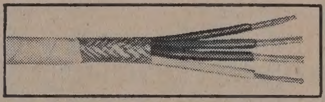
CHARACTERISTICS: Temperature rating —65°C. to +260°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

NO OUTER COVERING OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2809	1	24	19/36	.069"
2809/2	2	24	19/36	.112"
2809/3	3	24	19/36	.120"
2809/4	4	24	19/36	.132"
2812	1	22	19/34	.075"
2812/2	2	22	19/34	.124"
2812/3	3	22	19/34	.132"
2812/4	4	22	19/34	.146"
2815	1	20	19/32	.083"
2815/2	2	20	19/32	.142"
2815/3	3	20	19/32	.151"
2815/4	4	20	19/32	.168"
2818	1	18	19/30	.093"
2818/2	2	18	19/30	.162"
2818/3	3	18	19/30	.172"
2818/4	4	18	19/30	.192"

COLOR CODE OF CONDUCTORS
1—White
2—Black
3—Red
4—Green

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

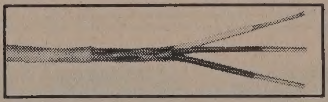


TEFLON TAPE WRAP JACKET OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2821	1	24	19 36	.084"
2821 2	2	24	19 36	.128"
2821 3	3	24	19 36	.135"
2821 4	4	24	19 36	.148"
2824	1	22	19 34	.090"
2824 2	2	22	19 34	.140"
2824 3	3	22	19 34	.148"
2824 4	4	22	19 34	.162"
2827	1	20	19 32	.099"
2827 2	2	20	19 32	.158"
2827 3	3	20	19 32	.167"
2827 4	4	20	19 32	.184"
2829	1	18	19 30	.109"
2829 2	2	18	19 30	.178"
2829 3	3	18	19 30	.189"
2829 4	4	18	19 30	.208"

COLOR CODE OF CONDUCTORS
1 White
2 Black
3 Red
4 Green

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.



TEFLON IMPREGNATED BRAID OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2811	1	24	19 36	.081"
2811 2	2	24	19 36	.126"
2811 3	3	24	19 36	.133"
2811 4	4	24	19 36	.144"
2814	1	22	19 34	.088"
2814 2	2	22	19 34	.137"
2814 3	3	22	19 34	.144"
2814 4	4	22	19 34	.158"
2817	1	20	19 32	.097"
2817 2	2	20	19 32	.154"
2817 3	3	20	19 32	.163"
2817 4	4	20	19 32	.180"
2819	1	18	19 30	.106"
2819 2	2	18	19 30	.174"
2819 3	3	18	19 30	.185"
2819 4	4	18	19 30	.205"

COLOR CODE OF CONDUCTORS
1—White
2—Black
3—Red
4—Green

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

†T.M. DuPont

© U.C.P., Inc.

SERIES '5000' HOOK-UP WIRE

Alpha's Trade Name for its Popularly Priced Line of Wire and Cable,
Produced in Full Accordance with Military Specification.

PLASTIC-TYPE MW– UNCOVERED – MIL-W-76B

DESCRIPTION: Solid or bunched stranded tinned copper conductor, color coded, .016" nominal wall thickness polyvinylchloride insulation—40°C to 80°C, 1000 volts.

STOCK COLORS †

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet
20—White/Black/Red
21—White/Black/Green
22—White/Black/Yellow
23—White/Black/Blue
24—White/Black/Brown
25—White/Black/Orange
26—White/Black/Gray
27—White/Black/Violet
28—Tan
29—Pink
30—Dark Blue

†Other striped color combinations available to order.

STRANDED

CATALOG NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	MIN. O.D. (INCH)
5110	MW-C-24(7)U	24	7/32	.050
5111	MW-C-22(7)U	22	7/30	.056
5113	MW-C-20(10)U	20	10/30	.064
5115	MW-C-18(16)U	18	16/30	.075
5117	MW-C-16(26)U	16	26/30	.084
5119	MW-C-14(41)U	14	41/30	.097
5120	MW-C-12(65)U	12	65/30	.116
SOLID				
5121	MW-C-22(1)U	22 solid		.051
5123	MW-C-20(1)U	20 solid		.058
5125	MW-C-18(1)U	18 solid		.066
5127	MW-C-16(1)U	16 solid		.077

Standard Put-Ups #5110 thru #5115—100, 500, 1000, 5000 ft. spools #5117 thru #5120—100, 500, 1000, 3000 ft. spools
#5121 thru #5125—100, 500, 1000, 5000 ft. spools #5127—100, 500, 1000, 3000 ft. spools

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED.

TEFLON-TYPE E EXTRUDED TEFLON-MIL-W-16878D

DESCRIPTION: Stranded silver plated copper, .010" nominal wall thickness extruded TFE Teflon insulation −65°C to +200°C, voltage rating 600 volts.

STOCK COLORS

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

CATALOG NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	MIN. O.D. (INCH)
5851	E-30	30	7/38	.028
5852	E-28	28	7/36	.031
5853	E-26	26	7/34	.035
5854	E-24	24	19/36	.040
5855	E-22	22	19/34	.046
5856	E-20	20	19/32	.054
5857	E-18	18	19/30	.064
5858	E-16	16	19/29	.073

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT. ALSO AVAILABLE TO ORDER CUT, MARKED AND STRIPPED.

© U.C.P., Inc.

SHIELDED MICROPHONE CABLE

PLASTIC JACKET—STANDARD DUTY

DESCRIPTION

1702-1706: Single conductor, stranded tinned copper, white polyethylene insulation, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

1709-1715: Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, textile wrap, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

APPLICATIONS

1702-1706: All high impedance microphones, lapel, ribbon, velocity, crystal contact, Hi-Fi interconnecting cables.

1709-1715: All low impedance microphones — carbon, condenser, dynamic.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	* CAPACITY NOM./FT.	TYPE OF SHIELD	NOMINAL JACKET	NOM. O.D.
		SIZE	STRAND					
1702	1	26	3/34† 4/34†	.016″	38 mmf.	Spiral Wrapped	.020″	.110″
1703	1	24	10/34	.020″	35 mmf.	Braided	.030″	.145″
1704	1	24	10/34	.040″	23 mmf.	Braided	.030″	.200″
1705	1	24	10/34	.016″	45 mmf.	Spiral Wrapped	.020″	.110″
1706	1	20	26/34	.030″	36 mmf.	Braided	.030″	.175″
1709	2	24	10/34	.016″	38 mmf.	Spiral Wrapped	.030″	.190″
1710	2	22	16/34	.025″	31 mmf.	Braided	.030″	.235″
1712	2	20	26/34	.014″	45 mmf.	Braided	.030″	.245″
1713	3	20	26/34	.014″	45 mmf.	Braided	.035″	.250″
1715	4	20	26/34	.014″	45 mmf.	Braided	.035″	.255″

* Between one conductor and remaining conductors connected to shield.

† Three strands of tinned copper and four strands of tinned copperweld.

1702-1706
COLOR CODE OF CONDUCTOR
1—White

1709-1715
COLOR CODE OF CONDUCTORS
1—White 2—Black 3—Red 4—Green

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

SHIELDED MICROPHONE CABLE

RUBBER JACKET—STANDARD DUTY

DESCRIPTION:

1248-1249/18: Single conductor, stranded tinned copper, black rubber insulation, wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall.

1250-1252/18: Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall. Cables are extremely flexible and especially designed for heavy studio use.

APPLICATIONS:

1248-1249/18: All high impedance microphones. Broadcast and heavy duty studio use.

1250-1252/18: All low impedance microphones. Broadcast and heavy duty studio use. Can also be used for control circuits, video and audio interconnecting cables, and as electronic power cables. Particularly suited for indoor use.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	* CAPACITY NOM./FT.	NOMINAL JACKET	NOM. O.D.
		SIZE	STRAND				
1248†	1	20	26/34	.025″	40 mmf.	.030″	.175″
1249	1	20	26/34	.040″	30 mmf.	.030″	.245″
1249/18	1	18	41/34	.040″	45 mmf.	.030″	.250″
1250	2	20	26/34	.020″	70 mmf.	.035″	.275″
1250/18	2	18	41/34	.020″	75 mmf.	.035″	.305″
1251	3	20	26/34	.020″	80 mmf.	.035″	.285″
1251/18	3	18	41/34	.020″	85 mmf.	.035″	.325″
1252	4	20	26/34	.020″	90 mmf.	.035″	.305″
1252/18	4	18	41/34	.020″	64 mmf.	.035″	.335″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

* Between one conductor and remaining conductors connected to shield.

† Mylar Wrap Under tinned copper shield.

1250-1252/18
COLOR CODE OF CONDUCTORS
1—Black 2—White 3—Red 4—Green

SHIELDED MICROPHONE CABLE

NEOPRENE JACKET—HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall.

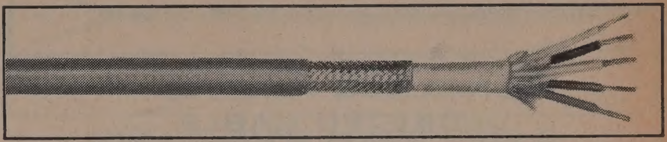
APPLICATIONS: Shielded microphone and electronic power cable. Control circuits. Video and Audio inter-connecting cable. Broadcast and heavy studio use.

CHARACTERISTICS: Oil and acid resistant. Suitable for outdoor use and direct burial. Will resist aging and rough usage.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOM. O.D.
		SIZE	STRAND			
1449	1	18	41/34	.040″	.030″	.250″
1450	2	18	41/34	.020″	.035″	.305″
1451	3	18	41/34	.020″	.035″	.325″
1452	4	18	41/34	.020″	.035″	.335″
1450/16	2	16	65/34	.025″	.035″	.345″
1451/16	3	16	65/34	.025″	.035″	.365″
1452/16	4	16	65/34	.025″	.035″	.390″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red
2—White 4—Green



SHIELDED MULTI-CONDUCTOR CABLE

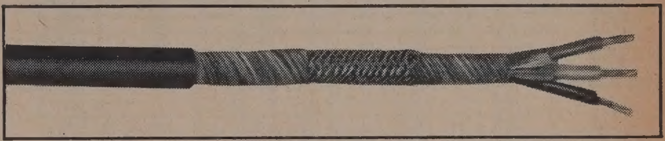
PLASTIC JACKET—HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, wrap, braided tinned copper shield, gray polyvinylchloride jacket overall.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1716	5	20	26/34	.014″	.035″	.275″
1717	6	20	26/34	.014″	.035″	.300″
1719	8	20	26/34	.014″	.035″	.330″
1721	10	20	26/34	.014″	.035″	.375″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red 5—Yellow 7—Brown 9—Purple
2—White 4—Green 6—Blue 8—Orange 10—Slate



SHIELDED MULTI-CONDUCTOR CABLE

RUBBER JACKET—HEAVY DUTY

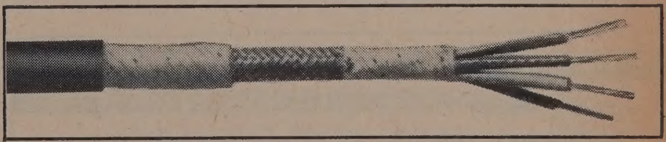
DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, cotton wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall. Cables are extremely flexible and especially designed for heavy studio use.

APPLICATIONS: Shielded electronic power cable. Control circuits. Video and audio interconnecting cable. Broadcast and heavy duty studio use.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1253	5	20	26/34	.020″	.035″	.340″
1254	6	20	26/34	.020″	.035″	.365″
1254/18	6	18	41/34	.020″	.035″	.430″
1255	7	20	26/34	.020″	.035″	.405″
1255/8	8	20	26/34	.020″	.035″	.415″
1255/10	10	20	26/34	.020″	.035″	.440″
1255/12	12	20	26/34	.020″	.065″	.575″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red 5—Yellow 7—Brown 9—Purple 11—Wh./Blk. (Braid)
2—White 4—Green 6—Blue 8—Orange 10—Slate 12—Wh./Red (Braid)



SHIELDED MULTI-CONDUCTOR CABLE

NEOPRENE JACKET—HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall.

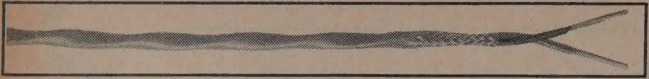
CHARACTERISTICS: Resistant to oil and acid. Suitable for outdoor use and direct burial. Will resist aging and rough usage.

APPLICATIONS: Specifically designed for outdoor rough usage as interconnecting cables for electronic equipment, control cables for generator units, video and audio interconnecting cables, and for ground support equipment related to guided missile systems.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1454	6	18	41/34	.020″	.035″	.430″
1456	8	18	41/34	.020″	.035″	.465″
1458	10	18	41/34	.020″	.035″	.545″
1459	12	18	41/34	.020″	.065″	.625″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red 5—Yellow 7—Brown 9—Purple 11—Wh./Blk. (Braid)
2—White 4—Green 6—Blue 8—Orange 10—Slate 12—Wh./Red (Braid)



SHIELDED PLASTIC JACKETED CABLE

BRAIDED COPPER SHIELD

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided copper shield, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

CHARACTERISTICS: A conventional type of braided shield providing approximately 75% coverage is particularly desirable where flexibility is required. The copper shield allows ease of pigtail soldering. Shield construction provides additional cable strength.

APPLICATIONS: For public address and sound systems, ideal for recording studios, amateur radio transmitters, shielded power or electronic circuits, wherever an economical shielded cable is required.

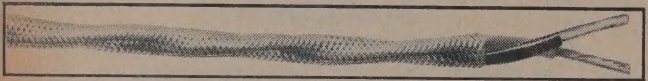
STRANDED

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1736	2	22	7/30	.016″	.020″	.185″
1737	3	22	7/30	.016″	.020″	.200″
1741	2	20	10/30	.016″	.020″	.200″
1742	3	20	10/30	.016″	.020″	.220″
1746	2	18	16/30	.016″	.020″	.240″
1747	3	18	16/30	.016″	.020″	.245″
1748	2	16	26/30	.016″	.020″	.255″
1750	2	14	41/30	.020″	.020″	.295″
SOLID						
1775*	2	22	1	.016″	.020″	.175″
1779	2	20	1	.016″	.020″	.210″
1783	2	18	1	.016″	.020″	.220″

*With 22 AWG solid tinned copper ground wire under braided copper shield.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1 –Black 2—Red 3—White



SHIELDED AUDIO CABLE

2 CONDUCTOR – NO OUTER JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided tinned copper shield overall.

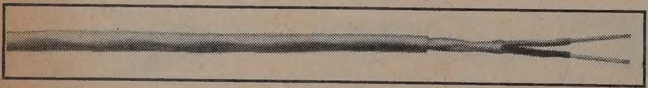
APPLICATIONS: For public address and sound systems. Transmission line. Industrial paging and call systems. Recording equipment. Hospital and school sound installations. Broadcast and audio cable. Rack and panel wiring.

STRANDED CONDUCTORS

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1261/26	2	26	7/34	.010″	.095″
1261	2	24	16/36	.016″	.125″
1256/22V	2	22	7/30	.016″	.140″
1256V	2	20	10/30	.016″	.155″
1259V*	2	18	16/30	.016″	.170″
1260V	2	16	26/30	.020″	.210″
1260/14	2	14	41/30	.020″	.225″
1260/12	2	12	65/30	.025″	.295″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS: 1—Black 2—Red



SPIRAL WRAPPED COPPER SHIELD

DESCRIPTION: Each conductor stranded or solid tinned copper, color coded polyvinylchloride insulation, conductors twisted, spiral wrapped copper shield, gray polyvinylchloride jacket overall.

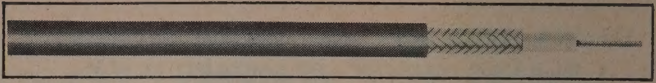
CHARACTERISTICS: Use of spiral shield makes pigtailing off extremely simple and fast. Excellent for production line work. Provides close to 100% shielded coverage for audio and RF frequencies.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
2254	2	22	7/30	.016″	.020″	.195″
2254/3	3	22	7/30	.016″	.020″	.190″
2254/4	4	22	7/30	.016″	.020″	.210″
2255	2	22	1	.016″	.020″	.170″
2256/1†	1	20	10/30	.016″	.020″	.130″
2256	2	20	10/30	.016″	.020″	.195″
2256/3†	3	20	10/30	.016″	.020″	.210″
2256/4†	4	20	10/30	.016″	.020″	.225″
2258	2	18	16/30	.016″	.020″	.230″
2258/3	3	18	16/30	.016″	.020″	.235″
2260	2	16	26/30	.016″	.020″	.250″

†2256/1 formerly 2156
†2256/3 formerly 3256
†2256/4 formerly 4256

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Black 2—Red 3—White 4—Green



TELEVISION CO-AXIAL TRANSMISSION CABLE

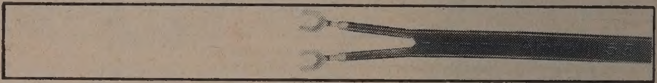
SILVER -- CO-AXIAL TV TRANSMISSION CABLE

DESCRIPTION: #22 Solid Copperweld Conductor. Polyethylene Dielectric. Braided Copper Shield. Silver Vinyl Jacket.

PUT UP: 100 FT., 250 FT., 500 FT., and 1,000 FT. Spools.

Co-Axial Line — Commercial Equivalent of RG-59U Cable. A low-loss Transmission Line for Master TV Distribution and Transmission Systems. Atmosphere, Weather and Abrasion Resistant.

ALPHA NO.	PUT UP LENGTH	NO. OF CONDUCTORS	CONDUCTOR SIZE	CABLE SHIELD	STD. PUT UP	WT. PER STD. PUT UP
1156	100 FT.	1	22 Solid	Copper	1 Spool	5.5 lbs.
1156	250 FT.	1	22 Solid	Copper	1 Spool	11 lbs.
1156	500 FT.	1	22 Solid	Copper	1 Spool	21 lbs.
1156	1000 FT.	1	22 Solid	Copper	1 Spool	41 lbs.

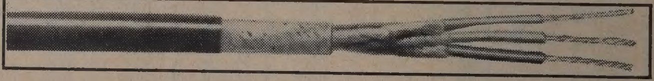


TWIN LEAD, TV and FM

BROWN — 300 OHM TWIN LEAD — 400 MIL WIDE

60 Mil Thick Insulation — Pure Copper Wire, Stranded

ALPHA NO.	PUT UP LENGTH	NO. OF CONDUCTORS	CONDUCTOR SIZE	CONDUCTOR STRANDS	STANDARD CARTON	WT. PER STD. CARTON
1150	25 FT.	2	20	7 28	24 Coils	9 lbs.
1150	50 FT.	2	20	7 28	24 Coils	18 lbs.
1150	75 FT.	2	20	7 28	24 Coils	27 lbs.
1150	100 FT.	2	20	7 28	24 Coils	36 lbs.
1150	500 FT.	2	20	7 28	1 Spool	9 lbs.
1150	1000 FT.	2	20	7 28	1 Spool	17 lbs.
100 Mil Thick Insulation — Pure Copper Wire, Stranded						
1153	25 FT.	2	20	7 28	24 Coils	10 lbs.
1153	50 FT.	2	20	7 28	24 Coils	24 lbs.
1153	75 FT.	2	20	7 28	24 Coils	36 lbs.
1153	100 FT.	2	20	7 28	24 Coils	47 lbs.
1153	500 FT.	2	20	7 28	1 Spool	13 lbs.
1153	1000 FT.	2	20	7 28	1 Spool	21 lbs.



UNSHIELDED RUBBER CABLE

MULTI-CONDUCTOR

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, conductors twisted, cushioned with fillers, cotton wrap, tough black rubber jacket overall. It is extremely flexible and especially designed for heavy studio use.

APPLICATIONS: Inter-rack connecting cable. Recording studio and broadcast. Remote control circuits. Rough usage electronic power cable. P.A. systems. Multiple speaker cable.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1244	2	20	26/34	.020″	.035″	.280″
1245	3	20	26/34	.020″	.035″	.285″
1246	4	20	26/34	.020″	.035″	.300″
1247	5	20	26/34	.020″	.035″	.340″
1247/6	6	20	26/34	.020″	.035″	.360″
1247/7	7	20	26/34	.020″	.035″	.380″
1247/8	8	20	26/34	.020″	.035″	.400″
1247/10	10	20	26/34	.020″	.035″	.440″
1247/12	12	20	26/34	.020″	.035″	.540″

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black
2—White
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Purple
10—Slate
11—Wh./Black (Braid)
12—Wh./Red (Braid)

See Last Two ALPHA Pages For Complete Price List

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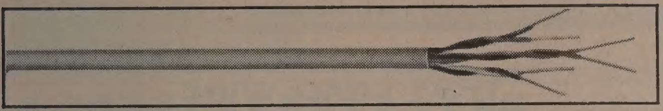


PLASTIC INTERCOM CABLE

DESCRIPTION: Each conductor tinned copper, color coded pólyvinylchloride insulation, conductors twisted into pairs, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Balanced intercom systems. Annunciators. Telephones. Nurses call systems. Control circuit cable. Electronic computer cable. Multiple speaker cable. Signal systems. Alarm systems.

SOLID CONDUCTORS

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	COND. STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOM. O.D.
1300	1	2	22 Solid	1	.010″	.020″	.130″
1302	2	4	22 Solid	1	.010″	.020″	.195″
1304	3	6	22 Solid	1	.010″	.020″	.220″
1307	6	12	22 Solid	1	.010″	.020″	.275″
1307/7	7	14	22 Solid	1	.010″	.020″	.285″
1307/9	9	18	22 Solid	1	.010″	.020″	.310″
1308/11	11	22	22 Solid	1	.010″	.020″	.340″
1309	13	26	22 Solid	1	.010″	.025″	.380″
1309/15	15	30	22 Solid	1	.010″	.025″	.400″
1310	16	32	22 Solid	1	.010″	.025″	.420″
1310	27	54	22 Solid	1	.010″	.035″	.510″
1313/31	31	62	22 Solid	1	.010″	.035″	.555″
1313/41	41	82	22 Solid	1	.010″	.035″	.630″
1314	51	102	22 Solid	1	.010″	.045″	.735″

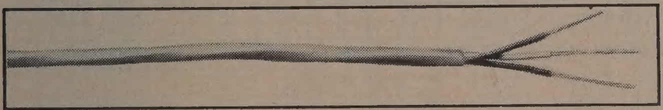
STRANDED CONDUCTORS

1316	1	2	22	7/30	.010″	.020″	.145″
1317	2	4	22	7/30	.010″	.020″	.210″
1318	3	6	22	7/30	.010″	.020″	.225″
1319	4	8	22	7/30	.010″	.020″	.240″
1320	5	10	22	7/30	.010″	.020″	.265″
1322	6	12	22	7/30	.010″	.020″	.290″
1323	9	18	22	7/30	.010″	.020″	.355″
1327	15	30	22	7/30	.010″	.025″	.450″
1329	27	54	22	7/30	.010″	.035″	.570″

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

PAIR NO. — COLOR COMBINATION

1—Black paired with Red
2—Black paired with White
3—Black paired with Green
4—Black paired with Blue
5—Black paired with Brown
6—Black paired with Yellow
7—Black paired with Orange
8—Red paired with Green
9—Red paired with White
10—Red paired with Blue
11—Red paired with Yellow
12—Red paired with Brown
13—Red paired with Orange
14—Green paired with Blue
15—Green paired with White
16—Green paired with Brown
17—Green paired with Orange
18—Green paired with Yellow
19—White paired with Blue
20—White paired with Brown
21—White paired with Orange
22—White paired with Yellow
23—Blue paired with Brown
24—Blue paired with Orange
25—Blue paired with Yellow
26—Brown paired with Orange
27—Brown paired with Yellow
28—Purple paired with Red
29—Purple paired with White
30—Purple paired with Green
31—Purple paired with Blue
32—Purple paired with Brown
33—Purple paired with Yellow
34—Purple paired with Orange
35—Purple paired with Slate
36—Purple paired with Black
37—Slate paired with Red
38—Slate paired with White
39—Slate paired with Green
40—Slate paired with Blue
41—Slate paired with Brown
42—Slate paired with Yellow
43—Slate paired with Orange
44—Slate paired with Black
45—White/Black paired w. Red
46—White/Black paired w. Green
47—White/Black paired w. Blue
48—White/Black paired w. Brown
49—White/Black paired w. Yellow
50—White/Black paired w. Orange
51—White/Black paired w. Purple



MULTI-CONDUCTOR AUDIO CABLE

OUTER PLASTIC JACKET

DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Unbalanced intercom systems. Low voltage relay control cable. P.A. systems. Electronic computer cable.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1172	2	22	7/30	.010″	.020″	.140″
1173	3	22	7/30	.010″	.020″	.145″
1174	4	22	7/30	.010″	.020″	.170″
1175	5	22	7/30	.010″	.020″	.175″
1176	6	22	7/30	.010″	.020″	.185″
1177	7	22	7/30	.010″	.020″	.190″
1178	8	22	7/30	.010″	.020″	.200″
1179	9	22	7/30	.010″	.020″	.225″
1180	10	22	7/30	.010″	.020″	.235″
1181	12	22	7/30	.010″	.020″	.255″
1181/15	15	22	7/30	.010″	.020″	.280″
1181/20	20	22	7/30	.010″	.020″	.310″
1181/25	25	22	7/30	.010″	.020″	.340″
1181/30	30	22	7/30	.010″	.020″	.365″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black
2—Red
3—White
4—Green
5—Orange
6—Blue
7—Brown
8—Yellow
9—Purple
10—Slate
11—Pink
12—Tan
13—Red/Green
14—Red/Yellow
15—Red/Black
16—White/Black
17—White/Red
18—White/Green
19—White/Yellow
20—White/Blue
21—White/Brown
22—White/Orange
23—White/Gray
24—White/Violet
25—White/Black/Red
26—White/Black/Green
27—White/Black/Yellow
28—White/Black/Blue
29—White/Black/Brown
30—White/Black/Orange

UNSHIELDED AUDIO CABLE

MULTI-CONDUCTOR—PLASTIC JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1793	2	22	1	.010″	.020″	.130″
1794	3	22	1	.010″	.020″	.140″
1794/4	4	22	1	.010″	.020″	.160″
1795	2	20	1	.016″	.020″	.170″
1796	3	20	1	.016″	.020″	.180″
1796/4	4	20	1	.016″	.020″	.200″
1797	2	18	1	.016″	.020″	.190″
1798	3	18	1	.016″	.020″	.200″
1798/4	4	18	1	.016″	.020″	.220″
1798/5	5	18	1	.016″	.020″	.235″
1798/6	6	18	1	.016″	.020″	.265″
1799	2	16	1	.016″	.020″	.215″
1799/3	3	16	1	.016″	.020″	.230″
1799/4	4	16	1	.016″	.020″	.250″

STRANDED

1893	2	22	7/30	.010″	.020″	.135″
1894	3	22	7/30	.010″	.020″	.145″
1894/4	4	22	7/30	.010″	.020″	.170″
1895	2	20	10/30	.016″	.020″	.180″
1896	3	20	10/30	.016″	.020″	.190″
1896/4	4	20	10/30	.016″	.020″	.215″
1897	2	18	16/30	.016″	.020″	.200″
1898	3	18	16/30	.016″	.020″	.210″
1898/4	4	18	16/30	.016″	.020″	.240″
1899	2	16	26/30	.016″	.020″	.225″
1899/3	3	16	26/30	.016″	.020″	.245″
1899/4	4	16	26/30	.016″	.020″	.270″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Black 2—Red 3—White 4—Green 5—Orange 6—Blue

MULTI-CONDUCTOR—NO OUTER JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL O.D.
		SIZE	STRAND		
1900†	2	22	1	.016″	.100″
1901†	3	22	1	.016″	.115″
1903†	2	20	1	.016″	.120″
1904†	3	20	1	.016″	.135″
1906†	2	18	1	.016″	.145″
1907†	3	18	1	.016″	.155″
1909†	2	16	1	.016″	.175″
1910†	3	16	1	.016″	.190″

†1900 to 1910 formerly 9269 to 9276

STRANDED

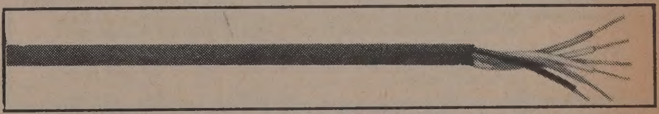
ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL O.D.
		SIZE	STRAND		
1915†	2	22	7/30	.016″	.125″
1916†	3	22	7/30	.016″	.140″
1918†	2	20	10/30	.016″	.145″
1919†	3	20	10/30	.016″	.160″
1921†	2	18	16/30	.016″	.165″
1922†	3	18	16/30	.016″	.180″
1924†	2	16	26/30	.016″	.190″
1925†	3	16	26/30	.016″	.210″
1927†	2	14	41/30	.016″	.220″
1928†	3	14	41/30	.016″	.240″

†1915 to 1928 formerly 9169 to 9178

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Brown 2—Tan 3—Gray

The color code of the conductors has been selected to be as inconspicuous as possible so as to blend in with the decor of most rooms.



MULTI-CONDUCTOR AUDIO CABLE

OUTER COTTON BRAID

DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, brown cotton braid overall.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL O.D.
		SIZE	STRAND		
1182	2	20	10/30	.016″	.165″
1183	3	20	10/30	.016″	.170″
1184	4	20	10/30	.016″	.195″
1185	5	20	10/30	.016″	.220″
1186	6	20	10/30	.016″	.230″
1187	7	20	10/30	.016″	.240″
1188	8	20	10/30	.016″	.285″
1189	9	20	10/30	.016″	.295″
1190	10	20	10/30	.016″	.300″
1192	12	20	10/30	.016″	.315″
1192/15	15	20	10/30	.016″	.330″
1192/20	20	20	10/30	.016″	.370″

COLOR CODE OF CONDUCTORS

1—Black
2—Red
3—White
4—Green
5—Orange
6—Blue
7—Brown
8—Yellow
9—Purple
10—Slate
11—Pink
12—Tan
13—White/Black
14—White/Red
15—White/Green
16—White/Orange
17—White/Blue
18—White/Brown
19—White/Yellow
20—White/Purple

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

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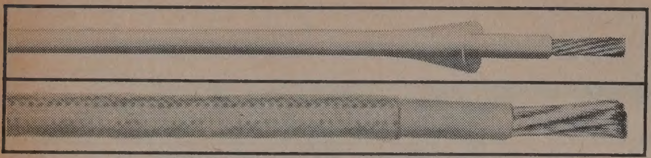


MIL-W-5086A & MIL-C-7078A

AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS

DESCRIPTION:

MIL-W-5086A—Type I —AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-10 thru AN-00—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, flame retardant nylon lacquered nylon braid overall.

MIL-C-7078A—Type I —Single conductor stranded tinned copper, white polyvinylchloride insulation, clear nylon jacket, braided tinned copper shield overall, 85% coverage.

CHARACTERISTICS: Temperature rating: —55°C. to +105°C. Voltage Rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

UNSHIELDED (MIL-W-5086A) **TYPE I**

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOMINAL O.D.
1381	AN-22	22	19/34	.068″
1382	AN-20	20	19/32	.078″
1383	AN-18	18	19/30	.088″
1384	AN-16	16	19/29	.098″
1385	AN-14	14	19/27	.117″
1386	AN-12	12	19/25	.137″

UNSHIELDED (MIL-W-5086A) **TYPE II**

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOMINAL O.D.
1341†	AN-22	22	19/34	.075″
1342†	AN-20	20	19/32	.085″
1343†	AN-18	18	19/30	.095″
1344†	AN-16	16	19/29	.105″
1345†	AN-14	14	19/27	.125″
1346†	AN-12	12	19/25	.143″
1387	AN-10	10	49/27	.189″
1388	AN-8	8	133/29	.240″
1389	AN-6	6	133/27	.293″
1389/4	AN-4	4	133/25	.355″
1389/2	AN-2	2	665/30	.425″
1389/0	AN-0	0	1045/30	.525″
1389/00	AN-00	00	1330/30	.590″

†1341 to 1346 formerly 2381 to 2386

SHIELDED (MIL-C-7078A) **TYPE I**

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOMINAL O.D.
1391	AN-22	22	19/34	.100″
1392	AN-20	20	19/32	.110″
1393	AN-18	18	19/30	.125″
1394	AN-16	16	19/29	.140″
1395	AN-14	14	19/27	.155″
1396	AN-12	12	19/25	.165″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

"ALMAG" MAGNET WIRE

SPECIFICATION MIL-W-583B

DESCRIPTION: **Plain Enamel**—Single conductor round bare copper covered with a continuous insulating film of enamel. Type T per Specification MIL-W-583B. 105°C.

DESCRIPTION: **Heavy Formvar**—Single conductor round bare copper, baked film insulation from a varnish base on a vinyl acetal resin. Type T2 per Specification MIL-W-583B. 105°C.

APPLICATIONS: Radio and audio frequency coils; transformers; chokes; speaker field coils; tuners; armatures; short wave coils; etc.

PLAIN ENAMEL (PE)

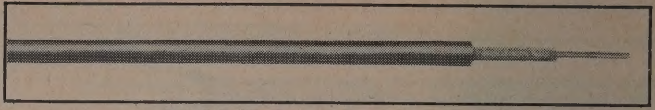
ALPHA NO.	NOM. O.D.	SIZE
PE-44	.0023″	44*
PE-42	.0028″	42*
PE-40	.0034″	40*
PE-38	.0044″	38*
PE-36	.0055″	36‡
PE-34	.0069″	34‡
PE-32	.0087″	32
PE-30	.0108″	30
PE-28	.0135″	28
PE-26	.0169″	26
PE-24	.0212″	24
PE-22	.0266″	22
PE-20	.0332″	20
PE-18	.0416″	18
PE-16	.0522″	16
PE-14	.0657″	14
PE-12	.0825″	12
PE-10	.1037″	10

HEAVY FORMVAR (HF)

ALPHA NO.	NOM. O.D.	SIZE
HF-44	.0026″	44*
HF-42	.0032″	42*
HF-40	.0038″	40*
HF-38	.0049″	38*
HF-36	.0060″	36‡
HF-34	.0075″	34‡
HF-32	.0095″	32
HF-30	.0116″	30
HF-28	.0144″	28
HF-26	.0180″	26
HF-24	.0224″	24
HF-22	.0277″	22
HF-20	.0346″	20
HF-18	.0432″	18
HF-16	.0539″	16
HF-14	.0673″	14
HF-12	.0842″	12
HF-10	.1056″	10

STANDARD PUT-UP: ¼ LB., ½ LB., 1 LB., 5 LB., 10 LB.

* Largest available put-up: 1 lb.
‡ Largest available put-up: 5 lb.



TEST LEAD WIRE

DESCRIPTION: Single conductor, extra flexible stranded tinned soft annealed copper, wrap, color coded rubber insulation, smooth satin finish.

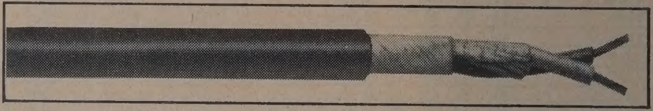
APPLICATIONS: As test leads in analyzers, oscillators, multi-meters, and all other types of testing apparatus or wherever an Extra Flexible insulated wire is required. Heavy Duty type designed for television, therapeutic equipment, analyzers, oscillators, etc.

STANDARD TYPE

ALPHA NO.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	VOLTAGE BREAKDOWN	NOMINAL O.D.	STOCK COLORS
1632	20	41/36	.040″	5,000‡	.125″	Black, Red
1635	20	41/36	.047″	10,000‡	.140″	Black, Red
1636	18	65/36	.045″	12,000‡	.140″	Black, Red
HEAVY DUTY TYPE						
1638	18	65/36	.090″	22,000‡	.230″	Black, Red
MILITARY TYPE Specification MIL-W-13169B						
1639	18	65/36	.047″	12,000‡	.150″	Black, Red Green

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

‡60 Cycles



SERVICE & POWER CORDS

(UNDERWRITERS APPROVED)

RUBBER & NEOPRENE

DESCRIPTION 1951-1958/4: Each conductor stranded bare copper, cotton separator, color coded rubber insulation, conductors twisted, cushioned with jute fillers, cotton wrap, tough black rubber jacket overall.

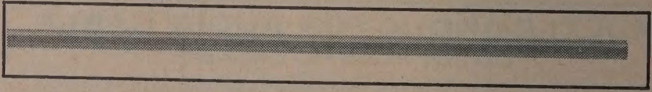
DESCRIPTION 1931-1938/4: Same physical construction as above except black neoprene jacket overall.

APPLICATIONS: For amplifiers, sound systems, speakers, vacuum cleaners, electric tools, washing machines, refrigerators, appliances, trouble lights, garage lamps or wherever a rough usage power line is required. Neoprene construction recommended for equipment exposed to oils, acids, etc.

ALPHA NO. (RUBBER)	U/L TYPE	ALPHA NO. (NEOPRENE)	U/L TYPE	NO. OF COND.	COND. SIZE	CURRENT CARRYING CAPACITY	VOLTAGE RATING	NOM. O.D.
1951	SV	1931	SVO	2	18	7 amps	300	.250″
1952	SJ	1932	SJO	2	18	7 amps	300	.310″
1952 3	SJ	1932/3	SJO	3	18	7 amps	300	.330″
1952 4	SJ	1932/4	SJO	4	18	6 amps	300	.360″
1953	SJ	1933	SJO	2	16	10 amps	300	.325″
1953/3	SJ	1933/3	SJO	3	16	10 amps	300	.365″
1953/4	SJ	1933 4	SJO	4	16	8 amps	300	.395″
1954	S	1934	SO	2	18	7 amps	600	.390″
1954 3	S	1934 3	SO	3	18	7 amps	600	.405″
1954 4	S	1934/4	SO	4	18	5 amps	600	.435″
1955	S	1935	SO	2	16	10 amps	600	.410″
1955 3	S	1935/3	SO	3	16	10 amps	600	.430″
1955 4	S	1935/4	SO	4	16	8 amps	600	.485″
1956	S	1936	SO	2	14	15 amps	600	.540″
1956 3	S	1936/3	SO	3	14	15 amps	600	.560″
1956 4	S	1936 4	SO	4	14	12 amps	600	.605″
1957	S	1937	SO	2	12	20 amps	600	.605″
1957 3	S	1937 3	SO	3	12	20 amps	600	.635″
1957 4	S	1937 4	SO	4	12	16 amps	600	.665″
1958	S	1938	SO	2	10	25 amps	600	.640″
1958 3	S	1938 3	SO	3	10	25 amps	600	.690″
1958 4	S	1938 4	SO	4	10	20 amps	600	.745″

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT.

COLOR CODE OF CONDUCTORS
1—White 2—Black 3—Green 4—Red



UNINSULATED TINNED COPPER

SOLID WIRE—SOFT DRAWN

DESCRIPTION: Pure electrolytic soft, drawn, solid, copper properly annealed and tinned for quick soldering.

APPLICATIONS: Winding of coils. Antennas. Point to point wiring. Bus-bar. Component leads. Ground wire.

SPECIFICATIONS MIL-W-3861 TYPE S — QQ-W-343 TYPE S — ASTM-B-33

ALPHA NO.	CONDUCTOR SIZE	CIRCULAR MIL AREA	NOMINAL O.D.
299/3	30 AWG	100.5	.010″
299/2	28 AWG	159.8	.013″
299/1	26 AWG	254.1	.016″
299	24 AWG	404.0	.020″
298	22 AWG	642.4	.025″
297	20 AWG	1022.0	.033″
296	18 AWG	1642.0	.040″
295	16 AWG	2583.0	.051″
286	14 AWG	4107.0	.065″
289	12 AWG	6530.0	.082″
292	10 AWG	10380.0	.103″
292/8	8 AWG	16510.0	.129″
292/6	6 AWG	26250.0	.162″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

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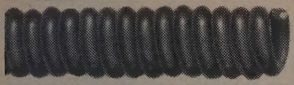
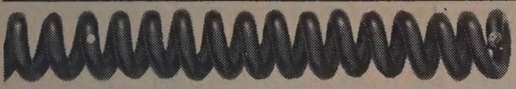
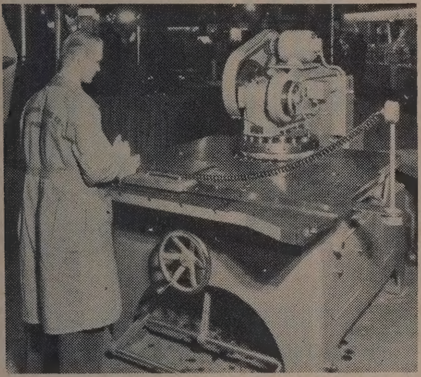
RETRACTILE COIL CORDS



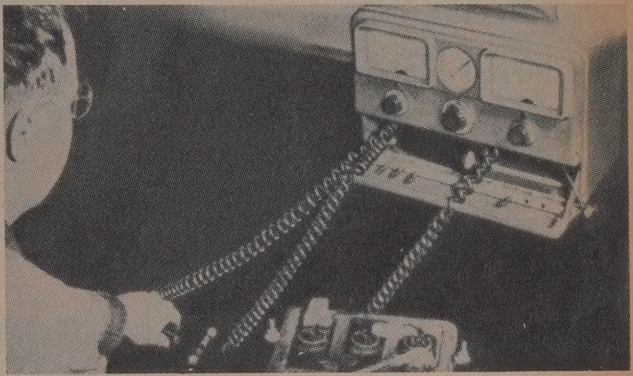


Alpha quality retractile coil cords are electric cords which are coiled permanently in the shape of a spring. They are constructed with neoprene jackets to withstand the wear and tear less expensive cords cannot endure. The cords are retracted neatly in a condensed length until you need them. When used, tney extend only to the exact length you want—no longer—for easy, neat, trouble-free installation. In the manufacturing process, the coil cord is rewound after vulcanization, reversing the direction of the spiral to insure maximum retractility after repeated usage.



Power Cord

Communication Cord — Courtesy of Roanwell Corporation.



Test Lead Wire — Courtesy of Allen Electric and Equipment Co.

POWER CORDS—NEOPRENE JACKET (UL APPROVED)

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Long-lasting service is assured with this quality multi-conductor power cord. Each conductor is stranded copper, with rubber insulation, and a rugged weather and oil resistant neoprene jacket overall.

APPLICATION: Used on electric tools, portable drills, soldering wires, electrical appliances, household appliances, etc., to eliminate loose handing wires and to prevent wires from tangling and twisting.

ALPHA NO. 2 FT. LGTHS.	4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	STRAND	U. L. TYPE	AMP RATING	VOLT RATING	COIL O.D.	NOM. O.D. CORD
660/2	660/4	2	18	41/34	SVO	7	300	1″	.260″
661/2	661/4	2	18	41/34	SJO	7	300	1¼″	.320″
662/2	662/4	3	18	41/34	SJO	7	300	1½″	.350″
*663/2	*663/4	4	18	41/34	SJO	5.6	300	1½″	.385″
664/2	664/4	2	16	65/34	SJO	10	300	1½″	.360″
665/2	665/4	3	16	65/34	SJO	10	300	1½″	.390″
*666/2	*666/4	4	16	65/34	SJO	8	300	1⅝″	.425″
670/2	670/4	3	16	65/34	SO	10	600	1⅞″	.470″
*671/2	*671/4	4	16	65/34	SO	8	600	1⅞″	.500″
672/2	672/4	2	14	41/30	SO	15	600	2″	.540″
673/2	673/4	3	14	41/30	SO	15	600	2⅛″	.560″
*674/2	*674/4	4	14	41/30	SO	12	600	2¼″	.605″
675/2	675/4	2	12	65/30	SO	20	600	2¼″	.605″
676/2	676/4	3	12	65/30	SO	20	600	2⅜″	.635″
*677/2	*677/4	4	12	65/30	SO	16	600	2½″	.678″

*If all four conductors normally carry current, AMP rating is as shown. If one lead is used as a ground, AMP rating is the same as 2 and 3 conductor cords.

COLOR CODE OF CONDUCTORS

1. White 2. Black 3. Green 4. Red

RETRACTILE POWER CORD SETS (UL APPROVED)

RETRACTED LENGTH 18″—EXTENDED LENGTH 7½ FEET

DESCRIPTION: Coiled power cord with a sturdy molded male plug on one end. On the other end we have removed a portion of the neoprene jacket, exposed the conductors and stripped them for easy termination.

APPLICATION: Same as power cords, but with a plug on one end.

ALPHA NO.	NO. OF CONDS.	CONDUCTOR SIZE	STRAND	U. L. TYPE	COIL O.D.	NOM. O.D.
654	2	18	41/34	SVO	1″	.260″
655	2	18	41/34	SJO	1¼″	.320″
656	3	18	41/34	SJO	1½″	.350″
657	2	16	65/34	SJO	1½″	.360″
658	3	16	65/34	SJO	1½″	.390″

COLOR CODE OF CONDUCTORS

1. Black 2. White 3. Green

RETRACTILE COMMUNICATION COIL CORDS

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Multi-conductor communication cord manufactured with extra flexible #23 AWG-21/36 tinned soft cadmium copper for maximum flex life. Insulated with rubber for communication circuits of maximum 120 working volts. The overall jacket is a specially compounded cured neoprene jacket giving long life to the retractile cord.

APPLICATION: Used in communication equipment, such as telephone car carriers, mobile radio equipment, ham operations, head sets, citizen band units and radio transmitter to receiver head sets, communication cords eliminate hazards and inconveniences caused by tangled straight cords.

ALPHA NO. 2 FT. LGTHS.	4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	STRAND	AMP.	VOLTS	COIL O.D.	CORD O.D.
680/2	680/4	2	23	21/36	1	120	¾″	.215″
681/2	681/4	3	23	21/36	1	120	¾″	.220″
682/2	682/4	4	23	21/36	1	120	⅞″	.250″
683/2	683/4	5	23	21/36	1	120	1″	.285″
684/2	684/4	6	23	21/36	1	120	1⅛″	.305″
685/2	685/4	7	23	21/36	1	120	1¼″	.320″

COLOR CODE OF CONDUCTORS

1. Black 2. White 3. Green 4. Red 5. Brown 6. Yellow 7. Blue

RETRACTILE COMMUNICATION CORD (SHIELDED)

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Same as above, except that shielded conductors are individually shielded with a cadmium copper shield to eliminate external electrical interference. Shield can be pigtailed for direct soldering connections.

APPLICATION: When shielded communication cords are needed.

ALPHA NO. 2 FT. LGTHS.	4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	STRAND	SHIELDING	COIL O.D.	NOM. O.D.	COLOR CODE OF CONDUCTORS
690/2	690/4	1	24	41/40	Shielded	⅝″	.160″	White
692/2	692/4	2	1-23 1-24	21/36 41/40	Unshielded Shielded	⅞″	.240″	Black White
694/2	694/4	3	2-23 1-24	21/36 41/40	Unshielded Shielded	⅞″	.240″	Black & Red White
696/2	696/4	4	2-23 2-24	21/36 41/40	Unshielded Individually Shielded	1″	.270″	Red & Black White & Green

RETRACTILE TEST LEAD WIRE

RETRACTED LENGTH 12″—EXTENDED LENGTH 6 FEET

DESCRIPTION: A high grade quality rubber insulation for maximum flex life extruded over a single conductor of extra flexible tinned copper which gives long life to this retractile test lead wire. Available in a 12″ retracted length with a 6″ straight lead on each end, the cord extends to approximately 6 feet.

ALPHA NO.	CONDUCTOR SIZE	CORD STRAND	AMP. RATED	VOLTAGE	COIL O.D.	NOM. O.D.	COLOR CODE
650	20	41/36	4	4,000	¾″	.165″	Black-Red

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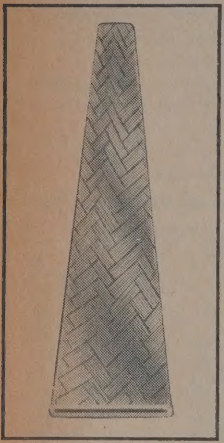
SHIELDING & BRAIDING

FLAT BRAID

A woven braid, composed of tinned copper strands, which is rolled flat at time of manufacture to a specific width depending upon construction.

Flat braid is usually employed for its current carrying capacity and its extreme flexibility. It is generally used as a high current conductor at low voltages. Battery grounding is typical of this application. It is also used as a bonding strap in vehicles and aircraft to help eliminate ignition interference. Because of its extreme flexibility it can be used in confined areas or as electrical connections on moving parts.



ALPHA CAT. #	NOMINAL FLAT WIDTH	THICKNESS	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRIER CAP.	PUT-UP CODE
1221	.025	.015	#36	8	8	26	250	4.0 AMPS	1 thru 5
1222	1/32"	.020	#36	16	16	24	400	6.0 "	1 thru 5
1223	3/64"	.020	#36	24	24	22	640	7.0 "	1 thru 5
1224	3/32"	.020	#36	16	48	19	1290	11.0 "	1 thru 5
1229	1/8"	.020	#36	24	72	18	1620	16.0 "	1 thru 5
1230	3/16"	.020	#36	24	120	15	3260	25.0 "	1 thru 5
1231	1/4"	.030	#36	24	168	14	4100	32.0 "	1 thru 5
1232	3/8"	.030	#36	48	288	11	8230	46.0 "	1 thru 5
1233/2	1/2"	.030	#36	48	384	10	10400	53.0 "	1 thru 5
1233	5/8"	.030	#36	48	384	10	10400	53.0 "	1 thru 5
1234	3/4"	.040	#36	48	832	7	20900	85.0 "	1 thru 5
1235	1"	.045	#36	48	832	7	20900	85.0 "	1 thru 5
1239	1-3/8"	.050	#36	48	832	7	20900	85.0 "	1 thru 5
1240	1-1/2"	.060	#30	48	528	3	52800	125.0 "	1 thru 3
1241	1-3/4"	.080	#30	48	1248	0	108000	200.0 "	1 thru 3
1242	2"	.120	#30	48	1536	00	135000	235.0 "	1 thru 3

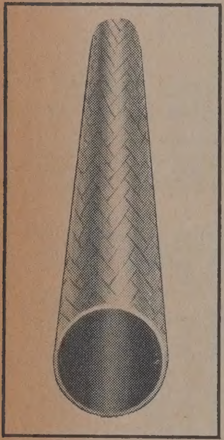
PUT-UP CODE 1—50 Ft. 2—100 Ft. 3—250 Ft. 4—500 Ft. 5—1000 Ft.

***These values based on copper in free air at 65°F**

TUBULAR BRAID TO MIL SPEC QQ-B-575

A woven tinned copper braid which is manufactured completely round as outlined in MIL Spec QQ-B-575. This braid construction has self-supporting characteristics which enables it to maintain its round configuration. The percentage of shielding coverage is 95% or more. A high degree of manufacturing tolerances is maintained.

Tubular braid to QQ-B-575 is utilized in military applications involving maximum shielding against electrostatic interference. It is also used as a protective covering against mechanical abrasion and stresses for the wires, cable, and other components which it covers.



ALPHA CAT. #	I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRIER CAP.	PUT-UP CODE
2160	1/32"	#36	24	24	22	640	7.0 AMPS	1 thru 3
2162	1/16"	#36	24	48	19	1290	11.0 "	1 thru 3
2164	7/64"	#36	24	96	16	1620	22.0 "	1 thru 3
2166	1/8"	#36	24	120	15	3260	28.0 "	1 thru 3
2168	11/64"	#36	24	168	14	4100	32.0 "	1 thru 3
2170	13/64"	#34	24	192	11	7640	46.0 "	1 thru 2
2172	3/8"	#36	48	384	10	10400	53.0 "	1 thru 2
2174	1/2"	#36	48	528	9	13100	70.0 "	1 thru 2
2176	25/32"	#36	48	864	7	20900	85.0 "	1 thru 2

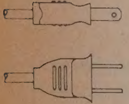
PUT-UP CODE 1—50 Ft. 2—100 Ft. 3—250 Ft.

***These values based on copper in free air at 65°F**

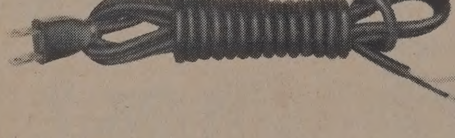
SPECIAL CONSTRUCTIONS: Constructions other than those tabulated in the above 2 tables are available to order in silver plated copper, bare copper and stainless steel. The above tabulated constructions represent a cross-section of types and sizes which are maintained in inventory. Literally thousands of variations are available to order by changing the various physical elements (carriers, ends, gauge).

CORD SETS

REPLACEMENT CORD SETS
(UL & CSA APPROVED)



Molded plugs
ttached to all
2 conductor
eplacement cords.
5 Amps—125 Volts

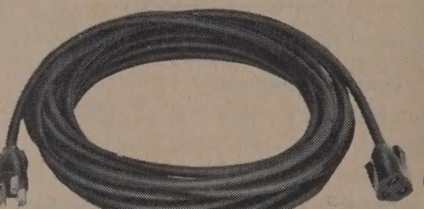


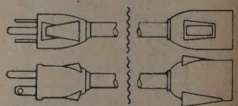
DESCRIPTION: Constructed so that it will last for years, this open end cord replacement set is manufactured with a flexible 2 conductor quality black rubber cord. One end has a black molded straight plastic plug (see diagram), the other end of the jacket is stripped back 1½", and ⅝" of the conductors are stripped assuring easy termination into equipment or components. The replacement cord set has a 300 volt rating.

APPLICATION: Replacement Cords for direct termination; for office business machines, small electric hand tools, and home appliances which use fractional horsepower motors.

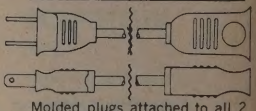
ALPHA NO.	COND. SIZE	COND. STRAND	NO. OF CONDS.	U.L. TYPE	NOM. O.D. OF CORD	CORD LENGTH (FT.)
600	18	41/34	2	SV	.245"	6
602	18	41/34	2	SV	.245"	9
604	18	41/34	2	SV	.245"	12
606	18	16/30	2	SJ	.300"	8
608	18	16/30	2	SJ	.300"	10
610	16	26/30	2	SJ	.325"	8
612	16	26/30	2	SJ	.325"	10

EXTENSION CORD SETS
(UL & CSA APPROVED)





Molded plugs attached to all 3 conductor extension cords.
15 Amps– 125 Volts



Molded plugs attached to all 2 conductor extension cords.
15 Amps– 125 Volts

DESCRIPTION: Extension cord sets manufactured for lasting service with a flexible 2 or 3 conductor quality black rubber cord. This rugged cord has a black molded plastic male and female plug on either end to fit conventional sockets and plugs.

APPLICATION: Small business machines, vacuum cleaners, lamps, movie projectors, or any other home appliance. 3 conductor cord used when 1 conductor requires grounding.

ALPHA NO.	COND. SIZE	COND. STRAND	NO. OF CONDS.	U.L. TYPE	NOM. O.D.	CORD LENGTH (FT.)
620	18	41/34	2	SV	.245"	6
622	18	41/34	2	SV	.245"	9
624	18	16/30	2	SJ	.300"	10
626	18	16/30	2	SJ	.300"	25
628	16	26/30	2	SJ	.325"	10
630	16	26/30	2	SJ	.325"	25
632	16	26/30	2	SJ	.325"	50
634	16	26/30	2	SJ	.325"	100
636	18	16/30	3	SJ	.365"	10
638	18	16/30	3	SJ	.365"	25

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Authoritative reference data from the industry's leading wire, cable and tubing manufacturer

ALPHA ENGINEERING CATALOGS TELL YOU

HOW TO SPECIFY ELECTRONIC WIRE, CABLE & INSULATING MATERIALS

alpha Wire
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- Shielding and braiding
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ALPHLEX® TUBING SECTION

PLASTIC TUBING (PVC-105)

Dielectric Strength	Temp. Rating	Low Temp. Flexibility	Flammability	Tensile Strength	Ultimate Elongation	Insulation Resistance	Fungi Resistance	Oil Resistance	Corrosion & Abrasion Resistance	Applicable Specifications
800 V/MIL	105°C	—30°C	Non-Flammable	2500 PSI	300%	Over 1,000,000 Megs.	Yes	Remains Flexible Indefinitely	Excellent	MIL-I-631C ASTM-D876 ASTM-D922

Standard Colors

#24 thru #12	—Clear, Black, Yellow, Red, Blue, Brown, Green, White, Orange
#11 thru #2	—Clear, Black, Yellow, Red, Green, White
#1 thru 2½″	—Clear, Black

Standard Put-Ups

#24 thru #15	—1,000 ft. spools
#14 thru #5	— 500 ft. spools
#4 thru ⅜″	— 250 ft. coils
7/16″ thru ⅝″	— 100 ft. coils
¾″ & larger	— 50 ft. coils

APPLICATIONS

Alphlex®, PVC-105 Plastic Tubing is designed and manufactured specifically for electronic, aircraft and electrical applications involving temperatures as high as 105°C. It conforms to Specification MIL-I-631C, Type F, Form U, Grade C, Class I, Category I.

DESCRIPTION

PVC-105's exceptional integration of desirable qualities endows it with excellent versatility and durability. Its dielectric strength is high and remains unaffected by increasing temperature throughout its range. It displays high resistance to the agents of heat, oil, chemicals, corrosion, fungi and even abrasion with no loss in tensile strength, non-flammability—or flexibility.

Under all the above adverse conditions, PVC-105 will retain its ability to hug and protect irregular-shaped objects, will "snake" beautifully, and will always be easy to handle.

To achieve this combination of advantages, special care is taken in the making of PVC-105. It is compounded with only first-grade quality non-migratory resinous type plasticizers. From laboratory to production line, from raw material to finished product, strict quality control prevails. Behind it are the same engineering and production know-how that have made the name Alpha famous in the electronics industry.

As with all Alpha and Alphlex items, PVC-105 is "IN STOCK" for immediate delivery, and can be supplied to desired lengths as well as standard spools.

For your special problems, please call on us for consultation and recommendations—no obligation, of course.

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
PVC-105/24	24	.022″	.013″
PVC-105/22	22	.027″	.012″
PVC-105/20	20	.034″	.016″
PVC-105/19	19	.038″	.016″
PVC-105/18	18	.042″	.016″
PVC-105/17	17	.047″	.016″
PVC-105/16	16	.053″	.016″
PVC-105/15	15	.059″	.016″
PVC-105/14	14	.066″	.016″
PVC-105/13	13	.076″	.016″
PVC-105/12	12	.085″	.016″
PVC-105/11	11	.095″	.016″
PVC-105/10	10	.106″	.016″
PVC-105/9	9	.118″	.020″
PVC-105/8	8	.133″	.020″
PVC-105/7	7	.148″	.020″
PVC-105/6	6	.166″	.020″
PVC-105/5	5	.186″	.020″
PVC-105/4	4	.208″	.020″
PVC-105/3	3	.234″	.020″

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
PVC-105/2	2	.263″	.020″
PVC-105/1	1	.294″	.020″
PVC-105/0	0	.330″	.020″
PVC-105/5/16″	5/16″	.312″	.025″
PVC-105/⅜″	⅜″	.375″	.025″
PVC-105/7/16″	7/16″	.438″	.025″
PVC-105/½″	½″	.500″	.025″
PVC-105/9/16″	9/16″	.562″	.030″
PVC-105/⅝″	⅝″	.625″	.030″
PVC-105/¾″	¾″	.750″	.035″
PVC-105/⅞″	⅞″	.875″	.035″
PVC-105/1″	1″	1.000″	.035″
PVC-105/1⅛″	1⅛″	1.125″	.035″
PVC-105/1¼″	1¼″	1.250″	.040″
PVC-105/1⅜″	1⅜″	1.375″	.040″
PVC-105/1½″	1½″	1.500″	.045″
PVC-105/1¾″	1¾″	1.750″	.055″
PVC-105/2″	2″	2.000″	.060″
PVC-105/2¼″	2¼″	2.250″	.065″
PVC-105/2½″	2½″	2.500″	.070″

NOTE: PVC-105 manufactured under the recognition component section of UL is available to order.

TEFLON® EXTRUDED TUBING (TFT-200)

(THIN WALL)

DESCRIPTION

ALPHLEX® THIN WALL TEFLON TUBING, a high temperature insulation (designated by A.I.E.E. for continuous operation at 220°C minimum), while classified as a thermoplastic resin, does not melt and flow as do conventional thermoplastic materials.

APPLICATIONS

Because of its combination of electrical, chemical and mechanical properties, **ALPHLEX TEFLON** is unmatched by any other type tubing for use in electrical applications at high frequencies and temperatures. As a thin, flexible insulation, it permits miniaturization and compactness of design heretofore impossible.

Dielectric Strength	Temp. Rating	Low Temp. Flexibility	Flammability	Tensile Strength	Ultimate Elongation	Fungi & Oil Resistance	Corrosion & Abrasion Resistance	Applicable Specifications
500-1000 V/MIL	250°C	—90°C	Non-Flammable	1500-3000 PSI	100-200%	Excellent	Excellent	ASTM

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
TFT-200/30	30	.012″	.009″
TFT-200/28	28	.015″	.009″
TFT-200/26	26	.018″	.010″
TFT-200/24	24	.022″	.010″
TFT-200/22	22	.027″	.010″
TFT-200/20	20	.034″	.012″
TFT-200/19	19	.038″	.012″
TFT-200/18	18	.042″	.012″
TFT-200/17	17	.047″	.012″
TFT-200/16	16	.053″	.012″
TFT-200/15	15	.059″	.012″
TFT-200/14	14	.066″	.012″
TFT-200/13	13	.076″	.012″

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
TFT-200/12	12	.085″	.012″
TFT-200/11	11	.095″	.012″
TFT-200/10	10	.106″	.012″
TFT-200/9	9	.118″	.015″
TFT-200/8	8	.133″	.015″
TFT-200/7	7	.148″	.015″
TFT-20C/6	6	.166″	.015″
TFT-200/5	5	.186″	.015″
TFT-200/4	4	.208″	.015″
TFT-200/3	3	.234″	.015″
TFT-200/2	2	.263″	.015″
TFT-200/1	1	.294″	.015″
TFT-200/0	0	.330″	.015″

Sizes	Standard Colors		Standard Put-Ups
#30-#15 Inclusive	Natural Yellow	Black Red	1000 ft. Spools or 10-100 ft. Spools per 1000 ft. Box
#14-#8 Inclusive	Natural Yellow	Black Red	500 ft. Spools or 5-100 ft. Spools per 500 ft. Box
#7-#0 Inclusive	Natural		Random Lengths Packed in 100 ft. Coils or 36″ Lengths

See Last Two ALPHA Pages For Complete Price List

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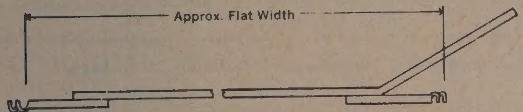
ALPHLEX® *ZIPPER TUBING*

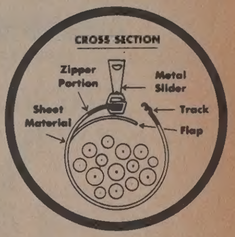
DESCRIPTION Alphlex Zipper Tubing is the all purpose modern way to harness, cover and protect cables. Just zip to close — and zip to reopen. If you wish, it may be permanently sealed with PB-200 Special Compound Liquid Sealer. Alphlex Zipper Tubing is strong, flexible, durable, and offers new freedom in design, production and repair.

APPLICATIONS To shield, to harness wire, to custom-cable to any length, to enclose, to encase, to identify (such as cable markers), to protect, to replace worn jackets.

TYPES OF ZIPPER TUBING

TYPE	MATERIAL	WALL THICKNESS (Inches)	OPER. TEMP.	APPLICATIONS	STOCK COLORS	STANDARD PUT-UPS
ZIP-31	Polyvinyl-chloride made from MIL-I-631 D, GRADE C Materials	.020	−20° C to 105° C	All Purpose Type	Clear Black Yellow	25′ 50′ 100′ 25′ 50′ 100′ 25′ 50′ 100′
ZIP-31M	Polyvinyl-chloride made from MIL-I-631 D, GRADE C Materials	.040	−20° C to 105° C	Heavy Duty Constructions	Clear Black	100′ 100′
ZIP-44	Polyvinyl-chloride made from MIL-I-7444 B Materials	.020	−67° C to 70° C	Extreme Flexibility, Low Temperature & Aircraft industry	Clear Black	100′ 100′
ZIP-50	Polyvinyl-chloride "sandwich" of aluminum foil laminated between two sheets of polyvinyl	.040	−20° C to 105° C	100% RF shielding	Silver-Grey	100′





ZIPPER SPECIFICATIONS FOR ALL TYPES OF ALPHLEX ZIPPER TUBING

Material	**Polyvinylchloride**	Cold Brittleness	**−86° C**
Track Thickness (when closed)	**.095″**	Fungus-proof	**will not support fungus**
Dielectric Strength, V/mil	**759**	Flammability	**self-extinguishing**
Tensile Strength P.S.I.	**3810**	Lateral Pull Strength (unsealed)	**42.7 pounds/inch**
Ultimate Elongation	**255%**	Lateral Pull Strength (permanently sealed)	**59.8 pounds/inch**
Operating Temperature, Upper Limit	**106° C**	Standard Colors	**Black, Clear, Yellow**

Contrasting color combinations of zipper and body are available to order. The zipper portion can be supplied in any of the following colors: Black, Yellow, Clear, Blue, White, Brown, Purple, Red, Orange, Green, Slate.

STANDARD SIZES FOR ALL ZIPPER TUBING

Zipper Tubing Inside Diameter	Approx. Flat Width (From track to track — excluding flap)
*¼″	1 5/16″
*⅜″	1⅝″
½″	2″
⅝″	2⅜″
¾″	2¾″
⅞″	3⅛″
1″	3 9/16″
1⅛″	3 15/16″
1¼″	4⅛″
1½″	4⅞″
1¾″	5⅝″
2″	6⅜″

*Because of small Inside Diameter, these sizes cannot be closed by using the slider. The tracks must be closed by manual pressure.

HOW TO ORDER
Select the type of Zipper Tubing desired from the chart and the required Inside Diameter. When ordering, request as follows: For example, ZIP-31 Tubing in ⅝″ Inside Diameter order — ZIP-31 — ⅝.

ALPHLEX® ELECTRONIC LACING CORDS AND TAPES

MIL-T-713A NYLON TWISTED CORD

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	FINISH	NOMINAL DIAMETER	STOCK COLORS	YARDS PER POUND	STANDARD PUT-UP
LC-113	I	P Twine	70 lbs.	MW	.050″	Wh., Blk.	560	8 oz. spls.
LC-114	II	P Twine	48 lbs.	MW	.035″	Wh., Blk.	750	8 oz. spls.
LC-115	III	P Twine	32 lbs.	MW	.030″	Wh., Blk.	1180	8 oz. spls.

MIL-T-713A NYLON FLAT BRAIDED TAPE

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	NOMINAL WIDTH	NOMINAL THICKNESS	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-136	II	P Tape	50 lbs.	.090″ (3/32″)	.014″	MW	Wh., Blk.	500 yd. spls.

NYLON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-132	3/32″	.014″	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-134	1/16″	.010″	30 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-136	3/32″	.014″	50 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-140	3/32″	.014″	50 lbs.	SR	Wh., Blk.	500 yd. spls.
LC-143	3/32″	.014″	50 lbs.	AM	Wh., Blk.	500 yd. spls.

DACRON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-158	3/32″	.014″	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-162	3/32″	.014″	50 lbs.	MW	Wh., Blk.	500 yd. spls.

Other materials, finishes and sizes available to order.

TYPES OF LACING CORD

flat braided tape This construction was developed to prevent the "cold flow" that often is encountered in wire having plastic or rubber insulations. It has been specifically designed to create a wider contact area with the insulation, so that it does not flow away from the contact point. It is considerably more flexible and easier on the subscriber's hands and is recommended for all types of harness work. Flat tapes do not appreciatively increase the diameter of the cable.

round twisted cord Available in various strands and thicknesses to produce different tensile strengths. This type, while it may be used for plastic and rubber insulated wire, is particularly suited for wires having a secondary insulation or those utilizing a textile as an insulating material.

MATERIALS

nylon Synthetic fiber resistant to: fungus, flame, acids, abrasion. Excellent tensile strength, light weight, small size.

dacron A synthetic fiber which retains all the above characteristics of Nylon plus: less elongation, better resistance to acids, no appreciable discoloration.

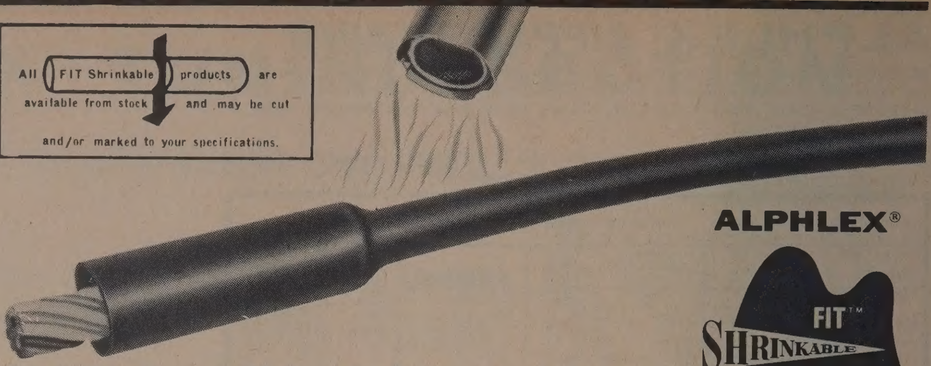
FINISHES

ge	synthetic rubber-like resin
mw	micro-crystalline wax
am	thermoplastic synthetic resin
sr	fungistatic synthetic rubber

© U.C.P., Inc.

A host of electronic, electrical, medical, laboratory, automotive and aircraft applications. FIT Tubing displays high resistance to heat, oils, moisture, chemicals, acid, corrosion, fungi and abrasion.

All FIT Shrinkable products are available from stock and may be cut and/or marked to your specifications.

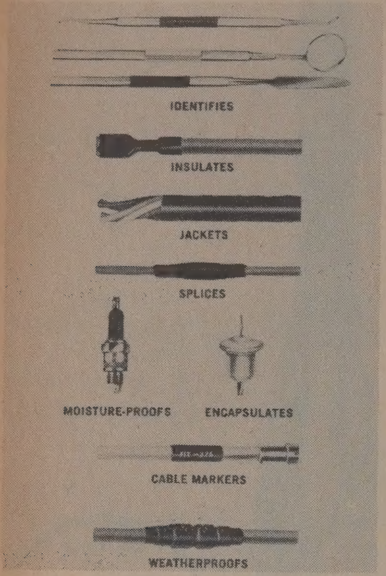


New Alphlex all-purpose FIT Shrinkable Tubing shrinks in seconds when heated, forming a permanent tight-fitting mechanical bond even over irregularly shaped materials. Shrinkage is predetermined.

ALPHLEX®

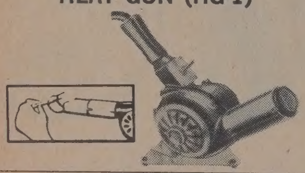
FIT™ SHRINKABLE TUBING

WITH CONTROLLED SHRINKAGE



FIT-275	An excellent all-purpose polyolefin tubing, Shrinkage Ratio — 1.5:1 (33% shrinkage).
FIT-270	Similar characteristics to FIT-275 above, except tubing is clear; ideal for any tubing application where visibility is necessary. Shrinkage Ratio 1.5:1 (33% shrinkage).
FIT-105	A shrinkable polyvinylchloride with all the advantages of PVC plus the convenience factors of Shrinkable Tubing. Recommended as a superior quality, economical material for cabling and jacketing. Shrinkage Ratio 2:1 (50% shrinkage).
FIT-295	An extremely tough, semi-rigid abrasion resistant tubing with unusual mechanical strength. Recommended for jacket-termination, connection, or splice that is subject to mechanical stress. Shrinkage Ratio 2:1 (50% shrinkage).
FIT-290	Similar to above, except available as a clear, transparent insulation. Shrinkage Ratio 2:1 (50% shrinkage).
FIT-Cap	Electrical insulating, flame-resistant sealed wire and cable terminations. Answers the need for a strong, space-saving, lightweight end cap for splices and cables. Shrinkage Ratio 2:1 (50% shrinkage).
FIT-Mrk	FIT–Markers are pre-cut and stamped wire markers made of a flexible abrasion-proof, durable polyolefin tubing. Shrinkage Ratio 2:1 (50% shrinkage).

HEAT GUN (HG-1)



FIT - KIT
An ideal laboratory/prototype/production kit. A selection of 6-inch lengths of FIT-275, 270; FIT-295, 290; FIT-105, FIT-Caps and FIT-Markers in a handy plastic case, each type in its separate compartment. Includes a wide variety of sizes and colors.

FIT-275MS PACKAGED ASSORTMENTS

Contains an assortment of 6″ lengths in various sizes. Every length identified as to size.

ALPHLEX NO.	TUBING SIZE RANGE	LENGTHS PER BOX
FIT-275MS-1	#24 thru #10 (8 sizes)	4 lengths per size (32 lengths)
FIT-275MS-2	#8 thru ⅝″ (9 sizes)	2 lengths per size (18 lengths)
FIT-275MS-3	¾″ thru 1″ (3 sizes)	2 lengths per size (6 lengths)

IRRADIATED POLYOLEFIN TUBING The All-Purpose Shrinkable Tubing
FIT-275 (Colored); **FIT-270** (Clear) Shrinkage Ratio 1.5:1 (33% Shrinkage)

ALPHLEX NO. FIT-275 COLORED	STOCK COLORS	ALPHLEX NO. FIT-27Q CLEAR ONLY	SIZE	MIN. I.D. BEFORE SHRKGE. (Inches)	RECOV'D. I.D. AFTER SHRKGE. (Inches)	RECOV'D. NOMINAL WALL THICK. (Inches)	STANDARD PACKAGES* 4-Foot Lengths Tot. Ftg.	No. Lgths.	6-Inch Lengths Tot. Ftg.	No. Lgths.
FIT-275-24	Blk., Wh., Red, Yel., Blue	FIT-270-24	24	.050	.027	.012	100′	25	20′	40
FIT-275-22	Blk., Wh., Red, Yel., Blue	FIT-270-22	22	.055	.032	.012	100′	25	18′	36
FIT-275-20	Blk., Wh., Red, Yel., Blue	FIT-270-20	20	.060	.039	.016	100′	25	17′	34
FIT-275-18	Blk., Wh., Red, Yel., Blue	FIT-270-18	18	.076	.049	.016	100′	25	16′	32
FIT-275-16	Blk., Wh., Red, Yel., Blue	FIT-270-16	16	.093	.061	.016	100′	25	15′	30
FIT-275-14	Blk., Wh., Red, Yel., Blue	FIT-270-14	14	.120	.072	.016	100′	25	14′	28
FIT-275-12	Blk., Wh., Red, Yel., Blue	FIT-270-12	12	.153	.089	.016	100′	25	12′	24
FIT-275-10	Blk., Wh., Red, Yel., Blue	FIT-270-10	10	.191	.112	.016	100′	25	10′	20
FIT-275-8	Blk., Wh., Red, Yel., Blue	FIT-270-8	8	.240	.141	.020	100′	25	9′	18
FIT-275-6	Blk., Wh., Red, Yel., Blue	FIT-270-6	6	.302	.178	.020	100′	25	9′	18
FIT-275-4	Blk., Wh., Red, Yel., Blue	FIT-270-4	4	.378	.224	.020	100′	25	8′	16
FIT-275-2	Blk., Wh.	FIT-270-2	2	.430	.275	.020	20′	5	6′	12
FIT-275-5⁄16″	Blk., Wh.	FIT-270-5⁄16″	5⁄16″	.500	.334	.025	20′	5	5′	10
FIT-275-⅜″	Blk., Wh.	FIT-270-⅜″	⅜″	.600	.399	.025	20′	5	5′	10
FIT-275-7⁄16″	Blk., Wh.	FIT-270-7⁄16″	7⁄16″	.693	.462	.025	20′	5	4′	8
FIT-275-½″	Blk., Wh.	FIT-270-½″	½″	.787	.524	.025	20′	5	3′	6
FIT-275-⅝″	Blk., Wh.	FIT-270-⅝″	⅝″	.982	.655	.030	20′	5	3′	6
FIT-275-¾″	Blk., Wh.	FIT-270-¾″	¾″	1.180	.786	.035	20′	5	2.5′	5
FIT-275-⅞″	Blk., Wh.	FIT-270-⅞″	⅞″	1.365	.911	.035	20′	5	2′	4
FIT-275-1″	Blk., Wh.	FIT-270-1″	1″	1.555	1.036	.035	20′	5	1.5′	3
FIT-275-1¼″	Blk. only	——	1¼″	1.935	1.290	.040	8′	2	1′	2
FIT-275-1½″	Blk. only	——	1½″	2.325	1.550	.045	8′	2	1′	2
FIT-275-1¾″	Blk. only	——	1¾″	2.720	1.812	.055	8′	2	.5′	1
FIT-275-2″	Blk. only	——	2″	3.105	2.070	.060	8′	2	.5′	1

***STANDARD PACKAGE** FIT-270 and 275 Tubing is available **only** in the specified standard packages. When ordering, indicate package desired (6-Inches or 4-Foot).

See Last Two ALPHA Pages For Complete Price List

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IRRADIATED POLYVINYLCHLORIDE TUBING Highly Flexible — Ideal for Cable Jacketing

FIT-105 Shrinkage Ratio 2:1 (50% Shrinkage)

ALPHLEX NO. (BLACK ONLY)	SIZE (Inches)	MINIMUM I.D. BEFORE SHRINKING (Inches)	RECOVERED I.D. AFTER SHRINKING (Inches)	NOMINAL WALL THICKNESS (Inches)	STANDARD PUT-UP (Feet)
FIT-105-3/64	3/64	.046	.023	.020	25, 100, 500
FIT-105-1/16	1/16	.062	.031	.020	25, 100, 500
FIT-105-3/32	3/32	.093	.046	.020	25, 100, 200
FIT-105-1/8	1/8	.125	.062	.020	25, 100, 200
FIT-105-3/16	3/16	.187	.093	.025	25, 100, 200
FIT-105-1/4	1/4	.250	.125	.025	25, 100, 200
FIT-105-3/8	3/8	.375	.187	.030	25, 100, 200
FIT-105-1/2	1/2	.500	.250	.030	25, 100
FIT-105-3/4	3/4	.775	.375	.035	25, 100
FIT-105-1	1	1.000	.500	.040	25, 100
FIT-105-1½	1½	1.500	.750	.045	25, 100
FIT-105-2	2	2.000	1.000	.050	10, 25, 50

FIT-105-MS PACKAGED ASSORTMENTS

Contains an assortment of 6″ lengths in various sizes. Every length identified as to size and supplied in black only.

ALPHLEX NO.	TUBING SIZE RANGE	LENGTHS PER BOX
FIT-105-MS-1	3/64″ thru 1/4″ (6 sizes)	10 lengths per size (60 lengths)
FIT-105-MS-2	3/8″ thru 1″ (4 sizes)	10 lengths per size (40 lengths)
FIT-105-MS-3	1½″ and 2″ (2 sizes)	7 lengths per size (14 lengths)
FIT-105-MS-4	3″ and 4″ (2 sizes)	3 lengths per size (6 lengths)

PACKAGED ASSORTMENTS FIT-295-MS

Contains an assortment of 6″ lengths in various sizes. Every length identified as to size.

ALPHLEX NO.	TUBING SIZE RANGE	LENGTHS PER BOX
FIT-295-MS-1	3/64″ thru 1/4″ (6 sizes)	5 lengths per size (30 lengths)
FIT-295-MS-2	3/8″ thru 1″ (4 sizes)	6 lengths per size (24 lengths)

IRRADIATED POLYOLEFIN SEMI-RIGID TUBING For Maximum Strength At All Stress Points

FIT-295 (Colored) **FIT-290** (Clear) Shrinkage Ratio 2:1 (50% Shrinkage)

ALPHLEX PART NUMBER FIT-295 COLORED	STOCK COLORS	ALPHLEX NUMBER FIT-290 CLEAR ONLY	SIZE (Inches)	MINIMUM I.D. BEFORE SHRINKING (Inches)	RECOV'D I.D. AFTER SHRINKING (Inches)	NOMINAL WALL THICKNESS (Inches)	STANDARD PACKAGE* 2 Foot Lengths Tot. Ftg.	No. Lgths.	STANDARD PACKAGE* 6 Inch Lengths Tot. Ftg.	No. Lgths.
FIT-295-3/64	Yellow	FIT-290-3/64	3/64	.046	.023	.020	100′	50	20′	40
FIT-295-1/16	White	FIT-290-1/16	1/16	.063	.032	.020	100′	50	18′	36
FIT-295-3/32	Blue	FIT-290-3/32	3/32	.093	.045	.020	100′	50	16′	32
FIT-295-1/8	Red	FIT-290-1/8	1/8	.125	.063	.020	100′	50	14′	28
FIT-295-3/16	Green	FIT-290-3/16	3/16	.187	.093	.025	100′	50	12′	24
FIT-295-1/4	Slate	FIT-290-1/4	1/4	.250	.125	.025	100′	50	10′	20
FIT-295-3/8	Brown	FIT-290-3/8	3/8	.375	.187	.030	100′	50	8′	16
FIT-295-1/2	Black	FIT-290-1/2	1/2	.500	.250	.030	20′	10	7′	14
FIT-295-3/4	White	FIT-290-3/4	3/4	.750	.375	.040	20′	10	6′	12
FIT-295-1	Red	FIT-290-1	1	1.000	.500	.050	20′	10	4′	8

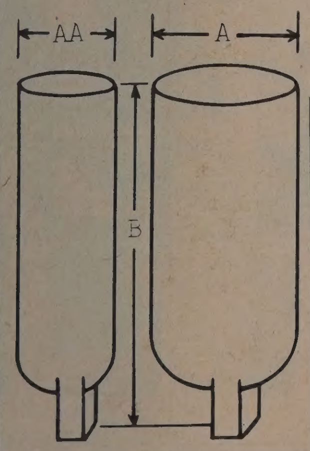
***STANDARD PACKAGE**

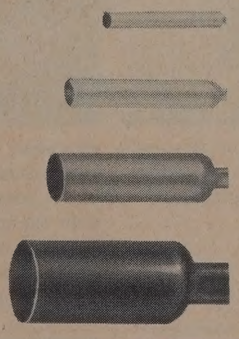
FIT-290 and 295 Tubing are available only in the specified standard packages. When ordering, indicate package desired (6 Inch or 2 Foot).

FIT-CAPS — SHRINKABLE WIRE TERMINATION CAPS An Irradiated Semi-Rigid Polyolefin Product

Shrinkage Ratio 2:1 (50% Shrinkage)

DIMENSION CHART



Actual Size	Alphlex No.	A Minimum I.D. Before Shrinking (Inches)	AA Recovered I.D. After Shrinking (Inches)	Nominal Wall Thickness (Inches)	B Nominal Length (Inches)	Stock Colors	Standard Package Put-Up (Pieces)
	CAP-1	.063	.025	.016	¾	White	100 or 1000
	CAP-2	.125	.050	.020	1	Red	100 or 1000
	CAP-3	.250	.100	.025	1	Slate	100 or 1000
	CAP-4	.500	.200	.030	1¼	Black	100 or 1000

FIT-CAP ASSORTMENT

CAP-A contains 10 each of the 4 sizes of shrinkable wire termination caps. Packed in a handy transparent plastic storage box.

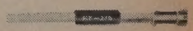
FIT-MARKER ASSORTMENTS

Contains a selection of markers printed in numerical or alphabetical sequence.

Alphlex No.	Minimum I.D. Before Shrinking (Inches)	Printing On Markers	Standard Package *2 of each number †4 of each letter	Stock Color
MRK-A-NS	.098	1-50	100*	Black
MRK-B-NS	.122	1-50	100*	Black
MRK-C-NS	.178	1-50	100*	Black
MRK-A-LS	.098	A-Z	100†	Black
MRK-B-LS	.122	A-Z	100†	Black
MRK-C-LS	.178	A-Z	100†	Black

FIT-MARKERS — SHRINKABLE WIRE MARKERS

An Irradiated Flexible Polyolefin Product
Shrinkage Ratio 2:1 (50% Shrinkage)



Alphlex No.	O.D. of Wire to be Identified (Inches)	Minimum I.D. Before Shrinking (Inches)	Recovered I.D. After Shrinking (Inches)	Nominal Wall Thickness (Inches)	Marker Length Before Shrinkage (Inches)	Stock Color
MRK-A	.049-.065	.098	.049	.016	¾	Black
MRK-B	.066-.095	.122	.061	.016	¾	Black
MRK-C	.096-.150	.178	.089	.016	¾	Black

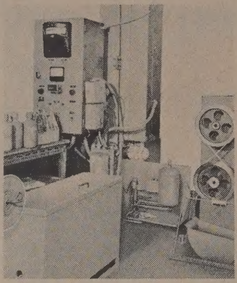
HOW TO ORDER

1. Determine O.D. of wire to be identified.
2. Select recommended size and part number from chart above.
3. To order, add number or letter to be printed on marker as suffix to the Alpha part number: For example: To order FIT-Markers printed with number "22", for use on wire with O.D. of .075, order: MRK-B-22.

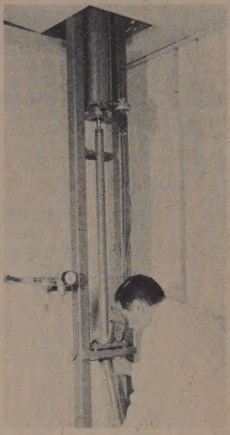
TOTAL WIRE CAPABILITY

manufacturing facilities

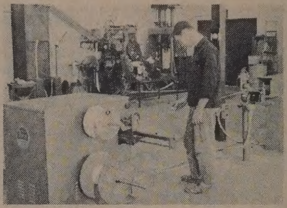
Storage area for insulation raw materials



A striping and sintering tower where jacket material is colored or striped in accordance with MIL specs. The teflon sintering process takes place in these precisely heat-controlled towers.

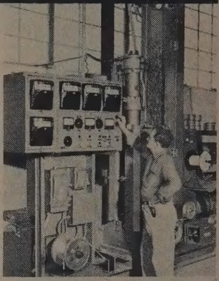


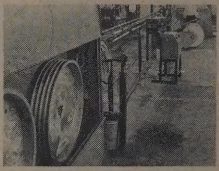
Hydraulic press for compressing teflon into extrusion preforms



Respooling and simultaneous continuity testing. All Alpha wire is continuously spark tested in each stage of manufacture.

Teflon extruder with full range of temperature and pressure controls to insure highest quality.



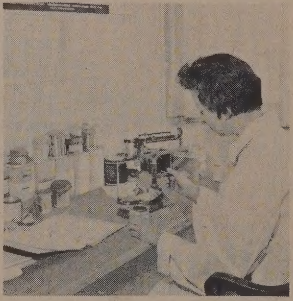


Section of PVC extruding line

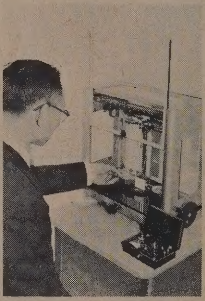
quality control and testing

No matter how expert, a technology is only as reliable as the *controls* under which it is executed. From raw material to finished product, Alpha employs every quality control and procedure known in wire science . . . with one extra factor — meticulous care.

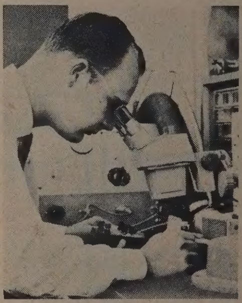
In addition, Alpha has complete facilities for performing highly specialized tests such as high altitude testing, spectroscopic analysis, X-ray analysis, vibration and shock testing and many others.



Accurate mixing of pigments to achieve correct colors for final insulation products

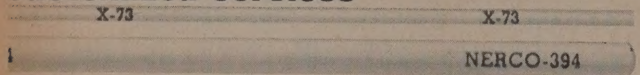


Precision measurement to insure compliance with the most rigorous military specification requirements.



Microscopic inspection of raw materials

customized services

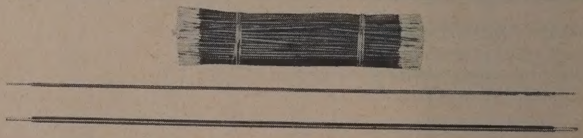


MARKING

Guarantee your circuit identification with letters, numbers or both, as a permanent part of the insulation and jacket of our various wire, cable and tubing. Hot stamped in accordance with MIL SPECS, this marking system can be applied to vinyl, nylon and teflon insulation compounds. Your trade name can also be used for circuit coding on the wire and cable you purchase from Alpha. You may choose from a wide variety of type faces and character widths.

CUSTOM PUT-UPS

To fill your exact footage requirements we furnish wire on customized put-ups. Any catalog item is available on a variety of spools, coils and hanks in the exact length you need, guaranteeing a perfect point-to-point wire connection. And, there is no waste, so you don't pay for excess footage



CUTTING, STRIPPING AND TINNING

Automatic cutting, stripping and hot tin dipping of wire to any length is our specialty. Modern high speed precision equipment insures prompt delivery and low unit cost. Alpha's equipment measures to precise tolerance the amount of insulation to be stripped and the exact length of wire to be cut. This guarantees trouble-free installation every time. These cutting, stripping and tinning facilities can be used in conjunction with our marking and numbering department. As a result you can specify the exact length of wire to be cut, stripped, tinned and then mark it for circuit identification.

total wire capability

Whatever your problem or need in electronic wire, cable or tubing . . . • *prototype or mass production* • *short runs or customized services* • *or anything in the unusual*— chances are excellent that Alpha has already solved similar requirements.

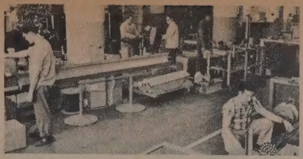
For 41 years Alpha has geared itself to one dedicated purpose — to give you, the electronics engineer, TOTAL WIRE CAPABILITY.

That means complete assistance and in-depth reliability all along the line — from your original concept right through to final production and testing.

If your need is electronic wire, cable or tubing, remember . . .

IT'S NEVER TOO SMALL, TOO LARGE OR TOO DIFFICULT for Alpha Wire, the industry's one TOTAL PRIME RESOURCE.

The following pages give you a glimpse of Alpha's prime and custom facilities at work . . .



New York Plant and Warehouse

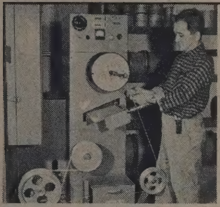
New York 14, N. Y.

Holbrook Plant (Dulon, Inc.)

Long Island, N. Y.

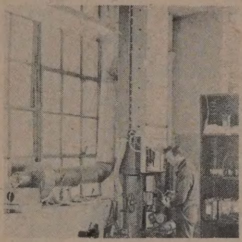
Pacific Division
Plant and Sales Offices:

Los Angeles 25, California



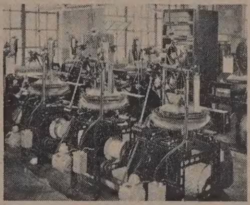
Teflon extrusion in process of inspection.

High speed, precision, temperature-controlled PVC extruder.



STRIPING

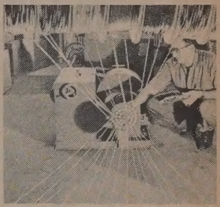
Spiral indelible-color striping permits the creation of almost limitless color combinations, all to military specifications. As many as 3 different color combinations can be applied at one time in wire sizes ranging from .375″ to .032″. This results in 40,000 possible color combinations.



SHIELDING AND BRAIDING

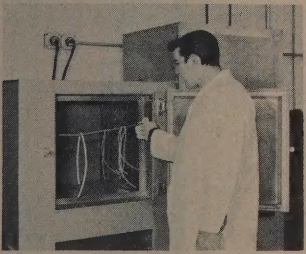
Braided and spiral shields, either bare, tinned or silver-plated, can be fabricated over the single conductor and multiconductor cables in the Alpha catalog. A wide variety of textile braiding materials are available.

CABLING AND JACKETING

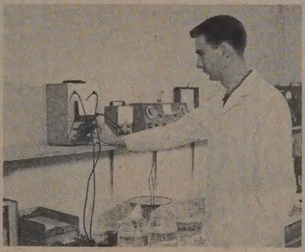


More than 2,000 single conductor items in the Alpha product line can be engineered into multiconductor cables. In long or short runs, they can range from 2 to 200 conductors in each cable, depending upon conductor diameter. Creative cable engineering assures maximum stress-resistance and flexibility. Alpha's highly engineered techniques provide outer coverings of polyvinylchloride, polyethylene, neoprene, rubber, teflon and many fabric textile braids both organic and inorganic.

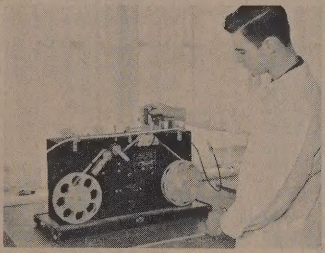
Tensile and compression testing with graphic recording readout.



Heat ageing and low temperature testing.

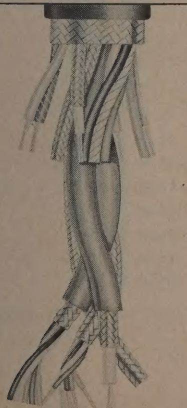


Test setup for hi-potting and dielectric breakdown.



Determining abrasion resistance

Section of test lab with facilities for capacitance, brittleness and low temperature testing and a wide range of other standard and environmental tests.



CUSTOM CABLING
AND SHORT RUNS

Alpha maintains a complete department devoted exclusively to fulfilling your requirements for specialized short lengths of complex cabling. Here Alpha engineers and Alpha equipment combine to offer you a fast-reaction capability for the design and manufacture of *any custom cabling* to suit your particular specifications.

warehousing and stock 7,000 wire, cable and tubing items are always *IN STOCK* at Alpha — the industry's one complete source for these products.

WAREHOUSE & SHIPPING

Speed is a factor you can count on with Alpha — any *in stock* item you want is on its way to you within 24 hours after receipt of your order — from Alpha's factory warehouses, or from the Alpha distributor nearest you.

ALPHA WIRE PRICE LIST

Number	Sug. Resale Ea. 1000′	Number	Sug. Resale Ea. 1000′	Number	Sug. Resale Ea. 1000′	Number	Sug. Resale Ea. 1000′	Number	Sug. Resale Ea. 1000′	Number	Sug. Resale Ea. 1000′	Number	Sug. Resale Ea. 1000′
112	$13.50	1197	51.95	1314	870.00	1475	86.58	1703	26.70	1863	11.57	1935/3†††	48.15
136	9.00	1198	62.45	1316	19.50	1480	17.48	1704	36.00	1864	10.41	1935/4†††	67.20
286	16.65	1199	79.10	1317	42.00	1481	20.10	1705	29.10	1864/19	12.75	1936†††	50.25
289	24.15	1200	27.00	1318	60.00	1482	26.25	1706	53.70	1865	11.57	1936/3†††	74.40
292	45.62	1201	29.40	1319	69.00	1483	35.25	1709	63.75	1865/19	14.58	1936/4†††	102.30
292/6	113.22	1221	29.97	1320	72.75	1484	49.80	1710	52.50	1866	12.41	1937†††	66.90
292/8	70.77	1222	30.81	1322	75.00	1485	80.40	1712	66.30	1866/19	14.75	1937/3†††	88.73
295	11.00	1223	31.31	1323	108.00	1503	10.41	1713	67.50	1867	15.57	1937/4†††	129.00
296	8.16	1224	32.81	1327	180.00	1504	10.58	1715	76.50	1867/19	17.75	1938†††	95.10
297	5.25	1229	35.30	1329	337.50	1505	11.99	1716	91.50	1868/19	19.98	1938/3†††	131.55
298	3.99	1230	41.96	1332	36.75	1506	19.98	1717	180.00	1869/19	27.24	1938/4†††	159.00
299	3.75	1231	57.45	1341	18.32	1507	24.98	1719	225.00	1870	17.90	1944	9.00
299/1	3.59	1232	96.57	1343	25.47	1508	33.80	1721	264.00	1871	22.31	1951†††	10.35
299/2	2.67	1233	129.87	1344	27.81	1509	48.29	1736	40.50	1872	25.40	1952†††	13.50
299/3	2.51	1233/2	123.21	1345	39.96	1550	6.99	1737	51.00	1873	31.64	1952/3†††	20.25
299/4	2.51	1234	294.38	1346	54.12	1551	8.16	1741	54.00	1874	37.47	1952/4†††	37.65
299/5	2.51	1235	313.02	1350	21.65	1553	10.65	1742	66.00	1875	53.28	1953†††	16.88
299/6	2.51	1239	349.65	1351	22.49	1555	15.15	1746	63.00	1876	78.26	1953/3†††	27.15
299/7	2.51	1243	32.25	1352	24.98	1557	22.23	1747	81.00	1877	108.23	1953/4†††	45.00
1100	25.80	1243	42.00	1353	30.63	1559	33.56	1748	90.00	1878	204.80	1954†††	26.48
1101	36.90	1243/5	49.50	1354	40.80	1560	56.12	1750	108.00	1879	233.10	1954/3†††	37.35
1102	49.43	1244	73.20	1355	49.95	1561	6.50	1753	10.83	1880	20.82	1954/4†††	52.35
1105	45.53	1245	84.15	1356	62.27	1561/24	6.00	1754	10.32	1881	25.82	1955†††	29.70
1106	52.65	1246	99.00	1370	39.96	1563	8.82	1755	11.66	1882	28.31	1955/3†††	45.98
1107	62.10	1247	121.05	1371	42.47	1565	12.50	1756	12.99	1883	36.63	1955/4†††	63.75
1110	56.25	1247/6	148.50	1372	44.13	1567	17.99	1757	17.49	1884	42.63	1956†††	48.60
1115	14.85	1247/7	183.00	1373	54.12	1571	14.66	1775	36.00	1885	56.94	1956/3†††	72.60
1116	27.75	1247/8	199.35	1374	63.27	1573	17.99	1779	48.00	1886	87.24	1956/4†††	99.90
1120	43.95	1247/10	255.00	1375	79.92	1575	24.15	1783	56.25	1887	116.55	1957†††	65.25
1121	54.90	1247/12	345.00	1381	12.90	1577	34.97	1793	18.00	1888	236.43	1957/3†††	87.90
1122	67.20	1248	60.00	1382	14.66	1579	56.94	1794	27.75	1889	274.73	1957/4†††	120.45
1150	15.00	1249	69.00	1383	19.65	1590	16.65	1794/4	39.60	1893	21.15	1958†††	92.10
1153	18.75	1249/18	88.50	1384	23.15	1590/24	15.83	1795	27.45	1894	31.50	1958/3†††	126.45
1154	29.25	1250	75.75	1385	41.63	1591	19.98	1796	40.20	1894/4	43.95	1958/4†††	148.65
1156	46.20	1250/18	100.50	1386	64.44	1592	24.98	1796/4	54.15	1895	30.15	1967	27.00
1157	26.75	1251	90.00	1387	91.58	1593	30.81	1797	33.45	1896	43.20	1977	21.00
1158	38.85	1251/18	171.90	1388	166.50	1594	36.63	1798	47.25	1896/4	57.00	1978	32.70
1159	26.85	1252	102.60	1389	266.40	1595	66.60	1798/4	60.75	1897	36.00	1982	45.00
1160	37.95	1252/18	191.10	1389/4	349.65	1598	133.20	1798/5	78.00	1898	50.40	2130	31.64
1161	52.05	1253	129.00	1389/2	516.15	1599	236.43	1798/6	94.50	1898/4	67.95	2132	35.97
1163	77.48	1254	157.80	1389/0	949.05	1599/6	329.67	1799	64.20	1899	72.30	2134	43.95
1164	117.90	1254/18	345.00	1389/00	1098.90	1610	8.25	1799/3	72.60	1899/3	84.90	2136	52.46
1172	16.50	1255	168.00	1391	46.62	1632	17.25	1799/4	81.30	1899/4	93.30	2138	63.27
1173	18.75	1255/8	180.00	1392	52.46	1635	18.75	1830	8.33	1900	9.00	2140°°	35.81
1174	24.75	1255/10	297.90	1393	56.61	1636	20.25	1831	9.83	1901	17.25	2142°°	43.29
1175	30.00	1255/12	418.50	1394	74.93	1638	32.70	1832	12.66	1903	16.50	2144°°	52.62
1176	46.50	1256/22V	27.00	1395	91.58	1639	33.00	1833	16.65	1904	27.00	2146†††	37.47
1177	52.50	1256V	27.75	1396	106.56	1641	24.00	1834	21.65	1906	23.70	2148†††	45.80
1178	58.50	1259V	48.90	1449	106.20	1642	36.30	1835	34.14	1907	35.10	2150†††	56.61
1179	64.50	1260V	69.00	1450	150.00	1645	67.65	1840	11.90	1909	34.50	2152†††	77.92
1180	66.00	1260/12	187.50	1450/16	195.00	1649	111.60	1841	13.32	1910	51.00	2160†††	8.66
1181	70.50	1260/14	109.50	1451	214.05	1651	79.92	1842	16.65	1915	15.75	2162†††	10.49
1181/15	139.20	1261	45.45	1451/16	252.00	1653	116.55	1843	20.82	1916	24.00	2164†††	14.99
1181/20	184.50	1261/3	50.70	1452	243.60	1655	216.45	1844	26.64	1918	21.15	2166†††	17.99
1181/25	225.00	1261/4	61.50	1452/16	302.40	1657	316.35	1845	39.96	1919	31.50	2168†††	19.98
1181/30	270.00	1261/26	47.25	1454	420.00	1675	7.83	1850	10.16	1921	28.80	2254	27.00
1182	36.00	1267V	27.00	1456	540.00	1676	7.58	1851	9.33	1922	42.75	2254/3	42.00
1183	49.35	1267/18V	45.90	1458	645.00	1677	7.41	1852	8.91	1924	40.50	2254/4	67.50
1184	62.25	1267/22V	21.00	1459	840.00	1678	8.07	1853	8.99	1925	66.00	2255	22.50
1185	81.00	1300	12.75	1460	12.45	1679	9.50	1854	7.74	1927	72.00	2256	34.50
1186	99.00	1302	23.25	1461	12.80	1680	11.49	1854/19	11.25	1928	99.75	2256/1	30.75
1187	111.00	1304	32.25	1462	15.90	1685	5.84	1855	8.73	1931	14.70	2256/3	46.50
1188	123.00	1307	55.50	1463	18.75	1686	5.49	1855/19	11.42	1932†††	17.25	2256/4	87.00
1189	147.00	1307/7	76.20	1464	25.80	1687	6.00	1856	10.32	1932/3†††	21.60	2258	40.05
1190	162.00	1307/9	77.25	1465	11.40	1688	6.50	1856/19	11.75	1932/4†††	40.13	2258/3	50.40
1192	186.00	1308/11	105.00	1466	12.00	1689	6.92	1857	11.33	1933†††	20.25	2260	81.00
1192/15	234.00	1309	118.50	1467	14.18	1690	7.50	1857/19	14.33	1933/3†††	29.48	2272	24.00
1192/20	315.00	1309/15	133.50	1470	41.63	1693	8.82	1858/19	14.40	1933/4†††	46.50	2276	31.50
1194	37.47	1310	180.00	1471	44.96	1694	9.17	1859/19	23.75	1934†††	28.80	2278	36.00
1194/22	34.97	1313	247.50	1472	47.46	1695	9.99	1860	12.32	1934/3†††	39.90	2280	39.90
1194/24	34.14	1313/31	423.60	1473	58.28	1696	11.99	1861	11.66	1934/4†††	54.90	2282	57.15
1196	41.63	1313/41	572.40	1474	68.27	1702	27.30	1862	11.00	1935†††	32.40	2284	65.40

All Standard Put-Ups are 1000 feet except as indicated by the following symbols:
☐ 1 lb., § 5 lb., # 10 lb., ● ¼ lb., → ½ lb., °° 500′, ††† 250′, ** 100′, ***50′, x 500 yards.

© U.C.P., Inc.

ALPHA WIRE PRICE LIST

Number	Sug. Resale Ea. 1000′
2809	163.17
2809/2	349.65
2809/3	509.49
2809/4	649.35
2811	266.40
2811/2	439.56
2811/3	582.75
2811/4	765.90
2812	183.15
2812/2	391.28
2812/3	566.10
2812/4	715.95
2814	299.70
2814/2	482.85
2814/3	632.70
2814/4	832.50
2815	219.78
2815/2	482.85
2815/3	666.00
2815/4	882.45
2817	349.65
2817/2	566.10
2817/3	815.85
2817/4	1082.25
2818	266.40
2818/2	566.10
2818/3	765.90
2818/4	1032.30
2819	389.61
2819/2	692.64
2819/3	899.10
2819/4	1215.45
2821	366.30
2821/2	616.05
2821/3	856.80
2821/4	1082.25
2824	416.25
2824/2	715.95
2824/3	999.00
2824/4	1298.70
2827	482.85
2827/2	865.80
2827/3	1182.15
2827/4	1481.85
2829	579.42
2829/2	949.05
2829/3	1265.40
2829/4	1631.70
2850	71.93
2851	76.43
2852	78.26
2853	79.76
2854	88.74
2855	103.40
2856	132.54
2857	159.51
2858	208.13
2859	254.75
2859/10	541.13
2859/12	369.63
2874	94.91
2875	111.56
2876	141.20
2877	164.84
2878	224.78
2879	275.73
2879/8	1108.89
2879/10	606.06
2879/12	391.28
2881	79.92
2882	83.25
2883	86.58
2884	97.23
2885	116.55
2886	149.03
2887	177.15
2888	233.10
2889	299.70
3050	4.95
3051	5.70
3053	6.98
3055	9.00
3057	11.85
3071	9.15
3073	10.35
3075	12.45
30.77	15.75
3079	23.10
3154	7.95
3155	9.90
3156	13.05
3157	15.60

SERIES "5000" PLASTIC HOOK-UP WIRE

Number	Sug. Resale Ea. 1000′
5110	5.25
5111	5.85
5113	7.15
5115	9.10
5117	11.85
5119	17.25
5120	24.00
5121	4.50
5123	5.40
5125	7.50
5127	10.15

SERIES "5000" TEFLON HOOK-UP WIRE

Number	Sug. Resale Ea. 1000′
5851	32.75
5852-	31.50
5853	33.75
5854	35.40
5855	40.13
5856	50.63
5857	66.38
5858	83.25

MAGNET WIRE

Number	Sug. Resale Ea. 1000′
PE-44☐	12.90
PE-42☐	8.25
PE-40☐	4.50
PE-38☐	3.00
PE-36§	10.88
PE-34§	9.38
PE-32#	17.25
PE-30#	16.50
PE-28#	15.00
PE-26#	14.25
PE-24#	13.80
PE-22#	13.50
PE-20#	12.75
PE-18#	12.30
PE-16#	12.00
PE-14#	11.70
PE-12	11.40
PE-10#	11.40

TEFLON MAGNET WIRE

Number	Sug. Resale Ea. 1000′
ST-44♦	18.75
ST-43♦	16.80
ST-42♦	14.93
ST-41♦	13.13
ST-40♦	11.03
ST-39♦	9.30
ST-38●	14.93
ST-37●	12.15
ST-36●	9.98
ST-35●	8.63
ST-34●	7.65
ST-33●	6.45
ST-32●	5.93
ST-31●	5.70
ST-30●	5.55

HEAT SHRINKABLE TUBING

(500-999′ per 100′)

Number	Sug. Resale Ea. 1000′
FIT-105-3/64"	6.35
FIT-105-1/16"	6.65
FIT-105-3/32"	7.70
FIT-105-⅛"	8.15
FIT-105-3/16"	10.00
FIT-105-¼"	12.55
FIT-105-⅜"	13.85
FIT-105-½"	15.75
FIT-105-¾"	21.10
FIT-105-1"	30.40
FIT-105-½"	49.95
FIT-105-2"	73.55
FIT-105-3"	119.70
FIT-105-4"	172.90

Number	Sug. Resale Ea. 1000′
FIT-270-24	8.70
FIT-270-22	9.05
FIT-270-20	9.50
FIT-270-18	10.35
FIT-270-16	11.25
FIT-270-14	12.30
FIT-270-12	13.50
FIT-270-10	14.75
FIT-270-8	17.25
FIT-270-6	18.60
FIT-270-4	20.20
FIT-270-2	22.20
FIT-270-5/16"	24.15
FIT-270-⅜"	30.10
FIT-270-7/16"	38.15
FIT-270-½"	44.15
FIT-270-⅝"	52.55
FIT-270-¾"	62.55
FIT-270-⅞"	73.95
FIT-270-1"	87.25

Number	Sug. Resale Ea. 1000′
FIT-275-24	13.35
FIT-275-22	13.90
FIT-275-20	14.60
FIT-275-18	15.95
FIT-275-16	17.30
FIT-275-14	18.90
FIT-275-12	20.75
FIT1275-10	22.70
FIT-275-8	26.50
FIT-275-6	28.60
FIT-275-4	31.10
FIT-275-2	34.15
FIT-275-5/16"	37.15
FIT-275-⅜"	46.30
FIT-275-7/16"	58.70
FIT-275-½"	67.90
FIT-275-⅝"	80.85
FIT-275-¾"	96.20
FIT-275-⅞"	113.80
FIT-275-1"	134.20
FIT-275-1-¼"	180.20
FIT-275-1-½"	200.60
FIT-275-1-¾"	240.20
FIT-275-2"	309.90

Number	Sug. Resale Ea. 1000′
FIT-290-3/64"	10.20
FIT-290-1/16"	10.70
FIT-290-3/32"	12.40
FIT-290-⅛"	13.25
FIT-290-3/16"	16.10
FIT-290-¼"	20.15
FIT-290-⅜"	22.35
FIT-290-½"	25.45
FIT-290-¾"	33.90
FIT-290-1"	47.50
FIT-295-3/64"	12.70
FIT-295-1/16"	13.35
FIT-295-3/32"	15.45
FIT-295-⅛"	16.55
FIT-295-3/16"	20.15
FIT-295-¼"	25.20
FIT-295-⅜"	27.95
FIT-295-½"	31.80
FIT-295-¾"	42.40
FIT-295-1"	59.35

HEAT SHRINKABLE TUBING

Packaged Assortments—6" Lengths

Number	Sug. Resale Ea. 1000′
FIT-105-MS1	3.75
FIT-105-MS2	7.50
FIT-105-MS3	6.00
FIT-105-MS4	6.00
FIT-275-MS-1	3.75
FIT-275-MS-2	7.50
FIT-275-MS-3	6.00
FIT-295-MS-1	3.75
FIT-295-MS-2	7.50

FIT WIRE MARKERS

Number	Sug. Resale Ea. 1000′
MRK-A	3.00
MRK-B	3.00
MRK-C	3.00

SHRINKABLE TERMINATION CAPS

(1000-4999 Pieces)

Number	Sug. Resale Ea. 1000′
CAP-1	35.00
CAP-2	44.00
CAP-3	54.00
CAP-4	66.80
CAP-A Asst.	3.00 each

Standard package put-up 100 or 1000 pieces. For 100 pieces, add 20c per hundred.

ACCESSORIES

Number	Sug. Resale Ea. 1000′
GA-1	5.70
HG-1	41.25

TEFLON THIN WALL TUBING— (500′-1000′) 100′ Spools

Number	Sug. Resale Ea. 1000′
TFT-200-30	6.30
TFT-200-28	5.58
TFT-200-26	5.30
TFT-200-24	5.30
TFT-200-22	6.40
TFT-200-20	8.65
TFT-200-19	9.27
TFT-200-18	10.07
TFT-200-17	11.00
TFT-200-16	11.75
TFT-200-15	12.80
TFT-200-14	13.70
TFT-200-13	14.90
TFT-200-12	16.02
TFT-200-11	17.72
TFT-200-10	18.32
TFT-200-9	24.63
TFT-200-⅛"	25.88
TFT-200-8	27.20
TFT-200-7	29.78

100′ Coils (Random Lengths)

Number	Sug. Resale Ea. 1000′
TFT-200-6	32.40
TFT-200-5	36.45
TFT-200-4	39.95
TFT-200-3	44.35
TFT-200-¼"	47.10
TFT-200-2	49.45
TFT-200-1	54.25
TFT-200-5/16"	60.00
TFT-200-0	61.10

TEFLON STANDARD WALL TUBING 100′ Spool

Number	Sug. Resale Ea. 1000′
TFT-250-24	7.44
TFT-250-22	8.02
TFT-250-20	11.62
TFT-250-19	12.64
TFT-250-18	13.89
TFT-250-17	15.13
TFT-250-16	16.54
TFT-250-15	17.90
TFT-250-14	18.60
TFT-250-13	19.86
TFT-250-12	21.45
TFT-250-11	23.40

100′ Coil

Number	Sug. Resale Ea. 1000′
TFT-250-10	24.78
TFT-250-9	33.85
TFT-250-8	37.18
TFT-250-7	40.08
TFT-250-6	43.40
TFT-250-5	47.70
TFT-250-4	51.85
TFT-250-3	57.35
TFT-250-2	63.10
TFT-250-1	70.00
TFT-250-0	78.90

ALPHLEX PLASTIC TUBING (TYPE PVC-105)

Number	Sug. Resale Ea. 1000′
PVC-105-24	13.00
PVC-105-22	13.10
PVC-105-20	13.50
PVC-105-19	13.50
PVC-105-18	13.80
PVC-105-17	14.00
PVC-105-16	14.60
PVC-105-15	14.90
PVC-105-14°°	9.95
PVC-105-13°°	10.20
PVC-105-12°°	10.70
PVC-105-11°°	11.05
PVC-105-10°°	11.55
PVC-105-9°°	15.70
PVC-105-8°°	16.95
PVC-105-7°°	18.10
PVC-105-6°°	19.55
PVC-105-5°°	21.15
PVC-105-4†††	11.45
PVC-105-3†††	12.25
PVC-105-2†††	13.35
PVC-105-1†††	14.43
PVC-105-0†††	15.58
PVC-105-5/16"†††	18.60
PVC-105-⅜"†††	21.48
PVC-105-7/16"**	9.65
PVC-105-½"**	10.64
PVC-105-9/16"**	14.17
PVC-105-⅝"**	15.30
PVC-105-¾"***	10.56
PVC-105-⅞"***	12.12
PVC-105-1"***	13.27
PVC-105-1-⅛"***	17.40
PVC-105-1-¼"***	18.39
PVC-105-1-⅜"***	19.66
PVC-105-1-½"***	23.84
PVC-105-1-¾"***	29.72
PVC-105-2***	40.84
PVC-105-2-¼"***	48.55
PVC-105-2-½"***	57.56

LACING CORDS

Number	Sug. Resale Ea. 1000′
LC-113	
White●	4.50
Black●	5.25
LC-114	
White●	4.50
Black●	5.25
LC-115	
White●	4.50
Black●	5.25
LC-132	
Whitex	8.05
Blackx	8.70
LC134	
Whitex	5.15
Blackx	5.80
LC-136	
Whitex	8.05
Blackx	8.70
LC-140	
Whitex	8.05
Blackx	8.70
LC-143	
Whitex	8.05
Blackx	8.70
LC-158	
Whitex	8.05
Blackx	8.70
LC-162	
Whitex	8.05
Blackx	8.70

ALPHLEX ZIPPER TUBING — 20 MIL (TYPE ZIP-31) (100′-499′— 100′ Spools)

Number	Sug. Resale Ea. 1000′
ZIP-31-¼"	.33
ZIP-31-⅜"	.335
ZIP-31-½"	.34
ZIP-31-⅝"	.345
ZIP-31-¾"	.35
ZIP-31-⅞"	.36
ZIP-31-1"	.36
ZIP-31-1-⅛"	.375
ZIP-31-1-¼"	.38
ZIP-31-1-½"	.395
ZIP-31-1-¾" (1/63)	.41
ZIP-31-2"	.42

ALPHLEX ZIPPER TUBING — 40 MIL (TYPE 31M)

Number	Sug. Resale Ea. 1000′
ZIP-31M-¼"	.42
ZIP-31M-⅜"	.425
ZIP-31M-½"	.43
ZIP-31M-⅝"	.435
ZIP-31M-¾"	.44
ZIP-31M-⅞"	.445
ZIP-31M-1"	.455
ZIP-31M-1-⅛"	.47
ZIP-31M-1-¼"	.48
ZIP-31M-1-½"	.495
ZIP-31M-1-¾" (1/63)	.51
ZIP-31M-2"	.52

ALPHLEX ZIPPER TUBING (Low Temp.) 20 MIL (TYPE ZIP-44)

Number	Sug. Resale Ea. 1000′
ZIP-44-¼"	.37
ZIP-44-⅜"	.375
ZIP-44-½"	.395
ZIP-44-⅝"	.42
ZIP-44-¾"	.445
ZIP-44-⅞"	.47
ZIP-44-1"	.495
ZIP-44-1-⅛"	.515
ZIP-44-1-¼"	.54
ZIP-44-1-½"	.585
ZIP-44-¾"	.625
ZIP-44-2"	.67

ALPHLEX SHIELDED ZIPPER TUBING (TYPE ZIP-50)

Number	Sug. Resale Ea. 1000′
ZIP-50-¼"	.475
ZIP-50-⅜"	.48
ZIP-50-½"	.495
ZIP-50-⅝"	.52
ZIP-50-¾"	.55
ZIP-50-⅞"	.59
ZIP-50-1"	.62
ZIP-50-1-⅛"	.65
ZIP-50-1-¼"	.675
ZIP-50-1-½"	.73
ZIP-50-1-¾"	.785
ZIP-50-2"	.84

All Standard Put-Ups are 1000 feet except as indicated by the following symbols:
☐ 1 lb., § 5 lb., # 10 lb., ♦ ¼ lb., ● ½ lb., °° 500′, ††† 250′, ** 100′, ***50′, x 500 yards.

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Net

BELDEN • PRICE LIST

Reference —
Bulletin E 63P — 1D
Effective June 15, 1963

Trade Number Lgth in Ft.	Sug. Resale Price Each
8000-50	.83
8000-75	1.13
8000-100	1.45
8000-1000	13.50
8002-50	.60
8002-75	.75
8002-100	.98
8002-1000 (TBO)	9.00
8008-100	2.55
8008-200	4.65
8008-500	10.90
8009-100	1.73
8009-200	3.30
8009-500	7.35
8011-100	2.10
8011-1000 (Obs)	18.00
8012-100	1.50
8012-1000	12.00
8013-100	1.10
8013-1000	8.25
8014-25	.45
8014-500	2.70
8018-50	.90
8018-500	7.50
8018-1000 (Obs)	14.25
8019-100	.75
8019-1000	5.25
8020-100	.60
8020-1000	4.00
8021-100	.53
8021-1000	3.40
8022-100	.51
8022-1000	3.00
8023-100	.51
8023-1000	2.63
8024-100	.50
8024-1000	2.40
8025-100	.50
8025-1000	2.25
8026-100	.50
8026-1000	2.25
8027-100	.50
8027-1000	2.25
(Trade numbers 8040 thru 8086 see page 1538)	
8127-10	.38
8127-500 (TBO)	5.25
8200-100 (TBO)	1.65
8200-500 (TBO)	6.45
8200-1000 (TBO)	12.15
8204-25 (Obs)	1.28
8204-100 (Obs)	3.75
8204-500 (Obs)	16.15
8204-1000 (Obs)	32.25/M'
Trade numbers 8204-25 thru -1000 use 8406 or 8461	
8205-25	.83
8205-100	2.50
8205-500	9.75
8205-1000	19.15/M'
8206-15 (TBO)	.75
8206-50 (TBO)	2.03
8206-100 (TBO)	3.60
8206-250 (TBO)	7.90
8208-15	1.17
8208-50	3.25
8208-100	5.95
8208-500	25.50
8208-1000	51.00/M'
8209-15 (Obs)	1.17
8209-50 (Obs)	3.25
8209-100 (Obs)	5.95
8209-500	25.50
8209-1000	51.00/M'
8210-50 (Obs)	3.15
8210-100	5.65
*8210-250	13.50
8210-500 (TBO)	27.00
8211-500	45.00/M'
8211-1000	43.50/M'
8211-2000	43.50/M'
8212-100 (Obs)	5.35
8212-500	45.00/M'
8212-1000	43.50/M'
8212-2000	43.50/M'
8213-500	106.50/M'
8213-1000	105.00/M'
8213-2000	105.00/M'
8214-100	12.00
8214-500	115.50/M'
8214-1000	115.50/M'
8215-100	11.25
8215-500	94.50/M'
8215-1000	94.50/M'
8216-100(RG-174/U)	3.30
8216-500(RG-174/U)	30.00/M'
8216-1000(RG-174/U)	30.00/M'
*8217-100	5.25
*8217-500	45.00/M'
*8217-1000	43.50/M'
8222-100	1.65
8222-500	7.50
8224-100 (Obs)	2.05
8224-500 (Obs)	9.00
8225-25	.72
8225-50	1.13
8225-75	1.43
8225-100	1.65
8225-500	7.50
8225-1000	14.95
8226-25	.72
8226-50	1.13
8226-75	1.43
8226-100	1.65
8227-100 (TBO)	9.00
8227-250 (Obs)	21.75
8227-500	87.00/M'
8230-25	.84
8230-50	1.28
8230-75	1.70
8230-100	2.13
8230-500	10.20
8230-1000	19.20
8231-100 (Obs)	6.30
8231-500 (Obs)	60.00/M'
8231-1000 (Obs)	60.00/M'
Trade numbers 8231-100 thru -1000 Use 8212 or 8213	
8232-100 (Obs)	9.15
8232-500	87.00/M'
8232-1000	87.00/M'
8232-2000	87.00/M'
8233-500	168.00/M'
8233-1000	168.00/M'
8233-1500 (Obs)	168.00/M'
8233-2000	168.00/M'
8235-100	4.80
8235-500	21.00
8237-100 (RG-8/U)	11.85
8237-250 (RG-8/U)	111.00/M'
8237-500 (RG-8/U)	111.00/M'
8237-1000 (RG-8/U)	111.00/M'
8238-100 (RG11/U)	10.80
8238-250 (RG-11/U)	103.50/M'
8238-500 (RG-11/U)	99.00/M'
8238-1000 (RG-11/U)	99.00/M'
8238-1500 (RG-11/U)	99.00/M'
8239-100 (RG-54A/U)(Obs)	8.25
8239-500 (RG-54A/U)	76.50/M'
8239-1000 (RG-54A/U)	76.50/M'
8240-25 (RG-58/U)	1.80
8240-50 (RG-58/U)	2.85
8240-100 (RG-58/U)	4.50
8240-250 (RG-58/U)	39.00/M'
8240-500 (RG-58/U)	36.00/M'
8240-1000 (RG-58/U)	36.00/M'
8241-25 (RG-59/U)	1.95
8241-50 (RG-59/U)	3.25
8241-100 (RG-59/U)	5.65
8241-250 (RG-59/U)	46.50/M'
8241-500 RG-59/U)	43.50/M'
8241-1000 RG-59/U)	43.50/M'
8242-100 (RG9/U)	30.00
8242-500 (RG-9/U)(Obs)	294.00/M'
8242-1000 (RG-9/U)	294.00/M'
8245-100 (RG-55/U)(Obs)	7.50
8245-500 (RG-55/U)	70.50/M'
8245-1000 (RG-55/U)	70.50/M'
8254-100 (RG-62/U)	6.15
8254-500 (RG-62/U)	50.00/M'
8254-1000 (RG-62/U)	50.00/M'
8257-100 (RG-71/U)(Obs)	9.75
8257-500 (RG-71/U)	91.50/M'
8257-1000 (RG-71/U)	91.50/M'
8259-25 (RG-58A/U)	1.75
8259-50 (RG-58A/U)	2.70
8259-100 (RG-58A/U)	5.05
8259-500 (RG-58A/U)	42.00/M'
8259-1000 (RG-58A/U)	42.00/M'
8260-100 (RG-22A/U)(Obs)	22.50
8260-500 (RG-22A/U)	225.00/M'
8260-1000 (RG-22A/U)	225.00/M'
Trade numbers 8260-100 thru -1000 Use 8227	
8261-100 (RG-11A/U)	14.55
8261-500 (RG-11A/U)	126.00/M'
8261-1000 (RG-11A/U)	126.00/M'
8262-100 (RG-58C/U)(Obs)	6.00
8262-500 (RG-58C/U)	51.00/M'
8262-1000 (RG-58C/U)	51.00/M'
8263-100 (RG-59B/U)(Obs)	6.75
8263-500 (RG-59B/U)	54.00/M'
8263-1000 (RG-59B/U)	54.00/M'
8264-100 (RG5A/U)(Obs)	25.42
8264-500 (RG-5A/U)	246.00/M'
8264-1000 (RG-5A/U)	246.00/M'
8267-100 (RG-213/U)(Obs)	15.45
8267-500 (RG213/U)	136.50/M'
8267-1000 (RG213/U)	136.50/M'
8275-50	2.40
8275-75	3.45
8275-100	4.28
8275-500	21.40
8275-1000	42.00
8280 §(Cut to customer's specified length Maximum 1500')	60.00/M'
8281-100 (Obs)	16.50
8281-500	165.00/M'
8281-1000	165.00/M'
8282-50 (Obs)	13.50
8282-100 (Obs)	27.00
8282-500	270.00/M'
8282-1000	270.00/M'
8283 §(Cut to customer's specified length Maximum 1000')	2250.00/M'
8284 §(Cut to customer's specified length Maximum 1000')	670.00/M'
8285-50	2.85
8285-75	4.20
8285-100	5.40
8285-500	25.50
8285-1000	51.00
8300-25 † Solid△	1.90
8300-50 † Solid△	3.00
8300-100 †•Solid△	5.25
8300-250 †•Solid△	47.25/M'
8300-500 †•Solid△	43.50/M'
8300-1000†•Solid△	42.75/M'
8300-1000†•Striped△	51.75/M'
8301-25 † Solid△	1.90
8301-50 † Solid△	3.00
8301-100 †•Solid△	5.50
8301-250 †•Solid△	48.75/M'
8301-500 †•Solid△	45.00/M'
8301-1000†•Solid△	44.25/M'
8301-1000†•Striped△	53.25/M'
8302-25 † Solid△	1.90
8302-50 † Solid△	3.15
8302-100 †•Solid△	5.55
8302-250 †•Solid△	49.50/M'
8302-500 †•Solid△	45.75/M'
8302-1000†•Solid△	45.00/M'
8302-1000†•Striped△	54.00/M'
8303-25 † Solid△	2.10
8303-50 † Solid△	3.30
8303-100 †•Solid△	6.40
8303-250 †•Solid△	55.50/M'
8303-500 †•Solid△	52.50/M'
8303-1000†•Solid△	51.75/M'
8303-1000†•Striped△	60.75/M'
8304-25 † Solid△	2.05
8304-50 † Solid△	3.25
8304-100 †•Solid△	6.00
8304-250 †•Solid△	53.25/M'
8304-500 †•Solid△	49.50/M'
8304-1000†•Solid△	48.75/M'
8304-1000†•Striped△	55.75/M'
8305-25 † Solid△	2.25
8305-50 † Solid	4.00
8305-100 †•Solid△	7.50
8305-250 †•Solid△	63.00/M'
8305-500 †•Solid△	59.25/M'
8305-1000†•Solid△	58.50/M'
8305-1000†•Striped△	67.50/M'
8306-25 † Solid△	2.40
8306-50 † Solid△	4.15
8306-100 †•Solid△	7.50
8306-250 †•Solid△	66.75/M'
8306-500 †•Solid△	63.00/M'
8306-1000†•Solid△	62.25/M'
8306-1000†•Striped△	71.25/M'
8307-25 † Solid△	2.65
8307-50 † Solid△	4.80
8307-100 †•Solid△	9.00
8307-250 †•Solid△	78.75/M'
8307-500 †•Solid△	75.00/M'
8307-1000†•Solid△	74.25/M'
8307-1000†•Striped△	83.25/M'
8308-25 † Solid△	2.70
8308-50 † Solid△	4.80
8308-100 †•Solid△	9.00
8308-250 †•Solid△	78.75/M'
8308-500 †•Solid△	75.00/M'
8308-1000†•Solid△	74.25/M'
8308-1000•†Striped△	83.25/M'
8309-25 † Solid△	3.15
8309-50 † Solid△	5.85
8309-100 †•Solid△	10.80
8309-250†•Solid△	98.25/M'
8309-500 †•Solid△	93.75/M'
8309-1000†•Solid△	92.25/M'
8309-1000†•Striped△	101.25/M'
8310-25 † Solid△	4.15
8310-50 † Solid△	7.50
8310-100 †•Solid△	13.50
8310-250 †•Solid△	126.00/M'
8310-500 †•Solid△	121.50/M'
8310-1000†•Solid△	120.00/M'
8310-1000†•Striped△	129.00/M'
8320-25 † Solid△	2.40
8320-50 † Solid△	3.90
8320-100 †•Solid△	7.50
8320-250 †•Solid△	69.00/M'
8320-500 †•Solid△	65.25/M'
8320-1000†•Solid△	64.50/M'
8320-1000†•Striped△	73.50/M'
8321-25 † Solid△	2.40
8321-50 † Solid△	3.90
8321-100 †•Solid△	7.50
8321-250 †•Solid△	64.50/M'
8321-500 †•Solid△	60.75/M'
8321-1000†•Solid△	60.00/M'
8321-1000†•Striped△	69.00/M'
8322-25 † Solid△	2.25
8322-50 † Solid△	3.85
8322-100 †•Solid△	7.15
8322-250 †•Solid△	63.00/M'
8322-500 †•Solid△	60.75/M'
8322-1000†•Solid△	60.00/M'
8322-1000†•Striped△	69.00/M'
8323-25 † Solid△	2.55
8323-50 † Solid△	4.50
8323-100 †•Solid△	8.65
8323-250 †•Solid△	73.15/M'
8323-500 †•Solid△	69.00/M'
8323-1000†•Solid△	68.25/M'
8323-1000†•Striped△	77.25/M'
8324-25 † Solid△	2.50
8324-50 † Solid△	4.50
8324-100 †•Solid△	8.25
8324-250 †•Solid△	72.00/M'
8324-500 †•Solid△	68.25/M'
8324-1000†•Solid△	67.50/M'
8324-1000†•Striped△	76.50/M'
8325-25 † Solid△	2.65
8325-50 † Solid△	4.50
8325-100 †•Solid△	8.65
8325-250 †•Solid△	75.75/M'
8325-500 †•Solid△	72.75/M'
8325-1000†•Solid△	72.00/M'
8325-1000†•Striped△	81.00/M'
8326-25 † Solid△	2.80
8326-50 † Solid△	4.95
8326-100 †•Solid△	9.55
8326-250 †•Solid△	81.90/M'
8326-500 †•Solid△	77.70/M'
8326-1000†•Solid△	76.50/M'
8326-1000†•Striped△	85.50/M'
8327-25 † Solid△	3.15
8327-50 † Solid△	5.40
8327-100 †•Solid△	10.50
8327-250 †•Solid△	92.25/M'
8327-500 †•Solid△	87.75/M'
8327-1000†•Solid△	87.00/M'
8327-1000†•Striped△	96.00/M'
8328-25 † Solid△	3.15
8328-50 † Solid△	5.40
8328-100 †•Solid△	10.50
8328-250 †•Solid△	92.25/M'
8328-500 †•Solid△	87.75/M'
8328-1000†•Solid△	87.00/M'
8328-1000†•Striped△	96.00/M'
8329-25 † Solid△	3.75
8329-50 † Solid△	6.90
8329-100 †•Solid△	13.50
8329-250 †•Solid△	118.50/M'
8329-500 †•Solid△	114.00/M'
8329-1000†•Solid△	113.25/M'
8329-1000†•Striped△	122.50/M'
8330-25 † Solid△	4.50
8330-50 † Solid△	9.00
8330-100 †•Solid△	16.50
8330-250 †•Solid△	144.75/M'
8330-500 †•Solid△	136.50/M'
8330-1000†•Solid△	135.00/M'
8330-1000†•Striped△	144.00/M'
8401-15	.87
8401-25	1.20
8401-50	2.35
8401-100	4.30
8401-250	9.00
8401-500	18.00
8403-15	1.50
8403-50	3.75
8403-100	7.50
8403-250	18.75
8403-500	36.00
8403-1000	72.00
8404-15	1.90
8404-50 (Obs)	4.05
8404-100	9.00
8404-250	21.00
8404-500	40.50
8404-1000	81.00
8405-15 (Obs)	1.90
8405-50 (Obs)	4.95
8405-100 (Obs)	10.00
8405-250	24.00
8405-500	45.75
8405-1000	91.50
8406-100	9.30

Net

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BELDEN • PRICE LIST

Reference —
Bulletin E 63P — 1D
Effective June 15, 1963

Trade Number Lgth in Ft.	Sug. Resale Price Each
8406-250	22.50
8406-500	45.00
*8407-100	19.50
*8407-250	186.00/M'
*8409	.98
8410-15	1.35
8410-25	2.10
8410-50	3.90
8410-100	7.35
8410-250	17.25
8410-500	34.50
8411-15	.71
8411-25	1.01
8411-50	1.75
8411-100	3.15
8411-250	6.70
8411-500	13.35
8412-15	1.53
8412-25	2.35
8412-50	4.30
84-12-100	8.25
8412-250	19.00
8412-500	37.90
8413-15	1.50
8413-25	2.25
8413-50	4.00
8413-100	7.50
8413-250	18.00
8413-500	36.00
8414-50	4.00
8414-500	32.25
8415	1.30
*8416-15	1.13
*8416-25	1.43
*8416-50	2.40
*8416-100	4.15
*8416-250	9.45
*8417-15	.83
*8417-25	1.13
*8417-50	1.80
*8417-100	3.40
*8417-250	7.15
8418-15 (Obs)	2.95
8418-50 (Obs)	9.00
8418-100	18.00
8418-250	45.00
8419-10	.85
8419-25	1.45
8419-250	10.50
8420-15	1.50
8420-25	2.25
8420-50	3.40
8420-100	6.40
8420-250	16.50
8420-500	30.00
8421-15	.98
8421-25	1.20
8421-50	2.35
8421-100	3.75
8421-250	8.50
8421-500 (Obs)	18.00
8422-15	1.20
8422-25	1.90
8422-50	3.25
8422-100	5.85
8422-250	13.15
8422-500	26.25
8423-15	1.80
8423-50	4.80
8423-100	9.30
8423-250	22.50
8423-500	45.00
8423-1000	90.00
8424-15	2.10
8424-50	5.65
8424-100	10.60
8424-250	25.65
8424-500	51.30
8424-1000	102.60
8425-15 (Obs)	2.25
8425-50 (Obs)	6.70
8425-100	13.20
8425-250	32.25
8426-15 (Obs)	2.70
8426-50 (Obs)	8.20
8426-100	15.75
8426-250	39.45
8427-15 (Obs)	2.95
8427-50 (Obs)	8.85
8427-100	17.25
8427-250	42.00
8428-15 (Obs)	1.75
8428-25 (Obs)	2.85
8428-50 (Obs)	5.40
8428-100	10.50
8428-500	50.25
8429-10	.68
8429-25	1.08
8429-250	7.65
8430-10	.53
8430-25	.68
8430-250	4.20
8431-10	.60
8431-15	.75
8431-25	1.13
8431-100	3.45
8431-500	16.05
8432-100 (Obs)	6.40
8432-500 (TBO)	29.25
8432-1000 (TBO)	58.50/M'
8433-100 (Obs)	7.80
8433-500 (Obs)	75.00/M'
Trade number 8433-100 thru -500 use 8423	
8434-100	4.65
8434-500	22.50
8434-1000	45.00/M'
8436-100 (Obs)	4.75
8436-500	42.00/M'
8436-1000	42.00/M'
8437-100 (Obs)	3.85
8437-500	36.00/M'
8437-1000	36.00/M'
8440-100 (Obs)	4.60
8440-500	42.00/M'
8440-1000	42.00/M'
8441-100	4.50
8441-500	21.30
8441-1000	42.00/M'
8442-500	16.50/M'
8442-1000	16.50/M'
8443-25	.90
8443-100	2.48
8443-500	9.40
8443-1000	18.75/M'
8444-25	1.05
8444-100	3.00
8444-500	12.40
8444-1000	24.75/M'
8445-25	1.16
8445-100	3.70
8445-500	15.00
8445-1000	30.00/M'
8446-15	1.13
8446-100	5.40
8446-500	23.25
8446-1000	46.50/M'
8447-15 (TBO)	1.15
8447-100	6.15
8447-500	26.25
8447-1000	52.50/M'
8448-15	1.20
8448-100	6.40
8448-500	29.25
8448-1000	58.50/M'
8449-15	1.43
8449-100	7.15
8449-500	32.25
8449-1000	64.50/M'
8450-100	3.00
8450-500	11.70
8450-1000	22.50/M'
8451-100	3.40
8451-500	13.80
8451-1000	27.00/M'
8452-15	1.13
8452-25	1.50
8452-50	2.50
8452-100	4.45
8452-250	10.35
8452-500	20.65
8452-1000	39.75
8453-15	1.35
8453-50	3.15
8453-100	6.30
8453-500	31.50
8454-15	1.65
8454-50	4.05
8454-100	7.20
8454-500	34.50
8454-1000	69.00/M'
8455-15 (Obs)	1.50
8455-50 (Obs)	4.05
8455-100	7.50
8455-250	75.00/M'
8456-100	7.05
8456-500	66.00/M'
8456-1000	66.00/M'
8457-100	7.50
8457-500	70.50/M'
8457-1000	70.50/M'
8460-100	2.50
8460-500	9.90
8460-1000	19.20/M'
8461-100	3.45
8461-500	13.80
8461-1000	27.00/M'
8462-25 †	1.05
8462-100 †	2.96
8462-250 †	6.75
8464-50	1.75
8464-75	2.35
8464-100	2.95
8464-500	13.50
8464-1000	26.25
8465-100	6.00
8465-500	27.75
8465-1000	55.00/M'
8467-100	8.25
8467-500	36.75
8467-1000	73.50/M'
8469-100	11.25
8469-500	48.75
8469-1000	97.50/M'
8470-100 (Obs)	2.85
8470-500	24.00/M'
8470-1000	24.00/M'
8471-100 (Obs)	4.00
8471-500	34.20/M'
8471-1000	34.20/M'
8472-25	1.90
8472-50 (Obs)	3.75
8472-100	7.15
8472-250	67.50/M'
8473-500	55.50/M'
8473-1000	55.50/M'
8474-100	9.00
8474-250	85.50/M'
8475-100	5.65
8475-500	49.50/M'
8476-100	7.80
*8476-500	67.50/M'
8478-25	1.65
8478-50 (Obs)	2.95
8478-100	5.40
8478-250	13.50
8478-1000	54.00/M'
8481-100	1.43
8481-500	4.95
8481-1000	9.00/M'
8482-100	1.80
8482-500	6.45
8482-1000	11.25/M'
8483-100	2.25
8483-500	9.30
8483-1000	16.50/M'
8484-100	3.15
8484-500	13.50
8484-1000	26.25/M'
8485-100	3.70
8485-500	17.00
8485-1000	34.00/M'
8486-100 (Obs)	2.10
8486-500	18.00/M'
8486-1000	18.00/M'
8487-100 (Obs)	2.65
8487-500	23.10/M'
8487-1000	23.10/M'
8488-100	4.50
8488-500	21.00
8488-1000	40.50/M'
*8491	1.58
8492-100 † (TBO)	1.80
8492-500 † (TBO)	7.15
8492-1000†	13.90/M'
8493-100 (Obs)	2.25
8493-500 (Obs)	9.90
8493-1000	21.00/M'
8494	1.44
8495	1.22
8496	1.35
8497	1.43
8498	.83
8499	.90
8500-100 † Solid	1.65
8500-500 † Solid	6.90
8500-1000† Solid	13.00
8500-100 † Striped♦	1.77
8500-500 † Striped♦	7.50
8500-1000† Striped♦	14.10
8501-100 † Solid	1.38
8501-500 † Solid	5.40
8501-1000† Solid	10.20
8501-100 † Striped♦	1.50
8501-500 † Striped♦	6.00
8501-1000† Striped♦	11.35
8502-100 † Solid	1.29
8502-500 † Solid	4.95
8502-1000† Solid	9.30
8502-100 † Striped♦	1.41
8502-500 † Striped♦	5.55
8502-1000† Striped♦	10.45
8503-100 † Solid	1.16
8503-500 † Solid	4.20
8503-1000† Solid	7.85
8503-100 † Striped♦	1.28
8503-500 † Striped♦	4.80
8503-1000† Striped♦	9.00
8504-100 † Solid	1.11
8504-500 † Solid	3.85
8504-1000† Solid	7.00
8504-100 † Striped♦	1.23
8504-500 † Striped♦	4.45
8504-1000† Striped♦	8.10
8505-100 † Solid	1.15
8505-500 † Solid	4.35
8505-1000† Solid	8.10
8505-100 † Striped♦	1.28
8505-500 † Striped♦	4.95
8505-1000† Striped♦	9.25
8506-100 † Solid	1.80
8506-1000† Solid	12.90
8506-100 † Striped♦	1.92
8506-1000† Striped♦	14.05
8507-100 † Solid	1.43
8507-1000† Solid	10.60
8507-100 † Striped♦	1.55
8507-1000† Striped♦	11.70
8508-100 † Solid	1.40
8508-1000† Solid	10.30
8508-100 † Striped♦	1.52
8508-1000† Striped♦	11.40
8509-100 † Solid	1.37
8509-1000† Solid	10.15
8509-100 † Striped♦	1.49
8509-1000† Striped♦	11.25
8510-100 † Solid	2.10
8510-500 † Solid	8.95
8510-1000† Solid	17.20
8510-100 † Striped♦	2.22
8510-500 † Striped♦	9.55
8510-1000† Striped♦	18.30
8511-100 † Solid	1.80
8511-500 † Solid	7.35
8511-1000† Solid	14.05
8511-100 † Striped♦	1.92
8511-500 † Striped♦	7.95
8511-1000† Striped♦	15.15
8512-100 † Solid	1.50
8512-500 † Solid	5.85
8512-1000† Solid	11.20
8512-100 † Striped♦	1.62
8512-500 † Striped♦	5.85
8512-1000† Striped♦	12.30
8513-100 † Solid	1.43
8513-500 † Solid	5.55
8513-1000† Solid	10.45
8513-100 † Striped♦	1.55
8513-500 † Striped♦	6.15
8513-1000† Striped♦	11.55
8514-100 † Solid	1.32
8514-500 † Solid	4.95
8514-1000† Solid	9.40
8514-100 † Striped♦	1.44
8514-500 † Striped♦	5.55
8514-1000† Striped♦	10.50
8515-100 † Solid	1.41
8515-500 † Solid	5.48
8515-1000† Solid	10.45
8515-100 † Striped♦	1.53
8515-500 † Striped♦	6.10
8515-1000† Striped♦	11.55
8516-100 † Solid	2.03
8516-1000† Solid	15.60
8516-100 † Striped♦	2.15
8516-1000† Striped♦	17.10
8517-100 † Solid	1.73
8517-1000† Solid	13.30
8517-100 † Striped♦	1.85
8517-1000† Striped♦	14.40
8518-100 † Solid	1.71
8518-1000† Solid	13.15
8518-100 † Striped♦	1.83
8518-1000† Striped♦	14.25
8519-100 † Solid	1.52
8519-1000† Solid	11.50
8519-100 † Striped♦	1.64
8519-1000† Striped♦	12.60
8520-100 † Solid	2.03
8520-500 † Solid	9.55
8520-1000† Solid	17.25
8520-100 † Striped♦	2.15
8520-500 † Striped♦	10.15
8520-1000† Striped♦	18.40
8521-100 † Solid	1.73
8521-500 † Solid	6.70
8521-1000† Solid	12.90
8521-100 † Striped♦	1.85
8521-500 † Striped♦	7.30
8521-1000† Striped♦	14.05
8522-25 † Solid	.56
8522-100 † Solid	1.38
8522-500 † Solid	4.80
8522-1000† Solid	9.10
8522-100 † Striped♦	1.50
8522-500 † Striped♦	5.40
8522-1000† Striped♦	10.20
8523-25 † Solid	.51
8523-100 † Solid	1.17
8523-500 † Solid	3.90
8523-1000† Solid	7.15
8523-100 † Striped♦	1.29
8523-500 † Striped♦	4.50
8523-1000† Striped♦	8.25
8524-25 † Solid	.44
8524-100 † Solid	.98
8524-500 † Solid	3.25
8524-1000† Solid	5.85
8524-100 † Striped♦	1.10
8524-500 † Striped♦	3.85
8524-1000† Striped♦	7.00
8525-100 † Solid	.93
8525-500 † Solid	2.95
8525-1000† Solid	5.25
8525-100 † Striped♦	1.05
8525-500 † Striped♦	3.55
8525-1000† Striped♦	6.40
8526-100 † (Obs)	6.35
8526-1000† (Obs)	51.60
For 8126-100 thru -1000 Use 8965	
8527-100 † Solid	3.00
8527-500 † Solid	12.75
8527-1000† Solid	24.00
8527-100 † Striped♦	3.15
8527-500 † Striped♦	13.35
8527-1000† Striped♦	25.15
8528-100 † Solid	1.15
8528-500 † Solid	4.05
8528-1000† Solid	7.50
8528-100 † Striped♦	1.25
8528-500 † Striped♦	4.65
8528-1000† Striped♦	8.65
8529-25 † Solid	.44
8529-100 † Solid	.96
8529-500 † Solid	3.00
8529-1000† Solid	5.40
8529-100 † Striped♦	1.08
8529-500 † Striped♦	3.60
8529-1000† Striped♦	6.55
8530-25 † Solid	.42
8530-100 † Solid	.83
8530-500 † Solid	2.55
8530-1000† Solid	4.50
8530-100 † Striped♦	.95
8530-500 † Striped♦	3.15
8530-1000† Striped♦	5.65
8531-100 † Solid	1.35
8531-500 † Solid	5.25
8531-1000† Solid	10.15
8531-100 † Striped♦	1.47
8531-500 † Striped♦	5.85
8531-1000† Striped♦	11.25
8532-100 † Solid	5.10

BELDEN • PRICE LIST

Reference —
Bulletin E 63P — 1D
Effective June 15, 1963

Trade Number Lgth in Ft.	Sug. Resale Price Each
8532-500 † Solid	22.50
8532-1000† Solid	43.50
8533-100 † Solid	3.75
8533-500 † Solid	16.50
8533-1000† Solid	30.00
8534-100 † Solid	2.70
8534-500 † Solid	12.00
8534-1000† Solid	22.50
8534-100 † Striped♦	2.85
8534-500 † Striped♦	12.60
8534-1000† Striped♦	23.65
8535-100 † Solid	2.25
8535-500 † Solid	9.75
8535-1000† Solid	18.00
8535-100 † Striped♦	2.37
8535-500 † Striped♦	10.35
8535 1000† Striped♦	19.15
8536-100 † Solid	1.65
8536-500 † Solid	6.45
8536-1000† Solid	12.00
8536-100 † Striped♦	1.77
8536-500 † Striped♦	7.05
8536-1000† Striped♦	13.15
8537-100 † Solid	1.20
8537-500 † Solid	5.50
8537-1000† Solid	9.55
8537-100 † Striped♦	1.32
8537-500 † Striped♦	6.10
8537-1000† Striped♦	10.65
*8538-100 † Solid	.78
*8538-500 † Solid	2.35
*8538-1000† Solid	4.00
*8538-100 † Striped♦	.90
*8538-500 † Striped♦	2.95
*8538-1000† Striped♦	5.10
8541-100	1.65
8541-500	6.30
8541-1000	11.65
8542-100	1.80
8542-500	7.05
8542-1000	13.20
8543-100	2.10
8543-500	9.00
8543-1000	16.95
8544-100	2.40
8544-500	10.50
8544-1000	20.25
8545-100	3.30
8545-500	14.25
8545-1000	27.00
8546-100	4.50
8546-500	19.50
8546-1000	37.50
8547-100	105.00
8547-500	525.00
8547-1000	960.00
8548-100	82.50
8548-500	412.50
8548-1000	750.00
8549-100	49.50
8549-500	240.00
8549-1000	465.00
8550-100	33.00
8550-500	157.50
8550-1000	300.00
8551-100	22.50
8551-500	105.00
8551-1000	205.50
8552-100	16.50
8552-500	82.50
8552-1000	150.00
8553-100	9.00
8553-500	42.00
8553-1000	82.50
8554-100	5.25
8554-500	22.50
8554-1000	44.25
8555-100	3.75
8555-500	17.25
8555-1000	33.75
8556-100	3.25
8556-500	13.65
8556-1000	26.65
8557-100	3.00
8557-500	12.00
8557-1000	22.95
8558-100	2.55
8558-500	10.20
8558-1000	19.50
8559-100	2.50

Trade Number Lgth in Ft.	Sug. Resale Price Each
8559-500	9.00
8559-1000	16.50
8561-100 †	6.75
8561-500 †	31.50
8561-1000†	60.00
8562-100 †	3.75
8562-500 †	18.00
8562-1000†	33.00
8563-100 †	3.40
8563-500 †	14.65
8563-1000†	27.75
8564-100 †	2.63
8564-500 †	12.00
8564-1000†	22.50
8565-100 †	2.25
8565-500 †	9.75
8565-1000†	18.00
8566-100 †	1.80
8566-500 †	8.10
8566-1000†	15.00
8567-100 † Solid	1.05
8567-500 † Solid	4.15
8567-1000† Solid	6.75
8567-100 † Striped♦	1.17
8567-500 † Striped♦	4.75
8567-1000† Striped♦	7.90
8568-100 † Solid	.90
8568-500 † Solid	3.40
8568-1000† Solid	6.25
8568-100 † Striped♦	.91
8568-500 † Striped♦	3.40
8568-1000† Striped♦	7.35
8569-100 † Solid	.90
8569-500 † Solid	3.15
8569-1000† Solid	5.85
8569-100 † Striped♦	1.02
8569-500 † Striped♦	3.75
8569-1000† Striped♦	7.00
8570-100 † Solid	.90
8570-500 † Solid	3.00
8570-1000† Solid	5.40
8570-100 † Striped♦	1.02
8570-500 † Striped♦	3.60
8570-1000† Striped♦	6.55
8571-100 † Solid	.89
8571-500 † Solid	2.70
8571-1000† Solid	4.95
8571-100 † Striped♦	1.01
8571-500 † Striped♦	3.30
8571-1000† Striped♦	6.10
8572-100 † Solid	.87
8572-500 † Solid	2.80
8572-1000† Solid	5.25
8573 (per box)	1.50
8574-100 † Solid	1.50
8574-500 † Solid	5.40
8574-1000† Solid	10.35
8574-100 † Striped♦	1.62
8574-500 † Striped♦	6.00
8574-1000† Striped♦	11.50
8575-100 † Solid	1.35
8575-500 † Solid	4.75
8575-1000† Solid	9.00
8575-100 † Striped♦	1.47
8575-500 † Striped♦	5.35
8575-1000† Striped♦	10.15
8576-100 † Solid	1.28
8576-500 † Solid	4.50
8576-1000† Solid	8.40
8576-100 † Striped♦	1.40
8576-500 † Striped♦	5.10
8576-1000† Striped♦	9.55
8577-100 † Solid	1.28
8577-500 † Solid	4.35
8577-1000† Solid	8.25
8577-100 † Striped♦	1.40
8577-500 † Striped♦	4.95
8577-1000† Striped♦	9.40
8578-100 † Solid	1.28
8578-500 † Solid	4.35
8578-1000† Solid	8.10
8578-100 † Striped♦	1.40
8578-500 † Striped♦	4.95
8578-1000† Striped♦	9.25
8579-100 † Solid	1.20
8579-500 † Solid	4.35
8579-1000† Solid	8.10
8580-100 † Solid	24.00
8580-500 † Solid	112.50
8580-1000† Solid	225.00

Trade Number Lgth in Ft.	Sug. Resale Price Each
8581-100 † Solid	19.50
8581-500 † Solid	90.00
8581-1000† Solid	180.00
8582-100 † Solid	8.25
8582-500 † Solid	37.50
8582-1000† Solid	75.00
8583-100 † Solid	5.25
8583-500 † Solid	22.50
8583-1000† Solid	45.00
8584-100 † Solid	4.05
8584-500 † Solid	16.50
8584-1000† Solid	33.00
8585-100 † Solid	2.70
8585-500 † Solid	9.75
8585-1000† Solid	19.50
8586-100 † Solid	2.25
8586-500 † Solid	7.50
8586-1000† Solid	15.00
8587-100 † Solid	1.20
8587-500 † Solid	5.65
8587-1000† Solid	11.25
8588-100 † Solid	1.13
8588-500 † Solid	4.80
8588-1000† Solid	9.60
8589-100 †	21.75
8589-500 †	105.00
8589-1000†	210.00
8590-100 †	16.50
8590-500 †	78.00
8590-1000†	156.00
8591-100 †	9.75
8591-500 †	44.25
8591-1000†	88.50
8594-100 † Solid	1.28
8594-500 † Solid	5.95
8594-1000† Solid	9.90
8594-100 † Striped♦	1.40
8594-500 † Striped♦	6.55
8594-1000† Striped♦	11.05
8595-100 † Solid	1.35
8595-500 † Solid	5.70
8595-1000† Solid	10.50
8596-100 † Solid	1.38
8596-500 † Solid	6.60
8596-1000† Solid	11.10
8597-100 † Solid	1.05
8597-500 † Solid	4.35
8597-1000† Solid	7.90
8597-100 † Striped♦	1.17
8597-500 † Striped♦	4.95
8597-1000† Striped♦	9.00
8598-100 † Solid	1.13
8598-500 † Solid	4.65
8598-1000† Solid	8.40
8599-100 † Solid	1.35
8599-500 † Solid	5.25
8599-1000† Solid	9.75
*8601	.98
*8602	1.47
*8603	1.50
*8604	2.65
*8640-250	6.00
*8640-500	22.50/M'
*8642-250	16.50
*8642-500	61.50/M'
8650-100 (Obs) Use 8966	6.00
8651-100 (Obs) Use 8967	4.50
8652-100 (Obs) Use 8968	3.60
8656-100 (Obs) Use 8860	5.25
8660-10	.51
8660-50	1.50
8660-250	6.75
8661-10	.75
8661-50	2.50
8661-250•	11.10
8662-10	1.73
8662-50	7.05
8662-250•	34.50
8663-10	.81
8663-50	2.22
8663-250	9.25
8666-100	5.85
8668-10	.78
8668-50	2.06
8668-250	9.00

Trade Number Lgth in Ft.	Sug. Resale Price Each
8669-10	1.28
8669-50	5.50
8669-250•	24.90
8670-10	2.40
8670-50	10.65
8670-250•	51.30
8671-10	2.25
8671-50	10.15
8671-250•	48.75
8672-10	1.60
8672-50	6.70
8672-250•	30.75
8673-100	9.30
8673-500	90.00/M'
8674-10	.56
8674-50	1.35
8674-250	6.00
8675-100	7.45
8675-500	69.00/M'
8676-10	.50
8676-50	.90
8676-250	4.20
8677-100	5.70
8677-500	54.00/M'
8680-100	14.40
8681-100	10.35
8682-100	5.25
8683-100	3.75
8684-100	2.65
8685-100	2.05
*8700-25	1.43
*8700-50	2.48
*8700-100	4.50
*8700-250	42.00/M'
*8701-100	2.05
*8701-500	7.50
*8701-1000	14.25/M'
8722-100 (Obs)	5.25
8722-500	48.00/M'
8722-1000	48.00/M'
8723-100	4.65
8723-500	40.50/M'
8723-1000	40.50/M'
*8724-500	39.00/M'
*8724-1000	39.00/M'
8731-100 (Obs)	3.15
8731-500	28.50/M'
8731-1000	28.50/M'
8732-100	4.75
8732-500	42.75/M'
8732-1000	42.75/M'
8733-100	4.50
8733-500	40.50/M'
8733-1000	40.50/M'
8734-100	3.75
8734-500	17.25
8734-1000	34.50/M'
8735-15	.98
8735-50	2.40
8735-100	4.30
8735-500	19.15
8735-1000	38.25/M'
8737-100	3.40
8737-500	13.50
8737-1000	27.00/M'
8738-100 (TBO)	2.55
8738-500 (TBO)	10.50
8738-1000	21.00/M'
8739-100	2.95
8739-500	12.00
8739-1000	24.00/M'
8740-100	1.80
8740-500	6.60
8740-1000	12.75/M'
8741-100	3.00
8741-500	12.00
8741-1000	23.25/M'
8742-100	3.90
8742-500	16.50
8742-1000	32.25/M'
8743-100	6.30
8743-500	27.75
8743-1000	55.50/M'
8744-100	8.50
8744-500	38.65
8744-1000	77.25/M'
8745-100	13.95
8745-500	67.50
8745-1000	133.50/M'
8747 §(Cut to customer's specified length maximum 1500')	247.50/M'

Trade Number Lgth in Ft.	Sug. Resale Price Each
8747-100	8.25
8747-500	37.50
8747-1000	75.00/M'
8748-100	11.40
8748-500	54.00
8748-1000	108.00/M'
8749-100	19.50
8749-500	90.00
8749-1000	180.00/M'
8750 §(Cut to customer's specified length maximum 1500')	337.50/M'
8751 §(Cut to customer's specified length maximum 1500')	735.00/M'
8753-100	10.95
8753-500	52.50
8753-1000	105.00/M'
8754-100	12.40
8754-500	59.25
8754-1000	118.50/M'
8755-100 (TBO)	19.50
8755-500	92.25
8755-1000	184.50/M'
8756-100 (TBO)	23.25
8756-500	108.00
8756-1000	216.00/M'
8757-500	41.25/M'
8757-1000	41.25/M'
8758-100	3.15
8758-500	13.90
8758-1000	27.75/M'
8759-100	3.75
8759-500	16.50
8759-1000	33.00/M'
8760-500	37.50/M'
8760-1000	37.50/M'
8761-500	24.00/M'
8761-1000	24.00/M'
8762-100	3.45
8762-500	15.00
8762-1000	30.00/M'
8763-100 (Obs)	4.45
8763-500	40.50/M'
8763-1000	40.50/M'
8764-100	18.00
8764-500	180.00/M'
8764-1000	180.00/M'
8765-100	21.60
8765-500	216.00/M'
8765-1000	216.00/M'
8766-100	28.50
8766-500	285.00/M'
8766-1000	285.00/M'
8767-100	6.60
8767-500	66.00/M'
8767-1000	66.00/M'
8768-100	12.90
8768-500	129.00/M'
8768-1000	129.00/M'
8769-100	49.50
8769-500	495.00/M'
8769-1000	495.00/M'
8770-500	47.25/M'
8770-1000	47.25/M'
8771-500	30.00/M'
8771-1000	30.00/M'
8772-500	37.50/M'
8772-1000	37.50/M'
8773 §(Cut to customer's specified length maximum 1000')	748.50/M'
*8774-100	23.40
*8774-500	234.00/M'
*8774-1000	234.00/M'
*8775-100	27.45
*8775-500	274.50/M'
*8775-1000	274.50/M'
*8776-100	35.40
*8776-500	354.00/M'
*8776-1000	354.00/M'
*8777-100	8.65
*8777-500	86.25/M'
*8777-1000	86.25/M'
*8778-100	16.50
*8778-500	165.00/M'
*8778-1000	165.00/M'
8779-100 (Obs)	5.25
8779-500	49.50/M'
8779-1000	49.50/M'
8780-100	5.70

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BELDEN • PRICE LIST

Reference —
Bulletin E 63P — 1D
Effective June 15, 1963

Trade Number Lgth in Ft.	Sug. Resale Price Each
8780-500	27.00
8780-1000	54.00/M'
*8781-100	1.35
*8781-500	4.35
*8781-1000	8.70/M'
8782-25	.60
8782-50	.90
8782-100	1.35
8782-500	9.00/M'
8782-1000	9.00/M'
8783-100	4.50
8783-500	42.00/M'
*8784-500	87.00/M'
8785-100 (Obs)	5.25
8785-500 (Obs)	49.50/M'
Trade numbers 8785-100 thru -500 Construction Change Use 8788	
8786-100 Construction	5.75
8786-500 Change	55.50/M'
8787-100 (Obs)	19.20
8787-500 Construction Change	117.00/M'
*8788-500	57.00/M'
8789-100 (Obs)	4.30
8789-500	19.35
8789-1000	38.70/M'
8790-100	4.45
8790-500	20.00
8790-1000	40.00/M'
8791-100	5.40
8791-500	25.20
8791-1000	50.40/M'
8792-100	25.50
8792-500	255.00/M'
8792-1000	255.00/M'
8793 §Cut to customer's specified length maximum 1000')	562.50/M'
8794-500	18.75/M'
8794-1000	18.75/M'
8799-100 (Obs)	4.50
8799-500 (TBO)	43.50/M'
8799-1000 (TBO)	43.50/M'
8800	.83
8817-100	.30
8818	5.04
8819	8.10
8820	5.04
8821	8.25
8822	4.40
8823	4.80
8824	4.08
8825	7.63
8826	7.48
8827	8.55
8828 (Obs)	19.00
8829 (Obs)	21.00
8830 (Obs)	24.00
8831 (Obs)	26.50
8850-100	6.75
8850-500	30.00
8850-1000	58.50
8851-100	5.25
8851-500	24.00
8851-1000	46.50
8852-100	4.50
8852-500	19.15
8852-1000	37.50
8853-100	3.90
8853-500	17.25
8853-1000	33.00
8854-100	3.75
8854-500	14.65
8854-1000	27.75
8855-100	3.40
8855-500	13.50
8855-1000	25.50
8858-100	7.50
8858-500	36.00
8858-1000	71.25
8859-100	6.00
8859-500	28.50
8859-1000	56.25
8860-100	5.25
8860-500	24.00
8860-1000	46.80
8861-100	4.50
8861-500	19.50
8861-1000	37.50
8862-100	3.75
8862-500	17.25
8862-1000	33.75
8863-100	3.40
8863-500	16.50
8863-1000	31.50
8868-25	.75
8868-100	2.40
8868-500	9.45
8869-25	.75
8869-100	1.88
8869-500	7.50
*8870-100	30.00
8874	.54
8875	.41
8878	2.25 pr
8879	.98 pr
8880-100 †	6.00
8880-500 †	29.25
8880-1000†	57.00
8881-100 †	4.87
8881-500 †	23.25
8881-1000†	45.00
8882-100 †	3.00
8882-500 †	14.25
8882-1000†	27.60
8883-100 †	2.25
8883-500 †	10.50
8883-1000†	20.25
8884-100 †	3.90
8884-500 †	18.75
8884-1000†	36.75
8885-15	.69
8885-25	1.02
8885-100	3.15
8885-500	29.25/M'
8886-15 † (Obs)	.66
8886-25 † (Obs)	.96
8886-100 †	2.65
8886-500 †	12.00
8886-1000†	22.50
8887-100 †	2.25
8887-500 †	10.50
8887-1000†	19.50
8888-25 †	.86
8888-100 †	2.25
8888-250 †	5.25
*8889-1	.42
*8889-100	.27
8892-100	5.25
8892-500	19.50
8892-1000	37.50
8893-100	3.60
8893-500	16.50
8893-1000	31.50
8894-100	6.00
8894-500	25.50
8894-1000	49.50
8895-1	.38
8895-100	.23
8896-100	4.50
8896-500	19.50
8896-1000	36.00
8897-500	11.25
8897-1000	22.50
8898-10 †	.80
8898-25 †	1.50
8898-100 †	4.00
8898-500 †	16.80
8899-10 †	.59
8899-14	.66
8899-25 †	.90
8899-100 †	2.55
8899-500 †	10.50
8899-1000†	20.25
8916-100 †	2.70
8916-500 †	10.90
8917-100 †	2.03
8917-500 †	8.05
8918 100 †	1.65
8918-1000†	12.00
8919-199 †	1.34
8919-1000†	9.90
8920-100 †	1.23
8920-1000†	9.00
8933-100 †	3.45
8933-500 †	15.75
8934-100 †	2.25
8934-500 †	9.90
8935-100 †	1.88
8935-1000†	15.00
8936-100 †	1.50
8936-1000†	11.55
8937-100 †	1.38
8937-1000†	10.35
8938-100 †	2.95
8938-500 † (TBO)	12.90
8941-25 †	.63
8941-100 †	1.62
8941-1000†	12.00
8942-100 †	2.20
8942-1000†	18.75
8943-25 †	.63
8943-100 †	1.65
8943-1000†	12.80
8945-25 † (TBO)	.60
8945-100 †	1.73
8945-1000†	14.20
8947-25 † (TBO)	.63
8947-100 †	1.88
8947-1000†	15.90
8950-100 † Solid	3.45
8950-500 † Solid	14.50
8950-1000† Solid	28.35
8950-100 † Striped♦	3.45
8950-500 † Striped♦	15.10
8950-1000† Striped♦	29.50
8951-100 † Solid	2.18
8951-500 † Solid	10.50
8951-1000† Solid	19.50
8951-100 † Striped♦	2.30
8951-500 † Striped♦	11.10
8951-1000† Striped♦	20.65
8952-100 † Solid	1.65
8952-500 † Solid	7.90
8952-1000† Solid	15.00
8952-100 † Striped♦	1.77
8952-500 † Striped♦	8.50
8952-1000† Striped♦	16.15
8953-100 † Solid	1.20
8953-500 † Solid	5.85
8953-1000† Solid	11.40
8953-100 †Striped♦	1.32
8953-500 † Striped♦	6.45
8953-1000† Striped♦	12.55
8954-100 † Solid	.98
8954-500 † Solid	4.50
8954-1000† Solid	8.85
8954-100 † Striped♦	1.10
8954-500 † Striped♦	5.10
8954-1000† Striped♦	10.00
8955-100 † Solid	.90
8955-500 † Solid	4.15
8955-1000† Solid	7.50
8955-100 † Striped♦	1.02
8955-500 † Striped♦	4.75
8955-1000† Striped♦	8.65
8956-100 † Solid	3.75
8956-500 † Solid	18.40
8956-1000† Solid	36.00
8956-100 † Striped♦	3.87
8956-500 † Striped♦	19.00
8956-1000† Striped♦	37.15
8957-100 † Solid	2.55
8957-500 † Solid	12.40
8957-1000† Solid	24.00
8957-100 † Striped♦	2.67
8957-500 † Striped♦	13.00
8957-1000† Striped♦	25.15
8958-100 † Solid	2.03
8958-500 † Solid	9.75
8958-1000† Solid	18.75
8958-100 † Striped♦	2.15
8958-500 † Striped♦	10.35
8958-1000† Striped♦	19.90
8959-100 † Solid	1.65
8959-500 † Solid	7.25
8959-1000† Solid	15.00
8959-100 † Striped♦	1.77
8959-500 † Striped♦	7.75
8959-1000† Striped♦	16.15
8960-100 † Solid	1.35
8960-500 † Solid	6.40
8960-1000† Solid	12.00
8960-100 † Striped♦	1.47
8960-500 † Striped♦	7.00
8960-1000† Striped♦	13.00
8961-100 † Solid	1.28
8961-500 † Solid	5.85
8961-1000† Solid	10.80
8961-100 † Striped♦	1.40
8961-500 † Striped♦	6.45
8961-1000† Striped♦	11.95
8963-100 † Solid	21.75
8963-500 † Solid	106.50
8963-1000† Solid	210.00
8963-100 † Striped♦	21.90
8963-500 † Striped♦	107.10
8963-1000† Striped♦	211.15
8964-100 † Solid	18.75
8964-500 † Solid	93.00
8964-1000† Solid	184.50
8964-100 † Striped♦	18.90
8964-500 † Striped♦	93.60
8964-1000† Striped♦	185.65
8965-100 † Solid	7.65
8965-500 † Solid	34.50
8965-1000† Solid	67.50
8965-100 † Striped♦	7.80
8965-500 † Striped♦	35.10
8965-1000† Striped♦	68.65
8966-100 † Solid	6.00
8966-500 † Solid	28.50
8966-1000† Solid	55.50
8966-100 † Striped♦	6.15
8966-500 † Striped♦	29.10
8966-1000† Striped♦	56.65
8967-100 † Solid	4.50
8967-500 † Solid	19.50
8967-1000† Solid	37.50
8967-100 † Striped♦	4.65
8967-500 † Striped♦	20.10
8967-1000† Striped♦	38.65
8968-100 † Solid	3.60
8968-500 † Solid	17.25
8968-1000† Solid	33.75
8968-100 † Striped♦	3.72
8968-500 † Striped♦	17.85
8968-1000† Striped♦	34.90
8969-100 † Solid	3.00
8969-500 † Solid	12.00
8969-1000† Solid	22.50
8969-100 † Striped♦	3.12
8969-500 † Striped♦	12.60
8969-1000† Striped♦	23.65
8970-100 † Solid	2.40
8970-500 † Solid	9.75
8970-1000† Solid	18.00
8970-100 † Striped♦	2.52
8970-500 † Striped♦	10.35
8970-1000† Striped♦	19.15
8971-100 † Solid	2.10
8971-500 † Solid	8.25
8971-1000† Solid	15.75
8971-100 † Striped♦	2.22
8971-500 † Striped♦	8.85
8971-1000† Striped♦	16.90
8972-100 † Solid	1.75
8972-500 † Solid	7.50
8972-1000† Solid	14.25
8972-100 † Striped♦	1.85
8972-500 † Striped♦	8.10
8972-1000† Striped♦	15.40

BELDENAMEL
(Magnet Wire)

Size	Trade Number	Suggested Dealer Price Each
	¼ LB. SPOOLS	
28	8040	.62
30	8041	.65
32	8042	.69
34	8043	.71
36	8044	.80
38	8045	1.04
40	8046	1.37
	½ LB. SPOOLS	
14	8047	.81
16	8048	.81
18	8049	.81
20	8050	.81
22	8051	.83
24	8052	.84
26	8053	.89
28	8054	.93
30	8055	1.02
32	8056	1.11
34	8057	1.14
36	8058	1.34

HNC NYLCLAD

Size	Trade Number	Suggested Dealer Price Each
	½ LB. SPOOLS	
14	8059	.83
16	8060	.83
18	8061	.83
20	8062	.83
22	8063	.84
24	8064	.86
26	8065	.92
28	8066	1.01
30	8067	1.11
32	8068	1.20
34	8069	1.34
36	8070	1.65
38	8071	2.06
40	8072	2.81
	1 LB. SPOOLS	
14	8073	1.34
16	8074	1.34
18	8075	1.35
20	8076	1.37
22	8077	1.38
24	8078	1.46
26	8079	1.58
28	8080	1.74
30	8081	1.95
32	8082	2.18
34	8083	2.55
36	8084	3.23
38	8085	4.13
40	8086	5.78

* New Item † Specify Color (TBO) To Be Obsoleted. (Obs) Obsolete.
ALL SPOOLS ARE ONE PIECE UNLESS OTHERWISE INDICATED BY (•).
• Spools may contain more than one piece, minimum length of any one piece is 25 ft.
When priced per M ft. length may vary ± 10% from length shown; all other lengths are exact.
§Cut to Customer's Specified Length subject to available stock lengths—minimum length 25'; 25' to 199', plus 25', minus 0; 200' or over, plus 50', minus 0.
♦ (Vinyl Hook-up Wire) Prices apply to standard stock colors as listed in our current catalog and to non-stock striped colors over stock solid colors in quantities of 10,000' or more. Non-stock striped colors over stock solid colors in quantities of 1000' to 9999', add pro-rata set-up charge of $3.00 per color combination. Minimum order 1000' per special stripe combination. Special stripe colors in any quantity will be subject to 2 piece put-up and plus or minus 10% per spool.
△ (Teflon Hook-up Wire) Prices apply to any striped color combination in quantities of 1000' or more. Minimum order 1000' per stripe color combination. Striping adders do not apply to braided tracers—Write for prices on non-stock tracer colors.

Prices Subject to Change Without Notice

Belden
electronic wire

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Belden

BELDFOIL†† *The Total Shield*

Since Belden introduced Beldfoil in 1957, this 100% shield has won the reputation as "The Total Shield."

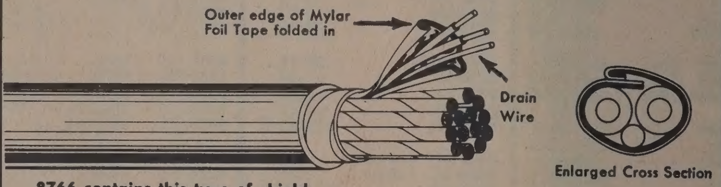
For critically sensitive circuit applications the combination of 100% shield coverage and the exclusive Belden fold (U.S. Patent 3,032,604) proves superior to previously available shields in guarding against cross talk and spurious signal impulses.

The benefits of Beldfoil include:

1) Increased electrical integrity.
2) Reduction of cross talk to unmeasurable levels.
3) Reduced weight and space requirements.
4) Easier and faster shield terminations.
5) Reduced costs.

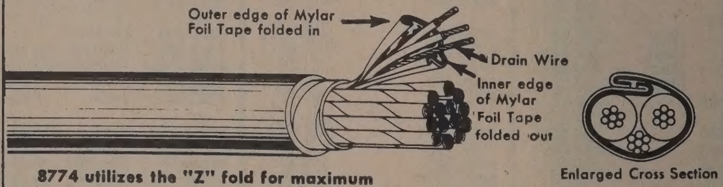
The basic Beldfoil tape is .00035″ thick rolled aluminum foil per ASTM B373-61T laminated to a .0005″ thick sheet of high dielectric strength DuPont Mylar♦ per MIL-I-631D, Type G, Form F, by means of a high strength color code adhesive for circuit identification.

The exclusive Belden fold is used in several ways to give added value to the cable:



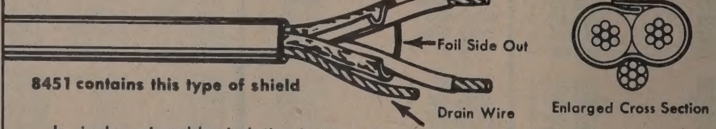
8766 contains this type of shield

For multi-pair cables with each pair separately shielded the Beldfoil tape is applied Mylar side out with the outer edge folded under to obtain isolation between shields of adjacent pairs. The fold eliminates current loops caused by random metallic contact between shields.


Outer edge of Mylar Foil Tape folded in
Drain Wire
Inner edge of Mylar Foil Tape folded out
Enlarged Cross Section

8774 utilizes the "Z" fold for maximum shield effectiveness at radio frequencies

Single conductors and paired conductors requiring minimum shield inductance have the Beldfoil shield applied with a "Z" fold. The additional fold on the inner tape edge provides a continuous metallic path around the circumference of the cable. This is electrically equivalent to a solid aluminum tube but retains the flexibility of a spiral tape.



8451 contains this type of shield

In single pair cables isolation is not a factor so the high dielectric strength of the Mylar is used between the conductors and the shield as "bonus" insulation with the metal edge folded under the Mylar to insure a full layer of extra protection.

All Beldfoil shields include a drain wire for ease of termination. This drain wire is in intimate contact with the foil throughout the length of the cable.

---

††*Belden trademark—Reg. U.S. Pat. Off.*

♦ *Du Pont trademark*

See Prices on four pages at front of Belden listing

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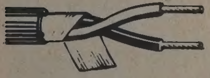
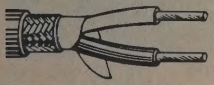
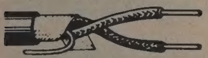
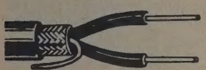
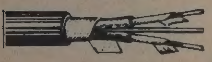
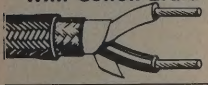
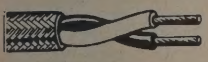
GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

TWO CONDUCTOR SHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. Cap. (mmf/ft)	Nom. Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
With JACKET **BELDFOIL**	**NEW 8640**	26 (Solid)	.002	.020	.089	Red, Clear	100	80	140	100	250, 500
		Solid copper, BELDSOL†† (solderable—no stripping required) insulated BELDFOIL aluminum-Mylar shield, 30 AWG solid tinned Copperweld▲ ground drain wire, WHITE vinyl jacket. Maximum operating temperature 105°C. **Ideal for Instrumentation and Audio Console Work where Subminiaturization is Required.**									
BELDFOIL **Miniature Broadcast Audio Cable**	**8450⊖**	22 (Solid)	.006	.018	.118	Blk, Red	100	40	76	200	100, 500, 1000
	8451⊖	22 (7x30)	.008	.020	.135	Blk, Red	100	34	67	200	100, 500, 1000
		Tinned copper, Polypropylene insulated, conductors cabled, stranded tinned copper ground drain wire, BELDFOIL aluminum-Mylar shield, paper wrap, BLACK or CHROME vinyl jacket. **Belden's Miniature Type Broadcast Audio Cable occupies ½ to ⅔ less space than required by Standard Broadcast Audio Cables. The Beldfoil Shield combines high cable reliability with ease of termination.**									
BELDFOIL	**8761⊖**	22 (7x30)	.014	.025	.167	Blk, Wht	100	24	47	350	500, 1000
	8762⊖	20 (7x28)	.014	.028	.196	Blk, Wht	100	27	49	350	100, 500, 1000
	8760⊖	18 (16x30)	.018	.028	.222	Blk, Wht	100	24	44	450	500, 1000
		Tinned copper, polyethylene insulated, BELDFOIL aluminum-Mylar shield, stranded tinned copper ground drain wire, (22 AWG for 8761, and 20 AWG for 8760 and 8762), chrome vinyl jacket.									
	**8739**	22 (Solid)	.015	.025	.160	Blk, Red	90	38	66	350	100, 500, 1000
	8737	22 (7x30)	.015	.025	.170	Blk, Red	90	40	70	350	100, 500, 1000
	8759	20 (7x28)	.015	.025	.195	Blk, Red	90	47	79	350	100, 500, 1000
	8790	18 (7x26)	.020	.028	.231	Red, Wht	90	53	92	450	100, 500, 1000
	8780	16 (19x29)	.023	.030	.266	Blk, Wht	90	57	98	450	100, 500, 1000
		Tinned copper, vinyl insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.									
	**8208**	18 (16x30)	.020	.025	.255	Red, Wht	69	46	77	200	15, 50, 100, 500, 1000
		Tinned copper, rubber insulated, braided tinned copper shield, chrome vinyl jacket.									
 **ABC Type Broadcast Audio Cable**	**8436**	22 (Solid)	.016	.025	.190	Blk, Red	90	31	52	100	500, 1000
		Tinned copper, Celanese† wrap, Celanese braid lacquered, conductors cabled, solid tinned copper drain wire, tinned copper spiral wrapped shield, black vinyl jacket.									
 **CBS Type Broadcast Audio Cable**	**8437**	22 (Solid)	.015	.025	.200	Blk, Red	88	48	85	200	500, 1000
	8441	22 (16x34)	.015	.025	.210	Blk, Red	88	49	86	200	100, 500, 1000
		Tinned copper, vinyl insulated, conductors cabled, solid tinned copper drain wire, tinned copper braid shield, black vinyl jacket.									
 **Standard Type Broadcast Audio Cable**	**8440**	22 (Solid)	.016	.022	.193	Blk, Red	90	50	90	100	500, 1000
		Tinned copper, enameled, cotton wrap, cotton braid, conductors cabled, solid tinned copper drain wire, tinned copper spiral wrapped shield, chrome vinyl jacket. **For Miniature Type Broadcast Cables refer to 8450 and 8451 shown above.**									
With Cotton Braid 	**8209**	18 (16x30)	.020	—	.258	Red, Wht	69	51	89	200	500, 1000
		Tinned copper, rubber insulated, braided tinned copper shield, white cotton braid, treated for weather resistance.									
Without JACKET 	**8738**	22 (Solid)	.015	—	.130	Blk, Red	72.8	35	61	350	1000
	8758	20 (7x28)	.015	—	.165	Blk, Red	63.8	42	72	350	100, 500, 1000
	8789	18 (7x26)	.020	—	.204	Blk, Wht	74	50	89	450	500, 1000
	8779	16 (19x29)	.023	—	.225	Blk, Wht	83	63	112	600	500, 1000
		Tinned copper, vinyl insulated, braided tinned copper shield.									

**Capacitance between conductors.*
***Capacitance between 1 conductor and other conductor connected to shield.*

⊖Belden U.S. Patent 3,032,604.
†Trademark of Celanese Corp.
††Belden trademark—Reg. U.S. Pat. Off.
▲Trademark of Copperweld Steel Co.

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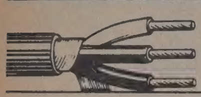
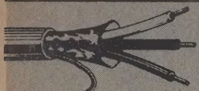
Belden | shielded instrumentation, strain gauge, sound and audio cables

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

THREE CONDUCTOR SHIELDED

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	**8731**	22 (Solid)	.015	.025	.178	Blk,Red,Wht	90	36	63	350	500, 1000
	8791	18 (7x26)	.020	.028	.236	Blk,Red,Wht	90	47	84	450	100, 500, 1000
	Tinned copper, vinyl insulated, conductors cabled, tinned copper spiral wrapped shield, chrome vinyl jacket.										
	8735	22 (7x30)	.015	.025	.199	Blk,Red,Wht	70	34	60	350	15, 50, 100, 500, 1000
	Tinned copper, vinyl insulated, conductors cabled, tinned copper braid shield, chrome vinyl jacket.										
	**8771⊖**	22 (7x30)	.014	.025	.175	Blk,Red,Wht	100	23	41	350	500, 1000
	8772⊖	20 (7x28)	.014	.028	.200	Blk,Red,Wht	100	27	51	350	500, 1000
	8770⊖	18 (16x30)	.018	.028	.236	Blk,Red,Wht	100	24	48	450	500, 1000
BELDFOIL	*Tinned copper, polyethylene insulated, conductors cabled, BELDFOIL aluminum-Mylar shield, stranded tinned copper ground drain wire (22 AWG for 8771, and 20 AWG for 8770 and 8772), chrome vinyl jacket.*										

FOUR CONDUCTOR STRAIN GAUGE CABLES

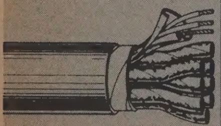
Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	8434⊖	25 (7x33) 3 copper 4 copper-weld	.013	.020	.179	Red, Blk, Grn, Wht	100	25	40	400	100, 500, 1000
	Tinned conductors, polyethylene insulated, black and red conductors under BELDFOIL aluminum-Mylar shield, stranded ground wire, green and white conductors under over-all BELDFOIL aluminum-Mylar shield, chrome vinyl jacket.										
BELDFOIL	**8723⊖**	22 (7x30) copper	.008	.019	.165	Red, Blk, Wht, Grn	100	35	62	400	100, 500, 1000
	Tinned copper, polypropylene insulated, black and red under a BELDFOIL aluminum-Mylar shield. Green and white under a BELDFOIL aluminum-Mylar shield, each pair separate, stranded tinned copper drain wire, chrome vinyl jacket. **For other 4 conductor cables which can be used on strain gauges see 8424 and 8404 on page 10.**										

AUDIO AND INSTRUMENTATION CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	NEW 8700	28 (Solid) Coaxial	.005	.008	.054	Black	80	48	—	100	25, 50, 100, 250
	Solid tinned copper, polypropylene insulation, copper braid, black vinyl jacket. **May be steam autoclaved for medical research.**										
	NEW 8640	26 (Solid) 1 Pair	.002	.020	.089	Red, Clear	100	80	140	100	250, 500
BELDFOIL	**NEW 8642**	26 (Solid) 3 Pair	.002	.025	.140	Red, Clear	100	80	140	100	250, 500
	Solid copper, BELDSOL†† (solderable—no stripping required), BELDFOIL aluminum-Mylar shield on each pair, red, brown, orange textile marker for each pair on 8642, copperweld ground drain wire, WHITE vinyl jacket.										

Ideal for instrumentation and audio console work where subminiaturization is required.
105° C maximum operating temperature.

MULTIPLE PAIR INDIVIDUALLY SHIELDED AUDIO AND SOUND CABLES

Description	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Standard Spool Lengths in ft
22 GAUGE VINYL INSULATION	**8767⊖**	3	Solid	.013	.030	.270	40	77	100, 500, 1000
	8768⊖	6	Solid	.013	.037	.394	40	77	100, 500, 1000
	8764⊖	9	Solid	.013	.040	.425	40	77	100, 500, 1000
	8765⊖	11	Solid	.013	.040	.485	40	77	100, 500, 1000
	**8766⊖**	15	Solid	.013	.045	.510	40	77	100, 500, 1000
BELDFOIL	*#22 tinned copper, vinyl insulated, cabled in pairs, each pair and its ground wire under BELDFOIL aluminum-Mylar shield, over-all chrome vinyl jacket. 300 Volts suggested working voltage.*								

Insulation resistance between shields. . . . 1000 megohms/M'
Capacitance between adjacent shields . . . . 115 mmf/ft
Voltage breakdown between adjacent shields . . . 1500 volts
Working voltage between adjacent shields . . . . 50 volts

For color coding refer to page 7.

Vinyl insulation is used for ease of stripping and soldering. Recommended for audio frequency applications requiring excellent circuit isolation. Maximum operating temperature 80°C.

*Capacitance between conductors.

**Capacitance between 1 conductor and other conductor connected to shield.

⊖Belden U.S. Patent 3,032,604.

††Belden trademark—Reg. U.S. Pat. Off.

See Prices on four pages at front of Belden listing

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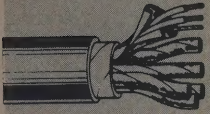
GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

MULTIPLE PAIR INDIVIDUALLY SHIELDED AUDIO AND DATA CABLES

Description	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Standard Spool Lengths in ft
22 GAUGE POLYPROPYLENE INSULATION 	**NEW 8777⊖**	3	(7x30)	.010	.030	.270	30	55	100, 500, 1000
	NEW 8778⊖	6	(7x30)	.010	.037	.394	30	55	100, 500, 1000
	NEW 8774⊖	9	(7x30)	.010	.040	.425	30	55	100, 500, 1000
	NEW 8775⊖	11	(7x30)	.010	.040	.485	30	55	100, 500, 1000
	NEW 8776⊖	15	(7x30)	.010	.045	.510	30	55	100, 500, 1000
	8769⊖	19	(7x30)	.010	.055	.620	30	55	100, 500, 1000
BELDFOIL	**8773⊖**	27	(7x30)	.010	.070	.760	30	55	§Cut to customer's specified length. Maximum length 1000′

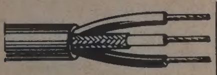
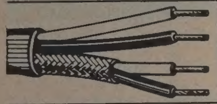
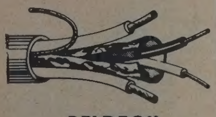
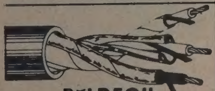
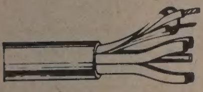
#22 gauge tinned copper, polypropylene insulated, cabled in pairs, each pair and its ground wire under "Z" fold BELDFOIL aluminum-Mylar shield, over-all chrome vinyl jacket. 300 volts suggested working voltage.

Insulation resistance between shields . . 1000 megohms/M′
Capacitance between adjacent shields . . . . . 115 mmf/ft
Voltage breakdown between adjacent shields 1500 volts
Working voltage between adjacent shields . . . . 50 volts

For color coding refer to page 7.

Recommended for audio, pulse, and radio frequency applications requiring superior circuit isolation. Polypropylene insulation is used for excellent high frequency properties and mechanical toughness. Maximum operating temperature 105°C.

SPECIAL AUDIO AND SOUND CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Color Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Standard Spool Lengths in ft
	**8734**	1 shielded 2 unshielded	22 (7x30) 22 (7x30)	Wht Blk, Red	.015 .015	.025	.194	82	350	—	79	100, 500, 1000
		Tinned copper, vinyl insulated, tinned copper braid shield over 1 conductor, 3 conductors cabled, chrome vinyl jacket.										
BELDFOIL	**8763⊖**	2 shielded 1 unshielded	20 (7x28) 20 (7x28)	Blk, Red Wht	.014 .014	.028	.210	100	350	26	48	500, 1000
		Tinned copper, polyethylene insulated, BELDFOIL aluminum-Mylar shield over 2 conductors, #20 stranded tinned copper ground drain wire, chrome vinyl jacket.										
	**8732**	2 shielded 2 unshielded	22 (7x30) 22 (7x30)	Blk, Wht Blk, Wht	.015 .015	.030	.188x .296	62	350	21	37	100, 500, 1000
		Tinned copper, polyethylene insulated, tinned copper braid shield over 2 conductors, chrome vinyl jacket.										
 **BELDFOIL**	**8722⊖**	2 shielded 2 unshielded	20 (7x28) 20 (7x28)	Blk, Red Grn, Wht	.015 .015	.028	.260	100	350	60	99	500, 1000
	NEW 8724⊖	2 shielded 2 unshielded	22 (7x30) 22 (7x30)	Blk, Red Grn, Wht	.008	.019	.165	100	200	34	67	500, 1000
		Tinned copper, 8722 vinyl insulated, 8724 polypropylene insulated, BELDFOIL aluminum-Mylar shield over 2 conductors, stranded tinned copper ground drain wire, (22 AWG for 8722 and 24 AWG for 8724), chrome vinyl jacket.										
 **BELDFOIL**	**8733⊖**	3 shielded	22 (7x30)	Blk, Red, White	.014	.030	.205	100	350	—	51	100, 500, 1000
		Tinned copper, polyethylene insulated, each conductor separately BELDFOIL aluminum-Mylar shielded. Ground wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL Z fold, chrome vinyl jacket.										
 **BELDFOIL**	**NEW 8788⊖**	3 shielded 2 unshielded	22 (7x30)	Blk, Red, Grn, Yel, Blue	.015	.028	.236	100	350	—	125	500
		Tinned copper, vinyl insulated, 3 conductors each separately BELDFOIL shielded, ground drain wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL Z fold, 2 conductors unshielded, cabled around a vinyl filler, chrome vinyl jacket.										

See COIN OPERATED PHONOGRAPH CABLES for additional special constructions—page 9.
**Capacitance between conductors.*
***Capacitance between 1 conductor and other conductor connected to shield.*

§Minimum length 25′
25′ to 199′, plus 25′, minus 0.
200′ or over, plus 50′, minus 0.
⊖Belden U.S. Patent 3,032,604.

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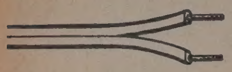
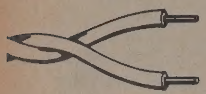
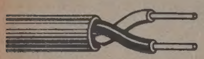
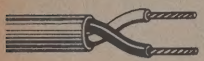
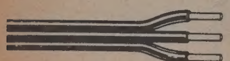
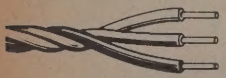
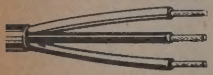
TWO CONDUCTOR UNSHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
 *Copper, vinyl insulated, PARALLEL*	**NEW 8781**	22 (Solid)	.016	—	Chrome 1 condr. tinned	.060x .120	100	100, 500, 1000
	8782	24 (7x32)	.017	—	Chrome, Sand, Clear 1 condr. tinned	.058x .115	300	25, 50, 100, 500, 1000
Without JACKET  *Copper, vinyl insulated, TWISTED.*	**8481**	22 (Solid)	.015	—	Brn, Tan	.112	350	100, 500, 1000
	8482	19 (Solid)	.015	—	Brn, Tan	.130	350	100, 500, 1000
	8492	19 (Solid)	.025	—	Brown or White 1 condr. tinned	.170	600	1000
	8460	18 (7x26) tinned	.020	—	Blk, Wht	.175	450	100, 500, 1000
	8470	16 (19x29) tinned	.023	—	Blk, Wht	.195	600	500, 1000
With JACKET  SOLID  STRANDED *Copper, vinyl insulated, CABLED, chrome vinyl jacket.*	**8740**	22 (Solid) tinned	.015	.025	Blk, Red	.150	200	100, 500, 1000
	8442	22 (7x30) tinned	.015	.025	Blk, Red	.165	350	500, 1000
	8205	20 (10x30) tinned	.018	.025	Blk, Red	.190	350	25, 100, 500, 1000
	8486	19 (Solid)	.015	.025	Brn, Tan	.162	350	500, 1000
	8461	18 (7x26) tinned	.020	.028	Blk, Wht	.226	450	100, 500, 1000
	8471	16 (19x29) tinned	.023	.030	Blk, Wht	.256	600	500, 1000
	8473	14 (19x27) tinned	.031	.035	Blk, Wht	.332	600	500, 1000

For additional 2 conductor cables see PORTABLE CORDAGE on page 12.

THREE CONDUCTOR UNSHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
 *Copper, vinyl insulated, PARALLEL*	**NEW 8701**	22 (Solid)	.016	—	Chrome 1 condr. tinned	.060x .180	100	100, 500, 1000
	NEW 8475	16 (19x29) tinned	.023	—	Wht, Brn, Red	.102x .295	300	100, 500
Without JACKET  *Bare copper, vinyl insulated, CABLED*	**8483**	19 (Solid)	.015	—	Brn, Gray, Tan	.132	350	100, 500, 1000
	8493	19 (Solid)	.025	—	Brn, 1 condr. tinned, 1 condr. insulation is ribbed	.170	600	1000
With JACKET  *Copper, vinyl insulated, CABLED, chrome vinyl jacket.*	**8443**	22 (7x30) tinned	.010	.025	Blk, Grn, Red	.150	200	25, 100, 500, 1000
	8487	19 (Solid) bare	.015	.025	Brn, Gray, Tan	.180	350	500, 1000

For additional 3 conductor cables see PORTABLE CORDAGE on page 12.

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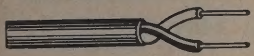
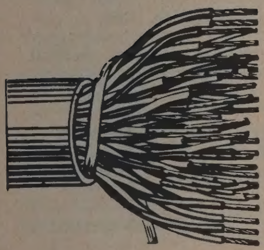
COLOR CODING FOR PAIRED CABLES

This color code chart applies to multiple pair unshielded sound and audio cables shown below and to the shielded pairs on pages 4 and 5.

Pair Number	Color Combination	Pair Number	Color Combination	Pair Number	Color Combination
1	Black paired with Red	10	Red paired with Blue	19	White paired with Blue
2	Black paired with White	11	Red paired with Yellow	20	White paired with Yellow
3	Black paired with Green	12	Red paired with Brown	21	White paired with Brown
4	Black paired with Blue	13	Red paired with Orange	22	White paired with Orange
5	Black paired with Yellow	14	Green paired with White	23	Blue paired with Yellow
6	Black paired with Brown	15	Green paired with Blue	24	Blue paired with Brown
7	Black paired with Orange	16	Green paired with Yellow	25	Blue paired with Orange
8	Red paired with White	17	Green paired with Brown	26	Brown paired with Yellow
9	Red paired with Green	18	Green paired with Orange	27	Brown paired with Orange

MULTIPLE PAIR UNSHIELDED SOUND CABLES

TYPICAL APPLICATIONS: Balanced line sound systems.
Made with 80°C vinyl plastic compounds for high dielectric strength and the best physical properties, such as free stripping, small diameter, and tear resistance. It also resists the effects of water, sun, oil, grease, and ozone. The conductors are paired with a short-lay twist for conductor balance, providing a quiet circuit, free from cross talk.

1 to 27 Pairs	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
 *#22 Tinned copper, vinyl insulated, cabled in pairs, chrome vinyl jacket. 200 Volts suggested working voltage.* 	**8740**	1	Solid	.015	.025	.150	100, 500, 1000
	8741	2	Solid	.015	.028	.201	100, 500, 1000
	8742	3	Solid	.015	.030	.240	100, 500, 1000
	8757	4	Solid	.015	.030	.255	500, 1000
	8743	6	Solid	.010	.035	.305	100, 500, 1000
	8747	6	7x30	.010	.035	.340	100, 500, 1000
	8744	9	Solid	.010	.037	.354	100, 500, 1000
	8748	9	7x30	.010	.037	.389	100, 500, 1000
	8753	11	Solid	.010	.037	.384	100, 500, 1000
	8754	13	Solid	.010	.037	.409	100, 500, 1000
	8745	15	Solid	.010	.040	.420	100, 500, 1000
	8749	15	7x30	.010	.040	.425	100, 500, 1000
	8755	19	Solid	.010	.040	.480	500, 1000
	8756	23	Solid	.010	.040	.510	500, 1000
	8746	27	Solid	.010	.045	.550	§ Cut to customer's specified length. Maximum length 1500′
	8750	27	7x30	.010	.045	.595	§ Cut to customer's specified length. Maximum length 1500′

For 51 pair cable see page 8

§Minimum length 25′
25′ to 199′, plus 25′, minus 0.
200′ or over, plus 50′, minus 0.

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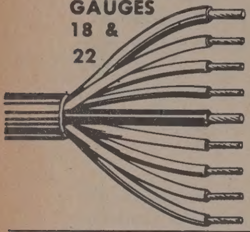
Belden | multiple conductor unshielded and telephone cables

MULTIPLE CONDUCTOR SOUND AND AUDIO CABLES (NOT PAIRED)

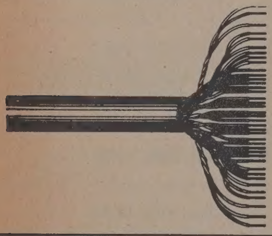
Description and Gauge	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
22 GAUGE *Tinned copper, vinyl plastic insulated, cabled, vinyl jacket. 200 Volts suggested working voltage.*	**8443**	3	22 (7x30)	.010	.025	.150	25, 100, 500, 1000
	8444	4	22 (7x30)	.010	.025	.168	25, 100, 500, 1000
	8445	5	22 (7x30)	.010	.025	.180	25, 100, 500, 1000
	8456	10	22 (7x30)	.010	.030	.260	100, 500, 1000
	8457	12	22 (7x30)	.010	.030	.260	100, 500, 1000
COMBINATION GAUGES 18 & 22 	**8446**	6	4-22 (7x30) 2-18 (16x30)	.010 .018	.025	.222	15, 100, 500, 1000
	8447	7	5-22 (7x30) 2-18 (16x30)	.010 .018	.028	.246	100, 500, 1000
	8448	8	6-22 (7x30) 2-18 (16x30)	.010 .018	.028	.250	15, 100, 500, 1000
	8449	9	7-22 (7x30) 2-18 (16x30)	.010 .018	.028	.261	15, 100, 500, 1000
18 GAUGE *400 Volts suggested working voltage.*	**8465**	5	18 (16x30)	.018	.030	.272	100, 500, 1000
	8467	7	18 (16x30)	.018	.035	.320	100, 500, 1000
	8469	9	18 (16x30)	.018	.035	.375	100, 500, 1000

COLOR CODING OF INDIVIDUAL CONDUCTORS FOR CABLES 8443 THROUGH 8469

Conductor	Color	Conductor	Color	Conductor	Color
1st	Black	5th	Brown	9th	Purple
2nd	Red	6th	Blue	10th	Gray
3rd	Green	7th	Orange	11th	Pink
4th	White	8th	Yellow	12th	Tan

18 Gauge conductors in cables 8446 through 8449 are Black and Red.

TELEPHONE CABLES-CONDUCTORS IN TRIPLETS

Description	Trade Number	Number of Triplets	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
	**8794**	1	Solid	.012	.022	.168	500, 1000
	8792	13	Solid	.012	.045	.525	100, 500, 1000
	8793	27	Solid	.012	.060	.720	§Cut to customer's specified lengths. Maximum length 1000′

No. 22 bare copper solid, vinyl insulated, cabled in triplets, Rose Gray vinyl jacket, 200 volts suggested working voltage. Each set of three conductors (triplets) are color coded, Red, Green and Yellow. The identification of each set of triplets is indicated by consecutive printed numbers on the yellow conductor of each group.

51 PAIR CABLE

Description	Trade Number	No. of Pairs	Conductors	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
	8751	51	Solid Tinned Copper	.010	.050	.725	§Cut to customer's specified length. Maximum length 1500′

#22 tinned copper, vinyl insulated, cabled in pairs, BELDFOIL aluminum-Mylar shield over cabled pairs, #22 (7 x 30) stranded ground drain wire, chrome vinyl jacket. 200 Volts suggested working voltage. Color coding available on request.

§Minimum length 25′.
25′ to 199′, plus 25′, minus 0.
200′ or over, plus 50′, minus 0.

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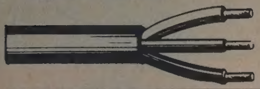
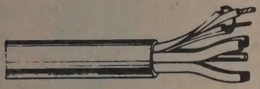
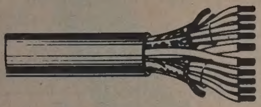
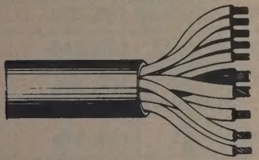
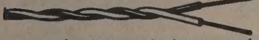
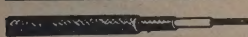
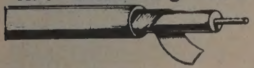
COIN OPERATED PHONOGRAPH CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Color Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
Control Cables 	**8783**	3 (3 unshielded)	1-20 (10x30) 2-16 (26x30)	Blue, Grn, Org	.020 .020	.025	.250	450	100, 500
	Tinned copper, vinyl insulated, conductors cabled, chrome vinyl jacket.								
	**NEW⊖ 8788**	5 (2 unshielded) (3 shielded)	22 (7x30) 22 (7x30)	Blue, Yel Blk, Grn, Red	.015 .015	.028	.236	350	500
	Tinned copper, vinyl insulated, 3 conductors each separately BELDFOIL aluminum – Mylar shielded, ground drain wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL Z fold, 2 conductors unshielded, cabled around a vinyl filler, chrome vinyl jacket.								
	8786⊖	6 (2 unshielded) (4 shielded)	22 (7x30) 24 (7x32)	Blu, Wht Blk, Grn, Red, Yel	.015 .015	.028	.256	350	100, 500
	Tinned copper, vinyl insulated, 4 conductors twisted under BELDFOIL aluminum – Mylar shield, 2 conductors unshielded, 22 AWG drain wire, chrome vinyl jacket.								
	**8787⊖**	10 (4 shielded) (4 shielded) (2 unshielded)	24 (7x32) 24 (7x32) 22 (7x30)	Gry, Wht, Blu, Grn Red, Brn, Yel, Org Wht, Blu	.012 .012 .015	.030	.290	350	500
	Tinned copper, 22 AWG conductors vinyl insulated, 24 AWG conductors polyethylene insulated, cabled in 2 quads, each with transparent Mylar tape wrap, 24 AWG tinned copper ground wire. Red BELDFOIL shield over one quad, green BELDFOIL shield over the other quad; plus 2 unshielded conductors, chrome vinyl jacket.								
	**NEW 8784**	10 (10 unshielded)	2-16 (26x30) 1-20 (10x30) 7-22 (7x30)	Blk, Wht Gray Red, Grn, Org, Yel, Blu, Purple Brown	.016 .018 .013	.040	.350	300	500
	Tinned copper, vinyl insulated, 16 AWG pair twisted, vinyl jacket.								

HI-FI AND STEREO CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Nom. Cap. between condrs. (mmf/ft)	Nom. Cap. condr. to other condr. & shield (mmf/ft)	Standard Spool Lengths in ft
Phono Pick-up Arm Cables  *Tinned copper, vinyl insulated, twisted pair.*	**8430**	2	32 (7x40)	.009	—	.050	Blk, Red	21	—	10, 25, 250
	→	4	use two 8430s for maximum channel isolation, one for each channel.							
Tinned copper, vinyl insulated, twisted pair, tinned copper braid shield.	**8429**	2	32 (7x40)	.009	—	.057	Blk, Red	22	38	10, 25, 250
	8419	3	32 (7x40)	.009	—	.067	Blk, Red Wht	30	50	10, 25, 250
	→	4	use two 8429s for maximum channel isolation, one for each channel.							
 *Tinned copper, rubber insulated, tinned copper braid shield, brown cotton braid.*	**8431**	1	24 (16x36)	.015	—	.095	—	96	—	10, 15, 25, 100, 500
Hi-Fi Connecting Cable 	**8421**	1	25 (7x33)	.052	.025	.180	—	18	—	15, 25, 50, 100, 250
			3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.							
Dual Channel Audio Cable for stereo and language labs	**NEW 8416**	2	25 (7x33)	.018	.020	.106 x .213	1 Wht 1 Red	35 each channel	—	15, 25, 50, 100, 250
			3 strands tinned copper and 4 tinned Copperweld, polyethylene insulated, individual tinned copper spiral wrapped shield, chrome vinyl jacket, polarity rib on red conductor.							
Miniature Audio Connecting Cable totally shielded	**NEW⊖ 8417**	1	25 (7x33)	.020	.026	.140	Chrome	25	—	15, 25, 50, 100, 250
			3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated, BELDFOIL aluminum Mylar shield "Z" fold, 26 AWG stranded tinned copper ground drain wire, chrome vinyl jacket.							

⊖ Belden U.S. Patent 3,032,604

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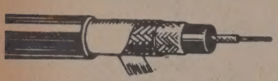
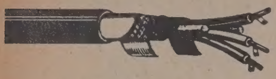
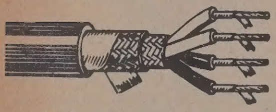
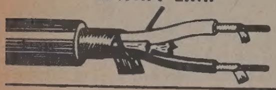
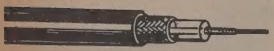
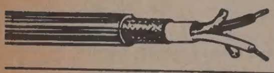
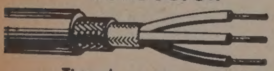
Belden | rubber and plastic microphone and shielded power supply cables

RUBBER AND NEOPRENE MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Imped-ance (Ohms)	*Cap. (mmf/ft)	**Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR 	**8410**	1	25(7x33)	.063	.025	.245	80	3000	52	—	33	15, 25, 50, 100, 250, 500
	3 strands copper, 4 strands Copperweld tinned, cellulose yarn braid, rubber insulated, rayon braid, tinned copper braid shield, cellulose yarn wrap, black rubber jacket.											
MINIATURE 	**8413**	2	24(45x40)	.019	.025	.185	100	300	—	38	71	15, 25, 50, 100, 250, 500
	8406	3	24(45x40)	.019	.025	.223	100	300	—	43	76	100, 250, 500
	Tinned cadmium bronze, cotton serve, rubber insulated, cabled with fillers, conductive textile serve, tinned copper braid shield, cotton serve, black rubber jacket.											
MULTIPLE CONDUCTOR  Tinned copper, cotton wrap, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.	**8412**	2	20(26x34)	.020	.043	.268	84	600	—	42	68	15, 25, 50, 100, 250, 500
	8423	3	20(26x34)	.020	.040	.277	84	600	—	50	85	15, 50, 100, 250, 500, 1000
	8424	4	20(26x34)	.020	.040	.295	83.5	600	—	55	95	15, 50, 100, 250, 500, 1000
	8425	5	20(26x34)	.020	.040	.323	76	600	—	44	80	100, 250
	8426	6	20(26x34)	.020	.040	.349	90	600	—	40	78	100, 250
	8427	7	20(26x34)	.020	.043	.360	90	600	—	40	75	100, 250
	8418	8	20(26x34)	.020	.043	.386	92	600	—	42	75	100, 250
	8428	2	18(41x34)	.022	.038	.295	91	600	—	47	80	100, 500
NEOPRENE HEAVY DUTY	**NEW 8407**	4	16(65x34)	.032	.043	.422	84	600	—	37	65	100, 250
	Tinned copper, separator, rubber insulated, cabled, rayon braid, tinned copper braid shield, cotton wrap, black neoprene jacket.											
EXTRA LIMP 	**8414**	2	20(26x34)	.020	.043	.256	100	600	—	45	80	50, 500
	Tinned copper, cotton wrap, rubber insulated, cabled, conductive textile wrapped shield, stranded ground wire, black rubber jacket.											

VINYL MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Imped-ance (Ohms)	*Cap. (mmf/ft)	**Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR 	**8411**	1	25(7x33)	.020	.020	.144	72	3500	52	—	34	15, 25, 50, 100, 250, 500
	8401	1	25(7x33)	.043	.025	.200	74	5000	57	—	25	15, 25, 50, 100, 250, 500
	3 strands copper, 4 strands Copperweld, tinned, cellulose yarn braid, polyethylene insulated, tinned copper braid shield, chrome vinyl jacket.											
MINIATURE 	**8420**	2	24(45x40)	.015	.020	.185	77	500	—	20	35	15, 25, 50, 100, 250, 500
	Tinned cadmium bronze, cotton wrap, polyethylene insulated, cabled with fillers, rayon braid, tinned copper braid shield, chrome vinyl jacket.											
MULTIPLE CONDUCTOR  Tinned copper, polyethylene insulated, cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.	**8422**	2	22(16x34)	.023	.023	.231	87	1000	—	18	32	15, 25, 50, 100, 250, 500
	8403	3	20(26x34)	.015	.033	.244	89	600	—	25	45	15, 50, 100, 250, 500, 1000
	8404	4	20(26x34)	.015	.033	.255	87	600	—	25	45	15, 100, 250, 500, 1000
	8405	5	20(26x34)	.015	.035	.275	83	600	—	25	45	250, 500, 1000

Color coding of individual conductors for cables on this page and coiled microphone cables on page 11: (1) White, (2) Black, (3) Red, (4) Green, (5) Blue, (6) Brown, (7) Yellow, (8) Orange.

*Capacitance between conductors.

**Capacitance between 1 conductor and remaining conductors (if any) connected to shield.

See Prices on four pages at front of Belden listing

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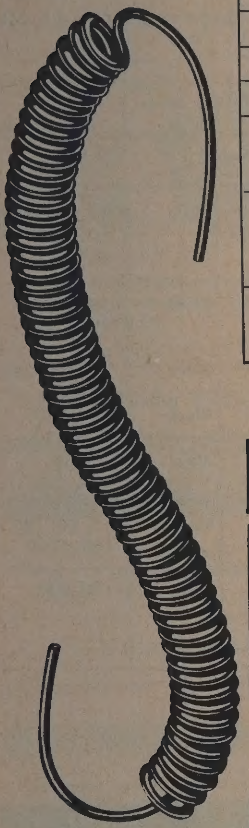
retractile (coiled) cables and cords | Belden

NEOPRENE RETRACTILE (COILED) MICROPHONE CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	***Cap. (mmf/cord)	Retracted Length	Extended Length	Standard Put-Up
	NEW 8409	4 unshielded	28(7x36)	.005	.050	.165	No shield	—	12″	6′	1
		Tinned copper, nylon insulated, neoprene jacket.									
	8415	4 unshielded	23(21x36)	.020	.055	.250	No shield	—	11½″	6′	1
	8499	1 shielded	24(45x40)	.019	.043	.160	80	285	7½″	4′	1
	8497	3 1 shielded 2 unshielded	23(21x36)	.020	.046	.250	100	480	11½″	6′	1
	NEW 8491⊖	4 2 individually shielded 2 unshielded	23(21x36)	.020	.050	.300	100	480	12″	6′	1

Tinned cadmium bronze, rubber insulated, paper tape wrap, black neoprene jacket. 8499 has a spiral tinned copper shield. 8497 and 8491 have a double BELDFOIL tape shield with a (21x36) tinned cadmium bronze drain wire for each shield conductor.



VINYL RETRACTILE (COILED) MICROPHONE CABLES

Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	***Cap. (mmf/cord)	Retracted Length	Extended Length	Standard Put-Up
8498	1 shielded	24(45x40)	.019	.060	.195	80	285	7½″	3½′	1
8496	3 2 unshielded 1 shielded	23(21x36)	.020	.046	.250	100	480	11½″	5′	1

Tinned cadmium bronze, rubber insulated, over-all vinyl jacket. 8498 has a spiral tinned copper shield. 8496 has a double BELDFOIL tape shield with a (21x36) tinned cadmium bronze drain wire.

NEOPRENE RETRACTILE (COILED) POWER AND CONTROL CABLES

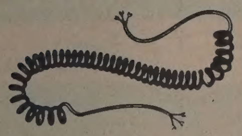
TYPICAL APPLICATIONS
- Hams
- Citizen Band
- Hand Mikes
- Desk Mikes
- Language Labs
- Mobile Controls
- Mobile Communications
- Industry Applications

Trade Number	No. of Cond.	UL Type	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Retracted Length	Extended Length	Standard Put-Up
NEW 8601	2	SVO	18(41x34)	.016	.045	.270	12″	6′	1 in bag
NEW 8602	3	SJO	18(41x34)	.031	.045	.360	12″	6′	1 in bag
NEW 8603	3	SJO	16(65x34)	.031	.045	.370	12″	6′	1 in bag
NEW 8604	3	SJO	16(65x34)	.031	.045	.370	24″	12′	1 in bag

Bare copper, paper wrap, rubber insulation, cabled with fillers, paper tape wrap, black neoprene jacket. 6″ straight portion each end. Jacket removed 1½″ each end.

VINYL RETRACTILE (COILED) TELEPHONE CORDS

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Retracted Length	Extended Length	Standard Put-Up
	8495	3	23(21x36)	.020	.041	.220	10″	4½′	1
	8494	4	23(21x36)	.020	.043	.245	10″	4½′	1



Bare cadmium bronze, vinyl insulated, cabled, paper wrapped, black vinyl jacket. 8494 one end stripped 7¾″, spade terminals attached and hook strain relief clamped over jacket. Other end stripped 6¼″ and spade terminals attached. 8495 one end stripped 2¾″, spade terminals attached and hook strain relief clamped over jacket. Other end stripped 3⁷⁄₁₆″ and spade terminals attached.

RUBBER—PLASTIC—NEOPRENE

PLASTIC CABLES RECOMMENDED FOR: Lower capacitance, lower loss, greater ozone and oil resistance, lighter weight, smaller diameter.

RUBBER CABLES RECOMMENDED FOR: Greater abrasion and impact resistance, and extra limpness so cable will lie flat on stage or studio floor.

NEOPRENE CABLES RECOMMENDED FOR: Outside use, cold weather applications. Resistant to effects of sun, oil, and ozone.

****Capacitance of shielded conductor.* *Belden U.S. Patent 3,032,604.*

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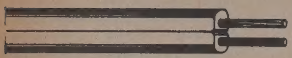
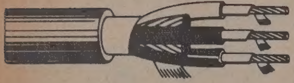
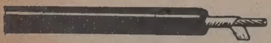
See Prices on four pages at front of Belden listing

Belden | portable cordage and test prod wire

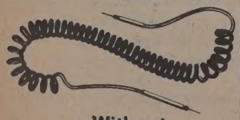
RUBBER-VINYL MULTI-CONDUCTOR PORTABLE CORDAGE—300V-60C

Description	Trade Number	U.L. Type	Insulation	No. of Conductors	AWG & Stranding	Insulation Thickness (Inch)	Conductor Coding	Jacket Thickness (Inch)	Nominal O.D. (Inch)	Color	Standard Spool Lengths in ft
	**8462**	SP-1	Rubber	2	18 (41x34) Tinned	.031	Polarity Ribbed	—	.123 x .223	Brown or Ivory	25, 100, 250
	8888	SPT-1	Vinyl	2	18 (41x34)	.031	Polarity Ribbed	—	.110 x .207	Brn, Ivory, or Silver Gray	25, 100, 250
	Two conductors, stranded copper, parallel, insulated with one conductor polarity ribbed										
 *Stranded copper, rubber insulated, cabled with fillers, rubber jacket*	**8452**	SV	Rubber	2	18 (41x34)	.016	Blk, Wht	.031	.245	Black	15, 25, 50, 100, 250, 500, 1000
	8478	SJ	Rubber	2	18 (41x34)	.031	Blk, Wht	.031	.298	Black	25, 100, 250, 1000
	8472	SJ	Rubber	2	16 (65x34)	.031	Blk, Wht	.031	.325	Black	25, 100, 250
	8474	—	Rubber	2	14 (41x30)	.031	Blk, Wht	.035	.360	Black	100, 250
	8453	SV	Rubber	3	18 (41x34) Tinned	.016	Blk, Wht, Green	.031	.265	Black	15, 50, 100, 500
	8454	—	Rubber	4	18 (41x34) Tinned	.016	Blk, Wht, Brn, Red	.031	.265	Black	15, 50, 100, 500, 1000
	8455	—	Rubber	5	3—20 (26x34) Tinned 2—18 (41x34) Tinned	.015 .015	Brn, Grn, White Blk, Red	.031	.280	Black	100, 250

TEST PROD WIRE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	**8899**	18 (65x36)	.045	.144	20,000	5,000	10, 14*, 25, 100, 500, 1000 *7′ of red and 7′ of black.
	NEW 8897	18 (65x36)	.045	.144	20,000	5,000	500, 1000
		Manufactured per MIL-W-13169					
	8898	18 (65x36)	.088	.230	29,000	10,000	10, 25, 100, 500
		Tinned copper, separator, rubber insulated, red or black. *Extreme limpness and flexibility combined with high dielectric strength.*					

COILED TEST PROD WIRE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Package
With Prods 	**8878**	20 (42x36)	.063	.173	20,000	5,000	1 pair Red and Black
	Tinned copper, rubber insulated, red or black. Retracted length 8″. Stretches to 5′.						
Without Prods	**8879**	20 (42x36)	.063	.173	20,000	5,000	1 pair Red and Black

Tinned copper, rubber insulated, red or black. Retracted length 8″. Stretches to 5′.

See Prices on four pages at front of Belden listing

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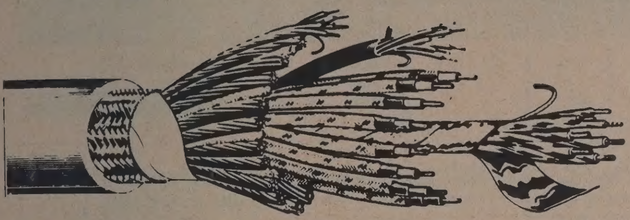
TV CAMERA CABLES

Belden TV Broadcasting and closed circuit TV Camera Cables are precision engineered to assure reliable performance and long service life. In addition to lighter weight, greater flexibility, and easier termination these cables are designed to maintain high conductor insulation resistance regardless of changes in ambient temperatures.

Trade Number 8283

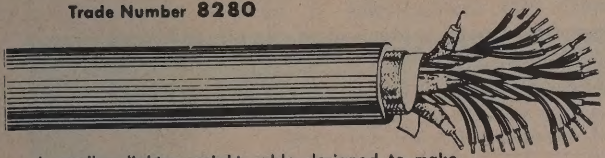


Designed to meet the critical electrical and physical requirements necessary for color television broadcast applications.

82 Conductor TV Color Camera Cable

4-14 AWG (19x27) tinned copper, vinyl plastic insulated, color coded
3-16 AWG (26x30) tinned copper, vinyl plastic insulated, color coded
BELDFOIL aluminum-Mylar wrapped shield around the above 7 conductors cabled with stranded tinned copper drain wire
8 coaxial cables. Nom. impedance 53.5 ohms, color coded
67-22 AWG (7x30) tinned copper, vinyl plastic insulated, color coded, 7 under conductive textile shield with stranded ground wire
Tinned copper braid shield
Chrome vinyl plastic jacket. 1.22" Nom. O.D.
§Cut to customer's specified length.
Maximum length 1000'

Trade Number 8280

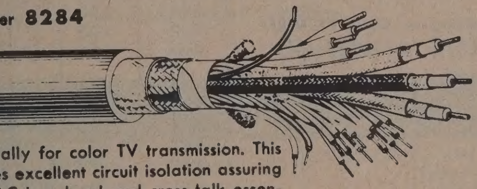


A smaller, lighter weight cable designed to make long runs easier. Recommended for black and white (Monochrome) systems.

28 Conductor TV Camera Cable

4-18 AWG (16x30) tinned copper, vinyl insulated, color coded
21-22 AWG (7x30) tinned copper, vinyl insulated, cabled in 3 groups of 7, color coded
3 coaxial cables. Nom. impedance 51 ohms, color coded
Tinned copper braid shield
Chrome vinyl jacket. .750" Nom. O.D.
§Cut to customer's specified length.
Maximum length 1500'

Trade Number 8284

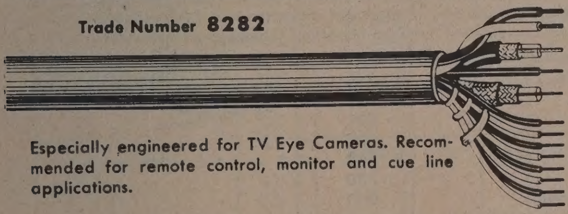


Designed specifically for color TV transmission. This cable incorporates excellent circuit isolation assuring the reduction in AC hum level and cross talk essential for color TV broadcasting.

24 Conductor TV Camera Cable

17-22 AWG (7x30) tinned copper, vinyl insulated, color coded
4-16 AWG (26x30) tinned copper, vinyl insulated, color coded
3 coaxial cables. Nom. impedance 53.5 ohms, color coded
Tinned copper braid shield
Heavy cotton braid
Chrome vinyl plastic jacket. .800" Nom. O.D.
§Cut to customer's specified length.
Maximum length 1000'

Trade Number 8282



Especially engineered for TV Eye Cameras. Recommended for remote control, monitor and cue line applications.

13 Conductor TV Eye Cable

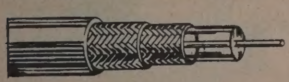
9-22 AWG (7x30) tinned copper, vinyl insulated, color coded
2-18 AWG (16x30) tinned stranded copper conductor vinyl insulated. Black and Red
1-RG-58A/U cable 50-ohm coax
1-72-ohm coax, stranded conductor, Mylar tape wrapped
Chrome vinyl jacket. .470" Nom. O.D.
Standard spool lengths 500', 1000'.

This series of cables is also recommended as interconnecting cables in complex electronic applications. Each cable contains coaxial cables for RF and Video signals, pulse voltages or high voltage lines as well as many conductor groups for control and power circuits.

§Minimum length 25'. 25' to 199', plus 25', minus 0. 200' or over, plus 50', minus 0.

75 OHM VIDEO CABLE

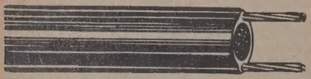
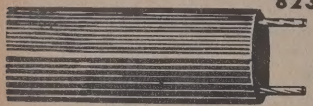
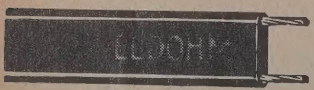
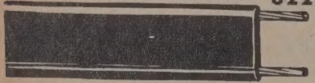
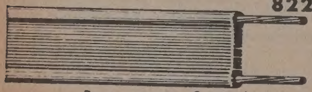
TYPICAL APPLICATIONS: Video signal transmission in color and monochrome TV studios. Provides high quality carrier of video signal with superior picture definition and eliminates problems of periodicity. Cable is manufactured with rigid control of concentricity and all dimensional tolerances. The black polyethylene jacket is manufactured with a non-contaminating, non-migratory compound. 100% SWEEP TESTED.

Description	Trade Number	AWG & (Stranding) Material	Nom. O.D. (Inch)	Percent Shield Coverage	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap (mmf/ft)	Nom. Attenuation mc	Nom. Attenuation db	Standard Spool Lengths in ft
	**8281**	20(Solid) copper	.304	96.4	75	65%	21.	5 10 20 100 300 500 700	.55 .8 1.3 2.7 5.1 6.8 8.4	500, 1000

Conductor, polyethylene insulated, tinned copper double braid shield, black polyethylene jacket.
As a service to users of 8281 video cable, we can furnish, without charge, adapters for use with the PL259 plug.

Belden | 300 ohm transmission line cables

TWIN LEAD WIRES

Description & Trade Number	AWG & (Stranding)	Color	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100' mc	db	Standard Package Lengths in ft
Permohm★ 8285 Copperweld, 2 conductors parallel, orange polyethylene insulation and web between conductors, cellular polyethylene oval jacket.	22 (7x30)	Brown	.255 x .468	73.3%	5.3	100 300 500 700 900	1.4 2.8 3.8 4.8 5.6	50, 75, 100 coils in counter dispenser 500 coil 1000 spool
	PERMOHM Encapsulated twin lead for strong, clear signals on all channels despite salt spray, industrial contamination, rain, ice and fringe area reception. An excellent color, UHF or VHF cable.							
Celluline★★ 8275  Copperweld; 2 conductors parallel, polyethylene jacket with inert gas filled unicellular polyethylene core.	20 (7x28)	Brown	.300 x .400	80%	4.6	100 200 300 400 500 700 900	1.05 1.64 2.12 2.5 2.98 3.62 4.3	50, 75, 100 coils in counter dispenser 500, 1000 spools
	CELLULINE Maintains uniform electrical characteristics by eliminating all possible moisture between conductors. Installation is easier as no end-sealing is necessary. Losses are lower because of its lower dielectric constant (1.5). *The thick outer wall of brown polyethylene protects the cable from abrasion and sun damage, and the round shape offers less wind resistance. The result is a longer lasting, more efficient line which helps maintain a strong UHF or VHF reception for black and white or color.*							
8235  Bare copper, 2 conductors parallel, polyethylene insulated.	18 (7x26)	Brown	.185 x .520	77%	5.0	100 200 300 400 500 700 900	.85 1.35 1.80 2.20 2.60 3.25 3.85	100 coil 500 spool
	Amateur transmitting and receiving twin lead—1KW(RF) rated.							
Weldohm†† 8230  Copperweld; 2 conductors parallel, polyethylene insulated.	20 (7x28)	Brown	.072 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 500, 1000 spools
	WELDOHM This cable is 1½ times STRONGER and has 2½ times more FLEX LIFE than equivalent twin lead with all copper conductors, without changing the RF electrical characteristics. Tests prove its superior resistance to the pulling, whipping, and twisting that is so important to a long lasting installation.							
8225  Bare copper, 2 conductors parallel, polyethylene insulated.	20 (7x28)	Brown	.058 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 500, 1000 spools
	Brown polyethylene for the best weathering.							
8226  Bare copper, 2 conductors parallel, polyethylene insulated.	20 (7x28)	Ivory	.058 x .400	80%	4.4	Same as 8225		25, 50, 75, 100 pancake coils in a sleeve
	Recommended for indoor use.							

†† Belden Trademark, Reg. U.S. Pat.Off.

★Belden Trademark, Reg. U.S. Pat. Off., and Belden U.S. Pat. 2,782,251.

★★Belden Trademark, Reg. U.S. Pat. Off., and Belden U.S. Pat. 2,814,666.

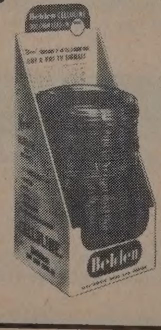
BELDEN MERCHANDISERS

WITH TERMINALS

10 Pancake Coils per Box

300 ohm Line Package Coils
8225
8226 (New Indoor Ivory)
8230 (Weldohm)
Put-ups 25', 50', 75', 100'

Antenna Rotor Cable
8464 (4 conductor, flat)
Put-ups 50', 75', 100'
without terminals



300 ohm Line Coils
8275 (Celluline)
8285 (Permohm)
Put-ups 50', 75', 100'

10 Coils per box

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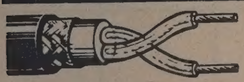
72 OHM TRANSMISSION LINE CABLES

Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100′ mc	db	Standard Spool Lengths in ft
72 OHM LINE	**8222**	20 (7x28)	.075 x .128	69%	20.3	100 200 300 400	7.7 11.0 13.6 15.9	100, 500
		Bare copper, 2 conductors parallel, brown polyethylene insulated.						
72 OHM 1 KW (RF) RATED	**8210**	13 (7x21)	.166 x .278	68%	21.0	100 200 300 400 500 700 900	3.8 6.0 7.8 9.3 11.0 13.7 16.0	100, 250
		Bare copper, 2 conductors parallel. brown polyethylene insulated.						

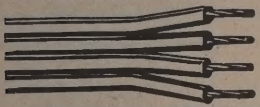
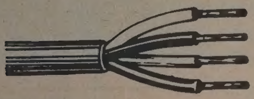
SHIELDED 100 OHM TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Percent Shield Coverage	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100′ mc	db	Standard Spool Lengths in ft
	**8227**	20 (7x28)	.325	62%	83	15.5	100 200 300 400	4.1 6.4 8.4 10.2	500

One conductor tinned, one bare copper, polyethylene insulated, cabled, polyethylene jacket, tinned copper braid shield, black vinyl jacket.

This shielded transmission line offers low-loss signal transmission which remains unaffected by outside signals or noise fields. Recommended for RF applications requiring a cross-talk free, balanced operation.

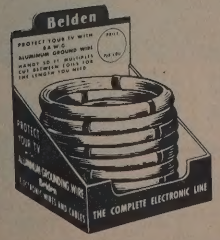
ANTENNA ROTOR CABLE

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Package Lengths in ft
	**8464**	4	20 (7x28)	1 cond. tinned and insulation ribbed	—	—	.070 x .390	200	50, 75, 100 pancake coils 500, 1000 spools
			Bare copper, parallel, chrome vinyl insulated.						
	**8484**	4	20 (7x28)	Blk, Grn, Red, Wht	.010	.020	.180	200	100, 500, 1000 spools
	8485	5	20 (7x28)	Blk, Grn, Red, Wht, Yel	.010	.020	.190	200	100, 500, 1000 spools
	8488	8	22 (7x30)	Blk, Blu, Brn, Grn, Org, Red, Wht, Yel	.010	.020	.205	200	100, 500, 1000 spools

Bare copper, vinyl insulated, cabled, chrome vinyl jacket.

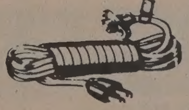
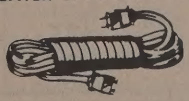
ALUMINUM GROUND WIRE

Packaged in counter dispensers of 10-50′ connected coils, or spools of 500 ft. Wire on spools is marked every 100′ for easy measuring.

Description	Trade Number	Nom. O.D. (Inch)	Standard Package Lengths in ft
	**8018**	.128	500 in 10-50 connected coils 500 spools
			8 AWG solid, soft annealed aluminum

Belden
PROTECT YOUR TV WITH ALUMINUM GROUNDING WIRE
THE COMPLETE ELECTRONIC LINE

TV AND CHEATER CORDS

Description	Trade Number	Length in ft.	Standard Package
CHEATER CORDS 	**8874**	6	1 in polyethylene bag with description.
	SP-1 brown rubber parallel cord with male plug and TV connector.		
	8895	6	1 in polyethylene bag with description. 100 bulk-hanked.
	NEW 8889	9	
	SPT-1 brown plastic parallel cord with male plug and TV connector.		
CHEATER EXTENSION CORD 	**8875**	6	1 in polyethylene bag with description.
	SPT-1 red plastic parallel cord with male and female TV connectors.		

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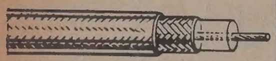
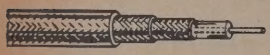
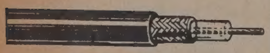
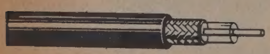
Belden | RG/U, transmission line cables

RG/U CABLES

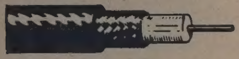
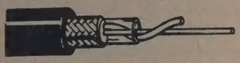
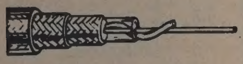
Description	Trade Number	RG No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Imp. (Ohms)	Nom. Vel. of Prop.	Nom. Cap. (mmf/ft.)	Nom. Attenuation per 100' mc	db	Standard Spool Lengths in ft.
	8264 **JAN-C-17A**	5A/U	16 (Solid) silver coated copper	Polyethylene	2 silver-coated copper	Gray non-contaminating vinyl	.328	50	66%	28.5	100 200 400	2.40 3.50 5.25	500 1000
	8237 **JAN-C-17A**	8/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black vinyl	.405	52	66%	29.5	100 200 400	2.10 3.30 4.50	100 250, 500 1000
	8267 **MIL-C-17C**	213/U formerly 8A/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	50	66%	28.5	100 200 400	2.10 3.30 4.50	500 1000
	8242 **JAN-C-17A**	9/U	13 (7x21) silver coated copper	Polyethylene	2 inner-silver-coated copper outer-bare copper	Gray non-contaminating vinyl	.420	51	66%	30.0	100 200 400	2.10 3.30 4.50	100 1000
	8238 **JAN-C-17A**	11/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black vinyl	.405	75	66%	20.5	100 200 400	1.90 2.85 4.35	100 250, 500 1000, 1500
	8261 **MIL-C-17C**	11A/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	75	66%	20.5	100 200 400	1.90 2.85 4.35	100 500 1000
	**8239** **JAN-C-17A**	54A/U	18(7x.0152) bare copper	Polyethylene	1 tinned copper	Clear polyethylene	.245	58	66%	26.5	100 200 400	3.10 4.40 6.70	500 1000
	**8245** **JAN-C-17A**	55/U	20 (Solid) bare copper	Polyethylene	2 tinned copper	Clear polyethylene	.201	53.5	66%	28.5	100 200 400	4.10 6.20 9.50	500 1000
	**8259** **JAN-C-17A**	58A/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black vinyl	.195	50	66%	28.5	100 200 400	5.30 8.20 12.60	25, 50 100, 500 1000
	8262 **MIL-C-17C**	58C/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black non-contaminating vinyl	.195	50	66%	28.5	100 200 400	5.30 8.20 12.60	500 1000
	**8240** **JAN-C-17A**	58/U	20 (Solid) bare copper	Polyethylene	1 tinned copper	Black vinyl	.195	53.5	66%	28.5	100 200 400	4.10 6.20 9.50	25, 50, 100 250, 500 1000

Manufactured to current Government specifications and subsequent revisions.

RG/U, transmission line, and high voltage cables

Belden

RG/U CABLES

Description	Trade Number	R.G. No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom Imped-ance (Ohms)	Nom. Velocity of Propa-gation	Nom Cap. (mmf/ft)	Nom. Attenuation per 100 mc	db	Standard Spool Lengths in ft.
	**8241** JAN-C-17A	59/U	22 bare Copperweld	Poly-ethylene	1 bare copper	Black vinyl	.242	73	66%	21.0	100 200 400	3.75 5.60 8.30	25, 50, 100 250, 500 1000
	8263 MIL-C-17C	59B/U	.023 bare Copperweld	Poly-ethylene	1 bare copper	Black non-contaminating vinyl	.242	75	66%	20.5	100 200 400	3.75 5.60 8.30	500 1000
	**8254** JAN-C-17A	62/U	22 bare Copperweld	Semi-solid Poly-ethylene	1 bare copper	Black vinyl	.242	93	84%	13.5	100 200 400	3.10 4.40 6.30	100 500 1000
	**8257** JAN-C-17A	71/U	22 bare Copperweld	Semi-solid Poly-ethylene	2 tinned copper	Clear Poly-ethylene	.245	93	84%	13.5	100 200 400	3.10 4.40 6.30	500 1000
Navy Drawing RE-49B716	**8216**	174/U	7x34 bare Copperweld	Poly-ethylene	1 tinned copper	Black vinyl	.100	50	65.5%	30.4	100 200 400	8.3 13.0 20.0	100 500 1000

REQUEST QUOTATIONS ON PRODUCTION QUANTITIES OF RG/U CABLES NOT LISTED.

RG/U COAXIAL CABLES

Belden's RG/U cables are manufactured and laboratory tested in accordance with existing military specifications. These cables combine low capacitance and low attenuation. The virgin polyethylene insulation assures constant electrical characteristics regardless of changes in frequency or temperature.

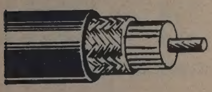
A variety of available jacket types include abrasion resistant polyethylene, polyvinylchloride (recommended for chemical and weather resistance) and a special non-contaminating vinyl compounded for applications above 3000 megacycles.

Typical applications: Flexible test leads, patch cords and high voltage leads (consult applicable Mil Spec for dielectric rating of individual RG/U types). Excellent for audio applications.

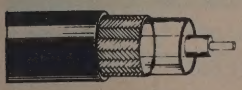
Note: Maximum temperature rating of polyethylene is 80°C (176°F). The polyethylene insulation begins to soften above this temperature.

Manufactured to current Government specifications and subsequent revisions.

FOAM CORE RG-8/U TYPE TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100 mc	db	Standard Spool Lengths in ft
	**8214**	11 (7x19)	96.8	.403	50	78%	26	50 100 200 300 400	1.20 1.80 2.60 3.30 3.80	100 500 1000
Conductor, cellular polyethylene insulated, bare copper braid shield, black vinyl jacket.	**Foam core RG-8/U type—for use in citizens' band and amateur radio as a 50 ohm antenna cable.**									

60 KV D.C. HIGH VOLTAGE CABLE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	**NEW 8870**	22 Solid Copperweld	.142	.020	.440	Black	160,000 D.C.	60,000 D.C.	100

Solid Copperweld, conductive polyethylene, polyethylene insulation, tinned copper braid equipotential sheath, black polyethylene jacket.

Conductive polyethylene over inner conductor combined with a copper wire braid over the dielectric provides uniform distribution of voltage stress. Consult Belden Engineering Department for AC or pulse applications.

For other high voltage cable refer to bottom of page 18

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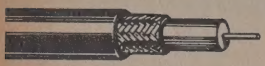
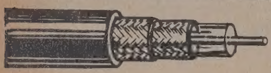
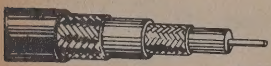
Belden | tv distribution cables and cathode-ray tube leads

COMMUNITY ANTENNA AND CLOSED CIRCUIT TV CABLES

ALL CABLES IN THIS GROUP ARE SWEEP TESTED

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100 mc	db	Standard Spool Lengths in ft
 Conductor, cellular polyethylene insulated, bare copper braid shield, polyethylene jacket (except 8217 extra limp vinyl jacket).	**8211** Black	22 (Solid) Copperweld *Fits the same connectors as RG-59/U* *Foam core RG-59/U type*	94.6	.242	80	78%	16.3	50 100 200 300 400	2.4 3.4 4.8 5.8 6.7	500, 1000, 2000
	8212 Black	20 (Solid) Copperweld *Foam core RG-59/U type*	94.6	.242	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
	NEW 8217 White	22 (Solid) Copperweld *Fits the same connectors as RG-59/U* *Foam core RG-59/U type*	94.6	.242	80	78%	16.3	50 100 200 300 400	2.4 3.4 4.8 5.8 6.7	100, 500, 1000
	8213 Black	14 (Solid) copper *Foam core RG-11/U type*	96.8	.405	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000
 Conductor, polyethylene insulated, two bare copper braid shields, black polyethylene jacket.	**8215** Black	21 (Solid) Copperweld *RG-6A/U type*	96.6 (inner shield)	.332	75	66%	20.5	50 100 200 300 400	2.0 2.9 4.3 5.4 6.5	100, 500, 1000
Triaxial  Conductor, cellular polyethylene insulated, bare copper braid shield, polyethylene insulated, bare copper braid shield, black polyethylene jacket.	**8232** Black	20 (Solid) Copperweld	94.6 (inner shield)	.315	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
	8233 Black	14 (Solid) copper	92.5 (inner shield)	.475	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000

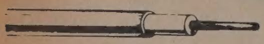
SWEEP TESTING

For satisfactory transmission of a signal through a cable at any frequency, Belden Sweep Tests every length of its Community TV Cables at all channels in the VHF Frequency range on an oscilloscope.

Sweep Testing, performed by trained technicians using the most modern equipment, prevents unsatisfactory program reception due to imperfections in the cable acting as "Filter Traps" at some frequencies.

The black polyethylene jackets on Belden numbers 8211, 8212, 8213, 8215, 8232, and 8233 are manufactured with a noncontaminating, nonmigratory compound specially formulated for superior weather resistance.

HIGH VOLTAGE CATHODE-RAY TUBE LEAD

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Break-down Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
 Tinned copper, conductive polyethylene, polyethylene insulated, vinyl jacket.	**8868**	22 (7x30)	.045	.015	.150	Red	50,000	25,000	25, 100, 500
	8869	22 (7x30) *8869 for use with non-conductive ceramic flyback cores.*	.030	.015	.120	Blk	35,000	17,000	25, 100, 500

For other high voltage cable refer to Belden 8870 on page 17.

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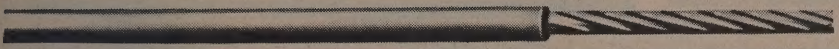
mil-w-16878d vinyl plastic | Belden

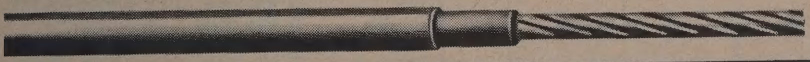
TYPE B—VINYL—600V—105C



Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools			Stock Colors
					100′	500′	1000′	
8599	B-32	32(7x40)	.010	.029	1 thru 10	1 thru 10	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black 14 White/Black 15 White/Red 16 White/Green 17 White/Yellow 18 White/Blue 19 White/Brown 20 White/Orange 21 White/Gray 22 White/Violet
8598	B-30	30(7x38)	.010	.032	1 thru 10	1 thru 10	1 thru 10	
8597	B-28	28(7x36)	.010	.035	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8505	B-26	26(7x34)	.010	.039	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8509	B-24	24(19x36)	.010	.045	9, 14 thru 22	—	9, 14 thru 22	
8504	B-24	24(7x32)	.010	.044	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8508	B-22	22(19x34)	.010	.051	9, 14 thru 22	—	9, 14 thru 22	
8503	B-22	22(7x30)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8507	B-20	20(19x32)	.010	.059	9, 14 thru 22	—	9, 14 thru 22	
8502	B-20	20(7x28)	.010	.058	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8506	B-18	18(19x30)	.010	.069	9, 14 thru 22	—	9, 14 thru 22	
8501	B-18	18(7x26)	.010	.068	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8500	B-16	16(19x29)	.010	.077	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	

TYPE B—VINYL-NYLON JACKET—600V—115C



Tinned copper, vinyl insulated, nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools			Stock Colors
					100′	500′	1000′	
8596	B-32	32(7x40)	.010	.035	1 thru 10	1 thru 10	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black 14 White/Black 15 White/Red 16 White/Green 17 White/Yellow 18 White/Blue 19 White/Brown 20 White/Orange 21 White/Gray 22 White/Violet
8595	B-30	30(7x38)	.010	.038	1 thru 10	1 thru 10	1 thru 10	
8594	B-28	28(7x36)	.010	.041	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8515	B-26	26(7x34)	.010	.045	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8519	B-24	24(19x36)	.010	.051	1 thru 10 14 thru 22	— —	1 thru 10 14 thru 22	
8514	B-24	24(7x32)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8518	B-22	22(19x34)	.010	.057	1 thru 10 14 thru 22	— —	1 thru 10 14 thru 22	
8513	B-22	22(7x30)	.010	.056	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8517	B-20	20(19x32)	.010	.065	1 thru 10 14 thru 22	— —	1 thru 10 14 thru 22	
8512	B-20	20(7x28)	.010	.064	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8516	B-18	18(19x30)	.010	.075	9, 14 thru 22	—	9, 14 thru 22	
8511	B-18	18(7x26)	.010	.074	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8510	B-16	16(19x29)	.010	.083	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	

Manufactured to current Government specifications and subsequent revisions.

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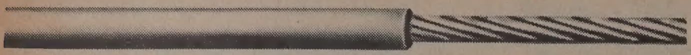
TYPE C—VINYL & VINYL-NYLON—1000V

VINYL



Tinned copper, vinyl insulated

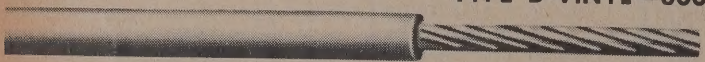
VINYL-NYLON

Tinned copper, vinyl insulated, Nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools 100′	500′	1000′
8955	C-24	24(7x32)	Vinyl	.018	.060	105C	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
8961	C-24	24(7x32)	Vinyl-Nylon	.018	.066	115C	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
8954	C-22	22(7x30)	Vinyl	.018	.066	105C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8960	C-22	22(7x30)	Vinyl-Nylon	.018	.072	115C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8953	C-20	20(7x28)	Vinyl	.018	.074	105C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8959	C-20	20(7x28)	Vinyl-Nylon	.018	.080	115C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8952	C-18	18(7x26)	Vinyl	.018	.084	105C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8958	C-18	18(7x26)	Vinyl-Nylon	.018	.091	115C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8951	C-16	16(19x29)	Vinyl	.018	.093	105C	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
8957	C-16	16(19x29)	Vinyl-Nylon	.018	.100	115C	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
8950	C-14	14(19x27)	Vinyl	.018	.107	105C	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
8956	C-14	14(19x27)	Vinyl-Nylon	.018	.114	115C	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22

Stock Colors			
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

TYPE D-VINYL—3000V—105C



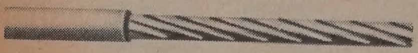
Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
8972	D-24	24(7x32)	.030	.084	9,14 thru 22	9,14 thru 22	9,14 thru 22
8971	D-22	22(7x30)	.030	.090	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8970	D-20	20(7x28)	.030	.098	"	"	"
8969	D-18	18(7x26)	.030	.108	"	"	"
8968	D-16	16(19x29)	.030	.117	9,14 thru 22	9,14 thru 22	9,14 thru 22
8967	D-14	14(19x27)	.030	.131	"	"	"
8966	D-12	12(19x25)	.035	.160	"	"	"
8965	D-10	10(37x26)	.035	.181	"	"	"
8964	D-8	8(133x29)	.040	.245	"	"	"
8963	D-6	6(133x27)	.040	.290	"	"	"

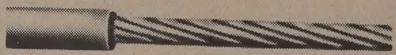
Stock Colors			
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

TYPE E—TFE TEFLON■—600V—200C TYPE EE—TFE TEFLON—1000V—200C

TYPE E 600V—200C



TYPE EE 1000V—200C



Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)
8300	E-30	30(7x38)	.032
8301	E-28	28(7x36)	.035
8302	E-26	26(7x34)	.039
8303	E-24	24(19x36)	.044
8304	E-24	24(7x32)	.044
8305	E-22	22(7x30)	.050
8306	E-22	22(19x34)	.050
8307	E-20	20(19x32)	.058
8308	E-20	20(7x28)	.058
8309	E-18	18(19x30)	.069
8310	E-16	16(19x29)	.080

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 25′, 50′	100′, 250′	500′	1000′
8320	EE-30	30(7x38)	.042	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8321	EE-28	28(7x36)	.045	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8322	EE-26	26(7x34)	.049	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8323	EE-24	24(19x36)	.054	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8324	EE-24	24(7x32)	.054	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8325	EE-22	22(7x30)	.060	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8326	EE-22	22(19x34)	.060	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8327	EE-20	20(19x32)	.068	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8328	EE-20	20(7x28)	.068	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8329	EE-18	18(19x30)	.079	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8330	EE-16	16(19x29)	.089	1 thru 10	1 thru 10	1 thru 10	1 thru 10

Stock Colors	
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Light Blue
7	Violet (purple)
8	Gray (slate)
9	White
10	Black

■*TEFLON: Du Pont trade name for Tetrafluorethylene Resin.*

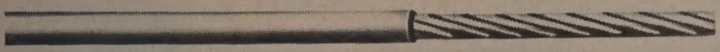
Color striping available on 1,000 ft. minimum per item each color.

Manufactured to current Government specifications and subsequent revisions.

© U.C.P., Inc.

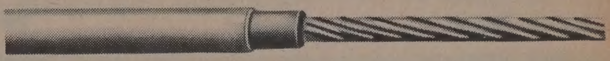
TYPE MW—VINYL & VINYL-NYLON—1000 V

VINYL



Tinned copper, vinyl insulated, medium wall. The extruded vinyl insulation is flame and ozone resistant and is inert to most chemicals, oils, and solvents.

VINYL-NYLON



Tinned copper, vinyl insulated. Medium wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools		
							25′	100′	500 or 1000′
8525	MW-C-24-(7)-U	24(7x32)	Vinyl	.017	.058	80C	—	1 thru 30	1 thru 30
NEW 8538	MW-C-24-(1)-U	24(Solid)	Vinyl	.017	.054	80C	—	1 thru 30	1 thru 30
8524	MW-C-22-(7)-U	22(7x30)	Vinyl	.017	.064	80C	1 thru 13	1 thru 30	1 thru 30
8530	MW-C-22-(1)-U	22(Solid)	Vinyl	.017	.059	80C	1 thru 13	1 thru 30	1 thru 30
8537	MW-C-22-(7)-J	22(7x30)	Vinyl-Nylon	.017	.069	90C	—	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8523	MW-C-20-(10)-U	20(10x30)	Vinyl	.017	.070	80C	1 thru 13	1 thru 30	1 thru 30
8529	MW-C-20-(1)-U	20(Solid)	Vinyl	.017	.066	80C	1 thru 13	1 thru 30	1 thru 30
8536	MW-C-20-(10)-J	20(10x30)	Vinyl-Nylon	.017	.076	90C	—	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8522	MW-C-18-(16)-U	18(16x30)	Vinyl	.017	.080	80C	1 thru 13	1 thru 30	1 thru 30
8528	MW-C-18-(1)-U	18(Solid)	Vinyl	.017	.074	80C	—	1 thru 30	1 thru 30
8535	MW-C-18-(16)-J	18(16x30)	Vinyl-Nylon	.017	.086	90C	—	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8521	MW-C-16-(26)-U	16(26x30)	Vinyl	.019	.098	80C	—	1 thru 30	1 thru 30
8531	MW-C-16-(1)-U	16(Solid)	Vinyl	.017	.085	80C	—	1 thru 30	1 thru 30
8534	MW-C-16-(26)-J	16(26x30)	Vinyl-Nylon	.019	.106	90C	—	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8520	MW-C-14-(41)-U	14(41x30)	Vinyl	.020	.111	80C	—	1 thru 30	1 thru 30
8533	MW-C-14-(41)-J	14(41x30)	Vinyl-Nylon	.020	.119	90C	—	1, 3, 4, 5 9, 10	1, 3, 4, 5 9, 10
8527	MW-C-12-(65)-U	12(65x30)	Vinyl	.020	.130	80C	—	1 thru 30	1 thru 30
8532	MW-C-12-(65)-J	12(65x30)	Vinyl-Nylon	.020	.139	90C	—	2, 9, 10	2, 9, 10

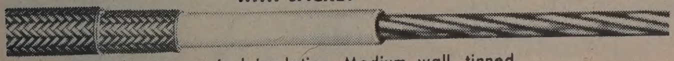
Stock Colors

First color in stripe combination is body color and second or third colors are stripes (White/Black/Red).

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black
11 Tan
12 Pink
13 Dark Blue
14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet
23 White/Black/Red
24 White/Black/Green
25 White/Black/Yellow
26 White/Black/Blue
27 White/Black/Brown
28 White/Black/Orange
29 White/Black/Gray
30 White/Black/Violet

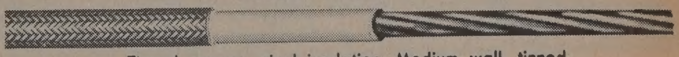
TYPE MW—SHIELDED—WITH & WITHOUT NYLON JACKET —1000V—80C

WITH JACKET



Tinned copper, vinyl insulation. Medium wall, tinned copper shield, nylon jacket.

WITHOUT JACKET



Tinned copper, vinyl insulation. Medium wall, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
						100′	500′	1000′
8887	MW-C-24-(7)-S	24(7x32)	.017	None	.082	1 thru 10	1 thru 10	1 thru 10
8883	MW-C-22-(7)-S	22(7x30)	.017	None	.088	1 thru 10	1 thru 10	1 thru 10
8893	MW-C-22-(7)-SJ	22(7x30)	.017	Nylon	.096	9	9	9
8886	MW-C-20-(10)-S	20(10x30)	.017	None	.096	1 thru 10	1 thru 10	1 thru 10
8896	MW-C-20-(10)-SJ	20(10x30)	.017	Nylon	.105	9	9	9
8882	MW-C-18-(16)-S	18(16x30)	.017	None	.105	1 thru 10	1 thru 10	1 thru 10
8892	MW-C-18-(16)-SJ	18(16x30)	.017	Nylon	.114	9	9	9
8884	MW-C-16-(26)-S	16(26x30)	.019	None	.122	1 thru 10	1 thru 10	1 thru 10
8894	MW-C-16-(26)-SJ	16(26x30)	.019	Nylon	.132	9	9	9
8881	MW-C-14-(41)-S	14(41x30)	.020	None	.135	2, 9, 10	2, 9, 10	2, 9, 10
8880	MW-C-12-(65)-S	12(65x30)	.020	None	.154	2, 9, 10	2, 9, 10	2, 9, 10

Stock Colors

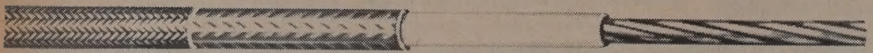
1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black

Manufactured to current Government specifications and subsequent revisions.

© U.C.P., Inc.

Belden | mil-w-76b vinyl plastic

TYPE MW-GLASS BRAID-SHIELDED—1000V—80C

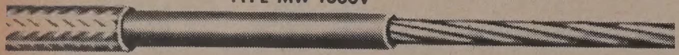


Tinned copper, vinyl insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools			Stock Color
					100′	500′	1000′	
8863	MW-C-22(7)-BS	22(7x30)	.017	.102	9	9	9	White only (9)
8862	MW-C-20(10)-BS	20(10x30)	.017	.110	9	9	9	
8861	MW-C-18(16)-BS	18(16x30)	.017	.119	9	9	9	
8860	MW-C-16(26)-BS	16(26x30)	.019	.136	9	9	9	
8859	MW-C-14(41)-BS	14(41x30)	.020	.149	9	9	9	
8858	MW-C-12(65)-BS	12(65x30)	.020	.168	9	9	9	

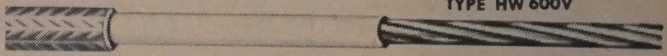
TYPE MW & HW VINYL—GLASS BRAID (OVERALL)-80C

TYPE MW 1000V



Tinned copper, vinyl insulated. Medium wall, lacquered glass braid overall.

TYPE HW 600V

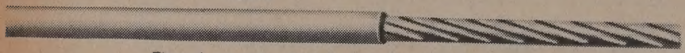


Tinned copper, vinyl insulated. Heavy wall, lacquered glass braid.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Voltage Rating	Stock Colors on Standard Spools			Stock Colors
						100′	500′	1000′	
8566	MW-C-22(7)-B	22(7x30)	.017	.078	1000V	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black 124 White/Brown 125 White/Red 126 White/Orange 127 White/Yellow 128 White/Green 129 White/Blue 130 White/Violet 131 White/Gray 132 White/Black
8565	MW-C-20(10)-B	20(10x30)	.017	.086	1000V	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132	
8564	MW-C-18(16)-B	18(16x30)	.017	.095	1000V	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132	
8563	MW-C-16(26)-B	16(26x30)	.019	.112	1000V	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132	
8562	MW-C-14(41)-B	14(41x30)	.020	.125	1000V	9, 124 thru 132	9, 124 thru 132	9, 124 thru 132	
8561	MW-C-12(65)-B	12(65x30)	.020	.144	1000V	9, 125, 132	9, 125, 132	9, 125, 132	
8591	HW-C-10(105)-B	10(105x30)	.048	.232	600V	9, 125, 132	9, 125, 132	9, 125, 132	
8590	HW-C-8(133)-B	8(133x29)	.048	.279	600V	9, 125, 132	9, 125, 132	9, 125, 132	
8589	HW-C-6(133)-B	6(133x27)	.048	.314	600V	9, 125, 132	9, 125, 132	9, 125, 132	

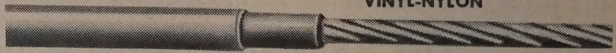
TYPE LW—VINYL & VINYL-NYLON—300V

VINYL



Tinned copper, vinyl insulated. Light wall.

VINYL-NYLON



Tinned copper, vinyl insulated. Light wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools			Stock Colors
							100′	500′	1000′	
8572	LW-C-30(7)-U	30(7x38)	Vinyl	.011	.034	80C	1 thru 10	1 thru 10	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black 14 White/Black 15 White/Red 16 White/Green 17 White/Yellow 18 White/Blue 19 White/Brown 20 White/Orange 21 White/Gray 22 White/Violet
8579	LW-C-30(7)-J	30(7x38)	Vinyl-Nylon	.011	.039	90C	1 thru 10	1 thru 10	1 thru 10	
8571	LW-C-28(7)-U	28(7x36)	Vinyl	.011	.037	80C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8578	LW-C-28(7)-J	28(7x36)	Vinyl-Nylon	.011	.042	90C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8570	LW-C-26(7)-U	26(7x34)	Vinyl	.011	.041	80C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8577	LW-C-26(7)-J	26(7x34)	Vinyl-Nylon	.011	.046	90C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8569	LW-C-24(7)-U	24(7x32)	Vinyl	.011	.046	80C	1 thru 19	1 thru 19	1 thru 19	
8576	LW-C-24(7)-J	24(7x32)	Vinyl-Nylon	.011	.051	90C	1 thru 19	1 thru 19	1 thru 19	
8568	LW-C-22(7)-U	22(7x30)	Vinyl	.012	.054	80C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8575	LW-C-22(7)-J	22(7x30)	Vinyl-Nylon	.012	.059	90C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8567	LW-C-20(10)-U	20(10x30)	Vinyl	.012	.060	80C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8574	LW-C-20(10)-J	20(10x30)	Vinyl-Nylon	.012	.065	90C	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	

Manufactured to current Government specifications and subsequent revisions.

See Prices on four pages at front of Belden listing

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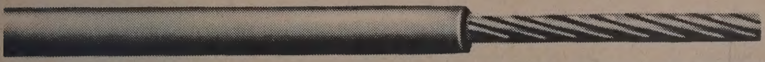
mil-w-76b vinyl plastic mil-w-5086a & mil-w-7078a aircraft wire

Belden

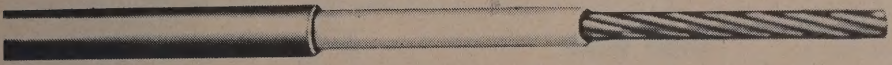
TYPE HW—VINYL—Gauges 16-22 2500V, Gauges 6-14 600V —80C



Tinned copper, vinyl insulated. Heavy wall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′	Stock Colors
8588	HW-C-22(7)-U	22(7x30)	.034	.098	1 thru 10	1 thru 10	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black
8587	HW-C-20(7)-U	20(10x30)	.034	.104	1 thru 10	1 thru 10	1 thru 10	
8586	HW-C-18(16)-U	18(16x30)	.034	.114	1 thru 10	1 thru 10	1 thru 10	
8585	HW-C-16(19)-U	16(26x30)	.034	.128	12, 9, 10	2, 9, 10	2, 9, 10	
8584	HW-C-14(19)-U	14(41x30)	.048	.171	2, 9, 10	2, 9, 10	2, 9, 10	
8583	HW-C-12(19)-U	12(65x30)	.048	.191	2, 9, 10	2, 9, 10	2, 9, 10	
8582	HW-C-10(37)-U	10(105x30)	.048	.214	12, 9, 10	2, 9, 10	2, 9, 10	
8581	HW-C-8(127)-U	8(133x29)	.048	.261	2, 9, 10	2, 9, 10	2, 9, 10	
8580	HW-C-6(127)-U	6(133x27)	.048	.296	2, 9, 10	2, 9, 10	2, 9, 10	

MIL-W-5086A—TYPES 1 & 2—600V

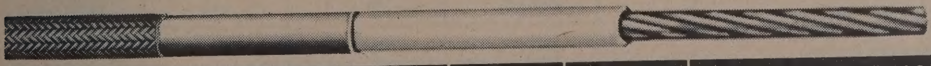


UNSHIELDED

Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′	Stock Color
8541	AN-22	22(19x34)	.068	No. 1	9	9	9	White only (9) **Additional Description** **MIL-W-5086A-Type I** **AN-22 thru AN-12.** Stranded tinned copper, white vinyl, clear nylon jacket insulation.
8542	AN-20	20(19x32)	.078	No. 1	9	9	9	
8543	AN-18	18(19x30)	.088	No. 1	9	9	9	
8544	AN-16	16(19x29)	.098	No. 1	9	9	9	
8545	AN-14	14(19x27)	.117	No. 1	9	9	9	
8546	AN-12	12(19x25)	.137	No. 1	9	9	9	
8559	AN-22	22(19x34)	.075	No. 2	9	9	9	**MIL-W-5086A-Type II** **AN-22 thru AN-12** Stranded tinned copper, white vinyl insulation, saturated glass braid, clear nylon jacket.
8558	AN-20	20(19x32)	.085	No. 2	9	9	9	
8557	AN-18	18(19x30)	.095	No. 2	9	9	9	
8556	AN-16	16(19x29)	.105	No. 2	9	9	9	
8555	AN-14	14(19x27)	.125	No. 2	9	9	9	
8554	AN-12	12(19x25)	.143	No. 2	9	9	9	
8553	AN-10	10(49x27)	.190	No. 2	9	9	9	**MIL-W-5086A-Type II** **AN-10 thru AN-00** Stranded tinned copper, white vinyl insulation, saturated glass braid, nylon braid, nylon lacquer.
8552	AN-8	8(133x29)	.240	No. 2	9	9	9	
8551	AN-6	6(133x27)	.293	No. 2	9	9	9	
8550	AN-4	4(133x25)	.355	No. 2	9	9	9	
8549	AN-2	2(665x30)	.425	No. 2	9	9	9	
8548	AN-0	0(1045x30)	.525	No. 2	9	9	9	
8547	AN-00	00(1330x30)	.590	No. 2	9	9	9	

MIL-C-7078A—TYPE 1—600 VOLT

(MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)



Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′	Stock Color
8855	AN-22	22(19x34)	.092	No. 1	9	9	9	White only (9) **Additional Description** Stranded tinned copper, white vinyl insulation, nylon jacket, braided tinned copper shield.
8854	AN-20	20(19x32)	.102	No. 1	9	9	9	
8853	AN-18	18(19x30)	.112	No. 1	9	9	9	
8852	AN-16	16(19x29)	.122	No. 1	9	9	9	
8851	AN-14	14(19x27)	.141	No. 1	9	9	9	
8850	AN-12	12(19x25)	.156	No. 1	9	9	9	

Manufactured to current Government specifications and subsequent revisions.

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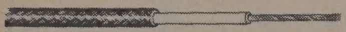
Belden | hook-up and lead wires—grid wire shielding and bonding cable—bus bar wire

UL TYPE HOOK-UP AND LEAD WIRES

UL-600V-90C (CSA-TYPE TRB)



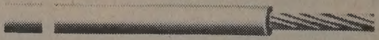
Tinned copper, vinyl insulated, cotton braid, lacquered

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8937*	22(7x30)	.016	.091	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8936*	20(10x30)	.017	.098	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8935*	18(16x30)	.017	.113	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8934*	16(26x30)	.017	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8933	14(41x30)	.031	.177	1, 2, 3, 4, 5, 9, 10, 13	100, 500

For color coding see Page 25.

**UL rated 600V for electronic circuits only—300V for other applications.*

UL-600V-105C (CSA-600V-TYPE TEW)

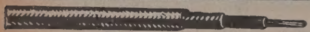


Tinned copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8920	22(7x30)	.031	.095	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8919	20(10x30)	.031	.102	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8918	18(16x30)	.031	.112	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8917	16(26x30)	.031	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8916	14(41x30)	.031	.141	1, 2, 3, 4, 5, 9, 10, 13	100, 500

For color coding see Page 25.

GRID WIRE

Description	Trade Number	AWG & Stranding	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Breakdown Voltage	Nom. Cap. (mmf/ft)	Standard Spool Lengths in ft
	**8885**	20(10x30)	.015	.117	300	4000	80	15, 25, 100, 500

Tinned copper, rubber insulated, cellulose acetate braid, lacquered, tinned copper braid shield.

SHIELDING AND BONDING CABLES

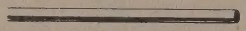
Braided tinned copper.
Standard Spool: 10, 50, 250 feet

Trade Number	Stranding	Approx. Cir. Mil. Area	Nom. I.D. (Inch)	Approx. Flat Dimension (Inch)
8676	16x36	400	1/32	.025x .035
8674	24x36	600	3/64	.030x .045
8660	96x34	3,800	1/8	.050x .150
8668	120x34	4,700	11/64	.060x .205
8663	168x34	6,700	1/4	.060x .275
8661	192x34	7,600	3/8	.060x .310
8669	336x34	13,300	1/2	.060x .520
8672	528x36	13,200	5/8	.040x .580
8662	576x34	22,900	23/32	.100x .590
8670	480x30	48,000	3/4	.125x .750
8671	832x36	20,800	1	.050x1.000

This braided cable will provide approximately 90% shield coverage when applied over the recommended diameter.
For additional sizes, see current BRAIDED AND STRANDED COPPER CABLE CATALOG.

BUS BAR WIRE

Made in accordance with Federal Spec QQ-W-343.



Solid tinned copper.
Standard Spool: 100, 1000 feet

Trade Number	AWG	Nom. O.D. (Inch)	Circular Mil. Area
8027	34	.006	39.7
8026	32	.008	64.0
8025	30	.010	100.0
8024	28	.012	159.0
8023	26	.016	253.0
8022	24	.020	404.0
8021	22	.025	640.0
8020	20	.032	1020.0
8019	18	.040	1620.0
8013	16	.050	2580.0
8012	14	.064	4110.0
8011	12	.080	6530.0

8011 Available in 100' spool only.

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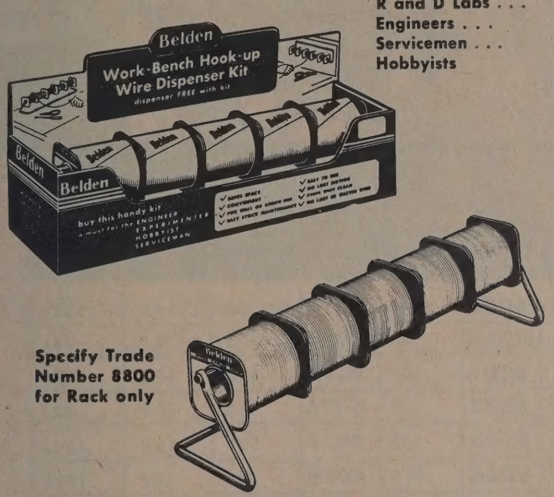
KITS—HOOK-UP WIRE ON RACKS

R and D Labs . . .
Engineers . . .
Servicemen . . .
Hobbyists



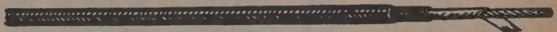
Specify Trade Number 8800 for Rack only

Each kit contains an assortment of Hook-Up Wire colors and types plus a portable metal dispenser rack for workbench or wall mounting. The dispenser rack provides a complete, compact, and convenient wire department for every working area.

Trade Number	No. of Spools	Spool Lengths	Type of Wire	Colors in Kit
8818	8	25′	20 solid, cellulose acetate (8941-25)	1, 2, 3, 4, 5, 6, 9, 10
8819	5	100′	20 solid, cellulose acetate (8941-100)	2, 5, 6, 9, 10
8820	8	25′	20 stranded, cellulose acetate (8943-25)	1, 2, 3, 4,-5, 6 9, 10
8821	5	100′	20 stranded, cellulose acetate (8943-100)	2, 5, 6, 9, 10
8822	10	25′	20 solid, Type MW vinyl (8529-25)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
8823	5	100′	20 solid, Type MW vinyl (8529-100)	2, 5, 6, 9, 10
8824	8	25′	20 stranded, Type MW vinyl (8523-25)	1, 2, 3, 4, 5, 6, 9, 10
8825	5	100′	20 stranded, MIL-W-16878D vinyl (8507-100)	9, 14, 15, 16, 17
8826	5	100′	22 stranded, MIL-W-16878D vinyl (8508-100)	9, 14, 15, 16, 17
8827	5	100′	22 stranded, MIL-W-16878D vinyl-nylon (8518-100)	2, 5, 6, 9, 10

See opposite column for color coding.

GENERAL-PURPOSE HOOK-UP WIRES



Tinned copper, cellulose acetate wrap, cellulose acetate braid lacquered.
Nom. d-c Insulation Resistance—200 megohms/ft. Nom. Breakdown Voltage—1000.

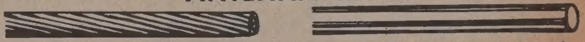
Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8941	20(Solid)	.072	1, 2, 3, 4, 5, 6, 9, 10 2, 4, 5, 6, 9, 10	25 100, 1000
8943	20(10x30)	.076	1, 2, 3, 4, 5, 6, 9, 10 2, 4, 5, 6, 9, 10 2, 4, 5, 6, 10	25 100 1000
8945	18(Solid)	.080	2, 4, 5, 6, 9, 10 10	100 1000
8947	18(16x30)	.087	2, 4, 5, 6, 9, 10 10	100 1000
8942	16(26x30)	.099	2, 10	100, 1000
8938	14(41x30)	.115	2, 10	100

STOCK COLORS

First color in stripe combination is body color and second or third colors are stripes (White/Black/Red)

1	Brown	7	Violet (purple)	13	Dark Blue
2	Red	8	Gray (slate)	14	White/Black
3	Orange	9	White	15	White/Red
4	Yellow	10	Black	16	White/Green
5	Green	11	Tan	17	White/Yellow
6	Light Blue	12	Pink		

ANTENNA WIRE



Stranded bare copper. **Copper, HF Formvar insulated.**

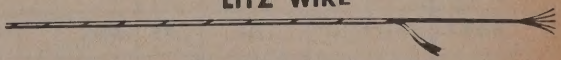
Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8002	16(7x24)	.060	50, 75, 100
8000	14(7x22)	.076	50, 75, 100, 1000
8009	14(Solid)	.067	100, 200, 500
8008	12(Solid)	.084	100, 200, 500

INDOOR ANTENNA WIRE

Tinned copper, chrome vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8014	25(13x36)*	.010	.044	25, 500

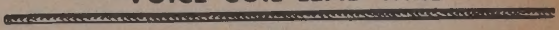
LITZ WIRE



Copper, Celenamel†† insulated, nylon wrap.

Trade Number	Stranding	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8817	5x44	.008	100

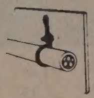
VOICE COIL LEAD WIRE

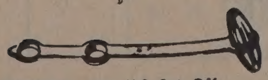


Braided bare copper wire.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8127	25 (32x40)	.024	10

BELDEN STRAPLOCKS (NYLON CABLE CLAMPS)





8573 For tying down wires or cables in the quickest possible time. Straplocks require only a ¼" stamped, punched or drilled mounting hole for installation. Eliminate bundling or lacing. 25 straplocks plus one installation tool in plastic box.

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†† Belden Trademark Reg. U.S. Pat. Off.

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See Prices on four pages preceding Belden Page 2

Belden | magnet wire marine and automotive wire

Belden
WIRES · CABLES · CORDS
NYLCLAD

Nylclad magnet wire combines the most desirable features of Formvar with the well-known toughness and solvent resistance of Nylon enamel.

For difficult and exacting windings, these plus values may represent the difference between low and high rejections.

Nylclad will out-perform all other A.I.E.E., Class A, film-coated wires with respect to: (1) ability to withstand winding abuse and forming operations; (2) resistance to the solvent action of insulating varnishes and all types of thinners; (3) resistance to softening at elevated temperatures; (4) solvent crazing; (5) windability.

BELDENAMEL††

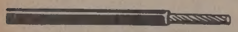
Size	¼ Pound Spool		½ Pound Spool		Turns per Linear Inch	Turns per Square Inch
	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)		
14			**8047**	40	15.2	231
16			**8048**	63	19.1	365
18			**8049**	100	23.9	571
20			**8050**	160	29.9	894
22			**8051**	254	37.4	1399
24			**8052**	404	46.9	2200
26			**8053**	645	59.0	3481
28	**8040**	510	**8054**	1020	73.8	5446
30	**8041**	807	**8055**	1615	92.2	8501
32	**8042**	1257	**8056**	2515	114.0	12996
34	**8043**	2030	**8057**	4060	144.0	20736
36	**8044**	3200	**8058**	6400	180.0	32400
38	**8045**	5070			225.0	50625
40	**8046**	8050			290.0	84100

NYLCLAD††

Size	½ Pound Spool		1 Pound Spool		Turns per Linear Inch	Turns per Square Inch
	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)		
14	**8059**	40	**8073**	80	14.9	222
16	**8060**	63	**8074**	126	18.6	346
18	**8061**	100	**8075**	199	23.2	538
20	**8062**	157	**8076**	315	28.9	835
22	**8063**	250	**8077**	501	36.0	1296
24	**8064**	396	**8078**	793	44.7	1998
26	**8065**	630	**8079**	1260	55.7	3102
28	**8066**	995	**8080**	1990	69.4	4816
30	**8067**	1570	**8081**	3140	86.2	7430
32	**8068**	2440	**8082**	4880	106.0	11236
34	**8069**	3930	**8083**	7860	133.0	17689
36	**8070**	6200	**8084**	12400	167.0	27889
38	**8071**	9700	**8085**	19400	206.0	42436
40	**8072**	16050	**8086**	32100	263.0	69169

PRIMARY WIRE—MARINE AND AUTO

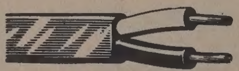
S.A.E. TYPE G.P.T.



Bare copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color	Standard Spool
8685	16 (19x29)	.023	.102	Black	100
8684	14 (19x27)	.023	.117	Green	100
8683	12 (19x25)	.026	.142	Red	100
8682	10 (19x23)	.031	.175	White	100
8681	8 (19x21)	.037	.219	Chrome	100
8680	6 (37x21)	.043	.290	Chrome	100

DUPLEX PRIMARY WIRE

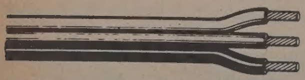


Tinned copper, vinyl insulated, conductors parallel, chrome vinyl jacket.

Standard Spools: 100 and 500 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Color Coding
8677	16 (19x29)	.032	.022	.164 x .276	Brn, Red
8675	14 (19x27)	.037	.022	.189 x .326	Brn, Red
8673	12 (19x25)	.040	.022	.213 x .384	Brn, Red

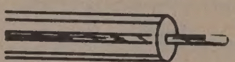
3 & 4 CONDUCTOR PARALLEL BONDED PRIMARY WIRE



Bare copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color Coding	Standard Spool
NEW 8475	16-3 19x29	.023	.102x .295	Wht/Brn Red	100, 500
NEW 8476	16-4 19x29	.023	.102x .400	Wht/Brn Red/Grn	100, 500

7 MM IGNITION WIRE



Tinned Copperweld, POLYSIL†† clear plastic insulation.

Standard Spool: 100 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color
8666	20 (7x28)	.121	.274	Clear

†† Belden Trademark—Reg. U.S. Pat. Off.

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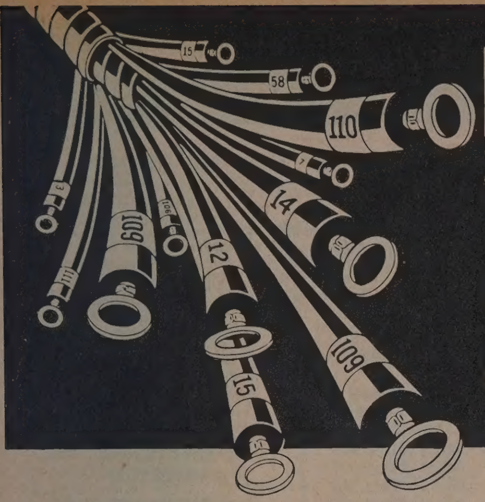
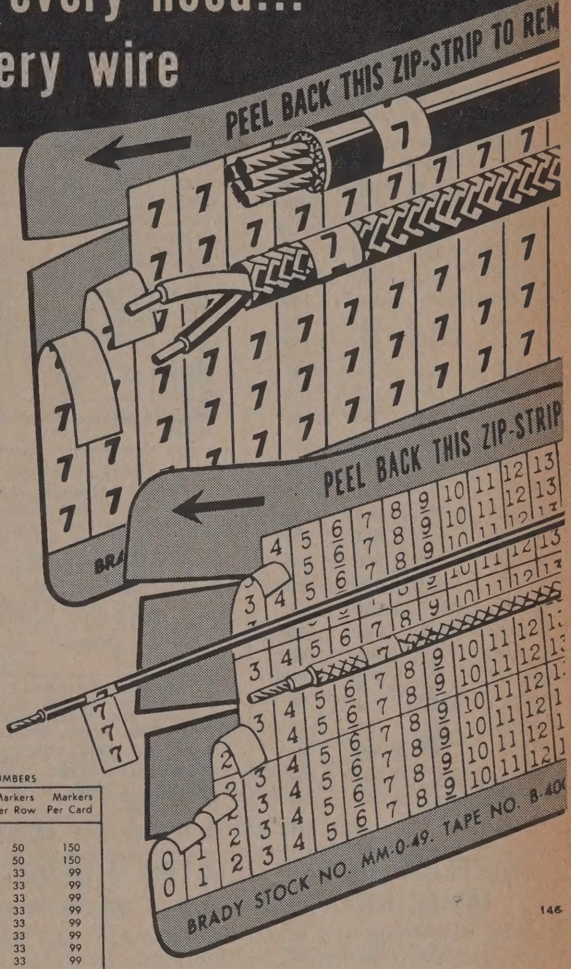


BRADY® Self-Sticking wire markers

A marker for every need...
A size for every wire


PEEL BACK THIS ZIP-STRIP TO REM
PEEL BACK THIS ZIP-STRIP
BRADY STOCK NO. MM-0-49. TAPE NO. B-400

Permanent Round-the-Wire Identification • TELLS WHICH WIRE GOES WHERE AT A GLANCE • *Speeds Assembly, Hook-Up, Repair — Eliminates Tracing, Costly Errors* • Broad Range of Materials Meets Every Marking Need • OVER 3500 STOCK MARKERS — NUMBERS, LETTERS, SYMBOLS, COLOR CODES • *5 Marker Sizes for Wires 1" dia. to No. 28* • Meet IPCEA-NEMA Specifications for Marking of Control Cables • MADE TO CONFORM TO MILITARY AND INDUSTRY SPECS

Write for Big, New Wire Marker Bulletin and Free Testing Samples.

STOCK LIST — 1/2" Long Miniature Markers

SOLID NUMBERS

Brady Stock No.	Printing on Markers	Markers Per Row	Markers Per Card
(All markers on each card the same)			
MM-0	0	50	150
MM-1	1	50	150
MM-2	2	50	150
and so on thru			
MM-99	99	50	150
MM-100	100	33	99
MM-101	101	33	99
and so on thru			
MM-497	497	33	99
MM-498	498	33	99
MM-499	499	33	99
MM 500	500	33	99

SOLID CAPITAL LETTERS

Brady Stock No.	Printing on Markers	Markers Per Row	Markers Per Card
(All markers on each card same)			
MM-A-CAP	A	50	150
MM-B-CAP	B	50	150
MM-C-CAP	C	50	150
and so on thru			
MM-Z-CAP	Z	50	150

COMBINATION PACS

1 Card each of Solid Numbers or Letters per Pac

Stock No.	Assortment	Cards in Pac
CPC-MM-1-25	Solid Numbers 1 thru 25	25
CPC-MM-26-50	Solid Numbers 26 thru 50	25
CPC-MM-51-75	Solid Numbers 51 thru 75	25
CPC-MM-76-100	Solid Numbers 76 thru 100	26
and so on thru		
CPC-MM-476-500	Solid Numbers 476 thru 500	25
CPC-MM-A-Z	Solid Letters A thru Z	26

CONSECUTIVE NUMBERS

Brady Stock No.	Printing on Markers	Markers Per Row	Markers Per Card
(3 complete sets per card)			
MM-0-49	0 thru 49	50	150
MM-50-99	50 thru 99	50	150
MM-100-132	100 thru 132	33	99
MM-133-165	133 thru 165	33	99
MM-166-198	166 thru 198	33	99
MM 199-231	199 thru 231	33	99
MM-232-264	232 thru 264	33	99
MM-265-297	265 thru 297	33	99
MM-298-330	298 thru 330	33	99
MM-331-363	331 thru 363	33	99
MM 364-396	364 thru 396	33	99
MM-397-429	397 thru 429	33	99
MM-430-462	430 thru 462	33	99
MM-463-495	463 thru 495	33	99

Write for Brady Bulletin 130-H for complete list of stock items, prices and free testing samples.

STOCK LIST — 3/4" Long and 1-1/2" Long Standard Markers

SOLID NUMBER CARDS

Brady Stock No.	Printing on Each Marker	No. of Markers on Each Card ¾"	1½"
VP-0	0	72	36
VP-1	1	72	36
VP-2	2	72	36
VP-3	3	72	36
and so on thru			
VP-97	97	72	36
VP-98	98	72	36
VP-99	99	72	36
VP-100	100	50	25
and so on thru			
VP-300	300	50	25
VP-301	301	50	25
VP-302	302	50	25
and so on thru			
VP-499	499	50	25
VP-500	500	50	25

SOLID LETTER CARDS

Brady Stock No.	Printing on Each Marker	No. of Markers on Each Card ¾"	1½"
VP-A	A	72	36
VP-B	B	72	36
VP-C	C	72	36
and so on thru			
VP-Z	Z	72	36

COMBINATION PACS

I Card each of Solid Numbers or Letters per Pac

BRADY Stock No.	Assortment Solid Cards	No. of Cards in Each Pac
CPC-VP-1-25	1-25	25
CPC-VP-26-50	26-50	25
CPC-VP-51-75	51-75	25
CPC-VP-76-100	76-100	25
and so on thru		
CPC-VP-476-500	476-500	25
CPC-VP-A-Z	A-Z	26

CONSECUTIVE NUMBER CARDS

Brady Stock No.	Printing on Markers	No. of Markers of Each No. on Each Card ¾"	1½"
CONSECUTIVE NUMBER CARDS			
VP-1-33	1-33	2	1
VP-34-66	34-66	2	1
VP-67-99	67-99	2	1
VP-100-124	100-124	2	1
VP-125-149	125-149	2	1
VP-150-174	150-174	2	1
and so on thru			
VP-475-499	475-499	2	1
CONSECUTIVE LETTER CARDS			
VP-A-Z-CAP	A-Z	2	1
CONSECUTIVE D.C. MOTOR GENERATOR MARKERS			
VP-AFS	A1, A2, F1, F2, S1, S2,	12	6

SOLID MACHINE TOOL SYMBOLS

Brady Stock No.	Printing on Each Marker	No. of Markers on Each Card ¾"	1½"
VP-1T1	1T1	50	25
VP-1T2	1T2	50	25
VP-1T3	1T3	50	25
VP-2T1	2T1	50	25
VP-2T2	2T2	50	25
VP-2T3	2T3	50	25
VP-3T1	3T1	50	25
VP-3T2	3T2	50	25
VP-3T3	3T3	50	25
VP-4T1	4T1	50	25
VP-4T2	4T2	50	25
VP-4T3	4T3	50	25
VP-5T1	5T1	50	25
VP-5T2	5T2	50	25
VP-5T3	5T3	50	25
VP-6T1	6T1	50	25
VP-6T2	6T2	50	25
VP-6T3	6T3	50	25
VP-7T1	7T1	50	25
VP-7T2	7T2	50	25
VP-7T3	7T3	50	25

PRICE PER 100 CARDS

	½" long Miniature Markers	1½" or ¾" long Wire Markers
25 to 99 Cards	$27.00/C	$22.50/C
100 to 499 Cards	21.60/C	18.00/C
500 to 999 Cards	18.90/C	15.75/C
1000 to 2499 Cards	17.55/C	14.64/C
2500 to 4999 Cards	16.88/C	14.06/C
5000 to 9999 Cards	16.20/C	13.50/C

W. H. BRADY CO.
MILWAUKEE

Manufacturers of Quality Pressure-Sensitive Industrial Tape Products, Self-Bonding Nameplates, Automatic Machines for Dispensing Labels, Nameplates, Masks and Tape. **Est. 1914**

Birnbach

INSULATING TUBING & SLEEVING
BIRACO, BIRFLEX, VINYL COATED FIBERGLASS

BIRACO PLASTIC TUBING

UL APPROVED FOR 105° C. OPERATION — MEETS MIL-I-631C SPECS.

A quality plastic Vinyl tubing designed for electronic and electrical insulation work. Has high dielectric strength, extreme flexibility, non-flammability, abrasion resistance, impervious to oil, water, alkalies, alcohol, solvents, etc., high heat stability and resistance to aging. Meets all A.S.T.M. specifications, Mil. Spec. (Type F, Form U, Grades A and C, Class 2, Category 1).

IN STOCK

The Birnbach Line of insulated sleeving and tubing is the basic quality line designed for the rigid performance requirements of the Aircraft, Electrical and Electronic Industries.

Meets or exceeds the required MIL Specifications and NEMA standards. We invite your inquiries on special problems and requirements.

BIRACO TUBING

Put up on convenient 100′ Spools or Coils.

LONGER LENGTHS AVAILABLE

Cat. No.	B & S Gauge Size No.	Approx. I.D.	Lgth. Spool
308BC	24	.022″	100′
311BC	22	.027″	100′
313BC	20	.034″	100′
314BC	18	.042″	100′
315BC	16	.053″	100′
316BC	14	.066″	100′
317BC	12	.085″	100′
325BC	10	.106″	100′
318BC	8	.135″	100′
326BC	6	.166″	100′
319BC	4	.208″	100′
320BC	2	.263″	100′
321BC	5/16″	.3125″	100′
322BC	⅜″	.375″	100′
323BC	½″	.500″	100′
324BC	⅝″	.625″	100′
*327BC	¾″	.750″	100′
*360BC	⅞″	.875″	100′
*361BC	1″	1.000″	100′
*362BC	1¼″	1.250″	50′
*363BC	1½″	1.500″	50′
*328BC	1¾″	1.750″	100′
*329BC	2″	2.000″	50′
*364BC	2¼″	2.250″	100′
*365BC	2½″	2.500″	100′

SPECIAL SPOOLS BIRACO TUBING

Cat. No.'s 36″ Lgths.	Cat. No.'s Spec. Spools	B & S Gauge Size No.	Approx. I.D.	Lgth. Spool
......	308B	24	.022″	25′
......	311B	22	027″	25′
313	313B	20	034″	25′
314	314B	18	.042″	25′
315	315B	16	.053″	25′
316	316B	14	.066″	25′
317	317B	12	.085″	25′
325	325B	10	.106″	15′
318	318B	8	.135″	15′
326	326B	6	.166″	15′
319	319B	4	.208″	10′
320	320B	2	.263″	10′
321	—	5/16	.3125″	—
322	—	⅜	.375″	—
323	—	½	.500″	—
324	—	⅝	.625″	—

Standard package 36″ lengths 25 each color:

In addition to Spools and Coils noted above the standard packaging is as follows on stock colors.

#24 Thru #15 ....1,000′
Soft Wound Spools
#14 Thru #8 .... 500′
Soft Wound Spools
#7 Thru #2 ....250′
#1 and larger ....100′ coils

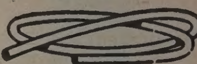
COLORS AVAILABLE FROM STOCK:
Black, Red, Green, White, Yellow, Blue, Brown, Orange, Clear.

*Cat. Nos. 360BC, 361BC, 362BC, 363BC, 364BC, 328BC, 329BC, 365BC available in **Black, White and Clear** from stock.

DIMENSIONAL TOLERANCES OF BIRACO

Sz.	Approx. I.D., Ins.	ASTM Tolerances, Ins.	Wall Thickness Inches
24	.022	.020 — .027	.012±.002
22	.027	.025 — .032	.012±.002
20	.034	.032 — .039	.016±.003
19	.038	.044 — .036	.016±.003
18	.042	.040 — .049	.016±.003
17	.047	.054 — .045	.016±.003
16	.053	.051 — .061	.016±.003
15	.059	.067 — .057	.016±.003
14	.066	.064 — .072	.016±.003
13	.076	.080 — .072	.016±.003
12	.085	.081 — .089	.016±.003
11	.095	.101 — .091	.016±.003
10	.106	.102 — .112	.016±.003
9	.118	.124 — .114	.020±.003
8	.133	.129 — .141	.020±.003
7	.148	.158 — .144	.020±.003
6	.166	.162 — .178	.020±.003
5	.186	.198 — .182	.020±.003
4	.208	.204 — .224	.020±.003
3	.234	.249 — .229	.020±.003
2	.263	.258 — .278	.020±.003
1	.294	.311 — .289	.020±.003
0	.330	.347 — .325	.020±.003
5/16	.315	.3125— .334	.025±.003
⅜	.375	.375 — .399	.025±.003
7/16	.438	.462 — .438	.025±.003
½	.500	.500 — .524	.025±.003
9/16	.562	.592 — .562	.030±.003
⅝	.625	.625 — .655	.030±.005
¾″	.750	.750 — .786	.035±.005
⅞	.875	.875 — .911	.035±.005
1″	1.000	1.000 — 1.036	.035±.005
1¼″	1.250	1.250 —1.286	.040±.005
1½″	1.500	1.500 —1.536	.045±.005
1¾″	1.750	1.812 —1.750	.055±.008
2″	2.000	2.000 —2.070	.060±.010
2¼″	2.250	2.250 —2.330	.065±.010
2½″	2.500	2.500 —2.590	.070±.010

TABLE OF PHYSICAL & ELECTRICAL PROPERTIES



BIRACO TUBING

Tensile Strength—2500 Psi (Minimum Average)

Flammability—Non-Flammable

Ultimate Elongation—340%

Recommended for Temperatures to—105° C

Cold Bend— -40° C.

Dielectric Strength .020″ Wall—800 V/Mil

Varnish Baking—Good

Water Absorption

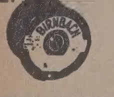
Weight Increase (1 Week)—0.1%
Fungi Resistance-Yes
Oil Resistance—Indefinitely **flexible when immersed in oil**
Insulation Resistance — over 1,000,000 megohms.

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

BIRFLEX VINYL COATED FIBERGLASS TUBING

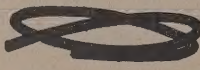
(ASTM, NEMA Grade B-B-1) MEETS MIL-1-3190 B SPECS.

Quality Electronic and Electrical Tubing. It is Class B Insulation that combines the best featues of the inorganic fiberglass base sleeving with heat resistant, flexible plastic insulation. The plastic compound provides the highest electrical properties, heat stability (130° C.), flexibility and toughness. Meets performance requirements of specs. MIL-1-3190 B, NEMA VSI, ASTM D 372.



SPECIAL SPOOLS VINYL COATED FIBERGLASS

Cat. No.	B & S Gauge Size	Apx. I.D.	Lgth. Spool
291V	20	.034	25′
293V	18	.042	25′
294V	16	.053	25′
295V	14	.066	25′
300V	12	.085	25′
307V	10	.106	20′
301V	8	.135	15′
302V	6	.166	10′
305V	4	.208	10′
306V	2	.263	10′



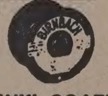
*VINYL COATED FIBERGLASS

30″ Lengths

Cat. No.	B & S Gauge Size	Apx. I.D.
291	20	.034
293	18	.042
294	16	.053
295	14	.066
300	12	.085
307	10	.106
301	8	.135
302	6	.166
297	3/16	.208
298	1/4	.263

36″ Lengths

Cat. No.	B & S Gauge Size	Apx. I.D.
*303	5/16	.3125
*304	3/8	.375
*299	1/2	.500
*296	5/8	.625



*VINYL COATED FIBERGLASS

Put up on convenient 100′ Spools or Coils.

Cat. No.	B & S Gauge Size	Apx. I.D.	Lgth Spool
289VC	24	.022	100′
290VC	22	.027	100′
291VC	20	.034	100
293VC	18	.042	100′
294VC	16	.053	100′
295VC	14	.066	100′
300VC	12	.085	100′
307VC	10	.106	100′
301VC	8	.135	100′
302VC	6	.166	100′
305VC	4	.208	100′
306VC	2	.263	100′
*303VC	5/16	.3125	100′
*304VC	⅜	.375	100′
*299VC	½	.500	100′
*296VC	⅝	.625	100′

DIMENSIONAL TOLERANCES OF VINYL COATED FIBERGLASS

BIRFLEX 130

Size	Apx. I.D.	N.E.M.A. Tolerances Inches
24	.022	.020-.027
22	.027	.025-.032
20	.034	.032-.039
18	.042	.040-.049
16	.053	.051-.061
14	.066	.064-.072
12	.085	.081-.089
10	.106	.102-.112
8	.133	.129-.141
6	.166	.162-.178
3/16, 4	.208	.204-.224
¼, 2	.263	.258-.278
5/16	.3125	.312-.328
⅜	.375	.375-.399
½	.500	.500-.524
⅝	.625	.625-.655

PHYSICAL & ELECTRICAL PROPERTIES BIRFLEX VINYL COATED FIBERGLASS

Class B
Grade B-1
Dielectric Strength....................4000 V.
Temperature Rating...................130° C.
Low Temp. Flexibility................—30° C.
Non-Flammable
Ins. Resistance..........Over 1,000,000 MEGS.
Corrosion Resistance ....Excellent
Oil Resistance ....Good

In addition to Spools and Coils noted above the standard packaging is as follows on stock colors.

#24 Thru #15 ....1,000′
Soft Wound Spools
#14 Thru #8 .... 500′
Soft Wound Spools
#7 Thru #2 .... 250′
#1 and larger....................................100′ coils

COLORS:
Black, Red, White, Yellow, Brown, Orange, Green, Blue, Gray, Purple

Additional Sizes Available

Other types of Biraco, Birflex, Birflon Tubing and sleeving available. Write for new Comprehensive Catalog on Tubing and Sleeving.

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

See Pages 1560-1565 for Birnbach Prices for Above Items

© U.C.P., Inc.

Birnbach

NEW THIN WALL BIRFLON T-500
TEFLON* SPAGHETTI TUBING

BIRNBACH

Birflon T-500 Tubing is extruded from DuPont Tetrafluoroethylene Resin. Used in electronic and electrical equipment for connection of components. Its flexibility, ease of handling has established it as the best and most popular insulation sheathing. This high temperature Class C insulation does not melt and flow as the conventional thermoplastic materials. Birflon T-500 Teflon has unique electrical, chemical and mechanical properties unmatched by any other type tubing for use in applications requiring high frequencies and high temperatures. Because of Teflon's continuous service temperature of 250° C., which is more than 100° C. above other materials, the soldering technique is simplified since "Teflon" is not harmed by the hot barrel of the soldering iron — therefore, the assembly of aircraft, missile and electronic communication equipment is greatly speeded up. Thin Wall flexible Teflon Tubing can be processed easily into flexible and rigid printed circuits. As a thin, flexible insulation, it permits miniaturization and compactness of design never before possible.

TABLE OF PROPERTIES

Test	ASTM Method	Result
Tensile Strength, 73°F.	D638-52T	1500-3000 Lb/Sq. In.
Elongation, 73°F.	D638-52T	100-200%
Deformation Under Load—122°F.		
1200 Lb/Sq. In., 24 Hrs.	D621-51	4-8%
2000 Lb/Sq. In., 24 Hrs.	D621-51	25%
Hardness Durometer	D676-49T	D50-D65
Heat Distortion Temp., 66 Lb/Sq. In.	D648B-45T	250°F.
Dielectric Strength, .080"	D149-44	400-500 V/MIL
Surface Arc-Resistance	D495-48T	Sec.
Volume Resistivity	D257-52T	10^{15} Ohm-CM
Surface Resistivity, 100% R.H.	D257-52T	3.6×10^{6} Megohms
Dielectric Constant, 60 to 10^{8} Cycles	D150-54T	2.00
Power Factor, 60 to 10^{8} Cycles	D150-54T	0.0003
Specific Gravity	D792-50	2.1-2.2

Thin Wall Birflon T-500 Teflon* Tubing Dimensional Specifications

AWG Size	Nom. O.D.	Nom. I.D.	Nom. Wall Thickness	AWG Size	Nom. O.D.	Nom. I.D.	Nom. Wall Thickness
32	.028"	.011"	.0085"	7	.178"	.148"	.015"
30	.030"	.012"	.009"	6	.196"	.166"	.015"
28	.033"	.015"	.009"	5	.216"	.186"	.015"
26	.038"	.018"	.010"	4	.238"	.208"	.015"
24	.042"	.022"	.010"	3	.264"	.234"	.015"
22	.047"	.027"	.010"	2	.293"	.263"	.015"
20	.058"	.034"	.012"	1	.324"	.294"	.015"
19	.062"	.038"	.012"	0	.360"	.330"	.015"
18	.066"	.042"	.012"	3/8"	.430"	.390"	.020"
17	.071"	.047"	.012"	7/16"	.493"	.453"	.020"
16	.077"	.053"	.012"	1/2"	.565"	.515"	.025"
15	.083"	.059"	.012"	9/16"	.633"	.583"	.025"
14	.090"	.066"	.012"	5/8"	.700"	.640"	.030"
13	.100"	.076"	.012"	3/4"	.825"	.765"	.030"
12	.109"	.085"	.012"	7/8"	.950"	.895"	.030"
11	.119"	.095"	.012"	1"	1.085"	1.025"	.030"
10	.130"	.106"	.012"	1⅛"	1.210"	1.150"	.030"
9	.148"	.118"	.015"	1¼"	1.335"	1.275"	.030"
8	.163"	.133"	.015"				

Tolerance — Nos. 32 thru 0 — ± .003" on Wall
Tolerance — Nos. ⅜" thru 1¼" — .020" on I.D., .006" on Wall

ADDITIONAL ADVANTAGES OF BIRFLON T-500 TEFLON*

- **ELECTRICAL:** Low power factor, low dielectric constant, high volume and surface resistivity, good dielectric strength (500 to 1000 volts/MIL) constant over wide ranges of temperatures and frequencies. Dielectric constant of 2.0 and dissipation factor of 0.0002 are lowest of any solid dielectric.
- **THERMAL:** No change of electrical properties with temperature (25°C. to 250°C.) or frequency (60 CPS to 100 MC). Class C insulation — capable of continuous service at temperatures to 250° C. Has color stability.
- **TOUGHNESS AND FLEXIBILITY:** Has high impact strength. Is tough and flexible over the broad temperature range of —90° C. to 250°C. Service range —320°F. to 500° F.
- **CHEMICAL INERTNESS:** Completely inert to all chemicals and solvents except molten alkali metals and fluorine at elevated temperatures and pressures. Non-corrosive to all metals.
- **MOISTURE ABSORPTION:** Zero moisture absorption. Completely sun and weather resistant.
- **NON-FLAMMABLE** ● **LOWEST COEFFICIENT OF FRICTION**
- **FUNGI RESISTANCE:** Inert to all fungi growths.
- **SIZES:** Birflon T-500 Teflon Tubing available in sizes to fit B & S gauge wires. Thin wall available from stock, in sizes No. 32 thru 1¼" I.D. Additional sizes and wall thicknesses made to order.

Birflon T-500 is made from high molecular weight virgin "Teflon" and meets AMS 3651B, 3653B, 3654, 3655, MIL-C-17B and MIL-I-22129B.

NOTE: When cutting Teflon Tubing, use single edge razor blade for clean unpinched cut.

"Teflon"* DuPont Trade Name for Tetrafluoroethylene Resin

NO EXTRA CHARGE FOR SOLID COLORS
SMALL PIECE CUTTING AVAILABLE TO ORDER

STOCK COLORS: Natural, Red, Black, Blue, Brown, Green, Orange, Yellow, Gray, Violet, White. Nos. 8020 thru 8029 available in Natural. Additional Colors, Sizes Made To Order

Teflon Tubing can be ordered cut to your specifications.

Tracer Colors Available

We Invite Your Inquiries For Your Special Requirements

WIRE — CABLE — TUBING DIVISION

NEW THIN WALL BIRFLON T-500 TEFLON* SPAGHETTI TUBING

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8013	*1000'	32
8013	500'	32
8013	100'	32
8014	*1000'	30
8014	500'	30
8014	100'	30
8015	*1000'	28
8015	500'	28
8015	100'	28
8016	*1000'	26
8016	500'	26
8016	100'	26
8000	*1000'	24
8000	500'	24
8000	100'	24
8000	50'	24
8000	25'	24
8001	*1000'	22
8001	500'	22
8001	100'	22
8001	50'	22
8001	25'	22
8002	*1000'	20
8002	500'	20
8002	100'	20
8002	50'	20
8002	25'	20

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8003	*1000'	18
8003	500'	18
8003	100'	18
8003	50'	18
8003	25'	18
8004	*1000'	16
8004	500'	16
8004	100'	16
8004	50'	16
8004	25'	16
8005	1000'	14
8005	* 500'	14
8005	100'	14
8005	50'	14
8005	25'	14
8006	1000'	12
8006	* 500'	12
8006	100'	12
8006	50'	12
8006	25'	12
8007	1000'	10
8007	* 500'	10
8007	100'	10
8007	50'	10
8007	25'	10
8008	1000'	8
8008	* 500'	8
8008	100'	8
8008	50'	8
8008	25'	8

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8009	1000'	6
8009	* 500'	6
8009	100'	6
8009	50'	6
8009	25'	6
8010	1000'	4
8010	500'	4
8010	* 100'	4
8010	50'	4
8010	25'	4
8011	1000'	2
8011	500'	2
8011	* 100'	2
8011	50'	2
8011	25'	2
8012	1000'	0
8012	500'	0
8012	* 100'	0
8012	50'	0
8012	25'	0
8020	1000'	3/8"
8020	500'	3/8"
8020	* 100'	3/8"
8020	50'	3/8"
8021	1000'	7/16"
8021	500'	7/16"
8021	* 100'	7/16"
8021	50'	7/16"
8022	1000'	1/2"
8022	500'	1/2"
8022	* 100'	1/2"
8022	50'	1/2"
8022	25'	1/2"

IN RANDOM LENGTHS

Cat. No.	Spool or Coil Put-Up	Nom. I.D.
8023	1000'	9/16"
8023	500'	9/16"
8023	* 100'	9/16"
8023	50'	9/16"
8023	25'	9/16"
8024	1000'	5/8"
8024	500'	5/8"
8024	* 100'	5/8"
8024	50'	5/8"
8024	25'	5/8"
8025	1000'	3/4"
8025	500'	3/4"
8025	* 100'	3/4"
8025	50'	3/4"
8025	25'	3/4"
8026	1000'	7/8"
8026	500'	7/8"
8026	* 100'	7/8"
8026	50'	7/8"
8026	25'	7/8"
8027	1000'	1"
8027	500'	1"
8027	* 100'	1"
8027	50'	1"
8027	25'	1"
8028	1000'	1⅛"
8028	500'	1⅛"
8028	* 100'	1⅛"
8028	50'	1⅛"
8028	25'	1⅛"
8029	1000'	1¼"
8029	500'	1¼"
8029	* 100'	1¼"
8029	50'	1¼"
8029	25'	1¼"

IN RANDOM LENGTHS

*PREFERRED PUT-UP

Extruded virgin Teflon rod sizes ⅛" thru 3⅛" diam. available. Also "0" rings, washers, balls, etc.

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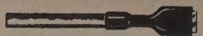
See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach

BIRACO • BIRFLON HEAT SHRINKABLE PLASTIC TUBING

BIRNBACH HEAT SHRINK POLYVINYL CHLORIDE PLASTIC TUBING *NEW* ALL PURPOSE TUBING WITH CONTROLLED SHRINKAGE



Series SK265 covers heat shrinkable PVC polyvinyl chloride plastic tubing. This flexible, electrical insulating tubing is extruded and its expansion is arrived at thru a patented secondary operation which builds a memory into the material. The memory is activated via the application of heat at approximately 130°C (266°F). The thinner the wall, the faster the shrinkage. The heavier the wall, the slower the shrinkage. In each case, the diameter is reduced to a pre-determined size upon the application of heat and will maintain strength, insulating properties and form stability.

Material is SK265 PVC (Polyvinylchloride), flame resistant, self-extinguishing, dimensions as supplied in its expanded stage and after its recovery, with application of heat in excess of 130°C (266°F) shall be in accordance with noted table. Longitudinal shrink shall not be greater than 10%.

- NEW ALL PURPOSE TUBING—HAS CONTROLLED SHRINKAGE.
- SHRINKS IN SECONDS.
- FORMS A PERMANENT, TIGHT MECHANICAL BOND.
- PVC (POLYVINYLCHLORIDE).

SK 265 PVC TUBING PROPERTIES CHART

	RATING	TEST
TENSILE STRENGTH	2960 PSI	ASTM D-876-59-T
ULTIMATE ELONGATION	200%	ASTM D-876-59-T
BRITTLENESS TEMPERATURE	—34° C.	ASTM D-746-57-T MIL-1-631 D, 4. 6. 12
SPECIFIC GRAVITY	1.34	ASTM D-792-60 T
WATER ABSORPTION	0.06% 24 Hours	ASTM D-570-57-T Proc. A
DIELECTRIC STRENGTH	1050 Volts/Mil	ASTM D-149-55 T
VOLUME RESISTIVITY	5.2 x 10^{14} Ohm-cm	ASTM D-257-58 MIL-1-631 D 4. 6. 13
FUNGUS RESISTIVITY	0-1	MIL-1-631 D 3. 5. 7 and 4. 6. 16
FLAMMABILITY	Self-Extinguishing	ASTM D-876-60 T MIL-1-631 D, 4. 6. 13
FLEXIBILITY AFTER HEAT AGING 200 Hrs. a 100° C. BEND OVER 1/8″ MANDREL	GOOD	
CORROSION ON COPPER, BRASS AND ALUMINUM AFTER 14 DAYS a 100° C.	EXCELLENT	MIL-1-7444 B

CHEMICAL RESISTANCE CHART

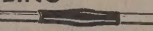
FUEL JP-4 MIL-J-5624	EXCELLENT
AVIATION GASOLINE 100/130 MIL-G-5572	EXCELLENT
HYDRAULIC OIL MIL-0-5606	EXCELLENT
HYDROCHLORIC ACID 35%	EXCELLENT
WATER	EXCELLENT
SODIUM CHLORIDE 5%	EXCELLENT
ALKALIS	EXCELLENT

*NOTE: SK265 PVC tubing is unsuitable in contact with organic solvents.

SK265 PVC tubing has a higher resistance to oils than low density Polyethylene.

BIRFLON SHRINK SERIES TE TUBING

HEAT SHRINKABLE TEFLON* TUBING

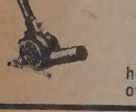


Is a Class C material modified from polytetrafluorethylene. The tubing will shrink when heated to 621 F. (It should be heated until it turns semi-transparent, then the heating process immediately stopped. Overheating can cause splitting, therefore trial and error testing is recommended to establish the proper time and temperature for each application.) Correct procedure will result in a snug-fitting insulating wrap possessing hi-heat resistance, superior chemical resistance, and excellent electrical characteristics. The tubing is available in a full range of colors.

* Dupont Polytetrafluoroethelene

SK621 TEFLON TUBING PROPERTIES CHART

	TE SERIES Shrinkable "Teflon"
DIELECTRIC STRENGTH (20 Mil Wall)	850 Volts/Mil
DIELECTRIC CONSTANT	2.2
POWER FACTOR	.00
VOLUME RESISTIVITY	10^{17} Ohms/CM
FUNGUS RESISTANCE	Inert
FLAMMABILITY	Will Not Support Combustion
FUEL and OIL RESISTANCE	Superior
HYDRAULIC FLUID RESISTANCE	Superior
SOLVENT RESISTANCE	Superior
ACID and ALKALI RESISTANCE	Superior
CORROSION RESISTANCE	Excellent
TENSILE STRENGTH	5000-7500 PSI
ULTIMATE ELONGATION	300-500%
WATER ABSORPTION	Nil
LOW TEMPERATURE BRITTLE POINT	—66°F
HARDNESS	98 Shore A
SPECIFIC GRAVITY	2.2

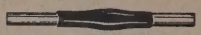


HAG-12 Hot Air Gun For PVC Series

HAG-13 Hot Air Gun For TE Series

The quickest and most versatile method for applying heat is the hot air gun noted herein. Also, use of an oven, radiant heat, dipping in hot liquids, or using a soldering iron or the flame of a match.

HEAT SHRINKABLE POLYVINYL TUBING DIMENSION CHART



Cat. No.	Sizes For AWG	Min. I.D. Before Shrinking	Recovered Dimensions After Shrinking: Enclosable Diam Range (Inches)	Nom. Wall Thickness
SK 265-24-26	24-26	.035″	.016- .030	.012″
SK 265-19-22	19-22	.046″	.025- .041	.016″
SK 265-17-19	17-19	.057″	.036- .052	.016″
SK-265-15-16	15-16	.069″	.046- .064	.016″
SK 265-14-15	14-15	.080″	.056- .075	.016″
SK 265-12-13	12-13	.098″	.067- .093	.016″
SK 265-10-11	10-11	.123″	.090- .118	.016″
SK 265-8-9	8-9	.153″	.111- .148	.020″
SK-265-6-7	6-7	.192″	.137- .185	.020″
SK 265-4-5	4-5	.236″	.175- .210	.020″
SK 265-2-3	2-3	.275″	.210- .238	.020″
SK 265-0-1	0-1	.315″	.238- .290	.020″
SK 265-0	0	.393″	.290- .342	.020″
SK 265-⅜	⅜″	.433″	.342- .381	.020″
SK 265-7/16	7/16″	.511″	.381- .435	.020″
SK 265-½	½″	.610″	.475- .540	.020″
SK 265-⅝	⅝″	.728″	.540- .710	.020″
SK 265-¾	¾″	1.043″	.710- .944	.020″
SK 265-1″	1″	1.377″	.905-1.338	.030″
SK 265-1½″	1½″	1.929″	1.299-1.889	.030″
SK 265-2″	2″	2.598″	1.771-2.559	.030″

SIZES 24-26, 19-22, 17-19, 15-16, 14-15, 12-13, 10-11, 8-9, 6-7
AVAILABLE ON 25′, 50′, 100′, 500′, 1,000′ PUT-UPS
STOCK COLORS: BLACK, WHITE, CLEAR, RED, YELLOW

SIZES: 4-5, 2-3, 0-1, 0 ON 25′, 50′, 100′, 200′ PUT-UPS
⅜ THRU 1″ ON 50′, 100′, PUT-UPS
1½ AND 2″ ON 50′, PUT-UPS
STOCK COLORS: BLACK, CLEAR ADDITIONAL COLORS AVAILABLE

HEAT SHRINKABLE TEFLON TUBING DIMENSIONS—BIRFLON SHRINK SERIES TE TUBING

Birnbach No.	Nominal Tubing Size	Minimum Expanded 1D	Recovered Dimensions: Maximum 1D (1)	Recovered Dimensions: Wall Thickness (2)
SK-621-26	26	.046″	.022″	.009″
SK-621-24	24*	.050″	.027″	.010″
SK-621-22	22*	.055″	.032″	.010″
SK-621-20	20*	.060″	.039″	.012″
SK-621-19	19	.065″	.043″	.012″
SK-621-18	18*	.076″	.049″	.012″
SK-621-17	17	.085″	.054″	.012″
SK-621-16	16*	.093″	.061″	.012″
SK-621-15	15	.110″	.067″	.012″
SK-621-14	14*	.120″	.072″	.012″
SK-621-13	13	.140″	.080″	.012″
SK-621-12	12*	.150″	.089″	.012″
SK-621-11	11	.170″	.101″	.012″
SK-621-10	10*	.191″	.112″	.012″
SK-621-9	9	.205″	.124″	.015″
SK-621-8	8*	.240″	.141″	.015″
SK-621-7	7	.270″	.158″	.015″
SK-621-6	6*	.302″	.178″	.015″
SK-621-5	5	.320″	.198″	.015″
SP-621-4	4*	.348″	.224″	.015″
SP-621-3	3	.360″	.249″	.015″
SK-621-2	2*	.375″	.278″	.015″
SK-621-1	1	.385″	.311″	.015″
SK-621-0	0*	.400″	.347″	.015″
SK-621-⅜	⅜″*	.560″	.399″	.020″
SK-621-7/16	7/16″*	.655″	.462″	.020″
SK-621-½	½″*	.750″	.524″	.020″

Standard Package—100 Feet
Standard Put-up___36″ Straight Lengths—One Foot Minimums
Wall Tolerances: 26 thru 22 ± .002
20 thru 10 ± .003
9 thru 0 ± .004

(1) Tubings made to Military Standards for American Wire Gages will return within the tolerances for that gage number.
(2) Nominal wall thickness after heating. Expanded wall thickness will be 20% to 30% less.
(*) Stock Sizes

See Pages 1560-1565 for Birnbach Prices for Above Items

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Birnbach

SHIELDING BRAID • BUS BAR
INSULATED COPPER • BRONZE • COPPERWELD

TUBULAR BRAID PER MIL SPEC. QQ-B-575

Manufactured completely round as noted in MIL Spec. QQ-B-575, this tinned copper shielded braid has self-supporting characteristics which enables it to maintain its round shape. The shielding coverage percentage is 95% or more. This tubular braid is used in military applications where maximum shielding against electrostatic interference is indicated. In addition, it is used as a protective covering against mechanical abrasion and stresses for the wires, cables and other components.

Cat. No.	Nom. Inside Diam. When Rounded	Construction Total No. Of Wires	Carriers	AWG of Indiv. Wires	Approx. AWG Equiv.	Nom. Circular Mils	*Current Carrying Cap.
2250-1/32	1/32"	24	24	#36	#22	640	7.0 amps.
2250-1/16	1/16"	48	24	#36	#19	1,290	11.0 amps.
2250-5/64	5/64"	72	24	#36	#17	1,900	18.0 amps.
2250-7/64	7/64"	96	24	#36	#16	2,500	22.0 omps.
2250-1/8	1/8"	120	24	#36	#15	3,260	28.0 amps.
2250-5/32	5/32"	240	24	#36	#12	6,200	39.0 amps.
2250-11/64	11/64"	168	24	#36	#14	4,500	32.0 amps.
2250-3/16	3/16"	192	24	#36	#13	5,100	35.0 amps.
2250-13/64	13/64"	312	24	#36	#11	8,200	46.0 amps.
2250-1/4	1/4"	384	24	#36	#10	10,400	53.0 amps.
2250-3/8	3/8"	384	48	#36	#10	10,400	53.0 amps.
2250-1/2	1/2"	528	48	#36	# 9	13,200	70.0 amps.
2250-9/16	9/16"	528	48	#36	# 9	13,200	70.0 amps.
2250-11/16	11/16"	720	48	#36	# 7	19,000	82.0 amps.
2250-25/32	25/32"	864	48	#36	# 7	21,750	85.0 amps.
2250-13/16	13/16"	864	48	#36	# 7	21,750	85.0 amps.

STANDARD SPOOL PUT-UP: 50 ft., 100 ft., 250 ft.
LARGER SPOOLS AVAILABLE—ADVISE

*Values based on copper in free air at 65°F.

Additional constructions and variations made to order. Also available in silver plated copper, bare copper and stainless steel.

TINNED COPPER SHIELDING

Used for shielding and bonding on aircraft, marine and auto radio wires and cables. Shields speaker leads, lead-ins, amplifier wires. Extremely flexible, slides over wires and cables.

DESCRIPTION:

No. 853 thru 856/7—Composed of extremely flexible fine soft annealed copper tinned wires closely woven, braided and **Rolled Flat.**

No. 860—Composed of extremely flexible fine soft annealed copper wires closely woven, braided and **Rolled Flat.**

TINNED

Cat. No.	Size & No. of Wires	Inside Diam. Flattened	Approx. O.D. Flattened	Spool
853	12 x 2/36	1/32"	3/64"	1000'
854	12 x 2/36	3/64"	1/16"	1000'
855	16 x 3/36	1/16"	5/64"	50'
858	24 x 5/36	1/8"	5/32"	50'
859	24 x 5/36	3/16"	7/32"	50'
863	24 x 7/36	1/4"	9/32"	50'
864	48 x 4/36	3/8"	15/32"	50'
868	48 x 7/36	1/2"	19/32"	50'
865	48 x 8/36	5/8"	23/32"	50'
865/1	48 x 11/36	3/4"	13/16"	50'
857	48 x 19/36	25/32"	27/32"	50'
856	48 x 19/36	1"	1-1/16"	50'
856/1	48 x 19/36	1-3/8"	1-7/16"	50'
856/2	48 x 19/36	1-1/2"	1-9/16"	50'
856/3	48 x 27/30	1-3/4"	1-7/8"	50'
856/4	48 x 32/30	2"	2-1/4"	50'
856/6	48 x 45/30	2-1/2"	2-3/4"	50'
856/7	48 x 64/30	3"	3-1/4"	50'

BARE

Cat. No.	Size & No. of Wires	Inside Diam. Flattened	Approx. O.D. Flattened	Spool
860	24 x 10/36	1/4"		50'

For longer lengths and alternate put-ups—Specify.

BARE COPPER WIRE
(Soft Drawn)
QQ—W—341A specifications

SOLID

Cat. No.	Put-Up	Size AWG	Area Circular Mils	O.D.
1560	100' Coil	8	16,510	.1285"
1562	100' Coil	10	10,380	.102"
1563	1000' Spool	10	10,380	.102"
1566	100' Coil	12	6,530	.081"
1567	1000' Spool	12	6,530	.081"
1570	100' Coil	14	4,107	.064"
1571	1000' Spool	14	4,107	.064"
1574	100' Coil	16	2,583	.051"
1575	1000' Spool	16	2,583	.051"

SOLID ENAMEL COPPER WIRE

Cat. No.	Put-Up	Size AWG	O.D.
497	100' Coil	10	.103"
1497	1000' Spool	10	.103"
492	100' Coil	12	.083"
492A	150' Coil	12	.083"
492B	200' Coil	12	.083"
1492	1000' Spool	12	.083"
490	100' Coil	14	.066"
490A	150' Coil	14	.066"
490B	200' Coil	14	.066"
1490	1000' Spool	14	.066"

TINNED COPPER WIRE • SOLID SOFT BRAND

Pure Electrolytic, Copper, annealed, tinned for quick soldering

MIL—W—3861 type S, ASTM—B—33 specifications, QQ—W—343 type S

Cat. No.	Put-Up	Size AWG	Area Circular Mills	O.D.
1433/4	100' Coil	4	41,704	.204"
1433/6	100' Coil	6	26,250	.162"
1433	100' Coil	8	16,510	.128"
1402	100' Coil	10	10,380	.103"
1403	1000' Spool	10	10,380	.103"
1406	100' Coil	12	6,530	.082"
1407	1000' Spool	12	6,530	.082"
1410	100' Coil	14	4,107	.065"
1411	1000' Spool	14	4,107	.065"
1414	100' Coil	16	2,583	.051"
1415	1000' Spool	16	2,583	.051"
1418	100' Coil	18	1,624	.040"
1419	1000' Spool	18	1,624	.040"
1422	100' Coil	20	1,022	.033"
1423	1000' Spool	20	1,022	.033"
1434	1000' Spool	22	624.4	.025"
1424	1000' Spool	24	404.0	.020"
1426	1000' Spool	26	254.1	.016"
1428	1000' Spool	28	159.8	.013"
1430	1000' Spool	30	100.5	.010"
1430/32	1000' Spool	32	63.21	.008"
1430/34	1000' Spool	34	39.75	.006"
1430/36	1000' Spool	36	25.00	.005"
1430/38	1000' Spool	38	15.72	.004"

SOLID—STRANDED
STRANDED TINNED COPPER WIRE

Cat. No.	Put-Up	Size AWG	Strand	O.D.
495	100' Coil	12	7/20	.102"
1671	100' Coil	14	7/22	.076"
1638	1000' Spool	14	7/22	.076"
1674	100' Coil	15	7/23	.069"
1633	1000' Spool	15	7/23	.069"
1628	1000' Spool	16	7/24	.062"

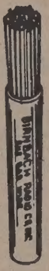
#1671 meets H4.4—1940 type W—I
Also available in stranded bare.

JUMPER CABLE

PURE ELECTROLYTIC, COPPER, annealed, tinned for quick soldering
MIL-W-3861 Type B, ASTM-B-33 Specifications

Cat. No.	Class Descr.	Size AWG	Strand	O.D.
1622	K	22	7/30	.030"
1620	K	20	10/30	.037"
1618	K	18	16/30	.045"
1616	K	16	26/30	.059"
1614	K	14	41/30	.073"
1612	K	12	65/30	.091"

See Magnet Wire Section For Additional Sizes



BUS BAR WIRE (Hard Drawn)

QQ—W—343 type S   MIL—W—3861 type S, ASTM—B—33, ASTM—B—246—51 specifications

For hooking up all types of transmitters, especially ultra short wave equipment. All bus wire is made of hard drawn copper, tinned, straightened, and cut in 2 ft. lengths.

Cat. No.	No.		
2010	10	Round	Tinned
2012	12	Square	Tinned
2013	12	Round	Tinned
2014	14	Square	Tinned
2015	14	Round	Tinned
2016	16	Round	Tinned
2018	18	Round	Tinned

(100 to Std. Package)

SILICON BRONZE AERIAL WIRE

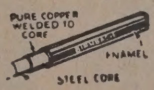
Especially designed for ships, airports, short wave and transmitting antennas where high tensile strength and resistance to the elements are important.

Cat. No.	Put-Up	Size AWG	Strand	Breaking Strength	O.D.
529*	100'	4	7/12	3670 lbs.	.240"
528*	100'	6	7/14	2140 lbs.	.190"
527	100'	8	7/16	1600 lbs.	.150"
499	100'	10	7/18	1000 lbs.	.122"
524	100'	12	7/20	650 lbs.	.100"
526	100'	14	7/22	420 lbs.	.075"

#528 and #499 meets MIL—W—13074; #524 meets MIL—W—13276

For longer lengths and alternate put-ups—Specify.

* 1000 feet on deposit reels



COPPERWELD ENAMEL ANTENNA WIRE

Used where high tensile strength is required as for short wave and transmitting aerials. Has low R.F. resistance and is ideal for transmitting doublet and directional antennas. Will maintain frequency characteristics because of its stretchless qualities.

ENAMEL

Cat. No.	Put-Up	Size AWG	Tensile Strength	O.D.
710-100	100' Spool	10	1130 lbs.	.103"
710-250	250' Spool	10	1130 lbs.	.103"
710-500	500' Spool	10	1130 lbs.	.103"
710-1000	1000' Spool	10	1130 lbs.	.103"
710-2500	2500' Spool	10	1130 lbs.	.103"
712-100	100' Coil	12	720 lbs.	.082"
712-250	250' Coil	12	720 lbs.	.082"
712-500	500' Spool	12	720 lbs.	.082"
712-1000	1000' Spool	12	720 lbs.	.082"
712-2500	2500' Spool	12	720 lbs.	.082"
714-100	100' Coil	14	400 lbs.	.065"
714-250	250' Spool	14	400 lbs.	.065"
714-500	500' Spool	14	400 lbs.	.065"
714-1000	1000' Spool	14	400 lbs.	.065"
714-2500	2500' Spool	14	400 lbs.	.065"

STRANDED SIZE COPPER WIRE

Cat. No.	Put-Up	Size AWG	Str.	O.D.
493	100'	12	7/20	.100"
1670	100'	14	7/22	.075"
1639	1000'	14	7/22	.075"
1673	100'	15	7/23	.068"
1634	1000'	15	7/23	.068"
1680	100'	16	7/24	.060"
1647	1000'	16	7/24	.060"
681	100'	18	7/26	.050"
1648	1000'	18	7/26	.050"
700	100'	19	7/27	.041"
1741	1000'	19	7/27	.041"

PUT-UP: 100' COIL 1000' SPOOL

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See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach

GOV'T. SPEC HOOK-UP WIRE • MIL-W-1687D SPEC WIRE • TEFLON* CABLES

BIRNBACH

SPECIFICATION MIL-W-16878D
TYPE E—600 VOLT
HIGH TEMPERATURE RATING —90° TO +250°C

Chemically inert, non-flammable, excellent flexibility, easy stripping, high dielectric strength, unaffected by fungus. Exceeds Class H insulation requirements. Unaffected by high or low temperature. Outstanding for its dependability and long life under all operating conditions indoors or outdoors. Teflon permits miniaturization and compactness in electronic designs of sub-miniature components, computers, UHF equip., slip ring assemblies, leads to hermetically sealed and potted components, telemetering equip. and guided missiles. Nom. wall .010″. TFE extruded.
DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with extruded or Teflon insulation.

Cat. No.	Size AWG	Mil Type Designation	Strand	Diam. Over Insulation Max.
8532	32	E-32	7/40	.033″
8530	30	E-30	7/38	.036″
8528	28	E-28	7/36	.039″
8526	26	E-26	7/34	.043″
8524	24	E-24	19/36	.048″
8522	22	E-22	19/34	.054″
8520	20	E-20	19/32	.062″
8518	18	E-18	19/30	.074″
8516	16	E-16	19/29	.087″
8514	14	E-14	19/27	.097″
8512	12	E-12	19/25	.120″
8510	10	E-10	37/26	.139″

***Duponts Tetrafluoroethylene Resin. Cat. Nos. 8534 thru 8552 available Per MIL-W-7139A TEFLON AIRCRAFT SPEC./Per MIL-W-27300A (USAF), also NAS-703 Cable conforming to MIL-C-27500 SPEC.**
STD. PUT-UP: 100 ft., 500 ft., 1000 ft.
Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White. Additional special custom constructions available to order. Wrapped extruded with or without shielding, glass braid, silicone and in miniature multi-conductors. Price and delivery on request.

MIL-W-16878D
TEFLON* WIRE
TYPE EE—EXTRUDED (1000 VOLTS) MIL-W-16878D

DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with .016″ TFE extruded TEFLON* insulation. Temperature rating —90°C to +260°C 1000 volts.

Cat. No.	Mil Type Designation	Size AWG	Strand	Nom. O.D.
9524	EE-24	24	19/36	.055″
9522	EE-22	22	19/34	.062″
9520	EE-20	20	19/32	.070″
9518	EE-18	18	19/30	.080″
9516	EE-16	16	19/29	.089″
9514	EE-14	14	19/27	.106″
9512	EE-12	12	19/25	.124″
9510	EE-10	10	37/26	.145″
9508	EE-8	8	133/29	.210″

STANDARD SPOOL PUT-UP: 250 ft. 500 ft., 1000 ft.
STOCK COLORS: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Gray (Slate), 10—Violet (Purple).
*TEFLON—Dupont

SUBMINIATURE TEFLON* HOOK-UP WIRE
PER MIL-W-16878D TYPE ET 250 VOLTS, 200°C

This new exceptionally thin miniature hook-up wire is suitable in miniature slip ring asemblies, as interconnecting wire between wafers in micro-miniature electronic circuitry, instrument wire, medical wire, subminiature thermo-couple lead wire, strain gauge wire, etc. Provides lighter weight, greater flexibility and hi temperature resistance. Size Nos. 32 thru 20 conform to MIL-W-16878D type ET 250 volts, 200°C.

Cat. No.	Mil Type Designation	AWG Size	Strand	Nom. O.D.
8550/36	———	36	7/44	.018″
8550/34	———	34	7/42	.020″
8550/32	ET-32	32	7/40	.021″
8550/30	ET-30	30	7/38	.024″
8550/28	ET-28	28	7/36	.027″
8550/26	ET-26	26	7/34	.031″
8550/24	ET-24	24	7/32	.036″
8550/22	ET-22	22	7/30	.042″
8550/20	ET-20	20	7/28	.049″

STANDARD SPOOL PUT-UPS: 500 ft., 1000 ft.

MIL-W-7139B
600 VOLTS TEMPERATURE RATING +200°C to +260°C
CLASS 1
SILVER COATED COPPER CONDUCTOR FOR +200°C OPERATION
CLASS 2
NICKEL COATED COPPER CONDUCTOR FOR +260°C OPERATION

Cat. No. Class 1	Cat. No. Class 2	Size AWG	Strand	Nom. O.D.
8700-22	8701-22	22	19/34	.085″
8700-20	8701-20	20	19/32	.095″
8700-18	8701-18	18	19/30	.110″
8700-16	8701-16	16	19/29	.130″
8700-14	8701-14	14	19/27	.143″
8700-12	8701-12	12	19/25	.163″

ADDITIONAL SIZES AVAILABLE
STANDARD SPOOL PUT-UPS: 500 ft., 1000 ft.
STANDARD COLOR: Class 1, White/ Blue Tracer
Class 2 White/Orange Tracer

SHIELDED AND UNSHIELDED TEFLON* CABLES
TO MIL-W-16878D

DESCRIPTION: One or more conductors, each conductor silver plated concentrically stranded copper wire, Type E Extruded TFE .010″ insulation. When shielded, braided silver plated copper shield over conductor(s), 90% shield coverage. When covered, either a TEFLON* impregnated fiberglass braid or a .010″ TEFLON* fused, double reversed tape jacket overall. Temperature —65° to +260°C. Voltage rating 600V. Fungus, solvent, moisture, flame, acid, alkali and oil resistant.

TEFLON* IMPREGNATED FIBERGLASS BRAID OVER SHIELD

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.	Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8706	1	24	19/36	.081″	8712	1	20	19/32	.093″
8706/2	2	24	19/36	.126″	8712/2	2	20	19/32	.154″
8706/3	3	24	19/36	.133″	8712/3	3	20	19/32	.163″
8706/4	4	24	19/36	.144″	8712/4	4	20	19/32	.180″
8706/5	5	24	19/36	.156″	8712/5	5	20	19/32	.195″
8709	1	22	19/34	.088″	8715	1	18	19/32	.097″
8709/2	2	22	19/34	.137″	8715/2	2	18	19/30	.162″
8709/3	3	22	19/34	.144″	8715/3	3	18	19/30	.172″
8709/4	4	22	19/34	.158″	8715/4	4	18	19/30	.192″
8709/5	5	22	19/34	.172″	8715/5	5	18	19/30	.207″

STD. PUT-UP: 250 ft., 500 ft., 1000 ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

TEFLON* TAPE WRAP JACKET OVER SHIELD

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8521	1	24	19/36	.084″
8521/2	2	24	19/36	.128″
8521/3	3	24	19/36	.135″
8521/4	4	24	19/36	.148″
8521/5	5	24	19/36	.162″
8523	1	22	19/34	.090″
8523/2	2	22	19/34	.140″
8523/3	3	22	19/34	.148″
8523/4	4	22	19/34	.162″
8523/5	5	22	19/34	.183″
8525	1	20	19/32	.099″
8525/2	2	20	19/32	.158″
8525/3	3	20	19/32	.167″
8525/4	4	20	19/32	.184″
8525/5	5	20	19/32	.204″
8527	1	18	19/30	.109″
8527/2	2	18	19/30	.178″
8527/3	3	18	19/30	.189″
8527/4	4	18	19/30	.208″
8527/5	5	18	19/30	.230″

STD. PUT-UP: 250 ft., 500 ft., 1000 ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

SHIELDED BRAID OVERALL

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8704	1	24	19/36	.068″
8704/2	2	24	19/36	.112″
8704/3	3	24	19/36	.120″
8704/4	4	24	19/36	.132″
8704/5	5	24	19/36	.140″
8707	1	22	19/34	.075″
8707/2	2	22	19/34	.124″
8707/3	3	22	19/34	.132″
8707/4	4	22	19/34	.146″
8707/5	5	22	19/34	.154″
8710	1	20	19/32	.082″
8710/2	2	20	19/32	.142″
8710/3	3	20	19/32	.151″
8710/4	4	20	19/32	.168″
8710/5	5	20	19/32	.180″
8713	1	18	19/30	.093″
8713/2	2	18	19/30	.162″
8713/3	3	18	19/30	.172″
8713/4	4	18	19/30	.191″
8713/5	5	18	19/30	.210″

STD. PUT-UP: 250 ft., 500 ft., 1000 ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black 3—Red, 4—Green, 5—Yellow.

NO SHIELD—TEFLON* IMPREGNATED FIBERGLASS

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8705	1	24	19/36	.044″
8705/2	2	24	19/36	.088″
8705/3	3	24	19/36	.096″
8705/4	4	24	19/36	.108″
8705/5	5	24	19/36	.116″
8708	1	22	19/34	.051″
8708/2	2	22	19/34	.100″
8708/3	3	22	19/34	.108″
8708/4	4	22	19/34	.122″
8708/5	5	22	19/34	.131″
8711	1	20	19/32	.058″
8711/2	2	20	19/32	.118″
8711/3	3	20	19/32	.127″
8711/4	4	20	19/32	.144″
8711/5	5	20	19/32	.156″
8714	1	18	19/30	.069″
8714/2	2	18	19/30	.138″
8714/3	3	18	19/30	.148″
8714/4	4	18	19/30	.167″
8714/5	5	18	19/30	.186″

STD. PUT-UP: 250 ft., 500 ft., 1000 ft.
CONDUCTOR COLOR CODE: 1—White, 2—Black 3—Red, 4—Green, 5—Yellow.

See Pages 1560-1565 for Birnbach Prices for Above Items

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Birnbach — MIL-W-1687D HOOK-UP WIRE / MIL-W-76B HOOK-UP WIRE

BIRNBACH

PLASTIC HOOK-UP WIRE
SPECIFICATION MIL-W-16878D
TYPE B—HIGH TEMPERATURE VINYL

600 VOLT

Suitable for general purpose wiring for miniature high temperature hook-ups in aircraft, electronic instruments, devices, etc., where excellent resistance to moisture and solvents may be required.

DESCRIPTION: One conductor stranded tinned copper with rated —55°C to + 105°C high temperature thermoplastic light wall insulation. The letter "N" after Catalog Number designates clear Nylon Jacket overall. 115°C. Nom. Wall .010".

Cat. No.	Mil-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
7190	B-32	32	7/40	.028"
7191	B-30	30	7/38	.030"
7192	B-28	28	7/36	.033"
7193	B-26	26	7/34	.037"
7194	B-24	24	7/32	.043"
7195	B-22	22	7/30	.048"
7196	B-20	20	7/28	.057"
7197	B-18	18	7/26	.067"
7198	B-16	16	19/29	.077"

STD. PUT-UP 100'-1000'

TYPE B—NYLON JACKET

NYLON JACKET THICKNESS: 32-20 .002, 18-16 .003

7190N	1000'	B-32	32	7/40	.010"	600	.032"
7191N	1000'	B-30	30	7/38	.010"	600	.036"
7192N	1000'	B-28	28	7/36	.010"	600	.039"
7193N	1000'	B-26	26	7/34	.010"	600	.042"
7194N	1000'	B-24	24	7/32	.010"	600	.047"
7195N	1000'	B-22	22	7/30	.010"	600	.053"
7196N	1000'	B-20	20	7/28	.010"	600	.065"
7197N	1000'	B-18	18	7/26	.010"	600	.075"
7198N	1000'	B-16	16	19/29	.010"	600	.085"

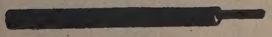
STD. PUT-UP 1000 FT.

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple

White/Black
White/Red
White/Green
White/Yellow
White/Blue
White/Brown
White/Orange
White/Gray
White/Violet

SPECIFICATION MIL-W-16878D
TYPE C—HIGH TEMPERATURE—VINYL JACKET

1000 VOLT



DESCRIPTION: One Conductor Similar to Type B—Heavier Wall Hi-Temp Thermoplastic Insulation. Nom. Wall .016".

Cat. No.	Mil-W-16878C Type Designation	Size AWG	Minimum Strand	Nom. O.D.
7170	C-24	24	7/32	.058"
7171	C-22	22	7/30	.064"
7172	C-20	20	7/28	.073"
7173	C-18	18	7/26	.085"
7174	C-16	16	19/29	.095"
7175	C-14	14	19/27	.109"

TYPE C—NYLON JACKET

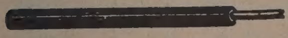
NYLON JACKET THICKNESS: 24 .002, 22, 20. 18 .003,16-14 .004

7170N	C-24	24	7/32	.065"
7171N	C-22	22	7/30	.072"
7172N	C-20	20	7/28	.079"
7173N	C-18	18	7/26	.090"
7174N	C-16	16	19/29	.099"
7175N	C-14	14	19/27	.114"

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple. Also available in tracer colors. Additional types available to order.

STD. PUT-UP 100 FT.-1000 FT.

SPECIFICATION MIL-W-16878D
TYPE D—HIGH TEMPERATURE—VINYL—3000 VOLTS



DESCRIPTION: One Conductor Stranded Similar to Type C—Heavier Wall Hi-Temp Thermoplastic Insulation. Nom. Wall 24 thru 14 .032, 12 thru 6 .040.

Cat. No.	Mil-W-16878D Type Designation	Size AWG	Cond. Strand	Nom. O.D.
7180	D-24	24	7/32	.084"
7181	D-22	22	7/30	.089"
7182	D-20	20	10/30	.097"
7183	D-18	18	16/30	.107"
7184	D-16	16	26/30	.116"
7185	D-14	14	41/30	.130"
7186	D-12	12	65/30	.163"
7187	D-10	10	105/30	.182"
7188	D- 8	8	133/29	.247"
7189	D- 6	6	133/27	.291"

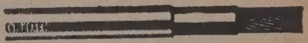
MIL-W-16878B Type D Available with Nylon Jacket.

STD. PUT-UP 100 FT.-1000 FT.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS.

SPECIFICATION MIL-W-76B TYPE MW (Medium Wall) PLASTIC HOOK-UP WIRE TYPE MW 1000 VOLTS (Fungus Proof) SUPERSEDES JAN-C-76 TYPE SRIR

1000 VOLT
TEMP. RATING: —40°C TO +80°C



STRANDED

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
7024	1000'	24	MW-C 24(16)U	16/36	.015"	.074"
7024-S	1000'	24	MW-C 24(16)U	16/36	.015"	.085"
7001	1000'	22	MW-C 22(7)U	7/30	.017"	.085"
*†7001-S	1000'	22	MW-C 22(7)U	7/30	.017"	.098"
7003	1000'	20	MW-C 20(10)U	10/30	.017"	.114"
*†7003-S	1000'	20	MW-C 20(10)U	10/30	.017"	.132"
7005	1000'	18	MW-C 18(16)U	16/30	.017"	.055"
*7005-S	1000'	18	MW-C 18(16)U	16/30	.017"	.055"
7007	1000'	16	MW-C 16(26)U	26/30	.017"	.066"
7009	1000'	14	MW-C 14(41)U	41/30	.017"	.066"
7011	1000'	12	MW-C 12(65)U	65/30	.017"	.074"
			SOLID			
7000	1000'	22	MW-C 22(1)U	1	.017"	.061"
7002	1000'	20	MW-C 20(1)U	1	.017"	.068"
7004	1000'	18	MW-C 18(1)U	1	.017"	.075"

STD. PUT-UP 100 FT.-1000 FT.

STOCK COLORS: White, Yellow, Lt. Blue, Black, Violet (purple), Blue, Brown, Lt. Green, Pink, Red, Green, Tan, Orange, Gray (slate).

***SINGLE SPIRAL TRACER COLORS AVAILABLE:**

White/Black
White/Brown
White/Red
White/Orange
White/Yellow
White/Green
White/Blue
White/Purple
White/Gray

†DOUBLE SPIRAL TRACER COLORS AVAILABLE:

White/Black/Red
White/Black/Green
White/Black/Yellow
White/Black/Blue
White/Black/Brown
White/Black/Orange
White/Black/Gray
White/Black/Purple

Additional spiral tracer combination available, to order, for all numbers.

SPECIFICATION MIL-W-76B TYPE MW (Medium Wall)—NYLON JACKET 1000 VOLT (Fungus Proof)

(Supersedes Jan-C-76 Types SRIR and WL Nylon Jacket)

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and extruded nylon jacket overall.

TEMP. RATING: —40°C TO +90°C

Cat. No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
7224	24	MW-C 24(16)J	16/36	.015"	.068"
*7222	22	MW-C 22(7)J	7/30	.017"	.075"
*7220	20	MW-C 20(10)J	10/30	.017"	.087"
*7218	18	MW-C 18(16)J	16/30	.017"	.100"
7216	16	MW-C 16(26)J	26/30	.017"	.122"
7214	14	MW-C 14(41)J	41/30	.017"	.122"
7212	12	MW-C 12(65)J	65/30	.017"	.140"
7210	10	HW-C 10(105)J	105/30	.045"	.240"

STD. PUT-UP 100 FT.-1000 FT.

NYLON JACKET THICKNESS: #24 .002; 22, 20, 18 .003; 16, 14 .004; 12 .005; 10 .007.

STOCK COLORS: White, Orange, Purple, Black, Yellow, Gray, Brown, Green, Red, Blue.

White/Black
White/Brown
White/Red
White/Orange
White/Yellow
White/Green
White/Blue
White/Purple
White/Gray
White/Black/Red
White/Black/Yellow
White/Black/Blue
White/Black/Green
White/Black/Orange
White/Black/Brown
White/Black/Gray

*In addition Nos. 7218, 7220, 7222, available in Red/Black and Black/White. Nos. 7212. 7210 available solid colors only.

SPECIFICATION MIL-W-76B
TYPE MW (Medium Wall)—GLASS BRAID 1000 VOLTS

(Supersedes Jan-C-76 Types SRIR and WL Glass Braid)

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and lacquered glass braid overall.

Nom. Wall 1.017"
TEMP. RATING: —40°C TO +80°C

Cat No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
7022	100'-1000'	22	MW-C 22(7)B	7/30	.079"
7020	100'-1000'	20	MW-C 20(10)B	10/30	.084"
7018	100'-1000'	18	MW-C 18(16)B	16/30	.100"
7016	100'-1000'	16	MW-C 16(26)B	26/30	.116"
*7014	100'-1000'	14	MW-C 14(41)B	41/30	.129"
*7012	100'-1000'	12	MW-C 12(65)B	65/30	.149"

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White/Brown, White/Black, White/Orange, White/Yellow, White/ Green, White/Blue, White/Red, White/Gray, White/Purple, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray. *Nos. 7014, 7012, available stock in solid colors.

TYPE HW (Heavy Wall)—GLASS BRAID

(Supersedes Jan-C-76 Type SRHV—Glass Braid)

TEMP. RATING: —40°C TO +80° C
NOM. WALL .045"

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
7010	100'-1000'	10	HW-C 10(105)B	105/30	.237"
7008	100'-1000'	8	HW-C 8(133)B	133/29	.293"
7006	100'-1000'	6	HW-C 6(133)B	133/27	.340"

STOCK COLORS: White, Black. Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

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Birnbach

MIL-W-76B, MIL-W-16878D WIRE • CABLE HIGH TEMP. COAX CABLES PER MIL-C-17C

BIRNBACH

SPECIFICATION MIL-W-76B

TYPE HW (Heavy Wall)—2500 VOLTS (Fungus Proof)

600 VOLTS SIZES—14 through 6—(Supersedes Jan-C-76 Type SRHV)—Temp. Rating—40°C to 80°C
Nom. Wall Size—22 through 16 .033: Size 14 through 6 .045

DESCRIPTION: Similar to type MW. One conductor stranded tinned copper with larger wall of primary thermoplastic insulation to take 2500 V RMS.

Cat. No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
7322	22	HW-C 22(7)U	7/30	.105″
7320	20	HW-C 20(10)U	10/30	.112″
7318	18	HW-C 18(16)U	16/30	.122″
7316	16	HW-C 16(26)U	26/30	.135″
7314	14	HW-C 14(41)U	41/30	.175″

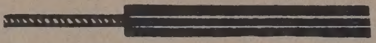
Cat. No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
7312	12	HW-C 12(65)U	65/30	.195″
*7013	10	HW-C 10(105)U	105/30	.217″
*7015	8	HW-C 8(133)U	133/29	.268″
*7017	6	HW-C 6(133)U	133/27	.315″

STD. PUT-UP 100′-1000′

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray. Additional sizes, colors available to order.

SPECIFICATION MIL-W-76B TYPE LW (Light Wall) TYPE LW—LW—VINYL LW—NYLON 300 VOLTS

DESCRIPTION: One conductor stranded tinned copper with light wall of primary thermoplastic insulation. Nom. Wall .010″.
TEMP. RATING —40°C TO +80°C



Cat. No.	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. O.D.
7330	30	LW-C 30(7)U	7/38	.033″
7328	28	LW-C 28(7)U	7/36	.035″
7326	26	LW-C 26(10)U	10/36	.040″
7324	24	LW-C 24(7)U	7/32	.044″
7324/22	22	LW-C 22(7)U	7/30	.050″
7324/20	20	LW-C 20(7)U	7/28	.060″

Cat. No.	Size AWG	Mil-W-76B Type Designation	Nom. Wall	Nom O.D.
7330N	30	LW-C 30(7)J	7/38	.036″
7328N	28	LW-C 28(7)J	7/36	.039″
7326N	26	LW-C 26(7)J	7/34	.042″
7324N	24	LW-C 24(7)J	7/32	.047″
7324/20N	20	LW-C 22(7)U	7/30	.053″
7324/22N	22	LW-C 20(7)U	7/28	.065″

MIL-W-16878D

TYPE C—SHIELDED 1000 V

DESCRIPTION: Stranded tinned copper, .016″ wall white polyvinylchloride insulation, braided tinned copper shield overall temp. rating —55°C to +105°C 1000 volts.

Cat. No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
7178/24	24	7/32	.016″	.075″
7178/22	22	7/30	.016″	.085″
7178/20	20	7/28	.016″	.095″
7178/18	18	7/26	.016″	.105″
7178/16	16	19/26	.016″	.115″

STD. PUT-UP: 1000 FT.

MIL-W-16878D

TYPE C—SHIELDED—VINYL JACKET 1000V

DESCRIPTION: Stranded tinned copper, .016″ wall white with polyvinylchloride insulation braided tinned copper shield with polyvinylchloride jacket overall. Resistant to acids, oil, alkalies, flame, fungus, solvents, moisture. Temp. rating —55°C to +105°C.

Cat. No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
7179/24	24	7/32	.016″	.094″
7179/22	22	7/30	.016″	.104″
7179/20	20	7/28	.016″	.112″
7179/18	18	7/26	.016″	.120″
7179/16	16	19/29	.016″	.133″

STD. PUT-UP: 1000 FT.

BIRNBACH COAXIAL CABLES WITH HIGH TEMPERATURE TEFLON* CORE DIELECTRIC

MEETS MIL-C-17C

These Teflon* Core Dielectric Co-Axial Cables combine both miniaturization and hi-temperature qualities. The Teflon Jackets are weatherproof, resistant to fuels and are extremely flexible.

Birnbach No.	Military Number RG/U Type	Ohms	Jkt. Mtl.	Cap. MMF/Ft.	Dielectric Material	Inner Conductor	Shield	O.D. Inches	Max. Oper. Volts RMS	Nom. Atten. DB/100 Ft. 400 Mc	RG/U Type
B161/U	161/U	70	Black Nylon	20	Teflon	7/38 Silvered Cad. Bronze	Silver Covered Copper	.082	1000	17.4	161/U
B178/U	178/U	50	Kel-F	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.075	1000	28.0	178/U
B178A/U	178A/U	50	Kel-F	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.075	1000	28.0	178A/U
B178B/U	178B/U	50	FEP Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.075	1000	28.0	178B/U
B179/U	179B/U	70	Kel-F	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.090	1200	16.0	179/U
B179A/U	179A/U	75	Kel-F	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.105	1200	16.0	179A/U
B179B/U	179B/U	75	FEP Teflon	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.105	1200	16.0	179B/U
B180/U	180/U	93	Kel-F	15.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.141	1500	11.0	180/U
B180A/U	180A/U	95	Kel-F	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.145	1500	11.0	180A/U
B180B/U	180B/U	95	FEP Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.145	1500	11.0	180B/U
B187/U	187/U	75	TFE	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.110	1200	16.0	187/U
B187A/U	187A/U	75	Teflon	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.110	1200	16.0	187A/U
B188/U	188/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188/U
B188A/U	188A/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188A/U
B195/U	195/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.155	1500	11.0	195/U
B195A/U	195A/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.155	1500	11.0	195A/U
B196/U	196/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196/U
B196A/U	196A/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196A/U
B316/U	316/U	50	FEP Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	316/U

STD. PUT-UP: 500 Ft., 1000 Ft.

*TEFLON—DUPONT

See Pages 1560-1565 for Birnbach Prices for Above Items

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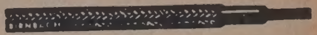
Birnbach SHIELDED PLASTIC HOOK-UP WIRE MIL-W-76B • SHIELDED • NYLON VINYL JACKETS • AIRCRAFT PLASTIC HOOK-UP WIRE MIL-W-5086A, MIL-C-7078A BIRNBACH

SHIELDED PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-76B TEMPERATURE RATING: —40°C TO +80°C TYPE MW (Medium Wall) — SHIELDED

DESCR.: One conductor stranded tinned copper with thermoplastic insulation and tinned copper shielded braid overall.

(Supersedes Jan-C-76 Type SRIR Shielded)

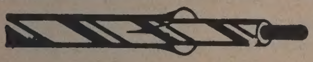


Cat. No.	Spool	Size AWG	MIl-W-76B Type Designation	Minimum Strand	Nom. Wall	Volt Rating	Nom. O.D.
7074	1000′	24	MW-C 24(16)S	16/36	.015″	1000	.074″
7074-1	100′	24	MW-C 24(16)S	16/36	.015″	1000	.074″
7072	1000′	22	MW-C 22(7)S	7/30	.017″	1000	.084″
7072-1	100′	22	MW-C 22(7)S	7/30	.017″	1000	.084″
7070	1000′	20	MW-C 20(10)S	10/30	.017″	1000	.094″
7070-1	100′	20	MW-C 20(10)S	10/30	.017″	1000	.094″
7068	1000′	18	MW-C 18(16)S	16/30	.017″	1000	.106″
7068-1	100′	18	MW-C 18(16)S	16/30	.017″	1000	.106″
7067	1000′	16	MW-C 16(26)S	26/30	.017″	1000	.121″
7067-1	100′	16	MW-C 16(26)S	26/30	.017″	1000	.121″
*7066	1000′	14	MW-C 14(41)S	41/30	.017″	1000	.137″
*7065	1000′	12	MW-C 12(65)S	65/30	.017″	1000	.155″

STOCK COLORS: (Underneath Shield) Black, White, Red, Yellow, Brown, Green, Blue, Gray. *Nos. 7066, 7065, available from stock in Black, White or Red.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS.

Also multiconductor can be formed to order twisted shielded, with or without plastic Jacket overall.



SHIELDED PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-76B TYPE MW—SHIELDED—NYLON JACKET

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, clear nylon (polymide) jacket overall. Temperature rating −40° to +90°C. Resistant to acids, alkalis, oil, flame, moisture, fungus.

Cat.No.	Spool	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Volt Rating	Nom. OD.
7074J	1000′	24	MW-C24(16)SJ	16/36	.015″	1000	.091″
7072J	1000′	22	MW-C22(7)SJ	7/30	.017″	1000	.100″
7070J	1000′	20	MW-C20(10)SJ	10/30	.017″	1000	.105″
7068J	1000′	18	MW-C18(16)SJ	16/30	.017″	1000	.115″
7067J	1000′	16	MW-C16(26)SJ	26/30	.017″	1000	.125″
7066J	1000′	14	MW-C14(41)SJ	41/30	.017″	1000	.138″
7065J	1000′	12	MW-C12(65)SJ	65/30	.017″	1000	.160″

Additional colors available to order.

SPECIFICATION MIL-W-76B TYPE MW—SHIELDED—VINYL JACKET

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, black PVC (polyvinylchloride) jacket overall. Temperature rating −40° to +90°C. Resistant to acids, alkalis, oil, flame, moisture, fungus.

Cat.No.	Spool	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Volt Rating	Nom. OD.
7074VJ	1000′	24	MW-C24(16)SJ	16/36	.015″	1000	.095″
7072VJ	1000′	22	MW-C22(7)SJ	7/30	.017″	1000	.105″
7070VJ	1000′	20	MW-C20(10)SJ	10/30	.017″	1000	.112″
7068VJ	1000′	18	MW-C18(16)SJ	16/30	.017″	1000	.120″
7067VJ	1000′	16	MW-C16(26)SJ	26/30	.017″	1000	.133″
7066VJ	1000′	14	MW-C14(41)SJ	41/30	.017″	1000	.148″
7065VJ	1000′	12	MW-C12(65)SJ	65/30	.017″	1000	.170″

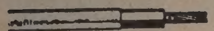
Additional colors available to order.

AIRCRAFT PLASTIC HOOK-UP WIRE

SPECIFICATIONS MIL-W-5086A and MIL-C-7078A (105°C Rating)

NYLON JACKET

Used where a single conductor, 600. volt insulated wire, is required. This aircraft electrical wire is resistant to effects of salt water, oils, aircraft engine fuels, alcohol, fungus, heat, cold, salt water, abrasion, meets -65°F temperature test.



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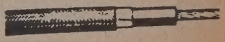

No. 7371

DESCRIPTION: Type I MIL-W-5086A One conductor stranded tinned copper with plastic insulation, nylon jacket overall. Type 2 MIL-W-5086A—one conductor stranded tinned copper, plastic insulation, nylon lacquered glass braid. Color: White.

MIL-W-5086A UNSHIELDED (Supersedes AN-J-C-48A)

600 Volt Rating

Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
7351	22	AN-22	No. 1	19/34	070″
7353	20	AN-20	No. 1	19/32	080″
7355	18	AN-18	No. 1	19/30	090″
7357	16	AN-16	No. 1	19/29	100″
7359	14	AN-14	No. 1	19/27	125″
7361	12	AN-12	No. 1	19/25	140″
7363	8	AN-8	No. 2	133/29	240″
7364	6	AN-6	No. 2	133/27	297″
7365	4	AN-4	No. 2	133/25	355″
7365/2	2	AN-2	No. 2	665/30	412″
7365/0	0	AN-0	No. 2	1045/30	518″
7365/00	00	AN-00	No. 2	1330/30	588″
7351 NB	22	AN-22	No. 2	19/34	068″
7353 NB	20	AN-20	No. 2	19/32	078″
7355 NB	18	AN-18	No. 2	19/30	088″
7357 NB	16	AN-16	No. 2	19/29	099″
7359 NB	14	AN-14	No. 2	19/27	117″
7361 NB	12	AN-12	No. 2	19/25	137″
7362 NB	10	AN-10	No. 2	49/27	189″

MIL-C-7078A SHIELDED (Supersedes An-C-168)

Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
7371	22	AN-22	No. 1	19/34	100″
7372	20	AN-20	No. 1	19/32	110″
7373	18	AN-18	No. 1	19/30	124″
7374	16	AN-16	No. 1	19/29	139″
7375	14	AN-14	No. 1	19/27	158″
7376	12	AN-12	No. 1	19/25	177″

DESCRIPTION: One conductor stranded tinned copper with plastic insulation, nylon jacket with tinned copper shielded braid overall. Color: White under shield 1,000′ Spools. Additional types to order.

ALL WIRE ON THIS PAGE CAN BE CUT AND STRIPPED TO YOUR SPECIFICATION

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See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach

HIGH VOLTAGE, SILICONE HOOK-UP WIRE
KEL-F HOOK-UP, CATHODE RAY, 105° UL

200° C. BIRSIL SILICONE RUBBER HOOK-UP LEAD WIRE 600 VOLT

This Birsil Silicone Rubber Hook up lead wire withstands extreme temperature range and flexibility from —104° C. to +400° F. with retention of physical properties and is highly resistant to flex cracking at temperature extremes; fungus resistant; corona resistant; engineered for high-heat and hi-frequency applications; low power factor; acid-alkali-oil resistant; low dielectric constant; insulation appproaching mica. Approved by U. L. but consumer must apply for Underwriter's Laboratories approval for individual product.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Volt Rating	Breakdown Voltage AC	Nom. O.D.
7622	1000′	22	7/30	1/32″	600	11,500	105″
7622-1	100′	22	7/30	1/32″	600	11,500	105″
7620	1000′	20	10/30	1/32″	600	18,000	121″
7620-1	100′	20	10/30	1/32″	600	18,000	121″
7618	1000′	18	16/30	1/32″	600	21,000	128″
7618-1	100′	18	16/30	1/32″	600	21,000	128″
7616	1000′	16	26/30	1/32″	600	20,000	144″
7616-1	100′	16	26/30	1/32″	600	20,000	144″
7614	1000′	14	41/30	1/32″	600	15,500	165″
7614-1	100′	14	41/30	1/32″	600	15,500	165″
7612	1000′	12	65/30	1/32″	600	14,500	185″
7612-1	100′	12	65/30	1/32″	600	14,500	185″
7610	1000′	10	65/28	3/64″	600	20,000	240″
7610-1	100′	10	65/28	3/64″	600	20.000	240″
7608	1000′	8	84/27	1/16″	2300		320″

Additional sizes and colors available to order. Types F and FF per MIL-W-16878D available to order.

DESCRIPTION:

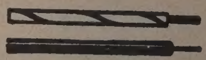
One conductor, tinned copper strands, silicone rubber insulation, glass braid, lacquered. Color: White.

STD. PUT-UP 100 FT.-1000 FT.

BIRFLENE* KEL-F HOOK-UP WIRE
—125° C. to +175° C. MEETS MIL-W-12349-SPEC

PERFORMANCE SPECIFICATIONS:
Continuous: —60° to +175° C. **Operating Voltage:** 1000 volts RMS. **Spark Test:** 7500 volts. **Dielectric Strength:** 5000 volts at 60° C. for 1 minute. **Insulation Resistance:** Greater than 5000 Meg Ohms/1000 Ft. at 60° C. **Moisture Absorption:** Nil. **Flammability:** Non-flammable. **Resistance to Chemicals:** All solvents and acids. **Aging:** Outdoor, 1 year; no detectable change.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Nom. O.D.
7130	1000′	30	7/38	.006″	.029″
7130-1	100′	30	7/38	.006″	.029″
7128	1000′	28	7/36	.006″	.032″
7128-1	100′	28	7/36	.006″	.032″
7126	1000′	26	7/34	.008″	.037″
7126-1	100′	26	7/34	.008″	.037″
7124	1000′	24	7/32	.008″	.043″
7124-1	100′	24	7/32	.008″	.043″
7122	1000′	22	7/30	.008″	.050″
7122-1	100′	22	7/30	.008″	.050″
7120	1000′	20	7/28	.010″	.060″
7120-1	100′	20	7/28	.010″	.060″
7118	1000′	18	16/30	.010″	.070″
7118-1	100′	18	16/30	.010″	.070″
7116	1000′	16	19/29	.010″	.079″
7116-1	100′	16	19/29	.010″	.079″



DESCRIPTION:

One conductor silver plated copper stranded, insulation — Monochlorotrifluoroethylene (Birflene Kel-F).

COLORS: White, Red, Green, Gray, Black, Orange, Dk. Blue, Lt. Blue, Brown, Yellow, Purple

Available in Spiral Tracers.

*Made with Kellogg Co. Kel-F or Bakelite Co. Fluorothene.

HI-VOLTAGE and CATHODE RAY CABLE

Used for 10,000, 20,000, 40,000, 60,000 volt applications as for cathode ray tubes in TV receivers, oscilloscopes and other electronic devices. Has dielectric constant of 2.7 and power factor of .002. Shielded Hi-Voltage type used to shield RF radiation in X-Ray, diathermy, medical equipment, and in transmitters.

UNSHIELDED

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Suggested Working Voltage	Nom. O.D.
7402	1000′	20	10/30	.047″	10,000	.125″
7402-1	100′	20	10/30	.047″	10,000	.125″
7412	1000′	20	10/30	.068″	20,000	.169″
7412-1	100′	20	10/30	.068″	20,000	.169″
7418	1000′	18	16/30	.047″	10,000	.135″
7418-1	100′	18	16/30	.047″	10,000	.135″
7428	1000′	18	16/30	.069″	20,000	.179″
7428-1	100′	18	16/30	.069″	20,000	.179″
7448	1000′	18	16/30	.095″	40,000	.231″
7448-1	100′	18	16/30	.095″	40,000	.231″
7449	1000′	18	16/30	.123″	60,000	.285″
7449-1	100′	18	16/30	.123″	60,000	.285″
SHIELDED						
7458	1000′	18	16/30	.095″	40,000	.256″
7458-1	100′	18	16/30	.095″	40,000	.256″

DESCRIPTION:

One conductor stranded copper tinned rulan (flame retarding type) polyethylene insulation. Available white/red tracer. Temp. Rating: 105°C

Shielded: Same as above with tinned copper braided shield overall.

Special constructions available to order.

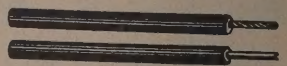
PLASTIC INSULATED HOOK-UP WIRE

Designed for the chassis, sub-chassis wiring of radio and television receivers and transmitters inside or outside the chassis. UL approved for 105° C. (221° F.) operating temperature.

105° C. — 600 VOLT RATING UL APPROVED (CSA 600V-90°C)

Cat. No.	Spool	AWG	Stranding	Nom. Wall	Volt. Breakdown	DC Ins. Res. Megs./Ft.	Max. O.D.
7201	1000′	22	7/30	.032″	18000	5000	.100″
7201-1	100′	22	7/30	.032″	18000	5000	.100″
7203	1000′	20	10/30	.032″	18000	5000	.104″
7203-1	100′	20	10/30	.032″	18000	5000	.104″
7205	1000′	18	16/30	.032″	18000	5000	.112″
7205-1	100′	18	16/30	.032″	18000	5000	.112″
7207	1000′	16	26/30	.032″	18000	5000	.129″
7207-1	100′	16	26/30	.032″	18000	5000	.129″
7202	1000′	22	Solid	.032″	18000	5000	.095″
7202-1	100′	22	Solid	.032″	18000	5000	.095″
7204	1000′	20	Solid	.032″	18000	5000	.102″
7204-1	100′	20	Solid	.032″	18000	5000	.102″

COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple



DESCRIPTION:

One Conductor stranded annealed copper tinned, plastic insulation.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT & STRIPPED TO YOUR SPECIFICATIONS.

Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

See Pages 1560-1565 for Birnbach Prices for Above Items

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Birnbach MINIATURE, SUBMINIATURE, HIGH TEMP. SHIELDED & MULTICONDUCTOR BIRNBACH

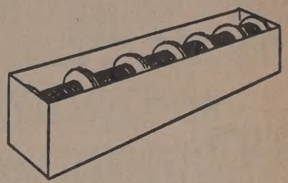
MINIATURIZATION HOOK-UP WIRE and CABLE

HIGH TEMPERATURE 105°C. UNSHIELDED — ONE CONDUCTOR

Used in miniaturized equipment Phono-pickup lead computers transistor circuits, electro-medical and electro therapeutic apparatus, instrumentation projects, miniaturization programs, where fine sizes are required with high operating temperature.
For "Lab" requirements Miniaturization Hook-Up Wire and Cable assortments—WRITE for information.

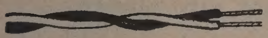
Cat. No	Spool	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7534	1000′	1	34	4/40	.010″	.027″
7534-500	500′	1	34	4/40	.010″	.027″
7532	1000′	1	32	7/40	.010″	.029″
7532-500	500′	1	32	7/40	.010″	.029″
7530	1000′	1	30	7/38	.010″	.030″
7530-500	500′	1	30	7/38	.010″	.030″
7529	1000′	1	29	5/36	.010″	.030″
7529-500	500′	1	29	5/36	.010″	.030″
7528-	1000′	1	28	7/36	.010″	.035″
7528-500	500′	1	28	7/36	.010″	.035″
7527	1000′	1	27	7/35	.010″	.037″
7527-500	500′	1	27	7/35	.010″	.037″
7526	1000′	1	26	10/36	.010″	.038″
7526-500	500′	1	26	10/36	.010″	.038″
7524	1000′	1	24	16/36	.015″	.055″
7524-500	500′	1	24	16/36	.015″	.055″

STOCK COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple

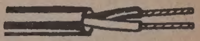


DESCRIPTION:
One conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation overall.

SUB-MINIATURE MULTI-CONDUCTOR CABLE (Super Flexible)



DESCRIPTION: Multi-Cond. tinned copper stranded 105° C high temperature P.V.C. thermoplastic insulation. When jacketed clear P.V.C. thermoplastic used over cabled wire.



NO OUTER JACKET

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7652	1000′	2	30	7/38	.010″	.059″
7652	500′	2	30	7/38	.010″	.059″
7653	1000′	3	30	7/38	.010″	.065″
7653	500′	3	30	7/38	.010″	.065″
7654	1000′	4	30	7/38	.010″	.072″
7654	500′	4	30	7/38	.010″	.072″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

CLEAR VINYL JACKET OVERALL

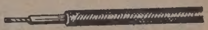
Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7668	1000′	2	28	7/36	.010″	.079″
7668	500′	2	28	7/36	.010″	.079″
7669	1000′	3	28	7/36	.010″	.086″
7669	500′	3	28	7/36	.010″	.086″
7670	1000′	4	28	7/36	.010″	.095″
7670	500′	4	28	7/36	.010″	.095″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

SUB-MINIATURE SHIELDED HOOK-UP WIRE (Super Flexible)

Cat. No	Spool	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7538	1000′	1	30	7/38	.010″	.053″
7538	500′	1	30	7/38	.010″	.053″
7535	1000′	1	28	7/36	.010″	.058″
7535	500′	1	28	7/36	.010″	.058″
7537	1000′	1	26	10/36	.010″	.061″
7537	500′	1	26	10/36	.010″	.061″
7536	1000′	1	24	16/36	.015″	.075″
7536	500′	1	24	16/36	.015″	.075″

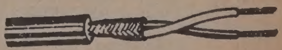
STOCK COLOR: White (under shield)



DESCRIPTION:
One or multi-conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation and tinned copper shielded braid overall.

SUB-MINIATURE MULTI-CONDUCTOR CABLE SHIELDED (Super Flexible)

DESCRIPTION: Multi-conductor, tinned copper stranded 105° C high temperature P.V.C. thermoplastic insulation, tinned copper shield. When jacketed clear P.V.C. Thermoplastic jacket used over tinned copper shield.



NO OUTER JACKET

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7542	1000′	2	24	16/36	.015″	.114″
7542/3	1000′	3	24	16/36	.015″	.123″
7542/4	1000′	4	24	16/36	.015″	.144″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

CLEAR VINYL JACKET OVERALL

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7552	1000′	2	28	7/36	.010″	.137″
7552/3	1000′	3	28	7/36	.010″	.145″
7552/4	1000′	4	28	7/36	.010″	.163″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT & STRIPPED TO YOUR SPECIFICATIONS.
Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

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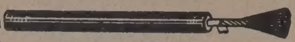
See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach

KINKLESS TEST LEAD WIRE — SHIELDED CABLE
PHONO PICKUP WIRE — SERVICE and POWER CORDS

KINKLESS TEST LEAD WIRE

Used with portable test equipment; as tested, leads in analyzers, oscillators, instruments; wherever extreme flexibility and limpness is required. Has excellent dielectric properties.



DESCRIPTION:
Nos. 61, 62—#20—41/36 extra flexible annealed tinned copper, stranded.

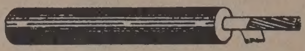
COLORS: Red, Black

Nos. 66, 67—#18—65/36 extra flexible annealed tinned copper stranded; paper serve; 3/64″ special low capacity rubber, wax finish.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
61	100′	20	41/36	3/64″	20,000 Volts	.137″
62	500′	20	41/36	3/64″	20,000 Volts	.137″
66	100′	18	65/36	3/64″	22,000 Volts	.145″
67	500′	18	65/36	3/64″	22,000 Volts	.145″

Types WS-16/U Black, WS-17/U Red, per MIL-W-13169 Specification available same construction as Birnbach #67 except compound per specification.

HEAVY DUTY HI-VOLTAGE TYPE



DESCRIPTION:
Nos. 68, 69—#18—65/36 extra flexible annealed tinned copper; stranded; paper serve; 5/64″ special low capacity rubber, wax finish.

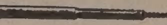
Used for oscillators, analyzers, TV, therapeutic instruments, etc.; wherever an extremely flexible high voltage lead is indicated.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
68	100′	18	65/36	5/64″	29,000 Volts	.210″
69	500′	18	65/36	5/64″	29,000 Volts	.210″

For longer lengths and alternate put-ups—Specify.

SHIELDED PHONO WIRE

Used where small diameter, limpness and extreme flexibility is necessary as for phono pickup arms and grid wire.



DESCRIPTION:
#1822—Single Conductor #22-7/30 Tinned Copper Strands, Vinyl plastic insulation, close tinned copper shield braided overall.
#1824—Single Conductor #24-16/36 Extremely Flexible Tinned Copper Strands, special plastic insulation, close tinned copper shield braided overall.
#1825—Same construction as #1824 except with fine cotton braid overall.

See Page 11 for miniature and subminiature shielded wires suitable for wiring phono arm from cartridge to amplifier.

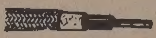
TINNED COPPER SHIELD OVERALL

Cat. No.	Spool	Strand	Cond.	Size AWG	Insul.	Nom. O.D.
1824	500′	1	24	16/36	.010″	.080″
1824M	1000′	1	24	16/36	.010″	.080″
1822	100′	1	22	7/30	.010″	.080″
1822B	500′	1	22	7/30	.015″	.090″
1822C	1000′	1	22	7/30	.015″	.090″
COTTON BRAID OVER SHIELD						
1825	500′	1	24	16/36	.010″	.095″
1825M	1000′	1	24	16/36	.010″	.095″

For longer lengths and alternate put-ups—Specify.

SHIELDED GRID LEAD WIRE

Used to reduce loss in grid lead use, also to reduce interference caused by motors, high tension wires, X-ray machines, etc.



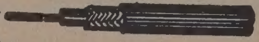
DESCRIPTION:
#820—Single Conductor #20—10/30, #818—16/30 Stranded Tinned Copper, low loss rubber insulation, cotton braid lacquered, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand	Ins. Under Shield	Cap./Ft. Mmf.	Nom. O.D.
820	100′	20	10/30	.085″	70	.140″
818	100′	18	16/30	.085″	75	.150″

For longer lengths and alternate put-ups—Specify.

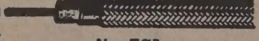
7MM HIGH TENSION CABLE

Used as hi voltage leads in electronic equipment and instruments, photo electric cell leads, automotive, etc.



DESCRIPTION:
#1600 — Unshielded One Conductor #16-19/29 stranded tinned copper wire, rubber insulation, cotton braid highly lacquered.

No. 1600



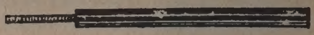
DESCRIPTION:
#781 — Shielded Same construction as #1600 plus a closely woven tinned copper shield overall.

No. 781

Cat. No	Spool	Size AWG	Strand	Insul.	Nom. O.D.
1600	100′	16	19/29	3/32″	.275″
781	100′	16	19/29	3/32″	.295″

Used for auto and aircraft ignition systems where grounding is required for elimination of interference.
For longer lengths and alternate put-ups—specify.

New Plastic Kinkless Test Lead Wire



New formulation vinyl compound insulation allows maximum flexibility; rough treatment; extreme variation in climatic conditions; excellent abrasion resistance; greater temperature stability from —80°C to +115°C; fungus resistant; self extinguishing-flame proof; smooth surface. Resists exposure to gasoline and oil.
DESCRIPTION: one conductor tinned copper stranded, special formulation vinyl insulation. **COLORS: Black, Red, Yellow, Green, White, Blue.**

Cat. No.	Size AWG	Strand.	Ins.	Nom. O.D.
1922	22	26/36	.032″	.100″
1920	20	26/34	.032″	.104″
1918	18	65/36	.032″	.112″
1916	16	65/34	.032″	.129″

Standard Package: 100′, 500′, 1000′ spools.

For portable test equipment; as test leads for instrumentation exceeds the requirements for Mil-I-3930A type JP(PVC). It is superior to synthetic rubber spec MIL-R-6855 Class II Grade 60.

HI VOLTAGE LACQUERED WIRE

Used as primary wiring as for automobiles, tail, dashboard, horn, etc. Instrument leads, high voltage and primary voltage requirements.

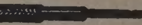
DESCRIPTION:
One Conductor tinned copper annealed stranded, rubber insulation, highly lacquered braid, oil, heat, and moisture resistant.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture V.	Nom. O.D.
2818	100′	18	16/30	.022″	9500	.117″
2816	100′	16	19/29	.022″	9500	.127″
2814	100′	14	19/27	.022″	9500	.148″
2812	100′	12	19/25	.027″	9500	.171″
2810	100′	10	19/23	.031″	9500	.202″

For longer lengths and alternate put-ups—Specify.

LACQUERED HOOK-UP WIRE

Used in transformers, amplifiers, hook-ups, leads, etc. Strips easily for soldering.



DESCRIPTION:
No. 3462—#20-10/30 **Single Conductor** stranded tinned copper, low loss free stripping rubber insulation, cotton braid highly lacquered.
No. 3600—#18-16/30 **Single Conductor** stranded tinned copper, 1/32″ low loss free stripping rubber insulation, rayon braid highly lacquered.

Cat. No.	Spool	Size AWG	Strand	Insul.	Punct. Volt.	DC Ins. Res./Ft. Meg.	Nom. O.D.
3461	100′	20	10/30	1/64″	7000	390	.090″
3462	500′	20	10/30	1/64″	7000	390	.090″
3460	100′	18	16/30	1/32″	9000	460	.125″
3600	500′	18	16/30	1/32″	9000	460	.125″

COLORS: Black, Red, Green, Yellow, Brown, Blue, White, Orange, Grey, Purple.
For longer lengths and alternate put-ups—Specify.

SHIELDED HOOK-UP & LEAD-IN WIRE

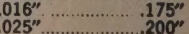
Used to prevent and reduce interference caused by motors, hi-tension cables, X-ray machines and various units radiating electrical impulses. Useful in grid circuits.

TINNED COPPER SHIELD OVER RUBBER INSULATION

DESCRIPTION:
Single Conductor, Tinned Copper Stranded, low loss rubber insulation, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand	Ins.	Cap./Ft. Mmf.	Nom. O.D.
810	500′	20	10/30	.015″	105	.095″
803	250′	18	16/30	.015″	125	.125″
802	250′	16	26/30	.031″	90	.145″

TINNED COPPER SHIELD OVER LACQUERED BRAID



DESCRIPTION:
Single Conductor, Tinned Copper Stranded, low loss Vinyl insulation, highly lacquered glass braid, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand.	Wall Thickness	Nom. O.D.
831	1000′	22	7/30	.016″	.095″
832	1000′	20	10/30	.016″	.105″
833	1000′	18	16/30	.016″	.125″
834	1000′	16	26/30	.016″	.135″
835	1000′	14	41/30	.016″	.155″
835/12	1000′	12	65/30	.016″	.175″
835/10	1000′	10	105/30	.025″	.200″

For longer lengths and alternate put-ups—Specify.

See Pages 1560-1565 for Birnbach Prices for Above Items

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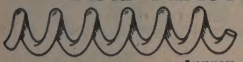
Birnbach

RETRACTILE KINKLESS POWER COMMUNICATION CORDS

BIRNBACH

This series of Birnbach Coiled Kinkless Retractile Cords are permanently coiled into a spring-like shape without the use of metal springs or elastic bands. They have inherent "Recovery" properties. These Retractile cords extend approximately six times its retracted length, returning to its exact original shape and length when released. Always as long as you need them and no longer, they will not kink, tangle, trail, knot or dangle on the floor or bench and cause accidents. Useful wherever cords or cables must change length or position.

RETRACTILE (KINKLESS) POWER CORDS RUBBER, NEOPRENE AND PLASTIC UL AND CSA APPROVED



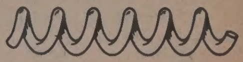
DESCRIPTION: Multi conductor power cords, each conductor stranded copper, tough neoprene jacket overall UL and CSA approved. Available from stock in indicated lengths, can be cut to desired length.

Cat.No.	Retracted Length	Approx. Length Ext.	No. Conds.	Size AWG	Strand	UL Type	AMP Rating	Volt Rating	Coil Nom. O.D.	Cord. Nom. O.D.
886	36″	18 Ft.	2	18	41/34	SVO	7	300	7/8″	.250″
886/3	48″	18 Ft.	3	18	41/34	SVO	7	300	1″	.275″
887	36″	18 Ft.	2	18	41/34	SVT	7	300	7/8″	.250″
889	36″	18 Ft.	2	18	41/34	SJO	7	300	1 3/16″	.310″
890	36″	18 Ft.	2	18	41/34	SJT	7	300	1 3/16″	.310″
889/3	36″	18 Ft.	3	18	41/34	SJO	7	300	1 3/8″	.330″
889/4	36″	18 Ft.	4	18	41/34	SJO	5.6	300	1 7/16″	.360″
889/5	48″	25 Ft.	5	18	41/34	—	5.6	300	1 3/4″	.440″
889/7	48″	25 Ft.	7	18	41/34	—	5.6	300	1 7/8″	.500″
891	36″	18 Ft.	2	16	65/34	SJO	10	300	1 3/8″	.330″
891/3	36″	18 Ft.	3	16	65/34	SJO	10	300	1 7/16″	.365″
891/4	36″	18 Ft.	4	16	65/34	SJO	8	300	1 5/8″	.395″
891/5	48″	25 Ft.	5	16	65/34	—	8	600	2″	.540″
891/6	48″	25 Ft.	6	16	65/34	—	8	600	2 1/8″	.550″
891/7	48″	25 Ft.	7	6/16 1/14	#16-65/34 #14-41/30	— —	#16-8 #14-12	600	2 1/4″	.600″
893	36″	18 Ft.	2	14	41/30	SO	15	600	2″	.535″
893/3	36″	18 Ft.	3	14	41/30	SO	15	600	2 1/8″	.560″
893/4	36″	18 Ft.	4	14	41/30	SO	12	600	2 1/4″	.605″
894	36″	18 Ft.	2	12	65/30	SO	20	600	2 1/4″	.605″
894/3	36″	18 Ft.	3	12	65/30	SO	20	600	2 3/8″	.635″
894/4	36″	18 Ft.	4	12	65/30	SO	16	600	2 1/2″	.665″
894/6	48″	25 Ft.	6	2-12 4-18	#12-65/30 #18-41/34	— —	#12-17 #18-6	600	2 1/4″	.605″
894/7	48″	25 Ft.	7	12	65/30	—	16	600	2 5/8″	.775″

Additional conductors and sizes available Std. Pkg. 5

CONDUCTOR COLOR CODING: 1-Black, 2 White, 3-Green, 4-Red, 5-Blue, 6-Brown, 7-Yellow

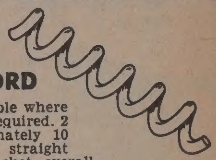
RETRACTILE TEST LEAD WIRE



Stretch coiled kinkless test lead wire description. 12″ coil—stretches to approx. 6 feet. One conductor #20 stranded copper rubber insulation .165 O.D. Colors: Red, Black. Coil O.D. ¾″.

Cat. No.		Std. Pkge.
64	12″ Retracted—Approx. 6′ Extended	6
65	24″ Retracted—Approx. 12′ Extended	6

BIRNBACH MINIATURE RETRACTILE CORD



This small size is suitable where compact equipment is required. 2 ft. retracted, approximately 10 ft. extended with 6″ straight ends. Black plastic jacket overall.

Nom. Cond. resistance: .07 OHMS per linear foot (approx. .6 OHMS per retracted ft.)

Maximum working voltage: 100; current capacity ½ amp.

Cat. No.	No. of Conds.	Size AWG	Strand	Coil O.D.	Cond. O.D.	Std. Pkg.
875/28	2	28	19/40TC	½″	.135	10
877/28	4	28	19/40TC	½″	.150	10

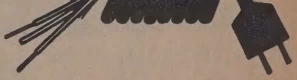
Conductor color code: 1-Black, 2-White, 3-Red, 4-Green. For 3 conductors, use 4 cond. and cut one dead.

RETRACTILE (KINKLESS) POWER CORD SETS

Excellent for portable use. All mobile equipment and office equipment wherever the device application is synonymous with repetitive movement. The "Answer" to most tough hazard problems. 2 and 3 conductors SVO and SJO Retractile Kinkless Neoprene Service Cord Sets with Molded Male Plug one end, other end stripped for application. Adds reliability, compactness and portability.

Cat. No.	Retracted Length	Approx. Length Extended	Conds.	Size AWG	UL Type	Strand	Coil O.D.
880	18″	9 FT.	2	18	SVO	41/34	1″
881	18″	9 FT.	2	18	SJO	41/34	1 1/4″
881/3	18″	9 FT.	3	18	SJO	41/34	1 1/2″
882	18″	9 FT.	2	16	SJO	65/34	1 1/2″
882/3	18″	9 FT.	3	16	SJO	65/34	1 1/2″

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Green



Standard Package—10

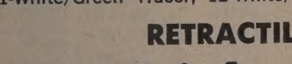
RETRACTILE COILED COMMUNICATION CORD

Multi-conductors stranded communication cord No. 23 AWG. Tinned copper wire neoprene or Geon plastic jacketed. Long lengths can be cut to exact requirement. Adds product reliability. Useful wherever cords must change length or position. Nom. cond. resistance .022 ohms per linear foot, .185 ohms per retracted foot. Maximum working voltage 120 volts. Current carrying capacity 1 ampere.

Cat. No.	Retracted Length	Approx. Length Extended	Conds.	Size AWG	Strand	Coil O.D.	O.D.
875	36″	18 Ft.	2	23	21/36	¾″	.200″
876	36″	18 Ft.	3	23	21/36	¾″	.210″
877	36″	18 Ft.	4	23	21/36	13/16″	.240″
878	36″	18 Ft.	5	23	21/36	1″	.285″
878/6	36″	18 Ft.	6	23	21/36	1 1/8″	.305″
878/7	36″	18 Ft.	7	23	21/36	1 1/4″	.320″
878/8	48″	25 Ft.	8	23	21/36	1 3/32″	.360″
878/10	48″	25 Ft.	10	23	21/36	1 5/32″	.380″
878/12	48″	25 Ft.	12	23	21/36	1 7/32″	.410″
878/15	48″	25 Ft.	15	23	21/36	1 9/32″	.470″
878/37	48″	25 Ft.	37	23	21/36	2 1/2″	.680″

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Red, 4-Green, 5-Blue, 6-Yellow, 7-Brown, 8-Orange, 9-White/Black Tracer, 10-White/Red Tracer, 11-White/Green Tracer, 12-White/Blue Tracer, 13-White/Yellow Tracer, 14-White/Brown Tracer, 15-White/Orange Tracer.

RETRACTILE (KINKLESS) COILED SHIELDED COMMUNICATION CORDS



DESCRIPTION: Single and multi-conductor shielded microphone cable neoprene or geon plastic jacketed. This cable remains neat and compact with no danger of tripping or of the wire becoming entangled in equipment. Also suitable for stereo and additional speaker extensions. Shield can be pigtailed for soldering. No. 24 AWG Str. is 41/40 tinned soft cad. copper: No. 23 has 21/36 tinned soft cad. copper. Spiral wrapped tinned soft copper shielding.

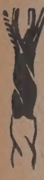
Cat. No.	Retr. Length	Approx. Length Extended	Cond.	Size AWG	Coil O.D.	Nom. O.D.	Maximum Working Voltage	Capacitance MMF Lin. Ft.	Capacitance MMF Retr. Ft.	Std. Pkg.
895	48″	25′	1	No. 24 Shielded	5/8″	.160″	75	56	440	10
895A	12″	6′	1	No. 24 Shielded	5/8″	.160″	75	56	440	10
895B	6″	3′	1	No. 24 Shielded	5/8″	.160″	75	56	440	10
896	48″	25′	2	1-No. 23 1-No. 24 Shielded	7/8″	.200″	#23-120 #24- 75	56	450	10
896A	12″	6′	2	1-No. 23 1-No. 24 Shielded	7/8″	.200″	#23-120 #24- 75	56	450	10
897	48″	25′	3	2-No. 23 1-No. 24 Shielded	7/8″	.240″	#23-120 #24- 75	56	450	10
897A	12″	6′	3	2-No. 23 1-No. 24 Shielded	7/8″	.240″	#23-120 #24- 75	56	450	10
899	48″	25′	2	2-No. 24 Shielded	7/8″	.210″	75	56	450	10
899A	12″	6′	2	2-No. 24 Shielded	7/8″	.210″	75	56	450	10
898	48″	25′	4	2-No. 23 2-No. 24 Shielded	1″	.270″	#23-120 #24- 75	56	460	10
898A	12″	6′	4	2-No. 23 2-No. 24 Shielded	1″	.270″	#23-120 #24- 75	56	460	10

Additional conductors and sizes available CONDUCTORS ARE COLOR CODED.

© U.C.P., Inc.

See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach SUPER HEAVY DUTY RETRACTILE POWER CORDS
CONTROL • STEREO • SPEAKER CABLE
BIRNBACH



NEW Sound Cable with "VI-CON" Shield

"VI-CON" Shield is the new Birnbach conductive vinyl plastic shield that provides:

• HI-FLEXIBILITY • LONG FLEX LIFE • EASY WORKING
• 100% SHIELDING COVERAGE

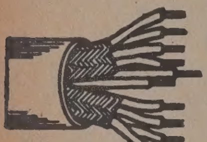
No. 24 Solid Tinned ground wire used for ground termination

Cat. No.	Spool	Conds.	AWG Size No.	Strand	Nom. O.D.
1812	500′	2	22	7/30	.160
1313	500′	2	20	7/28	.190
1814	500′	2	18	16/30	.220

STEREO VOLUME CONTROL CABLE

ESPECIALLY DESIGNED FOR STEREO COIN OPERATED MACHINES

Description: Ten conductors containing 2 quads individually shielded with tinned copper braid; 2 conductors not shielded; chrome vinyl jacket overall.



4 Shielded #24 (7 x 32)
4 Shielded #24 (7 x 32)
2 Unshielded #22 (7 x 30)

Cat. No.	Spool	Nom. Jacket	Nom. O.D.
4520	500′	.025″	.325″

CONDUCTOR COLOR CODE: GRAY, WHITE, BLUE, GREEN (SHIELDED), RED, BROWN, YELLOW, ORANGE (SHIELDED), WHITE, BLUE (UNSHIELDED)

JUKE BOX SPEAKER CABLE

Small, compact diamter. Useful. Practical. Ideal for rear auto speaker extension cable

DESCRIPTION:

Composed of 7 strand #32-1 Bare—copper conductor, 1 tinned copper conductor, 2 conductors parallel chrome vinyl plastic insulation.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. O.D.
4500	1000′	2	24	7/32	.015″	.058″ x .115″

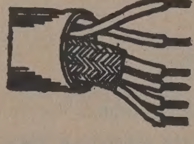
Additional colors available to order.

SHIELDED JUKE BOX CONTROL CABLE

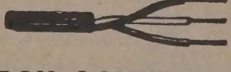
DESCRIPTION.

5 Conductor cable. Three cond. twisted color coded, black, green red with tinned copper shielded braid overall. Two conductor twisted color coded blue, yellow and chrome vinyl jacket overall.

6 Conductor Cable: 4 cond. twisted tinned copper shielded braid, conductor color code black, green, red, yellow; 2 cond. unshielded color code white, blue.



Cat. No.	Spool	Conds.	Size AWG #22	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
4515	500′	5	3 (shielded) 2 (unshielded)	7/30	.015″	.020″	.200″x.300″
4516	500′	6	2 unshielded #22 (7 x 30) 4 shielded #24 (7 x 32)		.015″	.025″	.205″x.310″



JUKE BOX CONTROL CABLE

Used as replacement cable in Juke Boxes.

DESCRIPTION:

Two Conductors #16 stranded vinyl insulation tinned copper, color coded green-orange. One conductor #20 stranded tinned copper, vinyl insulation. Color coded Blue; 3 conductors cable with .020″ chrome vinyl plastic jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
4510	500′	3	2—#16 1—#20	26/30 10/30	.020″ .020″	.020″	.240″

BIRNBACH RETRACTILE

SUPER HEAVY DUTY

POWER CORDS

AWG SIZES
12, 14, 16
3 and 4 COND.

THIS IS A NEW CORD and should not be confused with cords of lesser quality.

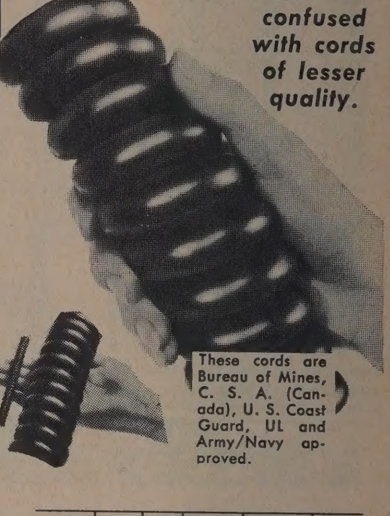
GUARANTEED TO RETRACT FOR 4 YEARS

MILITARY INDUSTRIAL

•

Especially desirable in the maintenance of *industrial automation* equipment, refrigerated trucks and trailers, mass assembly and production equipment, plane maintenance, control cable for cherry pickers, magnetic cranes, standby power distribution, heavy duty machinery.

Useful whenever and wherever a tougher, more rugged heavy duty power cable is indicated as in foundries, aboard ships, reelins on overhead cranes and hoists, tanks, plug-in power for refrigeration and immersion heaters, etc. Usable around salt water, chemicals and many other areas which makes the use of reels undesirable.



These cords are Bureau of Mines, C. S. A. (Canada), U. S. Coast Guard, UL and Army/Navy approved.

BB CAT. NO.	CONDS.	SIZE AWG	STRAND	NOM. JKT. THKNS.	NOM. O.D.
1300	3	16	65/34	7/64″	.505″
1300/4	4	16	65/34	7/64″	.535″
1301	3	14	41/30	7/64″	.620″
1301/4	4	14	41/30	7/64″	.660″
1302	3	12	65/30	8/64″	.715″
1302/4	4	12	65/30	8/64″	.770″

NEW STEREO MONAURAL WIRE AND CABLE

The following items were specifically developed for use in recording and playback equipment including all stereo cartridges; ceramic, magnetic, crystal and tone arms. Designed for extremely low hum and noise pickup. Individual conductors are #32 AWG, 7 strands #40 AWG tinned copper, .010″ wall. Special formulation PVC +80° C to —40° C operation allowing ease of stripping and soldering. When shielded #40 AWG tinned copper, 30% coverage for maximum flexibility, minimum weight and diameter and for quick pushback.

TWISTED—UNSHIELDED

Cat. No.	Spool	Cond.	Size AWG	Strand	Nom. Wall	Nom. O.D.
7571	1000′	1	32	7/40	.010″	.028″
7571	500′	1	32	7/40	.010″	.028″
7572	1000′	2	32	7/40	.010″	.047″
7572	500′	2	32	7/40	.010″	.047″
7573	1000′	3	32	7/40	.010″	.053″
7573	500′	3	32	7/40	.010″	.053″
7574	1000′	4	32	7/40	.010″	.061″
7574	500′	4	32	7/40	.010″	.061″
7575	1000′	5	32	7/40	.010″	.069″
7575	500′	5	32	7/40	.010″	.069″

TWISTED—SHIELDED

Cat. No.	Spool	Cond.	Size AWG	Strand	Nom. Wall	Nom. O.D.
7581	1000′	1	32	7/40	.010″	.040″
7581	500′	1	32	7″40	.010″	.040″
7582	1000′	2	32	7/40	.010″	.067″
7582	500′	2	32	7/40	.010″	.067″
7583	1000′	3	32	7/40	.010″	.072″
7583	500′	3	32	7/40	.010″	.072″
7584	1000′	4	32	7/40	.010″	.080″
7584	500′	4	32	7/40	.010″	.080″
7585	1000′	5	32	7/40	.010″	.089″
7585	500′	5	32	7/40	.010″	.089″
7580	1000′	2 (Ind. Shielded)	32	7/40	.010″	.080″

CONDUCTOR COLOR CODE: 1-WHITE, 2-RED, 3-BLACK, 4-GREEN, 5-YELLOW

See Pages 1560-1565 for Birnbach Prices for Above Items

© U.C.P., Inc.

Birnbach

RUBBER AND NEOPRENE POWER SUPPLY CABLE MICROPHONE • MULTI-CONDUCTOR • UL-MIL SPEC

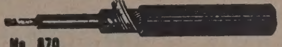
RUBBER MICROPHONE CABLE

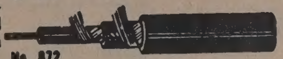
Especially Designed for Heavy Studio Use

RUBBER CRYSTAL MICROPHONE CABLE

Designed for long service life and low loss. Use with crystal, ribbon, dynamic and velocity microphones and photoelectric cells. Birnbach #1870 is used widely for lapel microphones and phono pick ups.

DESCRIPTION:


No 870


No. 872

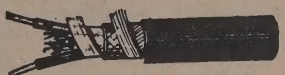
Single Conductor, 26 Strands
#34 extra flexible tinned copper, special low loss rubber compound, tinned copper braid shield, cotton wrap, tough black rubber jacket overall.

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
870	100′	1	20	26/34	40 Mmf	.175″
1870	250′	1	20	26/34	40 Mmf	.175″
872	100′	1	20	26/34	80 Mmf	.245″
1872	250′	1	20	26/34	80 Mmf	.245″

RUBBER OR NEOPRENE MICROPHONE CABLE

DESCRIPTION:

Each Conductor, extra flexible stranded tinned copper, insulated with a .002″ wall special low capacity rubber, color coded, conductors twisted, filler cotton wrap, tinned copper braided shield, cotton wrap with tough weatherproof black rubber or neoprene jacket overall.


Nos. 772 to 778

Used for indoor and outdoor crystal, carbon and condenser microphones and for public address systems.

RUBBER JACKET

Cat. No.	Spool	Cond.	Size Awg.	Strand.	Nom. Cap. Between 1-Cond. & Shield	Nom. Cap. Between 1-Cond. & Others Connected to Shield	Nom. Cap. Between 1-Cond. & Others	Nom. O.D.
772	100′	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280″
1772	250′	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280″
772/18	100′	2	18	41/34	70 Mmf	73 Mmf	48 Mmf	.300″
773	100′	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290″
1773	250′	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290″
773/18	100′	3	18	41/34	68 Mmf	72 Mmf	55 Mmf	.350″
774	100′	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300″
1774	250′	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300″
774/18	250′	4	18	41/34	68 Mmf	74 Mmf	57 Mmf	.335″
775	100′	5	20	26/34	70 Mmf	76 Mmf	58 Mmf	.330″
1775	250′	5	20	26/34	70 Mmf	76 Mmf	58 Mmf	.330″
776	100′	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350″
1776	250′	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350″
777	100′	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365″
1777	250′	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365″
778	100′	8	20	26/34	74 Mmf	90 Mmf	65 Mmf	.390″
778/10	100′	10	20	26/34	75 Mmf	92 Mmf	67 Mmf	.440″
778/12	250′	12	20	26/34	77 Mmf	93 Mmf	69 Mmf	.575″

For longer lengths and alternate put-ups—Specify.

NEOPRENE JACKET

No.	Spool	Cond.	Size AWG	Strand.	Wall Thickness	Nom. Jacket	Nom. O.D.
1781	500′	1	18	41/34	.040″	.030″	.250″
1782	500′	2	18	41/34	.020″	.035″	.305″
1783	500′	3	18	41/34	.020″	.035″	.325″
1784	500′	4	18	41/34	.020″	.035″	.335″
1786	500′	6	18	41/34	.020″	.035″	.430″

MICROPHONE CABLE COLOR CODE CHART

1—Black
2—White
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Purple
10—Slate
11—White/Blk. (Braid)
12—White/Red (Braid)

See our pages covering retractile cords and cables.

RUBBER & NEOPRENE SERVICE CORD

(HEAVY DUTY) — UL APPROVED

For power line requirement where rough usage is indicated as for amplifiers, sound systems, speakers, vacuum cleaners, washing machines, trouble lights, refrigerators, etc. Color coded. Underwriters approved. Neoprene construction recommended for equipment exposed to oil, acids, outdoor use, direct burial, etc.

Each conductor, copper conductor, paper separator, color coded, rubber insulation, filler, separator, tough rubber or neoprene jacket.

RUBBER Cat. No.	RUBBER U/L Type	NEOPRENE Cat. No.	NEOPRENE U/L Type	Std. Put-ups	Conds.	Size No. AWG.	Strand	Amp Rating	Volt Rating	Nom. O.D.
701	SV	690	SVO	250′	2	18	41/34	7	300	.250″
*701/3	SV	690/3	SVO	250′	3	18	41/34	7	300	.265″
574	SJ	691	SJO	250′	2	18	41/34	7	300	.300″
575	SJ	692	SJO	250′	3	18	41/34	7	300	.330″
575/4	SJ	692/4	SJO	250′	4	18	41/34	7	300	.360″
578	SJ	693	SJO	250′	2	16	65/34	10	300	.325″
578/3	SJ	693/3	SJO	250′	3	16	65/34	10	300	.365″
578/4	SJ	693/4	SJO	250′	4	16	65/34	10	300	.395″
702	S	694	SO	250′	2	18	16/30	7	600	.390″
702/3	S	694/3	SO	250′	3	18	16/30	7	600	.405″
702/4	S	694/4	SO	250′	4	18	16/30	7	600	.435″
703	S	695	SO	250′	2	16	26/30	10	600	.410″
703/3	S	695/3	SO	250′	3	16	26/30	10	600	.430″
703/4	S	695/4	SO	250′	4	16	26/30	10	600	.485″
704	S	696	SO	250′	2	14	41/30	15	600	.540″
704/3	S	696/3	SO	250′	3	14	41/30	15	600	.560″
704/4	S	696/4	SO	250′	4	14	41/30	15	600	.605″
705	S	697	SO	250′	2	12	65/30	20	600	.605″
705/3	S	697/3	SO	250′	3	12	65/30	20	600	.635″
705/4	S	697/4	SO	250′	4	12	65/30	20	600	.665″
706	S	698	SO	250′	2	10	103/30	25	600	.640″
706/3	S	698/3	SO	250′	3	10	103/30	25	600	.690″
706/4	S	698/4	SO	250′	4	10	103/30	25	600	.745″

Additional Conductors Available

* 701/3 has tinned copper wire

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Green, 4—Red

SERVICE CORD PER MIL-C-3432B SPEC

WITH CERTIFICATION —
INSPECTION AVAILABLE

Cat. No.	MIL Type	Spec. Designation	Conds.	Awg. Size	Spec. No.	Nom. OD
M-218	CO-02	MGF	2	18	MIL-C-3432A	.300″
H-218	CO-02	HGF	2	18	MIL-C-3432A	.380″
L-218	CO-02	LGF	2	18	MIL-C-3432A	.250″
H-216	CO-02	HGF	2	16	MIL-C-3432A	.405″
M-216	CO-02	MGF	2	16	MIL-C-3432A	.338″
M-214	CO-02	MGF	2	14	MIL-C-3432A	.400″
H-214	CO-02	HGF	2	14	MIL-C-3432A	.535″
M-318	CO-03	MGF	3	18	MIL-C-3432A	.330″
M-316	CO-03	MGF	3	16	MIL-C-3432A	.375″
H-312	CO-03	HOE	3	12	MIL-C-3432A	.635″

ADDITIONAL NUMBERS AVAILABLE — YOUR INQUIRIES INVITED

RUBBER JACKETED MULTI-CONDUCTOR CABLE (NOT SHIELDED)

Used for permanent or portable P.A. systems, sound recording, indoor or outdoor speakers, interconnecting cable for all electronic uses.

Each conductor, extra flexible stranded tinned copper, insulated with a .022″ wall, special low capacity rubber, color coded, conductors twisted, filler, cotton wrap with tough weatherproof black rubber jacket overall.

CONDUCTOR COLOR CODE CHART

1—Black
2—White
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Purple
10—Slate
11—White/Blk. (Braid)
12—White/Red (Braid)

Cat. No.	Spool	Cond.	Size No. AWG	Strand	Cap. Bet. 1 Cond. & Others	Nom. O.D.
788	100′	2	20	26/34	40 Mmf	.275″
789	250′	2	20	26/34	40 Mmf	.275″
790	100′	3	20	26/34	50 Mmf	.285″
791	250′	3	20	26/34	50 Mmf	.285″
792	100′	4	20	26/34	53 Mmf	.305″
793	250′	4	20	26/34	53 Mmf	.305″
794	100′	5	20	26/34	56 Mmf	.335″
795	250′	5	20	26/34	56 Mmf	.335″
796	100′	6	20	26/34	58 Mmf	.355″
797	250′	6	20	26/34	58 Mmf	.355″
798	100′	7	20	26/34	60 Mmf	.370″
749	100′	8	20	26/34	63 Mmf	.395″
749/10	100′	10	20	26/34	65 Mmf	.435″
749/12	100′	12	20	26/34	67 Mmf	.540′

For longer lengths and alternate put-ups—Specify

© U.C.P., Inc.

See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach

SHIELDED MULTI-CONDUCTORS • MICROPHONE INTERCOM • MULTI-PAIR • ARMORED CABLE

BIRNBACH

2 CONDUCTOR SHIELDED

Used for transmission line, P. A. and sound systems, school, hospital sound installations, industrial paging systems, broadcast and audio cable, paging and rack panel wiring.

DESCRIPTION:

Each conductor copper tinned, plastic insulation, color coded twisted, tinned copper shield overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	NOM O.D.
826/30	500′	2	30	7/38	.010″	.085″
826/28	500′	2	28	7/36	.010″	.090″
826/26	500′	2	26	7/34	.010″	.100″
826	500′	2	24	16/36	.015″	.120″
825	500′	2	22	7/30	.017″	.140″
972S	500′	2	20	10/30	.017″	.155″
827	500′	2	18	16/30	.017″	.180″
828	500′	2	16	26/30	.020″	.210″
829	500′	2	14	41/30	.020″	.235″
830	500′	2	12	65/30	.025″	.295″
830/10	500′	2	10	105/30	.025″	.375″

3 CONDUCTOR SHIELDED

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	NOM O.D.
973S	500′	3	20	10/30	.017″	.192″

2 CONDUCTOR SHIELDED WAXED COTTON BRAID OVER SHIELD

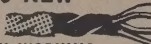
Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	NOM O.D.
972B	500′	2	20	10/30	.017″	.180″

SOLID CONDUCTORS

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	NOM O.D.
1701	500′	2	22 Solid	1	.017″	.135″
1702	500′	2	20 Solid	1	.017″	.145″
1703	500′	2	18 Solid	1	.017″	.170″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White

Microphone Cables with Birnbach's NEW
• "VI-CON" SHIELD



HI-FLEXIBILITY • LONG FLEX LIFE • EASY WORKING

This series of cable is Birnbach's new outstanding shield in combination with vinyl plastic that is conductive thereby providing 100% shield coverage. Easy handling; lighter in weight than comparative types; extremely flexible; #24 Stranded Bare Tinned Wire is used for grounding termination; this is in continuous contact with the "Vi-Con" Shield.

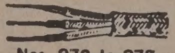
Cat. No.	Spool	Cond.	Size No. AWG	Stranding	Nom. O.D.
1800	500′	1	25	7/33	.125″
1801	500′	1	25	7/33	.160″
1802	500′	2	22	16/34	.225″

SHIELDED MULTI-CONDUCTOR CABLE

Used indoors for permanent or portable work to prevent interference pickup on P.A. systems, recording equipment, photo electric circuits, etc

DESCRIPTION:

Each Conductor #20 10/30 Stranded Tinned Copper, 1/64″ pvc wall, waxed cotton braid color coded, twisted conductors, tinned copper shield overall. No. 1972 with cotton braid overall.



Nos. 972 to 978

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	Cap/Ft. Bet. Cond. & Shield	Cap/Ft. Bet. Conds.	Nom. O.D.
972	100′	2	20	10/30	1/64	65 Mmf.	43 Mmf.	.215″
973	100′	3	20	10/30	1/64	68 Mmf.	55 Mmf.	.220″
974	100′	4	20	10/30	1/64	69 Mmf.	57 Mmf.	.250″
975	100′	5	20	10/30	1/64	70 Mmf.	58 Mmf.	.280″
976	100′	6	20	10/30	1/64	71 Mmf.	60 Mmf.	.290″
977	100′	7	20	10/30	1/64	72 Mmf.	62 Mmf.	.315″
978	100′	8	20	10/30	1/64	74 Mmf.	65 Mmf.	.350″
1972	100′	2	20	10/30	1/64	65 Mmf.	43 Mmf.	.225″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green, 5—Brown, 6—Yellow, 7—Blue, 8—Orange

SHIELDED TWO WIRE SPEAKER CABLE

For master control sound systems, photo electric circuits, P.A. systems, etc.

TINNED COPPER SHIELD, PAPER WRAP OVERALL No. 972A

Cat. No.	Spool	Strand	Insul.	Cap/Ft. Bet. Cond. & Shield	Cap/Ft. Bet. Conds.	O.D.
972A	500′	16/30	1/32	65	43	.250″

WAXED COTTON BRAID OVER SHIELD

Cat. No.	Spool	Strand	Insul.	Cap/Ft. Bet. Cond. & Shield	Cap/Ft. Bet. Conds.	O.D.
1972A	500′	16/30	1/32	65	43	.275″

CONDUCTOR COLOR CODE: Black and Red

For longer lengths and alternate put-ups—Specify.

Multiple Pair Individually Shielded Intercom Cable

Useful where several mikes are operated from a single cable. This series is helpful in reducing the bulk of required cables.

DESCRIPTION: Multi-pairs #22 solid tinned copper, vinyl insulated .013″ cabled in pairs. Each pair and ground wire is under aluminum foil mylar shield overall grey vinyl jacket; Nom. Cap. between Conds. 40Mmft/ft; Nom. Cap. between 1 Cond. and others onnected to shield—77Mmf/ft.

Additional Variations in construction available to order.

Cat. No.	Spool	Pairs	Cond.	Nom. Jkt.	Nom O.D.
4800/3	500′	3	6	.030	.298
4800/6	500′	6	12	.037	.394
4800/9	500′	9	18	.040	.425
4800/11	500′	11	22	.040	.485
4800/15	500′	15	30	.045	.510
4800/19	500′	19	38	.055	.678
4800/27	500′	27	54	.070	.860

4800/19 and 4800/27 is #22 strand 7/30 with .015 wall.

PLASTIC MICROPHONE CABLE

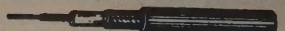
Designed to stand up under physical abuse and is resistant to oil, moisture and aging for long life. These cables have low capacitance, high insulation resistance and low attenuation at audio frequencies. Will not stain or mark.
#1839 is used for high impedance microphone, lapel, contact; crystal, ribbon, velocity and Hi-Fi interconnecting cable.
#1840 is used for high impedance lapel microphones.
#1841 is used for crystal, ribbon and other impedance microphones.
Above recommended for Hi-Fi installations because of low loss and low capacitance.

PLASTIC — ONE-CONDUCTOR MICROPHONE CABLE

DESCRIPTION:

Single Conductor Stranded

3 strands #33 copper tinned, and 4 strands #33 (steel-tinned 1840 and 1841) cellulose yarn braid, Polyethylene insulation, tinned copper shielded braid, with chrome vinyl plastic jacket overall.



Nos. 1839, 1840, 1841

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1839	500′	1	20	26/34	89MMF	.175″
1840	500′	1	25	7/38*	34MMF	.144″
1841	500′	1	25	7/38*	25MMF	.200″

*3X33 Copper, 4X33 Steel (All tinned)

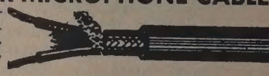
SPIRAL SHIELDED MICROPHONE CABLE

Constructed with tinned copper spiral wrapped concentric shield. Extremely flexible, smaller size.

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1835	500′	1	25	7/33	25MMF	.159″
1836	500′	1	25	7/33	33MMF	.125″

PLASTIC — MULTI-CONDUCTOR MICROPHONE CABLE

DESCRIPTION: Each conductor tinned copper, Polyethylene insulation — color coded. Multi conductors are cushioned with fillers, cotton wrapped under tinned copper shield, chrome vinyl jacket overall.



Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1842	500′	2	22	16/34	31MMF	.231″
1842/24	500′	2	24	10/34	38MMF	.190″
1843	500′	3	20	26/34	39MMF	.250″
1844	500′	4	20	26/34	43MMF	.255″
1845	500′	5	20	26/34	48MMF	.275″
1846	500′	6	20	26/34	54MMF	.300″
1846/8	500′	8	20	26/34	57MMF	.330″
1846/10	500′	10	20	26/30	60MMF	.375″

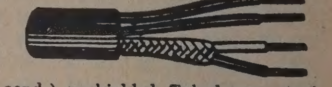
CONDUCTOR COLOR CODE: 1-White, 2-Black, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange. 9-Purple, 10-Slate

PLASTIC INTER-COM CABLE

4 CONDUCTORS (2 Shielded — 2 Unshielded)

Widely used for wiring from station to station where a shielded twisted pair is indicated in order to eliminate cross talk.

DESCRIPTION:



No. 925 — 4 conductors #22 7/30 stranded tinned copper, vinyl plastic insulation color coded, tinned copper shield over one pair (2 cond.) One pair (2 cond.) unshielded. Tubed gray vinyl jacket overall.

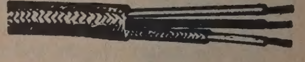
CONDUCTOR COLOR CODE: Black/white shielded, Black/red unshielded

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
925	500′	4	22	7/30	.016″	.020″	.310″

3 CONDUCTORS (1 Shielded — 2 Unshielded)

Widely used for wiring from station to station where a single shielded conductor is indicated in order to eliminate cross talk.

DESCRIPTION:



No. 924 — 3 conductors #22 7/30 stranded tinned copper, vinyl, plastic insulation color coded, tinned copper shield over one conductor, tubed gray vinyl jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
924	500′	3	22	7/30	.016″	.020″	.205″

CONDUCTOR COLOR CODE: Black/red unshielded White shielded

ARMORED INDUSTRIAL CABLE

Used for P.A. systems on speaker extensions, oil burner installations, auto wiring, etc.

Two Conductors Parallel #18 16/30 Stranded Tinned Copper, rubber insulation, lacquered cotton braid color coded, spiral galvanized steel armor overall.

Cat. No.	Spool	Size AWG	Strand	O.D.
1111	250′	18	16/30	.155″ x .240″
1112	500′	18	16/30	.155″ x .240″
1113	1000′	18	16/30	.155″ x .240″

See Pages 1560-1565 for Birnbach Prices for Above Items

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Birnbach

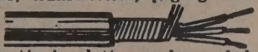
BROADCAST • AUDIO • STRAIN GAUGE CABLE
SHIELDED • MULTI-CONDUCTOR CABLES

BIRNBACH

SPIRAL WRAPPED SHIELDED AUDIO and MULTI-CONDUCTOR CABLE

Plastic Jacketed—with Spiral wrapped copper shield

Designed for P. A. and sound systems, installations in schools, hospitals, and institutions, recording studios, transmitters, paging and call systems.

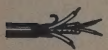


DESCRIPTION:

Each conductor copper tinned, 1/64 plastic insulation, color coded, twisted, spiral wrapped tinned copper shield, gray plastic jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
941	500′	2	22	7/30	.017″	.020″	.171″
941/1	500′	1	22	7/30	.017″	.020″	.120″
941/3	500′	3	22	7/30	.017″	.020″	.190″
941/4	500′	4	22	7/30	.017″	.020″	.205″
950	500′	2	22	1	.017″	.020″	.169″
942	500′	2	20	10/30	.017″	.020″	.190″
942/1	500′	1	20	10/30	.017″	.020″	.129″
943	500′	3	20	10/30	.017″	.020″	.208″
944	500′	4	20	10/30	.017″	.020″	.222″
947	500′	2	18	16/30	.017″	.020″	.230″
947/3	500′	3	18	16/30	.017″	.020″	.228″
948	500′	2	16	26/30	.017″	.020″	.250″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green



SHIELDED PLASTIC JACKETED CABLE WITH ALUMINUM MYLAR* FOIL SHIELD

This cable is extremely light in weight and provides 100% shield coverage at audio and radio frequencies.

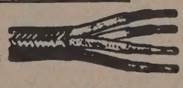
DESCRIPTION: Each conductor tinned copper, color coded polyethylene insulation, twisted with #22 7/30 stranded tinned copper drain wire, aluminum Mylar* foil shield, gray polyvinylchloride jacket overall.

Cat. No.	No. of Conductors	AWG Size	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
1890	2	22	7/30	.015″	.020″	.165″
1890/3	3	22	7/30	.015″	.020″	.175″
1891	2	20	10/30	.015″	.020″	.180″
1891/3	3	20	10/30	.015″	.020″	.190″
1892	2	18	16/30	.017″	.020″	.220″
1892/3	3	18	16/30	.017″	.020″	.230″

STANDARD SPOOL PUT-UP: 500 ft., 1000 ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White
*Mylar-Dupont

Multi-Conductor Flexible Cable

PLASTIC INSULATED — Cotton Braid Overall



DESCRIPTION:
Each Conductor, #20—10/30 Tinned Copper Stranded, 1/64″ plastic insulated, cotton braid, color coded, conductors twisted, closely woven brown cotton braid overall.
Used for multiple circuit hookups, connecting speakers, remote control units, analyzers, etc.

Cat. No.	Spool	Conds.	Size AWG	Strand	Ins.	Nom. O.D.
172	100′	2	20	10/30	1/64″	.205″
173	100′	3	20	10/30	1/64″	.245″
174	100′	4	20	10/30	1/64″	.265″
175	100′	5	20	10/30	1/64″	.290″
176	100′	6	20	10/30	1/64″	.310″
177	100′	7	20	10/30	1/64″	.325″
178	100′	8	20	10/30	1/64″	.360″
179	100′	9	20	10/30	1/64″	.395″
180	100′	10	20	10/30	1/64″	.425″
182	100′	12	20	10/30	1/64″	.440″

CONDUCTOR COLOR CODE:

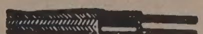
1—Black
2—White
3—Red
4—Green

5—Orange
6—Blue
7—Brown
8—Yellow

9—White/Black Tracer
10—Red/Black Tracer
11—Green/Black Tracer
12—Orange/Black Tracer

Twisted Pair Transmission Cable

WEATHERPROOF BRAID



DESCRIPTION:

No. 952—Two Conductors, #22-7/30 Tinned Copper Stranded, special low loss rubber insulation, color coded, twisted conductors, cotton braid overall with rugged weatherproof finish.

No. 919, 920—Two Conductors, #18-16/30 Tinned Copper Stranded, same construction as above.

Used for low loss transmission coupling between antenna and receiver as doublet twisted lead-in wire for inter-com. setup.

Cat. No.	Spool	Size AWG	Strand	Insul.	Nom. O.D.
952	500′	22	7/32	1/32″	.180″
919	500′	18	16/30	1/32″	.195″
920	1000′	18	16/30	1/32″	.195″

For longer lengths and alternate put-ups—Specify.

SHIELDED PLASTIC JACKETED CABLE BRAIDED COPPER SHIELD

Designed for P.A. and sound systems, installations in schools, hospitals and institutions, transmitters, recording studios, electronic circuits, etc. The construction of the shield allows ease of pigtail soldering and the shield provides additional strength for the cable.

DESCRIPTION: Each conductor tinned copper, polyvinylchloride insulation color coded, twisted, braided copper tinned shield, gray polyvinylchloride jacket overall. Cables suitable for outdoor installations.

STRANDED

Cat. No.	No. of Conductors	AWG Size	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
1790	2	22	7/30	.017″	.020″	.175″
1790/3	3	22	7/30	.017″	.020″	.195″
1791	2	20	10/30	.017″	.020″	.195″
1791/3	3	20	10/30	.017″	.020″	.215″
1792	2	18	16/30	.017″	.020″	.235″
1792/3	3	18	16/30	.017″	.020″	.245″
1793	2	16	26/30	.017″	.020″	.265″
1794	2	14	41/30	.020″	.020″	.290″

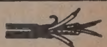
SOLID

DESCRIPTION: Same as above using solid conductors with black PVC jacket overall.

Cat. No.	No. of Conductors	AWG Size	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
*1797	2	22	1	.017″	.020″	.170″
1798	2	20	1	.017″	.020″	.195″
1799	2	18	1	.017″	.020″	.220″

*No. 22 solid T.C. ground wire under braided copper shield
St. Put-up: 500 ft., 1000 ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White

STRAIN GAUGE CABLE



DESCRIPTION: Tinned conductors, plastic insulation, 2 pairs—4 cond., aluminum Mylar shields, stranded copper tinned ground wire, polyvinylchloride gray jacket overall.

Cat. No.	No. of Cond.	AWG	Strand	Nom. Insul.	Nom. Jacket	Cap. Nom/Ft.	Nom. O.D.
1717	4	25	7/33 3 copper 4 copperweld	.013″	.020″	25	.169″

Polyethylene insulated, black and red conductors under aluminum Mylar shield. Str. grd. wire, green and white conductors under overall aluminum Mylar shield, gray vinyl jacket.
St. Put-up: 500 ft., 1000 ft.

Cat. No.	No. of Cond.	AWG	Strand	Nom. Insul.	Nom. Jacket	Cap. Nom/Ft.	Nom. O.D.
1718	4	22	7/30	.008″	.020″	35	.165″

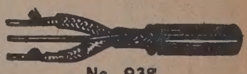
Polypropylene insulated black and red under aluminum Mylar shield, green and white under aluminum Mylar shield (separate pairs), stranded ground wire, gray vinyl jacket overall.
St. Put-up: 500 ft., 1000 ft.

SHIELDED BROADCAST AUDIO CABLE

Designed to provide maximum performance on all equipment. Conductors twisted correctly assures quiet, clear operation which eliminates interference and cross talk. Used by Broadcast studios, for P. A. and sound systems, rack wiring, etc.

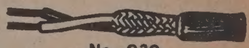
DESCRIPTION:

#938—#22 Solid Tinned Copper Conductor, enameled, heavy cellulose acetate yarn wrap, cotton braid waxed; cabled with #22 AWG solid tinned copper wire laid parallel to twisted pair under tinned copper braid shield; tubed-on Vinyl plastic jacket overall.



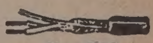
No. 938
CBS, ABC TYPE

#939—#22-7/30 Stranded Tinned Copper, plastic insulation, color coded, twisted, copper braid shield, tubed-on Vinyl plastic jacket overall.



No. 939

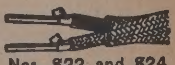
#940—2 Conductors #22 solid plastic insulation, color coded, twisted with #22 AWG solid tinned copper ground wire under tinned copper shield with vinyl plastic jacket overall.



No. 940

#940/1 same construction as #940 however with tinned copper spiral wrapped shield.

#822 and #824 have solid enameled copper wire, cotton wrap, cotton braid waxed twisted pair, bare copper braid overall.



Nos. 822 and 824

No. Cat.	Spool	Conds.	AWG Size No.	Strand	O.D. Nom.
938	500′	2	22	Solid	210″
939	500′	2	22	7/30	170″
940	500′	2	22	Solid	160″
940/1	500′	2	22	Solid	160″
822	500′	2	22	Solid	125″
824	500′	2	19	Solid	145″
927	500′	2	20	Solid	210″
928	500′	2	18	Solid	220″

CONDUCTOR COLOR CODE: Black and Red
For larger lengths and alternate put-ups—Specify.

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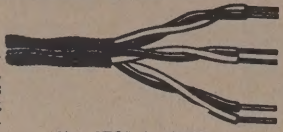
See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach

INTER-COM • MULTI-COND • AUDIO • INDUSTRIAL TWISTED PAIRS

PLASTIC INTERCOMMUNICATING CABLES TWISTED PAIRS—SOLID CONDUCTORS

DESCRIPTION:
Each Conductor #22 Solid Copper Tinned, .010″ Wall Vinyl Plastic Insulation, conductors color coded, twisted pairs cabled, tubed gray Vinyl plastic jacket overall. Suitable for outdoor installations.



No. 4701 to 4729

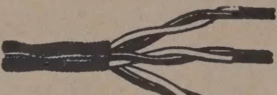
Cat. No.	Spool	Pairs	Cond.	Size No. AWG	Nom. Jkt.	Nom. O.D.
4701	500′	1	2	22 Solid	.020″	.145″
4702	500′	2	4	22 Solid	.020″	.205″
4703	500′	3	6	22 Solid	.020″	.215″
4706	500′	6	12	22 Solid	.020″	.250″
4709	500′	9	18	22 Solid	.020″	.310″
4711	500′	11	22	22 Solid	.020″	.350″
4711/13	500′	13	26	22 Solid	.025″	.385″
4715	500′	15	30	22 Solid	.025″	.390″
4716	500′	16	32	22 Solid	.025″	.405″
4727	500′	27	54	22 Solid	.035″	.495″
4727/31	500′	31	62	22 Solid	.035″	.555″
4727/41	500′	41	82	22 Solid	.035″	.630″
4729	500′	51	102	22 Solid	.045″	.750″
4729/76*	500′	76	152	22 Solid	.070″	.970″
4729/101*	500′	101	202	22 Solid	.080″	1.140″

* Bare copper conductors.

For longer lengths and alternate put-ups—Specify.

TWISTED PAIRS—STRANDED CONDUCTORS

DESCRIPTION:
Each Conductor #22 7/30 Stranded Tinned Copper, .010″ Vinyl plastic insulation, twisted pairs cabled, conductors color coded, tubed gray Vinyl plastic jacket overall.

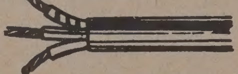


Cat. No.	Spool	Pairs	Cond.	Size No. AWG	Strand	Nom. O.D.
4731	500′	1	2	22	7/30	.145″
4732	500′	2	4	22	7/30	.210″
4733	500′	3	6	22	7/30	.225″
4734	500′	4	8	22	7/30	.235″
4735	500′	5	10	22	7/30	.245″
4736	500′	6	12	22	7/30	.270″
4739	500′	9	18	22	7/30	.325″
4745	500′	15	30	22	7/30	.455″
4747	500′	27	54	22	7/30	.570″

For longer lengths and alternate put-ups—Specify.

MULTI-CONDUCTOR FLEXIBLE CABLE

DESCRIPTION:
Each conductor #22 7/30 tinned copper stranded 1/64″ thermoplastic insulation, color coded, conductors twisted, gray vinyl plastic jacket overall. Used for signal, P.A. systems. Electronic computer cable, suitable for outdoor use.



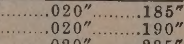
Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
156	500′	2	22	7/30	.010″	.020″	.140″
157	500′	3	22	7/30	.010″	.020″	.145″
158	500′	4	22	7/30	.010″	.020″	.170″
159	500′	5	22	7/30	.010″	.020″	.175″
160	500′	6	22	7/30	.010″	.020″	.185″
161	500′	7	22	7/30	.010″	.020″	.190″
162	250′	8	22	7/30	.010″	.020″	.200″
163	250′	9	22	7/30	.010″	.020″	.225″
164	250′	10	22	7/30	.010″	.020″	.235″
165	250′	12	22	7/30	.010″	.020″	.255″
165/15	250′	15	22	7/30	.010″	.020″	.280″
165/20	250′	20	22	7/30	.010″	.020″	.310″

CONDUCTOR COLOR CODE:
1—Black 2—Red 3—White 4—Green 5—Orange 6—Blue 7—Brown 8—Yellow 9—Violet 10—Slate 11—Pink 12—Tan 13—Red/Green 14—Red/Yellow 15—Red/Black

Multi-Conductor Industrial Cable

PLASTIC JACKET OVERALL

DESCRIPTION:
#18 solid tinned copper plastic insulation, color coded, twisted conductors. Gray vinyl jacket overall. Used for inter-com systems, speaker cable, alarm, signal, P. A. systems, thermostats, remote control circuits. Suitable for outdoor installations.



Cat. No.	Spool	Conds.	Size AWG	Insul.	Jacket	O.D.
4752	500′	2	18 solid	.017″	.020″	.185″
4753	500′	3	18 solid	.017″	.020″	.190″
4754	500′	4	18 solid	.017″	.020″	.235″
4755	500′	5	18 solid	.017″	.020″	.240″
4756	500′	6	18 solid	.017″	.020″	.275″

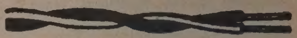
CONDUCTOR COLOR CODE:
1—Black, 2—Red, 3—White, 4—Green, 5—Orange, 6—Blue

Unshielded Audio Cable Stranded and Solid Cond. (2 & 3)

Widely used for connecting sound and inter-com systems, audio hookups, indoors—outdoors. Telephones, telemetering connections. For Baby Sitter Intercoms.

FOR INDOOR USE Without Outer Jacket

DESCRIPTION:
Stranded & Solid Tinned Copper Conductors, vinyl plastic insulation, color coded, conductors twisted.

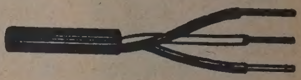


Cat. No.	Spool	Conds.	Size AWG		Nom. Insul.	Nom. O.D.
931	1000′	2	22 Solid		.016″	.100″
933	1000′	3	22 Solid		.016″	.115″
981	1000′	2	20 Solid		.016″	.120″
983	1000′	3	20 Solid		.016″	.140″
985	1000′	2	18 Solid		.016″	.145″
987	1000′	3	18 Solid		.016″	.155″
989	1000′	2	16 Solid		.016″	.175″
989/3	1000′	3	16 Solid		.016″	.190″
990	1000′	2	22 Stranded	7/30	.016″	.125″
990/3	1000′	3	22 Stranded	7/30	.016″	.140″
991	1000′	2	20 Stranded	10/30	.016″	.145″
991/3	1000′	3	20 Stranded	10/30	.016″	.160″
992	1000′	2	18 Stranded	16/30	.016″	.165″
992/3	1000′	3	18 Stranded	16/30	.016″	.180″
993	1000′	2	16 Stranded	26/30	.016″	.190″
993/3	1000′	3	16 Stranded	26/30	.016″	.210″
994	1000′	2	14 Stranded	41/30	.016″	.220″
994/3	1000′	3	14 Stranded	41/30	.016″	.240″
995	1000′	2	12 Stranded	65/30	.016″	.250″
995/3	1000′	3	12 Stranded	65/30	.016″	.275″

CONDUCTOR COLOR CODE: 1—Brown 2—Tan 3—Gray

FOR OUTDOOR USE With Plastic Jacket Overall

DESCRIPTION:
Solid and Stranded Tinned Copper Conductors, vinyl plastic insulation, color coded, conductors twisted with weatherproof plastic jacket overall.



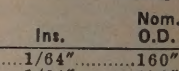
Cat. No.	Spool	Conds.	Size AWG		Insul.	Jacket	O.D.
932	1000′	2	22 solid		.010″	.020″	.125″
934	1000′	3	22 solid		.010″	.020″	.130″
934/4	1000′	4	22 solid		.010″	.020″	.150″
982	1000′	2	20 solid		.016″	.020″	.170″
984	1000′	3	20 solid		.016″	.020″	.180″
984/4	1000′	4	20 solid		.016″	.020″	.200″
986	1000′	2	18 solid		.016″	.020″	.185″
988	1000′	3	18 solid		.016″	.020″	.190″
988/4	1000′	4	18 solid		.016″	.020″	.220″
988/5	1000′	5	18 solid		.016″	.020″	.235″
988/6	1000′	6	18 solid		.016″	.020″	.265″
921	1000′	2	22 Stranded	7/30	.010″	.020″	.130″
921/3	1000′	3	22 Stranded	7/30	.010″	.020″	.140″
921/4	1000′	4	22 Stranded	7/30	.010″	.020″	.165″
922	1000′	2	20 Stranded	10/30	.016″	.020″	.175″
922/3	1000′	3	20 Stranded	10/30	.016″	.022″	.185″
922/4	1000′	4	20 Stranded	10/30	.016″	.020″	.195″
923	1000′	2	18 Stranded	16/30	.016″	.020″	.195″
923/3	1000′	3	18 Stranded	16/30	.016″	.020″	.205″
923/4	1000′	4	18 Stranded	16/30	.016″	.020″	.235″
926	1000′	2	16 Stranded	26/30	.016″	.020″	.220″
926/3	1000′	3	16 Stranded	26/30	.016″	.020″	.245″
926/4	1000′	4	16 Stranded	26/30	.016″	.020″	.270″

For longer lengths and alternate put-ups—Specify.

CONDUCTOR COLOR CODE: 1-Black, 2-Red, 3-White, 4-Green.

THERMO-PLASTIC INSULATED — Cotton Braid Overall

Each Conductor #22 — 7/30 Tinned Copper Stranded, 1/64″ Thermoplastic insulation, color coded, conductors twisted, closely woven brown cotton braid overall.



Cat. No.	Spool	Conds.	Size AWG	Strand	Ins.	Nom. O.D.
263	100′	3	22	7/30	1/64″	.160″
264	100′	4	22	7/30	1/64″	.170″
265	100′	5	22	7/30	1/64″	.195″
266	100′	6	22	7/30	1/64″	.210″
267	100′	7	22	7/30	1/64″	.230″
268	100′	8	22	7/30	1/64″	.245″
269	100′	9	22	7/30	1/64″	.260″
270	100′	10	22	7/30	1/64″	.295″
272	100′	12	22	7/30	1/64″	.325″

For longer lengths and alternate put-ups—Specify.

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green, 5—Orange, 6—Blue, 7—Brown, 8—Yellow, 9—Purple, 10—Pink, 11—Gray, 12—Dk. Blue

See Pages 1560-1565 for Birnbach Prices for Above Items

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Birnbach

CORD SETS • COAX CABLE
COMMUNITY COAX • DIATHERMY • LAMP CORD

BIRNBACH

HEAVY DUTY SERVICE CORD

CSA APPROVED — (HEAVY DUTY) — UL APPROVED

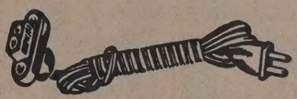
Used for heavy duty replacement on refrigerators, washing machines, machinery, tools and electronic devices.

DESCRIPTION:
Two and Three Conductors, Stranded Bare Copper, cotton serve, rubber insulation, jute filler, cotton wrap, tough rubber jacket overall, molded plug one end, free end stripped and tinned for easy attachment—Hankd.
No. 346 and 347 Same as above with 3 prong plug.

Cat. No.	Length Ft.	Conds.	Size AWG	Type	Strand	O.D.	Std. Pkg.
348	8	2	16	S.J.	65/34	.325"	25
346	8	3	16	S.J.	65/34	.355"	25
347	8	3	18	S.J.	41/34	.330"	25
309	9	2	18	S.V.	41/34	.250"	25
312	12	2	18	S.V.	41/34	.250"	25
309/3	9	3	18	S.V.	41/34	.265"	25
312	12	2	18	S.V.	41/34	.250"	25

TV POWER SUPPLY CORD—UL APPROVED

Used extensively as replacement of damaged or worn out TV cords.

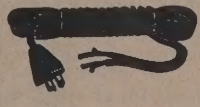


DESCRIPTION:
Six Foot Rip Strip TV U.L. Approved Safety Cord. 2-cond. No. 18 SP-1 (POSJ) brown rubber cord with molded male plug and TV molded-on connector on other end.

Cat. No.			Std. Pkg.
815	Television Power Supply Cord	6 Feet	100

SERVICE LINE CORDS—UL APPROVED

An all purpose approved power supply cord for radios, record players, lamps, and small appliances.

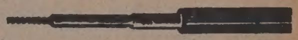


DESCRIPTION:
Two Conductors Rubber Parallel SP-1 (POSJ) **with Molded-on Male Plug,** double brass blades, conductor end striped and tinned, hanked. Available in Black and Brown.

Cat. No.	Lgth. Ft.	Conds.	Size No. AWG	Strand	Nom. O.D.	Std. Pkg.
816	6	2	18	41/34	.130" x .235"	100
817	7½	2	18	41/34	.130" x .235"	100
819	10	2	18	41/34	.130" x .235"	50

RG/U COAXIAL TRANSMISSION CABLE

DESCRIPTION: One and Two Conductor, Polyethylene plastic insulation, copper braid shield, plastic jacket overall.



Cat. No.	Spool	Type	Nom. Imped.	Nom. Mmfd./ Ft.	Size AWG	Strand	Nom. O.D.
901	500'	RG-8/U	52	29.5	13	7/21 Bare	.405"
902	500'	RG-9/U	51	30	13	7/21S	.420"
903	500'	RG-11/U	75	20.5	18	7/26 Tinned	.405"
904F	500'	RG-11/U	75	16.5	15	Solid	.405"
904DS	500'	RG-11/U	75	20.5	18	7/26T	.470"
904DSF	500'	RG-11/U	75	16.5	15	Solid	.470"
912	500'	RG-22/U	95.0	16.0	18	2 Cond. 7/.0152	.405"
907	1000'	RG-29/U	53.5	28.5	20	Solid	.174"
909	1000'	RG-54A/U	58	26.5	18	7/.0152	.250"
905	1000'	RG-58A/U	50	29.0	20	19/.0068 Tinned	.195"
906	1000'	RG-58/U	53.5	28.5	20	Solid	.195"
910	1000'	RG-59/U	73	21.0	22	Solid Copperweld	.242"
914	1000'	RG-62/U	93	13.5	22	Solid	.242"
916	1000'	RG-108/U	78	23.5	20	2 Cond. 7/28T	.235"

Additional RG numbers available including double shields, non-contaminating jackets—all conforming to MIL-C-17B specifications. Also, "TEFLON" dielectrics available for hi. temp. miniaturization.
No. 904F is RG-11/U with Poly-cell foam; No. 904 DSF has double shield Poly-cell dielectric constant of 1.50 solid Polyethylene 2.25.

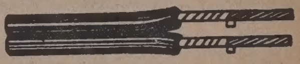
DIATHERMY CABLE

Cat. No.	Spool	Size AWG	Strand	Ins.	Nom. O.D.
756	100'	14	104/34	3/64"	.300"
757	1000'	14	104/34	3/64"	.300"

RIP-STRIP LAMP CORD

TYPE SP-1 (POSJ-64) — TYPE SPT-1 (POT) — UL APPROVED

All purpose approved cords SP-1 (rubber) SPT-1 (Plastic) for line cord on lamps, radios, clocks, small electronic instruments and appliances:



DESCRIPTION:
Two Conductors Parallel, #18—41/34 Extra Flexible Copper, rubber or plastic jacket slit for easy separation.

Cat. No.	Spool	Cond.	Size AWG	Strand	Insul.	Type	UL Type	Nom. O.D.
570	100'	2	18	41/34	Rubber	SP-1	(POSJ)	.130" x .235"
572	250'	2	18	41/34	Rubber	SP-1	(POSJ)	.130" x .235"
573	500'	2	18	41/34	Rubber	SP-1	(POSJ)	.130" x .235"
569	500'	2	18	41/34	Plastic	SPT-1	(POT)	.130" x .235"

Colors: (Rubber) Brown, Black, White.
(Plastic) Brown, Black, Ivory, Gray, Pink, Light Blue, Yellow, Green.

BIRNBACH COMMUNITY TV COAXIAL CABLES

New, developed for industry where weight, lower attenuation and superior performance are paramount. New cellular polyethylene construction offers low loss and light weight to community TV use. Note supported numbers—ideal for long lengths and self supporting. Hi-molecular weight 'poly' jacketing assures longer life and all weather conditions.

C=Copper
CC=2 Copper
CW=Copperweld
PE=Polyethylene

PEC=Cellular Polyethylene
BV=Black Vinyl
CSB=Copper Strip Braid
HMW=High Molecular Weight Polyethylene

Cat. No.	R.G. No.	A.W.G.	Cond. Material	Insulation	Shield	Jkt.	O.D.	Nom. Impedance	Nom. Velocity of Propagation	Nom. Capacitance	Nom. Attenuation per 100' Chan.	db.
4901	59/U	22 Sol.	C.W.	PE	C	BV or HMW	.246	75	78%	16.2	2 4 6 8 10 12	2.70 2.93 3.22 5.08 5.28 5.48
4902	59/U Supported	22 Sol.	C.W.	PE	C	BV or HMW	.246	75	78%	16.2		
4903	59/U Double	22 Sol.	C.W.	PE	CC	BV or HMW	.300	75	78%	16.2		
4904	59/U Celluar	20 Sol.	C	PEC	C	BV or HMW	.246	75	78%	17.3	2 4 6 8 10 12	1.60 1.80 1.92 3.29 3.43 3.57
4905	11/U Cellular	14 Sol.	C	PEC	C	HMW	.410	75	78%	17.3	2 4 6 8 10 12	1.10 1.23 1.36 2.13 2.19 2.26
4906	11/U Supported	14 Sol.	C	PEC	C	HMW	.410	75	78%	17.3		
4907	11/U Double Cellular	14 Sol.	C	PEC	CC	HMW	.470	75	78%	17.3		
4908	11/U Double Supported	14 Sol.	C	PEC	CC	HMW	.470	75	78%	17.3		
4909	11/U Cellular	14 Sol.	C	PEC	CSB	HMW	.410	75	78%	17.3	6 13	1.32 2.2
4910	11/U Double Cellular	14 Sol.	C	PEC	CSB	HMW	.410	75	78%	17.3		
4912	Cellular	12 Sol.	C	PEC	CSB	HMW	.460	75	78%	17.3	6 13	1.02 1.6
4913	Double Cellular	12 Sol.	C	PEC	CSB	HMW	.460	75	78%	17.3		
4915	Cellular	9 Sol.	C	PEC	CSB	HMW	.637	75	78%	17.3	6 13	.77 1.3
4916	Double Cellular	9 Sol.	C	PEC	CSB	HMW	.637	75	78%	17.3		

STANDARD SPOOL PUT-UPS: 500 Ft., 1000 Ft.
In addition, all are available on continuous length reels of 3000 feet or more.

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See Pages 1560-1565 for Birnbach Prices for Above Items

Birnbach

MAGNET WIRE • SLIPBACK WIRE
TINNED COPPER • ROTOR CABLE

BIRNBACH

MAGNET WIRE PER MIL-W-583B

HEAVY FORMVAR (HF) TYPE, T2

Single conductor round bare copper, baked film insulation from a varnish based on a vinyl acetal resin. 105°C.

Cat. No.	Size B&S	Nom. O.D.
BHF-10	10	.1056″
BHF-12	12	.0842″
BHF-14	14	.0673″
BHF-16	16	.0539″
BHF-18	18	.0432″
BHF-20	20	.0346″
BHF-22	22	.0277″
BHF-24	24	.0224″
BHF-26	26	.0180″
BHF-28	28	.0144″
BHF-30	30	.0116″
BHF-32	32	.0095″
BHF-34	34	.0075″
BHF-36	36	.0060″
BHF-38	38	.0049″
BHF-40	40	.0038″
BHF-42	42	.0032″
BHF-44	44	.0026″

PLAIN ENAMEL (PE) TYPE T

Single conductor round bare copper covered with a continuous insulating film of enamel. 105°C.

Cat. No.	Size B&S	Nom. O.D.
BPE-10	10	.1037″
BPE-12	12	.0825″
BPE-14	14	.0657″
BPE-16	16	.0522″
BPE-18	18	.0416″
BPE-20	20	.0332″
BPE-22	22	.0266″
BPE-24	24	.0212″
BPE-26	26	.0169″
BPE-28	28	.0135″
BPE-30	30	.0108″
BPE-32	32	.0087″
BPE-34	34	.0069″
BPE-36	36	.0055″
BPE-38	38	.0044″
BPE-40	40	.0034″
BPE-42	42	.0028″
BPE-44	44	.0023″

STANDARD PUT-UP: ¼ lb., ½ lb., 1 lb., 5 lbs., 10 lbs.
Sizes 38, 40, 42, 44 largest put-up 1 lb.
Sizes 34, 36 largest put-up 5 lbs.

SOLID TINNED (SOFT DRAWN) SYMBOL TC

Specification MIL-W-3861 Type S, QQ-W-343 Type S, ASTM-B-33

Cat. No.	Size B&S	Nom. O.D.
BST-10	10	.103″
BST-12	12	.082″
BST-14	14	.065″
BST-16	16	.051″
BST-18	18	.040″
BST-20	20	.033″
BST-22	22	.025″
BST-24	24	.020″
BST-26	26	.016″
BST-28	28	.013″
BST-30	30	.010″
BST-32	32	.008″
BST-34	34	.006″
BST-36	36	.005″
BST-38	38	.004″
BST-40	40	.003″

STANDARD PUT-UP: ¼ lb., ½ lb., 1 lb., 5 lbs., 10 lbs.
Sizes 34, 36 largest put-up 5 lbs.
Sizes 38, 40, 42, 44 largest put-up 1 lb.

TINNED COPPER WIRE—BUS BAR

Pure Electrolytic, Copper, annealed, tinned for quick soldering
MIL—W—3861 type S, ASTM—B—33 specifications, QQ—W—343 type S

Cat. No.	Put-Up	Size AWG	Area Circular Mills	O.D.
1433/4	100′ Coil	4	41,704	.204″
1433/6	100′ Coil	6	26,250	.162″
1433	100′ Coil	8	16,510	.129″
1402	100′ Coil	10	10,380	.103″
1403	1000′ Spool	10	10,380	.103″
1406	100′ Coil	12	6,530	.082″
1407	1000′ Spool	12	6,530	.082″
1410	100′ Coil	14	4,107	.065″
1411	1000′ Spool	14	4,107	.065″
1414	100′ Coil	16	2,583	.051″
1415	1000′ Spool	16	2,583	.051″
1418	100′ Coil	18	1,624	.040″
1419	1000′ Spool	18	1,624	.040″
1422	100′ Coil	20	1,022	.033″
1423	1000′ Spool	20	1,022	.033″
1434	1000′ Spool	22	624.4	.025″
1424	1000′ Spool	24	404.0	.020″
1426	1000′ Spool	26	254.1	.016″
1428	1000′ Spool	28	159.8	.013″
1430	1000′ Spool	30	100.5	.010″
1430/32	1000′ Spool	32	63.21	.008″
1430/34	1000′ Spool	34	39.75	.006″
1430/36	1000′ Spool	36	25.00	.005″
1430/38	1000′ Spool	38	15.72	.004″

See Magnet Wire Section For Additional Sizes

DOUBLE NYLON (DN)

Single conductor round bare copper covered with double nylon insulation overall. Type F-2.

Cat. No.	Size B&S	Nom. O.D.
BDN-10	10	.109″
BDN-12	12	.086″
BDN-14	14	.069″
BDN-16	16	.056″
BDN-18	18	.045″
BDN-20	20	.037″
BDN-22	22	.030″
BDN-24	24	.024″
BDN-26	26	.020″
BDN-28	28	.017″
BDN-30	30	.014″
BDN-32	32	.012″
BDN-34	34	.010″
BDN-36	36	.009″
BDN-38	38	.008″
BDN-40	40	.007″

DOUBLE COTTON (DC)

Single conductor round bare copper covered with double cotton insulation overall. Type C-2.

Cat. No.	Size B&S	Nom. O.D.
BDC-10	10	.113″
BDC-12	12	.091″
BDC-14	14	.074″
BDC-16	16	.060″
BDC-18	18	.050″
BDC-20	20	.041″
BDC-22	22	.034″
BDC-24	24	.029″
BDC-26	26	.024″
BDC-28	28	.020″
BDC-30	30	.017″
BDC-32	32	.015″
BDC-34	34	.014″
BDC-36	36	.012″
BDC-38	38	.011″
BDC-40	40	.01″

STANDARD PUT-UP: ¼ lb., ½ lb., 1 lb., 5 lbs., 10 lbs.
Sizes 34, 36 largest put-up 5 lbs.
Sizes 38, 40, 42, 44 largest put-up 1 lb.

BIRNBACH DOUBLE BRAID SLIPBACK HOOK-UP WIRE

Has a double cotton braid over the conductor, brightly color coded, saturated with paraffin. This construction will not cause the cotton insulation to fray or bunch up when pushed back. Has high dielectric strength and will withstand all climatic changes without breakdown. Tinned copper wire.

COLORS:
Black, Red, Blue, Yellow, Green, White, Brown, Orange

SOLID

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
380	100′ Spool	20	Solid	2000	.090″
382	100′ Spool	18	Solid	2100	.098″
384	100′ Coil	16	Solid	2100	.108″
386	100′ Spool	14	Solid	2100	.122″
388	100′ Spool	12	Solid	2200	.135″
580	1000′ Spool	20	Solid	2000	.090″
582	1000′ Spool	18	Solid	2100	.098″
584	1000′ Spool	16	Solid	2100	.108″
586	1000′ Spool	14	Solid	2100	.122″
588	1000′ Spool	12	Solid	2200	.135″

STRANDED

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
381	100′ Spool	20	10/30	2100	.093″
383	100′ Spool	18	16/30	2200	.103″
385	100′ Spool	16	26/30	2200	.118″
387	100′ Spool	14	41/30	2200	.135″
389	100′ Spool	12	65/30	2300	.155″
581	1000′ Spool	20	10/30	2100	.093″
583	1000′ Spool	18	16/30	2200	.103″
585	1000′ Spool	16	26/30	2200	.118″
587	1000′ Spool	14	41/30	2200	.135″
589	1000′ Spool	12	65/30	2300	.155″

BIRNBACH BIRNTEX SLIPBACK WIRE

This wire is constructed of quality materials and carefully insulated with a cotton wrap over which a cotton braid is closely woven, and then saturated with paraffin. Pushes back easily. Tinned copper wire.

SOLID

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
72	100′ Spool	22	Solid	1500	.060″
76	1000′ Spool	22	Solid	1500	.060″
85	100′ Spool	20	Solid	1500	.065″
86	100′ Spool	18	Solid	1500	.075″
92	1000′ Spool	20	Solid	1500	.065″
94	1000′ Spool	18	Solid	1500	.075″

STRANDED

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
73	100′ Spool	22	7/30	1500	.065″
77	1000′ Spool	22	7/30	1500	.065″
85	100′ Spool	20	10/30	1500	.070″
87	100′ Spool	18	16/30	1500	.080″
93	1000′ Spool	20	10/30	1500	.070″
95	1000′ Spool	18	16/30	1500	.080″

COLORS: Blue, Black, Red, Yellow, Green, White, Brown, Orange

ANTENNA CONTROL ROTOR CABLE

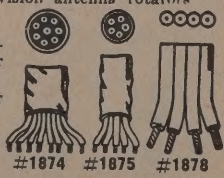
Developed for remote control of television antenna rotators

DESCRIPTION:

#1874—4 Conductors flat parallel polyethylene plastic insulation — One outer conductor tinned, balance bare copper.

#1875 — 5 Conductors twisted, color coded. Vinyl plastic jacket overall.

#1878 — 8 Conductors twisted, colo coded. Vinyl plastic jacket overall.



Cat. No.	Spool	Cond.	Size AWG	Strand	Nom. O.D.
1874	1000′	4	20	7/28	.072″ x .890″
1874A	500′	4	20	7/28	.072″ x .890″
1875	1000′	5	20	7/28	.180″
1875A	500′	5	20	7/28	.180″
1878	1000′	8	22	7/30	.205″
1878A	500′	8	22	7/30	.205″

CONDUCTOR COLOR CODE CHART FOR #1875, #1878

1—Black
2—White
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange

See Pages 1560-1565 for Birnbach Prices for Above Items

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Birnbach

LACINE CORD AND TAPES • CABLE AND TUBING CLAMPS • WIRE TIES

LACING CORD/TAPE TO MEET MIL-T-713A TYPE P*

FLAT BRAIDED LACING TAPE

NYLON

Flat braided Hi-Tenacity Nylon Fiber impregnated with (MW) microcrystalline fungicidal wax. Engineered to stay flat. Distributes stress evenly over a wide area. Resistant to fungus, flame, abrasion, acids. Will not cut or damage insulation. Has strength, toughness and stability.

Put up on 500 yards per tube.

Cat. No.		Class	Width	Thickness	Test Llbs.	Yard/Lb.
1035	Natural White	—	.200″	.014″	150	250
1035B	Black	—	.200″	.014″	150	250
1036	Natural White	1	.120″	.014″	80	550
1036B	Black	1	.120″	.014″	80	550
1037	Natural White	2*	.090″	.014″	50	750
1037B	Black	2*	.090″	.014″	50	750
1038	Natural White	3	.062″	.010″	30	1500
1038B	Black	3	.062″	.010″	30	1500
1039	Natural White	4	.046″	.010″	15	2400
1039B	Black	4	.046″	.010″	15	2400

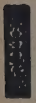
DACRON

Flat Braided Hi-Tenacity Dacron Fiber impregnated with special non-slip fungicidal finish. Will not cut or damage insulation. Engineered to stay flat—for strength, toughness, stability. Will not cut insulation.

Put up on 500 yards per tube.

Cat. No.		Width	Thickness	Test Lbs.	Yard/Lb.
1041	Natural White	.120″	.014″	80	450
1041B	Black	.120″	.014″	80	450
1042	Natural White	.090″	.014″	48	600
1042B	Black	.090″	.014″	48	600
1043	Natural White	.060″	.010″	35	850
1043B	Black	.060″	.010″	35	850
1044	Natural White	.046″	.010″	25	1100
1044B	Black	.046″	.010″	25	1100

TEFLON-FIBERGLASS



Flat Braided Fiberglass, teflon coated and bonded for hi-temperature applications (550°F). Engineered to stay flat—for strength, toughness and stability. Teflon finish increases tensile strength and abrasion resistant surface. Will not cut or damage insulation. Color White.

Put up on 500 yards per spool.

Cat. No.	Width	Thickness	Test Lbs.	Yard/Lb.
1045	.170″	.025″	150	200
1046	.120″	.020″	90	200
1047	.080″	.020″	70	280

TEFLON

Flat Braided Teflon for hi-temperature applications (550°F.) Engineered to stay flat. Will not cut or damage insulation. Color: Brown.

Put up on 500 yards per spool.

Cat. No.	Width	Thickness	Test Lbs.	Yard/Lb.
1048	.100″	.016″	35	325
1049	.075″	.010″	15	700

ROUND NYLON LACING CORDS

This nylon lacing cord manufactured to meet Spec. MIL-T-713A Type P, Composition P, Classes 3, 2, 1. Wax finished—compounded with a fungicide to resist mildew.

Put up on 1 lb. Tubes.

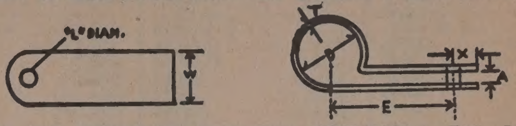
	Cat. Nos. Color Natural	Cat. Nos. Color Black	Yds.	Diam.	Breaking Strength
Class 1	1070	1070B	600	.039″	70 Lbs.
Class 2	1071	1071B	800	.029″	48 Lbs.
Class 3	1072	1072B	1140	.025″	32 Lbs.
Class 4	1072/1	1072/1B	2400	.020″	20 Lbs.

ROUND LINEN LACING CORDS

This linen lacing cord is made from pure flax treated with microcrystalline wax compounded with fungicide to resist mildew. The twelve, eight and six ply cord meet Spec. MIL-T-713A Type N, Classes 1, 2 and 3 respectively. Color: Natural. Also available in Black in 1 lb. Tubes.

4 oz. Tube Cat. No.	4 oz. Tube Yds.	8 oz. Tube Cat. No.	8 oz. Tube Yds.	1 lb. Tubes. Cat. No. Natural	1 lb. Tubes. Cat. No. Black	Yds.	Class	Ply	Diam.	Lb. Test
1073	210	1074	425	1075	1075B	850	—	4	.036″	22
1076	150	1077	300	1078	1078B	600	3	6	.044″	33
1082	115	1083	235	1084	1084B	470	2	8	.051″	50
1079	100	1080	200	1081	1081B	400	—	9	.054″	56
1085	75	1086	150	1087	1087B	300	1	12	.063″	72

NYLON CABLE AND TUBING CLAMPS MEETS MIL-P-20693A



MADE OF DUPONT NYLON FORMULA FM 10001 (Zytel 101)

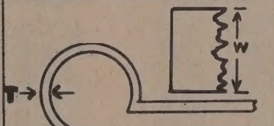
Used as a clamp, strain relief, clip hanger, fastener, strap, these nylon cable clamps are light and tough. Have smooth, non-abrasive surfaces, rounded edges will not chafe conductors or cause shorts or grounds in cable. Insoluble in solvents, oils, gasoline, alcohol, hydraulic fluids, alkalies, acids. Temperature resistant from —60°F to +300°F. Do not support combustion. Moisture and heat resistant. Inside matte finish surfaces prevent slippage under vibration and are self aligning when tightened by screw. Snaps onto cable. Meets MIL-P-20693A specs. Fungus resistant.

Cat. No.	Put-Up	To Fit Size	D	E	W	T	L	X	A
725	100	⅛″	.125	.316	⅜	.050	.177	.227	.062
726	100	3⁄16″	.187	.378	⅜	.050	.177	.277	.062
727	100	¼″	.250	.409	⅜	.050	.177	.227	.062
728	100	5⁄16″	.312	.441	⅜	.050	.177	.277	.062
729	100	⅜″	.375	.471	⅜	.050	.177	.277	.062
730	100	7⁄16″	.437	.519	⅜	.050	.177	.277	.062
731	100	½″	.500	.550	⅜	.050	.177	.277	.062
731A	100	9⁄16″	.563	.625	½	.060	.177	.227	.062
732	100	⅝″	.625	.634	½	.060	.177	.227	.062
732A	100	11⁄16″	.687	.752	½	.060	.177	.227	.062
733	100	¾″	.750	.718	½	.060	.177	.227	.062
734	100	⅞″	.875	.760	½	.060	.177	.227	.062
735	100	1″	1.000	.802	½	.060	.177	.227	.062
736	100	1⅛″	1.125	.968	½	.062	.204	.250	.125
737	100	1¼″	1.250	1.156	½	.062	.204	.250	.125
738	100	1½″	1.500	1.188	⅝	.070	.204	.250	.125

ETHYL CELLULOSE PLASTIC CABLE & TUBING CLAMPS

Recommended for general use. They withstand age, shock and vibration. Moisture and corrosion. This tough, lightweight and durable clamp withstands temperatures from —60° to +175°F. Approved 7-21-44 Army-Navy aeronautical AN-742. Approved for inside-outside, hi-tension, primary and secondary. Standard pkge. 100, 1000.

Cat. No.	To Fit Size	D	E	W	T	L	X	A
715	⅛″	.125	.325	½	.060	.204	7⁄32	.062
715A	3⁄16″	.188	.390	½	.060	.204	7⁄32	.062
715B	¼″	.250	.421	½	.060	.204	7⁄32	.062
715C	5⁄16″	.313	.457	½	.060	.204	7⁄32	.062
715D	⅜″	.375	.483	½	.060	.204	7⁄32	.062
715E	7⁄16″	.438	.531	½	.060	.204	7⁄32	.062
716	½″	.500	.562	½	.060	.204	7⁄32	.062
716A	9⁄16″	.563	.625	½	.060	.204	7⁄32	.062
716B	⅝″	.625	.610	½	.060	.204	7⁄32	.062
716C	11⁄16″	.688	.666	½	.060	.204	7⁄32	.062
716D	¾″	.750	.766	½	.060	.204	7⁄32	.062
716E	⅞″	.875	.813	½	.060	.204	7⁄32	.062
717	1″	1.000	.906	½	.060	.204	7⁄32	.062
717A	1⅛″	1.125	.969	½	.060	.204	7⁄32	.062
717B	1¼″	1.250	1.156	½	.060	.204	7⁄32	.062
717C	1½″	1.5	1.0625	⅝	.070	.204	7⁄32	.062
717D	2″	2.0	1.313	⅝	.070	.204	7⁄32	.062
717E	2½″	2.5	1.563	⅝	.070	.204	7⁄32	.062

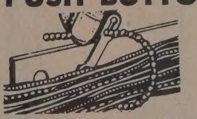


BIRNBACH ALUMINUM CABLE AND TUBING CLAMPS

These Tube Clamps are made of hard drawn aluminum and are found to be extremely desirable when mounting resonant lines, or elements of directive beam antennas. The ⅛″ thru ⅝″ clamps have a clearance for No. 10 Screw. The ¾″ to the 1¼″ clamps have a clearance for ¼″ bolts.

Cat. No.	To Fit Tube	Width "W"	Length "L"	Thickness "T"	Std. Pkg.
51A	⅛″	½″	13⁄16″	.050″	100
51	¼″	½″	⅞″	.050″	100
52	5⁄16″	½″	15⁄16″	.050″	100
53	⅜″	½″	1″	.050″	100
54	½″	½″	1⅛″	.050″	100
54A	⅝″	½″	1¼″	.050″	50
55	¾″	¾″	1 9⁄16″	.090″	50
57	⅞″	¾″	1⅝″	.090″	50
56	1″	¾″	1¾″	.090″	50
56A	1⅛″	¾″	1⅞″	.090″	50
56B	1¼″	¾″	2″	.090″	50

PUSH BUTTON WIRE TIES (PAT. PENDING)



Push Button Wire Ties useful for harnessing wires fast; saves labor; eliminates screws and usual time required for string tying. Measures 4½″ in length and is adjustable to 30 different diameters. Insert the tie in the hole for anchoring; wires can be replaced or added by loosening the tie and pulling tight again. Constructed of tough Polyethylene; chemically inert, heat resistant; breaking point 45 to 95 lbs. Push button ties are designed to fit a .250″—.265″ hole in a .031 to .140 thick panel.

Cat. No.	Color (Specify)	Std. Pkg.
PBT-4	Red, Blue, Yellow	100, 1000

MATERIAL CONFORMS TO SPEC. LP 590

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Birnbach PRICE LIST

Number	Sugg'd. Resale Price
00-C	$ 11.10/C
1-50	.40/Ea.
1-C	.79/Ea.
1-M	6.44/M
2-50	.40/Ea.
2-C	.79/Ea.
2-M	6.44/M
3-50	.40/Ea.
3-C	.79/Ea.
3-M	6.44/M
3A-M	6.44/M
4-M	24.75/M
5-M	33.00/M
6-C	6.30/C
8	6.30/C
10	7.50/C
11	9.00/C
15	4.62/C
16	16.50/C
17	36.00/C
18	60.00/C
19	.27/Ea.
20	.54/Ea.
20-A	.45/Ea.
21-35	.40/Ea.
21-C	.99/C
21-M	8.25/M
22-15	.40/Ea.
22-C	2.11/C
22-M	19.47/M
23	9.60/C
24	10.20/C
26	10.20/C
27	6.60/C
27-C	12.60/C
27-R	11.70/C
28	6.60/C
29	10.20/C
30	21.69/C
31	7.50/C
31-C	12.60/C
31-FB	3.90/C
31-MB	6.60/C
31-MC	9.00/C
31-MG/C	7.80/C
31-MG/S	6.60/C
31-MS	8.40/C
31-R	6.60/C
31-S	9.60/C
32	1.80/C
32-A	1.35/C
33	8.40/C
34	.90/Ea.
35	.90/Ea.
36	.90/Ea.
37	.90/Ea.
38	.90/Ea.
39	.90/Ea.
40	.90/Ea.
41	.90/Ea.
42	4.20/C
43	4.80/C
44	6.00/C
45	.90/Ea.
46	8.40/C
47	.90/Ea.
48	20.10/C
49	.90/Ea.
51	10.50/C
51-A	10.50/C
52	10.50/C
53	10.50/C
54	10.50/C
54-A	10.80/C
55	12.00/C
56	13.50/C
56-A	18.00/C
56-B	19.50/C
57	13.50/C
58	.96/Ea.
59	1.20/Ea.
61-C	2.40/Ea.
62-E	10.50/Ea.
62-M	21.00/Ea.
64	.84/Ea.
65	1:50/Ea.
66-C	3.30/Ea.
67-E	15.30/Ea.
67-M	30.60/Ea.
68-C	4.50/Ea.
69-E	21.00/Ea.
69-M	42.00/Ea.
70	.40/Ea.
71	.46/Ea.
72-C	1.74/Ea
73-C	2.04/Ea.
74-E	7.62/Ea.
75-E	$ 9.24/Ea.
76-M	15.60/Ea.
77-M	17.70/Ea.
80	.46/Ea.
81	.51/Ea.
82	.57/Ea.
83	.60/Ea.
84-C	2.04/Ea.
85-C	2.25/Ea.
86-C	2.40/Ea.
87-C	2.70/Ea.
88-E	9.09/Ea.
89-E	10.23/Ea.
90-E	10.38/Ea.
91-E	11.61/Ea.
92-M	17.70/Ea.
93-M	19.80/Ea.
94-M	21.60/Ea.
95-M	24.00/Ea.
96-40	.40/Ea.
96-C	.79/Ea.
96-M	7.10/M
97-40	.40/Ea.
97-C	.79/Ea.
97-M	7.10/M
98-35	.40/Ea.
98-C	.99/Ea.
98-M	8.25/M
99-35	.40/Ea.
99-C	.92/Ea.
99-M	8.25/M
100-20	.40/Ea.
100-C	1.48/Ea.
100-M	13.20/M
102	.60/Ea.
103	.60/Ea.
104	.99/Ea.
105	.99/Ea.
106	.60/Ea.
107	.99/Ea.
108	1.38/Ea.
109	1.80/Ea.
110	2.25/Ea.
113	75.00/C
114	6.60/C
115	7.20/C
116	7.80/C
117	16.50/C
118	15.00/C
119	13.20/C
120	1.80/Ea.
121	.36/Ea.
122	.54/Ea.
123	.60/Ea.
124	.69/Ea.
125	1.80/Ea.
126	1.50/Ea.
127	1.80/Ea.
128	2.22/Ea.
130	.42/Ea.
131	.51/Ea.
132	.24/Ea.
133	.27/Ea.
134	.36/Ea.
135	.27/Ea.
136	.21/Ea.
149	4.50/Ea.
151	.39/Ea.
155-H	27.00/Ea.
156-E	10.80/Ea.
157-E	15.00/Ea.
158-E	19.50/Ea.
159-E	24.75/Ea.
160-E	30.00/Ea.
161-E	33.00/Ea.
162-D	18.00/Ea.
163-D	21.00/Ea.
164-D	24.00/Ea.
165-D	28.50/Ea.
165/15-D	39.60/Ea.
166	1.32/Ea.
172-C	5.10/Ea.
172-E	25.50/Ea.
172-M	51.00/Ea.
173-C	7.05/Ea.
173-E	35.25/Ea.
173-M	70.50/Ea.
174-C	9.60/Ea.
174-E	48.00/Ea.
174-M	96.00/Ea.
175-C	11.25/Ea.
175-E	56.25/Ea.
175-M	112.50/Ea.
176-C	12.60/Ea.
176-E	63.00/Ea.
176-M	126.00/Ea.
177-C	13.90/Ea.
178-C	$ 19.50/Ea.
179-C	22.50/Ea.
180-C	24.00/Ea.
182-C	28.80/Ea.
184	16.20/C
185	13.80/C
186	15.00/C
193	9.00/M
194;195	9.00/M
196;197	10.80/M
200	6.00/M
201-35	.40/Ea.
201-100	.92/Ea.
201-M	8.25/M
202	5.10/M
203	.39/Ea.
203-A;203-H	2.25/Ea.
204	.39/Ea.
204-A;204-H	2.25/Ea.
205	.39/Ea.
205-H	2.25/Ea.
206	.39/Ea.
206-A	2.25/Ea.
206-H	2.25/Ea.
207	.39/Ea.
207-H	2.25/Ea.
208	.39/Ea.
208-H	2.25/Ea.
209	.39/Ea.
209-H	2.25/Ea.
212-A	2.25/Ea.
220	4.80/Ea.
220-A	4.05/Ea.
221	1.08/Ea.
221-A	.84/Ea.
226	2.40/Ea.
231-MC	21.00/C
232-FC	31.80/C
233-CC	22.80/C
234-CLC	36.00/C
239-FC2	3.72/Ea.
245-MFC	3.72/Ea.
246	24.00/C
248	4.80/C
248-S	4.80/C
249	6.60/C
251	48.00/C
252	72.00/C
253	66.00/C
257	30.00/C
258	34.20/C
259	36.00/C
260	45.00/C
263-C	5.40/Ea.
263-E	26.70/Ea.
263-M	53.40/Ea.
264-C	6.96/Ea.
264-E	34.50/Ea.
264-M	69.00/Ea.
265-C	8.40/Ea.
265-E	41.70/Ea.
265-M	83.40/Ea.
266-C	9.78/Ea.
266-E	48.60/Ea.
266-M	97.20/Ea.
267-C	11.10/Ea.
267-E	54.60/Ea.
267-M	109.20/Ea.
268-C	12.30/Ea.
268-E	61.20/Ea.
268-M	122.40/Ea.
269-C	14.25/Ea.
269-E	70.95/Ea.
269-M	141.90/Ea.
270-C	15.75/Ea.
270-E	78.45/Ea.
270-M	156.90/Ea.
272-C	19.53/Ea.
272-E	97.35/Ea.
272-M	194.70/Ea.
274	36.00/C
275	42.00/C
276	42.00/C
278	24.00/C
279	18.00/C
280-25′	.48/Ea.
281-25′	.54/Ea.
282-25′	.54/Ea.
283-25′	.60/Ea.
287	.29/Ea.
288	7.35/Ea.
289-VC-C	4.32/Ea.
290-VC-C	4.38/Ea.
291	.18/Ea.
291-V-25′	1.38/Ea.
291-VC-C	4.80/Ea.
293	.18/Ea.
293-V-25′	$ 1.41/Ea.
293-VC-C	5.10/Ea.
294	.18/Ea.
294-V-25′	1.44/Ea.
294-VC-C	5.40/Ea.
295	.18/Ea.
295-V-25′	1.47/Ea.
295-VC-C	5.55/Ea.
296	1.50/Ea.
296-VC-C	45.00/Ea.
297	.36/Ea.
298	.42/Ea.
299	1.26/Ea.
299-VC-C	39.00/Ea.
300	.18/Ea.
300-V -25′	1.53/Ea.
300-VC-C	6.00/Ea.
301	.30/Ea.
301-V-15′	1.41/Ea.
301-VC-C	7.95/Ea.
302	.33/Ea.
302-V-10′	1.11/Ea.
302-VC-C	9.60/Ea.
303	.54/Ea.
303-VC-C	18.00/Ea.
304	.66/Ea.
304-VC	22.80/Ea.
305-V-10′	1.26/Ea.
305-VC	10.50/Ea.
306-V-10′	1.35/Ea.
306-VC-C	13.20/Ea.
307	.24/Ea.
307-V-20′	1.35/Ea.
307-VC-C	6.60/Ea.
308-B-25′	.45/Ea.
308-BC-C	1.65/Ea.
309	.96/Ea.
309/3	1.35/Ea.
309/3-E	1.32/Ea.
309/3-M	1.20/Ea.
310	10.80/C
310-B	21.00/C
310-C	13.80/C
310-S	11.40/C
311-B-25′	.45/Ea.
311-BC-C	1.65/Ea.
312	1.08/Ea.
313	.10/Ea.
313-B-25′	.45/Ea.
313-BC-C	1.65/Ea.
314	.10/Ea.
314-B-25′	.45/Ea.
314-BC-C	1.65/Ea.
315	.11/Ea.
315-B-25′	.45/Ea.
315-BC-C	1.65/Ea.
316-10′	.11/Ea.
316-B-25′	.48/Ea.
316-BC-C	1.80/Ea.
317	.11/Ea.
317-B-25′	.48/Ea.
317-BC-C	1.80/Ea.
318	.24/Ea.
318-B-15′	.45/Ea.
318-BC-C	2.82/Ea.
319	.27/Ea.
319-B-10′	.45/Ea.
319-BC-C	4.05/Ea.
320	.30/Ea.
320-B-10′	.45/Ea.
320-BC-C	4.05/Ea.
321	.36/Ea.
321-BC-C	5.10/Ea.
322	.39/Ea.
322-BC-C	8.40/Ea.
323	.60/Ea.
323-BC-C	13.50/Ea.
324	.66/Ea.
324-BC-C	16.50/Ea.
325	.21/Ea.
325-B-15′	.45/Ea.
325-BC-C	2.64/Ea.
326	.24/Ea.
326-B-15′	.45/Ea.
326-BC-C	3.00/Ea.
327-BC-C	17.40/Ea.
328-BC-C	48.00/Ea.
329-BC-C	64.95/Ea.
330	15.00/C
330-A	13.20/C
331	15.00/C
331-A	10.20/C
332	10.80/C
332-A	1.20/C
333	16.20/C
334	33.00/C
335	39.00/C
336	$ 39.00/C
337	42.00/C
340	6.60/C
341	39.00/C
341-B	60.00/C
342	285.00/C
342-B	315.00/C
343	.36/Ea.
343-A	12.00/C
344	.33/Ea.
345	.36/Ea.
345-A	15.00/C
346	1.56/Ea.
347	1.50/Ea.
348	1.20/Ea.
350	1.20/Ea.
351	1.20/Ea.
352	1.20/Ea.
353	1.20/Ea.
354	6.00/Ea.
359	1.20/Ea.
360-BC-C	19.50/Ea.
361-BC-C	21.00/Ea.
362-BC-50′	13.50/Ea.
363-BC-50′	18.00/Ea.
364-BC-C	76.50/Ea.
365-BC-C	90.00/Ea.
366	10.20/C
367	13.20/C
368	1.50/C
369	1.50/C
370	3.00/C
371	1.80/C
372	1.50/C
373	3.90/C
377	.29/Ea.
378	.38/Ea.
379	.41/Ea.
380-C	2.34/Ea.
381-C	2.55/Ea.
382-C	2.70/Ea.
383-C	2.85/Ea.
384-C	3.15/Ea.
385-C	3.48/Ea.
386-C	4.26/Ea.
387-C	5.10/Ea.
388-C	6.84/Ea.
389-C	7.20/Ea.
391	15.00/C
392	46.20/C
392-A	33.00/C
392-B	66.00/C
393	42.00/C
393-A	42.00/C
394	30.00/C
395	30.00/C
396	30.00/C
396-B	54.00/C
397	33.00/C
397-B	57.00/C
398	30.00/C
398-B	51.00/C
399	30.00/C
399-A	33.00/C
400	15.00/C
400-A	15.00/C
400-B	24.00/C
401	15.00/C
401-B	24.00/C
402	2.64/C
402-A	3.30/C
402-B	6.90/C
403	10.20/C
404	21.00/C
404-A	18.00/C
404-B	27.00/C
404-BC	36.00/C
404-CB	30.00/C
404-S	18.00/C
405	.099/Ea
406	13.20/C
407	13.20/C
408	1.89/Ea.
409	15.00/C
410	.33/Ea.
411	.79/Ea.
412	19.80/C
413	1.05/Ea.
414	15.00/C
415	15.00/C
416	13.20/C
417	.33/Ea.
418	.36/Ea.
419	24.00/C
420	.87/Ea.
420-A	13.20/C
421	.87/Ea.
422	$ .87/Ea.
423	.87/Ea.
426	16.20/C
426-A	16.20/C
430	.24/Ea.
431	.312/Ea.
431-J	.45/Ea.
432	.51/Ea.
432-J	1.05/Ea.
433	1.20/Ea.
433-J	1.65/Ea.
434	2.10/Ea.
435	1.59/Ea.
436	.36/Ea.
437	.39/Ea.
438	.45/Ea.
439	.24/Ea.
440	15.00/C
440-A	17.40/C
440-B	20.40/C
440-C	23.40/C
440-D	25.20/C
440-E	27.60/C
440-F	29.40/C
441	10.35/C
441-A	10.35/C
441-B	10.35/C
442	12.60/C
442-A	13.20/C
443	14.40/C
443-A	14.40/C
444	12.60/C
444-A	15.00/C
444-B	15.00/C
444-C	18.00/C
445	12.60/C
445-A	15.00/C
445-B	18.00/C
445-C	18.00/C
445-D	20.40/C
445-E	23.40/C
445-F	27.60/C
445-G	32.40/C
446	15.60/C
446-A	14.25/C
446-B	23.40/C
446-C	27.60/C
447	19.50/C
447-B	38.40/C
447-D	47.40/C
447-E	53.40/C
448	30.00/C
449	37.50/C
450	.35/Ea.
450-J	.43/Ea.
451	.43/Ea.
451-J	.46/Ea.
452	.46/Ea.
452-J	.60/Ea.
453	.82/Ea.
453-J	.95/Ea.
454	1.08/Ea.
454-J	1.28/Ea.
455	18.00/C
455-BC	24.00/C
457	.45/Ea.
458	.19/Ea.
462	.16/Ea.
463	.30/Ea.
464	.24/Ea.
465	18.00/C
465-B	30.00/C
466	18.00/C
466-A	24.00/C
467	30.00/C
467-B	42.00/C
468	.33/Ea.
469	.36/Ea.
470	.60/Ea
471	.84/Ea.
472	.27/Ea.
473	.14/Ea.
474	.12/Ea.
475	.88/Ea.
476	.66/Ea.
478	.27/Ea.
478-J	.32/Ea.
479	.47/Ea.
479-J	.57/Ea.
480-E	10.23/Ea.
481-E	11.49/Ea.
482-E	11.49/Ea.
483-E	12.72/Ea.
484-E	14.19/Ea.
485-E	15.60/Ea.
486-E	17.43/Ea.

Net

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Birnbach PRICE LIST

Number	Sugg'd. Resale Price
487-E	$ 18.15/Ea.
488-E	29.04/Ea.
489-E	32.01/Ea.
490-C	1.89/Ea.
490-M	18.90/Ea.
490-A-150′	2.83/Ea.
490-B-200′	3.78/Ea.
492-C	2.76/Ea.
492-M	27.60/Ea.
492-A-150′	4.14/Ea.
492-B-200′	5.52/Ea.
493-C	2.70/Ea.
493-M	27.00/Ea.
495-C	3.00/Ea.
495-M	30.00/Ea.
497-C	4.74/Ea.
497-M	47.40/Ea.
499-C	8.76/Ea.
499-M	83.40/Ea.
501	2.85/Ea.
503	2.34/Ea.
505	2.25/Ea.
506	.23/Ea.
507	.24/Ea.
508	.25/Ea.
510	.24/Ea.
511	.24/Ea.
512	.24/Ea
514	.23/Ea.
515	.23/Ea.
516	.25/Ea.
518	.24/Ea.
519	.25/Ea.
520	.29/Ea.
521	.30/Ea.
522	.34/Ea.
523	.45/Ea.
524-C	6.00/Ea.
524-M	56.10/Ea.
526-C	4.50/Ea.
526-M	40.95/Ea.
527-C	13.05/Ea.
527-M	126.75/Ea.
528-C	19.50/Ea.
528-M	191.40/Ea.
529-C	30.96/Ea.
529-M	293.40/Ea.
531	16.20/C
531-A	24.00/C
532;533	16.20/C
534	16.20/C
535	16.20/C
536	16.20/C
537	16.20/C
538	19.80/C
538-A	18.00/C
539	19.80/C
540	.20/Ea.
541	.40/Ea.
542	.30/Ea.
543	.15/Ea.
544	.30/Ea.
545	.36/Ea.
546	24.00/C
546-A	.24/Ea.
547	33.00/C
550	.15/Ea.
550-A	.15/Ea
550-B	.18/Ea.
550-C	.18/Ea.
551	.33/Ea.
552	.39/Ea
553	.45/Ea.
554	.60/Ea.
555	1.50/Ea.
556	1.17/Ea.
557	1.50/Ea.
558	.57/Ea.
559	.87/Ea.
559-A	.48/Ea.
560	1.50/Ea.
561	1.50/Ea.
562	3.96/Ea.
564	2.91/Ea.
569-E	12.60/Ea.
570-C	3.36/Ea.
572-D	7.80/Ea.
573-E	15.00/Ea.
574-D	15.15/Ea.
575-D	21.60/Ea.
575/4-D	38.22/Ea.
578-D	20.40/Ea.
578/3-D	27.90/Ea.
578/4-D	44.10/Ea.
580-M	21.15/Ea.
581-M	23.15/Ea.
582-M	24.45/Ea.

Number	Sugg'd. Resale Price
583-M	$ 26.16/Ea.
584-M	27.96/Ea.
585-M	35.22/Ea.
586-M	35.22/Ea.
587-M	39.96/Ea.
588-M	63.36/Ea.
589-M	70.32/Ea.
590	18.00/C
591	21.00/C
592	18.00/C
593	.90/C
595	15.00/C
597	7.20/C
598	6.60/C
600	13.20/C
601	30.00/C
603	24.00/C
604	18.00/C
605	24.00/C
606	18.00/C
607	54.00/C
608	60.00/C
609	66.00/C
610	72.00/C
611	13.50/C
613	9.00/C
616	84/Ea.
617	18.00/C
618	1.35/Ea.
619	.27/Ea.
621	.21/Ea.
625	13.80/C
626	.34/Ea.
628	.17/Ea.
629	5.10/C
631	15.00/C
632	15.00/C
633	15.00/C
634	15.00/C
635	15.00/C
636	15.00/C
647	.84/Ea.
650	.30/Ea.
653-8	.87/Ea.
653-12	.93/Ea.
653-24	.99/Ea
653-36	1.05/Ea.
655-8	.90/Ea.
655-12	.90/Ea.
655-24	.96/Ea.
655-36	1.02/Ea.
663	13.68/C
664	11.70/C
666	11.10/C
667	27.00/C
668	.21/Ea
669	10.80/C
675	57.00/C
676	63.00/C
677	72.00/C
678	81.00/C
681-C	.87/Ea.
690-D	16.20/Ea.
690/3-D	25.20/Ea.
691-D	19.50/Ea.
692-D	27.00/Ea.
692/4-D	41.70/Ea.
693-D	25.05/Ea.
693/3-D	31.50/Ea.
693/4-D	49.20/Ea.
694-D	31.50/Ea.
694/3-D	37.50/Ea.
694/4-D	57.00/Ea.
695-D	35.40/Ea.
695/3-D	45.54/Ea.
695/4-D	68.40/Ea.
696-D	51.00/Ea.
696/3-D	73.20/Ea.
696/4-D	104.10/Ea.
697-D	73.50/Ea.
697/3-D	91.50/Ea
697/4-D	132.00/Ea.
698-D	97.50/Ea.
698/3-D	136.50/Ea.
698/4-D	167.40/Ea.
700-C	.75/Ea.
701-D	12.60/Ea.
701/3-D	20.70/Ea.
702-D	26.40/Ea.
702/3-D	37.20/Ea.
702/4-D	51.00/Ea.
703	30.00/Ea.
703/3-D	45.00/Ea.
703/4-D	60.00/Ea.
704-D	47.70/Ea.
704/3-D	70.50/Ea.

Number	Sugg'd. Resale Price
704/4-D	$ 102.00/Ea.
705-D	67.50/Ea.
705/3-D	96.00/Ea.
705/4-D	120.00/Ea.
706-D	94.80/Ea.
706/3-D	126.00/Ea.
706/4-D	147.00/Ea.
710-C	7.80 Ea.
710-D	19.20/Ea.
710-E	38.40/Ea.
710-M	73.20/Ea.
710-F	180.00/Ea.
712-C	5.10/Ea.
712-D	12.00/Ea.
712-E	24.00/Ea.
712-M	46.80/Ea.
712-F	116.25/Ea.
714-C	3.06/Ea.
714-D	7.50/Ea.
714-E	15.00/Ea.
714-M	29.10/Ea.
714-F	71.10/Ea.
715-C	2.34/C
715-M	19.20/M
715-A-C	2.40/C
715-A-M	19.80/M
715-B-C	2.58/C
715-B-M	21.60/M
715-C-C	2.85/C
715-C-M	24.00/M
715-D-C	3.00/C
715-D-M	25.20/M
715-E-C	3.30/C
715-E-M	27.60/M
716-C	3.60/C
716-M	30.00/M
716-A-C	4.20/C
716-A-M	34.20/M
716-B-C	4.50/C
716-B-M	39.60/M
716-C-C	4.80/C
716-C-M	42.60/M
716-D-C	5.10/C
716-D-M	44.40/M
716-E-C	5.40/C
716-E-M	48.00/M
717-C	5.70/C
717-M	51.60/M
717-A-C	6.00/C
717-A-M	54.60/M
717-B-C	6.30/C
717-B-M	58.20/M
717-C-C	13.50/C
717-C-M	108.00/M
717-D-C	14.70/C
717-D-M	120.00/M
717-E-C	16.80/C
717-E-M	144.00/M
725-C	3.60/C
725-E	16.50/5C
725-M	30.00/M
726-C	3.90/C
726-E	17.70/5C
726-M	31.80/M
727-C	4.20/C
727-E	19.50/5C
727-M	34.80/M
728-C	4.65/C
728-E	21.30/5C
728-M	38.40/M
729-C	4.80/C
729-E	22.05/5C
729-M	40.20/M
730-C	5.10/C
730-E	23.70/5C
730-M	42.60/M
731-C	5.40/C
731-E	24.90/5C
731-M	45.00/M
731A-C	6.60/C
732-C	7.20/C
732-E	34.50/5C
732-M	65.40/M
732A-C	7.50/C
733-C	8.10/C
733-E	39.00/5C
733-M	75.00/M
734-C	8.70/C
734-E	43.20/5C
734-M	81.00/M
735-C	10.20/C
735-E	49.20/5C
735-M	95.40/M
736-C	12.00/C
736-E	54.00/5C
736-M	108.00/M
737-C	13.80/C

Number	Sugg'd. Resale Price
737-E	$ 60.00/5C
737-M	120.00/M
738-C	28.80/C
738-E	129.00/5C
738-M	258.00/M
740-C	.66/Ea.
749-C	20.70/Ea.
749-E	99.00/Ea.
749-M	198.00/Ea.
749/10-C	33.00/Ea.
749/10-E	128.25/Ea.
749/10-M	255.00/Ea.
749/12-C	38.79/Ea.
749/12-E	190.56/Ea.
749/12-M	380.10/Ea.
756-C	13.50/Ea.
756-E	66.00/Ea.
756-M	126.00/Ea.
757-M	126.00/Ea.
762	12.00/C
763-3	18.00/C
763-5	22.80/C
763-7	51.00/C
764	.21/Ea.
765	.54/Ea.
766	.35/Ea.
766-J	.53/Ea.
768	.42/Ea.
769	.84/Ea.
770	1.50/Ea.
771	10.05/Ea.
772-C	8.85/Ea.
772-D	21.45/Ea.
772-E	42.75/Ea.
772-M	85.50/Ea.
772/18-C	12.00/Ea.
772/18-D	27.40/Ea.
772/18-E	57.00/Ea.
772/18-M	114.00/Ea.
773-C	10.20/Ea.
773-D	25.50/Ea.
773-E	50.10/Ea.
773-M	100.20/Ea.
773/18-C	18.75/Ea.
773-18-D	45.90/Ea.
773/18-E	90.00/Ea.
773/18-M	180.00/Ea.
774-C	12.60/Ea.
774-D	29.70/Ea.
774-E	58.50/Ea.
774-M	117.00/Ea.
774/18-C	20.70/Ea.
774/18-D	51.00/Ea.
774/18-E	102.00/Ea.
774/18-M	202.80/Ea.
775-C	15.60/Ea.
775-D	36.00/Ea.
775-E	72.00/Ea.
775-M	144.00/Ea.
776-C	18.60/Ea.
776-D	43.80/Ea.
776-E	87.00/Ea.
776-M	174.00/Ea.
777-C	20.40/Ea.
777-D	48.00/Ea.
777-E	95.70/Ea.
777-M	191.40/Ea.
778-C	24.00/Ea.
778-D	58.50/Ea.
778-E	117.00/Ea.
778-M	231.00/Ea.
778/10-C	33.00/Ea.
778/10-D	84.00/Ea.
778/10-E	165.00/Ea.
778/10-M	327.00/Ea.
778/12-C	46.86/Ea.
778/12-E	231.84/Ea.
778/12-M	460.35/Ea.
781-C	14.10/Ea.
786-E	19.80/Ea.
787-E	28.50/Ea.
788-C	7.50/Ea.
788-D	18.30/Ea.
788-E	36.00/Ea.
788-M	72.00/Ea.
789-D	18.30/Ea.
790-C	8.55/Ea.
790-D	21.15/Ea.
790-E	41.40/Ea.
790-M	82.80/Ea.
791-D	21.15/Ea.
792-C	10.40/Ea.
792-D	25.50/Ea.
792-E	50.10/Ea.
792-M	100.20/Ea.
793-D	25.50/Ea.

Number	Sugg'd. Resale Price
794-C	$ 12.39/Ea.
794-D	30.39/Ea.
794-E	60.00/Ea.
794-M	120.00/Ea.
795-D	30.39/Ea.
796-C	15.90/Ea
796-D	37.80/Ea.
796-E	75.00/Ea.
796-M	149.10/Ea.
797-D	37.80/Ea.
798-C	19.50/Ea.
798-D	47.64/Ea.
798-E	93.75/Ea.
798-M	187.50/Ea.
799-C	12.00/Ea.
800-C	16.50/Ea.
802-D	15.84/Ea.
803-D	13.20/Ea.
810-E	23.40/Ea.
811	1.35/Ea.
812	45.00/C
813	10.05/C
814	9.00/C
814T	.54/Ea.
815	.50/Ea.
816	.34/Ea.
817	.43/Ea.
818-C	8.76/Ea.
818-E	43.80/Ea.
818-M	87.60/Ea.
819	.45/Ea.
820-C	7.59/Ea.
820-E	37.95/Ea.
820-M	75.90/Ea.
822-E	26.40/Ea.
824-E	31.35/Ea.
825-E	18.96/Ea.
826-M	45.00/Ea.
826/26-E	24.00/Ea.
826/28-E	25.50/Ea.
826/30-E	26.40/Ea.
827-E	30.00/Ea.
828-E	44.40/Ea.
829-E	54.60/Ea.
830-E	96.00/Ea.
830/10-E	147.00/Ea.
831-C	4.95/Ea.
831-E	21.00/Ea.
831-M	42.00/Ea.
832-C	4.80/Ea.
832-E	23.10/Ea.
832-M	46.20/Ea.
833-C	5.40/Ea.
833-E	26.25/Ea.
833-M	52.50/Ea.
834-C	6.60/Ea.
834-E	31.50/Ea.
834-M	63.00/Ea.
835-C	8.40/Ea.
835-E	39.60/Ea.
835-M	78.00/Ea.
835/10-M	195.00/Ea.
835/12-M	129.00/Ea.
853-C	3.15/Ea.
853-E	15.00/Ea.
853-M	29.10/Ea.
854-C	3.15/Ea.
854-E	15.00/Ea.
854-M	29.10/Ea.
855-50′	1.75/Ea.
855-C	3.30/Ea.
855-E	15.39/Ea.
855-M	30.00/Ea.
856-50′	15.00/Ea.
856-C	29.10/Ea.
856-E	144.60/Ea.
856-M	297.10/Ea.
856/1-50′	16.80/Ea.
856/1-C	32.40/Ea.
856/1-E	159.00/Ea.
856/1-M	315.00/Ea.
856/2-50′	28.20/Ea.
856/2-C	54.30/Ea.
856/2-E	216.00/Ea.
856/2-M	426.00/Ea.
856/3-50′	42.30/Ea.
856/3-C	84.15/Ea.
856/3-D	210.00/Ea.
856/3-E	420.00/Ea.
856/3-M	840.00/Ea.
856/4-50′	51.90/Ea.
856/4-C	103.65/Ea.
856/4-D	258.90/Ea.
856/4-E	517.20/Ea.
856/4-M	1034.10/Ea.
856/6-50′	79.20/Ea.
856/6-C	156.00/Ea.

Number	Sugg'd. Resale Price
856/6-E	$ 774.00/Ea.
856/6-M	1545.00/Ea.
856/7-50′	128.40/Ea.
856/7-C	234.00/Ea.
856/7-E	1140.00/Ea.
856/7-M	2250.00/Ea.
857-50′	14.40/Ea.
857-C	28.20/Ea.
857-E	139.00/Ea.
857-M	277.80/Ea.
858-50′	1.95/Ea.
858-C	3.90/Ea.
858-E	18.30/Ea.
858-M	36.60/Ea.
859-50′	2.10/Ea.
859-C	4.05/Ea.
859-E	19.80/Ea.
859-M	38.70/Ea.
860-50′	2.67/Ea.
860-C	5.34/Ea.
860-E	26.55/Ea.
860-M	53.10/Ea.
863-50′	3.15/Ea.
863-C	6.30/Ea.
863-E	30.00/Ea.
863-M	60.00/Ea.
864-50′	4.95/Ea.
864-C	9.90/Ea.
864-E	48.00/Ea.
864-M	96.00/Ea.
865-50′	6.90/Ea.
865-C	13.80/Ea.
865-E	66.00/Ea.
865-M	132.00/Ea.
865/1-50′	14.40/Ea.
865/1-C	27.90/Ea.
865/1-E	138.00/Ea.
865/1-M	274.80/Ea.
866	.159/Ea.
866-J-25′	.21/Ea.
866-SJ	.49/Ea.
867	.25/Ea.
867-J	.32/Ea.
868-50′	6.00/Ea.
868-C	11.85/Ea.
868-E	57.60/Ea.
868-M	115.20/Ea.
870-C	6.60/Ea.
870-D	15.90/Ea.
870-E	31.50/Ea.
870-M	61.80/Ea.
872-C	8.10/Ea.
872-D	19.50/Ea.
872-E	38.28/Ea.
872-M	76.20/Ea.
875	2.70/Ea.
876	3.30/Ea.
877	4.05/Ea.
878	4.80/Ea.
878/6	6.66/Ea.
878/7	8.70/Ea.
878/8	18.00/Ea.
878/10	21.00/Ea.
878/12	28.50/Ea.
878/15	31.20/Ea.
880	3.30/Ea.
881	3.75/Ea.
881/3	5.49/Ea.
882	4.05/Ea.
882/3	6.06/Ea.
885	3.30/Ea.
886	4.65/Ea.
887	4.35/Ea.
888	4.35/Ea.
889	5.28/Ea.
889/3	6.90/Ea.
889/4	7.77/Ea.
890	5.70/Ea.
891	6.66/Ea.
891/3	8.55/Ea.
891/4	9.75/Ea.
893	13.05/Ea.
893/3	15.00/Ea.
893/4	16.50/Ea.
894	19.80/Ea.
894/3	24.00/Ea.
894/4	28.20/Ea.
895	7.65/Ea.
895-A	2.10/Ea.
895-B	1.20/Ea.
896	15.90/Ea.
896-A	4.50/Ea.
897	16.65/Ea.
897-A	4.65/Ea.
898	17.10/Ea.

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Net

Birnbach PRICE LIST

Number	Sugg'd. Resale Price
898-A	$ 5.22/Ea.
899	16.95/Ea.
899-A	6.75/Ea.
901-E	81.00/Ea.
902-E	120.00/Ea.
903-E	75.00/Ea.
904DS-E	120.00/Ea.
904DSF-E	126.00/Ea.
904F-E	78.00/Ea.
905-M	58.35/Ea.
906-M	58.20/Ea.
907-M	66.00/Ea.
909-M	100.50/Ea.
910-M	58.20/Ea.
912-E	126.00/Ea.
914-M	90.00/Ea.
916-M	120.00/Ea.
919-E	27.00/Ea.
920-M	54.00/Ea.
921-M	26.10/Ea.
921/3-M	40.20/Ea.
922-M	35.70/Ea.
922/3-M	53.10/Ea.
923-C	5.70/Ea.
923-E	27.00/Ea.
923-M	46.50/Ea.
923/3-M	72.00/Ea.
924-C	5.10/Ea.
924-E	24.00/Ea.
924-M	47.40/Ea.
925-C	6.75/Ea.
925-E	31.80/Ea.
925-M	63.00/Ea.
931-C	2.25/Ea.
931-E	6.60/Ea.
931-M	12.60/Ea.
932-E	10.50/Ea.
932-M	21.00/Ea.
933-C	2.37/Ea.
933-E	11.25/Ea.
933-M	22.50/Ea.
934-E	14.10/Ea.
934-M	28.20/Ea.
935-E	9.00/Ea.
935-M	18.00/Ea.
936-E	9.00/Ea.
936-M	18.00/Ea.
938-C	6.90/Ea.
938-E	29.28/Ea.
938-M	58.41/Ea.
939-C	5.55/Ea.
939-E	25.50/Ea.
939-M	52.50/Ea.
940-E	26.70/Ea.
940/1-E	21.00/Ea.
941-E	15.60/Ea.
941/1-E	14.40/Ea.
941/3-E	24.00/Ea.
941/4-E	38.25/Ea.
942-E	19.50/Ea.
942/1-E	17.85/Ea.
943-E	27.00/Ea.
944-E	46.20/Ea.
947-E	31.50/Ea.
947/3-E	28.02/Ea.
948-E	43.50/Ea.
950-E	13.20/Ea.
952-E	19.50/Ea.
963	8.40/C
964	11.70/C
965	.12/Ea.
966	.12/Ea.
966-J	.16/Ea.
967	27.00/C
972-C	9.30/Ea.
972-A-C	10.50/Ea.
972-A-E	45.60/Ea.
972-A-M	90.00/Ea.
972-B-C	9.15/Ea.
972-B-E	45.30/Ea.
972-B-M	90.00/Ea.
972-S-C	7.50/Ea.
972-S-E	33.00/Ea.
972-S-M	66.00/Ea.
973-C	10.80/Ea.
973-S-C	8.40/Ea.
973-S-E	39.60/Ea.
973-S-M	79.20/Ea.
974-C	13.80/Ea.
975-C	18.90/Ea.

Number	Sugg'd. Resale Price
976-C	$ 20.70/Ea.
977-C	24.60/Ea.
978-C	27.60/Ea.
981-M	19.68/Ea.
982-M	25.50/Ea.
983-M	29.70/Ea.
984-M	38.70/Ea.
985-M	25.50/Ea.
986-M	31.80/Ea.
987-M	38.10/Ea.
988-M	44.70/Ea.
989-M	40.50/Ea.
989/3-M	53.70/Ea.
990-M	16.50/Ea.
990/3-M	24.60/Ea.
991-M	21.90/Ea.
991/3-M	32.10/Ea
992-M	29.40/Ea.
992/3-M	45.00/Ea.
993-M	43.50/Ea.
993/3-M	66.00/Ea.
994-M	65.40/Ea.
994/3-M	96.00/Ea.
995-M	93.00/Ea.
995/3-M	144.00/Ea.
1013	1.65/Ea.
1014	3.15/Ea.
1015-C	6.00/Ea.
1017-10	.40/Ea.
1017-100	2.54/Ea.
1017-1000	23.10/M
1025-25′	.81/Ea.
1035	33.00/Ea.
1035-B	36.00/Ea.
1036	15.00/Ea.
1036-B	18.00/Ea.
1037	10.50/Ea.
1037-B	13.50/Ea.
1038	10.50/Ea.
1038-B	13.50/Ea.
1039	10.50/Ea.
1039-B	13.50/Ea.
1041	19.50/Ea.
1041-B	22.50/Ea.
1042	13.89/Ea.
1042-B	16.89/Ea.
1043	13.89/Ea.
1043-B	16.89/Ea.
1044	13.89/Ea.
1044-B	16.89/Ea.
1045	120.00/Ea.
1046	90.00/Ea.
1047	63.00/Ea.
1048	162.00/Ea.
1049	90.00/Ea.
1050	1.50/Ea.
1051-C	2.70/Ea.
1052-M	21.00/Ea.
1053-25′	.45/Ea.
1054-50′	.84/Ea.
1055-C	1.65/Ea.
1056-M	12.60/Ea.
1057-25′	.87/Ea.
1058-50′	1.74/Ea.
1059-C	3.00/Ea.
1060-M	24.00/Ea.
1065-3	.72/Ea.
1065-4	.84/Ea.
1065-6	.87/Ea.
1068-C	15.00/C
1070	9.00/Ea.
1070-B	10.80/Ea.
1071	9.00/Ea.
1071-B	11.10/Ea.
1072	9.60/Ea.
1072/1	11.10/Ea.
1072/1B	11.85/Ea.
1072-B	11.40/Ea.
1073	1.77/Ea.
1074	3.09/Ea.
1075	5.85/Ea.
1075-B	6.00/Ea.
1076	1.65/Ea.
1077	2.85/Ea.
1078	5.40/Ea.
1078-B	6.00/Ea.
1079	1.77/Ea.
1080	2.85/Ea.
1081	5.40/Ea.
1081-B	6.00/Ea.
1082	1.77/Ea.
1083	2.85/Ea.
1084	5.40/Ea.
1084-B	6.00/Ea.
1085	1.77/Ea.
1086	2.85/Ea.
1087	5.40/Ea.

Number	Sugg'd. Resale Price
1087-B	$ 6.00/Ea.
1101	3.00/Ea.
1111-D	22.50/Ea.
1112-E	45.00/Ea.
1113-M	87.00/Ea.
1120	3.30/C
1121	1.80/C
1122	3.60/C
1123	1.50/C
1124	1.50/C
1125	3.30/C
1125T	3.90/C
1126	4.35/C
1126T	4.95/C
1127	5.28/C
1127T	6.00/C
1128	6.30/C
1128T	7.20/C
1129	7.20/C
1129T	8.25/C
1130	3.30/C
1130T	3.90/C
1131	4.35/C
1131T	4.95/C
1132	5.28/C
1132T	6.00/C
1133	6.30/C
1133T	7.20/C
1134	7.20/C
1134T	8.25/C
1135	5.28/C
1136	6.30/C
1137	7.20/C
1138	8.25/C
1139	9.30/C
1140	5.28/C
1141	6.30/C
1142	7.20/C
1143	8.25/C
1144	9.30/C
1145	3.90/C
1146	4.95/C
1147	6.00/C
1148	7.20/C
1149	3.90/C
1150	4.95/C
1151	6.00/C
1152	7.20/C
1153	.90/C
1154	1.08/C
1155	1.20/C
1156	1.35/C
1157	1.50/C
1160	.21/Ea.
1161	.24/Ea.
1162	.27/Ea.
1163	.30/Ea.
1164	.21/Ea.
1165	.24/Ea.
1166	.27/Ea.
1167	.30/Ea.
1168	.18/Ea.
1169	.15/Ea.
1170	.168/Ea.
1171	.168/Ea.
1172	.18/Ea.
1173	.21/Ea.
1174	.24/Ea.
1175	.27/Ea.
1177	.252/Ea.
1179	36.00/C
1180	30.00/C
1182	36.00/C
1184	33.00/C
1190	39.00/C
1192	54.00/C
1194	42.00/C
1220	9.60/Ea.
1220-A	7.50/Ea.
1260	15.00/C
1261	15.00/C
1262	15.00/C
1263	26.40/C
1264	30.00/C
1265	36.00/C
1266	41.40/C
1352	2.40/C
1352-A	2.70/C
1352-B	3.30/C
1352-C	3.15/C
1353	3.30/C
1353-A	3.60/C
1354	3.90/C
1354-A	4.14/C
1354-B	4.50/C
1355	5.25/C
1355-A	5.25/C

Number	Sugg'd. Resale Price
1355-B	$ 5.70/C
1356	6.00/C
1356-A	6.16/C
1356-B	6.60/C
1357	6.60/C
1358	6.60/C
1359	7.80/C
1360	8.10/C
1372	7.80/C
1373	10.80/C
1374	13.20/C
1375	18.00/C
1376	21.00/C
1377	22.80/C
1378	25.20/C
1379	26.40/C
1380	28.80/C
1382	1.80/C
1382-A	1.95/C
1382-B	2.34/C
1382-C	3.33/C
1383	2.40/C
1383-A	2.40/C
1384	3.30/C
1384-A	3.54/C
1384-B	3.66/C
1385	4.20/C
1385-A	4.20/C
1385-B	4.35/C
1386	4.95/C
1386-A	5.40/C
1386-B	6.45/C
1387	6.45/C
1388	5.85/C
1389	6.45/C
1390	6.57/C
1402-C	4.74/Ea.
1403-M	43.50/Ea.
1406-C	2.50/Ea.
1407-M	24.00/Ea.
1410-C	1.74/Ea.
1411-M	15.75/Ea.
1414-C	1.20/Ea.
1415-M	10.65/Ea.
1418-C	.93/Ea.
1419-M	7.95/Ea.
1422-C	.66/Ea.
1423-M	4.98/Ea.
1424-M	3.60/Ea.
1426-M	3.48/Ea.
1428-M	3.36/Ea.
1430-M	3.15/Ea.
1430/32-M	3.23/Ea.
1430/34-M	3.15/Ea.
1430/36-M	3.07/Ea.
1430/38-M	3.00/Ea.
1433-C	7.20/Ea.
1433-M	67.50/Ea.
1433/4-C	18.00/Ea.
1433/4-M	174.00/Ea.
1433/6-C	11.40/Ea.
1433/6-M	111.00/Ea.
1434-M	3.75/Ea.
1490-M	18.90/Ea.
1492-M	27.60/Ea.
1497-M	47.40/Ea.
1516-C	17.10/Ea.
1560-C	8.91/Ea.
1560-M	89.10/Ea.
1562-C	4.59/Ea.
1563-M	42.00/Ea.
1566-C	2.91/Ea.
1567-M	27.60/Ea.
1570-C	1.98/Ea.
1571-M	18.00/Ea.
1574-C	1.29/Ea.
1575-M	11.58/Ea.
1600-C	8.85/Ea.
1600-M	88.20/Ea.
1612-M	39.00/Ea.
1614-M	24.00/Ea.
1616-M	15.00/Ea.
1618-M	9.45/Ea.
1620-M	6.24/Ea.
1622-M	4.95/Ea.
1627-M	15.84/Ea.
1628-M	12.90/Ea.
1633-M	16.20/Ea.
1634-M	13.50/Ea.
1638-M	20.10/Ea.
1639-M	16.35/Ea.
1640-75′	1.44/Ea.
1641-75′	1.44/Ea.
1643-75′	1.19/Ea.
1644-75′	1.33/Ea.
1646-75′	.97/Ea.
1647-M	10.29/Ea.

Number	Sugg'd. Resale Price
1648-M	$ 9.15/Ea.
1670-C	1.80/Ea.
1671-C	2.16/Ea.
1673-C	1.41/Ea.
1674-C	1.65/Ea.
1680-C	1.14/Ea.
1682-C	1.62/Ea.
1683-75′	1.26/Ea.
1696-C	1.44/Ea.
1697-75′	1.19/Ea.
1701-E	16.95/Ea.
1702-E	19.80/Ea.
1703-E	25.20/Ea.
1716	25.20/Ea.
1741-M	7.50/Ea.
1772-D	21.45/Ea.
1773-D	25.50/Ea.
1774-D	29.70/Ea.
1775-D	36.00/Ea.
1776-D	43.80/Ea.
1777-D	48.00/Ea.
1781-E	58.80/Ea.
1782-E	82.80/Ea.
1783-E	117.30/Ea.
1784-E	134.16/Ea.
1786-E	233.70/Ea.
1800-E	19.50/Ea.
1801-E	22.50/Ea.
1802-E	36.00/Ea.
1812-E	29.40/Ea.
1813-E	32.40/Ea.
1814-E	41.97/Ea.
1822-C	4.26/Ea.
1822-B-E	18.90/Ea.
1822-C-M	35.28/Ea.
1824-C	3.45/Ea.
1824-E	16.50/Ea.
1824-M	32.40/Ea.
1825-C	3.60/Ea.
1825-E	17.40/Ea.
1825-M	33.90/Ea.
1835-E	19.20/Ea.
1836-E	14.10/Ea.
1839-E	27.00/Ea.
1839-M	54.00/Ea.
1840-C	4.20/Ea.
1840-E	20.04/Ea.
1840-M	40.05/Ea.
1841-C	5.55/Ea.
1841-E	26.40/Ea.
1841-M	52.80/Ea.
1842-C	7.80/Ea.
1842-E	37.80/Ea.
1842-M	75.60/Ea.
1843-C	10.50/Ea.
1843-E	49.50/Ea.
1843-M	99.00/Ea.
1844-C	10.20/Ea.
1844-E	50.40/Ea.
1844-M	100.20/Ea.
1845-E	66.00/Ea.
1845-M	129.00/Ea.
1846-E	90.00/Ea.
1846-M	180.00/Ea.
1846/8-E	114.00/Ea.
1846/10-E	138.00/Ea.
1851-C	6.30/Ea.
1870-D	15.90/Ea.
1872-D	19.50/Ea.
1874-M	41.40/Ea.
1874-A-E	21.66/Ea.
1875-M	$51.66/Ea.
1875-A-E	27.00/Ea.
1878-M	66.00/Ea.
1878-A-E	35.01/Ea.
1916-C	5.55/Ea.
1916-E	25.35/Ea.
1916-M	49.50/Ea.
1918-C	3.60/Ea.
1918-E	16.65/Ea.
1918-M	32.10/Ea.
1920-C	3.15/Ea.
1920-E	14.85/Ea.
1920-M	28.50/Ea.
1922-C	2.55/Ea.
1922-E	11.85/Ea.
1922-M	22.50/Ea.
1963-C	3.60/C
1964-C	6.00/C
1965-C	6.00/C
1967-C	12.00/C
1968-C	6.00/C
1972-C	12.00/Ea.

Number	Sugg'd. Resale Price
1972-D	$ 29.40/Ea.
1972-E	58.35/Ea.
1972-M	116.70/Ea.
1972-A-C	13.20/Ea.
1972-A-E	64.20/Ea.
1972-A-M	128.10/Ea.
1973-C	15.00/Ea.
1974-C	18.00/Ea.
1975-C	21.00/Ea.
1976-C	24.00/Ea.
2000-M	9.00/Ea.
2010	9.18/Ea.
2012	7.62/Ea.
2013	6.54/Ea.
2014	5.94/Ea.
2015	4.86/Ea.
2016	3.96/Ea.
2018	3.75/Ea.
2020	3.60/Ea.
2022	3.45/Ea.
2025-25′	.81/Ea.
2050-50′	1.50/Ea.
2051-C	2.70/Ea.
2052-M	16.80/Ea.
2100-C	.99/Ea.
2125	.27/Ea.
2310-E	10.80/Ea.
2320-E	7.20/Ea.
2321-E	7.56/Ea.
2500-E	4.50/Ea.
2611	27.00/C
2617	36.00/C
2650	.34/Ea.
2810-C	9.41/Ea.
2810-E	46.95/Ea.
2812-C	6.30/Ea.
2812-E	31.20/Ea.
2814-C	4.38/Ea.
2814-E	21.60/Ea.
2816-C	3.63/Ea.
2816-E	18.00/Ea.
2818-C	3.00/Ea.
2818-E	14.70/Ea.
3000 to 3024	.93/Ea.
3025	.81/Ea.
3050-50′	1.50/Ea.
3051-C	2.70/Ea.
3052-M	16.80/Ea.
3460-C	3.14/Ea.
3461-C	2.31/Ea.
3462-E	10.89/Ea.
3600-E	14.85/Ea.
3618	1.41/Ea.
3619	1.65/Ea.
4025	.51/Ea.
4050	.96/Ea.
4051	1.68/Ea.
4052	15.00/Ea.
4125	.30/Ea.
4125-J	.35/Ea.
4175	.69/Ea.
4175-J	.99/Ea.
4176	.44/Ea.
4176-J	.58/Ea.
4200-C	.204/Ea.
4200-M	180.00/M
4201	.58/Ea.
4201-M	438.00/M
4202	.96/Ea.
4202-M	858.00/M
4203	3.24/Ea.
4204	.174/Ea.
4204-M	158.40/M
4205	.195/Ea.
4205-M	178.20/M
4206	.174/Ea.
4206-M	158.40/M
4207	.27/Ea.
4207-M	243.00/M
4208	.78/Ea.
4208-M	690.00/M
4209	2.76/Ea.
4215	.072/Ea.
4215-M	66.00/M
4233	.69/Ea.
4234	.75/Ea.
4235	1.77/Ea.
4236	1.95/Ea.
4237	2.07/Ea.
4238	2.70/Ea.
4275	.42/Ea.
4275-J	.70/Ea.
4276	.90/Ea.
4276-J	1.05/Ea.
4450	.83/Ea.
4450-J	1.08/Ea.

Net

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Birnbach PRICE LIST

Number	Sugg'd. Price
4451	$ .70/Ea.
4451-J	.93/Ea.
4452	1.29/Ea.
4452-J	1.50/Ea.
4500-M	12.60/Ea.
4510-E	24.00/Ea.
4515-E	27.54/Ea.
4516-E	37.50/Ea.
4520-E	129.00/Ea.
4701-C	2.40/Ea.
4701-E	10.50/Ea.
4701-M	19.50/Ea.
4702-C	3.60/Ea.
4702-E	15.00/Ea.
4702-M	30.00/Ea.
4703-C	4.80/Ea.
4703-E	21.00/Ea.
4703-M	42.00/Ea.
4706-C	8.40/Ea.
4706-E	42.00/Ea.
4706-M	82.50/Ea.
4709-C	13.50/Ea.
4709-E	60.00/Ea.
4709-M	120.00/Ea.
4711-C	17.40/Ea.
4711-E	82.80/Ea.
4711-M	159.00/Ea.
4711/13	83.40/Ea.
4715-C	18.00/Ea.
4715-E	87.00/Ea.
4715-M	174.00/Ea.
4716-C	21.75/Ea.
4716-E	102.00/Ea.
4716-M	204.00/Ea.
4727-C	31.05/Ea.
4727-E	155.25/Ea.
4727-M	309.00/Ea.
4727/31	219.00/Ea.
4727/41	291.00/Ea.
4729-E	414.00/Ea.
4729/76	792.00/Ea.
4729/101	1005.00/Ea.
4731-C	3.30/Ea.
4731-E	11.76/Ea.
4731-M	23.40/Ea.
4732-C	4.86/Ea.
4732-E	22.50/Ea.
4732-M	45.00/Ea.
4733-C	6.36/Ea.
4733-E	30.00/Ea.
4733-M	60.00/Ea.
4734-C	8.10/Ea.
4734-E	37.50/Ea.
4734-M	75.00/Ea.
4735-C	10.56/Ea.
4735-E	51.00/Ea.
4735-M	102.00/Ea.
4736-C	13.20/Ea.
4736-E	60.00/Ea.
4736-M	120.00/Ea.
4739-C	15.60/Ea.
4739-E	75.60/Ea.
4739-M	151.50/Ea.
4745-C	21.60/Ea.
4745-E	105.00/Ea.
4745-M	210.00/Ea.
4747-C	43.50/Ea.
4747-E	210.00/Ea.
4747-M	420.00/Ea.
4752-C	3.75/Ea.
4752-E	16.50/Ea.
4752-M	33.00/Ea.
4753-C	4.80/Ea.
4753-E	23.10/Ea.
4753-M	46.20/Ea.
4754-C	6.45/Ea.
4754-E	30.60/Ea.
4754-M	60.00/Ea.
4755-C	8.10/Ea.
4755-E	39.00/Ea.
4755-M	78.00/Ea.
4756-C	9.60/Ea.
4756-E	45.60/Ea.
4756-M	91.20/Ea.
4800/3-E	45.00/Ea.
4800/6-E	81.60/Ea.
4800/9-E	167.00/Ea.
4800/11-E	151.50/Ea.
4800/15-E	202.50/Ea.
4800/19-E	276.00/Ea.
4800/27-E	396.00/Ea.
5000	.99/Ea.
5002	1.06/Ea.
5003	1.44/Ea.
5004	.45/Ea.
5005	.51/Ea.
5006	.90/Ea.

Number	Sugg'd. Price
5007	$ .54/Ea.
5008	.75/Ea.
5009	.90/Ea.
5010	2.55/Ea.
5011	2.55/Ea.
5012	3.60/Ea.
5013	3.60/Ea.
5040	.14/Ea.
5041	.14/Ea.
5042	.14/Ea.
5043	.14/Ea.
5044	.14/Ea.
5045	.14/Ea.
5046	.14/Ea.
5047	.14/Ea.
5050	.21/Ea.
5051	.33/Ea.
5052	.36/Ea.
5053	.30/Ea.
5070	.30/Ea.
5071	.30/Ea.
5075	.18/Ea.
5076	.18/Ea.
5080	.30/Ea.
5081	.30/Ea.
5085	.30/Ea.
5086	.30/Ea.
5090	.33/Ea.
5091	.33/Ea.
5095	.22/Ea.
5096	.21/Ea.
5105	.27/Ea.
5106	.36/Ea.
5110	.36/Ea.
5111	.36/Ea.
5130	.12/Ea.
5131	.12/Ea.
5132	.15/Ea.
5133	.15/Ea.
5134	.15/Ea.
5140	.15/Ea.
5141	.24/Ea.
5142	.15/Ea.
5143	.36/Ea.
5160	.14/Ea.
5161	.15/Ea.
5165	.18/Ea.
5166	.18/Ea.
5170	.30/Ea.
5171	.18/Ea.
5180	.33/Ea.
5181	.33/Ea.
5185	.18/Ea.
5190	.10/Ea.
5191	.10/Ea.
5195	.33/Ea.
5200	.33/Ea.
5201	.33/Ea.
5300	.69/Ea.
5301	.81/Ea.
5302	.87/Ea.
5303	.93/Ea.
5304	1.26/Ea.
5305	1.38/Ea.
5306	1.44/Ea.
5307	1.56/Ea.
5308	.84/Ea.
5309	.96/Ea.
5310	1.11/Ea.
5311	1.65/Ea.
5312	1.89/Ea.
5313	2.01/Ea.
5314	.69/Ea.
5315	.81/Ea.
5316	1.05/Ea.
5317	1.23/Ea.
5318	2.19/Ea.
5319	2.70/Ea.
5320	.81/Ea.
5321	.96/Ea.
5322	1.26/Ea.
5323	1.56/Ea.
5324	2.55/Ea.
5325	3.24/Ea.
5326	.96/Ea.
5327	1.08/Ea.
5328	1.08/Ea.
5329	.81/Ea.
5330	1.26/Ea.
5331	2.70/Ea.
5332	.96/Ea.
5333	1.56/Ea.
5334	3.24/Ea.
5335	.84/Ea.
5336	.96/Ea.
5337	.48/Ea.
5338	.54/Ea.

Number	Sugg'd. Price
5339	$ .36/Ea.
5340	.39/Ea.
5341	1.32/Ea.
5342	1.32/Ea.
5343	2.31/Ea.
5344	2.31/Ea.
5345	3.24/Ea.
5346	4.29/Ea.
5347	5.16/Ea.
5360	1.68/Ea.
5361	1.86/Ea.
5362	1.86/Ea.
5363	2.04/Ea.
5364	2.04/Ea.
5365	2.19/Ea.
5366	2.19/Ea.
5367	2.19/Ea.
5370	1.26/Ea.
5371	1.38/Ea.
5372	1.38/Ea.
5373	1.47/Ea.
5374	1.47/Ea.
5375	1.62/Ea.
5376	1.62/Ea.
5377	1.62/Ea.
5380	2.25/Ea.
5381	2.70/Ea.
5382	2.70/Ea.
5383	2.70/Ea.
5384	2.70/Ea.
5385	2.94/Ea.
5386	2.94/Ea.
5387	2.94/Ea.
5390	1.50/Ea.
5391	1.68/Ea.
5391-A	1.68/Ea.
5392	1.68/Ea.
5393	1.68/Ea.
5394	1.95/Ea.
5395	1.95/Ea.
5396	1.95/Ea.
5400	3.87/Ea.
5401	4.62/Ea.
5402	4.62/Ea.
5410	4.98/Ea.
5411	4.44/Ea.
5412	6.69/Ea.
5413	6.24/Ea.
5414	5.67/Ea.
5415	6.24/Ea.
5416	5.67/Ea.
5417	7.47/Ea.
5418	7.47/Ea.
5420	4.95/Ea.
5421	4.56/Ea.
5422	6.18/Ea.
5423	5.61/Ea.
5424	6.18/Ea.
5425	5.61/Ea.
5426	6.69/Ea.
5427	6.33/Ea.
5428	6.69/Ea.
5429	6.33/Ea.
5430	7.44/Ea.
5431	6.90/Ea.
5432	7.44/Ea.
5433	6.90/Ea.
5434	7.44/Ea.
5435	6.90/Ea.
5460	9.45/Ea.
5461	9.45/Ea.
5462	9.45/Ea.
5463	9.45/Ea.
5464	9.45/Ea.
5465	9.45/Ea.
5466	9.45/Ea.
5470	12.90/Ea.
5471	12.90/Ea.
5472	12.90/Ea.
5473	12.90/Ea.
5474	12.90/Ea.
5475	12.90/Ea.
5476	12.90/Ea.
5480 K1	6.06/Ea.
5480 K2	6.84/Ea.
5480 K3	6.84/Ea.
5480 K4	6.06/Ea.
5480 K5	6.06/Ea.
5480 K6	6.84/Ea.
5480 K7	6.06/Ea.
5481 K1	7.56/Ea.
5481 K2	8.82/Ea.
5481 K3	8.82/Ea.
5481 K4	7.56/Ea.
5481 K5	7.56/Ea.
5481 K6	8.82/Ea.

Number	Sugg'd. Price
5481 K7	$ 7.56/Ea.
6100	.39/Ea.
6102	.42/Ea.
6103	.50/Ea.
6104	.53/Ea.
6105	1.86/Ea.
6110	1.32/Ea.
6111	1.50/Ea.
6112	1.89/Ea.
6113	2.07/Ea.
6114	.21/Ea.
6115	.21/Ea.
6180	.75/Ea.
6184	1.35/Ea.
6184-A	1.35/Ea.
6185	1.56/Ea.
6185-A	1.56/Ea.
6186	1.86/Ea.
6190	1.11/Ea.
6191	1.11/Ea.
6192	1.29/Ea.
6193	1.68/Ea.
6194	1.68/Ea.
6195	1.86/Ea.
6200	.69/Ea.
6201	.84/Ea.
6202	.87/Ea.
6202-A	.93/Ea.
6203	1.08/Ea.
6204	1.26/Ea.
6205	1.44/Ea.
6206	1.44/Ea.
6207	1.59/Ea.
6208	.05/Ea.
6208-A	.05/Ea.
6210	.87/Ea.
6211	1.17/Ea.
6212	1.05/Ea.
6213	1.38/Ea.
6214	1.44/Ea.
6215	1.74/Ea.
6216	1.62/Ea.
6217	1.98/Ea.
6220	.69/Ea.
6221	.87/Ea.
6221-A	.93/Ea.
6222	1.26/Ea.
6223	1.44/Ea.
6224	.96/Ea.
6225	1.32/Ea.
6225A	1.32/Ea.
6225B	1.32/Ea.
6225C	1.32/Ea.
6226	1.98/Ea.
6227	4.89/Ea.
6228	7.53/Ea.
6229	10.05/Ea.
6230	.75/Ea.
6231	1.86/Ea.
6231-A	1.86/Ea.
6231-B	2.07/Ea.
6232	.24/Ea.
6233	.77/Ea.
6234	.83/Ea.
6235	1.07/Ea.
6236	1.43/Ea.
6238	1.98/Ea.
6238-B	2.10/Ea.
6238-C	2.10/Ea.
6238-D	1.98/Ea.
6239	6.00/C
6240	1.50/Ea.
6241	1.32/Ea.
6242	2.07/Ea.
6244	.78/Ea.
6244-A	.78/Ea.
6244-B	.99/Ea.
6244-C	.99/Ea.
6244-D	1.02/Ea.
6244-E	1.02/Ea.
6245	.15/Ea.
6245S	24.00/C
6246	.15/Ea.
6246S	28.80/C
6247	.22/Ea.
6248	.22/Ea.
6249	1.47/Ea.
6250	1.23/Ea.
6251	1.40/Ea.
6251-C	1.62/Ea.
6251-V	1.44/Ea.
6252	1.77/Ea.
6252-M	2.13/Ea.
6253	1.92/Ea.
6261	1.68/Ea.
6262	1.89/Ea.
6263	2.07/Ea.

Number	Sugg'd. Price
6270	$ 1.26/Ea.
6271	1.47/Ea.
6272	1.50/Ea.
6273	1.68/Ea.
6274	1.68/Ea.
6280	.93/Ea.
6280-A	.93/Ea.
6281	1.11/Ea.
6281-A	1.50/Ea.
6282	1.35/Ea.
6282-A	1.89/Ea.
6283	1.56/Ea.
6283-A	2.07/Ea.
6284	1.14/Ea.
6300	3.75/M
6301	4.05/M
6302	4.20/M
6303	4.86/M
6304	4.20/M
6305	4.50/M
6306	5.10/M
6307	4.44/M
6308	4.44/M
6309	5.04/M
6310	19.20/M
6311	39.00/M
6312	6.30/M
6313	6.45/M
6314	6.90/M
6315	8.70/M
6316	15.60/M
6317	17.40/M
6318	19.20/M
6318-A	22.95/M
6319	23.10/M
6319-A	43.80/M
6320	31.20/M
6320-A	57.00/M
6320-B	72.00/M
6320-C	81.60/M
6321	3.75/M
6322	4.05/M
6323	4.35/M
6324	4.80/M
6325	5.19/M
6326	5.58/M
6327	6.60/M
6328	6.90/M
6329	9.90/M
6330	5.40/M
6331	5.40/M
6332	5.16/M
6333	5.28/M
6334	5.82/M
6335	6.90/M
6336	15.00/M
6337	16.50/M
6337-A	15.00/M
6338	18.00/M
6339	30.00/M
6350	6.00/M
6350-A	6.00/M
6351	6.00/M
6351-A	6.00/M
6352	6.00/M
6352-A	6.00/M
6353	6.60/M
6353-A	6.60/M
6354	8.10/M
6354-A	8.10/M
6355	4.95/M
6356	4.62/M
6357	4.62/M
6358	3.30/M
6359	3.30/M
6360	3.45/M
6361	3.60/M
6262	4.65/M
6363	7.80/M
6400	6.00/M
6401	7.20/M
6402	7.95/M
6403	9.60/M
6404	11.70/M
6405	8.40/M
6406	8.40/M
6407	9.00/M
6408	9.90/M
6409	11.40/M
6410	15.84/M
6410-A	17.70/M
6411	18.00/M
6412	20.10/M
6413	11.70/M
6414	12.90/M
6415	15.00/M
6416	17.10/M

Number	Sugg'd. Price
6417	$ 21.00/M
6418	21.60/M
6420	4.05/M
6421	4.38/M
6422	4.65/M
6423	4.95/M
6424	5.25/M
6425	6.00/M
6426	5.01/M
6427	4.96/M
6428	5.76/M
6429	6.00/M
6430	6.69/M
6431	7.59/M
6432	9.90/M
6433	5.76/M
6434	6.00/M
6435	6.72/M
6436	7.50/M
6437	7.95/M
6438	9.00/M
6439	11.40/M
6440	6.18/M
6441	7.20/M
6442	6.18/M
6443	9.90/M
6444	11.10/M
6445	9.54/M
6446	12.60/M
6447	16.50/M
6448	5.25/M
6449	5.55/M
6450	5.70/M
6460	2.22/Gr.
6461	2.38/Gr.
6462	2.94/Gr.
6463	3.30/Gr.
6464	4.59/Gr.
6465	5.13/Gr.
6466	5.64/Gr.
6470	1.38/Gr.
6471	1.50/Gr.
6472	1.56/Gr.
6473	1.32/Gr.
6474	1.80/Gr.
7475	2.22/Gr.
6476	2.40/Gr.
6477	1.98/Gr.
6478	1.98/Gr.
6479	2.88/M
6480	3.30/M
6480-A	2.88/M
6481	3.60/M
6482	5.46/M
6483	9.00/M
6484	2.97/M
6485	2.79/M
6486	3.12/M
6487	3.12/M
6488	4.50/M
6490	3.30/M
6491	3.30/M
6492	3.60/M
6493	4.65/M
6494	7.80/M
6494/1	7.80/M
6494/2	7.80/M
6500	1.20/Gr.
6501	1.50/Gr.
6502	1.65/Gr.
6503	1.83/Gr.
6504	2.01/Gr.
6505	2.16/Gr.
6506	2.34/Gr.
6507	2.55/Gr.
6510	1.65/Gr.
6511	1.68/Gr.
6512	1.92/Gr.
6513	1.92/Gr.
6514	1.92/Gr.
6515	2.01/Gr.
6516	2.10/Gr.
6517	2.16/Gr.
6518	1.92/Gr.
6519	2.34/Gr.
6525;6526	.93/Gr.
6527	.93/Gr.
6528	.93/Gr.
6529;6530	.93/Gr.
6531	.93/Gr.
6532/6533	.93/Gr.
6534	2.01/Gr.
6540	1.83/Gr.
6541	1.59/Gr.
6542	2.25/Gr.
6543	2.34/Gr.

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Net

Birnbach PRICE LIST

Number	Resale Price	Number	Resale Price	Number	Resale Price	Number	Resale Price	Number	Resale Price	Number	Resale Price
6549	$ 21.00/M	6603	$ 5.85/M	7024-1-C	$ 1.02/Ea.	7174-M	$ *20.10/Ea.	7330-N-M	$ 11.70/Ea.	7572-M	$ 28.65/Ea.
6549-A	21.00/M	6604	4.80/M	7024-1S-C	1.20/Ea.	7174-1-C	*2.19/Ea.	7351-M	12.90/Ea.	7573-E	22.05/Ea.
6549-B	22.20/M	6605	5.85/M	7024-S-M	10.20/Ea.	7174-N-M	27.00/Ea.	7351-1-C	1.83/Ea.	7573-M	42.60/Ea.
6549-C	24.00/M	6606	6.15/M	7028-50′	1.80/Ea.	7175-M	*31.65/Ea.	7351-1-NB-C	2.09/Ea.	7574-E	27.90/Ea.
6549-D	27.00/M	6607	7.35/M	7029-C	3.00/Ea.	7175-1-C	*3.33/Ea.	7351-NB-M	18.32/Ea.	7574-M	54.30/Ea.
6550	3.78/C	6608	5.85/M	7030-M	27.00/Ea.	7175-N-M	40.74/Ea.	7353-M	14.66/Ea.	7575-E	43.50/Ea.
6550	33.90/M	6609	6.15/M	7032	.57/Ea.	7180-M	*12.00/Ea.	7353-1-C	2.00/Ea.	7575-M	78.00/Ea.
6551	3.78/C	6610	7.20/M	7033	3.57/Ea.	7180-1-C	1.44/Ea.	7353-1-NB-C	2.16/Ea.	7580-M	81.60/Ea.
6551	33.90/M	6611	7.20/M	7034	9.00/C	7181-M	*14.70/Ea.	7353-NB-M	19.98/Ea.	7581-E	18.90/Ea.
6551-A	3.78/C	6611-A	8.70/M	7036	6.00/C	7181-1-C	1.62/Ea.	7355-M	19.65/Ea.	7581-M	36.00/Ea.
6551-A	33.90/M	6612	6.60/M	7037	6.00/C	7182-M	*17.70/Ea.	7355-1-C	2.33/Ea.	7582-E	27.75/Ea.
6552	3.45/C	6613	6.60/M	7038	5.40/C	7182-1-C	1.92/Ea.	7355-1-NB-C	2.67/Ea.	7582-M	58.80/Ea.
6552	31.20/M	6614	7.20/M	7043-1	4.50/C	7183-M	*21.00/Ea.	7355-NB-M	25.47/Ea.	7583-E	34.95/Ea.
6552-A	3.45/C	6640	3.60/C	7043-1-½	4.65/C	7183-1-C	2.40/Ea.	7357-M	23.15/Ea.	7583-M	66.00/Ea.
6552-A	31.20/M	6640	32.40/M	7043-2	4.80/C	7184-M	*25.50/Ea.	7357-1-C	2.67/Ea.	7584-E	41.10/Ea.
6552-B	3.45/C	6640-A	3.60/C	7043-3	6.00/C	7184-1-C	2.70/Ea.	7357-1-NB-C	3.17/Ea.	7584-M	78.00/Ea.
6552-B	31.20/M	6640-A	32.40/M	7049	.51/Ea.	7185-M	*38.40/Ea.	7357-NB-M	27.81/Ea.	7585-E	56.40/Ea.
6553	3.36/C	6640-B	3.60/C	7049-A	.51/Ea.	7185-1-C	4.14/Ea.	7359-M	41.63/Ea.	7585-M	107.40/Ea.
6553	30.60/M	6640-B	32.40/M	7049-B	.51/Ea.	7186-M	*58.65/Ea.	7359-1-C	4.50/Ea.	7610-M	330.00/Ea.
6554	3.36/C	6641	3.75/C	7050	.54/Ea.	7187-M	*75.00/Ea.	7359-1-NB-C	4.17/Ea.	7610-1-C	36.00/Ea.
6554	30.60/M	6641	33.30/M	7052-M	47.10/Ea.	7188-M	*150.00/Ea.	7359-NB-M	39.96/Ea.	7612-M	192.00/Ea.
6555	3.36/C	6641-A	3.75/C	7052-1-C	4.74/Ea.	7189-M	*204.00/Ea.	7361-M	64.44/Ea.	7612-1-C	21.00/Ea.
6555	30.60/M	6641-A	33.30/M	7053-M	49.50/Ea.	7190-M	10.14/Ea.	7361-1-C	6.99/Ea.	7614-M	150.00/Ea.
6556	3.36/C	6641-B	3.75/C	7053-1-C	5.10/Ea.	7190-1-C	1.32/Ea.	7361-1-NB-C	5.84/Ea.	7614-1-C	16.50/Ea.
6556	30.60/M	6641-B	33.30/M	7054-M	56.70/Ea.	7190-N-M	12.30/Ea.	7361-NB-M	54.12/Ea.	7616-M	117.00/Ea.
6557	3.45/C	6643	3.30/C	7054-1-C	5.85/Ea.	7191-M	9.30/Ea.	7362-1-NB-C	9.99/Ea.	7616-1-C	13.50/Ea.
6557	31.20/M	6643	30.00/M	7055-M	69.00/Ea.	7191-1-C	1.23/Ea.	7362-NB-M	91.58/Ea.	7618-M	99.00/Ea.
6558	3.45/C	6643-A	3.30/C	7055-1-C	7.20/Ea.	7191-N-M	11.64/Ea.	7363-M	166.50/Ea.	7618-1-C	10.50/Ea.
6558	31.20/M	6643-A	30.00/M	7056-M	91.80/Ea.	7192-M	*8.88/Ea.	7363-1-C	18.32/Ea.	7620-M	85.50/Ea.
6559	3.45/C	6643-B	3.30/C	7056-1-C	9.30/Ea.	7192-1-C	1.14/Ea.	7364-M	266.40/Ea.	7620-1-C	9.45/Ea.
6559	31.20/M	6643-B	30.00/M	7057-M	142.80/Ea.	7192-N-M	10.98/Ea.	7364-1-C	28.31/Ea.	7622-M	75.00/Ea.
6560	3.45/C	6644	3.36/C	7057-1-C	14.70/Ea.	7193-M	*8.97/Ea.	7365-M	349.65/Ea.	7622-1-C	8.10/Ea.
6560	31.20/M	6644	30.60/M	7058-M	202.50/Ea.	7193-1-C	1.26/Ea.	7365/00-C	116.55/Ea.	7652-E	11.40/Ea.
6561	19.20/C	6644-A	3.36/C	7058-1-C	20.85/Ea.	7193-N-M	11.52/Ea.	7365/00-M	1098.90/Ea.	7652-M	22.20/Ea.
6561	177.60/M	6644-A	30.60/M	7059-M	376.50/Ea.	7194-M	*7.74/Ea.	7365/0-C	99.96/Ea.	7653-E	19.80/Ea.
6562	3.45/C	6644-B	3.36/C	7059-1-C	37.77/Ea.	7194-1-C	1.17/Ea.	7365/0-M	949.05/Ea.	7653-M	39.00/Ea.
6562	31.20/M	6644-B	30.60/M	7061	.93/Ea.	7194-N-M	10.38/Ea.	7365/1-C	36.63/Ea.	7654-E	25.80/Ea.
6563	3.45/C	6646	3.36/C	7062	1.80/Ea.	7195-M	*8.70/Ea.	7365/2-C	54.95/Ea.	7654-M	51.00/Ea.
6563	31.20/M	6646	30.60/M	7063	8.40/Ea.	7195-1-C	1.26/Ea.	7365/2-M	516.15/Ea.	7668-E	10.65/Ea.
6564	3.45/C	6646-A	3.36/C	7064	15.00/Ea.	7195-N-M	11.55/Ea.	7371-M	45.00/Ea.	7668-M	21.00/Ea.
6564	31.20/M	6646-A	30.60/M	7065-M	99.00/Ea.	7196-M	*10.32/Ea.	7371-1-C	4.98/Ea.	7669-E	15.00/Ea.
6565	3.45/C	6646-B	3.36/C	7065-1-C	10.50/Ea.	7196-1-C	1.41/Ea.	7372-M	51.00/Ea.	7669-M	30.00/Ea.
6565	31.20/M	6646-B	30.60/M	7065-J-M	102.00/Ea.	7196-N-M	12.36/Ea.	7372-1-C	6.00/Ea.	7670-E	18.00/Ea.
6566	3.45/C	6648	3.57/C	7065-VJ-M	102.00/Ea.	7197-M	*13.32/Ea.	7373-M	55.50/Ea.	7670-M	36.00/Ea.
6566	31.20/M	6648	31.80/M	7066-M	69.00/Ea.	7197-1-C	1.50/Ea.	7373-1-C	5.70/Ea.	7716-D	375.00/Ea.
6567	3.45/C	6648-A	3.57/C	7066-1-C	6.93/Ea.	7197-N-M	16.17/Ea.	7374-M	74.85/Ea.	7716-M	1350.00/Ea.
6567	31.20/M	6648-A	31.80/M	7066-J-M	79.50/Ea.	7198-M	*18.57/Ea.	7374-1-C	8.70/Ea.	7718-D	330.00/Ea.
6568	3.45/C	6648-B	3.57/C	7066-VJ-M	79.50/Ea.	7198-1-C	1.95/Ea.	7375-M	91.56/Ea.	7718-M	1230.00/Ea.
6568	31.20/M	6648-B	31.80/M	7067-M	51.00/Ea.	7198-N-M	20.55/Ea.	7376-M	106.50/Ea.	7720-D	306.00/Ea.
6569	3.45/C	6650	3.36/C	7067-1-C	5.34/Ea.	7201-M	15.90/Ea.	7389A	151.50/Ea.	7720-M	1095.00/Ea.
6569	31.20/M	6650	30.60/M	7067-J-M	63.00/Ea.	7201-1-C	1.86/Ea.	7390	915.00/Ea.	7722-D	285.00/Ea.
6570	18.60/C	6650-A	3.36/C	7067-VJ-M	63.00/Ea.	7202-M	14.25/Ea.	7390-D	87.00/Ea.	7722-M	1035.00/Ea.
6570	177.00/M	6650-A	30.60/M	7068-M	42.00/Ea.	7202-1-C	1.65/Ea.	7398-1M	21.00/Ea.	7724-D	261.00/Ea.
6571	18.60/C	6650-B	3.36/C	7068-1-C	4.14/Ea.	7203-M	*18.15/Ea.	7398-2M	105.00/Ea.	7724-M	975.00/Ea.
6571	177.00/M	6650-B	30.60/M	7068-J-M	52.50/Ea.	7203-1-C	2.19/Ea.	7398-3M	35.40/Ea.	8000-M	84.00/Ea.
6572	3.60/C	7000-M	6.36/Ea.	7068-VJ-M	52.50/Ea.	7204-M	*16.05/Ea.	7400	375.00/Ea.	8000-E	42.00/Ea.
6572	33.60/M	7000-1-C	.80/Ea.	7070-M	35.10/Ea.	7204-1-C	1.89/Ea.	7400-D	27.00/Ea.	8000-C	9.60/Ea.
6572-A	4.05/C	7001-M	7.98/Ea.	7070-1-C	3.99/Ea.	7205-M	*23.55/Ea.	7402-M	25.05/Ea.	8000-50′	6.00/Ea.
6572-A	33.60/M	7001-C	.96/Ea.	7070-J-M	42.00/Ea.	7205-1-C	2.76/Ea.	7402-1-C	2.70/Ea.	8000-25′	3.60/Ea.
6572-B	4.05/C	7001-S-M	9.09/Ea.	7070-VJ-M	42.00/Ea.	7207-M	*31.65/Ea.	7412-M	34.20/Ea.	8001-M	101.40/Ea.
6572-B	33.60/M	7001-1S-C	1.03/Ea.	7072-M	30.00/Ea.	7207-1-C	3.60/Ea.	7412-1-C	3.60/Ea.	8001-E	51.00/Ea.
6573	5.10/C	7002-M	8.49/Ea.	7072-1-C	3.60/Ea.	7210-M	*105.00/Ea.	7418-M	36.30/Ea.	8001-C	10.50/Ea.
6573	42.00/M	7002-1-C	1.02/Ea.	7072-J-M	40.80/Ea.	7210-1-C	12.30/Ea.	7418-1-C	4.02/Ea.	8001-50′	6.00/Ea.
6573-A	5.10/C	7003-M	10.38/Ea.	7072-VJ-M	40.80/Ea.	7212-M	*70.20/Ea.	7428-M	56.10/Ea.	8001-25′	3.90/Ea.
6573-A	42.00/M	7003-1-C	1.20/Ea.	7074-M	29.70/Ea.	7212-1-C	7.26/Ea.	7428-1-C	5.94/Ea.	8002-M	130.50/Ea.
6574	13.50/C	7003-S-M	11.49/Ea.	7074-1-C	3.30/Ea.	7214-M	44.10/Ea.	7448-M	67.50/Ea.	8002-E	65.40/Ea.
6574	117.90/M	7003-1S-C	1.27/Ea.	7074-J-M	40.50/Ea.	7214-1-C	4.80/Ea.	7448-1-C	6.90/Ea.	8002-C	13.50/Ea.
6575	16.20/C	7004-M	12.00/Ea.	7074-VJ-M	40.50/Ea.	7216-M	*30.30/Ea.	7449-M	81.00/Ea.	8002-50′	7.50/Ea.
6575	147.00/M	7004-1-C	1.38/Ea.	7080	1.01/Ea.	7216-1-C	3.60/Ea.	7449-1-C	10.50/Ea.	8002-25′	4.80/Ea.
6576	16.20/C	7005-M	14.64/Ea.	7081	1.01/Ea.	7218-M	*23.70/Ea.	7458-M	126.00/Ea.	8003-M	150.00/Ea.
6576	147.00/M	7005-1-C	1.63/Ea.	7082	1.26/Ea.	7218-1-C	2.70/Ea.	7458-1-C	13.20/Ea.	8003-E	75.60/Ea.
6577	16.35/C	7005-S-M	15.75/Ea.	7083	2.85/Ea.	7220-M	*18.00/Ea.	7524-E	4.50/Ea.	8003-C	15.60/Ea.
6577	143.40/M	7005-1S-C	1.70/Ea.	7084	1.26/Ea.	7220-1-C	2.10/Ea.	7524-M	8.70/Ea.	8003-50′	9.00/Ea.
6578	21.00/C	7006-M	*294.00/Ea.	7086	1.26/Ea.	7222-M	*15.00/Ea.	7526-E	4.20/Ea.	8003-25′	6.00/Ea.
6578	195.00/M	7006-1-C	*30.00/Ea.	7088	1.26/Ea.	7222-1-C	1.65/Ea.	7526-M	8.10/Ea.	8004-M	175.50/Ea.
6579	21.00/C	7007-M	*21.48/Ea.	7089	2.40/Ea.	7224-M	*17.40/Ea.	7527-E	4.05/Ea.	8004-E	88.20/Ea.
6579	195.00/M	7007-1-C	*2.31/Ea.	7116-M	**168.00/Ea.	7224-1-C	1.95/Ea.	7527-M	7.80/Ea.	8004-C	18.00/Ea.
6585	7.50/C	7008-M	*209.70/Ea.	7116-1-C	**18.60/Ea.	7312-M	*70.95/Ea.	7528-E	3.90/Ea.	8004-50′	10.20/Ea.
6585	60.00/M	7008-1-C	*21.00/Ea.	7118-M	**135.00/Ea.	7312-1-C	7.59/Ea.	7528-M	7.50/Ea.	8004-25′	7.80/Ea.
6586	7.50/C	7009-M	*32.40/Ea.	7118-1-C	**15.00/Ea.	7314-M	54.00/Ea.	7529-E	5.70/Ea.	8005-M	193.50/Ea.
6586	60.00/M	7009-1-C	*3.39/Ea.	7120-M	**111.00/Ea.	7314-1-C	5.70/Ea.	7529-M	10.80/Ea.	8005-E	97.20/Ea.
6587	7.50/C	7010-M	*121.65/Ea.	7120-1-C	**12.30/Ea.	7316-M	*34.50/Ea.	7530-E	3.75/Ea.	8005-C	20.40/Ea.
6587	60.00/M	7010-1-C	*12.54/Ea.	7122-M	**75.00/Ea.	7316-1-C	3.60/Ea.	7530-M	7.20/Ea.	8005-50′	12.00/Ea.
6588	7.20/C	7011-M	*54.00/Ea.	7122-1-C	**8.25/Ea.	7318-M	24.00/Ea.	7532-E	4.65/Ea.	8005-25′	9.30/Ea.
6588	57.00/M	7011-1-C	*5.55/Ea.	7124-M	**66.00/Ea.	7318-1-C	2.61/Ea.	7532-M	9.00/Ea.	8006-M	228.00/Ea.
6589	7.50/C	7012-M	*66.00/Ea.	7124-1-C	**7.26/Ea.	7320-M	18.90/Ea.	7534-E	5.70/Ea.	8006-E	114.60/Ea.
6589	60.00/M	7012-1-C	*7.50/Ea.	7126-M	**60.00/Ea.	7320-1-C	2.01/Ea.	7534-M	10.80/Ea.	8006-C	25.20/Ea.
6590	7.65/C	7013-M	*109.35/Ea.	7126-1-C	**6.60/Ea.	7322-M	15.75/Ea.	7535-E	18.30/Ea.	8006-50′	15.00/Ea.
6590	63.00/M	7013-1-C	*11.28/Ea.	7128-M	**45.00/Ea.	7322-1-C	1.71/Ea.	7535-M	36.00/Ea.	8006-25′	10.80/Ea.
6592	1.80/C	7014-M	*36.63/Ea.	7128-1-C	**5.16/Ea.	7324-M	8.70/Ea.	7536-E	19.95/Ea.	8007-M	258.00/Ea.
6592	15.00/M	7014-1-C	*4.17/Ea.	7130-M	44.40/Ea.	7324-1-C	1.26/Ea.	7536-M	39.00/Ea.	8007-E	129.60/Ea.
6593	1.80/C	7015-M	*192.00/Ea.	7130-1-C	5.04/Ea.	7324-N-M	10.92/Ea.	7537-E	19.20/Ea.	8007-C	30.00/Ea.
6593	15.00/M	7015-1-C	* 19.50/Ea.	7170-M	*8.34/Ea.	7324/20-M	11.70/Ea.	7537-M	37.50/Ea.	8007-50′	18.00/Ea.
6594	1.86/C	7016-M	*30.81/Ea.	7170-1-C	*.96/Ea.	7324/20N-M	12.30/Ea.	7538-E	18.00/Ea.	8007-25′	12.30/Ea.
6594	15.60/M	7016-1-C	*3.75/Ea.	7170-N-M	11.88/Ea.	7324/22-M	11.19/Ea.	7538-M	35.40/Ea.	8008-M	386.00/Ea.
6595	2.04/C	7017-M	*269.40/Ea.	7171-M	*9.60/Ea.	7324/22N-M	11.70/Ea.	7542-M	42.00/Ea.	8008-E	193.80/Ea.
6595	16.80/M	7017-1-C	*27.00/Ea.	7171-1-C	*1.11/Ea.	7326-M	9.15/Ea.	7542/3-M	52.50/Ea.	8008-C	45.00/Ea.
6596	2.22/C	7018-M	*24.42/Ea.	7171-N-M	13.50/Ea.	7326-1-C	1.32/Ea.	7542/4-M	63.00/Ea.	8008-50′	24.00/Ea.
6596	18.00/M	7108-1-C	*2.58/Ea.	7172-M	*12.00/Ea.	7326-N-M	9.99/Ea.	7552-M	45.90/Ea.	8008-25′	19.50/Ea.
6597	3.00/C	7020-M	*19.32/Ea.	7172-1-C	*1.38/Ea.	7328-M	8.91/Ea.	7552/3-M	58.50/Ea.	8009-M	459.00/Ea.
6597	26.40/M	7020-1-C	*2.07/Ea.	7172-N-M	16.74/Ea.	7328-1-C	1.14/Ea.	7552/4-M	69.60/Ea.	8009-E	229.80/Ea.
6600	3.60/M	7022-M	*15.90/Ea.	7173-M	*16.65/Ea.	7328-N-M	10.98/Ea.	7571-E	5.40/Ea.	8009-C	55.20/Ea.
6601	4.20/M	7022-1-C	*1.74/Ea.	7173-1-C	*1.80/Ea.	7330-M	9.30/Ea.	7571-M	9.45/Ea.	8009-50′	29.70/Ea.
6602	4.80/M	7024-M	9.00/Ea.	7173-N-M	21.18/Ea.	7330-1-C	1.23/Ea.	7572-E	15.00/Ea.	8009-25′	24.00/Ea.

Net

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Birnbach PRICE LIST

Number	Resale Price
8010-M	$ 562.50/Ea.
8010-E	281.40/Ea.
8010-C	66.00/Ea.
8010-50′	36.60/Ea.
8010-25′	27.90/Ea.
8011-M	699.00/Ea.
8011-E	349.80/Ea.
8011-C	75.00/Ea.
8011-50′	45.00/Ea.
8011-25′	33.60/Ea.
8012-M	862.20/Ea.
8012-E	431.40/Ea.
8012-C	96.00/Ea.
8012-50′	55.50/Ea.
8012-25′	39.00/Ea.
8013-M	93.30/Ea.
8013-E	48.33/Ea.
8013-C	10.20/Ea.
8014-M	93.30/Ea.
8014-E	48.33/Ea.
8014-C	10.20/Ea.
8015-M	88.20/Ea.
8015-E	44.40/Ea.
8015-C	9.00/Ea.
8016-M	84.00/Ea.
8016-E	42.60/Ea.
8016-C	8.85/Ea.
8020-M	1800.00/Ea.
8020-E	900.00/Ea.
8020-C	186.00/Ea.
8020-50′	99.00/Ea.
8021-M	2100.00/Ea.
8021-E	1050.00/Ea.
8021-C	216.00/Ea.
8021-50′	114.00/Ea.
8022-M	2850.00/Ea.
8022-E	1425.00/Ea.
8022-C	291.00/Ea.
8022-50′	151.50/Ea.
8022-25′	76.50/Ea.
8023-M	3300.00/Ea.
8023-E	1650.00/Ea.
8023-C	336.00/Ea.
8023-50′	174.00/Ea.
8023-25′	87.90/Ea.
8024-M	4080.00/Ea.
8024-E	2040.00/Ea.
8024-C	414.00/Ea.
8024-50′	213.00/Ea.
8024-25′	107.10/Ea.
8025-M	4860.00/Ea.
8025-E	2430.00/Ea.
8025-C	492.00/Ea.
8025-50′	252.00/Ea.
8025-25′	126.90/Ea.
8026-M	5205.00/Ea.
8026-E	2602.50/Ea.
8026-C	526.00/Ea.
8026-50′	269.25/Ea.
8026-25′	135.30/Ea.
8027-M	6750.00/Ea.
8027-E	3375.00/Ea.
8027-C	681.30/Ea.
8027-50′	346.65/Ea.
8027-25′	174.00/Ea.
8028-M	6990.00/Ea.
8028-E	3495.00/Ea.
8028-C	705.00/Ea.
8028-50′	358.50/Ea.
8028-25′	180.00/Ea.
8029-M	7740.00/Ea.
8029-E	3870.00/Ea.
8029-C	780.00/Ea.
8029-50′	396.00/Ea.
8029-25′	198.90/Ea.
8510-C	52.50/Ea.
8512-M	300.00/Ea.
8512-1-C	*36.00/Ea.
8514-M	*210.00/Ea.
8514-1-C	*24.60/Ea.
8516-M	*144.00/Ea.
8516-1-C	*18.00/Ea.
8518-M	*120.00/Ea.
8518-1-C	*15.00/Ea.
8520-M	*93.00/Ea.
8520-1-C	*12.60/Ea.
8521-M	330.00/M
8521/2-M	510.00/M
8521/3-M	630.00/M
8521/4-M	750.00/M
8521/5-M	870.00/M
8522-M	*66.00Ea.
8522-1-C	9.60/Ea.
8523-M	375.00/M
8523/2-M	555.00/M
8523/3-M	714.00/M
8523/4-M	855.00/M
8523/5-M	990.00/M
8524-M	*60.00/Ea.
8524-1-C	8.40/Ea.
8525-M	405.00/M
8525/2-M	705.00/M
8525/3-M	870.00/M
8525/4-M	1050.00/M
8525/5-M	1224.00/M
8526-M	*52.50/Ea.

Number	Resale Price
8526-1-C	$*5.70/Ea.
8527-M	435.00/M
8527/2-M	795.00/M
8527/3-M	945.00/M
8527/4-M	1320.00/M
8527/5-M	1530.00/M
8528-M	48.00/Ea.
8528-1-C	5.40/Ea.
8530-M	48.00/Ea.
8530-1-C	5.40/Ea.
8532-M	48.00/Ea.
8532-1-C	5.40/Ea.
8534-M	255.50/Ea.
8534-1-C	30.00/Ea.
8536-M	225.00/Ea.
8536-1-C	27.00/Ea.
8538-C	150.00/Ea.
8538-1-C	21.00/Ea.
8540-M	120.00/Ea.
8540-1-C	15.00/Ea.
8542-M	156.00/Ea.
8542-1-C	17.10/Ea.
8544-M	135.00/Ea.
8544-1-C	14.40/Ea.
8546-M	105.00/Ea.
8546-1-C	12.30/Ea.
8548-M	93.00/Ea.
8548-1-C	10.80/Ea.
8550-M	87.00/Ea.
8550-1-C	10.50/Ea.
8552-M	87.00/Ea.
8552-1-C	10.50/Ea.
8704-M	144.00/Ea.
8704/2-M	252.00/Ea.
8704/3-M	342.00/Ea.
8704/4-M	450.00/Ea.
8705/5-M	576.00/Ea.
8705-M	138.00/Ea.
8705/2-M	306.00/Ea.
8705/3-M	366.00/Ea.
8705/4-M	504.00/Ea.
8705/5-M	612.00/Ea.
8706-M	192.00/Ea.
8706/2-M	378.00/Ea.
8706/3-M	504.00/Ea.
8706/4-M	612.00/Ea.
8706/5-M	720.00/Ea.
8707-M	162.00/Ea.
8707/2-M	288.00/Ea.
8707/3-M	396.00/Ea.
8707/4-M	510.00/Ea.
8707/5-M	630.00/Ea.
8708-M	177.00/Ea.
8708/2-M	300.00/Ea.
8708/3-M	414.00/Ea.
8708/4-M	576.00/Ea.
8708/5-M	720.00/Ea.
8709-M	231.00/Ea.
8709/2-M	306.00/Ea.
8709/3-M	576.00/Ea.
8709/4-M	630.00/Ea.
8709/5-M	831.00/Ea.
8710-M	156.00/Ea.
8710/2-M	306.00/Ea.
8710/3-M	540.00/Ea.
8710/4-M	648.00/Ea.
8710/5-M	792.00/Ea.
8711-M	231.00/Ea.
8711/2-M	405.00/Ea.
8711/3-M	552.00/Ea.
8711/4-M	717.00/Ea.
8711/5-M	900.00/Ea.
8712-M	240.00/Ea.
8712/2-M	390.00/Ea.
8712/3-M	585.00/Ea.
8712/4-M	756.00/Ea.
8712/5-M	945.00/Ea.
8713-M	225.00/Ea.
8713/2-M	435.00/Ea.
8713/3-M	597.00/Ea.
8713/4-M	765.00/Ea.
8713/5-M	990.00/Ea.
8714-M	255.00/Ea.
8714/2-M	465.00/Ea.
8714/3-M	645.00/Ea.
8714/4-M	810.00/Ea.
8714/5-M	1005.00/Ea.
8715-M	326.00/Ea.
8715/2-M	585.00/Ea.
8715/3-M	780.00/Ea.
8715/4-M	975.00/Ea.
8715/5-M	1200.00/Ea.
BDC-10-¼	.61/Ea.
BDC-12-¼	.61/Ea.
BDC-14-¼	.62/Ea.
BDC-16-¼	.65/Ea.
BDC-18-¼	.71/Ea.
BDC-20-¼	.80/Ea.
BDC-22-¼	.90/Ea.
BDC-24-¼	1.00/Ea.
BDC-26-¼	1.12/Ea.
BDC-28-¼	1.30/Ea.
BDC-30-¼	1.58/Ea.
BDC-32-¼	1.91/Ea.
BDC-34-¼	2.81/Ea.

Number	Resale Price
BDC-36-¼	$ 3.28/Ea.
BDC-38-¼	5.76/Ea.
BDC-40-¼	8.28/Ea.
BDC-10-½	.96/Ea.
BDC-12-½	.96/Ea.
BDC-14-½	.97/Ea.
BDC-16-½	1.02/Ea.
BDC-18-½	1.14/Ea.
BDC-20-½	1.38/Ea.
BDC-22-½	1.58/Ea.
BDC-24-½	1.69/Ea.
BDC-26-½	1.98/Ea.
BDC-28-½	2.52/Ea.
BDC-30-½	3.02/Ea.
BDC-32-½	3.60/Ea.
BDC-34-½	5.22/Ea.
BDC-36-½	6.28/Ea.
BDC-38-½	9.43/Ea.
BDC-40-½	14.11/Ea.
BDC-10-1	1.68/Ea.
BDC-12-1	1.68/Ea.
BDC-14-1	1.80/Ea.
BDC-16-1	1,95/Ea.
BDC-18-1	2.16/Ea.
BDC-20-1	2.50/Ea.
BDC-22-1	2.99/Ea.
BDC-24-1	3.31/Ea.
BDC-26-1	3.78/Ea.
BDC-28-1	4.68/Ea.
BDC-30-1	5.58/Ea.
BDC-32-1	6.84/Ea.
BDC-34-1	9.72/Ea.
BDC-36-1	11.79/Ea.
BDC-38-1	17.64/Ea.
BDC-40-1	26.21/Ea.
BDN-12-¼	.79/Ea.
BDN-14-¼	.83/Ea.
BDN-16-¼	.94/Ea.
BDN-18-¼	1.01/Ea.
BDN-20-¼	1.15/Ea.
BDN-22-¼	1.33/Ea.
BDN-24-¼	1.44/Ea.
BDN-26-¼	1.73/Ea.
BDN-28-¼	1.87/Ea.
BDN-30-¼	2.23/Ea.
BDN-32-¼	2.81/Ea.
BDN-34-¼	3.89/Ea.
BDN-36-¼	6.48/Ea.
BDN-38-¼	9.00/Ea.
BDN-40-¼	15.98/Ea.
BDN-12-½	1.51/Ea.
BDN-14-½	1.55/Ea.
BDN-16-½	1.73/Ea.
BDN-18-½	1.91/Ea.
BDN-20-½	2.20/Ea.
BDN-22-½	2.45/Ea.
BDN-24-½	2.74/Ea.
BDN-26-½	3.31/Ea.
BDN-28-½	3.60/Ea.
BDN-30-½	4.25/Ea.
BDN-32-½	5.40/Ea.
BDN-34-½	7.62/Ea.
BDN-36-½	12.60/Ea.
BDN-38-½	17.46/Ea.
BDN-40-½	30.36/Ea.
BDN-12-1	2.88/Ea.
BDN-14-1	2.95/Ea.
BDN-16-1	3.06/Ea.
BDN-18-1	3.35/Ea.
BDN-20-1	3.96/Ea.
BDN-22-1	4.32/Ea.
BDN-24-1	5.40/Ea.
BDN-26-1	6.66/Ea.
BDN-28-1	7.20/Ea.
BDN-30-1	8.28/Ea.
BDN-32-1	10.72/Ea.
BDN-32-1	10.72/Ea.
BDN-34-1	14.98/Ea.
BDN-36-1	24.48/Ea.
BDN-38-1	33.48/Ea.
BDN-40-1	59.04/Ea.
BHF-10-¼	.53/Ea.
BHF-12-¼	.54/Ea.
BHF-14-¼	.54/Ea.
BHF-16-¼	.55/Ea.
BHF-18-¼	.57/Ea.
BHF-20-¼	.59/Ea.
BHF-22-¼	.60/Ea.
BHF-24-¼	.63/Ea.
BHF-26-¼	.66/Ea.
BHF-28-¼	.72/Ea.
BHF-30-¼	.75/Ea.
BHF-32-¼	.90/Ea.
BHF-34-¼	1.02/Ea.
BHF-36-¼	1.17/Ea.
BHF-38-¼	1.41/Ea.
BHF-40-¼	1.83/Ea.
BHF-42-¼	2.40/Ea.
BHF-44-¼	4.17/Ea.
BHF-10-½	.87/Ea.
BHF-12-½	.88/Ea.
BHF-14-½	.88/Ea.
BHF-16-½	.90/Ea.
BHF-18-½	1.01/Ea.
BHF-20-½	1.07/Ea.

Number	Resale Price
BHF-22-½	$ 1.08/Ea.
BHF-24-½	1.14/Ea.
BHF-26-½	1.26/Ea.
BHF-28-½	1.38/Ea.
BHF-30-½	1.44/Ea.
BHF-32-½	1.74/Ea.
BHF-34-½	1.95/Ea.
BHF-36-½	2.28/Ea.
BHF-38-½	2.84/Ea.
BHF-40-½	3.48/Ea.
BHF-42-½	4.62/Ea.
BHF-44-½	7.95/Ea.
BHF-10-1	1.61/Ea.
BHF-12-1	1.61/Ea.
BHF-14-1	1.62/Ea.
BHF-16-1	1.65/Ea.
BHF-18-1	1.80/Ea.
BHF-20-1	1.89/Ea.
BHF-22-1	2.04/Ea.
BHF-24-1	2.16/Ea.
BHF-26-1	2.34/Ea.
BHF-28-1	2.55/Ea.
BHF-30-1	2.70/Ea.
BHF-32-1	3.30/Ea.
BHF-34-1	3.75/Ea.
BHF-36-1	4.35/Ea.
BHF-38-1	5.10/Ea.
BHF-40-1	6.75/Ea.
BHF-42-1	8.70/Ea
BHF-44-1	15.15/Ea.
BPE-10-¼	.41/Ea
BPE-12-¼	.41/Ea.
BPE-14-¼	.42/Ea.
BPE-16-¼	.43/Ea.
BPE-18-¼	.43/Ea
BPE-20-¼	.44/Ea.
BPE-22-¼	.48/Ea.
BPE-24-¼	.48/Ea.
BPE-26-¼	.49/Ea.
BPE-28-¼	.52/Ea
BPE-30-¼	.53/Ea.
BPE-32-¼	.57/Ea
BPE-34-¼	.60/Ea.
BPE-36-¼	.66/Ea.
BPE-38-¼	.78/Ea.
BPE-40-¼	1.02/Ea.
BPE-42-¼	2.40/Ea.
BPE-44-¼	3.35/Ea.
BPE-10-½	.75/Ea.
BPE-12-½	.77/Ea.
BPE-14-½	.77/Ea.
BPE-16-½	.77/Ea.
BPE-18-½	.77/Ea.
BPE-20-½	.78/Ea.
BPE-22-½	.81/Ea.
BPE-24-½	.84/Ea.
BPE-26-½	.87/Ea.
BPE-28-½	.93/Ea.
BPE-30-½	.96/Ea.
BPE-32-½	1.02/Ea.
BPE-34-½	1.11/Ea.
BPE-36-½	1.23/Ea.
BPE-38-½	1.56/Ea.
BPE-40-½	2.04/Ea.
BPE-42-½	4.59/Ea.
BPE-44-½	6.54/Ea.
BPE-10-1	1.41/Ea.
BPE-12-1	1.41/Ea.
BPE-14-1	1.42/Ea.
BPE-16-1	1.42/Ea.
BPE-18-1	1.43/Ea.
BPE-20-1	1.50/Ea.
BPE-22-1	1.59/Ea.
BPE-24-1	1.62/Ea.
BPE-26-1	1.71/Ea.
BPE-28-1	1.80/Ea.
BPE-30-1	1.86/Ea.
BPE-32-1	1.98/Ea.
BPE-34-1	2.16/Ea.
BPE-36-1	2.46/Ea.
BPE-38-1	2.97/Ea.
BPE-40-1	4.05/Ea.
BPE-42-1	9.00/Ea.
BPE-44-1	13.50/Ea.
BST-10-¼	.41/Ea.
BST-12-¼	.41/Ea.
BST-14-¼	.42/Ea.
BST-16-¼	.43/Ea.
BST-18-¼	.43/Ea.
BST-20-¼	.44/Ea.
BST-22-¼	.48/Ea.
BST-24-¼	.48/Ea.
BST-26-¼	.49/Ea.
BST-28-¼	.52/Ea.
BST-30-¼	.53/Ea.
BST-32-¼	.57/Ea.
BST-34-¼	.60/Ea.
BST-36-¼	.66/Ea.
BST-38-¼	.78/Ea.
BST-40-¼	1.02/Ea.
BST-42-¼	2.40/Ea.
BST-44-¼	3.39/Ea.
BST-10-½	.75/Ea.
BST-12-½	.76/Ea.
BST-14-½	.77/Ea.

Number	Resale Price
BST-16-½	$ .77/Ea.
BST-18-½	.77/Ea.
BST-20-½	.78/Ea.
BST-22-½	.81/Ea.
BST-24-½	.84/Ea.
BST-26-½	.87/Ea.
BST-28-½	.93/Ea.
BST-30-½	.96/Ea.
BST-32-½	1.02/Ea.
BST-34-½	1.11/Ea.
BST-36-½	1.23/Ea.
BST-38-½	1.56/Ea.
BST-40-½	2.04/Ea.
BST-42-½	4.59/Ea.
BST-44-½	6.54/Ea.
BST-10-1	1.41/Ea.
BST-12-1	1.41/Ea.
BST-14-1	1.42/Ea.
BST-16-1	1.42/Ea.
BST-18-1	1.43/Ea.
BST-20-1	1.50/Ea.
BST-22-1	1.59/Ea.
BST-24-1	1.62/Ea.
BST-26-1	1.71/Ea.
BST-28-1	1.80/Ea.
BST-30-1	1.86/Ea.
BST-32-1	1.98/Ea.
BST-34-1	2.16/Ea.
BST-36-1	2.46/Ea.
BST-38-1	2.97/Ea.
BST-40-1	4.05/Ea.
BST-42-1	9.00/Ea.
BST-44-1	13.50/Ea.
C-1001-1-50	.12/Ea.
C-1001-2-50	.13/Ea.
C-1001-3-50	.13/Ea.
C-1001-4-50	.21/Ea.
D-50	3.60/M
GL-1-C	3.30/Ea.
GL-1-E	16.35/Ea.
GL-1-M	32.40/Ea.
GL-1-F	80.40/Ea.
GL-2-C	6.45/Ea.
GL-2-E	31.98/Ea.
GL-2-M	63.60/Ea.
GL-2-F	158.40/Ea.
GL-3-C	12.24/Ea.
GL-3-E	61.38/Ea.
GL-3-M	122.40/Ea.
GL-3-F	305.40/Ea.
H-214-M	200.00/Ea.
H-216-M	200.00/Ea.
H-218-M	125.00/Ea.
H-312-M	395.00/Ea.
HG-12	41.25/Ea.
HG-13	52.00/Ea.
HGA-1	5.70/Ea.
L-218-1000′	70.00/Ea.
M-214-1000′	162.50/Ea.
M-216-1000′	95.00/Ea.
M-218-1000′	76.25/Ea.
M-316-1000′	155.00/Ea.
M-318-1000′	137.50/Ea.
P-1315-AB	.81/Ea.
P-1315-CCE	1.21/Ea.
P-1315-CCT	1.21/Ea.
P-1315-FHE	1.01/Ea.
P-1315-FHT	1.01/Ea.
P-1315-SB	1.21/Ea.
P-1318-AB	1.01/Ea.
P-1318-CCE	1.43/Ea.
P-1318-CCT	1.43/Ea.
P-1318-FHE	1.22/Ea.
P-1318-FHT	1.23/Ea.
P-1318-SB	1.57/Ea.
P-1321-AB	1.26/Ea.
P-1321-CCE	1.72/Ea.
P-1321-CCT	1.72/Ea.
P-1321-FHE	1.46/Ea.
P-1321-FHT	1.46/Ea.
P-1321-SB	1.77/Ea.
P-1324-AB	1.56/Ea.
P-1324-CCE	2.00/Ea.
P-1324-CCT	2.00/Ea.
P-1324-FHE	1.78/Ea.
P-1324-FHT	1.78/Ea.
P-1324-SB	2.11/Ea.
P-1327-AB	1.84/Ea.
P-1327-CCE	2.28/Ea.
P-1327-CCT	2.28/Ea.
P-1327-FHE	2.04/Ea.
P-1327-FHT	2.04/Ea.
P-1327-SB	2.34/Ea.
P-1330-AB	2.10/Ea.
P-1330-CCE	2.62/Ea.
P-1330-CCT	2.62/Ea.
P-1330-FHE	2.42/Ea.
P-1330-FHT	2.42/Ea.
P-1330-SB	2.70/Ea.
P-1333-AB	2.38/Ea.
P-1333-CCE	2.86/Ea.
P-1333-CCT	2.86/Ea.
P-1333-FHE	2.73/Ea.
P-1333-FHT	2.73/Ea.
P-1333-SB	2.96/Ea.

Number	Resale Price
PBT-4-100	$ 2.52/Ea.
PBT-4-1000	20.85/Ea.
R-100	3.36/M
S-1315-AB	.94/Ea.
S-1315-CCE	1.34/Ea.
S-1315-CCT	1.34/Ea.
S-1315-FHE	1.14/Ea.
T-6	12.00/C
T-7	.30/Ea.
T-8	24.00/C
T-10	8.25/C
T-14	.42/Ea.
T-14A	.48/Ea.
T-15	15.00/C
T-15A	24.00/C
T-15C	1.50/C
T-16	15.00/C
T-16A	15.00/C
T-17	14.40/C
T-18	14.40/C
T-19-¾″	5.70/C
T-19-1″	5.70/C
T-19-1-½″	8.10/C
T-20	.48/Ea.
T-42	4.20/M
T-44	10.80/C
T-46	16.80/C
T-48	28.80/C
T-100	6.00/C
T-101	6.00/C
T-102	6.00/C
T-250	9.60/C
T-251	12.00/C
T-669	10.20/C
TK-1	55.05/Ea.
TK-2	50.55/Ea.
S-1315-FHT	1.14/Ea.
S-1315-SB	1.37/Ea.
S-1318-AB	1.13/Ea.
S-1318-CCE	1.56/Ea.
S-1318-CCT	1.56/Ea.
S-1318-FHE	1.35/Ea.
S-1318-FHT	1.35/Ea.
S-1318-SB	1.64/Ea.
S-1321-AB	1.40/Ea.
S-1321-CCE	1.79/Ea.
S-1321-CCT	1.79/Ea.
S-1321-FHE	1.58/Ea.
S-1321-FHT	1.58/Ea.
S-1324-AB	1.67/Ea.
S-1324-AB	1.67/Ea.
S-1324-CCE	2.12/Ea.
S-1324-CCT	2.12/Ea.
S-1324-FHE	1.90/Ea.
S-1324-FHT	1.90/Ea.
S-1324-SB	2.24/Ea.
S-1327-AB	1.95/Ea.
S-1327-CCE	2.39/Ea.
S-1327-CCT	2.39/Ea.
S-1327-FHE	2.23/Ea.
S-1327-FHT	2.23/Ea.
S-1327-SB	2.51/Ea.
S-1327-SB	2.51/Ea.
S-1330-AB	2.26/Ea.
S-1330-CCE	2.78/Ea.
S-1330-CCT	2.78/Ea.
S-1330-FHE	2.57/Ea.
S-1330-FHT	2.57/Ea.
S-1330-SB	2.85/Ea.
S-1333-AB	2.50/Ea.
S-1333-CCE	2.99/Ea.
S-1333-CCT	2.99/Ea.
S-1333-FHE	2.81/Ea.
S-1333-FHT	2.81/Ea.
S-1333-SB	3.12/Ea.
SK-621-26-C	30.12/C
SK-621-24-C	30.12/C
SK-621-22-C	48.80/C
SK-621-20-C	58.40/C
SK-621-19-C	82.45/C
SK-621-18-C	88.32/C
SK-621-17-C	98.55/C
SK-621-16-C	100.53/C
SK-621-15-C	108.50/C
SK-621-14-C	115.00/C
SK-621-13-C	122.00/C
SK-621-12-C	130.65/C
SK-621-11-C	141.80/C
SK-621-10-C	171.45/C
SK-621-9-C	164.30/C
SK-621-8-C	195.35/C
SK-621-7-C	203.26/C
SK-621-6-C	216.00/C
SK-621-5-C	232.00/C
SK-621-4-C	253.35/C
SK-621-3-C	275.75/C
SK-621-2-C	306.65/C
SK-621-1-C	340.65/C
SK-621-0-C	373.35/C
SK-621-⅜-C	6.15/Ft.
SK-621-7/16-C	7.12/Ft.
SK-621-½-C	8.20/Ft.
Special Spools:	
Magnet Wire	$.61/Ea.
Solid Tinned Wire	.61/Ea.

(SK-275's to be replaced with another Series)

© U.C.P., Inc.

Net

Columbia

PERMALINE TV TRANSMISSION LINES

COLUMBIA is first to offer a television transmission line with an insulation so good that it can be GUARANTEED IN WRITING to give a service life far beyond the normal life of brown Polyethylene television lines. PERMALINE is a high molecular weight Polyethylene containing carbon black for maximum resistance to sunlight, which has been proven the chief factor in deterioration of ordinary television lines. The insulation value of 50 Mils of PERMALINE is equal to over 150 Mils of conventional brown Polyethylene.

Electrical characteristics of PERMALINE are very similar to Brown Polyethylene television lines but as there is no deterioration. Attenuation remains constant instead of increasing as is the case with brown Polyethylene, which becomes brittle and cracks. This is truly the first new development in television transmission lines in ten years.

25 YEAR WARRANTY

80 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.080 x .395

CAT NO.			Net
5050M	1,000 Ft. Metal Spool		22.72
5050D	500 Ft. Metal Spool		11.74
5050C	100 Ft. Coil	12 coils come packed in FREE counter display	2.48
5050S	65 Ft. Coil		1.70
5050R	35 Ft. Coil		.98

15 YEAR WARRANTY

50 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.050 x .385

			Net
5150M	1,000 Ft. Metal Spool		17.67
5150D	500 Ft. Metal Spool		9.16
5150C	100 Ft. Coil	12 coils come packed in FREE counter display	2.05
5150S	65 Ft. Coil		1.40
5150R	35 Ft. Coil		.82

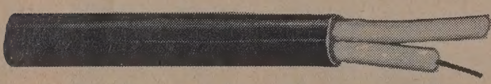
Highly resistant to:

- SUNLIGHT
- MOISTURE
- FAR BELOW ZERO TEMP.
- CHEMICAL FUMES
- OIL REFINERY FUMES
- SALT AIR & SALT SPRAY
- ABRASION

Tensile Strength — 2300 lbs. per Sq. In.

Separate Warranty Certificate with every spool or package of Permaline Television Transmission Line.

PERMALINE VHF-UHF TV TRANSMISSION LINE



Since the introduction of this cable in May, 1956 it has been proven beyond any doubt that this cable has no equal for reliability over the entire range of VHF and UHF channels under the most adverse conditions, such as salt spray, sunlight, extremes of heat and cold, stress cracking, chemical fumes, whipping in high winds, etc. In many areas throughout the country where other cables have failed due to salt deposits on transmission lines, this cable has given satisfactory reception at all times. Foam polyethylene tubes provide excellent low loss dielectric and require no sealing. 22 gauge solid copperweld conductors mean high tensile strength so necessary where whipping of cable is a problem. Heavy duty jacket of high molecular weight BLACK PERMALINE POLYETHYLENE is a protection against all hazards. We believe this is the finest all-purpose television transmission line available today. Impedance is 270 ohms, nominal attenuation is 3.2 D/B at 500 M/C and 4.6 D/B at 900 M/C. Cable size is approximately .295 x .402.

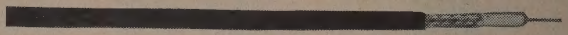
15 Year Written Guarantee Certificate

CAT. NO.		Net
5684C	100 Ft. Carton	6.95
5684D	500 Ft. Spool	32.71
5684M	1000 Ft. Spool	63.57

PERMAFOAM LOW LOSS COAXIAL CABLES

PERMAFOAM is a new type of coaxial cable for television systems, communication work, and all other co-ax applications. A foam polyethylene dielectric replaces the conventional solid polyethylene thus providing far lower capacity and attenuation. In fact, attenuation is approximately 25% lower than standard coaxial cables of same type. Overall jacket is our PERMALINE high molecular weight polyethylene. This non-contaminating jacket is unaffected by salt air, chemical fumes, damp rot, fungus, acids, alkalis, etc., and is remarkably resistant to all extreme weather conditions. Moisture resistance is so high that this insulation is now used on submarine cables. Will withstand severe temperature extremes and is immune to the deteriorating effects of sunlight and other ultra violet. Note: In addition to the PERMAFOAM cables listed below, any other RG U cable is available with a foam polyethylene dielectric on special order.

PERMAFOAM 72-75 OHM COAXIAL CABLE



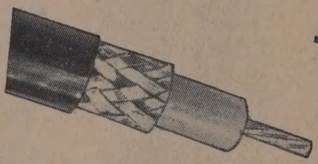
R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.	Net
RG 59 U	73	2.95 DB.	22 Cpwld.	.240	500 Ft.	5035D	26.92
					1000 Ft.	5035M	52.97
RG 11 U	75	1.50 DB.	14 Solid	.405	500 Ft.	5025D	63.32
					1000 Ft.	5025M	124.60

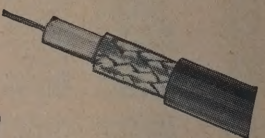
PERMAFOAM 52-53 OHM COAXIAL CABLE

R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.	Net
RG 58 U	53	3.10 DB.	20 Solid	.195	100 Ft.	5045C	5.63
					500 Ft.	5045D	26.68
					1000 Ft.	5045M	52.06
RG 8 U	52	1.50 DB.	7/21	.405	100 Ft.	5015C	15.62
					500 Ft.	5015D	74.59
					1000 Ft.	5015M	146.21
RG 17 U	52	.712 DB.	5 Solid	.870	100 Ft.	5090C	63.74
					500 Ft.	5090D	311.21
					1000 Ft.	5090M	620.39

COLUMBIA STANDARD COAXIAL CABLES

Premium quality standard coaxial cable. Meets all specifications. Black vinyl jacket.





R.G. No.	Nom. Imp.	Jom. Mmfd. Ft.	Wire Size	Overall Jacket	Spool Size	Cat. No.	Net
RG 59 U	73.0	21.0	22 C Weld	Black Vinyl	100 Ft.	1104C	5.48
				.240 O.D.	500 Ft.	1104D	26.06
					1000 Ft.	1104M	51.27
RG 8 U	52.0	29.5	7/21	Black Vinyl	100 Ft.	1154C	13.76
				.405 O.D.	500 Ft.	1154D	67.21
					1000 Ft.	1154M	132.36
RG 11 U	75.0	20.5	7/26	Black Vinyl	100 Ft.	1160C	13.26
				.405 O.D.	500 Ft.	1160D	63.31
					1000 Ft.	1160M	124.61
RG 58 U	53.5	28.5	20 Ga.	Black Vinyl	100 Ft.	1166C	5.35
				.195 O.D.	500 Ft.	1166D	25.18
					1000 Ft.	1166M	49.45
RG 58 A/U	50.0	29.0	19/.0068	Black Vinyl	100 Ft.	1178C	5.85
				.159 O.D.	500 Ft.	1178D	27.94
					1000 Ft.	1178M	54.94

Long Lengths of Any Co-ax Available Upon Request

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE & SUPPLY CO. CATALOG

© U.C.P., Inc.

Columbia

FLEXFOAM ULTRA LOW CAPACITANCE MICROPHONE CABLES — EXCLUSIVE WITH COLUMBIA

Another Columbia first is a complete line of microphone cables with capacity as much as 35% lower than the best regular microphone cables available today. This drastic lowering of capacity has been made possible by the use of foamed polyethylene as the inner dielectric instead of solid polyethylene as normally used. This low capacitance means that lengths of microphone cable can be increased as much as 50%. These cables are also ideal for Hi-Fi and high quality sound work because of the extremely low attenuation, particularly at the higher audio-frequencies. The use of a special flexible vinyl as an outer jacket provides flexibility practically as good as rubber yet has much greater abrasion resistance. Color—Grey.

Also available in high gloss gleaming white jackets.

FLEXFOAM MIKE CABLE WITH BRAIDED SHIELD

		Per Ft.	250 Ft. Spool	Net	500 Ft. Spool	Net
Crystal Size	(.190″ O.D.)	16 MMF	No. 1399T	11.90	1399D	23.18
Lapel Size	(.140″ O.D.)	19 MMF	No. 1379T	9.02	1379D	17.57

FLEXFOAM MIKE CABLE WITH SPIRAL SHIELD

Crystal Size	(.190″ O.D.)	16 MMF	No. 1389T	11.07	1389D	21.54
Lapel Size	(.140″ O.D.)	19 MMF	No. 1369T	8.29	1369D	16.12
Miniature	(.085″ O.D.)	35 MMF	No. 1359T	6.11	1359D	11.72

TWO CONDUCTOR PLASTIC MICROPHONE CABLE — .230 O.D. T/C BRAID SHIELD

				Net
250 Ft. Spool	22 Ga.	16/34 Stranding	1322T	18.78
500 Ft. Spool	22 Ga.	16/34 Stranding	1322D	36.83

Nominal Capacitance 30 MMF Per Ft. Between 1 Cond. and Remaining Cond. Connected to Shield

ECONOMY SPIRAL SHIELDED MICROPHONE CABLES

Plastic insulated with wrapped concentric spiral shield for more effective shielding. Cables are more flexible and of smaller size.

CRYSTAL MICROPHONE CABLE .160 O.D.

25 Ga. 7 x 33 Str.

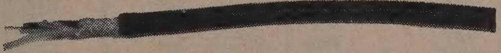
CAT. NO.			Net
1314T	250 Ft. Spool	Nominal Cap. 25 MMF Per Ft.	9.92
1314D	500 Ft. Spool	Nominal Cap. 25 MMF Per Ft.	19.36

LAPEL MICROPHONE CABLE .125 O.D.

25 Ga. 7 x 33 Str.

1366T	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.	7.31
1366M	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.	29.59

HEAVY DUTY MICROPHONE CABLE



Heavy duty studio type plastic insulated microphone cable that will withstand abrasion and rough usage.

18 Ga. Str. 41 x 34 Tinned Copper Conductors.
Jute Fillers T/C Shield
.295 O.D.

		CAT. NO.	Net
100 Ft. Spool	Color—Black	3302C	10.77
500 Ft. Spool	Color—Black	3302D	51.43

Nominal Capacitance 75 MMF. Per Ft.

Also available with bright red jackets for easy identification.

H'VY GAUGE JUKE BOX-H.F. SPKR CABLE

FOR LONG RUNS—LESS LOSS

This cable is similar to the 24 ga. juke box speaker cable listed in our general catalog, except that the 21 ga. conductors in this cable reduce the line loss to exactly half. Ridge in insulation over one conductor plus one tinned and one bare conductor provide double indication of polarity.

COLORS: Clear, Grey, Brown, White, Clear Gold

.180″ x .090″

2 COND. 21 GA. STR. 10/31

		Net
No. 1360C	100 Ft. Spool	1.64
No. 1360D	500 Ft. Spool	7.40
No. 1360M	1000 Ft. Spool	14.27

COLUMBIA *SUPER-FLEX*

ULTRA FLEXIBLE FOAM COAXIAL CABLES

We believe Super-Flex Coaxial Cables are the finest available today — not only because of their appearance and flexibility, but because they actually out-perform any similar type of coaxial cable in use today. Cables feature High Gloss Non Contaminating Jackets and have a primary insulation of foam Polyethylene to reduce attenuation as much as 25% over regular types of coaxial cables. In addition to the above features Super-Flex Coaxial Cables will not become rigid in severe cold. Can be used with standard connectors. Ideal for citizens band and amateur use. Perfect for master television systems due to the wide range of colors available. Standard stock colors are: Black-White-Silver or Beige. Other colors to special order with a minimum of 5000 ft. of a color.

SUPER-FLEX RG 8/U 52 OHM IMPEDANCE

19/.020 Conductor. Insulation Foam Poly Dielectric

Cat. No.					Net
1198C	100 Ft.	RG 8/U	Super-Flex	.405 O.D.	15.95
1198D	500 Ft.	RG 8/U	Super-Flex	.405 O.D.	76.22
1198M	1000 Ft.	RG 8/U	Super-Flex	.405 O.D.	151.13

Cap. 22.1 MMFD Per Ft.

Attenuation 1.50 DB Per 100 Ft. at 100 MC.

SUPER-FLEX RG 58 A/U 50 OHM IMPEDANCE

19/.0068 Conductor. Insulation Foam Poly Dielectric

1188C	100 Ft.	RG 58 A/U	Super-Flex	.195 O.D.	6.47
1188D	500 Ft.	RG 58 A/U	Super-Flex	.195 O.D.	29.63
1188M	1000 Ft.	RG 58 A/U	Super-Flex	.195 O.D.	58.12

Cap. 22.9 MMFD Per Ft.

Attenuation 4.25 DB Per 100 Ft. at 100 MC.

SUPER-FLEX RG 59/U 73 OHM IMPEDANCE

22 Solid Copperweld Conductor. Insulation Foam Poly Dielectric

1135C	100 Ft.	RG 59/U	Super-Flex	.242 O.D.	6.23
1135D	500 Ft.	RG 59/U	Super-Flex	.242 O.D.	28.52
1135M	1000 Ft.	RG 59/U	Super-Flex	.242 O.D.	56.12

Cap. 16.6 MMFD Ft.

Attenuation 2.95 DB Per 100 Ft. at 100 MC

Super-Flex RG 59/U is also available with a 7/31 stranded conductor to provide still more flexibility. Center conductor can be used only with Pin Type Fittings such as used to plug into wall plates for Master Television Systems.

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CONSOLIDATED

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

See Following Pages for Specifications

CHICAGO, ILLINOIS

PRICE LIST

No.	Unit Pkg. or Length	Net Price Each
637	100′	1.25
637	500′	5.60
637	1000′	10.00
642	100′	1.50
642	500′	6.35
642	1000′	11.00
647	100′	1.85
647	500′	8.50
647	1000′	15.75
667	100′	1.35
667	500′	6.35
667	1000′	12.00
672	100′	1.65
672	500′	7.80
672	1000′	13.75
677	100′	2.10
677	500′	9.35
677	1000′	16.75
707	100′	.70
707	500′	3.00
707	1000′	4.65
717	100′	.90
717	500′	4.15
717	1000′	7.65
727	100′	1.20
727	500′	5.70
727	1000′	10.25
737	100′	.80
737	500′	3.90
737	1000′	7.15
747	100′	1.05
747	500′	4.95
747	1000′	9.30
757	100′	1.45
757	500′	6.90
757	1000′	13.00
801	25′	.30
801	100′	.90
801	500′	4.15
801	1000′	7.85
811	25′	.35
811	100′	1.05
811	500′	4.85
811	1000′	9.00
821	25′	.35
821	100′	1.05
821	500′	4.85
821	1000′	9.00
831	25′	.43
831	100′	1.20
831	500′	6.00
831	1000′	11.75
841	25′	.46
841	100′	1.65
841	500′	7.50
841	1000′	14.00
846	25′	.51
846	100′	1.70
846	500′	7.85
846	1000′	15.00
851	25′	.42
851	100′	1.50
851	500′	6.60
851	1000′	12.35
856	25′	.50
856	100′	1.85
856	500′	7.65
856	1000′	14.50
861	25′	.60
861	100′	2.15
861	500′	9.90
861	1000′	19.00
866	25′	.55
866	100′	1.90
866	500′	7.65
866	1000′	14.50
871	25′	.61
871	100′	2.20
871	500′	8.70
871	1000′	16.85
876	25′	.70
876	100′	2.55
876	500′	10.55
876	1000′	20.50
881	100′	3.20
881	500′	15.00
881	1000′	29.75
901	25′	.33
901	100′	1.20
901	500′	5.65
901	1000′	10.55
911	25′	.38
911	100′	1.42
911	500′	6.60
911	1000′	12.50
921	25′	.38
921	100′	1.42
921	500′	7.00
921	1000′	13.85
931	25′	.51
931	100′	1.60
931	500′	7.85
931	1000′	15.45
1001	10′	.35
1001	100′	1.88
1001	250′	4.50
1001	500′	8.50
1001	1000′	16.50
1006	10′	.50
1006	100′	3.30
1006	250′	7.85
1006	500′	15.35
1006	1000′	30.35
1386	50′	1.35
1386	100′	2.63
1386	250′	5.40
1386	500′	10.50
1386	1000′	20.25
1387	50′	1.42
1387	100′	2.70
1387	250′	6.78
1387	500′	12.38
1387	1000′	24.00
1388	50′	1.50
1388	100′	2.85
1388	250′	6.75
1388	500′	13.13
1388	1000′	25.50
1389	50′	1.57
1389	100′	2.92
1389	250′	7.12
1389	500′	13.87
1389	1000′	27.37
1390	50′	1.62
1390	100′	3.07
1390	250′	7.27
1390	500′	14.25
1390	1000′	27.10
1391	50′	1.87
1391	100′	3.52
1391	250′	9.00
1391	500′	17.62
1391	1000′	34.50
1392	50′	2.48
1392	100′	4.80
1392	250′	12.00
1392	500′	23.60
1392	1000′	46.85
1393	50′	3.22
1393	100′	6.35
1393	250′	14.50
1393	500′	28.50
1393	1000′	56.25
1394	50′	4.85
1394	100′	9.35
1394	250′	24.00
1394	500′	47.25
1394	1000′	93.00
1395	50′	5.55
1395	100′	10.80
1395	250′	27.00
1395	500′	53.60
1395	1000′	106.50
1396	50′	12.35
1396	100′	24.30
1396	250′	60.00
1396	500′	119.25
1396	1000′	237.00
1397	50′	7.95
1397	100′	15.75
1397	250′	39.00
1397	500′	77.25
1397	1000′	153.75
1398	50′	12.25
1398	100′	26.25
1398	250′	65.25
1398	500′	127.50
1398	1000′	247.50
1399	50′	14.60
1399	100′	28.85
1399	250′	71.60
1399	500′	142.50
1399	1000′	281.25
1453	100′	15.00
1453	500′	126.00M′
1453	1000′	120.00M′
1454	100′	31.50
1454	500′	307.50M′
1454	1000′	300.00M′
1455	15′	2.70
1455	50′	8.25
1455	100′	16.50
1455	250′	40.50
1455	500′	162.00M′
1455	1000′	162.00M′
1456	15′	1.50
1456	25′	2.55
1456	50′	4.88
1456	100′	9.45
1456	250′	93.00M′
1456	500′	90.00M′
1456	1000′	90.00M′
1457	9′	.50
1457	10′	.60
1457	25′	1.08
1457	50′	2.10
1457	100′	3.82M′
1457	250′	36.50M′
1457	500′	35.25M′
1457	1000′	35.25M
1458	8′	.60
1458	15′	.98
1458	25′	1.50
1458	50′	2.85
1458	100′	5.15
1458	250′	51.75M′
1458	500′	50.25M′
1458	1000′	50.25M′
1459	25′	1.35
1459	50′	2.55
1459	100′	4.95
1459	250′	47.50M′
1459	500′	46.00M′
1459	1000′	46.00M′
1460	15′	1.20
1460	25′	1.88
1460	50′	3.52
1460	100′	6.60
1460	250′	63.75M′
1460	500′	61.75M′
1460	1000′	61.75M′
1461	10′	.43
1461	15′	.57
1461	25′	.90
1461	50′	1.50
1461	100′	2.85
1461	250′	27.75M′
1461	500′	25.50M′
1461	1000′	25.50M′
1462	15′	1.28
1462	25′	2.10
1462	50′	3.90
1462	100′	7.50
1462	250′	75.00M′
1462	500′	68.25M′
1462	1000′	68.25M′
1463	15′	1.50
1463	25′	2.40
1463	50′	3.65
1463	100′	8.70
1463	250′	21.00
1463	500′	84.00M′
1463	1000′	84.00M′
1464	15′	1.72
1464	25′	2.85
1464	50′	5.25
1464	100′	10.00
1464	250′	24.25
1464	500′	97.50M′
1464	1000′	97.50M′
1465	15′	2.03
1465	25′	3.38
1465	50′	6.30
1465	100′	12.30
1465	250′	30.00
1465	500′	120.00M′
1465	1000′	120.00M′
1466	15′	2.55
1466	25′	4.13
1466	50′	7.72
1466	100′	15.50
1466	250′	37.50
1466	500′	150.00M′
1466	1000′	150.00M′
1467	15′	2.78
1467	25′	4.58
1467	50′	8.48
1467	100′	16.50
1467	250′	40.00
1467	500′	160.50M′
1467	1000′	160.50M′
1471	100′	4.13
1471	250′	9.00
1471	500′	35.25
1471	1000′	33.75
1472	100′	4.13
1472	250′	9.75
1472	500′	37.50
1472	1000′	37.50
1473	100′	7.88
1473	250′	18.75
1473	500′	72.75
1473	1000′	70.75
1474	100′	9.75
1474	250′	23.63
1474	500′	89.25
1474	1000′	87.75
1475	100′	11.17
1475	250′	9.27
1475	500′	106.50
1475	1000′	105.00
1476	100′	15.75
1476	250′	37.50
1476	500′	144.00
1476	1000′	142.50
1477	100′	18.75
1477	250′	45.00
1477	500′	168.75
1477	1000′	168.75
1481	100′	3.00
1481	250′	27.00
1481	500′	25.50
1481	1000′	25.50
1482	100′	3.22
1482	250′	30.00
1482	500′	28.50
1482	1000′	28.50
1483	100′	4.50
1483	250′	42.00
1483	500′	40.50
1483	1000′	40.50
1484	100′	5.48
1484	250′	52.88
1484	500′	51.38
1484	1000′	51.38
1485	100′	6.75
1485	250′	65.63
1485	500′	64.78
1485	1000′	64.78
1486	100′	8.25
1486	250′	80.10
1486	500′	78.60
1486	1000′	78.60
1487	100′	9.98
1487	250′	96.75
1487	500′	95.25
1487	1000′	95.25
1488	100′	11.55
1488	250′	110.25
1488	500′	105.75
1488	1000′	105.75
1489	100′	12.91
1489	250′	125.55
1489	500′	124.05
1489	1000′	124.05
1490	100′	14.78
1490	250′	144.00
1490	500′	142.50
1490	1000′	142.50
1494	100′	16.88
1494	250′	165.00
1494	500′	163.50
1494	1000′	163.50
1495	100′	17.48
1495	250′	171.00
1495	500′	169.50
1495	1000′	169.50
1501	100′	21.00
1501	250′	190.50
1501	500′	189.00
1501	1000′	189.00
1502	100′	22.13
1502	250′	211.50
1502	500′	210.00
1502	1000′	210.00

2000 Series
See Consolidated Page 5

No.	Unit Pkg. or Length	Net Price Each
3815	100′	1.05
3815	1000′	9.00
3816	100′	.75
3816	1000′	6.75
3817	100′	.54
3817	1000′	4.13
3818	100′	.48
3818	1000′	3.38
3819	100′	.38
3819	1000′	2.63
3821	100′	1.47
3821	1000′	13.20
3831	100′	2.03
3831	1000′	20.25
3841	100′	4.20
3841	1000′	39.00
3845	100′	6.45
3845	1000′	60.00
3846	100′	.36
3846	1000′	2.48
3847	100′	.35
3847	1000′	2.33
3848	100′	.33
3848	1000′	2.18
4072	25:	.72
4072	50′	1.35
4072	100′	2.70
4072	250′	23.63M′
4072	500′	23.25M′
4072	1000′	23.25M′
4074	25′	1.65
4074	50′	3.15
4074	100′	5.75
4074	250′	55.00M′
4074	500′	54.00M′
4074	1000′	53.00M′
4077	25′	.60
4077	50′	1.20
4077	100′	2.32
4077	250′	18.00M′
4077	500′	17.90M′
4077	1000′	17.50M′
4079	25′	1.75
4079	50′	2.45
4079	100′	4.50
4079	250′	43.50M′
4079	500′	42.75M′
4079	1000′	42.00M′
4087	100′	6.65
4087	250′	64.25M′
4092	100′	5.75
4092	250′	54.35M′
4202	25′	1.20
4202	50′	2.25
4202	100′	4.45
4202	250′	40.25M′
4207	25′	1.50
4207	50′	2.55
4207	100′	4.90
4207	250′	44.50M′
4212	25′	2.15
4212	50′	3.45
4212	100′	7.70
4212	250′	72.50M′
4214	25′	3.75
4214	50′	7.00
4214	100′	13.50
4214	250′	127.50M′
4217	25′	1.80
4217	50′	3.30
4217	100′	6.30
4217	250′	58.50M′
4222	25′	2.70
4222	50′	4.50
4222	100′	9.65
4222	250′	92.25M′
4224	25′	4.20
4224	50′	8.25
4224	100′	16.20
4224	250′	150.00M′
4227	25′	2.45
4227	50′	4.45
4227	100′	8.35
4227	250′	79.25M′
4232	25′	3.20
4232	50′	6.00
4232	100′	11.50
4232	250′	110.50M′
4234	25′	4.72
4234	50′	9.00
4234	100′	16.95
4234	250′	165.00M′
4237	25′	3.00
4237	50′	5.40
4237	100′	10.30
4237	250′	98.55M′
4242	25′	3.97
4242	50′	7.50
4242	100′	14.00
4242	250′	135.95M′
4244	25′	5.75
4244	50′	10.80
4244	100′	20.70
4244	250′	202.50M′
4247	25′	3.90
4247	50′	7.45
4247	100′	13.95
4247	250′	135.00M′
4252	25′	5.85
4252	50′	11.30
4252	100′	21.60
4252	250′	211.90M′
4254	25′	7.15
4254	50′	15.75
4254	100′	30.45
4254	250′	300.00M′
4257	25′	6.20
4257	50′	12.00
4257	100′	22.50
4257	250′	225.00M′

For Single Spiral Stripe No. 637-876 Incl., add $1.50 per 1,000 ft.—Minimum quantity 1,000′ per Color.

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

See Following Pages for Specifications

CHICAGO, ILLINOIS

No.	Unit Pkg. or Length	Net Price Each
4262	25′	7.50
4262	50′	14.25
4262	100′	27.20
4262	250′	267.75M′
4264	25′	9.95
4264	50′	19.05
4264	100′	37.20
4264	250′	367.50M′
4267	25′	7.50
4267	50′	14.25
4267	100′	27.75
4267	250′	267.25M′
4272	25′	9.35
4272	50′	17.50
4272	100′	32.55
4272	250′	321.15
4274	25′	12.00
4274	50′	22.75
4274	100′	44.25
4274	250′	435.00M′
4307	25′	1.72
4307	50′	3.15
4307	100′	6.00
4307	250′	54.00M′
4312	25′	2.10
4312	50′	3.90
4312	100′	7.50
4312	250′	71.75M′
4314	25′	3.67
4314	50′	7.05
4314	100′	13.70
4314	250′	134.60M′
4317	25′	2.02
4317	50′	3.67
4317	100′	7.05
4317	250′	64.50M′
4322	25′	2.78
4322	50′	5.25
4322	100′	10.20
4322	250′	97.50M′
4324	25′	4.27
4324	50′	8.15
4324	100′	16.12
4324	250′	157.50M′
4327	25′	2.70
4327	50′	5.10
4327	100′	9.80
4327	250′	95.25M′
4332	25′	3.30
4332	50′	6.20
4332	100′	12.20
4332	250′	119.25M′
4334	25′	5.10
4334	50′	9.60
4334	100′	18.65
4334	250′	184.10M′
4337	25′	3.00
4337	50′	5.70
4337	100′	11.10
4337	250′	108.00M′
4342	25′	4.05
4342	50′	7.65
4342	100′	15.00
4342	250′	145.85M′
4344	25′	5.85
4344	50′	11.40
4344	100′	22.50
4344	250′	222.00M′
4347	25′	3.85
4347	50′	7.49
4347	100′	19.65
4347	250′	163.85M′
4352	25′	6.20
4352	50′	12.00
4352	100′	23.75
4352	250′	234.35M′
4354	25′	8.77
4354	50′	17.17
4354	100′	33.98
4354	250′	336.75M′
4357	25′	7.05
4357	50′	12.90
4357	100′	23.75
4357	250′	234.00M′
4362	25′	8.49
4362	50′	15.83
4362	100′	30.38
4362	250′	241.75M′
4364	25′	11.85
4364	50′	22.50
4364	100′	43.88
4364	250′	276.25M′
4367	25′	9.07
4367	50′	16.87
4367	100′	32.62
4367	250′	314.25M′
4372	25′	12.15
4372	50′	23.02
4372	100′	45.00
4372	250′	435.00M′
4374	25′	14.40
4374	50′	27.60
4374	100′	54.93
4374	250′	527.50M′
4401	100′	53.25M′
4401	500′	51.75M′
4401	1000′	48.75M′
4402	100′	57.75M′
4402	500′	54.00M′
4402	1000′	51.75M′
4405	100′	45.00M′
4405	500′	43.50M′
4405	1000′	41.25M′
4415	100′	117.75M′
4415	500′	116.25M′
4415	1000′	114.00M′
4419	100′	114.00M′
4419	500′	111.00M′
4419	1000′	108.00M′
4431	100′	120.00M′
4431	500′	117.75M′
4431	1000′	112.50M′
4432	100′	262.50M′
4432	500′	255.00M′
4432	1000′	247.50M′
4433	100′	183.00M′
4433	500′	179.25M′
4433	1000′	171.75M′
4434	100′	112.50M′
4434	500′	109.87M′
4434	1000′	105.00M′
4435	100′	135.00M′
4435	500′	133.50M′
4435	1000′	130.50M′
4436	100′	279.75M′
4436	500′	276.75M′
4436	1000′	264.75M′
4437	100′	342.00M′
4437	500′	336.00M′
4437	1000′	322.50M′
4438	100′	361.50M′
4438	500′	358.50M′
4438	1000′	342.00M′
4439	100′	234.00M′
4439	500′	229.50M′
4439	1000′	217.50M′
4440	100′	129.00M′
4440	500′	127.50M′
4440	1000′	124.50M′
4441	100′	225.00M′
4441	500′	222.00M′
4441	1000′	212.25M′
4442	100′	177.25M′
4442	500′	175.05M′
4442	1000′	168.00M′
4443	100′	195.00M′
4443	500′	192.00M′
4443	1000′	183.75M′
4444	100′	255.00M′
4444	500′	252.00M′
4444	1000′	241.50M′
4445	100′	300.00M′
4445	500′	297.00M′
4445	1000′	283.50M′
4446	100′	54.25M′
4446	500′	53.25M′
4446	1000′	51.00M′
4447	100′	87.75M′
4447	500′	86.25M′
4447	1000′	83.25M′
4448	100	120.00M′
4448	500′	118.50M′
4448	1000′	115.50M′
4449	100′	51.00M′
4449	500′	49.50M′
4449	1000′	47.62M′
4450	100′	56.25M′
4450	500′	54.37M′
4450	1000′	53.62M′
4451	100′	62.25M′
4451	500′	60.75M′
4451	1000′	59.25M′
4452	100′	57.00M′
4452	500′	55.50M′
4452	1000′	52.50M′
4453	100′	63.75M′
4453	500′	63.00M′
4453	1000′	61.50M′
4454	100′	117.75M′
4454	500′	116.25M′
4454	1000′	113.25M′
4455	100′	150.00M′
4455	500′	147.25M′
4455	1000′	138.75M′
4456	100′	94.50M′
4456	500′	93.00M:
4456	1000′	90.00M′
4457	100′	52.50M′
4457	500′	51.00M′
4457	1000′	48.75M′
4459	100′	45.75M′
4459	500′	44.62M′
4459	1000′	42.37M′
4460	100′	103.50M′
4460	500′	102.00M′
4460	1000′	100.50M′
4461	100′	172.50M′
4461	500′	171.00M′
4461	1000′	168.00M′
4462	100′	243.00M′
4462	500′	240.00M′
4462	1000′	238.5M′
4463	100′	126.62M′
4463	500′	123.27M′
4463	1000′	118.87M′
4464	100′	72.75M′
4464	500′	71.25M′
4464	1000′	68.25M′
4465	100′	78.75M′
4465	500′	77.25M′
4465	1000′	74.62M′
4466	100′	101.75M′
4466	500′	99.75M′
4466	1000′	96.75M′
4467	100′	300.00M′
4467	1000′	262.50M′
4468	100′	300.00M′
4468	1000′	262.50M′
4469	100′	102.00M′
4469	500′	100.50M′
4469	1000′	90.00M′
4470	100′	62.25M′
4470	500′	60.75M′
4470	1000′	59.25M′
4471	100′	142.50M′
4471	500′	138.75M′
4471	1000′	135.00M′
4472	100′	64.50M′
4472	500′	63.75M′
4472	1000′	62.25M′
4473	100′	892.50M′
4473	500′	825.38M′
4473	1000′	825.00M′
4474	100′	56.25M′
4474	500′	52.50M′
4474	1000′	51.00M′
4475	100′	275.63M′
4475	500′	262.50M′
4475	1000′	256.50M′
4482	500′	577.50M′
4482	1000′	534.00M′
4483	500′	792.00M′
4483	1000′	729.00M′
4484	500′	91.13M′
4484	1000′	84.75M′
4485	500′	96.00M′
4485	1000′	90.00M′
4486	500′	496.50M′
4486	1000′	472.50M′
4487	500′	277.50M′
4487	1000′	264.00M′
4488	500′	243.75M′
4488	1000′	236.25M′
4489	500′	127.50M′
4489	1000′	126.00M′
4490	500′	337.50M′
4490	1000′	330.00M′
4491	500′	180.00M′
4491	1000′	177.00M′
4492	500′	292.50M′
4492	1000′	277.50M′
4493	500′	587.25M′
4493	1000′	548.25M′
4494	500′	795.00M′
4494	1000′	766.50M′
4495	500′	281.25M′
4495	1000′	273.75M′
4496	500′	134.00M′
4496	1000′	128.25M′
4497	500′	240.00M′
4497	1000′	232.50M′
4500	100′	1.28
4500	500′	9.98M′
4500	1000′	9.98M′
4503	100′	1.65
4503	500′	14.70M′
4503	1000′	14.70M′
4504	100′	1.73
4504	500′	14.15M′
4504	1000′	14.15M′
4506	100′	1.87
4506	500′	15.25M′
4506	1000′	15.25M′
4507	100′	3.00
4507	500′	28.85M′
4507	1000′	28.85M′
4508	100′	1.85
4508	500′	14.85M′
4508	1000′	14.85M′
4509	100′	2.70
4509	500′	24.30M′
4509	1000′	24.30M′
4510	100′	2.60
4510	500′	20.50M′
4510	1000′	20.50M′
4515	100′	2.62
4515	500′	23.50M′
4515	1000′	23.50M′
4521	100′	4.20
4521	500′	40.50M′
4521	1000′	39.75M′
4523	100′	5.62
4523	500′	52.50M′
4523	1000′	52.50M′
4527	100′	2.25
4527	500′	19.00M′
4527	1000′	19.00M′
5103	1000′	32.62M′
5123	500′	41.25M′
5123	1000′	40.50M′
5124	500′	54.00M′
5124	1000′	53.25M′
5135	500′	50.25M′
5135	1000′	50.25M′
5201	100′	1.65
5201	500′	6.60
5201	1000′	13.20M′
5205	100′	2.78
5205	500′	12.38
5205	1000′	24.75M′
5211	100′	3.82
5211	500′	17.25
5211	1000′	33.75M′
5221	100′	5.47
5221	500′	25.13
5221	1000′	50.25M′
5226	100′	5.55
5226	500′	26.25
5226	1000′	52.50M′
5231	100′	9.37
5231	500′	45.00
5231	1000′	90.00M′
5236	100′	9.75
5236	500′	47.25
5236	1000′	94.50M′
5241	100′	7.95
5241	500′	37.50
5241	1000′	75.00M′
5251	100′	10.95
5251	500′	54.75
5251	1000′	109.50M′
5271	100′	13.88
5271	500′	67.50
5271	1000′	135.00M′
5286	100′	25.50
5286	500″	127.50
5286	1000′	255.00M′
5400	10′	.30
5400	25′	.65
5400	100′	2.15
5400	500′	9.00
5400	1000′	18.00M′
5401	10′	.35
5401	25′	.75
5401	100′	2.33
5401	500′	9.75
5401	1000′	19.50M′
5406	25′	.90
5406	100′	2.85
5406	500′	12.75
5406	1000′	25.00
5411	25′	1.05
5411	100′	3.45
5411	500′	15.75
5411	1000′	31.50
5416	15′	.90
5416	100′	4.88
5416	500′	22.85
5416	1000′	45.75M′
5421	15′	.98
5421	100′	5.25
5421	500′	24.75
5421	1000′	49.50
5426	15′	1.05
5426	100′	5.62
5426	500′	26.25
5426	1000′	52.50M′
5431	15′	1.13
5431	100′	6.23
5431	500′	29.25
5431	1000′	58.50M′
5434	100′	8.25
5434	500′	37.50
5434	1000′	75.00M′
5501	100′	3.00
5501	500′	13.50
5501	1000′	25.62M′
5506	100′	4.50
5506	500′	20.25
5506	1000′	40.50M′
5511	100′	2.93
5511	500′	12.20
5511	1000′	24.45
5516	100′	4.50
5516	500′	21.45
5516	1000′	42.75
5521	100′	4.35
5521	500′	19.50
5521	1000′	39.00M′
5526	100′	3.38
5526	500′	16.50
5526	1000′	32.25
5531	100′	6.53
5531	500′	30.00
5531	1000′	60.00M′
5536	100′	4.50
5536	500′	21.00
5536	1000′	42.00M′
5538	100′	4.65
5538	500′	22.50
5538	1000′	45.00M′
5541	50′	3.08
5541	100′	5.63
5541	500′	27.00
5541	1000′	52.50M′
5543	100′	3.90
5543	500′	16.50
5543	1000′	33.00M′
5547	25′	.35
5547	50′	.68
5547	100′	1.28
5547	250′	3.20
5547	500′	8.55M′
5547	1000′	8.25M′
5551	10′	.45
5551	25′	.90
5551	50′	1.50
5551	100′	2.85
5551	500′	12.75
5551	1000′	25.50M′
5556	100′	1.50
5556	500′	6.53
5556	1000′	12.53M′
5561	100′	1.95
5561	500′	9.38
5561	1000′	18.00M′
5566	500′	15.60
5566	1000′	30.75M′
5568	100′	3.30
5568	250′	8.25
5568	500′	15.00
5568	1000′	30.00M′
5569	50′	2.25
5569	100′	4.25
5569	500′	19.10
5569	1000′	38.00M′
5601	100′	6.68
5601	250′	62.25M′
5606	100′	13.13
5606	250′	126.38M′
6006		204.25M′
6012		295.20M′
6018		382.50M′
6025		478.50M′
6050		897.75M′
6075		1264.50M′
6100		1608.38M′
6150		2310.00M′
6200		2988.75M:
6300		4992.38M′
6400		6277.13M′

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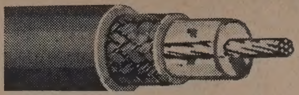
RG TYPE COAXIAL CABLES



Non-Contaminating Low Temp. Black Jacket		Vinyl & Poly. Jackets					Shields							
Number RG-/U	Cat. Number	No. RG/U	Cat. No.	Armor O.D.	Jacket O.D.	Vinyl Jacket	Outer	Inner	Dielectric O.D.	Center Conductor	V.P. %	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
		5	4431		.332	Black	C	C	.185	16	65.9	28.5	3000	52.5
5B	4432				.332	Black	S	S	.185	.053S	65.9	29.5	3000	50
6A	4433				.332	Black	C	S	.185	21CW	65.9	20.	2700	75
		7	4434		.370	Black	—	C	.250**	19	84	12.5	1000	97
		8	4415		.405	Black	—	C	.285	7/21	65.9	29.5	4000	52
8A	4435				.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	52
		9	4436		.420	Grey	C	S	.280	7/21S	65.9	30	4000	51
9A	4437				.420	Grey	S	S	.280	7/21S	65.9	30	4000	51
9B	4438				.425	Black	S	S	.285	7/.0296S	65.9	30.5	4000	50
10A	4439			.475	.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	50
		11	4419		.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
11A	4440				.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
12A	4441			.475	.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
		13	4442		.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
13A	4443				.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
14A	4467				.545	Grey	C	C	.370	10	65.9	29.5	5500	52
14A	4468				.545	Black	C	C	.370	.106	65.9	30	5500	52
17A	4482				.870	Black	—	C	.680	.188C	65.9	29.5	11000	52
18A	4483			.945	.870	Black	—	C	.680	.188C	65.9	29.5	11000	52
		21	4444		.322	Grey	S	S	.185	16N	65.9	29	2700	53
21A	4445				.332	Black	S	S	.185	.053N	65.9	30	2700	50
		22	4471		.405	Black	—	T	.285	Two 7/.0152	65.9	16	1000	95
22B	4475				.420	Black	T	T	.285	Two 7/.0152	65.9	16	1000	95
		29	4446		.184	Poly	—	T	.116	20	65.9	28.5	1900	53.5
		54A	4469		.250	Poly	—	T	.178	7/.0152	65.9	26.5	3000	58
		55	4447		.206	Poly	T	T	.116	20	65.9	28.5	1900	53.5
55A	4448				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50
55B	4484				.206	Black	T	T	.116	20S	65.9	28.5	1900	53.5
		58	4405		.195	Black	—	T	.116	20	65.9	28.5	1900	53.5
58A	4449				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
58B	4474				.195	Black	—	T	.116	20	65.9	28.5	1900	53.5
58C	4450				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
		59	4401		.242	Black	—	C	.146	22CW	65.9	21	2300	73
		59	4402		.242	Grey	—	C	.146	22CW	65.9	21	2300	73
59A	4451				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
59B	4470				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
		62	4452		.242	Black	—	C	.146**	22CW	84	13.5	750	93
62A	4453				.242	Black	—	C	.146**	22CW	84	13.5	750	93
62B	4472				.242	Black	—	C	.146	22CW	84	13.5	750	93
		63	4454		.405	Black	—	C	.285**	22CW	84	10	1000	125
63B	4455				.405	Black	—	C	.285**	22CW	84	10	1000	125
65A	4473				.405	Black	—	C	.340	32F	65	44	3000	950
		71	4456		.250	Poly	T	T or C	.146**	22CW	84	13.5	750	93
71A	4466				.245	Black	T	T or C	.146**	22CW	84	13.5	750	93
71B	4485				.250	Black	T	C	.146	22CW	84	13.5	750	93
74A	4486			.615	.545	Black	C	C	.370	10C	65.9	29.5	7000	52
79B	4487			.475	.405	Black	—	C	.285	22CW	84	10	1000	125
		108	4464		.235	Black	—	T	.079 ea.	Two 7/28T	68	23.5	1000	78
108A	4465				.235	Black	—	T	.079 ea.	Two .7/28T	65.9	23.5	1000	78
122	4457				.160	Black	—	T	.096	27/36T	65.9	29.5	1900	50
212	4488				.332	Black	S	S	.185	.0556S	65.9	29.5	3000	50
213	4489				.405	Black	—	C	.285	7X.0296C	65.9	29.5	5000	50
214	4490				.425	Black	S	S	.285	7X.0296C	65.9	29.5	5000	50
215	4497				.475	Black	—	C	.285	7/.029C	65.9	29.5	4000	50
216	4491				.425	Black	C	C	.285	7X26TC	65.9	20.5	5000	75
217	4492				.545	Black	C	C	.370	.106C	65.9	29.5	7000	50
218	4493				.870	Black	—	C	.680	.195C	65.9	29.5	11000	50
219	4494			.945	.870	Black	—	C	.680	.195C	65.9	29.5	11000	50
222	4495				.332	Black	S	S	.185	.0556N	65.9	29.0	2700	50
223	4496				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50

**Semi-Solid Dielectric N—Nichrome C—Cooper S—Silvered Copper CW—Copperweld T—Tinned Cooper F—Formvar

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG CHICAGO, ILLINOIS

CONSOLIDATED

RG TYPE COAXIAL CABLES

MINIATURE COAXIAL CABLE

Non-Contaminating Low Temp. Black Jacket		Vinyl & Poly. Jackets					Shields							
Number RG/U	Cat. Number	Cat. No.	No. RG/U	Armor O.D.	Jacket O.D.	Vinyl Jacket	Outer	Inner	Dielectric O.D.	Center Conductor	V.P. %	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
		4459	174		.105	Black	—		.060**	7/.0063CW		30		50

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

FOAM POLYETHYLENE COAXIAL CABLE

		8	**4477**		.405	Black	—	C	.285	7/19C	80	24.5	1500	50
11	**4476**				.405	Black	—	C	.285	14C	80	16.5	3000	75
		58	**4498**		.195	Black	—	T	.116	20C	80	28.5	1900	53.5
		59	**4478**		.195	Black	—	C	.107	22CW	80	17	500	72
62	**4479**				.242	Black	—	C	.146	.023CW	80	14.5	700	93
11	**4480**				.406	Black	C	C	.285	14C	80	16.5	3000	75
59	**4481**				.242	Black	C	C	.107	.107	80	17	500	72

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

TRIAXIAL CABLE DOUBLE SHIELD DOUBLE JACKET

RG/U Type	Cat. No.	Impedance in Ohms	Jacket Diameter	Vinyl Jacket	Shields 1st	Shields 2nd	O. D. Dielectric	Inner Conductor	V. P. %	Cap. MMFD/Ft.	Max. Oper. Volts-RMS
Triaxial 58A	**4463**	50	.285	Black	T	T	.116	19 .0071T	65.9	28.5	1,900
Triaxial 59	**4460**	73	.242	Black	C	C	.146	22CW	65.9	21.0	2,300
Triaxial 11	**4461**	75	.460	Black	C	C	.285	7 26T	65.9	20.5	4,000
Triaxial 8	**4462**	52	.490	Black	C	C	.285	7 21C	65.9	29.5	4,000

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

TEFLON COAXIAL CABLE

Number RG/U	Cat. Number	Inner Conductor	Dielectric Material	Nominal Diameter of Dielectric (inch)	Type of Shielding Braids	Protective Covering	Nominal Over-all Diameter (inch)	Nominal Capacitance (mmfd/ft.)	Maximum Operating Voltage (Volts rms)	Nominal Impedance (Ohms)
87A	**4701**	7/.032 Silver Covered Copper	F-1	.280	Silver Coated Copper Double Braid	V	.425	29.5	5000	50
94	**4702**	19/.0225 Silver Covered Copper	F-2	.292	Copper Double Braid	V	.445	29.0	7000	50
94A	**4703**	19/.0254 Silver Plated Copper	F-2	.370	Copper Double Braid	V	.500	27.0	7000	50
115	**4704**	7/.028 Silver Covered Copper	F-2	.250	Silver Coated Copper Double Braid	V	.375	29.5	5000	50
115A	**4705**	7/.028 Silver Covered Copper	F-2	.255	Silver Coated Copper Double Braid	V	.415	29.5	4000	50
116	**4706**	7/.032 Silver Covered Copper	F-1	.280	Silver Coated Copper Double Braid	V with armor	.490	29.5	5000	50
117	**4707**	.188 Copper	F-1	.620	Copper Single Braid	V	.730	29.0	7000	50
117A	**4708**	.188 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
118	**4709**	.188 Copper	F-1	.620	Copper Single Braid	V with armor	.795	29.0	7000	50
118A	**4710**	.188 Copper	F-1	.620	Copper Single Braid	V with armor	.780	—	7000	50
119	**4711**	.102 Copper	F-1	.332	Copper Double Braid	V	.465	29.0	6000	50
120	**4712**	.102 Copper	F-1	.332	Copper Double Braid	V with armor	.525	29.0	6000	50
126	**4713**	7/.0203 Karma or Equal	F-1	.185	Karma or Equal Single Braid	V	.280	29.0	3000	50
140	**4714**	.025 Silver Coated Copper Steel	F-1	.146	Silver Coated Copper Single Braid	V	.233	21.0	2300	75
141	**4715**	.0359 Silver Plated Copper Weld	F-1	.116	Silver Coated Copper Single Braid	V	.190	28.5	1900	50
141A	**4716**	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Single Braid	V	.190	28.5	1900	50
142	**4717**	.0359 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	V	.206	28.5	1900	50
142A	**4718**	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	V	.206	28.5	1900	50

Continued on following page

F-1—Solid Teflon F-2—Taped Teflon F-3—Air Spaced Teflon

V—High Temperature Lacquer Impregnated Fiberglass Braid with Teflon Tape Between Shield and Jacket

VI—Polyester Fiber Impregnated with High Temperature Lacquer over Wrapped or Extruded Silicone Impregnated Fiberglass

IIA—Low Temperature Black Polyvinylchloride Non-Contaminating

FEP—Flourinated Ethylene Propylene Copolymar, 200° Teflon

TFE—Tetraflouride Ethylene Propylene Copolymar, 250°C Teflon

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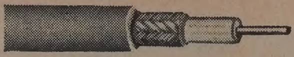
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

TEFLON COAXIAL CABLE



Number RG/U	Cat. Number	Inner Conductor	Dielectric Material	Nominal Diameter of Dielectric (inch)	Type of Shielding Braids	Protective Covering	Nominal Over-all Diameter (inch)	Nominal Capacitance (mmfd/ft.)	Maximum Operating Voltage (Volts rms)	Nominal Impedance (Ohms)
142B	**4719**	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	FEP	.195	28.5	1900	50
143	**4720**	.057 Silver Plated Copper Weld	F-1	.185	Silver Coated Copper Double Braid	V	.325	28.5	3000	50
143A	**4721**	.059 Silver Covered Copper Steel	F-1	.185	Silver Coated Copper Double Braid	V	.325	28.5	3000	50
144	**4722**	7/.0179 Silver Covered Copper Steel	F-1	.285	Silver Coated Copper Single Braid	V	.410	20.5	5000	75
146	**4723**	.007 Copper Covered Steel	F-3	.285	Copper Single Braid	V	.375	6.0	1000	190
161	**4724**	7/38 Silver Plated Cadmium Bronze	F-1	.057	Single Silver Copper	Extruded Black Nylon	.090	20.0	1000	70
165	**4725**	7/.032 Silver Covered Copper	F-1	.285	Silver Covered Copper Single Braid	V	.410	—	5000	50
166	**4726**	7/.032 Silver Covered Copper	F-1	.285	Silver Covered Copper Single Braid	V with armor	.460	—	5000	50
178	**4727**	7/.0039 Silver Plated Copper Weld	F-1	.036	Silver Plated Copper Single Braid	KEL-F	.079	27.9	1000	50
178A	**4728**	7/.004 Silver Covered Copper Sreel	F-1	.034	Silver Plated Copper Single Braid	KEL-F	.075	27.9	1000	50
178B	**4729**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	FEP	.075	—	1000	50
179A	**4730**	7/.004 Silver Covered Copper Steel	F-1	.063	Silver Plated Copper Single Braid	KEL-F	.105	20.0	1200	75
179B	**4731**	7/.004 Silver Covered Copper Steel	F-1	.063	Silver Covered Copper Single Braid	FEP	.105	—	1200	75
180	**4732**	7/.0039 Silver Plated Copper Weld	F-1	.103	Silver Plated Copper Single Braid	KEL-F	.141	15.3	1500	93
180A	**4733**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Plated Copper Single Braid	KEL-F	.145	14.5	1500	95
180B	**4734**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	FEP	.145	—	1500	95
187	**4735**	7/.004 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	Teflon	.110	—	1200	75
187A	**4736**	7/.004 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	TFE	.110	—	1200	75
188	**4737**	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	Teflon	.110	—	1200	50
188A	**4738**	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	TFE	.110	—	1200	50
195	**4739**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	Teflon	.155	—	1500	95
195A	**4740**	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	TFE	.155	—	1500	95
196	**4741**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	Teflon	.080	—	1000	50
196A	**4742**	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	TFE	.080	—	1000	50
209	**4743**	19/.037 Silver Covered Copper	F-3	.500	Silver Covered Copper Double Braid	VI	.750	—	3200	50
210	**4744**	.0253 Silver Covered Copper Steel	F-3	.146	Silver Covered Copper Single Braid	V	.242	14.5	750	93
211	**4745**	.190 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
211A	**4746**	.190 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
225	**4747**	7/.0312 Silver Covered Copper	F-1	.285	Silver Covered Copper Double Braid	V	.430	—	5000	50
226	**4748**	19/.0254 Silver Covered Copper	F-2	.370	Copper Double Braid	V	.500	—	7000	50
227	**4749**	7/.0312 Silver Covered Copper	F-1	.285	Silver Covered Copper Double Braid	V with armor	.490	—	5000	50
228	**4750**	.190 Copper	F-1	.620	Copper Single Braid	V with armor	.795	—	7000	50
228A	**4751**	.190 Copper	F-1	.620	Copper Single Braid	V with armor	.795	—	7000	50
235	**4752**	7/.028 Copper	F-2	.255	Silver Covered Copper Double Braid	VI	.490	—	5000	50
280	**4753**	.1144 Copper	F-2	.327	Silver Covered Copper Double Braid	IIA	.480	27.5	4000	50
281	**4754**	19/.0378 Silver Covered Copper	F-2	.500	Silver Covered Copper Double Braid	VI	.750	29.5	4000	50
301	**4755**	7/.0203 Karma	F-1	.185	Karma Single Braid	FEP	.245	29.0	3000	50
302	**4756**	.025 Silver Covered Copper Steel	F-1	.146	Silver Covered Copper Single Braid	FEP	.206	21.0	2300	75
303	**4757**	.039 Silver Covered Copper Steel	F-1	.116	Silver Covered Copper Single Braid	FEP	.170	28.5	1900	50
304	**4758**	.059 Silver Covered Copper Steel	F-1	.185	Silver Covered Copper Double Braid	FEP	.280	28.5	3000	50
316	**4759**	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	FEP	.102	—	1200	50

F-1—Solid Teflon F-2—Taped Teflon F-3—Air Spaced Teflon

V—High Temperature Lacquer Impregnated Fiberglass Braid with Teflon Tape Between Shield and Jacket

VI—Polyester Fiber Impregnated with High Temperature Lacquer over Wrapped or Extruded Silicone Impregnated Fiberglass

IIA—Low Temperature Black Polyvinylchloride Non-Contaminating

FEP—Flourinated Ethylene Propylene Copolymar, 200° Teflon

TFE—Tetraflouride Ethylene Propylene Copolymar, 250°C Teflon

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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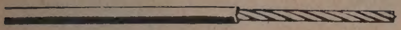
CHICAGO, ILLINOIS

MIL-W-76

TYPE MW-VINYL — 1000V — 80C



Tinned copper, vinyl insulated, medium wall. The polyvinylchloride insulation is flame and ozone resistant and is inert to most chemicals, oils, and solvents.

STRANDED CONDUCTOR

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9001	MW-C-24-(7)-U	24(7x32)	.017	.058	As Listed	As Listed	As Listed
9002	MW-C-22-(7)-U	22(7x30)	.017	.064	As Listed	As Listed	As Listed
9003	MW-C-20-(10)-U	20(10x30)	.017	.070	As Listed	As Listed	As Listed
9004	MW-C-18-(16)-U	18(16x30)	.017	.080	As Listed	As Listed	As Listed
9005	MW-C-16-(26)-U	16(26x30)	.019	.098	As Listed	As Listed	As Listed
9006	MW-C-14-(41)-U	14(41x30)	.020	.111	As Listed	As Listed	As Listed
9007	MW-C-12-(65)-U	12(65x30)	.020	.130	As Listed	As Listed	As Listed

SOLID CONDUCTOR

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	100′	500′	1000′
9010	MW-C-22-(1)-U	22 (Solid)	.017	.059	As Listed	As Listed	As Listed
9011	MW-C-20-(1)-U	20 (Solid)	.017	.066	As Listed	As Listed	As Listed
9012	MW-C-18-(1)-U	18 (Solid)	.017	.074	As Listed	As Listed	As Listed
9013	MW-C-16-(1)-U	16 (Solid)	.017	.085	As Listed	As Listed	As Listed

Stock Colors*

0	Black	**92**	White/Red
1	Brown	**93**	White/Orange
2	Red	**94**	White/Yellow
3	Orange	**95**	White/Green
4	Yellow	**96**	White/Blue
5	Green	**97**	White/Violet
6	Dark Blue	**98**	White/Gray
7	Violet (Purple)	**901**	White/Black/Brown
8	Gray (Slate)	**902**	White/Black/Red
9	White	**908**	White/Black/Orange
11	Tan	**904**	White/Black/Yellow
12	Pink	**905**	White/Black/Green
13	Light Blue	**906**	White/Black/Blue
90	White/Black	**907**	White/Black/Violet
91	White/Brown	**908**	White/Black/Gray

TYPE MW-SHIELDED — 1000V — 80C

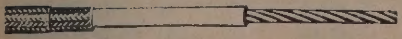
Tinned copper, polyvinylchloride insulation. Medium wall, tinned copper shield overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9014	MW-C-24-(7)-S	24(7x32)	.017	.082	As Listed	As Listed	As Listed
9015	MW-C-22-(7)-S	22(7x30)	.017	.088	As Listed	As Listed	As Listed
9016	MW-C-20-(10)-S	20(10x30)	.017	.094	As Listed	As Listed	As Listed
9017	MW-C-18-(16)-S	18(16x30)	.017	.104	As Listed	As Listed	As Listed
9018	MW-C-16-(26)-S	16(26x30)	.019	.122	As Listed	As Listed	As Listed
9019	MW-C-14-(41)-S	14(41x30)	.020	.135	0, 2, 9	0, 2, 9	0, 2, 9
9020	MW-C-12-(65)-S	12(65x30)	.020	.154	0, 2, 9	0, 2, 9	0, 2, 9

Stock Colors*

0	Black	**5**	Green
1	Brown	**6**	Dark Blue
2	Red	**7**	Violet (Purple)
3	Orange	**8**	Gray (Slate)
4	Yellow	**9**	White

TYPE MW-SHIELDED — NYLON JACKET — 1000V — 80C



Tinned copper, polyvinylchloride insulation. Medium wall, tinned copper shield, nylon jacket.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9021	MW-C-22-(7)-SJ	22(7x30)	.017	.095	9	9	9
9022	MW-C-20-(7)-SJ	20(10x30)	.017	.101	9	9	9
9023	MW-C-18-(16)-SJ	18(16x30)	.017	.112	9	9	9
9024	MW-C-16-(19)-SJ	16(26x30)	.019	.131	9	9	9

Stock Color*

9 Vinyl insulation. White only.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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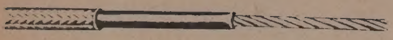
MIL-W-76

TYPE MW-GLASS BRAID — 1000V — 80C



Tinned copper, polyvinylchloride insulated. Medium wall, lacquered glass braid overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9025	MW-C-22(7)-B	22(7x30)	.017	.076	As Listed	As Listed	As Listed
9026	MW-C-20(10)-B	20(10x30)	.017	.084	As Listed	As Listed	As Listed
9027	MW-C-18(16)-B	18(16x30)	.017	.094	As Listed	As Listed	As Listed
9028	MW-C-16(26)-B	16(26x30)	.019	.112	As Listed	As Listed	As Listed
9029	MW-C-14(41)-B	14(41x30)	.020	.125	9,90thru98	9,90thru98	9,90thru98
9030	MW-C-12(65)-B	12(65x30)	.020	.144	9, 90, 92	9, 90, 92	9, 90, 92

Stock Colors*

0	Black	90	White/Black
1	Brown	91	White/Brown
2	Red	92	White/Red
3	Orange	93	White/Orange
4	Yellow	94	White/Yellow
5	Green	95	White/Green
6	Dark Blue	96	White/Blue
7	Violet (Purple)	97	White/Violet
8	Gray (Slate)	98	White/Gray
9	White		

TYPE MW-GLASS BRAID-SHIELDED — 1000V — 80C

Tinned copper, polyvinylchloride insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9031	MW-C-22(7)-BS	22(7x30)	.017	.102	9	9	9
9032	MW-C-20(7)-BS	20(10x30)	.017	.108	9	9	9
9033	MW-C-18(16)-BS	18(16x30)	.017	.118	9	9	9
9034	MW-C-16(19)-BS	16(26x30)	.019	.136	9	9	9
9035	MW-C-14(19)-BS	14(41x30)	.020	.149	9	9	9
9036	MW-C-12(19)-BS	12(65x30)	.020	.168	9	9	9

Stock Color*

9 Vinyl insulation. White only.

TYPE MW — NYLON JACKET — 1000V — 90C

Tinned copper, polyvinylchloride insulated. Medium wall, clear nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9037	MW-C-22(7)-J	22(7x30)	.017	.069	As Listed	As Listed	As Listed
9038	MW-C-20(10)-J	20(10x30)	.017	.075	As Listed	As Listed	As Listed
9039	MW-C-18(16)-J	18(16x30)	.017	.086	As Listed	As Listed	As Listed
9040	MW-C-16(26)-J	16(26x30)	.019	.106	As Listed	As Listed	As Listed
9041	MW-C-14(41)-J	14(41x30)	.020	.118	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9
9042	MW-C-12(65)-J	12(65x30)	.020	.139	0, 1, 3, 4, 5, 9	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9

Stock Colors*

0	Black	90	White/Black
1	Brown	91	White/Brown
2	Red	92	White/Red
3	Orange	93	White/Orange
4	Yellow	94	White/Yellow
5	Green	95	White/Green
6	Dark Blue	96	White/Blue
7	Violet (Purple)	97	White/Violet
8	Gray (Slate)	98	White/Gray
9	White		

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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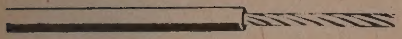
CHICAGO, ILLINOIS

MIL-W-76

TYPE HW — VINYL — Gauges 16-22 2500V, Gauges 6-14 600—80C



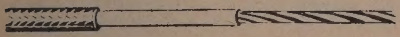
Tinned copper, polyvinylchloride insulated. Heavy wall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9100	HW-C-22(7)-U	22(7x30)	.034	.098	As Listed	As Listed	As Listed
9101	HW-C-20(10)-U	20(10x30)	.034	.104	As Listed	As Listed	As Listed
9102	HW-C-18(16)-U	18(16x30)	.034	.114	As Listed	As Listed	As Listed
9103	HW-C-16(26)-U	16(26x30)	.034	.128	0, 2, 9	0, 2, 9	0, 2, 9
9104	HW-C-14(41)-U	14(41x30)	.048	.171	0, 2, 9	0, 2, 9	0, 2, 9
9105	HW-C-12(65)-U	12(65x30)	.048	.191	0, 2, 9	0, 2, 9	0, 2, 9
9106	HW-C-10(105)-U	10(105x30)	.048	.214	0, 2, 9	0, 2, 9	0, 2, 9
9107	HW-C-8(133)-U	8(133x29)	.048	.261	0, 2, 9	0, 2, 9	0, 2, 9
9108	HW-C-6(133)-U	6(133x27)	.048	.296	0, 2, 9	0, 2, 9	0, 2, 9

Stock Colors*

0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Dark Blue
7	Violet (Purple)
8	Gray (Slate)
9	White

TYPE HW — GLASS BRAID — 600V — 80C



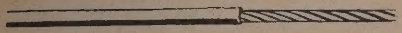
Tinned copper, polyvinylchloride insulated. Heavy wall, lacquered glass braid.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9110	HW-C-10(105)-B	10(105x30)	.048	.232	As Listed	As Listed	As Listed
9111	HW-C-8(133)-B	8(133x29)	.048	.279	As Listed	As Listed	As Listed
9112	HW-C-6(133)-B	6(133x27)	.048	.314	As Listed	As Listed	As Listed

Stock Colors*

9	White
90	White/Black
92	White/Red

TYPE LW — VINYL — 300V — 80C



Tinned copper, polyvinylchloride insulated. Light wall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9200	LW-C-30(7)-U	30(7x38)	.011	.034	0 thru 9	0 thru 9	0 thru 9
9201	LW-C-28(7)-U	26(7x36)	.011	.037	As Listed	As Listed	As Listed
9202	LW-C-26(7)-U	26(7x34)	.011	.041	As Listed	As Listed	As Listed
9203	LW-C-24(7)-U	24(7x32)	.011	.046	As Listed	As Listed	As Listed
9204	LW-C-22(7)-U	22(7x30)	.012	.054	As Listed	As Listed	As Listed
9205	LW-C-20(10)-U	20(10x30)	.012	.060	As Listed	As Listed	As Listed

Stock Colors*

0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Dark Blue
7	Violet (Purple)
8	Gray (Slate)
9	White
90	White/Black
91	White/Brown
92	White/Red
93	White/Orange
94	White/Yellow
95	White/Green
96	White/Blue
97	White/Violet
98	White/Gray

TYPE LW — NYLON JACKET — 300V — 90C

Tinned copper, polyvinylchloride insulated. Light wall, clear nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
9210	LW-C-30(7)-J	30(7x38)	.011	.039	0 thru 9	0 thru 9	0 thru 9
9211	LW-C-28(7)-J	28(7x36)	.011	.042	As Listed	As Listed	As Listed
9212	LW-C-26(7)-J	26(7x34)	.011	.046	As Listed	As Listed	As Listed
9213	LW-C-24(7)-J	24(7x32)	.011	.051	As Listed	As Listed	As Listed
9214	LW-C-22(7)-J	22(7x30)	.012	.059	As Listed	As Listed	As Listed
9215	LW-C-20(10)-J	20(10x30)	.012	.065	As Listed	As Listed	As Listed

Stock Colors*

0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Dark Blue
7	Violet (Purple)
8	Gray (Slate)
9	White
90	White/Black
91	White/Brown
92	White/Red
93	White/Orange
94	White/Yellow
95	White/Green
96	White/Blue
97	White/Violet
98	White/Gray

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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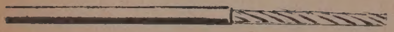
MIL-W-16878

TYPE B — VINYL — 600V — 105C



Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9300	B-32	32(7x40)	.010	.029	0 thru 9	0 thru 9	0 thru 9
9301	B-30	30(7x38)	.010	.032	0 thru 9	0 thru 9	0 thru 9
9302	B-28	28(7x36)	.010	.035	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9303	B-26	26(7x34)	.010	.039	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9304	B-24	24(19x36)	.010	.045	9,90thru98	9,90thru98	9,90thru98
9305	B-24	24(7x32)	.010	.044	As Listed	As Listed	As Listed
9306	B-22	22(19x34)	.010	.051	9,90thru98	9,90thru98	9,90thru98
9307	B-22	22(7x30)	.010	.050	As Listed	As Listed	As Listed
9308	B-20	20(19x32)	.010	.059	9,90thru98	9,90thru98	9,90thru98
9309	B-20	20(7x28)	.010	.058	As Listed	As Listed	As Listed
9310	B-18	18(19x30)	.010	.069	9,90thru98	9,90thru98	9,90thru98
9311	B-18	18(7x26)	.010	.068	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9312	B-16	16(19x29)	.010	.077	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98

Stock Colors*

0	Black	90	White/Black
1	Brown	91	White/Brown
2	Red	92	White/Red
3	Orange	93	White/Orange
4	Yellow	94	White/Yellow
5	Green	95	White/Green
6	Dark Blue	96	White/Blue
7	Violet (Purple)	97	White/Violet
8	Gray (Slate)	98	White/Gray
9	White		
11	Tan		
12	Pink		
13	Light Blue		

TYPE B — VINYL-NYLON JACKET — 600V — 115C

Tinned copper, polyvinylchloride insulated, nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9313	B-32	32(7x40)	.010	.035	0 thru 9	0 thru 9	0 thru 9
9314	B-30	30(7x38)	.010	.038	0 thru 9	0 thru 9	0 thru 9
9315	B-28	28(7x36)	.010	.041	As Listed	As Listed	As Listed
9316	B-26	26(7x34)	.010	.045	As Listed	As Listed	As Listed
9317	B-24	24(19x36)	.010	.051	As Listed	As Listed	As Listed
9318	B-24	24(7x32)	.010	.050	As Listed	As Listed	As Listed
9319	B-22	22(19x34)	.010	.057	As Listed	As Listed	As Listed
9320	B-22	22(7x30)	.010	.056	As Listed	As Listed	As Listed
9321	B-20	20(19x32)	.010	.065	As Listed	As Listed	As Listed
9322	B-20	20(7x28)	.010	.064	As Listed	As Listed	As Listed
9323	B-18	18(19x30)	.010	.075	9,90thru98	9,90thru98	9,90thru98
9324	B-18	18(7x26)	.010	.074	As Listed	As Listed	As Listed
9325	B-16	16(19x29)	.010	.083	As Listed	As Listed	As Listed

Stock Colors*

0	Black	90	White/Black
1	Brown	91	White/Brown
2	Red	92	White/Red
3	Orange	93	White/Orange
4	Yellow	94	White/Yellow
5	Green	95	White/Green
6	Dark Blue	96	White/Blue
7	Violet (Purple)	97	White/Violet
8	Gray (Slate)	98	White/Gray
9	White		

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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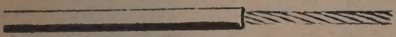
MIL-W-16878

TYPE C VINYL — 1000V — 105C



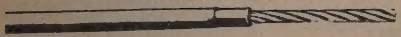
Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9400	C-24	24(7x32)	.018	.060	9,90thru98	9,90thru98	9,90thru98
9401	C-22	22(7x30)	.018	.066	As Listed	As Listed	As Listed
9402	C-20	20(7x28)	.018	.074	As Listed	As Listed	As Listed
9403	C-18	18(7x26)	.018	.084	As Listed	As Listed	As Listed
9404	C-16	16(19x29)	.018	.093	9,90thru98	9,90thru98	9,90thru98
9405	C-14	14(19x27)	.018	.107	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0	Black	90	White/Black
1	Brown	91	White/Brown
2	Red	92	White/Red
3	Orange	93	White/Orange
4	Yellow	94	White/Yellow
5	Green	95	White/Green
6	Dark Blue	96	White/Blue
7	Violet (Purple)	97	White/Violet
8	Gray (Slate)	98	White/Gray
9	White		

TYPE C — VINYL-NYLON JACKET — 1000V — 115C



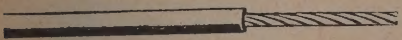
Tinned copper, polyvinylchloride insulated, nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9410	C-24	24(7x32)	.018	.066	9,90thru98	9,90thru98	9,90thru98
9411	C-22	22(7x30)	.018	.072	As Listed	As Listed	As Listed
9412	C-20	20(7x28)	.018	.080	As Listed	As Listed	As Listed
9413	C-18	18(7x26)	.018	.091	As Listed	As Listed	As Listed
9414	C-16	16(19x29)	.018	.100	9,90thru98	9,90thru98	9,90thru98
9415	C-14	14(19x27)	.018	.114	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0	Black	90	White/Black
1	Brown	91	White/Brown
2	Red	92	White/Red
3	Orange	93	White/Orange
4	Yellow	94	White/Yellow
5	Green	95	White/Green
6	Dark Blue	96	White/Blue
7	Violet (Purple)	97	White/Violet
8	Gray (Slate)	98	White/Gray
9	White		

TYPE D — VINYL — 3000V — 105C



Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9500	D-24	24(7x32)	.030	.084	9,90thru98	9,90thru98	9,90thru98
9501	D-22	22(7x30)	.030	.090	As Listed	As Listed	As Listed
9502	D-20	20(7x28)	.030	.098	As Listed	As Listed	As Listed
9503	D-18	18(7x26)	.030	.108	As Listed	As Listed	As Listed
9504	D-16	16(19x29)	.030	.117	9,90thru98	9,90thru98	9,90thru98
9505	D-14	14(19x27)	.030	.131	9,90thru98	9,90thru98	9,90thru98
9506	D-12	12(19x25)	.035	.160	9,90thru98	9,90thru98	9,90thru98
9507	D-10	10(37x26)	.035	.181	9,90thru98	9,90thru98	9,90thru98
9508	D- 8	8(133x29)	.040	.245	9,90thru98	9,90thru98	9,90thru98
9509	D- 6	6(133x27)	.040	.290	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0	Black	90	White/Black
1	Brown	91	White/Brown
2	Red	92	White/Red
3	Orange	93	White/Orange
4	Yellow	94	White/Yellow
5	Green	95	White/Green
6	Dark Blue	96	White/Blue
7	Violet (Purple)	98	White/Gray
8	Gray (Slate)		
9	White		

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

MIL-W-5086A

AIRCRAFT WIRE & CABLE

TYPES 1 & 2 — 600V

UNSHIELDED

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
9700	AN-22	22(19x34)	.068	No. 1	9	9	9
9701	AN-20	20(19x32)	.078	No. 1	9	9	9
9702	AN-18	18(19x30)	.088	No. 1	9	9	9
9703	AN-16	16(19x29)	.098	No. 1	9	9	9
9704	AN-14	14(19x27)	.117	No. 1	9	9	9
9705	AN-12	12(19x25)	.137	No. 1	9	9	9

Stock Color*

White only (9)

Additional Description

MIL-W-5086A-Type I
AN-22 thru AN-12.
Stranded tinned copper, white polyvinylchloride clear nylon jacket insulation.

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
9706	AN-22	22(19x34)	.075	No. 2	9	9	9
9707	AN-20	20(19x32)	.085	No. 2	9	9	9
9708	AN-18	18(19x30)	.095	No. 2	9	9	9
9709	AN-16	16(19x29)	.105	No. 2	9	9	9
9710	AN-14	14(19x27)	.125	No. 2	9	9	9
9711	AN-12	12(19x25)	.143	No. 2	9	9	9

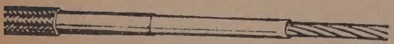
MIL-W-5086A-Type II
AN-22 thru AN-12
Stranded tinned copper, white polyvinylchloride insulation, saturated glass braid, clear nylon jacket.

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
9713	AN-10	10(49x27)	.189	No. 2	9	9	9
9714	AN-8	8(133x29)	.240	No. 2	9	9	9
9715	AN-6	6(133x27)	.293	No. 2	9	9	9
9716	AN-4	4(133x25)	.355	No. 2	9	9	9
9717	AN-2	2(665x30)	.425	No. 2	9	9	9
9718	AN-0	0(1045x30)	.525	No. 2	9	9	9
9719	AN-00	00(1330x30)	.590	No. 2	9	9	9

MIL-W-5086A-Type II
AN-10 thru AN-00
Stranded tinned copper, white polyvinylchloride insulation, saturated glass braid, nylon braid, nylon lacquer.

MIL-C-7078A — TYPE 1 — 600 VOLT

(MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)



SHIELDED

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
9720	AN-22	22(10x34)	.092	No. 1	9	9	9
9721	AN-20	20(19x32)	.102	No. 1	9	9	9
9722	AN-18	18(19x30)	.112	No. 1	9	9	9
9723	AN-16	16(19x29)	.122	No. 1	9	9	9
9724	AN-14	14(19x27)	.141	No. 1	9	9	9
9725	AN-12	12(19x25)	.161	No. 1	9	9	9

Stock Color*

White only (9)

Additional Description

Stranded tinned copper, white polyvinylchloride insulation, nylon jacket, braided tinned copper shield.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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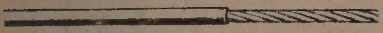
CHICAGO, ILLINOIS

MIL-W-16878-D

TYPE E — TFE TEFLON — 600V — 200C



Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated.

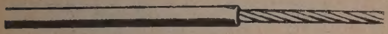
Catalog Number	Type Designation	Size & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9600	E-32	32(7x40)	.032	As Listed	As Listed	As Listed
9601	E-30	30(7x38)	.032	As Listed	As Listed	As Listed
9602	E-28	28(7x36)	.035	As Listed	As Listed	As Listed
9603	E-26	26(19x38)	.039	As Listed	As Listed	As Listed
9604	E-26	26(7x34)	.039	As Listed	As Listed	As Listed
9605	E-24	24(19x36)	.044	As Listed	As Listed	As Listed
9606	E-24	24(7x32)	.044	As Listed	As Listed	As Listed
9607	E-22	22(19x34)	.050	As Listed	As Listed	As Listed
9608	E-22	22(7x30)	.050	As Listed	As Listed	As Listed
9609	E-20	20(19x32)	.058	As Listed	As Listed	As Listed
9610	E-20	20(7x28)	.058	As Listed	As Listed	As Listed
9611	E-18	18(19x30)	.069	As Listed	As Listed	As Listed
9612	E-18	18(7x26)	.069	As Listed	As Listed	As Listed
9613	E-16	16(19x29)	.080	As Listed	As Listed	As Listed
9614	E-14	14(19x27)	.095	As Listed	As Listed	As Listed
9615	E-12	12(19x25)	.115	As Listed	As Listed	As Listed
9616	E-10	10(37x26)	.131	As Listed	As Listed	As Listed

Stock Colors*

0 Black	5 Green
1 Brown	6 Dark Blue
2 Red	7 Violet (Purple)
3 Orange	8 Gray (Slate)
4 Yellow	9 White

NOTE: Tracer colors available upon customer request. Minimum quantity 500 feet.

TYPE EE — TFE TEFLON — 1000V — 200C



Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated.

Catalog Number	Type Designation	Size & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
9620	EE-32	32(7x40)	.042	As Listed	As Listed	As Listed
9621	EE-30	30(7x38)	.042	As Listed	As Listed	As Listed
9622	EE-28	28(7x36)	.045	As Listed	As Listed	As Listed
9623	EE-26	26(19x38)	.049	As Listed	As Listed	As Listed
9624	EE-26	26(7x34)	.049	As Listed	As Listed	As Listed
9625	EE-24	24(19x36)	.054	As Listed	As Listed	As Listed
9626	EE-24	24(7x32)	.054	As Listed	As Listed	As Listed
9627	EE-22	22(19x34)	.060	As Listed	As Listed	As Listed
9628	EE-22	22(7x30)	.060	As Listed	As Listed	As Listed
9629	EE-20	20(19x32)	.068	As Listed	As Listed	As Listed
9630	EE-20	20(7x28)	.068	As Listed	As Listed	As Listed
9631	EE-18	18(19x30)	.079	As Listed	As Listed	As Listed
9632	EE-18	18(7x26)	.079	As Listed	As Listed	As Listed
9633	EE-16	16(19x29)	.089	As Listed	As Listed	As Listed
9634	EE-14	14(19x27)	.110	As Listed	As Listed	As Listed
9635	EE-12	12(19x25)	.129	As Listed	As Listed	As Listed
9636	EE-10	10(37x26)	.149	As Listed	As Listed	As Listed

Stock Colors*

0 Black	5 Green
1 Brown	6 Dark Blue
2 Red	7 Violet (Purple)
3 Orange	8 Gray (Slate)
4 Yellow	9 White

NOTE: Tracer colors available upon customer request. Minimum quantity 500 feet.

ROME SYNTHINOL
UL TYPE HOOK-UP AND LEAD WIRES

UL-300V-80C

Catalog Number	Size Awg.	Stranding	Nom. Ins. Thckns.	Volts	Max. Dia. Inches
801	22	Solid	1/64	300	.065
811	20	Solid	1/64	300	.071
841	18	Solid	1/64	300	.080
821	22	7 x No. 30	1/64	300	.069
831	20	10 x No. 30	1/64	300	.078
846	18	16 x No. 30	1/64	300	.085
881	20—2 condr. Black & Red	10 x No. 30	.025	300	.170

UL-600V-105C (CSA 600V-90C)

Catalog Number	Size Awg.	Stranding	Nom. Ins. Thckns.	Volts	Max. Dia. Inches
851	22	Solid	1/32	600	.097
856	20	Solid	1/32	600	.104
861	18	Solid	1/32	600	.112
866	22	7 x No. 30	1/32	600	.102
871	20	10 x No. 30	1/32	600	.110
876	18	16 x No. 30	1/32	600	.119

Colors: Black, Blue, Brown, Green, Orange, Pink, Purple, Red, Slate, White, Yellow

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 500 FT., 1000 FT.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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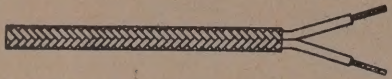
SHIELDED TEFLON CABLES
MIL-W-16878

Each conductor stranded silver plated copper Type E extruded Teflon .010″ insulation—90% braided silver copper shield, also supplied with either a Teflon impregnated Fiberglass braid or Teflon fused tape overall jacket.

Temperature rating −65°C to +260°C. Voltage rating 600 volts.



NO OUTER COVERING OVER SHIELD

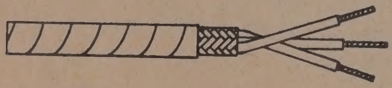
Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9800	1	24(19x36)	.069
9801	2	24(19x36)	.112
9802	3	24(19x36)	.120
9803	4	24(19x36)	.132
9804	1	22(19x34)	.075
9805	2	22(19x34)	.124
9806	3	22(19x34)	.132
9807	4	22(19x34)	.146
9808	1	20(19x32)	.083
9809	2	20(19x32)	.142
9810	3	20(19x32)	.151
9811	4	20(19x32)	.168
9812	1	18(19x30)	.093
9813	2	18(19x30)	.162
9814	3	18(19x30)	.172
9815	4	18(19x30)	.192

STOCK COLORS

Catalog Numbers 9800 thru 9855

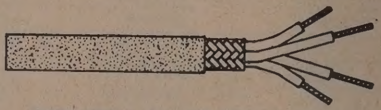
Specify color coding when ordering.

Standard spool put up Catalog Numbers 9800 thru 9855: 100 ft., 500 ft., 1000 ft.



TEFLON TAPE WRAP JACKET OVER SHIELD

Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9820	1	24(19x36)	.084
9821	2	24(19x36)	.128
9822	3	24(19x36)	.135
9823	4	24(19x36)	.148
9824	1	22(19x34)	.090
9825	2	22(19x34)	.140
9826	3	22(19x34)	.148
9827	4	22(19x34)	.162
9828	1	20(19x32)	.099
9829	2	20(19x32)	.158
9830	3	20(19x32)	.167
9831	4	20(19x32)	.184
9832	1	18(19x30)	.109
9833	2	18(19x30)	.178
9834	3	18(19x30)	.189
9835	4	18(19x30)	.208



TEFLON IMPREGNATED BRAID OVER SHIELD

Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9840	1	24(19x36)	.081
9841	2	24(19x36)	.126
9842	3	24(19x36)	.133
9843	4	24(19x36)	.144
9844	1	22(19x34)	.088
9845	2	22(19x34)	.137
9846	3	22(19x34)	.144
9847	4	22(19x34)	.158
9848	1	20(19x32)	.097
9849	2	20(19x32)	.154
9850	3	20(19x32)	.163
9851	4	20(19x32)	.180
9852	1	18(19x30)	.106
9853	2	18(19x30)	.174
9854	3	18(19x30)	.185
9855	4	18(19x30)	.205

Stock Color Numbers in accordance to Military Type Designation and E.I.A. Color Coding.

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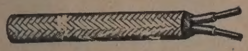
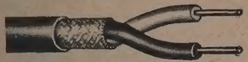
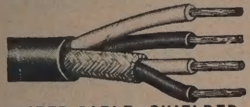
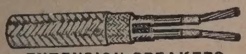
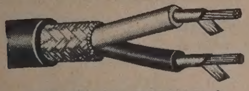
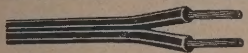
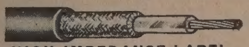
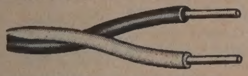
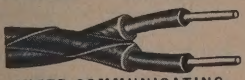
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

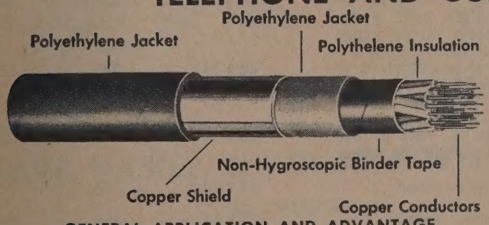
INTERCOMMUNICATING AND SOUND SYSTEM CABLES

STANDARD SPOOL PUT-UP: 10 FT., 25 FT., 50 FT., 100 FT., 500 FT., 1000 FT.

	NO.	TYPE	Size & Stranding	INSULATION THICKNESS (INCHES)	SPECIFICATION AND GENERAL APPLICATION	NOMINAL DIAMETER (INCHES)
 STATION-TO-STATION EXTENSION WIRING SHIELDED	5501	2 Condr.	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together condr. red 1 condr. black—closely woven braided tinned copper shield.	.110
	5506	3 Condr.	22 Solid	.015	Same as 550+condr. red—1 condr. black—1 condr. blue.	.145
	5521	2 Condr.	20 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven braided tinned copper shield.	.155
 EXTENSION WIRING SHIELDED—PLASTIC JACKET	5511	2 Condr	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—and a spiral tinned copper shield with .020" tubed gray vinyl plastic jacket.	.170
 PAIRED CABLE—SHIELDED PLASTIC JACKET	5516	2 Pair 4 Condr	22 7x30	.015	Stranded tinned copper vinyl plastic insulation. 2 pair cabled (4 conductors—1 pair black & white with braided tinned copper shield—1 pair black & brown unshielded—both pair bunched and .020" gray vinyl plastic jacket overall.	.168x.276
 EXTENSION-SPEAKERS SHIELDED FOR LONG RUNS	5526	2 Condr.	20 10x30	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven tinned copper shield.	.215
	5531	3 Condr.	20 10x30	.015	Same as 5526—1 condr. red—1 condr. black—1 condr. blue.	.230
	5536	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red—1 condr. white, closely woven braided tinned copper shield.	.235
 EXPANSION-SPEAKERS SHIELDED—PLASTIC JACKET	5568	2 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation. 2 condrs.—cabled black and red—tinned copper spiral wrapped shield .023" chrome vinyl plastic jacket.	.166
	5569	3 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation, 3 condrs.—cabled black, red, whiet—tinned copper spiral shield—chrome vinyl plastic jacket.	.193
	5538	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red. 1 condr. white. Spiral tinned copper shield and .020" gray vinyl plastic jacket overall.	.225
	5543	2 Condr.	20 10x30	.015	Same as 5538 1 condr. Red. 1 condr. Black.	.185
	5541	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red—1 condr. white, closely woven braided tinned copper shield and .020" gray vinyl plastic jacket overall.	.260
 JUKE BOX SPEAKER CABLE	5547	2 Condr.	24 7x32	.015	Stranded 1 condr. bare copper—1 condr. tinned copper—2 condrs. parallel gray vinyl plastic insulation. Colors—brown, clear, gray, white.	.058x.115
 HIGH IMPEDANCE LAPEL MICROPHONES	5551	1 Condr.	24 16x34	.020	Stranded tinned copper polyethylene insulation closely woven braided tinned copper shield with .020" gray vinyl jacket.	.125
 INTER COMMUNICATING SOUND SYSTEM	5556	2 Condr.	19 Solid	.015	Bare copper vinyl plastic insulation, wires twisted together—1 condr. brown—1 condr. tan.	.115
	5561	3 Condr.	19 Solid	.015	Same as 5556—1 condr. brown—1 condr. tan—1 condr. gray.	.132
 INTER COMMUNICATING WEATHER-PROOF	5566	2 Condr.	22 Solid	.015	Bare copper .015 rubber insulation with a black cotton braid weatherproof finish. Conductors coded for easy identification. Ideal for exterior or interior communication installations.	.131x.203

TELEPHONE AND COMMUNICATION CABLE DIRECT BURIAL TYPE

FULLY COLOR CODED



GENERAL APPLICATION AND ADVANTAGE

APPLICATION: Communication and Telephone Cable for use in direct burial installations provides a high quality product similar to that used for aerial and duct systems, but with the addition of protective armoring. This minimizes the possibility of damage to the cable from rodents and insects and, correctly installed, reduces the dangers to the cable from sharp stones and other hazards of underground burial installations.

ADVANTAGE: The lightweight, but rugged construction of direct burial Communication and Telephone Cable permits fast and economical underground installation of communication systems with the assurance of dependable and enduring service. This is made possible through utilization of the same high quality polyethylene compounds that are used in its counterpart for aerial and duct type installations, with the added protection of copper armoring tapes and a durable, high-molecular weight, polyethylene jacket.

SPECIFICATIONS

Solid bare annealed copper 22 Awg. gauge conductors; thin wall, color coded, polyethylene insulation; conductors twisted to form pairs with symmetrically varying lays to minimize cross-talk; cabled (for 6 thru 50 pairs) by stranding pairs in concentric layers, or (for 75 thru 400 pairs) by stranding pairs into concentrically formed units, which are in turn cabled to form the complete assembly; non-hygroscopic binder tape furnishing high dielectric strength between shield and individual conductors; continuous copper shielding tape; high-molecular weight, polyethlene jacket.

NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	NOMINAL JACKET THICKNESS, MILS		NOMINAL O. D. (Inches)
				INNER	OUTER	
6006	6	12	22 Solid	40	40	.430
6012	12	24	22 Solid	40	40	.500
6018	18	36	22 Solid	40	40	.560
6025	25	50	22 Solid	40	40	.630
6050	50	100	22 Solid	40	40	.820
6075	75	150	22 Solid	50	50	.990
6100	100	200	22 Solid	50	50	1.20
6150	150	300	22 Solid	50	50	1.30
6200	200	400	22 Solid	50	50	1.50
6300	300	600	22 Solid	50	60	1.80
6400	400	800	22 Solid	50	60	2.00

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

PAIRED PLASTIC CONDUCTORS

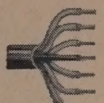
SPECIFICATIONS AND GENERAL APPLICATIONS Tinned copper conductor .010″ vinyl plastic insulation. Cabled .202″ gray vinyl plastic Jacket overall

NO.	TYPE	SIZE AND STRANDING	NOMINAL DIAMETER (Inches)
5201	1 Pr. 2 Condr.	22 Solid	.145
5205	2 Pr. 4 Condr.	22 Solid	.190
5211	3 Pr. 6 Condr.	22 Solid	.230
5221	5 Pr. 10 Condr.	22 Solid	.250
5226	6 Pr. 12 Condr.	22 Solid	.265
5231	7 Pr. 14 Condr.	22 Solid	.280
5236	8 Pr. 16 Condr.	22 Solid	.300
5241	9 Pr. 18 Condr.	22 Solid	.320
5251	11 Pr. 22 Condr.	22 Solid	.360
5271	15 Pr. 30 Condr.	22 Solid	.390
5286	27 Pr. 54 Condr.	22 Solid	.510

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

MULTIPLE CONDUCTORS FULLY COLOR CODED

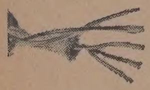
SIZE & STRANDING 22 - 7x30 SPECIFICATION AND GENERAL APPLICATION Tinned copper conductor .010″ vinyl plastic insulation. Cabled .020″ gray vinyl plastic Jacket overall

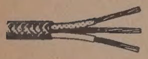


NO.	TYPE		NOMINAL DIAMETER (Inches)
5400	2 Condr.	22 7x30	.130
5401	3 Condr.	22 7x30	.140
5406	4 Condr.	22 7x30	.158
5411	5 Condr.	22 7x30	.170
5416	6 Condr.	22 7x30	.212
5421	7 Condr.	22 7x30	.230
5426	8 Condr.	22 7x30	.235
5431	9 Condr.	22	.245
5434	12 Condr.	22 7x30	.250

STANDARD SPOOL PUT-UP: 10 FT., 15 FT., 25 FT., 100 FT., 500 FT., 1000 FT.

PHONOGRAPH MULTIPLE CABLE STANDARD SPOOL PUT-UP: 500 FT., 1000 FT.





TYPE No.	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)
5103	3-22	Same as 5030	3 condrs. No. 22 with 1/64″ thermoplastic insulation, all individually color coded. All conductors grouped into cable form with a treated cotton braid overall lacquered.	7 x 30	.125
5123	2-16 1-18	Same as 5030	2 condrs. No. 16 1/64″ thermoplatic insulation. 1 condr. No. 18 1/32″ thermoplastic insulation, all individually color coded. All conductors grouped into cable form with gray vinyl plastic jacket.	2-26 x 30 1-16 x 30	.215
5135	22 5 condr.	Same as 5030	5 condr. No. 22 with 1/64″ thermoplastic insulation; 3 condr. twisted together with a braided tinned copper shield; 2 condr. twisted; all condr. grouped into cable form with a brown cotton braid overall.	5-7 x 30	.225
5124	4-18	Same as 5030	No. 18 solid 4 condr. color coded gray plastic jacket overall.	Solid	.225

CONSOLIDATED

MICROPHONE CABLE

CONDUCTOR COLOR CHART: 1—Black; 2—White; 3—Red; 4—Green; 5—Yellow; 6—Blue; 7—Brown.

STANDARD SPOOL PUT-UP: 9 FT., 10 FT., 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

SHIELDED; Weatherproof rubber jacket for all microphone or weatherproof extension work. (Longer continuous lengths if desired.)

No.	TYPE	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)	NOMINAL CAPACITY per ft. (mmf)
1461	1 conductor	22	Lapel microphone	Tinned copper polyethylene insulation with a closely woven tinned copper shield. Grey vinyl plastic jacket.	16 x 34	.125	34.
1457	1 conductor	22	Crystal, Ribbon and other high impedance microphones	Same as 1461 except heavier polyethylene insulation on conductor.	16 x 34	.200	25.
					26 x 34	.175	40.
1458	2 conductor	22	Low impedance microphones	Tinned copper conductors polyethylene insulation conductors; black and white. Cabled with fillers closely woven tinned copper shield. Gray vinyl plastic jacket.	16 x 34	.231	32.
1459	1 conductor	20	Lapel microphone	Tinned Copper Wire, with polyethylene to .087″ O.D. with a closely woven tinned copper shielded braid, and a heavy black plastic jacket overall.	26 x 34	.240	33.
1460	1 conductor	20	Crystal microphone	Tinned copper, yarn serve; wall of live rubber; tinned copper braid shield; rubber jacket overall.	26 x 34	.240	68.
1462	2 conductor	20	Carbon microphones	Same as 1460; color coded	00 x 00	.268	
1456	2 conductor	18	Heavy duty studio cable	Same as 1460; color coded	41 x 34	.295	80.
1463	3 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.277	85.
1464	4 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.295	95.
1465	5 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.323	
1466	6 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.350	
1467	7 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.360	
1455	8 conductor	20	Same as 1465	Same as 2460; color coded	26 x 34	.386	

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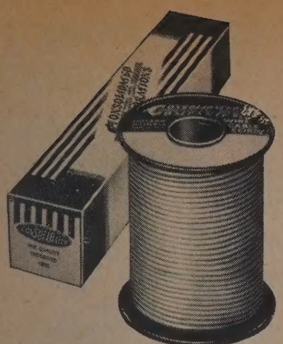

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG CHICAGO, ILLINOIS

MAGNET WIRE

Popular, profitable specialty wire packaged for easy selling in radio-electrical, department, specialty and hardware stores. Wide variety of sizes and insulations. Keeps stock in perfect order, always saleable. Supplied on Spool as shown and in Heavier Weights for whatever weight desired. Here is a handy and convenient way to stock small quantities of wire. It prevents wire from matting or tangling.

No. 2000

VARIOUS OTHER INSULATIONS

Film — **Technical Classification**

ENAMEL—oleoresinous
FORMVAR—poly vinyl acetal
SODEREZE—polyurethane
THERMALEZE—epoxide polyester
NYFORM—formvar, nylon sheath
NYLON ______
BONDEZE ______
GRIPEZE ______
LECTRON—acrylic
ISONSEL—terephthalic polyester
ALKANVAR—terephthalic polyester
SYLKYD ENAMELED
COTTON AND COMBINATIONS
SILK AND COMBINATIONS
CELANESE AND COMBINATIONS
GLASS AND COMBINATIONS
PAPER AND COMBINATIONS

Larger Quantities At Same Per Pound List

SPECIAL MAGNET WIRES

In addition to the standard listing shown here, we maintain an extensive stock of all other sizes in round, rectangular and square magnet wire.

PLAIN ENAMEL MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.45	$0.75	$1.39
15	.45	.80	1.40
16	.50	.84	1.42
17	.50	.87	1.44
18	.50	.89	1.45
19	.55	.92	1.49
20	.55	.94	1.50
21	.55	.95	1.59
22	.55	.97	1.70
23	.58	.99	1.75
24	.60	1.00	1.87
25	.65	1.10	1.95
26	.65	1.10	2.03
27	.70	1.15	2.14
28	.73	1.20	2.25
29	.75	1.25	2.30
30	.80	1.30	2.35
31	.89	1.35	2.45
32	.90	1.40	2.50
33	.95	1.50	2.65
34	1.00	1.70	2.75
35	1.09	1.84	3.14
36	1.29	2.00	3.50
37	1.45	2.25	4.00
38	1.70	2.50	4.50
39	1.87	3.00	5.00
40	2.50	3.75	6.00
41	3.00	5.63	8.48
42	3.48	6.60	12.89
43	4.35	8.25	15.75
44	4.88	9.38	18.45

SINGLE FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.66	$1.12	$2.07
15	.66	1.20	2.10
16	.75	1.25	2.14
17	.75	1.30	2.15
18	.75	1.34	2.17
19	.83	1.39	2.23
20	.83	1.40	2.25
21	.83	1.42	2.37
22	.83	1.45	2.56
23	.89	1.49	2.62
24	.90	1.50	2.80
25	.97	1.65	2.92
26	.99	1.65	3.05
27	1.05	1.74	3.20
28	1.10	1.80	3.37
29	1.14	1.87	3.46
30	1.20	1.95	3.52
31	1.34	2.02	3.67
32	1.35	2.10	3.75
33	1.42	2.25	3.95
34	1.50	2.55	4.12
35	1.64	2.81	4.70
36	1.92	3.00	5.26
37	2.17	3.37	6.00
38	2.55	3.75	6.76
39	2.80	4.50	7.50
40	3.75	5.64	9.00
41	3.75	6.75	12.60
42	4.28	7.40	13.43
43	5.18	7.88	14.25
44	6.60	11.70	22.58

HEAVY FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.73	$1.24	$2.27
15	.73	1.34	2.33
16	.84	1.39	2.35
17	.84	1.44	2.37
18	.84	1.47	2.39
19	.92	1.52	2.45
20	.92	1.54	2.51
21	.92	1.55	2.61
22	.92	1.60	2.80
23	.97	1.64	2.87
24	1.00	1.65	3.07
25	1.15	1.97	3.50
26	1.19	1.98	3.64
27	1.25	2.07	3.84
28	1.34	2.15	4.04
29	1.37	2.24	4.14
30	1.44	2.34	4.22
31	1.67	2.52	4.58
32	1.69	2.63	4.67
33	1.77	2.81	4.94
34	1.87	3.19	5.16
35	2.04	3.46	5.88
36	2.39	3.75	6.58
37	2.72	4.20	7.50
38	3.17	4.69	8.45
39	3.50	5.64	9.38
40	4.69	7.04	11.27
41	5.18	7.59	13.65
42	5.78	8.15	14.72
43	6.00	8.63	15.08
44	7.43	11.40	23.33

DOUBLE COTTON COVERED MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.55	$0.95	$1.87
15	.58	.98	1.90
16	.60	1.00	1.95
17	.60	1.05	2.00
18	.60	1.10	2.05
19	.65	1.15	2.28
20	.65	1.25	2.34
21	.77	1.34	2.50
22	.82	1.39	2.64
23	.88	1.50	2.75
24	.94	1.60	3.00
25	.95	1.65	3.14
26	1.00	1.75	3.39
27	1.15	1.89	3.64
28	1.20	2.14	4.00
29	1.30	2.39	4.50
30	1.32	2.50	4.75
31	1.50	2.75	5.00
32	1.75	3.00	5.64
33	1.89	3.37	6.25
34	2.14	3.89	7.00
35	2.39	4.25	7.50
36	2.75	4.89	8.65
37	2.25	6.25	11.40
38	4.75	8.65	16.50
39	6.00	11.50	20.00
40	8.00	15.00	28.15

BARE COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.53	$0.97	$1.54
15	.57	1.00	1.60
16	.60	1.10	1.83
17	.52	1.12	1.87
18	.63	1.14	1.90
19	.65	1.17	1.95
20	.67	1.20	2.00
21	.68	1.20	2.07
22	.70	1.24	2.14
23	.70	1.27	2.17
24	.70	1.30	2.20
25	.72	1.30	2.20
26	.73	1.34	2.27
27	.75	1.37	2.30
28	.77	1.40	2.40
29	.77	1.42	2.47
30	.77	1.42	2.47
31	.77	1.44	2.53
32	.77	1.44	2.60
33	.78	1.47	2.68
34	.80	1.50	2.77
35	.82	1.55	2.90
36	.84	1.60	3.04
37	.92	1.75	3.22
38	1.00	1.90	3.40
39	1.02	1.97	3.45
40	1.04	2.04	3.50

TINNED COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.67	$1.13	$1.75
15	.73	1.27	1.92
16	.80	1.40	2.00
17	.84	1.44	2.03
18	.87	1.47	2.08
19	.90	1.50	2.12
20	.94	1.53	2.17
21	.95	1.53	2.24
22	.97	1.57	2.30
23	.98	1.58	2.34
24	1.00	1.60	2.37
25	1.00	1.60	2.37
26	1.00	1.60	2.37
27	1.05	1.67	2.64
28	1.10	1.75	2.90
29	1.13	1.84	2.94
30	1.17	1.92	2.97
31	1.20	2.00	3.04
32	1.24	2.09	3.10
33	1.27	2.17	3.19
34	1.30	2.25	3.27
35	1.32	2.30	3.40
36	1.34	2.34	3.54
37	1.36	2.42	3.72
38	1.38	2.50	3.90
39	1.39	2.50	3.95
40	1.40	2.67	4.00

BARE NICKEL CHROMIUM WIRE

No. 2000

Recommended for electrical heating appliances and other devices where the highest quality in performance is required, whose operating temperatures do not exceed 1850° F. Particularly suited for heavy duty rheostats and controls which require compact resistance.

ON PROTECTA-METAL SPOOLS

Size	1 Oz.	¼ Lb.	1 Lb.
14	. . . .	$1.52	$5.56
15	. . . .	1.56	5.65
16	. . . .	1.58	5.73
17	. . . .	1.63	5.80
18	. . . .	1.67	5.87
19	. . . .	1.71	6.02
20	$0.67	1.76	6.17
21	.71	1.85	6.49
22	.72	1.93	6.79
23	.74	2.08	7.44
24	.76	2.22	8.09
25	.82	2.37	8.74
26	.87	2.53	9.39
27	.89	2.57	9.96
28	$0.92	$2.84	$10.53
29	1.00	2.98	11.18
30	1.09	3.11	11.83
31	1.14	3.28	12.28
32	1.18	3.43	12.73
33	1.31	3.79	14.73
34	1.44	4.16	16.73
35	1.58	4.55	17.71
36	1.71	4.94	18.69
37	2.22	6.50	23.86
38	2.74	8.05	29.03
39	2.86	8.39	31.62
40	2.98	8.95	34.20

Net

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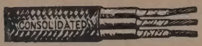
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

MULTIPLE CONDUCTOR COTTON BRAIDED CABLE

FOR SPEAKERS, TESTERS, BATTERY HOOK-UP, ETC.



SPECIFICATIONS: Tinned flexible copper; colored plastic insulation; bunched individual conductors; heavy brown cotton braid overall; color coded. Size 20; Stranding 10x30; Insulation Thickness 1/64"

TYPE NO.	TYPE	FINISHED O.D. (Inches)	TYPE NO.	TYPE	FINISHED O.D. (Inches)
1481	1 condr.	.150	1487	7 condr.	.275
1482	2 condr.	.175	1488	8 condr.	.300
1483	3 condr.	.200	1489	9 condr.	.310
1484	4 condr.	.275	1490	10 condr.	.325
1485	5 condr.	.250	1494	11 condr.	.335
1486	6 condr.	.260	1495	12 condr.	.350

MULTIPLE CONDUCTOR TINNED COPPER SHIELD CABLE

SPECIFICATIONS: Tinned flexible copper, 912E20, Stranding 10x30—1/64" plastic Insulation, color coded, Braided tinned copper shield.

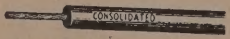
TYPE NO.	TYPE	FINISHED O.D. (Inches)
1471	1 conductor	.110
1472	2 conductors	.190
1473	3 conductors	.200
1474	4 conductors	.220
1475	5 conductors	.235
1476	6 conductors	.250
1477	7 conductors	.265

ANALYZER CABLE

SPECIFICATIONS: Extra flexible tinned copper; plastic insulation; color coded; Brown cotton braid overall.

	TYPE	SIZE	STRANDING	INSULATION THICKNESS (Inches)	FINISHED O.D. (Inches)
1501	8 condr.	2-14	41 x 30	1/64	.300
		6-18	16 x 30		
1502	9 condr.	2-14	41 x 30	1/64	.320
		7-18	16 x 30		

TEST PROD WIRE



A Specially Constructed High Grade Wire For Use On Laboratory Test Equipment, Bench Analyzers, Etc.

SPECIFICATIONS: Extra flexible tinned copper; cotton wrap; red or black; live rubber insulation.

1001	5,000 volts	20	41 x 36	.043	.140
1006	10,000 volts	18	65 x 36	.088	.230

SHIELDING AND BONDING CABLE

DESIGNED FOR SHIELDING INSULATED WIRES AND CABLES . . . BONDING AND MANY OTHER USES

STANDARD SPOOL PUT-UP:
50 FT., 100 FT., 250 FT., 1000 FT.

NO.	APPROX. I. D.	SIZE & NUMBER OF WIRES	APPROX. AWG.	CARRYING CAPACITY IN AMPERES
1386	1/32"	24 x 36	24	7
1387	3/64"	24 x 36	23	7
1388	3/32"	48 x 36	19	12
1389	7/64"	72 x 36	18	14
1390	1/8"	96 x 36	18	15
1391	3/16"	120 x 36	15	23
1392	1/4"	168 x 36	14	30
1393	3/8"	288 x 36	11	50
1394	1/2"	386 x 36	10	55
1395	5/8"	396 x 36	10	61
1396	3/4"	832 x 36	7	80
1397	25/32"	832 x 36	7	80
1398	1"	832 x 36	7	84
1399	1 3/8"	912 x 36	7	105

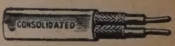
TINNED COPPER BUS BAR WIRE

SOLID SOFT DRAWN COPPER AND BRIGHTLY TINNED FOR ALL TYPES OF SOLDERING CONNECTIONS AND OTHER APPLICATIONS

STANDARD SPOOL PUT-UP: 100 FT., 1000 FT.

NO.	NOMINAL DIAMETER	SIZE SOLID	CIRCULAR MIL. AREA
3845	.129"	8	16510
3841	.102"	10	10380
3831	.082"	12	6530
3821	.064"	14	4110
3815	.051"	16	2583
3816	.040"	18	1624
3817	.032"	20	1022
3818	.025"	22	642
3819	.020"	24	404
3846	.016"	26	254.1
3847	.013"	28	159.8
3848	.010"	30	100.5

LEAD COVERED CABLE



FOR FREEDOM FROM INTERFERENCE, CORROSION AND DAMPNESS.

SPECIFICATIONS: Tinned copper wire; heavy rubber insulation and cotton braid; heavy lead shield.

1453	2 cond.	18	Solid	1/32	240 x .200
1454	3 cond.	18	Solid	1/32	.420

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

CONSOLIDATED

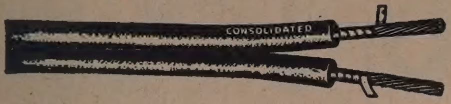
SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

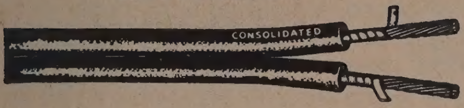
ELECTRICAL CORDAGES
UNDERWRITERS APPROVED

SUPPLIED ON ATTRACTIVE TRI-COLOR LITHOGRAPHED METAL SPOOLS

RUBBER HANDYCORD CENTERSTRIP



PLASTIC HANDYCORD CENTERSTRIP



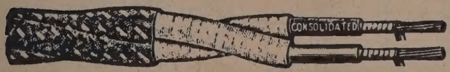
RUBBER SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

SPECIFICATIONS AND APPLICATION

Extra flexible bare copper cotton served. 1/32″ rubber insulation color coded conductors cabled with fillers, cotton wrap and black, tough rubber jacket.

For all electronic equipment, household appliances, garden and power tools.

NEOPRENE SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

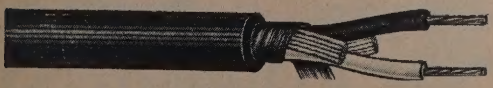


SPECIFICATIONS AND APPLICATION

Same specifications as 4200 Series except black Neoprene jacket.

For all types of equipment exposed to oils, acid and excessive moisture.

HEATER CORD



Colors: Black and White Marker.

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000FF.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4072	2	18	SP(P.O.S.J.)	41 x 34	1/64″	.235 x .130
4074	2	16	SP(P.O.S.J.)	65 x 34	1/32″	.300 x .160

Colors: Black, Brown, White, Gray.

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

4077	2	18	SPT(P.O.T.)	41 x 34	1/64″	.235 x .130
4079	2	16	SPT(P.O.T.)	65 x 34	1/32″	.300 x .160

Colors: Black, Brown, White, Gray.

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	CURRENT CARRYING CAPACITY	VOLTAGE RATING	NOM. O. D.
4202	2	18	SV	5 Amps.	300	.250″
4207	2	18	SJ	5 Amps.	300	.310″
4212	3	18	SJ	5 Amps.	300	.345″
4214	4	18	SJ	5 Amps.	300	.360″
4217	2	16	SJ	7 Amps.	300	.340″
4222	3	16	SJ	7 Amps.	300	.375″
4224	4	16	SJ	7 Amps.	600	.395″
4227	2	18	S	5 Amps.	600	.390″
4232	3	18	S	5 Amps.	600	.405″
4234	4	18	S	5 Amps.	600	.435″
4237	2	16	S	7 Amps.	600	.410″
4242	3	16	S	7 Amps.	600	.430″
4244	4	16	S	7 Amps.	600	.485″
4247	2	14	S	15 Amps.	600	.540″
4252	3	14	S	15 Amps.	600	.560″
4254	4	14	S	15 Amps.	600	.605″
4257	2	12	S			
4262	3	12	S	20 Amps.	600	.635″
4264	4	12	S	20 Amps.	600	.665″
4267	2	10	S	25 Amps.	600	.640″
4272	3	10	S	25 Amps.	600	.690″
4274	4	10		25 Amps.	600	.745″

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

4307	2	18	SJO	5 Amps.	300	.310″
4312	3	18	SJO	5 Amps.	300	.345″
4314	4	18	SJO	5 Amps.	300	.360″
4317	2	16	SJO	7 Amps.	300	.340″
4322	3	16	SJO	7 Amps.	300	.375″
4324	4	16	SO	7 Amps.	600	.395″
4327	2	18	SO	5 Amps.	600	.390″
4332	3	18	SO	5 Amps.	600	.405″
4334	4	18	SO	5 Amps.	600	.435″
4337	2	16	SO	7 Amps.	600	.410″
4342	3	16	SO	7 Amps.	600	.430″
4344	4	16	SO	7 Amps.	600	.485″
4347	2	14	SO	15 Amps.	600	.540″
4352	3	14	SO	15 Amps.	600	.560″
4354	4	14	SO	15 Amps.	600	.605″
4357	2	12	SO	20 Amps.	600	.605″
4362	3	12	SO	20 Amps.	600	.635″
4364	4	12	SO	20 Amps.	600	.665″
4367	2	10	SO	25 Amps.	600	.640″
4372	3	10	SO	25 Amps.	600	.690″
4374	4	10	SO	25 Amps.	600	.745″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4087	2	16	HPD	65 x 34	1/32″	.275
4092	2	18	HPD	41 x 34	1/32″	.250

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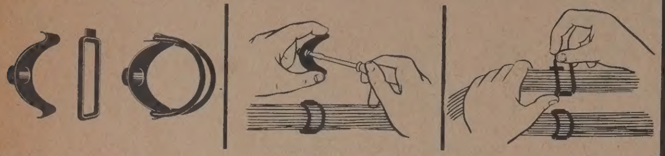
ELECTROVERT INC. COMPONENTS AND EQUIPMENT DIVISION

New York, N. Y.

Insuloid cradleclip®

FOR SUPPORTED WIRING

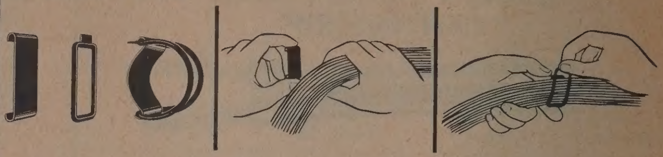
cradles and clips



Just screw cradle to panel, position cables in cradle and hook on clip of required size, as shown.

FOR UNSUPPORTED WIRING

binders and clips



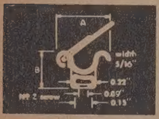
For use in

1. Electrical switchgear, switchboard, instrument and control panels.
2. Electronic equipment — ground, naval, airborne, aerospace (min. weight .012 oz.).
3. Chassis-mounted components and wiring.
4. Cable runs in building and vehicle telecommunications installations.
5. Fuel, lubricant, coolant and hydraulic fluid line installations.
6. Chemical tubing and piping installations.

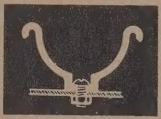
You can expect

- New high-speed, simplified wire, cable or component fixing which substantially reduces costs, saves time, work and money.
- Complete insulation and resistance to all environments within specified temperature range, including corrosive atmospheres.
- Permanent, yet flexible installations. Wiring changes can be made quickly and easily without any waste of material.
- Complete electrical and mechanical security.
- Neater, more compact installations and easier circuit tracing.

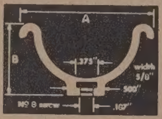
CRADLES



C0 N0
Miniature
with
captive clip

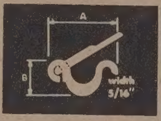


C1, C2, C3

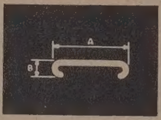


C1-M C2-M
C3 M
molded in
cadmium-plated,
chromate-
treated nut
to take 6/32
thread bolts

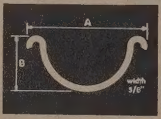
BINDERS



B0 N0
Miniature
with
captive
clip

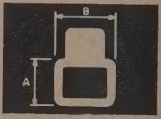


B1

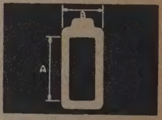


B2, B12

CLIPS



N0
miniature
(for
replacement)



N1. N3,
N5, N7

DIMENSIONS AND WEIGHTS

TYPE & SIZE	DIMENSIONS (") A	DIMENSIONS (") B	WT/M (1000 pcs) (approx.)
Cradles			
C0	.500	.335	8.2 oz
C1	.937	.562	3 lbs, 8 oz
C1-M	"	"	8 lbs
C2	1.375	.750	4 lbs, 5 oz
C2-M	"	"	9 lbs, 14 oz
C3	1.875	1.000	5 lbs, 14 oz
C3-M	"	"	10 lbs, 10 oz
Binders			
B0	.500	.250	7.2 oz
B1	.875	.187	1 lb, 9 oz
B12	.937	.400	2 lbs, 7 oz
B2	1.875	.812	4 lbs, 13 oz
Clips			
N0	.340	.500	3.8 oz
N1	.500	.937	2 lbs, 2 oz
N3	1.000	1.000	3 lbs, 13 oz
N5	1.750	1.000	5 lbs, 7 oz
N7	2.562	1.000	7 lbs, 7 oz

Standard pack: 500. Packed in polyethylene bags in cardboard cartons.

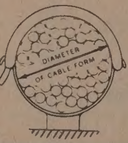
MATERIALS

Cradles and Binders are molded from special nylon (Zytel 105). Extensible Clips are available in Neoprene, Butyl, Viton and Silicone rubber. N0 available in Neoprene only. Temperature range—76°F to +250°F.

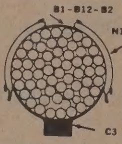
RECOMMENDED COMBINATIONS

DIAMETER OF CABLE FORM	SUPPORTED* WIRING Cradle	SUPPORTED* WIRING Clip	UNSUPPORTED* WIRING Binder	UNSUPPORTED* WIRING Clip
1/8" - 5/16"	C0	N0	B0	N0
1/4" - 5/8"	C1	N1	B1	N1
1/2" - 11/16"	C1	N3	B1	N5
11/16" - 15/16"	C2	N3	B12	N3
15/16" - 1 1/16"	C2	N5	B12	N5
1" - 1 1/4"	C3	N3	B2	N3
1 1/4" - 1 1/2"	C3	N5	B2	N5
1 1/2" - 2"	C3	N7	B2	N7

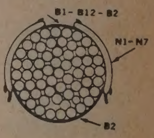
*for Neoprene, Butyl and Viton Clips. Ask for special recommendations for Silicone Clips.



For cable runs of 1/8"-2" dia.

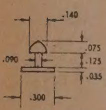


For cable runs of greater than 2" dia., use combinations as shown

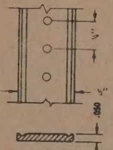


Insuloid® Strapping

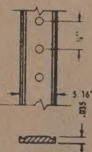
The lowest cost, quality wire and cable typing system available to the electrical and electronics field today!



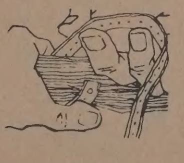
NO. AVS

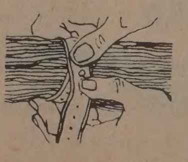


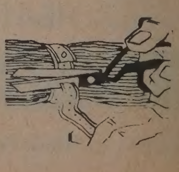
NO. AV8



NO. AV5







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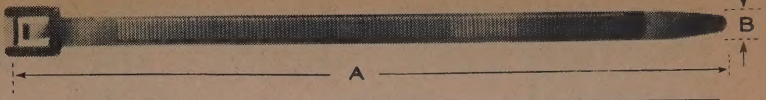
Insuloop cable tie

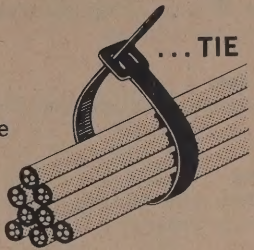


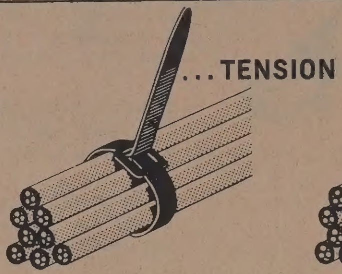
Ref.	A	B	Thickness	To accommodate Cable Runs	
				From	To
				Dia.	Dia.
LK1	3″	3/16″	3/64″	3/16″	9/16″
LK2	4 11/16″	3/16″	3/64″	3/16″	1 1/16″
LK3	9″	13/8″	1/16″	3/4″	2 1/4″

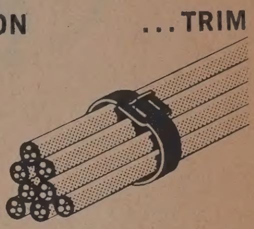
THE LATEST, SIMPLEST, MOST ECONOMICAL, YET MOST EFFECTIVE CABLE BINDING SYSTEM AVAILABLE

ADVANTAGES

- One component only
- Lighter and stronger than metal straps
- High speed self-locking action
- Made in Nylon to withstand a wide temperature range, —80°C. to +150°C — suitable for all climatic conditions
- Neater — more compact wiring
- Permanent — cannot loosen
- Substantial saving in wiring costs



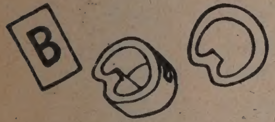


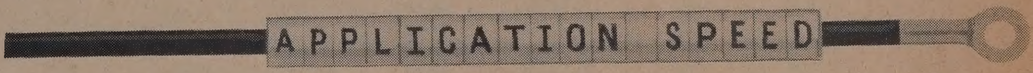


The Insuloop system utilizes one component only — which being moulded from tough, flexible Nylon is immensely strong and virtually indestructible. Although taking only seconds to fix, the Insuloop Tie features a clever non-return cam-action locking device which ensures that once fixed the tie will never come off or slacken.

Beta "Z" markers

PERMANENT • RELIABLE • DURABLE





SPECIFICATIONS

CAT.*	RECOMMENDED FOR WIRES/CABLES OF O.D.	LENGTH	THICKNESS
22	.045″-.065″	.140″	.055″
20	.066″-.085″	.140″	.050″
18	.086″-.115″	.140″	.040″
16	.110″-.135″	.140″	.030″
14	.130″-.160″	.160″	.040″
12	.150″-.175″	.160″	.045″
10	.170″-.195″	.160″	.045″
9	.190″-.215″	.160″	.050″
8	.210″-.250″	.190″	.055″
7	.245″-.295″	.190″	.055″
6	.290″-.360″	.224″	.060″
4-1	.355″-.460″	.224″	.060″

Colors: White with black markings (Standard color). Black with white markings, Blue, Green, Yellow, Red with black markings.

Material: PVC MIL-1-631C, Type F, Form U, Grade a & b, Class I, Category 1, finish: glossy. Specific gravity: 1.21. Hardness (shore A): 73 av. Tensile Strength: 2600 psi. av. Ultimate Elongation: 350% av. Dielectric Strength (20 mil specimen): 750 volts/mil. Cold Brittle Temp. (50% non-failure): —65° F.

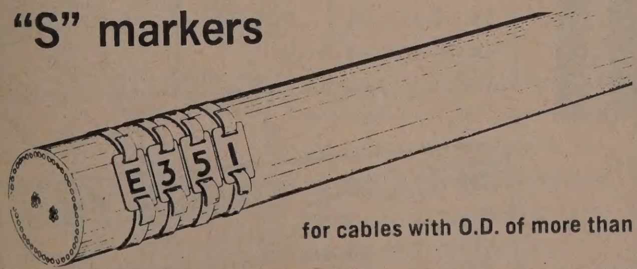
Markings: Single: numerals 0-9, letters A to Z, symbols +, —, ∼, ±. Multiple: any 2, 3, 4 or 5 unit combinations of above.

Packing: Coil of 50 single markers, one size, color and character per polyethylene covered cards. Coil of 500, as above, on self-servicing reels. Coil of 500 multiple markers, one color, sizes 22, 20, 18, 16, 14, 12, 10, 9 or 8. Coil of 250 multiple markers, sizes 7, 6 or 4-1.

Min. Quantity: per size, and character: 50 single white, 500 multiple, 500 colored.

Min. Order: 500 markers.

Beta "S" markers



for cables with O.D. of more than .500″.

Strap-on-marker: Size: 3/8″ x 9/16″ x .040″, material P.V.C., colors and material same as BETA "Z". Markings: 0-9, A-Z, +, —, ⌢, ±.

Application Strip: PVC—covered aluminum, 4 mm wide 0.6 mm thick.

Packing: Markers, 50 per indicator card pouch; strips in 165′ coils.

Min. Quantity: Per size, color and character: 50 markers.

Min. Order: 500 Markers, 165′ coil of strip.

ELECTROVERT INC.

COMPONENTS AND EQUIPMENT DIVISION
New York, N. Y.

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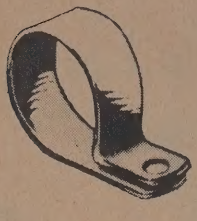
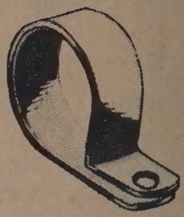
GC ELECTRONICS ELECTROCRAFT COMPONENTS

ELECTROCRAFT PLASTIC CABLE CLAMPS



Electrocraft Cable Clamps are used for fastening cables, harnesses, tubing, etc. Lightweight, durable, with excellent electrical and mechanical properties. Two materials: (1) Ethyl Cellulose, for normal industrial and commercial uses—where temperatures range from —40° F. to 185° F. (2) Nyon (Zytel), for extreme durability and high resistance to temperature (—60° F. to 300° F.) and most chemicals.



ETHYL CELLULOSE CABLE CLAMPS
Transparent (light yellowish) plastic. Meets specifications AN742. Plastic thickness is .063″.

NYLON (ZYTEL) CABLE CLAMPS
Natural color (translucent white) Nylon. Thickness is .050″ on ½″ dia. and smaller clamps, .060″ on 9/16″ and larger.

ETHYL CELLULOSE CLAMPS

For Cable O.D.	Cat. No.	Net Per C	Cat. No.	Net Per M
⅛″	34-300C	$2.33	34-300-M	$19.80
3/16″	34-304C	2.40	34-304-M	19.92
¼″	34-308C	2.58	34-308-M	21.97
5/16″	34-312C	2.85	34-312-M	24.23
⅜″	34-316C	3.00	34-316-M	25.50
7/16″	34-320C	3.30	34-320-M	27.83
½″	34-324C	3.60	34-324-M	29.63
9/16″	34-328C	4.20	34-328-M	34.68
19/32″	34-332C	4.50	34-332-M	36.00
⅝″	34-336C	4.80	34-336-M	39.83
11/16″	34-340C	5.10	34-340-M	42.71
¾″	34-344C	5.40	34-344-M	44.76
⅞″	34-348C	5.70	34-348-M	48.36
1″	34-352C	6.00	34-352-M	51.60
1⅛″	34-356C	6.30	34-356-M	55.08
1¼″	34-358C	6.60	34-358-M	58.20

NYLON (ZYTEL) CLAMPS

For Cable O.D.	Cat. No.	Net Per C	Cat. No.	Net Per M
⅛″	34-370C	$3.60	34-370-M	$30.00
3/16″	34-374C	3.93	34-374-M	31.77
¼″	34-378C	4.17	34-378-M	34.73
5/16″	34-382C	4.68	34-382-M	38.37
⅜″	34-386C	4.83	34-386-M	40.32
7/16″	34-390C	5.13	34-390-M	42.63
½″	34-394C	5.47	34-394-M	45.38
9/16″	34-398C	6.72	34-398-M	62.26
⅝″	34-402C	7.50	34-402-M	65.63
11/16″	34-406C	7.80	34-406-M	77.33
¾″	34-410C	8.40	34-410-M	75.00
⅞″	34-414C	9.00	34-414-M	81.00
1″	34-418C	10.50	34-418-M	96.00

SEND TODAY FOR NEW free GC Catalog . . . shows all GC quality products.

WIRE and CABLE TIES

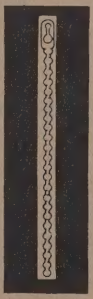
PLASTIC

Tough and flexible. Chemically inert. Available in Red, Yellow, or Blue in three different lengths. Smart looking...a compliment to any assembly. Special SNAP BUTTON model holds wire and cable bundles to walls, chassis, cabinets, fire walls etc.

Part No.	Description	Net	Part No.	Box of 1000*
34-432	4-1/4" Red	.98 #	34-432-M	11.10
34-436	4-1/4" Yellow	.98 #	34-436-M	11.10
34-440	4-1/4" Blue	.98 #	34-440-M	11.10
34-444-M	10" Red (available in 1000 lots only)			21.60
34-448-M	10" Yellow			21.60
34-452-M	10" Blue			21.60
34-449-M	12" Yellow			24.90
34-450-M	12" Red			24.90
34-451-M	12" Blue			24.90
34-454-M	4-1/4" Snap-in plastic Red +			13.95
34-456-M	4-1/4" Snap-in plastic Yellow +			13.95
34-458-M	4-1/4" Snap-in plastic Blue +			13.95

Plastic vials of 40.
• Write for Prices on quantities of 10,000 and up.

+ Pat. Pending



NYLON

Heavy duty, extra tough. All types are available in natural white only. Nylon withstands extreme temperatures. Chemically inert.

Part No.	Description	Net Box of 1000*
34-442-M	4-1/4"	14.90
34-460-M	10"	33.85

SPECIAL CABLE TIES
Special sizes and colors, even styles of cable ties are available in large quantities. Write or call your specifications today.

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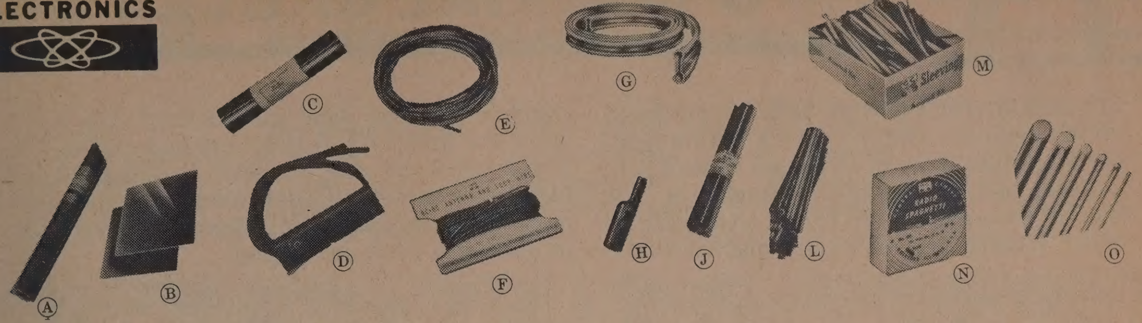
ELECTRONIC COMPONENTS

GC ELECTRONICS



(A) G-C INSULATING CAMBRIC—Dry yellow varnished cambric for field coils, transformers, chokes, resistors, motors, etc.
Cat. No. 549 .010"—Roll over 210 sq. in. Net $ .78

(B) G-C LAMINATED PHENOLIC PLASTIC PANELS—Black laminated panels. 1⁄16" thick stock. Black color.
Cat. No. 590 6"x6"x1⁄16" Net $ .42
591 6"x12"x1⁄16" .82
592 12"x12"x1⁄16" 1.58

(C) G-C FYBEROID FISH PAPER—Fish paper has many uses around the shops for repair jobs where electrical insulation is required.
Cat. No. 560 .010"-240 sq. in. roll Net $ .45

(D) G-C BATTERY CONNECTOR STRIP—Used for connecting 67½ volt "B" batteries, such as Eveready 455, 466; Burgess XX30, XX45.
Cat. No. 8115 Net $ .18

(E) G-C SHIELDED PHONO PICK-UP WIRE—Handy packages of shielded phono pick-up wire, very handy for new installations or replacements.
Cat. No. 1738-E Envelope Net $ .38

(F) G-C AC-DC INDOOR ANTENNA WIRE—Antenna lead wire for indoor type AC-DC sets. Flexible copper wire covered with brown plastic insulation.
Cat. No. 840 25 Ft. coil Net $ .37

(G) G-C 300-OHM LINE PROTECTIVE TUBING—Clear plastic tubing will fit over 300-ohm flat lines and will protect the line from grounding and rubbing on corners of buildings, eaves, etc. It actually protects and waterproofs the line.
Cat. No. 625 Box of 8 ft. Net $ .75
626 250 ft. coil 15.90
627 1000 ft. 59.33

(H) G-C ALLIGATOR-CLIP INSULATORS—High quality vinyl plastic insulators fit all alligator clips. Positive insulation against grounding and shock.
Cat. No. 9376 Red Net $ .07
9376-C 4.50
9377 Black .07
9377-C 4.50

(J) G-C GENFLEX PLASTIC TUBING—High grade extremely flexible plastic tubing for radio and electronic insulation work. Highly resistant to cold or heat. High dielectric strength, average 8,000 volts. Colors: Black, Red, Green and Clear (Specify Color).
Cat. No. 603 18 B-S Gauge, .042 I.D., 20 ft. Package Net $ .82
605 16 B-S Gauge, .053 I.D., 20 ft. Package Net $ .82
607 14 B-S Gauge, .066 I.D. 20 ft. Package Net $ .82
609 12 B-S Gauge, .085 I.D., 20 ft. Package Net $ .82
611 10 B-S Gauge, .106 I.D., 15 ft. Package Net $ .82
613 8 B-S Gauge, .133 I.D., 15 ft. Package Net $ .82
616 6 B-S Gauge, .166 I.D., 10 ft. Package Net $ .82
617 4 B-S Gauge, .208 I.D., 10 ft. Package Net $ .82
620 2 B-S Gauge, .263 I.D., 10 ft. Package Net $ .82

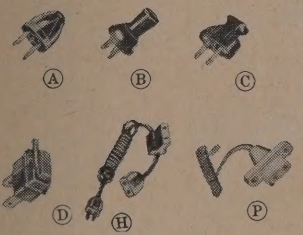
G-C PLASTIC TUBING KITS — Handy kits of assorted colors and sizes. Ideal for experimenters and servicemen.
Cat. No. 635 Kit of 25 ft. assorted. Sizes 18 to 10 Genflex Tubing. Net $ .82

(L) G-C ASSORTED SPAGHETTI KIT—An assortment of 7½" lengths of spaghetti sleeving. 26 lengths to the kit. Sizes include from No. 17 wire to ⅜" I.D.
Cat. No. 550 Kit of 26 Lengths. Net $ .40

(M) SPAGHETTI AND SLEEVING ASSORTMENT—A variety of sizes and colors are included of high grade varnish tubing. Put up in attractive box.
Cat. No. 551 Net $ .90

(N) G-C SPAGHETTI IN BOXES—Best grade varnished tubing put in convenient 20-ft. lengths. Will fit wire from No. 12 to No. 18. Colors: Black, Red, Yellow, Green and Blue.
Cat. No. 499 Net $1.42

(O) G-C RADIO SPAGHETTI—High grade spaghetti for radio-television work. Average dielectric strength 4000 volts. Very flexible. Smoothly coated with best grades of varnish. Material is approved by A. S. T. M. Colors: Black, Brown, Red, Green and Yellow (Specify Color). 30" Lengths.
Cat. No. 500 No. 20, fit 20 wire Net $ .13
503 No. 17, fit 18 wire .15
506 No. 14, fit 14 wire .17
508 No. 12, fit 12 wire .17
512 ⅛" I.D. .23
515 3⁄16" I.D. .23
518 ¼" I.D. .37
521 ⅜" I.D. (resist. size) .63
522 7⁄16" I.D. Red & Black .73
523 ½" I.D. Red & Black .97



(A) G-C STREAMLINE ATTACHMENT CAP—Made of rubber. Brass blades. Spring type. U.L. approved.
Cat. No. 865 Net $ .23

(B) G-C SPRING ACTION CAP—Heavy-duty type. Made of rubber. Brass blades. U.L. approved.
Cat. No. 861 Net $ .17

(C) G-C SPRING ACTION CAP—Flat plastic type. Brass blades. U.L. approved. Cat. No. 860 Net $ .17

(D) G-C ANGLE PLUG—Plastic angle plug that assembles in a jiffy. It has no screws and requires no soldering.
Cat. No. 8360-E Brown Net $ .30
8361-E Ivory .30

(E) SERVICEMAN'S CHEATER CORD—Special "cheater cord" for extending the standard interlock safety cord supplied with the TV set.
Cat. No. 8948 Net $ .87

(F) INTERLOCK CABLE CORD—Replacement cord for RCA, Philco, G-E, Admiral and others.
Cat. No. 8200 Reg. TV Cord Net $ .48
8201 Spec. Zenith Cord .70

NEW G-C INSULATING TUBING OF TEFLON*

—Exceptionally tough and flexible. Withstands temperatures from 450° below zero F. to 500° above zero F. Will not melt near solder joints. Outstanding dialectric properties—zero moisture absorption. Chemically inert. Completely weatherproof. Wires can be inserted much more easily than in any other tubing.

*Registered trademark Du Pont Co.

Part No.	Feet Per Spool	Color	Gauge	I.D. (Inches)	Wall Thickness	Net Per Spool
7980-7	10	Nat	24	.022	.010	$ 1.33
7980-7C	100	Nat	24	.022	.010	11.83
7980-1	10	Red	24	.022	.010	1.33
7980-1C	100	Red	24	.022	.010	11.83
7980-4	10	Blue	24	.022	.010	1.33
7980-4C	100	Blue	24	.022	.010	11.83
7981-7	10	Nat	22	.027	.012	1.47
7981-7C	100	Nat	22	.027	.012	13.26
7981-1	10	Red	22	.027	.012	1.47
7981-1C	100	Red	22	.027	.012	13.26
7981-4	10	Blue	22	.027	.012	1.47
7981-4C	100	Blue	22	.027	.012	13.26
7982-7	10	Nat	20	.034	.012	1.83
7982-7C	100	Nat	20	.034	.012	18.27
7982-1	10	Red	20	.034	.012	1.83
7982-1C	100	Blue	20	.034	.012	18.27
7982-4	10	Nat	18	.042	.012	1.83
7982-4C	100	Blue	20	.034	.012	18.27
7983-7	10	Red	20	.034	.012	2.23
7983-7C	100	Nat	18	.042	.012	20.88
7983-1	10	Red	18	.042	.012	2.23
7983-1C	100	Red	18	.042	.012	20.88
7983-4	10	Blue	18	.042	.012	2.23
7983-4C	100	Blue	18	.042	.012	20.88
7984-7	10	Nat	16	.053	.012	2.65
7984-7C	100	Nat	16	.053	.012	25.02
7984-1	10	Red	16	.053	.012	2.65
7984-1C	100	Red	16	.053	.012	25.02
7984-4	10	Blue	16	.053	.012	2.65
7984-4C	100	Blue	16	.053	.012	25.02
7985-7	10	Nat	14	.066	.012	2.92
7985-7C	100	Nat	14	.066	.012	28.38
7985-1	10	Red	14	.066	.012	2.92
7985-1C	100	Red	14	.066	.012	28.38
7985-4	10	Blue	14	.066	.012	2.92
7985-4C	100	Blue	14	.066	.012	28.38
7986-7	5	Nat	12	.085	.014	1.83
7986-7C	100	Nat	12	.085	.014	34.28
7986-1	5	Red	12	.085	.014	1.83
7986-1C	100	Red	12	.085	.014	34.28
7986-4	5	Blue	12	.085	.014	1.83
7986-4C	100	Blue	12	.085	.014	34.28
7987-7	5	Nat	10	.106	.014	2.17
7987-7C	100	Nat	10	.106	.014	41.58
7987-1	5	Red	10	.106	.014	2.17
7987-1C	100	Red	10	.106	.014	41.58
7987-4	5	Blue	10	.106	.014	2.17
7987-4C	100	Blue	10	.106	.014	41.58

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ITT RG/U COAXIAL CABLES

ITT DIELECTRIC COAXIAL CABLE is produced to rigid military specifications. Uniform quality is assured through advanced control procedures such as micrometer gauging in each step of production from center conductors to outer jackets. For unusually high dielectric strength and low dielectric constant, you'll want to check ITT Teflon* coaxial cables. These types are also designed to withstand high temperatures, abrasion, moisture and exposure to gases and liquids where other types of insulation prove inadequate.

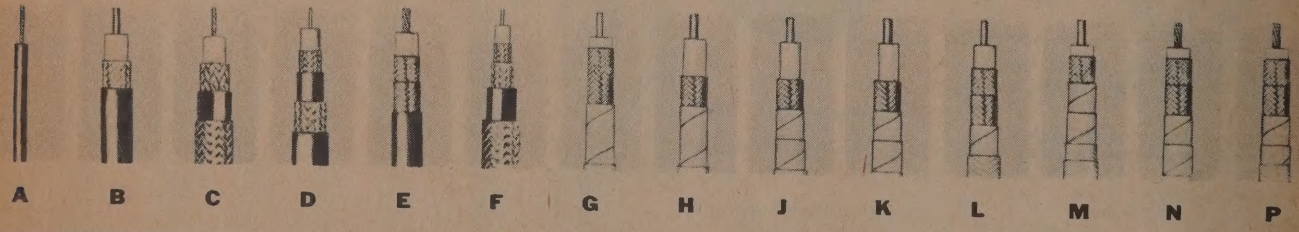
LEGEND ▶

RG/U Number	Construction Code	Impedance	Capacitance MMF./FT.	Dielectric Material	Center Conductor	Jacket Type	Shield	Over-all Diameter	Weight 100 Ft.
5	E	52.5	28.5	Poly	16C	I	CC	.332	8.6
5A	E	50	29	Poly	16S	II Grey	SS	.328	8.3
5B	E	50	28.5	Poly	16S	IIa	SS	.328	8.3
6	E	76	20	Poly	21 CW	II Grey	SC	.332	8.0
6A	E	75	20	Poly	21 CW	IIa	SC	.332	8.0
8	B	52	29.5	Poly	7/21C	I	C	.405	10.5
8A	B	52	29.5	Poly	7/21C	IIa	C	.405	10.3
9	E	50	30	Poly	7/21S	II Grey	SC	.420	12.8
9A	E	50	30	Poly	7/21S	II Grey	SS	.420	12.8
9B	E	50	30	Poly	7/21S	IIa	SS	.420	12.7
10	C	52	29.5	Poly	7/21C	II Grey*	C	.475	12.9
10A	C	52	29.5	Poly	7/21C	IIa*	C	.475	12.9
11	B	75	20.5	Poly	7/26TC	I	C	.405	9.2
11A	B	75	20.5	Poly	7/26TC	IIa	C	.405	9.0
12	C	75	20.5	Poly	7/26TC	II Grey*	C	.475	11.6
12A	C	75	20.5	Poly	7/26TC	IIa*	C	.475	11.4
13	E	74	20.5	Poly	7/26TC	I	CC	.425	12.1
13A	E	74	20.5	Poly	7/26TC	IIa	CC	.420	12.1
14	E	52	29.5	Poly	10C	II Grey	CC	.545	20.6
14A	E	52	29.5	Poly	10C	IIa	CC	.545	20.0
17	B	52	29.5	Poly	.188C	II Grey	C	.870	46.3
17A	B	52	29.5	Poly	.188C	IIa	C	.870	46.0
18	C	52	29.5	Poly	.188C	II Grey*	C	.945	51.9
18A	C	52	29.5	Poly	.188C	IIa*	C	.945	51.5
19	B	52	29.5	Poly	.250C	II Grey	C	1.120	74.5
19A	B	52	29.5	Poly	.250C	IIa	C	1.120	74.0
20	C	52	29.5	Poly	.250C	II Grey*	C	1.195	80.7
20A	C	52	29.5	Poly	.250C	IIa*	C	1.195	80.0
21	E	53	29	Poly	16N	II Grey	SS	.332	8.3
21A	E	53	29	Poly	16N	IIa	SS	.332	8.0
22	AA	95	16	Poly	Two 7/.0152C	I	TC	.405	10.3
22A	AA	95	16	Poly	Two 7/.1052C	II Grey	TC-TC	.420	11.9
22B	AA	95	16	Poly	Two 7/.0152C	IIa	TC-TC	.420	12.0
23	Y	125	12	Poly	Two 7/21C	I	CC	.650 x.945	38.0
23A	Y	125	12	Poly	Two 7/21C	IIa	CC	.650 x.945	36.0
24	Z	125	12	Poly	Two 7/21C	I*	CC	.735 x1.034	43.0
24A	Z	125	12	Poly	Two 7/21C	IIa*	CC	.735 x1.034	41.0
34	B	71	21.5	Poly	7/21C	I	C	.625	22.9
34A	B	75	21.5	Poly	7/.0249C	IIa	C	.630	22.4

RG/U Number	Construction Code	Impedance	Capacitance MMF./FT.	Dielectric Material	Center Conductor	Jacket Type	Shield	Over-all Diameter	Weight 100 Ft.
34B	B	75	21.5	Poly	7/.0249C	IIa	C	.630	22.4
35	C	71	21.5	Poly	9C	II Grey*	C	.945	45.8
35A	C	71	21.5	Poly	9C	IIa*	C	.945	45.4
35B	C	75	21	Poly	.1045C	IIa*	C	.945	45.4
54	E	58	27	Poly	7/26C	I	C	.275	–
54A	E	58	26.5	Poly	7/.0152C	Poly	TC	.250	4.0
55	E	53.5	28.5	Poly	20C	Poly	TC-TC	.206	3.6
55A	E	50	29.5	Poly	.035S	IIa	SS	.216	3.6
55B	E	53.5	28.5	Poly	20S	IIIa	TC-TC	.206	3.4
58	B	53.5	28.5	Poly	20C	I	TC	.195	2.7
58A	B	50	30	Poly	19/.0071TC	I	TC	.195	2.7
58B	B	53.5	28.5	Poly	20C	IIa	TC	.195	2.5
58C	B	50	30	Poly	19/.0071TC	IIa	TC	.195	2.5
59	B	73	21.5	Poly	22 CW	I	C	.242	3.7
59A	B	75	21	Poly	.023 CW	IIa	C	.242	3.5
59B	B	75	21	Poly	.023 CW	IIa	C	.242	3.5
62	R	93	13.5	SS Poly	22 CW	I	C	.242	3.6
62A	R	93	13.5	SS Poly	22 CW	IIa	C	.242	3.5
62B	R	93	13.5	SS Poly	7/32 CW	IIa	C	.242	3.0
63	R	125	10	SS Poly	22 CW	I	C	.405	8.8
63A	R	125	–	Poly	22C	I	C	.415	–
63B	R	125	10	SS Poly	22 CW	IIa	C	.405	8.4
65A	U	950	44	Poly	32 Formex F	IIa	C	.405	9.6
71	S	93	13.5	SS Poly	22 CW	Poly	C-TC	.250	4.3
71A	S	93	13.5	SS Poly	22 CW	I	C-TC	.245	4.3
71B	S	93	13.5	SS Poly	22 CW	IIIa	C-TC	.250	4.3
74	F	52	29.5	Poly	10C	II Grey*	CC	.615	23.4
74A	F	52	29.5	Poly	10C	IIa*	CC	.615	23.6
79	T	125	10	SS Poly	22 CW	I*	C	.475	11.4
79A	T	125	–	Poly	22 CW	I	C	.415	–
79B	T	125	10	SS Poly	22 CW	IIa*	C	.475	11.1
86	CC	200	7.8	Poly	Two 7/.0285C	None	–	.650x .300	
87	N	50	29.5	Teflon	7/21S	V	SC	.425	–
87A	N	50	29.5	Teflon	7/20S	V	SS	.425	17.4
94	N	50	27	Tef.Tape	19/23S	V	CC	.445	–
94A	N	50	27	Tef.Tape	19/22S	V	CC	.500	24.7
108A	X	78	23.5	Poly	Two T/28TC	IIa	TC	.235	2.9
111	BB	95	16	Poly	Two 7/.0152C	II Grey*	TC-TC	.490	14.5

We reserve the right to change specifications without notice.

In inventory at your local ITT distributor at OEM prices.



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Lodi, New Jersey
International Telephone and Telegraph Corporation

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ITT RG/U COAXIAL CABLES (cont'd)

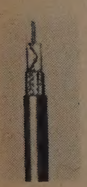
LEGEND

C — Copper
TC — Tinned Copper
S — Silvered Copper
CW — Copperweld
SCW — Silvered Copperweld
N — Nichrome
K — Karma
AL — Aluminum
ST. Steel — Stainless Steel
GS — Galvanized Steel
Poly — Polyethylene
Rub. — Synthetic Rubber
SS Poly — Semi-Solid Polyethylene
HDP — High Density Polyethylene
Copo. — Copolene
Mag. Ox. — Magnesium Oxide
SCB — Silvered Cadmium Bronze

RG/U Number	Construction Code	Impedance	Capacitance MMF./FT.	Dielectric Material	Center Conductor	Jacket Type	Shield	Over-all Diameter	Weight 100 Ft.
111A	BB	95	16	Poly	Two 7/.0152C	IIa*	TC-TC	.490	14.5
115	N	50	29.5	Tef.Tape	7/21S	V	SS	.375	13.9
115A	N	50	29.5	Tef.Tape	7/21S	V	SS	.415	15.9
116	P	50	29.5	Teflon	7/20S	V*	SS	.475	22.4
117	K	50	29	Teflon	.188C	V	C	.730	45.0
117A	H	50	28.5	Teflon	.188C	V	C	.730	54
118	M	50	29	Teflon	.188C	V*	C	.780	60.0
118A	M	50	28.5	Teflon	.188C	V	C	.795	58
119	N	50	29	Teflon	.102C	V	CC	.465	22.5
120	P	50	29	Teflon	.102C	V*	CC	.525	28.2
122	B	50	29.5	Poly	27/36TC	IIa	TC	.160	2.0
125	K	150	7.8	SS Poly	26 CW	IIa	C	.600	18.0
126	K	50	28.5	Teflon	7/24K	V	K	.280	7.6
133	B	95	16.2	Poly	21C	I	C	.405	9.4
133A	B	95	16.2	Poly	.0254C	IIa	C	.405	9
140	J	75	21	Teflon	.025 SCW	V	S	.233	4.5
141	G	50	28.5	Teflon	.0359SCW	V	S	.190	3.5
141A	G	50	28.5	Teflon	.039 SCW	V	S	.190	3.5
142	L	50	28.5	Teflon	.0359SCW	V	SS	.206	4.5
142A	L	50	28.5	Teflon	.039 SCW	V	SS	.206	4.5
142B	N	50	28.5	Teflon	.039SC	VII	SS	.195	4.5
143	N	50	28.5	Teflon	.057 SCW	V	SS	.325	10.2
143A	N	50	28.5	Teflon	.059 SCW	V	SS	.325	10.2
144	H	75	20.5	Teflon	7/25SCW	V	S	.410	12.0
149	B	75	20.5	Poly	7/26TC	I	TC	.405	9.2
150	C	75	20.5	Poly	7/26TC	I*	TC	.475	11.6
156	DD	50	30	Conductive Poly	7/21TC	IIa	TC-GS-TC	.540	–
157	EE	50	38	Conductive Poly	19/24TC	IIa	TC-GS-TC	.725	–
158	EE	25	78	Conductive Poly	37/21TC	IIa	TC-GS-TC	.725	–
161	J	70	20	Teflon	7/38SCB	Black Nylon	S	.082	–
164	B	75	21.0	Poly	.1045C	IIa	C	.870	–
165	K	50	29.5	Teflon	7/.032S	V	S	.410	–
166	K	50	29.5	Teflon	7/.032S	V*	S	.460	–
174	B	50	29.5	Poly	7/.0063CW	I	TC	.100	.075
177	B	50	30	Poly	.195C	IIa	SS	.895	–
178	G	50	28.5	Teflon	7/38SCW	Kel-F	S	.075	–
178A	G	50	28.5	Teflon	7/38SCW	Kel-F	S	.075	–
178B	B	50	28.5	Teflon	7/.004SC	V	SC	.075	6.2
179	G	70	19.5	Teflon	7/38SCW	Kel-F	S	.090	–
179A	G	75	19.5	Teflon	7/38SCW	Kel-F	S	.105	–
180	G	93	15.5	Teflon	7/38SCW	Kel-F	S	.141	–
180A	G	95	15.0	Teflon	7/38SCW	Kel-F	S	.145	–
180B	B	95	15.3	Teflon	7/.004SC	VII	SC	.145	2.0
187	G	75	19.5	Teflon	7/38SCW	VII	S	.110	–
187A	G	75	19.0	Teflon	7/.004SC	VII	SC	.110	1.2
188	G	50	29.0	Teflon	7/.0067SCW	VII	S	.110	–
188A	G	50	28.5	Teflon	7/.004SC	VII	SC	.110	1.0
195	G	95	15.0	Teflon	7/38SCW	VII	S	.155	–
195A	G	95	15.3	Teflon	7/.004SC	VII	SC	.155	2.3
196	G	50	28.5	Teflon	7/38SCW	VII	S	.080	–
196A	G	50	28.5	Teflon	7/.004SC	VII	SC	.080	1.0
209	K	50	26.5	SS Teflon	19/.0378S	VI	SS	.750	–
210	K	95	13.5	SS Teflon	22 SCW	V	S	.242	4.0
211	K	50	29	Teflon	.190C	V	C	.730	–
211A	H	50	28.5	Teflon	.190C	V	C	.730	54.2
212	E	50	29.5	Poly	.0556S	IIa	SS	.332	8.3
213	B	50	29.5	Poly	7/.0296C	IIa	C	.405	10.3
214	E	50	29.5	Poly	7/.0296C	IIa	SS	.425	12.7
215	C	50	29.5	Poly	7/.0296C	IIa*	C	.475	12.7
216	E	75	20.5	Poly	7/26TC	IIa	CC	.425	12.1
217	E	50	29.5	Poly	.106C	IIa	CC	.545	20.0
218	B	50	29.5	Poly	.195C	IIa	C	.870	46.7
219	C	50	29.5	Poly	.195C	IIa*	C	.945	51.5
220	B	50	29.5	Poly	.260C	IIa	C	1.120	–
221	C	50	29.5	Poly	.260C	IIa*	C	1.195	–
222	E	50	29	Poly	.0556N	IIa	SS	.332	8.4
223	E	50	29.5	Poly	.035S	IIa	SS	.216	3.6
224	F	50	29.5	Poly	.106C	IIa*	CC	.615	23.6
225	N	50	29.5	Teflon	7/.0312S	V	SS	.430	17.4
226	N	50	29.5	Tef.Tape	19/.0254S	V	CC	.500	24.7
227	P	50	29.5	Teflon	7/.0312S	V*	SS	.490	22.4
228	M	50	29	Teflon	.190C	V*	C	.795	–
228A	M	50	28.5	Teflon	.190C	V	C	.795	57.4
235	N	50	29.5	Tef.Tape	7/21S	VI	SS	.470	–
302	G	75	19.0	Teflon	.025SC	V	SC	.206	4.0
303	G	50	28.5	Teflon	.039	V	SC	.170	2.5
304	L	50	28.5	Teflon	.059	V	SCSC	.280	4.0
307	D	75	17.2	Foam Poly	19/.0058	V	SCSC	.262	4.0
316	G	50	28.5	Teflon	7/.0067	V	SC	.102	1.2
317	AA	95		FEP	2/7#.029	V	TC	.710	58.0

We reserve the right to change specifications without notice.

In inventory at your local ITT distributor at OEM prices.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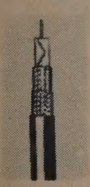
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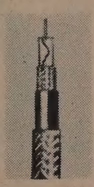
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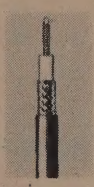
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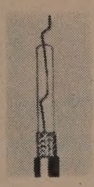
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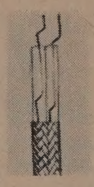
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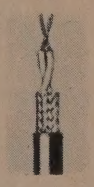
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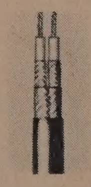
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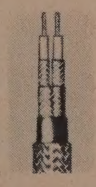
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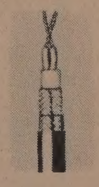
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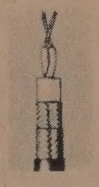
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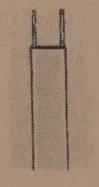
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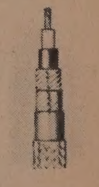
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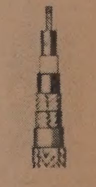
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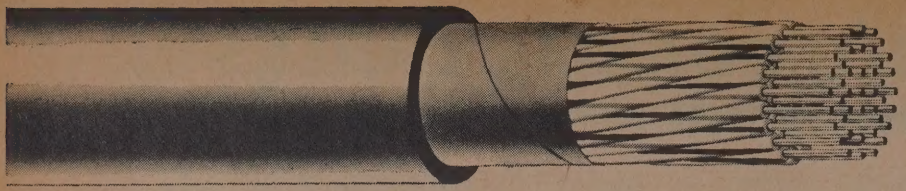

In Stock MIL-SPEC

Multiple Conductor Cables!

National Wire & Cable Corporation manufactures a complete line of multiple conductor control cables. Conductors are of tinned copper strand with primary insulation for use up to 105°C per MIL-W-16878D Type C. Insulated for 1000 volts working voltage. Conductors are color coded using 10 standard basic colors, plus spiral tracers on white per MIL-STD. 122.

All conductors are planetary cabled and contra-helically laid with a Mylar tape serve over the cable bundle. The overall jacket is a 105°C black Thermoplastic or may be Neoprene to MIL-R-6855 Class 2 Grade 60 specification.

SHIELDED CABLES

National Multiple Conductor SHIELDED CABLES are to the same specifications as above with addition of tinned copper braided shield over cable complex with 85-90% coverage to MIL-C-7078A. STANDARD PUT-UPS: 500 ft. and 1000 ft. No-deposit reels.

TECHNICAL DATA (all cables)

Insulation Breakdown Voltage:	Greater than 8000 volts AC RMS, 60 cps.
Capacitance:	Nominal capacitance from a wire to all else in the cable ranges from 40 to 65 mmfd per ft., @ 1000 cps; dependent on cable construction.
Insulation Leakage Res.:	200. megohms/1000 ft. min. at 500 VDC from any conductor to all else in cable.
Sheath Leakage Res.:	10. megohms/1000 ft. min. at 500 VDC from overall shield through sheath to outside world.
Useable Temp. Range:	Suitable for continuous use from +105°C to −55°C.
Cold Bending Capability:	All cables are suitable for flexing to a circle diam. of approx. 6 cable diameters from +105°C to −20°C; Recommended flex diameter should be greater than 20 cable diam. for flexing at −40°C., or for continuous flexing service to −55°C, specify our neoprene sheath, in lieu of plastic sheath.

UNSHIELDED CABLES

Part No.	No. of Conductors	Thermoplastic Jacket Thickness	Cable O.D.	Weight Per M-Ft.
Conductor Size 22 Gauge (Stranding 7 Strands of 30 Gauge)				
NW-722 J	7	.040	.295	40 Lbs.
NW-1222J	12	.050	.390	70 Lbs.
NW-1922J	19	.060	.460	110 Lbs.
NW-2722J	27	.060	.530	160 Lbs.
NW-3722J	37	.060	.600	200 Lbs.
NW-4822J	48	.060	.670	245 Lbs.
NW-6022J	61	.060	.730	300 Lbs.
Conductor Size 20 Gauge (Stranding 19 Strands of 32 Gauge)				
NW-720 J	7	.040	.300	50 Lbs.
NW-1220J	12	.050	.400	105 Lbs.
NW-1920J	19	.060	.470	160 Lbs.
NW-2720J	27	.060	.560	210 Lbs.
NW-3720J	37	.060	.610	280 Lbs.
NW-4820J	48	.060	.700	360 Lbs.
NW-6020J	60	.060	.750	435 Lbs.
Conductor Size 18 Gauge (Stranding 19 Strands of 30 Gauge)				
NW-718 J	7	.040	.350	75 Lbs.
NW-1218J	12	.050	.460	135 Lbs.
NW-1918J	19	.060	.560	225 Lbs.
NW-2718J	27	.060	.650	300 Lbs.
NW-3718J	37	.060	.730	390 Lbs.
NW-4818J	48	.060	.820	510 Lbs.
Conductor Size 16 Gauge (Stranding 19 Strands of 29 Gauge)				
NW-716 J	7	.040	.370	95 Lbs.
NW-1216J	12	.050	.500	155 Lbs.
NW-1916J	19	.060	.600	230 Lbs.
NW-2716J	27	.060	.700	320 Lbs.
NW-3716J	37	.060	.785	430 Lbs.
Conductor Size 14 Gauge (Stranding 19 Strands of 27 Gauge)				
NW-714 J	7	.045	.410	160 Lbs.
NW-1214J	12	.050	.550	240 Lbs.
NW-1914J	19	.060	.670	350 Lbs.
NW-2714J	27	.060	.790	480 Lbs.
Conductor Size 12 Gauge (Stranding 19 Strands of 25 Gauge)				
NW-512 J	5	.045	.440	135 Lbs.
NW-712 J	7	.045	.470	170 Lbs.
NW-1212J	12	.050	.620	275 Lbs.
NW-1912J	19	.060	.770	400 Lbs.

SHIELDED CABLES

Part No.	No. of Conductors	Tinned Copper Shield	PVC Jacket Thickness	Cable O.D.	Weight Per M-Ft.
NW-722 SJ	7	No. 36	.040	.320	55 Lbs.
NW-1222SJ	12	No. 34	.050	.420	90 Lbs.
NW-1922SJ	19	No. 34	.060	.490	145 Lbs.
NW-2722SJ	27	No. 34	.060	.560	200 Lbs.
NW-3722SJ	37	No. 34	.060	.630	245 Lbs.
NW-4822SJ	48	No. 34	.060	.700	300 Lbs.
NW-6022SJ	61	No. 34	.060	.760	355 Lbs.
NW-720 SJ	7	No. 34	.040	.335	68 Lbs.
NW-1220SJ	12	No. 34	.050	.435	125 Lbs.
NW-1920SJ	19	No. 34	.060	.500	195 Lbs.
NW-2720SJ	27	No. 34	.060	.595	250 Lbs.
NW-3720SJ	37	No. 34	.060	.650	325 Lbs.
NW-4820SJ	48	No. 34	.060	.735	415 Lbs.
NW-6020SJ	60	No. 34	.060	.785	500 Lbs.
NW-718 SJ	7	No. 34	.040	.380	95 Lbs.
NW-1218SJ	12	No. 34	.050	.490	170 Lbs.
NW-1918SJ	19	No. 34	.060	.590	265 Lbs.
NW-2718SJ	27	No. 34	.060	.680	350 Lbs.
NW-3718SJ	37	No. 34	.060	.760	445 Lbs.
NW-4818SJ	48	No. 34	.060	.850	575 Lbs.
NW-716 SJ	7	No. 34	.040	.400	125 Lbs.
NW-1216SJ	12	No. 34	.050	.535	195 Lbs.
NW-1916SJ	19	No. 34	.060	.635	275 Lbs.
NW-2716SJ	27	No. 34	.060	.735	375 Lbs.
NW-3716SJ	37	No. 34	.060	.820	500 Lbs.
NW-714 SJ	7	No. 34	.045	.440	190 Lbs.
NW-1214SJ	12	No. 34	.050	.580	280 Lbs.
NW-1914SJ	19	No. 34	.060	.700	390 Lbs.
NW-2714SJ	27	No. 34	.060	.820	530 Lbs.
NW-512 SJ	5	No. 34	.045	.470	170 Lbs.
NW-712 SJ	7	No. 34	.045	.500	210 Lbs.
NW-1212SJ	12	No. 34	.050	.650	320 Lbs.
NW-1912SJ	19	No. 34	.060	.800	450 Lbs.

NATIONAL WIRE & CABLE CORP.

Dept. REM SERVICE DIVISION
LOS ANGELES, CALIF.

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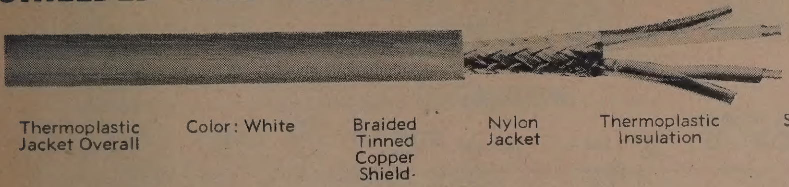
MIL-W-16878 TYPE B NYLON SHIELDED AND JACKETED WIRE

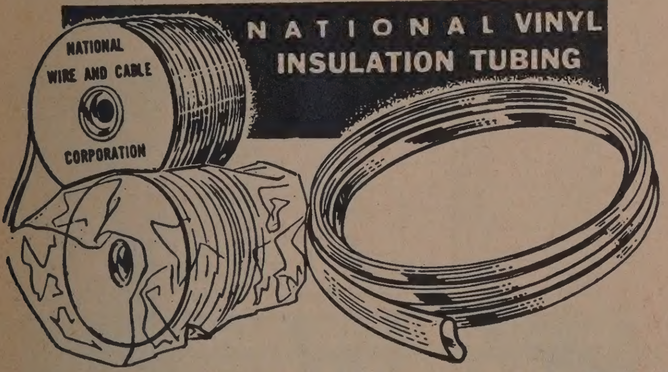


SINGLE CONDUCTOR

Gauge of Conductors	National Catalog Number	No. of Strands Per Cond.	Ga. of Strands	Nom. Diam. Overall Wire (Inches)	Nominal Values of Capacitance Per Foot		Nom. Wt. Per 1000 Ft. (Lbs.)
					Wire-Wire MMF/FT	Wire-Shield MMF/FT	
24	NB1936N1SJ	19	36	.091		70.5	16.9
22	NB1934N1SJ	19	34	.099		102.1	18.7
20	NB1932N1SJ	19	32	.109		113.4	21.1
18	NB1930N1SJ	19	30	.123		118.9	24.6
16	NB1929N1SJ	19	29	.134		123.6	27.7

TWO CONDUCTOR

Gauge of Conductors	National Catalog Number	No. of Strands Per Cond.	Ga. of Strands	Nom. Diam. Overall Wire (Inches)	Nominal Values of Capacitance Per Foot		Nom. Wt. Per 1000 Ft. (Lbs.)
					Wire-Wire MMF/FT	Wire-Shield MMF/FT	
24	NB1936N2SJ	19	36	.151	35.1	59.5	24.4
22	NB1934N2SJ	19	34	.166	40.0	61.3	28.4
20	NB1932N2SJ	19	32	.186	47.6	74.9	32.3
18	NB1930N2SJ	19	30	.214	57.6	97.4	40.0
16	NB1929N2SJ	19	29	.236	62.7	106.2	46.1

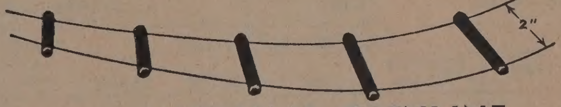

NATIONAL VINYL INSULATION TUBING
NATIONAL WIRE AND CABLE CORPORATION

INSULATION

EXTRUDED VINYL AND TEFLON TUBING

SIZES: #24 through 2½" Diam.
PUT-UP: #24 to ⅜" on spools, completely sealed in plastic wrapping. Size 7/16" to 2½" in tied coils.
SPEC. Vinyl +105°C to —32°C Type: MIL-I-631C, ASTM-D922 Grade C
GRADES: Vinyl + 80°C to —55°C Type: MIL-I-7444B, MIL-I-22076
Teflon +250°C to —55°C Type: MIL-I-22129B (#20 to #2)

NATIONAL OPENLINE



NATIONAL OPENLINE

DESIGNED FOR COMMERCIAL TV DISTRIBUTION SYSTEMS AND RF POWER TRANSMISSION

Specifications: two inch spacing between conductors . . . 12 gauge copperweld . . . 470 ohm impedance . . . attenuation: 150 mc 0.25 DB PER 100 FEET, AT 30 mc 0.1 DB PER 100 FEET. Velocity factor 0.975 . . . copperweld steel for maximum strength and electrical stability, and to insure permanent uniform performance . . . Spreaders are brown polystyrene, spaced at average five foot intervals, staggered slightly to avoid spurious resonances.

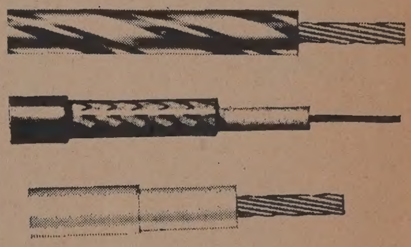
Also 1" & ½" copper line for TV leadin Formvar coated.

COMPLETE WIRE AND CABLE INVENTORY ALWAYS AVAILABLE FOR IMMEDIATE SHIPMENT!

National Wire and Cable Corporation maintains one of the largest and most complete stocks of electronic and aircraft wire and cable in the nation. **Total footage of floor stocks exceeds 50 million feet!**

Your immediate source for "MIL and Jan-Spec" wires, coaxial cables and vinyl sleeving.

Special color coded. shielded and jacketed combinations of hook-up wire and multi-conductor cables can be made to your specifications and delivered promptly without delay.



IN STOCK!

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MW, HW, LW

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E, EE, K, KK
J, JN

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MIL-W-5086 A
Type I, II, III

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Type I, II, III

JAN-C-76
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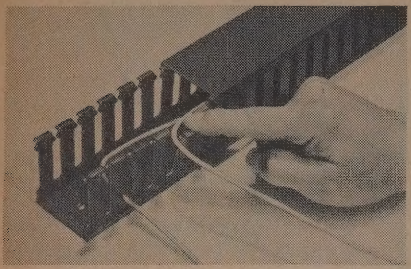
PANDUIT wiring components



◄ Type E—Open Slot

PANDUCT® PLASTIC WIRING DUCT

CORNER STRIP

Catalog Number	Approx. Shipping Weight per 100′	Price Per Foot (Standard Length: 5 ft.)			
		Under 100′	100′-499′	500′-999′	100′ & over
CS-1	15 lbs.	$.29	$.25	$.24	$.23

PLASTIC RIVETS

Catalog No.	Price Per 100		
	0-999	1000-9999	10M & Over
NR-1	$2.00	$1.80	$1.60

ELECTRONIC DUCT Assembly—Includes Duct and Cover

Catalog Assembly Number						Price/Foot (Includes Duct and Cover)			
Open* Slot	Wire Hole	Closed Slot	Nominal Width	Nominal Height	Approx. Shpg. Wt. per 100′	Under 100′	100′ to 999′	1000′ to 2499′	Nominal Size
E .5 x 5	None	None	½″	½″	15 lbs.	.48	.38	.34	.5 x .5
E .5 x 1	None	None	½″	1″	20 lbs.	.54	.43	.40	.5 x 1
E .5 x 1.25	None	None	½″	1¼″	20 lbs.	.60	.47	.43	.5 x 1.25
E .5 x 1.75	None	None	½″	1¾″	20 lbs.	.62	.50	.46	.5 x 1.75
E .75 x .75	None	None	¾″	¾″	20 lbs.	.54	.43	.40	.75 x .75
E .75 x 1	None	None	¾″	1″	22 lbs.	.55	.44	.41	.75 x 1

ELECTRICAL DUCT Assembly—Includes Duct and Cover

Catalog Assembly Number						Price/Foot (Includes Duct and Cover)			
Open* Slot	Wire Hole	Closed Slot	Nominal Width	Nominal Height	Approx. Shpg. Wt. per 100′	Under 100′	100′ to 999′	1000′ to 2499′	Nominal Size
E 1 x 1	D 1 x 1	C 1 x 1	1″	1″	25 lbs.	.57	.46	.42	1 x 1
E 1 x 1.5	None	None	1″	1½″	27 lbs.	.72	.58	.53	1 x 1.5
E 1 x 2	D 1 x 2	C 1 x 2	1″	2″	30 lbs.	.76	.61	.56	1 x 2
E 1 x 3	D 1 x 3	C 1 x 3	1″	3″	35 lbs.	.93	.74	.68	1 x 3
E 1.5 x 2	D 1.5 x 2	C 1.5 x 2	1½″	2″	30 lbs.	.84	.67	.61	1.5 x 2
E 1.5 x 3	D 1.5 x 3	C 1.5 x 3	1½″	3″	40 lbs.	1.02	.82	.75	1.5 x 3
E 1.5 x 4	D 1.5 x 4	None	1½″	4″	50 lbs.	1.26	1.01	.93	1.5 x 4
E 2 x 1	D 2 x 1	C 2 x 1	2″	1″	30 lbs.	.80	.64	.58	2 x 1
E 2 x 2	D 2 x 2	C 2 x 2	2″	2″	35 lbs.	.93	.74	.68	2 x 2
E 2 x 3	D 2 x 3	C 2 x 3	2″	3″	50 lbs.	1.08	.86	.79	2 x 3
E 2 x 4	D 2 x 4	None	2″	4″	60 lbs.	1.34	1.07	.98	2 x 4
E 2.5 x 3	D 2.5 x 3	C 2.5 x 3	2½″	3″	55 lbs.	1.17	.94	.87	2.5 x 3
E 3 x 1	D 3 x 1	C 3 x 1	3″	1″	35 lbs.	1.00	.80	.74	3 x 1
E 3 x 2	D 3 x 2	C 3 x 2	3″	2″	50 lbs.	1.07	.85	.78	3 x 2
E 3 x 3	D 3 x 3	C 3 x 3	3″	3″	60 lbs.	1.23	.98	.90	3 x 3
E 3 x 4	D 3 x 4	None	3″	4″	70 lbs.	1.46	1.17	1.07	3 x 4
E 4 x 2	D 4 x 2	None	4″	2″	60 lbs.	1.21	.97	.89	4 x 2
E 4 x 3	D 4 x 3	None	4″	3″	70 lbs.	1.38	1.10	1.01	4 x 3
E 4 x 4	D 4 x 4	None	4″	4″	80 lbs.	1.56	1.24	1.14	4 x 4

NOTE: Total length of all sizes of duct of each order, ordered for shipment at one time to one location, determines quantity discount. Standard colors: white or dark gray. Black or light gray colors: minimum order—200 ft. Standard length: 6′, 5′, 7′ & other lengths available. Cost extra for standard mounting holes: $.01 per foot. (See Bulletin D-2A, page 4). *Type E supersedes Type B. See price sheet L2A-4 for individual duct and cover prices.

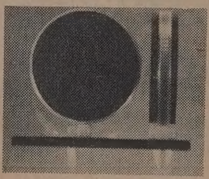
CABLE TIES AND CLAMPS

STA-STRAP® (Permanent)

SST—Tie

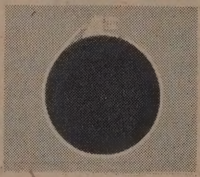
SSC—Clamp

SSM—Marker

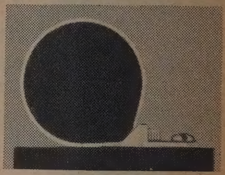


SSP—Push

LOK-STRAP® (Releasable)



LST—Tie



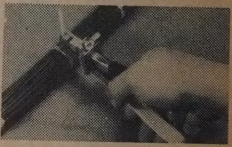
LSC—Clamp

Catalog Number	Maximum Bundle Diameter	Standard Carton	Approx. Shpg. Wt. Per 100	Price/100 Less Than 100	Unit Pkg.	Price/100 in Unit Packages				50,000 & Over
						Base Price 100-900	1-9M	10-24M	25-50M	
SST-1	¾″	1000	4 oz.	$4.40	100	$3.60	$2.85	$2.70	$2.55	Quotation Basis
SST-2	1¾″	1000	5 oz.	5.40	100	4.30	3.40	3.25	3.05	
SST-4	4″	1000	9 oz.	12.25	100	9.80	7.80	7.20	6.60	
SSC-2	1¾″	1000	6 oz.	6.15	100	4.90	3.90	3.60	3.30	
SSM-2	1¾″	1000	6 oz.	10.75	100	8.60	6.80	6.50	6.10	
SSM-4	4″	1000	10 oz.	17.65	100	14.10	11.20	10.45	9.65	
SSP-2	1¾″	1000	6 oz.	6.15	100	4.90	3.90	3.60	3.30	
LST-2	1¾″	1000	6 oz.	8.65	100	6.90	5.45	5.20	4.90	
LST-4	4″	1000	10 oz.	15.00	100	12.00	9.45	9.00	8.50	
LSC-2	1¾″	1000	7 oz.	9.35	100	7.45	5.90	5.60	5.30	
TA-1	......	1000	3 oz.	3.75	100	3.00	2.40	2.25	2.15	
TA-2	......	1000	4 oz.	4.40	100	3.60	2.85	2.70	2.55	

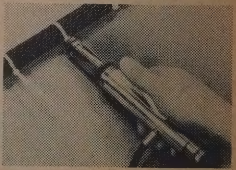
Colors: Standard — Natural Nylon White. Other Colors Available on Quotation Basis.

Material: Virgin Nylon

INSTALLATION TOOLS



TS-2—Hand Tool



ATS-2—Pneumatic Tool

▶PRICE SAVINGS on BULK PACKED STRAPS—Write for details—Minimum Quantity 1000 ea. part.

Terms: ½ of 1%—10 days; Net, 30 days
Delivery: F.O.B. Tinley Park, Illinois (Chicago Suburb)
Minimum Order: $5.00
All prices subject to change without notice.

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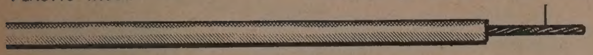
HOOK-UP WIRE
PLASTIC TYPE



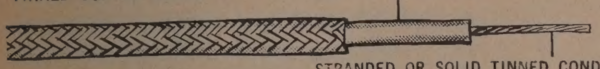
SOLID CONDUCTOR

Saxton Number	—Conductor—		Insulation Thickness	Nominal O.D.	Net Price Per M′
	Size	Stranding			
1AD22	22	solid	.016″	.061″	$5.48
1AD20	20	solid	.016″	.064″	6.90
1AD18	18	solid	.016″	.072″	9.15

STRANDED CONDUCTOR

Saxton Number	—Conductor—		Insulation Thickness	Nominal O.D.	Net Price Per M′
	Size	Stranding			
1A24	24	7 x 32	.016″	.056″	$5.25
1A22	22	7 x 30	.016″	.062″	5.93
1A20	20	10 x 30	.016″	.067″	7.43
1A18	18	16 x 30	.016″	.077″	9.89
1A16	16	26 x 30	.016″	.092″	16.50
1A14	14	41 x 30	.016″	.106″	21.00

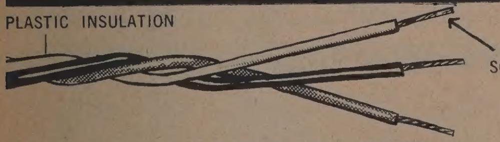
SHIELDED HOOK-UP WIRE
PLASTIC TYPE



STRANDED CONDUCTOR

Saxton Number	—Conductor—		Insulation Thickness	Nominal O.D.	Net Price Per M′
	Size	Stranding			
1AS22	22	7 x 30	.016″	.090″	$27.75
1AS20	20	10 x 30	.016″	.100″	30.00
1AS18	18	16 x 30	.016″	.120″	33.75
1AS16	16	26 x 30	.016″	.130″	39.00
1AS14	14	41 x 30	.016″	.150″	54.75
1AS12	12	65 x 30	.016″	.170″	87.75
1AS10	10	105 x 30	.025″	.195″	157.50

UNSHIELDED AUDIO CABLE
2 AND 3-CONDUCTOR • NO OUTER JACKET



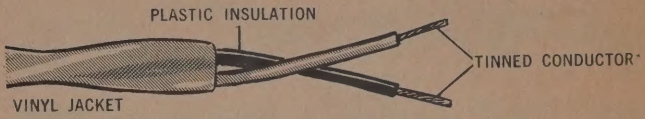
SOLID CONDUCTOR

Saxton Number	—Conductor—			Insulation Thickness	Nom. O.D.	Price Per M′
	No.	Size	Stranding			
2AD22	2	22	solid	.016″	.100″	$11.25
3AD22	3	22	solid	.016″	.115″	15.75
2AD20	2	20	solid	.016″	.120″	17.78
3AD20	3	20	solid	.016″	.135″	25.80
2AD18	2	18	solid	.016″	.145″	21.38
3AD18	3	18	solid	.016″	.160″	33.75
2AD16	2	16	solid	.016″	.175″	35.25
3AD16	3	16	solid	.016″	.190″	50.10

STRANDED CONDUCTOR

Saxton Number	—Conductor—			Insulation Thickness	Nom. O.D.	Price Per M′
	No.	Size	Stranding			
2A22	2	22	7 x 30	.016″	.125″	$14.03
3A22	3	22	7 x 30	.016″	.140″	20.63
2A20	2	20	10 x 30	.016″	.145″	19.13
3A20	3	20	10 x 30	.016″	.160″	27.90
2A18	2	18	16 x 30	.016″	.165″	21.90
3A18	3	18	16 x 30	.016″	.180″	39.00
2A16	2	16	26 x 30	.016″	.190″	37.35
3A16	3	16	26 x 30	.016″	.210″	54.75

MULTI-CONDUCTOR JACKETED CABLE
.020″-WALL PLASTIC JACKET



SOLID CONDUCTOR

Saxton Number	—Conductor—			Insulation Thickness	Nom. O.D.	Price Per M′
	No.	Awg	Stranding			
2JD22	2	22	solid	.015″	.140″	$16.13
3JD22	3	22	solid	.015″	.150″	23.25
4JD22	4	22	solid	.015″	.170″	27.00
5JD22	5	22	solid	.015″	.185″	32.40
6JD22	6	22	solid	.015″	.190″	45.75
7JD22	7	22	solid	.015″	.200″	52.50
8JD22	8	22	solid	.015″	.210″	58.13
9JD22	9	22	solid	.015″	.240″	64.13
10JD22	10	22	solid	.015″	.250″	79.13
12JD22	12	22	solid	.015″	.270″	101.63
15JD22	15	22	solid	.015″	.300″	127.13
2JD20	2	20	solid	.015″	.155″	21.75
3JD20	3	20	solid	.015″	.165″	38.25
4JD20	4	20	solid	.015″	.195″	47.25
5JD20	5	20	solid	.015″	.220″	56.25
6JD20	6	20	solid	.015″	.230″	74.25
7JD20	7	20	solid	.015″	.240″	92.25
8JD20	8	20	solid	.015″	.285″	110.25
9JD20	9	20	solid	.015″	.300″	124.25
10JD20	10	20	solid	.015″	.315″	142.50
12JD20	12	20	solid	.015″	.330″	165.00
15JD20	15	20	solid	.015″	.345″	210.00
20JD20	20	20	solid	.015″	.400″	280.88
2JD18	2	18	solid	.015″	.188″	27.75
3JD18	3	18	solid	.015″	.208″	42.00
4JD18	4	18	solid	.015″	.223″	59.40
5JD18	5	18	solid	.015″	.233″	76.28
6JD18	6	18	solid	.015″	.263″	92.78

STRANDED CONDUCTOR

Saxton Number	—Conductor—			Insulation Thickness	Nom. O.D.	Price Per M′
	No.	Awg	Stranding			
2J22	2	22	7 x 30	.015″	.145″	$19.13
3J22	3	22	7 x 30	.015″	.160″	23.40
4J22	4	22	7 x 30	.015″	.185″	27.45
5J22	5	22	7 x 30	.015″	.190″	32.05
6J22	6	22	7 x 30	.015″	.195″	49.88
7J22	7	22	7 x 30	.015″	.215″	56.25
8J22	8	22	7 x 30	.015″	.225″	59.25
9J22	9	22	7 x 30	.015″	.245″	64.50
10J22	10	22	7 x 30	.015″	.260″	81.00
12J22	12	22	7 x 30	.015″	.285″	105.00
15J22	15	22	7 x 30	.015″	.340″	130.80
2J20	2	20	10 x 30	.015″	.175″	22.13
3J20	3	20	10 x 30	.015″	.185″	39.00
4J20	4	20	10 x 30	.015″	.205″	48.75
5J20	5	20	10 x 30	.015″	.230″	58.88
6J20	6	20	10 x 30	.015″	.250″	78.00
7J20	7	20	10 x 30	.015″	.260″	96.00
8J20	8	20	10 x 30	.015″	.305″	114.00
9J20	9	20	10 x 30	.015″	.320″	125.00
10J20	10	20	10 x 30	.015″	.325″	142.63
12J20	12	20	10 x 30	.015″	.345″	165.75
15J20	15	20	10 x 30	.015″	.365″	213.75
20J20	20	20	10 x 30	.015″	.420″	285.00
2J18	2	18	16 x 30	.015″	.210″	28.50
3J18	3	18	16 x 30	.015″	.230″	48.38
4J18	4	18	16 x 30	.015″	.245″	60.00
5J18	5	18	16 x 30	.015″	.260″	78.75
6J18	6	18	16 x 30	.015″	.275″	96.00

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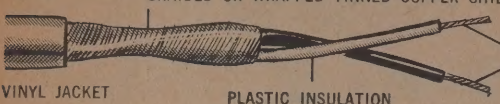
saxton
WIRE & CABLE DIVISION

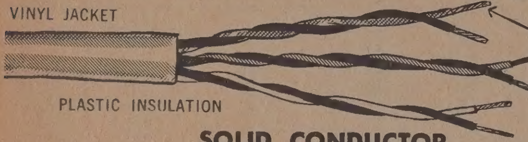
MULTI-CONDUCTOR SHIELDED CABLE*
.020"-WALL PLASTIC JACKET


BRAIDED OR WRAPPED TINNED COPPER SHIELD
TINNED CONDUCTOR*
VINYL JACKET
PLASTIC INSULATION

Saxton Number	Type Shield	—Conductors— No.	Awg	Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.	Net Price Per M'
1SSJ22	wrap	1	22	7 x 30	.016"	.020"	.135"	$27.63
2SSJ22	wrap	2	22	7 x 30	.016"	.020"	.175"	33.00
2SSJD22	wrap	2	22	solid	.016"	.020"	.170"	28.88
2SSJ20	wrap	2	20	10 x 30	.016"	.020"	.195"	37.50
3SSJ20	wrap	3	20	10 x 30	.016"	.020"	.210"	54.00
4SSJ20	wrap	4	20	10 x 30	.016"	.020"	.225"	83.00
2SSJ18	wrap	2	18	16 x 30	.016"	.020"	.230"	45.38
2SSJ16	wrap	2	16	26 x 30	.016"	.020"	.250"	75.00
2SJ22	braid	2	22	7 x 30	.016"	.020"	.183"	38.63
2SJ20	braid	2	20	10 x 30	.016"	.020"	.195"	48.75
2SJ18	braid	2	18	16 x 30	.016"	.020"	.235"	56.25

*Bare conductors available. For additional constructions see Audio Cable Section.

INTERCOM CABLE
TWISTED PAIRS WITH PLASTIC JACKET


VINYL JACKET
STRANDED OR SOLID TINNED CONDUCTOR*
PLASTIC INSULATION

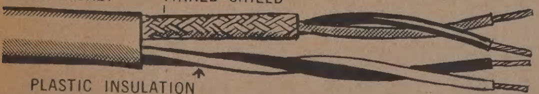
SOLID CONDUCTOR

Saxton Number	Number Pairs	—Conductors— No.	Awg	Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.	Net Price Per M'
2PD22	1	2	22	solid	.015"	.020"	.128"	$13.65
4PD22	2	4	22	solid	.015"	.020"	.205"	25.13
6PD22	3	6	22	solid	.015"	.020"	.230"	34.73
12PD22	6	12	22	solid	.015"	.020"	.330"	56.25
14PD22	7	14	22	solid	.015"	.020"	.345"	74.25
18PD22	9	18	22	solid	.015"	.020"	.370"	77.70
22PD22	11	22	22	solid	.015"	.020"	.385"	109.50
26PD22	13	26	22	solid	.015"	.025"	.415"	108.75
30PD22	15	30	22	solid	.015"	.025"	.450"	140.25
32PD22	16	32	22	solid	.015"	.025"	.470"	175.50
54PD22	27	54	22	solid	.015"	.035"	.605"	255.00
62PD22	31	62	22	solid	.015"	.035"	.630"	423.00
82PD22	41	82	22	solid	.015"	.035"	.710"	570.00
102PD22	51	102	22	solid	.015"	.045"	.845"	897.00

STRANDED CONDUCTOR

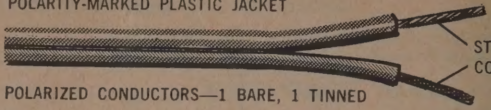
Saxton Number	Number Pairs	—Conductors— No.	Awg	Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.	Net Price Per M'
2P22	1	2	22	7 x 30	.015"	.020"	.155"	$22.13
4P22	2	4	22	7 x 30	.015"	.020"	.220"	35.85
6P22	3	6	22	7 x 30	.015"	.020"	.245"	52.50
8P22	4	8	22	7 x 30	.015"	.020"	.275"	68.63
10P22	5	10	22	7 x 30	.015"	.020"	.320"	73.65
12P22	6	12	22	7 x 30	.015"	.020"	.340"	79.13
18P22	9	18	22	7 x 30	.015"	.020"	.375"	113.10
22P22	11	22	22	7 x 30	.015"	.020"	.415"	146.25
30P22	15	30	22	7 x 30	.015"	.025"	.485"	182.55
54P22	27	54	22	7 x 30	.015"	.035"	.645"	345.00

AUDIO CABLE
COMBINATION SHIELDED & JACKETED


VINYL JACKET
TINNED SHIELD
TINNED STRANDED CONDUCTOR
PLASTIC INSULATION

Saxton No.	No.	Conductors AWG	Stranding	Insultn. Thckns.	Jacket Thckns.	Nom. O.D.	Price Per M'
2S2J22	4	22	7 x 30	.016"	.020"	.315"	$50.25
(Two conductors shielded, two unshielded)							
1S2J22	3	22	7 x 30	.016"	.020"	.200"	37.35
(One conductor shielded, two unshielded)							

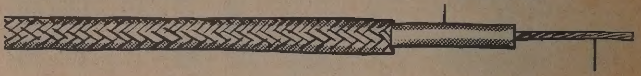
E-Z ZIP-CORD—LAMP-CORD
PLASTIC TYPE • 2 & 3-CONDUCTOR


POLARITY-MARKED PLASTIC JACKET
STRANDED BARE COPPER CONDUCTORS
POLARIZED CONDUCTORS—1 BARE, 1 TINNED

Saxton No.	No.	Conductors AWG	Stranding	UL Type	Wall Thckns.	Nominal O.D.	Price Per M'
2F24*	2	24	7 x 32	—	.016"	.061" x .137"	see below
2F20**	2	20	10 x 30	—	.016"	.105" x .210"	see below
2F18	2	18	41 x 34	SPT-1	.016"	.130" x .215"	$18.90
2F18B	2	18	41 x 34	SPT-2	.032"	.150" x .285"	30.75
2F16	2	16	65 x 34	SPT-2	.032"	.160" x .300"	43.50
3F24	3	24	7 x 32	—	.032"	.061" x .204"	15.00

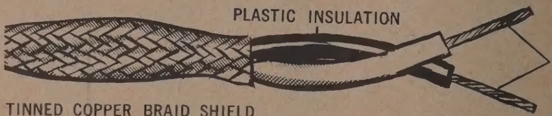
*2F24—clear—$10.35 Colors—$9.53
**2F20—clear— 18.00 Colors—14.63

PHONO WIRE
1 AND 2-CONDUCTOR • SHIELDED, UNJACKETED


TINNED COPPER SHIELD
PLASTIC INSULATION
STRANDED TINNED COPPER CONDUCTOR

Saxton No.	No.	Conductors AWG	Stranding	Insltn. Thckns.	Nom. O.D.	Net Price Per M'
1S24	1	24	16 x 36	.016"	.080"	$27.00
2S24	2	24	16 x 36	.016"	.125"	32.63

AUDIO CABLE
2-CONDUCTOR SHIELDED, UNJACKETED


PLASTIC INSULATION
SOLID OR STRANDED TINNED CONDUCTOR*
TINNED COPPER BRAID SHIELD

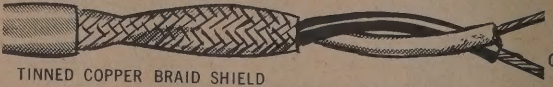
SOLID CONDUCTOR

Saxton No.	No.	Conductors AWG	Stranding	Insltn. Thckns.	Nom. O.D.	Net Price Per M'
2SD22	2	22	solid	.016"	.132"	$28.88
2SD20	2	20	solid	.016"	.148"	32.18
2SD18	2	18	solid	.016"	.175"	43.13

STRANDED CONDUCTOR

2S24	2	24	16 x 36	.016"	.125"	$32.63
2S22	2	22	7 x 30	.016"	.140"	33.75
2S20	2	20	10 x 30	.016"	.155"	36.75
2S18	2	18	16 x 30	.016"	.170"	47.25
2S16	2	16	26 x 30	.020"	.210"	71.50
2S14	2	14	41 x 30	.020"	.225"	102.00
2S12	2	12	65 x 30	.025"	.295"	173.35

AUDIO CABLE
2-CONDUCTOR • SHIELDED & JACKETED


VINYL JACKET
SOLID OR STRANDED CONDUCTOR*
TINNED COPPER BRAID SHIELD

SOLID CONDUCTOR

Saxton No.	No.	Conductors AWG	Stranding	Insltn. Thckns.	Jacket Thckns.	Nom. O.D.	Net Price Per M'
2SDJ22	2	22	solid	.016"	.020"	.172"	$33.75
2SDJ20	2	20	solid	.016"	.020"	.208"	36.00
2SDJ18	2	18	solid	.016"	.020"	.218"	45.90

STRANDED CONDUCTOR

2SJ22	2	22	7 x 30	.016"	.020"	.183"	37.88
2SJ20	2	20	10 x 30	.016"	.020"	.195"	48.38
2SJ18	2	18	16 x 30	.016"	.020"	.235"	54.60

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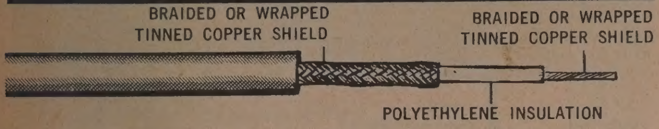
AUDIO CABLE

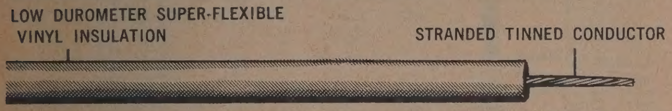
LOW LOSS MICROPHONE & INPUT


BRAIDED OR WRAPPED TINNED COPPER SHIELD
BRAIDED OR WRAPPED TINNED COPPER SHIELD
POLYETHYLENE INSULATION

Saxton No.	Nom. Cap./ft.	Shield Type	Conductors No.	AWG	Strdg.	Insl. Th.	Jkt. Th.	Nom. O.D.	Price Per M′
1SSJC26	36 mmf.	wrap	1	26	7x34 cprwld.	.016″	.020″	.125″	$26.63
1SJC24	35 mmf.	braid	1	24	10x34	.016″	.030″	.145″	27.08
1SJC24A	23 mmf.	braid	1	24	10x34	.040″	.030″	.200″	35.85
1SJC20	36 mmf.	braid	1	20	26x34	.030″	.030″	.175″	49.50
2SJC20	31 mmf.	braid	2	20	16x34	.025″	.030″	.230″	51.90
3SJC20	34 mmf.	braid	3	20	26x34	.025″	.035″	.290″	66.00
4SJC20	36 mmf.	braid	4	20	26x34	.025″	.035″	.315″	84.00
5SJC20	45 mmf.	braid	5	20	26x34	.025″	.035″	.340″	99.00
6SJC20	51 mmf.	braid	6	20	26x34	.025″	.035″	.365″	156.00

TEST LEAD WIRE

SUPER-FLEXIBLE VINYL INSULATION*

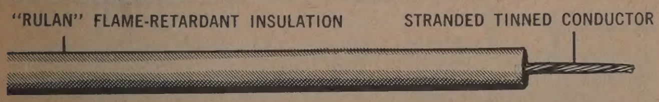

LOW DUROMETER SUPER-FLEXIBLE VINYL INSULATION
STRANDED TINNED CONDUCTOR

Saxton No.	Type	Conductors AWG	Strndg.	Wall Thkns.	Brkdwn. Voltage	Nom. O.D.	Net Pr. Per M′
1C20	Standard	20	41 x 36	.040″	5,000	.120″	$14.33
1C20A	Standard	20	41 x 36	.044″	8,500	.130″	14.70
1C20B	Standard	20	41 x 36	.047″	10,000	.135″	16.50
1C18	Standard	18	41 x 34	.047″	12,000	.140″	19.88
1C18A	Hvy.Duty	18	41 x 34	.109″	22,000	.245″	29.40
1C20R*	Standard	20	41 x 36	.040″	5,000	.120″	16.88
1C18R*	Standard	18	41 x 34	.045″	5,000	.138″	20.25

*Rubber, Also available to MIL-spec from stock. ALL TEST PROD WIRES RED or BLACK. Other colors available.

HIGH VOLTAGE WIRE

FLAME-RETARDANT RULAN INSULATION

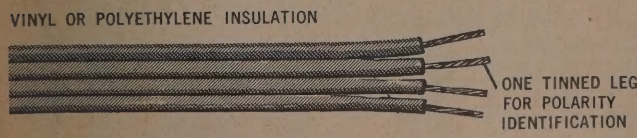


Saxton No.	Type	Conductors AWG	Strndg.	Wall Thkns.	Brkdwn. Voltage	Nom. O.D.	Net Pr. Per M′
1R20	unshielded	20	10 x 30	.047″	10,000	.120″	$19.13
1R20A	unshielded	20	10 x 30	.063″	20,000	.170″	29.63
1R18	unshielded	18	16 x 30	.095″	40,000	.240″	57.00
1RS18	shielded	18	16 x 30	.075″	20,000	.243″	93.75

ROTOR CABLE

LOW LOSS FLAT TYPE

(round construction also available)


VINYL OR POLYETHYLENE INSULATION
ONE TINNED LEG FOR POLARITY IDENTIFICATION

Saxton No.	Conductors No.	AWG	Strndg.	Insulation Material	Nominal O.D.	Net Price Per M′
4FC2	4	22	7 x 30	polyethylene	.085 x .360″	$17.48
4FC2A	4	22	7 x 30	polyvinyl chlrd.	.090 x .430″	18.75
4FC3	4	20	10 x 30	polyethylene	.085 x .360″	20.18
4FC3A	4	20	10 x 30	polyvinyl chlrd.	.090 x .430″	22.28

MIL-C-3432 • MIL-C-3884

WITH CERTIFICATION • PRICES ON REQUEST

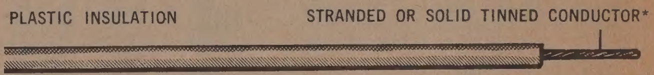
Saxton No.	Specfctn.	Desgntn.	Construction	Specification Number	Nom. O.D.
2M18	CO-02	MGF	2/18 SJO (shielded)	MIL-C-3433A	0.375
2M18A	CO-02	MGF	2/18	MIL-C-3432A	0.300
2M18B	CO-02	HGF	2/18	MIL-C-3432A	0.380
2M18C	CO-02	LGF	2/18	MIL-C-3432A	0.250
2M16	CO-02	HGF	2/16	MIL-C-3432A	0.405
2M16A	CO-02	MGF	2/16	MIL-C-3432A	0.338
2M14	CO-02	MGF	2/14	MIL-C-3432A	0.400
2M14A	CO-02	HGF	2/14	MIL-C-3432A	0.535
3M18	CO-03	MGF	3/18	MIL-C-3432A	0.330
3M16	CO-03	MGF	3/16 SJO (shielded)	MIL-C-3432A	0.360
3M16A	CO-03	MGF	3/16	MIL-C-3432A	0.375
3M12	CO-03	HOE	3/12	MIL-C-3432A	0.635
5M20	CO-05	MGF	5/20	MIL-C-3432A	0.400
2M18D	COS		2/18	MIL-C-3884	0.290
3M18A	COS		3/18	MIL-C-3884	0.290
2M20	COS		2/20	MIL-C-3884	0.280
3M20	COS		3/20	MIL-C-3884	0.280

Saxton stocks a complete inventory of MIL-C-3432A and MIL-3884. Only the most popular types are listed here. We invite your inquiry on these and others.

MIL-W-76B

WITH CERTIFICATION

TYPE MW—Uncovered Plastic, Medium Wall, 1000V. Rating



SOLID CONDUCTOR

Saxton No.	Specification Designation	AWG	Insltn. Thkns.	Nom. O.D.	Net Price Per M′
1MD22	MW-C 22(1)U	22	.016″	.061″	$5.63
1MD20	MW-C 20(1)U	20	.016″	.064″	7.95
1MD18	MW-C 18(1)U	18	.016″	.072″	10.80
1MD16	MW-C 16(1)U	16	.016″	.083″	15.75

STRANDED CONDUCTOR

SPECIAL QUANTITY PRICES

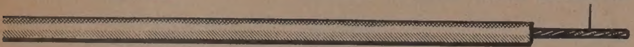
Saxton No.	Specification Designation	Conductor AWG	Strndg.	Insltn. Thkns.	Nom. O.D.	Net Pr. Per M′
1M24	MW-C 24(7)U	24	7 x 32	.016″	.056″	$6.15
1M22	MW-C 22(7)U	22	7 x 30	.016″	.062″	7.13
1M20	MW-C 20(10)U	20	10 x 30	.016″	.067″	9.53
1M18	MW-C 18(16)U	18	16 x 30	.016″	.077″	13.28
1M16	MW-C 16(26)U	16	26 x 30	.016″	.092″	19.65
1M14	MW-C 14(41)U	14	41 x 30	.016″	.106″	29.55
1M12	MW-C 12(65)U	12	65 x 30	.016″	.127″	49.50

TYPE HW—Uncovered Plastic, Heavy Wall

Saxton No.	Specification Designation	Conductor AWG	Strndg.	Insltn. Thkns.	Nom. O.D.	Net Pr. Per M′
1M22A	HW-C 22(7)U	22	7 x 30	.032″	.094″	$14.63
1M20A	HW-C 20(10)U	20	10 x 30	.032″	.099″	18.00
1M18A	HW-C 18(16)U	18	16 x 30	.032″	.109″	24.00
1M16A	HW-C 16(26)U	16	26 x 30	.032″	.122″	34.88
1M14A	HW-C 14(41)U	14	41 x 30	.045″	.165″	56.25
1M12A	HW-C 12(65)U	12	65 x 30	.045″	.185″	76.50

saxton
WIRE & CABLE DIVISION

MIL-W-16878C
WITH CERTIFICATION • SPECIAL QUANTITY PRICES

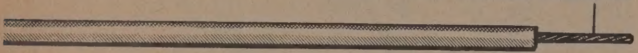


TYPE E—Extruded Teflon, 600 V. Rating

1M30E	E-30	30	7 x 38	.010"	.033"	$52.13
1M28E	E-28	28	7 x 36	.010"	.036"	50.25
1M26E	E-26	26	7 x 34	.010"	.041"	48.75
1M24E	E-24	24	19 x 36	.010"	.046"	52.88
1M22E	E-22	22	19 x 34	.010"	.052"	63.00
1M20E	E-20	20	19 x 32	.010"	.060"	75.75
1M18E	E-18	18	19 x 30	.010"	.072"	96.00
1M16E	E-16	16	19 x 29	.010"	.084"	135.00
1M14E	E-14	14	19 x 27	.010"	.098"	207.75

TYPE EE—Extruded Teflon, 1000 V. Rating

1M30EE	EE-30	30	7 x 38	.015"	.043"	$61.50
1M28EE	EE-28	28	7 x 36	.015"	.046"	66.00
1M26EE	EE-26	26	7 x 34	.015"	.050"	58.50
1M24EE	EE-24	24	19 x 36	.015"	.056"	68.25
1M22EE	EE-22	22	19 x 34	.015"	.062"	72.30
1M20EE	EE-20	20	19 x 32	.015"	.070"	93.75
1M18EE	EE-18	18	19 x 30	.015"	.081"	114.75
1M16EE	EE-16	16	19 x 29	.015"	.090"	163.88
1M14EE	EE-14	14	19 x 27	.015"	.104"	231.00



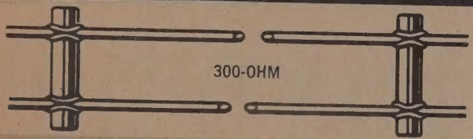
TYPE C—Uncovered Plastic, 1000 V. Rating

Saxton No.	Specification Designation	Conductor AWG	Conductor Strndg.	Insltn. Thkns.	Nom. O.D.	Net Pr. Per M'
1M22C	C-22	22	7 x 30	.016"	.065"	$9.75
1M20C	C-20	20	7 x 28	.016"	.073"	12.73
1M18C	C-18	18	7 x 26	.016"	.081"	16.80
1M16C	C-16	16	19 x 29	.016"	.092"	21.53
1M14C	C-14	14	19 x 27	.016"	.103"	33.98

TYPE D—Uncovered Plastic, 3000 V. Rating

1M22D	D-22	22	7 x 30	.032"	.097"	$16.05
1M20D	D-20	20	7 x 28	.032"	.105"	19.50
1M18D	D-18	18	7 x 26	.032"	.113"	24.38
1M16D	D-16	16	19 x 29	.032"	.124"	28.88
1M14D	D-14	14	19 x 27	.032"	.135"	42.75

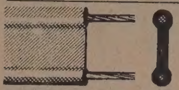
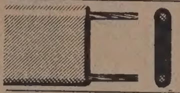
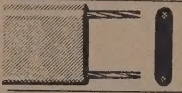
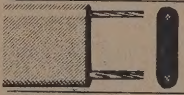
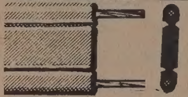
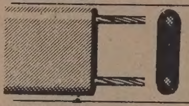
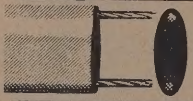
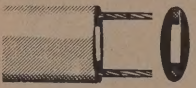
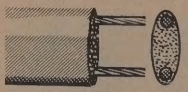
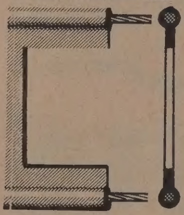
OPEN WIRE TRANSMISSION LINE
LOW LOSS AIR DIELECTRIC • 300-OHM • BULK QUANTITIES



Saxton Number	Conductor	Spac-ing	Imped.	Awg No.	Insul. Spac.	Net Price Per M'	Net Price Per 100'
2500	40% copperweld	1"	450-ohm	18	6"	$25.13*	$2.55
2501	40% copperweld	1"	450-ohm	18	12"	21.14*	—
2502	40% copperweld	7/16"	300-ohm	18	6"	25.13*	2.55
2507	solid copper	1"	450-ohm	18	6"	31.50*	—
2515	solid copper Formvar	1"	450-ohm	18	6"	33.38*	—
2517	solid copper Formvar	7/16"	300-ohm	18	6"	33.38*	—
2520	solid copper Formvar	1"	450-ohm	16	6"	42.75*	—
2525	40% copperweld	2"	475-ohm	14	random spaced	60.98*	—
2526	40% copperweld	2"	450-ohm	12	random spaced	73.88*	—

MAX. SPOOL: 6" spacing, 500 ft.; 12" spacing, 1000 ft.; 300-ohm, 500 ft.
*500' spool standard. 100' & 250' slightly higher.

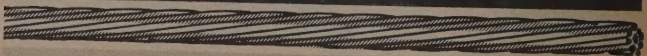
300-OHM TWIN LEAD
VHF-UHF TRANSMISSION LINE**

	Catalog Number	Name	Stranding	Nom. Size Web Width	Net Price Per M'
	TL-40	economy	7	0.040 x 0.0375	$ 8.18*
	TL-55	signal sender	7	0.055 x 0.385	8.93*
	TL-80	trophy line	10	0.080 x 0.385	10.43*
	TL-100	crusader	10	0.093 x 0.355	10.43*
	TL-100DL	top notch	10	0.095 x 0.383	11.18*
	TL-100EZ	E-Z Strip	10	0.080 x 0.370	11.25*
	TL-100SDL	double ten	20	0.100 x 0.400	15.38*
	18/125	Goldline	41	0.125 x 0.415	23.63*
	TTL	tubular	10	0.160 x 0.445	16.88*
	1016	spongee	7 x 28	0.230 x 0.365	31.30*
	INS-500	ins. open wire	41	0.075 x 0.975	39.75*

PK-80 Peaked 80 Mil. 7 — $9.08
PK-100-10 Peaked 100 Mil. 10 — 9.62
PK-100-20 Peaked 100 Mil. 20 — 13.15

**For tubular wire (TTL), shielded twin lead (#1118), or Sea Coaster Marine Type (#1017), see Saxton Page 10.
*For Clear, Silver or Gold add $1.67 per M' to net price. All PE insul.
HANKS, BANDED WITH OPEN SPADE LUGS AT ONE END ONLY:
50'—Add $2.50 per M' to net.
75'—Add $2.09 per M' to net.
100'—Add $1.67 per M' to net.

UNINSULATED TINNED COPPER



SOLID CONDUCTOR

Saxton Number	Awg No.	Net Price Per M'
ADT38	38	$ 2.63
ADT36	36	2.75
ADT34	34	3.08
ADT32	32	3.12
ADT30	30	3.15
ADT28	28	3.20
ADT26	26	3.23
ADT24	24	3.38
ADT22	22	3.75

Saxton Number	Awg No.	Net Price Per M'
ADT20	20	$ 4.47
ADT18	18	6.23
ADT16	16	9.38
ADT14	14	13.28
ADT12	12	19.65
ADT10	10	45.00
ADT8	8	67.50
ADT6	6	109.65

STRANDED

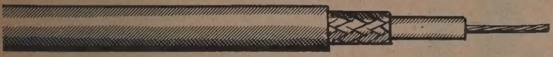
Sax. No.	Awg No.	Strand-ing	Net Price Per M'
AT24	24	7 x 32	$3.98
AT22	22	7 x 30	4.65
AT20	20	10 x 30	5.93
AT18	18	16 x 30	8.63
AT16	16	26 x 30	13.50
AT14	14	41 x 30	18.75
AT12	12	65 x 30	26.25

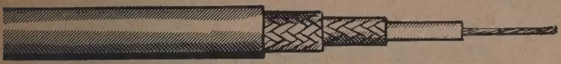
© U.C.P., Inc.

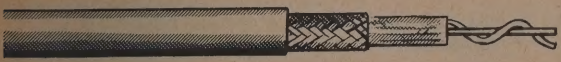
COAXIAL CABLE

COMMERCIAL TYPES

Quotations on cable to MIL-C-17B specifications on request. Quotations on RG-8/U and RG-11/U with 15 AWG solid copperweld conductor on request.


TYPE A


TYPE B

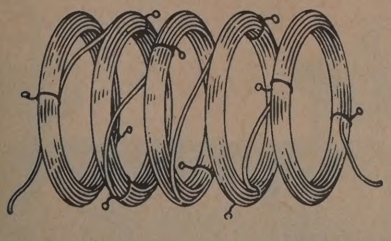

TYPE C

Saxton Number	Type Desig.	Ill. Type	Insulation	Nom. Imp. (Ohms)	Nom. O.D.	Jacket	Description	Net Price Per M′
1X14	K-14	A	reg.	72	.870	non-cont. PVC.	comm. TV cable	$488.00
1X8*	RG-8/U	A	reg.	52	.405	black PE	gen'l purpose	121.41
1X8A	RG-8/U	A	foam	52	.405	black PVC	—	124.13
1X8B*	RG-8A/U	A	reg.	50	.405	non-cont. PE	—	135.75
1X11*	RG-11/U	A	reg.	75	.405	black PVC	TV & comm.	108.00
1X11A	RG-11/U	A	foam	75	.405	black PVC	—	108.75
1X11B*	RG-11A/U	A	reg.	75	.405	non-cont. PE	—	121.50
1X11C	RG-11/UDS	B	reg.	75	.465	black PVC	double-shielded	175.50
1X58*	RG-58/U	A	reg.	53.5	.195	black PVC	20 AWG solid B.C.	47.03
1X58A	RG-58A/U	A	reg.	52	.195	black PVC	19/.0071 TC	47.83
1X58B*	RG-58C/U	A	reg.	50	.195	non-cont. blk PE	19/.0071 TC	54.00
1X59*	RG-59/U	A	reg.	73	.242	black PVC	TV cable	46.50
1X59A	RG-59/UDS	B	reg.	73	.285	black PVC	double-shielded	84.75
1X59B*	RG-59/U	A	foam	73	.242	black PVC	TV cable	47.25
1X59C	RG-59/U	A	reg.	50	.170	black PVC	miniature "59/U"	38.25
1X59D	RG-59A/U	A	reg.	75	.242	non-cont. blk PE	.023 copperweld	48.75
1X62	RG-62/U	C	reg.	93	.242	black PVC	small size low cap.	54.75

*Available in 100-ft. lengths. Add 10% for low-loss PE foam dielectric.

UNINSULATED COPPERWELD

40% COPPERWELD CONDUCTOR • NON-STRETCH • HARD-DRAWN



Saxton Number	Awg	Nom. O.D.	Net Price 1M′ Spools	75′ Interconnected	100′ Interconnected
5300	18 solid	.0403	$ 4.80	$ .44	$ .55
5301	16 solid	.0508	11.40	—	—
5302	14 solid	.0641	18.23	1.49	1.89
5303	12 solid	.0808	24.38	1.89	2.50
5304	10 solid	.1019	29.25	—	—
5305	8 solid	.1285	48.75	—	—
5306	6 solid	.1620	80.63	—	—

Saxton Copperweld available on 1M′ spools. Nos. 5300 to 5303 also in 50′ & 100′ interconnected coils of 1M′ total.

GUY WIRE & MESSENGER CABLE

HEAVY GALVANIZED STEEL, ALUMINUM & COPPERWELD

Saxton No.	Spec. Desig.	Stranding	Material	Test Strgth. —P.S.I.	Strength Yield Per C Ft.	Net Price 1M Ft. Spools
5100	GW-4/20	4 x 20	hvy. galv. steel	215	4%	$ 4.88
5101	GW-6/20	6 x 20	hvy. galv. steel	335	3.6%	6.23
5102	GW-7/20	7 x 20	hvy. galv. steel	418	2.8%	7.28
5103	GW-6/18	6 x 18	hvy. galv. steel	515	3%	9.38
5104	GW-7/18	7 x 18	hvy. galv. steel	585	3%	10.88
5105	AL-7/18	7 x 18	EC quality aluminum, aircraft temper	370	4.5%	20.25
5106	ASL-7/18	6 x 18 alum. 1 x 18 steel	EC quality aluminum, aircraft temper	410	3.5%	20.03
5107*	CO-6/20	6 x 20	30% copperweld	600	2.7%	26.63
5109*	CO-8/18	8 x 18	30% copperweld	1450	1.8%	57.38
5110*	CO-3/18	3 x 18	30% copperweld	550	2.5%	18.83
5111	GW-12/20	12 x 20	hvy. galv. steel	655	—	18.53
5112	Tiller Cable	7 x 7 (49 str.)	3/32" cable vinyl jacket 3/16" O.D.	2100	—	71.25

*50′ and 100′ interconnected coils are standard. 500′ or 1000′ spools available.

ANTENNA WIRE

Saxton Number	Stranding	Material	Packing	Net Price Per M′
1275	solid	#12 AWG enameled solid copper	1M′ interconnected coils of 100′ ea.	$25.50
1280	solid	#14 AWG enameled solid copper	1M′ interconnected coils of 100′ ea.	17.25
1286/50	7 x 22	bare copper	1000′ interconnected coils of 50′ ea.	15.10
1286/100	7 x 22	bare copper	1M′ interconnected coils of 100′ ea.	14.50
1288/50	7 x 24	bare copper	1M′ interconnected coils of 50′ ea.	12.40
1288/100	7 x 24	bare copper	1M′ interconnected coils of 100′ ea.	11.20
1289	7 x 26	bare copper	1M′ interconnected coils of 50′ ea.	11.40

ALUMINUM GROUND WIRE

1240/1M	—	#8 AWG solid dead soft alum.	1000-ft. spool	$13.28
1240/50	—	#8 AWG solid dead soft alum.	1M′ interconnected coils of 50′ ea.	14.60
1240/100	—	#8 AWG solid dead soft alum.	1M′ interconnected coils of 100′ ea.	14.00
1255/1M	—	#6 AWG solid dead soft alum.	1000-ft. spool	25.35
1255/50	—	#6 AWG solid dead soft alum.	1M′ interconnected coils of 50′ ea.	27.00
1255/100	—	#6 AWG solid dead soft alum.	1M′ interconnected coils of 100′ ea.	25.50

SAXTON STOCKS AND FABRICATES CABLES UNDER THE FOLLOWING MIL SPECIFICATIONS—

MIL-C-3432 (CO-O constructions)
MIL-C-5756B
MIL-C-3884
MIL-S-2486
MIL-C-10392

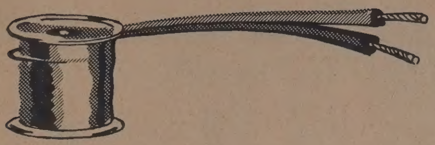
MIL-B-10255
MIL-W-13169
MIL-W-7139A
MIL-C-13077
MIL-W-5086A
MIL-W-16878C
MIL-W-76B

MIL-W-16878C Teflon
EXTRA LOW LOSS OPEN WIRE TRANSMISSION LINE plus . . . MANY OTHER TYPES

Whether your order is large or small, you get special service from Saxton.

saxton
WIRE & CABLE DIVISION

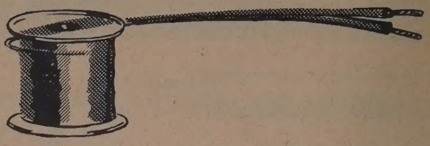
SAXTON ZIP-CORD
IDEAL FOR ELECTRICAL LEADS



100-PACK ZIP-CORD—18 AND 20-GAUGE

Convenient 100-ft. spools of parallel wire for speaker extensions, lamp wiring, etc. in Black, brown, white, grey and clear.

Saxton No. 1055HP (20-gauge, choice of color)	100-ft.	$1.98
Saxton No. 1555HP (18-gauge, choice of color)	100-ft.	2.49
Saxton No. 1055HC (20-gauge, clear, polarized)	75-ft.	1.98
Saxton No. 1555HC (18-gauge, clear, polarized)	75-ft.	2.49

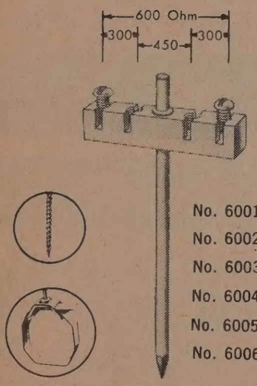


MINIATURE 24-GAUGE ZIP-CORD

Extremely flexible, polarized parallel wire for low voltage use and speaker wire. In brown, black, blue, green, white, grey and clear.

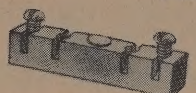
Saxton No. 2F24C/500—500-ft. roll, clear	$ 5.25
Saxton No. 2F24C/1000—1000-ft. roll, clear	10.35
Saxton No. 2F24/500—500 ft. roll, color	4.95
Saxton No. 2F24/1000—1000-ft. roll, color	9.75
Saxton No. 1159HP—80-ft. minispools, color	1.29

OPEN LINE ACCESSORIES
STAND-OFFS & STRESS INSULATORS



No. 6001
No. 6002
No. 6003
No. 6004
No. 6005
No. 6006

#6000



BLOCKS ONLY WITHOUT DRIVE-IN HARDWARE

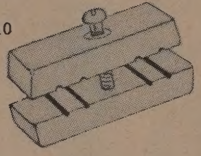
Complete with 2 plated screws for use as spacer blocks in making your own open line installations.
Saxton No. 6000
Net Price ..... .11½ ea.

Especially designed for use with open line transmission wire installations. Tighten screws after pulling wire taut. For use as spacer, partially tighten set-screws. This permits movement of wire in the slots and avoids potential wire breaks. Use outside slots for 600-ohm wire. The "Tappee" Stand-off Insulator is good for community installations where random spacing of open line is desirable to avoid tuned circuits. Ideal also for use as anchor point or spacer for "fence wire" installations. "Tappee" permits inexpensive, time and labor-saving, trouble-free installations, and is made for use with No. 12 thru No. 18-gauge wire. Hardware constructed of double-dip galvanized steel; block is high impact polystyrene.

Saxton Number	Description	Net Price Ea.
6001	5½" nail type	$.12¾
6003	5" wood screw type	.13½
6004	7½" wood screw type	.15
6005	5" pole clamp type	.16½
6006	7½" pole clamp type	.18
6007	INS-500 type	.29

OPEN LINE ACCESSORIES
STRESS INSULATORS AND BLOCKS

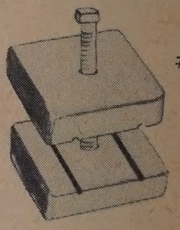
#6010



HEAVY DUTY OPEN LINE STRESS INSULATORS

Plastic blocks, slotted on either one or two-inch centers, for taking up slack or as anchor points in open line installations. Complete with plated screw.
Saxton No. 6010
Net Price .... .60 ea.

#6011



12 AWG INSULATOR

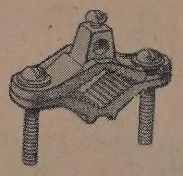
Same as Saxton No. 6010. Has 2-inch spacing for #12 AWG wires.
Saxon No. 6011,
Net Price .... .87 ea.

SEE PAGE 4 FOR INSULATED OPEN WIRE TYPE INS-500.

ANTENNA ACCESSORIES
SPECIAL HARDWARE

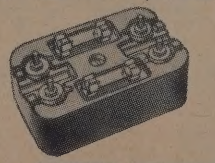
GROUND MAST CLAMPS

Saxton No. 1100,
Net Price .... .42 ea.



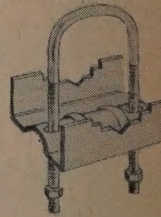
LIGHTNING ARRESTORS

(externally fused)
Saxton No. 1098,
Net Price ...... $1.73 ea.



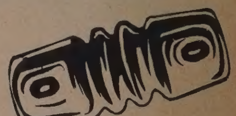
U-BOLTS AND SADDLES

Saxton No. 1103,
Net Price .... .23 ea.



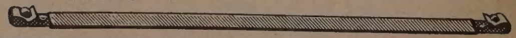
ANTENNA STRAIN INSULATORS

Saxton No. 1154
Net Price ...... .08½ ea.



ANTENNA WINDOW STRAPS

Saxton No. 1126,
Net Price .... .20 ea.



Net

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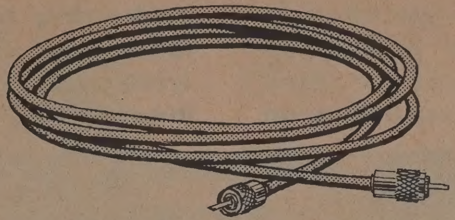
COAXIAL CABLE ASSEMBLIES
FOR CITIZEN'S BAND



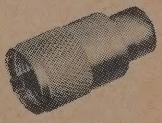
BAG-PACKED

Saxton Number	Length	Type	Description	Net Price
800	10′	RG8U	Has PL259 on one end, two terminating spade lugs on the other	$3.50
801	10′	RG8U	Same as #800 except PL259 to PL259	3.99
802	15′	RG8U	Has PL259 on one end, two terminating spade lugs on the other	3.99
803	15′	RG8U	Same as #802 except PL259 on both ends	4.50
804	20′	RG8U	Has PL259 on one end and two terminating spade lugs on the other	4.75
805	20′	RG8U	Same as #804 except PL259 to PL259	5.25

BUBBLE-PACKED

806	10′	RG58U	Has PL259 and UG175U reducer on one end, two univ. terminating lugs on other end	$2.20
807	10′	RG58U	Same as #806 except PL259 and UG175U reducer at both ends	2.60
808	15′	RG58U	Has PL259 and UG175U reducer on one end, two univ. type terminating lugs on other end	2.50
809	15′	RG58U	Same as #808 except PL259 and UG175U reducers are at both ends	3.25
810	20′	RG58U	Has PL259 and UG175U reducer on one end, two univ. type terminating lugs on other end	2.75
811	20′	RG58U	Same as #810 except PL259 and UG175U reducers are at both ends	3.25

CONNECTORS
UHF — BNC



Type	Net Price
UG88U	$ .81
UG88EU	.99
CW123AU	.45
UG175U	.15
UG176U	.15

Type	Net Price
S0239	$ .56
PL258	1.14
PL259	.56
UG273AU	1.41
UG274AU	2.88
UG274BU	4.50

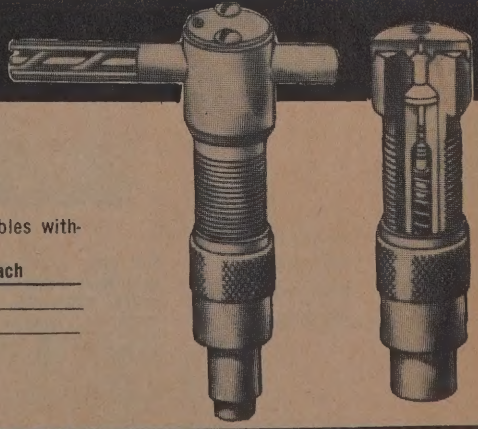
Type	Net Price
UG306AU	$2.40
UG306BU	2.64
M359-A	2.76
UG710BU	5.70
MX1142/U	.90

NEW SOLDERLESS·COAX. CONNEC.*

C52	48c	F59	48c
C61	48c	F61	55c

LINE TAPS ALSO AVAILABLE—
Attenuation—Color coded in red, yellow, green and blue.

TEE-TAP COAXIAL CABLE CONNECTOR



The Saxton Tee-Tap allows quick, electrically perfect connections to coaxial cables without cutting distribution lines and without necessity for re-insulation.

Saxton Number	Description	Net Prices, Each
59T59	from RG-59/U to RG-59/U	$3.53
11T59	from RG-11/U to RG-59/U	3.53

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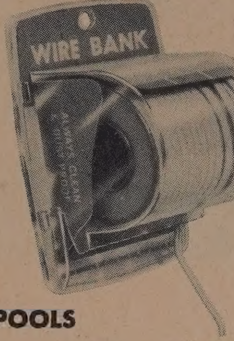
saxton
WIRE & CABLE DIVISION

PACKAGED WIRE SPECIALS

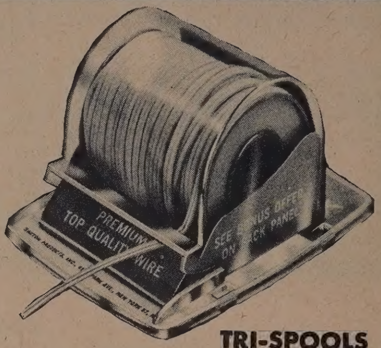
Designed for use at the workbench, in the laboratory, on the production line, in the home . . . wherever small lengths are useful. The unusual Saxton packaging offers maximum convenience, and clean, handy lengths of a wide assortment of standard wires at inexpensive, economical prices.

WIRE BANKS

$1.19 EACH



UNI-SPOOLS



$1.19 EACH

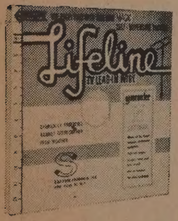
TRI-SPOOLS

DESCRIPTION	MODEL NO.	APPROX. FOOTAGE
Audio Cable—Wrap Shield	WS-108	23
Bell Wire—18 ga.	WS-118	63
"Bus Wire," Tinned—22 ga.	WS-152	150
"Bus Wire," Tinned—20 ga.	WS-153	120
"Bus Wire," Tinned—18 ga.	WS-154	90
Hi Voltage Wire—Flame Retardant	WS-113	21
Hook up wire—18 ga. solid	WS-115	60
Hook up wire—18 ga. stranded	WS-115A	57
Hook up wire—20 ga. stranded	WS-116	75
Hook up wire—20 ga. solid	WS-116A	80
Hook up wire—22 ga. solid	WS-117	100
Hook up wire—22 ga. stranded	WS-117A	90
Hook up wire, Hi-Temp Nylon	WS-114	55
Microphone Cable, Lapel	WS-101	22
Miniature Parallel Cable—24 Gauge Available in Grey, Brown, Clear, Black or White	WS-100	53
Phono or Grid Wire—Single Cond. Shield	WS-112	30
Test Prod Wire—red—plastic	WS-122	25
Test Prod Wire—red—rubber	WS-122A	20
Test Prod Wire—black—plastic	WS-123	25
Test Prod Wire—black—rubber	WS-123A	20
Three-Conductor Clear Parallel Mini-cable	WS-156	40

DESCRIPTION	MODEL NO.	APPROX. FOOTAGE
Bell Wire—3 colors—22 gauge	WBS-121	75
Bell Wire—3 colors—20 gauge	WBS-129	60
Bell Wire—3 colors—18 gauge	WBS-131	54
Boat or Home Assortment Alum./steel/copper	WBS-174	150
"Bus Wire", Tinned—18 ga. - 20 ga. - 22 ga.	WBS-171	99
"Bus Wire", Tinned—20 ga. - 22 ga. - 24 ga.	WBS-172	108
"Bus Wire", Tinned—22 ga. - 24 ga. - 26 ga.	WBS-173	120
Home Assortment— Pict. Frame Wire, Copperweld Wire, Bell Wire	WBS-132	liberal supply
Hook up wire—3 colors—16 ga. solid	WBS-94	27
Hook up wire—3 colors—16 ga. stranded	WBS-94A	24
Hook up wire—3 colors—18 ga. solid	WBS-115	57
Hook up wire—3 colors—18 ga. stranded	WBS-115A	54
Hook up wire—3 colors—20 ga. stranded	WBS-116	66
Hook up wire—3 colors—20 ga. solid	WBS-116A	72
Hook up wire—3 colors—22 ga. solid	WBS-117	90
Hook up wire—3 colors—22 ga. stranded	WBS-117A	81
Hook up wire—3 colors—24 ga. solid	WBS-119	120
Hook up wire—3 colors—24 ga. stranded	WBS-120	105
Hook up wire, Nylon—3 colors	WBS-175	60
Magnet Wire—22 ga. - 24 ga. - 26 ga.	WBS-165	liberal supply
Magnet Wire—18 ga. - 20 ga. - 22 ga.	WBS-166	liberal supply
Magnet Wire—24 ga. - 26 ga. - 28 ga.	WBS-167	liberal supply
Miniature Parallel Cable—3 colors—24 ga.	WBS-100	50
Phono Pickup Wire—Stereo arm assortment	WBS-170	liberal supply
Solder—60/40—40/60—50/50	WBS-168	liberal supply
Test Prod Wire—3 colors	WBS-122	30
Test Prod Wire—3 colors—rubber	WBS-123	27

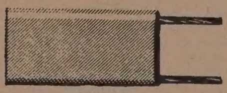
DISPENSER-PACKAGED TRANSMISSION LINE

SPECIAL DISPENSER PACKAGE



Tangle-free, dust-proof, economical packages

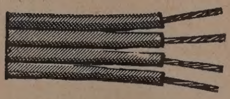
LIFELINE TWIN LEAD



Full size, heavy duty deluxe twin lead constructed of the finest materials. Chemically protected against deterioration. In Magic Dispenser.

Saxton LTL (100-ft.), Brown $2.95
Saxton LTLC (100-ft.), Clear 3.49

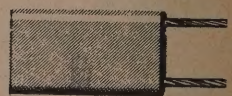
LIFELINE "100" ROTOR CABLE



Extra heavy duty 4-conductor rotor cable. Superior quality. One leg polarized for easy reference. Sold in exclusive Magic dispenser carton.

Saxton L4FC (100-ft.), Brown $3.49

ECONOMY TWIN LEAD



Fine quality twin lead constructed of 55 mil dia. with 7 strand, 22-ga. copper wire.

Saxton ETL (100-ft. Dispenser Pkg.) Brown, $1.89

Saxton ETLC (100-ft. Dispenser Pkg.) Clear, 2.19

Net

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WINDOW-PAKS

WIRE
premium quality
S-127
ALUMINUM GUY WIRE
RUST PROOF
GUARANTEED BY SAXTON
APPROXIMATELY 40 FT.
saxton
SAXTON PRODUCTS, INC.

Saxton Window-Paks have made it feasible and profitable to move wire up front with other prime, fast-moving merchandise. Ideal for every serviceman, technician, engineer, student and "ham", Window-Paks are designed to keep wire tangle-free and clean—ready for immediate use. Over fifty constructions are listed here, for every requirement.

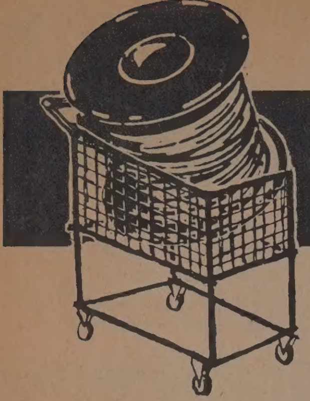
WINDOW PAKS
$1.19 EACH**

DESCRIPTION	MODEL NO.	APPROX. FOOTAGE
Space Saver Accordion Type Appliance Cord	S-201	6
Space Saver Accordion Type Electric Extension Cord with Cube Tap	S-202	6
300 Ohm Twin Lead for Improved FM or TV Reception—Brown	TS-25B	25
300 Ohm Twin Lead for Improved FM or TV Reception—Gold	TS-25G	25
300 Ohm Twin Lead for Improved FM or TV Reception—Silver	TS-25S	25
300 Ohm Twin Lead for Improved FM or TV Reception—Clear	TS-25C	25
300 Ohm Twin Lead for Improved FM or TV Reception—Brown	TS-50B	50
300 Ohm Twin Lead for Improved FM or TV Reception—Gold	TS-50G	50
300 Ohm Twin Lead for Improved FM or TV Reception—Silver	TS-50S	50
300 Ohm Twin Lead for Improved FM or TV Reception—Clear	TS-50C	50
Aluminum-Plastic Coated Laundry Line	S-134	30
Aluminum Wire—18 ga. General Utility Rustproof	S-142	150
Antenna Wire, Copper 7/22 Heavy Duty Prestretched	S-124	50
Antenna Wire, Copper 7/24, Prestretched	S-125	60
Antenna Wire, Copper 7/26, Prestretched	S-126	70
Appliance & Automotive Wire—Stranded—12 gauge	S-88	21
Appliance & Automotive Wire—Stranded—14 gauge	S-89	25
Coaxial cable RG58U—50 OHM—for CB—HAM—fixed or mobile use	S-138	20
Coaxial cable RG59U—72 OHM	S-139	20
Copperweld Wire—Hard Drawn—Hi Conductivity #18 AWG	S-135	100
Copperweld Wire—Hard Drawn—Hi Conductivity #12 AWG	S-136	40
Copperweld Wire—Hard Drawn—Hi Conductivity #14 AWG	S-137	50
Electrical Hook up Wire, Heavy Duty, Bldg. Wire, 12 ga.	S-90	25

DESCRIPTION	MODEL NO.	APPROX. FOOTAGE
Electrical Hook up Wire, Heavy Duty, Bldg. Wire, 14 ga.	S-91	30
Ground Wire—Alum.—Dead Soft #8AWG	S-130	40
Guy Wire, Aluminum, Rustproof	S-127	40
Guy Wire, Fibre Glass, Non-Absorptive, Non-Radiating, Hi Strength	S-129	33
Guy Wire, Steel 6 Strand 20 ga. Bright Gal.	S-128	100
Guy Wire, Steel, 4 Strand 20 ga. Bright Gal.	S-110	120
Hook up Wire—tinned copper—solid 12 ga.	S-92	17
Hook up Wire—tinned copper—stranded 12 ga.	S-92A	15
Hook up Wire—tinned copper—solid 14 ga.	S-93	20
Hook up Wire—tinned copper—stranded 14 ga.	S-93A	17
Hook up Wire—tinned copper—solid 16 ga.	S-94	26
Hook up Wire—tinned copper—stranded 16 ga.	S-94A	23
Ignition Wire for Auto, Boat or Model Airplane	S-95	20
Intercom Wire—2 cond. No Jacket (thermostat wire)	S-102	60
Intercom Wire—2 cond. W. Jacket	S-103	35
Intercom Wire—3 cond. No Jacket (thermostat wire)	S-104	40
Intercom Wire—3 cond. W. Jacket	S-105	28
*Lamp Cord—extra flexible, UL Approved, Rubber—18 gauge	S-109	25
Lead in wire, heavy duty, outdoor use	S-99	50
Mike Cable, 2 cond.	S-98	18
Shielded Wire—2 cond. 22 ga. W. Jacket	S-96	16
Shielded Wire—2 cond. 22 ga. No Jacket	S-97	19
Speaker Cable—Heavy Duty—Clear, Polarized—20 gauge	S-111	30
Steel Wire—Galvanized, 20 ga. Rust Resistant	S-140	150
Steel Wire—Galvanized, 18 ga. Extra Heavy Duty	S-141	125
Telephone Wire—2 Cond. Indoor or Outdoor Use	S-143	25
Tinned Bus Wire—16 ga.	S-155	60
Tinned Bus Wire—12 ga.	S-158	30
Zip Cord—18 ga.—2 cond. Available in Grey, Brown, Black or White	S-107	30

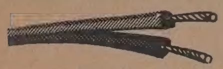
S-1198	**SPECIAL ANTENNA KIT**	**$1.98**
****TS25**	**TWIN LEAD, ALL COLORS**	**89c**

*Available in Brown, White or Green.



SAXTON SPECIAL PRODUCT SECTION

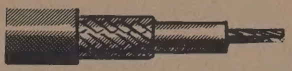
TELEPHONE WIRE



Saxton No. TW-199—2-conductor, stranded for indoor or outdoor use.

100-ft. coil **$2.09**

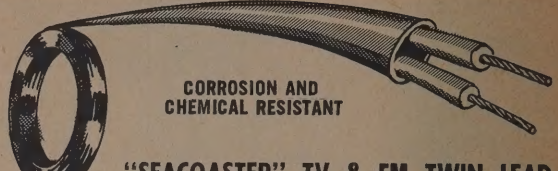
STRIP BRAID COAXIAL CABLE



Features exceptional low loss and radiation characteristics, and improved attenuation. 70-ohm, 12 gauge, solid .081 conductor encased in PE foam. O.D.: 458. Shipping wt. per 1M-ft. appr. 90 lbs.

Saxton No. FB460/100 **15c per ft.**

Saxton No. FB460/1000 **$135.00 per M'**



CORROSION AND CHEMICAL RESISTANT

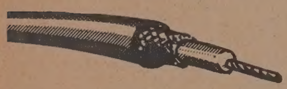
"SEACOASTER" TV & FM TWIN LEAD

Designed to resist air-borne corrosives and chemical reactions. 300-ohm 20 gauge (7 x 28) copper conductors encased in low loss PE foam and tough, brown outer jacket.

Saxton No. 1017—100-ft. coil. **$4.49**

Saxton No. 1017—1000-ft. spool **44.63**

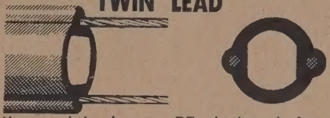
HEAVY DUTY SHIELDED IGNITION WIRE



Saxton No. 1S98—For ham or CB applications. Reduces noise.

15-ft. coil **$1.25**

LOW LOSS UHF TUBULAR TWIN LEAD

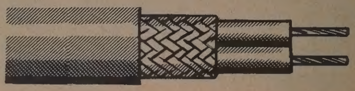


Heavy duty brown PE designed for UHF use.

Saxton No. TTL—100-ft. coil. **$1.99**

Saxton No. TTL—1000-ft. spool **18.38**

SHIELDED 300-OHM TWIN LEAD



Saxton No. 1118—Each conductor #20AWG. Features abrasion-proof Vinyl jacket. Delivers noise-free signal on FM, FM Multiplex, TV. Also available in 72-ohm type.

100-ft. coil **$9.95**

1000-ft. spool **86.93**

TAPE STORAGE CASE

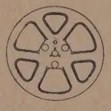
RT-700

Sturdily constructed bookshelf type storage case for tape reels. Accommodates five reels. Made of chipboard covered with handsome simulated leather material. Overall Size: 7½" x 4¼" x 5¼". Shipping Weight: 5½ ounces. Will accept all 7" reels, standard tape boxes or 7" tape cans.

RT-705

Complete unit consisting of RT-700 Storage Case and five No. 1230 tape cans.

TAPE REELS

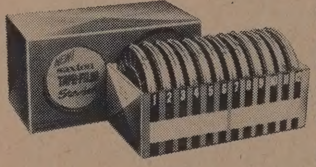


5" and 7" warp-proof, clear Polystyrene reels, individually boxed.

Saxton No. TR-5—5-inch **39c ea.**

Saxton No. TR-7—7-inch **49c ea.**

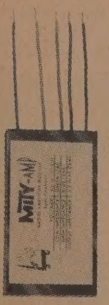
Film & Recording Tape STORAGE CHEST



Saxton No. 1230—Complete with 12 Swivel-locked, dust-proof storage cans. Insures moisture and dust-free storage of valuable tape and film. Attractive indexed storage chest. High-impact Styrene containers accommodate 5" and 7" tape or 8mm film **$4.98**

Saxton No. 1231—Individual containers, each 49c

"MITY-AMP" 2-WATT AUDIO AMPLIFIER



COMPLETELY EPOXY ENCAPSULATED MODULE

Shock-proof • Water & Moisture-proof • Dirt & Dust-proof

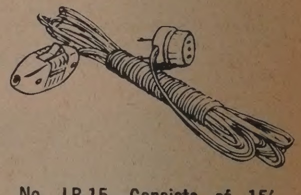
FEATURES

* SPACE-SAVING—2" x 3½" x ⅞"
* HI-FI AMPLIFIER—20 cy. to 15KC ±db at 1-watt level
* LIGHTWEIGHT—Weighs total of 6 ounces
* RUGGED—Unconditionally guaranteed. Shock, moisture and dust-proof
* EASY TO INSTALL & USE—Hooked up in minutes. Simple instructions make unit functional immediately.
* ECONOMICAL—Low in price, big in performance. Long, trouble-free life. Total power requirement 6 or 12 volts.
* PORTABLE—Operates on auto or boat battery
* VERSATILE—Uses limited only by your ingenuity. Ideal for p. a. system, phono amplifier, stereo, intercom, signal tracer, modulation, tape monitor, etc.

SPECIFICATIONS

1. INPUT VOLTAGE REQUIRED TO DRIVE FULL POWER—5 Volts
2. POWER REQUIREMENTS—6 to 12 volts at 300 to 700 ma. Current determined by speaker voice coil impedance.
3. FREQUENCY RESPONSE—20 cy. to 15 KC ±2 db at 1 watt level.
4. INPUT IMPEDANCE—45 ohms to 50K ohms.
5. OUTPUT IMPEDANCE—3.2 to 45 ohms.
6. WEIGHT—Six ounces.
7. OVERALL SIZE—2" x 3½" x ⅞".
8. HIGHLY SHOCKPROOF — Unaffected by dust, dirt or moisture. Operable under water.
9. GUARANTEED ONE FULL YEAR AGAINST DEFECTS.

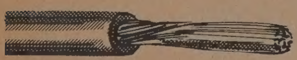
REMOTE APPLIANCE CORD Plug & Switch



No. LB-15—Consists of 15' of 18 ga. heavy duty cord, plug and heavy duty on-off line switch. Quickly installed, it saves steps. Switch off TV, or appliances from a distance.

Each **$1.29**

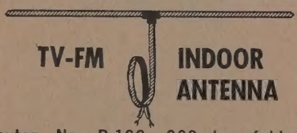
FIBRE GLASS GUY WIRE



Non-radiating, non-absorbing, high strength "wireless" guy wire in vinyl jacket. 500-lb. test strength. 100-ft. coil.

Saxton No. 7000 **$2.19**

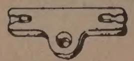
TV-FM INDOOR ANTENNA



Saxton No. B-106—300-ohm folded dipole with 42" lugged lead-in. Center tap protected by sturdy plastic molded case. Easily concealed.

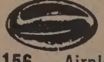
Each **$1.19**

INSULATORS & BLOCKS



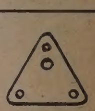
No. 1155 — Doublet type antenna insulator, white glazed. Excellent electrical characteristics, high tensile strength. Dim.: 4½" x 2¾".

Each **32c**



No. 1156 — Airplane type "egg" insulator. Low air resistance, high tensile strength, White porcelain glaze. 2-in. long.

Each, **10c**



No. 1157—Transposition block with porcelain glaze finish. Use with many types of doublet antennae.

Each **32c**

SAXTON SPECIAL PRODUCT SECTION

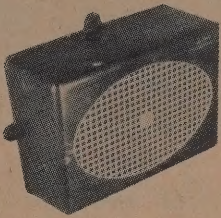
DELAYED ACTION • COMMERCIAL SAFETY SWITCH

Switch "off" and the lamp goes out SIXTY SECONDS LATER! Allows sufficient time to reach destination SAFELY. Replaces present wall switch in seconds. Ideal for Home, Farm or Cottage. Fully guaranteed and UL Approved.

Saxton No. S560 (Ivory) or
Saxton No. S561 (Brown) __ __ __ **$2.98**

DELAYED ACTION AUTO OR BOAT SWITCH

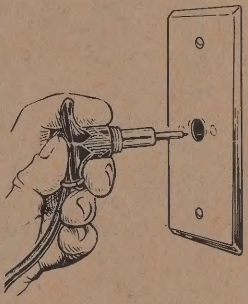
Installs in minutes in auto or boat. Comes complete with instructions and all hardware. Keeps lights on for safe departure after switching off. Automatically shuts off SIXTY SECONDS LATER. **Fully guaranteed.**
Saxton No. S563 ________________________________ **$2.98**



PATIO SPEAKER BAFFLE

Made of unbreakable, high impact styrene. Mahogany color only. Complete with hardware and mounting instructions. Use as 6" x 9" speaker for paging, monitoring, as patio and stereo extensions, or as extension speaker anywhere. **$2.98**

6" x 9" SPEAKER—Complete with volume control and knob, baffle and instructions
Saxton No. B1206 ________________ **$4.98**



SAXTON "SAFE-PULL"

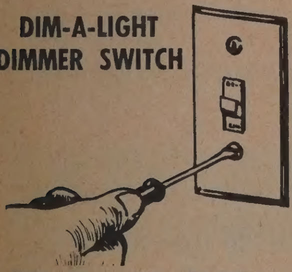
PLUG-IN DEVICE FOR MASTER TV SYSTEMS

Designed to prevent needless, costly service calls due to broken or shorted leads. Simplifies room maintenance and cleaning. Replaces Motorola plug in common use. Comes complete with 10' or 20' low-loss coaxial cable and standard spade lug terminations. Crimping tool available as P/N SP-50.

Saxton No. SP-37 (10-ft.) ___ per set **$3.25**

Saxton No. SP-47 (20-ft.) ___ per set **4.25**

DIM-A-LIGHT DIMMER SWITCH



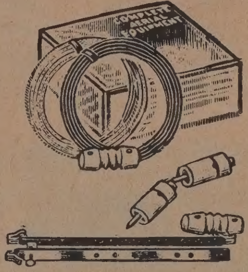
500-watt capacity (incandescent). Replaces present wall switch in seconds. Has bright, dim-off positions for bright or candlelight illumination.

Saxton No. OM110 **$2.98**

HEAVY DUTY EXTENSION CORD

For use with power tools — mowers, hedge-trimmers, drills, etc. 2- and 3-conductor, 16-gauge. 3-conductor cords have 3-prong plug.

Saxton No.	Lgth.	Descr.	Wght.	Net Price
EX105	25'	2-wire	1¼ lb	$1.69
EX106	50'	2-wire	2 lbs	2.89
EX107	100'	2-wire	3 lbs	4.79
EX108	25'	3-wire	1¼ lbs	2.29
EX109	50'	3-wire	2¼ lbs	3.69
EX110	100'	3-wire	3½ lbs	6.69



STANDARD, DELUXE AND SHORT-WAVE ANTENNA KITS

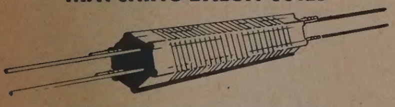
Saxton No. 1128—Standard kit includes 50' stranded 7/28 copper wire; one coil 25' insulated lead wire; two nail knobs one lead strap and two insulators___ **$1.29**

Saxton No. 1127—Deluxe kit includes 75' 7/22 heavy antenna wire; one coil 50' heavy duty lead wire two nail knobs; one lead strap and two insulators ______ ___ **$2.99**

Saxton No. 4300—Short-wave kit includes 66' heavy duty antenna wire; one transposition block; 50' heavy duty twisted lead cable; two insulators; two window straps and two nail knobs______ **$4.43**

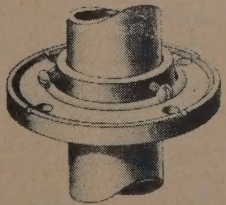
ALL KITS INCLUDE COMPLETE INSTRUCTIONS

TV ANTENNA MATCHING BALUN COILS



Efficiently matches 72 to 150 ohms; 72 to 450 ohms; 150 to 300 ohms; 150 to 450 ohms; 300 to 450 ohms and 75 to 300 ohms. Eliminates standing waves. Use as set coupler, impedance transformer or for line matching, etc. Instructions included. **Available in bulk.**
Saxton No. 1121 pair, **99c**

FLOATING GUY RINGS

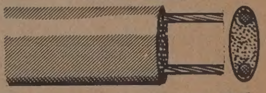


Cast aluminum, two-piece floating guy ring. Fits most masts up to 1½" dia. Individually packed, complete with hardware, in plastic bags.
Saxton No. 1099 ___ **74c**

Heavy Duty Super Guy Wire and MESSENGER CABLE

Super flexible (49-strand wire rope), galvanized steel wire. 2100-lb. breaking strength. Has clear vinyl jacket. Ideal for tiller or boat rudder cable.
Saxton No. 5112—
(100-ft. coil) ____ **$7.25**

LOW LOSS "SPONGEE" TWIN LEAD



Designed especially for UHF, it provides stronger signals on VHF. 300-ohm 20 gauge stranded copper conductors are encased in porous, low loss PE foam. Low cost economy type available on special request.
Saxton No. 1016/100-
(100-ft. coil) **$3.29**
Saxton No. 1016/1000
(1000-ft. spool) ____ **31.50**

Walsco ELECTRONICS INSULATING TUBING

WALSCO INSULATING TUBING OF TEFLON

TEFLON "spaghetti" has unsurpassed electrical and mechanical qualities. Withstands temperatures from 450° below zero F. to 500° above zero F. Will not melt near solder joints. Outstanding dialectric properties—zero moisture absorption. Chemically inert. Completely weatherproof. A big feature is the low co-efficient of friction.

Part No.	Feet Per Spool*	Color	Gauge	I.D. (Inches)	Wall Thickness	Net Per Spool
690-1	10	Nat	24	.022	.010	$ 1.33
690-1C	100	Nat	24	.022	.010	11.83
690-4	10	Red	24	.022	.010	1.33
690-4C	100	Red	24	.022	.010	11.83
690-5	10	Blue	24	.022	.010	1.33
690-5C	100	Blue	24	.022	.010	11.83
691-1	10	Nat	22	.027	0.12	1.47
691-1C	100	Nat	22	.027	.012	13.26
691-4	10	Red	22	.027	.012	1.47
691-4C	100	Red	22	.027	.012	13.26
691-5	10	Blue	22	.027	.012	1.47
691-5C	100	Blue	22	.027	.012	13.26
692-1	10	Nat	20	.034	.012	1.83
692-1C	100	Nat	20	.034	.012	18.27
692-4	10	Red	20	.034	.012	1.83
692-4C	100	Red	20	.034	.012	18.27
692-5	10	Blue	20	.034	.012	1.83
692-5C	10	Blue	20	.034	.012	18.27
693-1	10	Nat	18	.042	.012	2.23
693-1C	100	Blue	18	.042	.012	20.88
693-4	10	Red	18	.042	.012	2.23
693-4C	100	Red	18	.042	.012	20.88
693-5	10	Blue	18	.042	.012	2.23
693-5C	100	Blue	18	.042	.012	20.88
694-1	10	Nat	16	.053	.012	2.65
694-1C	100	Nat	16	.053	.012	25.02
694-4	10	Red	16	.053	.012	2.65
694-4C	100	Red	16	.053	.012	25.02
694-5	10	Blue	16	.053	.012	2.65
694-5C	100	Blue	16	.053	.012	25.02
695-1	10	Nat.	14	.066	.012	2.92
695-1C	100	Nat	14	.066	.012	28.38
695-4	10	Red	14	.066	.012	2.92
695-4C	100	Red	14	.066	.012	28.38
695-5	10	Blue	14	.066	.012	2.92
695-5C	100	Blue	14	.066	.012	28.38
696-1	5	Nat	12	.085	.014	1.83
696-1C	100	Nat	12	.085	.014	34.28
696-4	5	Red	12	.085	.014	1.83
696-4C	100	Red	12	.085	.014	34.28
696-5	5	Blue	12	.085	.014	1.83
696-5C	100	Blue	12	.085	.014	34.28
697-1	5	Nat	10	.106	.014	2.17
697-1C	100	Nat	10	.106	.014	41.58
697-4	5	Red	10	.106	.014	2.17
697-4C	100	Red	10	.106	.014	41.58
697-5	5	Blue	10	.106	.014	2.17
697-5C	100	Blue	10	.106	.014	41.58

Std. Pack 10' and 5' Spools: 12
Std. Pack 100' Spools: 1

* BULK PRICES QUOTED ON REQUEST

WALSCO RAYOFLEX

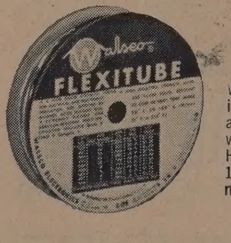
For the serviceman and industrial user of insulated tubing. Rayoflex combines the mechanical strength of fiberglas with the protective properties of synthetic lacquer to produce a tough, rugged insulating tubing. Rayoflex is more flexible and less affected by aging than conventional varnished tubing. Rayoflex is smooth inside and out making the insertion of wires, etc., very easy. Has a dielectric strength of 4,000 to 5,000 volts. Meets MIL-I-3190. Sizes up to #6 are packed on a handy spool.

Net per spool $ .82

Cat. No.	Size B&S Gauge No.	Approx. I.D. Inches	mm	Quantity Per Spool
630-(color)	18	.042	1	10 ft.
631-(color)	15	.059	1.5	8 ft.
632-(color)	12	.085	2	8 ft.
633-(color)	9	.118	3	5 ft.
634-(color)	6	.166	4	5 ft.

AVAILABLE IN BLACK, RED, BLUE and YELLOW COLORS. To specify COLOR add suffix to above catalog number as follows: -R3 for Black, -R4 for Red, -R5 for Blue, -R6 for Yellow. Example: — 630-R3 is 18 gauge, Black.

WALSCO FLEXITUBE



Walsco Flexitube is the ideal supplemental insulation for most electronic and electrical applications. Flexitube is impervious to water, oil, alcohol, most acids and alkalies. Has an outstanding dielectric strength of 15,000 volts (average) before breakdown. Is not affected by temperature extremes.

Net per spool $ .82

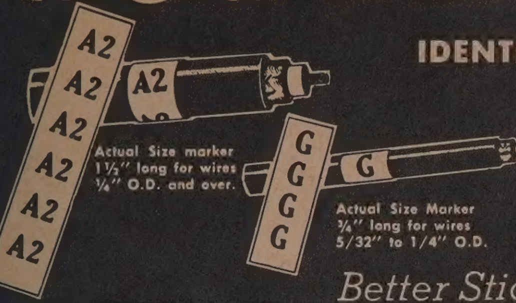
Cat. No.	Size B&S Gauge No.	Approx. I.D. Inches	mm	Quantity Per Spool
600-(color)	18	.042	1	20 ft.
601-(color)	16	.053	1.4	20 ft.
602-(color)	14	.066	1.6	18 ft.
603-(color)	12	.085	2	16 ft.
604-(color)	10	.106	2.7	14 ft.
605-(color)	8	.133	3.5	12 ft.
606-(color)	6	.166	4	10 ft.
607-(color)	4	.208	5	6 ft.
608-(color)	2	.263	6.5	6 ft.

AVAILABLE IN CLEAR, GREEN, BLACK and RED COLORS. To specify COLOR add suffix to above catalog number as follows: -01 for Clear, -02 for Green, -03 for Black and -04 for Red. Example: 600-01 for 18 gauge, Clear.

© U.C.P., Inc.

E-Z CODE self-adhering electronic WIRE MARKERS

IDENTIFY WIRE AND CABLES OF ANY SIZE


A2
A2
A2
A2
A2
A2
A2
Actual Size marker 1½" long for wires ¼" O.D. and over.
G
G
G
G
G
Actual Size Marker ¾" long for wires 5/32" to 1/4" O.D.

Identification applied around-the-wire without ever touching adhesive side of marker . . . "with E-Z-Codes you grab the tab—not the adhesive" . . . Available in popular Vari-Temp cloth listed below, Aluminum-foil, Vinyl-plastic, Polyester-film. Ask for complete Westline stock list (form EZ8-1) of thousands of markers . . . specials available too.

Better Stick with E-Z Codes

VARI-TEMP CLOTH MARKERS (WBC)

PRINTING ON MARKER	MARKERS PER CARD ¾"	MARKERS PER CARD 1½"
NUMBERS ALL THE SAME		
0	72	36
1	72	36
2	72	36
and so on thru		
98	72	36
99	72	36
100	52	26
and so on thru		
598	52	26
599	52	26
600	52	26
CAPITAL LETTERS		
A	72	36
B	72	36
and so on thru		
Y	72	36
Z	72	36
NUMBERS IN SEQUENCE		
1-33	66	33
34-66	66	33
67-99	66	33
and so on thru		
225-249	50	25
250-274	50	25
275-299	50	25
and so on thru		
1975-1999	50	25
NUMBERS IN REPEATED SEQUENCE		
0-9	60	30
0-10	66	33
1-3	72	36
1-4	72	36
1-5	70	35
1-6	72	36
cont'd.		
1-8	64	32
1-9	72	36
1-10	66	33
1-12	64	32
1-18	72	36
19-36	72	36
LETTERS IN REPEATED SEQUENCE		
A-Z plus A-J	72	36
A-Z plus 0-9	72	36
A-E	70	35
F-J	70	35
K-O	70	35
P-T	70	35
U-Z	72	36

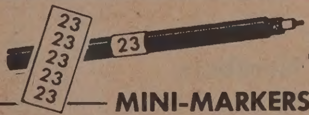
NET PRICES

QUANTITY	VARI-TEMP (WBC) CLOTH
30-99 cards	$20.00/c
100-499 cards	16.00/c
500-999 cards	14.00/c
1000-2499 cards	13.00/c
2500-4999 cards	12.50/c
5000-9999 cards	12.00/c

over 10,000 write for quotation
Specify 1½" or ¾" marker length

Also available: Numbers repeated, Letters in Sequence, lower case letters, Color Codes, Colors with numbers, Symbol, phase & cycle markers, etc.

Actual Size Marker



½" long stock marker for miniature wires under 5/32" O.D.

Legend appears five times for maximum "around-the-wire" visibility.

MINI-MARKERS (Miniature) WBC

PRINTING ON MARKER	MARKERS PER CARD
NUMBERS ALL THE SAME	
0	100 markers per card
1	100 markers per card
and so on thru	
99	100 markers per card
100	66 markers per card
and so on thru	
250	66 markers per card
LETTERS ALL THE SAME	
A	100 markers per card
B	100 markers per card
and so on thru	
Z	100 markers per card
NUMBERS IN SEQUENCE	
0-49	100 markers per card
50-99	100 markers per card
100-132	66 markers per card
133-165	66 markers per card
166-198	66 markers per card
199-231	66 markers per card
232-264	66 markers per card
265-297	66 markers per card

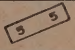
COMBINATION CARD

Two rows: Each row consisting of one marker A thru Z and 0 thru 15 and FIL, GRD, B+, PRI, SEC, PLA. (96 markers per card).

NET PRICES

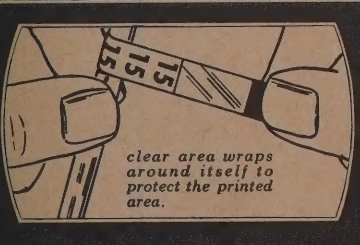
QUANTITY	MINI-MARKERS (WBC)
30-99 cards	$18.00/c
100-499 cards	14.40/c
500-999 cards	12.60/c
1000-2499 cards	11.70/c
2500-4999 cards	11.25/c
5000-9999 cards	10.80/c

over 10,000 write for quote
½" long marker



Also available: Sub-Miniature Markers from stock—write for form #EZ8-1.

Better Stick with E-Z Codes

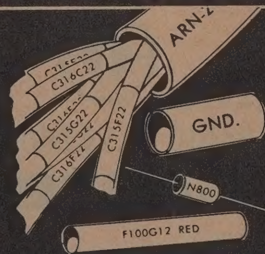


clear area wraps around itself to protect the printed area.

SELF-LAMINATING
Wire Markers

Designed to resist oils, grease, chemicals, fluids, foreign matter. Available in variety of printed and blank "write-on" type markers.

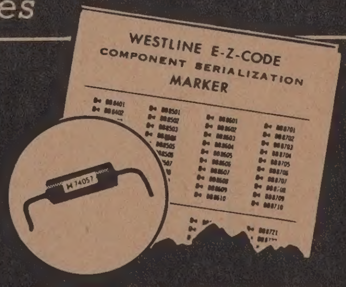
Free samples, literature write for Form #SL4-6



SHUR-CODE
Pre-printed Sleeving

Printed insulation sleeving that is slipped over wires, cables, harnesses for permanent identification. Standard and Special materials meet mil spec.

Free samples, literature write for Form #051258



COMPONENT SERIALIZATION
Micro-miniature Markers

Designed to identify miniature components. Available in any combination of codes. Self-adhering markers are ready for application. Meets mil spec.

Free samples, literature write for Form #CS1060

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